



*Tools and  
more*



**AUTOMOTIVE TOOLS**

**K11**

**KS TOOLS®***Tools and  
more*



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# AUTOMOTIVE TOOLS Overview

## Inspection

- Cleaning needles - washer jet systems
- Magnet pick up tool / inspection mirrors - magnifiers
- Hook and pick tools

## Carglass

- Tools for the correct installation of windscreens
- Wiper arm pullers / windscreen cutting dismantling and installation
  - Suction holder / cartridge guns

## Engine

- Tools for professional engine repairs and services
- Special bits and sockets / spark plug tools
  - Glow plug tools / special pliers
  - Exhaust tools / engine timing tools
  - Engine test equipment / tools for car electronic / cooling system tools

## Pullers

- Special pullers
- Drive bolt separator / axle tools
- Wheel bearing puller / hydraulic puller

## Oil service

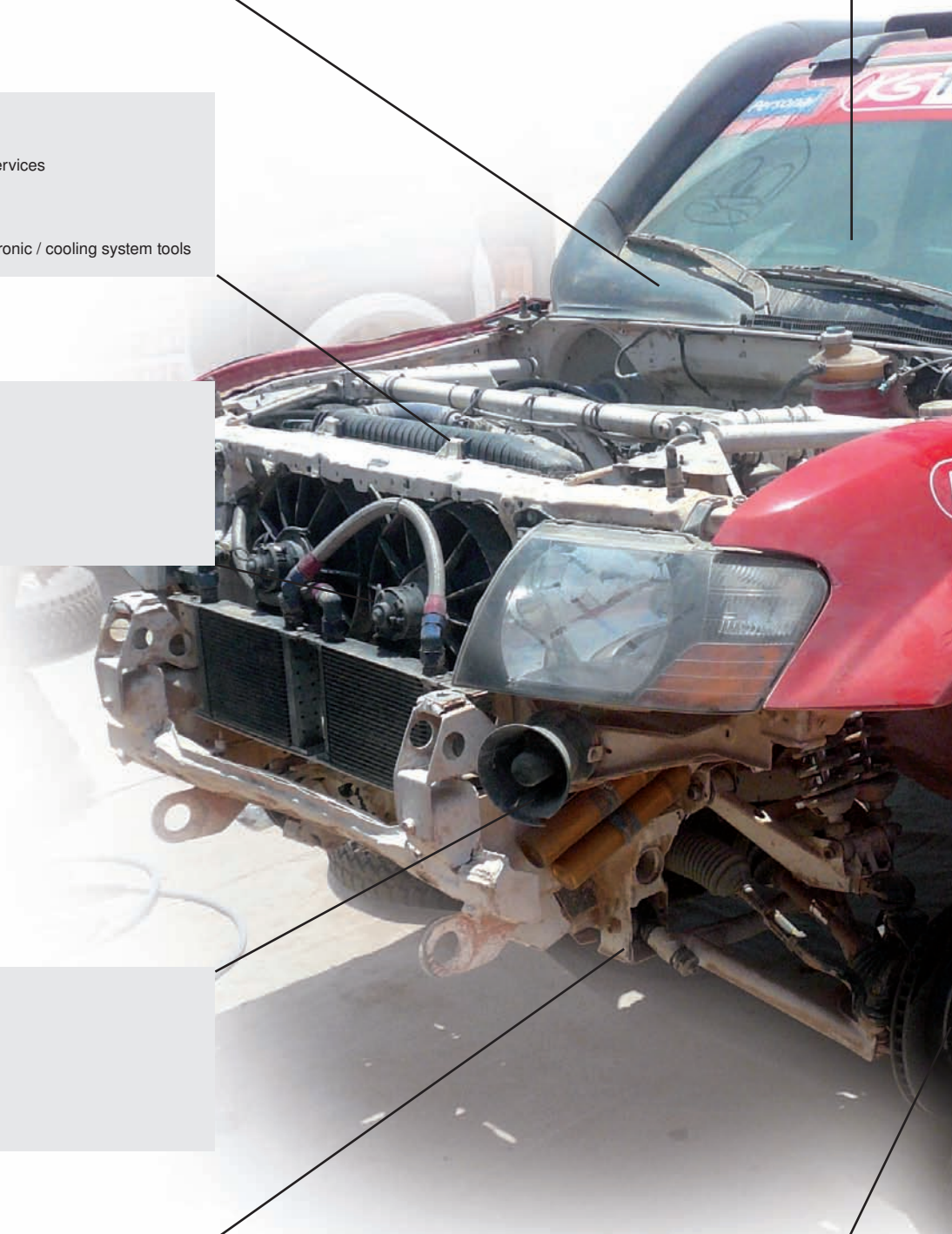
- Tools for professional oil services
- Oil draining / oil filter wrench
  - Oil sump / oil drain plug screw repair set

## Chassis

- Tools for the professional repair and service of chassis
- Spring shock absorber tools / chassis tools
  - CV axle joint boots

## Braking

- Tools for professional brake repairs
- Brake service / measuring tools
  - Brake wrenches / brake pipe flaring tools
  - Brake piston tools





## Booster

Tools for professional battery service, jump starters

- Booster / battery tester

## Workshop installation

- Trolley jacks / service trolleys / transport trolleys
- Passenger car protection / lifting equipment / workshop cranes
- Masterboards



## Bodywork tools

Tools for professional car bodyshops

- Clip tools / interior assembly and disassembly tools
- Sheet metal working tools / dressing and drilling tools

## Wheels & tyres

Tools for the correct installation for wheels and tyres service

- Wheel and hub caps tools / wheels assembly and disassembly tools
- Wheel bolt sockets / tyre air inflators

## INTERIOR & ASSEMBLY

### Radio and navigation system installation and removal set

- For the damage free dismantling and assembly of car radios and navigation systems
- For loosening the bolt fastener
- In durable plastic storage case

**Application range:** Porsche, Mercedes Benz, Fiat, VW, Audi, Ford, BMW, Opel, Clarion, Kenwood, Panasonic, Pioneer, JVC, Sony, Becker, Blaupunkt, Grundig etc.



Item				
500.1380	52 pcs	Radio and navigation system installation and removal set	1.41	

### Radio installation and removal set

- For the damage free dismantling and assembly of car radios
- For loosening the bolt fastener
- In plastic storage pouch



Item				
500.1370	18 pcs	Radio installation and removal set	160	

consists of:

Item				
500.1371	Assembly tool set for Ford, VW, Audi, Blaupunkt, Grundig, 2-pcs.	30		
500.1372	Assembly tool for BMW	30		
500.1373	Assembly tool set for VW, Audi, Mercedes Benz, Becker, 4-pcs.	20		
500.1374	Assembly tool set for Porsche, Mercedes Benz, Becker, 2-pcs.	20		
500.1375	Assembly tool set for VW, 2-pcs.	20		
500.1376	Assembly tool for BMW, Opel	10		
500.1377	Assembly tool set for Becker (new), 2-pcs.	140		
500.1378	Assembly tool set for Skoda (new), 2-pcs.	20		
500.1379	Assembly tool set for Blaupunkt (new), 2-pcs.	40		

### Special airbag bit socket set

- TX with and without tamperproof
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Assortment for the dismantling and assembly of airbag units
- Optimal access to the fastener
- Bit sockets are the ideal length
- With press fitted nickel plated insert bit
- For manual operation
- Matt finish
- Chrome vanadium



1/4"

Item				
140.2300	5 pcs	Special airbag bit socket set	200	

consists of:

Item				
140.2301	1/4" Airbag bit socket TB 30	30		
140.2302	1/4" Airbag bit socket TX 30	30		
140.2303	1/4" Airbag bit socket hexagonal 5 mm	30		
140.2304	1/4" Airbag bit socket TB 25	30		
140.2305	1/4" Airbag bit socket TX 25	30		





## Airbag dismantling tool set

- For the dismantling and assembly of airbag units
- Sockets are the ideal length
- Optimal access to the reinforcement screws of the airbag pad
- Universal usage
- In durable plastic case

**Application range** Audi, BMW, Mercedes Benz, Opel, VW, Renault, Seat, Skoda, Vag, etc.



Item				
140.2310	12 pcs	Airbag dismantling tool set	1.60	

consists of:

Item				
140.2301	1/4" Airbag bit socket TB 30	30		
140.2302	1/4" Airbag bit socket TX 30	30		
140.2303	1/4" Airbag bit socket hexagonal 5 mm	30		
140.2304	1/4" Airbag bit socket TB 25	30		
140.2305	1/4" Airbag bit socket TX 25	30		
140.2311	Airbag dismantling tool, 2-pcs.	70		
140.2313	Airbag dismantling tool, 2-pcs.	100		
140.2315	Airbag unlocking tool	30		
140.2316	Airbag removal lever for VW 105 x 96 mm, Slotted 5,5 + 8,0 mm	50		
140.2317	Universal airbag unlocking tool	30		

## Car door opening set

- For opening locked car doors from outside
- Ideal for recovery services
- Suitable for all current vehicle types
- In durable synthetic leather pouch



Item				
150.1630	16 pcs	Car door opening set	2.55	

consists of:

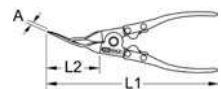
Item				
150.1611	Car-door opening wire A	90		
150.1612	Car-door opening wire B	70		
150.1613	Car-door opening wire C	10		
150.1614	Car-door opening wire D	60		
150.1615	Car-door opening wire E	30		

consists of:

Item				
150.1616	Car-door opening wire F	90		
150.1617	Car-door opening wire G	20		
150.1618	Car-door opening wire H	60		
150.1619	Car-door opening wire I	20		
150.1620	Car-door opening wire J	20		
150.1621	Car-door opening wire K	140		
150.1622	Car-door opening strip small	60		
150.1623	Car-door opening strip wide	120		
150.1624	Plastic strip for door locking knobs	10		
150.1625	Car-door opening nylon wedge	40		
150.1626	Universal key for fuel cap keys	10		

## Door panel rivet tool

- For the gentle release of clips of all kinds on the entire vehicle
- Through the gentle release of the clips can be reused
- Self closing
- With spring clip
- Head burnished
- Chrome vanadium



Item	A mm	L1 mm	L2 mm		
115.1051	32.0	240.0	80.0	240	

## Clip removal set

- Special tool for the careful removal of metal and plastic clips and Rubber plugs
- Straight and angled form
- With rubber handle
- Metal



Item				
140.2232	2 pcs	Clip removal set	90	

consists of:

Item				
140.2223	Clip remover angled form	90		
140.2224	Clip remover straight form			

## Clip remover

- For metal and plastic clips
- Durable tool for the removal of door panels
- Lever effect due to the angled head on the front end of the lifter
- Robust execution with durable square shaft
- With hanging hole
- Special steel



Item	L mm			
140.2230	275.0	160		



### Rivet removal plier set

- For the removal of two piece plastic rivets
- Self opening
- Aluminium



Item				
115.1096	2 pcs	Rivet removal plier set	40	

#### consists of:

Item				
115.1097	Rivet removal plier, red offset, length 100 mm	20		
115.1098	Rivet removal plier, blue, straight, length 100 mm	20		

### Trim clip plier set

- 35° + 80° angled tips
- With various profiles
- For the removal of reusable plastic rivets and plastic clips
- Self opening
- Chrome vanadium



Item				
115.1086	2 pcs	Trim clip plier set	380	

#### consists of:

Item				
115.1087	Trim clip plier, type 1, flat execution, plier head 35°, 190 mm	180		
115.1088	Trim clip plier, type 2, flat execution, plier head 80°, 200 mm	190		

### Clip remover

- For removing and installing clips
- With varying length ends
- Very flat and robust execution
- Painted surface
- Metal



Item	L1 mm	L2 mm	L3 mm		
140.2249	230.0	100.0	50.0	170	

### Security ring assembly and deassembly tool

- Simple dismantling of the window crank handle
- Closed end used for the assembly
- Open end used for the dismantling
- Painted surface



Item	L mm		
140.2279	265.0	120	

### Panel lever U-form, narrow offset made from stainless steel

- Universal usage
- For removing cover panels trims and protective caps, etc
- Beveled ground blades
- With hanging hole
- With dual component handle
- Stainless steel



Item	B mm	L1 mm	L2 mm	T mm		
911.8191	6.0	230.0	95.0	13.0	120	

### Clip remover V-form

- Universal usage
- For removing cover panels trims and protective caps, etc
- With cutting edge blade
- Beveled ground cutting edge blade
- With hanging hole
- With two component handle
- Stainless steel



Item	B mm	L1 mm	L2 mm	T mm		
911.8192	5.0	230.0	95.0	8.0	120	

### Clip remover U-form, wide offset

- Universal usage
- For removing cover panels trims and protective caps, etc
- Beveled ground blades
- With hanging hole
- With dual component handle
- Stainless steel



Item	B mm	L1 mm	L2 mm	T mm		
911.8193	8.0	260.0	120.0	20.0	210	

### Clip remover U-form, wide angled

- Universal usage
- For removing cover panels trims and protective caps, etc
- Beveled ground blades
- With hanging hole
- With dual component handle
- Stainless steel



Item	B mm	L1 mm	L2 mm	T mm	g
911.8194	16.0	230.0	95.0	20.0	150

### Clip remover Y-form, double width angled

- Universal usage
- For removing cover panels trims and protective caps, etc
- Beveled ground blades
- With hanging hole
- With dual component handle
- Stainless steel



Item	B mm	L1 mm	L2 mm	T mm	g
911.8195	8.0	230.0	95.0	20.0	150

### Clip remover and cutting set

- Universal use due to different blades
- For removing cover panels trims and protective caps, etc
- Beveled ground blades
- With hanging hole
- With dual component handle
- Stainless steel



Item	g
911.8190 5 pcs Clip remover and cutting set	2.00

consists of:

Item		g
911.8191	Panel lever U-form, narrow offset made from stainless steel, 230 mm	120
911.8192	Panel lever V-form, narrow offset made from stainless steel, 230 mm	120
911.8193	Panel lever U-form, wide angled made from stainless steel, 230 mm	210
911.8194	Panel lever U-form, wide offset made from stainless steel, 230 mm	150
911.8195	Panel lever Y-form, wide offset made from stainless steel, 230mm	150

### Plastic assembly spatula flat/round

- Universal usage
- For lifting and adjusting rubber gaskets
- Optimal removal of glue residue
- Special plastic



Item	L mm	B mm	g
911.8116	200.0	17.0	20

### Plastic assembly spatula round/round

- Universal usage
- For lifting and adjusting rubber gaskets
- Optimal removal of glue residue
- Special plastic



Item	L mm	B mm	g
911.8117	200.0	17.0	20

### Standard clip remover

- With wedge shaped end
- With lifting and wedge function
- Ideal for loosening panels without damage to the paintwork
- Special plastic



Item	L mm	B mm	g
911.8125	210.0	20.0	80

### Trim removal wedge

- With wedge shaped end
- Narrow execution
- With 2 different levering angles
- Angled sides have a 90° and 30° angle
- Ideal for loosening panels without damage to the paintwork
- Special plastic



Item	L mm	B mm	g
911.8122	180.0	20.0	40

### Double clip remover

- With wedge shaped end
- Very robust execution
- With 2 different lever angles at 75° and 30°
- Special plastic



Item	L mm	B mm	g
911.8123	200.0	30.0	70

### Bumper trim removal wedge

- With wedge shaped end
- Wide execution
- With 90° angled side
- Ideal for loosening panels without damage to the paintwork
- Special plastic




Item	L mm	B mm	
911.8121	160.0	60.0	80

### Clip remover with pulling eye

- With wedge shaped end
- Pulling eye for removal
- With 90° angled side
- Ideal for loosening panels without damage to the paintwork
- Special plastic




Item	L mm	B mm	
911.8124	180.0	30.0	70


### Plastic lever wedge set

- Practical assortment of different wedge and clip removal tools
- Ideal for loosening panels and trims without damage to the paintwork
- Special plastic



Item	
911.8120 5 pcs Plastic lever wedge set	300

consists of:

Item	
911.8121 Bumper trim removal wedge, wide version, with wedge shaped end, 160 mm	80
911.8122 Trim removal wedge, narrow version, with wedge shaped end, 180 mm	40
911.8123 Double clip wedge, with wedge shaped end, 200 mm	70
911.8124 Clip lever, with wedge shaped end, 180 mm	70
911.8125 Standard clip wedge, with wedge shaped end, 210 mm	80

### Dual clip remover, offset

- Flat shaped back
- Durable design
- With straight- and sharp chisel end
- Ideal for loosening panels without damage to the paintwork
- With hanging hole
- Special plastic



Item	L mm	B mm	
911.8106	200.0	30.0	40

### Dual clip remover, straight profiled

- Flat shaped back
- Durable design due to straight profile
- Blunt chisel end
- Ideal for loosening panels without damage to the paintwork
- With hanging hole
- Special plastic



Item	L mm	B mm	
911.8107	200.0	30.0	40

### Double ended clip lever narrow

- Flat shaped back
- Narrow execution
- Wedge end tips pointed and chisel formed
- Ideal for loosening panels without damage to the paintwork
- With hanging hole
- Special plastic



Item	L mm	B mm	
911.8110	200.0	15.0	20

### Double ended pointed and rounded head lever

- Flat shaped back
- Flattened and flexible radius side
- Blunt chisel side
- Ideal for loosening clips
- With hanging hole
- Special plastic



Item	L mm	B mm	
911.8108	200.0	25.0	20



### Double ended sword and rounded head lever

- Flat oval on the front and back side
- Both ends chisel edged formed
- Flexible
- Ideal for loosening clips
- With hanging hole
- Special plastic



Item	L mm	B mm	
911.8109	200.0	20.0	20

### Interior panelling removal tool set

- Ideal for loosening miscellaneous cover parts
- Slim and robust execution
- For delicate working on fragile cover parts
- With hanging hole
- Special plastic



Item			
911.8105	6 pcs	Interior panelling removal tool set	280

#### consists of:

Item		
911.8106	Double ended-clip remover, offset	40
911.8107	Dual-clip remover, straight profiled, 200 mm	40
911.8108	Double ended pointed and rounded head lever	20
911.8109	Double ended sword and rounded head lever, 200 mm	20
911.8110	Double ended-wedge lever, slim	20
911.8111	Adhesive weight removal lever and cutting edge Length 200 mm, width 25 mm	20

### Moulding wedge with felt

- With felt trimming
- For the careful assembly by pressing in trim mouldings
- The flat surface protects components
- Suitable for the aligning of car doors or to force them open
- Special plastic



Item	L mm	B mm	
911.8141	250.0	20.0	70

### Plastic lever and beveled wedge

- The flat surface protects components
- Ideally suited for working on trims, door panels, rubber seals etc.
- Special plastic



Item	L mm	B mm	
911.8142	250.0	20.0	30

### Trim plastic wedge

- Ideal for the aligning of car doors or to force them open
- The flat surface protects components
- Suitable for working on trims, door panels, rubber seals etc.
- Special plastic



Item	D mm	L mm	
911.8138	30.0	195.0	90
911.8139	60.0	195.0	150

### Trim removal combination wedge

- Ideally suitable for the dismantling and assembly of trims
- Door mouldings, door accessories etc
- Swallow tail opening 45° angled
- The flat surface protects components
- Optimal leverage with the short wedge and long lever
- Optimal usage for removal and refitting trims and mouldings cutting edges on the ends
- Special plastic



Item	L mm	B mm	
911.8140	210.0	26.0	90

### Removal wedge

- Ideally suited for the dismantling of sensitive components
- The flat surface protects damaging laquer
- Ideal for hard to access areas
- Special plastic



Item	L1 mm	L2 mm	L3 mm	B mm	
911.8119	600.0	340.0	200.0	30.0	340

### Window trim removal tool

- Narrow tool
- Ideal for fast and safe dismantling of the window cavity mouldings
- With 180° angled profiled stainless steel blade
- With single component handle



Item	B mm	L mm	
140.2208	30.0	170.0	90

### Window strip lever

- Ideally suitable for the dismantling and assembly of cavity strips and trims
- Optimal leverage across the total width of the plate
- With problem free insertion due to the sharply chamfered lever blade
- Ideally suited for curved surfaces
- Back with semicircular profile for professional fitting of the trim strip
- Unbreakable special plastic

**Application range:** Opel, Ford, BMW, etc.




Item	L mm	B mm	
911.8118	350.0	180.0	690


### Door hinge roll pin drift set

- For the dismantlement of instep cases in door hinges
- For all passenger car and transporter doors
- Surface zinc-plated
- Special steel



Item	
140.2190 4 pcs Door hinge roll pin drift set	450


**consists of:**

Item	
140.2191 Impact iron with PVC-handle, length 290 mm	366
140.2192 Extraction pin Ø 3,5 mm length 115 mm	12
140.2193 Extraction pin Ø 4.5 mm length 115 mm	19
140.2194 Extraction pin Ø 5.5 mm length 115 mm	25


### Special door hinge and alignment wrench set

- For the disassembly and assembly of door hinges
- Ideally suitable for door alignment
- Extra short bits with ball locking
- Includes ratchet with bit adaptor
- In durable plastic storage case



Item	
140.2180 9 pcs Special door hinge and alignment wrench set	940

**consists of:**

Item	
140.2181 Double ended dual offset wrench, Length 300 mm	410
140.2182 5/16" Bit ratchet angled, length 140 mm	110
140.2183 5/16" Special bit, XZN® M8	10
140.2184 5/16" Special bit, XZN® M10	10
140.2185 5/16" Special bit, XZN® M12	20
140.2186 5/16" Special bit, TORX® T30	10
140.2187 5/16" Special bit, TORX® T40	10
140.2188 5/16" Special bit, TORX® T45	10
140.2189 5/16" Special bit, TORX® T50	10

## INDICATORY & DRILLING TOOLS

### Universal straightening iron

- For alignment of passenger car and van doors
- Also suitable for car boot and hatchbacks
- Double-walled execution
- Includes 3 different interchangeable special bolts
- Storage of the 3 special bolts convenient in the pipe grip magazine
- Chrome plated and mirror polished
- Special steel



Item	L mm	Replacement bolt set 3 pcs	
150.1605	700.0	150.1606	1.30



## Sanding block with sponge rubber backing

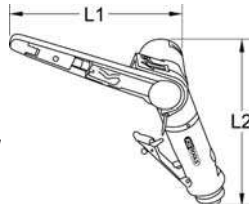
- Accepts emery and sandpaper etc
- Moulded handle ensures a comfortable grip
- Ideally suited for working on surfaces
- Clamping clips made from stainless steel
- Special plastic



Item	L mm	B mm	
515.3095	210.0	105.0	330


## Belt sander

- With non slip soft grip handle
- Air exhaust through the handle rear end
- Working head is 360° adjustable
- Adjustable for quick sanding belt change
- Ideal for narrow areas (10 mm belt width)
- Secure operation lever with locking device
- With stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Light aluminium housing



### Technical data:

Belt speed:	1188 m/min
Idle speed:	18000 r.p.m.
Vibration:	< 2,0ms <sup>2</sup>
Noise performance level:	81 dbA
Noise pressure level:	73 dbA
Air consumption:	142 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

Item	L1 mm	L2 mm	
515.3549	150.0	170.0	800

## Pneumatic chisel set

- Non slip soft grip handle
- Air exhaust through the handle
- Ultra light housing from two component plastic
- Ergonomic designed handle
- For ripping out car body sheet metal with compressed air
- Ideal for industry
- Also suitable for loosening firmly rusted fittings
- Stepless impact regulation
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- In durable plastic case



### Technical data:

Chisel holder:	10 mm
Number of blows:	3000 Schläge/min
Idle speed:	3200 r.p.m.
Vibration:	8,5 ms <sup>2</sup>
Noise performance level:	99.2 dbA
Noise pressure level:	110.9 dbA
Air consumption:	270 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8"
Connection thread:	1/4"PT

Item	
515.3810 7 pcs Pneumatic chisel set	1.70


## Pneumatic chisel set

- Non slip soft grip handle
- Air exhaust through the handle
- Ergonomic designed handle
- For ripping out car body sheet metal with compressed air
- Ideal for industry
- Also suitable for loosening firmly rusted fittings
- Quick release chuck for quick chisel changing
- Stepless impact regulation
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector and chuck
- Ultra light housing from two component plastic
- In durable plastic case



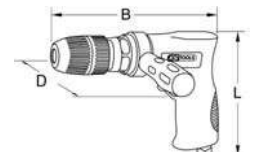
### Technical data:

Chisel holder:	10 mm
Number of blows:	2900 Schläge/min
Vibration:	5,35 ms <sup>2</sup>
Noise performance level:	104.9 dbA
Noise pressure level:	90.4 dbA
Air consumption:	77.3 l/min
Operating pressure:	6,3 bar (90 psi)
Connection thread:	1/4"PT

Item	
515.3840 7 pcs Pneumatic chisel set	1.70

## Pneumatic pistol grip drill


- Low rotation speed
- Non slip soft grip handle
- Ultra light robust housing from special plastic
- Air exhaust through the handle
- Quick release chuck capacity 0 - 13 mm
- Practical clockwise and anticlockwise switch
- Suitable for continuous duty
- Ideally suited for working with hard to machine materials
- For spot weld drills, polishing and grinding wheels, erasing rubbers etc.
- Very substantial guide
- Stepless speed regulation
- Vibration dampened
- Handle for two hand operation 360° revolving and lockable
- Cold insulated handle
- Includes 1/4" coupling connector



3/8"

### Technical data:

Chuck capacity:	1,5 - 13 mm
Chuck thread reception:	3/8" x 24 Gang
Capacity:	330 Watt
Idle speed:	450 r.p.m.
Vibration:	< 0,15ms <sup>2</sup>
Noise performance level:	95 dbA
Noise pressure level:	87 dbA
Air consumption:	113 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

Item	B mm	D1 mm	L1 mm	
515.3035	200.0	43.0	230.0	1.60



### Pneumatic spot weld drill set

- Air exhaust through the handle
- Easy operation
- Suitable for continuous duty
- Ideally suited for internal and external spot welds
- For spot weld drills
- Very substantial guide
- Adjustable milling machine depth ring in steps of 0.05 mm
- Revolving and removable frame on the fixation on the object
- Large frame for deep lying points
- Feed achievement through pneumatic cylinder
- Stepless speed regulation
- Includes 1/4" coupling connector
- Robust machined housing
- In durable plastic case



3/8"

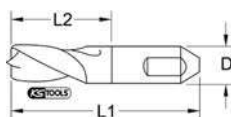
#### Technical data:

Receiver:	Ø 8 mm mit Fixierschraube
Capacity:	500 Watt
Idle speed:	1600 r.p.m.
Vibration:	< 0,3ms <sup>2</sup>
Noise performance level:	90 dbA
Noise pressure level:	81 dbA
Air consumption:	280 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4" IG

Item					
515.1205	9 pcs	Pneumatic spot weld drill set	2.20		

### HSSE Spot weld drill

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- Surface without discolouration
- High performance steel



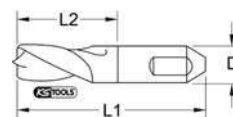
Ideally suited in a hand drilling machine.  
For drilling of plastic sheet, copper, zinc, aluminum, brass and steel sheet.



Item	D mm	L1 mm	L2 mm	Content	
332.0106	6.0	70.0	25.0	1	10
332.0108	8.0	80.0	30.0	1	20
332.0110	10.0	90.0	35.0	1	40

### HSSE TIN Spot weld drill

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- TIN coated surface
- High performance steel



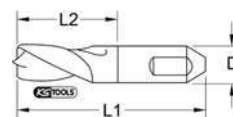
Ideally suited in a hand drilling machine.  
For drilling of plastic sheet, copper, zinc, aluminum, brass and steel sheet.



Item	D mm	L1 mm	L2 mm	Content	
332.0206	6.0	70.0	25.0	1	10
332.0208	8.0	80.0	30.0	1	20
332.0210	10.0	90.0	35.0	1	40

### HSSE TiCN Spot weld drill

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- TiCN coated surface
- High performance steel



Ideally suited in a hand drilling machine.  
For drilling of plastic sheet, copper, zinc, aluminum, brass and steel sheet.



Item	D mm	L1 mm	L2 mm	Content	
332.0308	8.0	80.0	30.0	1	20
332.0310	10.0	90.0	35.0	1	40

### HSS Double ended spot weld drill set

- Stackable for storage
- With integral clasp
- High strength hinge
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 135° pointed angle
- Double ended usage
- Extra short and durable
- For thin walled materials
- Surface without discolouration
- High performance steel

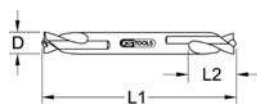
Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, pressure-, malleable- and cast iron.



Item					
332.0938	3 pcs	3 x 332.0908		20	

### HSSE Double ended spot weld drill

- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 135° pointed angle
- Double ended usage
- Extra short and durable
- For thin walled materials
- Surface without discolouration
- High performance steel



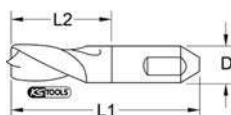
Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, pressure-, malleable- and cast iron.



Item	D mm	L1 mm	L2 mm	Content	
332.0908	8.0	70.0	16.3	1	20

### HSS Spot weld cutter

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- TiCN coated surface
- High performance steel



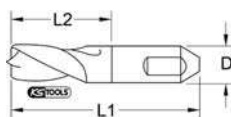
Ideally suited in a compressed air drill and vario milling machine.



Item	D mm	L1 mm	L2 mm	Content	
332.0408	6.5	44.0	15.0	1	10
332.0708	8.0	44.0	15.0	1	10

### HSSE TiN Spot weld cutter

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- TiN coated surface
- High performance steel



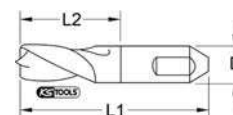
Ideally suited in a compressed air drill and vario milling machine.



Item	D mm	L1 mm	L2 mm	Content	
332.0508	6.5	44.0	15.0	1	10
332.0808	8.0	44.0	15.0	1	10

### HSSE TiCN Spot weld cutter

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- TiCN coated surface
- High performance steel



Ideally suited in a compressed air drill and vario milling machine.

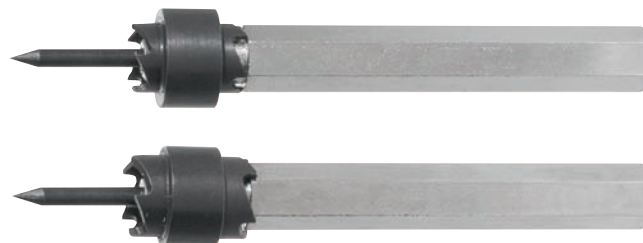


Item	D mm	L1 mm	L2 mm	Content	
332.0608	8.0	44.0	15.0	1	10

### HSS Spot weld cutter set

- Right hand cutting
- Interchangeable crowns
- Milling machine depth adjustable
- For efficient and fast working
- For loosening of spot welds
- No deformation of the sheet metal
- Special high performance steel

Ideally suitable with compressed air drill, electric drill and rechargeable battery drill.



Item			
332.0950	2 pcs	8 - 10 mm	100

### HSS Spot weld cutter

- Right hand cutting
- Interchangeable crowns
- Milling machine depth adjustable
- For efficient and fast working
- For loosening of spot welds
- No deformation of the sheet metal
- Special high performance steel



Ideally suitable with compressed air drill, electric drill and rechargeable battery drill.



Item	D mm	D	L mm	Replacement crowns	Center point	Content	
332.0951	8.0	5/16"	72.0	332.0952	332.0955	1	30
332.0953	10.0	3/8"	72.0	332.0954	332.0955	1	30

### Fastdrill pneumatic spot weld drill set

- Non slip soft grip handle
- Air exhaust through the handle
- Suitable for continuous duty
- Ideally suited for internal and external spot welds
- For carbide spot weld drills
- Very substantial guide
- Revolving and removable frame to the fixation on the object
- Feed achievement through Pneumatic cylinder
- Stepless speed regulation
- Cold insulated handle
- Includes 1/4" coupling connector and carbide spot weld drills
- Robust machined housing
- In durable plastic storage case



3/8"

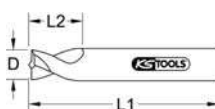
#### Technical data:

Receiver:	Ø 8 mm
Capacity:	400 Watt
Idle speed:	8000 r.p.m.
Vibration:	< 0,15ms <sup>2</sup>
Noise performance level:	83 dbA
Noise pressure level:	95 dbA
Air consumption:	140 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4" IG

Item				
515.1300	3 pcs	Fastdrill pneumatic spot weld drill set	2.30	

### Carbide spot weld drill

- Right hand cutting
- Highest stability under load
- Double edged
- Welded carbide head
- Especially temperature resistance up to max. 1100°C
- High performance carbide



Ideally suited for boring in high tensile car body sheet metal.



Item	D mm	L1 mm	L2 mm	Content	
515.1304	8.0	47.0	13.0	1	22
515.1307	10.0	47.0	13.0	1	28

### Carbide spot weld drill set in plastic box

- Right hand cutting
- Highest stability under load
- Double edged
- Welded carbide head
- Especially temperature resistance up to max. 1100°C
- High performance carbide

Ideally suited for boring in high tensile car body sheet metal.



Item				
515.1306	6 pcs	6 x 515.1304 Ø 8,0 mm	240	
515.1309	6 pcs	6 x 515.1307 Ø 10,0 mm	275	

### Bodywork slitting chisel

- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



Item	L mm	A mm	B mm	H mm		
162.0271	250.0	30.0	23.0	13.0	162.0442	460

### Bodywork spade chisel

- Extra wide execution
- With protective handgrip
- Quenched and through hardened
- For cutting metal sheet and spot welds
- Shaft with powder coated lacquer
- Special steel

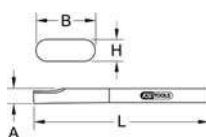


Item	B mm	L mm	
156.0330	60.0	240.0	600



## Bodywork slitting chisel

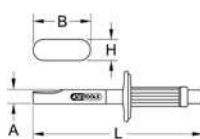
- DIN 7255
- Flat oval form
- Blade can be resharpened
- Extra flat
- Burnished
- Chrome vanadium



Item	L mm	A mm	B mm	H mm		
140.2162	300.0	21.0	25.0	6.0	-	450

## Bodywork slitting chisel with hand grip

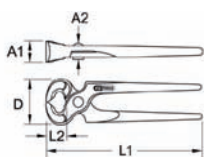
- DIN 7255
- Flat oval form
- Blade can be resharpened
- Extra flat
- Burnished
- Chrome vanadium



Item	L mm	A mm	B mm	H mm		
140.2165	300.0	21.0	25.0	6.0		550

## Rabitz pliers

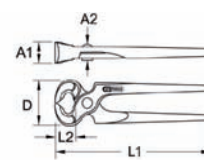
- In accordance to DIN / ISO 9242
- Ground heads
- For cutting and twisting tie wire
- Oil-hardened
- Black surface
- Special tool steel



Item	A1 mm	A2 mm	D mm	L1 mm	L2 mm	
116.1408	21.0	18.0	26.0	190.0	17.0	245
116.1405	23.0	20.0	30.0	220.0	17.0	400
116.1406	27.0	22.0	36.0	250.0	19.0	380
116.1407	25.0	21.0	35.0	280.0	18.0	400

## Rabitz pliers

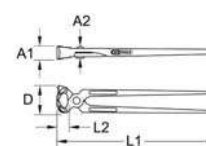
- In accordance to DIN / ISO 9242
- With PVC dipped handle
- Ground heads
- For cutting and twisting tie wire
- Oil hardened
- Black surface
- Special tool steel



Item	A1 mm	A2 mm	D mm	L1 mm	L2 mm	
116.1404	18.0	19.0	26.0	190.0	17.0	350
116.1401	20.0	19.0	29.0	220.0	17.0	400
116.1400	25.0	20.0	36.0	250.0	17.0	400
116.1403	26.0	20.0	37.0	280.0	17.0	500

## Bodywork end pincers

- In accordance with DIN 5173
- Polished head
- Ideal suitable for bodywork
- Horse shoe nail head
- Oil hardened
- Cutting hardness approximately 55 HRC
- Black surface
- Special tool steel



Item	A1 mm	A2 mm	D mm	L1 mm	L2 mm	
116.1415	22.0	25.0	49.0	300.0	20.0	785

## SHEET METAL FORMING

### Sheet steel nibbler

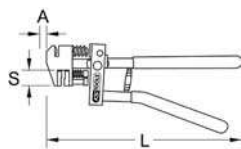
- Burr free cutting
- No deformation of the sheet metal
- Clean cut on the edges
- Easy locking action
- PVC dipped handle
- Cuts sheet metal up to 1.2 mm
- Ideal also for aluminum, copper and plastic
- Special tool steel



Item	Ø mm	A mm	D mm	L mm	S mm	Replacement blades	
140.2175	1,2	14.0	32.0	265.0	3.0	140.2175-1	460

### Punched hole and jogger pliers

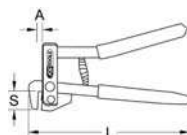
- Self opening
- Fast conversion by simply turning the head
- For the flanging and punching sheet metal and body parts
- Punching up to 1.25 mm thickness
- Hole diameter 5 mm
- Requires light expenditure of energy
- Special tool steel



Item	A mm	L mm	S mm	kg
118.0055	22.0	285.0	13,0	1.23

### Mini jogger pliers

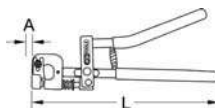
- Self opening
- For the flanging of sheet metal and body parts
- Up to 1 mm thickness
- Particularly suitable for thin sheet metal edges, curves and arches
- Requires light expenditure of energy
- Hardened flanging jaws
- Special tool steel



Item	A mm	L mm	S mm	kg
118.0056	10.0	220.0	13,0	900

### Joggler pliers

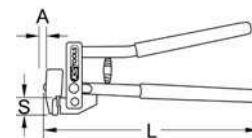
- Self opening
- For punching straight and bent sheet metal
- Up to 1.25 mm thickness
- Radius to 40,0 mm
- Hole diameter 5 mm
- Requires light expenditure of energy
- Special tool steel



Item	A mm	L mm	kg
118.0057	15.0	300.0	1.00

### Joggler pliers

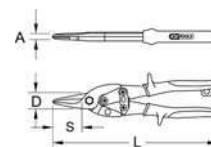
- Self opening
- For the flanging of sheet metal and body parts
- Up to 1 mm thickness
- Requires light expenditure of energy
- Hardened flanging jaws
- Special tool steel



Item	A mm	L mm	S mm	kg
118.0058	13.0	280.0	13,0	1.00

### Tin snips sheet metal shear, self opening

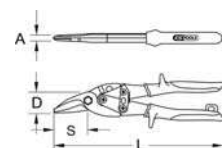
- Straight cut
- Self opening handle
- Serrated blades
- Internal spring
- Easy locking action
- Includes hanging loop
- Induction-hardened precision cutting
- Two component handle
- Cuts steel sheet up to 1.2 mm, stainless steel up to 0.7 mm
- Special tool steel



Item	Ø mm	A mm	D mm	L mm	S mm	kg
118.0051	1,2 (0,7)	20.0	19.0	250.0	45,0	400

### Tin snips sheet metal shear, self opening, right handed cut

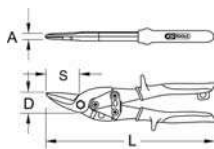
- Right hand cutting
- Self opening handle
- Serrated blades
- Internal spring
- Easy locking action
- Includes hanging loop
- Induction-hardened precision cutting
- Two component handle
- Cuts steel sheet up to 1.2 mm, stainless steel up to 0.7 mm
- Special tool steel



Item	Ø mm	A mm	D mm	L mm	S mm	kg
118.0052	1,2 (0,7)	18.0	21.0	240.0	42,0	400

### Tin snips sheet metal shear, left handed cut

- Left handed cut
- Self opening handle
- Serrated blades
- Internal spring
- Easy locking action
- Includes hanging loop
- Induction hardened precision cutting
- Two component handle
- Cuts steel sheet up to 1.2 mm, stainless steel up to 0.7 mm
- Special tool steel



Item	Ø mm	A mm	D mm	L mm	S mm	kg
118.0053	1,2 (0,7)	17,0	26,0	240,0	44,0	400

### Tin snips sheet metal shear set

- Self opening handle
- Serrated blades
- Internal spring
- Easy locking action
- Includes hanging loop
- Induction hardened precision cutting
- Two component handle
- Cuts steel sheet up to 1.2 mm, stainless steel up to 0.7 mm
- Special tool steel



Item	kg
118.0050 3 pcs Tin snips sheet metal shear set	1.20

### Pneumatic sheet metal shear

- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- Ideal for the cutting of car body sheet metal and aluminium sheet
- Eccentric cutting drive
- For curved cutting up to 100 mm radius
- With stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



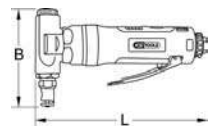
#### Technical data:

Cutting speed:	2,6 m/min
Cutting output:	Steel 1,2 mm Aluminium 1,6 mm
Cutting width:	5,0 mm
Vibration:	< 9,1ms <sup>2</sup>
Noise performance level:	95 dbA
Noise pressure level:	82 dbA
Air consumption:	85 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

Item	B mm	L mm	kg
515.3055	59.0	250.0	515.3056 1.25

### Pneumatic nibbler

- 90° offset execution
- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- Ideal for curved and straight cutting
- Cut is made by punching a series of holes sequentially in sheet metal
- Also suitable for plastic cutting
- For extremely small radius
- With stepless speed regulation
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing from special plastic



#### Technical data:

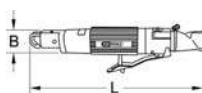
Cutting speed:	2,6 m/min
Cutting output:	Steel 1,2 mm Aluminium 1,6 mm
Cutting width:	4,5 mm
Capacity:	330 Watt
Vibration:	< 0,5ms <sup>2</sup>
Noise performance level:	95 dbA
Noise pressure level:	82 dbA
Air consumption:	85 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

Item	B mm	L mm	kg
515.3050	100.0	190.0	1.15



## Pneumatic reciprocating bodywork saw, low vibration

- Air exhaust through the used air tube to the rear
- For one handed operation with ergonomic design
- For works in car body panels, beams and profile
- Secure operation lever with locking device
- Suitable for small sawing radius
- Stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Robust metal housing



### Technical data:

Stroke:	10 mm
Cutting strokes:	5760 strokes/min
Vibration:	< 9,1ms <sup>2</sup>
Noise pressure level:	69.2 dbA
Noise performance level:	81.0 dbA
Air consumption:	196 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

Item	B mm	L mm		
515.3000	45.0	790.0	129.3740-46	0.80

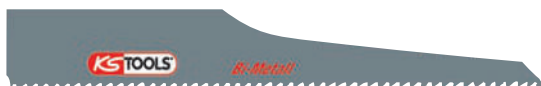
## Jigsaw blades

- Flexible and shatter proof

Suitable for:

- Non ferrous metal and stainless steel
- Steel sheet and car body panels
- Compression moulded material and formica

Suitable for: Ober, Pneutec and CP



Item	No. teeth	TPI	D mm	L mm	Content	
129.3740	80	32	1.0	100.0	5	30
129.3742	60	24	1.0	100.0	5	30
129.3744	45	18	1.0	100.0	5	30
129.3746	35	14	2.0	100.0	5	30

## Jigsaw blades

- Flexible and shatter proof

Suitable for:

- Non ferrous metal and stainless steel
- Steel sheet and car body panels
- Compression moulded material and formica

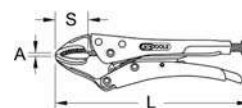
Suitable for: SIG und Flex



Item	No. teeth	TPI	D mm	L mm	Content	
129.3750	80	32	0.7	100.0	5	20
129.3752	60	24	1.0	100.0	5	20
129.3754	45	18	1.4	100.0	5	20
129.3756	35	14	1.8	100.0	5	20

## Locking pliers

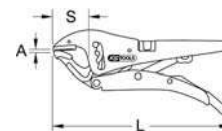
- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- Quick- release lever
- Easy locking action
- For round and flat material
- To hold when welding
- Nickel plated
- Chrome vanadium



Item	A mm	L mm	S mm	
115.1031	0,0-50,0	125.0	19,3	180
115.1032	0,0-55,0	175.0	24,0	340
115.1033	0,0-60,0	250.0	27,5	520

## Locking pliers, serrated

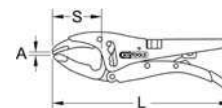
- Forged gripping jaws
- Serrated execution
- Quick release lever
- Size adjustment using the adjustment wheel
- For round and flat material
- To hold when welding
- Nickel plated
- Chrome vanadium



Item	A mm	L mm	S mm	
115.1036	0,0-55,0	250.0	40,0	670

## Locking pliers, serrated

- Forged gripping jaws
- Serrated execution
- Quick release lever
- Size adjustment using the adjustment wheel
- For round and flat material
- To hold when welding
- Nickel plated
- Chrome vanadium

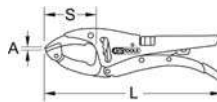


Item	A mm	L mm	S mm	
115.1037	0,0-85,0	250.0	60,0	800



### Locking pliers, serrated

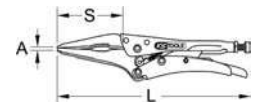
- Forged gripping jaws
- Movable clamping jaws
- Serrated execution
- Quick release lever
- Size adjustment using the adjustment wheel
- For round and flat material
- To hold when welding
- Nickel plated
- Chrome vanadium



Item	A mm	L mm	S mm	
115.1038	0,0-85,0	250,0	60,0	800

### Long nose locking pliers

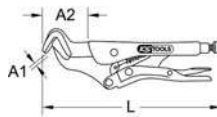
- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- Quick release lever
- Easy locking action
- For round and flat material
- To hold when welding
- Nickel plated
- Chrome molybdenum



Item	A mm	L mm	S mm	
115.1034	0,0-35,0	150,0	45,0	180
115.1035	0,0-45,0	225,0	65,0	340

### Automotive welding gripping pliers

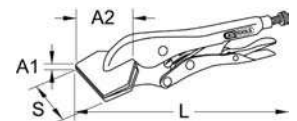
- Forged gripping jaws
- Serrated execution
- Quick release lever
- Easy locking action
- For flanged material
- To hold when welding
- Nickel plated
- Chrome molybdenum



Item	A1 mm	A2 mm	L mm	
115.1068	0,0-40,0	60,0	200,0	400

### Wide jaw flat jaw gripping pliers

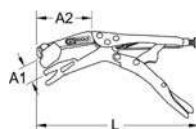
- Forged gripping jaws
- Quick release lever
- Easy locking action
- Size adjustment using the adjustment wheel
- For clamping of flat or bended metal sheets
- Nickel plated
- Chrome molybdenum



Item	A1 mm	A2 mm	L mm	S mm	
115.1076	0,0-53,0	40,0	205,0	90,0	480
115.1077	0,0-57,0	45,0	245,0	100,0	650

### Welding gripping pliers

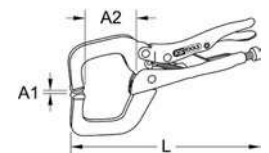
- Flat gripping jaws
- Movable clamping jaws
- Serrated execution
- No sticking to the electrode
- Quick release lever
- Easy locking action
- Good adaptation to existing surfaces
- Copper alloy clamping jaws
- Nickel plated handle
- Chrome molybdenum



Item	A1 mm	A2 mm	L mm	
115.1180	0,0-70,0	85,0	240,0	500

### Welding gripping pliers

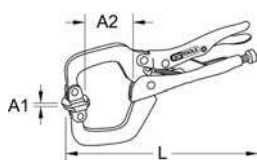
- Forged semi circular gripping jaws
- Quick release lever
- Easy locking action
- Size adjustment using the adjustment wheel
- For profiled bulky components
- Good adaptation to existing surfaces
- Nickel plated
- Chrome molybdenum




Item	A1 mm	A2 mm	L mm	
115.1070	0,0-35,0	40,0	170,0	240

### Welding gripping pliers with movable clamping jaws

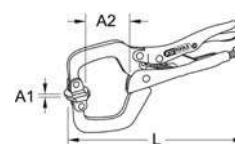
- Flat gripping jaws
- Movable clamping jaws
- Quick release lever
- Easy locking action
- Size adjustment using the adjustment wheel
- For profiled bulky components
- Good adaptation to existing surfaces
- Nickel plated
- Chrome molybdenum




Item	A1 mm	A2 mm	L mm	
115.1073	0,0-35,0	40.0	170.0	240

### Welding gripping pliers with movable clamping jaws

- Flat gripping jaws
- Movable clamping jaws
- Quick release lever
- Easy locking action
- Size adjustment using the adjustment wheel
- For profiled bulky components
- Good adaptation to existing surfaces
- Nickel plated
- Chrome molybdenum




Item	A1 mm	A2 mm	L mm	
115.1074	0,0-100,0	70.0	285.0	780
115.1075	0,0-270,0	240.0	450.0	1250

### Welding gripping pliers, extra long

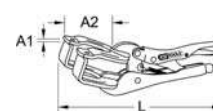
- Round forged gripping jaws
- Quick release lever
- Easy locking action
- Size adjustment using the adjustment wheel
- For profiled bulky components
- Large clamping depth for front and rear panels
- Good adaptation to existing surfaces
- Nickel plated
- Chrome molybdenum




Item	A1 mm	A2 mm	L mm	
115.1072	0,0-270,0	250.0	450.0	1.18

### Welding gripping pliers

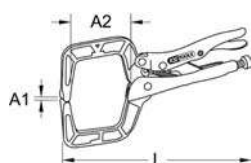
- With malleable cast iron jaws
- Suitable for setting the welding points between the cut outs
- Quick release lever
- Size adjustment using the adjustment wheel
- To hold and adjust sheets and profiles
- With easy locking action
- Nickel plated
- Chrome molybdenum




Item	A1 mm	A2 mm	L mm	
115.1078	0,0-45,0	70.0	220.0	600
115.1079	0,0-55,0	70.0	280.0	780

### Welding gripping pliers

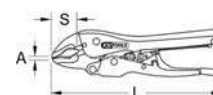
- Very good clamping capacity
- Round forged gripping jaws
- Quick release lever
- Easy locking action
- Size adjustment using the adjustment wheel
- For profiled bulky components
- Good adaptation to existing surfaces
- Nickel plated
- Chrome molybdenum




Item	A1 mm	A2 mm	L mm	
115.1071	0,0-100,0	90.0	285.0	780

### Automatic locking pliers

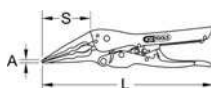
- Forged gripping jaws
- Automatic adjustment by cam mechanism
- Serrated execution
- Quick release lever
- For round and flat material
- Heavy but controlled clamping
- To hold when welding
- Knurled handle
- Nickel plated
- Chrome vanadium



Item	A mm	L mm	S mm	
115.1150	0,0-32,0	125.0	22.0	250
115.1155	0,0-47,0	250.0	29.0	620

### Automatic long nosed locking pliers

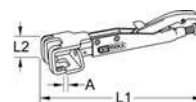
- Forged gripping jaws
- Automatic adjustment by cam mechanism
- Serrated execution
- Quick release lever
- Heavy but controlled clamping
- For round and flat material
- To hold when welding
- Knurled handle
- Nickel plated
- Chrome molybdenum



Item	A mm	L mm	S mm	
115.1160	0,0-51,0	175,0	55,0	260

### Welding gripping pliers

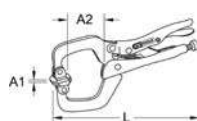
- For applications that required double curved jaws
- Jaws from special steel
- Easy locking action
- Quick release lever
- Size adjustment using the adjustment wheel
- Ideal for fitting and mounting of body parts
- Nickel plated handle
- Chrome molybdenum



Item	A mm	L1 mm	L2 mm	
115.1081	0,0-20,0	230,0	39,0	548

### Automatic gripping pliers

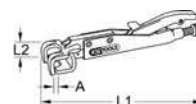
- Flat gripping jaws
- Movable clamping jaws
- Automatic adjustment by cam mechanism
- Quick release lever
- Heavy but controlled clamping
- For round and flat material
- For profiled bulky components
- Good adaptation to existing surfaces
- Knurled handle
- Nickel plated
- Chrome molybdenum



Item	A1 mm	A2 mm	L mm	
115.1165	0,0-68,0	55,0	175,0	330
115.1170	0,0-90,0	90,0	275,0	650

### Welding gripping pliers

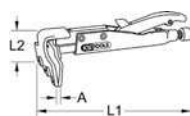
- For applications that required double curved jaws
- Jaws from special steel
- Easy locking action
- Quick release lever
- Size adjustment using the adjustment wheel
- For welding of the hole between the panels
- Also suitable for u-profile
- Nickel plated handle
- Chrome molybdenum



Item	A mm	L1 mm	L2 mm	
115.1082	0,0-15,0	215,0	26,0	548

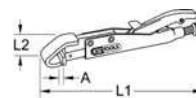
### Welding gripping pliers

- For applications that need a straight jaw
- Jaws from special steel
- Easy locking action
- Quick release lever
- Size adjustment using the adjustment wheel
- Ideal for spot welding
- Nickel plated handle
- Chrome molybdenum



### Welding gripping pliers

- For applications that need a angled jaw
- Jaws from special steel
- Easy locking action
- Quick release lever
- Size adjustment using the adjustment wheel
- Ideal for welding in the fold
- Also suitable for u-profile
- Nickel plated handle
- Chrome molybdenum

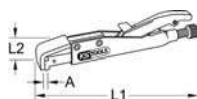



Item	A mm	L1 mm	L2 mm	
115.1080	0,0-20,0	205,0	56,0	548

Item	A mm	L1 mm	L2 mm	
115.1083	0,0-20,0	210,0	30,0	548

### Welding gripping pliers

- For applications that need a straight jaw
- Slim design
- Jaws from special steel
- Easy locking action
- Quick release lever
- Size adjustment using the adjustment wheel
- For right angled terminals in the fold
- For difficult to access areas
- Nickel plated handle
- Chrome molybdenum




Item	A mm	L1 mm	L2 mm	
115.1084	0,0-16,0	210.0	30.0	548

### Bodywork file, adjustable

- With a handle and knob for safe two handed usage
- For flat and curved applications
- Double sided blade
- Includes one blade - radius 10 teeth
- Aluminium




Item	L mm	B mm	Replacement holder	Replacement blade	
140.3090	350.0	34.0	140.3091	140.3092	770


### Universal slide hammer

- Extra heavy and solid execution
- For universal use for automobiles + trucks
- Enormous impact delivery of up to 11 tonnes
- 6 kg impact weight
- Includes 3 kg additional weight
- M 20 x 1.5mm connection thread
- Additional weights can be screwed together
- Special steel



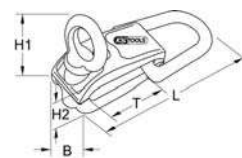
Item	L mm	
700.1415	850.0	12.00


### Accessories:

Item	
700.1411 Wheel hub/drive flange dismounting tool	A 2550
700.1421 Adaptor ET UN 1.12" for slide hammer (eg for wheel hubs)	B 720
700.1423 Adaptor for double hook	C 270
700.1424 Universal hook M20 x 1.5 for ball joints + car body	D 2400
700.1425 Double hook	E 750
700.1428 Adaptor ET UN 1.1/2" x IT M16 x 2.0	F 720
700.1430 Adaptor ET UN 1.1/2" x IT M16 x 1,5	G 720
152.1056 Single screw adaptor AG M17 x 1	H 240

### Mini pull clamp

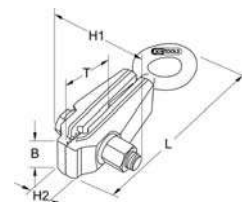
- Two directions of pull
- Eyelet can be mounted to the left and right
- Ideal for car body repairs
- Extremely versatile
- Special steel




Item	L mm	B mm	H1 mm	H2 mm	T mm	Fixing bolt	
140.2400	150.0	36.0	100.0	42.0	27.0	M12x1,75	930

### Standard pull clamp

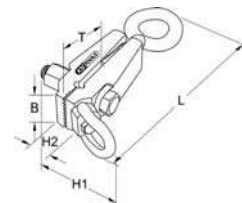
- One direction of pull
- Ideal for car body repairs
- Extremely versatile
- Special steel




Item	L mm	B mm	H1 mm	H2 mm	T mm	Fixing bolt	
140.2405	220.0	44.0	90.0	22,0-42,0	32.0	TG/M17x90	1.95

### Standard pull clamp with 2 pull directions

- Two directions of pull
- Ideal for car body repairs
- Extremely versatile
- Special steel

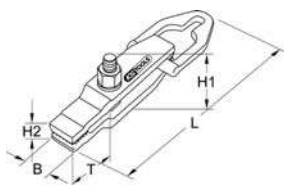


Item	L mm	B mm	H1 mm	H2 mm	T mm	Fixing bolt	
140.2410	220.0	44.0	125.0	22,0-80,0	32.0	TG/M17x90	2.13



### Small pull clamp

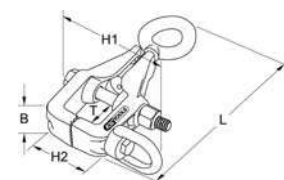
- One direction of pull
- No distorting due to the security device
- Ideal for car body repairs
- Extremely versatile
- Special steel



Item	L mm	B mm	H1 mm	H2 mm	T mm	Fixing bolt	kg
140.2415	255.0	32.0	85.0	23,0-42,0	70.0	TG/M14x85	1.65

### Box pull clamp with 2 pull directions

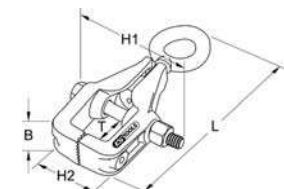
- Two directions of pull
- Ideal for car body repairs
- Extremely versatile
- Special steel



Item	L mm	B mm	H1 mm	H2 mm	T mm	Fixing bolt	kg
140.2430	245.0	38.0	155.0	80,0-145,0	64.0	TG/M14x130	2.21

### Box pull clamp

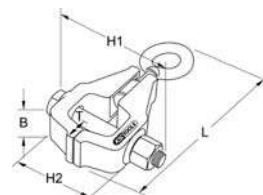
- One direction of pull
- Extra instep
- Ideal for car body repairs
- Extremely versatile
- Special steel



Item	L mm	B mm	H1 mm	H2 mm	T mm	Fixing bolt	kg
140.2420	245.0	38.0	130.0	80,0-85,0	64.0	TG/M14x130	2.04

### Maxi pull clamp

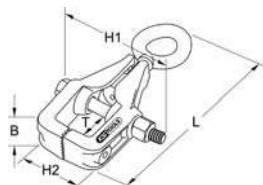
- One direction of pull
- With extra large mouth
- Ideal for car body repairs
- Extremely versatile
- Special steel



Item	L mm	B mm	H1 mm	H2 mm	T mm	Fixing bolt	kg
140.2435	240.0	46.0	150.0	20,0-100,0	42.0	TG/M19x150	3.00

### Box pull clamp with adaptable jaws

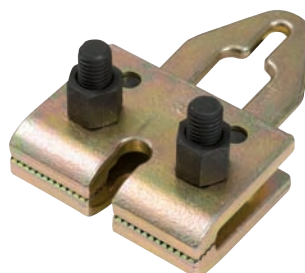
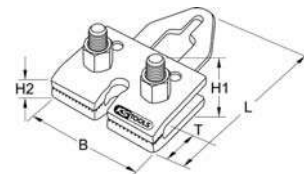
- One direction of pull
- Extra instep
- Ideal for car body repairs
- Extremely versatile
- Special steel



Item	L mm	B mm	H1 mm	H2 mm	T mm	Fixing bolt	kg
140.2425	245.0	38.0	130.0	80,0-85,0	64.0	TG/M14x130	2.01

### Double jaw pull clamp

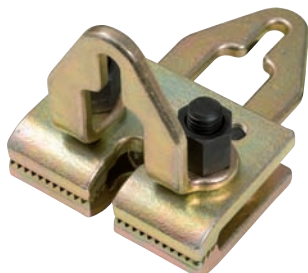
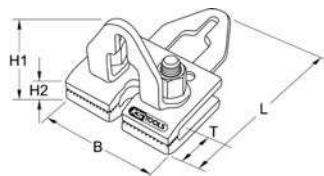
- One direction of pull
- No distorting due to the security device
- Ideal for car body repairs
- Extremely versatile
- Special steel



Item	L mm	B mm	H1 mm	H2 mm	T mm	Fixing bolt	kg
140.2440	175.0	120.0	90.0	22,0-36,0	32.0	TG/M17x90	2.49

### Double jaw pull clamp with 2 pull directions

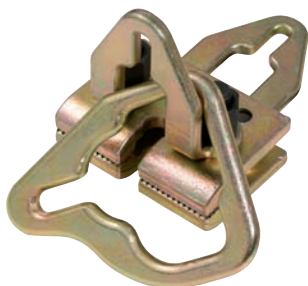
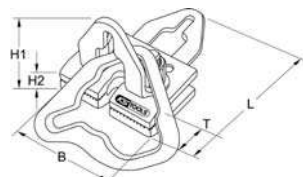
- Two directions of pull
- No distorting due to the security device
- Ideal for car body repairs
- Extremely versatile
- Special steel



Item	L mm	B mm	H1 mm	H2 mm	T mm	Fixing bolt	kg
140.2445	175.0	120.0	140.0	22,0-135,0	32.0	TG/M17x90	2.86

### Double jaw pull clamp with 3 pull directions

- Three directions of pull
- No distorting due to the security device
- Ideal for car body repairs
- Extremely versatile
- Special steel



Item	L mm	B mm	H1 mm	H2 mm	T mm	Fixing bolt	kg
140.2450	175.0	120.0	140.0	22,0-135,0	32.0	TG/M17x90	3.40

### Universal pull hook

- Universal car bodywork pull hooks
- Ideally suited for all ring eyelet tools
- High quality and compensated alloy steel
- Special steel



Item	kg
140.2455 Universal pull hook	1.00

### Hydraulic alignment tool kit

- For pressing, clamps and spreading of car body parts
- Simple handling due to plug in connection
- Includes hydraulic hand pump/ high pressure cylinder 10 t, detachable handle
- simple handling due to plug in connection
- Special steel
- In durable wheeled storage case



Item	kg
160.0175 17 pcs Hydraulic alignment tool kit	41.00

#### consists of:

Item	kg
160.0176 Hydraulic-Pump for bodywork alignment tool, 10 t	7.00
160.0177 Hydraulic-piston for bodywork alignment tool, 10 t	5.55
160.0178 Adaptor for extensions for bodywork alignment tool	1.93
160.0179 Extension tube for bodywork alignment tool, 530 mm	3.34
160.0180 Extension tube for bodywork alignment tool, 400 mm	1.66
160.0181 Extension tube for bodywork alignment tool, 300 mm	1.70
160.0182 Extension tube for bodywork alignment tool, 175 mm	1.70
160.0183 Adaptor for extension tube M x M	1.66
160.0184 Pressure plate 150 x 95 mm	1.14
160.0185 Pressure plate V form	0.66
160.0186 Wedge adaptor (notched)	0.66
160.0187 Pressure plate (laterally offset)	0.86
160.0188 Piston attachment (laterally offset)	0.86
160.0189 Rubber ball, Ø 80 mm	0.66
160.0190 Adaptor head, Cylinder serrated Ø: 50 mm	1.14



## MASTERBOARD Tool storage system - car bodywork

- Very extensive and complex range of tools suitable for car body repairs
- Orderly and clear arrangement of the tools
- Quick identification of the necessary tools
- All Boards are labeled with a classification system foil on that each single tool in the standard 1:1 is portrayed



Item				
800.1040	35 pcs	MASTERBOARD Tool storage system - car bodywork	25.50	

consists of:

Item				
140.2100	Car body panel beating tool set, 7 pcs.	7500		
140.2162	Car body cutting chisel DIN 7255, L=300mm	450		
140.2151	Car body contour lever, blue varnished handle, ground work area, 240 mm	1070		
911.8190	Panel lever and cutting set, stainless steel, 5 pcs	2000		
116.1403	Cutting plier (Rabitz plier) 280mm	500		
911.8108	Double ended pointed and rounded head lever	20		
911.8109	Double ended sword and rounded head lever, 200 mm	20		
911.8106	Double ended-clip remover, offset	40		
911.8110	Double ended-wedge lever, slim	20		
911.8138	Trim plastic wedge 30 mm	90		
911.8139	Trim plastic wedge 60mm	150		
115.1031	Gripping plier, opening max. 31 mm (1 1/4"), L=225mm	180		
115.1032	Gripping plier, opening max. 38mm (1 1/2"), L=225mm	340		
115.1033	Gripping plier, opening max. 41 mm (1 3/4"), L=225mm	520		
115.1034	Long nosed -gripping plier, opening max. 57mm (2 1/2"), L=225mm	180		
115.1035	Long nosed -gripping plier, opening max. 75mm (3"), L=225mm	340		
115.1079	Welding gripping plier CroMo, Lockable, L=280mm	780		
115.1071	Welding clamping gripping plier, lockable, L=285mm	780		
118.0055	Settling hole punch plier, L=325 mm	1230		
140.3090	Car bodywork file, complete with blade, 350 x 34 mm	770		

## Plastic panel beating set

- For problem free hammering out of car bodywork
- Ideal for protective hammering out
- No two-sided driving (expanding)
- Special plastic



Item				
140.2090	3 pcs	Plastic panel beating set	600	

consists of:

Item		Ø mm	Head length mm	L mm		
140.2091	Plastic hammer out hammer, cone/round	30,0	120,0	280,0	200	
140.2092	Plastic hammer out hammer, cone/round	40,0	135,0	280,0	285	
140.2093	Plastic hammer out face, tip cone	25,5		140,0	75	

## Car body panel beating set

- For hammering out on the car body area
- Practical grouping together
- For stretching and forming of car body sheet panels
- In durable plastic storage case



Item				
140.2100	7 pcs	Car body panel beating set	7.50	

consists of:

Item				
140.2114	Car bodywork-universal slapping dolly, hand fist form, 70 mm	1380		
140.2115	Car bodywork-pointed slapping dolly, arched and ground, 130 mm	1630		
140.2116	Car bodywork-heel dolly, arched and ground, 60 mm	1130		
140.2119	Car bodywork-toe dolly (large), arched and ground, 120 mm	1400		
140.2133	Panel beaters hammering out standard, hammer arched, round/square	420		
140.2137	Panel beaters-pick hammer straight head, round/pointed, ground 325 mm	460		
140.2139	Panel beaters-serrated hammer fine head, (round/square), ground, 325 mm	490		

## Car body panel beating set

- For hammering out on the car body area
- High quality execution
- Includes clamping and simple tools
- Special steel



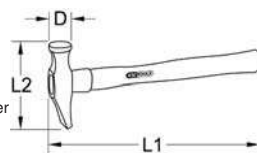
Item				
140.2125	3 pcs	Car body panel beating set	2.04	

consists of:

Item				
140.2112	Car bodywork panel beating grid toe dolly 127mm	1130		
140.2132	Panel beaters hammer, serrated hammer large round/square	490		
140.2133	Panel beaters hammer, standard hammer arched, round/square	420		

### Panel beaters hammer

- With ash handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



Item	g	D mm	L1 mm	L2 mm	handle, spare	☑	👤
140.4003	400	30.0	310.0	118.0	140.5304 140.5404	560	

### Panel beaters serrated hammer, round/square

- For forming with a square, finely serrated face
- For stretching with a round, slightly domed face
- Round work surfaces ground
- Special steel



Item	L mm	head length mm	Ø round side mm	square dim. mm	👤
140.2132	325.0	100.0	40.0	38 x 38 mm	490

### Panel beaters hammer, round/square

- Bumping hammer with strong arched faces
- Work areas ground
- Special steel



Item	L mm	head length mm	Ø round side mm	square dim. mm	👤
140.2130	325.0	105.0	30.0	26 x 26 mm	390

### Panel beaters hammer rounded head, small round/square

- Simple hammer with a flat, angular face and a round, slightly arched face
- Work areas ground
- Special steel



Item	L mm	head length mm	Ø round side mm	square dim. mm	👤
140.2135	325.0	100.0	30.0	27 x 27 mm	390

### Panel beaters hammer, small round/square

- Simple hammer with a flat, angular face and a round, slightly arched face
- Work areas ground
- Special steel



Item	L mm	head length mm	Ø round side mm	square dim. mm	👤
140.2138	325.0	100.0	30.0	28 x 28 mm	390

### Panel beaters standard hammer curved head, large round/square

- Simple hammer with a flat, angular face and a round, slightly arched face
- Work areas ground
- Special steel




Item	L mm	head length mm	Ø round side mm	square dim. mm	👤
140.2134	325.0	100.0	40.0	38 x 38 mm	490



### Panel beaters standard hammer, large round/square

- Planishing hammer with a square and round, flat face
- Work areas ground
- Special steel




Item	L mm	head length mm	Ø round side mm	square dim. mm	
140.2133	325.0	100.0	40.0	39 x 39 mm	420

### Panel beaters pick hammer straight head, round/flat point

- Planishing hammer with a round, slightly domed face
- Fine face for accurate hammering out
- Work areas ground
- Special steel



Item	L mm	head length mm	Ø round side mm	Tip width mm	
140.2136	325.0	140.0	40.0	19.0	460

### Panel beaters pick hammer straight head, round/pointed

- Planishing hammer with a round, slightly domed face
- Fine conical face for accurate hammering out
- Work areas ground
- Special steel



Item	L mm	head length mm	Ø round side mm	
140.2137	325.0	140.0	40.0	460

### Panel beaters pick hammer straight head, flat/pointed

- Planishing hammer with a round, slightly domed face
- Fine face curved for accurate hammering out
- Work areas ground
- Special steel



Item	L mm	head length mm	Ø round side mm	Tip width mm	
140.2131	325.0	140.0	40.0	19.0	460

### Panel beaters serrated hammer fine, round/square

- For forming with an square, rough serrated face
- For stretching with a round, slightly domed face
- Round work surfaces ground
- Special steel



Item	L mm	head length mm	Ø round side mm	square dim. mm	
140.2139	325.0	100.0	40.0	38 x 38 mm	490

### Bodywork slapping spoon

- With blue laquered handle
- Work areas ground and polished
- Light execution
- Special steel



Item	L mm	B mm	
140.2150	250.0	50.0	290

### Bodywork drip moulding spoon

- With blue laquered handle
- Work areas ground and polished
- Special steel



Item	L mm	B mm	
140.2151	240.0	45.0	1.07

### 3 in 1 Heel dolly

- With a round form, a tip and anvil form
- Ideal for beating out bumps and dents
- With arched and ground work surfaces
- Polished surface
- Steel



Item	B mm	H mm	L mm	kg
140.2105	37.0	66.5	69.4	285
140.2106	82.1	86.3	36.0	394
140.2107	42.0	76.2	100.0	590

### Bodywork slapping heel dolly

- With flat, arched and ground work areas
- Polished surface



Item	L mm	B mm	kg
140.2110	105.0	60.0	670

### Bodywork toe dolly, small

- With flat, arched and ground work areas
- Polished surface
- Narrow execution



Item	L mm	B mm	kg
140.2111	115.0	55.0	960

### Bodywork grid toe dolly

- Arched work area
- For stretching with grooved surface
- Grooved surface has red lacquer
- Polished surface



Item	L mm	B mm	kg
140.2112	120.0	58.0	1.13

### Bodywork curved heel dolly

- Upper areas on all sides arched and ground
- Polished surface



Item	L mm	B mm	kg
140.2115	130.0	59.0	1.63

### Bodywork heel dolly

- Upper areas on all sides arched and ground



Item	L mm	B mm	kg
140.2116	60.0	80.0	1.13

### Bodywork ambos heel dolly

- Work areas arched and ground
- Polished surface



Item	L mm	B mm	Handle mm	kg
140.2117	130.0	65.0	120.0	3.66

### Bodywork dome dolly with handle

- With slightly arched and ground work areas
- Polished surface



Item	L mm	B mm	kg
140.2118	60.0	80.0	1.47

### Bodywork toe dolly, large

- With flat, arched and ground work areas
- Polished surface



Item	L mm	B mm	kg
140.2119	120.0	58.0	1.40

### Bodywork outline dolly

- With flat, arched and ground work areas
- Polished surface



Item	L mm	B mm	kg
140.2120	120.0	58.0	1.63

### Bodywork double dolly

- In anvil form
- With arched and ground work surfaces
- Polished surface



Item	L mm	B mm	kg
140.2113	59.5	53.0	1.38

### Bodywork universal heel dolly

- In hand fist form
- With arched and ground work surfaces
- Universal usage
- Polished surface



Item	L mm	Height mm	kg
140.2114	70.0	85.0	1.38

### Surge protector

- Protects the vehicle against voltage tip whilst welding
- With security protection
- Visibility signal and tone signal in voltages tips
- With reverse polarity protection



Item	⚡	kg
150.3080	12 V	480
150.3085	24 V	480
150.3045	12/24V	480

### Layer thicknesses measuring instrument

- For the fast measurement of coatings
- For coatings on aluminum, iron and non ferrous metals
- Ideally suited for the disclosure of accident damage
- Stable plastic housing



#### Technical data:

Readout:	3.1/2" LCD readout
Operating settings:	0°C - 50°C (32°F - 50°F) < 75% air humidity
Response time:	1 Second
Loading gage „Strength“:	0-40 mils (0-1000 µm)
Display accuracy:	+/- 4 dgts up 0 to 7,8 mils
	+/- 10 dgts up 0 to 199 µm
	+/- (3% + 4 dgts) up 7,9 mils to 40 mils
	+/- (3% + 10 dgts) up 200 to 1000 µm

Item	H mm	B mm	T mm	kg
150.3010	148.0	105.0	42.0	280

## Super spotter Kit

- Handy workshop tool
- For the repair of bodywork damage
- For hammering out of car body sheet panels
- By means of special electrodes nails or dome headed screws are welded on the sheet metal so the dents can be removed with an impact hammer, hammering out with performing accurate blows
- With a heat electrode placed hot points can be set on the sheet metal
- Also an electrode contains for the welding of copper plated dome head screws for the reinforcement of housings, parts, etc. directly on the bodywork
- In durable plastic storage case



### Technical data:

Attention idle cutout: 20 Ampere  
Attention light cutout: 25 Ampere

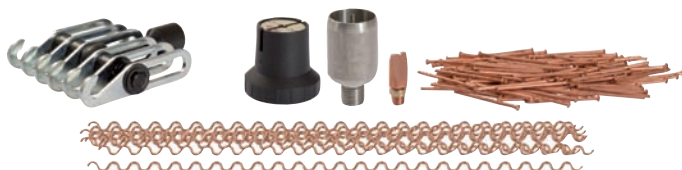
Item		kg
500.8550	Super spotter Kit	10.39

### consists of:

Item		kg
500.8551	Welding gun 220V, 50/60 Hz	5460
500.8554	Electrode for welding nails, Copper	10
500.8556	Electrode for rivets, magnetic, Copper	10
500.8557	Electrode for washers, Brass	10
500.8558	Heating electrode for hot spots, Brass	10
500.8559	Slide hammer puller 1,5 kg	2080
500.8560	Electrode extension, brass	10
500.8571	Spotter-consumables, welding nails copper caoted, 2.0 x 50 mm, pcs 500	660
500.8572	System-Adaptor for Slide hammer puller IG M14x 1.5, insert with 500.8559	210
500.8574	Spotter-consumables, rivets copper coated, 3 x 3.2 mm, pcs 100	30
500.8579	Spotter-consumables, screws copper coated, M 4 x 16 mm, pcs 100	140
500.8592	Spotter-consumables, washers copper coated, 8.0 x 16 mm, pcs 100	160

## Super spotter additional kit

- For removing of car body damage
- Includes the adaptor for thr slide hammer puller
- The flexible and strong steel wire profile is used so the processing of securing car body panels
- The movable pull hooks situated can be pulled by the claw fastener straightening the carbody and/or the bump on
- It can be hooked on 1-9 pull hooks, at what point exact or extensive enabling the removal of dents



Item		kg
500.8530	15 pcs Super spotter additional kit	1.04

### consists of:

Item		kg
500.8531	Welding-Electrode for corrugated wire for Spotter 500.8550	23
500.8532	Corrugated wire Ø 2 mm x L=310 mm 10 pcs.	122
500.8533	Corrugated wire positioner magnetic	34
500.8534	Multi hook head with 6 claw connection IG M14x 1.5	315
500.8536	System adaptor for slide hammer puller IG M14x1,5, for use with 500.8559	86
500.8572	Spotter consumables, copper plated, welding nails, 2,5 x 50 mm, VPE 100	210

### Accessories:

Item		kg
500.8535	Hook head for corrugated + washer connection IG M14x 1.5	65

## Welding gun 220V - 50/60 Hz

- Handy workshop tool
- For the repair of bodywork damage
- For hammering out of car body sheet panels
- Plastic housing



### Technical data:

Attention idle cutout: 20 Ampere  
Attention light cutout: 25 Ampere

Item	L mm	kg
500.8551	285.0	5.46

## Slide hammer puller 1.5 kg

- For problem free hammering out of car bodywork panels
- With 1.5 kg slide weight
- Usable in connection with the super spotter
- Special steel



Item	L mm	Height mm	Replacement span head	kg
500.8559	475.0	80.0	500.8561	2.08





## Super spotter consumables

- Usable in connection with the super spotter
- For the reinforcement of the car body
- Copper coated



Item		
500.8570	Nails 2.0 x 50.0 mm copper coated 100-pack	140
500.8571	Nails 2.0 x 50.0 mm copper coated 500-pack	660
500.8572	Nails 2.5 x 50.0 mm copper coated 100-pack	210
500.8573	Nails 2.5 x 50.0 mm copper coated 500-pack	1150
500.8592	Washers 8.0 x 16.0 mm copper coated 100-pack	160
500.8595	Triangular-washer 2.5 x 50.0 mm copper coated	500
500.8574	Rivets 3.0 x 3.2 mm copper coated 100-pack	30
500.8575	Rivets 3.0 x 4.5 mm copper coated 100-pack	40
500.8576	Rivets 5.0 x 8.2 mm copper coated 100-pack	40
500.8579	Screws M4 x 16.0 mm copper coated 100-pack	140

## Super spotter electrodes

- Usable in connection with the super spotter
- Copper and/or brass



Item		
500.8554	Electrode for welding nails, Copper	10
500.8556	Electrode for rivets, magnetic, Copper	10
500.8562	Electrode for screws, Copper	20
500.8557	Electrode for washers, Brass	10
500.8558	Heating electrode for hot spots, Brass	10
500.8560	Electrode extension, brass	10

## Flame proof mats

- Asbestos free
- Reduced fire risk
- Very flexible
- Good formability



Item	B mm	L mm	max. °C	
610.3350	330.0	500.0	700	330
610.3351	460.0	800.0	700	650
610.3399	1500.0	2000.0	600	2110

## Welders protective helmet

- Turns fully automatically from bright after dark as soon as the light arch is ignited
- Due to high quality solar cells battery replacement is no longer require
- Equipped with a sensitivity and delaying switch for switching between dark and light to prevent welders blindness when welding at high amp capacity
- Quick switching is possible when changing from seam to spot welding
- Selection switch for reaction time
- Robust multi positional head band
- Complete neck protection
- Helmet is approved to DIN EN 175



### Technical data:

Switching timed:

Bright after dark 1/20000s  
Dark after bright

0.6-0.8 Adjustment slow

0.2-0.35 Adjustment fast

98 x 44 mm (3,86" x 1,75")

Window.

Cassette size::

Power requirement:

UV / IR protection:

Colour selection:

110 x 90 x 9 mm (4,93" x 3,54" x 0,35")

over solar cell

Anytime up to colour DIN 16

Variable adjustment from DIN 9-13

Standard-light adjustment DIN 3 (4)

Impact resistant, closed plastic Polyamidnylon

Impact resistant, closed plastic Polypropylene

Working temperature:

Storage temperature.

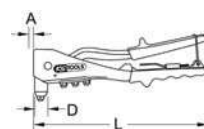
-5°C to +55°C

-20°C up to +70°C

Item	B mm	L mm	
310.0150	230.0	210.0	440

## Standard hand riveting tool

- Suitable for blind rivets
- Including four interchangeable mouthpieces
- Magazine and key in the riveter body
- Narrow head pliers
- With safety lock on the handle end
- With rubber grip
- Die cast metal body



Blind rivets: 2,4 - 3,2 - 4,0 - 4,8 mm



Item	A mm	D mm	L mm	
150.9510	24.0	21.0	270.0	920

### Standard hand riveting tool set

- Suitable for blind rivets
- Four interchangeable mouthpieces
- Magazine and key in the riveter body
- Includes 200 blind rivets
- With rubber grip
- Die cast metal body

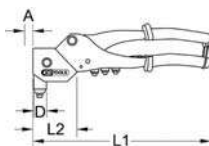
Blind rivets: 2,4 - 3,2 - 4,0 - 4,8 mm



Item					
150.9520	205 pcs	Standard hand riveting tool set		1.25	

### Hand rivet tool

- Suitable for blind rivets
- 360° rotating head
- For difficult to access areas
- Narrow head pliers
- With safety lock on the handle end
- Including four interchangeable mouthpieces
- Die cast metal body



Blind rivets: 2,4 - 3,2 - 4,0 - 4,8 mm



Item	A mm	D mm	L1 mm	L2 mm	
150.9540	27.0	21.0	290.0	70.0	870

### Universal hand riveting tool set

- Suitable for blind rivets and blind rivet nuts
- 360° rotating head
- For difficult to access areas
- Four interchangeable mouthpieces and nut rivet pulling inserts
- Die cast metal body

Blind rivets: 2,4 - 3,2 - 4,0 - 4,8 mm

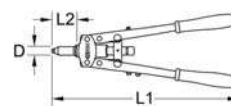
Rivet nuts: M3 - M4 - M5 - M6



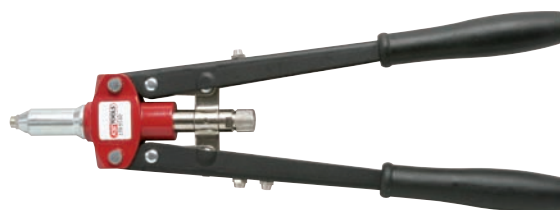
Item					
150.9610	10 pcs	Universal hand riveting tool set		1.96	

### Long arm hand riveting tool

- Suitable for blind rivets
- Including four interchangeable mouthpieces
- Extra long lever arms
- High power transmission
- Magazine and key in the riveter body
- With rubber grip
- Die cast metal body



Blind rivets: 2,4 - 3,2 - 4,0 - 4,8 mm



Item	D mm	L1 mm	L2 mm		
150.9530	21.0	410.0	59.0	1.50	

### Universal riveting tool set

- Suitable for blind rivets and blind rivet nuts
- Retractable legs for increased power consumption
- Mouthpiece magazine intergrated in the handle
- With two component handle
- Die cast metal body

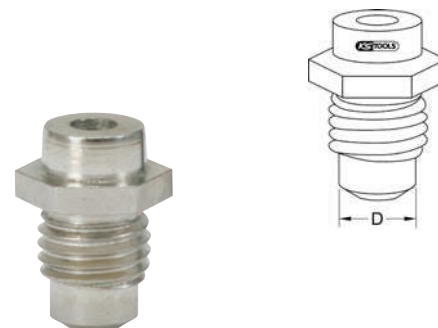
Blind rivets: 2,4 - 3,2 - 4,0 - 4,8 mm

Rivet nuts: M3 - M4 - M5 - M6



Item					
150.9630	11 pcs	Universal riveting tool set		2.67	

### Mouthpieces for riveting



Item	D mm	Suitable for		
150.9570	2.4	150.9610+150.9630	10	
150.9571	3.2	150.9610+150.9630	10	
150.9572	4.0	150.9610+150.9630	10	
150.9573	4.8	150.9610+150.9630	10	
150.9574	5.0	150.9610+150.9630	10	
150.9575	6.4	150.9610+150.9630	10	

## Replacement jaws for gripping rivet



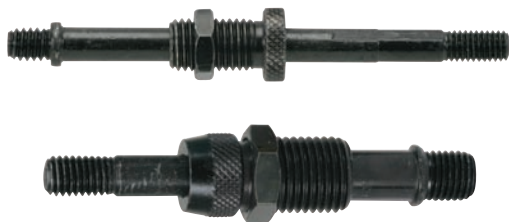
Item	Suitable for		
150.9578	150.9610	10	
150.9579	150.9630	10	

## Rivet head



Item	Suitable for		
150.9620	150.9610	160	

## Rivet nut pulling spindle for riveting tools



Item	Suitable for		
150.9613	M3	150.9610	30
150.9614	M4	150.9610	30
150.9615	M5	150.9610	30
150.9616	M6	150.9610	30
150.9634	M4	150.9630	40
150.9635	M5	150.9630	40
150.9636	M6	150.9630	40
150.9638	M8	150.9630	70
150.9640	M10	150.9630	70

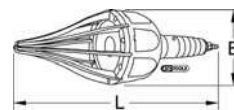
## Replacement rivet heads for rivet tools



Item	Suitable for		
150.9611	150.9610	60	
150.9631	150.9630	100	
150.9632	150.9630	40	

## Pneumatic assembly tool for CV joint boots

- Air exhaust through the handle rear end
- Suitable for all universal and original vehicle CV joint boots
- For CV joint boots diameter from 20 - 120 mm
- Expanding of the joint arms through compressed air
- Air pressure is regulated through a button
- No additional lubricant necessary
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing from special plastic



### Technical data:

Max. expansion diameter:	120 mm
Operating pressure:	max. 8 bar
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

Item	B mm	L mm		
515.3100	148.0	450.0	2.50	

## Pneumatic riveting tool pistol

- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- For professional riveting, continuous operation
- For steel, aluminium, stainless steel or copper riveting up to 6,4 mm
- With 6 mouth pieces, 4,8 mm is pre assembled
- Especially low noise level
- Swivel joint at the connection thread for flexible use
- Cold insulated
- Includes 1/4" coupling connector
- Robust aluminium housing



### Technical data:

Rivet sizes:	3,2 - 4,0 - 4,8 - 6,4 mm
Stroke length:	19 mm
Driving power:	13839,5 N
Vibration:	< 2,5ms²
Noise performance level:	85 dbA
Noise pressure level:	73.3 dbA
Air consumption:	1,8 l/Hub
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT


Item	B mm	L mm		
515.3101	210.0	340.0	2.00	

## SCREWDRIVER & BITS

### Double ended mirror screwdriver

- Clip for the breast pocket
- Knurled grip
- Aluminium

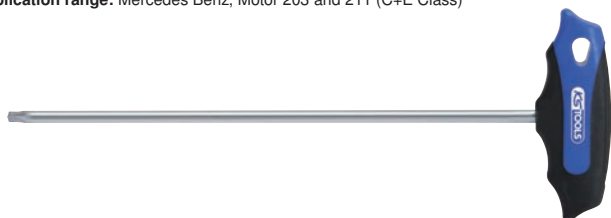


Item		L mm		
140.2216	T15 x PH0	120.0	50	
140.2217	2,0 mm x 2/32"	120.0	50	
140.2218	T15 x T20	120.0	50	

### T-Grip screwdriver for five star tamperproof screws

- Five star profile with tamperproof
- For the dismantling and assembly of the rear view mirror
- Hanging hole
- Dual component handle
- Chrome vanadium

**Application range:** Mercedes Benz, Motor 203 and 211 (C+E Class)



Item		L mm		
140.2203	TS20	250.0	200	

### Bit socket for TX tamperproof screws

- For tamperproof TX
- For the removal of windscreen wiper housings
- Chrome vanadium

**Application range:** BMW series E32 and E34.

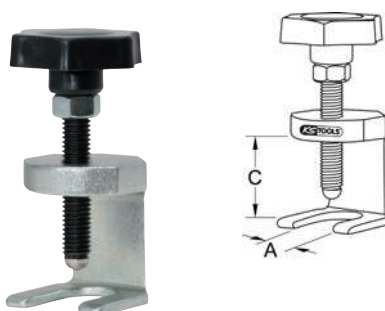



Item		L mm		
911.1387	TB80	55.0	150	

## PULLERS

### Universal windscreen wiper arm puller type 1

- Special steel

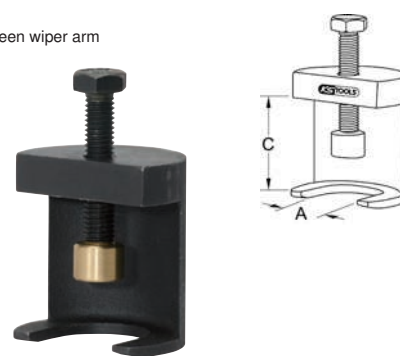




Item	A mm	C mm		dim mm		
700.1193	16	28	M8 x 45	11	0.14	



### Universal windscreen wiper arm puller type 2

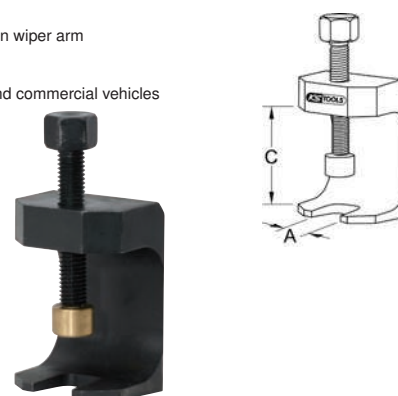
- Spindle end with brass cap to prevent damage to the windscreen wiper arm
- Special steel





Item	A mm	C mm		dim mm		
700.1191	26	28	M8 x 75	13	0.45	

### Universal windscreen wiper arm puller type 3

- Spindle end with brass cap to prevent damage to the windscreen wiper arm
- Heavy execution for loosening the tightest of wiper arms
- Suitable for many automobiles and commercial vehicles
- Special steel




Item	A mm	C mm		dim mm		
700.1192	16	41	M10 x 80	17	0.51	

### Universal windscreen wiper arm puller set

- Suited for a multitude of vehicle types and car brands
- Alternatively can be used mechanically or with an impact spindle
- Special steel
- In durable plastic storage case



Item			
700.1240	13 pcs Universal windscreen wiper arm puller set	3.81	

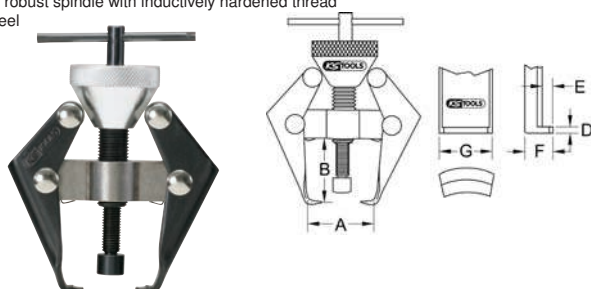


consists of:

Item			
700.1232	Hollow spindle can be used mechanically with the pull hooks	170	
700.1233	Pull hook Gr.1, opening 22 mm, H = 50 mm	110	
700.1234	Pull hook Gr.2, opening 25 mm, H = 50 mm	140	
700.1235	Pull hook Gr.3, opening 16 mm, H = 60 mm	150	
700.1236	Pull hook Gr.4, opening 25 mm, H = 41 mm	110	
700.1237	Pull hook Gr.5, opening 30 mm, H = 50 mm	150	
700.1238	Pull hook Gr.6, opening 20 mm, H = 50 mm	100	
700.1239	Pull hook Gr.7, opening 17 mm, H = 56 mm	100	
700.1241	Pull hook Gr 8, opening 16 mm, H = 80 mm	170	
700.1242	Universal 2 Arm Wiper arm puller set with two pairs of arms	690	
700.1243	Spindle extension, 30 mm, for 700.1232 and 700.1242	20	
700.1244	Spindle design hollow, for 700.1232 and 700.1242	20	

### Battery clamp and wiper arm puller 2 arm

- Ideally suited for drawing off small parts
- With T-handle drive
- Independent pressure of the hooks
- Extremely robust spindle with inductively hardened thread
- Special steel



Item	A mm	B mm	max t mm	mm	D mm	E mm	F mm	G mm	
700.1190	15	32	1,2	M8 x 50	2,5	9	10,5	11	0.30

### Universal windscreen wiper arm puller 2 arm

- Hollow draw off spindle to prevent any damage to the rear wiper blades
- Mouted spherical centering point
- Special steel

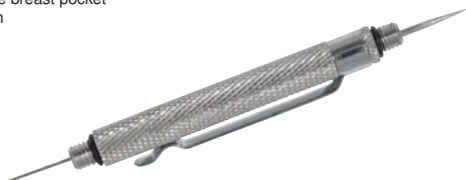


Item	A mm	B mm	mm	dim mm	D mm	E mm	F mm	G mm	
700.1185	10-60	34	M12x1,25 x 34	17	3	5	14	15	1.00

## WASHER JET CLEANING & MAGNET LIFTING

### Washer jet cleaning and adjusting tool

- For the cleaning and adjusting of washer jet nozzles
- Clip for the breast pocket
- Aluminium



Item	L mm	
550.1022	95.0	40

### 2 in 1 Telescopic magnetic holder

- Load capacity to 0.5 kg
- Extendable telescopic function
- Cleaning needle
- Clip for the breast pocket
- Ideal for adjusting of wiper nozzles
- Aluminium



Item	Head Ø mm	L mm	
550.1001	8.0	150,0 - 675,0	500

### Telescopic magnetic lifter

- Load capacity to 2.5 kg
- With flexible magnetic head
- With an extendable telescopic function
- Includes cleaning needle for washer jet nozzles
- Clip for the breast pocket
- Aluminium



Item	Head Ø mm	L mm	
550.1023	11.0	150,0 - 590,0	60

## MAINTENANCE

### Windscreen trim remover

- Ideal for levering off trims on windscreens or other similar trims
- With flat cutter/lever head for safe usage
- With dipped covered handle
- Chrome vanadium



Item	L mm	
140.2285	240.0	140

### Mould release tool set

- With rubber underside to prevent damage to the paintwork
- For driving out the mould between the glass and the bodywork
- Ideally suited for drawing off double moulds
- Overall length 220.0 mm
- With hanging hole
- With dipped covered handle

Application range: e.g. Mazda, Toyota etc.



Item			
140.2202	2 pcs	Mould release tool set	280

consists of:

Item			
140.2351	Trim and air ventilation remover right handed	140	
140.2352	Trim and air ventilation remover left handed	140	


### Professional protective board set

- For the protection of the chrome instrument trims
- For different working areas and applications
- Straighter and easily bent front edge
- The handle in the plate ensures safe accurate working



Item					
140.2320	4 pcs	Professional protective board set	1.36		

#### consists of:

Item			
140.2321	Professional protection board straight 450 x 300 mm	450	
140.2322	Professional protection board angled 450 x 300 mm	450	
140.2323	Professional protection board straight 270 x 200 mm	230	
140.2324	Professional protection board angled 270 x 200 mm	230	


### Universal windscreen removal kit

- For the dismantling of windshields and other glued trims
- Easy operation with little power required
- Correct easy and damage free dismantling
- For safe independent working
- Suction pad has a max. suction of 110 kg
- In durable plastic storage case



Item					
140.2330	6 pcs	Universal windscreen removal kit	5.37		

#### consists of:

Item			
140.2331	Basic device with 2 suction heads and wire drive	5200	
140.2332	Wire directing holder with a single suction head	2000	
140.2210	Windscreen cutting wire pull handle-set, 2-pcs.	110	
140.2215	Roll-cutting wire	200	
140.2206	Wire feeder-starter tool	80	
310.0110	Goggles with frame	45	


### Windscreen dismantling set

- For glued car windows
- Insert made from high quality foam
- In durable plastic case



Item					
140.1040	8 pcs	Windscreen dismantling set	2.78		

#### consists of:

Item			
140.2230	Dismantling lever for interior panels	160	
140.2231	Double trim strip remover	70	
911.8126	Professional-Scraper	90	
140.2206	Wire feeder-starter tool	80	
140.2213	Cutting wire on a roll	100	
140.2241	Standard-Pull cutting knife	240	
140.2210	Windscreen cutting wire pull handle-set, 2-pcs.	110	


### Cutting wire set with cutting wire

- For cutting working
- For cutting of accessible glue pinch welds
- With steel tube hollow needle
- Ergonomically designed hand grip
- Stainless steel wire



Item					
140.2250	4 pcs	Cutting wire set with cutting wire	270		

#### consists of:

Item			
140.2207	T-handle wire inserting tool	60	
140.2210	Windscreen cutting wire pull handle-set, 2-pcs.	110	
140.2214	Square windscreen cutting wire	100	

### Cutting wire set with sawing wire

- Very flexible
- Operates like a saw
- Best suited for cutting of wide and hard glue bondings
- With steel tube hollow needle
- Ergonomically designed hand grip
- Brass plated steel wire



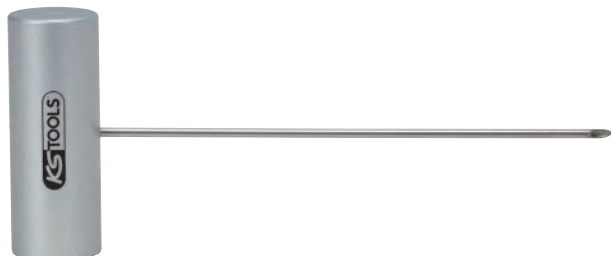
Item				
140.2245	4 pcs	Cutting wire set with sawing wire	680	

consists of:

Item				
140.2207	T-handle wire inserting tool	60		
140.2210	Windscreen cutting wire pull handle-set, 2-pcs.	110		
140.2211	Braided Windscreen cutting wire	80		

### T-handle wire inserting tool

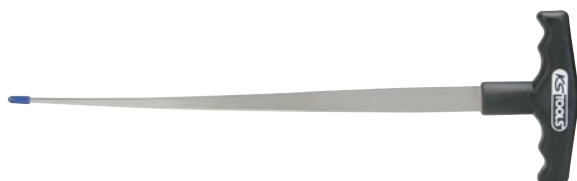
- For piercing the glue trim and inserting the cutting edge wire
- With steel tube hollow needle
- Aluminium



Item	L mm			
140.2207	125.0	60		

### Wire feeder starter tool

- For powerful piercing through the glue trim and inserting the cutting edge wire
- Slotted probe end for inserting the cutting wire
- With spring steel blade
- With one component handle



Item	L mm			
140.2206	340.0	80		

### Cutting wire insertion tool

- Ideal for confined spaces
- For the optimal usage against stop of the cutting edge wire in the inner area
- Ideal for particularly heavily bonded joints
- Without inner stop to reduce any chance of damage
- With one component handle



Item	L mm			
140.2205	350.0	220		

### Windscreen cutting wire, braided

- Very flexible
- Operates like a saw
- Best suited for cutting of wide and hard glue bondings in hard to access areas
- Ø 0.8 mm
- Brass plated steel wire



Item	L m			
140.2211	22.5	80		
140.2212	50.0	160		

### Square windscreen cutting wire

- Best cutting edge effect
- For cutting working
- Best suited for cutting of wide and hard glue bondings in hard to access areas
- Stainless steel wire



Item	L m			
140.2214	22.5	100		
140.2215	50.0	200		

### Windscreen cutting wire pull handle set

- Cutting edge wire is attached by means of a cone in the handle
- Ergonomically designed hand grip
- With one component handle



Item				
140.2210	2 pcs	Windscreen cutting wire pull handle set	110	

#### consists of:

Item				
140.2353		Windscreen cutting wire pull handle, single	65	

### Windscreen cutting wire pull handle set, heavy execution

- Optimal working in any direction
- Cutting edge wire is attached by means of a cone in the grip
- Ergonomically designed hand grip
- Two component handle



Item				
140.2201	2 pcs	Windscreen cutting wire pull handle set, heavy execution	600	

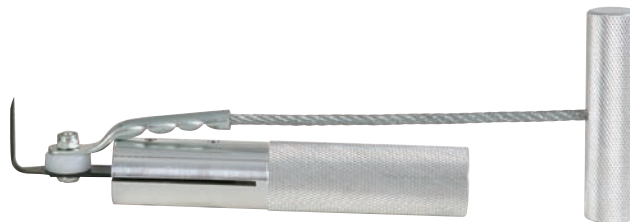
#### consists of:

Item				
140.2354		Windscreen cutting wire pull handle, heavy execution, single	300	



### Pull knife

- Flexible pull handle
- For the ripping out of glued vehicle bonds
- Includes 25 mm blade
- Practical one man operation
- Aluminium



Item	L mm	Replacement handle		
140.2241	130.0	140.2247	240	

### Pull knife

- PVC dipped stop and pull handle
- For the ripping out of glued vehicle bonds
- Includes 25 mm blade
- Also suitable for use as a scraper
- Aluminium



Item	L mm	Replacement handle		
140.2244	130.0	140.2246	310	

### Pull knife with quick change system

- PVC dipped stop and pull handle
- For the ripping out of glued vehicle bonds
- Includes 25 mm blade
- Quick blade changing system without the use of a tool
- Also suitable for use as a scraper
- Aluminium



Item	L mm	Replacement handle		
140.2248	130.0	140.2355	350	



### Pull knife set with quick change system

- PVC dipped stop and pull handle
- For the ripping out of glued vehicle bonds
- Quick blade changing system without the use of a tool
- Also suitable for use as a scraper
- Insert made from high quality foam
- In durable plastic storage case



Item			kg
140.2239	10 pcs	Pull knife set with quick change system	1.55

#### consists of:

Item			kg
140.2356	Stainless steel pull knife blade set 25 mm, 3 pcs.	45	
140.2248	Pull knife with quick change system	350	
140.2357	Stainless steel pull knife blade set 38 mm, 3 pcs.	50	
140.2358	Scraper blade-set 19 mm, 3-pcs.	115	

### Special pull knife blade

- Blade length 20 mm
- Precise and easy cutting
- Newly developed toothed cutting edge
- Extremely substantial and resilient
- Precise guide on the blade and the cutting edge
- Knife blade can be repeatably sharpened
- Ideally suited in all standard practice hand cutting knives
- High quality chrome-nickel-nirostasteel



Item	Content		kg
140.2340	1	15	
140.2341	6	90	

### Special pull knife blade

- Blade length 25 mm
- Precise and easy cutting
- Newly developed toothed cutting edge
- Extremely substantial and resilient
- Precise guide on the blade and the cutting edge
- Knife blade can be repeatably sharpened
- Ideally suited in all standard practice hand cutting knives
- High quality chrome-nickel-nirostasteel



Item	Content		kg
140.2342	1	15	
140.2343	6	90	

### Special pull knife blade

- Blade length 38 mm
- Precise and easy cutting
- Newly developed toothed cutting edge
- Extremely substantial and resilient
- Precise guide on the blade and the cutting edge
- Knife blade can be repeatably sharpened
- Ideally suited in all standard practice hand cutting knives
- High quality chrome-nickel-nirostasteel



Item	Content		kg
140.2344	1	15	
140.2345	6	90	

### Standard pull knife blade

- Blade length 25 mm
- Blade in sword form
- Attachment length 13 mm
- Not for quick change system
- Special steel



Item	Content		kg
140.2292	1	20	
140.2293	6	120	

### Standard pull knife blade

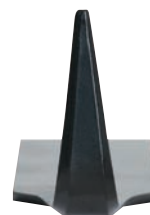
- Blade length 32 mm
- Blade in sword form
- Attachment length 13 mm
- Not for quick change system
- Special steel



Item	Content		kg
140.2294	1	20	
140.2295	6	120	

### Pull knife blade

- Blade length 19 mm
- Blade tip tapered
- Slim execution
- Special steel



Item	Content		kg
140.2273	1	20	
140.2274	6	120	

### Pull knife blade

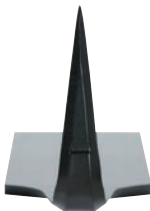
- Blade length 38 mm
- Blade tip tapered
- Slim execution
- Special steel



Item	Content		kg
140.2277	1	20	
140.2278	6	100	

### Pull knife blade

- Blade length 25 mm
- Blade tip tapered
- Slim execution
- Special steel



Item	Content		
140.2275	1	20	
140.2276	6	120	

### Stainless steel pull knife blade

- Blade length 38 mm
- Blade tip tapered
- Extra slim execution
- Stainless steel



Item	Content		
140.2271	1	20	
140.2272	6	120	

### Stainless steel standard pull knife blade

- Blade length 25 mm
- Blade in sword form
- Attachment length 13 mm
- Not for quick change system
- Stainless steel



Item	Content		
140.2296	1	20	
140.2297	6	120	

### Pneumatic oscillating cutter set

- 90° offset execution
- Air exhaust through used air tube
- For one handed operation with ergonomic design
- For the professional dismantling of vehicle discs
- Universal blade reception for all standard blades
- Secure operation lever with locking device
- Stepless speed regulation
- Includes 1/4" coupling connector and blade changing spanner
- Robust steel housing



### Stainless steel standard pull knife blade

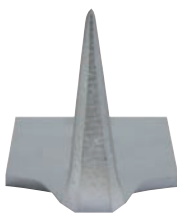
- Blade length 30 mm
- Blade in sword form
- Attachment length 13 mm
- Not for quick change system
- Stainless steel



Item	Content		
140.2298	1	20	
140.2299	1	120	

### Stainless steel pull knife blade

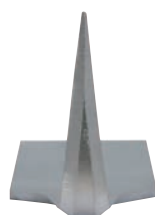
- Blade length 19 mm
- Blade tip tapered
- Extra slim execution
- Stainless steel



Item	Content		
140.2267	1	20	
140.2268	6	120	

### Stainless steel pull knife blade

- Blade length 25 mm
- Blade tip tapered
- Extra slim execution
- Stainless steel



Item	Content		
140.2269	1	20	
140.2270	6	120	

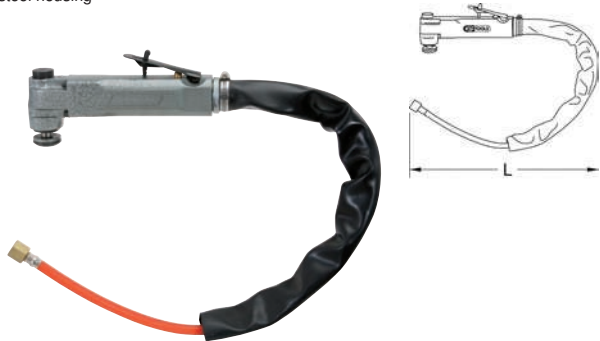
Item				
140.2219	6 pcs	Pneumatic oscillating cutter set	1.51	

#### consists of:

Item				
140.2251	Pneumatic-oscillating cutter	1270		
140.2252	Scraper blade, offset, blade width 16 mm	20		
140.2256	Cutting blade, straight, offset, length 90 mm	30		
140.2261	Cutting blade, angled, offset, cutting depth 55 mm	20		
140.2263	Cutting blade, straight, cutting depth 35 mm	10		
140.2255	Cutting blade, straight, offset, length 50 mm	20		

## Pneumatic oscillating cutter

- 90° offset execution
- Air exhaust through used air tube
- For one handed operation with ergonomic design
- For the professional dismantling of vehicle discs
- Universal blade reception for all standard blades
- Secure operation lever with locking device
- Stepless speed regulation
- Includes 1/4" coupling connector and blade changing spanner
- Robust steel housing



### Technical data:

Oscillating speed:	2000/min
Idle speed:	22000 r.p.m.
Vibration:	4,3 m/s³
Noise performance level:	79,8 dbA
Noise pressure level:	69,9 dbA
Air consumption:	300 l/min
Operating pressure:	6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

Item	L mm	Replacement blades	kg
140.2251	725.0	140.2252	1.27

## Cutting / scraper blades

- For the pneumatic oscillating cutter
- Special steel



Item		kg
140.2252	Scraper blade, offset, blade width 16 mm	20
140.2255	Cutting blade, straight, offset, length 50 mm	20
140.2256	Cutting blade, straight, offset, length 90 mm	30
140.2261	Cutting blade, angled, offset, cutting depth 55 mm	20
140.2263	Cutting blade, straight, cutting depth 35 mm	10

## Universal Sharpening stone

- For the sharpening of pull knife blades and universal knife blades machine blades etc
- Hanging hole
- One component handle



Item	L mm	kg
140.2238	170.0	70

## Pinch weld scraper

- With interchangeable spring steel blade
- Working length max. 115 mm
- Aluminium handle



Item	A mm	L mm		kg
140.2282	13.0	240.0	140.2283	200
140.2286	16.0	240.0	140.2287	200
140.2288	19.0	240.0	140.2289	200

## Long knife for trim seals

- For the use with conventional trapezoid blades and hook blades
- Includes a replacement blade in the handle
- Non slip handle
- Aluminium



Item	L mm		kg
140.2284	230.0	907.2206	300
140.2290	470.0	907.2206	320
140.2291	620.0	907.2206	380

## Knife scraper set

- Ideal for removing of stickers, seal and glue residues
- Simple blade change by loosening the knurled thumb screw on the chuck
- Practical storage system for changeable blades
- Suitable for many different application due to the wide range of blades
- Scraper with two component handle
- Professional universal knife with aluminium housing
- In durable plastic case



Item		kg
907.2200	27 pcs Knife scraper set	0.60

### consists of:

Item		kg
907.2170	Professional universal knife solid and slip resistant aluminium housing	90
907.2201	Dual component scraper handle with chuck holder for blades	60
907.2202	Replacement blades 12 mm wide/straight, 10 pcs.	20
907.2203	Replacement blades 16 mm wide/straight, 10 pcs.	20
907.2204	Replacement blades 16 mm wide/angled 53°, 10 pcs.	20
907.2205	Replacement blades 20 mm wide/straight, 10 pcs.	40
907.2206	Trapezoid blades, holder with 10 blades	50

### Windscreen installation set

- For the installation of windscreens with the traditional rubber sealing
- Also suitable for clearing windscreen rubber seals

**Application range:** Universel suitable for cars, vans, commercial vehicles, buses and vintage cars



Item				
140.2240	5 pcs	Windscreen installation set	890	

consists of:

Item				
140.2233	Glass hook, for rubber windscreen inserts 270 mm	120		
140.2234	Glass hook, for rubber windscreen inserts 200 mm	110		
140.2235	Glass hook, for rubber windscreen inserts 210 mm	120		
140.2236	Tapered tool for strip insertion with 6 interchangeable yoke heads, 160 mm	220		
140.2237	Locking tool with 6 m pull nylon cord, 170 mm	120		

### Locking tool

- 6 m nylon cord
- For the professional dismantling of vehicle rubbered non bonded windcreens
- Hanging hole
- One component handle



Item	L mm			
140.2237	170.0	120		

### Glass hook with ball end, extra long

- Extra long execution
- For the dismantling and assembly of rubber sealings and trim strips
- For protective lifting or cleaning of sealings
- With hanging hole
- With one component handle



Item	L mm			
140.2229	295.0	160		

### Locking strip insertion tool

- For non bonded vehicle windscreens
- With 6 interchangeable yoke heads
- Quick insertion of the different rubber profiles is possible
- With hanging hole
- With one component handle



Item	L mm	Yoke heads		
140.2236	160.0	140.2236-1	220	

### Glass hook with long shaft

- Pointed execution
- For rubber bonded vehicle windscreens
- Hanging hole
- One component handle



Item	L mm			
140.2233	270.0	120		

### Glass hook with short shaft

- Pointed execution
- For rubber bonded vehicle windscreens
- Hanging hole
- One component handle



Item	L mm			
140.2234	200.0	110		

### Ball head with short shaft

- For rubber bonded vehicle windscreens
- Hanging hole
- One component handle



Item	L mm			
140.2235	210.0	120		

## SUCTION PADS

### Suction holder set

- Plastic coated steel wire with PVC suction cups
- Fixes the side windows during the removal of the winder handle
- Securely hold the window and prevents any slippage
- Easily operated



Item				
140.1060	2 pcs	Suction holder set	540	





### Suction holder

- With substantial handle
- Lifting, carrying and holding
- For flat and non porous surfaces
- Special plastic



Item	Suction cup Ø mm	Load capacity kg	
140.1005	118.0	40.0	370

### One handed mini suction cup

- Convenient one handed operation by lever
- Lifting, carrying and holding
- Special plastic



Item	Suction cup Ø mm	Load capacity kg	
140.1015	70.0	8.0	30

### Trim and window mounting set

- For fixing and holding trims emblems and windscreen mountings
- The wider side can also be used as a scraper or a lever
- Pressure can be regulated by use of the wing nut



Item	L mm	Suction cup Ø mm	
140.1020	180.0	85.0	250

### Double suction holder

- Adjustable suction head and quick release lever
- Ideally suited for curved surfaces
- Lifting, carrying and holding
- For flat and non porous surfaces
- Special plastic




Item	Suction cup Ø mm	Load capacity kg	
140.1006	120.0	80.0	730


### Double suction cup set

- Adjustable suction head and quick release lever
- Ideally suited for curved surfaces
- Lifting, carrying and holding
- For flat and non porous surfaces
- Ratchetstrap for the fixing of newly fitted windcreens
- Special plastic



Item	
140.1010 3 pcs Double suction cup set	1.75

### consists of:

Item	
140.1006 2 x Double suction cups up to 80 kg load capacity	730
140.1003 Ratchet tie down strap	310

### Three way suction holder

- 3 suction pads and quick-release levers
- Optimal for lifting, carrying and moving large parts
- For flat and non porous surfaces
- Special plastic



Item	Suction cup Ø mm	Load capacity kg	
140.1007	120.0	120.0	1.13

## STORAGE TABLES

### Windscreen table with rubber protective pads

- Width fully adjustably
- The four large rubber pads hold the windscreen safely in position
- For nearly all windscreen sizes
- Capacity up to 60 kg
- Made from blue laquered steel tube



Item	L mm	H mm	Suction cup Ø mm	Rubber pad	kg
140.2225	1160.0	1070.0	140.0	140.2225-1	10.35

### Windscreen holder

- Width fully adjustably
- For nearly all windscreen sizes
- Robust construction
- Capacity up to 80 kg
- Slip proof holding bar offer optimal hold
- Made from red powder coating steel tube



Item	L mm	H mm	Pad	kg
140.2226	790.0	1060.0	140.2226-1	7.70



### Universal telescopic multi purpose trolley

- Ideally for the car body restoration, panel spraying area or for windshields
- Universal application the all rounder both height and width adjustable
- After use space saving folding away
- Rubber underside to prevent damage to the paintwork and other panels
- 4 substantial wheels, 2 with locking brakes
- Simple handling
- Capacity up to 100 kg
- Robust construction made from square tube

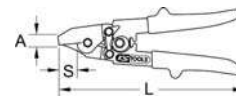


Item	B mm	H mm	kg
500.8100	257,0-1380,0	845,0-1320,0	23.50

## CARTRIDGE GUNS & ACCESSORIES

### Cartridge tip pliers

- PVC dipped handle
- Very versatile
- Safety locking device
- Clean V-cut in the cartridge tip
- Cut from solid steel
- Chrome vanadium



Item	A mm	L mm	S mm	kg
140.2220	33.0	210.0	20,0	420

### Hand gun for double cartridges

- For two component adhesives
- For gluing of windshields
- Also suitable for double cartridge systems with epoxy hardeners




Item	L1 mm	L2 mm	kg
980.1080	170.0	300.0	500

### Hand cartridge gun 310 ml

- For working with cartridges and softpacks
- Fast and simple cartridge change
- Metal housing




Item	L1 mm	L2 mm	Replacement nozzle	
980.1000	210.0	340.0	980.1001	750

### Hand cartridge gun 600 ml

- For working with cartridges and softpacks
- Fast and simple cartridge change
- Metal housing



Item	L1 mm	L2 mm	Replacement nozzle	
980.3000	210.0	480.0	980.1001	1.10


### Cordless cartridge gun 400 ml

- Handy and ergonomic dual component housing
- Ideal for glue, silicone or acrylic based cartridges
- Drop free mechanism
- Stepless controllable feed
- Carbon brushes interchangeable
- Lithium ion high performance rechargeable battery
- Processing quantity per rechargeable battery load at room temperature 20 °C is up to 15 cartridges
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Includes automatic turn off charging station
- In durable plastic storage case



#### Technical data:

Capacity:	10,8 V
Capacity of the unit:	400 ml
Propulsion without load:	6,1 mm / sec
Output pressure:	392 kgf
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah

Item	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	
515.3575	450.0	138.0	245.0	515.3596	515.3592	2.10


### Cordless cartridge gun 310 ml

- Handy and ergonomic dual component housing
- Ideal for glue, silicone or acrylic based cartridges
- Drop free mechanism
- Stepless controllable feed
- Carbon brushes interchangeable
- With lithium ion high performance rechargeable battery
- Processing quantity per rechargeable battery load at room temperature 20 °C is up to 15 cartridges
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Includes automatic turn off charging station



#### Technical data:

Capacity:	10,8 V
Capacity of the unit:	310 ml
Propulsion without load:	6,1 mm / sec
Output pressure:	392 kgf
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah

Item	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	
515.3570	410.0	138.0	245.0	515.3596	515.3592	1.90


### Cordless cartridge gun 600 ml

- Handy and ergonomic dual component housing
- Ideal for glue, silicone or acrylic based cartridges
- Drop free mechanism
- Stepless controllable feed
- Carbon brushes interchangeable
- Lithium ion high performance rechargeable battery
- Processing quantity per rechargeable battery load at room temperature 20 °C is up to 15 cartridges
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Includes automatic turn off charging station
- In durable plastic storage case



#### Technical data:

Capacity:	10,8 V
Capacity of the unit:	600 ml
Propulsion without load:	6,1 mm / sec
Output pressure:	392 kgf
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah

Item	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	
515.3580	560.0	138.0	245.0	515.3596	515.3592	2.20



## OTHER

### Panel bag

- Ideal for the damage free opening of car doors
- Also suitable for levelling during the installation of panels and bonnets
- Extremely high pressure power
- Easy pumping up through hand pump
- Robust panel bag



Item	L mm	B mm	
116.1035	200.0	150.0	190



### Ultrasound leak detector

- Acoustic locating of leaks on car body and other parts
- Transmitter is connected in the vehicle interior through the cigarette lighter
- The receiver is passed externally around the vehicle
- Detection of wind noise or any water leaks can then be isolated




### Aluminium work platform


- Skid proof profile on the platform stage
- Chequer plate profile on the steps
- Double sided usage
- Large platform for safe standing
- Safety clips for added security
- Beams and step made from aluminium
- Easy to store as the unit is fully collapsible
- The gripped plastic feet protect the surface and add stability
- Substantial aluminium construction



#### Technical data:

Platform dimensions:	1000 x 300 mm
Standing height:	470.0 mm
Max. load:	150 kg

Item	L mm	B mm	H mm	
800.0960	1345.0	405.0	480.0	7.40

Item		
150.1690	Ultrasound leak detector	460

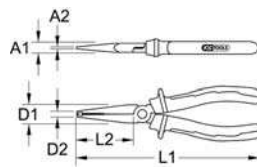




## HUB CAP TOOLS

### Wheel nut cap pliers

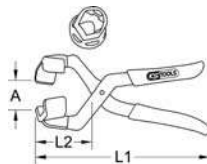
- For the disassembly and assembly of nut caps
- Two component handle
- Easy removal due to the special mouth pliers
- Chrome vanadium



Item	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	Weight g
150.2023	0,0-11,5	6.5	20.0	7.0	200.0	64.0	260

### HGV wheel nut cap pliers

- PVC dipped handle
- For removing of wheel nut caps
- No slipping through specially coated jaws
- Ideally suited for commercial vehicles
- Special tool steel



Item	A mm	L1 mm	L2 mm	Weight g
150.1995	28,0-60,0	250.0	72.0	305

### Hub nut cap remover

- For the disassembly and assembly of 17mm nut caps
- For damage free working on aluminum rims
- Slim execution for especially narrow rim borings
- Reception of the plastic caps in the pipe magazine
- With functions clasp cap for a comfortable assembly
- Special steel



Item	dim mm	L mm	Replacement end plug	Replacement protective cap	Weight g
150.1990	17,0	470.0	150.1992	150.1991	360

### Hub cap lever with protective insulation

- Easy lever for with protective cover for drawing off of plastic hub caps
- With protective cover
- Ergonomic one component handle



Item	L mm	Weight g
911.8150	300.0	190

### Hub cap assembly and removal tool

- Optimal shaped lever end
- For protective drawing off of plastic hub caps
- Cutting like edge along with the lever head releases the caps in the narrowest area
- With rubber hammer function for opening the plastic hub caps
- Ergonomic one component handle

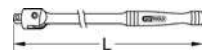


Item	L mm	Weight g
911.8155	360.0	200



### CHROMEplus® Flexible head drive handle

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideal for difficult to access areas
- Protects ratchet and torque wrenches from overloading
- Burnished head
- Chrome plated and mirror polished
- Chrome vanadium

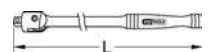


3/8"

Item	L mm	head, spare	Weight g
918.3700	260.0	918.3826-1	390
918.3701	450.0	918.3826-1	615

### CHROMEplus® Flexible head drive handle

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideal for difficult to access areas
- Protects ratchet and torque wrenches from overloading
- Burnished head
- Chrome plated and mirror polished
- Chrome vanadium



1/2"

Item	Head	L mm	head, spare	Weight g
918.1291	1/2"	380.0	918.1292-1	790
918.1297	1/2"	460.0	918.1292-2	1115
918.1292	1/2"	600.0	918.1292-1	1400
918.1293	1/2"	760.0	918.1292-1	1630

## WHEEL CROSS WRENCH

### Wheel nut wrench for cars

- DIN 3319 / ISO 6788
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Ideally suited for cars
- Polished heads
- Matt finish
- Chrome vanadium



Item	mm	L mm	kg
518.1150	17x19x22x1/2"	400.0	1.25

### HGV wheel nut wrench

- 6 point
- DIN 3319 / ISO 1174
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Polished heads
- Matt finish
- Chrome vanadium



Item	mm	kg
518.1155	24x27x34x3/4"	3.50

### Cross wrench for cars

- DIN 3119 / ISO 6788
- Forged, robust execution
- Heads, arms and centre hardened
- Loading capacity tested at 500 Nm
- Ideally suited for cars
- Polished heads
- Matt finish
- Special steel



Item	mm	L mm	kg
518.1151	17x19x22x13/16"	400.0	1.25
518.1152	17x19x22x1/2"	400.0	1.25

### HGV wheel nut wrench

- 6 point
- DIN 3119 / ISO 6788
- Square drive adaptor to DIN 3120 / 1174 with ball lock
- Forged, robust execution
- Heads, arms and centre hardened
- Loading capacity on tested at 2000 N•ms
- Polished heads
- Matt finish
- Special steel



Item	mm	L mm	kg
518.1156	24x27x30x32	750.0	5.60
518.1157	24x27x32x3/4"	750.0	5.60
518.1158	27x30x32x33	750.0	5.60
518.1159	27x30x32x3/4"	750.0	5.60

### HGV wheel nut wrench, dismountable

- 6 point
- DIN 3319 / ISO 6788
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Substantial centre
- Safety screw
- Matt finish
- Special steel
- Supplied in a cloth case



Item	mm	L mm	kg
518.1161	24x27x30x32	750.0	6.00
518.1162	24x27x32x3/4"	750.0	5.90

### HGV wheel nut wrench

- Two sided serviceable
- Large head depth for projecting bolts
- Alternative insert for tommy bar
- Ideally suited for commercial vehicles
- Matt finish
- Special steel



Item	mm	mm	L mm	kg
518.0831	24x27	15/16"x1.1/16"	400.0	1.15
518.0832	27x32	1.1/16"x1.1/4"	400.0	1.15
518.0833	32x38	1.1/4"x1.1/2"	400.0	1.15
518.0834	30x32		400.0	1.15
518.0835	32x33		400.0	1.15

### Tommy bar for HGV wheel nut wrench

- Matt finish
- Special steel



Item	Ø mm	L mm	kg
518.0836	18,0	500.0	1.00
518.0837	18,0	600.0	1.19

### Extended bar HGV wheel nut wrench set

- Two sided serviceable
- Large head depth for projecting bolts
- 1.200 mm extended drive bar
- Loading capacity at 1.200 N•m
- Ideally suited for commercial vehicles
- Matt finish
- Special steel



Item	kg
518.0838 4 pcs 24x27 mm, 15/16"x1.1/16"	3.90
518.0839 4 pcs 30x32 mm	3.90
518.0840 4 pcs 32x33 mm	3.90

## TORQUE MULTIPLIERS

### Universal torque convertor set

- Robust tightening and loosening
- Designed for use with the crank handle supplied
- Integrated support device
- Square drive adaptor to DIN 3120 / ISO 1174
- 1:64 Torque ratio
- 4.000 N·m maximum output torque
- Includes crank handle and extension
- Indispensable as essential equipment on service vehicles
- Ideal for trucks, construction machines and agricultural machines
- Not suited for use with impact wrenches
- In durable plastic storage case



1"

Item				
516.1150	5 pcs	Universal torque convertor set	11.00	

#### consists of:

Item				
516.1151	Torque multiplier 1:64, 3 pcs	8.54		
515.2130	Impact socket 30 mm	0.62		
515.2132	Impact socket 32 mm	0.64		

### Universal torque convertor set

- Robust tightening and loosening
- Designed for use with the crank handle supplied
- Integrated support device
- Square drive adaptor to DIN 3120 / ISO 1174
- 1:64 Torque ratio
- 4.000 N·m maximum output torque
- Includes crank handle and extension
- Indispensable as essential equipment on service vehicles
- Ideal for trucks, construction machines and agricultural machines
- Not suited for use with impact wrenches
- In durable plastic storage case



1"

Item				
516.1155	5 pcs	Universal torque convertor set	11.50	

#### consists of:

Item				
516.1151	Torque multiplier 1:64, 3 pcs	8.54		
515.2130	Impact socket 30 mm	0.62		
515.2133	Impact socket 33 mm	0.65		

### Universal torque convertor set

- Robust tightening and loosening
- Designed for use with the crank handle supplied
- Integrated support device
- Square drive adaptor to DIN 3120 / ISO 1174
- 1:64 Torque ratio
- 4.000 N·m maximum output torque
- Includes crank handle and extension
- Indispensable as essential equipment on service vehicles
- Ideal for trucks, construction machines and agricultural machines
- Not suited for use with impact wrenches
- In durable plastic storage case



1"

Item				
516.1156	5 pcs	Universal torque convertor set	12.00	

#### consists of:

Item				
516.1151	Torque multiplier 1:64, 3 pcs	8.54		
515.2133	Impact socket 33 mm	0.65		
515.2138	Impact socket 38 mm	0.71		

### Universal torque convertor

- Accuracy:  $\pm 5\%$  Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle regulated fastening with a torque wrench
- Single stage precision planetary gear for both directions
- Two support devices
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Supplied in a metal storage case

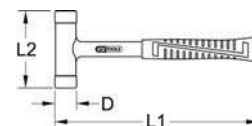


Item										
516.3700	1/2"	1 : 5	3/4"	260	1300	110.0	395.0	127.0	4.20	
516.3705	3/4"	1 : 5	1"	540	2700	110.0	395.0	127.0	4.40	

## HAMMER

### Dead blow hammer

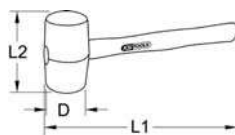
- With steel tube handle and plastic handle
- Shock absorbing effect through steel shot in the head
- Up to 100% higher impact effect than normal Soft head hammers
- Polyamid heads interchangeable, shatterproof and wear resistant
- For safer working with less recoil



Item										
140.5270	360	25.0	270.0	105.0	-	140.5280	-	360		
140.5271	480	30.0	290.0	105.0	-	140.5281	-	480		
140.5272	590	35.0	295.0	110.0	-	140.5282	-	590		
140.5273	850	40.0	300.0	120.0	-	140.5283	-	850		
140.5274	990	45.0	305.0	120.0	-	140.5284	-	990		
140.5275	1110	50.0	310.0	125.0	-	140.5285	-	1110		
140.5276	1290	55.0	325.0	135.0	-	140.5286	-	1290		
140.5277	1670	60.0	335.0	140.0	-	140.5287	-	1670		

## Rubber hammer

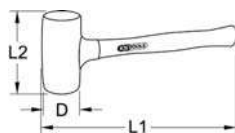
- DIN 5128
- With ash handle
- Hammer head made out of hard rubber



Item	g	D mm	L1 mm	L2 mm	handle, spare	🗑️	🔑
140.5221	300	54.0	300.0	85.0	140.5304	140.5404	360
140.5222	500	67.0	310.0	100.0	140.5305	140.5405	560
140.5223	700	74.0	330.0	120.0	140.5306	140.5405	760

## Dead blow hammer

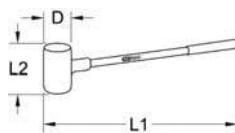
- With polyurethane glassfiber composite handle
- Shock absorbing effect through steel shot in the hammer head
- Substantially higher impact effect than standard conventional hammers
- For safer working with less recoil



Item	g	D mm	L1 mm	L2 mm	handle, spare	🗑️	🔑
140.5252	350	30.0	275.0	90.0	-	-	360
140.5254	690	35.0	311.0	100.0	-	-	700
140.5255	940	45.0	340.0	100.0	-	-	950
140.5256	1170	50.0	346.0	110.0	-	-	1180
140.5257	1400	55.0	355.0	120.0	-	-	1410
140.5258	1540	60.0	380.0	130.0	-	-	1550

## Dead blow hammer, extra large

- Fiberglass handle
- Special absorbing effect through steel shot in the hammer head
- Substantially higher impact effect than standard conventional hammers
- Polyurethane glassfiber composite
- For safer working with less recoil

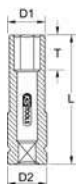


Item	g	D mm	L1 mm	L2 mm	handle, spare	🗑️	🔑
140.5259	4500	80.0	890.0	180.0	-	-	4.76

## SOCKETS

### Aluminium wheel Impact socket, long

- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Plastic sleeves for the damage free work on aluminum rims
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Chrome vanadium



1/2"

Item	Colour code	mm	L mm	D1 mm	D2 mm	T mm	Replacement sleeves	🔑
515.2015	Green	15,0	85.0	21.0	25.0	23.0	515.2035	180
515.2017	Blue	17,0	85.0	24.0	30.0	23.0	515.2030	220
515.2019	Yellow	19,0	85.0	26.0	30.0	23.0	515.2031	240
515.2021	Red	21,0	85.0	28.0	30.0	23.0	515.2032	270
515.2022	Orange	22,0	85.0	30.0	32.0	23.0	515.2033	320

### Aluminium wheel impact socket set

- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square to DIN 3121 / ISO 1174 with ball reception
- For machinery usage
- Plastic sleeves for the damage free work on aluminum rims
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Chrome vanadium
- In durable plastic storage case



1/2"

Item	kg
515.1005	3 pcs 17 - 19 - 21 mm 0.86

consists of:

Item	kg
515.2017	1/2" Impact-Socket 17 mm, blue 220
515.2019	1/2" Impact-Socket 19 mm, yellow 240
515.2021	1/2" Impact-Socket 21 mm, red 270

### Aluminium wheel impact socket set

- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Plastic sleeves for the damage free work on aluminum rims
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Chrome vanadium
- In durable steel storage case



1/2"

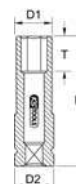
Item	kg
515.1006	4 pcs 17 - 19 - 21 - 22 mm 1.45

consists of:

Item	kg
515.2017	1/2" Impact-Socket 17 mm, blue 220
515.2019	1/2" Impact-Socket 19 mm, yellow 240
515.2021	1/2" Impact-Socket 21 mm, red 270
515.2022	1/2" Impact-Socket 22 mm, green 320

### Aluminium wheel impact socket, deep

- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Plastic sleeves for the damage free work on aluminum rims
- With plastic sleeve it protects the surfaces at the wheel screws/nuts
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Phosphate finish
- Chrome molybdenum



1/2"

Item	Colour code	mm	L mm	D1 mm	D2 mm	T mm	Replacement sleeves	🔑
515.1072	Green	15,0	85.0	21.0	25.0	23.0	515.2053	180
515.1073	Blue	17,0	85.0	24.0	30.0	23.0	515.2050	220
515.1075	Yellow	19,0	85.0	26.0	30.0	23.0	515.2051	240
515.1076	Red	21,0	85.0	28.0	30.0	23.0	515.2052	270
515.1077	Orange	22,0	85.0	30.0	32.0	23.0	515.2054	320



## Aluminium wheel impact socket set

- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Plastic sleeves for the damage free work on aluminum rims
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Chrome molybdenum
- In durable plastic storage case



1/2"

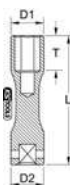
Item				
515.1070	3 pcs	17 - 19 - 21 mm	0.78	

consists of:

Item				
515.1072	1/2" Torque Impact socket 15 mm, green	180		
515.1075	1/2" Torque Impact socket 19 mm, lime	240		
515.1076	1/2" Torque Impact socket 21 mm, red	270		

## Aluminium wheel impact socket, extra deep

- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Extra long execution
- For machinery usage
- Plastic sleeves for the damage free work on aluminum rims
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Chrome vanadium



1/2"

Item	Colour code	mm	L mm	D1 mm	D2 mm	T mm	Replacement sleeves	
515.2040	Blue	17,0	150,0	30,0	24,0	23,0	515.2045	600
515.2041	Yellow	19,0	150,0	30,0	26,0	23,0	515.2046	650
515.2042	Red	21,0	150,0	30,0	28,0	23,0	515.2047	700

## Aluminium impact socket, deep

- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Plastic sleeves for the damage free work on aluminum rims
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Chrome vanadium
- In durable plastic storage case



1/2"

Item				
515.1040	6 pcs	Aluminium impact socket, deep	1.45	

consists of:

Item				
515.2040	1/2" Torque Impact socket 17 mm, blue	600		
515.2041	1/2" Torque Impact socket 19 mm, yellow	650		
515.2042	1/2" Torque Impact socket 21 mm, red	700		
515.2045	Replacement plastic sleeve, 17 mm	10		
515.2046	Replacement plastic sleeve, 19 mm	10		
515.2047	Replacement plastic sleeve, 21 mm	10		

## Special aluminium wheel impact socket, extra deep

- Specially for the wheel assembly and/or dismantling on aluminium sports wheels with deep lying wheel screws
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Extra long and thin walled execution
- For machinery usage
- Plastic sleeves for the damage free work on aluminum rims
- Plastic sleeves interchangeable
- Phosphate finish
- Chrome molybdenum



1/2"



Item	mm	L mm	D1 mm	D2 mm	T mm	Replacement sleeves		
515.2043	17,0	130,0	28,3	30,0	18,5	515.2044	350	

## Torque bar extension

- Ideal for controlled loosening of wheel screws and nuts with impact wrenches
- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174
- For machinery usage
- Colour coded identifies the max. torque
- Chrome molybdenum



1/2"

Item	Colour code	max N·m	L mm	D mm		
515.1061	Green	90	195,0	25,0	270	
515.1062	Black	100	195,0	25,0	270	
515.1063	Yellow	110	195,0	25,0	270	
515.1064	Red	120	195,0	25,0	270	
515.1065	Blue	135	195,0	25,0	270	

## Torsion extension bar set

- Ideal for controlled loosening of wheel screws and nuts with impact wrenches
- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174
- For machinery usage
- Colour coded identifies the max. torque
- Chrome molybdenum
- In durable plastic storage case



1/2"

Item				
515.1060	5 pcs	90 - 100 - 110 - 120 - 135 N·m	1.37	

consists of:

Item				
515.1061	1/2" Torsion bar extension, max. Torque 90 Nm, green, 195 mm	270		
515.1062	1/2" Torsion bar extension, max. Torque 100 Nm, black, 195 mm	270		
515.1063	1/2" Torsion bar extension, max. Torque 110 Nm, cream, 195 mm	270		
515.1064	1/2" Torsion bar extension, max. Torque 120 Nm, green, 195 mm	270		
515.1065	1/2" Torsion bar extension, max. Torque 135 Nm, blue, 195 mm	270		

### Hexagon torque impact socket, extra long

- Ideal for controlled loosening of wheel screws and nuts with impact wrenches
- Internal square drive to DIN 3121 / ISO 1174
- Extra long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1"

Item	mm	max N-m	L mm	D mm	T mm	kg
515.1461	24,0	350	300.0	54.0	24.0	1.38
515.1462	27,0	350	300.0	54.0	27.0	1.40
515.1463	27,0	450	300.0	54.0	27.0	1.58
515.1464	30,0	500	300.0	54.0	30.0	1.56
515.1465	32,0	450	300.0	54.0	32.0	1.60
515.1466	32,0	550	300.0	54.0	32.0	1.60
515.1467	32,0	600	300.0	54.0	33.0	1.60
515.1468	33,0	550	300.0	54.0	33.0	1.64
515.1469	33,0	600	300.0	54.0	36.0	1.64

### Hexagon impact socket, extra long

- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Extra long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



3/4"

Item	mm	L mm	D1 mm	D2 mm	T mm	kg
515.1182	27,0	270.0	42.0	44.0	27.0	1.09
515.1183	30,0	270.0	46.0	44.0	30.0	1.14
515.1184	32,0	270.0	49.0	44.0	32.0	1.16
515.1191	27,0	400.0	42.0	44.0	27.0	1.25
515.1192	30,0	400.0	46.0	44.0	30.0	1.32
515.1193	32,0	400.0	49.0	44.0	32.0	1.36
515.1194	33,0	400.0	50.0	44.0	32.0	1.38

### Impact socket set for light commercial hub nuts

- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Short and long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1"

Item	kg
515.0305 2 pcs 515.1732, 32 mm + 515.1832, 32 mm, long	1.68
515.0306 2 pcs 515.1733, 33 mm + 515.1833, 33 mm, long	1.68

### Twist socket set

- For example VAG and all vehicles with wheel nuts and/or bolt
- For loosening and unscrewing tight bolts and nuts with damaged or rounded heads
- Sockets have spiral and hexagon sides
- The square drive is in the middle of the socket
- For machinery usage
- Phosphate finish
- Chrome molybdenum

**Application:** The left turning cutting thread bites fast into the nut or screwhead and make sure of good traction and power to the socket end The square drive is in the middle of the socket and reached with a short extension that is included



1/2"

Item	kg
913.1280 3 pcs Twist socket set	600

#### consists of:

Item	kg
913.1281 Special socket 17 mm: Normal + left handed cutting thread fine Ø 26.0	130
913.1282 Special socket 19 mm: Normal + left handed cutting thread coarse Ø 26.9	170
913.1283 1/2" Socket Extension, 60 mm	160

### Twist socket set

- For example VAG and all vehicles with wheel nuts and/or bolt
- For loosening and unscrewing tight bolts and nuts with damaged or rounded heads
- With 6 edged coarse cutting thread and 12 edged finer cutting thread (conical reducing)
- The square drive is in the middle of the socket
- For machinery usage
- Phosphate finish
- Chrome molybdenum

**Application:** The left turning cutting thread bites fast into the nut or screwhead and make sure of good traction and power to the socket end



1/2"

Item	kg
913.1270 3 pcs Twist socket set	600

#### consists of:


Item	kg
913.1271 Spiral socket 17 mm, double sided usage left hand cutting. coarse Ø 24.5, fine Ø 26.5	140
913.1272 Spiral socket 19 mm, double sided usage left hand cutting. coarse Ø 28.0, fine Ø 30.0	200
913.1273 Spiral socket 21 mm, double sided usage left hand cutting. coarse Ø 29.0, fine Ø 32.0	210

## Special twist socket

- For example VAG and all vehicles with wheel nuts and/or bolt
- For loosening and unscrewing tight bolts and nuts with damaged or rounded heads
- Extra long execution
- Internal square to DIN 3121 / ISO 1174 with ball reception
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1/2"


Item	dim mm	L mm	
913.1291	17	145.0	300
913.1292	19	145.0	320
913.1293	21	145.0	340
913.1294	22	145.0	350

## Special twist socket set, extra long


- For example VAG and all vehicles with wheel nuts and/or bolt
- For loosening and unscrewing tight bolts and nuts with damaged or rounded heads
- Extra long execution 145 mm
- Internal square to DIN 3121 / ISO 1174 with ball reception
- For machinery usage
- Includes impact bar to extract or remove the damaged bolt or nut
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



1/2"

Item			
913.1290	4 pcs	Special twist socket set, extra long	1.50


consists of:

Item		
913.1291	1/2" Special Twist socket, extra long (145 mm), SW 17 mm	300
913.1292	1/2" Special Twist socket, extra long (145 mm), SW 19 mm	320
913.1293	1/2" Special Twist socket, extra long (145 mm), SW 21 mm	340
913.1295	Impact bar	540


## Wheel service tool set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality foam



Item		L mm	B mm	H mm	
815.1195	16 pcs	390.0	864.0	35.0	3.84

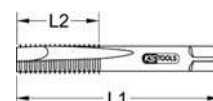
consists of:

Item		
150.2021	Valve-Screwdriver	40
150.2023	Hub nut plier(Flat plier with nut)	260
150.2024	Wheel balance weight plier, self opening	380
150.2027	Tyre valve lever, plastic	150
150.2029	Torque- Valve screwdriver 0,30 Nm	50
150.2031	Torque- Valve screwdriver 0.45 Nm	50
515.2015	1/2" Impact-Socket 15 mm, dark green	180
515.2017	1/2" Impact-Socket 17 mm, blue	220
515.2019	1/2" Impact-Socket 19 mm, yellow	240
515.2021	1/2" Impact-Socket 21 mm, red	270
515.2022	1/2" Impact-Socket 22 mm, green	320
516.1442	1/2" Torque Wrench 20 - 200 Nm	1300
911.8132	Glassfibre chisel 22 mm wide	140
911.8146	Tyre mounting lever chrome plated, 370 mm	400
911.8150	Hub cap lever with protective cover	190

## THREADING TOOLS

### HSS hand drill tap set MF

- DIN 2181
- Tolerance according to ISO 2 / 6H
- Right hand cutting
- Includes for cutting and threading
- For running and blind hole threads
- With hard metal centre
- Surface without discolouration
- High performance high speed steel






Ideally usable in high and low alloyed steel up to 800 N/mm<sup>2</sup> stability, cast iron and NE metals.



Taper tap:  
Bottom tap:

ca. 5 - 6 cutting gears  
ca. 2 - 3 cutting gears

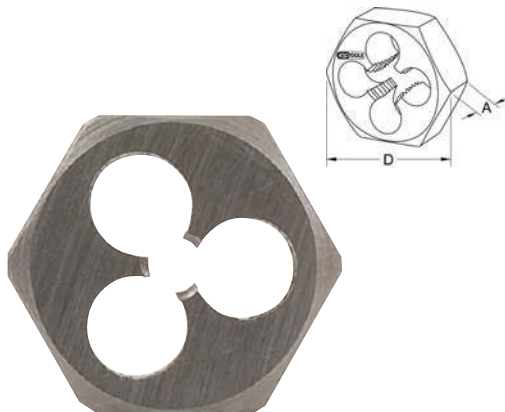
Item			L1 mm	Individual taper tap	Individual bottom tap	L2 mm	
331.1101	MF3 x 0,35	2.60	40.0	331.1201	331.1301	10.0	10
331.1102	MF4 x 0,5	3.50	45.0	331.1202	331.1302	12.0	10
331.1103	MF5 x 0,5	4.50	50.0	331.1203	331.1303	13.0	20
331.1104	MF6 x 0,75	5.20	50.0	331.1204	331.1304	15.0	20
331.1105	MF7 x 0,76	6.20	50.0	331.1205	331.1305	14.0	20
331.1106	MF8 x 0,75	7.20	56.0	331.1206	331.1306	18.0	30
331.1107	MF8 x 1,0	7.00	56.0	331.1207	331.1307	18.0	30
331.1108	MF9 x 1,0	8.00	63.0	331.1208	331.1308	20.0	40
331.1109	MF10 x 9,0	9.00	63.0	331.1209	331.1309	18.0	50
331.1110	MF10 x 1,25	8.70	70.0	331.1210	331.1310	24.0	50
331.1111	MF11 x 1,0	9.20	63.0	331.1211	331.1311	22.0	60

Item	mm	mm	L1 mm	Individual taper tap	Individual bottom tap	L2 mm	
331.1112	MF12 x 1,0	11.00	70.0	331.1212	331.1312	20.0	80
331.1113	MF12 x 1,25	10.70	70.0	331.1213	331.1313	20.0	80
331.1114	MF12 x 1,5	10.50	70.0	331.1214	331.1314	20.0	80
331.1115	MF14 x 1,0	13.00	70.0	331.1215	331.1315	20.0	100
331.1116	MF14 x 1,25	12.70	70.0	331.1216	331.1316	20.0	100
331.1117	MF14 x 1,5	12.50	70.0	331.1217	331.1317	20.0	100
331.1118	MF16 x 1,5	14.50	70.0	331.1218	331.1318	20.0	160
331.1119	MF18 x 1,0	17.00	80.0	331.1219	331.1319	22.0	190
331.1120	MF18 x 1,25	16.80	80.0	331.1220	331.1320	22.0	190
331.1121	MF18 x 1,5	16.50	80.0	331.1221	331.1321	22.0	190
331.1122	MF18 x 2,0	16.00	80.0	331.1222	331.1322	22.0	190
331.1123	MF20 x 1,0	19.00	80.0	331.1223	331.1323	22.0	250
331.1124	MF20 x 1,25	18.80	80.0	331.1224	331.1324	22.0	250
331.1125	MF20 x 1,5	18.50	80.0	331.1225	331.1325	22.0	250
331.1126	MF20 x 2,0	18.00	80.0	331.1226	331.1326	22.0	250

### HSS hexagon die MF

- DIN 382
- Tolerance according to ISO - 6g
- Right hand cutting
- Ground execution
- Metric fine thread
- Surface without discolouration
- High performance steel

Ideally usable in high and low alloyed steel up to 800 N/mm<sup>2</sup> stability and NE metals.



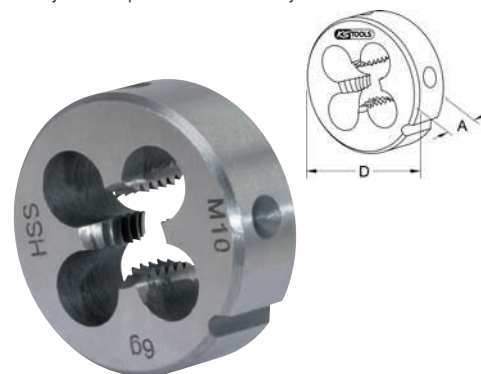
Item	mm	A mm	D mm	Content	
333.0017	M3 x 0,35	5.0	19.0	1	20
333.0018	M4 x 0,35	5.0	19.0	1	23
333.0019	M4 x 0,5	5.0	19.0	1	27
333.0020	M5 x 0,5	5.0	19.0	1	31
333.0021	M5 x 0,75	7.0	19.0	1	32
333.0022	M6 x 0,5	5.0	19.0	1	33
333.0023	M7 x 0,75	9.0	22.0	1	35
333.0024	M8 x 0,5	9.0	22.0	1	38
333.0025	M8 x 0,75	9.0	22.0	1	41
333.0026	M8 x 1,0	9.0	22.0	1	42
333.0027	M9 x 0,75	9.0	22.0	1	45
333.0028	M9 x 1,0	9.0	22.0	1	47
333.0029	M10 x 0,75	11.0	27.0	1	50
333.0031	M10 x 1,0	11.0	27.0	1	52
333.0032	M10 x 1,25	11.0	27.0	1	55
333.0033	M11 x 1,0	11.0	27.0	1	58
333.0034	M11 x 1,25	11.0	27.0	1	60
333.0035	M12 x 0,75	10.0	36.0	1	61
333.0036	M12 x 1,0	10.0	36.0	1	63
333.0037	M12 x 1,25	10.0	36.0	1	64
333.0038	M12 x 1,5	10.0	36.0	1	66
333.0039	M13 x 1,0	10.0	36.0	1	70
333.0041	M13 x 1,5	10.0	36.0	1	72
333.0042	M14 x 0,75	10.0	36.0	1	75
333.0043	M14 x 1,00	10.0	36.0	1	78

Item	mm	A mm	D mm	Content	
333.0044	M14 x 1,25	10.0	36.0	1	79
333.0045	M14 x 1,5	10.0	36.0	1	82
333.0046	M16 x 1,0	14.0	41.0	1	85
333.0047	M16 x 1,25	14.0	41.0	1	87
333.0048	M16 x 1,5	14.0	41.0	1	90
333.0049	M18 x 1,0	14.0	41.0	1	92
333.0051	M18 x 1,25	14.0	41.0	1	94
333.0052	M18 x 1,5	14.0	41.0	1	95
333.0053	M18 x 2,0	14.0	41.0	1	97
333.0054	M20 x 1,0	14.0	41.0	1	101
333.0055	M20 x 1,25	14.0	41.0	1	103
333.0056	M20 x 1,5	14.0	41.0	1	104
333.0057	M20 x 2,0	14.0	41.0	1	107
333.0058	M21 x 1,5	14.0	41.0	1	112

### HSS die MF

- DIN EN 22568 Form B
- Tolerance according to ISO - 6g
- Right hand cutting
- Specification, ground cutting edge
- Metric fine thread
- Surface without discolouration
- High performance steel

Ideally usable in high and low alloyed steel up to 800 N/mm<sup>2</sup> stability and NE metals.



Item	mm	A mm	D mm	Content	
332.1000	M3 x 0,35	5.0	20.0	1	10
332.1001	M4 x 0,5	5.0	20.0	1	10
332.1002	M5 x 0,5	5.0	20.0	1	10
332.1003	M6 x 0,75	7.0	20.0	1	10
332.1004	M7 x 0,75	9.0	25.0	1	20
332.1005	M8 x 0,75	9.0	25.0	1	20
332.1006	M8 x 1,0	9.0	25.0	1	20
332.1007	M9 x 1,0	9.0	25.0	1	20
332.1008	M10 x 1,0	11.0	30.0	1	30
332.1009	M10 x 1,25	11.0	30.0	1	30
332.1010	M11 x 1,0	11.0	30.0	1	60
332.1011	M12 x 1,0	11.0	38.0	1	80
332.1012	M12 x 1,25	11.0	38.0	1	80
332.1013	M12 x 1,5	11.0	38.0	1	80
332.1014	M14 x 1,0	10.0	38.0	1	80
332.1015	M14 x 1,25	10.0	38.0	1	80
332.1016	M14 x 1,5	10.0	38.0	1	80
332.1017	M16 x 1,0	14.0	45.0	1	100
332.1018	M16 x 1,25	14.0	45.0	1	100
332.1019	M16 x 1,5	14.0	45.0	1	100
332.1020	M18 x 1,0	14.0	45.0	1	100
332.1021	M18 x 1,25	14.0	45.0	1	100
332.1022	M18 x 1,5	14.0	45.0	1	100
332.1023	M18 x 2,0	14.0	45.0	1	100
332.1024	M20 x 1,0	14.0	45.0	1	100
332.1025	M20 x 1,25	14.0	45.0	1	100
332.1026	M20 x 1,5	14.0	45.0	1	100
332.1027	M20 x 2,0	14.0	45.0	1	100



## Threading die adaptor set

- Universal use for round cutting dies according to DIN E 22568 form B
- Slim design
- Ideal for difficult to access areas
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Includes extension and locking knob
- Special steel
- In durable plastic storage case



Item				
331.0620	8 pcs	Threading die adaptor set	1.94	

consists of:

Item				
331.0621	Die adaptor SW 24 / M3 - M6	60		
331.0622	Die adaptor SW 24 / M7 - M8	50		
331.0623	Die adaptor SW 24 / M9 - M10	90		
331.0624	Die adaptor SW 41 / M11 - M14	230		
331.0625	Die adaptor SW 41 / M18 - M20	360		
331.0626	Die adaptor SW 41 / M22 - M24	430		
331.0627	Locking bolt for extension	120		
331.0628	1/2" Extension adaptor for cutting die	250		

## MAGNETIC HOLDERS

### Metal magnetic holder

- Creates an organised working area
- Positive and safe mounting
- With 2 exceptionally strong magnets (Ø each 80 mm)
- Has reinforcement on the elevated section
- Impact wrench, sockets and a torque wrench can all be left in their set place



Item	L mm		
800.0190	390.0	1.46	

### Plastic magnetic bowl

- Oblique opening
- For holding screws and other small parts
- Magnetic plate is covered with rubber
- Plastic



Item	L mm		
800.0156	150.0	750	

## Stainless steel magnetic tray

- 1 magnet
- For holding screws and other small parts such as wheel nuts
- Magnetic plate is covered with plastic
- Stainless steel



Item	Ø mm		
800.0150	150.0	430	

## Stainless steel magnetic tray

- 2 magnets
- For holding screws and other small parts such as wheel nuts
- Magnetic plate is covered with plastic
- Stainless steel

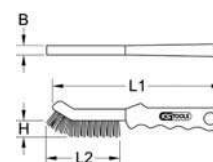


Item	L mm	B mm	
800.0151	240.0	140.0	850

## BRAKE CLEANING

### Steel wire brake saddle wire brush 2 rowed, straight

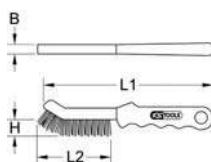
- 2 rowed
- Hanging hole
- Very narrow execution
- For narrow brake saddle shafts
- Robust stock
- Dual component handle
- For removing of stubborn brake dust
- For surface preparation
- Straight steel wire



Item	B mm	H mm	L1 mm	L2 mm	
201.2320	12.0	22.0	225.0	90.0	90

### Steel wire brake saddle wire brush 2 rowed, straight and tapered point

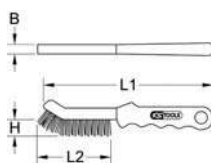
- 2 rowed
- Hanging hole
- Tapered point
- Very narrow execution
- For narrow brake saddle shafts
- Robust stock
- Dual component handle
- For removing of stubborn brake dust
- For surface preparation
- Straight steel wire



Item	B mm	H mm	L1 mm	L2 mm	kg
201.2321	12.0	22.0	225.0	90.0	90

### Steel wire brake saddle wire brush 2 rowed, straight

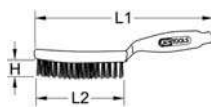
- 2 rowed
- Very narrow execution
- For narrow brake saddle shafts
- Robust stock
- Hanging hole
- Dual component handle
- For removing of stubborn brake dust
- For surface preparation
- Crimped steel wire



Item	B mm	H mm	L1 mm	L2 mm	kg
201.2322	12.0	22.0	225.0	90.0	90

### Steel wire hand brush 4 rowed

- 4 rowed
- Universal usage
- Plastic hand grip casing
- For surface preparation
- Straight steel bristles



Item	H mm	L1 mm	L2 mm	kg
201.2325	25.0	285.0	130.0	120

### Steel wire hand brush 3 rowed

- 3 rowed
- Universal usage
- Plastic hand grip casing
- For surface preparation
- Straight steel bristles



Item	H mm	L1 mm	L2 mm	kg
201.2326	25.0	285.0	130.0	105

### Wheel hub grinder set, small

- Special grinder for the rust removal on the wheel hub
- Suitable for many vehicles and small vehicle with wheel hubs max. Ø 160 mm
- For use in connection with drill or cordless drill (max. speed 1500 RPM)
- Interchangeable cleaning discs
- Without sparks
- Maximum standing time (per disc approx 100 vehicles)
- Through clean contact areas - there are no falsified torques settings
- Minimal dust produced due to the disc material and the holder shape the dust is removed



Item	kg
100.4070 3 pcs Wheel hub grinder set, small	800

#### consists of:

Item	kg
100.4071 Wheel hub grinder without cleaning discs	270
100.4076 Cleaning disc set, 2 pcs	530

#### Accessories:

Item	kg
100.4075 Replacement discs-set for wheel hub grinder 100.4070, 3pcs.	530

### Wheel hub grinder set, large

- Special grinder for the rust removal on the wheel hub
- Suitable for many vehicles including SUVs and small vehicle with wheel hubs max. Ø 200 mm
- For use in connection with drill or cordless drill (max. speed 1500 RPM)
- Interchangeable cleaning discs
- Without sparks
- Maximum standing time (per disc approx 100 vehicles)
- Through clean contact areas - there are no falsified torques settings
- Minimal dust produced due to the disc material and the holder shape the dust is removed



Item	kg
100.4090 3 pcs Wheel hub grinder set, large	1.01

#### consists of:

Item	kg
100.4091 Wheel hub grinder without cleaning discs	470
100.4095 Replacement discs set for wheel hub grinder 100.4090, 2pcs.	530

#### Accessories:

Item	kg
100.4095 Replacement discs set for wheel hub grinder 100.4090, 2pcs.	530

### Wheel hub bolt grinder set

- Special grinder for the rust removal on the wheel hub
- Suitable for many vehicles with hub bolts
- For use in connection with drill or cordless drill (max. speed 1500 RPM)
- Interchangeable cleaning discs
- Without sparks
- Maximum standing time (per disc approx 50 vehicles)
- Through clean contact areas - there are no falsified torques settings
- Minimal dust produced due to the disc material and the holder shape the dust is removed



Item				
100.4080	8 pcs	Wheel hub bolt grinder set	470	

### Accessories:

Item				
100.4085	Replacement disc set for hub bolt wheel grinder, 5 pcs.	230		
100.4088	Replacement disc set large for hub bolt wheel grinder, 5 pcs.	200		

## TYRE MOUNTING & REPAIR

### Tyre lever with aluminium grip

- Lightweight and thin tyre lever for comfortable working
- With aluminium handle
- Matt finish



Item	L mm			
911.8170	530.0	620		

### Tyre mounting lever

- Lightweight tyre lever for comfortable working
- Extra rounded lever end for material protection during usage
- Matt finish
- Chrome vanadium



Item	L mm			
911.8143	200.0	120		
911.8144	240.0	170		
911.8145	280.0	200		
911.8146	370.0	400		
911.8180	650.0	1100		

### HGV tyre mounting lever

- Enables fast dismantling and fitting
- Phosphate finish
- Chrome vanadium



Item	L mm			
911.8147	535.0	600		

### Plastic tyre valve puller

- For inserting rubber valves of all lengths
- Notch on the lever head gives certain stop at the rim edge
- Prevents damages on the rim edges
- Flexible valve head
- Plastic



Item	L mm			
150.2027	310.0	150		

### Metal tyre valve puller

- For inserting rubber valves of all lengths
- With notched rubber cover
- Prevents damages on the rim edges
- Certain stop at the rim edge
- Flexible valve head
- Special steel



Item	L mm			
150.2032	330.0	310		

### Valve screwdriver

- Double sided usable for short and/or long valves
- Also suitable for use as a socket cap driver
- With plastic handle



Item		L mm		
150.2021	Car and Vans	130.0	40	
150.2022	cars, commercial vehicles and construction machines	150.0	40	

### Valve screwdriver, long

- Suitable for short and/or long valves usage
- Also suitable for use as a socket cap driver
- With single component handle



Item	L mm			
150.2033	170.0	30		

### Torque valve screwdriver 0.3 N-m, long

- Ideal for short or long rubber sealing valve usage
- Prevents the over tightening and damage of the rubber seal
- When torques is achieved skips and can also be held audabaly
- Also suitable for use as a socket cap driver
- With single component handle



Item	N-m	L mm	
150.2029	0,3	120.0	50

### Torque valve screwdriver 0.45 N-m, long

- Ideal for short or long metal sealing valve applications
- Prevents the over tightening and damage of the rubber seal
- When torques is achieved skips and can also be held audabaly
- Also suitable for use as a socket cap driver
- With single component handle



Item	N-m	L mm	
150.2031	0,45	122.0	50

### Car tyre vulcanising repair set

- Self vulcanising material
- Simple handling
- Robust metal tools
- Ideally suited for the fast repair of damaged tyres
- Please check with the local country laws associated with tyre repairs



Item	
150.1070 5 pcs Car tyre vulcanising repair set	900

consists of:

Item	
150.1071 Lubricant, 70 g	70
150.1072 60 Replacement strings 100 mm	190
150.1073 Needle short	110
150.1074 Rasp	110
150.1075 Break-off utility knife 9 mm	10

### HGV tyre vulcanising repair set

- Self vulcanising material
- Simple handling
- Robust metal tools
- Ideally suited for the fast repair of damaged tyres
- Please check with the local country laws associated with tyre repairs for air tyres



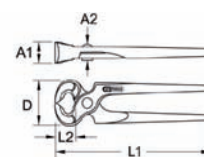
Item	
150.1080 34 pcs HGV tyre vulcanising repair set	0.90

consists of:

Item	
150.1071 Lubricant, 70 g	70
150.1082 30 Replacement strings 178 mm	190
150.1083 Needle long	110
150.1074 Rasp	110
150.1075 Break-off utility knife 9 mm	10

### Rabitz pliers

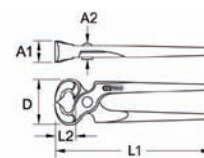
- In accordance to DIN / ISO 9242
- With PVC dipped handle
- Ground heads
- For cutting and twisting tie wire
- Oil hardened
- Black surface
- Special tool steel



Item	A1 mm	A2 mm	D mm	L1 mm	L2 mm	
116.1404	18.0	19.0	26.0	190.0	17.0	350
116.1401	20.0	19.0	29.0	220.0	17.0	400
116.1400	25.0	20.0	36.0	250.0	17.0	400
116.1403	26.0	20.0	37.0	280.0	17.0	500

### Rabitz pliers

- In accordance to DIN / ISO 9242
- Ground heads
- For cutting and twisting tie wire
- Oil hardened
- Black surface
- Special tool steel



Item	A1 mm	A2 mm	D mm	L1 mm	L2 mm	
116.1408	21.0	18.0	26.0	190.0	17.0	245
116.1405	23.0	20.0	30.0	220.0	17.0	400
116.1406	27.0	22.0	36.0	250.0	19.0	380
116.1407	25.0	21.0	35.0	280.0	18.0	400



## Pneumatic straight drill

- Straight design
- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- Not reversing
- With quick release chuck capacity 0 - 10 mm
- For hard to reach places
- Ideally suited for car bodywork and industrial working
- With stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened through double bearing guides
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing from special plastic



3/8"



### Technical data:

Chuck capacity:	1 - 10 mm
Chuck thread reception:	3/8" x 24 UNF
Capacity:	330 Watt
Idle speed:	2600 r.p.m.
Vibration:	< 0,1ms <sup>2</sup>
Noise performance level:	95 dbA
Noise pressure level:	82 dbA
Air consumption:	85 l/min
Min. tube diameter:	3/8" - 10 mm
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4"NPT

Item	B mm	L mm	Kg
515.3025	44.0	215.0	0.75

## Steel core cutter

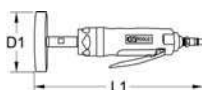
- For exact damage preparation on radial and diagonal tyres
- Specially for the preparation and precision removal of the damaged area
- For the use with compressed air drill
- Long life time
- Special tool steel



Item	Ø mm	L mm	Kg
331.0680	3,0	57.0	10
331.0681	5,0	58.0	10
331.0682	6,0	72.0	20
331.0683	9,0	100.0	40

## Pneumatic erasing machine

- Straight design
- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- Ideal for removing of stickers glue and color remainders
- Includes neutral colored rubber eraser disc
- Stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing from special plastic



### Technical data:

Tool holder:	5/16" - 24
Capacity:	330 Watt
Idle speed:	18000 r.p.m.
Vibration:	< 0,1ms <sup>2</sup>
Noise performance level:	95 dbA
Noise pressure level:	82 dbA
Air consumption:	85 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

Item	B mm	L mm	Eraser wheels	Kg
515.1244	40.0	225.0	515.1243	1.08

## Rubber eraser disc

- For removing of stickers, glue and color remainders on varnished areas
- Includes neutral colored rubber eraser preventing a smearing on the surface
- Not suitable for pneumatic die grinders



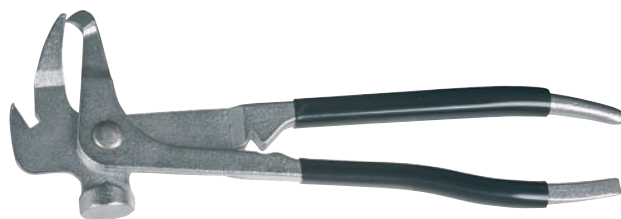
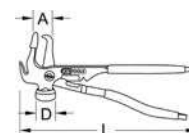
### Technical data:

Speed:	0 - 2000 U/min.
Shaft:	M8

Item	D mm	L mm	Content	Kg
515.1243	15.0	90.0	1	110
515.1285	15.0	90.0	6	660

## Wheel balance weight pliers

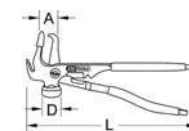
- Dipped covered handles
- For cutting off the balance weights
- With additional function for opening and closing the spring clips
- Chrome vanadium



Item	A mm	D mm	L mm	Kg
150.2025	26.0	22.0	250.0	450

## Wheel balance weight pliers, self opening

- Dipped covered handles
- For cutting off the balance weights
- Pliers and Hammer plastic covered
- Suitable for alloy wheels
- With additional function for opening and closing the spring clips
- Chrome vanadium



Item	A mm	D mm	L mm	Kg
150.2024	32.0	28.0	250.0	380

### Adhesive weight removal and cutting lever

- Flexible flat scraper and cutting edge
- Lever back flat side chisel form, cutting side with teeth
- Special lever for the removal of wheel weights
- Special plastic



Item	L mm	B mm	Radius dimensions in mm	
911.8111	200.0	25.0	38.0	20

### Adhesive weight removal and cutting lever set

- Flexible flat scraper and cutting edge
- Lever back flat side chisel form, cutting side with teeth
- Special lever for the removal of wheel weights
- Special plastic



Item	
911.8115	2 pcs 2 x 20 mm 800

### Glassfibre chisel

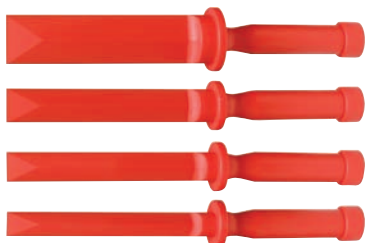
- For paint-preserving removal of ornament and window strips and wheel weights on aluminium rims
- Flexible chisel blade
- Impact cap for light impacts
- Ergonomic handle
- Special plastic



Item	mm	
911.8131	19,0	130
911.8132	22,0	140
911.8133	26,0	150
911.8134	38,0	180

### Glassfibre chisel set

- For paint-preserving removal of ornament and window strips
- Flexible chisel blade
- Impact cap for light impacts
- Ergonomic handle
- Special plastic



Item	
911.8130	4 pcs 19 - 22 - 26 - 38 mm 570

consists of:

Item	
911.8131	Glassfibre chisel made from reinforced plastic 19 mm wide 130
911.8132	Glassfibre chisel made from reinforced plastic 22 mm wide 140
911.8133	Glassfibre chisel made from reinforced plastic 26 mm wide 150
911.8134	Glassfibre chisel made from reinforced plastic 38 mm wide 180

### Universal shear, serrated

- Self opening
- Safety locking device
- Ergonomic moulded plastic handle
- Ideal for gaskets



Item	Ø mm	D mm	L mm	S mm	
118.0075	24,0	40.0	145.0	32,0	130

### Universal snap off blade knife

- For right handed use
- Reinforcement eyelet
- Blade 9 x 80 mm
- 0.4 mm strong snap off blades
- Blade guide out of metal
- Housing made out of plastic
- Two component handle



Item	L mm	
907.2152	140.0	907.2168 50

## WHEEL FILLING GAUGE

### Tyre filling gauge

- For one hand operation
- Rubber coated manometer
- Manometer with bar and psi scale
- Filling lever and pressure release button
- Tube with integrated locking male nipple
- Includes 1/4" coupling connector
- Robust rubber coated housing



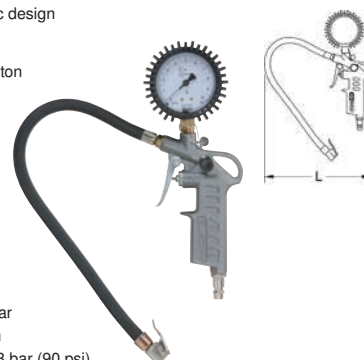
#### Technical data:

Working range:	0 - 11 bar 9 - 160 psi
Tube length:	500 mm
Operating pressure:	max 6,3 bar (90 psi)
Connection thread:	1/4"PT

Item	L mm	
515.1950	535.0	600

### Calibrated tyre filling gauge

- For one handed operation with ergonomic design
- Rubber coated manometer
- Manometer with bar scale
- With filling lever and pressure release button
- Tube with integrated locking male nipple
- Hanging hole
- Includes 1/4" coupling connector
- Robust rubber coated housing



#### Technical data:

Working range:	0 - 12 bar
Tube length:	500 mm
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4"PT

Item	L mm	
515.1960	540.0	450

## Digital tyre pressure and thread gauge

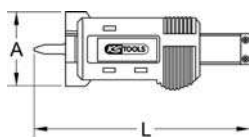
- Precise and repeatable LCD measurement
- Measurement with acoustic signal
- Manometer with bar and PSI scale
- Little energy consumption through automatic switching off
- Includes batteries key ring and belt clip



Item	Measuring range bar	Profil depth blade in mm	kg
100.4060	0,15-9,50	0,0-15,0	90

## Digital depth gauge 0 - 25 mm

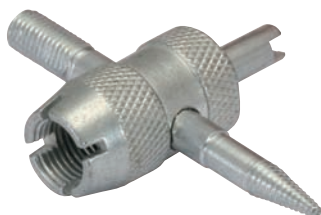
- In accordance with DIN 862
- Locking screw
- For depth measurements
- mm/imperial switching
- Reset (to zero) in every position possible
- Large LCD display figure height 8.0 mm
- Little energy consumption through automatic switching off
- Entirely hardened, finely engineered
- Stainless steel
- In durable plastic case



Item	Measuring range mm	A mm	L mm	Display accuracy mm	kg
300.0550	0 - 25	40.0	125.0	+/- 0,01	100

## Valve thread repair tool

- For the repair of damaged threads on external and internal valves
- Multi functional including ventillation and removal



Item	kg
100.5050	20

## Wobble lever fitting



Item	Ø mm	kg
100.5060	6,0	50

## TYRE PASTE & ACCESSORIES

### Tyre mounting paste 5 kg, white

- Ideally suitable for the dismantling and assembly of tyres with steel Light alloy and synthetic materials
- Preferred use with passenger cars and motor cycles
- Simply apply with a brush or a sponge on the wheel rim
- Optimal lubricating and bonding properties whilst protecting the tyre
- Releases the air out quickly which guarantees a strong bond in a short time the construction components
- Also suitable for wide tyres
- Supplied in a bucket

**Application range:** Passenger cars, small vans and motorcycles



Item	kg
100.4010	5.00

### Tyre mounting paste 5 kg, black

- Ideally suitable for the dismantling and assembly of tyres with steel or aluminum rims
- Preferred use with passenger cars and motor cycles
- Simply apply with a brush or a sponge on the wheel rim
- Optimal lubricating and bonding properties whilst protecting the tyre
- Releases the air out quickly which guarantees a strong bond in a short time the construction components
- The professional black paste advoids staining as with the white paste
- Also suitable for wide tyres
- Supplied in a bucket

**Application range:** Passenger cars, small vans and motorcycles



Item	kg
100.4015	5.00

### Tyre mounting paste 5 kg, gold

- ideally suitable for the dismantling and assembly of tyres with Steel or aluminium rims
- For the dismantling and assembly of truck tyres with steel rims
- Simply apply with a brush or a sponge on the wheel rim
- Optimal lubricating and bonding properties whilst protecting the tyre
- Releases the air out quickly which guarantees a strong bond in a short time the construction components
- The professional black paste advoids staining as with the white paste
- Also suitable for wide tyres
- Supplied in a bucket

**Application range:** Trucks land and construction machines



Item	kg
100.4005	5.00

### Round angled brush for tyre mounting paste

- Screwed on brush
- 45° offset
- Ideal for mounting paste on the wheel rim
- Wood handle



Item	Ø mm	L mm	kg
100.4020	45,0	400,0	250

### Fluorecent crayon

- Smudge free
- Suitable to write on all surfaces
- Breakproof



Item	Colour code	Ø mm	L mm	Content	kg
100.4050	○	14,0	110,0	12	140
100.4045	●	14,0	110,0	12	140

## TRANSPORT

### Platform trolley for stores and workshops

- Solid construction of steel sheet
- Firmly fixed grasping handle made from steel tube
- Grasping handle is hinged and locked with safety security catches without any tools
- In minimal time
- Rubber surrounding edges protect the trolley and surroundings from damage
- For ball bearing rubber wheels
- Load area has a plastic covering



#### Technical data:

Rubber impeller 100,0 mm  
Max. load: 150 kg

Item	L mm	B mm	H mm	kg
800.0015	740,0	480,0	810,0	9,20

### Professional wheel trolley

- Steel tubular structure with deep welded joints
- Light and agile transportation for use in smallest space
- For the easy stacking and transporting of tyres and wheels
- From round tubes welded together manufactured and solid
- 2 large pneumatic tyres
- 2 fixed rubber wheels
- Improved standing and prevention of tipping
- Optimal transportation due to traverse brake stop
- Perfectly suitable with the tyre trade or vehicle workshops



#### Technical data:

Large size fixed wheels: Ø 260 mm (pneumatic tyres)  
Large size swivel wheels: Ø 125 mm (solid rubber)  
Max. bucket dimensions: Ø 730 mm

Item	Max load kg	L mm	B mm	H mm	kg
160.0055	300,0 kg	850,0	715,0	1610,0	15,00

### HGV wheel lifter

- Steel tubular structure with deep-welded joints
- Light and agile transportation for use in smallest space
- For the easy stacking and transporting of tyres and wheels
- From round tubes welded together manufactured and solid
- 2 fixed rubber wheels
- Improved standing and prevention of tipping
- Ideal for the changing of truck wheels, bus wheels and forklift wheels
- 3 stage adjustable wheel size
- Perfectly suitable with the tyre trade or vehicle workshops



#### Technical data:

Wheel carrier length: 220,0 mm  
Effective stroke: 100,0 mm  
Largest diameter of the wheel: 250 kg  
Reception of tyre: 6,5" bis 22,5"  
Smallest diameter of the wheel: 600,0 mm  
Largest diameter of the wheel: 1100,0 mm  
Maximum clamping width: 620,0 mm  
Average clamping width: 450,0 mm  
Minimum clamping width: 290,0 mm

Item	kg
160.0250	HGV wheel lifter 13,50



## BRAKE SERVICING

### Universal brake service set

- Universal usable in the course of maintenance and service works on drum brakes and Disc brakes
- In durable plastic storage case

**Application range:** Cars, Vans



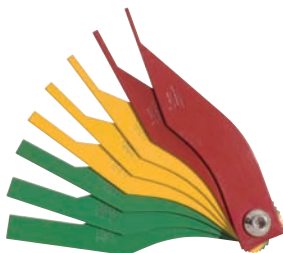
Item				
150.2210	18 pcs	Universal brakeservice set	3.00	

consists of:

Item			
150.2211	Brake clip plier	335	
150.2212	Assembly and de assembly tool Gr 1	130	
150.2213	Assembly and de assembly tool Gr 2	130	
150.2215	Brake place lever type 1	130	
150.2217	Brake plate disc	40	
150.2218	Brake clip tool	70	
150.2219	Brake piston adaptor tool	270	
150.2220	Brake place lever type 2	130	
150.2221	Brake place lever type 3	130	
150.2222	Universal brake piston reset dice 3/8"	90	
150.2223	3/8" Hexagon-Bit-Socket 3/8"	20	
150.2224	3/8" Hexagon-Bit-Socket 1/4"	20	
911.3867	3/8" Hexagon bit socket 7mm	46	
911.3868	3/8" Hexagon bit socket 8mm	47	
911.3874	3/8" TX bit socket T40	45	
911.3884	3/8" TX bit socket T50	70	
911.3885	3/8" TX bit socket T45	50	
911.3886	3/8" Hexagon bit socket 10mm	60	

### Brake lining wear indicator set

- For the fast judgment of the brake lining strength on disc brakes
- With colour coding



**Technical data:**

Red: Lining thickness poor, replacement necessary  
 Gold: Lining thickness good to satisfactory  
 Green: Lining thickness very good to good - replacement not necessary

Item				
300.0570	8 pcs	Brake lining wear indicator set	265	

### Steel wire all purpose wire brush

- With plastic handle
- For surface preparation
- Crimped steel wire



Item	H mm	L1 mm	L2 mm		
201.2300	28.0	250.0	145.0	90	

### Stainless steel wire all purpose wire brush

- With plastic handle
- For surface preparation
- Curled and rust free steel wire



Item	H mm	L1 mm	L2 mm		
201.2301	28.0	250.0	145.0	90	

### Brass steel all purpose wire brush

- With plastic handle
- For surface preparation
- Curved brass wire



Item	H mm	L1 mm	L2 mm		
201.2302	28.0	250.0	145.0	90	

### Steel wire brake saddle wire brush 2 rowed, straight

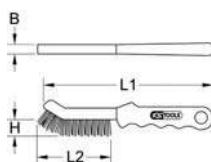
- 2 rowed
- Hanging hole
- Very narrow execution
- For narrow brake saddle shafts
- Robust stock
- Dual component handle
- For removing of stubborn brake dust
- For surface preparation
- Straight steel wire



Item	B mm	H mm	L1 mm	L2 mm		
201.2320	12.0	22.0	225.0	90.0	90	

### Steel wire brake saddle wire brush 2 rowed, straight and tapered point

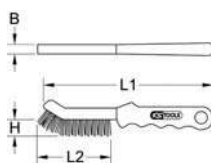
- 2 rowed
- Hanging hole
- Tapered point
- Very narrow execution
- For narrow brake saddle shafts
- Robust stock
- Dual component handle
- For removing of stubborn brake dust
- For surface preparation
- Straight steel wire



Item	B mm	H mm	L1 mm	L2 mm	Weight
201.2321	12.0	22.0	225.0	90.0	90

### Steel wire brake saddle wire brush 2 rowed, straight

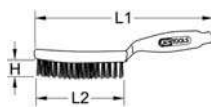
- 2 rowed
- Very narrow execution
- For narrow brake saddle shafts
- Robust stock
- Hanging hole
- Dual component handle
- For removing of stubborn brake dust
- For surface preparation
- Crimped steel wire



Item	B mm	H mm	L1 mm	L2 mm	Weight
201.2322	12.0	22.0	225.0	90.0	90

### Steel hand wire hand brush 4 rowed

- 4 rowed
- Universal usage
- Plastic hand grip casing
- For surface preparation
- Straight steel bristles



Item	H mm	L1 mm	L2 mm	Weight
201.2325	25.0	285.0	130.0	120

### Steel hand wire hand brush 3 rowed

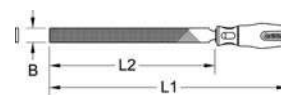
- 3 rowed
- Universal usage
- Plastic hand grip casing
- For surface preparation
- Straight steel bristles



Item	H mm	L1 mm	L2 mm	Weight
201.2326	25.0	285.0	130.0	105

### Brake saddle file

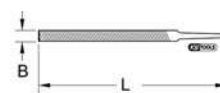
- With vehicles with disk brakes
- With two component handle
- With hanging hole
- Beveled edges
- Insert unilaterally coarsely diagonally milled
- With blunt scraper on the forehead side
- For cleaning the brake saddle
- For removing of coarse residues
- Special steel



Item	B mm	L1 mm	L2 mm	File blade	Weight
157.0950	12.0	270.0	150.0	161.0950	170

### Brake saddle file without handle

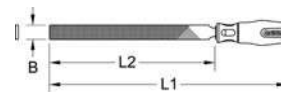
- For vehicles with disk brakes
- Beveled edges
- Insert unilaterally coarsely diagonally milled
- With blunt scraper on the forehead side
- For cleaning the brake saddle
- For removing of coarse residues
- Special steel



Item	B mm	L mm	Weight	Weight
161.0950	12.0	150.0	161.0010	90

### Brake saddle file extra narrow

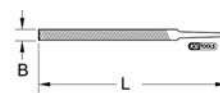
- Especially suited for Japanese vehicles
- For vehicles with disk brakes
- With two component handle
- With hanging hole
- Extra narrow execution
- Beveled edges
- Insert unilaterally coarsely diagonally milled
- With blunt scraper on the forehead side
- For cleaning the brake saddle
- For removing of coarse residues
- Special steel



Item	B mm	L1 mm	L2 mm	File blade	Weight
157.0960	10.0	270.0	150.0	161.0960	140

### Brake saddle file inset extra narrow without handle

- Especially suited for Japanese vehicles
- For vehicles with disk brakes
- Beveled edges
- Extra narrow execution
- Insert unilaterally coarsely diagonally milled
- With blunt scraper on the forehead side
- For cleaning the brake saddle
- For removing of coarse residues
- Special steel




Item	L mm	B mm	Weight	Weight
161.0960	150.0	10.0	161.0010	60

### Brake pad drift pin

- 6 point
- Extra long execution
- Quenched and tempered
- 150.2151 with pilot pin for locking pin
- Suitable for locking pins on vehicles with disk brakes
- Ideally suitable for brake disk linings on the saddle brakes
- Special steel




Item	Ø mm	L mm	
150.2150	4,0	180.0	70
150.2151	5,8	175.0	70

### Brake piston adaptor tool, small

- Centered winding back of the brake piston without needing to hold
- No damage or cross threading, of the piston and piston boring in the brake saddle
- Alienation tools no longer required
- It is required in the maintenance works and in the exchange of the braking distances, around the brake piston to press it back into the brake saddle
- Ideally suited for floating calipers with a single piston and fixed calipers with two pistons




Item	
150.2056	Brake piston adaptor tool, small 875

### Brake piston adaptor tool, large

- Centered winding back of the brake piston without needing to hold
- No damage or cross threading, of the piston and piston boring in the brake saddle
- Alienation tools no longer required
- It is required in the maintenance works and in the exchange of the braking distances, around the brake piston to press it back into the brake saddle
- Ideally suited for floating calipers with a single piston and fixed calipers with two pistons



Item	
150.2057	Brake piston adaptor tool, large 1700


### Brake wind back tool set

- Anticlockwise
- For the winding back of the brake piston
- Adaptor plates with nosings for borings in the brake piston
- Numerical adaptor plates enable good allocation
- Magnetic spindle drive plate
- Includes stepped adaptor plate for front axles
- Can be used on the front and rear making the work easy
- Fine sandblasted surface
- In durable plastic storage case


#### Application range:

- 0 - General Motors
- 2 - Citroen XM, Xantia, etc.
- 3 - Alfa Romeo, Audi, Austin, BMW, Ford, Honda, Jaguar
- 4 - Alfa Romeo 164 2.0, Ford, Mazda, Saab 9000, Subaru
- 5 - Adaptor with 3/8" square drive
- 6 - Nissan Primera, VW Golf IV
- 7 - Audi 80/90/100/V8, Ford Sierra ABS + Scorpio after 85, Honda Prelude, Nissan Silvia 1.8 Turbo, Rover
- 8 - General Motors
- 9 - General Motors
- G - Opel Astra
- Z - Renault
- M - Ford
- N - Saab Honda



Item	
150.2015	15 pcs Brake wind back tool set 2.00

#### consists of:

Item	
150.2001	Brake piston adaptor tool, basic unit 360
150.2002	Brake piston tool adaptor, #0, D63 mm 105
150.2003	Brake piston adaptor tool, #1 180
150.2004	Brake piston tool adaptor, #2, D51 mm 40
150.2005	Brake piston tool adaptor, #3, D54 mm 45
150.2006	Brake piston tool adaptor, #4, D32 mm 60
150.2007	Brake piston tool adaptor, #5, D35 mm 60
150.2008	Brake piston tool adaptor, #6, D42 mm 68
150.2009	Brake piston tool adaptor, #7, D42 mm 84
150.2010	Brake piston tool adaptor, #8, D47 mm 46
150.2011	Brake piston tool adaptor, #9, D54 mm 46
150.2012	Brake piston tool adaptor, #Z, D30 mm 80
150.2013	Brake piston tool adaptor, #G, D30 mm 84
150.2016	Brake piston tool adaptor, #M, D32 mm 60
150.2017	Brake piston tool adaptor, #N, D32 mm 60



## Brake wind back tool set

- Clockwise and anticlockwise
- For the winding back of the brake piston
- Adaptor plates with nosings for borings in the brake piston
- Numerical adaptor plates enable good allocation
- Magnetic spindle drive plate
- Includes stepped adaptor plate for front axles
- Can be used on the front and rear making the work easy
- Fine sandblasted surface
- In durable plastic storage case

### Application range:

- 0 - General Motors
- 2 - Citroen XM, Xantia, etc.
- 3 - Alfa Romeo, Audi, Austin, BMW, Ford, Honda, Jaguar, Mercedes Benz, Mitsubishi, Nissan, Rover, Toyota, VW
- 4 - Alfa Romeo 164 2.0, Ford, Mazda, Saab 9000, Subaru
- 5 - Adaptor with 3/8" square drive
- 6 - Nissan Primera, VW Golf IV
- 7 - Audi 80/90/100/V8, Ford Sierra ABS + Scorpio after 85, Honda Prelude, Nissan, Silvia 1.8 Turbo, Rover 8000, Saab 9000, Subaru L+Z, VW Golf + Passat
- 8 - General Motors
- 9 - General Motors
- G - Opel Astra
- Z - Renault
- M - Ford
- N - Saab Honda
- K - Citroen
- E - Nissan Maxima



Item				
150.2035	18 pcs	Brake wind back tool set	2.10	

### consists of:

Item				
150.2001	Brake piston adaptor tool, basic unit	360		
150.2002	Brake piston tool adaptor,#0, D63 mm	105		
150.2003	Brake piston adaptor tool,#1	180		
150.2004	Brake piston tool adaptor,#2, D51 mm	40		
150.2005	Brake piston tool adaptor,#3, D54 mm	45		
150.2006	Brake piston tool adaptor,#4, D32 mm	60		
150.2007	Brake piston tool adaptor,#5, D35 mm	60		
150.2008	Brake piston tool adaptor,#6, D42 mm	68		
150.2009	Brake piston tool adaptor,#7, D42 mm	84		
150.2010	Brake piston tool adaptor,#8, D47 mm	46		
150.2011	Brake piston tool adaptor,#9, D54 mm	46		
150.2012	Brake piston tool adaptor,#Z, D30 mm	80		
150.2013	Brake piston tool adaptor,#G, D30 mm	84		
150.2016	Brake piston tool adaptor,#M, D32 mm	60		
150.2017	Brake piston tool adaptor,#N, D32 mm	60		
150.2018	Brake piston adaptor tool,#K	60		
150.2019	Brake piston adaptor tool,#E	60		
150.2036	Brake piston adaptor tool, basic unit	360		

## Brake wind back tool set

- Clockwise and anticlockwise
- For the winding back of the brake piston
- Adaptor plates with nosings for borings in the brake piston
- Numerical adaptor plates enable good allocation
- Magnetic spindle drive plate
- Includes stepped adaptor plate for front axles
- Can be used on the front and rear making the work easy
- Fine sandblasted surface
- In durable plastic storage case



Item				
150.2030	30 pcs	Brake wind back tool set	3.30	

### consists of:

Item				
150.2001	Brake piston adaptor tool, basic unit	360		
150.2002	Brake piston tool adaptor,#0, D63 mm	105		
150.2003	Brake piston adaptor tool #1	180		
150.2004	Brake piston tool adaptor,#2, D51 mm	40		
150.2005	Brake piston tool adaptor,#3, D54 mm	45		
150.2006	Brake piston tool adaptor,#4, D32 mm	60		
150.2007	Brake piston tool adaptor,#5, D35 mm	60		
150.2008	Brake piston tool adaptor,#6, D42 mm	68		
150.2009	Brake piston tool adaptor,#7, D42 mm	84		
150.2010	Brake piston tool adaptor,#8, D47 mm	46		
150.2011	Brake piston tool adaptor,#9, D54 mm	46		
150.2012	Brake piston tool adaptor,#Z, D30 mm	80		
150.2013	Brake piston tool adaptor,#G, D30 mm	84		
150.2016	Brake piston tool adaptor,#M, D32 mm	60		
150.2019	Brake piston adaptor tool,#E	60		
150.2034	Brake piston adaptor tool,#B	70		
150.2036	Brake piston adaptor tool, basic unit	360		
150.2037	Brake piston adaptor tool,#1	60		
150.2038	Brake piston adaptor tool,#K2	50		
150.2048	Brake piston adaptor tool,#C	40		
150.2051	Brake piston adaptor tool,#D	200		
150.2052	Brake piston adaptor tool,#F	90		
150.2053	Brake piston adaptor tool,#J	80		
150.2054	Brake piston adaptor tool,#X	50		
150.2059	Brake piston adaptor tool,#P	70		
150.2062	Brake piston adaptor tool,#Q	40		
150.2064	Brake piston adaptor tool,#11	90		
150.2069	Brake piston adaptor tool,#R	50		
150.2071	Brake piston adaptor tool,#S	50		
150.2072	Brake piston adaptor tool,#T	60		
150.2073	Brake piston adaptor tool,#V	90		
150.2074	Brake piston adaptor tool,#A	80		
150.2099	Brake piston adaptor tool,#Z	40		



## Pneumatic brake piston wind back tool set

- Clockwise and anticlockwise
- For the winding back of the brake piston
- Comfortable and fast working through compressed air spindle
- Automatic balancing of different thread pitches
- Rotation can be precisely controlled
- Adaptor plates with nosings for borings in the brake piston
- Numerical adaptor plates enable good allocation
- Magnetic spindle drive plate
- Can be used on the front and rear making the work easy
- Fine sandblasted surface
- Special steel
- In durable plastic storage case

### Application range:

- 0 - General Motors
- 2 - Citroen XM, Xantia, etc.
- 3 - Alfa Romeo, Audi, Austin, BMW, Ford, Honda, Jaguar, Mercedes Benz, Mitsubishi, Nissan, Rover, Toyota, VW
- 4 - Alfa Romeo 164 2.0, Ford, Mazda, Saab 9000, Subaru
- 5 - Adaptor with 3/8" square drive
- 6 - Nissan Primera, VW Golf IV
- 7 - Audi, Ford, Honda Prelude, Nissan Silvia 1.8 Turbo, Rover 8000, Saab 9000, Subaru L+Z, VW Golf + Passat
- 8 - General Motors
- 9 - General Motors
- G - Opel Astra
- Z - Renault
- M - Ford
- N - Saab Honda
- K - Citroen
- E - Nissan Maxima
- K1 - Citroen
- K2 - Citroen / Renault



Item				kg
150.2000	18 pcs	Pneumatic brake piston wind back tool set	3.35	

### consists of:

Item		kg
150.2002	Brake piston tool adaptor,#0, D63 mm	105
150.2004	Brake piston tool adaptor,#2, D51 mm	40
150.2005	Brake piston tool adaptor,#3, D54 mm	45
150.2006	Brake piston tool adaptor,#4, D32 mm	60
150.2007	Brake piston tool adaptor,#5, D35 mm	60
150.2008	Brake piston tool adaptor,#6, D42 mm	68
150.2009	Brake piston tool adaptor,#7, D42 mm	84
150.2010	Brake piston tool adaptor,#8, D47 mm	46
150.2011	Brake piston tool adaptor,#9, D54 mm	46
150.2012	Brake piston tool adaptor,#Z, D30 mm	80
150.2013	Brake piston tool adaptor,#G, D30 mm	84
150.2016	Brake piston tool adaptor,#M, D32 mm	60
150.2017	Brake piston tool adaptor,#N, D32 mm	60
150.2018	Brake piston adaptor tool,#K	60
150.2019	Brake piston adaptor tool,#E	60
150.2037	Brake piston adaptor tool,#1	60
150.2038	Brake piston adaptor tool,#K2	50
150.2039	Pneumatic spindle for brake piston	2850

## Left handed spindle

- With left handed thread
- For the winding back of the brake piston and square drive adaptors
- Suitable for Citroen, Renault, Ford, Mazda, etc.
- Special steel



Item	L mm	kg
150.2036	155.0	360

## Right handed spindle

- With right handed thread
- For the winding back of the brake piston and square drive adaptors
- Suitable for Citroen, Renault, Ford, Mazda, etc.
- Special steel



Item	L mm	kg
150.2001	155.0	360

## Pneumatic spindle for brake piston adaptor

- Clockwise and anticlockwise
- For the winding back of the brake piston
- Comfortable and fast working through compressed air spindle
- Automatic balancing of different thread pitches
- Rotation can be precisely controlled
- Magnetic spindle drive plate
- Optimal stop due to rubber coated control lever
- Special steel



Item	L mm	3/8" Extension square adaptor	kg
150.2039	260.0	150.2041	2.85

## Brake caliper socket

- 5 point
- For take apart the brake calipers
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Short execution
- For manual operation
- Phosphate finish
- Chrome vanadium

**Application range** Citroen, Peugeot, Renault, etc.



Item	Profile	SW mm	L mm	kg
150.2155		19	40.0	120

## Brake caliper special socket set

- 5 point
- For the repair and maintenance of brake calipers
- Phosphate finish
- Chrome vanadium

**Application range:** Citroen, Peugeot, Renault, etc.



Item				
<b>150.2140</b>	3 pcs	Brake caliper special socket set	365	

consists of:

Item				
<b>150.2153</b>	Special brake caliper socket 10 mm	90		
<b>150.2154</b>	Special brake caliper socket 14 mm	70		
<b>150.2155</b>	Brake caliper socket 5-point 19 mm	120		

## MASTERBOARD Tool storage system - brakes

- Very extensive and complex range of tools suitable for car brake repairs and maintenance
- Orderly and clear arrangement of the tools
- Quick identification of the necessary tools
- All boards are labeled with a classification system foil on that th tools are located on 1:1 dimensions



Item				
<b>800.1030</b>	71 pcs	MASTERBOARD Tool storage system - brakes	20.40	

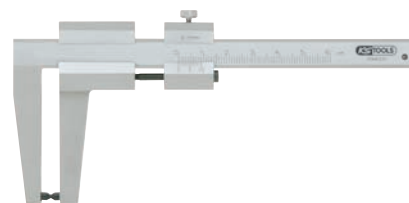
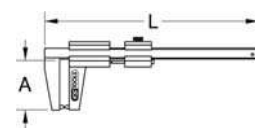
consists of:

Item				
<b>150.2030</b>	Brake piston tool set, 30 pcs	3300		
<b>150.2057</b>	Brake piston spreader 110 mm	1700		
<b>150.2140</b>	Special Brake caliper socket set 3 pcs. Pentagon	365		
<b>300.0570</b>	Brake measuring gauge set, 8 pcs.	265		
<b>201.2320</b>	Brake caliper brush steel wire smooth	90		
<b>201.2321</b>	Brake caliper brush steel wire smooth tapered tip	90		
<b>150.2211</b>	Brake clip plier	335		
<b>150.2212</b>	Assembly and de assembly tool for brake shoe retaining clip gr 1	130		
<b>150.2213</b>	Assembly and de assembly tool for brake shoe retaining clip gr 2	130		
<b>150.2215</b>	Brake place lever type 1	130		
<b>150.2220</b>	Brake place lever type 2	130		
<b>150.2221</b>	Brake place lever type 3	130		
<b>150.2150</b>	Brake pad cotter pin punch Ø 4 mm	70		
<b>150.2151</b>	Brake pad cotter pin punch Ø 5.8 mm	70		
<b>517.0270</b>	Open ended brake bleeding key 10x11 mm, 6 point, reinforced	80		
<b>518.0300</b>	Brake bleeding key set, 5 pcs, 7-11 mm	1200		
<b>300.0535</b>	Vernier caliper for brake discs, mechanical	130		
<b>515.1003</b>	Hand-impact screwdriver-set, 11-pcs.	1000		
<b>103.1000</b>	Telscopic pipe cutter 3 - 32 mm with a folding internal deburrer	270		
<b>105.2000</b>	Internal and external deburrer, plastic	240		
<b>120.1050</b>	Pipe bending tool , 3 - 4,75 (3/16") - 6 mm	150		
<b>911.1306</b>	Hexagon screw bit socket 1/2", 6 x 55 mm	90		
<b>911.1307</b>	Hexagon screw bit socket 1/2", 7 x 55 mm	90		
<b>911.1308</b>	Hexagon screw bit socket 1/2", 8 x 55 mm	90		
<b>157.0950</b>	Brake caliper file with handle, 150 x 12 x 6 mm	170		
<b>157.0960</b>	Brake caliper file with handle, extra narrow, 150 x 10 x 5 mm	140		

## CALIPERS & DIAL INDICATORS

### Brake disk vernier caliper 0 - 60 mm

- In accordance with DIN 862
- Locking screw
- For internal measurements
- Scale division in black
- Measuring bar in mm divisions
- Entirely hardened, finely engineered
- Stainless steel
- In durable wooden case



Item	Measuring range mm	A mm	L mm	Display accuracy mm	
<b>300.0535</b>	0 - 60	55.0	162.0	+/- 0,01	130

### Digital disk drum vernier caliper 0 - 60 mm

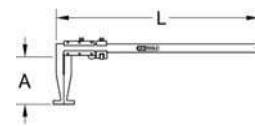
- In accordance with DIN 862
- Locking screw
- For internal measurements
- Scale division in black
- Measuring bar in mm and imperial divisions
- mm/imperial switching
- Reset (to zero) in every position possible
- Large LCD display figure height 10.0 mm
- Automatic switching off
- Entirely hardened, finely engineered
- Stainless steel
- In durable plastic case



Item	Measuring range mm	A mm	L mm	Display accuracy mm	
<b>300.0540</b>	0 - 60	55.0	160.0	+/- 0,01	130

### Automotive brake drum caliper 0 - 300 mm

- In accordance with DIN 862
- Locking screw
- For external and internal measurements
- Scale division in black
- Fine adjustment
- Measuring bar in mm divisions
- Thread table
- Internal measure has direct reading
- Entirely hardened, finely engineered
- Stainless steel
- In durable wooden case



Item	Inner measuring range mm	Outer measuring range mm	A mm	L mm	Display accuracy mm	
<b>300.0525</b>	0 - 300	40 - 340	95.0	410.0	+/- 0,02	500

## Magnetic measurement stand

- For clamping of the dial indicator
- Revolving base
- Transverse arm with joint and fine adjustment
- On and off switchable magnetic base
- High adhesive force on burnished steel and cast areas
- Also adhesive on convolutions
- Foot with prismatic base and stop area mounted edges
- Dial gauge reception Ø 8 mm
- Mirror polished chrome housing



Item	Radius mm	Magnet foot L x W x H mm	Total depth mm	Adhesive force N	Stand Ø mm	
300.0625	180.0	60x50x55	280.0	600.0	16.0	2.00

## Precision dial indicator gauge 0 - 10 mm

- In accordance with DIN 878
- Fixed adjusting screw and revolving scale reading
- Shockproof
- Splash proofed
- Measuring tip protected against contamination by a bellowed sleeve
- Clamping shaft Ø 8 mm H6
- 2 measuring scales
- Spindle and clamping shaft made from stainless steel
- In durable plastic case



Item	D mm	Display accuracy mm	Pointer revolution mm	
300.0560	60.0	+/- 0,01	1.0	280

## Digital precision dial indicator gauge 0 - 10 mm

- mm/imperial switching
- Reset (to zero) in every position
- Large LCD display figure height 6,0 mm
- Clamping shaft Ø 8 mm H6
- Automatic switching off
- Spindle and clamping shaft made from stainless steel
- In durable wooden case



Item	D mm	Measuring range mm	Display accuracy mm	
300.0565	60.0	0 - 10	+/- 0,01	280

## ABS SENSORS

### ABS Sensor service set

- Ideally suited for motor vehicle workshops and repair companies
- For the repair of worn or damaged threads
- Enables restoration of damaged threads



Item				
150.1980	2 pcs	ABS Sensor service set	415	

consists of:

Item				
150.1981	Special Reaming ratchet, Ø 10 mm, length 140 mm	218		
150.1984	Special drill, Ø 8 mm, length 180 mm with roll pin	64		

### Reamer for ABS sensors

- For the repair of worn or damaged threads
- Ideally suited for motor vehicle workshops and repair companies
- Enables restoration of damaged threads
- Special steel



Item	Ø mm	L1 mm	L2 mm	
150.1985	15,0	23.0	150.0	180
150.1986	18,0	23.0	150.0	190
150.1987	18,0	34.0	150.0	205



### Thread repair set M9 x 1,25 for brake caliper guide bolts

- For the professional restoration
- Ideal for defective interior threads for brakes guide bolts in wheel hub housings to repair
- The interior thread in the wheel hub housing M9 x 1.25 serves to the reinforcement of the Brake guide bolts
- Due to the Special drill and the drilling template the defective thread is cleared
- In the second section a highly resilient, corrosion resistant stainless steel threaded sleeve can then be inserted
- In durable plastic storage case

**Application range:** Golf 4, Golf Variant, Beetle, Audi A3 as well as structurally identical vehicles of that group VAG e.g. Audi, Skoda, Seat, Opel Astra G and Ford Focus



Item				
122.1300	16 pcs	Thread Repair set M9 x 1,25 for Brake caliper guide bolts	1.03	

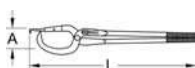
consists of:

Item				
122.1301		Special spiral flute counterbore 3-edged, TIN with clamping surface central plug	55	
122.1302		Thread drill M9x1,25	15	
122.1303		Replacement bush with copper ring, 10 pieces IG M9x1,25	50	
122.1304		Drilling template VAG	190	
122.1305		Drilling template Opel Astra G	190	
122.1306		Drilling template Ford Focus	215	

## BRAKE SPRING

### Car brake spring pliers

- For attaching and dismantling the brake shoes retaining spring
- For glued and riveted brake shoes
- Special surround
- Chrome vanadium



Item	A mm	L mm		
150.2211	130.0	325.0	335	

### Car brake spring pliers

- For attaching and dismantling the brake shoes retaining spring
- For glued and riveted brake shoes
- Special surround
- Chrome vanadium



Item	A mm	L mm		
150.2116	130.0	220.0	340	

### Brake spring pliers

- For the disassembly and assembly of hand brake cables
- Allows a safe working environment
- Chrome vanadium

**Application range:** VW, Audi, BMW, Citroën, Nissan, Peugeot, Renault, Rover, Seat etc.

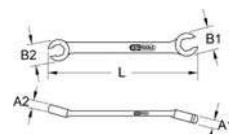


Item	L mm		
150.2118	225.0	175	

## SPANNERS

### Open double ring spanner, offset

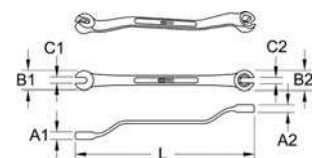
- 6 point
- DIN 3118
- Jaw 15° offset
- Opening 15° cranked
- Chrome vanadium



Item		A1 mm	A2 mm	B1 mm	B2 mm	L mm		
517.0252	8x10	6.6	6.7	17.6	19.8	143.0	45	
517.0253	9x11	7.6	7.4	21.3	22.9	152.0	50	
517.0254	10x11	7.6	7.4	21.3	22.9	152.0	60	
517.0255	10x12	7.6	7.4	21.3	22.9	152.0	80	
517.0257	12x13	8.8	9.0	23.1	23.8	156.0	100	
517.0258	12x14	10.0	9.9	25.3	27.6	178.0	110	
517.0260	14x15	11.4	11.5	30.0	32.1	196.0	120	
517.0261	14x17	11.4	11.5	30.0	32.1	196.0	140	
517.0263	16x18	11.4	11.5	30.0	32.1	196.0	160	
517.0264	17x19	11.4	11.5	30.0	32.1	196.0	180	
517.0265	19x21	13.5	13.1	34.1	37.6	207.0	240	
517.0266	19x22	13.5	13.1	34.1	37.6	207.0	240	
517.0267	22x24	13.5	17.0	37.6	46.0	252.0	320	
517.0268	24x27	17.0	16.2	46.0	42.3	264.0	430	
517.0269	30x32	22.4	20.4	46.3	44.8	283.0	700	

### CHROMEplus® Open double ring spanner set, offset

- 6 point
- Ring head 30° offset
- Spanner has double sized head
- Heavy duty head
- For brake pipe couplers
- No slippage
- Chrome plated and mirror polished
- Chrome vanadium

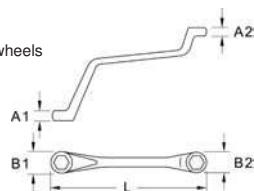


Item		A1 mm	A2 mm	B1 mm	B2 mm	C1 mm	C2 mm	L mm		
517.0270	10x11	10.5	11.2	17.8	20.0	6.0	6.1	175.0	80	



### CLASSIC Brake bleeding spanner

- 6 point
- Ring head cranked and offset
- To the bleed the brake system without dismantling of the wheels
- Matt finish
- Chrome vanadium



Item	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	Weight
518.0307	7	5.3	5.6	12.9	12.1	190.0	60
518.0308	8	7.5	7.0	16.0	15.8	211.0	130
518.0309	9	7.4	6.9	16.0	15.9	211.0	130
518.0310	10	7.3	7.1	17.5	16.9	236.0	135
518.0311	11	7.2	7.0	17.3	16.9	236.0	135



### CLASSIC Brake bleeding spanner set

- 6 point
- Ring head cranked and offset
- To the bleed the brake system without dismantling of the wheels
- Matt finish
- chrome vanadium
- In plastic leather case



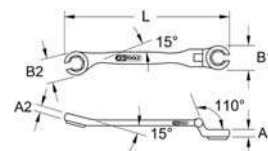
Item	Weight
518.0300 5 pcs 7 - 8 - 9 - 10 - 11 mm	1.20

consists of:

Item	Weight
518.0307 Brake bleeding spanner 7 mm	60
518.0308 Brake bleeding spanner 8 mm	130
518.0309 Brake bleeding spanner 9 mm	130
518.0310 Brake bleeding spanner 10 mm	135
518.0311 Brake bleeding spanner 11 mm	135

### CHROMEplus® Open double ring spanner, with revolving head

- 6 point
- Ring head 15° offset
- Opening 15° cranked
- Revolving head
- Chrome plated and mirror polished
- Chrome vanadium



Item	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	Weight
518.0378	8	7.0	7.0	18.0	18.0	128.0	50
518.0379	9	7.0	7.0	18.0	18.0	128.0	50
518.0380	10	7.0	7.0	18.0	18.0	128.0	50
518.0381	11	9.0	9.0	22.0	22.0	148.0	120
518.0382	12	9.0	9.0	22.0	22.0	148.0	120
518.0383	13	11.0	11.0	26.0	26.0	175.0	140
518.0384	14	11.0	11.0	26.0	26.0	175.0	140
518.0387	17	13.0	13.0	32.0	32.0	190.0	200
518.0389	19	13.0	13.0	32.0	32.0	190.0	200

### CHROMEplus® Open double ring spanner set, with flexible joint

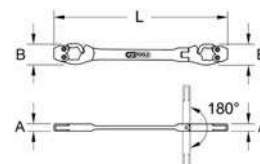
- 6 point
- Ring head 15° offset
- Opening 15° cranked
- With flexible head
- Chrome plated and mirror polished
- Chrome vanadium



Item	Weight
518.0350 3 pcs 10 - 11 - 12 mm	240
518.0360 5 pcs 8 - 9 - 10 - 11 - 12 mm	420
518.0370 3 pcs 14 - 17 - 19 mm	620

### CHROMEplus® Ratchet brake pipe spanner with flexible joint

- 6 point
- Straight form
- 180° revolving head
- With ratchet function
- Suitable for force fit applications
- Chrome plated and mirror polished
- Chrome vanadium




Item	mm	A mm	B mm	L mm	Weight
518.0321	11	10.3	19.0	155.0	115

### One handed multi function spanner

- Multi function spanner with ratchet function
- For complete screw working
- Adapts itself automatically to the screw size
- No slipping due to the coarse teeth
- Chrome vanadium

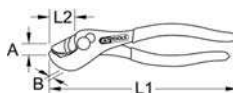



Item	dim mm	L mm	
114.0050	8-19	190.0	165
114.0051	14-32	300.0	515

## PLIERS

### Special pipe wrench

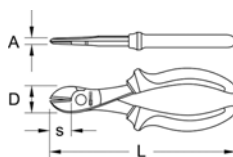
- 2 stage adjustment
- PVC dipped handle
- Ideal for round turned pipe fittings
- Polished surface
- Chrome vanadium




Item	A mm	B mm	L1 mm	L2 mm	
115.1361	0,0-16,0	7.0	178.0	23.0	180

### ERGOTORQUE® High leverage side cutter

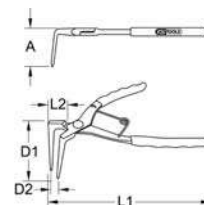
- In accordance to DIN ISO 5749
- Long cutting edge
- Suitable for various types of wire
- Induction hardened precision cutting
- Extremely robust execution
- Dual component handle
- Matt chrome
- Special tool steel




Item	A mm	D mm	L mm	S mm	
115.1025	13.0	32.0	260.0	31.0	390

### CLASSIC long arm circlip pliers for external circlips, angled

- Durable, extra long precision points
- 90° angled tips
- Self opening
- PVC dipped handle
- Ideal for brake caliper and transmission work
- Chrome vanadium




Item	A mm	D1 mm	D2 mm	L1 mm	L2 mm	
500.1037	63.0	18.0	4.0	185.0	18.0	190

## BRAKE PIPE FLARING


### Universal brake flaring tool set

- Easy and handy to use
- Hydraulic pressure spindle
- Enables use directly on the vehicle
- Prevents damages of the coated surfaces
- For the universal use in vehicle workshops
- Ideally suited to the use at brake connections and/or hydraulics connections
- For thin walled steel, aluminium and copper conductions
- For the manufacture of convex and double flared joints
- Fast and precise work results through straight flaring tool action
- No rotating prevents the pipe from splitting
- In durable plastic storage case



Item	
122.1270	12 pcs Universal brake flaring tool set 2.80

#### consists of:

Item	
122.1271	FLAREFIX Locking screw M12 x M1,25 50
122.1272	FLAREFIX Base body (red lacquered) 625
122.1273	FLAREFIX Clamping jaw set 4.75 mm ( Pair ) 50
122.1274	FLAREFIX Clamping jaw set 5.00 mm ( Pair ) 50
122.1275	FLAREFIX Clamping jaw set 6.00 mm ( Pair ) 50
122.1276	FLAREFIX Flaring cone SAE 4,75 + 5,00 mm 50
122.1277	FLAREFIX Flaring cone SAE 6,00 mm 50
122.1278	FLAREFIX Flaring cone SAE 4,75 + 5,00 mm 50
122.1279	FLAREFIX Flaring cone DIN 4,75 + 5,00 mm 50
122.1280	FLAREFIX Flaring cone DIN 6,00 mm 20
122.1281	FLAREFIX Hydraulic spindle 500
122.1282	FLAREFIX Hand grip with screw 150

## Clamping jaw set

- Replacement jaw (pair) for the Universal flaring tool 122.1270
- Special steel



Item	Ø mm	Ø	
122.1273	4,75	3/16"	50
122.1274	5,0		50
122.1275	6,0		50

## Flaring cone

- Replacement flaring cone for the universal flaring tool 122.1230 + 122.1250
- Special steel



Item		mm	
122.1276	OP1	4,75 - 5,0	50
122.1277	OP1	6,0	50
122.1278	OP2	4,75 - 5,0, 0-6, 0	50
122.1279		4,75 - 5, 0	50

## Universal brake flaring tool set

- Imperial sizes
- For the manufacture of convex and double flared joints
- For the universal use in vehicle workshops
- Ideally suited for brakes and hydraulic connections
- For thin walled steel, aluminium and copper conductions
- Automatic mandral return
- Fast and precise practical working
- Straight flaring
- No rotating prevents the pipe from splitting
- In durable plastic storage case



Item			
122.1230	14 pcs	Universal brake flaring tool set	4.27

consists of:

Item			
122.1244	Universal brake flaring, basic head	3270	
122.1231	Clamping jaw set 3/16" + 4.75 mm	50	
122.1232	Clamping jaw set 1/4"	50	
122.1233	Clamping jaw set 5/16"	50	
122.1234	Clamping jaw set 3/8"	50	
122.1236	Flaring cone OP0 (for alignment)	50	
122.1237	Flared cone OP1 4,75 mm	50	
122.1238	Flaring cone OP1 3/16"	50	
122.1239	Flaring cone OP1 1/4"	50	
122.1240	Flaring cone OP2 3/16" + 1/4"	50	
122.1241	Flaring cone OP1 5/16"	50	
122.1242	Flaring cone OP1 3/8"	50	
122.1243	Flaring cone OP2 5/16" + 3/8"	50	

## Universal brake flaring tool set

- Metric sizes
- For the manufacture of convex and double flared joints
- For the universal use in vehicle workshops
- Ideally suited for brakes and hydraulic connections
- For thin walled steel, aluminium and copper conductions
- Automatic mandral return
- Fast and precise practical working
- Straight flaring
- No rotating prevents the pipe from splitting
- In durable plastic storage case



Item			
122.1250	14 pcs	Universal brake flaring tool set	4.27

consists of:

Item			
122.1244	Universal brake flaring, basic head	3270	
122.1231	Clamping jaw set 3/16" + 4.75 mm	50	
122.1251	Clamping jaw set 5.0 mm	50	
122.1252	Clamping jaw set 6.0 mm	50	
122.1236	Flaring cone OP0 (for alignment)	50	
122.1237	Flared cone OP1 4,75 mm	50	
122.1254	Flaring cone OP1 4,75 / 5,0 mm	50	
122.1255	Flared cone OP1 4,75 mm	50	
122.1256	Flared cone OP1 5.0 mm	50	
122.1257	Flared cone OP1 6.0 mm	50	
122.1258	Flaring cone OP2 4,75 + 5,0 + 6,0 mm	50	
122.1259	Flared cone OP1 6.0 mm	50	

### Clamping jaw set

- Replacement jaw (pairs) for the Universal flaring tool 122.1230 + 122.1250
- Special steel



Item	Ø mm	Ø	Weight (g)
122.1231	5,0	3/16"	50
122.1251	5,0		50
122.1252	6,0		50
122.1253	8,0		50
122.1232		1/4"	50
122.1233		5/16"	50
122.1234		3/8"	50

### Flaring cone

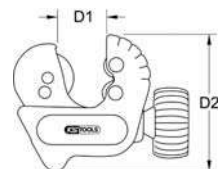
- Replacement flaring cone for the universal flaring tool 122.1230 + 122.1250
- Special steel



Item	Ø mm	Ø	Weight (g)
122.1236	OP0		50
122.1237	OP1	4,75	50
122.1254	OP1	4,75-5,0	50
122.1255	OP1	4,75	50
122.1256	OP1	5,0	50
122.1257	OP1	6,0	50
122.1258	OP2	4,75-5,0-6,0	50
122.1259	OP1	6,0	50
122.1261	OP1	8,0	50
122.1262	OP1	8,0	50
122.1263	OP2	8,0	50
122.1238	OP1	3/16"	50
122.1239	OP1	1/4"	50
122.1240	OP2	3/16" - 1/4"	50
122.1241	OP1	5/16"	50
122.1242	OP1	3/8"	50
122.1243	OP2	5/16" + 3/8"	50

### Mini pipe cutter

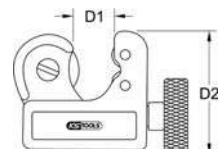
- Ergonomically designed
- For copper, brass and thin walled steel tubes
- With 2 support rollers
- With large impact head
- V<sup>2</sup>A cutter can be retrofitted
- Metal housing
- Special steel



Item	D1 mm	D2 mm	Metal	V <sup>2</sup> A	Plastic	Weight (g)
101.5000	3,0 - 28,0	55,0	101.1001	101.1002	-	260
101.5016	3,0 - 16,0	41,0	101.1001	101.1002	-	120
101.5022	3,0 - 22,0	50,0	101.1001	101.1002	-	120

### Mini pipe cutter

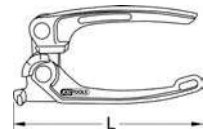
- For copper, brass and thin walled steel tubes
- With 2 support rollers
- V<sup>2</sup>A cutter can be retrofitted
- With hard chrome plated knurled knob
- Metal housing
- Special steel



Item	D1 mm	D2 mm	Metal	V <sup>2</sup> A	Plastic	Weight (g)
101.1000	3,0 - 16,0	35,0	101.1001	101.1002	-	100
101.2000	3,0 - 22,0	40,0	101.1001	101.1002	-	120

### 3 in 1 Mini bender

- For exact two handed bending up to 90°
- For copper, aluminum, brass and soft steel piping
- For 3 dimensions without exchange of bending segments
- Undersize and bend radius on the bending form
- Special steel

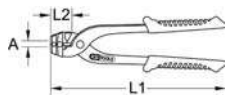


Item	Ø mm	Ø	L mm	Weight (g)
120.1050	3,0 + 4,75 + 6,0	1/8" + 3/16" + 1/4"	140,0	150



## Brake pipe bending pliers, 2 in 1

- For 4,75 and 6,00 mm brake pipes
- With plastic handle
- Ideally suitable for bending pipes directly
- Suitable for copper, steel, and plastic coated brake pipes
- Burnished
- Special tool steel



Item	A mm	L1 mm	L2 mm	kg
120.2000	0,0-27,5	240.0	37.0	400

## TEST EQUIPMENT

### Digital brake fluid tester

- For inspection of the brake fluid
- Exact measurement of the boiling point possible
- For measuring all brake fluids on Glykolbasis (DOT3, DOT4, DOT 5.1)
- Portable can be used anywhere just connect to a 12 V vehicle battery
- Measurement possible through a sample goblet and dropper also means testing outside of the vehicle
- Enormous time savings through testing directly in the fluid container
- Easy intelligible multilingual menu navigation
- Easy to read display
- Acknowledged by leading vehicle manufacturers
- Exceeds the requirements of the TÜV Austria
- Notice of an evtl. change of the brake fluid



#### Technical data:

Compatible for brake fluid: DOT3, DOT4, DOT5.1  
 Maximum Testing temperature: 320°C (608°F)  
 Output-version: °C oder °F  
 Operational voltage: 12 V  
 Dropper with test container 150.2195-1

Item	kg
150.2195	Digital brake fluid tester 1.25

### Digital brake fluid tester set with printer

- Includes printer with integrated software
- For inspection of the brake fluid
- Exact measurement of the boiling point possible
- For measuring all brake fluids on Glykolbasis (DOT3, DOT4, DOT 5.1)
- Portable can be used anywhere just connect to a 12 V vehicle battery
- Measurement possible through a sample goblet and dropper also means testing outside of the vehicle
- Enormous time savings through testing directly in the fluid container
- Easy intelligible multilingual menu navigation
- Easy to read display
- Acknowledged by leading vehicle manufacturers
- Exceeds the requirements of the TÜV Austria
- Notice of an evtl. change of the brake fluid



#### Technical data:

Compatible for brake fluid: DOT3, DOT4, DOT5.1  
 Maximum Testing temperature: 320°C (608°F)  
 Output-version: °C oder °F  
 Operational voltage: 12 V

Item	kg
150.2198	2 pcs Digital brake fluid tester set with printer 1.55

#### consists of:

Item	kg
150.2196	Digital brake fluid tester 1255
150.2197	Printer for digital brake fluid tester 150.2196 187

### Brake bleeder panel

- For the bleeding and filling of motor vehicle brake systems
- One man operation
- Suitable for all current vehicles
- Vacuum production over compressed air through special „Venturi“-effect
- Bubble development is prevented efficiently
- Includes vacuum pistol and fill up container
- 1 lt fill up container 1 lt with automatic control mechanism
- The compressed air operated pistol draws the old brake fluid through
- By means of fill up container this balances the new fluid container that becomes sucked through the Vacuum pistol system
- Includes 1/4" coupling connector



#### Technical data:

Operating pressure: min. 5,0 - max. 12,0  
 Connection thread: 1/4"PT  
 Operating temperature: -18°C up to max. 60°C  
 Exhaust tube length: 1 m  
 Collecting container volume: 2,0 l  
 Waste container volume: 1,0 l

Item	kg
150.2058	3 pcs Brake bleeder panel 1.81

#### consists of:

Item	kg
150.2301	Brake bleeding basic unit 950
150.2302	1 Litre filling cylinder 450
150.2303	Replacement tube 410

### Brake maintenance device KS5


- Portable brake maintenance device
- Very good and user friendly usage
- Mode of operation for use with original containers up to 5 litres
- Will not over fill the amount of brake fluid required
- Pressureless uncoupling on the vehicle
- Fast, clean and environmentally friendly working
- Pressure regulator and analogous pressure notice shows on the device front
- Automatic end switching off in empty container
- Manual on switch and empty switch
- Includes rubber cone set and euroadaptor E20
- Housing made from steel

**Application range:** Tyre business, petrol stations, motorcycle workshops, small motor vehicle workshops, etc.



#### Technical data:

Max Container size:	5 Liter
Working pressure:	ca. 0,4 bis 3 bar
Voltage:	230 V
Filling tube length:	3.5 m
Dimensions	400 x 200 x 300 mm

Item		
160.0700	Brake maintenance device KS5	7.00

### Brake maintenance device KS20


- Portable brake maintenance device
- Very good and user friendly usage
- Integrated suction for extracting the old brake fluid
- Damage on ABS brake systems is prevented
- Mode of operation for use with original containers up to 20 litres
- Will not over fill the amount of brake fluid required
- Fast, clean and environmentally friendly working
- Bleeding of the device after brake fluid change is not required
- Pressure regulator and analogous pressure notice shows on the device front
- Automatic end switching off in empty container
- Manual on switch and empty switch
- Includes rubber cone set and euroadaptor E20
- Housing made from steel

**Application range:** Tyre business, petrol stations, motorcycle workshops, small motor vehicle workshops, etc.



#### Technical data:


Max Container size:	20 Liter
Working pressure:	ca. 0,4 bis 3,5 bar
Voltage:	230 V
Filling tube length:	3.5 m
Dimensions	1000 x 400 x 400 mm

Item		
160.0705	Brake maintenance device KS20	20.00


### Universal adaptor set for brake bleeding

- Usable in connection with brake maintenance devices
- Valuable supplement
- Including a selection of adapters for brake fluid reservoir
- Special steel
- In durable plastic storage case



Item		
160.0710	4 pcs Universal adaptor set for brake bleeding	1.35

#### consists of:

Item		
160.0708	Universal adaptor	270
160.0709	Bayonet Adaptor	175
160.0713	Euro E20 Adapter with swivel angle connector	118
160.0715	G75 Threaded adaptor	215

### Brake fluid reception container

- Universal adapter
- Flexible silicone tube
- For catching the brake fluid during the bleeding




Item		
160.0735	1 l	300

### Suction and filling bottle

- Ideal remedy for the drop free bleeding off of brake fluid out of that reservoir (bottle)
- Special plastic

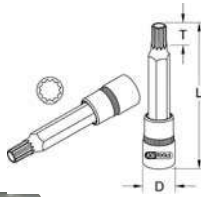


Item		
160.0738	Suction and filling bottle	92

## SOCKETS

### Bit socket for spline (XZN®) screws, long

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fitted nickel plated insert bit
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

Item		D mm	L mm	T mm	
911.1350	M5	22.0	110.0	72.0	130
911.1351	M6	22.0	110.0	72.0	130
911.1352	M8	22.0	110.0	72.0	130
911.1359	M9	22.0	110.0	72.0	180
911.1353	M10	22.0	110.0	72.0	130
911.1354	M12	22.0	110.0	72.0	130
911.1355	M14	22.0	110.0	72.0	180
911.1356	M16	22.0	110.0	72.0	180

### Bit socket set for spline (XZN®) screws, long

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fitted insert bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



1/2"

Item		
911.1358	6 pcs M5 - M6 - M8 - M10 - M12 - M14	0.93

consists of:

Item		
911.1350	1/2" XZN®-Bit-Socket M5 x 110mm	130
911.1351	1/2" XZN®-Bit-Socket M6 x 110mm	130
911.1352	1/2" XZN®-Bit-Socket M8 x 110mm	130
911.1353	1/2" XZN®-Bit-Socket M10 x 110mm	130
911.1354	1/2" XZN®-Bit-Socket M12 x 110mm	130
911.1355	1/2" XZN® Bit socket M14 x 110mm	180

### Drive shaft socket for spline (XZN®) screws

- For the dismantling and assembly of drive shaft screw joints
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Extra long execution
- With sandblasted insert bit
- Matt finish
- Chrome vanadium

Application range: VW, Audi, Seat, Skoda.



1/2"

Item		L mm	
150.1720	M8	800.0	580
150.1725	M10	800.0	580
150.1730	M12	800.0	580
150.1735	M14	800.0	580

### Drive shaft socket set for spline (XZN®) screws

- For the dismantling and assembly of drive shaft screw joints
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Extra long execution
- With sandblasted insert bit
- Matt finish
- Chrome vanadium

Application range: VW, Audi, Seat, Skoda.



1/2"

Item		
150.1740	4 pcs M8 - M10 - M12 - M14	2.50

### Drive shaft impact socket

- 12 point
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Very robust execution
- To operate the drive shaft center bolt
- Special steel



3/4"

Item	mm	D mm	L mm	
150.1702	24,0	34.0	51.5	370

### Special socket, long

- 12 point
- For Prop shafts, transmission flange shafts, fuel injectors etc
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Very robust execution
- Special steel

Application range: Mercedes Benz Truck Transmissions G2/24/26, Mercedes Benz Actros, etc.



1/2"

Item	mm	D mm	L mm	
150.1711	33,0	44.5	85.0	490

### Drive shaft special socket

- 6 point
- To operate the drive shaft center bolt
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Very robust execution
- Special steel

Application range: Land Rover + Range Rover



1/2"

Item	mm	D mm	L mm	
150.1719	52,0	70.0	77.0	400

## Special prop shaft impact socket set

- For loosening and tightening screws on drive shafts
- Internal square to DIN 3121 / ISO 1174 with ball reception
- Very robust execution
- Special steel
- Includes storage rail



Item				
<b>150.1750</b>	8 pcs	Special prop shaft impact socket set		4.20

consists of:

Item				
<b>150.1703</b>	Special socket 27 mm		350	
<b>150.1704</b>	Special socket 34 mm		430	
<b>150.1705</b>	Special socket 30 mm		450	
<b>150.1706</b>	Special socket 32 mm		490	
<b>150.1707</b>	Special socket 36 mm		520	
<b>150.1708</b>	Inner 6 point socket 14 mm		320	
<b>150.1709</b>	Inner 6 point socket 17 mm		340	
<b>150.1710</b>	Inner 6 point socket 19 mm		360	

## Thread repair set

- For the repair of internal and external threads
- Ideal for drive shafts, oxygen sensors, wheel bolts, shaft ends, etc.
- Sound reclamation of damaged or worn threads
- Suitable for a wide range of applications
- Can be used with a drive handle or socket with ratchet
- Repair body with inner and outer thread
- Ideally suitable for passenger cars, trucks and commercial vehicles
- In durable plastic storage case



Item				
<b>150.1470</b>	9 pcs	Thread repair set		1.37

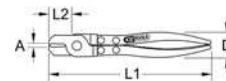
consists of:

Item				
<b>150.1466</b>	Drive mandrel Ø 8 x 80 mm		30	
<b>150.1471</b>	Thread repair body, for M14 x 1.5 Female / male thread		150	
<b>150.1472</b>	Thread repair body, for M16 x 1.5 Female / male thread		80	
<b>150.1473</b>	Thread repair body, for M18 x 1.5 Female / male thread		90	
<b>150.1474</b>	Thread repair body, for M20 x 1.5 Female / male thread		120	
<b>150.1475</b>	Thread repair body, for M22 x 1.5 Female / male thread		150	
<b>150.1476</b>	Thread repair body, for M24 x 1.5 Female / male thread		170	
<b>150.1477</b>	Thread repair body, for M27 x 2.0 Female / male thread		180	
<b>150.1478</b>	Thread repair body, for M28 x 1.5 Female / male thread		200	

## HOSE CLAMP & CV JOINT BOOT WORKING

### Hose clamp pliers, ear type

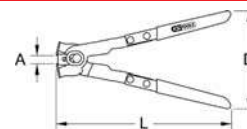
- Knurled handle
- To the dismantling and assembly of „ear type“ hose clamp
- For connections on axle boots, coolers and fuel hoses
- Universal usage
- Chrome molybdenum



Item	A mm	D mm	L1 mm	L2 mm	
<b>115.1039</b>	0,0-60,0	36.0	230.0	25.0	320

### Hose clamp pliers, ear type

- With PVC dipped handle
- For the fitting of ear clamps
- No sticking up of the ears during the press process
- Uniform compressing of the ear piece
- No damage of the sleeve
- Nickel plated execution
- Chrome molybdenum



Ideally suitable for axle boots, radiators and fuel pipes on models from VW, Audi, Opel, BMW, Mercedes Benz, Honda, Nissan and Mazda.



Item	A mm	D mm	L mm	
<b>115.1050</b>	0,0-22,0	40.0	260.0	380

### Hose clamp pliers

- Work side
- For compressing locking hose clips
- With PVC dipped handle
- Chrome vanadium

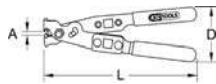


Item	L mm	
<b>115.1185</b>	240.0	335



## Hose clamp pliers

- With PVC dipped handle
- With 3/8" drive for use with a torque wrench
- For the fitting and clamping of ear clamps
- 1/2" 4 point recess in the handle for additional use with a torque wrench
- Chrome molybdenum



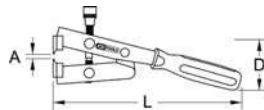
Ideally suitable for VW, Opel, Seat, GM, Ford, Nissan, Mercedes, Mazda, Honda, Chrysler, BMW and Audi.



Item	A mm	D mm	L mm	Weight
115.1053	0,0-17,0	45.0	240.0	540

## Hose clamp pliers for torque wrench

- Black plastic handle
- 3/8" drive for use with a torque wrench
- Enables clamping and/or copressing of the hose clamps
- Suitable for the stainless steel hose clamps on drive shafts
- Very light and robust aluminium construction



Item	A mm	D mm	L mm	Weight
115.1056	0,0-45,0	31.0	270.0	570

## Clamping and cutting tool for tubing bands

- Straps for attaching to CV joint boots
- Integrated clamping and cutting device
- Suitable for prefabricated and endless band clamps up to 9.5 mm
- Band tensioner with adjustable and reversible ratchet
- Special steel



Item	L mm	Weight
115.1059	163.0	390

## Hose strap cutter, angled

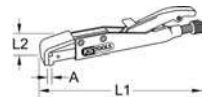
- To be sliced from earless hose clamps
- For connections on axle boots, coolers and fuel hoses
- Dipped covered handle
- Chrome vanadium



Item	L mm	Weight
115.1186	220.0	345

## Welding gripping pliers

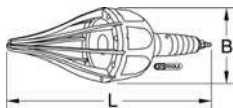
- For applications that need a straight jaw
- Slim design
- Jaws from special steel
- Easy locking action
- Quick release lever
- Size adjustment using the adjustment wheel
- For right angled terminals in the fold
- For difficult to access areas
- Nickel plated handle
- Chrome molybdenum



Item	A mm	L1 mm	L2 mm	Weight
115.1084	0,0-16,0	210.0	30.0	548

### Pneumatic assembly tool for CV joint boots

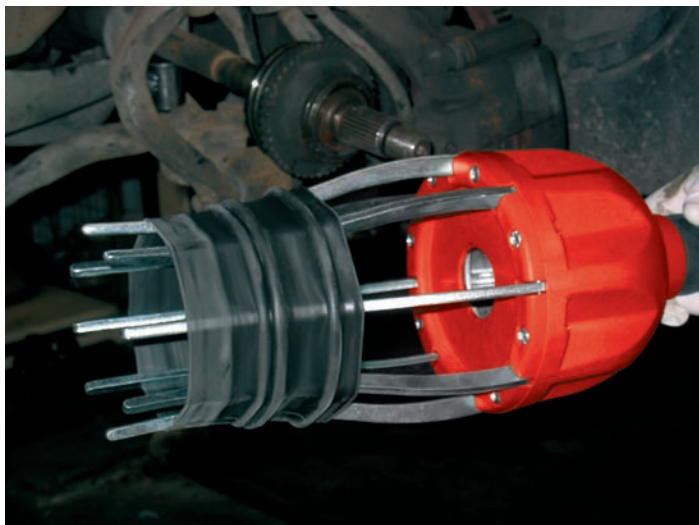
- Air exhaust through the handle rear end
- Suitable for all universal and original vehicle CV joint boots
- For CV joint boots diameter from 20 - 120 mm
- Expanding of the joint arms through compressed air
- Air pressure is regulated through a button
- No additional lubricant necessary
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing from special plastic



#### Technical data:

Max. expansion diameter:	120 mm
Operating pressure:	max. 8 bar
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

Item	B mm	L mm	
515.3100	148.0	450.0	2.50



### CV joint boot KS 100

- Low storage costs and fast availability due to the versatility
- Quick and easy installation
- Exchange directly on the vehicle is possible without disassembling the prop shaft
- Can be used with mounting cones or pneumatic fitting tool 515.3100
- Includes stainless steel clamps and grease



Item			
515.3125	CV joint boot KS 100	330	

### CV joint boot KS 200

- Low storage costs and fast availability due to the versatility
- Quick and easy installation
- Exchange directly on the vehicle is possible without disassembling the prop shaft
- Can be used with mounting cones or pneumatic fitting tool 515.3100
- Includes stainless steel clamps and grease



Item			
515.3130	CV joint boot KS 200	330	

### CV joint boot KS 300

- Low storage costs and fast availability due to the versatility
- Quick and easy installation
- Exchange directly on the vehicle is possible without disassembling the prop shaft
- Can be used with mounting cones or pneumatic fitting tool 515.3100
- Includes stainless steel clamps and grease



Item			
515.3135	CV joint boot KS 300	330	

### CV joint boot KS 400

- Low storage costs and fast availability due to the versatility
- Quick and easy installation
- Exchange directly on the vehicle is possible without disassembling the prop shaft
- Can be used with mounting cones or pneumatic fitting tool 515.3100
- Includes stainless steel clamps and grease



Item			
515.3140	CV joint boot KS 400	350	

### CV joint boot KS 500

- Low storage costs and fast availability due to the versatility
- Quick and easy installation
- Exchange directly on the vehicle is possible without disassembling the prop shaft
- Can be used with mounting cones or pneumatic fitting tool 515.3100
- Includes stainless steel clamps and grease



Item			
515.3145	CV joint boot KS 500	330	

### CV joint boot KS 600

- Low storage costs and fast availability due to the versatility
- Quick and easy installation
- Exchange directly on the vehicle is possible without disassembling the prop shaft
- Can be used with mounting cones or pneumatic fitting tool 515.3100
- Includes stainless steel clamps and grease



Item			
515.3150	CV joint boot KS 600	330	

### CV joint boot KS 700

- Low storage costs and fast availability due to the versatility
- Quick and easy installation
- Exchange directly on the vehicle is possible without disassembling the prop shaft
- Can be used with mounting cones or pneumatic fitting tool 515.3100
- Includes stainless steel clamps and grease



Item			
515.3155	CV joint boot KS 700	350	

### CV joint boot KS 800

- Low storage costs and fast availability due to the versatility
- Quick and easy installation
- Exchange directly on the vehicle is possible without disassembling the prop shaft
- Can be used with mounting cones or pneumatic fitting tool 515.3100
- Includes stainless steel clamps and grease



Item			
515.3160	CV joint boot KS 800	350	

### CV Joint boot set

- Almost 100% coverage of all cars
- Low storage costs and fast availability due to the versatility
- Quick and easy installation
- Exchange directly on the vehicle is possible without disassembling the prop shaft
- Can be used with mounting cones or pneumatic fitting tool 515.3100
- Includes stainless steel clamps and grease



Item			
515.3165	8 pcs CV Joint boot set	3.10	

#### consists of:

Item			
515.3125	CV joint boot KS 100	330	
515.3130	CV joint boot KS 200	330	
515.3135	CV joint boot KS 300	330	
515.3140	CV joint boot KS 400	350	
515.3145	CV joint boot KS 500	330	
515.3150	CV joint boot KS 600	330	
515.3155	CV joint boot KS 700	350	
515.3160	CV joint boot KS 800	350	

### Universal CV joint boot kit, small

- For almost all car types
- Low storage costs and fast availability due to the versatility
- Quick and easy installation
- Exchange directly on the vehicle is possible without disassembling the prop shaft
- Can be used with mounting cones or pneumatic fitting tool 515.3100
- Neoprene joint boots with a longer life
- With a large grip area for wide clamps
- Includes stainless steel clamps and grease



Item			
515.3115	Universal-CV joint boot kit, small	240	

### Universal CV joint boot set

- For almost all car types
- Low storage costs and fast availability due to the versatility
- Quick and easy installation
- Exchange directly on the vehicle is possible without disassembling the prop shaft
- Can be used with mounting cones or pneumatic fitting tool 515.3100
- Neoprene joint boots with a longer life
- With a large grip area for wide clamps
- Includes stainless steel clamps and grease



Item			
515.3110	12 pcs Universal CV joint boot set	2.88	

## Universal CV joint boot kit, large

- For almost all car types with larger diameter as vans
- Low storage costs and fast availability due to the versatility
- Quick and easy installation
- Exchange directly on the vehicle is possible without disassembling the prop shaft
- Can be used with mounting cones or pneumatic fitting tool 515.3100
- Neoprene joint boots with a longer life
- With a large grip area for wide clamps
- Includes stainless steel clamps and grease



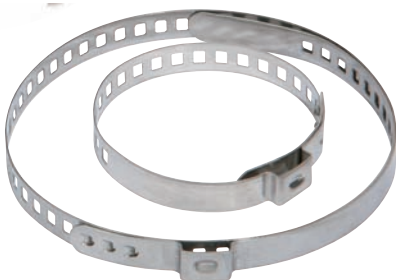
### Technical data:

Suitable for crimping:	28,0 - 40,0 mm
Suitable for joints	80,0 - 125,0 mm
Expansibility:	bis max. 600 %
Temperature constancy:	von -40° C bis 110° C

Item			
515.3120	Universal CV joint boot kit, large	360	

## Stainless steel band

- For CV joint boots
- Sizes adjustable
- Stainless steel



Item	Ø mm	Content	
515.3170	19,0-50,0	100	600
515.3175	40,0-120,0	100	1200



## SUSPENSION & SHOCK ABSORBER WORK

### Suspension strut tool set

- For repairs and maintenance in the suspension strut area
- Applicable for all standard vehicles
- For clamping the piston rod when removing and installing the shock absorber
- For the shock absorber piston rods to suit the precise torque
- Bits hardened
- Chrome vanadium
- In durable plastic storage case



Item			
150.9400	39 pcs	Suspension strut tool set	6.30

### consists of:

Item		
150.9401	Suspension strut entrainer socket, 10.5 mm, VW	60
150.9402	Suspension strut entrainer socket, 12.5 mm, VW	50
150.9403	Suspension strut entrainer socket, 14.5 mm, VAG	50
150.9404	Suspension strut entrainer socket, 14.5 mm, Austin	50
150.9405	Suspension strut entrainer socket, 14.0 mm, MB W203	60
150.9414	Suspension strut socket, 14 mm	130
150.9416	Suspension strut socket, 16 mm	140
150.9417	Suspension strut socket, 17 mm	140
150.9418	Suspension strut socket, 18 mm	180
150.9419	Suspension strut socket, 19 mm	180
150.9421	Suspension strut socket, 21 mm	200
150.9422	Suspension strut socket, 22 mm	220
150.9424	Suspension strut socket, 24 mm	250
150.9427	Suspension strut socket, 27 mm	320
150.9434	Suspension strut 10 mm-Bit, 4 mm, Nissan	90
150.9435	Suspension strut 10 mm-Bit, 5.2 mm, VAG, Nissan	90
150.9436	Suspension strut 10 mm-Bit, 6 mm, VAG, Renault	100
150.9437	Suspension strut 10 mm-Bit, 6.3 mm, Nissan	100
150.9438	Suspension strut 10 mm-Bit, 7 mm, VAG, Seat, Fiat	100
150.9439	Suspension strut 10 mm-Bit, 8 mm, Seat, Fiat	100
150.9440	Suspension strut 10 mm-Bit, 9 mm, div Japan	110
150.9441	Suspension strut 10 mm-Bit, 10 mm, Seat, Fiat, Volvo	110
150.9442	Suspension strut 10 mm-Bit, 12 mm, Seat, Fiat	110
150.9445	Suspension strut 10 mm-Bit D-Profil, 5 mm, Nissan	90
150.9450	Suspension strut 10 mm-Bit D-Profil, 10 mm, Nissan, Ford	110
150.9458	Suspension strut 10 mm-Bit, 8 mm, BMW	90
150.9459	Suspension strut 10 mm-Bit, 9 mm, Opel, Chrysler	90
150.9460	Suspension strut 10 mm-Bit, 10 mm, Opel, Chrysler	90
150.9461	Suspension strut 10 mm-Bit, 11 mm, div Japan	100
150.9465	Suspension strut 10 mm-Bit, 5 mm, Honda	100
150.9466	Suspension strut 10 mm-Bit, 6 mm, div Europe, Japan	100
150.9467	Suspension strut 10 mm-Bit, 7 mm, div Europe	100
150.9468	Suspension strut 10 mm-Bit, 8 mm, Mercedes	100
150.9473	Suspension strut 10 mm-Bit, 3 mm, Mercedes	80
150.9474	Suspension strut 10 mm-Bit, 3.5 mm, Chrysler, Ford	80
150.9475	Suspension strut 10 mm-Bit, 4 mm, Peugeot, Citroen	80
150.9481	Suspension strut 10 mm-Bit, Spline M12 Opel	100
150.9482	Suspension strut 10 mm-Bit, TX T50, Ford	100
150.9483	Suspension strut 10 mm-Bit, TX T60, Nissan, Ford	100



### Grooved nut key wrench set

- Especially for Audi and VW
- For the disassembly and assembly of locknuts on top mount
- Chrome vanadium

**Application range:** Audi, Volkswagen, Skoda, Seat, etc.



Item				
150.9410	3 pcs	Grooved nut key wrench set	170	

consists of:

Item				
150.9401	Suspension strut entrainer socket, 10.5 mm, VW	60		
150.9402	Suspension strut entrainer socket, 12.5 mm, VW	50		
150.9403	Suspension strut entrainer socket, 14.5 mm, VAG	50		

### Shock cone type key for Mercedes Benz

- Recess in the key head for access via piston rod
- Plastic covered shaft prevents damage
- Wrench head with 3 studs Ø 8 mm
- To operate the shock absorber
- With dual component handle

**Application range:** Mercedes-Benz Type 211 T-Model



Item	L mm		
150.9485	240.0	200	

### Brake arm for suspension strut screw joint, Mercedes Benz A class

Special double ring key to holding against in the operation of the lower suspension strut screw joint.  
Use in shock absorber removal and installation, surveying and adjustment of MB type 169 (A class) before 2004.  
Length: 90 mm  
Width: 30 mm  
Spanner width: 2 x SW 21, 12 point



Item	dim mm	L mm	B mm		
150.3021	21,0	90.0	30.0	120	



### Flange spreading socket set

- Stub axle for clamping bores or ball joint reception
- Facilitates the disassembly and assembly
- For almost all popular vehicles
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Matt finish
- Chrome vanadium



1/2"

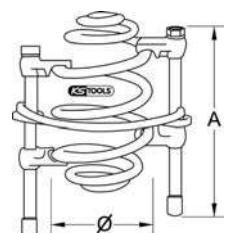
Item				
150.9490	2 pcs	Flange spreading socket set	120	

consists of:

Item				
150.9491	Flange spreader, 5.0mm	60		
150.9492	Flange spreader, 5.5mm	60		

### Coil spring compressor with safety latch

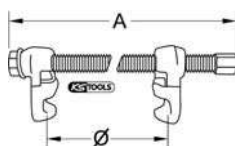
- Change without removing the shock absorber strut
- Variable safety bar prevents slipping
- For vehicles up to max. 2000 kg
- Suitable for impact wrenches
- Meets the requirements of the professional (ZH1/454)
- GS approved
- Special steel



Item	A mm	Ø mm	Max travel mm	max t	mm	dim mm	kg
670.0021	240	110-180	200	3,5	M18x2 x 280	19	2.40
670.0041	300	110-180	300	1,8	M16 x 380	17	2.80

### Coil spring compressor with safety latch and plastic coated hook

- Change without removing the shock absorber strut
- Variable safety bar prevents slipping
- For vehicles up to max. 2000 kg
- Suitable for impact wrenches
- Meets the requirements of the professional (ZH1/454)
- GS approved
- Special steel



Item	A mm	Ø mm	Max travel mm	max t	mm	dim mm	kg
670.0031	240	110-180	200	3,5	M18x2 x 280	19	2.50
670.0051	300	110-180	300	1,8	M16 x 380	17	2.90

### Safety holder for coil spring compressor

- Increased safety
- Safe clamping and loosening
- Red lacquer
- Special steel



Item	B mm	T mm	H mm	kg
500.8622	345.0	365.0	400.0	115

### Coil spring compressor set

- Universal for 90% of all common types of vehicles
- With 2 standard jaw holders
- Simple and secure clamping in the vise
- Ergonomic high tech polyurethane grip
- With working spindle that can be used with an impact wrench
- Jaw holders plastic coated
- Jaws are fitted with a nose that locks the spring during stretching to increase security and safety
- Can bear according to the TÜV approval extraordinarily high loads with a maximum capacity of 2250 kg
- A shear pin protects against overload
- Special steel



Spring force max: 2250 kg  
 Opening of jaws min: 65.0 mm  
 Jaw width max: 364.0 mm  
 Spring capacity: 80,0 - 195,0 mm

Item	kg
500.8620 5 pcs Coil spring compressor set	10.70

#### consists of:

Item	kg
500.8621 Base body max. load 2250 kg	5.20
500.8507 Standard spring jaw with a diameter of 80.0 to 145.0 mm 1 piece	3.20
500.8506 Standard spring jaw with a diameter of 145.0 to 195.0 mm 1 piece	4.00

### Accessories:

Item	kg
500.8507 Standard spring jaw with a diameter of 80.0 to 145.0 mm 1 piece	3.20
500.8506 Standard spring jaw with a diameter of 145.0 to 195.0 mm 1 piece	4.00
500.8511 Standard spring jaw with a diameter of 140.0 to 170.0 mm 1 piece	3.50
500.8512 Standard spring jaw with a diameter of 180.0 to 230.0 mm 1 piece	4.50
500.8503 Standard spring jaw with a diameter of 80.0 to 120.0 mm 1 piece	3.36
500.8509 Standard spring jaw for BMW E39, E46, Renault Megane 2, Toyota Avensis 1 piece	2.40
500.8510 Standard spring jaw for Mercedes Benz C-Class 1 piece	0.80
500.8513 Special spring jaw holder for Mercedes Benz E-Class and Renault Megane 2 1 Piece	2.40
500.8515 Standard spring jaw for Chrysler Voyager, „left handed“ jaw 1 piece	2.80

### Universal coil spring compressor set

- For all standard vehicle springs in the cars and vans sector
- 2 standard jaw holders
- Robust execution
- Cost effective and robust alternative to conventional spring tensioner
- Also suitable for conical and ball springs
- Universal for 90% of all common types of vehicles
- Working spindle that can be used with an impact wrench
- Jaw holders plastic coated
- Can bear according to the TÜV approval extremely high loads, with a maximum load of 2600 kg
- A shear pin protects against overload
- Special steel



Spring force max: 2600 kg  
 Opening of jaws min: 50.0 mm  
 Jaw width max: 310.0 mm  
 Spring capacity: 80,0-195,0

Item	kg
500.8700 4 pcs Universal coil spring compressor set	13.50

#### consists of:

Item	kg
500.8701 Spring compressor based unit, 500 mm, max spring pressure. 2600 kg	6.00
500.8703 Safety pin set 4 + 5 mm, 10 pcs.	0.10
500.8705 Standard spring holder with a double stop fuction, gr. 1 80 - 160 mm	3.50
500.8706 Standard spring holder with a double stop fuction, gr. 2 140 - 195 mm	4.00
500.8707 Arresting cable	0.20

### Adaptor set for Mercedes Benz and BMW

- For Mercedes Benz C-and E-class, BMW 3 Series (E64) and 5 series (E39)
- Can be used in conjunction with the spring tensioner 500.8700
- Adapter is used in conjunction with the standard jaws
- Special steel



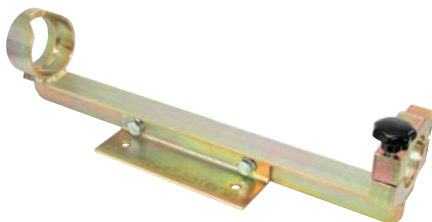
Item				
500.8710	2 pcs	Adaptor set for Mercedes Benz and BMW	0.50	

#### consists of:

Item				
500.8711	Adaptor large	350		
500.8712	Adaptor small	150		

### Spring compressor bracket

- Bracket specially designed for spring compressor 500.8700
- Makes working on suspension struts easy and safe
- Can be wall or vice mounted
- Special steel



item	L mm			
500.8704	90.0	1.50		

### Eccentric clamping and turning device

- For the removal and rotation of the round or hexagonal track rod joints (steering and wheel end)
- Due to the knurled eccentric cam it allows from optimal grip even at the joints without drive (round)
- Hexagon socket dim. 19
- For use on the workbench or directly on the vehicle
- Additional stopper prevents slipping during the splitting process
- Special steel



Item	Ø mm	Ø mm		
150.1640	33-41	31-35	300	

### Eccentric clamping and turning device

- Universally applicable one sided opening
- To remove and turning the tie rod joints (steering and wheel end)
- Due to the knurled eccentric cam it allows from optimal grip even at the joints without drive (round)
- Hexagon socket dim. 19
- For use on the workbench or directly on the vehicle
- Additional stopper prevents slipping during the splitting process
- Special steel

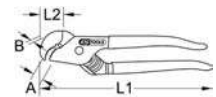


Item	Ø mm	Ø mm		
150.1635	1-50	1-42	300	

### CHASSIS & STEERING

### Special pipe wrench

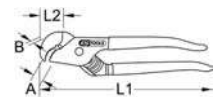
- 4 stage industrial adjustment
- PVC dipped handle
- Optimum power transfer
- Grooved handle adjustment
- Polished surface
- Ideally suited for twisting both thrust and track rods
- Usably on axle joints and exhaust pipes
- Chrome vanadium



Item	A mm	B mm	L1 mm	L2 mm		
115.1362	0,0-30,0	12.0	242.0	30.0	470	

### Special pipe wrench

- 6 stage industrial adjustment
- PVC dipped handle
- Optimum power transfer
- Grooved handle adjustment
- Polished surface
- Ideally suited for twisting both thrust and track rods
- Usably on axle joints and exhaust pipes
- Chrome vanadium



Item	A mm	B mm	L1 mm	L2 mm		
115.1363	0,0-51,0	15.0	345.0	41.0	1.10	

## Chassis adjustment system

- This was specially developed specifically for use on cars and vans with 4 or 5 hole pitch
- Ideal for practical assistance with repairs and assembly of steering and chassis components for motor vehicles
- Ideal for replacement work on shock absorbers, suspension springs and top mount
- Also applicable for the exchanging of tie rod end, tie rod or axle joints
- Easy installation and easy handling
- Very short setup time - for universal use
- Optimization of the repair process by eliminating a time consuming and costly alignment
- Economical restoration
- In durable plastic storage case

**Application range:** Shock absorbers in vehicles with long hole reception for example VW Golf / Passat or track parts on adjustable vehicle rear axles for example Mercedes Benz.

**Please note:** The use of the chassis adjuster is no replacement for an axle alignment In most cases, the adjustment with the chassis adjuster is however perfectly sufficiently in order to guarantee a flawless function of the axle after a repair has been completed.

**Method of operating:** By means of both lasers points on a screen (e.g. wall, ground, wheel course etc.) a firm designation with adhesive tape mounted. This marks the exit condition before the repair and measures in the case an intervention into the trace attitude (e.g. trace pole head change) on the driver and passenger side made. After the repair, the laser points, for example through the screwing in and/or turning off of the new trace pole head, are brought again exactly with the designations of the driver and passenger side simultaneously At the same time the designation of the unrepaired side serves, for example in an intervention into the slump adjustment, again and again as a reference brand.



Item				
150.1800	15 pcs	Chassis adjustment system	2.80	

### consists of:

Item				
150.1801	2 x	base plate for 4 - and 5-hole pitch	598	
150.1802	2 x	Laser Units	73	
150.1803	4 x	Bolts M12 x 1.5	59	
150.1804	4 x	Bolts M14 x 1.5	59	
150.1805	1 x	roll Fixpoint Labels	45	

## Steering readout scale

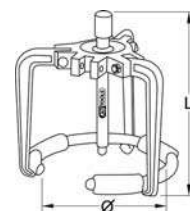
- For fast and accurate alignment of the steering wheel during the wheel alignment
- For optimal use in the assembly and disassembly of steering wheels
- Large clamping range
- Ideally suitable for passenger cars, vans and trucks
- Aluminium



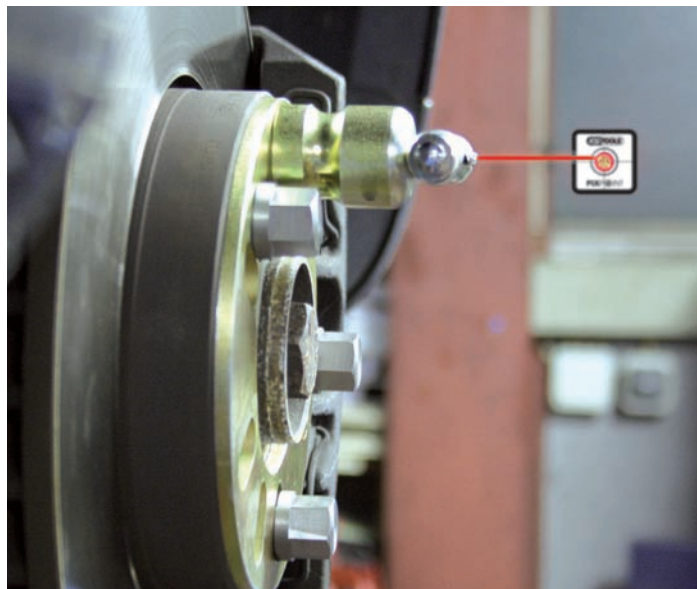
Item	Operation range mm	L mm		
515.3183	270-350 mm	370.0	205	

## Universal steering wheel puller 3 arm

- For steering wheels with three or four spokes
- Tie rings with rubber sleeve for protection on the steering wheel
- Special steel

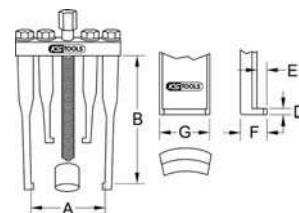


Item	Ø mm	L mm	max t	mm	dim mm		
670.0191	160	120	4	M14x1,5 x 130	17	1.90	



## Universal steering wheel puller 2 arm for cars

- Short and long hooks as well as pressure piece for spindle
- Extremely robust spindle with inductively hardened Thread
- Special steel



Item	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm		
670.0201	90	135	2,5	M14x1,5 x 130	17	5	3,5	11	7,5	0.90	







## FORK SEPARATORS

### Separating and assembly fork

- For quick loosening of track and steering rod ends steering arms and additional controlling parts
- Suited to the dismantling of shock absorbers
- Ideal for confined spaces
- Special steel

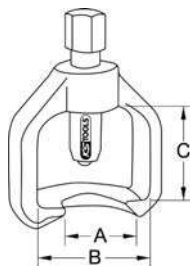


Item	A mm	L mm	kg
670.0091	18	330	0.90
670.0092	23	330	0.90
670.0093	31	330	1.10
670.0094	35	330	1.30
670.0095	45	330	1.50

## BALL JOINT SEPARATORS

### Universal pivot pin separator

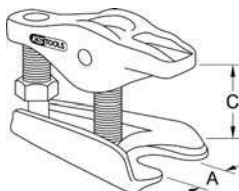
- For many automobiles and commercial vehicles
- Special steel



Item	A mm	B mm	C mm	max N·m	mm	dim mm	kg
670.0101	18	40	40	50	M14x1,5 x 60	17	0.30
670.0102	25	50	50	120	M16x1,5 x 60	17	0.70
670.0103	29	60	60	160	M18x1,5 x 75	19	1.00
670.0104	40	80	80	280	G1/2"x14g x 110	22	2.10
670.0105	45	90	100	400	G3/4"x14g x 125	27	2.80
670.0106	58-80	80	80	280	G1/2"x14g x 110	22	2.10

### Universal ball joint separator

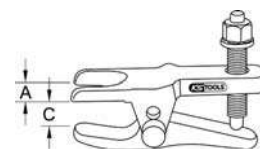
- For separating the ball plug in the extension of the ball joint
- Suitable for many vehicles
- Special steel



Item	A mm	C mm	max t	dim mm	mm	kg
670.0111	18-22	50	3,5	19	M14 x 1,5 x 48	0.90

### Universal ball joint separator 2 stage adjustable

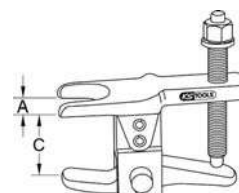
- Separator 2 stage adjustable
- Ideal for confined spaces
- Spindle hexagonal with additional drive point
- Forged
- Special steel



Item	A mm	C mm	mm	dim mm	kg
700.5610	18-24	0-55	M16 x 90	20	1.05

### Universal ball joint separator 2 stage adjustable

- Separator 2 stage adjustable
- Ideal for confined spaces
- Extremely high clamping range
- Spindle hexagonal with additional drive point
- Forged
- Special steel



Item	A mm	C mm	mm	dim mm	kg
700.5615	18-24	23-110	M16 x 130	16	1.20

### Universal ball joint separator

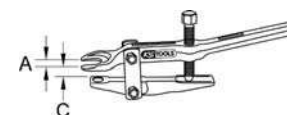
- Extra flat execution
- Forged
- Special steel



Item	A mm	C mm	mm	dim mm	kg
700.5620	18	20-37	M14 x 85	16	0.97

### Universal ball joint separator

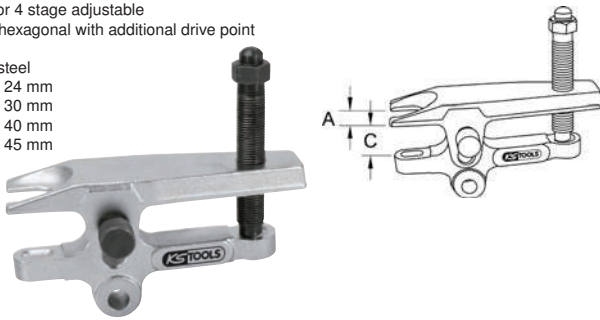
- Extra strong execution
- Forged
- Special steel



Item	A mm	C mm	mm	dim mm	kg
700.5625	20	20-37	M12 x 85	16	1.07

## Universal ball joint separator 4 stage adjustable

- Separator 4 stage adjustable
- Spindle hexagonal with additional drive point
- Forged
- Special steel
- Stage 1: 24 mm
- Stage 2: 30 mm
- Stage 3: 40 mm
- Stage 4: 45 mm



Item	A mm	C mm	mm	dim mm	kg
700.5630	20	24-45	M14 x 105	18	1.50

## Universal pivot pin ejector set

- For bolt circle diameter up to 300 mm
- Universal use for bolts up to max. Ø 22 mm
- Special steel
- In durable plastic storage case



Item			kg
670.0060	3 pcs	Universal pivot pin ejector set	2.90

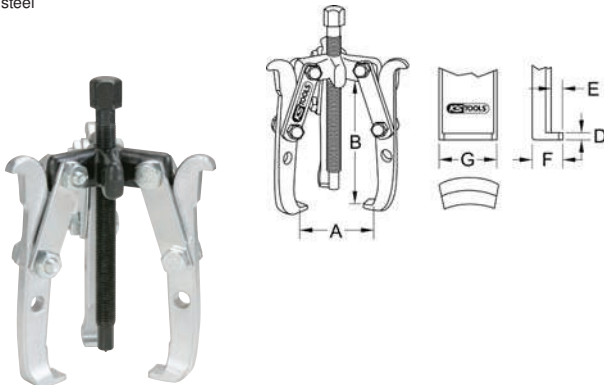
consists of:

Item		kg
670.0061	Universal ball joint separator Ø 23.0 mm	800
670.0062	Universal ball joint separator Ø 28.0 mm	800
670.0063	Universal ball joint separator Ø 34.0 mm	900

## PULLERS

### Universal puller 2 and 3 arm

- Hooks for double sided applications
- Reception star for 2 or 3 hooks
- Extremely robust spindle with inductively hardened thread
- Special steel



Item	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
700.1120	70	75	1.2	3/8"x24Gg x 120	13	3,2	8,4	20	8,4	0.96
700.1130	120	150	1,2	M14x1,25 x 175	16	7,2	7	17,8	7,0	1.83

## Universal puller set

- Slim hooks
- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Through reconnecting the hooks internal and external applications are suitable
- Different hook variants and hydraulic spindles can be retrofitted
- Extremely robust spindle with inductively hardened thread
- Requires light expenditure of energy
- Special steel



Item			kg
700.1300	12 pcs	Universal puller set	6.69

consists of:

Item		kg
700.1311	Spindel M14 x 1,5 with Pressure cone	180
700.1312	Two armed traverse	485
700.1313	Three armed traverse	675
700.1314	Draw-off arm 100 mm	250
700.1315	Draw-off arm 210 mm	530
700.1316	Draw-off arm 260 mm	640

## Hydraulic universal puller set 2 arm and 3 arm

- Less risk of slippage due to automatically closing pulling arm
- 8 length positions possible
- Extremely robust spindle with inductively hardened thread
- Requires light expenditure of energy
- Special steel
- In durable plastic storage case



Item			kg
700.1200	22 pcs	Hydraulic universal puller set 2 arm and 3 arm	16.40

consists of:

Item		kg
700.1400-1	Hydraulic spindle with centering point - Ag 1.1/2" x 16 G	210
700.1202	Draw-off arms, with precise beveled cutting draw-off clamp, 4"	410
700.1203	Draw-off arms, with precise beveled cutting draw-off clamp, 6"	600
700.1204	Draw-off arms, with precise beveled cutting draw-off clamp, 8"	840
700.1205	Traverse for 2 arms, quick conversion	300
700.1206	Traverse for 3 arms, quick conversion	760
700.1207	Spindle extension, 20 mm with centering pin	50
700.1208	Thrust bolt extension, 35 mm	130
700.1209	Thrust bolt extension, 85 mm	320
700.1210	Pull ring for Hydraulic spindle, → 700.1201	290
700.1221	Traverse for bearing separating tool	1480
700.1222	Extension for bearing separating tool, 185 mm Length	1060
700.1223	Tie rod for bearing separating tool, 235 mm	1110

### Universal puller set

- Hooks for double sided applications
- Reception star for 2 or 3 hooks
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case



Item			kg	
700.1100	3 pcs	Universal puller set	4.39	

#### consists of:

Item		kg	
700.1100-10	Spindle large	200	
700.1100-11	Spindle small	60	
700.1100-2	Traverse large	310	
700.1100-3	Traverse small	95	
700.1100-4	Puller arm large	250	
700.1100-5	Puller arm small	75	
700.1100-6	Connection plate large	40	
700.1100-7	Connection plate small	10	
700.1100-8	Screw with nut, large	20	
700.1100-9	Screw with nut, small	10	

### Bearing assembly and deassembly tool set

- Can be used manually with a hammer or workshop press
- Optimal placing through the pressure plates
- For easy and damage free assembly
- For the correct dismantling and assembly of bearings
- Suitable for commercial, agricultural engineering and construction machines
- Forged, robust execution
- Special steel
- In durable plastic storage case



Item			kg	
450.0080	5 pcs	Bearing assembly and de assembly tool set	6.45	

#### consists of:

Item		kg	
450.0082	Pressure plates (use with press)	0.51	
450.0083	Impact plates long (use with a hammer)	1.91	
450.0084	Special 6-point socket for mandral shaft	0.34	
450.0088	Universal 3 jaw thrust piece	0.20	
450.0087	Locking bolt for jaw spreading	2.07	

### Clamp screw ejector set

- For clamp screws on four joint front axles
- Extremely robust spindle with inductively hardened thread
- Special steel



Item			kg	
670.0080	2 pcs	Clamp screw ejector set	1.70	

#### consists of:

Item		kg	
670.0081	Clamp screw solver 16mm	1100	
670.0082	Clamp screw ejector 12mm	600	

## AXLE TOOLS



### Movement test device

- Universal usage tool for the determination of sign of wear
- By means of the universal wheel hub flange the lever is secured directly to the wheel hub and serves therefore as an extended arm to the absolutely sensitive locating of excess mobility or changes in the area
- Ideal suited for wheel housings, Silent baerings, ball joints (Tie rod joints) suspension joints/coupling rods etc.



Item	Ø mm	L mm	kg	
700.1455	36,0	840.0	6.00	

#### consists of:

Item		kg	
700.1411	Wheel hub/drive flange dismatling tool	2.55	
700.1450	Movement Test lever , Reception AG 1.1/2" x 16G	3.24	



## Universal axle lever

- Special lever for the correct and protective dismantling and assembly of axle parts
- Through multiple adjustability of the breadth most different designs it lets itself move without large power expense required
- Protective and certain installation and extension
- The injury risk minimizes
- No second person required
- Universal application by revolving and adjustable claw
- High power, firm seat and time savings also
- Stable construction - optimal stop
- Special steel



Item	L mm	
700.1460	1000.0	4.36



## Mechanical nut splitter set

- For the splitting of seized or over tightened bolts without damage to the bolt thread
- Suitable for nuts to a tensile strength class 6
- Special steel



Item			
700.1180	4 pcs	Mechanical nut splitter set	1.58

### consists of:

Item		
700.1181	Nut splitter 9 - 12 mm, drive 12 mm	90
700.1182	Nut splitter 12 - 16 mm, drive 14 mm	170
700.1183	Nut splitter 16 - 24 mm, drive 19 mm	380
700.1184	Nut splitter 22 - 27 mm, drive 21 mm	660

## Hydraulic nut splitter set

- For the splitting of seized or over tightened bolts without damage to the bolt thread
- Working range from 7.0 - 36.0 mm
- Inductively hardened cutting edge
- Suitable for nuts to a tensile strength class 10
- Requires light expenditure of energy
- Special steel



Item			
700.1170	7 pcs	Hydraulic nut splitter set	5.00

### consists of:

Item		
700.1150	Nut splitter small, SW 7,0 - 27,0 mm / M4 - M14	700
700.1163	Nut splitter	3600
700.1151	Replacement chisel small	50
700.1152	Replacement plate small	50
700.1161	Replacement chisel large	100
700.1162	Replacement plate large	100
151.2073	Hexagon key 3/8" for replacement plate large	110

## Hydraulic nut splitter

- Small execution
- Suitable for nuts to a tensile strength class 10
- Work pressure max. 5 t
- Especially suitable for narrow hard to access areas



Item	dim mm	L mm	
700.1150	7 - 27	210.0	700

## SPECIAL SOCKETS & NUT SPLITTERS

### Special impact bit socket set for spline (XZN®) screws, long

- Ideal set compilation for motor vehicles
- Spline (XZN®)
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1/2" 3/4"

Item			
515.1160	7 pcs	Special impact bit socket set for spline (XZN®) screws, long	1.05

### consists of:

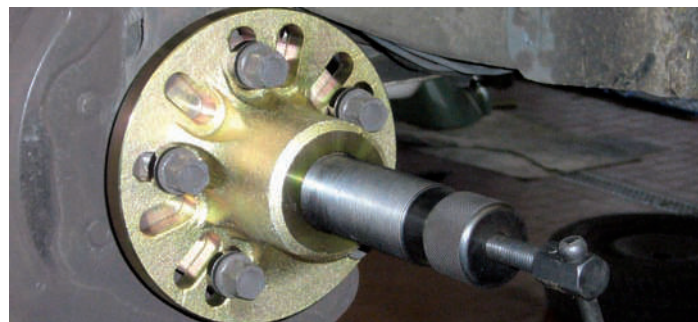
Item		
515.1167	3/4" Impact socket SW 24 with screw	280
515.1161	XZN® Special-Socket M14	110
515.1162	XZN® Special-Socket M14 long	150
515.1163	XZN® Special-Socket M16	120
515.1164	XZN® Special-Socket M16 long	170
515.1165	XZN® Special-Socket M18	130
515.1166	XZN® Special-Socket M18 long	190

### Hydraulic nut splitter set

- Large execution
- Suitable for nuts to a tensile strength class 10
- Work pressure max. 13 t
- In durable plastic storage case



Item					
700.1160	4 pcs	22 - 36 mm; M14 - M24		3.80	



### Wheel hub and bearing dismantling set

- Special tool for expressing the joint hubs or drawing off of the wheel hub
- Massive tool, made out of a one piece
- Special steel



Item					
700.1410	7 pcs	Wheel hub and bearing dismantling set		4.80	

#### consists of:

Item					
700.1411		Wheel hub/drive flange dismantling tool		2550	
700.1400-1		Hydraulic spindle with centering point - Ag 1.1/2" x 16 G		210	
700.1412		Reception ring set, 5 pcs.		150	

### WHEEL HUB PULLERS

#### Draw off flange with impact puller

- For stuck axles with 4 or 5 hole divisions
- Special steel



Item	Rim diameter Ø mm	Bolt Ø mm	Hammer Ø mm	Slide rail Ø mm	Adaptor thread mm		
670.0001	100-150	max. 14	60-100	60x330	M16 x 1,5	3.70	

### Universal press support

- Universal adjustable support
- Through the height adjustable bolts a fixture and vibration safe 3 level points construction is created
- The amount and arrangement at thread enable the conformity to almost every component surface
- Includes lateral safety device



Item	L mm	B mm	H mm	Replacement bolt & nut set		
700.1740	245.0	200.0	40.0	700.1741	8.10	

### Wheel hub and bearing extractor supplement set

- By means of this supplement assortment wheel hubs with a hub alliance of more than Ø 75 mm can be correctly dismantled
- The wheel hub and joint cover dismantling flange is through long thread bolts and Distance sheath is a slight distance away so the hub alliance can be placed
- Special bevelled edge which the hub can easily be replaced with contamination to the wheel hub housings
- Includes wall holder



Item					
700.1435	21 pcs	Wheel hub and bearing extractor supplement set		2.88	

#### consists of:


Item					
700.1436		Wall holder for supplement set		600	
700.1437		Spacer sleeve, length 40 mm		115	
700.1438		Threaded bolt M12 x 1.5 mm, length 80 mm		90	
700.1439		Threaded bolt M14 x 1.5 mm, length 40 mm		90	
700.1440		Threaded bolt M14 x 1.5 mm, length 80 mm		90	




### C-clamp press frame

- Very robust execution
- Valuable supplement to the pressure set and hub sheath set 700.1700
- The drive can be used alternatively mechanically or hydraulically
- Suitable for impact wrenches
- Through use of trapezoid spindle and Impact screw maximum power can be transferred (Hammer impact effect)
- Removeable spindle and clamping device with staged reception plate
- Silent bearings, sheaths, bushings etc. lets it incorporated itself in that or expanded condition on and compressed
- Trapezoid thread spindle M27 with ball stored pressure tip
- Special steel




Item		L mm	Depth mm	
700.1755	5 pcs	309.0	95.0	9.00

#### consists of:

Item		
700.1754	Threaded adaptor with AG 1-1/2" x 16G and IG trapazoid thread M27	0.60
700.1756	Universal C-clamp inc spindle	7.00
700.1757	Spindle with trapazoid thread M27, length 300 mm, drive 24 mm	2.00
700.1758	Spindle reception adaptor for staged discs for 700.1700	0.80
700.1759	C-clamp reception adaptor for staged discs for 700.1700	0.60


### Accessories:

Item		
700.1400-1	Hydraulic spindle with centering point - Ag 1.1/2" x 16 G	210
700.1208	Thrust bolt extension, 35 mm	130
700.1209	Thrust bolt extension, 85 mm	320


### Universal wheel bearing puller and drive shaft puller, hydraulic

- 1/2 System insert
- Suitable for tool cabinets and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality foam
- In durable plastic storage case



Item		
700.1400	11 pcs Universal wheel bearing puller and drive shaft puller, hydraulic	9.34

#### consists of:


Item		
700.1400-1	Hydraulic spindle 10 t	210
700.1400-2	Dics traverse 100 mm	920
700.1400-3	Puller pull arm set, 5 pcs	500
700.1400-4	Impact socket SW 30	935
700.1400-5	Impact spindle	2015
700.1400-7	Extension small	60

### Universal car wheel bearing tool set


- For the dismantling and assembly of wheel housings and hub directly on the vehicle
- Extension of the suspension strut and axle joint is no longer required
- Correct and protective installation of the housings through the correct pressure point at the bearing outer ring
- Suited for axle tube and for axle with the housing adjoining at an alliance
- High time savings as reactive axle alignment is not necessarily required
- 300 mm gear pulling spindle
- Through enclosed bolts (M12 + M14) wheel hubs can be removed
- Pressure bearing protects against increased friction during the process
- Special steel
- In durable plastic storage case

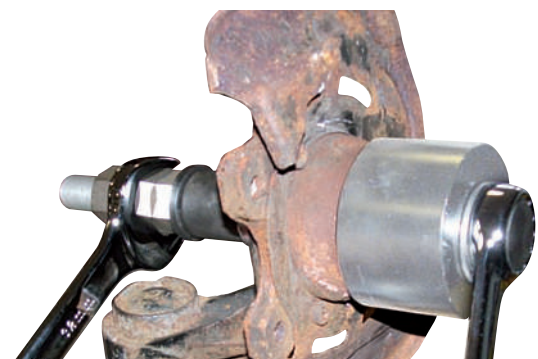
**Application range:** VW, Audi, Opel, Mercedes Benz, Peugeot, Citroen, Renault, Ford, Honda, Mazda, Mitsubishi, Nissan, Toyota, Austin-Maestro, BMW



Item		
150.2250	27 pcs Universal car wheel bearing tool set	11.24

#### consists of:

Item		
150.2092	Threaded bolt M14 x 1,5	101
150.2093	Threaded bolt M14 x 1,5	124
150.2251	Ball bearing thrust plate # 1	525
150.2252	Ball bearing thrust plate # 2	458
150.2253	Ball bearing thrust plate # 3	432
150.2254	Ball bearing thrust plate # 4	386
150.2255	Ball bearing thrust plate # 5	358
150.2256	Ball bearing thrust plate # 6	340
150.2257	Ball bearing thrust plate # 7	304
150.2258	Ball bearing thrust plate # 8	344
150.2259	Ball bearing thrust plate # 9	304
150.2260	Ball bearing thrust plate # 10	282
150.2261	Ball bearing thrust plate # 11	247
150.2262	Ball bearing thrust plate # 12	200
150.2263	Ball bearing thrust plate # 13	217
150.2264	Ball bearing thrust plate # 14	203
150.2265	Stepped plate small Ø 77+ 68 mm	608
150.2266	Stepped plate large Ø 92 + 81 mm	879
150.2267	Draw-off bell 68 mm	399
150.2268	Draw-off bell 77 mm	552
150.2269	Draw-off bell 81 mm	639
150.2270	Draw-off bell 92 mm	707
150.2271	Spindle sleeve	227
150.2272	Thrust bolt	230
150.2273	Ring washer	20
150.2274	Spindle	911
150.2275	Ball bearing	55





### Universal car wheel bearing tool set

- For the dismantling and assembly of wheel housings and hub directly on the vehicle
- Extension of the suspension strut and axle joint is no longer required
- Suited for axle tube and for axle with the housing adjoining at an alliance
- High time savings as reactive axle alignment is not necessarily required
- With 300 mm gear pulling spindle
- Through enclosed bolts (M12 + M14) wheel hubs can be removed
- Extra long execution 65 mm pressure nut for better load distribution
- Pressure bearing protects against increased friction during the process
- Special steel
- In durable plastic storage case

**Application range:** VW, Audi, Opel, Mercedes Benz, Peugeot, Citroen, Renault, Ford, Honda, Mazda, Mitsubishi, Nissan, Toyota, Austin-Maestro, BMW



Item				kg
150.2075	19 pcs	Universal car wheel bearing tool set		7.51

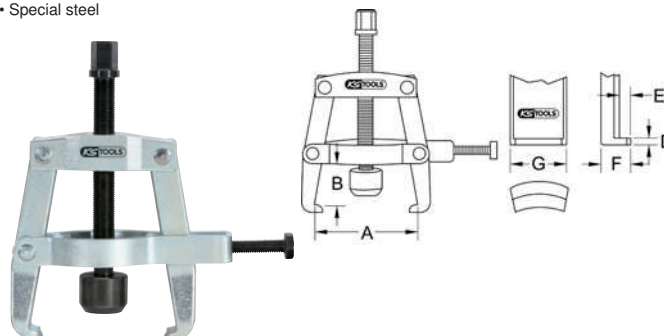
consists of:

Item			kg
150.2076	Ball bearing Adaptor 55.5 mm		175
150.2077	Ball bearing Adaptor 59 mm		200
150.2078	Ball bearing Adaptor 62 mm		220
150.2079	Ball bearing Adaptor 65 mm		245
150.2080	Ball bearing Adaptor 66 mm		250
150.2081	Ball bearing Adaptor 71.5 mm		315
150.2082	Ball bearing Adaptor 73 mm		335
150.2083	Ball bearing Adaptor 78 mm		380
150.2084	Ball bearing Adaptor 84 mm		470
150.2085	Reducing sheath 76 mm		270
150.2086	Bell 88 mm		850
150.2087	Bell 91 mm		920
150.2089	Spindle includes Nut, bearing, Discs and sheaths		540
150.2092	Threaded bolt Set M12 x 1.5 (3 pieces) for separating the wheel hub		100
150.2093	Threaded bolt Set M14 x 1.5 (3 pieces) for separating the wheel hub		120



### Universal bearing ring puller 2 arm with clamping yoke

- Clamp compresses hooks firmly
- Prevents slippage
- Pressure peak centers itself optimally in the cone of the hub boring
- Extremely robust spindle with inductively hardened thread
- Special steel



Item	A mm	B mm	max t mm	dim D mm	E mm	F mm	G mm	kg
700.1260	90	100	1,2	M16 x 150	17	6,5	8,5 22,5 27,1	1.76

### VAG wheel bearing tool set

- For the new VAG models with wheel housings/hub unit
- Required for the correct installation
- High time saving - faster execution at workshop press than at the vehicle ideally suited for Wheel bearing diameters 62 mm / 66 mm / 72 mm (13 / 14 / 15 „undercarriages)
- The extension of the wheel housing takes place by means of the available workshop facility

**Application range:** VW-Polo new, Audi A2, Skoda Fabia, Seat Ibiza



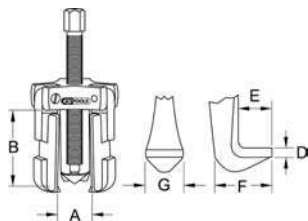
Item			kg
150.2130	12 pcs	VAG wheel bearing tool set	17.20

consists of:

Item		kg
150.2131	Half shell coupling anodized, for bearing Ø 62 mm	1.99
150.2132	Half shell coupling chrome, for bearing Ø 66 mm	1.46
150.2133	Half shell coupling black, for bearing Ø 72 mm	1.71
150.2134	Pressure bell universal	2.38
150.2135	Thrust bearing Gr. 66 / 72 mm, Length 160 mm	4.20
150.2136	Thrust bearing gr. 62 mm, length 160 mm	4.03
150.2137	Fixing screw M12 x 1.5, for half shell, set of 3 pieces	0.03
150.2138	Fixing screw M14 x 1.5, for half shell, set of 3 pieces	0.05

### Universal bearing ring puller 3 arm with clamping yoke

- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case



Item	A mm	B mm	max t mm	D mm	dim mm	E mm	F mm	G mm	kg
700.1250	20-150	98	M20x1,5 x 200	4	21	6	14	27	3.50



## Universal bearing and bush driver set

- Universal applicable range
- Flexible use with hammer or hydraulic pressure spindle
- Applications from 18,0 - 65,0mm
- Pressure plates are for the two driving spindles
- Special steel
- In durable plastic storage case



Item				
700.1350	51 pcs	Universal bearing and bush driver set	8.00	

consists of:

Item		
700.1348	Reception adaptor	500
700.1349	Impact drive knurled grip	42
700.1351	Pressure plate 18 mm	12
700.1352	Pressure plate 19 mm	14
700.1353	Pressure plate 20mm	16
700.1354	Pressure plate 21mm	20
700.1355	Pressure plate 22mm	22
700.1356	Pressure plate 23mm	27
700.1357	Pressure plate 24mm	30
700.1358	Pressure plate 25mm	34
700.1359	Pressure plate 26mm	38
700.1360	Pressure plate 27mm	43
700.1361	Pressure plate 28mm	47
700.1362	Pressure plate 29mm	50
700.1363	Pressure plate 30mm	53
700.1364	Pressure plate 31mm	59
700.1365	Pressure plate 32mm	65
700.1366	Pressure plate 33mm	68
700.1367	Pressure plate 34mm	72
700.1368	Pressure plate 35mm	77
700.1369	Pressure plate 36mm	82
700.1370	Pressure plate 37mm	89
700.1371	Pressure plate 38mm	94
700.1372	Pressure plate 39mm	97
700.1373	Pressure plate 40mm	105
700.1374	Pressure plate 41mm	111
700.1375	Pressure plate 42mm	119
700.1376	Pressure plate 43mm	125
700.1377	Pressure plate 44mm	132
700.1378	Pressure plate 45mm	138
700.1379	Pressure plate 46mm	144
700.1380	Pressure plate 47mm	153
700.1381	Pressure plate 48mm	159
700.1382	Pressure plate 49mm	165
700.1383	Pressure plate 50mm	172
700.1384	Pressure plate 51mm	181
700.1385	Pressure plate 52mm	188
700.1386	Pressure plate 53mm	196
700.1387	Pressure plate 54mm	205
700.1388	Pressure plate 55mm	213
700.1389	Pressure plate 56mm	221
700.1390	Pressure plate 57mm	231
700.1391	Pressure plate 58mm	238
700.1392	Pressure plate 59mm	247
700.1393	Pressure plate 60mm	258
700.1394	Pressure plate 61mm	266
700.1395	Pressure plate 62mm	276
700.1396	Pressure plate 63mm	284
700.1397	Pressure plate 64mm	294
700.1398	Pressure plate 65mm	305
700.1399	Support plate 75 mm	500

## Press and pull sleeve set

- For the disassembly and assembly of bearings
- Ideally for silent bearings, hydro bearings, bushings, ball bearing, simmerrings, etc
- Universal use for automobile, truck, municipally, country and forestry technology, etc.
- Outstanding to use also in connection with workshop press or hollow piston cylinder
- According to use application the sheaths individually can be reworked
- Pressure bearing protects against increased friction during the process
- In durable plastic storage case



Item				
700.1700	36 pcs	Press and pull sleeve set	14.80	

consists of:

Item		
700.1701	Thrust bolt, M10 with bearing	120
700.1702	Thrust bolt, M12 with bearing	120
700.1703	Thrust bolt, M14 with bearing	130
700.1704	Thrust bolt, M16 with bearing	130
700.1706	Stepped plate, #1	350
700.1707	Stepped plate, #2	390
700.1708	Stepped plate, #3	420
700.1709	Stepped plate, #4	450
700.1710	Spindle, M10	170
700.1711	Spindle, M12	250
700.1712	Spindle, M14	350
700.1713	Spindle, M16	470
700.1714	Pressure sleeve, Internal Ø: 34 mm, External Ø: 44 mm	250
700.1715	Pressure sleeve, Internal Ø: 36 mm, External Ø: 46 mm	260
700.1716	Pressure sleeve, Internal Ø: 38 mm, External Ø: 48 mm	280
700.1717	Pressure sleeve, Internal Ø: 40 mm, External Ø: 50 mm	290
700.1718	Pressure sleeve, Internal Ø: 42 mm, External Ø: 52 mm	300
700.1719	Pressure sleeve, Internal Ø: 44 mm, External Ø: 54 mm	320
700.1720	Pressure sleeve, Internal Ø: 46 mm, External Ø: 56 mm	330
700.1721	Pressure sleeve, Internal Ø: 48 mm, External Ø: 58 mm	340
700.1722	Pressure sleeve, Internal Ø: 50 mm, External Ø: 60 mm	350
700.1723	Pressure sleeve, Internal Ø: 52 mm, External Ø: 62 mm	370
700.1724	Pressure sleeve, Internal Ø: 54 mm, External Ø: 64 mm	380
700.1725	Pressure sleeve, Internal Ø: 56 mm, External Ø: 66 mm	390
700.1726	Pressure sleeve, Internal Ø: 58 mm, External Ø: 68 mm	410
700.1727	Pressure sleeve, Internal Ø: 60 mm, External Ø: 70 mm	420
700.1728	Pressure sleeve, Internal Ø: 62 mm, External Ø: 72 mm	430
700.1729	Pressure sleeve, Internal Ø: 64 mm, External Ø: 74 mm	440
700.1730	Pressure sleeve, Internal Ø: 66 mm, External Ø: 76 mm	460
700.1731	Pressure sleeve, Internal Ø: 68 mm, External Ø: 78 mm	470
700.1732	Pressure sleeve, Internal Ø: 70 mm, External Ø: 80 mm	480
700.1733	Pressure sleeve, Internal Ø: 72 mm, External Ø: 82 mm	490

## Universally press frame with hydraulic spindle

- For the use in connection with the pressure and pull sleeve set 700.1700 for pressing out and pressing on of silent bearings, hydro bearings, bushings, etc.
- Enables de- and assembly directly on the vehicle
- Through the long trailing arm also especially high housings release themselves without problem on and pressing out
- Extremely robust spindle with inductively hardened thread
- Special steel



Item				
700.1750	6 pcs	Universally press frame with hydraulic spindle	9.80	

### consists of:

Item				
700.1400-1		Hydraulic spindle with centering point - Ag 1.1/2" x 16 G	0.21	
700.1751		Universally-press frame-set, 5-pcs. without hydraulic spindle	8.90	

## Silent bearing tool set for VAG front axle consoles

- With this tool the plastic silent bearing of the front axle console can be correctly and quickly dismantled and mounted
- By means of the specially pressure piece the plastic housing is safely accepted by what means a damage free assembly is enabled
- With this the tool it can incorporated the condition and can the costly correction of the axle alignment and the dismantling of often strongly console reinforcements screws that can be corroded
- Simple handling
- Enables use directly on the vehicle
- High time savings
- Adapter with protective axle pressure thrust bearing spindle
- Axle alignment can be committed
- In durable plastic storage case

**Application range:** VW Polo (9N), Seat Ibiza IV, Cordoba (from model 2002), Altea, Skoda Fabia, Roomster, Audi A2 + structurally identical group vehicles



Item				
700.1650	8 pcs	Silent bearing tool set for VAG Front axle consoles	3.20	

### consists of:

Item				
700.1651		Working spindle M10 x 1,25, 180 mm	170	
700.1652		Spindle extension M10 x 1,25, 200 mm	140	
700.1653		Special nut with cone shaft 45mm	80	
700.1654		Special adaptor with thrust bearing	160	
700.1655		Thrust plate stepped Ø 74mm, Installation	390	
700.1656		Special thrust piece Ø 74mm, installation	1070	
700.1657		Distance piece with knurled, extension	240	
700.1658		Distance piece with collar, extension	240	

## HYDRAULIC

### Hydraulic tension and pressure unit

- For the dismantling and assembly of silent support, steering pin, track rod ends, wheel bearings, etc.
- Extremely high and uniform power construction
- Industrial execution with forged piston
- Suitable for both pressure and train uses
- Ideally suited for commercial vehicles
- Special steel
- In durable plastic storage case



### Technical data:

#### Hand pump:

Connection thread:	3/8" NPT IG
Hand pump:	700 bar high pressure pump
Manometer:	Ø 80 mm
Length:	410 x 150 x 135 mm
Weight:	5500g

#### Hollow piston cylinder:

Capacity:	20 to
Connection thread:	3/8" NPT IG
Piston:	Industrial forged execution
Stroke:	52 mm
Piston outside Ø:	55 mm
Bore Ø:	26 mm
Cylinder outside Ø:	98 mm
Cylinder height:	164 mm
Weight:	7300g

#### Hydraulic hose:

Connection thread:	3/8" NPT AG x 3/8" NPT AG
Length:	2000 mm
Weight:	1100g

#### Feed shaft:

Length:	500 mm
Thread:	M 20 x 2,5
Flat collar nut:	SW 30
Spherical washer :	Ø 36 mm
U-Washer:	Ø 51 x 7,5 mm, with central cone

Item				
700.1790	4 pcs		15.40	

### Hydraulic hand pump

- For the dismantling and assembly of silent support, steering pin, track rod ends, wheel bearings, etc.
- Extremely high and uniform power construction
- Suitable for both pressure and train uses
- Ideally suited for commercial vehicles
- Supplied without without manometer and hydraulic tube
- Special steel



### Technical data:

Connection thread:	3/8" NPT IG
Hand pump:	700 bar high pressure pump
Length:	410 x 150 x 135 mm

Item				
700.1792		Hydraulic hand pump	5.50	

### Accessories:

Item				
700.1793		Hydraulics tube, 2 m including connection	1.10	

## SLOGGING SPANNER

### Impact spanner

- For the installation and extension of compensational corrugated discs without extension of the struts
- For loosening of stuck stop screws
- Especially suitable for narrow hard to access areas
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Can be combined with every any 1/2" drive nut
- Optimal loosening moment through blow effect
- Hand protection grip
- Special steel



1/2"

Item		L mm	kg
150.2090	1/2"	475.0	1.32

### Hand impact wrench

- Ideal for loosening extremely jammed screws
- Also usable to the tightening of screws and/or nuts
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Optimal 8:1 torque ratio
- 360° rotating head
- Impact screw can be combined with every 1/2" drive nut
- With one component handle



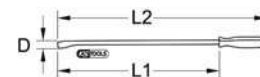
1/2"

Item		L mm	kg
150.2096	1/2"	475.0	1.32

## MECHANICS LEVERS

### Pry bar

- Best suited for and breakdown and installation work
- Single component handle
- Hardened
- Chrome molybdenum



Item	D mm	L1 mm	L2 mm	kg
911.8101	11.0	115.0	200.0	130
911.8102	15.0	185.0	300.0	220
911.8103	18.0	320.0	450.0	420
911.8104	18.0	470.0	600.0	560

### Pry bar sets

- Best suited for and breakdown and installation work
- Single component handle
- Hardened
- Chrome molybdenum



Item		kg
911.8100	4 pcs 11 x 115 mm - 15 x 185 mm - 18 x 320 mm - 18 x 470 mm	1.33

### Mechanic pry bar

- Angular lever end guarantees non slip surface
- Ideally suited for and breakdown and installation work
- Go through blade and hammer cap
- Suitable for the testing of defective bearings
- Dual component handle
- Massive execution specially for commercial vehicles
- Special steel



Item		L mm	kg
911.8411	0°	900.0	1.70
911.8412	45°	900.0	1.75
911.8413	75°	600.0	1.17
911.8414	90°	600.0	1.20
911.8415	45°	1120.0	4.75



## Mechanic pry bar set

- Angular lever end guarantees non slip surface
- Ideally suited for and breakdown and installation work
- Go through blade and hammer cap
- Suitable for the testing of defective bearings
- Dual component handle
- Massive execution specially for commercial vehicles
- Special steel
- In durable plastic storage case



Item				
911.8410	4 pcs	Mechanic pry bar set		8.70

consists of:

Item				
911.8411	Mechanics pry bar, straight 900 mm			1.70
911.8412	Mechanics pry bar 45°, angled head 900 mm			1.75
911.8413	Mechanics pry bar 75°, angled head 600 mm			1.17
911.8414	Mechanics pry bar 90°, angled head 600 mm			1.20

## XXL Adjustable joint roll head pry bar

- Extra long execution
- Extremely versatile and robust lever
- Variable adjustable roll head
- Maximum power transmission in the narrowest area
- Optimal leverage in minimal work area
- Ideally suited for commercial vehicles
- Special steel



Item	B mm	L mm	Assembly levels	
911.8179	25.0	620.0	5	1.81

## Adjustable joint roll head pry bar set

- Extremely versatile and robust execution
- Variable adjustable roll head
- Maximum power transmission in the narrowest area
- Optimal leverage in minimal work area
- Ideally suited for commercial vehicles
- Special steel



Item				
911.8175	3 pcs	Adjustable joint roll head pry bar set		1.20

consists of:

Item			
911.8176	Ratched pry bar, 10"	600	
911.8177	Ratched pry bar, 12"	600	
911.8178	Ratched pry bar, 15"	600	

## Bearing ring lever

- For removing tight fitting bearing housings
- Ideally suited for the external rings of the split cone roll bearings
- Conventional tools are no longer required
- Rimed handle for better control
- Universal applications
- Special steel

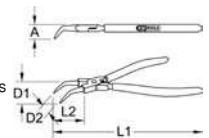


Item		L mm	
450.0030		300.0	1.13
450.0031		500.0	1.89

## OTHER

## CLASSIC Wheel bearing circlip pliers, angled

- Durable precision tips
- 45° angled tips
- Self opening
- With PVC dipped handle
- For the disassembly and assembly of wheel bearing retaining rings
- Can be used on the front and rear
- For all common wheel bearing retaining rings
- Chrome vanadium



Item	A mm	D1 mm	D2 mm	L1 mm	L2 mm	
500.1038	22.0	23.0	2.3	240.0	32.0	250
500.1039	22.0	23.0	3.0	300.0	46.0	490

## Brass and aluminium punch

- For extracting bearing, bolts and bushes, etc.
- Rimed handle for better control
- Brass / Aluminium



Item		Ø mm	L mm	
156.0415	Brass	20,0	300.0	1.13
156.0416	Aluminium	30,0	300.0	1.89



## OIL SERVICE

### MASTERBOARD Tool storage system - Service

- Very extensive and complex range of tools suitable for car service and maintenance
- Orderly and clear arrangement of the tools
- Quick identification of the necessary tools
- All boards are labeled with a classification system foil on that each single tool in the standard 1:1 is portrayed



### Oil drain plug key set

- For conical filing and reduction screws on oil sumps, transmissions, differentials, etc.
- External drive hexagon socket SW 21
- Matt finish
- Chrome vanadium
- In durable steel storage case



Item				
150.9390	6 pcs	Oil drain plug key set	800	

#### consists of:

Item				
150.9391	Oil drain plug hexagon-Socket 8 + 10 mm	110		
150.9392	Oil drain plug socket hexagon 5/16" + 3/8"	110		
150.9393	Oil drain plug socket square 8 mm + 3/8" (10 mm)	110		
150.9394	Oil drain plug hexagon-Socket 12 mm + square 11 mm	110		
150.9395	Oil drain plug hexagon-Socket 14 mm + square 13 mm	110		
150.9396	Oil drain plug hexagon-Socket 17 mm + 1/2"	110		

### Oil sump plug and oil filter set

- Ideal set compilation of the most current oil service tools
- For conical filing and reduction screws on oil sumps, transmissions, differentials, etc.
- With oil filter clamping wrench and oil filter wrench
- Matt finish
- Chrome vanadium
- In durable plastic storage case



Item				
150.9300	13 pcs	Oil sump plug and oil filter set	1.55	

#### consists of:

Item				
150.9313	Oil filter wrench 63-102mm, SW 21 3/8" Drive, inc. Adaptor 1/2"	370		
150.9390	Socket-Set, 6-pcs. for conical oil-drain-screws, shaft 21 mm	800		
155.5002	Band wrench for Oil filter housing length 65-110 mm	450		
918.3806	3/8 Spark plug-Socket 21 mm highly polished	60		
918.3807	Adaptor 1/2"F x 3/8"M Sliding head for Extension 3/8"	60		
918.3885	3/8" TX-Bit-Socket T40 o. Tamperproof, mirror polished chrome plated	45		
918.3886	3/8" TX-Bit-Socket T45 o. Tamperproof, mirror polished chrome plated	50		
918.3898	3/8" Extension 250 mm highly polished	240		

Item				
800.1010	35 pcs	MASTERBOARD Tool storage system - Service	17.50	

#### consists of:

Item				
150.9364	1/2" Bit socket XZN M16 m tamperproof, Length 50 mm	140		
150.9377	Oil filter rotating head band wrench, infinitely variable, 60-73 mm	350		
150.9378	Oil filter rotating head band wrench, infinitely variable, 73-85 mm	360		
150.9300	Oil drain assembly set, 13-pcs.	1550		
114.0150	Universal strap plier up to Ø 150 mm	180		
150.9365	3/8" Oil filter socket set, 3pcs., dim. 27/32/36	320		
150.9384	Fuel gauge sender unit key small, adjustable, 80-120 mm	400		
115.1090	Fuel pipe plier set 3-pcs.	310		
115.5050	Pipe clamping plier set, 3 pcs.	370		
115.1045	Click hose clamp plier	200		
115.1041	Hose clamp plier with bowden cable, 650 mm	470		
115.1042	Tube clamp plier 45° angled	210		
115.1095	Line connectors Lose clip Set, 6 pcs.	60		
115.1094	Fuel pipe pliers, straight, L=220 mm	220		
115.1099	Fuel pipe pliers, angled, L=220 mm	280		
911.1172	Flex. bit screwdriver f. bits 1/4", L=500 mm	280		
911.1126	Flex. nut screwdriver 6 mm, L=150 mm	150		
911.1127	Flex. nut screwdriver 7 mm, L=150 mm	200		
911.1128	Flex. nut screwdriver 8 mm, L=150 mm	200		
918.1406	1/4" Socket Flank-Drive 6 mm	40		
918.1407	1/4" Socket Flank-Drive 7 mm	40		
918.1408	1/4" Socket Flank-Drive 8 mm	40		
115.1044	Tube loosening plier	190		
911.1963	1/2" Hexagonal bit socket, dim. 13 x 140 mm	100		
150.9317	Oil filter-Plier 55-125 mm	500		

### Oil drain bit socket for spline (XZN®) screws

- Tamperproof spline (XZN®)
- Special socket for use with the transmission oil drain screw
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- With press fitted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

**Application range:** Audi A3, A4, A6, VW Golf IV, LT etc.



1/2"

Item		L mm		
150.9364	M16	50.0	140	

### Oil sump plug repair set

- To the solid and fast repair of oil sump plug screw threads
- The damaged thread is cut to a larger thread by drilling with the next size drill
- Also suited for aluminum oil sumps
- Repair enables and avoids exchange of the oil sump
- Also suitable for oil sumps with damaged threads
- In durable plastic storage case

**Application range** Audi, Citroen, BMW, Mercedes Benz, Ford, Fiat, Honda, Mazda, Mitsubishi, Nissan, Opel, Peugeot, Porsche, Renault, Saab, Seat, Skoda, Toyota, Volvo, VW, etc.



Item				
150.1450	24 pcs	Oil sump plug repair set	950	

consists of:

Item				
150.1447	Replacement drain plugs for oil drain pan repair kit, drain plug screw set for M13 x 1.5 - 10 pcs.	300		
150.1448	Replacement aluminium seals for oil drain pan repair kit, sealings set for M13 x 1.5 - 25 pcs.	10		
150.1449	Special tap for threading for oil drain pan repair kit, M13 x 1.5 mm	40		
150.1451	Replacement drain plugs for oil drain pan repair kit, Drain plug screw set for M15 x 1.5 - 10 pcs.	320		
150.1452	Replacement aluminium seals for oil drain pan repair kit, sealings set for M15 x 1.5 - 25 pcs.	10		
150.1453	Special tap for threading for oil drain pan repair kit, M17 x 1.5 mm	50		
150.1454	Replacement drain plugs for oil drain pan repair kit, Drain plug screw set for M15 x 1.5 - 10 pcs.	360		
150.1455	Replacement aluminium seals for oil drain pan repair kit, sealings set for M17 x 1.5 - 25 pcs.	10		
150.1456	Special tap for threading for oil drain pan repair kit, M17 x 1.5 mm	60		
150.1457	Replacement drain plugs for oil drain pan repair kit, drain plug screw set for M20 x 1.5 - 10 pcs.	390		
150.1459	Special tap for threading for oil drain pan repair kit, M20 x 1.5 mm	70		

### Oil drain plug

- For oil sump thread



Item		mm	Content		
150.1447	M13	1,5	10	300	
150.1451	M15	1,5	10	320	
150.1454	M17	1,5	10	360	
150.1457	M20	1,5	10	390	

### Aluminium seals for oil drain plug

- For the exchange after the oil change
- Also necessary for oil sump plug repairs
- Aluminium



Item			Content		
150.1448	M13		25	10	
150.1452	M15		25	10	
150.1455	M17		25	10	
150.1458	M20		25	10	

### HSS special hand drill tap for oil drain plug repair kit

- For cutting the edge of the oil sump threads
- In accordance to DIN 352
- For fast cutting threads
- Hard metal centre
- Surface without discolouration
- High performance steel



Item		mm	Content		
150.1449	M13	1,5	1	40	
150.1453	M15	1,5	1	50	
150.1456	M17	1,5	1	60	
150.1459	M20	1,5	1	70	

### Special oil service wrench for Toyota and Honda

- For opening the oil reduction screw
- With 3/8" square drive
- Special steel

**Application range** Toyota, Honda

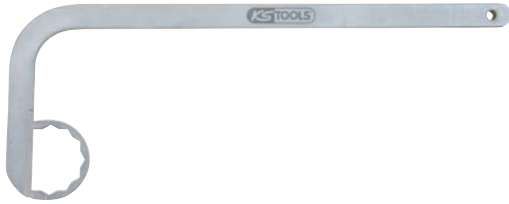


Item	mm	L mm		
150.9305	14,0	94.0	100	

### Oil filter wrench for Haldex couplings

- For the dismantling and assembly the difficult to reach oil filters of the Haldex coupling
- 12 point
- Matt finish
- Chrome vanadium

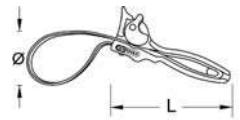
**Application range:** VW 5+6 gear gearshift all-wheel drive  
(For Motion, Bora, Golf IV, Sharan, Skoda-Oktavia).



Item	mm	L mm	Weight
150.2098	46,0	390,0	770

### Strap pipe pliers

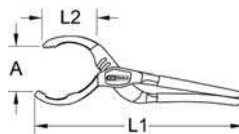
- For hard to reach places
- Especially suited for plastic pipes
- Glass fibre reinforced handle
- Belt made of reinforced, non slip rubber



Item	Ø mm	L mm	Weight
114.0150	0 - 110,0	190,0	180

### Oil filter pliers

- With PVC dipped handle
- 5 stage industrial adjustment
- Universal usage
- Special tooth profile on the jaws
- Safety stop on the external diameter
- Special tool steel



Item	A mm	L1 mm	L2 mm	Weight
150.9317	0,0-145,0	290,0	110,0	500

### Chain wrench

- For loosening oil filters and air dryer cartridges
- Double chain
- Extremely robust
- Dipped covered handle
- Chrome vanadium

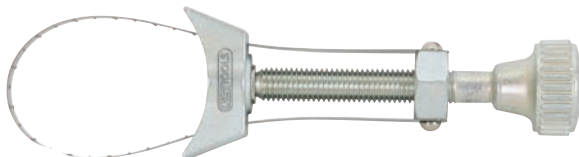


1/2"

Item	Ø mm	Weight
150.9375	130,0	380
150.9376	165,0	380

### Oil filter band wrench

- One hand operation
- Also for heavily attainable oil filter housings
- Fixes through untwisting
- Certain stop through notched spring steel band



Item	Ø mm	Replacement band	Weight
155.5002	65,0-110,0	155.0238	450
155.5003	110,0-155,0	155.0338	450

### Oil filter wrench with adaptor

- Includes adaptor 3/8" to 1/2"
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Certain stop through arched surface area
- Painted surface



3/8" 1/2"

Item	Ø mm	Weight
150.9313	63,0-102,0	370
150.9314	65,0-138,0	350

### Oil filter band wrench

- Infinitely variable
- 3 position rotating head for safe fixing
- Especially good for hard to access areas with narrow band
- Plain stop handle
- With dipped covered handle
- Chrome vanadium



Item	Ø mm	Weight
150.9377	60,0 - 73,0	350
150.9378	73,0 - 85,0	360
150.9379	85,0 - 95,0	370

### Filter wrench 3 arm

- For oil filter and air dryer cartridges
- Forged execution
- 1/2" square drive
- Automatic adjustment in the specified diameter range
- For heavy workshop applications
- Special steel



1/2"

Item	Ø mm	Weight
700.5001	80 - 120	630
700.5002	95 - 165	1400

### Oil filter wrench set

- For loosening and tightening oil filter housing covers
- Torque specification embossed in the wrench
- 3/8" square drive + hexagon drive SW 21
- Painted surface
- In durable plastic case



3/8"

Item					
150.9365	3 pcs	Oil filter wrench set	0.32		

#### Consists of:

Item					
150.9366	Oil filter wrench 27 mm	60			
150.9367	Oil filter wrench 32 mm	70			
150.9368	Oil filter wrench 36 mm	80			

### Oil filter wrench

- For loosening and tightening oil filter housing covers
- Torque specification embossed in the wrench
- 3/8" square drive + hexagon drive SW 21
- Painted surface



3/8"

Item	Suitable for	dim mm	Stages	Grooves	Sides	
150.9366	Mercedes Benz, Mazda	27	1		6	60
150.9367	VW, Audi, Opel	32	1		6	70
150.9368	Mercedes Benz, BMW, Ford, VW, Rover, Opel	36	1		6	80

### Oil filter wrench set

- For loosening and tightening oil filter housing covers
- Use according to the manufacturer's specification for torque
- 3/8" square drive + hexagon drive SW 21
- Painted surface
- In durable plastic case

**Application range:** Audi, BMW, Fiat, GM, Lancia, Mercedes Benz, Nissan, Opel, Porsche, Renault, Saab, Volvo, VW, etc.



3/8"

Item					
150.9310	16 pcs	Oil filter wrench set	2.30		

#### consists of:

Item	Suitable for	Stages	Grooves	Sides		
150.9314	SW 21				350	
150.9324	SW 74/76	2		15	170	
150.9325	SW 76	1		14	150	
150.9327	SW 93	1		15	150	
150.9336	SW 66	1		6	190	
150.9338	SW 76	1	12		190	
150.9339	SW 76	1		8	170	
150.9340	SW 21				153	
150.9342	SW 86	1		18	190	
150.9343	SW 86	1		16	180	
150.9344	SW 92	1		10	180	
150.9345	SW 93	1	45		180	
150.9347	SW 96	1	18		190	
150.9348	SW 106	1		15	200	
150.9349	SW 108	1		15	220	

### Oil filter wrench set

- For loosening and tightening oil filter housing covers
- Use according to the manufacturer's specification for torque
- 3/8" square drive + hexagon drive SW 21
- Painted surface
- In durable plastic case

**Application range:** BMW, Daihatsu, Ford, GM, Honda, Mazda, Mercedes Benz, Opel, Porsche, Renault, Saab, Subaru, Toyota., VW, etc.



3/8"

Item					
150.9320	15 pcs	Oil filter wrench set	2.83		

#### consists of:

Item	Suitable for	Stages	Grooves	Sides		
150.9321	SW 65	1	6	14	150	
150.9322	SW 68	1		14	320	
150.9323	SW 73	1		14	150	
150.9324	SW 74/76	2		15	170	
150.9325	SW 76	1		14	150	
150.9326	SW 80	1		15	150	
150.9327	SW 93	1		15	150	
150.9329	SW 93	1	36		150	
150.9330	SW 65/67	2		14	150	
150.9331	SW 80/82	2		15	150	
150.9332	SW 90	1		15	150	
150.9333	SW 75/77	2		15	150	
150.9334	SW 76	1	30		150	
150.9335	SW 100	1		15	150	



## Oil filter wrench set

- For loosening and tightening oil filter housing covers
- Use according to the manufacturer's specification for torque
- 3/8" square drive + hexagon drive SW 21
- Painted surface
- In durable plastic case

**Application range:** Alfa Romeo, Audi, BMW, Daihatsu, Fiat, Ford, GM, Honda, Lancia, Lexus, Mazda, Mercedes Benz, Mitsubishi, Nissan, Opel, Porsche, Renault, Saab, Subaru, Toyota, Volvo, VW, etc.



3/8"

Item					
150.9350	30 pcs	Oil filter wrench set		6.67	

## Consists of:

Item					
150.9291	Oil filter wrench, SW 36 mm	70			
150.9292	Oil filter wrench, SW 74 mm	140			
150.9293	Oil filter wrench, SW 106 mm	200			
150.9294	Oil filter wrench, SW 107 mm	370			
150.9295	Oil filter wrench, SW 108 mm	210			
150.9296	Oil filter wrench, SW 108, 18 grooves	210			
150.9297	Oil filter wrench, SW 135 mm	510			
150.9298	1/2" Strap wrench, up to 160 mm	140			
150.9299	Ring spanner SW 24 mm, 12 point	270			

## Oil filter wrench

- For loosening and tightening oil filter housing covers
- Use according to the manufacturer's specification for torque
- 3/8" square drive
- Painted surface



3/8"

## consists of:

Item	Suitable for	Stages	Grooves	Sides		
150.9313	SW 63-102				370	
150.9321	SW 65	1	6	14	150	
150.9322	SW 68	1		14	320	
150.9323	SW 73	1		14	150	
150.9324	SW 74/76	2		15	170	
150.9325	SW 76	1		14	150	
150.9326	SW 80	1		15	150	
150.9327	SW 93	1		15	150	
150.9329	SW 93	1	36		150	
150.9330	SW 65/67	2		14	150	
150.9331	SW 80/82	2		15	150	
150.9332	SW 90	1		15	150	
150.9333	SW 75/77	2		15	150	
150.9334	SW 76	1	30		150	
150.9335	SW 100	1		15	150	
150.9336	SW 66	1		6	190	
150.9337	SW 74	1		15	220	
150.9338	SW 76	1	12		190	
150.9339	SW 76	1		8	170	
150.9340	SW 21				153	
150.9341	SW 78	1		15	170	
150.9342	SW 86	1		18	190	
150.9343	SW 86	1		16	180	
150.9344	SW 92	1		10	180	
150.9345	SW 93	1	45		180	
150.9346	SW 95	1	15		190	
150.9347	SW 96	1	18		190	
150.9348	SW 106	1		15	200	
150.9349	SW 108	1		15	220	
150.9351	SW 108	1	18		190	

## Oil filter wrench set

- For loosening and tightening oil filter housing covers
- Use according to the manufacturer's specification for torque
- 3/8" square drive
- Painted surface
- In durable plastic case



3/8"

Item					
150.9290	9 pcs	Oil filter wrench set		3.40	

Item	Suitable for	dim mm	Stages	Grooves	Sides		
150.9319	Toyota, Nissan, Mazda	64	1		14	140	
150.9321	Daihatsu, Toyota, Nissan, Fiat	65	1	6	14	150	
150.9336	Fiat, Renault	66	1			190	
150.9330	Daihatsu, Toyota	65/67	2		14	150	
150.9322	Mazda, Ford, Subaru	68	1		14	320	
150.9323	Toyota, Lexus	73	1		14	150	
150.9337	Audi, Gm, Rover, Chrysler	74	1		15	220	
150.9324	Ford, Opel, VW, Audi, Mercedes Benz	74/76	2		15	170	
150.9333	VW, Audi, Ford, Isuzu, Mercedes Benz, Opel	75/77	2		15	150	
150.9338	Fiat, Renault, Mercedes Benz	76	1	12		190	
150.9325	VW, Mercedes Benz, Porsche, BMW, Audi, Opel	76	1		14	150	
150.9339	Fiat, Lancia	76	1	8		170	
150.9334	Ford	76	1	30		150	
150.9341	Nissan, Ford, Toyota	78	1		15	170	
150.9326	Nissan, Honda, Opel, Mazda	80	1		15	150	
150.9331	Subaru, Toyota, Honda, Mazda, Nissan	80/82	2		15	150	
150.9343	Volvo	86	1		16	180	
150.9342	VW, Audi, Renault, Peugeot, Citroën	86	1		18	190	
150.9332	Honda, Mitsubishi, Isuzu	90	1		15	150	
150.9344	Fiat, Lancia	92	1		10	180	
150.9327	Mazda, Mitsubishi, Volvo, Nissan, Honda	93	1		15	150	
150.9329	Ford	93	1	36		150	
150.9345	VW, Audi	93	1	45		180	
150.9346	Toyota, Alfa, GM, Ford, Ford, Chrysler	95	1	15		190	
150.9347	VW, Audi, Renault	96	1	18		190	
150.9335	Isuzu, Mitsubishi	100	1		15	150	
150.9348	Fiat	106	1		15	200	
150.9349	Volvo	108	1		15	220	
150.9351	Renault	108	1	18		190	

### Oil pouring funnel

- Special funnel with bayonet clasp and sealing
- Direct and thick connection with the oil pouring opening
- No more lengthy and time consuming pouring
- Correct and clean execution
- Avoiding of loss and soiling through discontinued oil
- Universal suitable for approx. 75% of the vehicles
- Special plastic



Item		
150.9315	2.5	500

### Oil drain pan 7.5 litres

- With carrying handle
- Pouring spout enables clean emptying
- Suitable for oil, chemicals, petrol, acids and antifreeze




Item	Ø mm	H mm	
150.9359	385,0	130,0	680

### Oil drain pan 8 litres

- With carrying handle
- Pouring spout enables clean emptying
- Suitable for oil, chemicals, petrol, acids and antifreeze
- Enclosed execution



Item	B mm	H mm	L mm	
150.9357	340,0	120,0	600,0	1,06

### Oil drain pan 17 litres

- With carrying handle
- Pouring spout enables clean emptying
- Suitable for oil, chemicals, petrol, acids and antifreeze



Item	Ø mm	H mm	
150.9360	445,0	145,0	1,16

### Mobile oil draining device 80 litre

- Basic unit for waste oil capture and refilling
- Pneumatic pressure emptying with manometer and safety valve
- Emptying takes approximately 3 minutes at bei 0,9 bar
- Heavy deposits can also be removed via a plate on the underside
- Mobile container with extra large plastic wheels
- Extremely manoeuvrable and ideal for workshop execution
- Centrally mounted shell and height adjustable catch
- Side mounted fill indicator



#### Technical data:

Capacity:	80 l
Collection container dimensions:	490 x 580 x 1040 mm
Collection pan dimensions:	430 x 530 x 130 mm
Height adjustment:	1040 bis 1600 mm

Item		
160.0001	80	32,00

### Transmission oil bleeding system


- For filling of transmissions, distributor transmissions and differentials
- Includes adaptor set with different angle tails
- For difficult to access areas

**Application range** Ford, BMW, VW, Mercedes Benz, etc.




#### Technical data:

Capacity:	7.5 l
Tube length:	1600,0 mm
Tube diameter:	1/2"
Viscosity:	bis SAE 140

Item	
150.9260 10 pcs Transmission oil bleeding system	3,41

#### consists of:

Item	
150.9261 Adaptor pipe straight, Ford AT 101 / Ø 10 GL=120xAL=110 / with thread	40
150.9262 Adaptor pipe angled, Universal AT 102 / Ø 10 GL=140x45 mm	55
150.9263 Adaptor pipe angled, VAG AT 103 / Ø 10 GL=150x18 mm	50
150.9264 Adaptor pipe angled, VAG AT 104 / Ø 10 GL=150x30 mm	50
150.9265 Adaptor pipe angled, VAG AT 105 / Ø 10 GL=100xAL=85 / with thread	30
150.9267 Screw adaptor, Mercedes Benz Gearbox transmission 722.9 AT 106 / M12x1,5	45
150.9268 Screw adaptor, VAG DSG AT 107 / M24x1,5	105
150.9269 Screw adaptor, VAG CVT AT 108 / M22x1,5	90
150.9270 Screw cap with cone and flat seal ring	120

## Oil control rod for Mercedes Benz

- For measuring the engine volume and automatic control mechanism transmission oil volume
- Indispensably during and after an oil change, when logging the results without inaccurate results can occur by using a dipstick
- With plastic hand grip



Item				
150.9280	4 pcs	Oil control rod for Mercedes Benz	380	

consists of:

Item				
150.9281	Oil control rod, 1220,0 mm	Transmission ID: 772.6_L, G, P, V	160	
150.9282	Oil control rod, 920,0 mm	Transmission ID: 772.7_P, 772.8_P, 716.5_V	120	
150.9283	Oil control rod, 930,0 mm	Transmission ID: 103, 104, 111, 119, 120, 137, 603,	40	
150.9284	Oil control rod, 930,0 mm	Transmission ID: M112, 113, 646, 647, 648	40	

## Diesel filter bleeding device

- For the fast, clean and problem free ventilating (filling) of diesel filters
- Suitable during the filter change, emptying of tanks, incorrectly refueled etc.
- Applicably into incorporated condition - circumstantial filling outside of the vehicle not required
- By means of compressed air connection and activity of the hand lever a vacuum becomes in the diesel filter bleeding device produces (Venturi effect) and therefore fuel of the vehicle tank is sucked in
- Inclusive universal suitable tube assortment Ø 6-8-12 mm
- Capacity 2.0 lt

**Application range:** VW pump nozzle engines, diesel engine with direct injection  
E.g. Mercedes Benz CDI engines, Peugeot HDI, Renault, Fiat etc.



Item	H mm			
150.9355	300.0		1.60	

## Bit socket for hexagon screws, long

- Ideal for loosening and fastening of fuel, cooling units central fastening screws
- Also suitable for brass injector valve usage
- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- With press fitted nickel plated insert bit
- For manual operation
- Matt finish
- Chrome vanadium

**Application:** for VW, Audi, Skoda engines

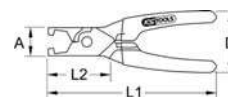


1/2"

Item	mm	L mm		
911.1961	11,0	100.0	100	
911.1963	13,0	100.0	100	

## Fuel connection pliers

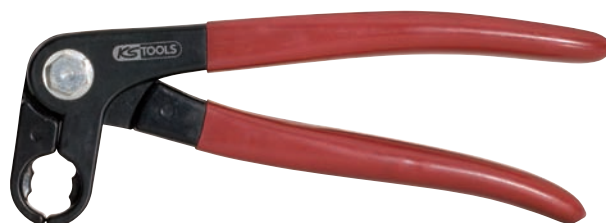
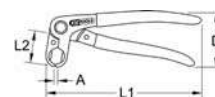
- PVC dipped handle
- For unbolting of fuel pipe siezed connections
- Suitable for service and maintenance works
- Special tool steel



Item	A mm	D mm	L1 mm	L2 mm		
115.1094	0,0-30,0	55.0	160.0	50.0	220	

## Fuel pipe pliers, offset

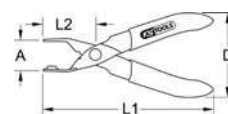
- PVC dipped handle
- 90° angled head
- For the correct unbolting of the siezed connections with rest tongues
- Suitable for service and maintenance works on the fuel tank
- For difficult to access areas
- Chrome molybdenum



Item	A mm	D mm	L1 mm	L2 mm		
115.1099	0,0-24,0	70.0	220.0	39.0	280	

## Fuel connection pliers

- PVC dipped handle
- For opening the coupling on fuel pipe connections
- Blue and green: for compression couplings connected fuel pipe
- Red: with 2 noses 6,5 mm x 6,0 mm for GM and Opel fuel pipe
- Special tool steel



Item	A mm	D mm	L1 mm		
115.1091	20.0	62.0	120.0	80	
115.1092	22.0	62.0	120.0	80	
115.1093	22.0	62.0	120.0	80	

### Fuel pipe plier set

- PVC dipped handle
- For opening the coupling on fuel pipe connections
- Blue and green: for compression couplings connecting fuel pipe
- Red: with 2 noses 6,5 mm x 6,0 mm for GM and Opel fuel pipes
- Special tool steel



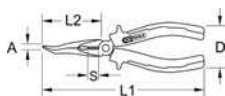
Item				
115.1090	3 pcs	Fuel pipe plier set	310	

consists of:

Item				
115.1091	Fuel pipe connection Pliers Ø 8 mm, blue	80		
115.1092	Fuel pipe connection Pliers Ø 10 mm, green	80		
115.1093	Fuel pipe connection Pliers GM-Opel, red	80		

### Fuel pipe pliers

- Two component handle
- Cranked execution
- Intergrated cutting edge
- For loosening and tightening on fuel lines that are difficult to reach
- No damage of the overflow pipe
- Matt chrome
- Chrome vanadium



Ideally usable in security ring at fuel directions and change valve on BMW motorcycles with 2 valve technology Suitable e.g. for VW/Audi, Mercedes Benz, Ford, Opel, Peugeot, Volvo, Daihatsu, Mazda and Toyota.



Item	A mm	D mm	L1 mm	L2 mm	S mm	
115.1067	0,0-75,0	60,0	200,0	75,0	15,0	220

### 2 Arm universal fuel gauge sender unit key

- 6 point drive
- For removal the plastic clasp ring on the tank sender unit in the fuel tank
- Adjustable
- Chrome plated and mirror polished
- Chrome vanadium



Item	dim mm	Ø mm		
150.9384	24	80,0 - 120,0	400	
150.9385	24	110,0 - 170,0	460	

### 3 Arm universal fuel gauge sender unit key

- 6 point drive
- For removal the plastic clasp ring on the tank sender unit in the fuel tank
- Adjustable
- Chrome plated and mirror polished
- Chrome vanadium



Item	dim mm	Ø mm		
150.9386	24,0	75,0-160,0	570	

### 2 Arm fuel sender unit key set

- 6 point drive
- For removal the plastic clasp ring on the tank sender unit in the fuel tank
- Adjustable
- Chrome plated and mirror polished
- Chrome vanadium



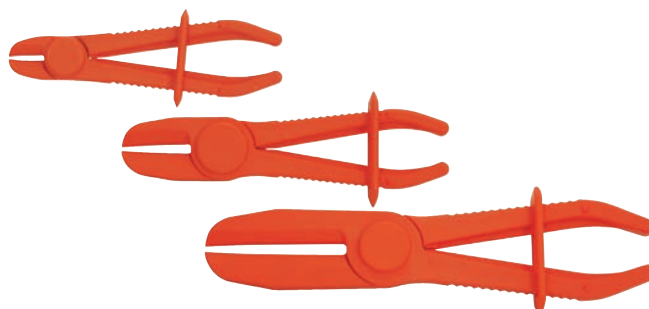
Item				
150.9387	2 pcs	2-Arm fuel sender unit key set	900	

consists of:

Item				
150.9384	Fuel gauge sender unit key small, adjustable, 80-120 mm	400		
150.9385	Fuel gauge sender unit key 2 arm, adjustable, capacity 110 - 170 mm	460		

### Hose clamp plier set

- For clamping flexible hoses
- For hoses from 15 mm up to 60 mm
- No uncontrolled leaking out of fluids
- Variable adjustment
- With ratchet function
- Plastic



Item				
115.5050	3 pcs	Hose clamp plier set	370	

consists of:

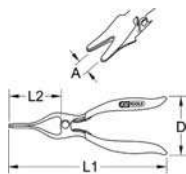
Item				
115.5052	Clamping pliers 150 mm for hoses up to Ø 15 mm	80		
115.5053	Clamping pliers 180 mm for hoses up to Ø 30 mm	130		
115.5054	Clamping pliers 250 mm for hoses up to Ø 60 mm	160		



### Special hose pliers

- With PVC dipped handle
- Extra flat jaws to the end
- For dismantling and assembly
- For removing of hose connections from hose tails
- Special tool steel

Ideally suited in e.g. fuel vacuum hoses, low pressure systems and water hoses.



Item	A mm	D mm	L1 mm	L2 mm	kg
115.1044	0,0-30,0	40,0	195,0	70,0	190

### Fluid transfer pump

- Simple to use allows siphoning and pumping out of fluids
- Suitable for fuel oil, water and antifreeze
- Through a rubber tube can also be used as an air pump
- Includes rubber tubes and reduce piece



Item	H mm	kg
150.1660	230,0	500

### Fluid transfer pump

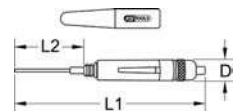
- Effective transfer pump
- Allows pumping of liquids such as fuel, water, etc.
- Includes 2 x 1 m tubes and clamps
- Tube diameter ca. 8 mm
- PVC- Tube



Item	Ø Tube mm	kg
150.1665	8,0	320

### Precision oiler

- In ball point pen form
- Practical pocket clip
- Protective cap
- Oil dosage through pushing a button
- Smallest angles and corners reached
- Suitable for a wide range of applications
- Light aluminium housing



Item	D mm	L1 mm	L2 mm	kg
550.1035	15,0	140,0	50,0	50

### Grease nipple cleaner

- For cleaning clogged grease nipples, slides and guides
- Suitable for pressing out of old and hardened grease
- No changing of the grease nipple necessary
- Includes flexible extension
- In durable plastic storage case



Item	L mm	kg
980.1015	2 pcs 205,0	550

### Mini lube grease pump

- Lubricating device for maintenance works on impact mechanisms and/or angle transmissions etc.
- Exact dosage per pressure button with return spring
- With rigid grease tube
- Tube contents 100 g

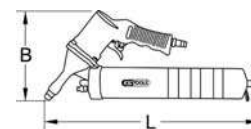


Item	Replacement tube	kg
980.1070	980.1075	100



### Pneumatic grease gun

- Air exhaust through the handle
- For one handed operation with balanced ergonomic design
- For cartridges and bucket goods and/or also for loose grease
- Includes rigid and flexible filling tubes
- high pressure tube
- Cold insulated handle
- Includes 1/4" coupling connector



#### Technical data:

Output pressure:	260 bar
Hauling capacity:	288 cm³/min
Capacity:	400g
Air consumption:	170 l/min
Operating pressure:	6,3 bar (90 psi)
Connection thread:	1/4"PT

Item	B mm	L mm	kg
515.3900	165.0	400.0	1.80

### Manual lever grease gun with flexible tube

- For cartridges and buckets and/or also for loose grease
- Fill capacity 400 g
- Flexible tube
- Chrome plated and mirror polished



Item	D mm	L mm	kg
980.1010	57.0	370.0	1.30

### Accessories:

Item	kg
980.1011 Flexible tube, long, 500 mm	60
980.1014 Flexible tube, short, 300 mm	70
980.1012 Rigid filling tube, 500 mm	70
980.1013 Filling nipple	30

### Single handed grease gun with rigid grease tube

- Perfect single handed usage
- For cartridges and buckets and/or also for loose grease
- Fill capacity 400g
- Rigid grease tube
- Chrome plated and mirror polished



Item	D mm	L mm	kg
980.1020	57.0	350.0	1.80



## ENGINE

### Epoxy metal Quicksteel

- Optimal adhesive power
- Enables durable repair
- Mechanical preparation after the curing possible
- Firmly set after 15 minutes
- Cures after 60 minutes completely
- Also suitable for use under water
- Temperature resistant up to 260
- Approx three years use duration
- Resistant to oil, diesel, petrol and battery acid

**Application range:** Metal, glass, plastic, ceramics, wood, concrete optical fiber reinforced plastic, etc.



Item			
500.1015	Epoxy metal Quicksteel	80	

### Stud extractor set

- Set contents for extensive applications
- For removing of threaded bolts, studding and screws
- No damage of the thread
- Only negligible enlarging of the threaded bolt through special profile extractor pin
- For screws and bolts M5 - M16
- Special steel
- In durable plastic storage case



Item			
150.1305	25 pcs	Stud extractor set	650

#### Extractor:

Item		Ø mm	Ø	Thread	L mm	Extractor pin incl thrust bolt	
150.0521	1	3,2	1/8"	M5 - M6	60.0	150.0511S	150
150.0522	2	4,8	3/16"	M7 - M8	70.0	150.0512S	180
150.0523	3	6,4	1/4"	M9 - M10	78.0	150.0513S	230
150.0524	4	8,0	5/16"	M12	83.0	150.0514S	300
150.0525	5	8,7	11/32"	M14 - M16	94.0	150.0515S	350

#### Extractor nut:

Item	Size mm	Pin dim	dim mm	L mm	
150.0511	1	1	10,0	16,0	130
150.0512	2	2	11,0	16,0	230
150.0513	3	3	13,0	16,0	350
150.0514	4	4	14,0	16,0	470
150.0515	5	5	17,0	16,0	590

#### Drill:

Item	Ø mm	Ø	Drill bush	L mm	
150.1305-21	3,2	1/8"	1 - 4	65.0	20
150.1305-22	4,8	3/16"	5 - 7	86.0	20
150.1305-23	6,4	1/4"	8	101.0	20
150.1305-24	8,0	5/16"	9	117.0	20
150.1305-25	8,7	11/32"	10	125.0	20

#### Bushes:

Item	Ø1 mm	Ø2 mm	Ø3 mm	Ø4 mm	Ø3	Ø4	L mm	
150.0501	1	6.0	5.0	4.0	3.2	5/32"	1/8"	30.0
150.0502	2	8.0	6.0	4.8	3.2	3/16"	1/8"	30.0
150.0503	3	9.0	7.0	4.8	3.2	3/16"	1/8"	30.0
150.0504	4	10.0	8.0	4.8	3.2	3/16"	1/8"	30.0
150.0505	5	10.0	8.0	6.0	4.8	3/16"	3/16"	30.0
150.0506	6	11.0	9.0	7.0	4.8	9/32"	3/16"	30.0
150.0507	7	12.0	10.0	7.0	4.8	9/32"	3/16"	30.0
150.0508	8	13.0	11.0	7.0	4.8	9/32"	3/16"	30.0
150.0509	9	13.0	11.0	9.0	6.5	1/4"	3/16"	30.0
150.0510	10	14.0	12.0	9.5	6.5	3/8"	1/4"	30.0

### Screw extractor set

- For screws from M3 - M18
- Enable the loosening of screws and bolts with turned off heads
- Conical tapered spiral
- In durable plastic storage case



Item			
150.1330	6 pcs	M3-M6 - M6-M8 - M8-M11 - M11-M14 - M14-M18 - M18-M24	250



## Spiral screw and bolt extractor set

- Extra short execution
- With heagon drive SW 13
- Slightly conical tapered spiral
- Applicable also for dismantled screws and stand bolt
- Counter effect motion guarantees easy extraction
- Special steel
- In durable plastic storage case

**Application range:** Hexagon head, brakes + water pumps, spline drives etc.



Item				
150.1385	15 pcs	Spiral screw and bolt extractor set	520	

consists of:

Item				
150.1371	Extractor 1/8"	20		
150.1373	Extractor 3/16"	20		
150.1375	Extractor 1/4"	20		
150.1379	Extractor 3/8"	20		
150.1381	Extractor 1/2"	20		
150.1386	Extractor 3 mm	20		
150.1387	Extractor 4 mm	20		
150.1388	Extractor 5 mm	20		
150.1389	Extractor 5.5 mm	30		
150.1390	Extractor 6 mm	30		
150.1391	Extractor 8 mm	30		
150.1392	Extractor 10 mm	30		
150.1393	Extractor 11 mm	30		
150.1394	Extractor 12 mm	40		
150.1395	Extractor 14 mm	40		



## Spiral profile socket

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum



Item	mm	D mm		
913.1473	6,0	11.0	40	
913.1408	8,0	12.0	40	
913.1410	10,0	15.0	40	
913.1470	11,0	17.0	40	
913.1412	12,0	17.0	40	

## Spiral profile socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum
- Includes storage rail



Item				
913.1450	4 pcs	Spiral profile socket set	200	

consists of:

Item				
913.1408	1/4" Spiral profile socket, 8 mm	40		
913.1410	1/4" Spiral profile socket, 10 mm	40		
913.1412	1/4" Spiral profile socket, 12 mm	40		
913.1413	1/4" Spiral profile socket, 13 mm	40		

## Spiral profile socket

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum



Item	mm	D mm	L mm		
913.3860	10,0	15.0	34.0	30	
913.3861	11,0	16.0	34.0	30	
913.3862	12,0	18.0	34.0	40	
913.3863	13,0	18.5	34.0	40	
913.3864	14,0	20.5	34.0	40	
913.3865	15,0	22.0	34.0	60	
913.3866	16,0	22.5	34.0	60	
913.3867	17,0	24.5	34.0	70	
913.3868	18,0	26.0	34.0	80	
913.3869	19,0	27.0	34.0	80	



## Spiral profile socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum



Item				
913.3850	4 pcs	Spiral profile socket set	200	

### consists of:

Item				
913.3858	3/8"	Spiral profile socket, 8 mm	30	
913.3860	3/8"	Spiral profile socket, 10 mm	30	
913.3862	3/8"	Spiral profile socket, 12 mm	40	
913.3863	3/8"	Spiral profile socket, 13 mm	40	



## Spiral profile socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Drive out pin
- Phosphate finish
- Chrome molybdenum
- In durable plastic case



Item				
913.3855	10 pcs	Spiral profile socket set	660	

### consists of:

Item				
913.3860	3/8"	Spiral profile socket, 10 mm	30	
913.3861	3/8"	Spiral profile socket, 11 mm	30	
913.3862	3/8"	Spiral profile socket, 12 mm	40	
913.3863	3/8"	Spiral profile socket, 13 mm	40	
913.3864	3/8"	Spiral profile socket, 14 mm	40	
913.3865	3/8"	Spiral profile socket, 15 mm	60	
913.3866	3/8"	Spiral profile socket, 16 mm	60	
913.3867	3/8"	Spiral profile socket, 17 mm	70	
913.3869	3/8"	Spiral profile socket, 19 mm	80	
913.3870		Burr arbor	30	

## Spiral profile socket

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum

1/2"



Item	mm	L mm		
913.1469	12,0	34,0	40	
913.1468	13,0	34,0	50	
913.1467	14,0	34,0	70	
913.1466	15,0	34,0	70	
913.1465	17,0	34,0	70	
913.1249	19,0	34,0	90	
913.1250	20,0	34,0	110	
913.1463	21,0	34,0	90	
913.1252	22,0	34,0	120	
913.1253	23,0	34,0	130	
913.1462	24,0	34,0	110	
913.1255	25,0	34,0	150	
913.1461	27,0	34,0	110	

## Spiral profile socket nut

- Very flat compact and robust execution
- Rejuvenating special profile with aggressive spiral nut
- Bites firmly to give a firm connection between stuck nut and head
- Can be used with an socket or ring spanner
- Phosphate finish
- Chrome molybdenum



Item		mm		
913.3881	M9	16,0	10	
913.3882	M10	16,0	10	
913.3883	M11	18,0	10	
913.3884	M12	19,0	10	
913.3885	M13	19,0	20	
913.3886	M14	21,0	20	
913.3887	M15	23,0	20	
913.3888	M16	24,0	30	
913.3889	M17	26,0	40	
913.3890	M19	27,0	40	

## Spiral profile socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- With drive out pin
- Phosphate finish
- In durable plastic case

1/2"



Item				
913.1240	6 pcs	19 - 20 - 22 - 23 - 25 mm	690	

### Spiral profile socket nut set

- For loosening and unscrewing of fixed bolt and nuts with damaged „round turned“ threads or heads
- Special, left handed cutting edge thread with 6 conical reducing cutting edges
- Very flat compact and robust execution
- The drive can be used alternatively with a socket ring or combination spanner
- In durable plastic case



Item				
913.3880	10 pcs	M9 - M10 - M11 - M12 - M13 - M14 - M15 - M16 M17 - M19	300	

### Spiral profile socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- With drive out pin
- Phosphate finish
- Chrome molybdenum
- In durable plastic case



1/4" 1/2"

Item				
913.1460	15 pcs	Spiral profile socket set	1.10	

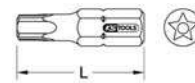
consists of:

Item				
913.1249	1/2" Spiral-Profile-Socket, 19 mm	90		
913.1408	1/4" Spiral-Profile-Socket, 8 mm	40		
913.1410	1/4" Spiral-Profile-Socket, 10 mm	40		
913.1412	1/4" Spiral-Profile-Socket, 12 mm	40		
913.1461	1/2" Spiral-Profile-Socket, 27 mm	110		
913.1462	1/2" Spiral-Profile-Socket, 24 mm	110		
913.1463	1/2" Spiral-Profile-Socket, 21 mm	90		
913.1465	1/2" Spiral-Profile-Socket, 17 mm	70		
913.1466	1/2" Spiral-Profile-Socket, 15 mm	70		
913.1467	1/2" Spiral-Profile-Socket, 14 mm	70		
913.1468	1/2" Spiral-Profile-Socket, 13 mm	50		
913.1470	1/4" Spiral-Profile-Socket, 11 mm	40		
913.1473	1/4" Spiral-Profile-Socket, 6 mm	40		
913.1474	Extraction drive small	10		
913.1475	Extraction drive large	58		



### CLASSIC Bit for tamperproof five star screws

- Five star bit, tamperproof
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special steel



1/4"

Item		L mm	Content		
911.3101	TS10	30.0	1	10	
911.3111	TS10	30.0	5	50	
911.3102	TS15	30.0	1	10	
911.3112	TS15	30.0	5	50	
911.3103	TS20	30.0	1	10	
911.3113	TS20	30.0	5	50	
911.3104	TS25	30.0	1	10	
911.3114	TS25	30.0	5	50	
911.3105	TS27	30.0	1	10	
911.3115	TS27	30.0	5	50	
911.3106	TS30	30.0	1	10	
911.3116	TS30	30.0	5	50	
911.3107	TS40	30.0	1	10	
911.3117	TS40	30.0	5	50	

### CLASSIC Bit set for tamperproof five star screws

- Five star bit, tamperproof
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- 1/4" Bit adaptor socket
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special steel



1/4"

Item				
911.1480	8 pcs	CLASSIC Bit set for tamperproof five star screws	50	

### Bit socket for five star tamperproof screws

- Five star bit, tamperproof
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium



1/4"

Item		D mm	L mm	T mm		
911.1471	TS10	12.0	25.0	6.0	10	
911.1472	TS15	12.0	25.0	6.0	10	
911.1473	TS20	12.0	25.0	7.0	10	
911.1474	TS25	12.0	25.0	7.0	10	
911.1475	TS27	12.0	25.0	8.0	10	
911.1476	TS30	12.0	25.0	8.0	10	
911.1477	TS40	12.0	25.0	9.0	10	

### Bit socket set for tamperproof five star screws

- Five star bit, tamperproof
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail

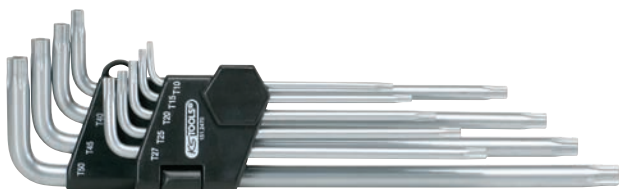
1/4"



Item						
911.1470	7 pcs	TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40	0.16			

### CLASSIC Five star profile tamperproof key wrench set

- Long execution
- Bore hole at the short and long end
- Continuous hardened
- Matt chrome
- Special steel



Item						
151.2470	9 pcs	TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 TS45 - TS50	330			

### Adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium



1/4"

Item			L mm			
911.1494	1/4"	3/8"	25.0	30		

### RIBE® Bit socket set for tamperproof screws, long

- For tamperproof RIBE® profile
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fitted insert bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail

1/2"



Item						
911.1630	9 pcs	M5 - M6 - M7 - M8 - M9 - M10 - M12 - M13 - M14	1.24			

### CLASSIC RIBE® Bit set

- Ideal set compilation for RIBE® screws
- External hexagon drive to DIN 3126 / ISO 1173 Form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Precise arrangement of the popular 5/16" RIBE® bits
- Phosphate finish
- Special steel
- In durable plastic storage case



5/16"

Item						
911.4306	14 pcs	CLASSIC bit set	0.82			

#### consists of:

Item						
911.5165	5/16" Special bits RIBE®, Length 38 mm, M5	10				
911.5166	5/16" Special bits RIBE®, Length 38 mm, M6	10				
911.5167	5/16" Special bits RIBE®, Length 38 mm, M7	10				
911.5168	5/16" Special bits RIBE®, Length 38 mm, M8	20				
911.5169	5/16" Special bits RIBE®, Length 38 mm, M10	20				
911.5170	5/16" Special bits RIBE®, Length 38 mm, M12	30				
911.5171	5/16" Special bits RIBE®, Length 100 mm, M7	40				
911.5172	5/16" Special bits RIBE®, Length 100 mm, M8	50				
911.5173	5/16" Special bits RIBE®, Length 100 mm, M9	60				
911.5174	5/16" Special bits RIBE®, Length 100 mm, M10	70				
911.5175	5/16" Special bits RIBE®, Length 100 mm, M12	80				
911.5176	5/16" Special bits RIBE®, Length 100 mm, M13	90				
911.5177	5/16" Special bits RIBE®, Length 100 mm, M14	100				
911.5178	1/2" Impact Bit adaptor for Bits 5/16"	60				

### Impact bit socket for RIBE® screws, extra long

- For RIBE® screws
- Internal square drive to DIN 3121 / ISO 1174
- Extra long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1/2"



Item		L mm	D mm			
911.1395	M9 / M10	128.0	25.0	110		

### E-TX socket set

- E-TX
- For loosening and tightening E-TX cylinder head screws
- With incorporated retaining ball for accurate removing of the bolt
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/2"

Item						
911.4450	6 pcs	E-TX socket set	1.90			




## E-TX socket, deep

- E-TX
- For loosening and tightening E-TX cylinder head screws
- With incorporated retaining ball for accurate removing of the bolt
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finish
- Chrome vanadium



1/2"


Item		L mm		
911.4451	E10	150.0	260	
911.4452	E12	150.0	260	
911.4453	E14	150.0	260	
911.4454	E16	150.0	260	
911.4455	E18	150.0	260	
911.4456	E20	150.0	260	

## Automotive bit socket set


- Problem solver for many automotive applications
- Matt finish
- Chrome vanadium
- In durable plastic storage case




1/4" - 1/2"

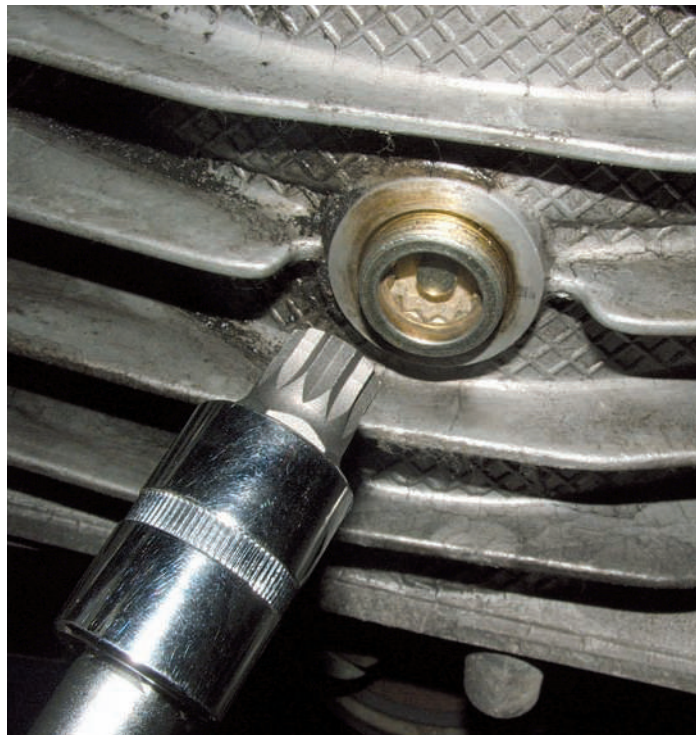
Item			
911.4500	38 pcs Automotive bit socket set	6.50	

consists of:

Item			
911.0954	1/2" Impact bit socket XZN®, burnished, l = 75mm, M18	146	
911.1314	1/2" Hexagon bit socket 14 x 55mm	120	
911.1317	1/2" Hexagon bit socket 17 x 55mm	150	
911.1319	1/2" Hexagon bit socket 19 x 55 mm	200	
911.1322	1/2" Hexagon bit socket 22 x 55mm	200	
911.1345	1/2" XZN® Bit socket M14 x 55mm	110	
911.1348	1/2" XZN®-Bit-Socket M16 x 55mm	140	
911.1356	1/2" XZN®-Bit-Socket M16 x 110mm	180	
911.1359	1/2" XZN®-Bit-Socket M9 x 110mm	180	
911.1685	1/2" Ball head-Bit-Socket 5 x 160mm	125	
911.1701	1/4" 5-Star Bit-Socket TS10	10	
911.1702	1/4" 5-Star Bit-Socket TS15	10	
911.1703	1/4" 5-Star Bit-Socket TS20	10	
911.1704	1/4" 5-Star Bit-Socket TS25	10	
911.1705	1/4" 5-Star Bit-Socket TS27	10	
911.1706	1/4" 5-Star bit socket TS30	10	
911.1707	1/4" 5-Star bit socket TS40	10	
911.1708	1/4" 5-Star bit socket TS45	10	
911.1709	1/4" 5-Star Bit socket TS50	10	
911.1925	1/2" Bit socket M9 RIBE® profile, l = 100mm	120	
911.1937	1/2" TX bit socket T40, l = 140mm	125	
911.1938	1/2" TX Bit socket T45, l = 140mm	125	
911.1939	1/2" TX Bit socket T50, l = 140mm	125	
911.1940	1/2" TX bit socket T55, l = 140mm	125	
911.1941	1/2" TX Bit socket T60, l = 140mm	125	
911.1942	1/2" TX Bit socket T70, l = 140mm	125	
911.1960	1/2" Hexagon bit socket 10 x 140mm	90	
911.1961	1/2" Hexagon bit socket 11 x 140mm	100	
911.1963	1/2" Hexagon-Bit-Socket 13 x 140mm	100	
911.1970	1/2" XZN®-Bit-Socket M10 x 140mm	125	
911.1972	1/2" XZN®-Bit-Socket M12 x 140mm	125	
911.1974	1/2" XZN® Bit socket M14 x 140mm	125	

consists of:

Item			
911.1980	1/2" Bit socket M10 RIBE® profile, l = 140mm	125	
911.1993	1/2" Bit socket M7 RIBE® profile, l = 240mm	175	
911.1994	1/2" Bit socket M8 RIBE® profile, l = 240mm	175	
911.1327-240	1/2" Hexagon-Bit-Socket 7x240mmL	185	
911.1624-300	1/2" TX-Bit-Socket T30, 300mm Length	125	




## 12 point impact socket set

- 12 point
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- In durable plastic case



3/8"


Item			
515.0950	10 pcs 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 mm	1.65	

## 12 point impact socket set

- 12 point
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- In durable plastic case



1/2"


Item			
515.0900	13 pcs 10 - 12 - 13 - 14 - 15 - 16 - 17 - 19 - 20 - 21 - 22 - 23 - 24 mm	2.80	



## Stud bolt puller

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- External drive hexagon socket 21 mm
- Right and left hand clamping function
- Safe clamping due to 3 rollers
- Stud screws can be screwed in or out without using counter nuts on the bolt
- Also for extra long studs that will go through the through socket
- Chrome plated and mirror polished
- Chrome vanadium




Item	mm	
152.1005	5	150
152.1006	6	160
152.1007	7	160
152.1008	8	170
152.1010	10	180
152.1012	12	200
152.1014	14	200

## Stud bolt puller

- For screwing in or extracting out stud bolts
- Clockwise and anticlockwise clamping function
- Also suitable for extra long stud bolts
- Special steel




Item	Ø mm	max N·m	dim mm	
670.0231	5-15	120	19	360
670.0232	10-19	120	19	400
670.0233	18-28	120	19	450

## Screw bolt puller set

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- External drive hexagon socket 21 mm
- Right and left hand clamping function
- Safe clamping due to 3 rollers
- Stud screws can be screwed in or out without using counter nuts on the bolt
- Also for extra long studs that will go through the through socket
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case




Item		
152.1100	4 pcs M6 - M8 - M10 - M12	0.79

## Stud bolt puller

- For screwing in or extracting out stud bolts
- Clockwise and anticlockwise clamping function
- Also suitable for extra long stud bolts
- Special steel




Item	Ø mm	max N·m	dim mm	
670.0241	5-20	120	19	400

## Screw bolt puller set

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- External drive hexagon socket 21 mm
- Right and left hand clamping function
- Safe clamping due to 3 rollers
- Stud screws can be screwed in or out without using counter nuts on the bolt
- Also for extra long studs that will go through the through socket
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

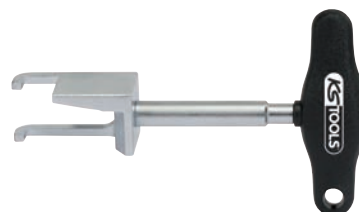


Item		
152.1101	7 pcs M5 - M6 - M7 - M8 - M10 - M12 - M14	1.50

## T-handle ignition puller, type 1

- Ideal for the fast and safe dismantling and assembly of ignition coil
- Hanging hole
- One component handle

**Application range:** VW FSI Engine: Golf/Bora from 1998, Polo from 2002, Touran from 2004, New Beetle from 2003, Passat from 1997, T4 + Audi A2 from 2001



Item	L mm	Fork opening mm	
500.7540	135.0	26.0	150

### T-handle ignition puller, type 2

- Ideal for the fast and safe dismantling and assembly of ignition coil
- Hanging hole
- One component handle

**Application range:** 6 cylinder 24 V and 5 cylinderr engine, Golf/Bora from 1998, Passat/Touareg from 1997, Sharan from 1996, Phaeton/Toureg 6 cylinder from 2003, Transporter T5 6 Cylinder Injector from 2004

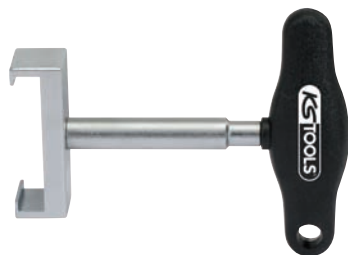


Item	L mm	Fork opening mm	
500.7545	135.0	18.0	130

### T-handle ignition puller, type 3

- Ideal for the fast and safe dismantling and assembly of ignition coil
- With hanging hole
- With one component handle

**Application range:** VW Diesel injector engine 2.0: Golf + Touran from 2004, Passat + Eos from 2006, Audi  
**Diesel injector engine:** A3 from 2004 2,0l, A6 from 2005 3,2l



Item	L mm	Fork opening mm	
500.7550	105.0	44.0	200

### Ignition puller, type 4

- Ideal for the fast and safe dismantling and assembly of ignition coil
- With finger pull ring

**Application range:** VW Diesel injector engine 2.0: Golf +Touran from 2004, Passat + Eos from 2006 AUDI Diesel injector engine: A3 2,0l from 2004, A6 3,2l from 2005



Item	L mm	Fork opening mm	
500.7555	90.0	44.0	100


### Ignition puller set

- Ideal for the fast and safe dismantling and assembly of ignition coil
- Hanging hole
- One component handle
- In durable plastic case



Item	
500.7560 4 pcs Ignition puller set	0.60


#### consists of:

Item	
500.7540 Ignition coil puller - Type 1, length 135 mm	150
500.7545 Ignition coil puller - Type 2, length 135 mm	130
500.7550 Ignition coil puller - Type 3, length 105 mm	200
500.7555 Ignition coil puller Type 4	100

### T-handle spark plug puller, short

- Short execution
- For almost all current vehicle types
- For the damage free extracting off of the spark plug connector
- Hanging hole
- One component handle
- Special steel

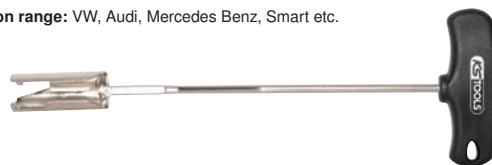



Item	L mm	
500.7525	225.0	230

### T-handle spark plug puller, angled

- Angled execution
- Plastic protective coating
- For the damage free extracting off and attaching of the spark plug connector
- Also suitable when the engine is at operating tempature
- Hanging hole
- One component handle
- Special steel

**Application range:** VW, Audi, Mercedes Benz, Smart etc.




Item	L mm	
500.7530	280.0	90

### T-handle spark plug puller, long

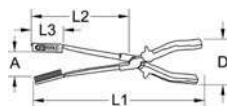
- Long execution
- For almost all current vehicle types
- For the damage free extracting off of the spark plug connector
- Hanging hole
- One component handle
- Special steel



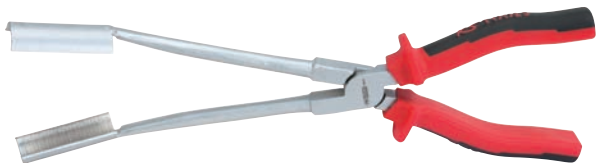
Item	L mm	
500.7535	350.0	270

## Spark plug pliers

- Long, angular gripper sleeves
- Gripping sleeves with milled inner profile
- Long plier arms
- Wide safety margin to the hot assembly
- For extracting low lying spark plugs
- With two component handle
- Chrome vanadium



**Application range:** Audi V6 / V8 engine as well as Jaguar 12-cylinder.



Item	A mm	D mm	L1 mm	L2 mm	L3 mm	
500.7510	0,0-80,0	65.0	290.0	145.0	50.0	280

## T-handle spark plug spanner set

- FlankTraction profile (12 point)
- Flexible head
- For difficult to access areas
- Matt finish
- Chrome vanadium



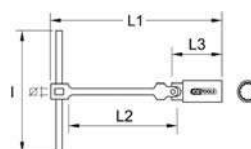
Item	
517.1130 4 pcs T-handle spark plug spanner set	2.42

### consists of:

Item	
517.1131 T-handle spark plug socket universal joint , 14 mm, 500 mm length	490
517.1132 T-handle spark plug socket universal joint , 16 mm, 500 mm length	500
517.1133 T-handle spark plug socket universal joint , 18 mm, 500 mm length	580
517.1134 T-handle spark plug socket universal joint , 21 mm, 500 mm length	590

## CLASSIC T-handle Spark plug socket

- FlankTraction profile
- Flexible head
- For difficult to access areas
- Matt finish
- Chrome vanadium



Item		I mm	L1 mm	L2 mm	L3 mm	
517.1131 14	200.0	500.0	418.5	81.5	490	
517.1132 16	200.0	500.0	418.5	81.5	500	
517.1133 18	200.0	500.0	418.5	81.5	580	
517.1134 21	200.0	500.0	418.5	81.5	590	

## Spark plug connector screw in tool, double sided

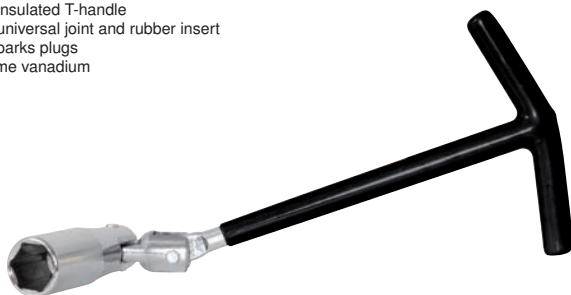
- For universal applications ignition coils and glow plugs
- For the clean and preparing of the first thread gears
- Especially in common rail glow plugs
- Double sided usage
- Solid rubber



Item	L mm	
500.7520	240.0	75

## T-handle spark plug spanner

- With insulated T-handle
- With universal joint and rubber insert
- For sparks plugs
- Chrome vanadium



Item			L mm	
517.1170	16,0	5/8"	235.0	250
517.1175	21,0	13/16"	235.0	280





## Spark plug socket

- DIN 3124 / ISO 3315
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Rubber stop for holding the sparks plugs
- Long execution
- For manual operation
- Matt finish
- Chrome vanadium



3/8"

Item		mm	D1 mm	D2 mm	L mm	T mm	
911.3804		16,0	20,0	18,0	63,0	22,0	60
911.3805		21,0	22,0	19,0	63,0	25,0	60
911.3990		14,0	26,0	20,0	63,0	12,0	60

## Special spark plug socket, thin walled

- FlankTraction profile
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Extra slim execution
- For sparks plugs with platinum electrodes for example Bosch 14 ZR
- Predominantly for french vehicles
- For manual operation
- Matt finish
- Chrome vanadium



3/8"

Item	mm	L mm	B mm	
911.3991	14.0	64.0	18.0	60

## CHROMEplus® Spark plug service set

- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case



3/8"

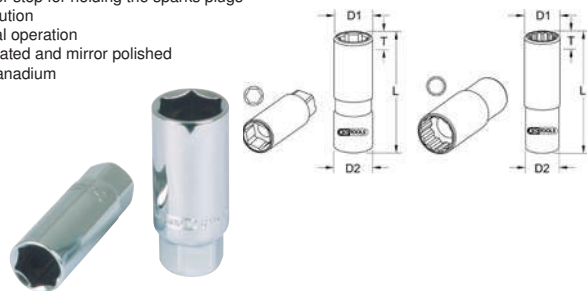
Item			
918.0607	7 pcs	CHROMEplus® spark plug service set	1.44

consists of:

Item		
918.3802	3/8" CHROMEplus® Wobble -Extension, knurled Length 150 mm	200
918.3804	3/8" CHROMEplus® Spark plug-Socket, Length 76 mm, 16 mm, 6 point	60
918.3805	3/8" CHROMEplus® Spark plug-Socket, Length 76 mm, 18 mm, 6 point	60
918.3806	3/8 Spark plug-Socket 21 mm highly polished	60
918.3895	3/8" CHROMEplus® Flexible-Reversible ratchet, 72 teeth, Length 270 mm	230
918.3990	3/8" CHROMEplus® Spark plug-Socket, Length 63 mm, 14 mm, 12 point	60

## CHROMEplus® Spark plug socket

- DIN 3124 / ISO 3315
- Internal square to DIN 3120 / ISO 1174 with ball reception
- With rubber stop for holding the sparks plugs
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



1/2"

Item		mm	D1 mm	D2 mm	L mm	T mm	
918.1390		14,0	18,0	17,0	76,0	16,0	60
918.1205		16,0	22,0	22,0	76,0	26,0	60
918.1207		18,0	26,0	21,0	76,0	23,0	60
918.1206		21,0	28,0	24,0	76,0	26,0	60
918.1391		13/16"	28,0	24,0	76,0	23,0	60
918.1392		5/8"	22,0	22,0	76,0	18,0	60

## Torque limiter adaptor set

- High accuracy
- For controlled fastening in a clockwise direction with 18 Nm or 24 Nm
- Clearly perceptible torque through the ratchet
- It is not possible to over tighten the set value
- Without scale - with a fixed adjustable value
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- In durable steel storage case

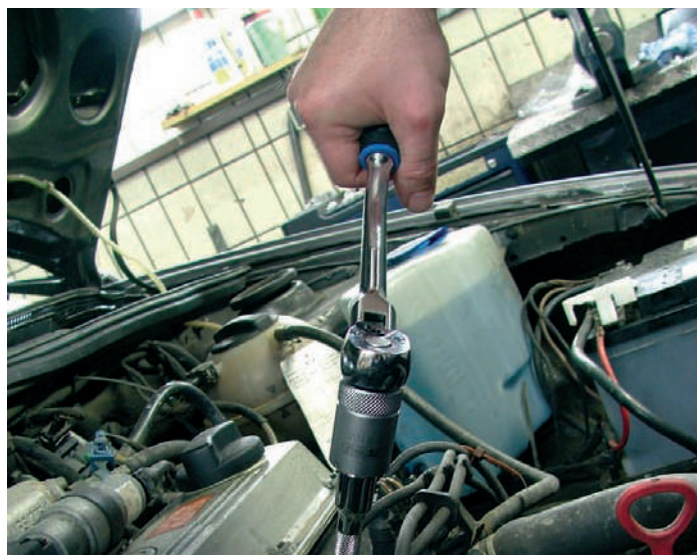


3/8"

Item			
516.1500	2 pcs	18 - 24 Nm	0.41

consists of:

Item		
516.1501	3/8" Torque limiter 18 Nm	165
516.1502	3/8" Torque limiter 24 Nm	166





## Torque limiter spark plug socket set

- For the controlled screwing of sparks plugs
- Includes 2 magnetic 250 mm long sparks plug socket
- High accuracy
- For controlled fastening in a clockwise direction with 18 Nm or 24 Nm
- Clearly perceptible torque through the ratchet
- It is not possible to over tighten the set value
- Without scale - with a fixed adjustable value
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- In durable steel storage case

3/8"



Item				
517.1140	5 pcs	Torque limiter spark plug socket set	2.07	

consists of:

Item				
516.1501	3/8" Torque limiter 18 Nm	165		
516.1502	3/8" Torque limiter 24 Nm	166		
517.1141	3/8" Long Spark plug socket long 16 mm	360		
517.1142	3/8" Long Spark plug socket long 21 mm	560		
918.3890	3/8" 72-Teeth Ratchet (220Nm)	130		

## Spark plug feeler gauge

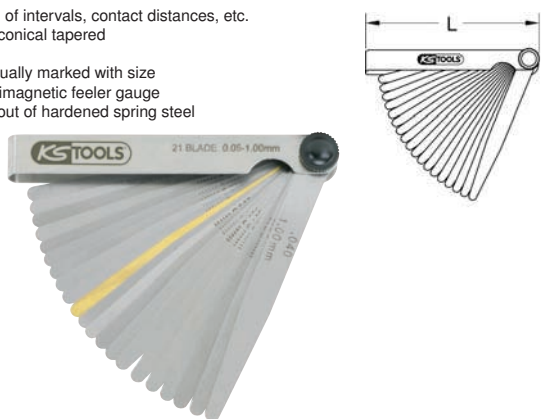
- Practical adjusting tool for sparks plugs
- With contact opening function
- Metric and imperial size measurements
- Ideal for the fast and safe dismantling and assembly of ignition coil
- With hanging hole



Item	Ø mm	Measuring range mm	Measuring range	
500.7515	38	0,5-2,5	0,020"-0,1"	25

## Feeler gauge

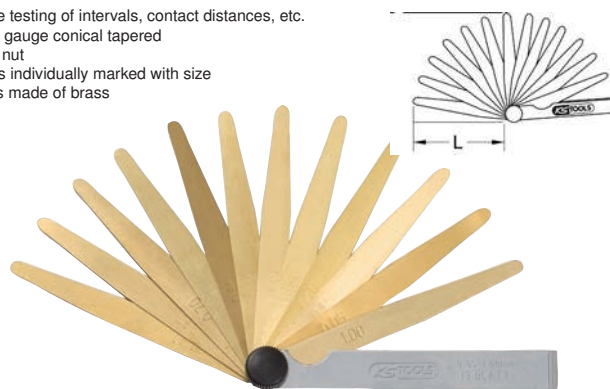
- For the testing of intervals, contact distances, etc.
- Feeler gauge conical tapered
- Fixing nut
- Leaves individually marked with size
- Includes a antimagnetic feeler gauge
- Blades made out of hardened spring steel



Item	Tooth pitch	Measuring range mm	L mm	
300.0600	21	0,05 - 0,10 - 0,15 - 0,20 - 0,25 - 0,30 0,35 - 0,40 - 0,45 - 0,50 - 0,55 - 0,60 0,65 - 0,70 - 0,75 - 0,80 - 0,85 - 0,90 0,95 - 1,00	100.0	50

## Antimagnetic brass feeler gauge

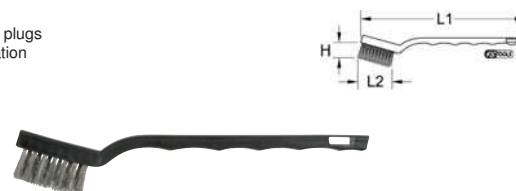
- For the testing of intervals, contact distances, etc.
- Feeler gauge conical tapered
- Fixing nut
- Leaves individually marked with size
- Blades made of brass



Item	Tooth pitch	Measuring range mm	L mm	
300.0611	8	0,05 - 0,1 - 0,15 - 0,2 - 0,25 - 0,3 0,4 - 0,5	100.0	55
300.0612	13	0,05 - 0,1 - 0,15 - 0,2 - 0,25 - 0,3 0,4 - 0,5 - 0,6 - 0,7 - 0,8 - 0,9 - 1,0	100.0	70
300.0613	20	0,05 - 0,1 - 0,15 - 0,2 - 0,25 - 0,3 0,35 - 0,4 - 0,45 - 0,5 - 0,55 - 0,6 0,65 - 0,7 - 0,75 - 0,8 - 0,85 - 0,9 0,95 - 1,0	100.0	85

## Steel wire spark plug wire brush 2 rowed

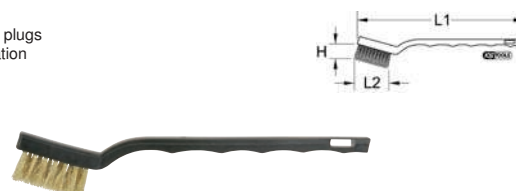
- 2 rowed
- For use with sparks plugs
- For surface preparation
- Steel wire



Item	H mm	L1 mm	L2 mm	
201.2315	14.8	170.0	24.5	20

## Brass wire spark plug wire brush 2 rowed

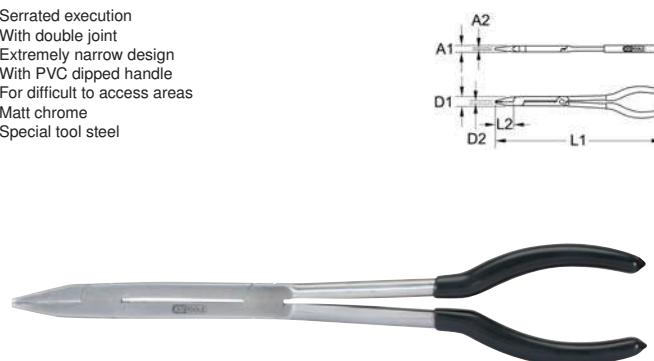
- 2 rowed
- For use with sparks plugs
- For surface preparation
- Brass wire



Item	H mm	L1 mm	L2 mm	
201.2316	14.8	170.0	24.5	20

## CLASSIC Double jointed telephone pliers, extra long

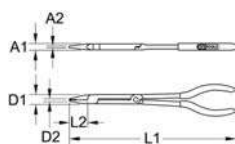
- Serrated execution
- With double joint
- Extremely narrow design
- With PVC dipped handle
- For difficult to access areas
- Matt chrome
- Special tool steel




Item	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	
500.7061	10.0	10.0	18.0	3.0	340.0	32.0	450

### CLASSIC Double jointed flat pliers, extra long

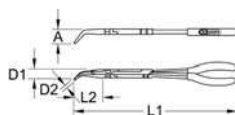
- Serrated execution
- With double joint
- Extremely narrow design
- for difficult to access areas
- with PVC dipped handle
- Matt chrome
- Special tool steel




Item	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	
500.7062	11.0	3.0	18.0	5.0	300.0	65.0	450

### Double jointed long nosed pliers 45° curved and extra long

- Serrated execution
- With double joint
- Extremely narrow design
- 45° curved jaws
- With PVC dipped handle
- For difficult to access areas
- Matt chrome
- Special tool steel




Item	A mm	D1 mm	D2 mm	L1 mm	L2 mm	
500.7063	22.0	17.0	5.0	335.0	60.0	450

### CLASSIC Double jointed plier set, extra long

- Serrated execution
- With double joint
- Extremely narrow design
- With PVC dipped handle
- For difficult to access areas
- Matt chrome
- Special tool steel

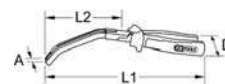


Item	
500.7060	3 pcs CLASSIC double jointed plier set, extra long 1.40




### Glow plug pliers, angled

- With two component handle
- Angled head
- Specially milled plier profile for positive holding
- Suitable for very firmly seated glow plugs
- For the expert installation and removal of glow plugs
- For difficult to access areas
- Special tool steel



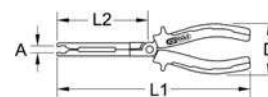
Ideally suitable for glow plugs in the newer diesel engine generation e.g. Mercedes, BMW, VW and Audi.



Item	A mm	D mm	L1 mm	L2 mm	
500.7310	0,0-105,0	55.0	235.0	120.0	400


### Glow plug pliers

- With two component handle
- Specially milled pliers profile for positive holding
- Suitable for very firmly seated glow plugs
- For the expert installation and removal of glow plugs
- For difficult to access areas
- Special tool steel



Ideally suitable for glow plugs in the newer diesel engine generation e.g. Mercedes, BMW, VW and Audi.



Item	A mm	D mm	L1 mm	L2 mm	
500.7330	0,0-125,0	76.0	265.0	95.0	400





## Glow plug T-handle ring ratchet wrench

- 6 point
- T-handle
- For extremely heavily deposited glow plugs
- Right or left handed usage through the turning of the head
- Special steel

**Application range:** Dim. 8 for E cable nut in diesel motors (VW, Audi, Seat etc.)  
dim. 10 + 12 for glow plugs and hand brake adjustment



Item	dim mm	L mm	
500.7340	8,0	295.0	175
500.7341	10,0	295.0	180
500.7342	12,0	300.0	195
500.7343	14,0	300.0	200



## Glow plug flexible socket, long

- 6 point
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For the safe disassembly and assembly of glow plugs
- For difficult to access areas
- Suitable for all current glow plugs
- Screwed universal joint
- Inclusive rubber rings for safe holding of the glow plug
- Matt finish
- Chrome vanadium



Item		mm	L mm	
500.7311	8,0	150.0	190	
500.7312	9,0	150.0	190	
500.7313	10,0	150.0	190	
500.7314	12,0	150.0	190	
500.7315	14,0	160.0	190	
500.7316	16,0	160.0	190	

## Glow plug swivel wrench set, long

- 6 point
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For the safe disassembly and assembly of glow plugs
- For difficult to access areas
- Suitable for all current glow plugs
- With screwed universal joint
- Inclusive rubber rings for safe holding of the glow plug
- Matt finish
- Chrome vanadium
- In durable plastic storage case



Item	
500.7320 6 pcs Glow plug swivel wrench set, long	1.40

consists of:

Item	
500.7311 3/8" Glow plug-Flexible socket, SW 8, Length 150 mm	190
500.7312 3/8" Glow plug-Flexible socket, SW 9, Length 150 mm	190
500.7313 3/8" Glow plug-Flexible socket, SW 10, Length 150 mm	190
500.7314 3/8" Glow plug-Flexible socket, SW 12, Length 150 mm	190
500.7315 3/8" Glow plug-Flexible socket, SW 14, Length 160 mm	190
500.7316 3/8" Glow plug-Flexible socket, SW 16, Length 160 mm	190

## Glow plug flexible socket

- 6 point
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- For the safe disassembly and assembly of glow plugs
- For difficult to access areas
- Suitably for all current glow plugs
- Screwed universal joint
- Inclusive rubber rings for safe holding of the glow plug
- Matt finish
- Chrome vanadium



Item		mm	L mm	
500.7301	8,0	75.0	70	
500.7302	9,0	75.0	70	
500.7303	10,0	75.0	70	
500.7304	12,0	75.0	70	
500.7305	14,0	80.0	80	
500.7306	16,0	80.0	100	

## Glow plug flexible socket set

- 6 point
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- For the safe disassembly and assembly of glow plugs
- For difficult to access areas
- Suitably for all current glow plugs
- Screwed universal joint
- Inclusive rubber rings for safe holding of the glow plug
- Matt finish
- Chrome vanadium



Item	
500.7300 6 pcs Glow plug flexible socket set	0.61

consists of:

Item	
500.7301 Glow plug-Flexible socket 3/8", SW 8, Length 75 mm	70
500.7302 Glow plug-Flexible socket 3/8", SW 9, Length 75 mm	70
500.7303 Glow plug-Flexible socket 3/8", SW 10, Length 75 mm	70
500.7304 Glow plug-Flexible socket 3/8", SW 12, Length 75 mm	70
500.7305 Glow plug-Flexible socket 3/8", SW 14, Length 80 mm	80
500.7306 Glow plug-Flexible socket 3/8", SW 16, Length 80 mm	100

## Glow plug vibro extractor set

- Ideal for loosening and extracting jammed glow plugs
- Especially suitable in glow plugs jammed by corrosion and/or soot coal
- Produces controlled vibration impulse
- Suitable for all current glow plugs
- Loosening torque in 4 stage in accordance with manufacturer guidelines
- Extensive cost intensive repairs can be avoided through dismantling glow plugs
- Includes 1/4" coupling connector
- In durable steel storage case

**Application range:** Common Rail diesel engines, glow plugs innovator style (dim. 8,10, 12), sparks plugs in Ford and Alfa Romeo Twin Spark motors



### Technical data:

Square drive:	1/4"
Max. tightening torque:	40 Nm
Max. loosening torque:	1 = 10 Nm 2 = 20 Nm 3 = 30 Nm 4 = 40 Nm
Idle speed:	7500 r.p.m.
Vibration:	< 2,69
Noise performance level:	104 dbA
Noise-pressure level:	88 dbA
Recommended torque:	42 Nm
Air consumption:	128
Operating pressure:	max. 6,3 (90 psi)
Max. screw size:	M16
min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

Item				
152.1060	5 pcs	Glow plug vibro extractor set	1.80	

### consists of:

Item				
152.1061	1/4" Vibro extractor 10-40 N·m	900		
152.1062	1/4" Impact wrench socket long 8 mm	30		
152.1063	1/4" Impact wrench socket long 10 mm	40		
152.1064	1/4" Impact wrench socket long 12 mm	50		
152.1065	1/4" Universal joint	40		



## Glow plug service set

- For the controlled screwing of glow plugs
- Very high accuracy
- For difficult to access areas
- Suitable for all current glow plugs
- Torque wrench to comply with the breakage torque
- In durable plastic case



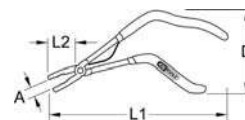
Item				
517.1165	11 pcs	Glow plug service set	5.35	

### consists of:

Item				
517.1422	Double open ended wrench 22x 24mm	180		
517.1423	Double open ended wrench 24x 27mm	270		
919.3804	3/8" Extension 250 mmL	140		
500.7301	Glow plug flexible socket 3/8", 12 mm	70		
500.7302	Glow plug flexible socket 3/8", 9 mm	70		
500.7303	Glow plug flexible socket 3/8", 10 mm	70		
500.7304	Glow plug flexible socket 3/8", 12 mm	70		
503.4808	Flexible-GEARplus® Wrench 8mm / 35.97Nm	30		
503.4809	Flexible-GEARplus® Wrench 9mm / 48,02Nm	40		
503.4810	Flexible-GEARplus® Wrench 10mm / 86.16Nm	50		
503.4812	Flexible-GEARplus® Wrench 12mm / 109.17Nm	70		

## Glow plug dismantling pliers

- With rubber handle
- Serrated jaws
- Length wise mounted handle arranged at the plier jaw
- With self opening mechanism
- In order to pull out the glow plugs from the glow plug canal in the cylinder head
- Range also possible to extract incomplected glow plugs
- Optimum power transmission with rotary and train movements
- Special tool steel



Item	A mm	D mm	L1 mm	L2 mm	
500.7335	0,0-35,0	55.0	260.0	40.0	280



## Universal glow plug drilling kit M8 x 1,0

- Universal repair system with innovative principle for dismantled glow plugs
- Simple and user friendly repair method
- Fast and economical solution of the dismantling problems of glow plugs
- Through use of a special to the left hand cutting 3 divided assembly drill stages for the application of drilling the housing is superior with other systems
- In durable metal case

**Application range:** VW, Audi, Seat, Skoda, Mitsubishi, Mercedes Benz, Fiat, Peugeot, Volvo, Ford, Mazda, Citroen, Opel

### Application:

1. Centre electrode is sheared off
2. With left handed cutting stepped drill this is drilled out
3. Left thread M6 cut
4. Clean thread gears M8 x 1
5. Clear the remains of the glow plug with impact weight



Item				
152.1020	8 pcs	Universal glow plug drilling kit M8 x 1,0	800	

### consists of:

Item				
152.1021	Thread tap M8 x 1.0, TIN	20		
152.1022	Remover left threaded drive M6 x 1,0 120,0 mm	30		
152.1023	Left threaded drill M6 x 1.0, TIN	20		
152.1024	Step drill left M 5 x7, with impact L=150,0 mm	90		
152.1025	Extractor for electrode Gr 2	20		
152.1026	Extractor for electrode Gr 1	20		
152.1027	Extractor for electrode Gr 3	30		
152.1028	Adaptor for slide hammer	90		

### Accessories:

Item				
152.1040	Impact weight and guide rod	1.25		

## Glow plug service set

- For removing the glow plugs from the glow plug canal in the cylinder head
- For reaming and the cleaning of the glow plug canal in the cylinder head
- Deposits and carbonisation between glow plug and cylinder head is removed correctly
- Especially suitable in glow plugs jammed by corrosion and/or soot coal
- In durable wooden case

**Application range:** Reamer M10 x 1,00: Mercedes Benz 4, 5 and 6 Cylinder CDI Engine, Smart CDI (660)

Reamer M12 x 1.25: MB 4 valve-technology-motors (OM604 / 605 / 606)

Glow plug extractor: Glow plugs SW10 e.g. Mercedes Benz CDI (OM 611/612/613)



Item				
152.1095	3 pcs	Glow plug service set	0.80	

### consists of:

Item				
152.1096	Glow plug extractor for dim. 10 mm	280		
152.1097	Glow plug reamer M10 x 1,00:	50		
152.1098	Glow plug reamer M12 x 1.25:	80		

## Universal glow plug drilling kit M10 x 1,0

- Universal repair system with innovative principle for dismantled glow plugs
- Simple and user friendly repair method
- Fast and economical solution of the dismantling problems of glow plugs
- Through use of a special to the left hand cutting 3 divided assembly drill stages for the application of drilling the housing is superior with other systems
- In durable metal case

**Application range:** VW, Audi, Seat, Skoda, Mitsubishi, Mercedes Benz, Fiat, Peugeot, Volvo, Ford, Mazda, Citroen, Opel

### Application:

1. Centre electrode is sheared off
2. With left handed cutting stepped drill this is drilled out
3. Left thread M7 cut
4. Clean thread gears M10 x 1
5. Clear the remains of the glow plug with impact weight



Item				
152.1030	8 pcs	Universal glow plug drilling kit M10 x 1,0	900	

### consists of:

Item				
152.1031	Extractor for glow plug electrode Type 0 for universal glow plug drilling kit	20		
152.1032	Extractor for glow plug electrode Type 1 for universal glow plug drilling kit	20		
152.1033	Extractor for glow plug electrode Type 2 for universal glow plug drilling kit	30		
152.1034	TIN Threaded drill left M7 for universal glow plug drilling kit	30		
152.1035	Extractor M7 x 120 left for universal glow plug drilling kit	40		
152.1036	Stepped drill 9 mm x 180 mm left for glow plugs	120		
152.1037	Impact adaptor for universal glow plug drilling kit	70		
152.1038	Threaded drill M10 x 1, for universal glow plug drilling kit	30		

### Accessories:

Item				
152.1040	Impact weight and guide rod	1.25		

## Reamer for glow shaft canal

- For the cleaning of the complete glow plug canal in the cylinder head into the combustion chamber
- Cleans glow rod, density seat and glow plug chamber
- Deposits and carbonisation between glow plug and cylinder head is removed correctly
- Hexagon socket 15 mm with knurled grip
- Made out of one piece

**Recommendation:** Before use ensure the clamping nut on the reamer has been greased.

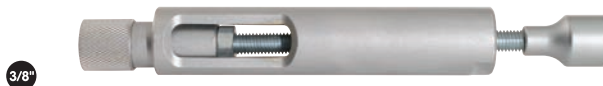


Item	mm	Ø mm	L mm	
152.1015	15	M10x1	240.0	400

## Glow plug extractor for CDI engines

- For turning off and pulling out the glow plugs from the glow plug canal in the cylinder head
- Especially suitable in glow plugs jammed by corrosion and/or soot coal
- Optimum power transmission with rotary and train movements
- Correct easy and damage free dismantling of the glow plug
- Chrome vanadium

**Application range:** Glow plug dim/10 mm, CDI engines.



Item		L mm		
152.1080	3/8"	190.0	315	

### THREADfix Master repair set for glow plug threads

- Unique and wide assortment for thread damaged or worn off thread repairing
- Ideal for sparks plugs, glow plugs and lamda sensor threads
- Simple handling and correct repair
- Provides absolute firm and gas density seat for many uses
- Extremely thin walled with rustproofing protection
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- In durable wooden case



Item				
150.5000	112 pcs	THREADfix Master reair set for glow plug threads	6.50	

#### consists of:

Item				
150.5020	Repair set for glow plug threads 10-pcs. M8 x 1,0	560		
150.5030	Repair set for glow plug threads 10-pcs. M9 x 1,0	630		
150.5040	Repair set for glow plug threads 16-pcs. M10 x 1,0	810		
150.5050	Repair set for glow plug threads 10-pcs. M10 x 1.25	630		
150.5060	Repair set for glow and spark plug threads 22-pcs. M12 x 1.25	1340		
150.5070	Repair set for lamda sensor threads 10-pcs. M12 x 1,5	710		
150.5080	Repair set for spark plug threads 21-pcs. M14 x 1,25	1580		
150.5090	Repair set for lamda sensor threads 10-pcs. M18 x 1,5	1030		
150.5097	Glow pin canal cleaning brush, brass	27		
150.5098	Glow pin canal cleaning brush, nylon	26		
301.0095	Thread gauge, metric, 20 blades	40		

### THREADfix repair set M8 x 1.0 for glow plugs

- Unique assortment for the repair of worn or damaged threads
- Ideal for glow plugs
- Simple handling and correct repair
- Provides absolute firm and gas density seat for many uses
- Extremely thin walled with rustproofing protection
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- In durable wooden case



Item				
150.5020	9 pcs	THREADfix repair set M8 x 1.0 for glow plugs	0.56	

#### consists of:

Item				
150.5021	Threaded drill with guide pin M8x1	18		
150.5022	Threaded drill with guide pin M10x1	21		
150.5023	Reamer with guide pin	19		
150.5024	Screw for Bushes, L=90mm, M8x1, GL=106mm	124		
150.5026	Threaded bush with collar L=11mm, IG=M8x1/AG=M10x1,5 per Pack	20		

#### Accessories:

Item				
150.5025	Threaded bush with collar L= 11 mm, IG= M8 x 1,0 / AG= M10 x 1,0 (10 per Pack)	27		

### THREADfix repair set M9 x 1.0 for glow plugs

- Unique assortment for the repair of worn or damaged threads
- Ideal for glow plugs
- Simple handling and correct repair
- Provides absolute firm and gas density seat for many uses
- Extremely thin walled with rustproofing protection
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- In durable wooden case



Item				
150.5030	9 pcs	THREADfix repair set M9 x 1.0 for glow plugs	0.63	

#### consists of:

Item				
150.5031	Threaded drill with guide pin M9x1	19		
150.5032	Threaded drill with guide pin M11x1	24		
150.5033	Reamer with guide pin	24		
150.5034	Screw for Bushes, L=93mm, M9x1, GL=109mm	180		
150.5036	Threaded bush with collar L=11mm, IG=M9x1/AG=M11x1,5 per Pack	20		

#### Accessories:

Item				
150.5035	Threaded bush with collar L= 11 mm, IG= M9 x 1,0 / AG= M11 x 1,0 (10 per Pack)	31		

### THREADfix repair set M10 x 1.0 for glow plugs

- Unique assortment for the repair of worn or damaged threads
- Ideal for glow plugs
- Simple handling and correct repair
- Provides absolute firm and gas density seat for many uses
- Extremely thin walled with rustproofing protection
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- In durable wooden case



Item				
150.5040	15 pcs	THREADfix repair set M10 x 1.0 for glow plugs	0.81	

#### consists of:

Item				
150.5041	Threaded drill with guide pin M10x1	26		
150.5042	Threaded drill with guide pin M12x1	30		
150.5043	Reamer with guide pin	29		
150.5044	Screw for Bushes S, L=85mm, M10x1, GL=103mm	175		
150.5047	Screw for Bushes, L=91mm, M10x1, GL=109mm	180		
150.5048	Threaded bush with collar L=12 mm, IG=M10x1/AG=M12x1 5 per Pack	20		
150.5049	Threaded bush with collar L=19 mm, IG=M10x1/AG=M12x1 5 per Pack	20		

#### Accessories:

Item				
150.5045	Threaded bush with collar L= 12 mm, IG= M10 x 1,0 / AG= M12 x 1,0 (10 per Pack)	37		
150.5046	Threaded bush with collar L= 19 mm, IG= M10 x 1,0 / AG= M12 x 1,0 (10 per Pack)	51		

### THREADfix repair set M10 x 1.25 for glow plugs

- Unique assortment for the repair of worn or damaged threads
- Ideal for glow plugs
- Simple handling and correct repair
- Provides absolute firm and gas density seat for many uses
- Extremely thin walled with rustproofing protection
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- In durable wooden case



Item				
150.5050	9 pcs	THREADfix repair set M10 x 1.25 for glow plugs	0.63	

#### consists of:

Item				
150.5051	Threaded drill with guide pin M10x1,25	24		
150.5052	Threaded drill with guide pin M12x1,25	25		
150.5053	Reamer with guide pin	25		
150.5054	Screw for Bushes, L=84mm, M10x1,25, GL=107mm	183		
150.5056	Threaded bush with collar L=17mm, IG=M10x1,25/AG=M12x1,25 5 per Pack	20		

#### Accessories:

Item				
150.5055	Threaded bush with collar L= 11 mm, IG= M10 x 1.25 / AG= M11 x 1.25 (10 per Pack)	35		

### THREADfix repair set M12 x 1.25 for glow and spark plugs

- Unique assortment for the repair of worn or damaged threads
- Ideal for sparks plugs, glow plugs
- Simple handling and correct repair
- Provides absolute firm and gas density seat for many uses
- Extremely thin walled with rustproofing protection
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- In durable wooden case



Item				
150.5060	21 pcs	THREADfix repair set M12 x 1.25 for glow and spark plugs	1.34	

#### consists of:

Item				
150.5061	Threaded drill with guide pin M12x1,25	47		
150.5062	Threaded drill with guide pin M14x1,25	53		
150.5063	Reamer with guide pin	52		
150.5064	Screw for Bushes S, L=89mm, M12x1,25, GL=108mm	230		
150.5068	Screw for Bushes M, L=95mm, M12x1,25, GL=114mm	238		
150.5069	Screw for Bushes L, L=103mm, M12x1,25, GL=122mm	246		
150.5077	Threaded bush with collar L=12 mm, IG= M12x1,25 / AG=M14x1,25 5 per Pack	20		
150.5078	Threaded bush with collar L=19 mm, IG= M12x1,25 / AG=M14x1,25 5 per Pack	20		
150.5079	Threaded bush with collar L=26 mm, IG= M12x1,25 / AG=M14x1,25 5 per Pack	20		

#### Accessories:

Item				
150.5065	Threaded bush with collar L=12 mm, IG= M12x1,25 / AG=M14x1,25 (10 per Pack)	44		
150.5066	Threaded bush with collar L=19 mm, IG= M12x1,25 / AG=M14x1,25 (10 per Pack)	68		
150.5067	Threaded bush with collar L=26 mm, IG= M12x1,25 / AG=M14x1,25 (10 per Pack)	86		

### THREADfix repair set M12 x 1.5 for lambda sensors

- Unique assortment for the repair of worn or damaged threads
- Ideal for lambda sensors
- Simple handling and correct repair
- Provides absolute firm and gas density seat for many uses
- Extremely thin walled with rustproofing protection
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- In durable wooden case



Item				
150.5070	9 pcs	THREADfix repair set M12 x 1.5 for lambda sensors	0.71	

#### consists of:

Item				
150.5071	Threaded drill with guide pin M12x1,5, L=50mm	33		
150.5072	Threaded drill with guide pin M14x1,5, L=50mm	36		
150.5073	Reamer with guide pin, L=50mm	35		
150.5074	Screw for Bushes, L=93mm, M12x1,5, GL=108mm	235		
150.5076	Threaded bush with collar L=9mm, IG=M12x1,5/AG=M14x1,5 5 per Pack	20		

#### Accessories:

Item				
150.5075	Threaded bush L=9mm, IG= M12x1,5 / AG=M14x1,5 (10 per Pack)	30		

### THREADfix repair set M14 x 1.25 for spark plugs

- Unique assortment for the repair of worn or damaged threads
- Ideal for spark plugs
- Simple handling and correct repair
- Provides absolute firm and gas density seat for many uses
- Extremely thin walled with rustproofing protection
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- In durable wooden case



Item				
150.5080	20 pcs	THREADfix repair set M14 x 1.25 for spark plugs	1.58	

#### consists of:

Item				
150.5081	Threaded tap M14 x 1.25 L=70 mm	59		
150.5082	Threaded tap M16 x 1,25 L= 70 mm	74		
150.5083	Reamer L= 70 mm	71		
150.5084	Screw for Bushes (S) L= 90 mm, M14 x 1.25, GL= 109 mm	343		
150.5088	Screw for Bushes (S) L= 90 mm, M14 x 1.25, GL= 117 mm	355		
150.5017	Threaded bush with collar L=12,2 mm, IG= M14x1,25 / AG=M16x1,25 (5 per Pack)	20		
150.5018	Threaded bush with collar L=17,5 mm, IG= M14x1,25 / AG=M16x1,25 (5 per Pack)	20		
150.5019	Threaded bush with cones L=17,5 mm, IG= M14x1,25 / AG=M16x1,25 (5 per Pack)	20		

#### Accessories:

Item				
150.5085	Threaded bush with collar L=11.2 mm, IG= M14x1,25 / AG=M16x1,25 (10 per Pack)	41		
150.5086	Threaded bush with collar L=17.5 mm, IG= M14x1,25 / AG=M16x1,25 (10 per Pack)	64		
150.5087	Threaded bush with cones L=17.5 mm, IG= M14x1,25 / AG=M16x1,25 (10 per Pack)	62		

### THREADfix repair set M18 x 1.5 for lambda sensors

- Unique assortment for the repair of worn or damaged threads
- Ideal for lambda sensors
- Simple handling and correct repair
- Provides absolute firm and gas density seat for many uses
- Extremely thin walled with rustproofing protection
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- In durable wooden case



Item				
150.5090	10 pcs	THREADfix repair set M18 x 1.5 for lambda sensors	1.03	

#### consists of:

Item			
150.5091	Threaded drill with guide pin M18x1,5, L=50mm	75	
150.5092	Threaded drill with guide pin M20x1,5, L=50mm	77	
150.5093	Reamer with guide pin, L=50mm	76	
150.5094	Screw for Bushes, L=81mm, M18x1,5, GL=102mm	443	
150.5096	Threaded bush with collar L=9mm, IG=M18x1,5/AG=M20x1,5, 5 per Pack	20	

#### Accessories:

Item			
150.5095	Threaded bush L=9mm, IG= M18x1,5 / AG=M20x1,5 (10 per Pack)	48	

### Stainless steel thread repair set M5 x 0.8 x 6.7 mm

- Assortment of for repairing thread damaged or worn threads indispensably use for materials with light stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



Item			
150.6000	24 pcs	Stainless steel thread repair set M5 x 0.8 x 6.7 mm	131

#### consists of:

Item			
150.6001	Thread insert set M5x0,8, VPE 10pcs. Length 6,7mm	14	
150.6002	Twist drill for M5, Ø 5,2mm	9	
150.6003	Threaded tap M5x0,8	12	
150.6004	Mounting tool for M5	20	
150.6005	Cone mill M5	9	

### Stainless steel thread repair set M6 x 1.0 x 8 mm

- Assortment of for repairing thread damaged or worn threads indispensably use for materials with light stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



Item			
150.6010	24 pcs	Stainless steel thread repair set M6 x 1.0 x 8 mm	154

#### consists of:

Item			
150.6011	Thread insert set M6 x 1,0, VPE 10 pcs., L=8 mm	17	
150.6012	Twist drill for M6, Ø 6.3 mm	17	
150.6013	Thread tap M6 x 1,0	21	
150.6014	Mounting tool for M6	24	
150.6015	Cone mill M6	10	

### Stainless steel thread repair set M7 x 1.0 x 9.5 mm

- Assortment of for repairing thread damaged or worn threads indispensably use for materials with light stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



Item			
150.6020	24 pcs	Stainless steel thread repair set M7 x 1.0 x 9.5 mm	234

#### consists of:

Item			
150.6021	Thread insert M7 x 1,0, VPE 10 pcs., L=9,5 mm	90	
150.6022	Twist drill for M7, Ø 7,3 mm	25	
150.6023	Thread tap M7 x 1,0	25	
150.6024	Mounting tool for M7	37	
150.6025	Cone mill M6 - M8	16	




**Stainless steel thread repair set M8 x 1.00 x 11 mm**

- Assortment of for repairing thread damaged or worn threads indispensably use for materials with light stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



Item					
150.6030	24 pcs	Stainless steel thread repair set M8 x 1.00 x 11 mm	268		

**consists of:**

Item			
150.6031	Thread insert set M8 x 1,0, VPE 10 pcs., L=11 mm	120	
150.6032	Twist drill for M8, Ø 8.3 mm	34	
150.6033	Threaded tap M8 x 1,0	36	
150.6034	Mounting tool for M8	48	
150.6025	Cone mill M6 - M8	16	


**Stainless steel thread repair set M9 x 1.25 x 12.3 mm**

- Assortment of for repairing thread damaged or worn threads indispensably use for materials with light stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



Item					
150.6050	19 pcs	Stainless steel thread repair set M9 x 1.25 x 12.3 mm	294		

**consists of:**

Item			
150.6051	Thread insert set M9 x 1.25, VPE 10 pcs., L=12,3 mm	47	
150.6052	Twist drill for M9, Ø 9.3 mm	45	
150.6053	Thread tap M9 x 1.25	31	
150.6054	Mounting tool for M9	52	
150.6055	Cone mill M9	21	


**Stainless steel thread repair set M8 x 1.25 x 10.8 mm**

- Assortment of for repairing thread damaged or worn threads indispensably use for materials with light stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



Item					
150.6040	24 pcs	Stainless steel thread repair set M8 x 1.25 x 10.8 mm	277		

**consists of:**

Item			
150.6041	Thread insert set M8 x 1.25, VPE 10 pcs., L=10,8 mm	26	
150.6032	Twist drill for M8, Ø 8.3 mm	34	
150.6043	Threaded tap M8 x 1.25	36	
150.6034	Mounting tool for M8	48	
150.6025	Cone mill M6 - M8	16	


**Stainless steel thread repair set M10 x 1.0 x 14.0 mm**

- Assortment of for repairing thread damaged or worn threads indispensably use for materials with light stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



Item					
150.6060	19 pcs	Stainless steel thread repair set M10 x 1.0 x 14.0 mm	318		

**consists of:**

Item		
150.6061	Threaded insert set M10x1,0, VPE 5pcs.. L=14mm	47
150.6062	Twist drill for M10, Ø10,3mm	58
150.6063	Threaded tap M10x1,0	33
150.6064	Mounting tool for M10	62
150.6065	Cone mill M10	26

### Stainless steel thread repair set M10 x 1.25 x 13.8 mm

- Assortment of for repairing thread damaged or worn threads indispensably use for materials with light stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



Item					
150.6070	19 pcs	Stainless steel thread repair set M10 x 1.25 x 13.8 mm	328		

#### consists of:

Item					
150.6071	Thread insert set M10 x 1.25, VPE 5 pcs., L=13,8 mm		62		
150.6062	Twist drill for M10, Ø 10,3 mm		58		
150.6073	Threaded tap M10 x 1.25		33		
150.6064	Mounting tool for M10		62		
150.6065	Cone mill M10		26		

### Stainless steel thread repair set M11 x 1.5 x 15 mm

- Assortment of for repairing thread damaged or worn threads indispensably use for materials with light stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



Item					
150.6090	14 pcs	Stainless steel thread repair set M11 x 1.5 x 15 mm	390		

#### consists of:

Item					
150.6091	Thread insert set M11 x 1,5, VPE 5 pcs., L=15 mm		85		
150.6092	Twist drill for M11, Ø 11.4 mm		74		
150.6093	Threaded tap M11 x 1,5		43		
150.6094	Mounting tool for M11		88		
150.6095	Cone mill M11		37		

### Stainless steel thread repair set M10 x 1.5 x 13.5 mm

- Assortment of for repairing thread damaged or worn threads indispensably use for materials with light stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



Item					
150.6080	19 pcs	Stainless steel thread repair set M10 x 1.5 x 13.5 mm	343		

#### consists of:

Item					
150.6081	Thread insert set M10 x 1,5, VPE 5 pcs., Length 13,5 mm		24		
150.6082	Twist drill for M10, Ø 10.4 mm		61		
150.6083	Threaded tap M10 x 1.5		41		
150.6064	Mounting tool for M10		62		
150.6065	Cone mill M10		26		

### Stainless steel thread repair set M12 x 1.0 x 17 mm

- Assortment of for repairing thread damaged or worn threads indispensably use for materials with sight stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



Item					
150.6100	14 pcs	Stainless steel thread repair set M12 x 1.0 x 17 mm	445		

#### consists of:

Item					
150.6101	Threaded insert set M12x1,0, VPE 5pcs.. Length 17 mm		67		
150.6102	Twist drill for M12, Ø 12,3		84		
150.6103	Threaded tap M12x1,0		69		
150.6104	Mounting tool for M12		104		
150.6105	Cone mill M12		46		

**Stainless steel thread repair set M12 x 1.25 x 16.8 mm**

- Assortment of for repairing thread damaged or worn threads indispensably use for Materials with sight stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



Item				
150.6110	14 pcs	Stainless steel thread repair set M12 x 1.25 x 16.8 mm	453	

consists of:

Item				
150.6111	Threaded insert set M12x1,25, VPE 5pcs.. Length 16.8 mm	85		
150.6102	Twist drill for M12, Ø 12,3	84		
150.6113	Threaded tap M12x1,25	67		
150.6104	Mounting tool for M12	104		
150.6105	Cone mill M12	46		

**Stainless steel thread repair set M12 x 1.75 x 16.3 mm**

- Assortment of for repairing thread damaged or worn threads indispensably use for Materials with sight stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



Item				
150.6130	14 pcs	Stainless steel thread repair set M12 x 1.75 x 16.3 mm	466	

consists of:

Item				
150.6131	Threaded insert set M12x1,75, VPE 5 pcs.. Length 16.3mm	33		
150.6122	Twist drill for M12, Ø12,4 mm	88		
150.6133	Threaded tap M12x1,75	68		
150.6104	Mounting tool for M12	104		
150.6105	Cone mill M12	46		

**Stainless steel thread repair set M12 x 1.5 x 16.5 mm**

- Assortment of for repairing thread damaged or worn threads indispensably use for Materials with sight stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



Item				
150.6120	14 pcs	Stainless steel thread repair set M12 x 1.5 x 16.5 mm	456	

consists of:

Item				
150.6104	Mounting tool for M12	104		
150.6105	Cone mill M12	46		
150.6121	Threaded insert set M12x1,5, VPE 5pcs.. Length 16.5 mm	100		
150.6122	Twist drill for M12, Ø12,4 mm	88		
150.6123	Threaded tap M12x1,5	67		

**Stainless steel thread repair set for spark plug threads M14 x 1,25 mm**

- With thread use heights 8.4 + 12.4 + 16.4 mm for spark plug threads
- Assortment of for repairing thread damaged or worn threads indispensably use for Materials with sight stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



Item				
150.6140	17 pcs	Stainless steel thread repair set for spark plug threads M14 x 1,25 mm	457	

consists of:

Item				
150.6141	Threaded insert set M14x1,25, VPE 5 pcs.. Length 16.4mm	16		
150.6142	Threaded insert set M14x1,25, VPE 5 pcs.. Length 12.4mm	12		
150.6143	Threaded insert set M14x1,25, VPE 5 pcs.. Length 8.4mm	7		
150.6144	Threaded tap/flaring tool M14x1,25	72		
150.6145	Mounting tool for M14x1,25	80		

## Stainless steel thread repair set M5 - M12

- Assortment of for repairing thread damaged or worn threads indispensably use for materials with sight stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



Item				
150.6150	130 pcs	Stainless steel thread repair set M5 - M12	2.08	

consists of:

Item			
150.6001	Threaded insert set M5x0,8, VPE 10pcs.. Length 6,7mm	14	
150.6002	Twist drill for M5, Ø5,2mm	9	
150.6003	Threaded tap M5x0,8	12	
150.6004	Mounting tool for M5	20	
150.6005	Cone mill M5	9	
150.6011	Threaded insert set M6x1,0, VPE 10 pcs.. Length 9.5 mm	17	
150.6012	Twist drill for M6, Ø 6,3 mm	17	
150.6013	Thread drill M6x1,0	21	
150.6014	Mounting tool for M6	24	
150.6015	Cone mill M6	10	
150.6025	Cone mill M6 - M8	16	
150.6032	Twist drill for M8, Ø 8,3 mm	34	
150.6034	Mounting tool for M8	48	
150.6041	Threaded insert set M8x1,25, VPE 10 pcs.. Length 10.8 mm	26	
150.6043	Thread drill M8x1,25	36	
150.6064	Mounting tool for M10	62	
150.6065	Cone mill M10	26	
150.6081	Threaded insert set M10x1,5, VPE 5 pcs.. L=13,5mm	24	
150.6082	Twist drill for M10, Ø 10,4mm	61	
150.6083	Threaded tap M10x1,5	41	
150.6104	Mounting tool for M12	104	
150.6105	Cone mill M12	46	
150.6122	Twist drill for M12, Ø12,4 mm	88	
150.6123	Threaded tap M12x1,5	67	
150.6131	Threaded insert set M12x1,75, VPE 5 pcs.. Length 16.3mm	33	



## Stainless steel thread repair set M6 - M10

- Assortment of for repairing thread damaged or worn threads indispensably use for materials with sight stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



Item				
150.6155	87 pcs	Stainless steel thread repair set M6 - M10	1.53	

consists of:

Item			
150.6011	Thread insert set M6 x 1,0, VPE 10 pcs., L=8 mm	17	
150.6012	Twist drill for M6, Ø 6.3 mm	17	
150.6013	Thread tap M6 x 1,0	21	
150.6014	Mounting tool for M6	24	
150.6015	Cone mill M6	10	
150.6025	Cone mill M6 - M8	16	
150.6032	Twist drill for M8, Ø 8.3 mm	34	
150.6034	Mounting tool for M8	48	
150.6041	Thread insert set M8 x 1.25, VPE 10 pcs., L=10,8 mm	26	
150.6043	Threaded tap M8 x 1.25	36	
150.6064	Mounting tool for M10	62	
150.6065	Cone mill M10	26	
150.6081	Thread insert set M10 x 1,5, VPE 5 pcs., Length 13,5 mm	24	
150.6082	Twist drill for M10, Ø 10.4 mm	61	
150.6083	Threaded tap M10 x 1.5	41	





## Stainless steel thread repair set M6 - M14

- Assortment of for repairing thread damaged or worn threads indispensably use for materials with sight stability e.g. aluminum alloy or magnesium alloy
- Ideally for the mechanical engineering, vehicle technology, electro and medical technology
- Resistant to corrosion effects and temperature resistant thread uses
- Includes threaded tap and assembly tool
- Fast repair possibility without costly replacement of bearing housings and components
- Special stainless steel
- In durable steel storage case



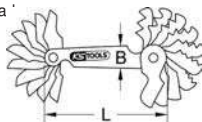
Item				
150.6160	113 pcs	Stainless steel thread repair set M6 - M14	2.52	

consists of:

Item			
150.6011	Threaded insert set M6x1,0, VPE 10 pcs.. Length 9.5 mm	17	
150.6012	Twist drill for M6, Ø 6,3 mm	17	
150.6013	Thread drill M6x1,0	21	
150.6014	Mounting tool for M6	24	
150.6015	Cone mill M6	10	
150.6025	Cone mill M6 - M8	16	
150.6032	Twist drill for M8, Ø 8,3 mm	34	
150.6034	Mounting tool for M8	48	
150.6041	Threaded insert set M8x1,25, VPE 10 pcs.. Length 10.8 mm	26	
150.6043	Thread drill M8x1,25	36	
150.6064	Mounting tool for M10	62	
150.6065	Cone mill M10	26	
150.6081	Threaded insert set M10x1,5, VPE 5 pcs.. L=13,5mm	24	
150.6082	Twist drill for M10, Ø 10,4mm	61	
150.6083	Threaded tap M10x1,5	41	
150.6104	Mounting tool for M12	104	
150.6105	Cone mill M12	46	
150.6122	Twist drill for M12, Ø12,4 mm	88	
150.6131	Threaded insert set M12x1,75, VPE 5 pcs.. Length 16.3mm	33	
150.6133	Threaded tap M12x1,75	68	
150.6141	Threaded insert set M14x1,25, VPE 5 pcs.. Length 16.4mm	16	
150.6142	Threaded insert set M14x1,25, VPE 5 pcs.. Length 12.4mm	12	
150.6143	Threaded insert set M14x1,25, VPE 5 pcs.. Length 8.4mm	7	
150.6144	Threaded tap/flaring tool M14x1,25	72	
150.6145	Mounting tool for M14x1,25	80	

## Thread gauge

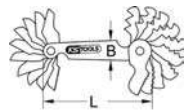
- For controlling and increasing the interior thread and outside thread
- Metric sizes
- Cylindrical tapered
- Leaves fan shaped arrangement
- Leaves individually marked with size
- Out of hardened spring steel



Item	Tooth pitch	Measuring range	B mm	L mm	
301.0095	20	0,40 - 0,45 - 0,50 - 0,60 - 0,70 - 0,75 0,80 - 1,00 - 1,25 - 1,50 - 1,75 - 2,00 2,50 - 3,00 - 3,50 - 4,00 - 4,50 - 5,00 5,50 - 6,00	12.2	66.5	40

## Thread gauge

- For controlling and increasing the interior thread and outside thread
- Imperial sizes
- Cylindrical tapered
- Leaves fan shaped arrangement
- Leaves individually marked with size
- Out of hardened spring steel



Item	Tooth pitch	Measuring range gear	B mm	L mm	
301.0090	22	4 - 4,5 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 - 16 - 18 - 20 - 22 - 24 - 32 40 - 48 - 56 - 64	12.2	66.5	40

## Common rail injector test assortment with 8 measurement pipes

- Professional test assortment to the misdiagnosis through measurement of the return stroke quantities of high pressure injectors
- Measurement of up to 8 high pressures injectors simultaneously possible
- Ideal supplement to the engine diagnosis device
- Diesel suitable silicone tubes
- Tube end with coupling and original adapter for safe connection
- Double sealed brass connections in the test tube
- Stable acrylic test block with filling line scale
- Precise measurement result through 25 ml volumetric capacity in the test tube
- In durable plastic storage case

**Application range:** Mercedes, BMW, Ford, Renault, Opel, Vauxhall, Toyota, Nissan, Citroen, Volvo, Peugeot etc.



Item			
150.1580	65 pcs	Common rail injector test assortment with 8 measurement pipes	3.16

consists of:

Item		
150.1581	Acrylic-Block	800
150.1582	Silicone tube 5,2 x 8,8 x 600 mm	40
150.1583	O-Ring 16 x 1,3 mm	1
150.1584	Adapter to acrylic block with O ring	24
150.1594	Adaptor for Bosch	10
150.1595	Adaptor for-Siemens	10
150.1596	Adaptor for Denso	10
150.1597	Adaptor for Delphi	10
150.1598	Double nipple Adaptor for Bosch	30
150.1599	Fast fastener coupling	30

### T-handle box wrench

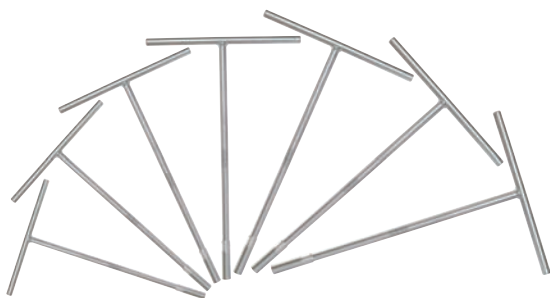
- 6 point
- T-handle
- Matt finish
- Chrome vanadium



Item	dim mm	L mm	B mm	kg
517.1181	8,0	300.0	200.0	310
517.1182	9,0	300.0	200.0	300
517.1183	10,0	300.0	200.0	310
517.1184	11,0	300.0	200.0	320
517.1185	12,0	300.0	200.0	320
517.1186	13,0	300.0	200.0	330
517.1187	14,0	300.0	200.0	310

### T-handle box wrench set

- 6 point
- T-handle
- Matt finish
- Chrome vanadium



Item		kg
517.1180	7 pcs T-handle box wrench set	2500

consists of:

Item		kg
517.1181	T-handle box wrench 8mm	310
517.1182	T-handle box wrench 9mm	310
517.1183	T-handle box wrench 10mm	310
517.1184	T-handle box wrench 11mm	310
517.1185	T-handle box wrench 12mm	310
517.1186	T-handle box wrench 13mm	310
517.1187	T-handle box wrench 14mm	310

### Special tooth socket for pre chamber

- Applicable for newer pre chamber nuts in Mercedes Benz diesel engines
- Internal square to DIN 3120 / ISO 1174 with ball reception
- 58 notched teeth
- Ideally suited for commercial vehicles
- Phosphate finish
- Special steel



1/2"

Item	No. teeth	L mm	kg
455.0005	58	60.0	215

### Injector extractor for 1.25 kg impact weight

- For Mercedes CDI Bosch common rail injectors
- For the extraction of the firmly burned injectors in the cylinder head
- Arched lever area on the handle hook for exact extraction
- Tilting and jamming of the injector is avoided
- Claw and impact weight can be used separately
- Includes impact weight
- Special steel



Item	Impact weight kg	Thread impact weight	L mm	Replacement claw	Replacement impact weight	kg
152.1050	1.25	M10 x 1,5	410.0	152.1045	152.1040	1.45

### Injector extractor with 6 + 3 kg impact weight

- For Mercedes CDI Bosch common rail injectors
- Robust execution
- For the extraction of the firmly burned injectors in the cylinder head
- Enables short and intensive impact through impact weight
- Cylinder head does not work against the thrust bearing
- Tilting and jamming of the injector is avoided
- Claw and impact weight can be used separately
- Includes impact weight
- Special steel



Item		kg
152.1055	3 pcs Injector extractor with 6 + 3 kg impact weight	12.50

consists of:

Item		kg
700.1415	Universal slide hammer, extra heavy 6 kg + 3 kg	12.00
152.1056	Single screw adaptor AG M17 x 1	0.24
152.1057	Hexagon socket, tamperproof 10 mm	0.10

### Injector socket

- 6 point
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Ideal for dismantling and assembly of injectors
- Half opened execution
- For a correct and damage free use
- Black and steam tempered surface
- Special steel

**Application range:** Mercedes Benz A- and B-Class, Fiat 1.3 MJ



1/2"

Item	dim mm	L mm	kg
152.1058	29,0	78.0	274

## Injector density seat cleaning set

- Assortment to the cleaning of the density seat of the diesel injector
- Simple handling
- For a correct and damage free use
- In durable plastic storage case

**Application range:** Mercedes Benz CDI Engine, Bosch/Delphi Injectors, (BMW, Renault, Ford, Fiat, Iveco)



Item				
152.1170	13 pcs	Injector density seat cleaning set	2.38	

### consists of:

Item				
152.1171	Milling head pilot, drive SW 19 3/8", Length 175 mm	185		
152.1172	1/2" T handle key for milling machine head, length 150 mm	240		
152.1173	Injector-sealing ring -extractor, 260 mm knurled wheel Ø 38 ro draw off	425		
152.1174	Injectot-Milling re-seating tool, Drive SW 13 length 225 mm	370		
152.1175	Injectorr gasket seat milling head flat Ø 15/19 L = 38 mm, for use with 152.1171	550		
152.1176	Injectorr gasket seat milling head flat Ø 17/17 L = 38 mm, for use with 152.1171	47		
152.1177	Injectorr gasket seat milling head flat Ø 17/19 L = 38 mm, for use with 152.1171	58		
152.1178	Injectorr gasket seat milling head flat Ø 19/21 L = 38 mm, for use with 152.1171	68		
152.1180	Cleaning brush for injector pin bore			
152.1181	Milling machine head cleaning brush nylon	13		
152.1182	Hexagon drive key SW 2.5, for milling head fixing screw	2		

## Valve dismantling and assembly tool set

- Assortment for changing of defective sealings on the cylinder head
- Enormous time savings as the cylinder head does not need to be dismantled
- For a correct and damage free use
- In durable plastic storage case

**Application:** This assortment is almost indispensable and saves valuable working hours because during the change of these defective sealings the cylinder head does not need to be dismantled.



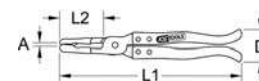
Item				
150.1100	25 pcs	Valve dismantling and assembly tool set	4.20	

### consists of:

Item				
115.1061	Valve shaft sealing Pliers	380		
150.1101	Male coupling AG 1/4", TSC 06	20		
150.1103	Male coupling AG 1/4", ORG 08	20		
150.1104	Male coupling AG 1/4", IRC 06	20		
150.1105	Valve spring-clamping bow Type 1, Clamping width 160 mm	220		
150.1106	Hold down	380		
150.1107	Compressed air-Adaptor tube AG M14 x 1,25 + M18 x 1,5	80		
150.1108	Valve wedge tool, with magnet	60		
150.1109	Compressed air-Adaptor AG M24 x 2,0 + IG M14 x 1,25	150		
150.1110	Valve spring plate Adaptor	130		
150.1111	Connection shaft, 510 mm	710		
150.1112	Valve shaft sealing Pliers, angled	330		
150.1113	Assembly sleeve	120		
150.1114	Impact arbor	310		
150.1115	Screw and bolt set, 14 pcs for hold down	60		
150.1116	Cheeks for bridge 2 pieces	260		
150.1117	Assembly sleeve Gr.6 17 x 11	40		
150.1118	Assembly sleeve Gr.5 15 x 10	40		
150.1119	Assembly sleeve Gr.4 13 x 8	30		
150.1120	Assembly sleeve Gr.3 12 x 7	30		
150.1121	Assembly sleeve Gr.2 10 x 6	40		
150.1122	Assembly sleeve Gr.1 10 x 5	40		
150.1124	Screw set for cheeks, 8 pcs	100		

## Valve shaft removal pliers

- Slim execution
- Plastic coated jaws
- Knurled handle
- With self opening mechanism
- Quick and easy removal of valves from the valve shaft
- For the extension of the valve spring leve
- Ideally suitable for engines with four valve technology
- Nickel plated execution
- Special tool steel

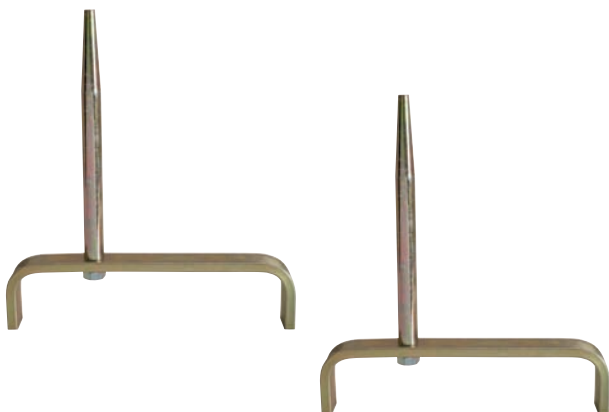


Item	A mm	D mm	L1 mm	L2 mm	
115.1061	0,0-125,0	45.0	255,0	100.0	380



## Cylinder head service pillar

- Suitable for all current cylinder heads
- Especially for engines with horizontal camshafts
- Damage free working on the cylinder head
- Special steel



Item	Replacement base	Replacement conus		
150.1170	150.1171	150.1172	4.20	

## Valve spring clamp for Ford CVH-engines

- For clamping the valve springs in the course of restoration works in the area of the cylinder head

**Application range:** 1.3 / 1.4 and 1.6 litre of CVH engines in the Escort (incl. XR3i and RS Turbo), Fiesta (incl. RS Turbo) and Orion




Item	 mm	L mm		
150.1160	24	100.0	320	

## Valve spring tension

- Easy and quick change of the valve
- Expansion of the cylinder head is not necessary
- Use in conjunction with compressed air adapter 150.1105 / 150.1107
- Special steel





Item	L mm		
150.1210	130.0	442	



## Valve spring clamping yoke

- Robust, adjustable and cam assembly tool with parallel stroke
- The tool is to be sure special for motors with horizontal camshaft (OHC motors) conceives, can however also be used in small and medium-sized OHV engines where needed
- The activity handles locks automatically after the clamping of the valve spring so that the hands remain free for removing and/or placing of the valve wedges
- Application e.g.: Car and Vans




Item	Type	Min span depth mm	Max span depth mm	 mm	Pressure pad small	Pressure pad big		
150.1135	1	10.0	135.0	160.0	25.0	30.0	2.00	
150.1140	2	20.0	120.0	240.0	25.0	30.0	2.00	

## Valve seat grinding set

- With two sided sucker
- For the bow on the valve seat in the cylinder head
- Body made out of sealed hard wood
- Suckers made out of rubber



Item		
150.1130 2 pcs Valve seat grinding set	2.21	

consists of:

Item		
150.1131 Valve set grinder 19/22 mm, 245 mm long	300	
150.1132 Valve set grinder 22/32 mm, 255 mm long	300	



### Valve grinding tool with 2 suction discs

- 8 mm bore reception
- For the grinding of the valve seats for repair work
- The detention of the device body is automatically generated via a transmission, the typical right left wing movement used in grinding
- Gives you convenient and rapid seat grinding with the drill between approx. 500-1.000 rpm



Item	L mm	Replacement plate Ø 22 mm	Replacement plate Ø 26 mm	
150.1165	130.0	150.1166	150.1167	442

### Precision straightedge

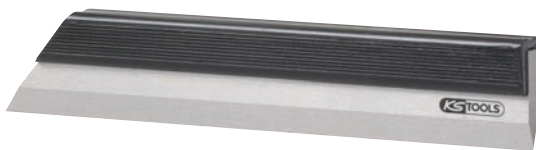
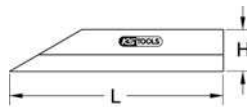
- For the inspection and the exact working on cylinder heads
- In accordance with DIN 874/1
- Double T profile rail with rear 5 hand slots
- On edge and flat sides examination process
- Hanging hole
- Steel



Item	L mm	B mm	H mm	
152.1090	300.0	36.0	16.0	2.10

### Precision straightedge

- In accordance with DIN 874/00
- Hand warmth protection
- Test area precise and finely engineered
- Flatness tolerance for highest accuracy
- For controlled and test working in the light gap procedure
- Hardened
- Stainless steel



Item	L mm	H mm	
300.0630	50.0	25.0	40
300.0631	75.0	25.0	60
300.0632	100.0	25.0	80
300.0633	125.0	25.0	100
300.0634	150.0	25.0	120
300.0635	200.0	25.0	160
300.0636	300.0	25.0	240
300.0637	400.0	25.0	320
300.0638	500.0	25.0	400
300.0639	600.0	25.0	480

### Piston ring pliers

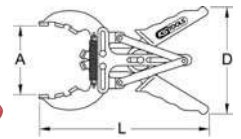
- For the removal and replacement of piston rings
- Suitable for most cars and vans
- Plastic coated handle
- Self closing pliers
- Special steel



Item	L mm	
150.1179	221.0	210

### Piston ring pliers

- For the safe disassembly and assembly of piston rings
- Chrome plated
- With single component handle
- Special tool steel

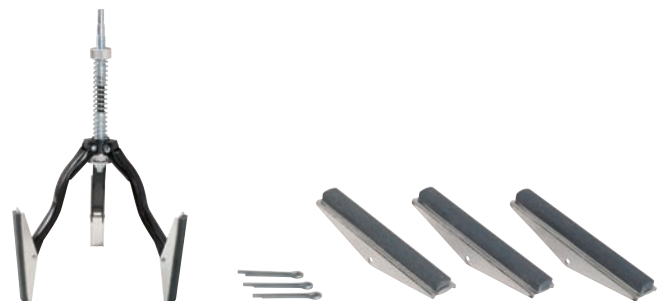


Item	Ø mm	A mm	D mm	L mm	
150.1175	50,0-110,0	0,0-110,0	60.0	210.0	305
150.1176	80,0-120,0	0,0-120,0	60.0	220.0	340
150.1177	110,0-160,0	0,0-158,0	60.0	280.0	445

### Cylinder honing machine

- For honing / deburring of cylinders, bearings, bores, pipes, etc.
- Interchangeable honing
- Automatic spigot end and exact honing
- Flexible drive shaft for air or electric drills
- Special steel

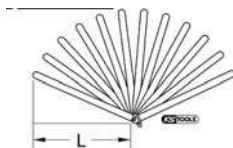
**Application range:** Automotive brake and clutch cylinders, engine cylinders of motor cycles, lawn mowers, outboard motors, hydraulic cylinders, marine and industrial engines, etc.



Item	Ø mm	Arm	Honing stone set	
150.1180	18 - 63	2	150.1181	0.90
150.1185	19 - 69	3	150.1186	1.30
150.1190	32 - 89	3	150.1191	1.40
150.1195	51 - 177	3	150.1196	1.90

## Piston tolerance gauge

- For the testing of intervals, contact distances, etc.
- Feeler gauge cylindrical
- Blades fan shaped on a ring
- Leaves individually marked with size
- Blades made out of hardened spring steel



Item	Tooth pitch	Measuring range mm	L mm		
300.0614	8	0,05 - 0,1 - 0,15 - 0,2 - 0,25 - 0,3 0,4 - 0,5	100.0	30	
300.0617	8	0,05 - 0,1 - 0,15 - 0,2 - 0,25 - 0,3 0,4 - 0,5	300.0	50	
300.0615	13	0,05 - 0,1 - 0,15 - 0,2 - 0,25 - 0,3 0,4 0,5 - 0,6 - 0,7 - 0,8 - 0,9 - 1,0	100.0	80	
300.0618	13	0,05 - 0,1 - 0,15 - 0,2 - 0,25 - 0,3 0,4 0,5 - 0,6 - 0,7 - 0,8 - 0,9 - 1,0	300.0	150	
300.0616	20	0,05 - 0,1 - 0,15 - 0,2 - 0,25 - 0,3 0,35 - 0,4 - 0,45 - 0,5 - 0,55 - 0,6 0,65 - 0,7 - 0,75 - 0,8 - 0,85 - 0,9 0,95 - 1,0	100.0	150	

## Oxygen sensor for AU measuring instruments

- Oxygen sensor for the exhaust fume investigation in automobile workshops
- Plastic housing



### Technical data:

Connecting socket: A-01 + A-01/AVL moxex 3 pin connector  
A-02 3.5 mm mono jack

Working range: 0 - 100 Vol %

Display accuracy: <2 Vol% +/- 0,1%  
<25 Vol% +/- 0,5%  
<100 Vol% +/- 1,0%

Sensor service life: 750.000 Vol% hours or max. four years

Output signal: 7 - 13 mV (for dry surroundings)

Response time: < 5 sec.

Reaction time in N<sub>2</sub> (N): < 40 sec.

Deviation: 10 % / year

Operating temperature: +0 to +55

Ambient pressure: 600 - 1750 hPa

Recommended load resistance: > 10 kOhm

Temperature compensation: NTC

Cross interference (<0,1% O<sub>2</sub>-balance on):

15,0 % CO<sub>2</sub> balance N<sub>2</sub>

10,0 % CO<sub>2</sub> balance N<sub>2</sub>

3000 ppm NO balance N<sub>2</sub>

3000 ppm C<sub>3</sub>H<sub>8</sub> balance

500 ppm H<sub>2</sub>S balance N<sub>2</sub>

500 ppm SO<sub>2</sub> balance N<sub>2</sub>

1000 ppm balance petrol N<sub>2</sub>

Item	Type			
150.3090	A-01	Allen, Bear (all), Beissbarth, Cartec (all), Crypton (all), Elektra-control-MAG4000T, GATS, Grundig (VAG Longus), Hermann (all), KWT Autosense, Mannesmann-Kienzle, Motorscan, MRU-Delta 1600L, Pittracher-Infrarot-carbon/HC-Gasmo-torentester, Protec, Protech, Prüfrex (all), Sagem-Souriau, Saxon-Junkalor (all), Szentortchnika, Tecnomoto, Tecnotest (all), Lukas, VLT (all)	40	
150.3091	A-01/AVL	Suitable for all AVL devices	40	
150.3092	A-02	Suitable for Bosch, Gutmann, Sun	40	

## MASTERBOARD Tool storage system - exhaust

- Very extensive and complex range of tools suitable for exhaust system repairs
- Orderly and clear arrangement of the tools
- Quick identification of the necessary tools
- All boards are labeled with a classification system foil on that the tools are located on 1:1 dimensions



Item				
800.1020	37 pcs	MASTERBOARD Tool storage system - exhaust	22.00	

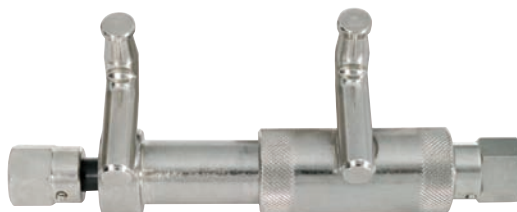
### consists of:

Item			
150.1510	Exhaust-Chain pipe cutter	800	
150.1540	Assembly tool for retaining spring on the manifold, VAG	440	
150.2121	Lambda sensor socket SW 22, with flexible grip	540	
150.2129	Lambda sensor Cleaning / Reapair tool , M18 x 1,5	95	
150.1241	Exhaust hook tool Type 1	80	
150.1242	Exhaust hook tool Type 2	80	
150.1240	Exhaust hook tool Type 3	230	
150.1520	Exhaust pipe former, 28 - 44 mm	390	
150.1525	Exhaust pipe former, 38 - 62 mm	720	
150.1530	Exhaust pipe former, 54 - 87 mm	1510	
150.1535	Exhaust clamp plier PSA, with ratchet function, 310 mm	430	
150.2100	3/8" + 1/2" Sensor Socket Set, 7-pcs.	2160	
140.2162	Car body cutting chisel DIN 7255, L=300mm	450	
115.1363	Special pipe plier 345 mm, 6-stage adjustable	1100	
907.2125	Quick-handsaw metal with softgrip, saw blade 300 mm	110	
201.2325	Hand brush steel wire smooth 0,35 mm, 4-Row	120	
310.0110	Goggles with frame	45	
913.3855	3/8" Spiral profile socket set, 10-pcs.	660	
104.5050	Ratchet pipe cutter 28 - 67 mm	1000	
115.1155	Automatic locking pliers 10" 250 mm	620	
515.3075	Pneumatic end cutting disc cutter, 1/4" IG , 380 mm length	1300	
337.2010	High performances thin sheet metal cutting discs Inox, Ø 100 mm, 1.6 mm	1200	

## Spring compressor for VAG exhaust steel clamps

- For the dismantling and assembly of the steel clamps at exhaust ball flange connections
- Chrome vanadium

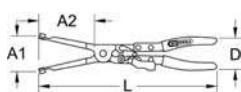
Application range: VAG Vehicles



Item	mm	L mm	
150.1540	17,0	145,0	440

### Exhaust clamp pliers PSA

- With PVC dipped handle
- Includes locking mechanism
- With self opening mechanism
- For the dismantling and assembly of exhaust clamps
- Plier points guide sleeve prevents slippage
- No tension loss when holding
- Chrome molybdenum



Item	A1 mm	A2 mm	D mm	L mm	
150.1535	0,0-55,0	95.0	47.0	310.0	430

### Exhaust pipe flaring tool

- For the flaring of exhaust pipes
- Through turning of the spindles the cheeks expand the pipe into the desired diameter
- Special steel

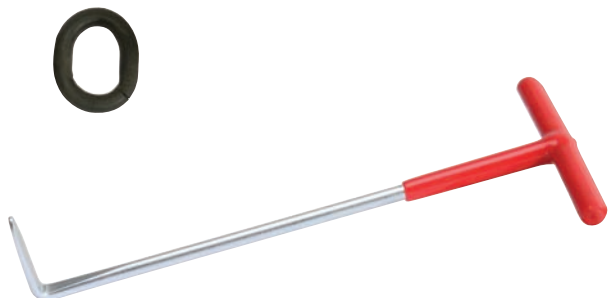


Item	Ø mm	L mm	
150.1520	28,0-44,0	130.0	390
150.1525	38,0-62,0	160.0	720
150.1530	54,0-87,0	215.0	1510

### Specially exhaust hook tool for exhaust rubber mountings

- T-handle with plastic cover
- Hook has a 10° angle
- For the dismantling and assembly of exhaust rubber stop ring
- For vehicles with rubber ring mountings
- Chrome vanadium

Application range: VW, Opel, etc.



Item	Form	L mm	
150.1241	90°	200.0	80

### Specially exhaust hook tool for exhaust profile rubber mountings

- T-handle with plastic cover
- Hook has a 100° angle
- For the dismantling and assembly of exhaust rubber stop ring
- For vehicles with profile rubber mountings
- Chrome vanadium

Application range: Ford, BMW, etc.



Item	Form	L mm	
150.1242	100°	200.0	80

### Specially exhaust hook tool for exhaust rubbers

- T-handle with plastic cover
- For the dismantling and assembly of exhaust rubber stop ring
- For all types of exhaust rubbers
- Grasps two rings and presses this towards the top
- Chrome vanadium



Item	L mm	
150.1240	200.0	230

### Exhaust rubber unhooking tool

- For removal of rubber exhaust holders
- 25° angle
- For all common vehicle types
- Plastic coated handle
- Chrome vanadium



Item	L mm	
150.1245	280.0	345

### Exhaust chain pipe cutter

- Small working angle through forward and backward movements
- Plastic coated handles
- Easily operated
- Special steel



Item	Ø mm	Chain length mm	Replacement chain	
150.1500	19,0-83,0	330.0	150.1501	600

### Exhaust chain pipe cutter for stainless steel pipes

- For stainless steel (Inox) of exhaust pipes
- Small working angle through forward and backward movements
- Plastic coated handles
- Easily operated
- Special steel



Item	Ø mm	Chain length mm	Replacement chain	
150.1505	19,0-83,0	330.0	150.1502	600

### Grip exhaust chain pipe cutter

- With the possibility to adjust the tension through wing nut
- Small working angle through forward and backward movements
- Plastic coated handles
- Easily operated
- Special steel



Item	Ø mm	Chain length mm	Replacement chain	
150.1510	19,0-83,0	330.0	150.1501	800

### Grip exhaust chain pipe cutter for stainless steel pipes

- For stainless steel (Inox) of exhaust pipes
- With the possibility to adjust the tension through wing nut
- Small working angle through forward and backward movements
- Plastic coated handles
- Easily operated
- Special steel



Item	Ø mm	Chain length mm	Replacement chain	
150.1515	19,0-83,0	330.0	150.1502	800

### Ratchet pipe cutter

- For the fast and problem free cutting off of exhaust pipes with 2 support rolls and 3 blade ratchet mechanism
- Very good parallel cutting due to the width - accurate cutting is guaranteed
- Ideal for confined spaces
- Cutting depth max. 3 mm
- Includes spare steel wheel under the cover cap on the rotary handle
- V²A Cutting edge wheel optional retrofit
- Robust ratchet mechanism
- With large operating knob
- Plastic housing
- Ratchet mechanism from special steel



Item	D1 mm	D2 mm	L mm				
104.5050	28,0 - 67,0	110.0	250.0	104.5052	104.5052	104.5051	1000

### Sensor socket set

- For almost all current vehicle types
- For the dismantling and assembly of sensors and sensing devices
- For correct and damage free use
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



3/8" 1/2"

Item	
150.2100	7 pcs Sensor socket set

### consists of:

Item	
150.2122	3/8" Oil pressure switch-Socket SW 1" and 1-1/16", extra deep execution (65 mm)
150.2123	1/2" Thermostatic switch-Socket SW 29, L=90 mm
150.2124	Injector nozzle-Socket SW 27 12 point, execution with window
150.2125	1/2" Lambda sensor Socket SW 22, slotted, Double actuator 4-point, H=48 mm
150.2126	3/8" Lambda sensor-Socket SW 22, extra flat execution
150.2127	3/8" Lambda sensor-Socket SW 22, deep execution, slotted
150.2128	3/8" Lambda sensor-Socket SW 22, extra deep execution, wide slotted

### Lambda sensor socket, extra deep

- For almost all current vehicle types
- Special socket for the dismantling and assembly of lambda sensors
- Extra long and half opened execution
- For correct and damage free use
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Phosphate finish
- Chrome molybdenum



1/2"

Item	dim mm	L mm	
150.2101	22	150.0	354





### Lambda sensor socket joint lock

- For the simple dismantling and assembly of the firmly sitting lambda sensors
- For difficult to access areas
- Alternatively 6 and 12 edge drive side
- Joint 180° freely revolving
- Chrome vanadium







Item	mm	L mm	kg
150.2121	22,0	240,0	540

### Cleaning tool and repair tool for lambda sensor threads

- For recutting edges and cleaning of damaged outside threads on lambda sensor threads
- Especially short execution
- Ideal for confined spaces
- Special steel



Item			L		
150.2129	M18x1,5	21,0	3/8"	50.0	95

### Universal engine and transmission support

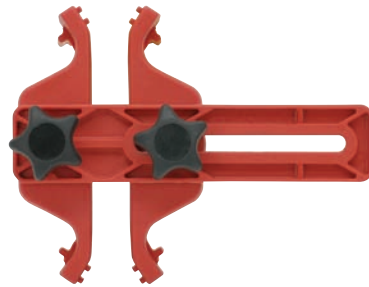
- The all rounder universal use in the area of automobiles and vans
- Ideal for timing belt change, coupling change or in more external inclined position of the fender
- Omission of more expensive vehicle specific adaptors as in similar systems
- Simple handling
- One man operation fast assembly
- Assembly and access unhindered below possible, through it to the engine compartment
- Cross piece revolving and movably in a straight direction
- Hooks height adjustable, revolving and movably in any direction
- Support plate wobble bar with joint and skid proof lever and height adjustable
- longitudinal adjustment and cross piece definably
- Robust head construction made from square tube



Item	L mm	B mm	H mm	kg
160.0090	1030,0	400,0	300,0	11,00

### Universal camshaft blocking tool

- For blocking of double next to one another camshafts
- Enables timing belt change with mounted block tool
- Prevents the timing belt being altered
- Universal tooth profile fits on all current camshafts
- For camshaft timing belt tooth wheels with a Ø 100 to 150 mm
- Block area up to 80 mm
- Special plastic




Item			
150.3030	Universal camshaft blocking tool	800	

### Universal camshaft blocking tool set

- For blocking of double next to one another camshafts
- Enables timing belt change with mounted block tool
- Prevents the timing belt being altered
- Universal tooth profile fits on all current camshafts
- For camshaft timing belt tooth wheels with a Ø 100 to 150 mm
- Block area up to 80 mm
- Special plastic




Item				
150.3031	4 pcs	4 x 150.3036		300


### Universal camshaft blocking tool set

- For blocking of double next to one another camshafts
- Universal suitable for engines with 1, 2 or 4 camshafts
- Enables timing belt change with mounted block tool
- Ideal for blocking of diesel injection pump wheels
- The distance of the timing wheels to each other make no difference
- Also usable in gear cam wheels with different tooth form
- Prevents the timing belt being altered
- Universal tooth profile fits on all current camshafts
- For camshaft timing belt tooth wheels with a Ø 100 to 150 mm
- Block area up to 80 mm
- Special plastic



Item					
150.3032	5 pcs	Universal camshaft blocking tool set		360	

#### consists of:

Item			
150.3030	Universal camshaft blocking device	800	
150.3031	Universal Cam shaft Blocking tool Set, 4 pcs	290	

## Universal fly wheel blocking tool set

- For the blocking of the fly wheels
- Safe stop through optimal seat
- Special plastic

### A Fly wheel Blocking device for:

Citroen: Synergie 2.0/Turbo.ZX 1.9D/TD, Xantia 1.9D/TD, Berlingo 1.9D, Dispatch 1.9D/TD, Synergie 1.9D, Relay 1.9D/TD  
Fiat: Ulysse, 2.0/Turbo Ducato 2.0  
FSO: 1.9  
D LDV: 200 1.9D, Pilot 1.9D  
Peugeot: 205 1.6/1.9, 305 1.6/1.9, 309 1.6/1.9, 405 1.6/1.9, 405 1.8/2.0 (92-), 605 2.0, Boxer 2.0, c205 1.8/1.9D, 305 1.8/1.9D, 306 1.8/1.9D/TD, 309 1.8/1.9D 1.8TD, 405 1.8TD, 405 1.9D, 406 1.9D, Partner 1.9D, Talbot / Horizon / Solara 1.9D, J5/Talbot Express 1.9D, 605D/TD, 806 1.9TD, Expert 1.9D, Boxer 1.9D/TD,  
Renault: R5, 1.6D, R9 1.6D, 411 1.6D Express/Extra 1.6D-F8M Diesel engine, Clio, Express/Extra, 1.9D-fruher F8Q Diesel engines, Espace 2.1D, R21 2.1D, R25 2.1D, Traffic/Master 2.1D-J8S Diesel engine, Clio 1.2/1.4, Express/Extra, R19 1.4, Megane/Scenic 1.4/1.6-E7F/E7J Petrol engine, R5 1.7, Clio 1.7/1.8, R19 1.7, R21 1.7 1.7 Megane/Senic 2.0, Laguna 1.8/2.0, Trafic 1.7-F3N/F3P/F2R Petrol engine, Clio, Williams, R19, Megane 2.0 16V Twin cam F7P/F7R engine, Laguna/ Safrane 2.0 16V Twin cam N7Q/N7U engine

### B Fly wheel Blocking device for:

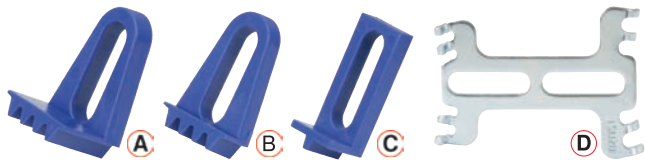
Renault: Clio, Twingo, Kangoo, Megane/Scenic, 1.2/1.6 D7F + K7M Petrol engine, Megane/Scenic, Kangoo 1.9D FBQ + F9Q Diesel engine (direct injection)

### C Fly wheel Blocking device for:

Citroen: Xsara, Xantia 1.8/2.0XU7 JP/JB Petrol engine, Xsara 1.8 16V XU7 JP4 Double cam shaft engines, ZX.Xantia, XM2.0 16V XU10J4 Double cam shaft engines, Xantia 1.9D/TD XUD9BTF Diesel engines, Xantia, XM2.1TD XUD 11BTE Diesel engines, Peugeot: 406, 1.8/2.0 XU7 JP/JB Petrol engine, 406 1.8 16V XU7 JP4 Double cam shaft engines, 306, 405, 605 2.0 16V XU10J4 Double cam shaft engines, 406, 1.9D/TD XUD9BTF Diesel engines, 406, 605 2.1 TD XUD 11BTE Diesel engines

### D Fly wheel Blocking device for

Vauxhall/Opel: 1.2, 1.4, 1.6, 1.8, 2.0 OHC Petrol engines, 1.6D & 1.7, OHC Diesel engines, 1.5 & 1.7 OHE Diesel(Isuzu)-Engines



Item				
150.3025	4 pcs	Universal fly wheel blocking tool set		30

## VAG Camshaft locking device

- For locking both camshaft wheels (OT positions)
- Positive stop for changing the timing belt or in motor repairs

**Application range:** VAG 1,4 / 1,6 L Petrol engine – VW Lupo, Polo, Golf IV, Bora, Audi A2, Seat, Skoda, etc.



Item				
150.3034		VAG Camshaft locking device		370

## VAG Crank and camshaft blocking tool set

- For TDI pump nozzle engines
- For changing the timing belt
- Positive stop for changing the timing belt or in motor repairs
- Special plastic

**Application range:** VW Golf, Passat, Lupo / Audi A2 and A3 after. 2000



Item				
150.3066	2 pcs	VAG Crank and camshaft blocking tool set		370

consists of:

Item				
150.3066-1	Blocking tool without pin	55		
150.3069	Blocking pin	300		

## VAG Crank shaft blocking device

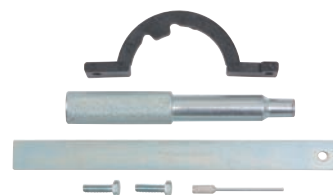
- For VAG 2 litre pump nozzle engines
- For the blocking of the crank shaft
- Safe stop through optimal seat



Item				
150.3067		VAG Crank shaft blocking device		60

## Camshaft blocking tool

- For Opel Corsa 1.0 - 1.2 / 16V Twin Cam ECOTEC engine after 1997
- Positive stop for changing the timing belt



Item				
150.3065		Camshaft blocking tool		540

## Camshaft blocking tool

- Clamping device for positive stop for changing the timing belt
- Special plastic



Item				
150.3059	1 pcs		Opel Ecotec 1,4 - 1,6 - 16V after 1993 Corsa B - Tigra - Astra F - Vectra	30
150.3061	1 pcs		Opel Ecotec 1,8 - 2,0 - 2,2 - 16V after 1995 - Astra - Frontera - Sintra - Omega Vectra	30
150.3062	1 pcs		Opel with small camshaft wheels 1,8 2,0 16V after 1993 - Astra - Calibra - Omega 1,4 - 1,6	30
150.3063	1 pcs		Opel Right hand drive 2,5i - 2,0i - 16V after 1994 / Vectra - Omega, Saab 900 - 9000	30
150.3064	1 pcs		Opel left hand drive 2,5i - 3,0i - 16V after 1994 / Vectra - Omega, Saab 900 - 9000	30
150.3068	2 pcs		Opel Engine Z16XEP and Z18XER Astra, Zafira, Vectra	60
150.3050	1 pcs		Mazda 626 after 1992/ 323 after 1998, Premacy after 1999	50
150.3056	1 pcs		Kia Carnival Diesel after 1998	80
150.3055	1 pcs		Kia Clarus 1,6 - 1,8 after 1997	40
150.3058	1 pcs		Hyundai Sontana after 1999	30
150.3060	1 pcs		Rover 214 after 1995 - 216 after 1995 - 414 after 1990 - 416 after 1995 - MGF after 1995 / 75 1,8 after 1999 / 45 1,8 - 1,6 after 2000 / 25 after 2000	20
150.3051	1 pcs		Mitsubishi Space Wagon after 1997	30
150.3053	2 pcs		Mitsubishi 24V Galant 2,5 after 1997 - 24V Sigma 3,0 after 1991 - Galant 4x4 after 1991	60
150.3054	2 pcs		Mitsubishi Pajero 3500 after 1998	70
150.3052	2 pcs		Mitsubishi Carisma after 1996 1997 - Space Star after 1997 - Galant 2,0GTI after 1991	60

## VAG Front mask extension support

- For pushing back of the front mask into the service position

**Application range:** Audi A4, A6 and VW Passat after 1997



Item	Content	
150.3012	2	340

## VAG Idler belt key dim. 32

- For relaxing the automatic timing belt idler pulley
- Plastic coated handle
- With hanging hole
- Special steel

**Application range:** Audi, VW, Skoda



Item	L mm	T mm	
150.3016	175.0	3.0	110

## Timing belt tensions test instrument

- For inspection of the timing post tensioning
- For the timing belt ont the combustion engine
- With mm scale
- 10N (~1kp corresponds a revolution)
- Special steel

**Application range:** Can be used everywhere there is the technical data for the allowable through bend of the timing belt in mm in a certain power in N or kp revolutions



### Technical data:

Working range / Scale	0,0-20,0 mm
Scale division:	in mm
Measurement mode:	mechanical (spring)
Adjusting nut revolution around 360°	1.0
Adjusting nut pitch:	1,0/10,0 mm

Item	L mm	
150.3015	100.0	260

## Wedge and timing belt wrench set

- For relaxing the automatic clamping device
- Problem free changing of the belt
- For VAG in the service position for the cooling system
- For hard to reach places
- With plastic coated handle
- Chrome vanadium

**Application range:** Audi A4, VW Passat after 97 with TDI or Pump-Nozzle Engine Opel DOHC 4- / 6-Cylinder (e.g. Astra F with air conditioning), Saab V6-Engines, Mitsubishi



Item			
150.1200	5 pcs	Wedge and timing belt wrench set	2.18

### consists of:

Item		
150.1201	Wedge and timing belt wrench, dim. 13, length 460 mm	320
150.1202	Wedge and timing belt wrench, dim. 15, length 460 mm	320
150.1203	Wedge and timing belt wrench, dim. 16, length 460 mm	320
150.1204	Wedge and timing belt wrench, dim. 17, length 460 mm	320
150.1205	Wedge and timing belt wrench, dim. 19, length 460 mm	320

## Pin Wrench 3 mm, adjustable

- Universal usage
- For the operation of belt tensioner in VAG
- Phosphate finish
- Special steel



Item	Ø mm	L mm	
150.3018	9,0-45,0	150.0	100





### Pin lug key

- For tightening and relaxing the timing belt on VAG vehicles
- 180° adjustable handle
- For pin spacers with tappet tolerances
- Normal and extra flat ideal for hard to access areas

**Application range:** VAG 4 and 5 cylinder TDI-Model, T4 Servo pump



Item	Height of head mm	Pin key mm	Stud Ø mm	L mm	
500.4315	34.0	18.0	3.0	180.0	95
150.3017	20.0	18.0	3.0	185.0	105

### Counter bracket for serpentine belt

- For holding up and fastening serpentine belt wheels



Item	L mm	Replacement belt	
150.3150	375.0	150.3151	542

### Counter bracket for serpentine belt wheels

- For holding up and fastening serpentine belt wheels

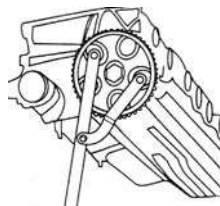


Item	L mm	Replacement belt	
150.3152	375.0	150.3153	506

### Universal timing belt holding device set

- Ideally suited for almost all vehicle types
- Universal usable tool for arresting, turning and fastening for stepped timing belts
- The overall length of 520 mm guarantees an optimal lever for loosening the timing belts reinforcement screws
- Stepless adjustment of Ø 40 - 220 mm, plug height: 35 mm
- Includes 4 pairs of screw on plugs
- Special steel

**Application range:** Timing belt wheels on camshafts and injection pumps bleeding of wheels and couplings etc.



Item	
150.3000	11 pcs Universal timing belt holding device set 2.20

consists of:

Item	
150.3001	Loosening lever 520 mm, adjustable 1120
150.3002	Peg, Ø 6 - 10 mm 50
150.3003	Peg, Ø 8 - 11 mm 50
150.3004	Peg, Ø 10 - 12 mm 40
150.3005	Peg, Ø 11 - 16 mm 40
150.3006	Fixing nut for pegs, knurled 20

### Belt pulley holding wrench, Type 1

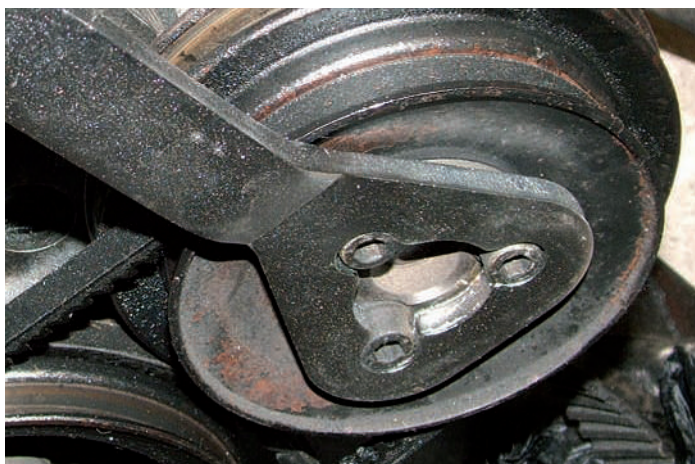
- For loosening of water pump belt pulleys
- 1/2" square drive
- Chrome vanadium

**Application range:** Audi, VW



1/2"

Item	L mm	
150.3026	250.0	490






### Belt pulley holding wrench, Type 3

- Enables the safe blocking of belt pulleys
- Plastic coated handle
- Chrome vanadium

**Application range:** Audi, VW




Item	L mm	
150.3028	300.0	560

### Universal belt pulley rotary lever

- Universal adjustable lever
- For the spinning of the engine by means of the belt pulley
- Plastic coated handle
- Chrome vanadium

**Application range:** Audi/VW, BMW, Ford, Opel, Peugeot, Renault, Rover, Japanese Models etc.




Item	L mm	
150.3029	325.0	650


### Universal drive pulley puller set

- Suitable for 5 and 6 spoked camshaft wheels
- Suitable for many VAG models
- Special steel
- In durable plastic case



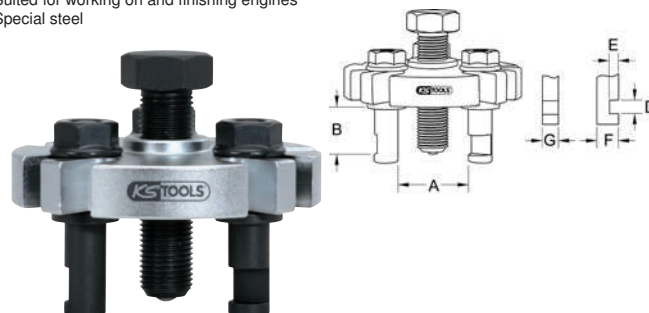
Item	
150.3115 6 pcs Universal drive pulley puller set	1.54

consists of:

Item		
150.3116	Cross piece for universal timing belt wheel gear pulley set	360
150.3117	Spindle M 14 x 1,5, Length 70 mm, for universal timing belt wheel gear pulley set	80
150.3118	Basic arm simply for universal timing belt wheel gear pulley set	130
150.3119	Double arm, narrow for universal timing belt wheel gear pulley set	270
150.3120	Double arm, wide for universal timing belt wheel gear pulley set	280

### Universal belt pulley puller 2 arm

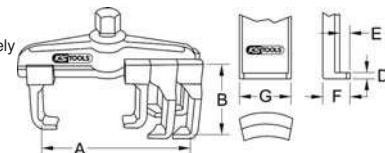
- For the damage free drawing off of pulley belts
- Universal suitable for several diameters and different hole divisions
- Less space requirement through compact method of building
- Suited for working on and finishing engines
- Special steel





Item	A mm	B mm	 mm	dim mm	D mm	E mm	F mm	G mm	
150.3130	90	30	M16x1,5 x 75	24	3	6	11	12	0.90

### Universal camshaft solid wheel puller 2 arm

- Four special hooks for 5 and 6 armed spoked wheels for Audi and VW
- For diesel engines: TDI -4; -6; -8
- For petrol engines: V6; V8 after 1998
- Extremely robust spindle with inductively hardened thread
- Special steel

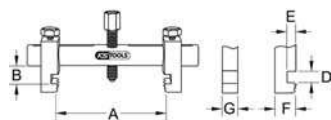


Item	A mm	B mm	max l mm	 mm	dim mm	D mm	E mm	F mm	G mm	
670.0211	130	44	2,5	M14x1,5 x 55	17	4	9	20	15	0.90



### Universal belt pulley puller 2 arm

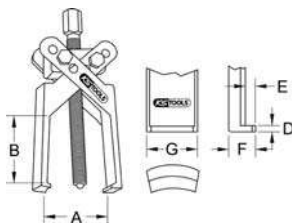
- For grooved belt pulleys
- Draw off arms with locking device
- Less space requirement through compact construction
- Suited for working on and finishing engines
- Special steel



Item	A mm	B mm	mm	dim mm	D mm	E mm	F mm	G mm	H mm
150.3125	45-175	30	M12 x 75	17	10	9	18	35	1.12

### Universal 2 arm puller

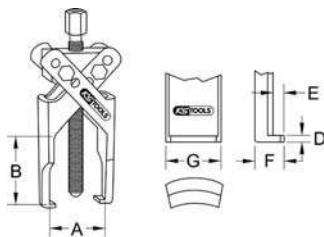
- Legs are adjustable in the working depth
- Independent pressure of the hooks
- Extremely robust spindle with inductively hardened thread
- Special steel



Item	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	H mm
620.5201	6-100	70/85	1,5	M10 x 105	12	2,5	4,5	8,5	23	0.40
620.5202	10-140	85/120	3,5	M14x1,5 x 130	17	3,5	5	10	31	0.90
620.5203	15-140	125/155	4,5	M14x1,5 x 200	17	3,5	5	10	31	1.10

### Universal 2 arm puller set with narrow legs

- Legs are adjustable in the working depth
- Ideal for confined spaces
- Independent pressure of the hooks
- Extremely robust spindle with inductively hardened thread
- Special steel



Item	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	H mm
620.5301	6-100	70/85	1	M10 x 105	12	2,5	4,5	8,5	11	0.40
620.5302	15-140	125/155	2	M14x1,5 x 200	17	3,5	5	11	12	1.00

### Draw off lining

- For drawing off the shoulder housings interior ring of light machines, motor parts and other machine parts
- Special steel



Item	Ø mm	L mm	max N-m	mm	dim mm	H mm
670.0221	5-32	135	60	M14x1,5 x 130	17	1.40

### CHROMEplus® Starter and block spanner set

- FlankTraction profile (12 point)
- Especially suitable for narrow hard to access areas
- Mirror polished chrome
- Chrome vanadium



Item	H mm
518.0850	5 pcs 10x12 - 11x13 - 14x17 - 16x18 - 19x22 mm 860

### Alternator combination key set

- For the disassembly and assembly of free running pulleys when changing the alternator or belt pulley
- Allows the dissolution and attaching the central nut at the same time countertensioning the pulley shaft
- Suitable for a wide range of applications
- The development of additional spare parts such as condenser
- In durable plastic storage case

**Application range:** Bosch and Magneti Marelli alternators, Audi, BMW, Fiat, Ford, Mercedes, Opel, Porsche, Renault, Peugeot, Sear, Skoda, VW, etc



Item	H mm
150.3100	13 pcs Alternator combination key set 1.20

#### Consists of:

Item	H mm
150.3101	Combination key 1/2", TX 50 x 33 teeth, l = 110 mm 170
150.3102	Combination key 1/2", XZN® M10 x 33 teeth, l = 110 mm 170
150.3103	Spline insert dim 15 x 33 teeth, bored 50
150.3104	Spline insert dim 22 x 33 teeth, bored 30
150.3105	Adaptor dim 22, l = 30 mm, bored 70
150.3106	Spline insert dim 22 x 33 teeth, bored 120
150.3107	Special bit 10 mm, hexagonal 8 mm, l = 75 mm 60
150.3108	Special bit 10 mm, hexagonal 10 mm, l = 75 mm 60
150.3109	Special bit 10 mm, XZN® M8, l = 75 mm 60
150.3110	Special bit 10 mm, XZN® M10, l = 75 mm 60
150.3111	Special bit 10 mm, TX 40, l = 75 mm 60
150.3112	Special bit 10 mm, TX 50, l = 75 mm 60
918.1271	1/2" CHROMEplus® Bit adaptor sockets with retaining clip, 1/2" x 10mm 40

## Alternator combination key set Renault

- For the disassembly and assembly of free running pulleys when changing the alternator or pulley
- Allows the dissolution and attaching the central nut at the same time countertensioning the pulley shaft
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Suitable for a wide range of applications
- The development of additional spare parts such as condenser

**Application range:** Renault Megane, Scenic, Kangoo



1/2"

Item				
150.3135	3 pcs	Alternator combination key set-Renault	300	

**consists of:**

Item				
150.3136	Belt Pulley-Wrench, 6 point, SW 28	105		
150.3137	Special Bit XZN® M10	50		
150.3138	Bit-socket XZN® M10	130		

## Uni flex belt tool set

- For the dismantling and assembly of wedge belt pulleys
- Fast and correct belt change
- Large field of work through different dismantling and assembly tools
- No damages of the pulley wheel and the belt
- Minimal power expense
- In durable plastic case



Item				
150.3140	9 pcs	Uni flex belt tool set	1.54	

**consists of:**

Item				
150.3141	Uni flex belt disassembly tool	100		
150.3142	Uni flex belt disassembly tool	100		
150.3143	Uni flex belt disassembly tool	100		
150.3144	Nut M8	5		
150.3145	Self locking nut	20		
150.3146	Screw M8 x 65 Ø 5.6 mm	30		
150.3147	Screw M8 x 65 Ø 5.6 mm	30		
150.3148	Screw M8 x 40 Ø 5.7 mm	20		
150.3149	Screw M8 x 25 Ø 5.9 mm	20		

## SAC coupling tool set

- For almost all SAC (even adjusting) couplings with 3 and 4 hole divisions
- For the fast and correct dismantling and assembly of the SAC couplings
- Without this tool sentence the correct installation is almost impossible
- With centering possibility of the coupling and resetting of the adjust ring
- Prevents the distorting of the adjust ring in the coupling driving plate
- Ideally for damage free working at the driving plate
- Malfunction (bad separating, slipping or deforming) are avoided
- In durable plastic storage case

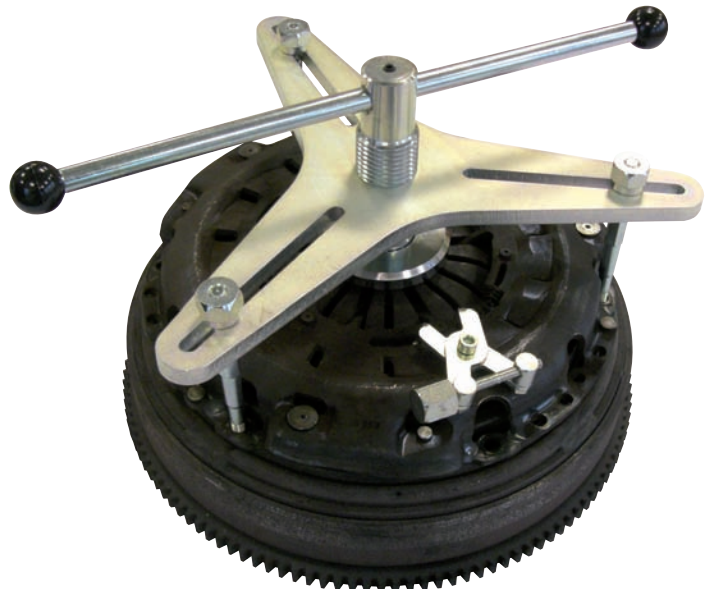
**Application range:** VW, Audi, BMW, Mercedes Benz, Opel, Renault, Volvo, etc.



Item				
150.2160	32 pcs	SAC coupling tool set	2.10	

**consists of:**

Item				
150.2161	Coupling centering pin 19 mm	70		
150.2162	Coupling centering pin 18 mm	65		
150.2163	Coupling centering pin 17 mm	55		
150.2164	Coupling centering pin 16 mm	50		
150.2165	Coupling centering pin 15 mm	40		
150.2166	Coupling centering pin 14 mm	35		
150.2167	Coupling centering pin 12 mm	25		
150.2168	Actuation screw for Coupling centering pin	20		
150.2169	Nut for Fixing bolt M8	30		
150.2170	Coupling-Centering pin 23 mm/ BMW	175		
150.2171	Coupling-Centering pin 28 mm/ BMW	245		
150.2172	Coupling-Centering pin 34 mm/ BMW	345		
150.2173	Pressure spindle	340		
150.2174	Resetting tool	106		
150.2175	4-Arm Traverse	1910		
150.2176	3-Arm Traverse	1520		
150.2177	Locking bolt	305		
150.2178	Fixing bolt M6	45		
150.2179	Fixing bolt M7	50		
150.2188	Fixing bolt M8	50		
150.2189	Central set for 150.2160	410		





### Universal clutch centering tool

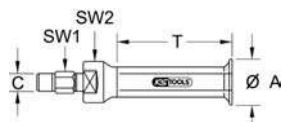
- For the accurate fitting and positioning the coupling disc during installation
- For quick and problem free assembly
- Knurled fastening wheel
- Includes 2 expanding collets Ø 15 - 21 mm + Ø 21 - 28 mm
- The clutch plate needs to be dismantled then by turning the automatic centering tool the clutch plate will be ensured of the exact fitting
- The pilot bearing is therefore no longer required for the centering of the clutch plate
- Special plastic



item	L mm	
150.2180	135.0	200

### Precision internal extractor

- Centering shaft
- For the accurate fitting of bearings and bushes
- Special steel



Item	A mm	C mm	SW1 mm	SW2 mm	T mm	max N·m	
660.0101	5-7	M10	10	13	30.0	3	50
660.0102	6-8	M10	10	13	30.0	3	50
660.0103	7-9	M10	10	13	30.0	7	50
660.0104	8-10	M10	10	13	30.0	7	50
660.0105	9-12	M10	10	13	30.0	12	50
660.0106	10-13	M10	10	13	30.0	15	50
660.0107	12-15	M10	10	13	30.0	15	50
660.0108	13-17	M10	10	13	50.0	24	70
660.0109	14-19	M10	10	13	60.0	28	90
660.0111	15-20	M10	10	13	60.0	28	90
660.0112	16-21	M10	10	13	60.0	32	90
660.0113	18-23	M10	10	17	60.0	40	110
660.0114	20-25	M10	10	17	60.0	40	110
660.0115	22-27	M10	10	17	60.0	40	110
660.0116	25-30	M10	10	17	60.0	40	120
660.0117	25-40	M10	13	19	45.0	45	260
660.0118	28-35	M10	10	17	60.0	45	280
660.0119	30-37	M10	17	22	70.0	45	280
660.0121	35-42	M10	17	22	70.0	45	280
660.0122	38-45	M10	17	22	70.0	45	290
660.0123	40-47	M10	17	22	70.0	45	300
660.0124	43-50	M10	17	22	70.0	45	310
660.0125	40-75	G 3/8"	17	27	100.0	45	760
660.0126	45-55	G 3/8"	19	27	100.0	45	650
660.0127	50-60	G 3/8"	19	27	100.0	45	680
660.0128	70-115	G 3/8"	19	27	130.0	45	1400

### Automotive hose clamp plier set

- PVC dipped handle
- For opening and closing of cobra hose clamps
- Swivel pressed jaws
- Includes locking mechanism and ratchet function
- Self opening mechanism
- For the dismantling and assembly of hose clamps
- Includes bowden cable
- Chrome molybdenum



Item			
115.1055	7 pcs	Automotive hose clamp plier set	4.00

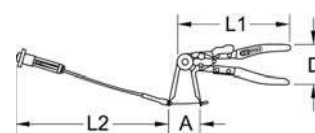
consists of:

Item		
115.1041	Hose clamp plier with bowden cable, 650 mm	470
115.1042	Tube clamp plier 45° angled	210
115.1043	Hose clamp plier, lockable, with swivel jaw (crown profile)	240
115.1044	Tube loosening plier	190
115.1045	Click hose clamp plier	200
115.1046	Hose clamp plier standard execution, lockable, straight	230
115.1047	Hose clamp plier standard execution, lockable, straight	230



### Hose clamp pliers with bowden cable

- PVC dipped handle
- For spring pipe clamps
- 650 mm bowden cable
- Includes locking mechanism
- Internal spring
- For difficult to reach clamps
- Chrome molybdenum

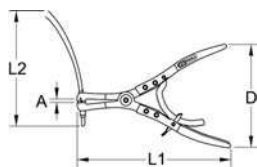


Item	A mm	D mm	L1 mm	L2 mm	
115.1041	0,0-60,0	70.0	200.0	650.0	115.1041-1 470



### Hose clamp pliers with double bowden cable

- PVC dipped handle
- For spring pipe clamps
- 600 mm bowden cable
- Adjustable length bowden cable
- Includes locking mechanism
- For difficult to reach clamps
- Special tool steel



Item	A mm	D mm	L1 mm	L2 mm	Weight (g)
115.1065	70.0	90.0	270.0	600.0	540

### Hose clamp pliers with prism reception

- For self tensioning hose clamps with flat 3 terminal ends
- In particular for fuel lines, cooling and washing water hoses
- Prism reception
- Self opening
- Surface nickel-plated
- Special steel

**Application range:** VW, Audi, Mercedes Benz, Toyota etc.



Item	Clamping range mm	L mm	Weight (g)
115.1187	8-18	195.0	170

### Hose clamp pliers with swivel prism reception

- For self tensioning hose clamps with flat 3 terminal ends
- In particular for fuel lines, cooling and washing water hoses
- Swivel prism reception
- Self opening
- Surface nickel-plated
- Special steel

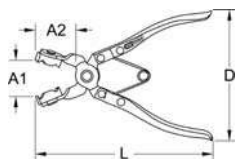
**Application range:** VW, Audi, Mercedes Benz, Toyota etc.



Item	Clamping range mm	L mm	Weight (g)
115.1188	8-18	210.0	200.0

### Hose clamp pliers

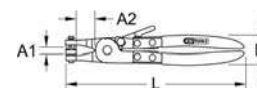
- Variable jaws
- 45° angled head
- For opening and closing of click and click R hose clamps
- Especially suitable for narrow hard to access areas
- Chrome molybdenum



Item	A1 mm	A2 mm	D mm	L mm	Weight (g)
115.1057	0,0-30,0	45.0	60.0	200.0	180

### Hose clamp pliers

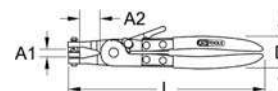
- PVC dipped handle
- For spring pipe clamps
- Includes locking mechanism and ratchet function
- Chrome molybdenum



Item	A1 mm	A2 mm	D mm	L mm	Weight (g)
115.1046	0,0-45,0	37.0	42.0	220.0	230

### Hose clamp pliers

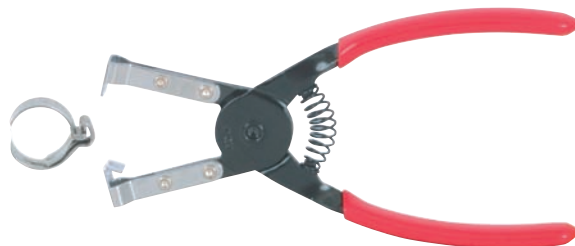
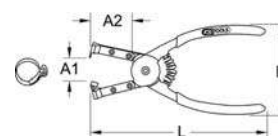
- PVC dipped handle
- For spring pipe clamps
- Includes locking mechanism and ratchet function
- Chrome molybdenum



Item	A1 mm	A2 mm	D mm	L mm	Weight (g)
115.1047	0,0-45,0	37.0	42.0	220.0	230

### Click hose clamp pliers

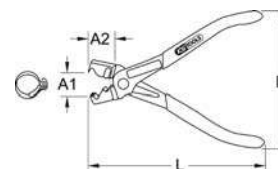
- For opening and closing of click hose clamps
- PVC dipped handle
- Self opening
- Chrome molybdenum



Item	A1 mm	A2 mm	D mm	L mm	Weight (g)
115.1040	0,0-250,0	40.0	54.0	160.0	120

### Click hose clamp pliers, forged

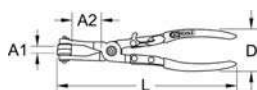
- For opening and closing of cobra hose clamps
- Clamps reusable V2A-clamps
- With PVC dipped handle
- With self opening mechanism
- Chrome molybdenum



Item	A1 mm	A2 mm	D mm	L mm	Weight (g)
115.1045	0,0-38,0	25.0	50.0	180.0	200

### Hose clamp pliers, angled

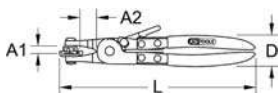
- 45° angled head
- With variable jaws
- For difficult to reach clamps
- Includes locking mechanism
- With PVC dipped handle
- Chrome molybdenum



Item	A1 mm	A2 mm	D mm	L mm	
115.1042	0,0-65,0	55.0	51.0	220.0	210

### Universal hose clamp pliers

- Universal crown profile
- For difficult to reach clamps
- With PVC dipped handle
- Includes locking mechanism
- Versatile usage
- Chrome molybdenum



Item	A1 mm	A2 mm	D mm	L mm	
115.1043	0,0-48,5	40.0	39.0	220.0	240

### Line connector unlocking device set

- For different fastener couplings
- For opening of the direction couplings on air conditioning
- Suitable for all current vehicles
- In durable plastic storage case

**Application range:** Air conditioning, fuel and air lines as well as hydraulics lines



Item			
115.1260	22 pcs	Line connector unlocking device set	1.00

consists of:

Item			
115.1261	Unlocking clip 1/4", plastic white, for air conditioning and fuel lines	1	
115.1262	Unlocking clip 5/16", plastic white, for air conditioning and fuel lines	1	
115.1263	Unlocking clip 3/8", plastic white, for air conditioning and fuel lines	1	
115.1264	Unlocking clip 1/2", plastic white, for air conditioning and fuel lines	5	
115.1265	Unlocking clip 5/8", plastic white, for air conditioning and fuel lines	7	
115.1266	Unlocking clip 3/4", plastic white, for air conditioning and fuel lines	8	
115.1267	Unlocking clip 7/8", plastic white, for air conditioning and fuel lines	9	
115.1268	Unlocking clip open 5/16", steel black, hydraulic lines	37	
115.1269	Barrel-Unlocking with spring, red 3/4", Air conditioning lines 3/8" Nominal size: 6er	12	
115.1270	Barrel-Unlocking with spring, blue 1/2", Air conditioning lines 3/8" Nominal size: 8er	13	
115.1271	Barrel-Unlocking with spring, black 5/8", Air conditioning lines 3/8" Nominal size: 10	12	
115.1272	Barrel-Unlocking with spring, white 3/4", Air conditioning lines 3/8" Nominal size: 12	12	
115.1273	Double Unlocking Ring, 5/16"x3/8", for use on air conditioning lines	54	
115.1274	Unlocking-Ring, 5/16", aluminum gold, oil and fuel lines, etc	35	
115.1275	Unlocking-Ring, 3/8", aluminum blue, oil and fuel lines, etc	36	
115.1276	Unlocking-Ring, 1/2", aluminum yellow, oil and fuel lines, etc	36	
115.1277	Unlocking-Ring, 5/8", aluminum green, oil and fuel lines, etc	41	
115.1278	Unlocking-Ring, 3/4", aluminum black, oil and fuel lines, etc	42	
115.1279	Unlocking-Ring, 7/8", aluminum red, oil and fuel lines, etc	43	
115.1280	Lever -Release open 5/16", Steel black	84	
115.1281	Fork plug-Unlocking, metal black	15	
115.1282	Replacement-Rubber ring-Set, 6- pcs for Unlocking-Rings	1	

### Hose clip removal set

- For the repair on air conditioning and fuel systems
- Ideally suitable for passenger cars, trucks and buses
- Special plastic

**Application range:** Mitsubishi, Honda, Scania, Volvo, Nissan.



Item			
115.1095	6 pcs	Ø 6 - 8 - 10 - 12 - 15 - 16 mm	60

### Infrared thermometer

- Laser pistol for non contact temperature measurement
- Ideally suited for the automotive sector, industrial, and construction usage
- Chemical and foodsuffs industry
- Laser measuring beam with a red measuring point
- Illuminating Display
- LCD Digital display
- Automatic swiching off
- Includes 9V block battery
- Stable plastic housing

**Application range:** In turning motors, difficult to access places, fluids, under current line directions, in heating appliances, gas and, air-conditioning, coolant systems, brake discs aggressive chemicals and groceries



#### Technical data:

Switchable:	°C / °F
Working range:	-50° - 550 °C
Shift mode for spectral area	0,85-0,90-0,95 µm
Power output max:	1mW
Power requirement:	9V Block Battery

Item			
150.3040	Infrared thermometer	250	

### Flexible UV inspection stick lamp

- LED UV lamp
- Flexible shaft
- Localizes leaks in air conditioning systems
- Clip for the breast pocket
- Approx. 60 hours lamp duration
- Includes 3 x AAAA batteries
- Impact proof housing



Item	L mm	D mm	Spare bulb	
550.1165	450.0	7.5	550.1167	150

## Refractometer - optical tester for antifreeze

- For quick and precise testing for antifreeze in the coolant
- Also suitable for coolant and windscreen washer water as well as battery acid
- Adjustable eye piece with rubber viewing rest
- Automatic temperature compensation(ATC)
- Also suitable in ambient temperatures of less than 10°C
- Reading correction function by means of bi metallic measurement
- High quality execution made from aluminium
- In practical case



### Technical data:

Battery acid:	Acid density (measurement range 1.1 to 1.4 kg/l)
Coolant water Propylene:	Temperature constancy (0° bis -50°C)
Coolant water Ethylene:	Temperature constancy (0° bis -50°C)
Windscreen water:	antifreeze (0° bis -40°C)

Item	D mm	L mm	
550.1290	40.0	149.0	630

## Oil drain pan 17 litres

- Carrying handle
- Pouring spout enables clean emptying
- Suitable for oil, chemicals, petrol, acids and antifreeze



Item	Ø mm	H mm	
150.9361	445,0	145.0	1.16

## Viscous clamping spanner

- For removing the hubs and bleeding with viscous couplings
- Especially slim design
- Enables easy access
- PVC dipped handle
- Special steel

**Application range:** BMW, Ford, Opel, GM.



Item		dim mm	
150.3022	For clamping the viscous coupling drive shaft on BMW + Ford	32	300
150.3027	For clamping the viscous coupling drive shaft on BMW, Ford + GM	36	340
150.3023	For twisting the water pump on Opel and GM	41	422
150.3024	For twisting the water pump on Opel and GM	46	405

## Cooling system diagnostic service set

- Ideal set configuration for testing and inspecting the density of Cooling and heating systems
- Quick identification of leaks in the coolant system
- Suitable for all current vehicles with water-cooled engines
- The pressure loss inspection takes place via a manometer
- Quick and efficient use
- Measurement range from 0-2.5 bar
- In durable plastic storage case



Item			
150.1930	24 pcs	Cooling system diagnostic service set	5.41

### consists of:

Item		
150.1931	Hand pump with Manometer / Tube max. 2.5 bar/36 psi/ ink. Pressure reduction valve	443
150.1932	Cap-Test adaptor, black / R123/R124	42
150.1933	Cap-Test adaptor, blue / R123/R125	42
150.1916	Bayonet Adaptor Gr 1	60
150.1917	Bayonet Adaptor Gr 2	80
150.1918	Bayonet Adaptor Gr 3	110
150.1941	Cooling system bayonet adaptor Nr. 6 / IG M50 x 2.5, orange, hollow	62
150.1942	Cooling system bayonet adaptor Nr. 7 / IG M42 x 3.0, brown	66
150.1943	Cooling system bayonet adaptor Nr. 8 / AG M58 x 3.0, white	69
150.1944	Cooling system bayonet adaptor Nr. 9 / AG M62 x 3.0, violet	72
150.1945	Cooling system bayonet adaptor Nr. 10 / IG M48 x 4.0, gray	80
150.1946	Cooling system bayonet adaptor Nr. 11 / IG M45 x 3.0 red, hollow	56
150.1947	Cooling system bayonet adaptor Nr. 12 / IG M50 x 2.5, green	86
150.1948	Cooling system bayonet adaptor Nr. 13 / IG M60 x 4.0, blue	90
150.1949	Cooling system bayonet adaptor Nr. 14 / IG M52 x 3.0, yellow	91
150.1950	Cooling system bayonet adaptor Nr. 15 / IG M48 x 2.5, pink	75
150.1951	Cooling system bayonet adaptor Nr. 16 / IG M42 x 2.5, lilac	73
150.1952	Cooling system bayonet adaptor Nr. 17 / IG M50 x 3.0, pale blue	84
150.1953	Cooling system bayonet adaptor Nr. 18 / IG M46 x 3.0, turquoise	64
150.1954	Cooling system bayonet adaptor Nr. 19 / AG M34 x 3.0, violet	51
150.1960	Cooling system-Vacuum-Filling unit / Manometer to 76cm HG =1 Bar	577
150.1961	Cooling system-Filling tube with suction head/ L= 1600 mm	208
150.1962	Rubber cone-Adaptor / 45-14, L=75 mm	88
150.1963	Thermometer, 0-220°C / 0-400°F / L=1600 mm	27

## Universal cooling system diagnostic service set

- Innovative and universal diagnostic device to test the pressure the coolant systems as well as the pressure caps
- The inflatable bladder makes it possible to fit almost all current vehicles with water-cooled engines
- Quick identification of leaks in the coolant system
- The pressure loss inspection takes place via a manometer
- Quick and efficient use
- Measurement range from 0-2.5 bar
- In durable plastic storage case



Item			
150.2065	12 pcs	Universal cooling system diagnostic service set	2.30

consists of:

Item			
150.2065-1	Adaptor A	66	
150.2065-2	Adaptor B	44	
150.2065-3	Adaptor C	58	
150.2065-4	Adaptor D	55	
150.2065-5	Adaptor E	71	
150.2065-6	Adaptor F	81	
150.2066	Adaptor blue small	30	
150.2067	Adaptor red small	25	
150.2068	Adaptor black small	40	
150.2044	Pressure pump	2000	

### Vacuum cooling system filling device

- Universally suitable for the filling of the cooling system of current vehicles
- Through production of a vacuum within the cooling system the new coolant becomes of an even density sucked into the system
- During the vacuum process the cooling system is tested simultaneously for density
- Bubble free filling prevents air inclusions in the cooling system
- A cleaning of the cool system is unnecessary
- Universally suitable through conical rubber connection piece
- In durable plastic storage case

Please note: Filling device does not empty automatically the old coolant!



#### Technical data:

Manometer: bis max. -30 PSI / -1 Bar  
 Air pressure: min. 550kPa - max. 690kPa  
 Air consumption: max. 180l/min at 690kPa  
 Low pressure: 0,85 bar at 690kPa

Item			
150.2070	4 pcs	Vacuum cooling system filling device	1.88

consists of:

Item			
150.2070-1	Refill Gun	1280	
150.2070-28	Rubber cone small	60	
150.2070-29	Rubber cone, large	65	
150.2070-30	Tube 1,5m	200	

### CO2 Cylinder head leak testing set

- For the locating of leaks on combustion engines
- Rational and dependable finding of cracks and Leakages
- Potential CO2 content in the coolant solution is detected
- Ideally suited for the cylinder head, cylinder head seals and engine block
- Leakages are visible through discoloration of the test fluid
- For all current vehicles with water cooled engines (Gas, Diesel and Petrol)
- Automatic regenerating reaction fluid for multiple use
- In durable plastic storage case



Item			
150.1910	8 pcs	CO2 cylinder head leak testing set	1.43

consists of:

Item			
150.1911	Intake-squeeze bulb	30	
150.1912	Two way brass valve	120	
150.1913	Basic device with 2 Test chambers and cones	120	
150.1914	Reaction fluid, 250 ml	250	
150.1915	Empty container, 250 ml (for required fluid)	30	
150.1916	Bayonet Adaptor Gr 1	60	
150.1917	Bayonet Adaptor Gr 2	80	
150.1918	Bayonet Adaptor Gr 3	110	

### Automotive pressure and vacuum pump set

- For ventilating of smaller brake parts and for inspection of different areas including Low pressure and pressure functions
- Suitable for almost all current vehicles
- Robust metal execution
- Compact pistol form, one man operation
- Shock proof pressure and low pressure manometer with double scale
- Includes extensive adaptor assortment
- Readable in bar or psi
- In durable plastic storage case

**Application range:** Brake bleeding, test of the low pressure attitude the fuel pressure regulator, turbo charger valve, exhaust gas return valve and brake servos



#### Technical data:

Working range: Vacuum up to -1 bar -30.Hg  
 Pressure up to +1.5 bar 60 psi

Item			
150.1900	7 pcs	Automotive pressure and vacuum pump set	1.80

consists of:

Item			
150.1901	Pressure and vacuum pump	730	
150.1902	Receiver / measuring beaker, 120ml, with double tube screw cap	44	
150.1903	Supply / measuring beaker, 120ml, with screw	44	
150.1904	Adaptor set, 14 pcs	15	
150.1905	Connection hose and suction cap set, 5 pcs	23	
150.1906	Coupling nozzle set, 4 pcs (6x6 / 6x6 / 6x8 / 6x10)	9	
150.1907	Connection hose set, 2 pcs, L = 600 mm, Ø 6 x 9 mm	45	



## Compression pressure test instrument for diesel engines

- Complete test tool set with or without direct injection
- Compact adaptor pieces with quick couplings
- Includes extensive adaptor assortment
- Very flexible tube for hard to access places
- In durable plastic storage case



### Technical data:

Manometer: 0,0-70,0 bar  
 Tube length: 355.0  
 Manometer gauge: bar, psi or KPA

Item				
150.1680	13 pcs	Compression pressure test instrument for diesel engines	2.56	

### consists of:

Item				
150.1680-1	Manometer with tube	640		
150.1680-2	Glow Plug Adaptor M10 x 1.25:	40		
150.1680-3	Glow Plug Adaptor M12 x 1.25	40		
150.1680-4	Glow Plug Adaptor M14 x 1.25:	70		
150.1680-5	Compression pressure Test adaptor, 114 mm, Ø 21 mm	220		
150.1680-6	Compression pressure Test adaptor M24 x 2.0	160		
150.1680-7	Compression pressure Test adaptor	60		
150.1680-8	Glow Plug Adaptor M 10 x 1,25	60		
150.1680-9	Glow Plug Adaptor M 10 x 1.0	45		
150.1680-10	Compression pressure Test adaptor M 20 x 1,5 mm	145		
150.1680-11	Replacement sealings and washers	15		
150.1680-12	Angle connecting piece	50		
150.1680-13	Clamp arch	70		

## Digital compression pressure test set for petrol engines

- For dry and wet compression tests
- Compact adaptor pieces with quick couplings
- Includes extensive adaptor assortment and analogue manometer (psi)
- Digital manometer with reading storage up to 12 cylinders
- By means of brass coupling the repair is possible on valve seals without dismantling of the cylinder head
- Very flexible tube for hard to access places
- In durable plastic storage case



Item				
150.1650	10 pcs	Digital compression pressure test set for petrol engines	2.20	

### consists of:

Item				
150.1650-1	Manometer digital	420		
150.1650-10	Replacement seals and valve assortment	5		
150.1650-2	Manometer analogue	120		
150.1650-3	Adaptor tube M18 x 1,5	100		
150.1650-4	Adaptor tube M14 x 1,25 long	90		
150.1650-5	Adaptor tube M14 x 1,25 short	110		
150.1650-6	Adaptor bush L=64 mm, M18 x 1.5	105		
150.1650-7	Adaptor bush L=42 mm, M12 x 1.25	40		
150.1650-8	Adaptor bush L=42 mm, M10 x 1,0	40		
150.1650-9	Coupling 1/2" IG	80		

## Mechanics stethoscope

- Flexible
- Serves the acoustic test and judgment of a component under load
- Quick and precise mistake diagnosis over sounds

### Application range:

Engine: Valves, baerings, piston pins  
 Alternator: Bearing sounds  
 Differential: Barrel sounds  
 Bodywork: Creak and squeak sounds



Item	L mm			
150.1645	1120.0	200		

## Electronic professional stethoscope

- For the professional defect diagnosis
- Serves the acoustic test and judgment of a component under load
- Delivers fast, absolutely clear and unambiguous test results over sounds
- Contains 6 independent sensors that can mounted for example on the vehicle floor or in the engine compartment for ease
- Simple coordination of the defect source through colour coded cable and colour table on the box
- In durable plastic storage case

### Application range:

Engine: Valves, baerings, piston pins  
 Alternator: Bearing sounds  
 Differential: Barrel sounds  
 Bodywork: Creak and squeak sounds



Item				
150.1695	21 pcs	Electronic professional stethoscope	2.50	

### consists of:

Item				
150.1695-1	Headset	350		
150.1695-2	Amplifier box with colour choice switch	115		
150.1695-3	Stethoscope hand device	165		
150.1695-4	Velcro straps, 8 Pieces	9		
150.1695-5	Sensor	10		
150.1695-6	Cable clamps with colour coding, 6 pcs.	755		

## Test lamp 6 - 24 V

- Test tip protected through a cap
- With shielded crocodile clamp
- Brass



Item	L mm			
550.1504	125.0	30		

### Voltage tester 3 - 48 V

- Universal test instrument for motor vehicle electrics and electronics
- Two light emitting diodes indicate voltage as well as polarity
- Test tip with push mechanics to tap into the cable
- With shielded crocodile clamp



Item	L mm	
550.1503	140.0	70

### Test probe 6-24V DC with 5 meter cable

- Ideal standard lamp with many test functions
- High-speed functional testing without removal of components
- Via toggle switches can be plus or minus given to the probe
- Built in bi metal short circuit protection
- No protection wear for troubleshooting
- Version with replaceable probe and alligator clip
- For continuity test, self test and fault diagnosis
- Immediate polarity determination by LED display



#### Technical data:

Cable length: 5 m  
Test probe diameter: 4 mm

Item	Application area	Replacement test tip	
150.1670	6-24V DC	150.1671	500

### Test probe 6-24V DC with 25 meter cable

- Ideal standard lamp with many test functions
- High speed functional testing without removal of components
- Via toggle switches can be plus or minus given to the probe
- Built in bi metal short circuit protection
- No protection wear for troubleshooting
- Version with replaceable probe and alligator clip
- For continuity test, self test and fault diagnosis
- Immediate polarity determination by LED display

Application area: 6-24V DC  
Cable length: 25 m  
Test probe diameter: Ø 4 mm



Item	Application area	Replacement tip	
150.1655	6 - 24 V DC	150.1671	1.26

### Probe and test adaptor set

- For use with test probe 150.1665 + 150.1655
- High quality testing and test accessories
- For use in conjunction with test probe
- Flexible silicon cable
- Extra thin test probe
- Bi color test leads for polarity indication



Item			
150.1675	13 pcs	Probe and test adaptor set	300

#### Consists of:

Item		
150.1667	Inspection and test equipment, cable 1m, red	30
150.1668	Inspection and test equipment, cable 1m, black	30
150.1669	Inspection and testing equipment, injection probe	30
150.1672	Inspection and test equipment, LED test leads	10
150.1673	Inspection and test equipment, needle test leads, black	10
150.1674	Inspection and test equipment, needle test leads, red	10
150.1676	Inspection and test equipment, probe, black	10
150.1677	Inspection and test equipment, probe, red	10
150.1678	Inspection and test equipment, clamps, red	20
150.1679	Inspection and test equipment, clamps, black	20

### Automotive current tester

- For the diagnosis of faults in motor vehicle electrics
- Ideal to the fast current that is sought through the fuse connector
- With large 75 mm LCD display
- Connector with side outlet insures strong reception



Item	Connector type	L mm	Volt max	Ampere max	
150.3096	Mini	900.0	48	20	70
150.3095	Standard	900.0	48	20	100





## Automotive multimeter with inductive clamp

- Specially developed multimeter for working in the motor vehicle area
- as well standard functions also ideal for a number of revolution measurements
- Double display (digital and bar chart display)
- 2 test leads for current with test tip / crocodile clip
- 1 test lead for temperature testing
- Ignition timing ascertainment up to 8 cylinder engines possible (Dwell function)
- Digital and bar chart display
- With integrated safety fuse for the protection of the circuits
- In shock-proof rubber protection cover

Functions:

- DC and AC current
- DC and AC voltage
- Dwell
- Resistance
- Frequency
- Diode test
- RPM
- Temperature-automatic shutdown
- Battery condition indicator



## Universal push in terminal tool set

- Applicable for a multitude of motor vehicles plug in contact
- Universal application in the field of electrics in motor vehicles
- For the quick removal of breakdowns and failed connections
- Professional and non destructive release of contact
- Protection frame for the optimal protection of the blades
- In durable plastic storage case

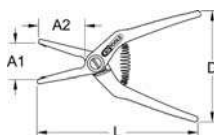
**Application range:** BMW, Mercedes Benz, Opel, VAG, Ford, Fiat, Japanese and French products

Item	B mm	L mm	
150.2040	100.0	200.0	500



## Incandescent bulbs plier

- With protecting foam material
- For the removal and replacement of incandescent bulbs
- With internal spring
- Plier jaws with foam protection material
- Suited for glass socket lamps of 4,0 mm until 6,0 mm
- Special plastic



Item	A1 mm	A2 mm	D mm	L mm	
115.1054	0,0-32,0	45,0	43,0	160,0	70



Item	
150.1260	12 pcs Universal push in terminal tool set 760

consists of:

Item	
150.1270	Demounting sleeve 3,3 x 30 mm 10
150.1271	Demounting sleeve 5.0 x 30 mm 10
150.1272	Demounting sleeve 3,3 x 35 mm 10
150.1261	Cable release for round socket contact 1,5 mm 30
150.1262	Cable release for round socket contact 3.5 mm 30
150.1263	Cable release for round socket contact 2.3 mm 30
150.1264	Cable release for flat socket contact 1,48 mm 30
150.1265	Cable release for flat socket contact Micro-Timer 2+3 30
150.1266	Cable release for flat socket contact Micro-Power-Timer 30
150.1267	Cable release for flat socket contact PIT-POD 30
150.1268	Cable release for flat socket contact Micro-Timer 1 30
150.1269	Cable release for flat socket contact JPT/SPT 30

### HGV terminal extractor tool set, basic

- Universal application in the field of electrics in commercial vehicles
- Precision tool to repair a breakdown or failure electrical links
- Contains a selection of the most common single tools
- Professional and non destructive release of contact
- Optimum protection against unwanted mechanical action by safety bar
- In durable plastic storage case

**Application range:** Iveco, Mack, MAN, Mercedes Benz, Renault, Scania, Volvo



Item				
150.1255	6 pcs	HGV terminal extractor too set, basic	650	

#### Consists of:

Item				
150.1296	ABS assembling aid	20		
150.1298	Cable release for secondary locking	40		
150.1297	Cable release with 2 snap in pins, contact width 1,5 mm	40		
150.1265	Cable release for flat socket contact Micro-Timer 2+3	30		
150.1262	Cable release for round socket contact 3,5 mm	30		
150.1292	Release for round contact Ø 4,0 mm	40		

### HGV terminal extractor tool set

- Universal application in the field of electrics in commercial vehicles
- Precision tool to repair a breakdown or failure electrical links
- Contains a selection of the most common single tools
- Professional and non destructive release of contact
- Optimum protection against unwanted mechanical action by safety bar
- In durable plastic storage case

**Application range:** Iveco, Mack, MAN, Mercedes Benz, Renault, Scania, Volvo



Item				
150.1215	14 pcs	HGV terminal extractor tool set	743	

#### Consists of:

Item				
150.1256	Release for round socket contact 4,0mm (ABS)	38		
150.1261	Cable release for round socket contact 1,5 mm	30		
150.1262	Cable release for round socket contact 3,5 mm	30		
150.1264	Cable release for flat socket contact 1,48 mm	30		
150.1269	Cable release for flat socket contact JPT/SPT	30		
150.1288	Release for flat contact with double snap in pin 2,8 mm	20		
150.1290	Release for plug-in contact with 4 snap in pins, MKS / MKR 1.5	30		
150.1291	Release for plug-in contact with 4 snap in pins, VKR / contact	30		
150.1292	Release for round contact Ø 4,0 mm	30		
150.1270	Demounting sleeve 3,3 x 30 mm	10		
150.1271	Demounting sleeve 5,0 x 30 mm	10		
150.1272	Demounting sleeve 3,3 x 35 mm	10		
150.1293	Demounting sleeve 4,0 mm	10		
150.1296	ABS assembling aid	20		

### Terminal extractor tool assortment for VAG plug in contact

- Specially aligned for VAG plug in contact
- Universal application in the field of electrics in motorl vehicles
- For the quick removal of breakdowns and failed connections
- Professional and non destructive release of contact
- Protection frame for the optimal protection of the blades
- In durable plastic storage case

**Application range:** VAG



Item				
150.1220	11 pcs	Terminal extractor tool assortment for VAG plug in contact	690	

#### consists of:

Item				
150.1261	Cable release for round socket contact 1,5 mm	30		
150.1262	Cable release for round socket contact 3.5 mm	30		
150.1264	Cable release for flat socket contact 1,48 mm	30		
150.1265	Cable release for flat socket contact Micro-Timer 2+3	30		
150.1268	Cable release for flat socket contact Micro-Timer 1	30		
150.1269	Cable release for flat socket contact JPT/SPT	30		
150.1270	Demounting sleeve 3,3 x 30 mm	10		
150.1271	Demounting sleeve 5.0 x 30 mm	10		
150.1274	Cable release for flat socket contact (multiple catch mechanism) 2 x 0.64 mm	30		
150.1275	Cable release for flat socket contact (multiple catch mechanism) 2.8 mm	30		
150.1276	Cable release for flat socket contact (multiple catch mechanism) 4.8 mm	20		

### Terminal extractor tool assortment for Renault / PSA plug in contact

- Specially aligned for Renault / PSA contact
- Universal application in the field of electrics in motorl vehicles
- For the quick removal of breakdowns and failed connections
- Professional and non destructive release of contact
- Protection frame for the optimal protection of the blades
- In durable plastic storage case

**Application range:** Renault / PSA



Item				
150.1225	7 pcs	Terminal extractor tool assortment for Renault / PSA plug in contact	660	

#### consists of:

Item				
150.1251	Demounting sleeve 2.3 x 35mm	1		
150.1263	Cable release for round socket contact 2.3 mm	30		
150.1264	Cable release for flat socket contact 1,48 mm	30		
150.1265	Cable release for flat socket contact Micro-Timer 2+3	30		
150.1268	Cable release for flat socket contact Micro-Timer 1	30		
150.1269	Cable release for flat socket contact JPT/SPT	30		



**Terminal extractor tool assortment for Opel / GM plug in contact**

- Specially aligned for Opel / GM plug in contact
- Universal application in the field of electricians in motor vehicles
- For the quick removal of breakdowns and failed connections
- Professional and non destructive release of contact
- Protection frame for the optimal protection of the blades
- In durable plastic storage case

Application range: Opel / GM



Item				
150.1230	17 pcs	Terminal extractor tool assortment for Opel / GM plug in contact	1.14	

consists of:

Item			
150.1251	Demounting sleeve 2.3 x 35mm	1	
150.1261	Cable release for round socket contact 1,5 mm	30	
150.1262	Cable release for round socket contact 3.5 mm	30	
150.1263	Cable release for round socket contact 2.3 mm	30	
150.1264	Cable release for flat socket contact 1,48 mm	30	
150.1265	Cable release for flat socket contact Micro-Timer 2+3	30	
150.1267	Cable release for flat socket contact PIT-POD	30	
150.1268	Cable release for flat socket contact Micro-Timer 1	30	
150.1269	Cable release for flat socket contact JPT/SPT	30	
150.1270	Demounting sleeve 3,3 x 30 mm	10	
150.1271	Demounting sleeve 5.0 x 30 mm	10	
150.1277	Cable release for DUCON contact 1.5 mm	30	
150.1278	Cable release for DUCON contact 1.5 / 2.8 mm	30	
150.1279	Cable release for DUCON contact 4,8 / 6,3 mm	30	
150.1285	Cable release for DUCON contact 6.3 mm	30	
150.1286	Cable release for DUCON contact 9.5 mm	30	
150.1299	Cable release for DUCON contact	20	

**Terminal extractor tool assortment for BMW / Mercedes Benz plug in contact**

- Specially aligned for BMW / Mercedes Benz plug in contact
- Universal application in the field of electricians in motor vehicles
- For the quick removal of breakdowns and failed connections
- Professional and non destructive release of contact
- Protection frame for the optimal protection of the blades
- In durable plastic storage case

Application range: BMW / Mercedes Benz



Item				
150.1235	18 pcs	Terminal extractor tool assortment for BMW / Mercedes Benz plug in contact	1.16	

consists of:

Item			
150.1246	Demounting sleeve 2.5 x 30 mm	1	
150.1247	Demounting sleeve 1.5 x 30 mm	1	
150.1248	Cable release for round terminal contact 4.0 mm	17	
150.1249	Cable release for round terminal contact 2.5 mm	16	
150.1257	Cable release for round socket contact 2.5 mm	33	
150.1258	Cable release for round socket contact 1,5 mm	29	
150.1261	Cable release for round socket contact 1,5 mm	30	
150.1262	Cable release for round socket contact 3.5 mm	30	
150.1264	Cable release for flat socket contact 1,48 mm	30	
150.1265	Cable release for flat socket contact Micro-Timer 2+3	30	
150.1266	Cable release for flat socket contact Micro-Power-Timer	30	
150.1269	Cable release for flat socket contact JPT/SPT	30	
150.1270	Demounting sleeve 3,3 x 30 mm	10	
150.1271	Demounting sleeve 5.0 x 30 mm	10	
150.1287	Cable release for flat socket contact with double snap in pin LSK 8 mm	30	
150.1289	Cable release for flat socket contact 34 pin coupling	30	
150.1294	Cable release for flat socket contact LKS 1.5 mm Bush bearing	40	
150.1295	Cable release for flat socket contact SLKS 2.8 mm P & S	50	

**Terminal extractor tool for round contact Ø 1.5 mm**

- For round contact Ø 1.5 mm
- BMW, Daimler, Ford, GM, Jaguar, Porsche, PSA, VW
- Demounting sleeve 3.3 x 30 mm



Item	Replacement sleeves		
150.1261	150.1270	30	

**Terminal extractor tool for round contact Ø 3.5 mm**

- For round contact Ø 3.5 mm
- BMW, Iveco, MAN, Porsche, VW
- Demounting sleeve 5.0 x 30 mm



Item	Replacement sleeves		
150.1262	150.1271	30	



**Terminal extractor tool for round contact Ø 2.3 mm**

- For round contact Ø 2.3 mm
- BMW, Daimler, Jaguar
- Demounting sleeve 3.3 x 35 mm



Item	Replacement sleeves		
150.1263	150.1272	30	

**Terminal extractor tool for round contact Ø 2.3 mm**

- For round contact Ø 2.3 mm
- BMW, Daimler, Jaguar
- Demounting sleeve 3.3 x 35 mm



Item			
150.1265	Terminal extractor tool for round contact Ø 2.3 mm	30	

**Terminal extractor tool for flat socket contact maxi power timer**

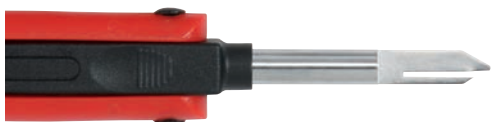
- For flat socket contact Maxi-Power-Timer
- Daimler, VAG



Item			
150.1266	Terminal extractor tool for flat socket contact maxi power timer	30	

**Terminal extractor tool for flat socket contact PIT POD**

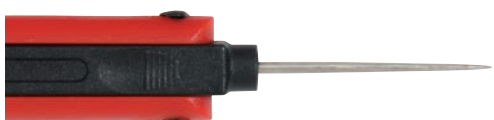
- For flat socket contact PIT POD
- BMW, Daimler, Fiat, Ford, GM, Mazda, Porsche, Renault, Toyota



Item			
150.1267	Terminal extractor tool for flat socket contact PIT POD	30	

**Cable extractor tool for flat socket contact micro timer 1**

- For flat socket contact micro timer 1
- Fiat, Ford, Honda, Jaguar, GM, Mazda, Porsche, Renault, Toyota, PSA



Item			
150.1268	Cable extractor tool for flat socket contact micro timer 1	30	

**Terminal extractor tool for flat socket contact JPT / SPT**

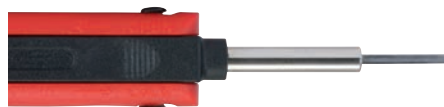
- For flat socket contact JPT / SPT
- BMW, Daimler, Fiat, GM, Porsche, Renault, PSA, VAG



Item			
150.1269	Terminal extractor tool for flat socket contact JPT / SPT	30	

**Terminal extractor tool for flat socket contact 2.5 / 5.8 mm**

- For flat socket contact (one snap in pin) 2.5 / 5.8 mm
- BMW, Renault, PSA, Volvo



Item			
150.1273	Terminal extractor tool for flat socket contact 2.5 / 5.8 mm	30	

**Terminal extractor tool for flat socket contact standard 1.48 mm**

- For flat socket contact standard 1.48 mm
- BMW, Daimler, Fiat, Ford, GM, Jaguar, Porsche, PSA, VAG



Item			
150.1264	Terminal extractor tool for flat socket contact standard 1.48 mm	30	

**Terminal extractor tool for flat socket contact 2 x 0.64 mm**

- For flat socket contact 2 x 0.64 mm (multiple catch mechanism)
- Daimler, VAG



Item			
150.1274	Terminal extractor tool for flat socket contact 2 x 0.64 mm	30	

**Terminal extractor tool for flat socket contact 2.8 mm**

- For flat socket contact 2.8 mm (multiple catch mechanism)
- VAG



Item			
150.1275	Terminal extractor tool for flat socket contact 2.8 mm	30	

**Terminal extractor tool for flat socket contact 4.8 mm**

- For flat socket contact 4.8 mm (multiple catch mechanism)
- Daimler, VAG



Item			
150.1276	Terminal extractor tool for flat socket contact 4.8 mm	20	

**Terminal extract tool for DUCON contact 1.5 mm**

- For DUCON contact 1.5 mm
- Opel, GM



Item			
150.1277	Terminal extract tool for DUCON contact 1.5 mm	30	

**Terminal extractor tool for DUCON contact 1.5 / 2.8 mm**

- For DUCON contact 1.5 / 2.8 mm
- Opel, GM



Item			
150.1278	Terminal extractor tool for DUCON contact 1,5 / 2.8 mm	30	

**Terminal extractor tool for DUCON contact 4.8 / 6.3 mm**

- For DUCON contact 4.8 / 6.3 mm
- Opel, GM



Item			
150.1279	Terminal extractor tool for DUCON contact 4.8 / 6.3 mm	30	

**Terminal extract tool for DUCON contact 6.3 mm**

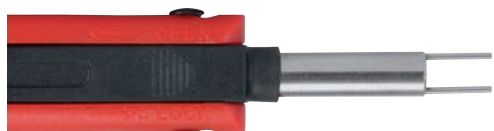
- For DUCON contact 6.3 mm
- Mercedes Benz



Item			
150.1285	Terminal extract tool for DUCON contact 6.3 mm	30	

**Terminal extract tool for DUCON contact 9.5 mm**

- For DUCON contact 9.5 mm
- Opel, GM



Item			
150.1286	Terminal extract tool for DUCON contact 9.5 mm	30	

**Terminal extractor tool for flat socket contact LSK 8 mm**

- For flat socket contact with double snap in pin LSK 8 mm
- BMW, Mercedes Benz



Item			
150.1287	Terminal extractor tool for flat socket contact LSK 8 mm	30	

**Terminal extractor tool for flat socket contact 2.8 mm**

- For flat contact with double snap in pin 2.8 mm
- VAG, Mercedes Benz



Item			
150.1288	Terminal extractor tool for flat socket contact 2.8 mm	20	

**Terminal extractor tool for flat socket contact 34 pins**

- For flat socket contact with 34 pin coupling
- Mercedes Benz, Porsche



Item			
150.1289	Terminal extractor tool for flat socket contact 34 pins	30	

**Terminal extractor tool for plug in contact MKS/MKR 1.5**

- For plug in contact MKS / MKR 1.5 with 4 snap in plugs
- MAN, Volvo



Item			
150.1290	Terminal extractor tool for plug in contact MKS/MKR 1.5	30	

**Terminal extractor tool for plug in sockets G+H VKR Plus**

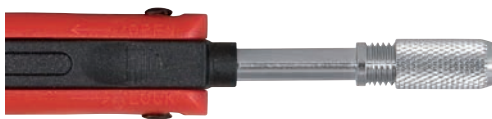
- For plug in contact G+H VKR Plus with 4 snap in plugs
- MAN, Volvo



Item			
150.1291	Terminal extractor tool for plug in sockets G+H VKR Plus	30	

### Terminal extractor tool for round contact Ø 4.0 mm

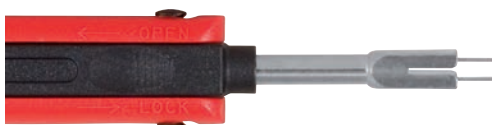
- For round contact Ø 4.0 mm
- ABS 15 pins
- Demounting sleeve 4.0



Item	Replacement sleeves		
150.1292	150.1293	30	

### Terminal extractor tool for flat socket contact LKS 1.5 mm

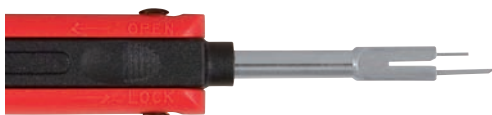
- For flat socket contact LKS 1.5 mm bush bearing
- BMW, Mercedes Benz, Ford



Item			
150.1294	Terminal extractor tool for flat socket contact LKS 1.5 mm	40	

### Terminal extractor tool for flat socket contact SLKS 2.8 mm + P&S

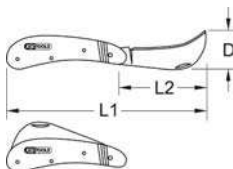
- For flat socket contact SLKS 2.8 mm and P & S
- BMW, Mercedes Benz, Ford



Item			
150.1295	Terminal extractor tool for flat socket contact SLKS 2.8 mm + P&S	50	

### Electricians pen knife

- Blade folds away
- Sickle blade
- Moulded handle made out of wood
- Rust proof
- Stainless steel

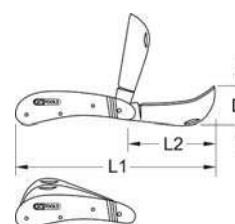


Item	D mm	L1 mm	L2 mm	
907.2185	37.0	185.0	70.0	60



### Electricians pen knife

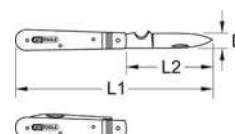
- Blade folds away
- Straight and sickle blades
- Moulded handle made out of wood
- Rust proof
- Stainless steel



Item	D mm	L1 mm	L2 mm	
907.2186	37.0	185.0	70.0	90

### Electricians pen knife

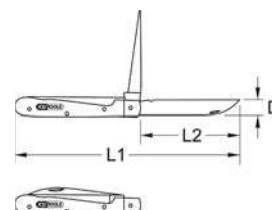
- Blade folds away
- Single blade and stripping function
- Moulded handle made out of wood
- Rust proof
- Stainless steel



Item	D mm	L1 mm	L2 mm	
907.2187	15.0	195.0	85.0	60

### Electricians pen knife

- Blade folds away
- Straight and extra narrow pointed blade
- Moulded handle made out of wood
- Rust proof
- Stainless steel

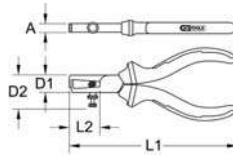


Item	D mm	L1 mm	L2 mm	
907.2188	19.0	198.0	90.0	60



## CLASSIC Wire stripper

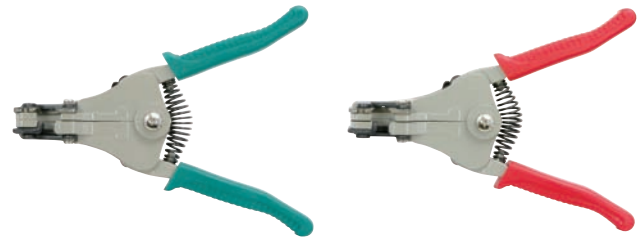
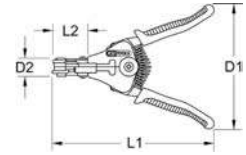
- In accordance to DIN / ISO 5232
- Locking jaw opening
- Adjusting screw and spring
- PVC dipped handle
- For wires from 0.5 - 4.0 mm<sup>2</sup>
- Matt chrome
- Special tool steel



Item	A mm	D1 mm	D2 mm	L1 mm	L2 mm	
115.1314	9.0	20.5	33.0	176.0	39.0	170

## Automatic wire strippers

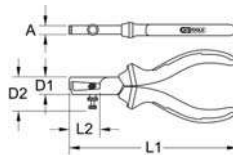
- Plastic handle
- For damage free stripping
- Durable clamping jaw for the adherence of the wire
- Self closing due to the spring mechanics



Item	Ø mm	AWG	D1 mm	D2 mm	L1 mm	L2 mm	
115.1028	0,5-2,0	2,0-0,5	130,0	20,0	170,0	35,0	280
115.1029	1,0-3,2	3,2-1,0	130,0	20,0	170,0	35,0	280

## ERGOTORQUE® Wire strippers

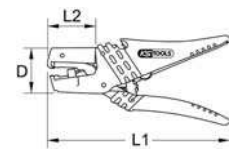
- In accordance to DIN / ISO 5232
- Locking jaw opening
- Adjusting screw and spring
- Two component handle
- For wires from 0.5 - 4.0 mm<sup>2</sup>
- Matt Chrome
- Special tool steel



Item	A mm	D1 mm	D2 mm	L1 mm	L2 mm	
115.1014	9.0	20.5	33.0	179.0	39.0	220

## Self regulating wire strippers

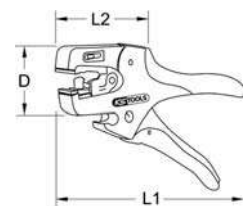
- Suitable for single and multi core cable with current standing type insulation
- Cutting function
- Light weight
- For damage free stripping
- Length stop for 3,0 - 22,0 mm
- Smooth running mechanics



Item	Ø mm <sup>2</sup>	AWG	D mm	L1 mm	L2 mm	
115.1240	0,5-4,0	20-12	43,0	185,0	50,0	140

## Self regulating wire strippers

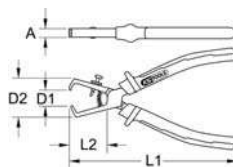
- Easily interchangeable knife modules
- Cutting function
- Light weight
- Exact adjustment possible for safe stripping
- For damage free stripping
- Length stop for 0.02 - 10.0 mm
- Smooth running mechanics



Item	Ø mm <sup>2</sup>	AWG	D mm	L1 mm	L2 mm	Replacement blades	
115.1244	0,02-6	26-12	48,0	190,0	73,0	115.1247	130
115.1245	0,02-10	34-8	48,0	190,0	73,0	115.1246	130
115.1249	4-16	12-6	48,0	190,0	73,0	115.1248	130

## ERGOTORQUEplus® Wire strippers

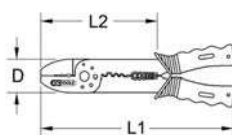
- In accordance to DIN / ISO 5232
- Locking jaw opening
- Adjusting screw and spring
- Two component handle
- For wires from 0.5 - 4.0 mm<sup>2</sup>
- Chrome plated and mirror polished
- Special tool steel



Item	A mm	D1 mm	D2 mm	L1 mm	L2 mm	
119.1014	9.0	20.5	33.0	180.0	40.0	220

### Multifunction pliers for insulated and non insulated cable terminals

- For cable cutting and stripping of wires from 0.75 - 6.0 mm<sup>2</sup>
- For crimping cable lugs and connectors of 1.5 - 6.0 mm<sup>2</sup>
- Cutting function
- Two component handle
- Pliers body made of flat steel



Item	D mm	L1 mm	L2 mm	Weight
115.1231	40.0	220.0	130.0	230

### Multifunction crimping plier set

- For insulated and uninsulated cable terminals
- Includes 270 pcs consumables
- For cable cutting and stripping wires from 0.75 - 6.0 mm<sup>2</sup>
- For crimping cable terminals and connectors from 1.5 - 6.0 mm<sup>2</sup>
- Cutting function
- Two component handle
- Pliers body made of flat steel
- In durable plastic storage case



Item	Weight
115.1230	271 pcs Multifunction crimping plier set 560

### ESD precision tool set

- Electrical working
- Includes precision screwdrivers and tweezers
- Suitable for wire
- Serrated execution
- Induction hardened precision cutting
- Self opening double spring
- Twist end cap
- Ergonomically designed electronic handle
- Hardened blade
- Chrome finish with burnished surface
- Dual component handle
- Black chrome
- Blades made from special steel
- In durable plastic storage case



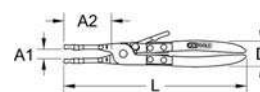
Item	Weight
500.7180	10 pcs ESD precision tool set 400

consists of:

Item	Weight
500.7021	Precision-Long nosed, straight, short, 130 mm 80
500.7024	Precision-diagonal side cutter, 120 mm 80
500.7039	Tweezers L=45 mm 15
500.7106	Precision Screwdriver, 2 component handle, PH 0 x 2.0 15
500.7107	Precision Screwdriver, 2 component handle, PH 0 x 2.4 20
500.7108	Precision Screwdriver, 2 component handle, 1.4 mm 10
500.7109	Precision Screwdriver, 2 component handle, 2.0 mm 15
500.7110	Precision Screwdriver, 2 component handle, 2.4 mm 20
500.7111	Precision Screwdriver, 2 component handle, 3.0 mm 20
500.7125	Precision Screwdriver, 2 component handle, PH 1x 3,5 20

### Soldering wire pliers

- With PVC dipped handle
- For the safe fixing of braded wire
- With self opening internal spring
- Includes locking mechanism
- Chrome molybdenum



Item	A1 mm	A2 mm	D mm	L mm	Weight
115.1052	78.0	65.0	36.0	245.0	260

### Mini pocket soldering torch

- Piezo ignition
- Up to 1300°C
- For light soldering
- Safety lock



Item	L mm	Weight
960.1110	80.0	130

### Small soldering torch with flame reflector

- For fine soldering
- Shrink / flame reflector
- Table stand
- Up to 1300°C



Item	L mm	Weight
960.1210	140.0	350

## Small soldering torch

- For fine soldering
- Table stand
- Up to 1300 °C



Item	L mm	
960.1200	140.0	350

## Battery holding device

- Practical installation aid for all batteries
- With clamping cheeks rubber coated
- Size adjustable
- Rubber grip



Item	$\Omega$ mm	
700.1196	120 - 190	560

## Micro terminal assortment

- Gas operated micro soldering device up to 1300 °
- Optimal for fine working
- Gas supply totally adjustable
- Filled with standard lighter gas
- Includes different attachments soldering wire and soldering sponge
- In durable plastic storage case



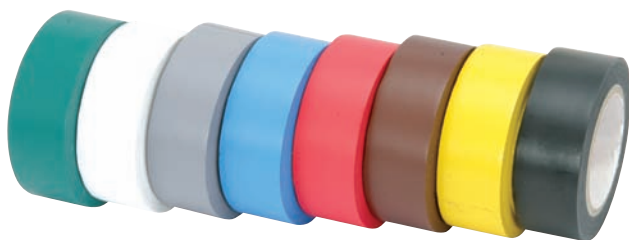
Item	
960.1150 13 pcs Micro terminal assortment	200

consists of:

Item	
960.1151 Gas soldering iron	110
960.1152 Bunsen burner nozzle head	20
960.1153 Soldering head including. 6 different on screw solder tips	30
960.1154 Flat attachment for flame protection for Bunsen burner nozzle head	10
960.1155 Attachment for Bunsen burner nozzle head	10
960.1156 Soldering sponge	6
960.1157 Soldering wire spool	24

## PVC insulation tape set

- Good resistance to abrasion and corrosion and/or moisture
- High di-electric strength and good mechanical protection
- Excellent ability to adapt to different forms
- Conforms to BS3924
- Temperature resistance of 0 °C to +90 °
- Multicolored assortment



Item	
141.6010 8 pcs PVC insulating tape set 19 mm of x 10 m / up to 90 °	150

## 6 + 12V Battery tester

- Suitable for 6 and 12 Volt
- For the quick and simple determining of the battery efficiency
- Examination function for alternator and starter motor
- Rocker switch
- Analogue display 0-16 Volt
- Clamping fixture on the device



Item	
550.1690 6 + 12V Battery tester	500

## Battery tester for 12V batteries from 30 ah

- Suitable for 6 Volt
- For the quick and simple determining of the battery efficiency
- Examination function for alternator and starter motor
- Measurement of the battery capacity under load
- Automatic control of the complete test process
- Cold start current value for the exact analysis
- Result of the measurement is indicated after 10 seconds
- Avoiding of an overload of the battery through too long testing duration
- Digital LCD display




Item	
550.1685 Battery tester for 12V batteries from 30 ah	500

### Battery acid tester

- For inspection of the acidity of the battery fluid
- Hydrometer



Item	L mm	
550.1680	280.0	107

### Battery plug turner

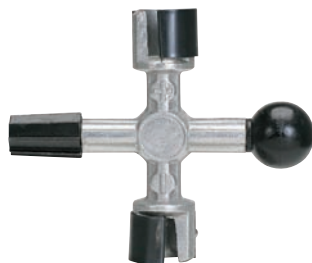
- For screwing in and turning off battery plugs
- Special profile for cable battery plugs
- Universal use also in short in height
- Chrome plated and mirror polished
- Chrome vanadium




Item	mm	L mm	
550.1681	14,5 x 1,795	95.0	72

### Battery pole clamp cleaner

- For the removing of contact corrosion on vehicle batteries
- Conical mill for battery pole clamps
- Milling head made out of steel
- Cast metal body



Item	
700.1195	Battery pole clamp cleaner 150

### Automatic control battery filling bottle 1 litre

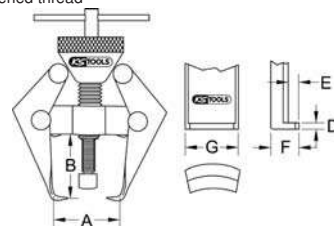
- Stops automatically if the filling state optimal is reached
- Automatic clasp and influx stop device
- Acid and oil resistant
- Special plastic





Item		
550.1683	1	300

### Battery clamp and wiper arm puller 2 arm

- Ideally suited for drawing-off small parts
- T-handle drive
- Independent pressure of the hooks
- Extremely robust spindle with inductively hardened thread
- Special steel




Item	A mm	B mm	max t	 mm	D mm	E mm	F mm	G mm	
700.1190	15	32	1,2	M8 x 50	2,5	9	10,5	11	0.30

### Battery pole and clamp cleaning brush

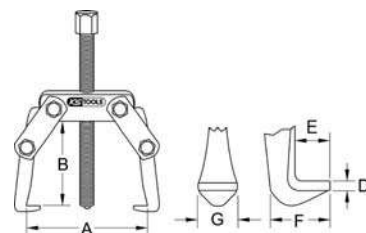
- For the removing of contact corrosion on batteries
- Inside and outside brush
- Plastic housing





Item	L mm	
700.1197	120.0	64

### Pole clamp 2 arm puller

- Ideally suited for drawing off small parts
- Independent pressure of the hooks
- Extremely robust spindle with inductively hardened thread
- Special steel



Item	A mm	B mm	max t	 mm	dim mm	D mm	E mm	F mm	G mm	
620.3101	10-60	40	1	M8 x 85	10	1	5	12	8	160
620.3102	10-70	44/74	1,2	M8 x 85	10	1	5	12	8	200
620.3103	10-90	84	2	M10 x 105	12	1,8	10	20	12	300



# TRAINING CENTRE



Modern, intelligent tool systems require a high technical knowledge in order to communicate the advantages and the problem solving potential of these products to the user.  
At the end of August 2009 our new

## TECHNICAL TRAINING CENTRE

was handed over to his task.

On over approx. 600 square metres of presentation everything can be found for our customers, distribution partners and colleagues, as we say „all from one hand“.

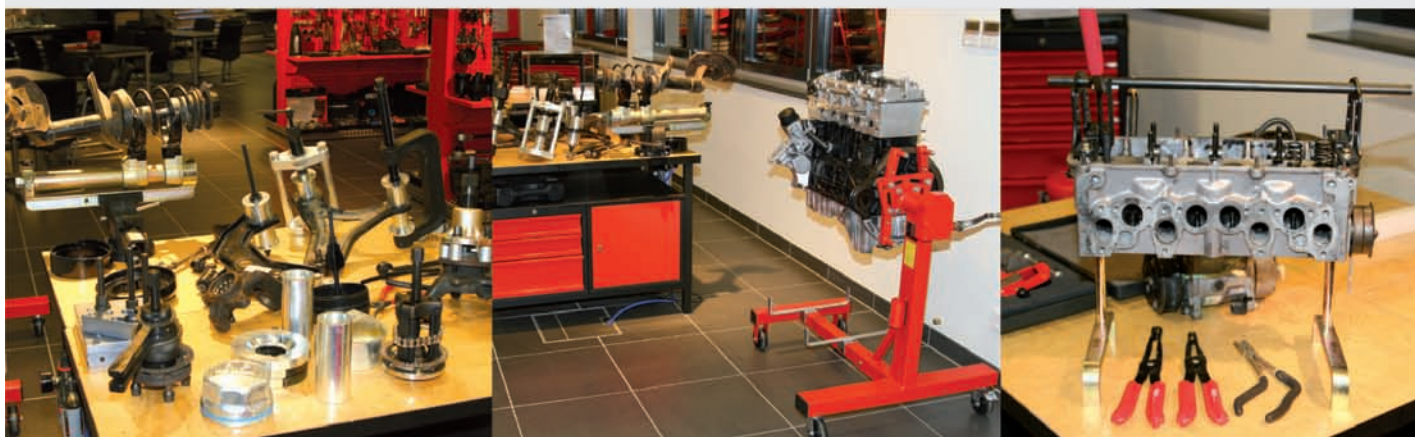
Core areas are

### 10 product islands.

The special tools are available at the same time as the relevant working ares for example chassis, brakes, engine or also the Videoscope program. These give the visitors an overview of all solutions offered by us as well as concepts.



Impressive and practical the use of the KS special tools can be demonstrated on **work station areas** or even can be used by customers.







## On **30m display wall**

all essential product areas are found such as standard tools and special tools, e.g. the torque tool and puller program.



We are especially proud of our modern

## **conference room**

with modern multimedia technology. It has so much to offer as a place for interesting training and conferences.

Every workstation is equipped with a terminal computer which enables interactive training and multimedia demonstrations.

Taken into account the permanently changing challenges in our marketplace the training and education of our employees is one of our major duties. In our own KS-academy many workshops such as for professional business administration, the latest computer applications take place regularly. The program within the academy has also included two foreign language courses with external instructors which enriches this offer of advanced education.

For our customers and trade partners there are regularly monthly product trainings for all product lines and novelties as well.

We look forward to welcome you in our premises.

Simply ask about our training plan.

For larger groups or single firms we are able to offer tailor made and

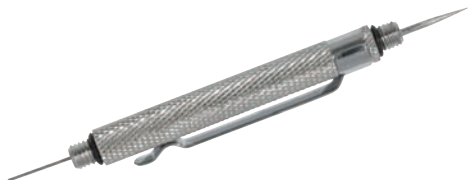
**individually designed product trainings combined with the use of our meeting facilities!**



## CLEANING NEEDLE

### Washer jet cleaning and adjusting tool

- For the cleaning and adjusting of washer jet nozzles
- Clip for the breast pocket
- Aluminium



Item	L mm	
550.1022	95.0	40

### 2 in 1 Telescopic magnetic pick up tool

- Load capacity to 0.5 kg
- Extendable telescopic function
- Cleaning needle
- Clip for the breast pocket
- Ideal for adjusting of wiper nozzles
- Aluminium



Item	Head Ø mm	L mm	
550.1001	8.0	150,0 - 675,0	500

## MAGNETIC LIFTER

### Telescopic magnetic pick up tool

- Load capacity to 2.5 kg
- With flexible magnetic head
- With an extendable telescopic function
- Includes cleaning needle for washer jet nozzles
- Clip for the breast pocket
- Aluminium



Item	Head Ø mm	L mm	
550.1023	11.0	150,0 - 590,0	60

### Telescopic magnetic pick up tool

- Load capacity to 2 kg
- With an extendable telescopic function
- Clip for the breast pocket
- Special steel



Item	Head Ø mm	L mm	
550.1000	13.0	130,0-630,0	30

### Telescopic magnetic pick up tool

- Load capacity to 5 kg
- With rotary head
- With an extendable telescopic function
- Clip for the breast pocket
- Magnet power raised 35% due to energy safety cap
- Stainless steel



Item	Head Ø mm	L mm	
550.1003	18.0	130,0-860,0	90

### Telescopic magnetic pick up tool

- Magnet power raised 35% due to energy safety cap
- Stainless steel



Item	Head Ø mm	L mm	
550.1004	13.0	178,0-860,0	70

### Telescopic magnetic pick up tool

- Load capacity to 1.5 kg
- Extendable telescopic function
- Clip for the breast pocket
- Magnet power raised 35% due to energy safety cap
- Stainless steel



Item	Head Ø mm	L mm	
550.1002	18.0	178,0-860,0	80

### Flexible magnetic pick up tool

- One component handle
- Flexible shaft
- 200g capacity magnet
- 4 mm with a very thin magnetic seat
- Ideal for picking up screws and small parts



Item	L mm	
550.1032	400.0	20

### Flexible magnetic pick up tool

- Load capacity to 1 kg
- Flexible shaft
- Two component handle
- Special steel



Item	Head Ø mm	L mm	
550.1025	15.0	510.0	30

### Flexible magnetic pick up tool

- Load capacity to 2 kg
- Flexible shaft
- Two component handle
- Special steel



Item	Head Ø mm	L mm	
550.1026	17.0	510.0	30

### Flexible magnetic pick up tool

- Load capacity to 3 kg
- Flexible shaft
- Two component handle
- Special steel



Item	Head Ø mm	L mm	
550.1027	19.0	510.0	30

### Flexible magnetic pick up tool

- Load capacity to 2 kg
- Detachable inner cover
- Magnet power raised 35% due to energy safety cap
- Special steel



Item	Head Ø mm	L mm	
550.1010	10.0	585.0	130



## MIRRORS & MAGNIFYING GLASS

### Telescopic mechanics mirror

- Extendable telescopic function
- For visual monitoring and troubleshooting
- Double ball joint
- Head swiveling in all directions
- Clip for the breast pocket
- Ideal for difficult to access areas
- Special steel



Item	D mm	L mm	
550.1030	40.0	120,0 - 660,0	80

### Telescopic inspection mirror

- Extendable telescopic function
- For visual monitoring and troubleshooting
- With single ball joint
- Head swivels in all directions
- Impact resistant mirror
- Stainless steel



Item	B mm	H mm	L mm	
550.1007	45.0	63.0	178,0-860,0	100

### Telescopic inspection mirror

- Extendable telescopic function
- For visual monitoring and troubleshooting
- Single ball joint
- Mirror out of stainless steel with plate glass
- Stainless steel



Item	B mm	H mm	L mm	
550.1019	57.0	63.0	178,0-630,0	100

### Telescopic inspection mirror

- Extendable telescopic function
- For visual monitoring and troubleshooting
- With single ball joint
- Stainless steel Mirror



Item	B mm	H mm	L mm	
550.1021	57.0	95.0	178,0-630,0	20

### Telescopic magnifying glass

- Extendable telescopic function
- Single ball joint
- 360° revolving
- Impact proof acrylic glass
- Special steel



Item	B mm	H mm	L mm	
550.1009	44.0	63.5	178,0-860,0	50

### Telescopic set TK 1000

- Extendable telescopic function
- Telescopic magnet up to 5 kg
- Magnet power raised 35% due to energy safety cap
- Telescopic inspection mirror, 45.0 x 63.0 mm
- Length 178.0-860.0 mm
- Special steel
- In durable plastic storage case



Item			
550.1102	2 pcs	Telescopic set TK 1000	280

consists of:

Item			
550.1007	Telescopic inspection mirror, 178 - 860 mm	100	
550.1002	Telescopic magnet holder up to 5,0 kg, 178 - 860 mm	80	

## Telescopic set TK 6000

- With an extendable telescopic function
- Telescopic-Magnet from 1,5 up to 5 kg
- Magnet power raised 35% due to energy safety cap
- Telescopic inspection mirror, Flat 44.0 x 63.0 mm
- Telescopic magnifying glass, Flat 44.0 x 63.0 mm
- Telescopic holder with quick release coupling, max. Length 880.0 mm
- Special steel
- In durable plastic storage case



Item				
550.1106	5 pcs	Telescopic set TK 6000	260	

### consists of:

Item				
550.1120	Telescopic holder, max. Length 880 mm	70		
550.1135	Telescopic inspection mirror, length 178 - 860 mm	20		
550.1140	Telescopic magnifying glass, length 178 - 860 mm	20		
550.1141	Magnet 1,5 kg	10		
550.1142	Magnet 5 kg	40		

## HOOK & PICK TOOLS

### Flexible pick up tool

- Flexible
- Circular diameter max. 20.0 mm
- Stainless steel



Item	L mm		
550.1301	600.0	150	

### Hook tool set

- Ideal for removing and use of O-rings and seals
- Special steel



Item				
550.1040	2 pcs	Hook tool set	30	

### consists of:

Item				
550.1041	Hook tool with double blade 90° short/ 180° short angled	11		
550.1042	Hook tool with double blade 45° long / 90° long	11		

### Hook tool set

- Ideal for removing and use of O-rings and seals
- With two component handle
- With hanging hole
- Special steel



Item				
550.1045	4 pcs	Hook tool set	120	

### consists of:

Item				
550.1046	Hook tool 120mm blade, straight version / 2 component handle	27		
550.1047	Hook tool 120mm blade, 45° angled version / 2 component handle	27		
550.1048	Hook tool 120mm blade, 90° angled version / 2 component handle	27		
550.1049	Hook tool 120mm blade, 135° angled version / 2 component handle	27		

### Master hook tool set

- Ideal for removing and use of O-rings and seals
- With hanging hole
- Special steel



Item				
550.1070	9 pcs	Master hook tool set	680	

### consists of:

Item				
550.1046	Hook tool 120mm blade, straight version / 2 component handle	27		
550.1047	Hook tool 120mm blade, 45° angled version / 2 component handle	27		
550.1048	Hook tool 120mm blade, 90° angled version / 2 component handle	27		
550.1049	Hook tool 120mm blade, 135° angled version / 2 component handle	27		
550.1071	Hook tool large, straight, Length 215 mm	91		
550.1072	Hook tool large, 90°, Length 240 mm	105		
550.1073	Hook tool large, sickle form, Length 185 mm	88		
550.1074	T-handle hook tool, S-form small, length 120 mm	42		
550.1075	T-handle hook tool, S-form big, length 165 mm	96		

## LED BALL POINT PEN

### 4 in 1 LED ball point pen

- Ball point pen
- LED lamp
- Laser pointer
- Handheld pencil
- Clip for the breast pocket
- Approx. 60 hours lamp duration
- Includes 4 x LP 41 button cell
- Impact proof housing



Item	L mm	D mm	
10010	150.0	15.0	110

### 2 in 1 LED ball point pen

- Ball point pen
- LED Lamp
- Focus lens
- Clip for the breast pocket
- Approx. 60 hours lamp duration
- Includes 4 x LP 41 button cell
- Impact proof housing



Item	L mm	D mm	
10012	130.0	13.0	100

## INSPECTION LAMPS

### Flexible LED inspection lamp with extension

- LED Lamp
- Flexible shaft
- Includes extension
- Approx: 60 hours lamp duration
- Includes 2 x AA batteries
- Impact proof housing



Item	L mm	D mm	Spare bulb	
550.1185	400.0	5.0	550.1187	120

### Illuminated inspection mirror

- LED Lamp
- Flexible shaft
- Adjustable by thumb pressure to 90°
- Approx. 60 hours lamp duration
- Includes 2 x AA batteries
- Stable plastic housing



Item	L mm	B mm	Mirror size mm	Spare bulb	
550.1138	600.0	40.0	38 x 73	550.1138	280

### Flexible UV inspection lamp

- LED UV Lamp
- Flexible shaft
- Localizes leaks in air conditioning systems
- Clip for the breast pocket
- Approx. 60 hours lamp duration
- Includes 3 x AAAA batteries
- Impact proof housing



Item	L mm	D mm	Spare bulb	
550.1165	450.0	7.5	550.1167	150

### Flexible LED inspection set

- LED Lamp
- Flexible shaft
- Includes flexible fibreglass attachment
- Clip for the breast pocket
- Includes single lamp bulb
- Approx. 60 hours lamp duration
- Includes 2 x LR 03 button cell + 2 x 1.5 V AAA batteries
- Impact proof housing



Item	L mm	B mm	H mm	Spare bulb	
550.1160	210.0	150.0	25.0	550.1161	230

## LED FLASHLIGHT

### LEDMAX flashlight S1

- Ideal for smock and shirt pockets
- Power chip LED
- 25 Lumens luminous flux
- Variable hyper focus lens for spot to floodlight
- Ingress protection according to IPX3
- Clip for the breast pocket
- 10 - 20 hours lamp duration
- Includes 2 x AA 1,5 V batteries
- Ultra easy and impact proof aluminium housing



Item	L mm	D mm	
550.1205	138.0	15.0	50

## Work lamps

### Basic workshop inspection hand lamp 8 watt

- Standard quality
- Plastic protection pipe
- Shock proof
- Plastic hand grip casing
- Revolving hooks for suspending
- Lamp extension tube not interchangeable
- Includes lamp



#### Technical data:

Luminosity:	8 W
Lamp length:	400 mm
Connection cable length:	4 m
Operational voltage:	230 V
Protection class:	-
Weatherproof protection:	-

Item	L mm		
150.4205	400.0	390	

### Pro workshop inspection hand lamp 11 watt

- Industrial quality
- Protection pipe out of polycarbonate
- Impact resistant impact strength IK09
- High quality rubber hand grip casing
- Revolving hooks for suspending with shaped plug according to CEE 7/17
- Ingress protection according to IP54
- Integrated connector
- Lamp extension tube interchangeable
- Includes lamp



#### Technical data:

Luminosity:	11 W
Lamp length:	395 mm
Connection cable length:	5 m
Operational voltage:	230 V
Protection class:	II
Weatherproof protection:	IP54

Item	L mm	Spare bulb	
150.4210	395.0	150.4211	720

### Pro workshop inspection hand lamp 8 watt

- Industrial quality
- Protection pipe out of polycarbonate
- Impact resistant impact strength IK09
- High quality rubber hand grip casing
- Revolving hooks for suspending
- With contour connector according to CEE 7/17
- Ingress protection according to IP54
- Integrated connector
- Lamp extension tube interchangeable
- Includes lamp



#### Technical data:

Luminosity:	8 W
Lamp length:	490 mm
Connection cable length:	5 m
Operational voltage:	230 V
Protection class:	II
Weatherproof protection:	IP54

Item	L mm	Spare bulb	
150.4208	490.0	150.4209	720

### Pro duo workshop inspection hand lamp with twin usage 11 watt

- Industrial quality
- Ideally usable as a focusable flashlight or work lamp
- Protection pipe out of polycarbonate
- Impact resistant impact strength IK09
- High quality rubber hand grip casing
- Revolving hooks for suspending
- Contour connector according to CEE 7/17
- Ingress protection according to IP54
- Integrated connector
- Lamp extension tube interchangeable
- Includes lamp



#### Technical data:

Luminosity:	11 W
Lamp length:	395 mm
Connection cable length:	5 m
Operational voltage:	230 V
Protection class:	II
Weatherproof protection:	IP54

Item	L mm	Spare bulb	
150.4215	395.0	150.4216	740



**Pro XXL workshop inspection hand lamp 18 watt**

- Industrial quality
- Protection pipe out of polycarbonate
- Impact resistant impact strength IK09
- High quality rubber hand grip casing
- Revolving hooks for suspending
- Contour connector according to CEE 7/17
- Ingress protection according to IP54
- 5 m connection cable
- Integrated connector
- Lamp extension tube interchangeable
- Includes lamp


**Technical data:**

Luminosity:	18 W
Lamp length:	765 mm
Connection cable length:	5 m
Operational voltage:	230 V
Protection class:	II
Weatherproof protection:	IP54

Item	L mm	Spare bulb	kg
150.4225	765.0	150.4226	860

**Cable reel with pro workshop inspection hand lamp 11 watt**

- Industrial quality
- Practical and space saving
- Controlled cable extending in different rest steps possible assembly levels
- Automatic return mechanism with endstopper
- Housing 180° freely revolving
- Protection pipe out of polycarbonate
- Impact resistant impact strength IK09
- High quality rubber hand grip casing
- Revolving hooks for suspending
- Contour connector according to CEE 7/17
- Ingress protection according to IP54
- Integrated connector
- Lamp extension tube interchangeable
- Includes lamp
- Metal wall reinforcement rail
- Blow mould plastic housing


**Technical data:**

Luminosity:	11 W
Lamp length:	490 mm
Connection cable length:	1,5 m
Work cable length m:	15 m
Operational voltage:	230 V
Protection class:	II
Weatherproof protection:	IP54

Item	L mm	Spare bulb	kg
150.4230	490.0	150.4211	7.00

**Pro XXL under bonnet lamp with expanding bracket 36 watt**

- Industrial quality
- Ideally for undisturbed working in the engine compartment
- Automatic adjustment between 110 - 170 cm
- Large, adjustable and rubber coated hooks
- Protection pipe out of polycarbonate
- Impact resistant impact strength IK09
- High quality rubber hand grip casing
- Revolving hooks for suspending
- Contour connector according to CEE 7/17
- Ingress protection according to IP54
- 5 m connection cable
- Integrated connector
- Lamp extension tube interchangeable
- Includes lamp


**Technical data:**

Luminosity:	36 W
Housing length:	1.377 m
Connection cable length:	5 m
Operational voltage:	230 V
Protection class:	II
Weatherproof protection:	IP54

Item	L mm	Spare bulb	kg
150.4250	1377.0	150.4249	1.16

**Cable reel with LEDMAX workshop inspection hand lamp S8**

- Industrial quality
- 60 Power chip LED's
- Practical and space saving
- Controlled cable extending in different rest steps possible assembly levels
- Automatic return mechanism with endstopper
- Housing 180° freely revolving
- Protection pipe out of polycarbonate
- Impact resistant impact strength IK09
- High quality rubber hand grip casing
- Revolving hooks for suspending
- Ingress protection according to IP54
- Includes transformer
- Metal wall reinforcement rail
- Blow mould plastic housing


**Technical data:**

Luminosity:	148 Lux
Lamp length:	765 mm
Connection cable length:	1,5 m
Work cable length m:	15 m
Operational voltage:	230 V
Protection class:	-
Weatherproof protection:	IP54

Item	L mm	Spare bulb	kg
150.4280	765.0		7.00

## Workshop cable reel

- Practical and space saving
- Extra strong, automatic return mechanism
- With endstopper
- 180° freely revolving
- Cable working length 15 m
- Connection cable 1,5 m
- Metal wall reinforcement rail 270 mm



### Technical data:

Work cable length m:	15 m
Connection cable length:	1,5 m
Voltage:	230 V
Operational voltage:	12 V

Item		kg
150.4220	Workshop cable reel	7.00

## LEDMAX 110/220 V rechargeable battery work lamp S9

- Ideal for network independent working
- 30 Power chip LED's
- Housing body covered with high quality rubber
- Ingress protection according to IP54
- Durable blow mould
- Revolving hooks for suspending
- With control LED to discharge
- Includes automatic turn off charging station
- 5-6 hours charging time
- 5-6 hours lamp duration
- Polycarbonate housing



### Technical data:

Battery:	3,7 V / 4400 mAh
Rechargeable battery:	Li-polymer
Capacity:	2,8 Watt
Charging voltage:	AC 100-240 V ~ 50 / 60 Hz
Working temperature:	-5° / +45°

Item	L mm	g
150.4240	340.0	900

## LED HAND LAMPS

### LEDMAX rechargeable battery twin work lamp S11

- Ideal for network independent working
- 28 Power chip LED operating lamp
- 4 Power chip LED pocket lamp
- Housing body covered with high quality rubber
- Ingress protection according to IP54
- Hook for suspending
- In 3 rest steps at 30° around 90° revolving
- Includes automatic turn off charging station
- 1 Hour charging time
- 5 Hours lamp duration operating lamp
- 35 Hours lamp duration flashlight
- Polycarbonate housing



### Technical data:

Battery:	10,8 V / 1,5 Ah
Rechargeable battery:	Lithium-Ionen
Capacity:	200 Lux / 50 Lux
Charging voltage:	AC 100 - 240 V ~ 50 / 60 Hz
Working temperature:	-5° / +45°

Item	L mm	g
150.4200	60.0	440

### LEDMAX 12/24 V + 110/220 V rechargeable battery work lamp S10

- 30 Power chip LED's
- Industrial quality
- Also for mobile use (12/24 V)
- Ideal for very long network independent working
- Housing body covered with high quality rubber
- Ingress protection according to IP64
- Durable blow mould
- Revolving hooks for suspending
- With control LED to discharge
- Includes automatic turn off charging station
- 5 - 6 hours charging time
- 9 - 10 hours lamp duration
- Polycarbonate housing



### Technical data:

Battery:	3,7 V / 4400 mAh
Rechargeable battery:	Li-polymer
Capacity:	2,8 Watt
Charging voltage:	AC 100-240 V ~ 50 / 60 Hz DC 12-28 V
Working temperature:	-5° / +45°

Item	L mm	g
150.4235	340.0	900

## LEDMAX workshop hand lamp S7

- 30 Power chip LED's
- Industrial quality
- Protection pipe out of polycarbonate
- Impact resistant impact strength IK09
- Rubber hand grip casing
- Revolving hooks for suspending
- Ingress protection according to IP54
- Includes transformer



### Technical data:

Luminosity:	148 Lux
Lamp length:	490 mm
Connection cable length:	8 m
Operational voltage:	230 V
Protection class:	-
Weatherproof protection:	IP54

Item	L mm	kg
150.4270	490.0	2.00

## LEDMAX workshop hand lamp S8

- Industrial quality
- 60 Power chip LED's
- Protection pipe out of polycarbonate
- Impact resistant impact strength IK09
- Rubber hand grip casing
- Revolving hooks for suspending
- Ingress protection according to IP54
- 8 m connection cable
- Includes transformer



### Technical data:

Luminosity:	148 Lux
Lamp length:	765
Connection cable length:	8 m
Operational voltage:	230 V
Protection class:	-
Weatherproof protection:	IP54

Item	L mm	kg
150.4275	765.0	2.00

## WORK LAMPS

### Pro workshop inspection hand lamp 36 watt

- Industrial quality
- 2.900 lumens luminous flux
- Polycarbonate protection glass
- Housing cover also rubber
- Impact resistant impact strength IK10
- Hooks for double sided applications and with contour connector according to CEE 7/17
- Ingress protection according to IP54
- Integrated connector
- Lamp extension tube interchangeable
- Includes lamp
- Blow mould plastic housing



### Technical data:

Luminosity:	36 W
Connection cable length:	5 m
Operational voltage:	230 V
Accessory outlet:	-
Protection class:	II
Weatherproof protection:	IP54

Item	H mm	B mm	T mm	Spare bulb	kg
150.4255	230.0	340.0	110.0	150.4256	2.36

### Pro workshop inspection hand lamp 72 watt

- Industrial quality
- 5.800 lumens luminous flux
- With 2 x 230 V isolated outlet on the back
- Polycarbonate protection glass
- Housing cover also rubber
- Impact resistant impact strength IK10
- Hooks for double sided applications and pedestal with contour connector according to CEE 7/17
- Ingress protection according to IP44
- Integrated connector
- Lamp extension tube interchangeable
- Includes lamp
- Blow mould plastic housing



### Technical data:

Luminosity:	72 W
Connection cable length:	5 m
Operational voltage:	230 V
Accessory outlet:	2 x 230 V Schuko
Protection class:	II
Weatherproof protection:	IP44

Item	H mm	B mm	T mm	Spare bulb	kg
150.4260	285.0	495.0	110.0	150.4261	5.02



### Pro workshop inspection hand lamp 108 watt

- Industrial quality
- 8.700 lumens luminous flux
- With 1 x 230 V isolated outlet on the back
- Polycarbonate protection glass
- Housing cover also rubber
- Impact resistant impact strength IK10
- Hooks for double sided applications and pedestal with contour connector according to CEE 7/17
- Ingress protection according to IP44
- Integrated connector
- Lamp extension tube interchangeable
- Includes lamp
- Blow mould plastic housing



#### Technical data:

Luminosity:	108 W
Connection cable length:	5 m
Operational voltage:	230 V
Accessory outlet:	1 x 230 V Schuko
Protection class:	II
Weatherproof protection:	IP44

Item	H mm	B mm	T mm	Spare bulb	kg
150.4265	290.0	500.0	110.0	150.4261	5.82

### Pro LED inspection hand lamp 10 watt

- Industrial quality
- 168 Power chip LED's
- With 1 x 230 V isolated outlet on the back
- Polycarbonate protection glass
- Housing cover also rubber
- Impact resistant impact strength IK10
- Hooks for double sided applications and pedestal with contour connector according to CEE 7/17
- Ingress protection according to IP54
- 5 m connection cable
- Blow mould plastic housing



#### Technical data:

Luminosity:	10 W
Connection cable length:	5 m
Operational voltage:	230 V
Accessory outlet:	1 x 230 V Schuko
Protection class:	II
Weatherproof protection:	IP54

Item	H mm	B mm	T mm	kg
150.4266	355.0	225.0	140.0	2.05

## ACCESSORIES

### Magnet holder for workshop lamps

- Universal mounting clip for workshop lamps
- Extra large pivoting range
- Magnet completely rubberised
- Stop peg out of spring steel



Item	D1 mm	D2 mm	kg
150.4219	43.0	31.0	120

### Scaffolding clamp for work lamps

- Universal scaffolding clamp for cold light work lamps
- For all current scaffoldings and pipes up to 50 mm
- Heavy and robust execution
- Zinc coated steel tube



Item	Ø mm	kg
150.4269	50,0	1.06

### Extending tripod for work lamps

- Universal tripod for work lamps
- Expandable through optional extensions
- Optimal illuminating guaranteed
- Secure stand
- Extremely compact transportation size
- On fold away tripod foot part
- Fully adjustable through 2 wing screws
- Work height 1.0 to 2.7 m
- With cable holder device
- Galvanised steel pipe



Item	H mm	Castor wheel set	kg
150.4267	1000 - 2700	150.4268	5.92

### Castor wheel sets for 150.4267

- 3 castor wheels with special rubber tyre
- Includes reinforcement screw
- With backing plate on every castor



Item	kg
150.4268 3 pcs Castor wheel sets for 150.4267	1.00



## RECHARGEABLE BOOSTER PACK

### 12 V Battery booster mobile emergency starter 510 A

- Ideal for petrol vehicles < 2 ltr.
- Fully isolated pole clamps
- Isolation key and circuit breaker
- Connection for external 12 volts devices with cigarette lighter connector
- Includes charger with integrated safety switching off
- Storage device for starting cable
- LED Battery capacity indicator
- Acoustic warning tone if the polarity is reversed
- Protection against peak voltage
- 1 m cable length
- Robust 25 mm<sup>2</sup> cable diameter
- On/off main switch
- Impact resistant polyethylene housing



#### Technical data:

Battery:	12 Volt / 20 Ah
Starting current:	510 A
Peak voltage:	1200 A
Cable diameter:	25 mm <sup>2</sup>
Battery charger:	220 / 230 VAC / 14,8 VDC / 2 A

Item	L mm	B mm	H mm	Charger spare	Cable kit, spare	kg
550.1610	315.0	365.0	120.0	550.1601	-	9.50

### 12V Battery booster mobile emergency starter 800A

- Ideal for passenger car < 2 ltr. + Commercial vehicles < 7,5 t
- Fully isolated pole clamps
- Isolation key and circuit breaker
- Connection for external 12 volts devices with cigarette lighter connector
- Includes charger with integrated safety switching off
- LED Battery capacity indicator
- Acoustic warning tone if the polarity is reversed
- Protection against peak voltage
- 1,5 m cable length
- Robust 35 mm<sup>2</sup> cable diameter
- On/off main switch
- Supplied with battery charger and cable set



#### Technical data:

Battery:	12 Volt / 2 x 20 Ah
Starting current:	800 A
Peak voltage:	2400 A
Cable diameter:	35 mm <sup>2</sup>
Battery charger:	110 / 240 AC / 14,8 VDC / 4 A

Item	L mm	B mm	H mm	Charger spare	Cable kit, spare	kg
550.1630	410.0	320.0	200.0	550.1602	-	18.00

### 12 V Battery booster mobile emergency starter 700 A

- Ideal for petrol and diesel vehicles < 2 ltr.
- Fully isolated pole clamps
- Isolation key and circuit breaker
- Connection for external 12 volts devices with cigarette lighter connector
- Includes charger with integrated safety switching off
- Storage device for starting cable
- LED Battery capacity indicator
- Acoustic warning tone if the polarity is reversed
- Protection against peak voltage
- 1 m cable length
- Robust 25 mm<sup>2</sup> cable diameter
- On/off main switch
- Impact resistant polyethylene housing



#### Technical data:

Battery:	12 Volt / 22 Ah
Starting current:	700 A
Peak voltage:	1600 A
Cable diameter:	25 mm <sup>2</sup>
Battery charger:	220 / 230 AC / 14,8 VDC / 2 A

Item	L mm	B mm	H mm	Charger spare	Cable kit, spare	kg
550.1620	315.0	365.0	120.0	550.1601	-	9.50

### 12 V + 24 V Battery booster mobile emergency starter 700A

- Ideal for commercial vehicles < 7,5 t
- Fully isolated pole clamps
- Isolation key and circuit breaker
- Connection for external 12 volts devices with cigarette lighter connector
- Includes charger with integrated safety switching off
- LED Battery capacity indicator
- Acoustic warning tone if the polarity is reversed
- Protection against peak voltage
- 1,5 m cable length
- Robust 35 mm<sup>2</sup> cable diameter
- On/off main switch
- Supplied with battery charger and cable set
- Impact resistant polyethylene housing



#### Technical data:

Battery:	12 + 24 Volt / 2 x 22 Ah
Starting current:	700 A
Peak voltage:	3500 / 1600 A
Cable diameter:	35 mm <sup>2</sup>
Battery charger:	110 / 240 AC / 14,8 VDC / 4 A

Item	L mm	B mm	H mm	Charger spare	Cable kit, spare	kg
550.1640	410.0	320.0	200.0	550.1602	-	18.00

## 12 V + 24 V Battery booster mobile emergency starter 1000 A

- Ideal for commercial vehicles < 12 t
- Fully isolated pole clamps
- Isolation key and circuit breaker
- Connection for external 12 volts devices with cigarette lighter connector
- Includes charger with integrated safety switching off
- LED Battery capacity indicator
- Acoustic warning tone if the polarity is reversed
- Protection against peak voltage
- 1,5 m cable length
- Robust 50 mm<sup>2</sup> cable diameter
- On/off main switch
- Supplied with battery charger and cable set in the carton
- Impact resistant polyethylene housing



### Technical data:

Battery:	12 + 12 / 24 Volt / 2 x 26 Ah
Starting current:	1100 / 1100 A
Peak voltage:	3500 / 3500 A
Safety fuse:	500 A
Cable diameter:	50 mm <sup>2</sup>
Battery charger:	110 / 240 AC / 14,8 VDC / 8 A / 3 stages

Item	L mm	B mm	H mm	Charger spare	Cable kit, spare	kg
550.1650	513.0	360.0	190.0	550.1603	550.1604	26.00

## 24 V Battery booster mobile emergency starter 1100 A

- Ideal for commercial vehicles > 12 t
- Fully isolated pole clamps
- Fully isolated battery clamps
- Isolation key and circuit breaker
- Connection for external 12 volts devices with cigarette lighter connector
- Includes charger with integrated safety switching off
- LED Battery capacity indicator
- Acoustic warning tone if the polarity is reversed
- Protection against peak voltage
- 1,5 m cable length
- Robust 50 mm<sup>2</sup> cable diameter
- On/off main switch
- Supplied with battery charger and cable set in the carton
- Impact resistant polyethylene housing



### Technical data:

Battery:	24 Volt / 2 x 26 Ah
Starting current:	1100 A
Peak voltage:	3500 A
Safety fuse:	500 A
Cable diameter:	50 mm <sup>2</sup>
Battery charger:	110 / 240 AC / 14,8 VDC / 8 A / 3 stages

Item	L mm	B mm	H mm	Charger spare	Cable kit, spare	kg
550.1660	513.0	360.0	190.0	550.1603	550.1604	26.00

## ACCESSORIES FOR RECHARGEABLE BOOSTER PACKS

### Trolley for battery booster

- For mobile use in the workshop area
- Extra large wheels
- Easy passage over obstacles, for example. cable, hoses
- Practical storage device for battery clamps
- suitable for Booster 550.1650 und 550.1660



Item		kg
550.1665	Trolley for Battery booster	9.80

### Battery charger for battery booster

- Designed for continuous usage
- Integrated automatic safety switching off
- Impact resistant polyethylene housing



Item	Suitable for	Input current	Output current	kg
550.1601	550.1610 + 550.1620	230 - 240 V	12 V / 2 A	1.50
550.1602	550.1630 + 550.1640	100 - 240 V	12 V / 4 A	1.10
550.1603	550.1650 + 550.1660	100 - 240 V	12 V / 8 A	1.20

### Starter cable set for battery booster

- Robust 50 mm<sup>2</sup> cable diameter
- 1,5 m cable length
- With connector and cable clamps



Item	Suitable for	kg
550.1604	550.1650 + 550.1660	2.50

## BENCH VICE

### Bench vice

- Swivel base
- Interchangeable jaws
- Includes pipe vice attachment
- Absolutely parallel with adjustable centric drive
- Extra high possible clamping jaws shaped by large embossed casting
- Large anvil for straightening and compression work
- Induction hardened jaws and anvil
- Vise forward opening
- Ground jaws, anvil plate and slide corners
- Special steel



Item	Clamping range	Clamping range mm	Jaw length mm	Weight kg
914.0003	3"	75,0	100.0	7.50
914.0004	4"	100,0	120.0	8.70
914.0005	5"	125,0	140.0	11.00
914.0006	6"	150,0	170.0	14.50
914.0008	8"	200,0	200.0	20.50



### Aluminium bench vice protective jaws with textured surface

- Suitable for all bench vices
- The profile is right angled and level parallel
- Integrated special magnet hold the protective jaws safely on the vice
- For material protection and non slip grip on sensitive materials
- For coarse to medium fine work pieces
- Fine textured
- Aluminium



Item	Protective jaws mm	Weight kg
914.0080	100.0	170
914.0081	120.0	210
914.0082	140.0	240
914.0083	160.0	270
914.0084	175.0	290

### Aluminium bench vice protective jaws with trapezoid notches

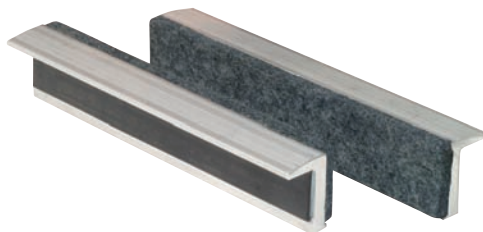
- Suitable for all bench vices
- The profile is right angled and level parallel
- Integrated special magnet hold the protective jaws safely on the vice
- For material protection and non slip grip on sensitive materials
- For different shaped materials
- For trapezoid use
- Aluminium



Item	Protective jaws mm	Weight kg
914.0085	100.0	140
914.0086	120.0	190
914.0087	140.0	210
914.0088	160.0	240
914.0089	175.0	260

### Aluminium bench vice protective jaws with felt insert

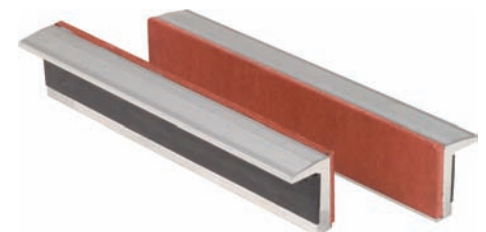
- Suitable for all bench vices
- The profile is right angled and level parallel
- Integrated special magnet hold the protective jaws safely on the vice
- For material protection and non slip grip on sensitive materials
- For work pieces with fine milled, beveled or polished surfaces
- Smooth
- Aluminium / felt



Item	Protective jaws mm	Weight kg
914.0095	100.0	150
914.0096	120.0	190
914.0097	140.0	210
914.0098	160.0	240
914.0099	175.0	260

### Aluminium bench vice protective jaws with rubber insert

- Suitable for all bench vices
- The profile is right angled and level parallel
- Integrated special magnet hold the protective jaws safely on the vice
- For material protection and non slip grip on sensitive materials
- For thin walled wood and plastic parts
- Smooth
- Aluminium / rubber



Item	Protective jaws mm	Weight kg
914.0090	100.0	160
914.0091	120.0	200
914.0092	140.0	240
914.0093	140.0	260
914.0094	175.0	290

## SERVICE TROLLEYS

### Workshop service trolley

- Made from robust sheet steel construction
- Non slip foam insert on the upper working surface
- Lower shelf with high retaining border
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability


**Technical data:**

Total load capacity: 200 kg

Item	L mm	B mm	H mm	kg
890.0002	697.0	489.0	836.0	19.10

### Workshop service trolley

- Extremely substantial plastic construction
- Without screws easily constructed
- Distance between the ground 30 cm
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability
- Light profile weight
- Columns made out of anodised aluminum


**Technical data:**

Total load capacity: 200 kg

Item	L mm	B mm	H mm	kg
800.0020	860.0	480.0	1010.0	12.10

### Workshop service trolley with lining

- Extremely substantial plastic construction
- Equipment lining
- Without screws easily constructed
- Distance between the ground 30 cm
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability
- Light profile weight
- Columns made out of anodised aluminum


**Technical data:**

Total load capacity: 200 kg

Item	L mm	B mm	H mm	kg
800.0021	860.0	480.0	1010.0	12.10

### Workshop service trolley with 2 drawers

- Extremely substantial plastic construction
- Without screws easily constructed
- Two ball bearing drawer runner guides
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability
- Light profile weight
- Columns made out of anodised aluminum


**Technical data:**

Drawer dimensions: H 85 x B 430 x T 520 mm  
Total load capacity: 200 kg  
Load capacity of each drawer: 35 kg

Item	L mm	B mm	H mm	kg
800.0030	860.0	480.0	1010.0	14.20

### Workshop service trolley with 2 drawers and lining

- Extremely substantial plastic construction
- Without screws easily constructed
- Two ball bearing drawer runner guides
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability
- Light profile weight
- Columns made out of anodised aluminum


**Technical data:**

Drawer dimensions: H 85 x B 430 x T 520 mm  
Total load capacity: 200 kg  
Load capacity of each drawer: 35 kg

Item	L mm	B mm	H mm	kg
800.0031	860.0	480.0	1010.0	15.00

## PLATFORM TROLLEY

### Platform trolley for stores and workshops

- Solid construction of steel sheet
- Firmly fixed grasping handle made from steel tube
- Grasping handle is hinged and locked with safety security catches without any tools
- In minimal time
- Rubber surrounding edges protect the trolley and surroundings from damage
- For ball bearing rubber wheels
- Load area has a plastic covering


**Technical data:**

Rubber impeller 100.0 mm  
Max. load: 150 kg

Item	L mm	B mm	H mm	kg
800.0015	740.0	480.0	810.0	9.20



## Universal telescopic multi purpose trolley

- Ideally for the car body restoration, panel spraying area or for windshields
- Universal application the all rounder both height and width adjustable
- After use space saving folding away
- Rubber underside to prevent damage to the paintwork and other panels
- 4 substantial wheels, 2 with locking brakes
- Simple handling
- Capacity up to 100 kg
- Robust construction made from square tube



Item	B mm	H mm	kg
500.8100	257,0 - 1380,0	845,0 - 1320,0	23.50

## PLATFORM

### Aluminium work platform

- Skid proof profile on the platform stage
- Chequer plate profile on the steps
- Double sided usage
- Large platform for safe standing
- Safety clips for added security
- Beams and step made from aluminium
- Easy to store as the unit is fully collapsible
- The gripped plastic feet protect the surface and add stability
- Substantial aluminium construction



#### Technical data:

Platform dimensions:	1000 x 300 mm
Standing height:	470.0 mm
Max. load:	150 kg

Item	L mm	B mm	H mm	kg
800.0960	1345.0	405.0	480.0	7.40

### Safety assembly step

- No tipping over through obliquely placed standing feet
- Anti slip, hot dip galvanised, with the frame riveted lattice rustproof
- Step to DIN 50976
- Massive and distortion stiff steel tube construction
- Base frame plastic coated
- The gripped plastic feet protect the surface and add stability
- Applicable e.g panel assembly, engine compartment works, roof works truck pit working
- Universal suitable in very high vehicles e.g.: Motor homes, small vehicles, truck and buses, terrain vehicles



#### Technical data:

Height 2nd step:	450.0 mm
Surface area:	690 x 620 mm
Steel grating:	590 x 290 mm
Max. load:	300 kg

Item	kg
450.0960	Safety assembly step 14.00

## Windscreen table with rubber protective pads

- Fully adjustably
- The four large rubber pads hold the windscreen safely in position
- For nearly all windscreen sizes
- Capacity up to 60 kg
- Made from blue laquered steel tube



Item	L mm	H mm	Ø mm	kg
140.2225	1160.0	1070,0	140	10.35

## Windscreen holder

- Fully adjustably
- For nearly all windscreen sizes
- Robust construction
- Capacity up to 80 kg
- Slip proof holding bar offer optimal hold
- Made from red powder coating steel tube



Item	L mm	H mm	kg
140.2226	790.0	1060,0	7.70

## HAND LIFT TRUCK

### Pallet truck 2.5 t, short forks

- Carefully processed pallet truck
- Pallet truck capacity 2.5 t
- Full hydraulic stroke device and depression device with three functions (lifting, depressions, neutral position)
- Hydraulics system with safety valve in the case of overload
- Hydraulics with hardened, ground and hard chromium plated piston
- Direct impact of 210°
- Specially suited for one way pallets
- Chassis and fork made from very resistant steel sheet
- Forks are distortion free pressed out of one piece
- Low rolling noise due to ball bearing full rubber direct rollers
- The load distributed on the tandem fork rollers out of polyurethane so there is little resistance on uneven ground becomes diminished
- Bringing in additional roller in the fork tip relieves entering and pulling out the pallet
- Steel



#### Technical data:

Overall width:	550.0 mm
Fork width:	160.0 mm
Fork length:	800.0 mm
Max. pallet length:	1200.0 mm
Effective height:	60.0 mm
Ø Castor wheel:	200 x 50 mm
Ø Fork rollers:	80 x 68 mm

Item	L mm	B mm	H mm	Min total height mm	Max total height mm	kg
160.0206	800.0	160.0	550.0	85.0	195.0	67.20

## Pallet truck 2.5 t

- Carefully processed pallet truck
- Pallet truck capacity 2.5 t
- Full hydraulic stroke device and depression device with three functions (lifting, depressions, neutral position)
- Hydraulics system with safety valve in the case of overload
- Hydraulics with hardened, ground and hard chromium plated piston
- Direct impact of 210°
- Chassis and fork made from very resistant steel sheet
- Forks are distortion free pressed out of one piece
- Low rolling noise due to ball bearing full rubber direct rollers
- The load distributed on the tandem fork rollers out of polyurethane so there is little resistance on uneven ground becomes diminished
- Bringing in additional roller in the fork tip relieves entering and pulling out the pallet
- Steel



### Technical data:

Overall width:	550.0 mm
Fork width:	160.0 mm
Fork length:	1150.0 mm
Max. pallet length:	1550.0 mm
Effective height:	60.0 mm
Ø Castor wheel:	200 x 50 mm
Ø Fork rollers:	80 x 68 mm

Item	L mm	B mm	H mm	Min total height mm	Max total height mm	kg
160.0200	1150.0	160.0	550.0	85.0	200.0	76.00

## Stainless steel pallet truck 2 t

- Carefully processed pallet truck
- For use in wet and aggressive environments
- Pallet truck capacity 2.5 t
- Full hydraulic stroke device and depression device with three functions (lifting, depressions, neutral position)
- Hydraulics system with safety valve in the case of overload
- Hydraulics made from rust free material with hardened, ground and hard chromium plated piston
- Direct impact of 210°
- Chassis and fork made from very resistant steel sheet
- Forks are distortion free pressed out of one piece
- Low rolling noise due to ball bearing full nylon direct rollers
- The load distributed on the tandem fork rollers out of nylon so there is little resistance on uneven ground becomes diminished
- Bringing in additional roller in the fork tip relieves entering and pulling out the pallet
- Stainless steel



### Technical data:

Overall width:	550.0 mm
Fork width:	160.0 mm
Fork length:	1150.0 mm
Max. pallet length:	1550.0 mm
Effective height:	60.0 mm
Ø Castor wheel:	200 x 50 mm
Ø Fork rollers:	80 x 68 mm

Item	L mm	B mm	H mm	Min total height mm	Max total height mm	kg
160.0201	1150.0	160.0	550.0	85.0	200.0	74.00

## Pallet truck 2.5 t, zinc plated

- Carefully processed pallet truck
- For use in wet environments
- Pallet truck capacity 2.5 t
- Full hydraulic stroke device and depression device with three functions (lifting, depressions, neutral position)
- Hydraulics system with safety valve in the case of overload
- Hydraulics made from rust free material with hardened, ground and hard chromium plated piston
- Direct impact of 210°
- Chassis and fork made from very resistant steel sheet
- Forks are distortion free pressed out of one piece
- Low rolling noise due to ball bearing full nylon direct rollers
- The load distributed on the tandem fork rollers out of nylon so there is little resistance on uneven ground becomes diminished
- Bringing in additional roller in the fork tip relieves entering and pulling out the pallet
- Nickel plated surface



### Technical data:

Overall width:	550.0 mm
Fork width:	160.0 mm
Fork length:	1150.0 mm
Max. pallet length:	1550.0 mm
Effective height:	60.0 mm
Ø Castor wheel:	200 x 50 mm
Ø Fork rollers:	80 x 68 mm

Item	L mm	B mm	H mm	Min total height mm	Max total height mm	kg
160.0207	1150.0	160.0	550.0	85.0	200.0	73.20

## TRANSPORT TROLLEY

### Telescopic sack trolley with pneumatic wheels

- Steel tubular structure with deep welded joints
- Light and agile transportation for use in smallest space
- Effortless receiving and transporting of packages, carton and all other objects
- From round tubes welded together manufactured and solid
- Fold away shovel base
- High quality telescopic pole
- Equipped with 2 fixed wheels with pneumatic tyres
- Safety handles and slip protection
- Perfectly suitable in industry and business



### Technical data:

Tyre size:	Ø 260 x 80 mm
Shovel/base dimensions:	B 300 x T 350 mm
Min. dimensions:	810.0 mm
Max. dimensions:	1140.0 mm

Item	Max load kg	L mm	B mm	H mm	kg
160.0224	200.0 kg	630.0	480.0	1140.0	10.00

### Transport sack trolley with pneumatic wheels

- Steel tubular structure with deep welded joints
- Light and agile transportation for use in smallest space
- Effortless receiving and transporting of packages, carton and all other objects
- From round tubes welded together manufactured and solid
- Very wide shovel base
- Equipped with 2 fixed wheels with pneumatic tyres
- Safety handles and slip protection
- Perfectly suitable in industry and business



#### Technical data:

Tyre size: 260 x 85 mm  
Shovel/base dimensions: B 170 x T 420 mm

Item	Max load kg	L mm	B mm	H mm	kg
160.0225	300.0 kg	620.0	420.0	1100.0	10.00

### Transport sack trolley with pneumatic wheels

- Steel tubular structure with deep welded joints
- Light and agile transportation for use in smallest space
- Effortless receiving and transporting of packages, carton and all other objects
- From round tubes welded together manufactured and solid
- Fold away shovel base
- Equipped with 2 fixed wheels with pneumatic tyres
- Safety handles and slip protection
- Perfectly suitable in industry and business



#### Technical data:

Tyre size: Ø 260 x 85 mm  
Shovel/base dimensions: B 340 x T 520 mm

Item	Max load kg	L mm	B mm	H mm	kg
160.0226	250.0 kg	620.0	400.0	1100.0	10.00

### Transport sack trolley with full rubber tyres

- Steel tubular structure with deep welded joints
- Light and agile transportation for use in smallest space
- Effortless receiving and transporting of packages, carton and all other objects
- From round tubes welded together manufactured and solid
- Equipped with 2 fixed full rubber wheels
- Safety handles and slip protection
- Perfectly suitable in industry and business



#### Technical data:

Tyre size: Ø 255 x 46 mm  
Shovel/base dimensions: B 170 x T 400 mm

Item	Max load kg	L mm	B mm	H mm	kg
160.0228	250.0 kg	530.0	400.0	1100.0	17.00

### Transport trolley with full rubber tyres

- Steel tubular structure with deep welded joints
- Light and agile transportation for use in smallest space
- Effortless receiving and transporting of packages, carton and all other objects
- From round tubes welded together manufactured and solid
- Fold away shovel base
- Equipped with 2 fixed full rubber wheels
- Safety handles and slip protection
- Perfectly suitable in industry and business



#### Technical data:

Tyre size: Ø 255 x 46 mm  
Shovel/base dimensions: B 340 x T 520 mm

Item	Max load kg	L mm	B mm	H mm	kg
160.0229	250.0 kg	620.0	400.0	1100.0	19.00

## Sack trolley with full rubber three staged wheels

- Steel tubular structure with deep welded joints
- Light and agile transportation for use in smallest space
- Effortless receiving and transporting of packages, cartons and all other objects
- From round tubes welded together manufactured and solid
- Fold away shovel base
- Problem free overcoming of stairs
- Full rubber three staged wheels
- Perfectly suitable in industry and business



### Technical data:

Tyre size: Ø 160 x 30 mm  
Shovel/base dimensions: B 340 x T 520 mm

Item	Max load kg	L mm	B mm	H mm	kg
160.0227	250.0 kg	850.0	715.0	1610.0	15.00

## Profesional wheel trolley

- Steel tubular structure with deep welded joints
- Light and agile transportation for use in smallest space
- For the easy stacking and transporting of tyres and wheels
- From round tubes welded together manufactured and solid
- 2 large pneumatic tyres
- 2 fixed rubber wheels
- Improved standing and prevention of tipping
- Optimal transportation due to traverse brake stop
- Perfectly suitable with the tyre trade or vehicle workshops



### Technical data:

Large size fixed wheels: Ø 260 mm (pneumatic tyres)  
Large size swivel wheels: Ø 125 mm (solid rubber)  
Max. bucket dimensions: Ø 730 mm

Item	Max load kg	L mm	B mm	H mm	kg
160.0055	300.0 kg	850.0	715.0	1610.0	15.00

## DOCUMENT POCKETS

### Workshop order pocket DIN A4 with key pocket

- Made out of transparent film with protection entry cover
- High quality meaning the document stay clean and are in closed storage with all working papers
- Key has a special compartment with hook and loop fastener
- The front made out of clear plastic means the working papers are readable without removal
- The reinforced back can be used simultaneously as a letter document
- Stable execution with hanging cord serves also as a letter document



Item	Colour code	L mm	B mm	kg
500.8095	Blue	34.0	24.0	190
500.8096	Black	34.0	24.0	190
500.8097	Red	34.0	24.0	190
500.8098	Green	34.0	24.0	190
500.8099	Grey	34.0	24.0	190

## VEHICLE PROTECTION

### Steering wheel protective cover

- For covering the steering wheel
- Suitably for almost all steering wheel sizes
- Prevents dirt on the steering wheel
- Made out of machine washable nylon material



Item	kg
500.8075	Steering wheel protective cover 20

### Gear stick protective cover

- For covering the gear stick
- Suitably for almost all vehicles
- Prevents dirt on the gear stick
- Made out of machine washable nylon material




Item	kg
500.8070	Gear stick protective cover 10



### Hand brake protection cover

- For covering the hand brake
- Suitably for almost all hand brakes
- Prevents dirt on the hand brake
- Made out of machine washable nylon material




Item		
500.8080	Hand brake protection cover	10

### Seat protection cover for single seats

- One piece seat cover
- Made out of machine washable nylon material to cover a front seat
- For covering the driver and/or passengers seat
- Suitably for almost all vehicles
- Prevents dirt on the original seat
- Allowed for vehicles with seat airbags
- Therefore also ideal for road tests




Item		
500.8065	Seat protection cover for single seats	1.10

### Double protection cover for front or rear seats

- One piece seat cover
- For covering the front seats, the middle console, the door covers and the foot area
- No glass splinters or dirt on the seats, therefore also ideal for glass repairs
- Suitably for almost all vehicles
- Prevents dirt on the original seat
- Made out of machine washable nylon material




Item		
500.8085	Double protection cover for front or rear seats	660

### Universal vehicle front end protection cover

- Covers both wings, grill, bumper and lamps therefore protecting during the repair and/or maintenance works
- Universal size therefore suitable for small and medium size vehicles
- Elasticated in the border band
- Wheel cut out for working on the wheels, brakes etc.
- Generous transparent cover for headlamps that enables vehicle lamps testing
- The cut away over the grill permits a trial run whilst the cover is still mounted
- Fleece lamination on one side and easy to clean on the other
- The wing area is reinforced with additional internal protection mat
- Reinforcement over mirror and/or bonnet hinge possible




Item		
500.8035	Universal vehicle front end protection cover	1.00

### Bodywork protector with anti slip matting

- Outer side made from high quality nylon
- Under side made from a special anti slip matting
- Grips on car body sheet metals
- Ideally for the use as the wing protection
- Also as protection against tools for example windscreen replacement



Item	L mm	B mm	
500.8055	90.0	50.0	0.31
500.8060	120.0	50.0	2.05

### Bodywork protector with internal magnets

- Outer and under side made from high quality nylon
- Grips on car body sheet metals due to the magnet sewn in
- Ideally for the use as the wing protection
- Also as protection against tools for example windscreen replacement



Item	L mm	B mm	
500.8050	1070.0	600.0	900

## Mechanics protection mat

- Helps the mechanic to work easier and safer whilst working in the lower area of vehicles on uneven surfaces
- Moisture and dirt resistant
- Work garments and knees stay dry, clean and protected
- 3 layered padded construction from soft material
- Integrated hand grip
- Petrol and oil resistant
- Universal use in workshops, service and breakdown service vehicles



Item	L mm	B mm	H mm	kg
500.8040	480.0	320.0	36.0	200
500.8045	1150.0	550.0	36.0	760

## CREEPER / STOOLS

### Workshop creeper

- Padded head support
- Shaped arm areas for optimal movement freedom
- Includes safe tool recesses
- Six low sound, oil and acid resistant solid rubber direct wheels
- Easy to clean
- Ideal for comfortable working under the vehicle
- Maximum capacity up to 120 kg
- Solid construction made from plastic



Item	L mm	B mm	H mm	kg
500.8090	1030.0	480.0	115.0	5.00

### Workshop creeper and folding seat

- For the use of lying and sitting
- Interlocking mechanism against accidental loosening
- Padded execution for fatigue free working
- Tool storage tray in the foot well
- Washable cushion
- Shallow depth for comfortable working under the vehicle
- Adjustable head rest
- Seven low sound, oil and acid resistant solid rubber direct wheels
- Black powder coated metal frame



Item	L mm	B mm	H mm	kg
500.8000	1200.0	460.0	145.0	12.40

## Mobile workshop stool

- Robust and mobile stool
- Storage area for the protection of tools and small parts
- Washable cushion
- Four ball bearing solid rubber wheels
- Maximum capacity up to 120 kg
- Construction from robust steel square tube



Item	L mm	B mm	H mm	kg
500.8020	440.0	360.0	360.0	4.00

## Mobile and height adjustable workshop stool

- Robust and mobile stool
- Storage area for the protection of tools and small parts
- Washable cushion
- Hydraulic height adjustment
- Five ball bearing solid rubber wheels
- Maximum capacity up to 120 kg
- Durable metal construction



Item	B mm	H mm	kg
500.8030	370.0	565.0	4.00



## VEHICLE TROLLEYS


### GOJAK 4500 vehicle moving trolley

- Universally suitable on driver and passenger side
- Direct rolls enable the movement of vehicles in the narrowest of areas
- Ideally for the maneuvering of vehicles on firm ground
- To the space saving storing of vehicles in repair workshops
- Ideally for showrooms, car body workshops, mobile business etc.
- Easy adjustment through the foot pedal
- Self greasing ball bearings
- Four ball bearing solid rubber wheels



#### Technical data:

Max. tyre size: 13" - 19"  
Castor: 4 x Ø 100 mm

Item	Max load 1 pcs / kg	Max load 4 pcs / kg	Max tyre width mm	
160.0398	506,0	2025,0	500,0	19.50

### Wheel roller set

- Direct rolls enable the movement in the narrowest of areas
- Ideally for the maneuvering of vehicles on firm ground
- For the space saving storing of vehicles in repair workshops
- Four ball bearing solid rubber wheels



#### Technical data:

Max. tyre size: 13" - 16"  
Castor: 4 x Ø 90 mm

Item	Max load 1 pcs / kg	Max load 4 pcs / kg	Max tyre width mm	
160.0375	450,0	1800,0	360,0	10.00

## AXLE STANDS

### Aluminium axle stand set

- Especially light and stabile
- High level of stability due to the diameter of the base plate
- Safety locking bolt with chain
- Suits itself especially well in combination with jack for the safe bracing of a load
- Aluminium



Item	Max load t	Stroke way mm	Min total height mm	Max total height mm	
160.0315	3,0	140,0	260,0	400,0	2.20


### GOJAK 5000 vehicle moving trolley

- Universally suitable on driver and passenger side
- Direct rolls enable the movement of vehicles in the narrowest of areas
- Ideally for the maneuvering of vehicles on firm ground
- For the space saving storing of vehicles in repair workshops
- Ideally for showrooms, car body workshops, mobile business etc.
- Self greasing ball bearings
- Four ball bearing solid rubber wheels



#### Technical data:

Max. tyre size: 13" - 16"  
Castor: 4 x Ø 100 mm

Item	Max load 1 pcs / kg	Max load 4 pcs / kg	Max tyre width mm	
160.0385	565,0	2260,0	230,0	19.50


### GOJAK 6200 vehicle moving trolley

- Different models for driver side and passenger side
- Direct rolls enable the movement of vehicles in the narrowest of areas
- Ideally for the maneuvering of vehicles on firm ground
- For the space saving storing of vehicles in repair workshops
- Ideally for showrooms, car body workshops, mobile business etc.
- Self greasing ball bearings
- Four ball bearing solid rubber wheels



#### Technical data:

Castor: 2 x Ø 100 mm  
2 x Ø 125 mm

Item		Max load 1 pcs / kg	Max load 4 pcs / kg	Max tyre width mm	Max tyre width inch	
160.0395	rechts	705,0	2820,0	330,0	13" - 16"	17.50
160.0397	links	705,0	2820,0	330,0	13" - 16"	17.50





## Steel axle stands with quick adjustment

- 4 feet on each stan
- Solid construction
- For heavy vehicles weights
- High level of stability due to the diameter of the base plate
- Lifting bar made from cast steel
- Quick adjustment (in pairs)
- Height asdjustment has 13 stages
- Suits itself especially well in combination with jack for the safe bracing of a load
- Made from solid steel



Item	Max load t	Stroke way mm	Min total height mm	Max total height mm	kg
160.0370	3,0	130.0	295.0	425.0	8.00
160.0371	6,0	205.0	400.0	605.0	15.00
160.0372	12,0	250.0	480.0	730.0	26.00

## LIFTING TOOLS

### Pneumatic lifting jack RAKJAK

- The ideal tool for chassis alignment and measurement
- Simple handling and high speed
- Indispensably for working on tyres, wheels and suspension
- Fastest of its type when attaching clips on the pinch welds



Item	Max capacity t	Max air pressure bar	Min total height mm	Max total height mm	kg
160.0330	2,0	8	46.0	350.0	11.25
160.0331	2,0	8	173.0	457.0	18.45

## JACKS

### Hydraulic bottle jack 2 - 50 t

- Security valve against overload
- Telescopic piston pole
- Additional spindle for extension (not in 30 and 50 t executions)
- Two piece lever arms
- For heavy vehicles weights
- Especially suitable for narrow hard to access areas
- High level of stability
- Ideally suited in combination with jack for the neutralizing and bracing of a load
- Heavy steel construction



Item	Max load t	Min total height mm	Max total height mm	Hydraulic lift mm	Screw extension mm	Dimension of base plate mm	kg
160.0350	2,0	181.0	345.0	116.0	48,0	88 x 92	2.90
160.0351	3,0	194.0	372.0	118.0	60,0	92 x 100	3.80
160.0352	5,0	216.0	413.0	127.0	70,0	96 x 112	5.10
160.0354	10,0	230.0	460.0	150.0	80,0	110 x 127	7.10
160.0356	15,0	230.0	460.0	150.0	80,0	113 x 136	9.30
160.0358	20,0	242.0	452.0	150.0	60,0	144 x 155	11.90
160.0359	30,0	285.0	465.0	180.0	-	190 x 155	21.70
160.0360	50,0	300.0	480.0	180.0	-	218 x 176	30.70

### Hydraulic aluminium trolley jack 2 t

- Especially light aluminum jack
- Shallow depth for comfortable working under the vehicle
- Large base for safe standing
- Controlled releasing through the turning of the pump lever
- Raising with small pump lifts to the maximum height
- Good maneuverability through two oil and acid resistant nylon direct castors
- Intergrated screw tray
- The lower area of the pump lever is coated with foam material
- Lifting plate diameter 120 mm
- Problem free movement due to lightweight and secure handling
- Ideally suited for the use in service vehicles and workshop use
- Extremely heavy aluminum construction



Item	Max capacity t	Stroke way mm	Min total height mm	Max total height mm	Total length mm	Spare lifting plate	kg
160.0365	2,0	385.0	85.0	470.0	630.0	160.0361	20.00



### Hydraulic aluminium trolley jack 3 t

- Especially light aluminum jack
- Shallow depth for comfortable working under the vehicle
- Large base for safe standing
- Controlled releasing through the turning of the pump lever
- Raising with small pump lifts to the maximum height
- Good maneuverability through two oil and acid resistant full steel direct castors
- Intergrated screw tray
- The lower area of the pump lever is coated with foam material
- Lifting plate diameter 120 mm
- Problem free movement due to lightweight and secure handling
- Ideally suited for the use in service vehicles and workshop use
- Extremely heavy aluminium construction



Item	Max capacity t	Stroke way mm	Min total height mm	Max total height mm	Total length mm	Spare lifting plate	kg
160.0305	3,0	360.0	105.0	465.0	680.0	160.0317	33.00

### Hydraulic steel trolley jack

- Very shallow depth for comfortable working under the vehicle
- Large base for safe standing
- Raising with the pump lever and foot lever is possible
- Foot pedal for the bridging of the empty stroke
- Controlled releasing through the turning of the pump lever
- Raising with small pump lifts to the maximum height
- Good maneuverability through two oil and acid resistant nylon direct castors
- Intergrated screw tray
- The lower area of the pump lever is coated with foam material
- Lifting plate diameter 120 mm
- Overload protection through pressure relief valve
- Ideally suited for daily workshop use
- Heavy steel construction



Item	Max capacity t	Stroke way mm	Min total height mm	Max total height mm	Total length mm	Spare lifting plate	kg
160.0367	2,0	420.0	70.0	490.0	700.0	160.0363	43.00
160.0368	3,0	440.0	90.0	530.0	800.0	160.0363	54.00

### Hydraulic steel trolley jack 3 t

- Large base for safe standing
- Controlled releasing through the turning of the pump lever
- Raising with small pump lifts to the maximum height
- Good maneuverability through two oil and acid resistant nylon direct castors
- Intergrated screw tray
- The lower area of the pump lever is coated with foam material
- Lifting plate diameter 120 mm
- Overload protection through pressure relief valve
- Ideally suited for daily workshop use
- Heavy steel construction



Item	Max capacity t	Stroke way mm	Min total height mm	Max total height mm	Total length mm	Spare lifting plate	kg
160.0366	3,0	355.0	145.0	500.0	720.0	160.0362	43.00

### Jack for forklifts, hydraulic 4 - 5 t

- Specially developed for forklifts, agricultural and industrial vehicles
- Combination lifting jack with scissor action
- Scissor capacity of 4 tons and cylinder capacity of 5 tons
- Solid rubber wheels



Item	Max capacity t	Stroke way mm	Min total height mm	Max total height mm	Total length mm	kg
160.0716	5,0	350.0	65.0	415.0	700.0	47.00

### Hydraulic steel trolley jack 3 - 10 t

- Slightly lower load depth for modern automobile car bodies
- Heavy hydraulic jack for vehicles from 3 to 10 t
- Large base for safe standing
- Automatic ventilation of the hydraulic systems
- Overload protection through overload pressure valve
- Raising with the hand and foot lever is possible
- Foot pedal for the bridging of the empty stroke
- The lower area of the pump lever is coated with foam material
- Controlled releasing through the turning of the pump lever
- Lifting plate diameter 140 - 170 mm
- Good maneuverability through oil and acid resistant nylon direct castors
- Ideally suited for daily workshop use
- Durable steel construction



Item	Max capacity t	Stroke way mm	Min total height mm	Max total height mm	Total length mm	Spare lifting plate	kg	
160.0701	3,0	400.0	140.0	540.0	1385.0	160.0364	95.00	
160.0702	5,0	400.0	160.0	560.0	1481.0	160.0364	125.00	
160.0703	10,0	400.0	170.0	570.0	1560.0	160.0364	170.00	

### Pneumatic hydraulic jack 22 - 55 t

- Hydraulic jack for vehicles up to max. 50 t
- Large lifting base for safe standing
- Short and compact design
- Overload protection through overload pressure valve
- Maximum lift is reached using one of the three adaptors included
- Automatic piston withdrawal through two outside lying springs
- Easy running oil and acid resistant solid rubber wheels
- Especially suitable for narrow hard to access areas
- Ideally suited for daily workshop use
- Durable steel construction



Item	Max capacity t	Stroke way mm	Min total height mm	Max total height mm	Total length mm	kg	
160.0730	22,0	240.0	210.0	450.0	560.0	39.00	
160.0731	35,0	275.0	525.0	250.0	595.0	47.00	
160.0732	50,0	310.0	290.0	600.0	625.0	64.00	

### Pneumatic hydraulic trolley jack 22 t

- Hydraulic jack for vehicles up to max. 22 t
- Large lifting base for safe standing
- Short and compact design
- Extremely light weight ideal for the mobile usage
- Overload protection through overload pressure valve
- Maximum lift is reached using one of the two adaptors included
- Very short and transportable design
- Easy running oil and acid resistant solid rubber wheels
- Especially suitable for narrow hard to access areas
- Ideally suited for daily workshop use
- Durable steel construction



Item	Max capacity t	Stroke way mm	Min total height mm	Max total height mm	Max total length mm	kg	
160.0720	22,0	240.0	210.0	450.0	540.0	25.00	

### Hydraulic transmission jack

- Fast stroke without load normal stroke under load
- Foot pedal activity for lifting
- Hand wheel for controlled releasing
- Includes overload valve
- Integrated safety stop handle
- High stability due to wide wheel spacing
- Good maneuverability through four oil and acid resistant nylon direct castors
- Robust metal construction

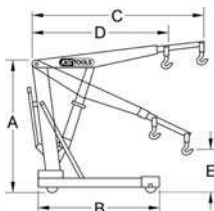


Item	Max load kg	Min height mm	Max height mm	Width mm	kg	
160.0327	300	1160.0	1960.0	610.0	32.00	
160.0328	500	1160.0	1960.0	610.0	34.00	
160.0329	1000	1160.0	1960.0	610.0	48.00	

## WORKSHOP ENGINE CRANE

### Folding workshop crane

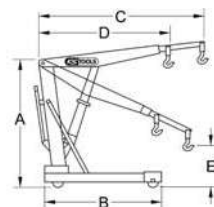
- Hand lever pump for lifting
- Finely controllable reduction valve
- Made out of rectangle pipe, welded frame
- Stable construction
- Safety load hooks
- Telescopic crane jib with 4 sided adjustment of the length
- 2 fixed and 2 controllable castors (due to this there is problem free positioning over the load to be lifted)
- Flat feet enable a simple access under low vehicles
- Good maneuverability due to the ball bearing metal castors
- Adjustable load capacity
- Chassis in slightly splayed form and can be folded away
- Ideal for lifting works in the motor vehicle workshop
- For the removal and replacement of engines
- Raising of motorcycles in special works



Item	Max load kg	A mm	B mm	C mm	D mm	E mm	kg
160.0015	1000	1440.0	1550.0	1330.0	1006.0	95.0	71.00

### Workshop crane with fixed chassi

- Hand lever pump for lifting
- Finely controllable reduction valve
- Made out of rectangle pipe, welded frame
- Stable construction
- Safety load hooks
- Telescopic crane jib with 4 sided adjustment of the length
- 2 fixed and 2 controllable castors (due to this there is problem free positioning over the load to be lifted)
- Flat feet enable a simple access under low vehicles
- Good maneuverability due to the ball bearing nylon castors
- Adjustable load capacity
- Chassis in slightly splayed form and can be folded away
- Ideal for lifting works in the motor vehicle workshop
- For the removal and replacement of engines
- Raising of motorcycles in special works



Item	Max load kg	A mm	B mm	C mm	D mm	E mm	kg
160.0010	500	1620.0	1300.0	1000.0	520.0	2200.0	65.00
160.0011	1000	1750.0	1550.0	1250.0	620.0	2520.0	100.00

### Engine assembly jig

- The 2 spindles are on specially stored also under load are movable and detectable
- Fast adaptation on the desired engine compartment width due to the adjustable support feet
- Conformity to the strong engine compartment inclination through revolving electro galvanized support feet
- Quick safe and problem free positioning of the engine take off and installation of the transmission without additional exclusion from below
- Locking screw
- Electrostatic powder coating



Item	Max load kg	Max width mm	kg
160.0145	400	1610.0	15.20

### Universal engine and transmission support

- The all rounder universal use in the area of automobiles and vans
- Ideal for timing belt change, coupling change or in more external inclined position of the fender
- Omission of more expensive vehicle specific adaptors as in similar systems
- Simple handling
- One man operation fast assembly
- Assembly and access unhindered below possible, through it to the engine compartment
- Cross piece revolving and movably in a straight direction
- Hooks height adjustable, revolving and movably in any direction
- Support plate wobble bar with joint and skid proof lever and height adjustable
- longitudinal adjustment and cross piece definably
- Robust head construction made from square tube



Item	L mm	B mm	H mm	kg
160.0090	1030.0	400.0	300.0	11.00

**COMPRESSORS AND VACUUM CLEANERS  
YOU WILL FIND IN THE CHAPTER „WORKSHOP  
EQUIPMENT“**

item	page	item	page	item	page	item	page	item	page
1		115.1072	462	115.5050	541, 548	122.1303	512	140.2193	452
100.10	611	115.1073	462	115.5052	548	122.1304	512	140.2194	452
100.12	611	115.1074	462	115.5053	548	122.1305	512	140.2201	480
100.4005	503	115.1075	462	115.5054	548	122.1306	512	140.2202	477
100.4010	503	115.1076	461	116.1035	488	129.3740	460	140.2203	476
100.4015	503	115.1077	461	116.1400	457, 500	129.3742	460	140.2205	479
100.4020	504	115.1078	462	116.1401	457, 500	129.3744	460	140.2206	478, 479
100.4045	504	115.1079	462, 467	116.1403	457, 467, 500	129.3746	460	140.2207	478, 479
100.4050	504	115.1080	463	116.1404	457, 500	129.3750	460	140.2208	452
100.4060	503	115.1081	463	116.1405	457, 500	129.3752	460	140.2210	478, 479, 480
100.4070	498	115.1082	463	116.1406	457, 500	129.3754	460	140.2211	479
100.4071	498	115.1083	463	116.1407	457, 500	129.3756	460	140.2212	479
100.4075	498	115.1084	464, 521	116.1408	457, 500	140.1003	485	140.2213	478
100.4076	498	115.1086	448	116.1415	457	140.1005	485	140.2214	478, 479
100.4080	499	115.1087	448	118.0050	459	140.1006	485	140.2215	478, 479
100.4085	499	115.1088	448	118.0051	458	140.1007	485	140.2216	476
100.4088	499	115.1090	541, 548	118.0052	458	140.1010	485	140.2217	476
100.4090	498	115.1091	547, 548	118.0053	459	140.1015	485	140.2218	476
100.4091	498	115.1092	547, 548	118.0055	458, 467	140.1020	485	140.2219	482
100.4095	498	115.1093	547, 548	118.0056	458	140.1040	478	140.2220	486
100.5050	503	115.1094	541, 547	118.0057	458	140.1060	484	140.2223	447
100.5060	503	115.1095	541, 590	118.0058	458	140.2090	467	140.2224	447
101.1000	516	115.1096	448	118.0075	502	140.2091	467	140.2225	486, 621
101.2000	516	115.1097	448	119.1014	601	140.2092	467	140.2226	486, 621
101.5000	516	115.1098	448	120.1050	510, 516	140.2093	467	140.2229	484
101.5016	516	115.1099	541, 547	120.2000	517	140.2100	467	140.2230	447, 478
101.5022	516	115.1150	462	122.1230	515	140.2105	470	140.2231	478
103.1000	510	115.1155	462, 578	122.1231	515, 516	140.2106	470	140.2232	447
104.5050	578, 580	115.1160	463	122.1232	515, 516	140.2107	470	140.2233	484
105.2000	510	115.1165	463	122.1233	515, 516	140.2110	470	140.2234	484
114.0050	514	115.1170	463	122.1234	515, 516	140.2111	470	140.2235	484
114.0051	514	115.1180	461	122.1236	515, 516	140.2112	467, 470	140.2236	484
114.0150	541, 543	115.1185	520	122.1237	515, 516	140.2113	471	140.2237	484
115.1014	601	115.1186	521	122.1238	515, 516	140.2114	467, 471	140.2238	483
115.1025	514	115.1187	589	122.1239	515, 516	140.2115	467, 470	140.2239	481
115.1028	601	115.1188	589	122.1240	515, 516	140.2116	467, 470	140.2240	484
115.1029	601	115.1230	602	122.1241	515, 516	140.2117	470	140.2241	478, 480
115.1031	460, 467	115.1231	602	122.1242	515, 516	140.2118	470	140.2244	480
115.1032	460, 467	115.1240	601	122.1243	515, 516	140.2119	467, 471	140.2245	479
115.1033	460, 467	115.1244	601	122.1244	515	140.2120	471	140.2248	480, 481
115.1034	461, 467	115.1245	601	122.1250	515	140.2125	467	140.2249	448
115.1035	461, 467	115.1249	601	122.1251	515, 516	140.2130	468	140.2250	478
115.1036	460	115.1260	590	122.1252	515, 516	140.2131	469	140.2251	482, 483
115.1037	460	115.1261	590	122.1253	516	140.2132	467, 468	140.2252	482, 483
115.1038	461	115.1262	590	122.1254	515, 516	140.2133	467, 469	140.2255	482, 483
115.1039	520	115.1263	590	122.1255	515, 516	140.2134	468	140.2256	482, 483
115.1040	589	115.1264	590	122.1256	515, 516	140.2135	468	140.2261	482, 483
115.1041	541, 588	115.1265	590	122.1257	515, 516	140.2136	469	140.2263	482, 483
115.1042	541, 588, 590	115.1266	590	122.1258	515, 516	140.2137	467, 469	140.2267	482
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150.5024	566	150.6004	568, 572	150.6145	571, 573	150.9357	546	150.9491	525
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150.5026	566	150.6010	568	150.6155	572	150.9359	546	150.9510	473
150.5030	566	150.6011	568, 572, 573	150.6160	573	150.9360	546	150.9520	474
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152.1060	564	160.0225	623	300.0540	510	332.0108	454	333.0042	496
152.1061	564	160.0226	623	300.0550	503	332.0110	454	333.0043	496
152.1062	564	160.0227	624	300.0560	511	332.0206	454	333.0044	496
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152.1064	564	160.0229	623	300.0570	505, 510	332.0210	454	333.0046	496
152.1065	564	160.0250	504	300.0600	561	332.0308	454	333.0047	496
152.1080	565	160.0305	629	300.0611	561	332.0310	454	333.0048	496
152.1090	577	160.0315	627	300.0612	561	332.0408	455	333.0049	496
152.1095	565	160.0327	630	300.0613	561	332.0508	455	333.0051	496
152.1096	565	160.0328	630	300.0614	578	332.0608	455	333.0052	496
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503.4810	564	515.1244	501	515.3025	501	517.0253	512	517.1182	574
503.4812	564	515.1285	501	515.3035	453	517.0254	512	517.1183	574
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515.0913	660	515.1780	638	515.3549	453	517.0541	642	517.9090	642
515.0914	660	515.1785	638	515.3570	487	517.0542	642	517.9095	642
515.0915	660	515.1790	638	515.3575	487	517.0546	642	517.9100	642
515.0916	660	515.1795	638	515.3580	487	517.0548	642	517.9105	642
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515.1061	493	515.1894	638	516.1490	635	517.0930	642	518.0381	513
515.1062	493	515.1895	638	516.1493	635	517.0932	642	518.0382	513
515.1063	493	515.1896	638	516.1495	635	517.0936	642	518.0383	513
515.1064	493	515.1897	638	516.1500	560	517.0941	642	518.0384	513
515.1065	493	515.1898	638	516.1501	560, 561	517.0946	642	518.0387	513
515.1070	493	515.1950	502	516.1502	560, 561	517.0950	642	518.0389	513
515.1072	492, 493	515.1960	502	516.3545	635	517.0955	642	518.0800	648
515.1073	492	515.2015	492, 495	516.3550	635	517.0960	642	518.0822	648
515.1075	492, 493	515.2017	492, 495	516.3700	491, 636	517.0965	642	518.0823	648
515.1076	492, 493	515.2019	492, 495	516.3705	491, 636	517.0970	642	518.0824	648
515.1077	492	515.2021	492, 495	517.0124	642	517.0975	642	518.0825	648
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515.1160	533	515.2040	493	517.0130	642	517.0985	642	518.0827	648
515.1161	533	515.2041	493	517.0132	642	517.0990	642	518.0828	648
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515.1164	533	515.2045	493	517.0146	642	517.1130	559	518.0833	490, 634
515.1165	533	515.2046	493	517.0150	642	517.1131	559	518.0834	490, 634
515.1166	533	515.2047	493	517.0155	642	517.1132	559	518.0835	490, 634
515.1167	533	515.2124	636	517.0160	642	517.1133	559	518.0836	490, 634
515.1182	494, 637	515.2127	636	517.0165	642	517.1134	559	518.0837	490, 634
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**Werkzeuge-Maschinen GmbH**

Seligenstädter Grund 10 - 12

Industriegebiet Ost 1

D- 63150 Heusenstamm



**DEUTSCHLAND**

Tel.: +49 6104 4974-0

Fax: +49 6104 4974-11

e-mail: [kstools@kstools.de](mailto:kstools@kstools.de)

URL: [www.kstools.de](http://www.kstools.de)