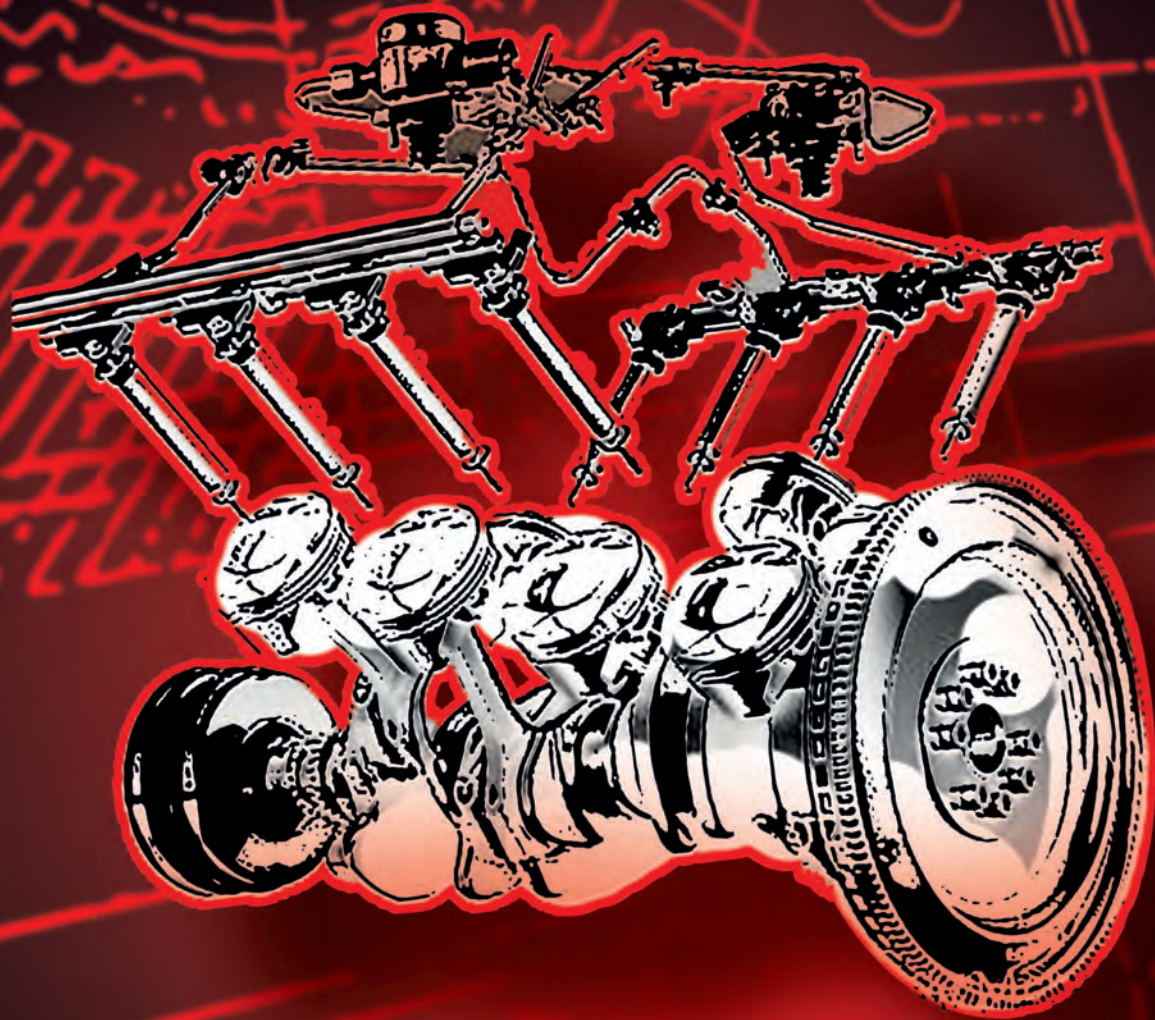
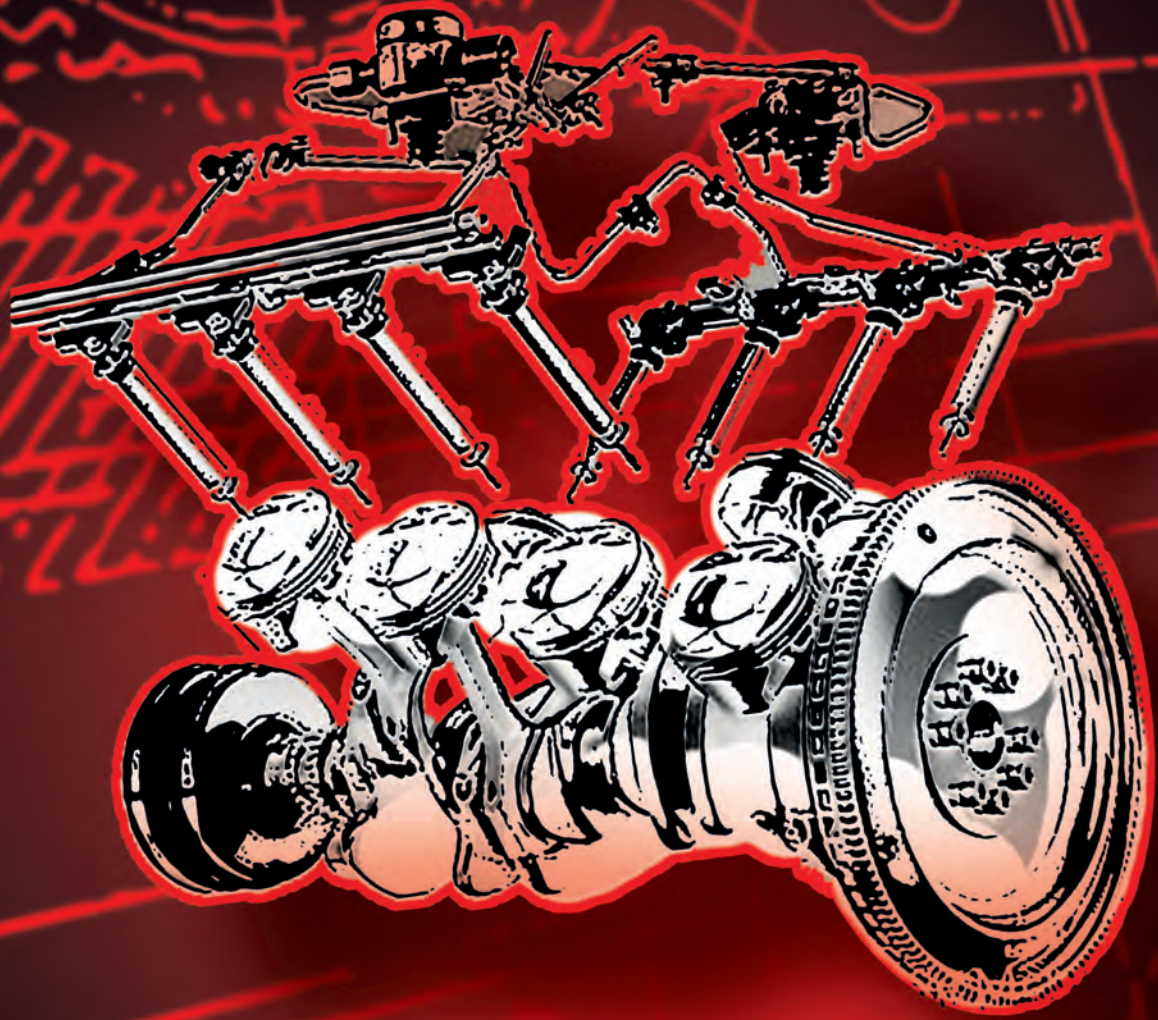


K15



KS TOOLS





Innovation is
our mission!



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HOSE CLAMP TOOL

ERGOTORQUE® socket screwdriver

- 6 point
- Flexible
- Limited torque
- Double spiral shaft
- Plastic protective coating
- With hanging hole
- Chrome vanadium



| | Ø mm | D mm | L1 mm | L2 mm | L3 mm | L4 mm | g |
|----------|------|------|-------|-------|-------|-------|-----|
| 911.1126 | 6 | 10.8 | 259.0 | 150.0 | 109.0 | 9.3 | 155 |
| 911.1127 | 7 | 11.7 | 259.0 | 150.0 | 109.0 | 10.0 | 155 |
| 911.1128 | 8 | 11.9 | 259.0 | 150.0 | 109.0 | 10.0 | 155 |
| 911.1125 | 10 | 12.5 | 279.0 | 170.0 | 109.0 | 14.3 | 170 |

ERGOTORQUEplus® socket screwdriver, extra long

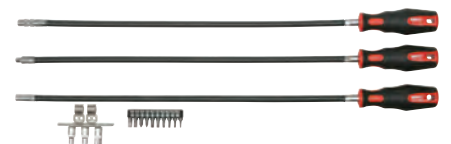
- 6 point
- Flexible
- Limited torque
- Double spiral shaft
- Plastic protective coating
- Two component handle
- With hanging hole
- Chrome vanadium



| | Ø mm | D mm | L1 mm | L2 mm | L3 mm | L4 mm | g |
|----------|------|------|-------|-------|-------|-------|-----|
| 911.1175 | 5 | 11.9 | 614.0 | 114.0 | 614.0 | 8.9 | 270 |
| 911.1176 | 6 | 10.9 | 614.0 | 114.0 | 614.0 | 11.3 | 280 |
| 911.1177 | 7 | 11.7 | 614.0 | 114.0 | 614.0 | 11.3 | 280 |
| 911.1178 | 8 | 11.7 | 614.0 | 114.0 | 614.0 | 11.3 | 280 |

ERGOTORQUE® screwdriver set

- Flexible blade with double spiral shaft
- Limited torque
- Plastic protective coating
- Two component handle
- With hanging hole
- Contains also the most current 1/4" bits and sockets
- In display box

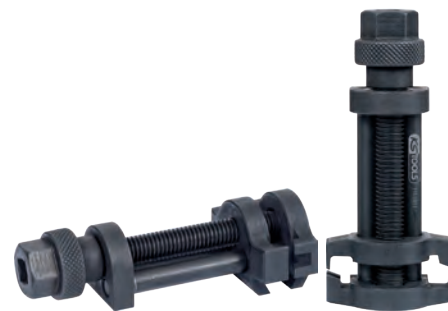


| | g |
|----------|---|
| 911.1180 | 16 pcs ERGOTORQUE® screwdriver set 1.30 |
| 1 x | 1/4" |
| 1 x | 1/4" |

| | |
|-----|-----------------------------------|
| 1 x | 7 mm |
| 3 x | 5 - 6 - 8 mm |
| 2 x | 5.5 - 6.5 mm |
| 2 x | PH1 - PH2 |
| 6 x | T10 - T15 - T20 - T25 - T27 - T30 |

Hose clamp tension device

- For assembly and disassembly of hose clamps
- Easy to use
- Less space required
- Wear-resistant spindle drive
- Hand-wheel operation
- 6-point and 1/4" drive
- Chrome molybdenum



| | Ø mm | Ø mm | Span width mm | g |
|----------|------|------|---------------|-----|
| 115.0910 | 6-40 | 0-37 | 80 | 130 |
| 115.0911 | 6-65 | 0-62 | 105 | 160 |



Hose clamp gripping pliers

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



| | Clamping range mm | L mm | g |
|----------|-------------------|-------|-----|
| 115.1126 | 18-36 | 175.0 | 231 |
| 115.1127 | 18-54 | 230.0 | 420 |

Hose clamp gripping pliers set

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



| | g |
|----------|------------------------|
| 115.1125 | 2 pcs 175 - 230 mm 653 |

Hose clamp pliers with prism reception

- For self-tensioning hose clamps with flat 3 pinch ends
- In particular for fuel lines, cooling and washing water hoses
- With prism attachment for spring clamps with flat adjoining ends
- Opening and closing the clamps without damage to the hose also in hard to reach places
- Self-opening
- Special steel

Application range: Audi, Mercedes, Toyota, Volkswagen etc.



| | Clamping range mm | L mm | g |
|----------|-------------------|-------|-----|
| 115.1187 | 8-18 | 195.0 | 189 |

Hose clamp pliers

- Suitable for assembly and disassembly of spring clamps
- Optimal mounting due to special construction of jaws
- Includes locking mechanism and ratchet function
- PVC dipped handle
- Simple handling
- Special steel



| | A mm | L mm | g |
|----------|------|-------|-----|
| 115.1181 | 0-55 | 260.0 | 380 |

Hose clamp pliers, angled

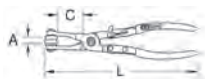
- Suitable for assembly and disassembly of spring clamps
- 90° angled
- Optimal mounting due to special construction of jaws
- With offset side attachment nuts
- Includes locking mechanism and ratchet function
- PVC dipped handle
- Simple handling
- Special steel



| | A mm | L mm | W |
|----------|------|-------|-----|
| 115.1182 | 0-22 | 220.0 | 380 |

Hose clamp pliers, angled

- 45° angled head
- With variable jaws
- For difficult to reach clamps
- Includes locking mechanism
- With PVC dipped handle
- Chrome molybdenum



| | A mm | C mm | L mm | W |
|----------|------|------|-------|-----|
| 115.1042 | 0-65 | 55.0 | 220.0 | 210 |

Hose clamp pliers, angled

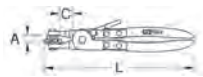
- 90° angled head
- With moveable jaws
- For difficult to reach spring clamps
- Includes locking mechanism
- With PVC dipped handle
- Chrome molybdenum



| | Ø mm | A mm | L mm | W |
|----------|-------|------|-------|-----|
| 115.1198 | 18-53 | 5-43 | 210.0 | 400 |

Universal hose clamp pliers

- Universal crown profile
- For difficult to reach clamps
- With PVC dipped handle
- Includes locking mechanism
- Versatile usage
- Chrome molybdenum



| | A mm | C mm | L mm | W |
|----------|--------|------|-------|-----|
| 115.1043 | 0-48,5 | 40.0 | 220.0 | 240 |

Hose clamp pliers

- Suitable for correct assembly and disassembly of spring clamps
- Turnable jaws
- Includes ratchet function
- Effortless opening and closing
- PVC dipped handle
- Special steel



| | A mm | L mm | W |
|----------|-------|-------|-----|
| 115.1167 | 15-56 | 275.0 | 400 |

Hose clamp pliers

- PVC dipped handle
- For spring pipe clamps
- Includes locking mechanism and ratchet function
- Chrome molybdenum



| | A mm | C mm | L mm | W |
|----------|------|------|-------|-----|
| 115.1046 | 0-45 | 37.0 | 220.0 | 230 |



Hose clamp pliers, angled

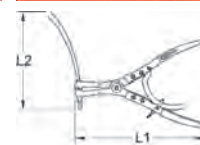
- Suitable for correct assembly and disassembly of spring clamps
- 110° angled
- Turnable jaws
- With locking device
- PVC dipped handle
- Special steel



| | A mm | L mm | W |
|----------|------|-------|-----|
| 115.1173 | 6-58 | 250.0 | 400 |

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



| | Ø mm | L1 mm | L2 mm | W |
|----------|------|-------|-------|----------------|
| 115.1065 | 0-70 | 270.0 | 600.0 | 115.1065-1 540 |

Hose clamp pliers, VAG

- Suitable for assembly or disassembly of spring clamps with reducing ends
- With PVC dipped handle
- With 600 mm Bowden cable
- Includes ratchet function, locking mechanism and loosening lever
- Internal spring
- For difficult to reach spring clamps
- Chrome molybdenum

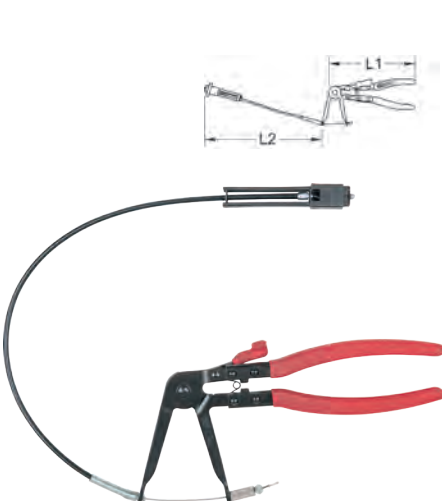
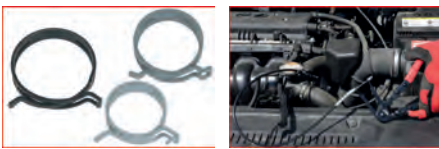
Application range: VAG 2.0 TDI engines (BKD), especially suitably for hard to reach lower coolant hose



| | Ø mm | L1 mm | L2 mm | g |
|----------|---------|----------|----------|-----|
| 115.1169 | 0 - 60 | 260.0 | 600.0 | 500 |

Hose clamp pliers with bowden cable

- With PVC dipped handle
- For spring pipe clamps
- With 650 mm Bowden cable
- Includes ratchet function, locking mechanism and loosening lever
- Internal spring
- For difficult to reach spring clamps
- Chrome molybdenum

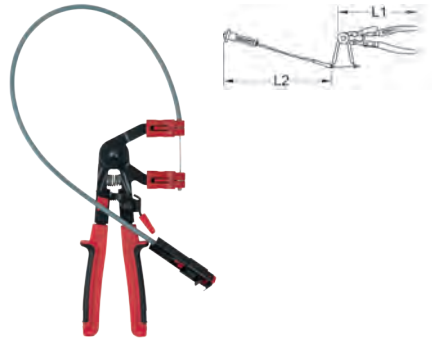


| | Ø mm | L1 mm | L2 mm | g |
|----------|---------|----------|----------|-----|
| 115.1168 | 0 - 70 | 260.0 | 650.0 | 500 |

Hose clamp pliers with bowden cable

- Ideally suited for opening and closing hose clamps
- Suitable for hard to reach self-tensioning spring clamps
- With 590 mm strengthened Bowden cable
- Includes locking mechanism
- Internal spring
- The torsion of the pliers is reduced with strong clamps
- With quick change system for Bowden cable replacement
- 2 component handle
- Strengthened steel

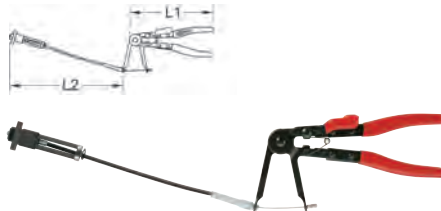
Application range: MUBEA and NORMA



| | Ø mm | L1 mm | L2 mm | g |
|----------|---------|----------|----------|-----|
| 115.0901 | 15 - 54 | 260.0 | 730.0 | 500 |

Hose clamp pliers with bowden cable

- For self-tensioning hose clamps
- With locking mechanism
- In particular for fuel lines, cooling and washing water hoses
- With 650 mm Bowden cable
- With flat attachment for spring clamps with flat adjoining ends
- Opening and closing the clamps without damage to the hose also in hard to reach places
- Self-opening
- With PVC dipped handle
- Special steel



| | Ø mm | L1 mm | L2 mm | g |
|----------|---------|----------|----------|-----|
| 115.1041 | 0 - 60 | 200.0 | 650.0 | 470 |



Spring band clamp pliers with gooseneck

- For actuation of self tensioning spring band clamps
- For cooling and heating systems
- Semi rigid, plastic coated gooseneck
- Convenient one handed operation in deep regions
- Fixing of the clamp by micro teeth
- Ideal for confined spaces
- Working head with raised grippers and wide opening
- Working head with slide guide and retraction spring
- With two component handle
- Chrome molybdenum

Application area: NORMA FBS, MUB FBS-STD, FBS-RSV, etc.



| | Ø mm | L1 mm | L2 mm | g |
|----------|---------|----------|----------|-----|
| 115.1190 | 18-54 | 220.0 | 660.0 | 620 |

Hose clamp pliers

- For the correct assembly and disassembly of spring clamps
- With 600 mm Bowden cable for hard to reach areas
- Step-less locking mechanism
- With quick-release lever
- Simple handling
- Special tool steel



| | Ø mm | L1 mm | L2 mm | g |
|----------|---------|----------|----------|-----|
| 115.1189 | 0-50 | 210.0 | 600.0 | 330 |

Hose clamp pliers with swivel prism reception

- Suitable for the correct assembly and disassembly of Click, Click-R and Cobra clamps
- Also suitable for self-tensioning hose clamps with flat 3 pinch ends
- In particular for fuel lines, cooling and washing water hoses
- With swivel prism attachment
- Self-opening
- Surface nickel-plated
- Special steel

Application range: Volkswagen, Audi, Mercedes, Toyota etc.



| | Clamping range mm | L mm | Weight g |
|----------|-------------------|-------|----------|
| 115.1188 | 8-18 | 210.0 | 200 |

Click hose clamp pliers, angled

- Suitable for the correct assembly and disassembly of Click, Click-R and Cobra clamps
- Also suitable for self-tensioning hose clamps with flat 3 pinch ends
- 90° angled head
- Effortless opening and closing
- Forged bite jaws
- With PVC dipped handle
- Special steel



| | A mm | L mm | Weight g |
|----------|------|-------|----------|
| 115.1179 | 0-18 | 180.0 | 160 |

Click hose clamp pliers, forged

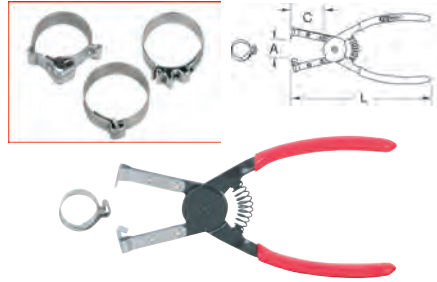
- Suitable for the correct assembly and disassembly of Click, Click-R and Cobra clamps
- Also suitable for self-tensioning hose clamps with flat 3 pinch ends
- Re-usable V2A-clamps
- With PVC dipped handle
- With self-opening mechanism
- Chrome molybdenum



| | A mm | C mm | L mm | Weight g |
|----------|------|------|-------|----------|
| 115.1045 | 0-38 | 25.0 | 180.0 | 215 |

Click hose clamp pliers

- Suitable for the correct assembly and disassembly of Click, Click-R and Cobra clamps
- Also suitable for self-tensioning hose clamps with flat 3 pinch ends
- With PVC dipped handle
- Self-opening
- Chrome molybdenum



| | A mm | C mm | L mm | Weight g |
|----------|-------|------|-------|----------|
| 115.1040 | 0-250 | 40.0 | 160.0 | 120 |

Hose clamp pliers

- With moveable jaws
- 45° angled head
- Suitable for the correct assembly and disassembly of Click, Click-R and Cobra clamps
- Also suitable for self-tensioning hose clamps with flat 3 pinch ends
- Suitable for narrow spaces
- Chrome molybdenum

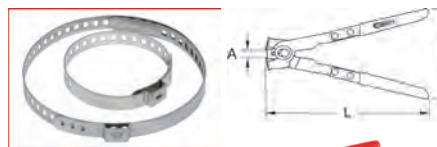


| | A mm | C mm | L mm | Weight g |
|----------|------|------|-------|----------|
| 115.1057 | 0-30 | 45.0 | 200.0 | 180 |

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 to the sleeve
- Nickel-plated finish
- Chrome molybdenum

Application range: Axle boots, coolant and fuel hoses for Volkswagen, Audi, Opel, BMW, Mercedes, Honda, Nissan and Mazda

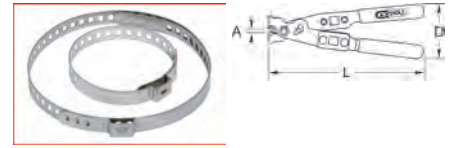


| | A mm | C mm | L mm | Weight g |
|----------|------|------|-------|----------|
| 115.1050 | 0-22 | | 260.0 | 380 |

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 use with torque wrench
- Chrome molybdenum

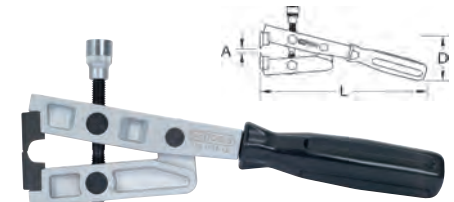
Application range: Volkswagen, Opel, Seat, GM, Ford, Nissan, Mercedes, Mazda, Honda, Chrysler, BMW and Audi



| | A mm | L mm | Weight g |
|----------|------|-------|----------|
| 115.1053 | 0-17 | 240.0 | 540 |

Hose clamp pliers for torque wrench

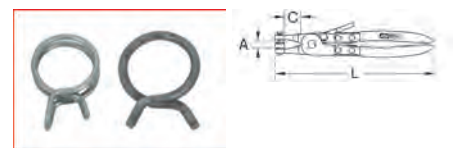
- Black plastic handle
- 3/8" drive for use with a torque wrench
- Enables clamping and/or compressing of the hose clamps
- Suitable for the stainless steel hose clamps on drive shafts
- Robust cast steel construction



| | A mm | L mm | Weight g |
|----------|------|-------|----------|
| 115.1056 | 0-45 | 270.0 | 880 |

Hose clamp pliers

- PVC dipped handle
- For spring pipe clamps
- Includes locking mechanism and ratchet function
- Chrome molybdenum



| | A mm | C mm | L mm | Weight g |
|----------|------|------|-------|----------|
| 115.1047 | 0-45 | 37.0 | 220.0 | 230 |

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Fuel pipe clamp with Bowden cable for quick coupling

- For correct unbolting of fuel pipe coupling
- With locking mechanism
- Especially for fuel pipe couplings on which the unbolting elements are reached from the side
- With 650 mm Bowden cable
- No damage to the compression coupling, fuel pipes and fuel hoses
- Quick and easy separation of the fuel pipes
- With PVC dipped handle
- Matt chrome
- Special tool steel

Application range: Audi, Chrysler, Fiat, Opel, Renault, Mercedes, Volkswagen etc.



| | Ø mm | L1 mm | L2 mm | | kg |
|----------|------|-------|-------|----------|-----|
| 115.1060 | 0-20 | 290.0 | 670.0 | 115.1058 | 500 |

Automotive hose clamp pliers set

- Handle dip insulated
- Ideal for clamps low down in the engine
- Includes locking mechanism
- For self tensioning spring pipe clamps with 3 point mounting
- Self opening
- For opening and closing re/useable clic hose clamps, type Clic + Clic-R
- For difficult to reach clamps
- Special tool steel

Application area: For connecting and removing fuel, immersed ventilation, coolant, washer water and vacuum hoses, etc.

Application range: Volkswagen, Audi, Mercedes Benz, Toyota etc.



| | | | kg |
|----------|-------|----------------------------------|------|
| 115.1104 | 4 pcs | Automotive hose clamp pliers set | 1.12 |

consists of:

| | | kg |
|----------|---|-----|
| 115.1045 | Hose clamp pliers (click type), 180mm | 215 |
| 115.1042 | Hose clamp pliers (recessed/slot), 220mm | 210 |
| 115.1187 | Hose clamp pliers with prism, 8-18mm | 189 |
| 115.1065 | Hose clamp pliers (dbl bowden cable), 600mm | 540 |

Automotive hose clamp pliers 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



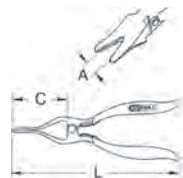
| | | | kg |
|----------|-------|----------------------------------|------|
| 115.1055 | 7 pcs | Automotive hose clamp pliers set | 4.00 |

consists of:

| | | kg |
|----------|---|-----|
| 115.1041 | Hose clamp pliers (bowden cable), 650mm | 470 |
| 115.1042 | Hose clamp pliers (recessed/slot), 220mm | 210 |
| 115.1043 | Hose clamp pliers (crown profile), 220mm | 240 |
| 115.1044 | Hose pliers, 195mm | 190 |
| 115.1045 | Hose clamp pliers (click type), 180mm | 215 |
| 115.1046 | Hose clamp pliers (recessed/slot), 220mm | 230 |
| 115.1047 | Hose clamp pliers (dbl cross slot), 220mm | 230 |

Fuel pipe pliers for compression coupling

- For correct opening of fuel pipe coupling
- Extra-flat jaws ends
- No damage to the compression coupling, fuel pipes and fuel hoses
- Quick and easy separation of the fuel pipes and fuel hoses
- Self-closing
- With PVC dipped handle
- Special steel



| | A mm | L mm | C mm | kg |
|----------|------|-------|------|-----|
| 115.1044 | 0-30 | 195.0 | 70.0 | 190 |

HOSE PINCH TOOL

Hose clamp set

- For easy clamping of flexible hose parts from 10.0 mm (3/8") to 45.0 mm (1.3/4")
- Continuous flow rate regulation, sensitive flow rate regulation or complete flow rate stop
- The hose is crimped over a wide area against the sturdy steel cross, damage to the hose is therefore prevented
- With revolving clamp wing from metal
- Ideal for maintenance work with petrol, oil, water and radiator antifreeze
- Protects from drips from petrol, oil, water and radiator antifreeze
- Ideally suitable for passenger cars, transporters, MPVs, commercial vehicles, tractors, agricultural and construction machinery and industrial uses
- Temperature resistant up to 160 °C
- Special steel



| | | | kg |
|----------|-------|----------------|-----|
| 122.1200 | 4 pcs | Hose clamp set | 420 |

consists of:

| | | kg |
|----------|----------------------------------|-----|
| 122.1201 | Hose clamp max. Ø 10 mm (3/8") | 41 |
| 122.1202 | Hose clamp max. Ø 15 mm (1/2") | 46 |
| 122.1203 | Hose clamp max. Ø 25 mm (1") | 96 |
| 122.1204 | Hose clamp max. Ø 45 mm (1.3/4") | 237 |

Hose clamp pliers set

- For simple clamping of flexible for hoses from 15.9 mm (5/8") up to 60.0 mm (2.3/8")
- For stopping the flow
- The hose is a broad area squeezed against the stable support surface, damaging the hose is avoided
- Variable adjustment with locking function
- Ideal for maintenance work with gasoline, oil, water and antifreeze
- Protects against leakage of fuel, oil, water and antifreeze
- Ideal for use in passenger cars, vans and large vans, commercial vehicles, tractors, agricultural machinery, construction machinery and industrial applications
- Heat resistant up to 160 °C
- Plastic



| | | | kg |
|----------|-------|-----------------------|-----|
| 115.5050 | 3 pcs | Hose clamp pliers set | 370 |

consists of:

| | | kg |
|----------|--|-----|
| 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 |

Hose clamp pliers set 90° angled

- For simple clamping of flexible for hoses from 15.9 mm (5/8") up to 60.0 mm (2,3/8")
- Angled design for use in confined spaces
- For stopping the flow
- The hose is a broad area squeezed against the stable support surface, damaging the hose is avoided
- Variable adjustment with locking function
- Ideal for maintenance work with gasoline, oil, water and antifreeze
- Protects against leakage of fuel, oil, water and antifreeze
- Ideal for use in passenger cars, vans and large vans, commercial vehicles, tractors, agricultural machinery, construction machinery and industrial applications
- Heat resistant up to 160 ° C
- Plastic



| 115.5055 | 3 pcs | Hose clamp pliers set 90° angled | | 370 | |
|----------|-------|----------------------------------|--|-----|--|

consists of:

| 115.5057 | Clamping pliers 90°, Ø 15mm | 55 | |
|----------|-----------------------------|-----|--|
| 115.5058 | Clamping pliers 90°, Ø 30mm | 95 | |
| 115.5059 | Clamping pliers 90°, Ø 60mm | 130 | |

ALLinONE Hose clamp pliers set

- Simple sealing of pipe lines, 4.75 mm (3/16") to 14.0 mm (9/16")
- Rotary magazine with 4 slots for the corresponding pipe size
- Ideal for maintenance work with gasoline, oil, water and antifreeze
- Protects against ingress of moisture and dirt
- Ideal for use in passenger cars, vans and large vans, commercial vehicles, tractors, agricultural machinery, construction machinery and industrial applications
- Special plastic



| | | Ø mm | A mm | L mm | |
|----------|-------|---------|------|-------|-----|
| 122.1295 | 2 pcs | 4,75-14 | 38.0 | 120.0 | 149 |

consists of:

| | X | | |
|----------|---|--|----|
| 122.1296 | 2 | ALLinONE Fluidstopper Ø 4,75 - 14 mm | 60 |
| 122.1297 | 1 | Replaceable plastic plugs for 122.1296 pipe stopper pliers | 50 |

FUEL PIPE CLAMP PLIERS

Fuel pipe pliers for quick coupling

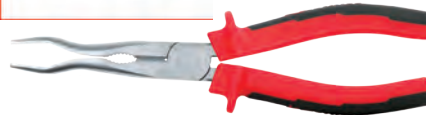
- For correct unbolting of fuel pipe coupling
- Especially for fuel pipe couplings on which the unbolting elements are reached from the side
- No damage to the compression coupling, fuel pipes and fuel hoses
- Quick and easy separation of the fuel pipes
- Self-opening
- Special steel



| | Ø mm | Length mm | |
|----------|-----------|-----------|----|
| 115.1184 | universal | 124.0 | 45 |

Fuel pipe pliers for quick coupling

- For correct unbolting of fuel pipe coupling
- No damage to the compression coupling, fuel pipes and fuel hoses
- Quick and easy separation of the fuel pipes
- Curved design
- With two component handle
- Matt chrome
- Special steel

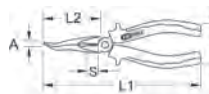


| | L mm | |
|----------|-------|-----|
| 115.1008 | 210.0 | 200 |

Fuel pipe pliers

- Two component handle
- Cranked execution
- Integrated 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 Volkswagen/Audi, Mercedes Benz, Ford, Opel, Peugeot, Volvo, Daihatsu, Mazda and Toyota.



| | A mm | L1 mm | L2 mm | S mm | |
|----------|------|-------|-------|------|-----|
| 115.1067 | 0-75 | 200.0 | 75.0 | 15.0 | 220 |

Return hose pliers

- Angled design
- With integrated cutting edge
- For attaching and pulling out of pipes on low sunken nozzles
- No damage to the overflow pipe
- With two component handle
- Matt chrome
- Chrome vanadium

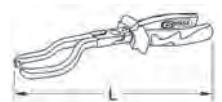
Application range: Audi, Mercedes, Volkswagen, etc.



| | Ø mm | A mm | L mm | |
|----------|------|------|-------|-----|
| 115.2112 | 7.0 | 0-68 | 190.0 | 220 |

Fuel pipe pliers for quick coupling

- For correct unbolting and bolting of fuel pipe coupling
- With the special tip pliers the interlock can be moved forward (locked) and backwards (unlocked).
- No damage to the compression coupling, fuel pipes and fuel hoses
- Quick and easy separation of the fuel pipes
- Curved design
- With two component handle
- Matt chrome
- Special steel



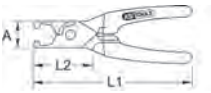
| | Ø mm | L mm | |
|----------|-------|-------|-----|
| 115.0900 | 0-105 | 230.0 | 310 |



Fuel pipe pliers for quick coupling

- For correct unbolting of fuel pipe coupling
- Especially for fuel pipe couplings on which the unbolting elements are reached from the side
- No damage to the compression coupling, fuel pipes and fuel hoses
- Quick and easy separation of the fuel pipes
- With PVC dipped handle
- Matt chrome
- Special tool steel

Application range: Audi, Chrysler, Fiat, Opel, Renault, Mercedes, Volkswagen, etc.

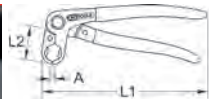


| | A mm | L1 mm | L2 mm | g |
|----------|---------|----------|----------|-----|
| 115.1094 | 0-30 | 160.0 | 50.0 | 220 |



Fuel pipe pliers for quick coupling

- For correct unbolting of fuel pipe coupling
- No damage to the compression coupling, fuel pipes and fuel hoses
- Quick and easy separation of the fuel pipes
- Angled design for use also in confined spaces
- With PVC dipped handle
- Painted black
- Aluminium

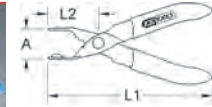


| | A mm | L1 mm | L2 mm | g |
|----------|---------|----------|----------|-----|
| 115.1099 | 0-24 | 220.0 | 39.0 | 280 |

Universal fuel pipe pliers for compression coupling

- For correct opening of fuel pipe coupling
- Extra flat jaws ends
- No damage to the compression coupling, fuel pipes and fuel hoses
- Quick and easy separation of the fuel pipes and fuel hoses
- Self-closing
- With PVC dipped handle
- Special steel

Application range: Audi, Citroën, Fiat, Ford, Mercedes, Peugeot, Renault, Volkswagen, etc.

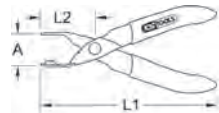


| | Ø mm | A mm | L1 mm | L2 mm | g |
|----------|---------|---------|----------|----------|----|
| 115.1091 | 8,0 | 20,0 | 120,0 | 35,0 | 80 |
| 115.1092 | 10,0 | 22,0 | 120,0 | 35,0 | 80 |

Opel/GM fuel pliers for compression coupling

- For correct opening of fuel pipe coupling
- Extra flat jaws ends
- With two noses 6.5 mm x 6.0 mm
- No damage to the compression coupling, fuel pipes and fuel hoses
- Quick and easy separation of the fuel pipes and fuel hoses
- Self-closing
- With PVC dipped handle
- Special steel

Application range: Opel/GM, Chevrolet, Buick, Pontiac



| | A mm | L1 mm | L2 mm | g |
|----------|---------|----------|----------|----|
| 115.1093 | 22,0 | 120,0 | 35,0 | 80 |

Fuel pipe pliers set

- For correct opening of fuel pipe coupling
- Extra flat jaws ends
- No damage to the compression coupling, fuel pipes and fuel hoses
- Quick and easy separation of the fuel pipes and fuel hoses
- Self-closing
- With PVC dipped handle
- Special steel

Application range: Audi, Citroën, Fiat, Ford, GM, Mercedes, Opel, Peugeot, Renault, Volkswagen, etc.



| | | g |
|----------|----------------------------|-----|
| 115.1090 | 3 pcs Fuel pipe pliers set | 310 |

consists of:

| | | g |
|----------|--|----|
| 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 |

PIPE COUPLING UNLOCKING TOOL

Pipe connection release clip set for CLIC spring closing pipe coupling

- For the assembly and disassembly of hard to open CLIC spring closure pipe coupling for fuel, air-conditioning, air and hydraulic pipes
- No damage to the compression coupling, fuel pipes and fuel hoses
- Quick and easy separation of the pipes
- Ideally suited to passenger cars, transporters and MPVs
- Suitable for metric couplings
- Special plastic

Application range: Mitsubishi, Honda, Volvo, Nissan



| | | Ø mm | g |
|----------|-------|---------------------------|----|
| 115.1095 | 6 pcs | 6 - 8 - 10 - 12 - 15 - 16 | 60 |

Pipe connection release clip set for CLIC spring closing pipe coupling

- For the assembly and disassembly of hard to open CLIC spring closure pipe coupling for fuel, air-conditioning, air and hydraulic pipes
- No damage to the compression coupling, fuel pipes and fuel hoses
- Quick and easy separation of the pipes
- Ideally suited to passenger cars, transporters, MPVs, commercial vehicles, tractors, agricultural and construction machinery
- For almost all pipe connections on European, Asian and American vehicle types
- Suitable for metric and imperial couplings
- Special plastic

Application range: Chrysler, Ford, GM, Daihatsu, Honda, Mercedes, Mitsubishi, Nissan, Opel, Saab, Scania, Volvo, Volkswagen, etc.



| | | Ø mm | g |
|----------|-------|--|----|
| 115.1089 | 7 pcs | 6,35 (1/4") - 7,9 (5/16") - 9,5 (3/8") - 12,7 (1/2") - 15,9 (5/8") - 19,0 (3/4") - 22,2 (7/8") | 90 |

consists of:

| | | g |
|----------|-----------------------|---|
| 115.1261 | Unlocking clip, 1/4" | 1 |
| 115.1262 | Unlocking clip, 5/16" | 1 |
| 115.1263 | Unlocking clip, 3/8" | 1 |
| 115.1264 | Unlocking clip, 1/2" | 5 |
| 115.1265 | Unlocking clip, 5/8" | 7 |
| 115.1266 | Unlocking clip, 3/4" | 8 |
| 115.1267 | Unlocking clip, 7/8" | 9 |

Disassembly tool set for CLIC spring closure pipe coupling

- For the disassembly of hard to open CLIC spring closure pipe coupling for fuel, air-conditioning, air and hydraulic pipes
- No damage to the compression coupling, fuel pipes and fuel hoses
- Quick and easy separation of the pipes
- Ideally suited to passenger cars, transporters, MPVs, commercial vehicles, tractors, agricultural and construction machinery
- For almost all pipe connections on European, Asian and American vehicle types
- Suitable for metric and imperial couplings
- Aluminium

Application range: Chrysler, Ford, GM, Daihatsu, Honda, Mercedes, Mitsubishi, Nissan, Opel, Saab, Scania, Volvo, Volkswagen, etc.



| | | Ø mm | g |
|----------|-------|--|-----|
| 115.1285 | 6 pcs | 7,9 (5/16") - 9,5 (3/8") - 12,7 (1/2") - 15,9 (5/8") - 19,0 (3/4") - 22,2 (7/8") | 250 |

consists of:

| | | g |
|----------|--|----|
| 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 |
| 115.1282 | Replacement-Rubber ring-Set, 6- pcs for Unlocking-Rings | 1 |

MASTER pipe connector release clip set for CLIC spring clamp pipe coupling

- For the assembly and disassembly of hard to open CLIC spring closure pipe coupling for fuel, air-conditioning, air and hydraulic pipes
- No damage to the compression coupling, fuel pipes and fuel hoses
- Quick and easy separation of the fuel pipes
- Ideally suited to passenger cars, transporters, MPVs, commercial vehicles, tractors, agricultural and construction machinery
- For almost all pipe connections on European, Asian and American vehicle types
- Suitable for metric and imperial couplings
- Special plastic

Application range: Air-conditioning, fuel and air lines as well as hydraulics lines



| | | g |
|----------|---|------|
| 115.1260 | 22 pcs MASTER pipe connector release clip set for CLIC spring clamp pipe coupling | 1.00 |

consists of:

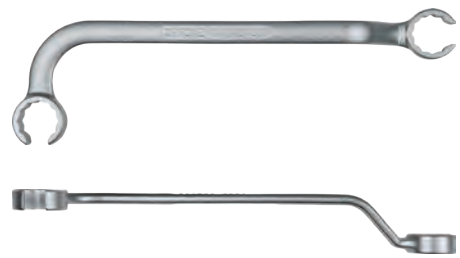
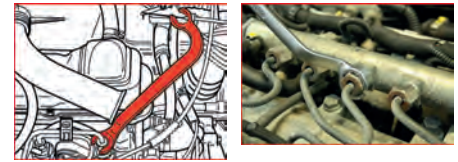
| | | g |
|----------|--|----|
| 115.1261 | Unlocking clip 1/4", plastic white, for air conditioning and fuel lines | 1 |
| 115.1262 | Unlocking clip 5/16", plastic white, for air conditioning and fuel lines | 1 |
| 115.1263 | Unlocking clip 3/8", plastic white, for air conditioning and fuel lines | 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: 6er | 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 |

PIPE WRENCH

Double open ring injection spanner

- Special length and design
- For the assembly and disassembly of hard-to-reach injection pipes
- Makes possible simple and time-saving work
- Wrench has single-sided head
- Open 12-point
- Matt finish
- Chrome vanadium

Application range: Audi, Volkswagen, Škoda, etc. e.g. for 1.6 l 4 cyl., 2.0 l 5 cyl., 2.4 l 6 cyl. diesel engines

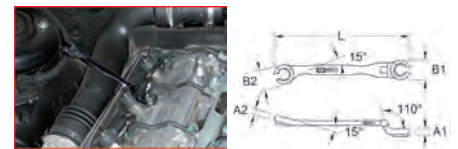


| | mm | L mm | g |
|----------|-------|-------|-----|
| 517.0057 | 17x17 | 220.0 | 140 |

CHROMEplus® open double ring spanner, with flexible joint

- Special length and design
- For the assembly and disassembly of hard-to-reach injection, fuel and hydraulic pipes
- Makes simple and time-saving work possible
- Ring 15° angled
- Opening 15° cranked
- with joint
- Open 6-point
- Chrome plated and mirror polished
- Chrome vanadium

Application range: Audi, Volkswagen, Škoda, Opel, etc.



| | mm | A1 mm | A2 mm | B1 mm | B2 mm | L mm | g |
|----------|----|-------|-------|-------|-------|-------|-----|
| 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 |
| 518.0391 | 22 | 16.0 | 16.0 | 37.0 | 37.0 | 218.0 | 300 |
| 518.0392 | 24 | 16.0 | 16.0 | 40.0 | 40.0 | 235.0 | 372 |
| 518.0393 | 27 | 17.0 | 17.0 | 45.0 | 45.0 | 270.0 | 433 |

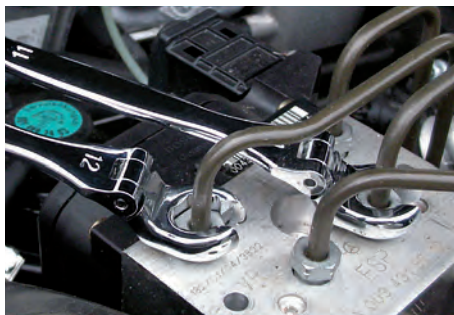
CHROMEplus® open double ring spanner set, with flexible joint

- Special length and design
- For the assembly and disassembly of hard-to-reach injection, fuel and hydraulic pipes
- Makes simple and time-saving work possible
- Ring 15° angled
- Opening 15° cranked
- with joint
- Open 6-point
- Chrome plated and mirror polished
- Chrome vanadium

Application range: Audi, Volkswagen, Škoda, Opel, etc.



| 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 |



T-handle box wrench

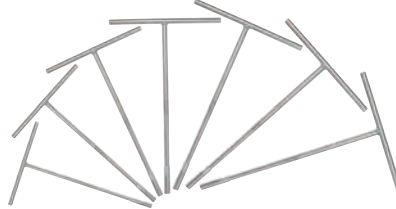
- 6 point
- T-handle
- Matt finish
- Chrome vanadium



| | | L | B | |
|----------|------|-------|-------|-----|
| | mm | mm | mm | g |
| 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



| 517.1180 | 7 pcs | T-handle box wrench set | 2.50 |
|----------|-------|-------------------------|------|

consists of:

| 517.1181 | T-handle box wrench, 8mm | | 310 |
|----------|---------------------------|--|-----|
| 517.1182 | T-handle box wrench, 9mm | | 300 |
| 517.1183 | T-handle box wrench, 10mm | | 310 |
| 517.1184 | T-handle box wrench, 11mm | | 320 |
| 517.1185 | T-handle box wrench, 12mm | | 320 |
| 517.1186 | T-handle box wrench, 13mm | | 330 |
| 517.1187 | T-handle box wrench, 14mm | | 310 |

Injector pipe wrench

- 12-point
- For screw fitting to injection pipes
- Chrome plated and mirror polished
- Chrome vanadium

Application range: Mercedes 100, 130, 314, 360, 360h, 352A, 346/355, 401, 402, 403, 407h, 615, 616, 617

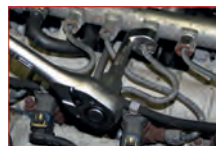


| | | Length | |
|----------|------|--------|-----|
| | mm | mm | g |
| 152.1401 | 17,0 | 80,0 | 150 |

Open box head spanner

- 12-point
- Internal square drive to DIN 3120/ISO 1174 with ball reception
- Special length and design
- For almost all common vehicle types
- For the assembly and disassembly of hard-to-reach injection pipes
- Makes possible simple and time-saving work
- With opening
- Special steel

Application range: Audi, BMW, Chrysler, Ford Opel, Mercedes, etc.



| | | L | |
|----------|----|-------|-----|
| | mm | mm | g |
| 913.1211 | 12 | 100,0 | 122 |
| 913.1212 | 14 | 100,0 | 129 |
| 913.1213 | 16 | 100,0 | 146 |
| 913.1214 | 17 | 100,0 | 140 |
| 913.1215 | 18 | 100,0 | 145 |
| 913.1216 | 19 | 100,0 | 147 |

Open box head spanner set

- 12-point
- Internal square drive to DIN 3120/ISO 1174 with ball reception
- Special length and design
- For almost all common vehicle types
- For the assembly and disassembly of hard-to-reach injection pipes
- Makes possible simple and time-saving work
- With opening
- Special steel
- In durable plastic storage case

Application range: Audi, BMW, Chrysler, Ford Opel, Mercedes, etc.



| 913.1210 | 6 pcs | 12 - 14 - 16 - 17 - 18 - 19 mm | 1.13 |
|----------|-------|--------------------------------|------|

consists of:

| 913.1211 | Open box head spanner, 10mm | | 122 |
|----------|-----------------------------|--|-----|
| 913.1212 | Open box head spanner, 14mm | | 129 |
| 913.1213 | Open box head spanner, 16mm | | 146 |
| 913.1214 | Open box head spanner, 17mm | | 140 |
| 913.1215 | Open box head spanner, 18mm | | 145 |
| 913.1216 | Open box head spanner, 19mm | | 147 |

INJECTOR NOZZLE TOOL

Injector-socket

- 12-point
- Ideal for assembly and disassembly of injectors
- Internal square to DIN 3120/ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium

Application range: Volkswagen Polo 1.3 I Diesel-Motor, Nissan Terrano TD 25, 27 from 1988



| | | D1 | D2 | L | |
|----------|----|------|------|------|-----|
| | mm | mm | mm | mm | g |
| 150.2311 | 22 | 31,0 | 25,0 | 85,0 | 170 |

Injector-socket

- 12-point
- Ideal for assembly and disassembly of injectors
- Internal square to DIN 3120/ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium

Application range: for diesel engines Volkswagen, Audi, Mercedes, Opel, Ford, Peugeot, Volvo, Toyota, Mazda, Nissan, Mitsubishi, Daihatsu, etc.



| | mm | D1 mm | D2 mm | L mm | g |
|----------|----|-------|-------|------|-----|
| 150.2312 | 27 | 37.0 | 30.0 | 85.0 | 260 |

Injector-socket

- 12-point
- Ideal for assembly and disassembly of injectors
- Internal square to DIN 3120/ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium

Application range: for diesel engines Volkswagen, Audi, Mercedes, Opel, Ford, Peugeot, Volvo, Toyota, Mazda, Nissan, Mitsubishi, Daihatsu, etc.



| | mm | D1 mm | D2 mm | L mm | g |
|----------|----|-------|-------|-------|-----|
| 150.2314 | 27 | 35.3 | 36.7 | 110.0 | 260 |

Injector-socket

- 6-point
- Ideal for assembly and disassembly of injectors
- With side window and opening for connection to nozzle head (E-connection)
- Internal square to DIN 3120/ISO 1174 with ball reception
- For manual operation
- Burnished
- Special steel

Application range: PSA, Ford, Toyota



| | mm | Ø mm | mm | L mm | g |
|----------|----|------|------|-------|-----|
| 150.2391 | 25 | 37,0 | 22,0 | 100,0 | 300 |

Injector-socket

- 6-point
- Ideal for assembly and disassembly of injectors
- With side window and opening for connection to nozzle head (E-connection)
- Internal square to DIN 3120/ISO 1174 with ball reception
- For manual operation
- Burnished
- Special steel

Application range: 2.0 l DW 10 HDI engines, etc.



| | mm | Ø mm | mm | L mm | g |
|----------|----|------|------|-------|-----|
| 150.2307 | 27 | 38,0 | 22,0 | 100,0 | 280 |

Injector-socket

- 6-point
- Ideal for assembly and disassembly of injectors
- With side window and opening for connection to nozzle head (E-connection)
- Internal square to DIN 3120/ISO 1174 with ball reception
- For manual operation
- Burnished
- Special steel

Application range: DCI and HDI engines, etc.



| | mm | Ø mm | mm | L mm | g |
|----------|----|------|------|-------|-----|
| 150.2308 | 29 | 42,0 | 22,0 | 100,0 | 340 |

Injector-socket

- 6-point
- Ideal for assembly and disassembly of injectors
- With side window and opening for connection to nozzle head (E-connection)
- Internal square to DIN 3120/ISO 1174 with ball reception
- For manual operation
- Burnished
- Special steel

Application range: Renault, Nissan, 1.9 l F9Q engines, etc.



| | mm | Ø mm | mm | L mm | g |
|----------|----|------|------|-------|-----|
| 150.2309 | 30 | 43,0 | 22,0 | 100,0 | 360 |

Injector-socket set

- 6-point
- Ideal for assembly and disassembly of injectors
- With side window and opening for connection to nozzle head (E-connection)
- Internal square to DIN 3120/ISO 1174 with ball reception
- For manual operation
- Burnished
- Special steel
- In durable plastic storage case



| | mm | g | |
|----------|-------|---------------------|------|
| 150.2310 | 4 pcs | Injector-socket set | 1.56 |

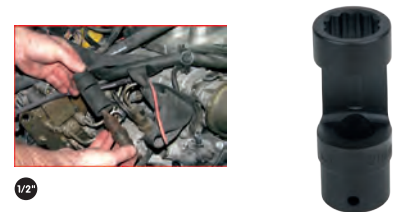
consists of:

| | g | |
|----------|-------------------------------|-----|
| 150.2391 | 1/2" injector-socket, 25,0 mm | 300 |
| 150.2307 | 1/2" injector-socket, 27,0 mm | 280 |
| 150.2308 | 1/2" injector-socket, 29,0 mm | 340 |
| 150.2309 | 1/2" injector-socket, 30,0 mm | 360 |

Injector-socket

- 12-point
- Ideal for assembly and disassembly of injectors
- Internal square to DIN 3120/ISO 1174 with ball reception
- With a side window for guiding the cable of the motion sensor and the return pipe
- For manual operation
- Phosphate
- Chrome molybdenum

Application range: Ford Mondeo from 10/2000 - 02/2007, 2.0 DI, -TDCI, -TDDI, 2.2 TDCI; Ford Transit from 01.2000 - 05/2006, 2.0 DI, -TDCI and 2.4 DI, -TDCI



| | mm | D1 mm | D2 mm | L mm | g |
|----------|----|-------|-------|------|-----|
| 150.9541 | 21 | 32.0 | 34.0 | 90.0 | 300 |

Injector-socket

- 12-point
- Ideal for assembly and disassembly of injectors
- Internal square to DIN 3120/ISO 1174 with ball reception
- With a side window for guiding the cable of the motion sensor and the return pipe
- For manual operation
- Burnished
- Special steel

Application range: Alfa Romeo, Chrysler, Rover, MAN 2.5TD



| | mm | D1 mm | D2 mm | L mm | g |
|----------|----|-------|-------|------|-----|
| 150.2322 | 28 | 40.0 | 33.0 | 78.0 | 280 |

Diesel injector socket

- 6 point
- Special socket key for dismantling and assembly of injectors
- Correct easy and damage free usage
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Ideally suited for commercial vehicles, light commercial, SUV, etc
- Black, tempered surface
- Special steel

Application range: Mercedes Benz, Motor 604 / 605 / 606



1/2"

| | mm | L mm | kg |
|----------|----|-------|-----|
| 455.0034 | 22 | 110.0 | 250 |

Diesel injector socket

- 12 point
- Special socket key for dismantling and assembly of injectors
- Correct easy and damage free usage
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Ideally suited for commercial vehicles, light commercial, SUV, etc
- Black, tempered surface
- Special steel

Application range: Mercedes Benz Actros, Motor 457 / 541 / 542, Ford Maverik 2,7 TDI, Nissan Terrano TD 2,5L / 2,7L, Opel Corsa 1,5D / 1,7 TD, Isuzu



1/2"

| | mm | L mm | kg |
|----------|----|------|-----|
| 455.0033 | 22 | 80.0 | 250 |

Diesel injector socket

- 12 point
- Special socket key for dismantling and assembly of injectors
- Correct easy and damage free usage
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Ideally suited for commercial vehicles, light commercial, SUV, etc
- Black, tempered surface
- Special steel

Application range: Suitable for diesel engines from Fiat, Ford, Mercedes Benz and Volkswagen (vans and passenger cars), MAN 2,5 TD



1/2"

| | mm | L mm | kg |
|----------|----|------|-----|
| 455.0032 | 27 | 78.0 | 250 |

Diesel injector socket

- 12 point
- Special socket key for dismantling and assembly of injectors
- Correct easy and damage free usage
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Ideally suited for commercial vehicles, light commercial, SUV, etc
- Black, tempered surface
- Special steel

Application range: MAN 6 cylinder in line D 0226, Chrysler Voyager, Jeep Cherokee, Opel Frontera VM 41 B, Rover, Landrover Discovery Motor VM 2,5L TD



1/2"

| | mm | L mm | kg |
|----------|----|------|-----|
| 455.0031 | 28 | 78.0 | 250 |

Diesel injector socket set

- Special socket key for dismantling and assembly of injectors
- Correct easy and damage free usage
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Ideally suited for commercial vehicles, light commercial, SUV, etc
- Black, tempered surface
- Special steel
- In durable plastic storage case

Application range: MAN, Mercedes Benz Transporter and commercial vehicles, Opel, Fiat, Volkswagen, Ford, Nissan, etc.



1/2"

| | kg |
|---|------|
| 455.0030 4 pcs Diesel injector socket set | 1.10 |

consists of:

| | | kg |
|----------|--|-----|
| 455.0031 | 1/2" Diesel injector socket 12 point, 28mm | 250 |
| 455.0032 | 1/2" Diesel injector socket 12 point, 27mm | 250 |
| 455.0033 | 1/2" Diesel injector socket 12 point, 22mm | 250 |
| 455.0034 | 1/2" Diesel injector socket 6 point, 22mm | 250 |

Injector-socket with bore hole

- Hexagon socket with bore hole
- Ideal for assembly and disassembly of Common Rail couplings
- Internal square to DIN 3120/ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

Application range: Bosch injectors in DCI and HDI engines, etc.



1/2"

| | mm | D mm | L mm | T mm | kg |
|----------|----|------|------|------|-----|
| 152.1057 | 10 | 22.0 | 75.0 | 35.0 | 100 |

Injector socket

- 6-point
- Ideal for assembly and disassembly of injectors
- With side window and opening for connection to nozzle head (E-connection)
- Internal square to DIN 3120/ISO 1174 with ball reception
- External drive hexagonal socket 22.0 mm
- For manual operation
- Burnished
- Special steel

Application range: PSA, Ford, Toyota



1/2"

| | mm | Ø mm | Total length mm | kg |
|----------|------|------|-----------------|-----|
| 152.1195 | 25,0 | 37,0 | 100,0 | 270 |

Injector socket

- 6-point
- Ideal for assembly and disassembly of injectors
- With side window and opening for connection to nozzle head (E-connection)
- Internal square to DIN 3120/ISO 1174 with ball reception
- External drive hexagonal socket 22.0 mm
- For manual operation
- Burnished
- Special steel

Application range: 2.0 | DW 10 HDI engines, etc.



1/2"

| | mm | Ø mm | Total length mm | kg |
|----------|------|------|-----------------|-----|
| 152.1196 | 27,0 | 38,0 | 100,0 | 270 |

Injector socket

- 6-point
- Ideal for assembly and disassembly of injectors
- With side window and opening for connection to nozzle head (E-connection)
- Internal square to DIN 3120/ISO 1174 with ball reception
- Opened design
- For damage-free assembly and disassembly
- Tempered surface
- Special steel

Application range: Mercedes A- and B-Class, Fiat 1.3MJ



1/2"

| | mm | Ø mm | Total length mm | g |
|----------|------|------|-----------------|-----|
| 152.1058 | 29,0 | 42,0 | 78,0 | 274 |

Injector socket

- 6-point
- Ideal for assembly and disassembly of injectors
- With side window and opening for connection to nozzle head (E-connection)
- Internal square to DIN 3120/ISO 1174 with ball reception
- External drive hexagonal socket 22.0 mm
- For manual operation
- Burnished
- Special steel

Application range: Mercedes A- and B-Class, Fiat 1.3MJ



1/2"

| | mm | Ø mm | Total length mm | g |
|----------|------|------|-----------------|-----|
| 152.1197 | 29,0 | 42,0 | 100,0 | 342 |

Injector socket

- 6-point
- Ideal for assembly and disassembly of injectors
- With side window and opening for connection to nozzle head (E-connection)
- Internal square to DIN 3120/ISO 1174 with ball reception
- External drive hexagonal socket 22.0 mm
- For manual operation
- Burnished
- Special steel

Application range: Renault, Nissan, 1.9 I F9Q engines, etc.



1/2"

| | mm | Ø mm | Total length mm | g |
|----------|------|------|-----------------|-----|
| 152.1198 | 30,0 | 43,0 | 100,0 | 358 |

FUEL FILTER TOOL

Diesel filter bit socket

- Ideal for releasing and tightening of fuel, coolant and central reinforcement screws
- Also suitable for brass injector inserts
- Makes simple and time-saving work possible
- Ideal length for pump injector engines
- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120/ISO 1174 with ball reception
- Matt finish
- Chrome vanadium

Application range: Audi, Seat, Škoda and Volkswagen

1/2"



| | mm | L mm | g |
|----------|------|-------|-----|
| 911.1961 | 11,0 | 100,0 | 100 |
| 911.1963 | 13,0 | 100,0 | 100 |

Fuel filter wrench for 2.0/2.2 HDI engines

- Special for 2.0/2.2 HDI
- Ideal for releasing and fastening diesel filters
- Makes simple and time-saving work possible
- Internal square drive to DIN 3120/ISO 1174
- Matt finish
- Chrome vanadium

Application range: Citroën, Ford, Fiat, Lancia, Land Rover, Mitsubishi, Peugeot, Volvo, etc.



1/2"

| | mm | L mm | g |
|----------|----|------|-----|
| 150.3195 | 27 | 42,0 | 140 |

Fuel filter removal tool for JTD engines

- Ideal for releasing and fastening fuel filter covers
- Necessary for the removal and installation of the fuel filter cover when changing the fuel filter insert
- Makes precise torque installation possible
- Prevents damage to the fuel filter housing and the mounting ring
- Makes simple and time-saving work possible
- Internal square drive to DIN 3120/ISO 1174
- Matt finish
- Chrome vanadium

Application range: Alfa Romeo, Chevrolet, Citroën, Fiat, Lancia, Peugeot, Saab, Suzuki, Opel



1/2"

| | | g |
|----------|--|-----|
| 150.3113 | 2 pcs Fuel filter removal tool for JTD engines | 548 |

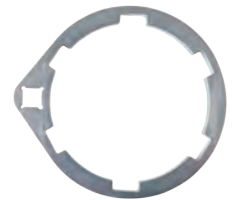
consists of:

| | | g |
|----------|--------------------------------|-----|
| 150.3114 | 1/2" diesel filter case wrench | 223 |
| 150.3124 | Diesel filter clamping device | 322 |

Fuel filter wrench for Volvo 2.4D/2.4D5 engines

- Ideal for releasing and fastening fuel filter covers
- Necessary for the removal and installation of the fuel filter cover when changing the fuel filter insert
- Makes precise torque installation possible
- Prevents damage to the fuel filter housing and the mounting ring
- Makes simple and time-saving work possible
- Internal square drive to DIN 3120/ISO 1174
- Matt finish
- Chrome vanadium

Application range: Volvo (e.g. S60, S80, V70, XC70, XC90 with 2.4D and 2.4D5 engines)



3/8"

| | Ø mm | g |
|----------|------|-----|
| 150.3121 | 82,0 | 200 |

Fuel filter wrench for PSA HDI engines

- Ideal for releasing and fastening fuel filter covers
- Necessary for the removal and installation of the fuel filter cover when changing the fuel filter insert
- Makes precise torque installation possible
- Prevents damage to the fuel filter housing and the mounting ring
- Makes simple and time-saving work possible
- Internal square drive to DIN 3120/ISO 1174
- Matt finish
- Chrome vanadium

Application range: Citroën, Peugeot, Renault, etc.



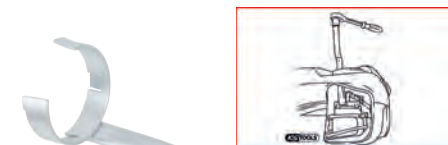
3/8"

| | Ø mm | g |
|----------|-------|-----|
| 150.3122 | 109,0 | 245 |

Wrench for VAG fuel pumps

- Ideally suited to assembly and disassembly of fuel pumps
- Internal square in accordance with DIN 3120/ISO 1174
- Special profile
- Aluminium

Application range: Audi, Seat, Skoda, Volkswagen



| | Ø mm | Length mm | g |
|----------|------|-----------|-----|
| 150.3179 | 100 | 390,0 | 700 |

Oil filter wrench Ø 109.0 mm / 6 grooves

- For the quick and professional installation and dismantling of the oil filter cover when changing the oil filter insert
- Use according to the manufacturer's specification for torque
- Suitable for left and right side operation
- Internal square drive to DIN 3120 - ISO 1174
- For manual operation
- Painted surface

Application range: Fiat, Alfa Romeo, Lancia, Opel, etc.



| | Grooves | Ø mm | Weight g |
|----------|---------|------|----------|
| 150.9383 | 6 | 109 | 380 |

Fuel filter wrench for Mercedes CDI engines

- Ideal for releasing and fastening fuel filter covers
- Necessary for the removal and installation of the fuel filter cover when changing the fuel filter insert
- Makes precise torque installation possible
- Prevents damage to the fuel filter housing and the mounting ring
- Makes simple and time-saving work possible
- Internal square drive to DIN 3120/ISO 1174
- Matt finish
- Chrome vanadium

Application range: Mercedes CDI engines



| | Height mm | Length mm | Weight g |
|----------|-----------|-----------|----------|
| 150.3134 | 70.0 | 112.0 | 240 |

Fuel filter wrench for PSA HDI engines

- Ideal for releasing and fastening fuel filter covers
- Necessary for the removal and installation of the fuel filter cover when changing the fuel filter insert
- Makes precise torque installation possible
- Prevents damage to the fuel filter housing and the mounting ring
- Makes simple and time-saving work possible
- Internal square drive to DIN 3120/ISO 1174
- Matt finish
- Chrome vanadium

Application range: Citroën, Peugeot, Renault, etc.



| | Grooves | Ø mm | Weight g |
|----------|---------|-------|----------|
| 150.9398 | 8 | 109.0 | 480 |

Universal fuel filter pliers with flexible jaws

- Ideally suited to releasing and tightening the fuel filter cover on hard-to-reach filters.
- Necessary for the removal and installation of the fuel filter cover when changing the fuel filter insert
- Multi-adjustable, two-stage pliers opening makes a large working area possible
- Double-sided 90° jaws, adjustable in 4 positions (45° steps)
- Retaining claws on the jaws prevent slipping when changing the filter
- Prevents damage to the fuel filter housing and the mounting ring
- Makes simple and time-saving work possible
- With PVC dipped handle
- Phosphate
- Chrome vanadium



| | Ø mm | Length mm | Weight g |
|----------|------------|-----------|----------|
| 150.3129 | 57.0-120.0 | 325.0 | 640 |

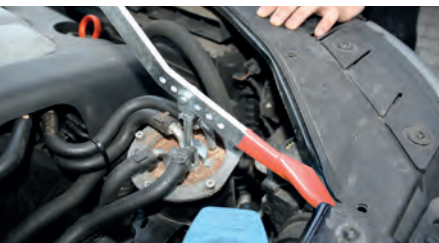
Fuel filter removal bar for UFI filters

- Ideal for releasing and fastening UFI fuel filter covers
- Necessary for the removal and installation of the fuel filter cover when changing the fuel filter insert
- Multi-adjustable, six-stage lever adjustment opening makes a large working area possible
- Flexible rotary magazine adapter with diverse attachments for corresponding use
- Prevents damage to the fuel filter housing and the mounting ring
- Prevents leakages which may cause engine damage when coming into contact with the timing belt
- Makes simple and time-saving work possible
- Matt finish
- With PVC handle and anchor
- Special tool steel

Application range: Audi, Seat, Škoda and Volkswagen (2.0 TDI CR)



| | Length mm | Spare adaptor | Weight g |
|----------|-----------|---------------|----------|
| 150.3126 | 420.0 | 150.3127 | 480 |



TANK SENDER WRENCH

2-jaw universal fuel gauge sender unit key

- With 6 point drive
- Ideal for releasing and tightening the fuel filter locking ring from the tank sender to the fuel tank
- Makes simple and time-saving work possible
- Adjustable
- Chrome plated and mirror polished
- Chrome vanadium



| | mm | Ø mm | Weight g |
|----------|----|---------------|----------|
| 150.9384 | 24 | 80.0 - 120.0 | 400 |
| 150.9385 | 24 | 110.0 - 170.0 | 460 |

2-jaw fuel sender unit key set

- With 6 point drive
- Ideal for releasing and tightening the fuel filter locking ring from the tank sender to the fuel tank
- Makes simple and time-saving work possible
- Adjustable
- Chrome plated and mirror polished
- Chrome vanadium



| | | Weight g |
|----------|--------------------------------------|----------|
| 150.9387 | 2 pcs 2-jaw fuel sender unit key set | 900 |

consists of:

| | | Weight g |
|----------|---|----------|
| 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 |

3-jaw universal fuel gauge sender unit key

- With 6 point drive
- Ideal for releasing and tightening the fuel filter locking ring from the tank sender to the fuel tank
- Makes simple and time-saving work possible
- Adjustable
- Chrome plated and mirror polished
- Chrome vanadium



| | mm | Ø mm | Weight g |
|----------|----|------------|----------|
| 150.9386 | 24 | 75.0-160.0 | 570 |

3-jaw fuel gauge and pump sender collar wrench

- With 6 point drive
- Ideal for releasing and tightening the fuel filter locking ring from the tank sender to the fuel tank
- Makes simple and time-saving work possible
- No damage to the ring by the tool
- Makes work in tight gaps possible
- Less space required
- Quick adjustments
- Special steel tool

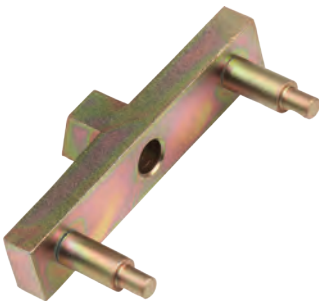


| | mm | Ø mm | kg |
|----------|----|--------------|-----|
| 150.9388 | 16 | 87,0 - 170,0 | 960 |

Fuel sender wrench for Mercedes W210

- With two pins
- With 6 point drive
- Ideal for releasing and tightening the fuel filter locking ring from the tank sender to the fuel tank on the Mercedes W210 (E Class)
- Makes simple and time-saving work possible
- Special tool steel

Application range: Mercedes W210 (E Class)

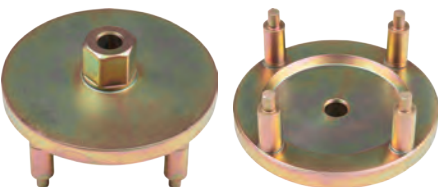


| | mm | L mm | kg |
|----------|----|------|-----|
| 150.9389 | 17 | 80,0 | 120 |

Fuel sender wrench for Mercedes W202

- With 6 point drive
- Ideal for releasing and tightening the fuel filter locking ring from the tank sender to the fuel tank on the Mercedes W202 (C Class)
- Makes simple and time-saving work possible
- With four pins
- Special tool steel

Application range: Mercedes W202 (C Class)



| | mm | Ø mm | kg |
|----------|----|------|-----|
| 150.9399 | 24 | 108 | 820 |

TEST DEVICE

Compression test set

- For quick and exact compression pressure testing of petrol engines
- Includes shock-proof precision manometer diameter 75.00 mm
- Suitable for 14 mm and 18 mm spark plug threads
- Very flexible tube for hard-to-reach places
- Display: psi; kg/cm²
- Universal usage



| | pcs | kg |
|----------|-------|-----|
| 152.2067 | 2 pcs | 440 |

consists of:

| | | kg |
|----------|--------------------------------|-----|
| 152.2068 | Compression manometer 0-20 bar | 320 |
| 152.2069 | Adapter | 40 |

Compression tester set, digital

- For quick and exact compression pressure testing of petrol and diesel engines
- Quick and compact coupling to all adapters
- Includes shock-proof precision manometer diameter 75.00 mm 0 - 20 bar
- Very flexible tube for hard-to-reach places
- Display: bar, psi
- Includes 1x 9 V block battery as standard
- Universal usage
- In durable plastic storage case



| | pcs | kg |
|----------|-------|------|
| 152.2030 | 7 pcs | 1.10 |

consists of:

| | | kg |
|----------|---|-----|
| 152.2031 | Compression manometer 0-20 bar | 240 |
| 152.2032 | Adapter M 10 x 1.0 | 10 |
| 152.2033 | Adapter M 12 x 1.25 | 10 |
| 152.2034 | Adapter M 14 x 1.25 | 12 |
| 152.2036 | Hose, l = 450 mm | 120 |
| 152.2037 | Pressure pipe with rubber cap, straight | 120 |
| 152.2038 | Pressure pipe with rubber cap, angled | 120 |

Compression pressure test set for diesel engines

- Important tool for engine diagnosis
- For identifying wear and leaks on piston rings
- Compression pressure test up to 70 bar (1000 psi) possible
- Quick coupling in either straight or angled set up
- Due to the variety of the adapter further applications such as car, wagon, ship and agricultural petrol and diesel engines
- For a long life in daily workshop use
- In durable plastic storage case

Application range: Alfa Romeo, BMW, Chrysler, Daewoo, Fiat, Ford, Hyundai, Isuzu, Land Rover, Mazda, Mercedes, Mitsubishi, Nissan, Opel, PSA, Renault, Saab, Suzuki, Toyota, VAG, Vauxhall, Volvo, etc.



| | pcs | kg |
|----------|--------|------|
| 150.3660 | 36 pcs | 4.22 |

consists of:

| Type | | kg |
|----------|--|-----|
| 150.3661 | Manometer with hose, 0-1000 psi, Ø 70 mm | 550 |
| 150.3662 | #1 Glow plugs adapter, M 12 x 1.25 with external thread, length 47 mm | 26 |
| 150.3663 | #2 Glow plugs adapter, M 12 x 1.25 with external thread, length 55 mm | 29 |
| 150.3664 | #3 Glow plugs adapter, M 12 x 1.25 with external thread, length 87 mm | 46 |
| 150.3665 | #4 Injector adapter, M 10 x 1.25 with external thread, length 70 mm | 27 |
| 150.3666 | #5 Injector adapter, M 10 x 1.25 with external thread, length 57 mm | 23 |
| 150.3667 | #6 Injector adapter, M 10 x 1.25 with external thread, length 70 mm | 28 |
| 150.3668 | #7 Injector adapter, M 10 x 1.25 with external thread, length 82 mm | 32 |
| 150.3669 | #8 Injector adapter, M 10 x 1.25 with external thread, length 170 mm | 66 |
| 150.3670 | #9 Glow plugs adapter, M 10 x 1.25 with external thread, length 120 mm | 42 |
| 150.3671 | #10 Injector adapter, M 10 x 1.25 with external thread, length 132 mm | 47 |
| 150.3672 | #11 Glow plugs adapter, M 10 x 1.25 with external thread, length 70 mm | 27 |
| 150.3673 | #12 Glow plugs adapter, M 10 x 1.0 with external thread, length 83 mm | 29 |
| 150.3674 | #13 Glow plugs adapter, M 10 x 1.0 with external thread, length 74 mm | 26 |
| 150.3675 | #15 Glow plugs adapter, M 10 x 1.0 with external thread, length 75 mm | 27 |
| 150.3676 | #16 Glow plugs adapter, M 10 x 1.0 with external thread, length 99 mm | 34 |
| 150.3677 | #17 Glow plugs adapter, M 10 x 1.0 with external thread, length 108 mm | 37 |
| 150.3678 | #18 Glow plugs adapter, M 10 x 1.0 with external thread, length 75 mm | 26 |
| 150.3679 | #19 Glow plugs adapter, M 10 x 1.0 with external thread, length 135 mm | 53 |
| 150.3680 | #20 Glow plugs adapter, M 10 x 1.0 with external thread, length 175 mm | 66 |
| 150.3681 | #21 Glow plugs adapter, M 8 x 1.0 with external thread, length 120 mm | 36 |
| 150.3682 | #26 Injector adapter, length 133 mm | 78 |
| 150.3683 | #27 Injector adapter, M 22 x 1.5, length 92 mm | 174 |
| 150.3684 | #28 Injector adapter, M 24 x 1.5, length 80 mm | 151 |
| 150.3685 | #29 Injector adapter, M 20 x 1.5, length 65 mm | 85 |
| 150.3686 | #30 Injector adapter, M 24 x 2.0, length 72 mm | 167 |
| 150.3687 | #31 Injector adapter with seal, Ø 14 mm | 100 |
| 150.3688 | #32 Injector adapter with seal, Ø 6 mm | 97 |
| 150.3689 | #33 Injector adapter with seal, Ø 17 mm | 41 |
| 150.3690 | #34 Injector adapter with seal, Ø 14 mm | 76 |
| 150.3691 | #35 Injector adapter with seal, Ø 7 mm | 38 |
| 150.3692 | #36 Pressure tube | 201 |
| 150.3693 | #37 Small bridges | 38 |
| 150.3694 | #38 Medium bridges | 65 |
| 150.3695 | #39 Large bridges | 88 |
| 150.3696 | B Angle piece | 44 |

Cylinder leak detector tester set

- For diagnosis of compression pressure loss
- Suitable for analysing inlet and outlet valves, piston rings or cylinder liner, cylinder head or head seal
- Better alternative for compression measurement
- Universal usage
- Integrated pressure reducer
- Necessary working pressure: 1.0 bar
- For use on engines at operating temperature
- In durable plastic storage case

Test results:

Outlet valves not tight:

Air noises in exhaust, manifold and cylinder head on the outlet side

Inlet valves not tight:

Air noises in intake, on cylinder head on the inlet side

Piston rings, pistons, cylinder bore damaged:

Air noises on the crankcase breather or on the dipstick

Cylinder head seal defective:

Air noises in the adjacent cylinder, spark plug bore

Cylinder head seal defective or tear in cylinder head

Air noises or bubble formation in the cooling system or reservoir



| | | | kg |
|----------|-------|-----------------------------------|------|
| 150.1780 | 9 pcs | Cylinder leak detector tester set | 2.30 |

consists of:

| | | | kg |
|----------|--|-----|----|
| 150.1781 | Test device with dual display: Input pressure 0-7 bar + pressure loss display 0-100% | 570 | |
| 150.1782 | Hose 14/18 mm | 132 | |
| 150.1783 | House with adaptor | 108 | |
| 150.1784 | Adaptor M10 x 1.0 mm | 280 | |
| 150.1785 | Adaptor M12 x 1.25 mm | 310 | |
| 150.1786 | Adaptor M14 x 1.25 mm | 330 | |
| 150.1787 | Adaptor M14 x 1.25 mm, long design | 550 | |
| 150.1788 | Spark plug adaptor M12 x 1.25 mm | 251 | |
| 150.1789 | Spark plug adaptor M14 x 1.25 mm | 255 | |

Low fuel pressure diagnosis set

- Ideal for the quick and easy testing of low pressure circuit (flow pressure and return pressure measurement)
- Quick to find leaks
- Fits all common vehicles
- The pressure loss inspection is carried out via the manometer
- Quick and efficient use
- For the diagnosis of the following basic tests: the supply of fuel from the tank, air bubbles in the fuel system, impurities in the fuel
- In durable plastic storage case

Application range: Commercial vehicles, transporters and MPVs



| | | | kg |
|----------|--------|---------------------------------|------|
| 150.1845 | 15 pcs | Low fuel pressure diagnosis set | 4.00 |

consists of:

| | | | kg |
|----------|---|---|-----|
| X | | | kg |
| 150.1846 | 2 | Adapter hose Ø 6.0 mm, 2 m long | 320 |
| 150.1847 | 1 | Manometer 1.0 - 5.0 bar incl. connection nipple and safety cover | 140 |
| 150.1848 | 1 | Manometer 1.0 - 15.0 bar incl. connection nipple and safety cover | 140 |
| 150.1849 | 1 | T-piece SAE 8 x 20 mm (red) | 100 |
| 150.1851 | 1 | T-piece SAE 9.5 x 20 mm (grey) | 100 |
| 150.1852 | 1 | T-piece SAE 10 x 20 mm (green) | 120 |
| 150.1853 | 1 | T-piece SAE 10 x 30 mm (blue) | 120 |
| 150.1854 | 1 | T-piece NG8 Type 246 (white) | 100 |
| 150.1855 | 1 | T-piece Ø 6.0 mm (brown) | 60 |
| 150.1856 | 1 | T-piece Ø 8.0 mm (orange) | 60 |
| 150.1857 | 1 | T-piece Ø 10.0 mm (purple) | 60 |
| 150.1858 | 1 | T-piece 11.8 x 25 mm (light blue) | 140 |
| 150.1859 | 2 | T-piece SAE 8 x 30 mm (yellow) | 100 |

Fuel system testing and cleaning set

- Makes possible quick, simple and correct operation of the engine, without using the tank fitted to the vehicle
- Suitable for diagnosing faults between the tank and high-pressure tank, fuel filter, etc.
- Ideal for fuel systems to release soiling and gunk in the injection system with an exact mix of fuel/cleaning agent
- In durable plastic storage case

Application range: Universally suitable for all vehicles with a naturally aspirated engine



| | | | kg |
|----------|--------|--------------------------------------|------|
| 150.1860 | 43 pcs | Fuel system testing and cleaning set | 8.00 |

consists of:

| | | | kg |
|----------|---|---|------|
| X | | | kg |
| 150.1861 | 1 | 10 litre container | 1000 |
| 150.1661 | 1 | Hand pump with male coupling | 280 |
| 150.1862 | 2 | Adapter hose Ø 8.0 mm, 4 m long | 650 |
| 150.1864 | 1 | Adapter set 3 part SAE 8 x 20 mm (red) | 120 |
| 150.1865 | 1 | Adapter set 3 part SAE 8 x 30 mm (yellow) | 120 |
| 150.1866 | 1 | Adapter set 3 part SAE 9.5 x 20 mm (grey) | 120 |
| 150.1867 | 1 | Adapter set 3 part SAE 10 x 20 mm (green) | 120 |
| 150.1868 | 1 | Adapter set 3 part SAE 10 x 30 mm (blue) | 160 |
| 150.1869 | 1 | Adapter set 3 part NG8 Type 246 (white) | 120 |
| 150.1870 | 1 | Adapter set 3 part Ø 6.0 mm (light blue) | 200 |
| 150.1871 | 1 | Adapter set 3 part Ø 8.0 mm (pink) | 180 |
| 150.1872 | 1 | Adapter set 3 part Ø 10.0 mm (purple) | 100 |
| 150.1873 | 1 | Adapter set 3 part 11.8 x 25 mm (brown) | 80 |
| 150.1874 | 1 | Adapter set 3 part NG12 Type 246 (orange) | 100 |
| 150.1875 | 1 | Adapter set 3 part Ø 12.0 mm (black) | 140 |
| 150.2324 | 2 | Double-sided adapter 3/8", short | 36 |
| 150.2323 | 1 | Double-sided quick coupling 3/8" | 74 |

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.



| | | | kg |
|----------|--------|---|------|
| 150.1580 | 65 pcs | Common rail injector test assortment with 8 measurement pipes | 3.16 |

consists of:

| | | | kg |
|----------|---|--------------------------------------|-----|
| X | | | kg |
| 150.1581 | 1 | Acrylic-Block | 800 |
| 150.1582 | 8 | Silicone tube 5,2 x 8,8 x 600 mm | 40 |
| 150.1583 | 8 | O-Ring 16 x 1,3 mm | 1 |
| 150.1584 | 8 | Adapter to acrylic block with O ring | 24 |
| 150.1594 | 8 | Adaptor for Bosch | 10 |
| 150.1595 | 8 | Adaptor for Siemens | 10 |
| 150.1596 | 8 | Adaptor for Denso | 10 |
| 150.1597 | 8 | Adaptor for Delphi | 10 |
| 150.1598 | 8 | Double nipple Adaptor for Bosch | 30 |
| 150.1599 | 8 | Fast fastener coupling | 30 |



Master fuel injection system pressure test set for petrol engines

- Ideal for quick and reliable pressure testing on all common injection systems of petrol engines
- For simple testing of fuel pumps, system pressure sensors and tightness
- Suitable for mechanical and electrical petrol injection systems
- For almost all common, European, Asian and American vehicle types
- Includes shock-proof, large precision manometer Ø 100.00 mm, 0 - 10 bar with rubber cover
- Includes shock-proof, small precision manometer Ø 75.00 mm, 0 - 1 bar especially for the central injection with rubber cover
- Compact quick couplings to all adapters and hoses
- Replacement washers (20 pieces) are available in the set
- In durable plastic storage case

Application range / injection systems: Bosch K-Jetronic, Bosch L/LH-Jetronic, Bosch Motronic, Bosch Motronic-Jetronic, MPFI, TBI, Eci, MPI, EFI, EGI, PGM-Fi, DIGIFANT 1/2, CIS-Digital, Weber CFI, Spi, Singlepoint, Multipoint, Multec SPI, EFI, Simtec EFI, 1-Tec, Magent Marelli G5/G6 Mono, Weber-Marelli 1AW, CFI, Volkswagen 1AW, R Electronc etc.



| X | Type | g |
|----------|--|------|
| 150.2325 | 42 pcs Master fuel injection system pressure test set for petrol engines | 4.00 |

consists of:

| X | Type | g |
|----------|--|-----|
| 150.2326 | 1 A Manometer Ø 100.0 mm, 0 - 10 bar with 1/4" quick coupling | 360 |
| 150.2327 | 1 B Manometer Ø 75.0 mm, 0 - 1 bar with 1/4" quick coupling | 202 |
| 150.2328 | 2 GA Adapter piece M14x1.5 internal thread and 1/4" hose connection | 41 |
| 150.2329 | 2 GT Adapter piece M16x1.5 internal thread and 1/4" hose connection | 39 |
| 150.2340 | 1 GS Double-sided adapter piece 5/8"x18 internal thread | 28 |
| 150.2341 | 2 GV Adapter piece 5/8"x1.8 external thread and 1/4" hose connection | 26 |
| 150.2342 | 2 GU Adapter piece M16x1.5 external thread and 1/4" hose connection with sealant ring | 48 |
| 150.2343 | 2 GB Adapter piece M14x1.5 external thread and 1/4" hose connection with sealant ring | 39 |
| 150.2344 | 1 GC Connection adapter piece M14x1.5 external thread and 16 mm hexagon with sealant ring | 37 |
| 150.2345 | 1 AE Adapter piece (long) M8x1.0 external thread and 1/4" hose connection with sealant ring | 70 |
| 150.2346 | 1 AB Dual adapter piece M16x1.5 internal and external thread and 3/8" hose connection | 65 |
| 150.2347 | 1 AA Dual adapter piece M14x1.5 internal and external thread and 3/8" hose connection | 65 |
| 150.2348 | 1 AI Adapter piece M10x1.0 external thread and 1/4" hose connection with sealant ring | 35 |
| 150.2349 | 1 AJ Adapter piece M10x1.0 internal thread and 1/4" hose connection | 21 |
| 150.2360 | 1 HO Hollow bolt M8x1.0 and 1/4" hose connection | 22 |
| 150.2361 | 1 HN Hollow bolt M6x1.0 and 1/4" hose connection | 19 |
| 150.2362 | 1 G Manometer connection hose with 1/4" hose connection with valve for Bosch CSI and GM TBI systems | 110 |
| 150.2363 | 1 W Manometer connection hose with 1/4" hose connection for Ford EFI systems | 324 |
| 150.2364 | 1 F Manometer connection hose with 1/4" hose connection for universal use with 3/8" and 5/16" high-pressure hose connections | 160 |

consists of:

| X | Type | g |
|----------|--|-----|
| 150.2365 | 1 C Adapter hose for small Schrader valve 5/16"x32 UNF internal thread and 1/4" hose connection | 95 |
| 150.2366 | 1 D Manometer connection hose with 1/4" hose connection including pressure release valve, transparent hose | 110 |
| 150.2367 | 1 E Adapter hose for standard Schrader valve 7/16"x20 UNF internal thread and 1/4" hose connection | 116 |
| 150.2368 | 1 X Manometer 5/16" quick coupling connection hose with 1/4" hose connection for Ford EFI systems | 40 |
| 150.2369 | 1 XA Manometer 5/16" quick coupling connecting hose with 1/4" hose connection for GM TBI systems | 55 |
| 150.2650 | 2 AM Adapter piece M8x1.0 external thread and 1/4" hose connection with sealant ring | 13 |
| 150.2651 | 2 AK Adapter piece M12x1.5 internal thread and 1/4" hose connection | 24 |
| 150.2652 | 1 AL Adapter piece M8x1.0 internal thread and 1/4" hose connection | 22 |
| 150.2653 | 1 AC Dual adapter piece M14x1.25 internal and external thread and 1/4" hose connection | 63 |
| 150.2654 | 1 AG Adapter piece (long) M8x1.0 internal thread and 1/4" hose connection | 64 |
| 150.2655 | 1 HA Adapter piece (long) for 1/4", 3/8", 1/2" hoses and 1/4" hose connection | 51 |
| 150.2656 | 1 HE Hollow bolt M14x1.5 and 1/4" hose connection | 28 |
| 150.2657 | 1 HR Hollow bolt M12x1.5 and 1/4" hose connection | 38 |
| 150.2658 | 1 HQ Hollow bolt M12x1.25 and 1/4" hose connection | 33 |
| 150.2659 | 1 HP Hollow bolt M10x1.0 and 1/4" hose connection | 29 |
| 150.2661 | 1 Replacement sealant ring packet 20 Pieces | 10 |

Diesel injector test device set 0-600 bar

- Table device for the testing of diesel injectors for opening pressure, density and jet shape
- During testing the fluid is injected back in to the storage tank with spray guard
- Pump lever (400 mm) can be moved for easier pumping
- Drag indicator stays still for injection pressure, therefore it is not required, to monitor the nozzle jet and the manometer at the same time
- Fluid container volume 330 cm³
- Piston displacement 35 cm³
- Bolted precision manometer Ø 100.0 mm with protective rubber parts 0-600 bar
- Includes two high pressure pipe adapters
- Device body made from sturdy metal cast
- Test container from shock-proof and diesel resistant plastic with fine filter
- Feet (118 mm x 97 mm) with four bore holes for sturdy mounting onto work bench

For testing the following methods:

- Jet free or blocked
- Opening pressure
- Jet nozzle pattern/nebulisation
- Clasp drip behaviour
- Acoustic inspection (chattering)
- Density of the pressure tube between injection pump and nozzle

Application range:
M14 x 1.5 universal
M12 x 1.25 VAG TDI engines



| | H mm | g |
|----------|-------|------|
| 455.0120 | 345.0 | 2.90 |

consists of:

| | | g |
|----------|---------------------------------------|------|
| 455.0121 | Connection pipe M14 x M14, 210 mm | 80 |
| 455.0122 | Connection pipe M14 x M12, 210 mm | 72 |
| 455.0123 | Diesel injector test device 0-600 bar | 2700 |

Oil pressure testing equipment

- For the diagnosis of leaks in the oil system
- Compact quick coupling to all adapters
- Includes shock-proof precision manometer diameter 75.00 mm 0 - 10 bar
- Very flexible tube for hard-to-reach places
- Replacement washers are available in the set
- Universal usage
- In durable plastic storage case



| | | g |
|----------|---------------------------------------|------|
| 150.1920 | 12 pcs Oil pressure testing equipment | 1.89 |

| | | g |
|-------------|-----------------------------------|-----|
| 150.1921 | Manometer with tube, 10 bar | 594 |
| 150.1922 | 90° Adaptor angled | 44 |
| 150.1920-1 | Screw adaptor no 1, R1/8" | 23 |
| 150.1920-10 | Screw adaptor no 10, M18 x 1.5 | 34 |
| 150.1920-2 | Screw adaptor no 2, 1/8" x 27 NPT | 24 |
| 150.1920-3 | Screw adaptor no 3, 1/4" x 18 NPT | 33 |
| 150.1920-4 | Screw adaptor no 4, 3/8" x 20 UNF | 23 |
| 150.1920-5 | Screw adaptor no 5, 1/2" x 20 UNF | 27 |
| 150.1920-6 | Screw adaptor no 6, M10 x 1.0 | 24 |
| 150.1920-7 | Screw adaptor no 7, M12 x 1.5 | 24 |
| 150.1920-8 | Screw adaptor no 8, M14 x 1.5 | 29 |
| 150.1920-9 | Screw adaptor no 9, M16 x 1.5 | 33 |

TRANSFER PUMPS

Mini transfer pump

- Ideal aid for transferring in emergencies
- Suitable for battery acid, fuels, oils and distilled water
- The hoses are attached to the balloon holder using supplied hose clamps
- Acid-resistant
- Special plastic



| | Tube inner Ø mm | Tube length mm | g |
|----------|-----------------|----------------|-----|
| 150.1665 | 8.0 | 2 x 900 | 320 |

Transfer pump

- Ideal aid for easy transferring and pumping
- Suitable for battery acid, fuels, oils and distilled water
- Acid-resistant
- With high quality pump body and reinforced pump handle
- Special plastic



| | Tube inner Ø mm | Tube length mm | |
|----------|--------------------|-------------------|-----|
| 150.1660 | 12.0 | 2 x 1.300 | 465 |

FILLING DEVICE AND AIR VENT DEVICE

Diesel air venting / pre-filling set

- Makes the air venting of many diesel fuel systems possible



| 150.9030 7 pcs Diesel air venting / pre-filling set | 700 |
|---|-----|

consists of:

| 150.9031 Hose with pump | 250 |
|--|-----|
| 150.9032 Connection piece PSA, 8 mm | 50 |
| 150.9033 Connection piece PSA, 10 mm | 24 |
| 150.9034 Connection piece Ford | 52 |
| 150.9035 Connection piece Renault, GM, Fiat, large | 66 |
| 150.9036 Connection piece Renault, GM, Fiat, small | 48 |
| 150.9037 Connection piece GM | 53 |

Diesel filling and air venting device for diesel fuel systems

- Ideal for clean, quick and simple air venting and filling of diesel filter in the pre-installed state
- Suitable for all diesel vehicles and also direct injectors
- Can be used when changing filter, on tanks that have been run empty, on tanks with incorrect fuel inside
- Applicable in pre-installed state - eliminates inconvenient filling out of the vehicle
- Connection carried out on the diesel engine inlet to the engine
- Using a pneumatic connection and actuation of the hand lever a vacuum is created in the diesel filter filling and exhaust device (Venturi effect) therefore sucking out fuel
- Includes universal suitable silicone hose assortment Ø 8-9.5-12 mm
- With high-quality pump housing and strengthened pump head
- The suction hose is resistant to diesel and brake fluid
- With quick coupling system for easy hose exchange
- Polyethylene

Application range: Audi/Volkswagen pump nozzle engines, Diesel direct injectors such as e.g. Mercedes CDI engines, Ford, Opel, BMW, PSA HDI engines, Fiat, etc.



Technical data:

| | |
|-----------------|-----------|
| Work pressure: | 6-10 bar |
| Capacity: | 1.8 l |
| Max. flow rate: | 180 l/min |

| | H mm | |
|-----------------|---------|------|
| 150.9355 11 pcs | 300.0 | 1.60 |

consists of:

| 150.9356 Diesel filter filling and exhaust base device | 885 |
|--|-----|
| 150.9355-1 PU hose 8.0 x 12.0 mm x 1.5 mm | 125 |
| 150.9355-2 Quick coupling adapter PU hose 8.0 x 12.0 mm x 1.5 m | 20 |
| 150.9355-3 PU hose 6.5 x 9.5 mm x 1.5 mm | 83 |
| 150.9355-4 Quick coupling adapter for PU hose 6.5 x 9.5 mm x 1.5 m | 20 |
| 150.9355-5 PU hose 4.0 x 8.0 mm x 1.5 mm | 73 |
| 150.9355-6 Quick coupling adapter for PU hose 4.0 x 8.0 mm x 1.5 m | 8 |
| 150.9355-7 Silicone hose 8.0 x 12.0 mm x 15 cm | 23 |
| 150.9355-8 Silicone hose 6.0 x 9.0 mm x 15 cm | 14 |
| 150.9355-9 Suspension chain | 31 |
| 150.9355-24 Sealant ring (between container and head) | 7 |

Vacuum fluid extractor suction pump 9.5 litre

- Ideal for quick, clean and simple suction, intake and emptying of fluids
- Suitable for engine oil, transmission oil, hydraulic oil, brake fluid, water, etc.
- For pneumatic use with a compressor or manual use with the integrated hand pump
- Select a suitable probe and suck easily using the vacuum principle
- Suction process automatically stopped when housing is full, preventing fluids from spilling over
- With integrated pressure relief valve for more safety
- With high-quality pump housing and strengthened pump head
- Includes 4 probes for different uses
- Ideally suited to hard-to-reach places thanks to the included, long suction hose
- The suction hose is resistant to petrol and oil
- Polyethylene

Application range: Passenger cars, transporters and MPVs, commercial vehicles, tractors, agricultural and construction machinery, industrial uses



Technical data:

| | |
|------------------------|---------------|
| Work pressure: | 5-11,5 bar |
| Capacity: | 9.5 l |
| Operating temperature: | +0°C to +55°C |
| Filling tube length: | 1.5 m |
| Max. flow rate: | 125 l/min |

| 160.0790 5 pcs Vacuum fluid extractor suction pump 9.5 litre | 5.00 |
|--|------|

consists of:

| 160.0791 Vacuum fluid extractor suction pump 9.5 litre | 3708 |
|--|------|
| 160.0792 Adaptor and tube 4x8mm x1,5m | 200 |
| 160.0793 Main probe 7.8 x 9.8 mm x 1 m | 200 |
| 160.0794 Probe 5.3 x 6.7 mm x 1 m | 200 |
| 160.0795 Probe 3.5 x 4.5 mm x 1 m | 200 |



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