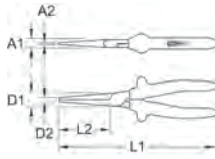


**CLASSIC 1000V drawing pliers**

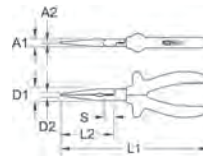
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With fl t and smooth gripping jaws
- Rounded edges
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	U
117.1280	7.5	6.5	17.0	4.5	200.0	65.0	220	

**CLASSIC 1000V long nosed pliers**

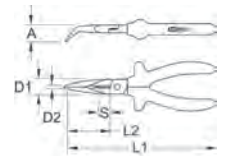
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- Long jaws
- For soft and medium wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U
117.1291	9.5	2.5	16.0	4.0	200.0	74.0	230	1000V	
117.1293	9.0	2.0	15.5	3.0	160.0	55.0	170	1000V	

**CLASSIC 1000V long nosed pliers, curved**

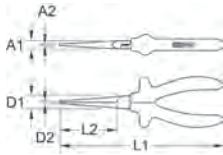
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- Curved jaws
- For soft and medium wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U
117.1292	9.5	17.0	4.0	200.0	78.0	14.0	210	1000V
117.1294	9.5	15.5	4.0	160.0	51.0	11.0	170	1000V

**CLASSIC 1000V drawing pliers**

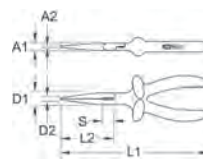
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- With fl t and smooth gripping jaws
- Rounded edges
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	U
117.1714	7.5	6.5	19.0	4.5	200.0	65.0	220	1000V

**CLASSIC 1000V long nosed pliers**

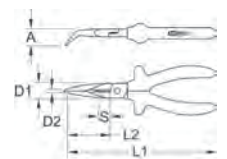
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- Long jaws
- Suitable for soft and medium hard wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U
117.1717	10.0	3.5	17.5	4.0	160.0	55.0	10.0	180	1000V
117.1718	10.5	3.5	18.0	5.0	200.0	74.0	14.0	230	1000V

**CLASSIC 1000V long nosed pliers, curved**

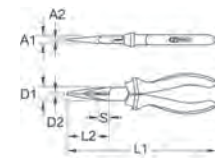
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- Curved jaws
- For soft and medium wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U
117.1719	12.0	5.0	19.0	200.0	79.0	14.0	220	1000V

**ERGOTORQUE® VDE long nosed pliers**

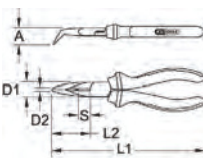
- In accordance to DIN / ISO 5745
- Wrap around insulation to IEC 60900
- With two component handle
- Long jaws
- Suitable for medium and hard wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U
117.1117	9.0	2.9	18.0	3.2	165.0	48.0	2.5	177	1000V
117.1118	11.0	3.5	22.0	4.5	210.0	69.0	2.5	291	1000V

**ERGOTORQUE® VDE long nosed pliers, curved**

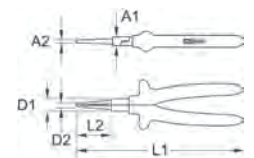
- In accordance to DIN / ISO 5745
- Wrap around insulation to IEC 60900
- With two component handle
- Curved jaws
- For soft and medium wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U
117.1120	9.0	18.0	3.2	165.0	48.0	2.5	210	1000V
117.1121	11.0	22.0	5.0	210.0	70.0	2.5	310	1000V

**CLASSIC 1000V round pliers**

- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With round, short and strong jaws
- With smooth tips
- Serrated execution
- Matt chrome
- Special tool steel

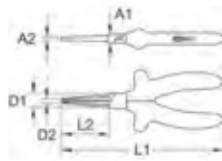


	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	U
117.1297	10.0	3.5	14.0	6.0	160.0	33.0	180	1000V

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### CLASSIC 1000V long jaw round pliers

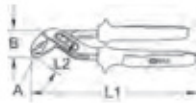
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With round and long jaws
- With smooth tips
- Serrated execution
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	🔩
117.1290	9.0	2.5	14.0	5.5	160.0	47.5	1000V	205

### ERGOTORQUE® VDE water pump pliers

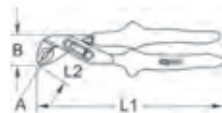
- In accordance to DIN / ISO 8976
- Wrap around insulation to IEC 60900
- With two component handle
- Toothed gripping surfaces
- Substantial through joint
- Optimum power transfer
- With grooved adjustment
- With zip fastener
- With inductively hardened handle areas
- Phosphate finish
- Special tool steel



	A mm	B mm	L1 mm	L2 mm	⚡	🔩
117.2000	33.0	42.0	240.0	32.0	1000V	420

### CLASSIC 1000V water pump pliers

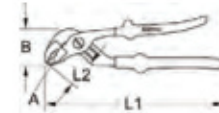
- In accordance to DIN / ISO 8976
- Insulated handle to IEC 60900
- Toothed gripping surfaces
- Substantial through joint
- Optimum power transfer
- With grooved adjustment
- With zip fastener
- With inductively hardened handle areas
- Matt chrome
- Special tool steel



	A mm	B mm	L1 mm	L2 mm	⚡	🔩
117.1273	39.0	35.0	240.0	51.0	1000V	350
117.1274	65.0	47.0	300.0	65.0	1000V	690

### CLASSIC 1000V water pump pliers

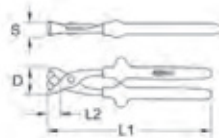
- In accordance to DIN / ISO 8976
- Insulated handle to IEC 60900
- Toothed gripping surfaces
- Heavy execution
- Through flexible head with 1/2" die thread rolling
- Optimum power transfer
- With zip fastener
- With inductively hardened handle areas
- Matt chrome
- Special tool steel



	A mm	B mm	L1 mm	L2 mm	⚡	🔩
117.1207	54.0	56.0	260.0	35.0	1000V	560

### CLASSIC 1000V rabbit pliers

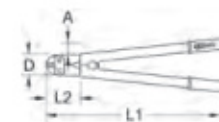
- Insulated handle to DIN / EN 60900
- For soft wire
- For the cutting and twisting of tie wire
- Inductively hardened precision cutting edges
- Phosphate finish
- Special tool steel



	D mm	L1 mm	L2 mm	S mm	⚡	🔩
117.1204	36.0	250.0	16.0	25.0	1000V	480

### Insulated bolt cutter

- Insulated handle to IEC 60900
- With steel tube legs and eccentric adjustment
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Inductively hardened precision cutting edges
- Phosphate finish
- Special tool steel

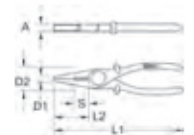


	A mm	D mm	L1 mm	L2 mm	Replacement cutter head	⚡	🔩
117.1256	8.0	79.0	610.0	115.0	117.1257	1000V	2.70

### PLASTIC PLIERS / CLAMPS

#### Insulated plastic combination pliers

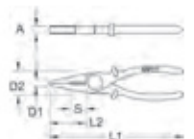
- With two-component handle
- Fully insulated pliers
- Reduces the risk of short-circuit
- For assembling counters and locking
- Glass-fib e reinforced plastic
- With soft plastic area on the handle
- For firm hold



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	🔩
117.1765	11.5	6.0	32.0	185.0	33.0	19.0	1000V	130

#### Insulated plastic combination pliers

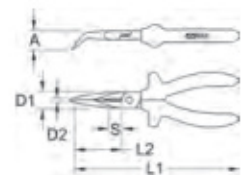
- With two-component handle
- Fully insulated pliers
- Reduces the risk of short-circuit
- For assembling counters and locking
- Glass-fib e reinforced plastic
- With soft plastic area on the handle
- For firm hold



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	🔩
117.1766	5.0	10.0	32.0	225.0	72.0	20.0	1000V	140

#### Insulated plastic combination pliers

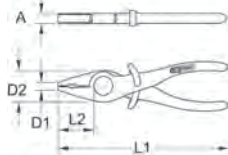
- With two-component handle
- Fully insulated pliers
- Reduces the risk of short-circuit
- For assembling counters and locking
- Glass-fib e reinforced plastic
- With soft plastic area on the handle
- For firm hold



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	🔩
117.1767	5.0	10.0	32.0	230.0	110.0	20.0	1000V	140

**Insulated plastic fl t pliers**

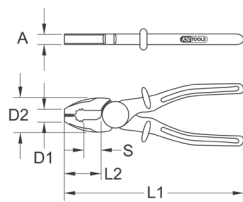
- Insulated to IEC 60900
- Suitable for meter assembly and closure
- Made out of extremely durable plastic



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	👤
117.1642	11.0	10.0	38.0	180.0	37.0	1000V	85

**Insulated plastic combination pliers with cutting function**

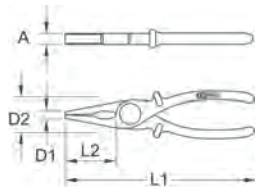
- Insulated to IEC 60900/ IEC60900:2400
- With machined cutting edge
- Made out of extremely durable plastic



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	👤
117.1639	15.0	15.0	37.0	200.0	39.0	14.0	1000V	152

**Insulated plastic fl t pliers**

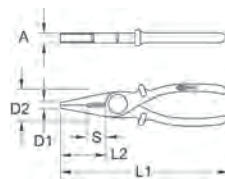
- Insulated to IEC 60900
- Made out of extremely durable plastic



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	👤
117.1640	9.0	6.0	32.0	200.0	55.0	1000V	106

**Insulated plastic fl t pliers**

- Insulated to IEC 60900
- With machined cutting edge
- Made out of extremely durable plastic

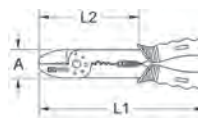


	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	👤
117.1641	9.0	6.0	32.0	190.0	55.0	14.0	1000V	108

**CRIMPING TOOLS**

**Multifunction pliers for insulated and non insulated cable terminals**

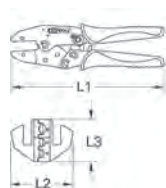
- For professional cable cutting and stripping of wires from 0,75 - 6,0 mm<sup>2</sup>
- For crimping cable lugs and connectors of 1,5 - 6,0 mm<sup>2</sup>
- Cutting function
- Two component handle
- Pliers body made of fl t steel



	A mm	L1 mm	L2 mm	👤
115.1231	40.0	220.0	130.0	230

**Crimping pliers for non insulated terminals**

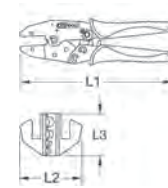
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm <sup>2</sup>	AWG	L1 mm	L2 mm	L3 mm	👤
115.1425	0.5-1.0/1.5-2.5/4.0-6.0	22-18/16-14/12-10	220.0	50.0	34.0	115,1415 491

**Crimping pliers for insulated terminals**

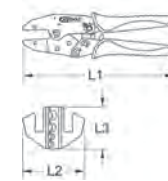
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm <sup>2</sup>	AWG	L1 mm	L2 mm	L3 mm	👤
115.1430	1.5/2.5/6.0/10.0	20-18/16-14/12-10/8	220.0	50.0	34.0	115,1416 487

**Crimping pliers for pin terminals**

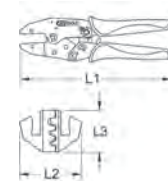
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through Precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm <sup>2</sup>	AWG	L1 mm	L2 mm	L3 mm	👤
115.1440	0.5/0.75/1.0/1.5/2.5/4.0	22/20/18/16-14/12-10	220.0	50.0	34.0	115,1418 499
115.1450	6.0/10.0/16.0	10/8/6	220.0	50.0	34.0	115,1420 499

**Crimping pliers for spade terminals**

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm <sup>2</sup>	AWG	L1 mm	L2 mm	L3 mm	👤
115.1435	0.5-1.0/1.5-2.5/4.0-6.0	20-18/16-14/12-10	220.0	50.0	34.0	115,1417 499
115.1455	2.5/5.0/8.0/10.0	14-22/8-6	220.0	50.0	34.0	115,1421 505

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**Electricians crimping pliers set**

- Ideal configuration for electricians
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- In durable plastic storage case
- Two component handle
- Burnished
- Pliers body made of fl t steel

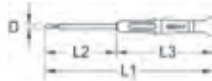


115.1480		3 pcs	Electricians crimping pliers set	910
1 x			220 mm	
1 x			Ø 0,5 - 4,0 mm, H	
1 x			Ø 1,5 - 10,0 mm, B	

**SCREWDRIVERS**

**Insulated precision screwdriver for slotted screws**

- Slotted
- Insulated to IEC 60900
- Twist end cap
- Colour coding
- Hardened blade
- Burnished tip
- Blades made from special steel



	D mm	L1 mm	L2 mm	L3 mm	⚡	👤
500.6138	1,5	140,0	40,0	100,0	⚡	10
500.6139	1,8	160,0	60,0	100,0	⚡	10
500.6140	2,0	160,0	60,0	100,0	⚡	15
500.6141	2,5	175,0	75,0	100,0	⚡	15
500.6142	3,0	175,0	75,0	100,0	⚡	15

**Insulated precision screwdriver for phillips screws PH**

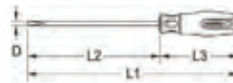
- PH
- Insulated to IEC 60900
- Twist end cap
- Colour coding
- Hardened blade
- Burnished tip
- Blades made from special steel



	L1 mm	L2 mm	L3 mm	⚡	👤	
500.6136	PH 00	175,0	75,0	100,0	⚡	15
500.6137	PH 0	175,0	75,0	100,0	⚡	15

**ERGOTORQUE® VDE screwdriver for slotted screws**

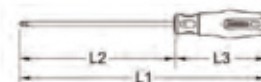
- Slotted
- In accordance to DIN 5264 / DIN ISO 2380
- Insulated to IEC 60900
- Two component handle
- Burnished tip
- S2 special steel



	D mm	L1 mm	L2 mm	L3 mm	⚡	👤
117.0502	2,5	155,0	75,0	80,0	⚡	32
117.0504	3,0	180,0	100,0	80,0	⚡	35
117.0506	3,5	180,0	100,0	80,0	⚡	38
117.0508	4,0	180,0	100,0	80,0	⚡	41
117.0512	5,5	230,0	125,0	105,0	⚡	92
117.0514	6,5	255,0	150,0	105,0	⚡	111
117.0516	8,0	290,0	175,0	115,0	⚡	164
117.0518	10,0	315,0	200,0	115,0	⚡	230

**ERGOTORQUE® VDE screwdriver for phillips screws PH**

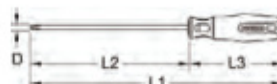
- PH
- In accordance to DIN 7438 / DIN ISO 8764
- Insulated to IEC 60900
- Two component handle
- Burnished tip
- S2 special steel



	L1 mm	L2 mm	L3 mm	⚡	👤	
117.0522	PH 0	140,0	60,0	80,0	⚡	32
117.0524	PH 1	185,0	80,0	105,0	⚡	38
117.0526	PH 2	205,0	100,0	105,0	⚡	95
117.0528	PH 3	265,0	150,0	115,0	⚡	152

**ERGOTORQUE® VDE screwdriver for Phillips screws PZ**

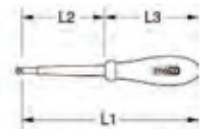
- PZ
- In accordance to DIN 7438 / DIN ISO 8764
- Insulated to IEC 60900
- With two component handle
- Burnished
- S2 special steel



	L1 mm	L2 mm	L3 mm	⚡	👤	
117.0532	PZ 0	140,0	60,0	80,0	⚡	32
117.0534	PZ 1	185,0	80,0	105,0	⚡	38
117.0536	PZ 2	205,0	100,0	105,0	⚡	95
117.0538	PZ 3	265,0	150,0	115,0	⚡	152

**Insulated screwdriver for internal TX screws**

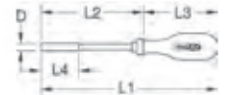
- TX
- Insulated to IEC 60900
- Burnished tip
- Special steel



	L1 mm	L2 mm	L3 mm	⚡	👤	
117.0551	T10	170,0	80,0	90,0	⚡	27
117.0552	T15	170,0	80,0	90,0	⚡	28
117.0553	T20	190,0	100,0	90,0	⚡	36
117.0554	T25	190,0	100,0	90,0	⚡	61
117.0555	T27	205,0	115,0	90,0	⚡	74
117.0556	T30	205,0	115,0	90,0	⚡	93

**Insulated bit screwdriver with magazine**

- Insulated to IEC 60900
- With magnet
- For bits to DIN 3126 - C 6,3
- Chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm	L4 mm	⚡	👤
117.1625	1/4"	12,5	230,0	120,0	110,0	50,0	170

**KEY WRENCHES**

**Insulated T-grip socket spanner**

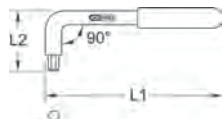
- Insulated to IEC 60900
- With magnet
- For bits to DIN 3126 - C 6,3
- Chrome vanadium



	D mm	L mm	l mm	⚡	👤
117.1743	1/4"	14,0	120,0	110,0	166
117.1744	1/4"	14,0	160,0	110,0	242
117.1745	1/4"	14,0	250,0	165,0	310

**Insulated angled hexagon screwdriver**

- Hexagon
- In accordance to DIN 7439
- Insulated handle to IEC 60900
- Specially for cable branch clamp ring
- Matt chrome
- Chrome vanadium



	mm	L1 mm	L2 mm	⚡	g
117.1601	3	130.0	24.0	1000V	20
117.1602	4	120.0	40.0	1000V	25
117.1603	5	140.0	47.0	1000V	45
117.1604	6	140.0	50.0	1000V	60
117.1605	8	150.0	50.0	1000V	110
117.1606	10	235.0	51.0	1000V	230
117.1607	12	265.0	60.0	1000V	350

**Insulated T-grip hexagon box spanner**

- Hexagon socket
- Insulated handle to IEC 60900
- Extremely versatile
- Burnished
- Chrome vanadium

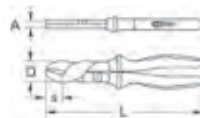


	mm	I mm	D mm	L1 mm	L2 mm	⚡	g
117.1671	3	65.0	5.0	120.0	17.5	1000V	80
117.1672	3	65.0	5.0	115.0	18.5	1000V	140
117.1673	4	65.0	10.0	120.0	19.0	1000V	85
117.1674	4	104.0	15.0	160.0	22.0	1000V	145
117.1675	4	64.0	10.0	200.0	18.0	1000V	150
117.1676	4	94.0	13.0	250.0	19.0	1000V	168
117.1677	5	65.0	11.0	120.0	20.0	1000V	85
117.1678	5	105.0	15.0	160.0	21.0	1000V	250
117.1679	5	65.0	10.0	200.0	18.0	1000V	150
117.1681	5	105.0	15.0	250.0	20.0	1000V	168
117.1682	6	90.0	11.0	120.0	20.0	1000V	110
117.1683	6	105.0	15.0	160.0	21.0	1000V	250
117.1684	6	65.0	11.0	200.0	19.0	1000V	150
117.1742	6	105.0	8.0	250.0	20.0	1000V	307
117.1685	8	105.0	15.0	160.0	21.0	1000V	260
117.1686	8	160.0	13.0	200.0	22.0	1000V	325
117.1687	8	100.0	17.0	250.0	22.0	1000V	360
117.1688	10	160.0	15.0	200.0	20.0	1000V	390
117.1689	10	160.0	15.0	250.0	20.0	1000V	420
117.1691	10	160.0	15.0	300.0	20.0	1000V	450
117.1692	11	160.0	15.0	200.0	20.0	1000V	400
117.1693	12	160.0	16.0	200.0	20.0	1000V	420
117.1694	13	160.0	16.0	200.0	21.0	1000V	450
117.1695	14	160.0	17.0	200.0	21.0	1000V	490
117.1696	17	160.0	20.0	200.0	21.0	1000V	640

**CABLE CUTTING**

**ERGOTORQUE® VD E cable shear**

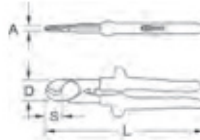
- Wrap around insulation to IEC 60900
- For lead cable up to max. Ø 50 mm<sup>2</sup>
- For squeeze free cutting of and on more wiry copper and aluminium cables
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Phosphate finish
- With two component handle
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	⚡	g
117.1122	10.0	10.8	24.5	160.0	15.0	4 <sup>b</sup>	200
117.1123	12.5	13.0	29.0	215.0	17.5	4 <sup>b</sup>	270
117.1124	15.0	13.5	45.0	245.0	31.0	4 <sup>b</sup>	550

**CLASSIC 1000V cable shear**

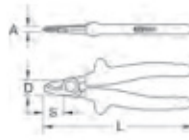
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- For lead cable up to max. Ø 50 mm<sup>2</sup>
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting cable mm <sup>2</sup>	A mm	D mm	L mm	S mm	⚡	g
117.1269	15.0	50.0	13.5	38.0	240.0	25.0	4 <sup>b</sup>	455

**CLASSIC 1000V single handed cable shear**

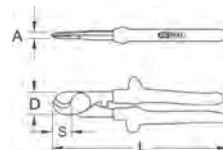
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- For lead cable up to max. Ø 50 mm<sup>2</sup>
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting cable mm <sup>2</sup>	A mm	D mm	L mm	S mm	⚡	g
117.1107	15.0	50.0	10.0	23.5	165.0	24.0	1000V	250
117.1108	20.0	60.0	12.0	28.5	205.0	27.0	1000V	350

**CLASSIC 1000V cable shear**

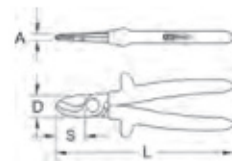
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- For lead cable up to max. Ø 50 mm<sup>2</sup>
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting cable mm <sup>2</sup>	A mm	D mm	L mm	S mm	⚡	g
117.4277	6.0	22.0	11.0	24.0	160.0	15.0	1000V	238
117.4278	10.0	38.0	13.0	29.0	210.0	18.0	1000V	370
117.4279	20.0	60.0	15.0	32.0	250.0	26.0	1000V	600

**CLASSIC 1000V single handed cable shear**

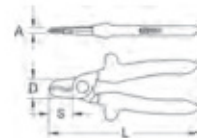
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Extremely versatile
- Suitable for wire up to 25 mm<sup>2</sup>
- Suitable for multi-strand wire up to 50 mm<sup>2</sup>
- Suitable for ultra-wire up to 70 mm<sup>2</sup>
- Not suited for steel wire and hard pulled copper cables
- Phosphate finish
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	⚡	g
117.1259	22.0	18.0	31.0	215.0	32.0	4 <sup>b</sup>	360

**CLASSIC 1000V single handed cable shear**

- Insulated handle to IEC 60900
- With coated working head
- For and on multi strand copper and aluminium cable
- With adjustable screw joint
- With zip fastener
- Not suited for steel wire and hard pulled copper cables
- Phosphate finish
- Special tool steel

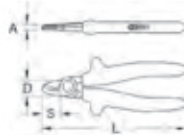


	Ø mm	Cutting cable mm <sup>2</sup>	A mm	D mm	L mm	S mm	⚡	g
117.1103	17.0	35.0	13.0	31.0	165.0	20.5	1000V	280
117.1109	20.0	50.0	18.0	33.5	210.0	34.0	1000V	400

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**CLASSIC 1000V single handed cable shear**

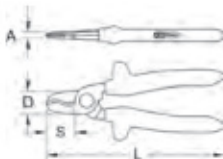
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Extremely versatile
- No bruising, slight shaping of the cable
- With precision screw joint
- Suitable for wire up to 16 mm<sup>2</sup>
- Suitable for multi strand wire up to 25 mm<sup>2</sup>
- Suitable for ultra wire up to 50 mm<sup>2</sup>
- Not suited for steel wire and hard pulled copper cables
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	⚡	⚖
117.1286	15,0	12,0	25,0	160,0	20,0	1000V	250

**CLASSIC 1000V single handed cable shear**

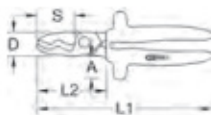
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With after adjustable screw joint
- With zip fastener
- Not suited for steel wire and hard pulled copper cables
- Phosphate finish
- Special tool steel



	Ø mm	Cutting rate mm <sup>2</sup>	A mm	D mm	L mm	S mm	⚡	⚖
117.1287	17,0	35,0	15,0	27,0	165,0	25,0	1000V	240

**CLASSIC 1000V two cut cable shear**

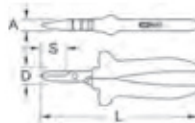
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Precision blade for easy and clean cut
- With before and after cut
- With after adjustable screw joint
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting rate mm <sup>2</sup>	A mm	D mm	L1 mm	L2 mm	S mm	⚡	⚖
117.1270	20,0	50,0	13,5	33,0	200,0	83,0	48,0	1000V	365

**CLASSIC 1000V electrical shear**

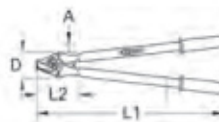
- Insulated handle to IEC 60900
- Only suitable for copper and aluminium wire
- For the cutting of thin wires and sheet metals
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	⚖
117.1206	9,0	14,0	180,0	38,0	1000V	170

**Insulated cable shear**

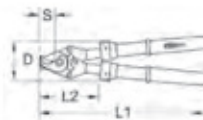
- Insulated handle to IEC 60900
- For bruise free cutting of copper and aluminium cables
- With interchangeable cutter head
- Knife head made out of special alloy steel
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting rate mm <sup>2</sup>	A mm	D mm	L1 mm	L2 mm	Replacement cutter head	⚡	⚖
117.1260	25,0	150,0	16,0	80,0	600,0	80,0	117.1258	1000V	2,70
117.1261	33,0	180,0	17,0	86,0	700,0	105,0	117.1263	1000V	3,30

**Insulated cable shear, telescopic handle**

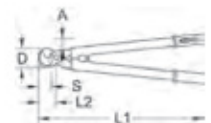
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With telescopic handle
- With interchangeable cutter head
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting rate mm <sup>2</sup>	D mm	L1 mm	L2 mm	S mm	Replacement cutter head	⚡	⚖
117.1233	31,0	185,0	82,0	360-360	63,0	35,0	117.1234	1000V	2,00

**Insulated cable shear**

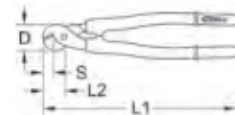
- Insulated handle to IEC 60900
- For bruise free cutting of copper and aluminium cables
- Clean cut through new cutting edge geometry
- With after adjustable screw joint
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting rate mm <sup>2</sup>	A mm	D mm	L1 mm	L2 mm	S mm	⚡	⚖
117.1264	27,0	150,0	15,0	59,0	500,0	58,0	37,0	1000V	1,48

**Insulated cable shear**

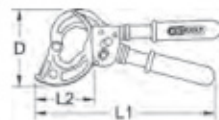
- Insulated handle to IEC 60900
- For bruise free cutting of copper and aluminium cables
- Clean cut through new cutting edge geometry
- With after adjustable screw joint
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Cutting rate mm <sup>2</sup>	D mm	L1 mm	L2 mm	S mm	⚡	⚖
117.4281	95,0	58,0	310,0	35,0	25,0	1000V	0,82
117.4282	150,0	66,0	460,0	41,0	30,0	1000V	1,40
117.4283	325,0	90,0	600,0	55,0	46,0	1000V	2,50
117.4284	500,0	90,0	800,0	75,0	54,0	1000V	3,80

**Insulated ratchet cable shear**

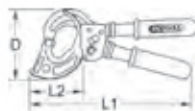
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With double supported eccentric drive
- Almost break proof gearing
- Thin cutting steel sheet casing
- With ratchet function
- Not suitable for hardened steel wire
- Phosphate finish
- Special tool steel



	Ø mm	Cutting rate mm <sup>2</sup>	D mm	L1 mm	L2 mm	⚡	⚖
117.1248	62,0	840,0	150,0	400,0	90,0	1000V	2,20
117.1249	80,0	1000,0	190,0	530,0	110,0	1000V	3,15

**Insulated ratchet cable shear**

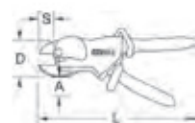
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With double supported eccentric drive
- Almost break proof gearing
- Thin cutting steel sheet casing
- With ratchet function
- Not suitable for hardened steel wire
- Phosphate finish
- Special tool steel



			D mm	L1 mm	L2 mm	
117.1102	52.0	25.0	135.0	310.0	110.0	917

**Insulated single handed ratchet cable shear**

- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Working head coated
- Automatic reserve through spring return
- Cutting edge process can be interrupted in every position
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm		
117.1245	40.0	80.0	290.0	35.0	1.00	
117.1246	40.0	85.0	310.0	40.0	1.15	

**Storage pouch for insulated cable shears**

- From black synthetic leather
- For storage and protection of insulated cable shears

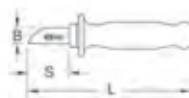


	L mm	B mm	
117.1262	650.0	95 - 190	117.1260 + 117.1261 241

**ELECTRICIAN'S KNIVES**

**Insulated cable knife**

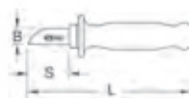
- Insulated to IEC 60900
- With durable and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1295	18.5	50.0	210.0	100V	105

**Insulated cable knife**

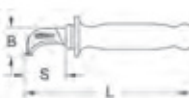
- Insulated to IEC 60900
- With two component handle
- With durable and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1397	16.7	53.0	205.0	100V	90

**Insulated cable knife with hook blade**

- Insulated to IEC 60900
- With durable blade
- Hook shaped cutting edge
- For slitting and stripping cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1296	28.0	40.0	200.0	100V	100

**Insulated cable knife with hook blade**

- Insulated to IEC 60900
- With two component handle
- With durable blade
- Hook shaped cutting edge
- For slitting and stripping cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1331	30.0	47.0	200.0	100V	92

**Insulated cable knife**

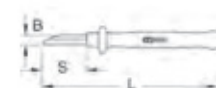
- Insulated to IEC 60900
- With durable, part insulated and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1390	18.5	50.0	210.0	100V	115

**Insulated cable knife**

- Insulated to IEC 60900
- With two component handle
- With durable, part insulated and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1304	20.3	53.0	205.0	100V	99

**Insulated dismantling knife**

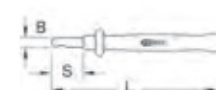
- Insulated to IEC 60900
- With durable and straight blade
- Hook shaped cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1391	19.0	35.0	182.0	100V	95

**Insulated dismantling knife**

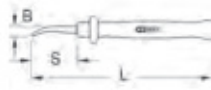
- Insulated to IEC 60900
- With two component handle
- With durable and straight blade
- Hook shaped cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1305	19.0	35.0	185.0	100V	92

### Isolated paper section knife

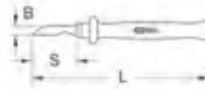
- Insulated to IEC 60900
- With durable blade
- Hook shaped cutting edge
- Suitable for sector cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	⚡	⚙️
117.1392	19.0	50.0	205.0	1000V	90

### Insulated cable stripping knife

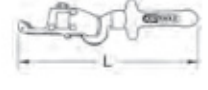
- Insulated to IEC 60900
- With durable blade
- Short and bent cutting edge for fine cable working
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	⚡	⚙️
117.1395	13.0	45.0	195.0	1000V	95

### Insulated cable sheath cutters

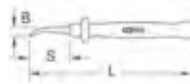
- Insulation according to IEC 60900
- With durable and straight blade
- For stripping all insulation layers from cables
- Replaceable double knife
- Cutting depth adjustable
- Suitable for longitudinal and round cutting



	L mm	Ø mm	Replacement blades	⚡	⚙️
117.3901	240.0	> 25.0	117.3902	1000V	250

### Isolated paper section knife

- Insulated to IEC 60900
- With two component handle
- With durable blade
- Hook shaped cutting edge
- Suitable for sector cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	⚡	⚙️
117.1320	17.0	56.0	210.0	1000V	83

### Insulated cable stripping knife

- Insulated to IEC 60900
- With two component handle
- With durable blade
- Short and bent cutting edge for fine cable working
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	⚡	⚙️
117.1329	13.0	45.0	200.0	1000V	83

### Insulated cable knife with replaceable blade

- Insulation according to IEC 60900
- With durable, partially insulated and replaceable blade
- Straight cutting edge
- Safety handle made out of tough elastic and impact-resistant plastic
- With built-in protective cap



	B mm	S mm	L mm	⚡	Replacement blades	⚙️
117.1148	21.5	45.0	189.0	1000V	117.1149	67

### Insulated cable stripping knife

- Insulated to IEC 60900
- With durable blade
- Narrow and straight cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	⚡	⚙️
117.1396	11.0	50.0	200.0	1000V	95

### Insulated cutting knife

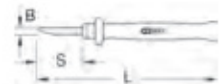
- Insulated to IEC 60900
- With durable blade
- Hook shaped and part isolated cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	⚡	⚙️
117.1394	21.0	35.0	165.0	1000V	75

### Insulated gutta percha knife

- Insulated to IEC 60900
- With durable blade
- Arched cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	⚡	⚙️
117.1393	12.0	50.0	200.0	1000V	95

### Insulated cable stripping knife

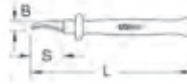
- Insulated to IEC 60900
- With two component handle
- With durable blade
- Narrow and straight cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	⚡	⚙️
117.1360	11.0	50.0	200.0	1000V	86

### Insulated cutting knife

- Insulated to IEC 60900
- With two component handle
- With durable blade
- Hook shaped and part isolated cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	⚡	⚙️
117.1328	21.2	30.0	180.0	1000V	87

### Insulated gutta percha knife

- Insulated to IEC 60900
- With two component handle
- With durable blade
- Arched cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



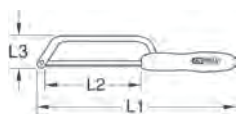
	B mm	S mm	L mm	⚡	⚙️
117.1326	12.0	50.0	250.0	1000V	85



SAWING

Insulated hacksaw

- Insulated handle to IEC 60900
- Frame out of reinforced II t iron 10 x 5 mm
- With insulated handle for tensioning the saw blade



	L1 mm	L2 mm	L3 mm			
117.1321	280.0	150.0	80.0	997.1216	1000V	225

Insulated hacksaw

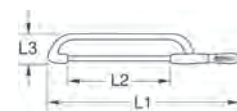
- Insulated handle to IEC 60900
- With plastic screw for tensioning the saw blade



	L1 mm	L2 mm	L3 mm			
117.1265	285.0	145.0	100.0	997.1216	1000V	180

Isolated metal frame saw, heavy execution

- Insulated handle to IEC 60900
- Frame out of reinforced II t iron 10 x 5 mm
- Heavy execution
- With insulated handle for tensioning the saw blade

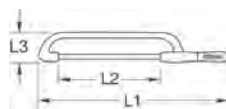


	L1 mm	L2 mm	L3 mm			
117.1323	520.0	330.0	130.0	129.6620-24	1000V	770



Insulated hacksaw

- Insulated handle to IEC 60900
- Heavy execution
- With plastic screw for tensioning the saw blade



	L1 mm	L2 mm	L3 mm			
117.1325	450.0	275.0	140.0	129.6620-24	1000V	700

BRUSHES

Insulated dusting brush, straight

- Insulated to IEC 60900
- With hanging hole
- Short execution
- No electric run
- Made from plastic



	B mm	L mm		
117.1645	25.0	180.0	1000V	11

Insulated dusting brush, angled

- Insulated to IEC 60900
- With hanging hole
- Long and angled execution
- No electric run
- Made from plastic

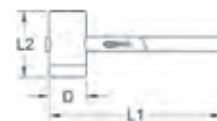


	B mm	L mm		
117.1646	25.0	400.0	1000V	70
117.1647	37.5	400.0	1000V	75
117.1648	50.0	400.0	1000V	80

HAMMER

Insulated soft face hammer

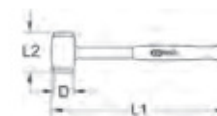
- Insulated to IEC 60900
- Made from plastic
- Without metal parts



	D mm	L1 mm	L2 mm		
117.1131	55.0	300.0	82.0	1000V	325

Insulated dead blow hammer

- Insulated to IEC 60900
- Shock absorbing effect through steel shot in the head
- Shatterproof and wear resistant
- Polyamid heads interchangeable
- For safer working with less recoil

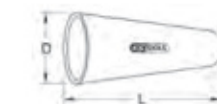


	D mm	L1 mm	L2 mm	Head, g/m³		
117.1126	25.0	300.0	105.0	117.1126	1000V	560
117.1127	35.0	310.0	115.0	117.1129	1000V	790

BOOTS AND INSULATION

Insulated protective sleeve

- Insulated handle to IEC 60900
- For isolating of cable heads and single conductors
- Made out of tough elastic insulating material



	D mm	L mm		
117.1784	2.0	40.0	1000V	1
117.1785	3.0	40.0	1000V	1
117.1786	4.0	40.0	1000V	1
117.1787	5.0	40.0	1000V	1
117.1788	7.0	50.0	1000V	1
117.1789	10.0	70.0	1000V	5
117.1790	15.0	110.0	1000V	17
117.1791	20.0	110.0	1000V	21
117.1792	25.0	110.0	1000V	22
117.1793	30.0	120.0	1000V	38
117.1794	35.0	140.0	1000V	49
117.1795	40.0	140.0	1000V	62

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**Insulated meter protective sleeve**

- Insulated handle to IEC 60900
- For isolating of cable single conductors
- Beveled
- Made out of tough elastic insulating material



		D mm	L mm	⚡	U
117.4244	#1	12.0	80.0	1000V	6
117.4245	#2	12.0	80.0	1000V	6
117.4246	#3	12.0	80.0	1000V	6

**Slip-on protective sleeve**

- Insulated handle to IEC 60900
- For isolating of cable single conductors
- Beveled
- Made out of tough elastic insulating material



	D mm	L mm	⚡	U
117.4247	6.0	40.0	1000V	1
117.4248	6.0	60.0	1000V	1
117.4249	8.0	40.0	1000V	1
117.4250	10.0	30.0	1000V	1
117.4251	10.0	40.0	1000V	1
117.4252	10.0	60.0	1000V	1
117.4253	12.0	90.0	1000V	6
117.4254	15.0	110.0	1000V	14
117.4255	20.0	110.0	1000V	20
117.4256	25.0	110.0	1000V	20
117.4257	30.0	110.0	1000V	37
117.4258	40.0	110.0	1000V	37

**Insulated protective sleeve with clamp cap**

- Insulated handle to IEC 60900
- For isolating of cable heads and single conductors
- With cross cut cover
- Made out of tough elastic insulating material



	D mm	L mm	⚡	U
117.4234	10.0	40.0	1000V	10
117.4235	10.0	100.0	1000V	11
117.4236	15.0	100.0	1000V	16
117.4241	17.5	80.0	1000V	10
117.4237	25.0	100.0	1000V	30
117.4242	26.0	100.0	1000V	20
117.4243	35.0	115.0	1000V	40
117.4238	40.0	135.0	1000V	68
117.4239	50.0	155.0	1000V	99
117.4240	60.0	140.0	1000V	140

**TWEEZERS**

**Insulated tweezers, curved**

- Insulated handle to IEC 60900
- Wrap insulation
- Chrome vanadium



	B mm	L mm	⚡	U
117.1623	11.5	145.0	1000V	35
117.1624	15.5	200.0	1000V	72

**Insulated tweezers, straight**

- Insulated handle to IEC 60900
- Wrap insulation
- Chrome vanadium



	B mm	L mm	⚡	U
117.1626	11.0	130.0	1000V	30
117.1627	13.5	130.0	1000V	30
117.1628	15.0	145.0	1000V	55
117.1629	15.5	200.0	1000V	72

**INSPECTION MIRRORS**

**Insulated inspection mirror**

- Insulated handle to IEC 60900
- Insulated
- Chrome vanadium



	D mm	L mm	⚡	U
117.1630	22.0	175.0	1000V	20

**LED LAMP**

**Insulated LED-lamp**

- Insulated handle to IEC 60900
- For the illumination of cable ducts and switch cabinets
- White illuminant
- Includes AA-Lithium batteries



	D mm	L mm	Replacement battery	⚡	U
117.1650	28.0	90.0	AA-Lithium	1000V	80

**INSULATED TOOL SETS**

**Insulated socket wrench set**

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



			U
117.1877	22 pcs	Insulated socket wrench set	1.60
1 x		1/4"	
4 x		1/4": 50 - 75 - 100 - 150 mm	
1 x		1/4"	
1 x		1/4"	
10 x		1/4": 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm	

**Insulated socket wrench set**

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



			U
117.1888	13 pcs	Insulated socket wrench set	2.40
1 x		3/8"	
2 x		3/8": 125 - 250 mm	
1 x		3/8"	
5 x		3/8": 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8": 4 - 5 - 6 - 8 mm	

**Insulated socket wrench set**

- Insulated handle to IEC 60900
- In durable plastic storage case



			kg
117.1860	16 pcs	Insulated socket wrench set	4.50
1 x		1/2"	
2 x		1/2": 125 - 250 mm	
1 x		1/2"	
8 x		1/2": 10-12-13-14-17-19-22-24 mm	
3 x		1/2": 5 - 6 - 8 mm	
1 x		3,5 mm	

**Insulated tool set for PSA electric vehicles**

- Range of tools tailored specifically for PSA
- Dipped insulation according to DIN 60900
- With foam material inserts in durable plastic case
- Special tool steel

**Application areas:** Peugeot iOn and Citroën C-Zero



			kg
117.1825	8 pcs	Insulated tool set for PSA electric vehicles	1.80
1 x		10 mm	
1 x		160 mm	
1 x		3/8"	
1 x		3/8": 125 mm	
4 x		3/8": 10 - 11 - 12 - 13 mm	

**Insulated tool set for hybrid and electric vehicles**

- Dipped insulation according to DIN 60900
- With foam material inserts in durable plastic case
- Special tool steel



			kg
117.1835	16 pcs	Insulated tool set for hybrid and electric vehicles	3.90
1 x		3/8"	
1 x		3/8"	
6 x		8 - 10 - 11 - 12 - 13 - 14 mm	
2 x		10 - 12 mm	
1 x		5,5 mm	
1 x		PH2	
1 x			
1 x		12 - 750 V	
1 x		# 10	
1 x		200 mm	

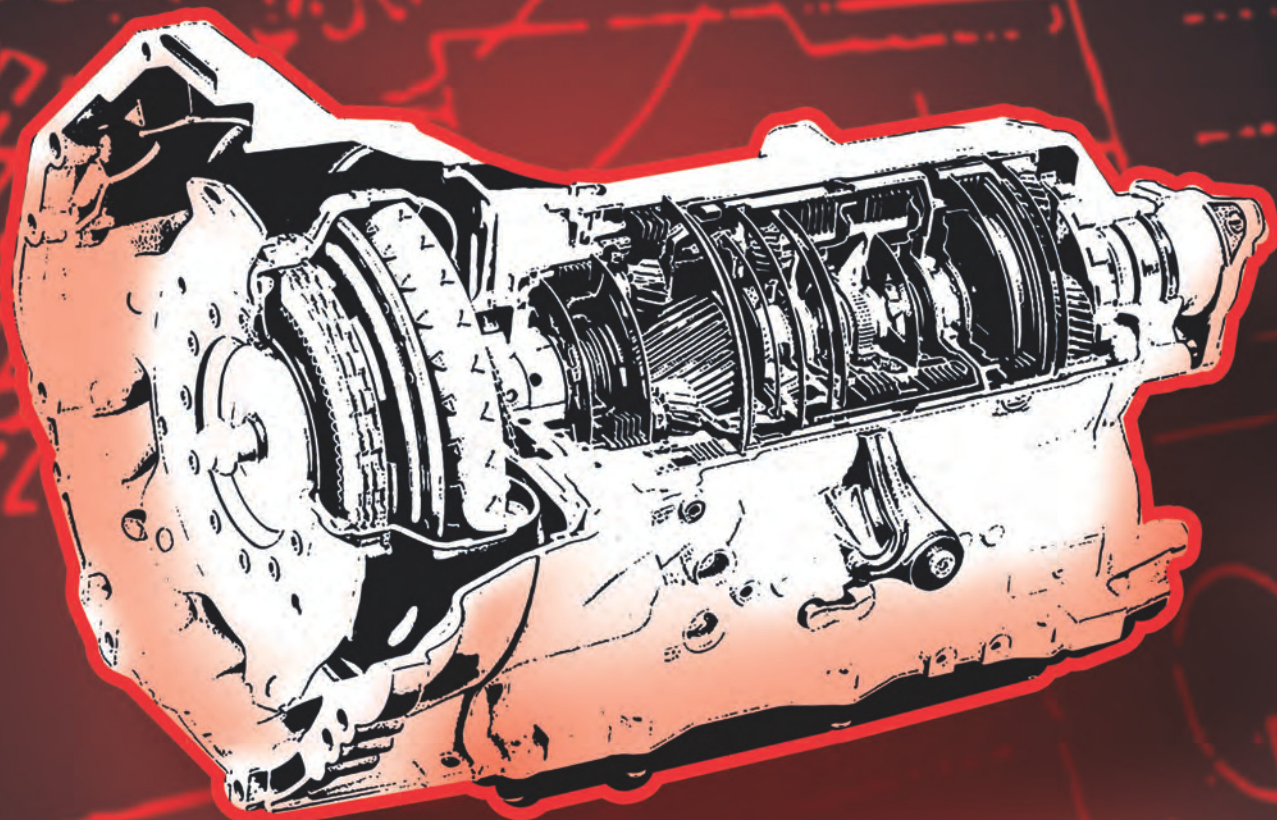


**Insulated tool set for hybrid and electric vehicles**

- Dipped insulation according to DIN 60900
- With foam material inserts in durable plastic case
- Special tool steel



			kg
117.1845	51 pcs	Insulated tool set for hybrid and electric vehicles	6.50
1 x		240 mm	
1 x		160 mm	
1 x		180 mm	
1 x		180 mm	
1 x		205 mm	
1 x		200 mm	
4 x		2,5 - 3,0 - 3,5 - 4,0 mm	
3 x		PH1 - PH2 - PH3	
3 x		T20 - T25 - T30	
1 x		195 mm	
1 x		3/8"	
2 x		125 - 250 mm	
17 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm	
3 x		M8 - M10 - M12	
4 x		4 x: 17,5 - 26 mm	
1 x		200 mm	
1 x		200 mm	
1 x		500 m	



Innovation is  
our mission!



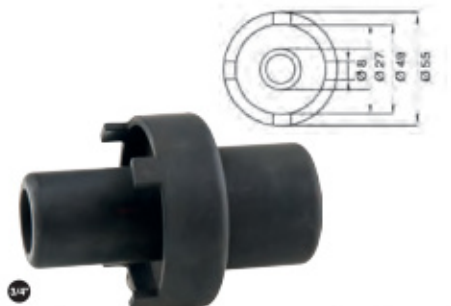
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**PIN WRENCH**

**Pin wrench for rear axle shaft flange**

- Ideal for actuating the rear axle shaft flange on Mercedes
- For a professional repair
- Special profil
- Internal square drive to DIN 3120 - ISO 1174
- Special steel

**Application range:** Mercedes W116, W123, W126



	D mm	L mm	
450.0108	55.0	80.0	420

**Pin wrench for transmission flange**

- Ideal for actuating the transmission flange on Mercedes
- For a professional repair
- Special profil
- Internal square drive to DIN 3120 - ISO 1174
- Special steel

**Application range:** Mercedes



	D mm	L mm	
450.0109	42.0	70.0	440

**Pin wrench for differential flange**

- Ideal for actuating the differential flange on Mercedes
- For a professional repair
- Special profil
- Internal square drive to DIN 3120 - ISO 1174
- Special steel

**Application range:** Mercedes



	D mm	L mm	
450.0111	42.0	70.0	370

**BOX SPANNERS**

**12 Point socket, deep**

- Ideal for releasing and screwing in securing nuts, e.g. front and rear axle drive shafts, on the wheel bearings as well as wheel bearings or transmission or differential flanges
- 12-point
- Internal square to DIN 3120/ISO 1174 with ball reception
- Long design
- For manual operation
- Matt finish
- Chrome vanadium

**Application range:** Volkswagen Golf VI, VII, Scirocco, Tiguan, Touran, Passat (3C), Passat CC; Audi A3, TT; Seat Leon, Altea; Škoda Octavia (1Z), Superb (3T), etc.



		D1 mm	D2 mm	L mm	T mm	
917.1272	24.0	33.0	29.0	82.0	26.0	250

**12 Point socket, deep**

- Ideal for releasing and screwing in securing nuts, e.g. front and rear axle drive shafts, on the wheel bearings as well as wheel bearings or transmission or differential flanges
- 12-point
- Internal square to DIN 3120/ISO 1174 with ball reception
- Long design
- For manual operation
- Matt finish
- Chrome vanadium

**Application range:** BMW 1 series (F20)/3 series (E36, E46, E90), Citroën Saxo/C2, Dacia Sandero, Ford Galaxy, Fiat Seicento, Mercedes A class (W168)/C class (W203)/E-class (W211)/SL (W129)/W123/W124/W126 /W201, Opel Astra F/ Astra G, Renault Scenic/Clio/Kangoo, Toyota Avensis/Picnic, Volkswagen Golf III/Golf IV/Lupo/Touareg/T5, etc.



		D1 mm	D2 mm	L mm	T mm	
917.1274	30.0	41.0	33.0	82.0	33.0	333

**12 Point socket, deep**

- Ideal for releasing and screwing in securing nuts, e.g. front and rear axle drive shafts, on the wheel bearings as well as wheel bearings or transmission or differential flanges
- 12-point
- Internal square to DIN 3120/ISO 1174 with ball reception
- Long design
- For manual operation
- Matt finish
- Chrome vanadium

**Application range:** Fiat Punto/Seicento, Ford Fiesta/Fusion/ Mondeo, Mercedes C class (W204)/S class (W140), Nissan Almera, Opel Astra H/Vivaro, Subaru Outback, etc.



		D1 mm	D2 mm	L mm	T mm	
917.1275	32.0	43.0	35.0	82.0	36.0	371

**12 Point socket, deep**

- Ideal for releasing and screwing in securing nuts, e.g. front and rear axle drive shafts, on the wheel bearings as well as wheel bearings or transmission or differential flanges
- 12-point
- Internal square to DIN 3120/ISO 1174 with ball reception
- Long design
- For manual operation
- Matt finish
- Chrome vanadium

**Application range:** Mercedes S class (W140), Škoda Fabia, Volkswagen Polo



		D1 mm	D2 mm	L mm	T mm	
911.4354	36.0	48.0	38.0	82.0	38.0	430

**Special torsion bar socket**

- Ideal for releasing and securing the nut of the torsion bar, e.g. when removing the transmission, changing the wheel bearings or when disassembling the brake force compensator
- Time-saving assembly and disassembly
- For exact calibration
- Internal square to DIN 3120/ISO 1174 with ball reception
- Bored deep
- Specially determined lengths
- Matt finish
- Chrome vanadium

**Application range:** Volkswagen T4



	mm	L mm	D1 mm	D2 mm	T mm	kg
911.4356	27,0	140,0	36,0	30,0	30,0	520

**Transmission housing drive socket**

- Suitable for hard to reach transmission housing screws
- Allows for secure mounting and makes it reachable
- Secure fit
- Weight-loading universal joint
- Compact shape
- Chrome plated and mirror polished
- Chrome vanadium

**Application range:** Opel



	Length mm	kg	
150.9201	E18	70,0	144

**Drive shaft bit socket for spline (XZN®) screws**

- Ideally suited to assembly and disassembly of screws on drive shaft flange (transmission side) from the wheel casing
- Internal square drive to DIN 3120/ISO 1174 with ball reception
- Extra-long execution
- With sand blasted bit insert
- Matt finish
- Chrome vanadium

**Application range:** Audi, Seat, Škoda, Volkswagen, etc.



	L mm	kg	
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-bit socket-set for spline (XZN®)-Screws**

- Ideally suited to assembly and disassembly of screws on drive shaft flange (transmission side) from the wheel casing
- Internal square drive to DIN 3120/ISO 1174 with ball reception
- Extra-long execution
- With sand blasted bit insert
- Matt finish
- Chrome vanadium

**Application range:** Audi, Seat, Škoda, Volkswagen, etc.

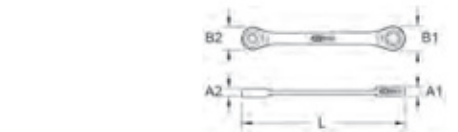


	kg	
150.1740	4 pcs M8 - M10 - M12 - M14	2,50

**GEARplus® Double ring ratchet spanner for TX E profil**

- Ideally suited for the assembly and disassembly in tight-fitting areas and changing the transmission
- TX-E
- Straight form
- Exact gearing with 72-teeth
- Chrome plated and mirror polished
- Chrome vanadium

**Application range:** Ford Galaxy, Seat Alhambra, Volkswagen Sharan, etc.



	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg	
503.4351	E6 x E8	6,5	6,9	16,8	20,2	128,0	70
503.4353	E10 x E12	7,3	7,7	20,2	21,8	150,0	60
503.4355	E14 x E18	9,0	9,9	26,5	29,5	190,0	150
503.4357	E20 x E24	10,3	11,2	31,5	33,5	230,0	230

**GEARplus® Double ring ratcheting spanner set for TX E profil**

- Ideally suited for the assembly and disassembly in tight-fitting areas and changing the transmission
- TX-E
- Straight form
- Exact gearing with 72-teeth
- Chrome plated and mirror polished
- Chrome vanadium

**Application range:** Ford Galaxy, Seat Alhambra, Volkswagen Sharan, etc.



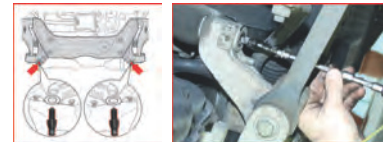
	kg	
503.4364	4 pcs E6xE8 - E10xE12 - E14xE18 - E20xE24	475

**SECURING BOLTS**

**VAG M12 subframe locating pin set**

- Ideally suited for adjustment of the subframe (chassis) when assembling
- It is necessary to renew the rubber bushes as well as for all work when the subframe is disassembled
- Allows for great time saving, since the axle does not need to be measured
- Simple assembly
- Special steel
- In durable plastic storage case

**Application range:** Volkswagen Scirocco (>2009), Eos (>2006), Golf (>2009), Golf Plus (>2005), Jetta (2004 – 2006), Polo (>2002), Fox (>2006), Passat (>2006)



	kg	
150.2675	4 pcs VAG M12 subframe locating pin set	300

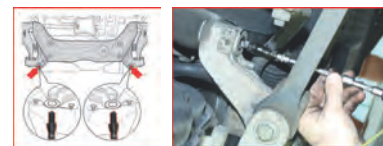
consists of:

	kg	
150.2676	4 VAG securing bolt for subframe, M12 X 1,5	42

**VAG M14 subframe locating pin set**

- Ideally suited for adjustment of the subframe (chassis) when assembling
- It is necessary to renew the rubber bushes as well as for all work when the subframe is disassembled
- Allows for great time saving, since the axle does not need to be measured
- Simple assembly
- Special steel
- In durable plastic storage case

**Application range:** Audi A3 (>2004), TT (>2007), A4 (>2001) Volkswagen Passat (>2009), Crafter, T5, Touareg 2.5 l TDI (>2004)



	kg	
150.2680	4 pcs VAG M14 subframe locating pin set	300

consists of:

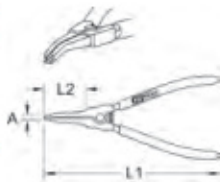
	kg	
150.2681	4 VAG securing bolt for subframe, M14 X 1,5	42

**PLIERS**

**Drive shaft securing ring teeth with 30° angled tips**

- 30° angled
- With PVC dipped handle
- Self-closing
- Plier head with cut out and ring stop body
- For the disassembly and assembly of nut caps without lug retainer
- Chrome vanadium

**Application range:** For the dismantling of the external (below joints in the exchange of the axle boots and / or the drive shaft sleeves). e.g.: for Audi, Opel, Volkswagen (Golf, T4), Fiat, Mitsubishi.

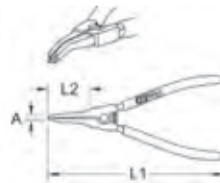


	A mm	L1 mm	L2 mm	Weight
115.0991	0-33	210.0	50.0	215

**Drive shaft securing ring teeth with slightly angled tips**

- Slightly angled
- With PVC dipped handle
- Self-closing
- Checkered plier head
- For the disassembly and assembly of drive shaft circlips without lug retainer
- Slip proof
- Chrome vanadium

**Application range:** For the removal of external circlips e.g. on synchronisation joints

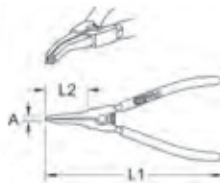


	A mm	L1 mm	L2 mm	Weight
115.0992	0-37	210.0	50.0	256

**Drive shaft securing ring teeth with straight tips**

- Straight form
- With PVC dipped handle
- Self-closing
- Checkered plier head
- For the disassembly and assembly of drive shaft circlips without lug retainer
- Slip proof
- Chrome vanadium

**Application range:** For the removal of external circlips e.g. on drive shafts, transmissions, etc



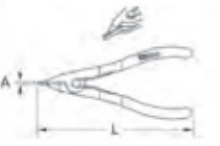
	A mm	L1 mm	L2 mm	Weight
115.0993	0-37	210.0	48.0	220



**Drive shaft securing ring teeth with serrated tips**

- With PVC dipped handle
- Serrated and angular tips
- Self-closing
- For assembly and disassembly of the securing rings on drive shafts
- For external security rings
- No slipping due to the serrated tips
- Chrome molybdenum

**Application range:** Opel, Mercedes, Volkswagen, etc.



	A mm	L mm	Weight
115.1048	0-20	210.0	220

**Drive shaft securing ring teeth with shaped tips**

- With PVC dipped handle
- Shaped tips
- Self-closing
- For assembly and disassembly of the securing rings on drive shafts
- For external security rings
- No slipping due to the serrated tips
- Chrome molybdenum

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

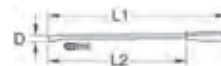


	A mm	L mm	Weight
115.1049	0-20	240.0	600

**PRY BAR**

**Pry bar**

- Ideally suited to assembly and disassembly work
- For pressure testing securely-fitted parts
- Suitable for positioning parts or holding parts in place
- 1 piece handle
- Hardened
- Chrome molybdenum



	D mm	L1 mm	L2 mm	Weight
911.8101	11.0	200.0	115.0	130
911.8102	15.0	300.0	185.0	220
911.8103	18.0	450.0	320.0	420
911.8104	18.0	600.0	470.0	560

**Pry bar sets**

- Ideally suited to assembly and disassembly work
- For pressure testing securely-fitted parts
- Suitable for positioning parts or holding parts in place
- 1 piece handle
- Hardened
- Chrome molybdenum



	Weight
911.8100 4 pcs	1.33



**Mechanics pry bar**

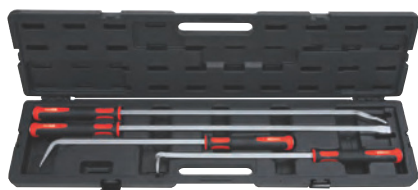
- Angular lever end guarantees non-slip surface
- With go through blade and hammer cap
- Ideally suited to assembly and disassembly work
- For pressure testing securely-fitted parts
- Suitable for positioning parts or holding parts in place
- Suitable for the testing of defective bearings
- With two component handle
- Heavy design especially for commercial vehicles
- Special steel



	Bend radius	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

**Mechanics pry bar set**

- Angular lever end guarantees non-slip surface
- With go through blade and hammer cap
- Ideally suited to assembly and disassembly work
- For pressure testing securely-fitted parts
- Suitable for positioning parts or holding parts in place
- Suitable for the testing of defective bearings
- With two component handle
- Heavy design especially for commercial vehicles
- Special steel
- In durable plastic storage case



		kg
911.8410	4 pcs Mechanics pry bar set	8.70

consists of:

		kg
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



**Intexable ratchet pry bar**

- 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



	L mm	kg
911.8176	250.0	600
911.8177	300.0	600
911.8178	400.0	600
911.8179	620.0	1810

**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



		kg
911.8175	3 pcs Adjustable joint roll head pry bar set	1.20

consists of:

		kg
911.8176	Ratcheted pry bar, 10"	600
911.8177	Ratcheted pry bar, 12"	600
911.8178	Ratcheted pry bar, 15"	600

**Roller head telescopic pry bar**

- Handle can be lengthened by the push button in ratchet steps
- Rolling head adjustable in stages
- Extra thin with embedded rolling head
- Maximum power in the smallest areas
- Optimal leverage in minimal work area
- Ideally suited to assembly and disassembly work
- For pressure testing securely-fitted parts
- Suitable for positioning parts or holding parts in place
- Suitable for the testing of defective bearings
- Ideal for use in passenger cars and commercial vehicles
- Special steel



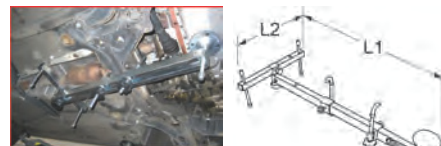
	L mm	H mm	B mm	kg
911.8186	325-460	90.0	12.0	780
911.8187	600-915	120.0	20.0	1900
911.8188	865-1350	145.0	24.0	4260

**SUPPORT DEVICES**

**Universal engine supporting beam**

- Highest flexibility thanks to adjustable and flexibly positionable construction
- Universal usage
- Simple handling and quick repair
- Hooks rotatable and adjustable in longitudinal direction
- Supporting plates height adjustable with non slip feet
- Secure supporting of engine or transmission
- Assembly and access unhindered below possible, through it to the engine compartment
- Special steel

**Application range:** Timing belt changing, clutch changing, etc.



	L1 mm	L2 mm	H mm	kg
160.0090	1020.0	510.0	300.0	8.60

**Hydraulic transmission jack**

- Ideal for installing and removing motors, transmissions, couplings, etc.
- Uncomplicated lifting with hydraulic foot pump
- Continuous adjustment allows for precise positioning
- Slow release of the load possible with hand wheel
- Includes overload valve
- With integrated safety stop handle
- High stability due to wide wheel spacing
- Good manoeuvrability through four oil and acid resistant nylon direct castors
- Extra-large covering for lifting
- Wide wheel spacing ensures more stability and manoeuvrability when loaded
- Robust shape



	Max load kg	Min total height mm	Max total height mm	Width mm	kg
160.0327	300	1200.0	2040.0	610.0	32.00
160.0324	500	1200.0	2040.0	610.0	34.00
160.0329	1000	1200.0	2040.0	610.0	48.00

**Hydraulic transmission lever with adjustable and inclining table**

- Ideal for the safe installing and removing of motors, transmission, couplings, etc.
- Tough design
- Uncomplicated lifting with hydraulic foot pump
- Continuous adjustment allows for precise positioning
- Especially wide working area
- Slow release of the load possible with the foot pump
- Includes overload valve
- With integrated safety stop handle
- Ground plate can be inclined and adjusted into position/horizontal + 40 mm/inclination -10°/+20°
- Includes 420 mm wide support rail with support chains for secure tensioning
- Chains can be adjusted from 130-430 mm
- High stability due to wide wheel spacing
- Transmission holder attached to the piston rod
- Includes transmission holder
- Good manoeuvrability through four oil and acid resistant nylon direct castors
- Extra-large covering for lifting
- Wide wheel spacing ensures more stability and manoeuvrability when loaded
- Robust shape

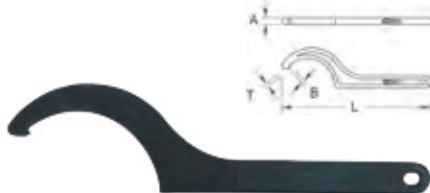


	Max load kg	Min total height mm	Max total height mm	Length mm	Width mm	Weight kg
160.0334	500	880.0	1870.0	700.0	800.0	67.00

**HOOK WRENCH**

**Fixed hook wrench with nose**

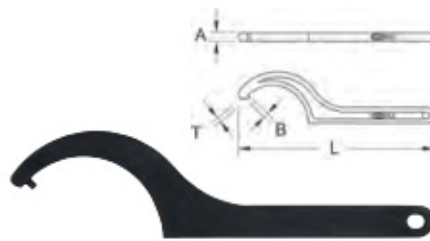
- In accordance to DIN 1810 Form A
- With hanging hole
- For slotted nuts
- Burnished
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	Weight kg
517.1370	12 - 14	2.5	2.0	109.5	1.5	22
517.1371	16 - 20	2.5	2.0	109.5	1.5	22
517.1372	25 - 28	4.0	2.5	135.9	2.0	36
517.1373	30 - 32	4.0	2.5	135.9	2.0	36
517.1374	34 - 36	5.0	3.0	170.2	2.0	82
517.1375	40 - 42	5.0	3.0	170.3	2.0	76
517.1376	45 - 50	6.0	3.5	195.0	2.0	132
517.1377	52 - 55	7.0	3.5	220.0	2.5	176
517.1378	58 - 62	7.0	4.0	240.0	2.5	224
517.1379	68 - 75	7.6	4.0	260.0	3.0	280
517.1380	80 - 90	8.0	5.0	280.0	3.5	368
517.1381	92 - 100	8.0	5.0	280.0	3.5	394
517.1382	110 - 115	9.5	5.0	334.9	4.0	590
517.1383	120 - 130	9.5	5.0	334.9	4.0	540

**Fixed hook wrench with pin**

- In accordance to DIN 1810 Form B
- With hanging hole
- For pin type round nuts
- Burnished
- Chrome vanadium

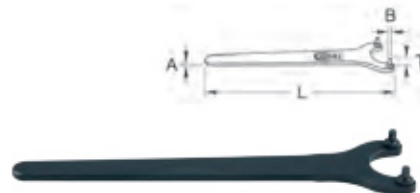


	mm	A mm	B mm	L mm	T mm	Weight kg
517.1471	12 - 14	3.0	2.0	110.0	2.0	25
517.1472	16 - 18	3.0	2.5	110.0	2.5	25
517.1473	20 - 22	3.0	2.5	110.0	2.5	25
517.1474	25 - 28	4.0	3.0	136.0	3.0	55
517.1488	30 - 32	5.0	4.0	136.0	3.0	55
517.1476	34 - 36	5.0	4.0	170.0	3.5	100
517.1477	40 - 42	5.0	4.0	170.0	3.5	100
517.1478	45 - 50	6.0	5.0	206.0	4.0	165
517.1479	52 - 55	6.0	5.0	206.0	4.0	165
517.1480	58 - 62	7.0	5.0	240.0	5.0	270
517.1481	68 - 75	7.0	6.0	240.0	5.0	270
517.1482	80 - 90	8.0	6.0	280.0	6.0	410
517.1483	95 - 100	8.0	8.0	280.0	6.0	410
517.1484	110 - 115	8.0	8.0	335.0	8.0	610
517.1485	120 - 130	8.0	8.0	335.0	8.0	610
517.1486	135 - 145	8.0	8.0	380.0	8.0	790
517.1487	155 - 165	8.0	8.0	380.0	8.0	790



**Pin-type face wrench**

- DIN 3,116 A
- Phosphate
- Special steel



	mm	A mm	B mm	L mm	T mm	Weight kg
517.2013	13	3.0	2.5	90.0	3.0	27
517.2015	15	3.0	3.0	90.0	4.0	27
517.2020	20	4.0	3.0	122.0	5.0	50
517.2025	25	4.0	3.0	137.0	4.0	65
517.2030	30	4.0	4.0	164.0	5.0	85
517.2035	35	5.0	5.0	180.0	6.0	120
517.2040	40	5.0	4.0	167.0	5.0	120
517.2045	45	5.0	4.0	187.0	5.0	145
517.2050	50	5.0	5.0	198.0	6.0	175
517.2060	60	6.0	5.0	213.0	6.0	220
517.2075	75	6.0	6.0	243.0	7.0	330
517.2090	90	6.0	7.0	270.0	7.5	410

**Pin-type face wrench set, seamlessly adjustable with interchangeable pins**

- Universal application for common two-hole nuts
- With interchangeable pins
- Each double pin wrench is replacing 4 single key sizes
- Adjustable in diameter
- Phosphate finish
- Special steel
- In durable plastic storage case



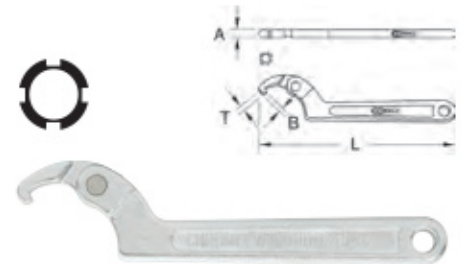
	mm	Weight kg
150.3205	19 pcs	1.56

consists of:

		Weight kg
150.3206	Pin-type face wrench, adjustable, length 263 mm	485
150.3207	Pin-type face wrench, adjustable, length 215 mm	293
150.3208	Pin-type face wrench, adjustable, length 161 mm	155
150.3209	Pin-type face wrench, adjustable, length 115 mm	57
150.3210	Pin pair, Ø 2.37 mm	2
150.3211	Pin pair, Ø 2.90 mm	2
150.3212	Pin pair, Ø 4.87 mm	5
150.3213	Pin pair, Ø 5.91 mm	7
150.3214	Pin pair, Ø 6.87 mm	13
150.3215	Pin pair, Ø 7.92 mm	15
150.3216	Pin pair, Ø 9.87 mm	28
150.3217	Pin pair, Ø 11.90 mm	37

**Hook wrench with nose**

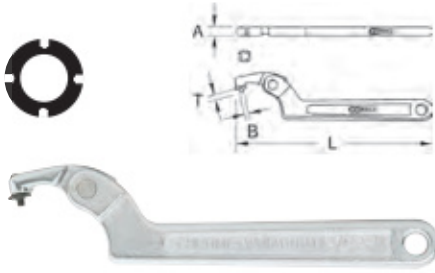
- In accordance to DIN 1810 Form A
- With flexible head
- With hanging hole
- For slotted nuts
- Matt finish
- Chrome vanadium



	mm	Weight kg	A mm	B mm	L mm	T mm	Weight kg
517.1302	19-50	3/4-2"	9.0	3.5	162.0	2.9	100
517.1303	32-76	1.1/4-3"	11.5	4.5	205.0	3.7	210
517.1304	50-120	2-4.3/4"	12.4	6.5	295.0	4.6	420
517.1305	114-158	4.1/2-6.1/4"	12.4	9.8	315.0	8.3	440

**Flexible hook wrench with pin**

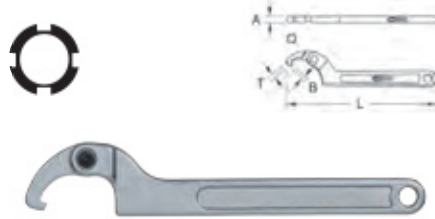
- In accordance to DIN 1810 Form B
- With flexible head
- With hanging hole
- For pin type round nuts
- Matt finish
- Chrome vanadium



mm	A mm	B mm	L mm	T mm	kg		
517.1312	19-50	3/4-2"	9.2	4.0	165.0	4.0	110
517.1313	32-76	1.1/4-3"	11.3	5.0	210.0	4.7	220
517.1314	50-120	2-4.3/4"	12.5	6.0	295.0	5.5	420
517.1315	114-158	4.1/2-6.1/4"	12.6	8.0	320.0	7.6	440

**Hook wrench with nose**

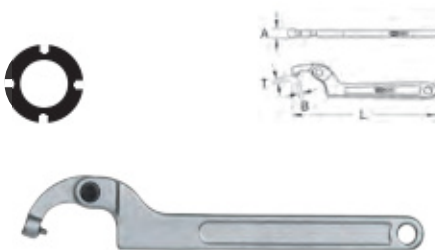
- In accordance to DIN 1810 Form A
- With flexible head
- With hanging hole
- For slotted nuts
- Matt finish
- Chrome vanadium



mm	A mm	B mm	L mm	T mm	kg	
517.1316	13 - 35	5.2	3.2	175.0	3.2	96
517.1317	35 - 50	5.9	4.0	202.0	4.2	186
517.1318	50 - 80	7.5	4.9	280.0	5.2	392
517.1319	80 - 120	8.2	5.3	345.0	5.8	656
517.1320	120 - 180	10.8	8.9	465.0	7.8	1286

**Flexible hook wrench with pin**

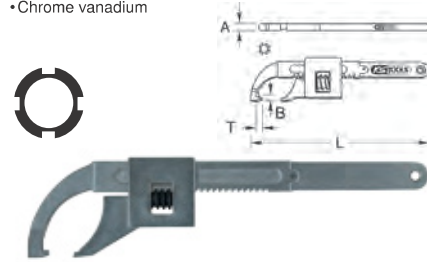
- In accordance to DIN 1810 Form B
- With flexible head
- With hanging hole
- For pin type round nuts
- Matt finish
- Chrome vanadium



mm	A mm	B mm	L mm	T mm	kg	
517.1323	15 - 35	9.8	2.8	177.0	2.8	96
517.1324	35 - 50	10.7	3.8	202.0	3.6	186
517.1325	50 - 80	14.0	4.8	280.0	5.0	380
517.1326	80 - 120	17.2	5.8	345.0	7.0	652
517.1327	120 - 180	19.2	7.8	465.0	9.0	1318

**Hook wrench with nose**

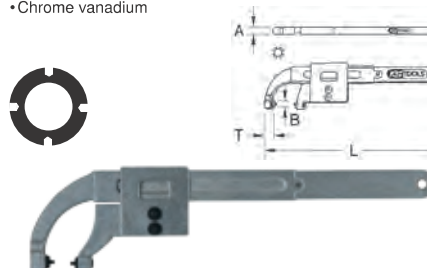
- In accordance to DIN 1810 Form A
- With flexible head
- With hanging hole
- For slotted nuts
- Infinitely variable
- Matt finish
- Chrome vanadium



mm	A mm	B mm	L mm	T mm	kg	
517.1397	10 - 50	7.6	4.2	210.0	4.5	380
517.1398	20 - 100	8.2	6.8	360.0	5.5	840
517.1399	30 - 200	10.6	9.4	570.0	7.0	2250

**Flexible hook wrench with pin**

- In accordance to DIN 1810 Form B
- With flexible head
- With hanging hole
- For pin type round nuts
- Infinitely variable
- Matt finish
- Chrome vanadium



mm	A mm	B mm	L mm	T mm	kg	
517.1328	10-50	8.3	2.6	210.0	2.5	380
517.1329	20-100	12.3	4.0	360.0	4.5	840
517.1330	30-200	17.3	5.8	570.0	4.8	2250

**PULLERS**

**Transmission puller set with slim hooks for Volkswagen, Ø 20 - 90 mm**

- With quick release function
- Ideal for confined spaces
- 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
- Special steel
- In durable plastic storage case



A mm	B mm	mm	max t	kg		
625.1701	7 pcs	20 - 90	100	M14 x 1.5	5.5	2.30

consists of:

Part No.	Description	Weight (kg)
620.1701	Quick release universal 2 arm puller, 20-90mm	1.00
630.1701	Quick release 3 arm puller, 20-90mm	1.30
980.1090	Special thread grease, tube	0.01

**Universal 2 arm puller**

- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2" / G3/4" / G1"
- Extremely robust spindle with inductively hardened thread
- Special steel

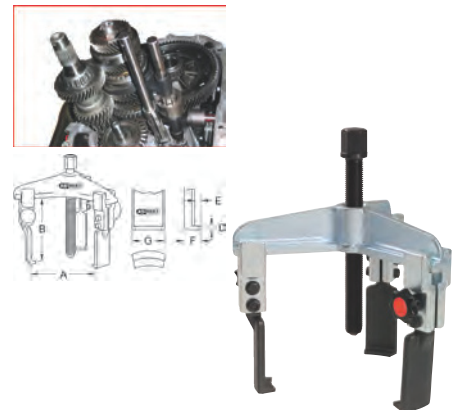


	A mm	B mm	C mm	max t	mm	D mm	E mm	F mm	G mm	kg	
620.0101	20-90	100	70-130	4.5	M14x1.5 x 140	17	3	13	25	20	1.00
620.0102	25-130	100	80-180	4.5	M14x1.5 x 140	17	3	13	25	20	1.20
620.0103	50-160	150	105-220	6.5	G1/2"x14g x 210	22	4	16	35	25	3.00
620.0104	60-200	150	120-270	6.5	G1/2"x14g x 210	22	4	16	35	25	3.30
620.0105	80-250	200	160-330	11	G3/4"x14g x 280	27	5	25	54	35	7.40
620.0106	80-350	200	160-420	11	G3/4"x14g x 280	27	5	25	54	35	8.50
620.0107	110-520	200	195-600	13	G3/4"x14g x 280	27	5	25	54	35	13.00
620.0108	170-640	225	250-720	18	G1"x11g x 310	36	10	33	55	50	23.70

**Transmission puller set with slim hooks for Volkswagen**

- For removing the 5th or 6th transmission
- Includes 2 and 3 arm traverse
- The very thin arms are specially adapted for this use
- With quick tension function
- Saves a lot of time
- Slim hooks
- Ideal for confined spaces
- Uniform load distribution and centred tightening
- Through reconnecting the hooks internal and external applications are suitable
- Extremely robust spindle with inductively hardened thread
- Requires light expenditure of energy
- Special steel

**Application range:** Volkswagen Golf V, Golf V Plus, Touran, etc.



A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	kg		
630.1101	20-90	100	5	M14x1.5 x 130	17	3.6	6	13	27	1.30

**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



700.1300	12 pcs	Universal puller set	6.69
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consists of:

700.1311	Spindle, M14x1.5	180
700.1312	Two armed traverse	485
700.1313	Three armed traverse	675
700.1314	Puller arm, 100mm	250
700.1315	Puller arm, 210mm	530
700.1316	Puller arm, 250mm	640



**Universal clamping yoke**

- For universal 2 arm puller
- Clamping yoke compresses the legs firmly
- Prevents slipping
- Special steel



615.5101	A mm	800
	10-130	

**Precision internal extractor**

- Centering shaft
- For the accurate fitting of bearings and bushes
- Special steel



	A mm	Connector thread mm	SW1 mm	SW2 mm	T mm	max N·m	U
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

**Double ended support for internal extractor**

- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	max N·m	mm	Internal extractor	mm	U
660.0601	35-75	30	12	M10	M16x1.5 x 136	0.70
660.0602	60-130	60	19	M10xG3/8"	M24x1.5 x 160	1.60
660.0603	60-130	60	19	G3/8"	M24x1.5 x 160	1.50
660.0604	60-210	70	19	G3/8"	M24x1.5 x 160	3.70
660.0605	55-205	100	22	G3/8"	G1/2"x14g x 210	3.80

**Slide hammer**

- Suitable for small ball bearings
- Ideal for limited access areas
- Special steel



	L1 mm	L2 mm	D1 mm	D2 mm	mm	U
660.0501	170	40.0	10.0	30.0	M10	0.40
660.0502	170	80.0	10.0	50.0	M10	0.90
660.0503	250	100.0	16.0	45.0	M10	1.30
660.0504	250	100.0	16.0	45.0	M10+G3/8"	1.40
660.0505	250	100.0	16.0	60.0	G3/8"	2.60

**Universal bearing and bush driver set**

- Universal applicable range
- Can be used manually with a hammer or workshop press
- Applications from 18.0 - 65.0 mm
- Pressure plates are for the two driving spindles
- Special steel
- In durable plastic storage case



700.1350	51 pcs	Universal bearing and bush driver set	8.00
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consists of:

		U
700.1348	Reception adaptor, 45mm	500
700.1349	Impact drive knurled grip, 220mm	42
700.1351	Pressure plate, 18mm	12
700.1352	Pressure plate, 19mm	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

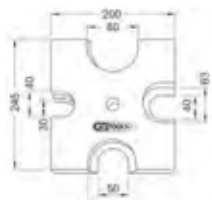
consists of:

Part No.	Description	Quantity
700.1396	Pressure plate, 63mm	284
700.1397	Pressure plate, 64mm	294
700.1398	Pressure plate, 65mm	305
700.1399	Support plate, 75mm	500

**PRISMS**

**Universal prism plate Ø 40.0/63.0/75.0/80 mm**

- Universally usable plates
- For the pressing on and off of bearing on rear axles, engines and transmissions
- Special steel



Part No.	Length mm	Width mm	Weight kg
700.1738	245.0	200.0	7.32

**Prism plate Ø 62,0 mm**

- Universally usable plates
- For pressing on and off bearings or cogs on bearing shafts, e.g. on engines, transmissions, etc.
- in connection with workshop presses
- Special steel



Part No.	Length mm	Width mm	Weight kg
700.1739	200.0	180.0	4.36

**Prism plate Ø 67,0 mm**

- Universally usable plates
- For pressing on and off bearings or cogs on bearing shafts, e.g. on engines, transmissions, etc.
- in connection with workshop presses
- Special steel



Part No.	Length mm	Width mm	Weight kg
700.1742	200.0	180.0	4.28

**Prism plate Ø 72,0 mm**

- Universally usable plates
- For pressing on and off bearings or cogs on bearing shafts, e.g. on engines, transmissions, etc.
- in connection with workshop presses
- Special steel



Part No.	Length mm	Width mm	Weight kg
700.1743	200.0	180.0	4.14

**Prism plate extra narrow, Ø 30,0/45,0 mm**

- Universally usable plates
- Especially suitable for tight spaces (up to 4 mm)
- For pressing on and off bearings or cogs on bearing shafts, e.g. on engines, transmissions, etc.
- Special steel



Part No.	Length mm	Width mm	Weight kg
700.1744	300.0	170.0	1.10

**OIL SERVICE TOOLS**

**Transmission oil dipstick**

- Universal usages for many vehicle types
- Ideal for the easy, quick and correct control of transmission oil levels
- Saves a lot of time
- No other tools necessary
- Precise calculation of the oil level with the installed scale
- Even when the transmission oil control screw is hard to reach the check is no problem
- With two component handle

**Application range:** Audi 80, 100, A4, A6, S4, RS4 for transmissions: 012/01, 01E, 012, Multitronic transmission Volkswagen Passat, T4 Syncro for transmission: 012/01, 02G, etc.



Part No.	L mm	Scale length	Scale division	Weight kg
150.9266	360.0	15.0 mm	0.01 mm	90

**Oil control rod for Mercedes Benz**

- Ideal for the easy, quick and correct control of engine and automatic transmission oil levels
- Essential following an oil change, since vehicles are shipped without a measuring device and only have a plug
- Time-saving and reliable measurements
- With plastic hand grip



Part No.	Quantity	Description	Weight kg
150.9280	4 pcs	Oil control rod for Mercedes Benz	380

consists of:

Part No.	Description	Transmission gear ID	Weight kg
150.9281	Oil dip stick, 1220 mm	772.6 L, G, P, V	160
150.9282	Oil dip stick, 920 mm	772.7 P, 772.8 P, 716.5 V	120
150.9283	Oil dip stick, 930 mm	103, 104, 111, 119, 120, 137, 603	40
150.9284	Oil dip stick, 930 mm	M112, 113, 646, 647, 648	40

**Flexible oil service bit socket for internal hexagon screws**

- Internal hexagon
- Special flexible bit socket for actuating the transmission oil control screw on manual and automatic transmissions
- For hard to reach places
- Internal square drive to DIN 3120/ISO 1174
- With press fit ted insert bit
- For machinery usage
- Phosphate
- Chrome molybdenum

**Application range:** Audi, Seat, Volkswagen with manual and automatic transmissions



Part No.	mm	Length mm	Weight kg
150.9257	17.0	48.2	110

**Oil drain bit socket for spline (XZN®) screws**

- Multi-tooth (XZN®) with tamper proof screws
- Special bit socket for assembly and disassembly of oil drain and transmission oil control screw
- Internal square drive to DIN 3120/ISO 1174 with ball reception
- With press fit ted nickel plated insert bit
- Perfect profile or correct actuation
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

**Application range:** Audi A2, A3, A4, A6/ Škoda Fabia, Octavia, Superb/ Volkswagen Passat, Golf IV, LT, etc.

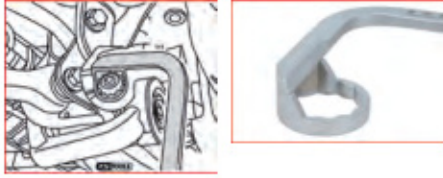


Part No.	mm	L mm	Weight kg
150.1437	3/8"	M16	37.0
150.9364	1/2"	M16	50.0

**Oil filler wrench for Haldex transmission**

- For quick and correct assembly and disassembly of the hard to reach oil filler on the Haldex transmission
- 12-point
- Matt finish
- Chrome vanadium

**Application range:** Volkswagen Golf/Passat/Sharan/Caddy/Tiguan/Transporter T5 (4MOTION Models), Škoda Yeti/Octavia II/Superb II with all-wheel transmission shift



	mm	L mm	kg
150.2098	46,0	390,0	770

**Oil service wrench hexagonal point for Fiat/Alfa Romeo**

- For the quick and correct assembly and disassembly of the reduction screws on the oil sump, transmissions and differential
- Internal hexagon
- Specially shaped for use
- For manual operation
- Matt finish
- Chrome vanadium

**Application range:** Alfa Romeo, Fiat, Lancia, Lada, etc.



	mm	Length mm	kg
150.9227	12	225,0	280

**Oil service wrench square socket for PSA**

- For the quick and correct assembly and disassembly of the reduction screws on the oil sump, transmissions and differential
- Internal square
- Specially shaped for use
- For manual operation
- Matt finish
- Chrome vanadium

**Application range:** Renault, Dacia, Peugeot, Citroën, etc.



	mm	Length mm	kg
150.9228	8x10	270,0	275

**Oil service hexagon wrench for Mercedes and BMW**

- For the quick and correct assembly and disassembly of the oil filling screw on the transmission
- Internal hexagon
- External hexagon
- Specially shaped for use
- For manual operation
- Matt finish
- Chrome vanadium

**Application range:** Mercedes W107, W123, W124, W126, W129, W163, W170, W201, W202, W203, W208, W210, W215, W220 Gearbox: 100, 110, 115, 116, 117, 615, 616, 617; BMW



	mm	mm	Length mm	kg
150.9231	14,0	17,0	235,0	230

**Oil service hexagon wrench for Mercedes and BMW**

- For the quick and correct assembly and disassembly of the oil filling screw on the transmission
- Internal hexagon
- External hexagon
- Specially shaped for use
- For manual operation
- Matt finish
- Chrome vanadium

**Application range:** Mercedes Gearbox: 102, 103, 104, 110, 115, 116, 117, 119, 120, 123; BMW



	mm	mm	Length mm	kg
150.9232	14,0	13,0	290,0	230

**Oil service wrench for VAG**

- For the quick and correct assembly and disassembly of the oil filling screw on the transmission and the oil drain plug on the oil sump
- Internal hexagon
- External hexagon
- Specially shaped for use
- For manual operation
- Matt finish
- Chrome vanadium

**Application range:** Audi, Seat, Škoda and Volkswagen



	mm	mm	Length mm	kg
150.9233	21,0	17,0	250,0	240

**Oil service internal hexagon wrench**

- For the quick and correct assembly and disassembly of the reduction screws on the oil sump, transmissions and differential
- Internal hexagon
- With joint
- For manual operation
- Matt finish
- Chrome vanadium

**Application range:** Renault, Peugeot, Citroën, Volvo, etc.



	mm	Length mm	kg
150.9225	10x14	256,0	280

**8 in 1 Oil service wrench**

- For the quick and correct assembly and disassembly of the oil reduction and oil filling screws on transmission, the oil sump and differential
- Special wrench with 8 gear profiles
- Profile change by turning the wrench head
- For manual operation
- Special steel

Profile and wrench widths:  
4-point: 10.0 - 11.0 - 12.0 - 13.0 - 14.0 - 15.0 mm  
8-point: 14.0 - 17.0 mm

**Application range:** Audi, Seat, Ford, Renault, Volkswagen, etc.



	mm	Length mm	kg
150.9237	45,5	155,0	330

**8 in 1 Oil service wrench**

- For the quick and correct assembly and disassembly of the oil reduction and oil filling screws on transmission, the oil sump and differential
- Special wrench with 8 gear profiles
- Profile change by turning and snapping the wrench head
- For manual operation
- Matt chrome
- Special steel

Profile and wrench widths:  
4-point: 8.0 - 10.0 mm - 3/8" - 1/2"  
6-point: 10.0 - 12.0 - 14.0 - 17.0 mm

**Application range:** Audi, Seat, Ford, Renault, Volkswagen, etc.



	L mm	D1 mm	D2 mm	kg
150.9302	270,0	40,0	50,0	620

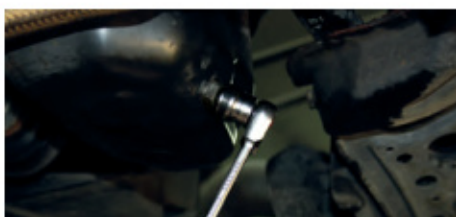
**Oil service hexagonal socket with magnet**

- 6-point
- FlankTraction profil
- Special socket for assembly and disassembly of oil drain and transmission oil control screw
- With strong, integrated magnets
- The magnets prevent the screws from falling down into the collection pans
- Internal square in accordance with DIN 3120/ISO 1174
- Perfect profile or correct actuation
- For manual operation
- Matt finis
- Chrome vanadium

**Application range:** Audi, Alfa Romeo, Ford, Mercedes, Nissan, Toyota, Volkswagen, etc.



	mm	Ø mm	Length mm	Weight g
150.1404	13	19,0	20,5	23
150.1405	14	20,0	20,5	23
150.1406	17	24,0	34,0	34
150.1407	18	25,0	23,5	40
150.1408	19	26,0	44,0	44
150.1409	21	29,0	23,5	60



**Oil service TX socket with magnet**

- TX with pins
- Special socket for assembly and disassembly of oil drain and transmission oil control screw
- With strong, integrated magnets
- The magnets prevent the screws from falling down into the collection pans
- Internal square in accordance with DIN 3120/ISO 1174
- Perfect profile or correct actuation
- For manual operation
- Matt finis
- Chrome vanadium

**Application range:** Opel, Mercedes, Fiat, etc.



	mm	Ø mm	Length mm	Weight g
150.1415	T45	19,0	34,0	31

**Oil service bit socket for internal square screws with magnet**

- Internal square
- Special socket for assembly and disassembly of oil drain and transmission oil control screw
- With strong, integrated magnets
- The magnets prevent the screws from falling down into the collection pans
- Internal square in accordance with DIN 3120/ISO 1174
- Perfect profile or correct actuation
- For manual operation
- Matt finis
- Chrome vanadium

**Application range:** Renault, Dacia, Ford, Opel, Mitsubishi, Nissan, Volvo, etc.



	mm	Ø mm	Length mm	Weight g
150.1416	8	19,0	30,0	32
150.1438	9,5	19,0	30,0	34
150.1417	10	19,0	30,0	35
150.1429	10,5	19,0	30,0	38
150.1433	11	19,0	30,0	40
150.1434	13,1	19,0	30,0	42

**Oil service bit socket for internal hexagon screws with magnet**

- Internal hexagon
- Special socket for assembly and disassembly of oil drain and transmission oil control screw
- With strong, integrated magnets
- The magnets prevent the screws from falling down into the collection pans
- Internal square in accordance with DIN 3120/ISO 1174
- Perfect profile or correct actuation
- For manual operation
- Matt finis
- Chrome vanadium

**Application range:** Audi, Seat, Opel, Fiat, Ford, Volkswagen, etc.



	mm	Ø mm	Length mm	Weight g
150.1436	8	19,0	30,0	32
150.1439	9	19,0	30,0	34
150.1441	10	19,0	30,0	35
150.1442	12	19,0	30,0	38
150.1443	13	19,0	30,0	40
150.1444	14	19,0	30,0	42
150.1446	17	19,0	30,0	52



**Oil service square socket**

- 4 point
- Special socket for assembly and disassembly of oil drain and transmission oil control screw
- Internal square in accordance with DIN 3120/ISO 1174
- Perfect profile or correct actuation
- For manual operation
- Matt finis
- Chrome vanadium

**Application range:** BMW, Ford, Renault, Toyota, etc.

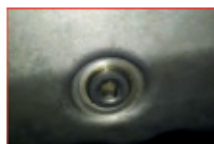


	mm	Ø mm	Length mm	Weight g
150.1426	10	19,0	36,0	47

**Oil service bit socket for internal triangle**

- Internal triangle
- Special socket for assembly and disassembly of oil drain and transmission oil control screw
- Internal square in accordance with DIN 3120/ISO 1174
- Perfect profile or correct actuation
- For manual operation
- Matt finis
- Chrome vanadium

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



	mm	Ø mm	Length mm	Weight g
150.1427	10	19,0	36,0	38

**Oil service wrench set**

- For conical screws on the oil sump, transmission differential, etc.
- Special wrench set for the assembly and disassembly of most oil drains and transmission oil control screws
- External drive hexagonal socket 21.0 mm
- Perfect profile or correct actuation
- For manual operation
- Matt finis
- Chrome vanadium
- In durable steel storage case

**Application range:** Audi, Ford, Renault, Peugeot, Mercedes, etc.



	Weight g
150.9390 6 pcs Oil service wrench set	800

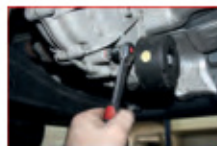
consists of:

150.9391	Oil drain screw hexagon-socket 8 + 10 mm	110	
150.9392	Oil drain screw socket hexagon 5/16" + 3/8"	110	
150.9393	Oil drain screw hexagon 8 mm + 3/8" (10 mm)	110	
150.9394	Oil drain screw hexagon-socket 12 mm + square 11 mm	110	
150.9395	Oil drain screw hexagon-socket 14 mm + square 13 mm	110	
150.9396	Oil drain screw hexagon-socket 17 mm + 1/2"	110	

**MASTER oil service bit socket set**

- For screws on oil sumps, transmission, differential, etc.
- Special wrench set for the assembly and disassembly of most oil drains and transmission oil control screws
- In parts with strong, integrated magnets
- The magnets prevent the screws from falling down into the collection pans
- Internal square drive to DIN 3120/ISO 1174
- Perfect profile for correct actuation
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail

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



150.1445	23 pcs MASTER oil service bit socket set	960	

consists of:

150.1404	Oil service hexagonal socket with magnet, 13 mm	23	
150.1405	Oil service hexagonal socket with magnet, 14 mm	23	
150.1406	Oil service hexagonal socket with magnet, 17 mm	34	
150.1407	Oil service hexagonal socket with magnet, 18 mm	40	
150.1408	Oil service hexagonal socket with magnet, 19 mm	44	
150.1409	Oil service hexagonal socket with magnet, 21 mm	60	
150.1436	3/8" Oil service bit socket for internal hexagon screws with magnet, 8 mm	32	
150.1439	3/8" Oil service bit socket for internal hexagon screws with magnet, 9 mm	34	
150.1441	3/8" Oil service bit socket for internal hexagon screws with magnet, 10 mm	35	
150.1442	3/8" Oil service bit socket for internal hexagon screws with magnet, 12 mm	38	
150.1443	3/8" Oil service bit socket for internal hexagon screws with magnet, 13 mm	40	
150.1444	3/8" Oil service bit socket for internal hexagon screws with magnet, 14 mm	42	
150.1446	3/8" Oil service bit socket for internal hexagon screws with magnet, 17 mm	52	
150.1416	3/8" Oil service bit socket for internal square screws with magnet, 8 mm	32	
150.1438	3/8" Oil service bit socket for internal square screws with magnet, 10,5 mm	34	
150.1417	3/8" Oil service bit socket for internal square screws with magnet, 10 mm	35	
150.1429	3/8" Oil service bit socket for internal square screws with magnet, 10,5 mm	38	
150.1433	3/8" Oil service bit socket for internal square screws with magnet, 11 mm	40	
150.1434	3/8" Oil service bit socket for internal square screws with magnet, 13,1 mm	42	
150.1437	3/8" Oil service XZN socket with tamper proof screws, M16	55	
150.1415	Oil service TX socket with magnet, T45	31	
150.1426	Oil service square socket, 10 mm	47	
150.1427	3/8" Oil service bit socket for internal triangle, 10 mm	38	

**HAND PUMPS**

**Syringe for fluid change 0.2 l**

- Ideal tool for decanting, removing or dosing liquids to transmissions, power steering, hydraulics, engines, etc.
- Suitable for fuel oil, water and antifreeze
- Fine dosing
- Overflowing material can be pumped back problem-free
- Includes rubber hose
- Robust metallic design



150.1684	0.2	8	10	290	290	365

**Syringe for fluid change 0.2 l**

- Ideal tool for decanting, removing or dosing liquids to transmissions, engines (sic) power steering, hydraulics, engines, etc.
- Suitable for fuel oil, water and antifreeze
- Fine dosing
- Overflowing material can be pumped back problem-free
- Includes rubber hose with flip stop cap
- Robust PP design



150.9221	0.2	6	8	210	210	245

**Syringe for fluid change 1.5 l**

- Ideal tool for decanting, removing or dosing liquids to transmissions, engines (sic) power steering, hydraulics, engines, etc.
- Suitable for fuel oil, water and antifreeze
- Fine dosing
- Overflowing material can be pumped back problem-free
- Includes rubber hose with flip stop cap
- Robust PP design



150.9222	1.5	14	16	320	320	900

**FILLING**

**DSG transmission oil filling hose for VAG**

- Ideal for problem-free, simple and clean filling and refilling
- Exact dosing
- For different direct shift gearboxes
- The return valve prevents dirtying from unintentional oil spills
- The oil filler adapter is screwed directly onto the 1 litre oil container tank
- Suitable for many manufacturers and industry standard oil container tanks (VAG G 052 182 A2)
- Robust aluminium connection adapter

**Application range:** Audi, Seat, Škoda and Volkswagen with DSG transmission



150.9220	M24x1.5mm	1500	270

**DSG transmission oil filling hose for Audi**

- Ideal for problem-free, simple and clean filling and refilling
- Exact dosing
- For different direct shift gearboxes
- The return valve prevents dirtying from unintentional oil spills
- The oil filler adapter is screwed directly onto the 1 litre oil container tank
- Suitable for many manufacturers and industry standard oil container tanks (VAG G 052 529 A2)
- Robust aluminium connection adapter

**Application range:** Audi (>2008) with DSG transmission



150.9225	M24x1.5mm	2000	360

**CVT transmission oil filling hose for VAG**

- Ideal for problem-free, simple and clean filling and refilling
- Exact dosing
- For different stage-free transmissions
- The return valve prevents dirtying from unintentional oil spills
- The oil filler adapter is screwed directly onto the 1 litre oil container tank
- Suitable for many manufacturers and industry standard oil container tanks (VAG G 052 180 A2)
- Robust aluminium connection adapter

**Application range:** Audi, Seat, Škoda and Volkswagen with CVT transmission (Multitronic)



150.9223	M22x1.5mm	2000	360



**Haldex transmission filling hose for VAG**

- Ideal for problem-free, simple and clean filling and refilling
- Exact dosing
- For various Haldex transmissions
- The return valve prevents dirtying from unintentional oil spills
- The oil filler adapter is screwed directly onto the 1 litre oil container tank
- Suitable for many manufacturers and industry standard oil container tanks (VAG G 055 175 A2)
- Robust aluminium connection adapter

**Application range:** Audi, Seat, Škoda and Volkswagen with Haldex transmission



Transmission model	Tube length mm	Weight kg	
150.9224	M10x1.0mm	2000	260

**Universal transmission oil filling system set incl. 15 piece adapter set**

- Ideal for filling transmission, distributor transmission and differentials of different vehicle manufacturers with oil
- Large coverage of many vehicle manufacturers in particular with universal adapter
- Many transmission cannot be filled without this tool
- Optimal for narrow places or hard-to-reach places
- Includes 15 piece adapter set with various angle tails for correct and economic filling
- Quick filling by unscrewing the pump units is possible
- Precise hand pump
- Includes return flow function
- For difficult-to-access areas
- Secure stand thanks to large base
- Container with filling level scale
- Easy to use and saves time

**Application range:** Audi, Ford, BMW, Mercedes, Volkswagen, Škoda, Volvo, Toyota, Lexus, Nissan, Infiniti etc.



**Technical data:**

Capacity:	7.5 l
Tube length:	1600.0 mm
Tube diameter:	1/2"
Quantity per stroke:	80 cc
Viscosity:	- SAE 140

Weight kg		
150.9275	16 pcs Universal transmission oil filling system set incl. 15 piece adapter set	4.80

**consists of:**

Weight kg		
150.9258	Transmission oil filling device without adapter	3.50
150.9279	Transmission oil filling adapter set 15 piece	1.30

**Universal transmission oil filling adapter set**

- Ideal for filling transmission, distributor transmission and differentials of different vehicle manufacturers with oil
- Large coverage of many vehicle manufacturers in particular with universal adapter
- Many transmission cannot be filled without this tool
- Optimal for narrow places or hard-to-reach places
- With various angle tails for correct and economic filling
- For difficult-to-access areas
- Easy to use and saves time
- In durable plastic storage case

**Application range:** Audi, Ford, BMW, Mercedes, Volkswagen, Škoda, Volvo, Toyota, Lexus, Nissan, Infiniti etc.



Weight kg		
150.9279	15 pcs Universal transmission oil filling adapter set	1.30

**consists of:**

Weight kg		
150.9261	Adapter pipe straight, Ford, Ø 10 GL=120 x AL = 110 with thread	43
150.9262	Angled adapter pipe, universal, Ø 10 GL = 140 x 45 mm	65
150.9263	Angled adapter pipe, VAG, Ø 10 GL = 150 x 18 mm	58
150.9264	Angled adapter pipe, VAG, Ø 10 GL = 150 x 30 mm	61
150.9265	Adapter pipe straight, VAG, Ø 10 GL = 100 x AL = 85 with thread	33
150.9267	Screw adapter, Mercedes transmission number 722.9, M12 x 1.5	53
150.9268	Screw adapter, VAG DSG, M24 x 1.5	110
150.9269	Screw adapter, VAG CVT, M22 x 1.5	90
150.9271	Screw adapter, Škoda, M18 x 1.5	65
150.9272	Screw adapter, Škoda/VAG, M30 x 1.5	150
150.9273	Flexible universal adapter, 300 mm	35
150.9274	Adapter line for Volvo, 5/16"-24"	22
150.9276	Adapter line for Toyota/Lexus, M18 x 1.5	89
150.9277	Adapter line for Nissan/Infiniti, M8 x 1.0	25
150.9278	Angled ATF adapter for Volkswagen Passat	93



**Flexible funnel with aluminium body**

- Ideally suited to a clean and control draining of all fluid, e.g. oil, coolant, brake fluid, fuel, etc.
- Resistant to petrol, diesel, oil, coolant, hydraulic and brake fluid
- Also suitable as a funnel for filling
- Shape is maintained and can be altered at any time
- Free malleable, therefore can be adapted for extremely tight spaces
- Problems with draining fluids are a thing of the past
- The heavy-duty construction can be fitted to any desired shape and used again
- Easy to clean
- Temperature resistance of -34 to +232°C
- Aluminium frame
- Outer skin made from nitrile rubber

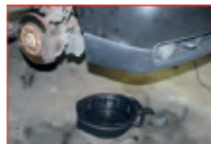


Length mm	Width mm	Weight kg	
150.9303	372.0	170.0	240

**DRIP PANS**

**Oil drain pan 7.5 litres**

- With three carry handles
- Safe and clean pouring with the self-contained overflow edge and spout
- Ideally suited to collecting different fluid
- Suitable for oil, chemicals, petrol, acid and anti-freeze fluid
- Also suitable for cleaning parts
- Practical, quick and friendly to the environment
- Shock-proof



Ø mm	H mm	Weight kg	
150.9359	385.0	130.0	620

**Oil drain pan 8 litres**

- With three carry handles
- Safe and clean pouring with the spout
- Ideally suited to collecting different fluid
- Suitable for oil, chemicals, petrol, acid and anti-freeze fluid
- Also suitable for cleaning parts
- Practical, quick and friendly to the environment
- Screwed connection with rubber seal for safe transport
- Shock-proof



Ø mm	H mm	L mm	Weight kg	
150.9357	340.0	120.0	600.0	1.06

**Oil drain pan 17 litres**

- With three carry handles
- Safe and clean pouring with the self-contained overflow edge and spout
- Ideally suited to collecting different fluid
- Suitable for oil, chemicals, petrol, acid and anti-freeze fluid
- Also suitable for cleaning parts
- Practical, quick and friendly to the environment
- Shock-proof



	Ø mm	H mm	kg
150.9360	445,0	145,0	1,16

**Oil drain pan 17 litres**

- With three carry handles
- Safe and clean pouring with the self-contained overflow edge and spout
- Ideally suited to collecting different fluid
- Suitable for oil, chemicals, petrol, acid and anti-freeze fluid
- Also suitable for cleaning parts
- Practical, quick and friendly to the environment
- Shock-proof



	Ø mm	H mm	kg
150.9361	445,0	145,0	1,16

**Mobile oil drain pan, 30 litres, extra fl t with castors**

- With five carry handles
- 12,0 cm high, extra fl t edges
- Safe and clean pouring with the closed contained and spout
- Ideally suited to collecting different fluid
- Suitable for oil, chemicals, petrol, acid and anti-freeze fluid
- Also suitable for cleaning parts
- With four steerable castors
- Practical, quick and friendly to the environment
- Includes removable sieve
- Screwed connection with rubber seal for safe transport
- Shock-proof



	B mm	H mm	L mm	kg
150.9354	600,0	120,0	850,0	5,60

**Oil drain pan 55 litres, extra fl t**

- With four carry handles
- 11,0 cm high, extra fl t edges
- Safe and clean pouring with the self-contained overflow edge and spout
- Ideally suited to collecting different fluid
- Suitable for oil, chemicals, petrol, acid and anti-freeze fluid
- Also suitable for cleaning parts
- Practical, quick and friendly to the environment
- Shock-proof
- Polyethylene



	L mm	B mm	H mm	kg
150.9358	1030,0	724,0	110,0	6,80

**OLD OIL FALL ARRESTERS**

**Vacuum fluid extractor suction pump 9.5 litre**

- Ideal for quick, clean and simple suction, intake and emptying of fluid
- 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. fl w rate: 125 l/min

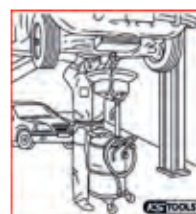
		kg
160.0790	5 pcs Vacuum fluid extractor suction pump 9.5 litre	5,00

consists of:

		kg
160.0791	Vacuum fluid extractor suction pump 9.5 litre	3,708
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

**Mobile oil draining device 60 litre**

- Basic unit for old oil capture and re-fill
- Pneumatic pressure emptying with manometer and safety valve
- Emptying takes approximately 3 minutes at 0.8 bar
- Heavy deposits can also be removed via a plate on the underside
- Mobile and connectible container with extra-large plastic wheels
- With carry handle
- Stop cock and clamping screws to release pressure
- Extremely manoeuvrable and ideal for workshop design
- Centrally mounted and height-adjustable round drip pan
- Side filling display with measuring scales
- Includes clear fabric hose for draining



**Technical data:**

- Capacity of container: 60 l
- Capacity of catch: ca.16 l
- Collection container dimensions: 490 x 580 x 1040 mm
- Collection pan dimensions: Ø 380 mm
- Height adjustment: 1040 - 1700 mm

	kg	kg
160.0001	60	32,00



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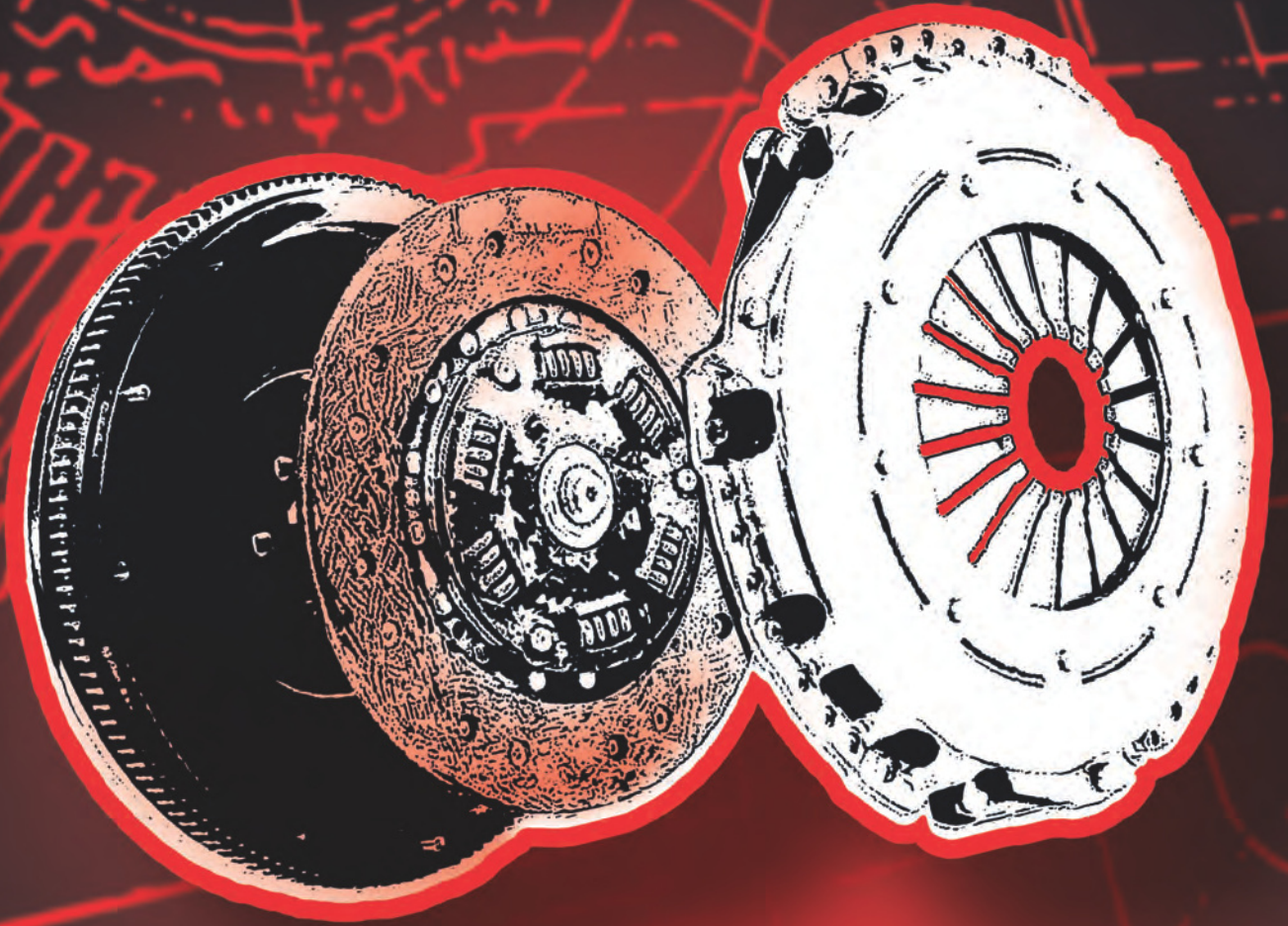
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**GENERAL CLUTCH TOOLS**

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SAC clutch removal



1. Select the appropriate centring pin depending on the pilot bearing diameter and screw onto the clamping mandrel with the receiving thread M8.



2. Equip the clamping mandrel with the appropriate clamping sleeve, depending on the hub diameter of the clutch disc.



3. Insert the fully equipped clamping mandrel (relaxed clamping sleeve) into the pilot bearing.



4. Guide the new clutch disc over the centring device and insert into the flywheel receptacle.  
**Attention:** It is important for an optimal guiding that the centring pin is close-fitting in the pilot bearing.



5. Now the clamping sleeve is braced in the hub of the clutch disc by securing the clamping mandrel with one hand and using the other hand to actuate the drive on the mandrel end so that the clamping sleeve spreads in the hub (finger tightening is sufficient).



6. Place the new clutch pressure plate on the flywheel (note centring pins). Select the matching threaded bolts and screw 3 threaded bolts into the flywheel (hand-tight offset by 120°. Offset by 90° for 4-pitch! (e.g. Mercedes W169 A-class from MJ 2004)).  
**Attention:** Always screw the short thread end into the flywheel.



7. **Attention:** Pressure plate does not abut!



8. **Correct:** Pressure plate abuts!



9. Insert the cover fastening screws into the open threaded receptacles of the flywheel and tighten.



10. Guide the SAC clamping device over the threaded bolts.



11. Screw on hexagonal nuts by hand until these are flush with the threaded bolts (parallel mounting of the SAC clutch tool set).  
**Attention:** The pressure spindle must be completely screwed back.



12. Screw the pressure spindle onto the catch until the disc spring is actuated.  
**Attention:** Only turn until the cover of the pressure plate touches the support of the disc flywheel.



13. Tension disc springs.



14. Completely turn back the pressure spindle - disc spring will release tension.



15. Loosen hexagonal nuts - remove clamping device.



16. Remove threaded bolts.



17. Screw the missing cover fastening screws into the now free threaded receptacles on the flywheel hand-tight. At the end, tighten all fastening screws with the torque stipulated according to the manufacturer's specifications.



18. Remove the clutch centring pin.

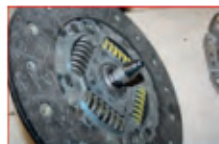
## SAC clutch installation

During the controlled removal, the work steps take place in the reverse order from the installation, whereby the use of the centring device is not required here.

**CENTRING TOOLS**

**Clutch aligner tool set Ø 15,0 - 26,6 mm**

- Universally applicable for vehicles with a hub diameter of 15.0 - 26.6 mm
- For the professional and quick assembly of single-disc dry clutches
- For the custom-fit centring and affixing of the clutch disc to the clutch pressure plate
- It is not necessary to centre the clutch disc via the guide bearing
- For passenger vehicles and light commercial vehicles with guide bearing
- Variably adjustable in diameter from 15.0 - 18.0 mm or 20.0 - 26.6 mm



150.2285	2 pcs	Clutch aligner tool set Ø 15,0 - 26,6 mm	455

consists of:

150.2286	Clutch centring pin Ø 15.0 - 18.0 mm	115	
150.2287	Clutch centring pin Ø 20.0 - 26.6 mm	200	

**Clutch centring tool set Ø 15.0 - 28.0 mm**

- Universally applicable for vehicles with a hub diameter of 15.0 - 28.0 mm
- For the professional and quick assembly of single-disc dry clutches
- For the custom-fit centring and affixing of the clutch disc to the clutch pressure plate
- It is not necessary to centre the clutch disc via the guide bearing
- Also for vehicles without guide bearings
- For passenger vehicles and light commercial vehicles
- Variably adjustable in diameter from 15.0 - 21.0 mm or 21.0 - 28.0 mm
- With reinforced knurled metal clamping screw



150.2180	3 pcs	Clutch centring tool set Ø 15,0 - 28,0 mm	200

consists of:

150.2181	Centring tool without clamping cone	182	
150.2182	Clamping cone Ø 15.0 - 21.0 mm	6	
150.2183	Clamping cone Ø 21.0 - 28.0 mm	9	

**Universal clutch aligner tool set Ø 15,0 - 26,0 mm**

- Universally applicable for vehicles with a hub diameter of 15.0 - 26.0 mm
- Includes 10 centring sleeves
- Sturdy design
- For the professional and quick assembly of single and two-disc dry clutches
- For the custom-fit centring and affixing of the clutch disc to the clutch pressure plate or via the guide bearing to the flywheel
- Also for vehicles without guide bearings
- Also for front-wheel drive vehicles with a transversely mounted engine
- For passenger vehicles and light commercial vehicles



455.0170	19 pcs	Universal clutch aligner tool set Ø 15,0 - 26,0 mm	1,91

consists of:

455.0171	Spindle M16 x 1.5 L= 55mm	55	
455.0172	Spindle M16 x 1.5 L= 100mm	72	
455.0173	Spindle M16 x 1.5 L= 150mm	120	
455.0174	Expander for clutch disc hubs 15-19 mm	63	
455.0175	Expander for clutch disc hubs 19.5-26 mm	106	
455.0176	Cone IG M15 x 1.5 working range 19-30 mm	125	
455.0177	Cone IG M15 x 1.5 working range 26-35 mm	170	
455.0178	Biconical plate IG M15 x 1.5	380	
455.0180	Pilot bearing extension, 20 mm	24	
455.0181	Centring sleeve for guide bearing Ø 10.0 mm	11	
455.0182	Centring sleeve for guide bearing Ø 12.0 mm	15	
455.0183	Centring sleeve for guide bearing Ø 14.0 mm	21	
455.0184	Centring sleeve for guide bearing Ø 15.0 mm	24	
455.0185	Centring sleeve for guide bearing Ø 16.0 mm	27	
455.0186	Centring sleeve for guide bearing Ø 17.0 mm	31	
455.0187	Centring sleeve for guide bearing Ø 19.0 mm	38	
455.0188	Centring sleeve for guide bearing Ø 25.0 mm	64	
455.0189	Centring sleeve for guide bearing Ø 27.0 mm	74	
455.0190	Centring sleeve for guide bearing Ø 30.0 mm	90	

**Clutch centring tool set Ø 15.0 - 28.0 mm with centring sleeves**

- Universally applicable for vehicles with a hub diameter of 15.0 - 28.0 mm
- Includes 8 centring sleeves
- For the professional and quick assembly of single-disc dry clutches
- Parallel clamping technology with self-centring
- Precise centring process is exactly in the axis of the clutch disc hub
- For the custom-fit centring and affixing of the clutch disc to the clutch pressure plate or via the guide bearing to the flywheel
- Also for vehicles without guide bearings
- For passenger vehicles and light commercial vehicles
- Also for front-wheel drive vehicles with a transversely mounted engine
- Variably adjustable in diameter from 15.0 - 21.0 mm or 21.0 - 28.0 mm
- With reinforced knurled metal clamping screw



150.2290	11 pcs	Clutch centring tool set Ø 15,0 - 28,0 mm with centring sleeves	820

consists of:

150.2281	Centring tool without clamping segment set	180	
150.2282	Clamping segment set Ø 19.0 mm	10	
150.2283	Clamping segment set Ø 24.0 mm	20	
455.2291	Centring sleeve for guide bearing Ø 10.0 mm	20	
455.2292	Centring sleeve for guide bearing Ø 12.0 mm	20	
455.2293	Centring sleeve for guide bearing Ø 14.0 mm	20	
455.2294	Centring sleeve for guide bearing Ø 15.0 mm	30	
455.2295	Centring sleeve for guide bearing Ø 16.0 mm	40	
455.2296	Centring sleeve for guide bearing Ø 17.0 mm	40	
455.2297	Centring sleeve for guide bearing Ø 19.0 mm	60	
455.2298	Centring sleeve for guide bearing Ø 26.0 mm	80	





**Clutch centring tool set Ø 24.0 - 36.0 mm with centring sleeves**

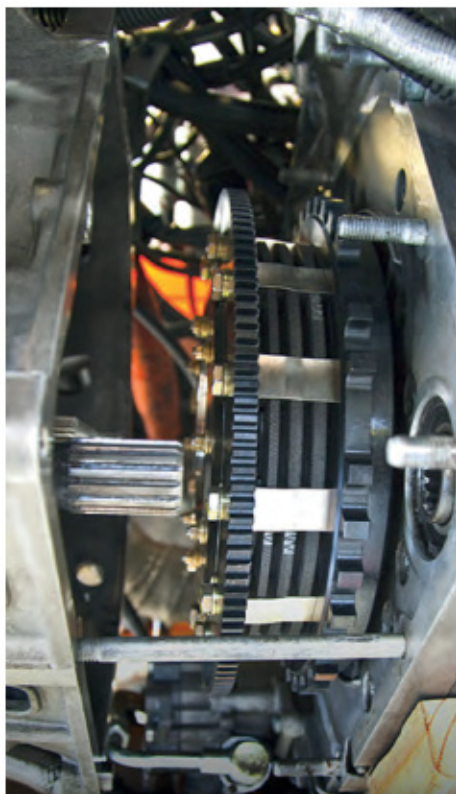
- Universally applicable for light commercial vehicles with a hub diameter of 24.0 - 36.0 mm
- Includes 6 centring sleeves
- Sturdy design
- For the professional and quick assembly of single and two-disc dry clutches
- For the custom-fit centring of the clutch disc via the guide bearing in the crankshaft
- For vans and small lorries
- Variably adjustable in diameter from 24.0 - 36.0 mm
- With reinforced knurled metal clamping screw



Part No.	Quantity	Description	Weight (kg)
150.2380	9 pcs	Clutch centring tool set Ø 24.0 - 36.0 mm with centring sleeves	700

consists of:

Part No.	Description	Quantity
150.2381	Centring pin without clamping segment set Ø 24.0 mm	400
150.2382	Clamping segment set Ø 24.0 mm	40
455.2383	Threaded bolts for centring sleeve M8 x 1.25	20
455.2384	Centring sleeve for guide bearing Ø 15.0 mm	20
455.2385	Centring sleeve for guide bearing Ø 16.0 mm	30
455.2386	Centring sleeve for guide bearing Ø 17.0 mm	30
455.2387	Centring sleeve for guide bearing Ø 18.0 mm	40
455.2388	Centring sleeve for guide bearing Ø 19.0 mm	40
455.2389	Centring sleeve for guide bearing Ø 20.0 mm	60



**Renault clutch centring tool set Ø 23.0 - 35.0 mm with centring sleeves**

- Universally applicable for light commercial vehicles with a hub diameter of 23.0 - 35.0 mm
- Includes 6 centring sleeves
- Sturdy design
- For the professional and quick assembly of single and two-disc dry clutches
- For the custom-fit centring of the clutch disc via the guide bearing in the crankshaft
- For vans and small lorries, especially Renault
- Variably adjustable in diameter from 23.0 - 35.0 mm
- With reinforced knurled metal clamping screw



Part No.	Quantity	Description	Weight (kg)
150.2390	9 pcs	Renault clutch centring tool set Ø 23.0 - 35.0 mm with centring sleeves	700

consists of:

Part No.	Description	Quantity
150.2383	Centring pin without clamping segment set Ø 23.0 mm	400
150.2389	Clamping segment set Ø 23.0 mm	40
455.2383	Threaded bolts for centring sleeve M8 x 1.25	20
455.2384	Centring sleeve for guide bearing Ø 15.0 mm	20
455.2385	Centring sleeve for guide bearing Ø 16.0 mm	30
455.2386	Centring sleeve for guide bearing Ø 17.0 mm	30
455.2387	Centring sleeve for guide bearing Ø 18.0 mm	40
455.2388	Centring sleeve for guide bearing Ø 19.0 mm	40
455.2389	Centring sleeve for guide bearing Ø 20.0 mm	60

**VAG clutch centring disc**

- For the centring of the clutch drive plate to the disc fly wheel
- For the clutch disc mounted within the fly wheel
- Adjustment is not possible without this tool, since the outer diameter of the centring disc is decisive

**Application range:** Volkswagen, Audi, Seat and Škoda engines with 1.5 to 1.8 litres



Part No.	Outer Ø (mm)	Inner Ø (mm)	Flange diameter Ø (mm)	Height (mm)	Weight (kg)
150.2392	131.8	17.3	21.4	19.6	24

**VAG clutch centring disc**

- For the centring of the clutch drive plate to the disc fly wheel
- For the clutch disc mounted within the fly wheel
- Adjustment is not possible without this tool, since the outer diameter of the centring disc is decisive

**Application range:** Volkswagen, Audi, Seat and Škoda engines with 16 valves



Part No.	Outer Ø (mm)	Inner Ø (mm)	Flange diameter Ø (mm)	Height (mm)	Weight (kg)
150.2393	131.8	20.2	21.4	21.5	25



**SAC CLUTCH TOOLS**

**Adjustable pin wrench Ø 14 - 100 mm with 5.0 mm pin**

- To remove the pretension ring when installing a SAC clutch
- Variably adjustable in diameter from 14.0 - 100.0 mm
- With firm y connected pivot Ø 5.0 mm (not interchangeable)
- Bronzed
- Special steel

**Application range:** Volkswagen, Audi, Seat, Škoda, Fiat, etc.



Part No.	Ø (mm)	Steel Ø (mm)	Adjustable Ø (mm)	Length (mm)	Weight (kg)
150.2407	14-100	5.0	6.0	215.0	300

**BMW + VOLVO clutch pre-tension jack for SAC clutches**

- Required for the tension-free assembly and disassembly of SAC clutches
- For the quick, clean and safe removal and installation or replacement
- Avoids a distortion of the clutch housing, which can occur without this special tool
- Allows for the resetting of the adjusting ring in the zero position with the resetting device 150.2396
- Knurled spindle wheel for tensioning the gripper arms
- Ball bearing pressure piece

**Application range:**

BMW: E34, E36, E38, E39, E46, E52, E53, E60, E61, E81, E83, E85, E86, E87, E88, E90 and E91  
 VOLVO: C70 2.4 20V Turbo, S70 2.3 Turbo, S70 2.5 20V Turbo, S70 2.5 TDI, V70 2.3 Turbo, V70 2.5 20V Turbo, V70 2.5 TDI



Suitable for			
150.2395	BMW, Volvo	1.68	

**BMW + VOLVO clutch resetting device for SAC clutches**

- Required for the professional assembly and disassembly of SAC clutches
- For attachment to the clutch before pre-tensioning the SAC clutch
- During the pre-tensioning in connection with the pre-tension jack 150.2395, it allows for an automatic resetting of the adjusting disc located in the SAC clutch to its zero or new position
- With knurled locking screws and adjusting lever

**Application range:**

BMW: E34, E36, E38, E39, E46, E52, E53, E60, E61, E81, E83, E85, E86, E87, E88, E90 and E91  
 VOLVO: C70 2.4 20V Turbo, S70 2.3 Turbo, S70 2.5 20V Turbo, S70 2.5 TDI, V70 2.3 Turbo, V70 2.5 20V Turbo, V70 2.5 TDI



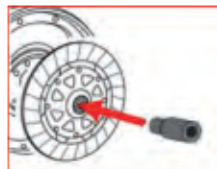
Suitable for			
150.2396	BMW, Volvo	460	

**BMW clutch centring pin Ø 23.0 mm for SAC clutches**

- For hub diameter 23.0 mm
- For centring the clutch disc before the installation or reassembly of the pre-tensioned SAC clutch pressure plate
- In order to centre new, already pre-tensioned SAC clutches
- After assembly, the centring pin is removed with the attached bolts

**Application range:**

BMW: E36, E38, E39, E46, E87, Mini R50, Mini R53  
 Gearbox: S5D 200G, S5D 250G, S5D 260Z, S5D 310Z



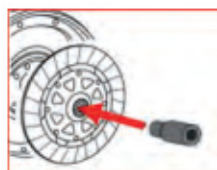
	Ø mm	L mm	
150.2401	15,0/23,0	72,0	190

**BMW clutch centring pin Ø 26.5 mm for SAC clutches**

- For hub diameter 26.5 mm
- For centring the clutch disc before the installation or reassembly of the pre-tensioned SAC clutch pressure plate
- In order to centre new, already pre-tensioned SAC clutches
- After assembly, the centring pin is removed with the attached bolts

**Application range:**

BMW: E36, E38, E39, E46, E87, Mini R50, Mini R53  
 Gearbox: S5D 200G, S5D 250G, S5D 260Z, S5D 310Z



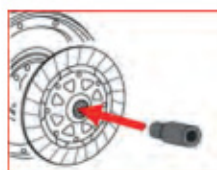
	Ø mm	L mm	
150.2402	15,0/26,5	80,0	230

**BMW clutch centring pin Ø 26.5 mm for SAC clutches**

- For hub diameter 26.5 mm
- For centring the clutch disc before the installation or reassembly of the pre-tensioned SAC clutch pressure plate
- In order to centre new, already pre-tensioned SAC clutches
- After assembly, the centring pin is removed with the attached bolts

**Application range:**

BMW: E36, E38, E39, E46, E87, Mini R50, Mini R53  
 Gearbox: GS6-37BZ, GS6-51BZ, GS6-51DZ (H-gearbox)



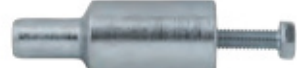
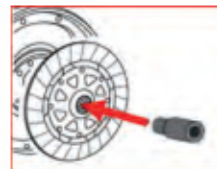
	Ø mm	L mm	
150.2403	15,0/26,5	72,0	230

**BMW clutch centring pin Ø 28.0 mm for SAC clutches**

- For hub diameter 28.0 mm
- For centring the clutch disc before the installation or reassembly of the pre-tensioned SAC clutch pressure plate
- In order to centre new, already pre-tensioned SAC clutches
- After assembly, the centring pin is removed with the attached bolts

**Application range:**

BMW: E36, E38, E39, E46, E87, Mini R50, Mini R53  
 Gearbox: S6S 420G, S6S 560G



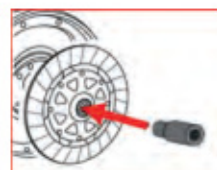
	Ø mm	L mm	
150.2404	15,0/28,0	72,0	260

**BMW clutch centring pin Ø 32.5 mm for SAC clutches**

- For hub diameter 32.5 mm
- For centring the clutch disc before the installation or reassembly of the pre-tensioned SAC clutch pressure plate
- In order to centre new, already pre-tensioned SAC clutches
- After assembly, the centring pin is removed with the attached bolts

**Application range:**

BMW: E92 (M3), E60 (M5), E63 (M6) with S65 (V8), S85 (V10) engines  
 Gearbox: GS6-53DG



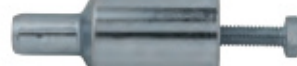
	Ø mm	L mm	
150.2405	15,0/32,5	72,0	310

**BMW clutch centring pin Ø 34.0 mm for SAC clutches**

- For hub diameter 34.0 mm
- For centring the clutch disc before the installation or reassembly of the pre-tensioned SAC clutch pressure plate
- In order to centre new, already pre-tensioned SAC clutches
- After assembly, the centring pin is removed with the attached bolts

**Areas of application:**

BMW: E36, E38, E39, E46, E87, Mini R50, Mini R53  
 Gearbox: S6S 420G, S6S 560G

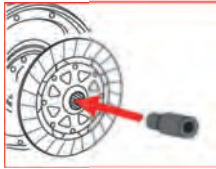


	Ø mm	L mm	
150.2406	15,0/34,0	72,0	360

**BMW clutch centring sleeve Ø 32.5 mm for SAC clutches**

- For hub diameter 32.5 mm
- For centring the clutch disc before the installation or reassembly of the pre-tensioned SAC clutch
- In order to centre new, already pre-tensioned SAC clutches
- After assembly, the centring pin is removed with the attached bolts

**Application range:**  
 BMW: E90, E91, E92, E93 (335i)  
 Engine: N54B30 (3.5 litre)



	Clutch Ø mm	Hub Ø mm	L mm	Weight kg
150.2406	32.5	15.0	72.0	180

**SAC clutch tool set (3-hole pitch)**

- For nearly all SAC (self-adjusting) clutches with 3-hole pitch
- Optionally expandable with 4-hole pressure plate set
- For the quick and professional assembly and disassembly of SAC clutches
- Accuracy of fit through high-precision CNC components
- For the custom-fit centring and affixing of the clutch disc to the clutch pressure plate or via the guide bearing to the flywheel
- Even clutches for engines with larger crankshaft bore diameters than clutch discs or clutch disc hub diameters can be centred cleanly and precisely
- Resetting the adjusting ring in conjunction with the attached resetting tool
- Avoids a distortion of the clutch housing, which can occur without this special tool
- Ideal for damage-free working on the pressure plate
- Malfunctions (poor separation, sliding or picking) are avoided
- Sturdy design
- Also for vehicles without guide bearings
- For passenger vehicles and light commercial vehicles
- Chrome-plated
- Special steel
- In durable plastic storage case

**Application range:** Volkswagen, Audi, BMW, Mercedes, Opel, Renault, Volvo, etc.



	Weight kg
150.2105 32 pcs SAC clutch tool set (3-hole pitch)	6.50

consists of:

	X	Weight kg
150.2167	1 Aligning pin f.150.2160, 12mm	25
150.2166	1 Aligning pin f.150.2160, 14mm	36
150.2165	1 Aligning pin f.150.2160, 15mm	43
150.2164	1 Aligning pin f.150.2160, 16mm	50
150.2163	1 Aligning pin f.150.2160, 17mm	57
150.2162	1 Aligning pin f.150.2160, 18mm	65
150.2161	1 Aligning pin f.150.2160, 19mm	74
150.2401	1 BMW clutch centring pin Ø 23.0 mm for SAC clutches	190
150.2404	1 BMW clutch centring pin Ø 28.0 mm for SAC clutches	260
150.2408	1 BMW clutch centring pin Ø 34.0 mm for SAC clutches	360
150.2173	1 Pressure spindle	712
150.2174	1 Resetting tool	98
150.2176	1 3 Arm beam f.150.2160	1536
150.2177	1 Locking bolt f.150.2160	305
150.2178	3 Fixing bolt, M6	185
150.2179	3 Fixing bolt, M7	192
150.2188	3 Fixing bolt, M8	200
150.2169	3 Nut for fixing bolt, M8	113
150.2106	1 Centring pin receptacle	184
150.2107	1 Centring basic tool spindle with cone operation	46
150.2108	1 Centring basic tool clamping number	54
150.2109	1 Centring basic tool receptacle sleeve	83
150.2111	1 Small clamping cone	6
150.2112	1 Large clamping cone	11

**Supplement set for SAC clutch tool set (4-hole pitch)**

- Accuracy of fit through high-precision CNC components
- Required for pre-tensioning the pressure plate before removing and installing SAC clutches with 4-hole pitch
- Sturdy design
- Chrome-plated
- Special steel

**Application range:** 4-hole pressure plate necessary for e.g. Mercedes (169) from the year of manufacture 2004 (A-class), Opel Insignia, etc.



	X	Weight kg
150.2115	5 pcs Supplement set for SAC clutch tool set (4-hole pitch)	2.08

consists of:

	X	Weight kg
150.2175	1 4 Arm beam	1920
150.2178	1 Fixing bolt, M6	185
150.2179	1 Fixing bolt, M7	192
150.2188	1 Fixing bolt, M8	200
150.2169	1 Nut for fixing bolt, M8	113

**SAC clutch tool set (3-hole and 4-hole pitch)**

- For nearly all SAC (self-adjusting) clutches with 3-hole and 4-hole pitch
- For the quick and professional assembly and disassembly of SAC clutches
- Accuracy of fit through high-precision CNC components
- For the custom-fit centring and affixing of the clutch disc to the clutch pressure plate or via the guide bearing to the flywheel
- Even clutches for engines with larger crankshaft bore diameters than clutch discs or clutch disc hub diameters can be centred cleanly and precisely
- Resetting the adjusting ring in conjunction with the attached resetting tool
- Avoids a distortion of the clutch housing, which can occur without this special tool
- Ideal for damage-free working on the pressure plate
- Malfunctions (poor separation, sliding or picking) are avoided
- Sturdy design
- Also for vehicles without guide bearings
- For passenger vehicles and light commercial vehicles
- Chrome-plated
- Special steel
- In durable plastic storage case

**Application areas:** Volkswagen, Audi, BMW, Mercedes, Opel, Renault, Volvo, etc. 4-hole pressure plate necessary for e.g. Mercedes (169) from the year of manufacture 2004 (A-class), Opel Insignia, etc.



	X	Weight kg
150.2160	37 pcs SAC clutch tool set (3-hole and 4-hole pitch)	8.50

consists of:

	X	Weight kg
150.2167	1 Aligning pin f.150.2160, 12mm	25
150.2166	1 Aligning pin f.150.2160, 14mm	36
150.2165	1 Aligning pin f.150.2160, 15mm	43
150.2164	1 Aligning pin f.150.2160, 16mm	50
150.2163	1 Aligning pin f.150.2160, 17mm	57
150.2162	1 Aligning pin f.150.2160, 18mm	65
150.2161	1 Aligning pin f.150.2160, 19mm	74
150.2173	1 Pressure spindle	712
150.2174	1 Resetting tool	98
150.2175	1 4 Arm beam	1920
150.2176	1 3 Arm beam f.150.2160	1536
150.2177	1 Locking bolt f.150.2160	305
150.2178	4 Fixing bolt, M6	185
150.2179	4 Fixing bolt, M7	192
150.2188	4 Fixing bolt, M8	200
150.2169	4 Nut for fixing bolt, M8	113
150.2106	1 Centring pin receptacle	184
150.2107	1 Centring basic tool spindle with cone operation	46
150.2108	1 Centring basic tool clamping number	54
150.2109	1 Centring basic tool receptacle sleeve	83
150.2111	1 Small clamping cone	6
150.2112	1 Large clamping cone	11
150.2401	1 BMW clutch centring pin Ø 23.0 mm for SAC clutches	190
150.2404	1 BMW clutch centring pin Ø 28.0 mm for SAC clutches	260
150.2408	1 BMW clutch centring pin Ø 34.0 mm for SAC clutches	360

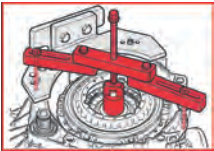


**DSG CLUTCH TOOLS**

**DSG clutch tool set**

- Required for the assembly and disassembly of DSG clutches (double clutch gearbox)
- Required for repair of the clutch assembly
- For the quick, clean and safe removal and installation or replacement
- Avoids a distortion of the clutch housing, which can occur without this special tool
- Sturdy design
- In durable plastic storage case

**Application range:**  
7-speed gearbox in Audi, Seat, Škoda and Volkswagen  
Gearbox: 0AM and 08D



150.2420	4 pcs	DSG clutch tool set	5.90
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**consists of:**

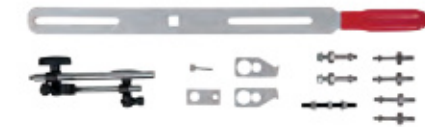
Part No.	Description	Weight (kg)
150.2421	Support bridge	2000
150.2422	Pullers	2100
150.2423	Gauge block	860
150.2424	Pressure piece	290

**DUAL MASS FLYWHEEL DEGREE TEST TOOLS**

**Dual mass flywheel inspection tool without angular degree disc and dial gauge**

- Required for the proper and quick wear test of the dual mass flywheel 1 degree (ZMS)
- The test may be performed on the vehicle when the clutch is removed
- The clearance angle is tested via the number of teeth
- The dual mass flywheel must be checked with every clutch replacement
- Without verification, there is the risk of damaging the new clutch assembly, gearbox or the drive train
- A great deal of saved time
- For quick, precise and professional work
- Sturdy design
- In durable plastic storage case

**Application range:** Volkswagen, Audi, Seat, Škoda, Mercedes, etc.



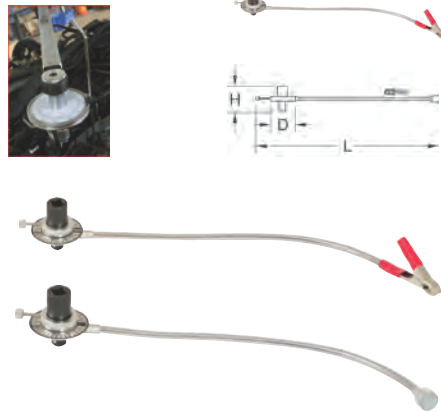
150.2435	15 pcs	Dual mass flywheel inspection tool without angular degree disc and dial gauge	3.30
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**consists of:**

Part No.	Description	Weight (kg)
150.2426	Lever with protective handle	1100
150.2427	Spacer screw M6 (2 pieces)	60
150.2428	Spacer screw M7 (2 pieces)	60
150.2429	Spacer screw M8 (2 pieces)	80
150.2430	Union nut M8 (4 pieces)	40
150.2431	Threaded pin M8 x 80 (pointer)	60
150.2432	Measurement stand	414
150.2433	Flywheel locking tool (2 pieces)	160

**Rotary angle disc**

- For fastening screws at an angle
- Device for angle regulated fastening with a torque wrench
- Flexible arm
- Range 0° - 360°
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Optionally with a magnetic arm or claw arm



Part No.	Arm	Pin	D mm	H mm	L mm	Weight (kg)
516.1195	1/2" magnet	2°	67.0	63.0	480.0	170
516.1196	1/2" claw	2°	67.0	63.0	538.0	60
516.1197	3/4" magnet	2°	80.0	63.0	500.0	170
516.1198	3/4" claw	2°	87.0	87.0	698.0	60

**Precision dial indicator gauge 0 - 10 mm**

- In accordance with DIN 878
- With 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
- With 2 measuring scales
- Spindle and clamping shaft made from stainless steel
- In durable plastic case



Measuring range mm	D mm	Dial accuracy mm	Force resolution N	Weight (kg)
300.0560	0 - 10	60.0	+/- 0.01	1.0



**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



Measuring range mm	D mm	Dial accuracy mm	Weight (kg)
300.0565	0 - 10	60.0	+/- 0.02

**Dual mass flywheel inspection tool with angular degree disc and dial gauge**

- Required for the proper and quick wear test of the dual mass flywheel 1 degree (ZMS)
- The test may be performed on the vehicle when the clutch is removed
- The clearance angle is checked via the number of teeth or degree wheel (rotation of the secondary disc to the primary disc until the onset of the spring pressure) and the tilting tolerance via the dial gauge (axial bearing clearance)
- The dual mass flywheel must be checked with every clutch replacement
- Without verification, there is the risk of damaging the new clutch assembly, gearbox or the drive train
- A great deal of saved time
- For quick, precise and professional work
- Sturdy design
- In durable plastic storage case

**Application range:** Volkswagen, Audi, Seat, Škoda, Mercedes, etc.



150.2425	17 pcs	Dual mass flywheel inspection tool with angular degree disc and dial gauge	3.90
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consists of:

150.2426	Lever with protective handle	1100
150.2427	Spacer screw M6 (2 pieces)	60
150.2428	Spacer screw M7 (2 pieces)	60
150.2429	Spacer screw M8 (2 pieces)	80
150.2430	Union nut M8 (4 pieces)	40
150.2431	Threaded pin M8 x 80 (pointer)	60
150.2432	Measurement stand	414
150.2433	Flywheel locking tool (2 pieces)	160
516.1196	Torque angle gauge, 1/2", claw	60
300.0560	Dial test indicator, 0-10mm	260

**GENERAL CLUTCH TOOLS**

**Clutch cable bracket**

- Before removing the clutch, the self-adjusting clutch cable is to be secured with the bracket
- Allows the use of the old clutch cable
- Without the use of this bracket, the clutch cable can no longer be used following disassembly
- Sturdy design

**Application range:** Volkswagen Golf starting in the 1989 year of manufacture



150.2436	L mm	76
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**Retaining bracket set**

- For holding the pre-tensioned clutch pressure plate during assembly and disassembly of the clutch
- Sturdy design

**Application range:** Opel with front-wheel drive



150.2437	3 pcs	Retaining bracket set	83
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**Pre-tension jack**

- For clutch pressure plates
- No distortion of the clutch pressure plates
- Special steel

**Application range:** Opel/Saab



150.2399	Ø mm	150,0	2.86
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**Auxiliary assembly ring**

- In order to secure the pre-tensioned diaphragm spring to the clutch pressure plate
- for Ø 110-140 mm
- Plastic

**Application range:** Opel and Saab



150.2434	Ø mm	110-140	Total depth mm	10.0	100
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**Precision inner bearing extraction set Ø 10 - 30 mm**

- Includes 8 collets Ø 10 - 30 mm
- Slotted shaft
- For the quick and clean replacement of close fitting pilot/guide bearings
- Universally applicable
- Extremely robust spindle with inductively hardened thread
- Special steel



660.0009	11 pcs	Precision inner bearing extraction set Ø 10 - 30 mm	1.92
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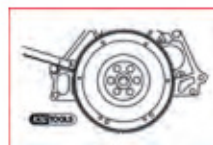
consists of:

660.0129	Expanding mandrel 5 mm	315
660.0131	Expanding mandrel 6 mm	360
660.0132	Striking weight	850
660.0133	Precision internal extractor collet Ø 10 mm	44
660.0134	Precision internal extractor collet Ø 12 mm	52
660.0135	Precision internal extractor collet Ø 15 mm	65
660.0136	Precision internal extractor collet Ø 17 mm	84
660.0137	Precision internal extractor collet Ø 20 mm	92
660.0138	Precision internal extractor collet Ø 25 mm	137
660.0139	Precision internal extractor collet Ø 27 mm	159
660.0141	Precision internal extractor collet Ø 30 mm	180

**Flywheel holding key**

- To lock the flywheel
- Required for the removal and installation of disc flywheel, clutch pressure plates and belt pulleys
- Sturdy design

**Application range:** Opel with front-wheel drive

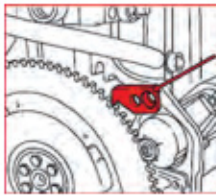


150.2438	Length mm	255.0	Width mm	26.0	Total depth mm	26.0	500
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**GM / Opel Fly wheel locking tool**

- For locking the fly wheel
- For easily attaching to one of the small fixing pins next to the fly wheel
- Special steel

**Application range:** for all Opel and GM 4 and 6 cylinder CIH, 24V and OHC engines



Suitable for			
Part No.	Brand	Weight	
400.9045	GM, Opel	80	

**Variable flywheel locking tool set**

- For locking the flywheel when the gearbox is removed
- Required for the removal and installation of disc flywheels, clutch pressure plates and belt pulleys
- Axially and radially adjustable
- For use with the gearbox screw and the attached spacers
- The number of spacers can be extended to any amount for the required distance with the washers
- Universally applicable
- Sturdy design



Part No.			
Part No.	Description	Weight	
150.2439	6 pcs Variable flywheel locking tool set	172	

consists of:

Part No.			
Part No.	Description	Weight	
150.2433	Flywheel locking tool (2 pieces)	160	
150.2441	Spacer sleeve Ø 28.0 mm x 3.0 mm tall	12	
150.2442	Spacer sleeve Ø 28.0 mm x 6.0 mm tall	22	
150.2443	Spacer sleeve Ø 28.0 mm x 9.0 mm tall	34	
150.2444	Spacer sleeve Ø 26.0 mm x 15.0 mm tall	20	

**Clutch pressure plate bit socket for multi-teeth (XZN®) screws**

- For the quick and professional assembly and disassembly of the clutch pressure plate
- Multi-teeth (XZN®)
- Square drive as per DIN 3120/ISO 1174 with backstop groove
- With pressed-in nickel-plated bit holder
- For manual operation
- Matt finish
- Chrome vanadium

**Application range:** Volkswagen, Audi, Seat and Škoda



Part No.	Thread	D	L	T	
		mm	mm	mm	
911.1347	M7	22.0	55.0	17.0	85

**Clutch pressure plates 12 point force socket**

- For the quick and professional assembly and disassembly of the clutch pressure plate and the flywheel
- 12-point
- Internal square in accordance with DIN 3121/ISO 1174
- Short design
- For machine operation
- Phosphate
- Chrome molybdenum

**Application range:** Volkswagen, Audi, Seat and Škoda



Part No.	Ø	L	D1	D2	T	
		mm	mm	mm	mm	
515.0988	9.0	78.0	15.8	25.0	12.0	160

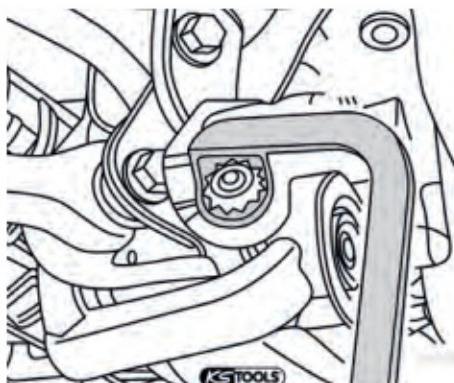
**Oil filler wrench for Haldex transmission**

- Special length and design
- For the assembly and disassembly of the diff. oil to reach oil filler of the Haldex transmission
- Allows for simple and time-saving oil filler change
- 12-point
- Matt finish
- Chrome vanadium

**Application range:** Volkswagen 5 and 6-speed manual gearbox, all-wheel



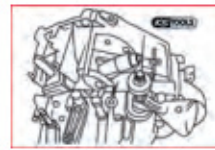
Part No.	Ø	L	
		mm	
150.2098	46.0	390.0	770



**Fiat Ducato extractor for release shaft**

- For the quick and professional extraction of the clutch release shaft
- Required for clutch replacement and gearbox repair
- Sturdy design

**Application range:** Fiat Ducato, Citroen Jumper, Peugeot Boxer from the year of manufacture 1994 with pull-type clutch.

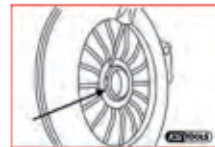


Part No.	Length	Width	Total depth	
	mm	mm	mm	
911.2440	240.0	110.0	50.0	950

**Dismantling mandrel for release bearing**

- Required to pre-tension the circlip
- For the quick and professional removal of the release bearing from the pressure plate

**Application range:** Fiat Ducato, Peugeot Boxer, Citroen Jumper, Peugeot 406 with pull-type clutch



Part No.	Length	Width	Total depth	
	mm	mm	mm	
911.2445	240.0	110.0	50.0	530

**Clutch master cylinder collet**

- Suitable for the installation and removal of the pedal bearing block
- Required for releasing the clutch master piston rod from the clutch pedal
- Quick and easy application
- Special steel

**Application range:** Opel Astra J, Signum C, Vectra C; Audi A1 (8X), A3 (8P), A4 (B7), A6 (C6); Volkswagen Golf (1K1), Passat (3B6), Eos (1F), etc.

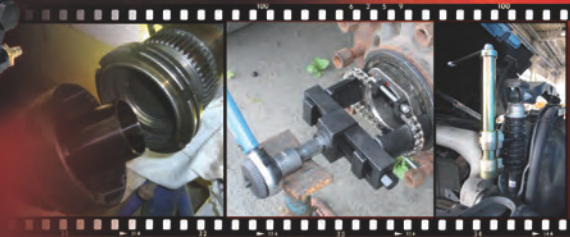


Part No.	A	C	L	
	mm	mm	mm	
150.1309	85.0	95.0	295.0	265

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FOR VEHICLE TOOLS**



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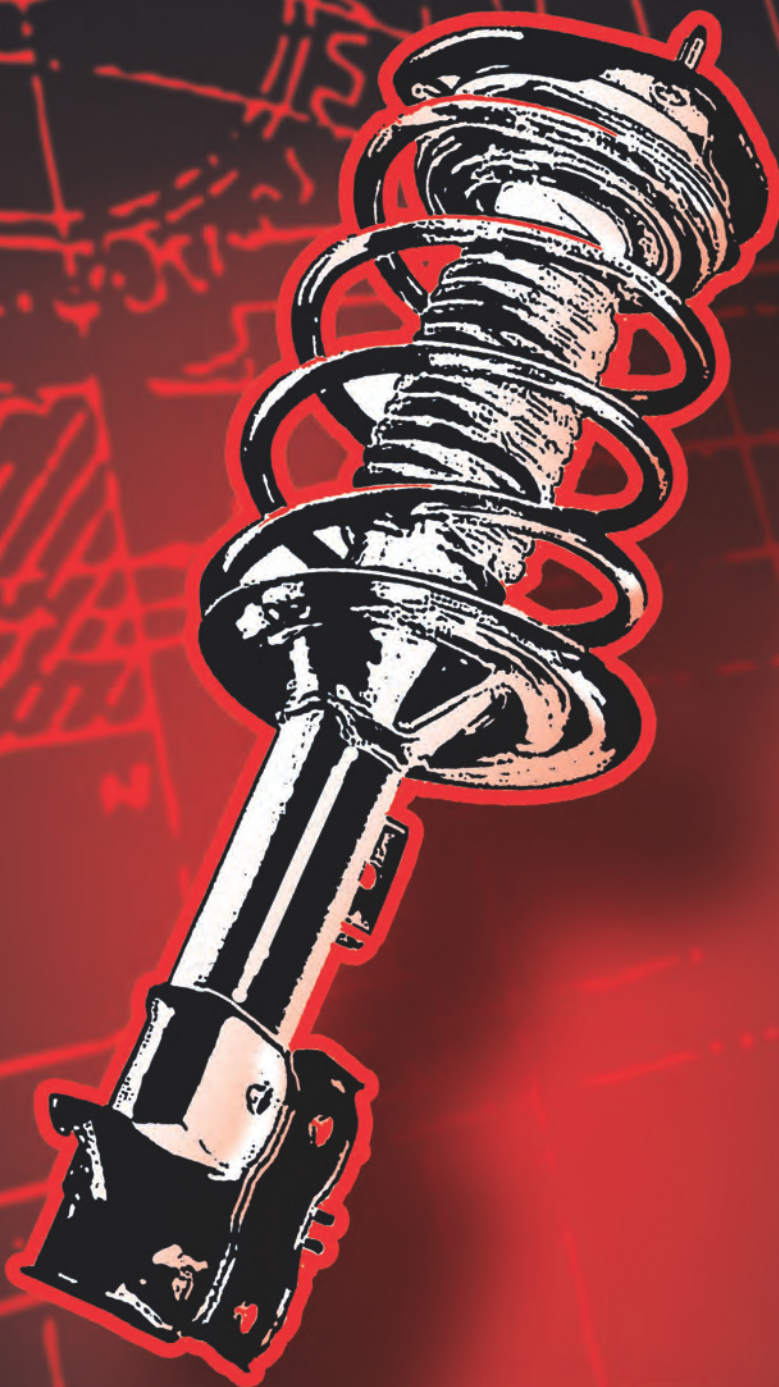


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SPRINGS / SHOCK ABSORBERS



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**RELEASE TOOLS**

**Shock absorber external hexagonal counter holder socket**

- 6-point
- Ideal for the assembly and disassembly of the rear shock absorber
- For correct and damage-free use please pay attention to manufacturer's torque values
- With open window
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Phosphate
- Chrome vanadium



150.9493	mm	L mm	Substitutes for	mm
	22,0	90,0	Audi, VW	206

**Shock absorber external hexagonal counter holder socket**

- 6-point
- Ideal for counter holding shock absorber piston rods during assembly and disassembly
- For correct and damage-free use please pay attention to manufacturer's torque values
- For repair work in the spring area (shock absorber, spring strut, coil springs, etc.)
- External drive hexagonal socket
- Matt finish
- Chrome vanadium



150.9414	mm	mm	L mm	Substitutes for	mm
150.9414	19,0	14,0	83,0	Honda, Nissan	130
150.9416	19,0	16,0	83,0	VW, Audi, Seat, Fiat	140
150.9417	19,0	17,0	83,0	Ford, VW, Audi, Seat, Fiat	140
150.9418	22,0	18,0	83,0	Ford, VW, Audi, Seat, Fiat, Rover, Opel, Peugeot, Renault, Japanese vehicles	180
150.9419	22,0	19,0	83,0	VW, Audi, Seat, Citroën, Fiat, Opel, Peugeot, Toyota	180
150.9421	22,0	21,0	83,0	Mercedes, Chrysler, VW, Audi, Ford, japanische Fahrzeuge	200
150.9422	22,0	22,0	83,0	VW, Audi, Seat, Fiat, Citroën, Opel, Peugeot, Renault, BMW	220
150.9424	22,0	24,0	83,0	Volvo	250
150.9427	22,0	27,0	83,0	VW, Audi, Citroën, Peugeot	320

**Shock absorber external bihexagonal counter holder socket**

- 12-point
- Ideal for the assembly and disassembly of the rear shock absorber
- For correct and damage-free use please pay attention to manufacturer's torque values
- With open window
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Phosphate
- Chrome molybdenum



150.9541	mm	L mm	Substitutes for	mm
	21,0	90,0	VW Golf II, Golf III, Jetta, Vento, Passat	300

**Shock absorber hexagon socket counter holder angled screwdriver**

- Hexagon socket
- Ideal for counter holding front shock absorber piston rods during assembly and disassembly
- For correct and damage-free use
- For repair work in the spring area (shock absorber, spring strut, coil springs, etc.)
- Angled design
- With milled metal handle
- Matt finish
- Chrome vanadium



150.9494	mm	L mm	mm
	7,0	150,0	100

**Special shock absorber counter holder wrench**

- Special profile
- Ideal for counter holding rear shock absorber piston rods during assembly and disassembly
- Thanks to the perfect fit on the shock absorber piston it is almost impossible to slide over
- For correct and damage-free use
- For repair work in the spring area (shock absorber, spring strut, coil springs, etc.)
- Special steel



150.9476	mm	L mm	Substitutes for	mm
	5,2x2,8x5,3x6	175,0	VW, Audi, Ford, Opel, Honda	182



**Universal shock absorber counter holder bit socket**

- 10.0 bit holder for all bits on the market
- Ideal for counter holding the shock absorber piston rods whilst at the same time releasing of tightening the piston rod nuts
- For correct and damage-free use please pay attention to manufacturer's torque values
- For repair work in the spring area (shock absorber, spring strut, coil springs, etc.)
- External drive hexagonal socket 10.0 mm
- Sand blasted
- Chrome vanadium



150.9460	mm	L mm	Substitutes for	mm
	10,0	92,5	universal	100

**Shock absorber special profile counter holder bit socket**

- Special profile
- Ideal for counter holding the shock absorber piston rods whilst at the same time releasing of tightening the piston rod nuts
- For correct and damage-free use please pay attention to manufacturer's torque values
- For repair work in the spring area (shock absorber, spring strut, coil springs, etc.)
- External drive hexagonal socket 10.0 mm
- Sand blasted
- Chrome vanadium



150.9434	mm	L mm	Substitutes for	mm
150.9434	4,0x7,0	92,5	Nissan	90
150.9435	5,2x8,0	92,5	VW, Audi, Nissan	90
150.9436	6,0x9,0	92,5	VW, Audi, Renault	100
150.9437	6,3x9,0	92,5	Nissan	100
150.9438	7,0x10,0	92,5	VW, Audi, Seat, Fiat	100
150.9439	8,0x11,0	92,5	Seat, Fiat	100
150.9440	9,0x12,0	92,5	Japanese vehicles	110
150.9441	10,0x13,0	92,5	Seat, Fiat, Volvo	110
150.9442	12,0x15,0	92,5	Seat, Fiat	110

**Shock absorber half-crescent counter holder bit socket**

- Half-crescent profile
- Ideal for counter holding the shock absorber piston rods whilst at the same time releasing of tightening the piston rod nuts
- For correct and damage-free use please pay attention to manufacturer's torque values
- For repair work in the spring area (shock absorber, spring strut, coil springs, etc.)
- External drive hexagonal socket 10.0 mm
- Sand blasted
- Chrome vanadium



150.9445	mm	L mm	Substitutes for	mm
150.9445	5,0x6,0	92,5	Nissan	90
150.9450	10,0x12,0	92,5	VW, Audi, Nissan	110

**Shock absorber external hexagon counter holder bit socket**

- 6-point
- Ideal for counter holding the shock absorber piston rods whilst at the same time releasing of tightening the piston rod nuts
- For correct and damage-free use please pay attention to manufacturer's torque values
- For repair work in the spring area (shock absorber, spring strut, coil springs, etc.)
- External drive hexagonal socket 10.0 mm
- Sand blasted
- Chrome vanadium



	mm	L mm	Suitable for	kg
150.9458	8,0	92,5	Mercedes	90
150.9459	9,0	92,5	Opel, Chrysler	90
150.9460	10,0	92,5	Chrysler, Ford	100
150.9461	11,0	92,5	Japanese vehicles	100

**Shock absorber Internal hexagon counter holder bit socket**

- Hexagon socket
- Ideal for counter holding the shock absorber piston rods whilst at the same time releasing of tightening the piston rod nuts
- For correct and damage-free use please pay attention to manufacturer's torque values
- For repair work in the spring area (shock absorber, spring strut, coil springs, etc.)
- External drive hexagonal socket 10.0 mm
- Sand blasted
- Chrome vanadium



	mm	L mm	Suitable for	kg
150.9465	5,0	92,5	Honda	100
150.9466	6,0	92,5	Seat, Fiat, Citroën, Peugeot, Ford, Opel, Renault, BMW, japanische Fahrzeuge	100
150.9467	7,0	92,5	VW, Audi, Seat, Fiat, Citroën, Peugeot, Mercedes, Renault	100
150.9468	8,0	92,5	Mercedes	100

**Shock absorber slotted counter holder bit socket**

- Slotted
- Ideal for counter holding the shock absorber piston rods whilst at the same time releasing of tightening the piston rod nuts
- For correct and damage-free use please pay attention to manufacturer's torque values
- For repair work in the spring area (shock absorber, spring strut, coil springs, etc.)
- External drive hexagonal socket 10.0 mm
- Sand blasted
- Chrome vanadium



	mm	L mm	Suitable for	kg
150.9473	3,0x10,0	92,5	Mercedes, Opel, Renault	80
150.9474	3,5x10,0	92,5	Chrysler, Ford, Citroën, Peugeot	80
150.9475	4,0x10,0	92,5	Citroën, Peugeot	80

**Shock absorber spline (XZN®) counter holder bit socket**

- Spline
- Ideal for counter holding the shock absorber piston rods whilst at the same time releasing of tightening the piston rod nuts
- For correct and damage-free use please pay attention to manufacturer's torque values
- For repair work in the spring area (shock absorber, spring strut, coil springs, etc.)
- External drive hexagonal socket 10.0 mm
- Sand blasted
- Chrome vanadium



	D	L mm	Suitable for	kg
150.9481	M12	100,0	Opel	100

**Shock absorber TX counter holder bit socket**

- TX
- Ideal for counter holding the shock absorber piston rods whilst at the same time releasing of tightening the piston rod nuts
- For correct and damage-free use please pay attention to manufacturer's torque values
- For repair work in the spring area (shock absorber, spring strut, coil springs, etc.)
- External drive hexagonal socket 10.0 mm
- Sand blasted
- Chrome vanadium



		L mm	Suitable for	kg
150.9542	T40	92,5	VW, Porsche	100
150.9482	T50	92,5	Ford, Nissan	100
150.9483	T60	92,5	Ford	100

**Special shock absorber counter holder wrench for screwing in spring foot connections of the Mercedes A class**

- 12-point
- Ideal for counter holding the lower shock absorber spring foot connections during assembly and disassembly
- For correct and damage-free use
- For repair work in the spring area (shock absorber, spring strut, coil springs, etc.)
- Particularly useful for measurement and adjusting work
- Matt finish
- Chrome vanadium



	mm	L mm	Suitable for	kg
150.3021	21,0	90,0	Mercedes A class type 169 (-2004)	120

**Shock cone type key for Mercedes Benz**

- Ideal for the easy release of slotted nuts on the shock absorber piston rod
- Suitable for counter holding the upper shock absorber fixings
- Perfect fit or secure hold
- Recess in the wrench head for access via the piston rod
- Correct assembly and disassembly
- Wrench head with 3 studs Ø 8 mm
- With 2 component handle



	L mm	Suitable for	kg
150.9485	240,0	Mercedes E class W211 T model	200

**Special shock absorber release tool for Mercedes V classes**

- Ideal tool for the assembly and disassembly of shock absorbers on V class vehicles
- Extra long
- Internal square drive to DIN 3120 / ISO 1174 for counter holding the piston rod
- With 21 mm operation for opening the cap nut
- 7 mm internal square for securing the piston rod
- External drive hexagonal socket 18.0 mm
- Simple handling
- Matt finish
- Chrome vanadium

Application range: Mercedes Type 639 (Viano and Vito)



	mm	mm	L mm	Suitable for	kg
150.3097	18,0	7,0	280,0	Mercedes V classes	420

**Shock absorber piston rod line wrench**

- Ideally suited for assembling springs, since the piston rod of the shock absorber can be held in the correct position
- Makes the installation of the spring easier
- For correct and damage-free use
- For repair work in the spring area (shock absorber, spring strut, coil springs, etc.)
- With T-handle
- Special steel



	T mm	L mm	Suitable for	kg
150.9451	M10x1	280,0	Renault	420
150.9452	M10x1,5	280,0	BMW	420
150.9453	M12x1,25	280,0	BMW	420
150.9454	M12x1,5	280,0	Audi	420
150.9455	M14x1,5	280,0	Audi, Opel, VW	420
150.9456	M15x1,5	280,0	GM, Opel	420

**Special slotted nut wrench**

- Ideal for the easy release of slotted nuts on the shock absorber piston rod of the rear axle
- Perfect fit or secure hold
- Correct assembly and disassembly
- With two pins
- External drive hexagonal socket 22.0 mm
- Chrome vanadium



Item No.	mm	Suitable for	Weight (kg)
150.9401	10,5x3,5	VW rear axle	60
150.9402	12,5x3,5	VW front axle	50
150.9403	14,5x5,0	Audi 80, Seat, Škoda, VW Polo, Golf, Passat	50
150.9404	14,5x3,0	Austin Maestro	50
150.9405	14,0x2,5	Mercedes C class W203, CLK W209	60

**Special slotted nut wrench set for VAG**

- Especially for Audi and Volkswagen
- Ideal for the easy release of slotted nuts on the shock absorber piston rod
- Perfectly sized for a secure fit
- Correct assembly and disassembly
- With two pins
- External drive hexagonal socket 22.0 mm
- Chrome vanadium

**Application range:** Audi, Seat, Škoda, Volkswagen etc.



Item No.	Quantity	Description	Weight (kg)
150.9410	3 pcs	Special slotted nut wrench set for VAG	170

consists of:

Item No.	Description	Weight (kg)
150.9401	Slotted nut wrench, 10.5 mm, Volkswagen	60
150.9402	Slotted nut wrench, 12.5 mm, Volkswagen	50
150.9403	Slotted nut wrench, 14.5 mm, VAG	50



**Special shock absorber assembly help set for shock absorbers with rebound buffer springs**

- For assembly and disassembly of shock absorbers with rebound buffer springs
- Simply remove the entire rebound buffer spring and align securely
- Simple handling
- One-man operation
- Minimum time needed
- Significantly reduces risks when changing springs or shock absorbers
- In durable plastic storage case

**Application range:** BMW, Mercedes, Toyota, Nissan, Fiat, Peugeot, Ford etc.



Item No.	Quantity	Description	Weight (kg)
150.9495	5 pcs	Special shock absorber assembly help set for shock absorbers with rebound buffer springs	2.85

consists of:

Item No.	Description	Weight (kg)
150.9496	Telescopic tube to 150.9495	655
150.9497	Intermediate bearings to 150.9495	1288
150.9498	Uni-clamp to 150.9495, incl. small screws	126
150.9499	Screw for Uni-clamp, long	55
151.8135	ERGOTORQUEplus T-handle internal hexagon wrench, 6 mm	140

**Universal shock absorber tool set**

- For repair work in the spring area (shock absorber, spring strut, coil springs, etc.)
- Suitable for all common vehicles
- For counter holding the piston rod and at the same time releasing the securing nuts on the piston rod
- For exact torque tightening of the shock absorber piston rods
- Chrome vanadium
- In durable plastic storage case



Item No.	Quantity	Description	Weight (kg)
150.9430	18 pcs	Universal shock absorber tool set	2.73

consists of:

Item No.	Description	Weight (kg)
150.9416	Shock absorber external hexagonal counter holder socket 16mm	140
150.9417	Shock absorber external hexagonal counter holder socket 17mm	140
150.9418	Shock absorber external hexagonal counter holder socket 18mm	180
150.9419	Shock absorber external hexagonal counter holder socket 19mm	180
150.9421	Shock absorber external hexagonal counter holder socket 21mm	200
150.9422	Shock absorber external hexagonal counter holder socket 22mm	220
150.9435	10mm Shock absorber special profile counter holder bit socket 5.2x8mm	90
150.9436	10mm Shock absorber special profile counter holder bit socket 6x9mm	100
150.9438	10mm Shock absorber special profile counter holder bit socket 7x10mm	100
150.9466	10 mm Shock absorber internal hexagon counter holder bit socket, 6 mm	100
150.9467	10 mm Shock absorber internal hexagon counter holder bit socket, 7 mm	100
150.9468	10 mm Shock absorber internal hexagon counter holder bit socket, 8 mm	100
150.9481	10 mm Shock absorber spline (XZN) counter holder bit socket, M12	100
150.9482	10 mm Shock absorber TX counter holder bit socket, T50	100
150.9483	10 mm Shock absorber TX counter holder bit socket, T60	100
503.4210	GEARplus Combination ratchet spanner, 10mm	50
503.4219	GEARplus Combination ratchet spanner, 19mm	240
503.4222	GEARplus Combination ratchet spanner, 22mm	345

**MASTER shock absorber tool set**

- For repair work in the spring area (shock absorber, spring strut, coil springs, etc.)
- Suitable for all common vehicles
- For counter holding the piston rod and at the same time releasing the securing nuts on the piston rod
- For exact torque tightening of the shock absorber piston rods
- Chrome vanadium
- In durable plastic storage case



Item No.	Quantity	Description	Weight (kg)
150.9400	39 pcs	MASTER shock absorber tool set	6.30

consists of:

Item No.	Description	Weight (kg)
150.9401	Strut entrainer socket, 10.5mm, VW	60
150.9402	Strut entrainer socket, 12.5mm, VW	50
150.9403	Strut entrainer socket, 14.5mm, VAG	50
150.9404	Strut entrainer socket, 14.5mm, Austin	50
150.9405	Strut entrainer socket, 14mm, Mercedes W203	60
150.9414	Shock absorber external hexagonal counter holder socket 14mm	130
150.9416	Shock absorber external hexagonal counter holder socket 16mm	140

consists of:

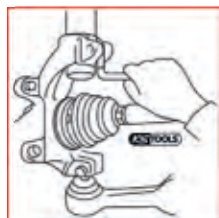
150.9417	Shock absorber external hexagonal counter holder socket 17mm	140		
150.9418	Shock absorber external hexagonal counter holder socket 18mm	180		
150.9419	Shock absorber external hexagonal counter holder socket 19mm	180		
150.9421	Shock absorber external hexagonal counter holder socket 21mm	200		
150.9422	Shock absorber external hexagonal counter holder socket 22mm	220		
150.9424	Shock absorber external hexagonal counter holder socket 24mm	250		
150.9427	Shock absorber external hexagonal counter holder socket 27mm	320		
150.9434	10mm Shock absorber special profile counter holder bit socket 4x7mm	90		
150.9435	10mm Shock absorber special profile counter holder bit socket 5,2x8mm	90		
150.9436	10mm Shock absorber special profile counter holder bit socket 6x9mm	100		
150.9437	10mm Shock absorber special profile counter holder bit socket 6,3x9mm	100		
150.9438	10mm Shock absorber special profile counter holder bit socket 7x10mm	100		
150.9439	10mm Shock absorber special profile counter holder bit socket 8x11mm	100		
150.9440	10mm Shock absorber special profile counter holder bit socket 9x12mm	110		
150.9441	10mm Shock absorber special profile counter holder bit socket 10x13mm	110		
150.9442	10mm Shock absorber special profile counter holder bit socket 12x15mm	110		
150.9445	10mm Shock absorber half-crescent counter holder bit socket, 5x6mm	90		
150.9450	10mm Shock absorber half-crescent counter holder bit socket, 10x12mm	110		
150.9458	10mm Shock absorber external hexagon counter holder bit socket, 8mm	90		
150.9459	10mm Shock absorber external hexagon counter holder bit socket, 9mm	90		
150.9460	10mm Shock absorber external hexagon counter holder bit socket, 10mm	100		
150.9461	10mm Shock absorber external hexagon counter holder bit socket, 11mm	100		
150.9465	10 mm Shock absorber Internal hexagon counter holder bit socket, 5 mm	100		
150.9466	10 mm Shock absorber Internal hexagon counter holder bit socket, 6 mm	100		
150.9467	10 mm Shock absorber Internal hexagon counter holder bit socket, 7 mm	100		
150.9468	10 mm Shock absorber Internal hexagon counter holder bit socket, 8 mm	100		
150.9473	10mm Shock absorber slotted counter holder bit socket, 3x10mm	80		
150.9474	10mm Shock absorber slotted counter holder bit socket, 3,5x10mm	80		
150.9475	10mm Shock absorber slotted counter holder bit socket, 4x10mm	80		
150.9481	10 mm Shock absorber spline (XZN) counter holder bit socket, M12	100		
150.9482	10 mm Shock absorber TX counter holder bit socket, T50	100		
150.9483	10 mm Shock absorber TX counter holder bit socket, T60	100		

**SPLAY TOOLS**

**Flange spreader for the spring foot mounting**

- Ideal for time-saving and damage-free splaying of the axle joint clamp boreholes or ball joint attachments
- Makes the assembly and disassembly easier
- For almost all common vehicle types
- 90° angled
- Continuous hardened
- Matt chrome
- Special steel

Application range: Ford, VAG, PSA, Japanese vehicles, etc.



	Spread dim mm	Width mm	L mm	
150.9407	7.0	5.0	205.0	65

**Flange splayed bit socket set for the spring foot mounting**

- Ideal for time-saving and damage-free splaying of the axle joint clamp boreholes or ball joint attachments
- Makes the assembly and disassembly easier
- For almost all common vehicle types
- Continuous hardened
- Matt chrome
- Special steel

Application range: BMW, Ford, VAG, PSA, Japanese vehicles, etc.



150.9490	2 pcs	Flange splayed bit socket set for the spring foot mounting	120	

consists of:

150.9491	1/2" flange splay bit socket, 5,0 x 7,0 mm	60		
150.9492	1/2" flange splay bit socket, 5,5 x 8,2 mm	60		

**Ball joint splitter set**

- Ideal for splaying the axle joint clamp boreholes, or ball joint attachments
- It is necessary to remove the secured spring absorber unit from the axle joint clamp boreholes
- Makes the assembly and disassembly easier
- Damage to the axle joint housing (cast or aluminium) is avoided
- Universal usage due to 2 pairs of different splay clamps and securing bolts
- Without compressing the thread ends, e.g. when pressing together
- Optimal adjustment, therefore slips are almost impossible
- Exact centring due to the screw-on and toughened bore jigs
- External drive hexagonal socket 13.0 mm
- Special steel

Application range: Audi, BMW, Ford, Peugeot, Seat, Volkswagen, etc.



700.5650	11 pcs	Ball joint splitter set	750	

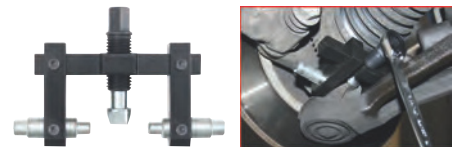
consists of:

		X		
700.5651	1	Basic unit for clamp bore holes splay tool, short	100	
700.5652	1	Guide bolt set, 2 part, 8 x 10 mm	100	
700.5653	1	Guide bolt set, 2 part, 10 x 12 mm	100	
700.5654	1	Splay wedge black, 5 mm	100	
700.5655	1	Splay wedge silver, 8 mm	100	
700.5656	1	Internal hexagon wrench, 3 mm	100	
700.5658	1	Spindle to 700.5650	50	
700.5659	2	Arm to 700.5650	100	

**MASTER clamp bore hole splay tool set**

- An additional bridge allows for the use of two wedges at the same time
- Especially for Audi and Volkswagen 4 wheel steering axle
- Ideal for splaying the axle joint clamp boreholes, or ball joint attachments
- It is necessary to remove the secured spring absorber unit from the axle joint clamp boreholes
- Makes the assembly and disassembly easier
- Damage to the axle joint housing (cast or aluminium) is avoided
- Universal usage due to 2 pairs of different splay clamps and securing bolts
- Without compressing the thread ends, e.g. when pressing together
- Optimal adjustment, therefore slips are almost impossible
- Exact centring due to the screw-on and toughened bore jigs
- External drive hexagonal socket 13.0 mm
- Special steel

Application range: Audi, BMW, Ford, Peugeot, Seat, Volkswagen, etc.



700.5660	15 pcs	MASTER clamp bore hole splay tool set	855	

consists of:

		X		
700.5651	1	Basic unit for clamp bore holes splay tool, short	100	
700.5661	1	Basic unit for clamp bore hole splay tool, long	196	
700.5652	1	Guide bolt set, 2 part, 8 x 10 mm	100	
700.5653	1	Guide bolt set, 2 part, 10 x 12 mm	100	
700.5654	2	Splay wedge black, 5 mm	100	
700.5655	2	Splay wedge silver, 8 mm	100	
700.5656	1	Internal hexagon wrench, 3 mm	100	
700.5658	2	Spindle to 700.5650	50	
700.5659	2	Arm to 700.5650	100	

**SUPPORT DEVICES**

**Axle joint support device**

- Universal usage
- Ideally suited for supporting the axle joint with a transmission jack
- The support is carried out via the wheel hub
- The axle joint can be lowered or raised as desired to the required position
- Secure fit
- Necessary, e.g. when fitting or removing the shock absorber
- Various adjustments
- Special steel



Disc	Length mm	
150.9409	Ø 22 mm	200,0
		980

**CAMBER ADJUSTMENT TOOLS**

**Camber adjustment tool**

- Ideally suited to setting the camber on vehicles with separated spring feet
- One-man operation
- The tool is tensioned between the rim and the bodywork (wings)
- Clear reduction in time required
- Adjustment is carried out by turning the sturdy hexagonal nut
- External drive hexagonal socket 22.0 mm
- Special steel

**Application range:** Seat Toledo, Volkswagen Golf, Jetta, etc.



Cambering range mm	
150.9415	135,0 - 175,0
	1,16

**Camber adjustment tool**

- Ideally suited to setting the camber on vehicles with separated spring feet
- One-man operation
- The tool is tensioned between the rim and the bodywork (wings)
- Clear reduction in time required
- Adjustment is carried out by turning the sturdy hexagonal nut
- External drive hexagonal socket 22.0 mm
- Special steel

**Application range:** Seat Cordoba, Volkswagen Polo > 1995, etc.



Cambering range mm	
150.9420	135,0 - 200,0
	1,21

**Camber setting tool for BMW**

- Ideally suited to setting the camber on the front axle
- It is used after knocking out the locating bolt of the strut bearing in a downwards direction via the spring strut bearing
- Quick and correct work without a great amount of effort
- One-man operation
- The adjustment process is carried out via the exact alignment of the upper spring strut bearing
- Without this tool the correct and exact adjustment of the camber is almost impossible
- Aluminium

**Application range:** BMW 1 series (E81, E82, E87, E88), 3 series (E46, E90, E91, E92, E93), X3 (E83), X5 (E53), Z4 (E85, E86)



Ø mm	Height mm	
150.1821	82,0	25,0
		347

**Camber setting tool for BMW**

- Ideally suited to setting the camber on the front axle
- It is used after knocking out the locating bolt of the strut bearing in a downwards direction via the spring strut bearing
- Quick and correct work without a great amount of effort
- One-man operation
- The adjustment process is carried out via the exact alignment of the upper spring strut bearing
- Without this tool the correct and exact adjustment of the camber is almost impossible
- Aluminium

**Application range:** BMW 5 series, (E39, E60, E61), 6 series (E63, E64), 7 series (E38, E65, E66, E67)



Ø mm	Height mm	
150.1822	83,0	17,0
		343



**BMW camber setting tool set**

- Ideally suited to setting the camber on the front axle
- It is used after knocking out the locating bolt of the strut bearing in a downwards direction via the spring strut bearing
- Quick and correct work without a great amount of effort
- One-man operation
- The adjustment process is carried out via the exact alignment of the upper spring strut bearing
- Without this tool the correct and exact adjustment of the camber is almost impossible
- Aluminium

**Application range:** BMW 1 series (E81, E82, E87, E88), 3 series (E46, E90, E91, E92, E93), 5 series, (E39, E60, E61), 6 series (E63, E64), 7 series (E38, E65, E66, E67), X3 (E83), X5 (E53), Z4 (E85, E86)



150.1820	2 pcs. BMW camber setting tool set
	689

consists of:

150.1821	BMW camber adjustment tool, 1 series, 3 series, X3, X5, Z4
	347
150.1822	BMW camber adjustment tool, 5 series, 6 series, 7 series
	343

**Camber adjustment tool for BMW rear axles**

- Ideally suited for adjusting the camber on the rear axle
- The rear wishbones can be moved with this therefore setting the camber
- Quick and correct work without a great amount of effort
- One-man operation
- Without this tool the correct and exact adjustment of the camber is almost impossible
- Special steel

**Application range:** BMW 3 series, (E36, E46)



150.1895	2 pcs. Camber adjustment tool for BMW rear axles
	630

consists of:

150.1897	Camber adjustment tool for BMW E36
	414
150.1898	Adapter ring for BMW E46
	213

**Axle tracking adjustment tool for VAG passenger cars with 4 wheel drive**

- Ideally suited to tracking adjustments to the rear axle
- Suitable for the hard-to-reach adjustment screws
- Quick and correct work without a great amount of effort
- One-man operation
- 90° angled
- With 2 component handle
- Matt finish
- Chrome vanadium

**Application range:** all Audi and Volkswagen vehicles with all-wheel drive, e.g. Audi A4 Quattro, Volkswagen Passat 4motion, etc.

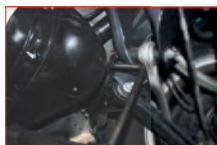


		Total length mm	
150.9426	M12	310.0	340

**Axle tracking adjustment tool for Mercedes**

- Ideally suited to tracking adjustments to the rear axle
- Suitable for the hard-to-reach adjustment screws
- Quick and correct work without a great amount of effort
- One-man operation
- twice angled
- Without this tool the correct and exact adjustment of the tracking is almost impossible
- Includes interchangeable spline bits
- With 2 component handle
- Matt finish
- Chrome vanadium

**Application range:** Mercedes C class and S class, also for older models with under body panels and vehicles with level sensors



		Total length mm	
150.9470	3 pcs Axle tracking adjustment tool for Mercedes		440

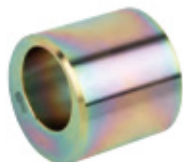
consists of:

		Total length mm	
150.9471	Basic adjustment tool for Mercedes		410
150.9472	10 mm attachment XZN® bit, M10		14
150.9443	10 mm attachment XZN® bit, M12		16

**Tracking adjustment cam nut for BMW**

- Ideal for adjusting the tracking on the rear axle as well as camber adjustment on the wishbone
- For adjustment the screws must be removed from the lower wishbone
- By putting in and turning the cam nut on the securing screw the wishbone is moved to the required camber adjustment
- Internal square drive to DIN 3120/ISO 1174
- Special steel

**Application range:** BMW E36, BMW E46, BMW E83, BMW E85



		L mm	
700.1671		40.0	300

**Tracking adjustment tool for Mercedes**

- Ideally suited to tracking adjustments to the rear axle
- Removes mounting of the exhaust system
- Saves a lot of time
- No adjustment of the cam screw when removing the counter nut
- External double-hex drive 21 mm with integrated TX 55 use and internal hexagon drive 17 mm
- Special steel

**Application range:** Mercedes W211, Mercedes C219 and Mercedes W209



				Length mm	
700.1672		21.0	T55	17	260.0 280

**Camber level**

- Ideally suited to adopting the prescribed camber adjustment values before removing the shock absorbers
- The level is secured with the magnetic side on the brake discs or wheel hubs and the value can be read
- Following the repair the adjustment value is easily restored
- Quick and correct work without a great amount of effort
- Saves measuring the axle
- With adjustment wheel to allow for a zero setting
- Includes strong magnetic feet
- In durable plastic storage case



		Total length mm	
150.9431		125.0	450

**SPRING FEET BRACKET**

**Universal spring foot bracket**

- For a secure and comfortable clamping of the spring feet
- Ensures a secure assembly and disassembly
- Eliminates damage
- With rubber clamp jaws
- Includes mounting brackets for a secure assembly on the work bench
- Special steel



500.8709	Universal spring foot bracket	3.17	

**MCPHERSON SPRING COMPRESSOR**

**Safety arrester cable for spring compressor**

- Ideal for securing the spring to the shock absorber during assembly and disassembly
- Additional safety features
- Adaptable for McPherson spring compressor
- With snap hooks



		Total length mm	
500.8707		215.0	203

**Coil spring compressor with safety latch**

- Ideally suited for assembly and disassembly of coil springs
- Necessary for changing shock absorbers or coil spring
- Adjustable safety bar prevents slipping
- For vehicles up to max. 2000 kg
- Meets the requirements of the trade association (ZH1/454)
- GS approved
- Special steel



	Ø mm	H mm	max N·m	Max travel mm	max t			
670.0021	110-180	240	70	200	3,5	M18x2x280	19	2,40
670.0041	110-180	300	60	300	1,8	M16x2x380	17	2,80

**Coil spring compressor with safety latch and plastic coated hook**

- Ideally suited for assembly and disassembly of coil springs
- Necessary for changing shock absorbers or coil spring
- Adjustable safety bar prevents slipping
- Plastic-coated hooks allow for optimal grip
- For vehicles up to max. 2000 kg
- Meets the requirements of the trade association (ZH1/454)
- GS approved
- Special steel



	Ø mm	H mm	max N·m	Max travel mm	max t			
670.0031	110-180	240	70	200	3,5	M18x2x280	19	2,50
670.0051	110-180	300	60	300	1,8	M16x2x380	17	2,90

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### Universal McPherson spring compressor set

- Ideally suited for assembly and disassembly of McPherson spring feet
- Necessary for changing shock absorbers or coil spring
- Universal for 90% of common vehicle springs in passenger cars and transporters
- With 2 forged standard spring bracket pairs
- With vice clamp bar
- Simple and safe tensioning in the vice without additional tools
- Also suitable for conical and ball springs
- Ergonomic high-tech polyurethane handle
- Working spindle is suitable for the impact screws
- Spring brackets are fitted with a safety nose that locks the spring during stretching to increase security and safety
- Spring bracket adapters are secured with strong bolts
- Quick and easy adjustment possibilities with the handle on the drive nut
- With MOT certification
- Higher than standard load - max. load of 2250 kg
- Special steel



#### Technical data:

Spring force max:	2250 kg
Opening of jaws min:	65.0 mm
Jaw width max:	375.0 mm
Spring capacity:	80,0 - 195,0 mm

500.8620	5 pcs	Universal McPherson spring compressor set	11.03

#### consists of:

X			
500.8621	1	Main body spring compressor, max. load 2250 kg	5.28
500.8507	2	Standard spring bracket with $\varnothing$ 80,0 - 145,0 mm	1.30
500.8508	2	Standard spring bracket with $\varnothing$ 145,0 - 195,0 mm	1.58



### Universal spring bracket for McPherson spring compressor

- Ideally suited for assembly and disassembly of McPherson spring feet
- For use alongside spring compressor 500.8620
- Universal for 90% of all common types of vehicles
- Necessary for changing shock absorbers or coil spring
- Spring bracket adapters are secured with strong bolts
- Forged and tempered
- Special steel

**Application range:** universal for 90% of all common vehicle types



		$\varnothing$ (mm)	
500.8503	(A)	80-120	universal 3.36
500.8507	(B)	80-145	universal 1.44
500.8511	(C)	140-170	universal 3.50
500.8508	(D)	145-195	universal 1.58

### Spring bracket for BMW/ Renault/ Toyota

- Ideally suited for assembly and disassembly of McPherson spring feet
- For use alongside spring compressor 500.8620
- Necessary for changing shock absorbers or coil spring
- Spring bracket adapters are secured with strong bolts
- Forged and tempered
- Special steel

**Application range:** BMW E39, E46, Toyota Avensis, Renault Megane 2



500.8509		BMW, Renault, Toyota	2.40

### Spring bracket for Mercedes C class

- Ideally suited for assembly and disassembly of McPherson spring feet
- For use alongside spring compressor 500.8620
- Necessary for changing shock absorbers or coil spring
- Spring bracket adapters are secured with strong bolts
- Forged and tempered
- Special steel

**Application range:** Mercedes C class



500.8510		Mercedes	800

### Spring bracket for Mercedes/ Renault

- Ideally suited for assembly and disassembly of McPherson spring feet
- For use alongside spring compressor 500.8620
- Necessary for changing shock absorbers or coil spring
- Spring bracket adapters are secured with strong bolts
- Forged and tempered
- Special steel

**Application range:** Mercedes E class, Renault Megane



500.8513		Mercedes, Renault	2.40

### Spring bracket for Peugeot/ Citroën

- Ideally suited for assembly and disassembly of McPherson spring feet
- For use alongside spring compressor 500.8620
- Necessary for changing shock absorbers or coil spring
- Spring bracket adapters are secured with strong bolts
- Forged and tempered
- Special steel

**Application range:** Peugeot Break, Citroën C15



500.8514		Peugeot, Citroën	2.50

### Spring bracket for Chrysler

- Ideally suited for assembly and disassembly of McPherson spring feet
- For use alongside spring compressor 500.8620
- Necessary for changing shock absorbers or coil spring
- Spring bracket adapters are secured with strong bolts
- Forged and tempered
- Special steel

**Application range:** Chrysler Voyager "left-turning-spring"



500.8515		Chrysler	2.80



**Spring bracket set for Mercedes/BMW/ Renault/Toyota**

- Ideally suited for assembly and disassembly of McPherson spring feet
- For use alongside spring compressor 500.8620
- Necessary for changing shock absorbers or coil spring
- Spring bracket adapters are secured with strong bolts
- Forged and tempered
- Special steel

**Application range:** Toyota Avenis, Renault Megane 2, Mercedes C class, E class, BMW 3 series E46, E90, BMW 5er E39, E60, E61



kg			
500.8525	2 pcs	Spring bracket set for Mercedes/BMW/ Renault/Toyota	3,20

consists of:

kg			
500.8509	Spring holder, for BMW and Renault	2,40	
500.8510	Spring holder, for MERCEDES C classe type 203	0,80	

**Universal McPherson spring compressor set with safety arrester cable and vice holders**

- Contains safety arrester cable as an additional safety feature
- With vice assembly bracket to simply and safely tension in the vice
- Ideally suited for assembly and disassembly of McPherson spring feet
- Necessary for changing shock absorbers or coil spring
- Universal for 90% of common vehicle springs in passenger cars and transporters
- With 2 forged standard spring bracket pairs
- Also suitable for conical and ball springs
- Ergonomic high-tech polyurethane handle
- Working spindle is suitable for the impact screws
- Shear pin on the drive nut protects from overloading
- Spring brackets are fitted with a safety nose that locks the spring during stretching to increase security and safety
- Spring bracket adapters are secured with strong bolts
- With MOT certification
- Extremely high load - max. load of 2,600 kg
- Special steel



**Technical data:**

Spring force max:	2600 kg
Opening of jaws min:	50,0 mm
Jaw width max:	310,0 mm
Spring capacity:	80,0 - 195,0 mm

kg			
500.8715	7 pcs	Universal McPherson spring compressor set with safety arrester cable and vice holders	15,20

consists of:

kg		
500.8701	Spring compressor based unit, max. 2,600kg	6,00
500.8703	Safety pin set, 10 pcs 4-5mm	0,10
500.8704	Holder for spring compressor 500mm	1,50
500.8705	Spring holder pair,dbl,holding func.Ø80-160mm	3,50
500.8706	Spring holder pair,dbl,holding func.Ø140-195mm	4,00
500.8707	Safety arrester rope for 500.8700	0,20

**Universal McPherson spring compressor set**

- Ideally suited for assembly and disassembly of McPherson spring feet
- Necessary for changing shock absorbers or coil spring
- Universal for 90% of common vehicle springs in passenger cars and transporters
- With 2 forged standard spring bracket pairs
- Also suitable for conical and ball springs
- Ergonomic high-tech polyurethane handle
- Working spindle is suitable for the impact screws
- Shear pin on the drive nut protects from overloading
- Spring brackets are fitted with a safety nose that locks the spring during stretching to increase security and safety
- Spring bracket adapters are secured with strong bolts
- With MOT certification
- Extremely high load - max. load of 2,600 kg
- Special steel



**Technical data:**

Spring force max:	2600 kg
Opening of jaws min:	50,0 mm
Jaw width max:	310,0 mm
Spring capacity:	80,0 - 195,0 mm

kg			
500.8700	5 pcs	Universal McPherson spring compressor set	13,50

consists of:

kg		
500.8701	Spring compressor based unit, max. 2,600kg	8,20
500.8703	Safety pin set, 10 pcs 4-5mm	0,10
500.8705	Spring holder pair,dbl,holding func.Ø80-160mm	3,50
500.8706	Spring holder pair,dbl,holding func.Ø140-195mm	4,00
500.8707	Safety arrester rope	0,20



**Spring bracket adapter set for Mercedes/BMW**

- Ideally suited for assembly and disassembly of McPherson spring feet
- For use alongside spring compressor 500.8700
- Necessary for changing shock absorbers or coil spring
- Forged and tempered
- Special steel

**Application range:** BMW 3 series E46, E90, 5 series E39, E60, Mercedes C class (203), E class (211, 219)



kg			
500.8710	2 pcs	Spring bracket adapter set for Mercedes/BMW	500

consists of:

kg			
500.8711	Large adaptor, Mercedes	350	
500.8712	Small adaptor, BMW	150	

**Spring bracket adapter for BMW**

- Ideally suited for assembly and disassembly of McPherson spring feet
- For use alongside spring compressor 500.8700
- Necessary for changing shock absorbers or coil spring
- Forged and tempered
- Special steel

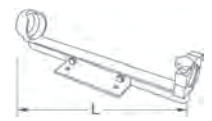
**Application range:** BMW 3 series E81, E82, E87, E88, 3er E90, E91, E92, E93



kg			
500.8713	Spring bracket adapter for BMW	1,34	

**Spring compressor vice assembly bracket**

- Can be used alongside with the spring compressor 500.8700
- For safe and comfortable clamping in the vice
- Ensures a secure assembly and disassembly
- Includes a mounting bracket for horizontal or vertical use
- Special steel



L mm			kg
500.8704	500,0	1,50	

**INTERNAL SPRING COMPRESSOR**

**Universal telescopic centre compressor set for internal springs**

- Ideal for assembling and disassembling of spiral springs on wishbone and multi-link suspensions
- Safe removal and installation without dismantling the axle
- Saves a lot of time
- Universal for 90% of all common inboard types of vehicles
- New and revised design with lengthened tension path
- Can be fitted to vehicles with small access holes
- Spring collar with special geometry adapter to the usage
- Forged spring collar for secure holding of the spring spiral
- Variable system with a quick-change spring spiral pair
- Securely tensions the spring in the spring hub
- Good positioning with a compact shape
- Working spindle is suitable with the use of torsion rod impact screws supplied
- Protects against overloading with the torsion drive element
- With MOT certification
- Higher than standard load - max. load of 2,500 kg
- Special steel
- In durable plastic storage case

**Application range:** BMW, Chevrolet, Chrysler, Citroën, Ford, Honda, Hyundai, Kia, Mazda, Mercedes, Mitsubishi, Peugeot, Renault, Seat, Škoda, Suzuki, Toyota, Volvo, Volkswagen

Especially for BMW E87, E90, Citroën C3, Škoda Octavia, Peugeot 107, Volkswagen Touran, Volvo



**Technical data:**

- Spring force max: 2500 kg
- Opening of jaws min: 95.0 mm
- Jaw width max: 220.0 mm
- Square drive: 1/4"

Part No.	Description	Weight (kg)
500.8610	6 pcs Universal telescopic centre compressor set for internal springs	4.42

**consists of:**

Part No.	Description	Weight (kg)
500.8611	Spring compressor based unit, 2500 kg	642
500.8612	Spring holder pair Ø 90-120 mm	844
500.8613	Spring holder pair Ø120-140 mm	1148
500.8614	Torsion drive 1/2"x1/2", 100 Nm	255

**STATIONARY SPRING COMPRESSOR**

**Pressurised air stand spring compressor**

- Ideal for compressor spring feet
- Pressurised air support allows for extremely comfortable working
- Secure assembly and disassembly of the shock absorbers with McPherson spring feet system
- Suitable for 95% of all vehicles on the market
- Robust safety cage to prevent accidents
- Sturdy foot for optimal stand
- Simple, secure and easy to use
- Special steel



**Technical data:**

- Operating pressure: max. 10 bar
- Connection thread: 1/4"
- Air consumption: 250 l/min
- Work pressure: 735 kg at 6 bar, 1200 kg at 10 bar
- total length: 400.0 mm
- Width: 500.0 mm
- height: 1200.0 mm

Part No.	Description	Weight (kg)
500.8800	Pressurised air stand spring compressor	65.00



**Adapter plate for pressurised air stand spring compressor**

- Universal adapter plate for pressurised air stand spring compressor 500.8800
- Ideal for attaching spring feet
- Optimal for a secure stand when assembling and disassembling
- With 4 securing bolts and 4 threaded bolts
- Delivered with 2 snap rings for assembly
- Simple handling
- Special steel



Part No.	Length (mm)	Width (mm)	Height (mm)	Weight (kg)
500.8801	355.0	260.0	120.0	7.57

**Safety stand for pressurised air spring compressor**

- Sturdy safety stand to adapt the working height
- Simple assembly with straps and screws
- 4-point tubular frame with secure stand
- Special steel



Part No.	Length (mm)	Width (mm)	Height (mm)	Weight (kg)
500.8802	470.0	450.0	300.0	10.24

**Replacement wheel set for the pressurised air stand spring compressor**

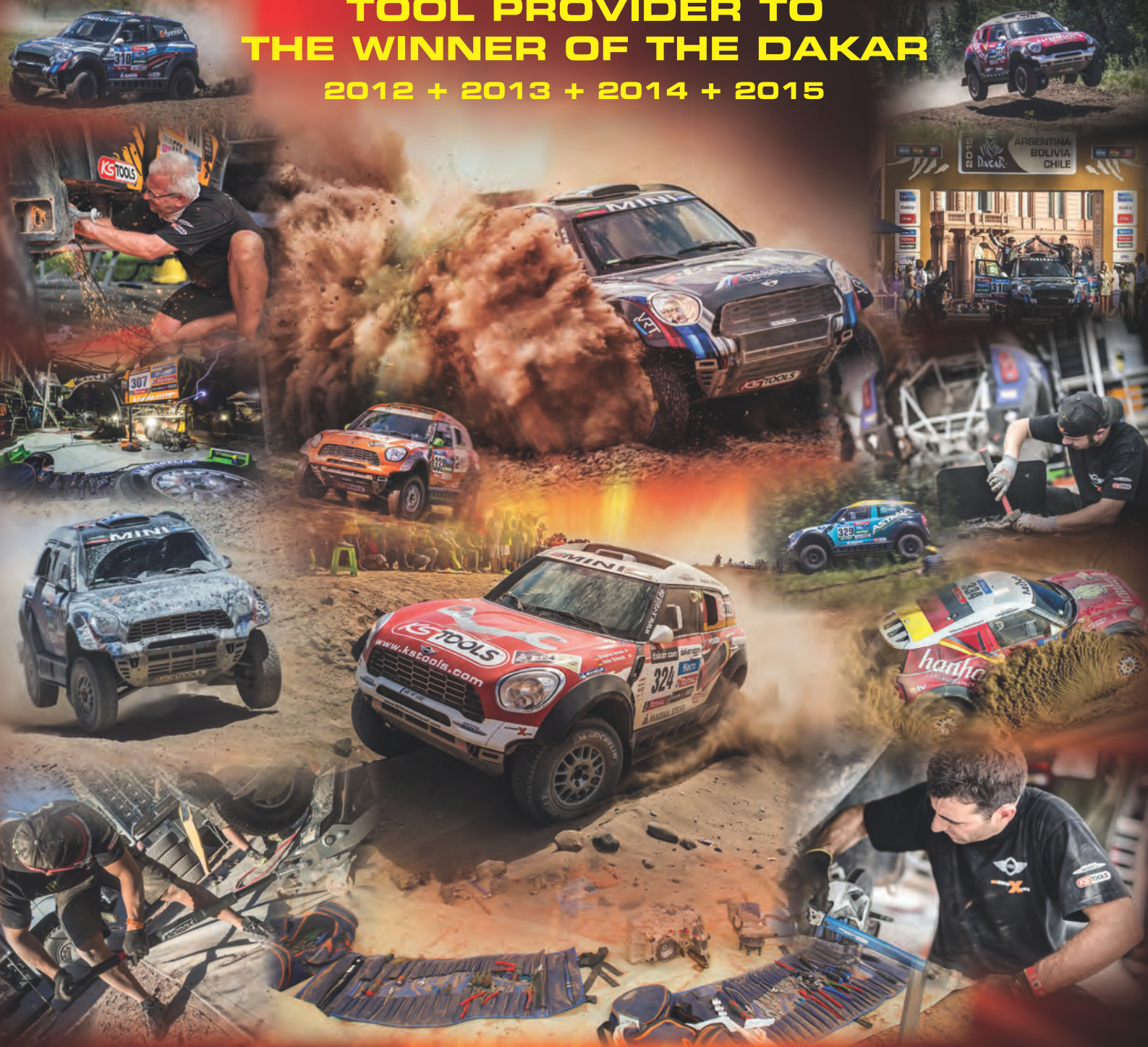
- For use with the pressurised air spring compressor 500.8800
- 2 rubber tyres at 120 mm
- Ideal for transport



Part No.	Description	Weight (kg)
500.8803	Replacement wheel set for the pressurised air stand spring compressor	1.73

# OFFICIAL AND EXCLUSIVE TOOL PROVIDER TO THE WINNER OF THE DAKAR

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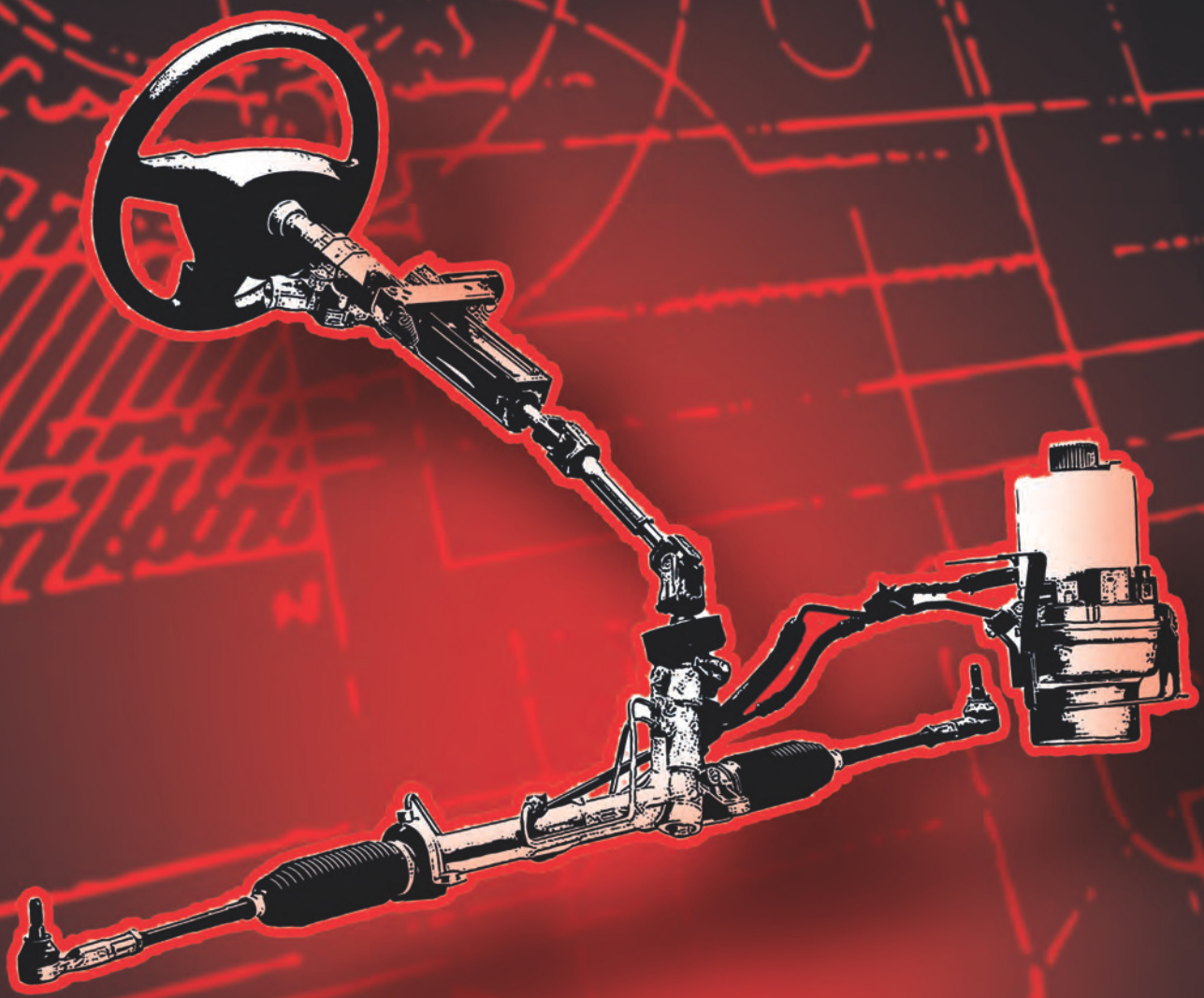
RELIABLE UNDER **EXTREME** WORKING CONDITIONS

new dimension **X**-raid



Innovation is  
our mission!

STEERING AND STEERING GEOMETRY



Innovation is our mission!

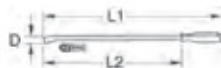
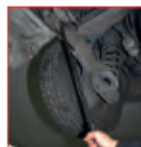


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**LEVER / PRY BARS**

**Pry bar**

- Ideally suited to assembly and disassembly work
- For pressure testing securely-fitted parts
- Suitable for positioning parts or holding parts in place
- 1 piece handle
- Hardened
- Chrome molybdenum



	D mm	L1 mm	L2 mm	Weight
911.8101	11.0	200.0	115.0	130
911.8102	15.0	300.0	185.0	220
911.8103	18.0	450.0	320.0	420
911.8104	18.0	600.0	470.0	560

**Pry bar sets**

- Ideally suited to assembly and disassembly work
- For pressure testing securely-fitted parts
- Suitable for positioning parts or holding parts in place
- 1 piece handle
- Hardened
- Chrome molybdenum



	Weight
911.8100 4 pcs 11 x 115 mm - 15 x 185 mm - 18 x 320 mm - 18 x 470 mm	1.33

**Mechanics pry bar**

- Angular lever end guarantees non-slip surface
- With go through blade and hammer cap
- Ideally suited to assembly and disassembly work
- For pressure testing securely-fitted parts
- Suitable for positioning parts or holding parts in place
- Suitable for the testing of defective bearings
- With two component handle
- Heavy design especially for commercial vehicles
- Special steel



Bent neck	L mm	Weight
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

**Mechanics pry bar set**

- Angular lever end guarantees non-slip surface
- With go through blade and hammer cap
- Ideally suited to assembly and disassembly work
- For pressure testing securely-fitted parts
- Suitable for positioning parts or holding parts in place
- Suitable for the testing of defective bearings
- With two component handle
- Heavy design especially for commercial vehicles
- Special steel
- In durable plastic storage case



	Weight
911.8410 4 pcs Mechanics pry bar set	8.70

**consists of:**

	Weight
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

**Intexable ratchet pry bar**

- 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



	L mm	Assembly tools	Weight
911.8176	250.0	5	600
911.8177	300.0	5	600
911.8178	400.0	5	600
911.8179	620.0	5	1810

**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



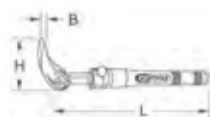
	Weight
911.8175 3 pcs Adjustable joint roll head pry bar set	1.20

**consists of:**

	Weight
911.8176 Ratcheted pry bar, 10"	600
911.8177 Ratcheted pry bar, 12"	600
911.8178 Ratcheted pry bar, 15"	600

**Roller head telescopic pry bar**

- Handle can be lengthened by the push button in ratchet steps
- Rolling head adjustable in stages
- Extra thin with embedded rolling head
- Maximum power in the smallest areas
- Optimal leverage in minimal work area
- Ideally suited to assembly and disassembly work
- For pressure testing securely-fitted parts
- Suitable for positioning parts or holding parts in place
- Suitable for the testing of defective bearings
- Ideal for use in passenger cars and commercial vehicles
- Special steel



	L mm	H mm	B mm	Weight
911.8186	325-460	90.0	12.0	780
911.8187	600-915	120.0	20.0	1900
911.8188	865-1350	145.0	24.0	4260

**WISHBONE DISASSEMBLY**

**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



	L mm	Weight
700.1460	1000.0	4.36

**Universal slide hammer**

- Extra heavy and solid execution
- For universal use for automobiles + trucks
- Enormous impact delivery of up to 11 tonnes
- With 6 kg impact weight
- Includes 3 kg additional weight
- With M 20 x 1,5 mm connection thread
- Additional weights can be screwed together
- Special steel



	L mm	kg
700.1415	850.0	12.00

**accessories:**

	kg
700.1411 Wheel hub/drive flange dismounting tool	2.55
700.1421 Adaptor ET UN 1.1/2" x IT M20 x 1.5	0.72
700.1423 Adaptor for double hook	0.27
700.1424 Universal hook M20 x 1.5 for ball joints + car body	2.40
700.1425 Double hook	0.75
700.1428 Adaptor ET UN 1.1/2" x IT M16 x 2.0	0.72
700.1430 Adaptor ET UN 1.1/2" x IT M16 x 1.5	0.72
152.1056 Single screw adaptor AG M17 x 1	0.24

**Bracket hook**

- For disassembly of the wishbone from the ball joint clamp bore
- Special shape allows it to be placed very close to the ball joint
- For use alongside a slide hammer
- Internal thread M20 x 1.5
- Special steel



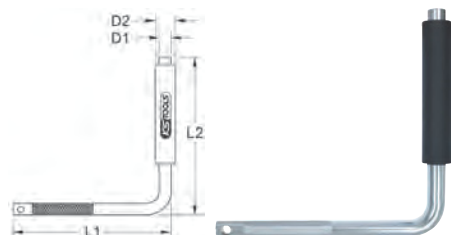
	kg
700.1424 M20x1,5	2.40

**AXLE PLAY TEST TOOL**

**Axle play detector bar**

- For localising sources of faults in the vehicle axle area
- Testing under load
- Large time savings during fault diagnostics
- Suitable for all passenger cars up to 3,5 t
- Special steel

**Application range:** Dome bearings / silent bearings / carrier joint / track rod end / coupling rod / wheel bearings / axial joint / steering gear / stabiliser, etc.



	L1 mm	L2 mm	D1 mm	D2 mm	kg
700.1465	400.0	400.0	25.0	50.0	1.90

**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 bearings, ball joints (Tie rod joints) suspension joints/coupling rods etc



	Ø mm	L mm	kg
700.1455	36,0	840,0	6,00

consists of:

	kg
700.1411 Wheel hub/drive flange dismounting tool	2.55
700.1450 Movement Test lever, Reception AG 1,1/2" x 16G	3.24

**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 be 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, bearings, piston pins  
 Alternator: Bearing sounds  
 Differential: Barrel sounds  
 Bodywork: Creak and squeak sounds



	kg
150.1695 18 pcs Electronic professional stethoscope	2.50

consists of:

	kg
150.1695-1 Headset for 150.1695	350
150.1695-2 Amplifier or 150.1695	115
150.1695-3 Hand held stethoscope for 150.1695	185
150.1695-4 Velcro strap for 150.1695, 8 pcs	9
150.1695-5 Sensor for 150.1695	10
150.1695-6 Colour coded cable for 150.1695, 6 pcs	755

**UNIVERSAL PIVOT PIN EJECTOR**

**Universal ball joint separator**

- For many automobiles and commercial vehicles
- Special steel



	A mm	B mm	C mm	max N·m	mm	kg
670.0101	18	40	40	50	M14x1,5x60	17 0.30
670.0102	25	50	50	120	M16x1,5x60	17 0.70
670.0103	29	60	60	160	M18x1,5x75	19 1.00
670.0104	40	80	80	280	G1/2"x14gx110	22 2.10
670.0105	45	100	90	400	G3/4"x14gx125	27 2.80
670.0106	58	80	100	280	G1/2"x14gx110	22 2.10

**Universal ball joint ejector**

- For many automobiles and commercial vehicles
- Special steel



	A mm	B mm	max t	mm	mm	kg
670.0061	23	55	4	17	M16x1,5 x 60	800
670.0062	28	55	4	17	M16x1,5 x 60	800
670.0063	34	63	4	19	M18x1,5 x 70	900

**Universal ball joint extractor**

- Tools for removing of carrier joint and tie rod joints or track rod joint studs for steering gear, suspension arm, axle casing and stabiliser
- Universal suitable for passenger cars to commercial vehicles
- Compact and durable design
- Extremely robust spindle with inductively hardened thread



	kg
670.0060 3 pcs Universal ball joint extractor	2.90

consists of:

	kg
670.0061 Ball joint separator, 23mm	800
670.0062 Ball joint separator, 28mm	800
670.0063 Ball joint separator, 34mm	900

### Universal ball joint extractor

- Robust model for loosening the track heads and push pole heads
- Optimal positioning through compact design and slim fork piece
- Special steel



	A mm	B mm	C mm			
450.0075	45	75	63	24	M22 x 135	1.63
450.0076	55	100	76	24	M22 x 135	1.84

### UNIVERSAL BALL JOINT EJECTOR WITH LEVER

#### Universal ball joint separator

- Extra fl t execution
- Forged
- Special steel



	A mm	B mm			
700.5620	18	20-37	M14 x 85	16	970

#### Universal ball joint separator

- Extra strong execution
- Forged
- Special steel



	A mm	B mm			
700.5625	20	20-37	M12 x 85	16	1.07

### Universal ball joint separator 2 stage adjustable

- Separator 2 stage adjustable
- Ideal for confined spa es
- Spindle hexagonal with additional drive point
- Forged
- Special steel



	A mm	B mm			
700.5610	24	0-55	M16 x 90	20	1.05

#### Universal ball joint separator

- For separating the ball plug in the extension of the ball joint
- Suitable for many vehicles
- Special steel



	A mm	B mm	max l			
670.0111	18-22	50	3,5	19	M14x1,5x48	900

#### Universal ball joint extractor

- Robust model for loosening the track heads and push pole heads
- Optimal positioning through compact design and slim fork piece
- Adjustment of the clamp by means of the spindle
- Special steel



	A mm	B mm			
450.0070	32	75	M22 x 90	30	2.49
450.0071	45	80	M22 x 90	30	2.61

### 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



	A mm	B mm			
700.5630	20	24-45	M14 x 105	18	1.50

#### Universal ball joint separator 2 stage adjustable

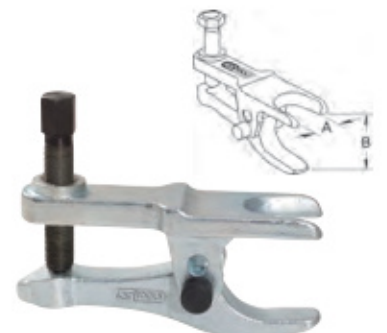
- Separator 2 stage adjustable
- Ideal for confined spa es
- Extremely high clamping range
- Spindle hexagonal with additional drive point
- Forged
- Special steel



	A mm	B mm			
700.5615	18-24	23-110	M16 x 130	16	1.20

#### Universal ball joint separator

- For separating the ball plug in the extension of the ball joint
- Suitable for many vehicles + transporter
- Also suitable for aluminum undercarriages
- Special steel

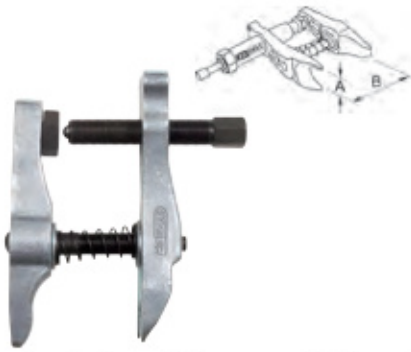


	A mm	B mm	max l			
670.0121	24	50	3,5	17	M16x1,5x70	1.40
670.0122	24	60-80	3,5	17	M15x1,5x90	1.80



**Universal ball joint separator**

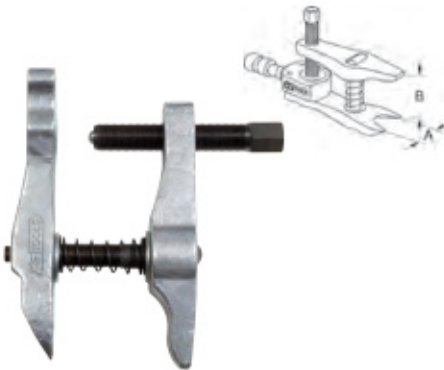
- For separating the ball plug in the extension of the ball joints
- Suitable for many vehicles + moderately heavy trucks
- Special steel



	A mm	B mm	max t	mm	mm	kg
670.0131	36	90	10	22	G1/2"x14gx110	3.70

**Universal ball joint separator without hydraulic cylinder**

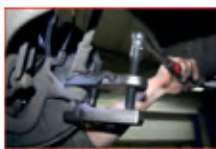
- For separating the ball plug in the extension of the ball joints
- Suitable for many vehicles + moderately heavy trucks
- For bolts Ø 27.0 - 36.0 mm
- Special steel
- For use with 640.0140



	A mm	B mm	max t	Adjusting screw mm	Ambo height mm	mm	kg
670.0151	36	90	10	M18x1,5x120	G1/2"x14x110	22	3.50

**Universal ball joint remover set with changeable forks**

- With interchangeable forks Ø 20/22/24/27/30 mm
- For separating the ball plug when removing the ball joints
- Quick changes of the individual pressure forks due to the spring breaker system
- Maximum separation height: 125.0 mm
- In durable plastic storage case



			kg
450.0970	7 pcs	Universal ball joint remover set with changeable forks	6.00

consists of:

		kg
450.0971	Universal ball pin ejector device	2000
450.0972	Pressure spindle	380
450.0973	Fork, Ø 20 mm	520
450.0974	Fork, Ø 22 mm	520
450.0975	Fork, Ø 24 mm	520
450.0976	Fork, Ø 27 mm	520
450.0977	Fork, Ø 30 mm	520

**BALL PIN PULLER VIBRO IMPACT**

**Ball joint extractor cap „VIBRO IMPACT“**

- Pressure pieces embedded in the spindle
- Enormous release power via the turn impact impulse in connection with impact screws
- Impact screws create pressure and vibration at the same time, through which the secure ball joint connections and quickly and safely removed
- Less space required
- Cast forged design
- With inspection panel
- Special steel



	A mm	B mm	mm	mm	kg
450.0060	30	58	Tr.22	18	1.10
450.0061	32	90	Tr.24	25	2.51

**Impact ball joint puller**

- Optimal positioning between suspension arm and axle casing
- Mouted spherical centering point
- Special steel



	A mm	B mm	mm	mm	kg
450.0085	35	60	M27 x 130	24	2.52

**Ball joint extractor cap „VIBRO IMPACT“**

- Pressure pieces embedded in the spindle
- Enormous release power via the turn impact impulse in connection with impact screws
- Impact screws create pressure and vibration at the same time, through which the secure ball joint connections and quickly and safely removed
- Less space required
- Cast forged design
- With inspection panel
- Special steel



	A mm	B mm	mm	mm	kg
450.0062	39	58	Tr.24	25	2.83

**Ball joint puller HGV, mechanical**

- Massive execution for loosening the track heads and push pole heads
- Enormous power through lever transmission
- Special steel



	A mm	B mm	mm	mm	kg
450.0051	36	70	M24x3x160	36	4.34

**Hydraulic universal ball joint extractor set**

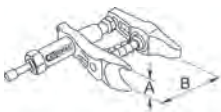
- Massive execution for loosening the track heads and push pole heads
- Enormous power through lever transmission
- Requires light expenditure of energy
- Special steel



			kg
450.0050	3 pcs	Hydraulic universal ball joint extractor set	6.55

### Hydraulic universal ball joint separator

- For separating the ball plug in the extension of the ball joints
- Suitable for many vehicles + moderately heavy trucks
- For bolts Ø 27.0 - 36.0 mm
- Special steel



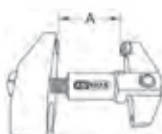
	A mm	B mm	max t	Ø mm	— mm	kg
670.0141	36	90	10	17	1.1/2"x16G	4.70

### CLAMP SCREWS EJECTOR

#### Clamp screw ejector set without spindle

- For loosening seized clamping screws (M10) on 4-link axles
- For right and left wishbone clamping screws
- For aluminium and steel four link axles
- Release force up to max. 12 t
- Universally applicable hydraulic spindle (mounting thread 1.1/2"x16 start)
- Fine adjustment for optimum efficiency
- In durable plastic storage case

**Application range:** Audi A4, A6, Volkswagen Passat from 97, identical group vehicles



	A mm	kg
670.0076	3 pcs 65 - 125	2.70

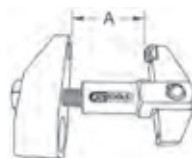
consists of:

	kg
670.0074	Clamp screw ejector 1.20
670.0077	Flat thrust piece 0.03
670.0078	Mandrel thruster 0.03

### Clamp screw ejector set

- For loosening seized clamping screws (M10) on 4-link axles
- For right and left wishbone clamping screws
- For aluminium and steel four link axles
- Release force up to max. 12 t
- Universally applicable hydraulic spindle (mounting thread 1.1/2"x16 start)
- Fine adjustment for optimum efficiency
- In durable plastic storage case

**Application range:** Audi A4, A6, Volkswagen Passat from 97, identical group vehicles



	A mm	kg
670.0075	4 pcs 65 - 125	4.15

consists of:

	kg
615.0001	Hydraulic pressure spindle, 17mm, UN 1.1/2"x16Gx260mm 1600
670.0074	Clamp screw ejector 500
670.0077	Flat thrust piece 32
670.0078	Mandrel thruster 33

### Four link drift set

- For removing the clamp screws in the four-wheel front axle on VAG vehicles
- Saves a lot of time
- Warning is no longer necessary, therefore preventing damage to the aluminium axle body
- For use with pneumatic chisel hammers on the market with a 10 mm attachment
- Special steel



	kg
700.5635	3 pcs Four link drift set 168

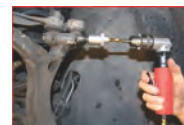
consists of:

	kg
700.5635-01	Release mandrel pneumatic chisel 100
700.5635-02	Ejector, short 40
700.5635-03	Guide sleeve 40

### Reaming set for clamping screw on 4 link axles

- For exact centre drilling of the M10 clamping screw
- Without upsetting of the thread end, e.g. such as when pressing out
- Removal without damage to the axle body
- Exact centering thanks to screw-on, hardened drilling gauges
- Also suitable for new alloy screw type

**Application range:** Volkswagen / Audi and identical group vehicles



	kg
700.5640	5 pcs Reaming set for clamping screw on 4 link axles 43.7

consists of:

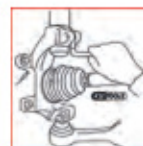
	kg
700.5641	Drilling gauge for Ø 4.5 mm 140
700.5642	Drilling gauge for Ø 7.3 mm 140
700.5643	Special drill HSS-E TIN Ø 4.5 mm 10
700.5644	Special drill HSS-E TIN Ø 7.3 mm 30
700.5645	Pressure mandrel 9,8 x 63 mm 20

### SPLAY TOOLS

#### Flange spreader for the spring foot mounting

- Ideal for time-saving and damage-free splaying of the axle joint clamp boreholes or ball joint attachments
- Makes the assembly and disassembly easier
- For almost all common vehicle types
- 90° angled
- Continuous hardened
- Matt chrome
- Special steel

**Application range:** Ford, VAG, PSA, Japanese vehicles, etc.

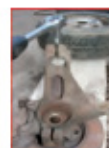


	L mm	Width mm	Spread dia. mm	kg
150.9407	205.0	5.0	7.0	65

#### Flange splayed bit socket set for the spring foot mounting

- Ideal for time-saving and damage-free splaying of the axle joint clamp boreholes or ball joint attachments
- Makes the assembly and disassembly easier
- For almost all common vehicle types
- Continuous hardened
- Matt chrome
- Special steel

**Application range:** BMW, Ford, VAG, PSA, Japanese vehicles, etc.



	kg
150.9490	2 pcs Flange splayed bit socket set for the spring foot mounting 120

consists of:

150.9491	1/2" fla	go splay bit socket, 5.0 x 7.0 mm	60	
150.9492	1/2" fla	go splay bit socket, 5.5 x 8.2 mm	60	

**Ball joint splitter set**

- For the exact centred bores of the clamp screws without compressing the thread end, e.g. when removing
- No damage to the axle body when removing
- Exact centring thanks to unscrewable, hardened bore jig
- Also suitable for new aluminium screw types

**Application range:** Volkswagen/Audi and similar vehicles in the VW group



700.5650	11 pcs	Ball joint splitter set	750	

consists of:

700.5651	1	Basic unit for clamp bore holes splay tool, short	100	
700.5652	1	Guide bolt set, 2 part, 8 x 10 mm	100	
700.5653	1	Guide bolt set, 2 part, 10 x 12 mm	100	
700.5654	1	Splay wedge black, 5 mm	100	
700.5655	1	Splay wedge silver, 8 mm	100	
700.5656	1	Internal hexagon wrench, 3 mm	100	
700.5658	1	Spindle to 700.5650	50	
700.5659	2	Arm to 700.5650	100	

**MASTER clamp bore hole splay tool set**

- An additional bridge allows for the use of two wedges at the same time
- Especially for Audi and Volkswagen 4 wheel steering axle
- Ideal for splaying the axle joint clamp boreholes, or ball joint attachments
- It is necessary to remove the secured spring absorber unit from the axle joint clamp boreholes
- Makes the assembly and disassembly easier
- Damage to the axle joint housing (cast or aluminium) is avoided
- Universal usage due to 2 pairs of different splay clamps and securing bolts
- Without compressing the thread ends, e.g. when pressing together
- Optimal adjustment, therefore slips are almost impossible
- Exact centring due to the screw-on and toughened bore jigs
- External drive hexagonal socket 13.0 mm
- Special steel

**Application range:** Audi, BMW, Ford, Peugeot, Seat, Volkswagen, etc.



700.5660	15 pcs	MASTER clamp bore hole splay tool set	855	

consists of:

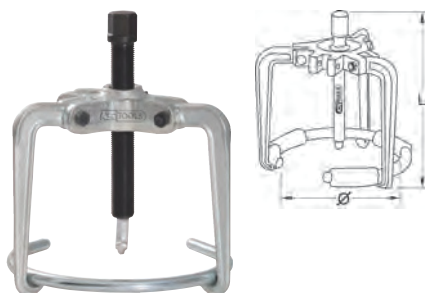
700.5651	1	Basic unit for clamp bore holes splay tool, short	100	
700.5661	1	Basic unit for clamp bore hole splay tool, long	196	
700.5652	1	Guide bolt set, 2 part, 8 x 10 mm	100	
700.5653	1	Guide bolt set, 2 part, 10 x 12 mm	100	
700.5654	2	Splay wedge black, 5 mm	100	
700.5655	2	Splay wedge silver, 8 mm	100	
700.5656	1	Internal hexagon wrench, 3 mm	100	
700.5658	2	Spindle to 700.5650	50	
700.5659	2	Arm to 700.5650	100	



**STEERING WHEEL PULLER**

**Universal steering wheel puller 3 arm**

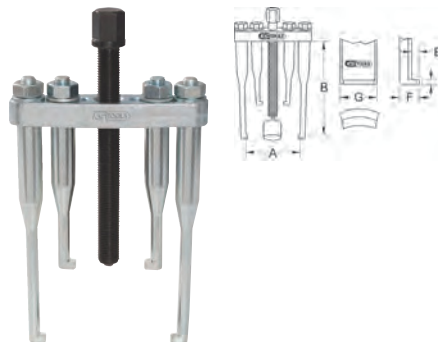
- For steering wheels with three or four spokes
- Tie rings with rubber sleeve for protection on the steering wheel
- Special steel



670.0191	160	120	4	17	M14x1,5 x 130	1,90

**Universal steering wheel puller 2 arm for passenger cars**

- Short and long hooks as well as pressure piece for spindle
- Extremely robust spindle with inductively hardened Thread
- Special steel

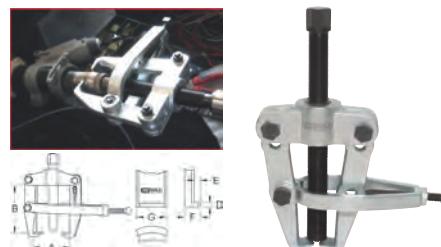


670.0201	90	135	2,5	M14x1,5 x 130	17	5	3,5	11	7,5	900

**Steering wheel distance sleeve remover for VAG**

- For removing the distance sleeve on the steering spindle when changing ignition switch
- Shearing action increases the pressing power when removing
- Clamp holds hooks firm y together
- Prevents slippage
- Extremely robust spindle with inductively hardened thread
- Special steel

**Application range:** Audi, Volkswagen, Seat, Škoda, etc.



620.5401	80	90	5	M18 x 1,5 x 130	19	3	12	26	24	1,70

**Steering wheel distance sleeve puller for Volkswagen**

- Suitable for quick, clean and damage-free removal of the adapter sleeve on the steering arm
- External drive hexagonal socket 17.0 mm
- Extremely robust spindle with inductively hardened thread
- Special steel

**Application range:** Volkswagen Golf 2, Golf 3, Golf 4, Jetta, Passat > 1988



450.0303	180.0		720

**Steering wheel distance sleeve mandrel**

- Suitable in order to strike the adapter sleeve damage-free on the steering column
- Brass

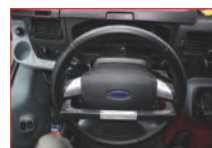


450.0304	150.0	30.0	720

**STEERING WHEEL INSTALLATION BALANCE**

**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



515.3183	270-350	370.0	205



item	Description	700.1760 20 pcs	700.2355 22 pcs	700.1700 36 pcs	700.1735 12 pcs
<b>Pressure nut</b>					
700.1701	Thrust bolt, M10 with bearing		2 x	2 x	2 x
700.1702	Thrust bolt, M12	2 x	2 x	2 x	2 x
700.1703	Thrust bolt, M14 with bearing			2 x	2 x
700.1704	Thrust bolt, M16	2 x		2 x	2 x
700.1800-19	Thrust bolt TR 20 with bearing 2 pcs		1 x		
700.1800-10	Check nut M 10		1 x		
700.1800-11	Check nut M 12		1 x		
<b>Step plate</b>					
700.1706	Stepped plates,#1	1 x	1 x	1 x	
700.1707	Stepped plates,#2	1 x	1 x	1 x	
700.1708	Stepped plates,#3	1 x	1 x	1 x	
700.1709	Stepped plates,#4	1 x	1 x	1 x	
<b>Spindles</b>					
700.1710	Spindle, M10		1 x	1 x	1 x
700.1711	Spindles, M12	1 x	1 x	1 x	1 x
700.1712	Spindle, M14			1 x	1 x
700.1713	Spindles, M16	1 x		1 x	1 x
700.1800-17	Spindle TR 20, short		1 x		
<b>Step pressure sleeve</b>					
700.2356	Step pressure sleeve, internal Ø 14 mm, external Ø 24 mm		1 x		
700.2357	Step pressure sleeve, internal Ø 16 mm, external Ø 26 mm		1 x		
700.2358	Step pressure sleeve, internal Ø 18 mm, external Ø 28 mm		1 x		
700.2359	Step pressure sleeve, internal Ø 20 mm, external Ø 30 mm		1 x		
700.2361	Step pressure sleeve, internal Ø 22 mm, external Ø 32 mm		1 x		
700.2362	Step pressure sleeve, internal Ø 24 mm, external Ø 34 mm		1 x		
700.2363	Step pressure sleeve, internal Ø 26 mm, external Ø 36 mm		1 x		
700.2364	Step pressure sleeve, internal Ø 28 mm, external Ø 38 mm		1 x		
700.2365	Step pressure sleeve, internal Ø 30 mm, external Ø 40 mm		1 x		
700.2366	Step pressure sleeve, internal Ø 32 mm, external Ø 42 mm		1 x		
<b>Pressure sleeve</b>					
700.1714	Pull sleeve, internal Ø 34mm, external Ø 44mm	1 x		1 x	
700.1715	Pressure sleeve, internal Ø 36 mm, external Ø 46 mm			1 x	
700.1716	Pressure sleeve, internal Ø 38 mm, external Ø 48 mm			1 x	
700.1717	Pressure sleeve, internal Ø 40 mm, external Ø 50 mm			1 x	
700.1718	Pull sleeve, internal Ø 42mm, external Ø 52mm	1 x		1 x	
700.1719	Pull sleeve, internal Ø 44mm, external Ø 54mm	1 x		1 x	
700.1720	Pull sleeve, internal Ø 46mm, external Ø 56mm	1 x		1 x	
700.1721	Pressure sleeve, internal Ø 48 mm, external Ø 58 mm			1 x	
700.1722	Pressure sleeve, internal Ø 50 mm, external Ø 60 mm			1 x	
700.1723	Pull sleeve, internal Ø 52mm, external Ø 62mm	1 x		1 x	
700.1724	Pressure sleeve, internal Ø 54 mm, external Ø 64 mm			1 x	
700.1725	Pressure sleeve, internal Ø 56 mm, external Ø 66 mm			1 x	
700.1726	Pressure sleeve, internal Ø 58 mm, external Ø 68 mm			1 x	
700.1727	Pressure sleeve, internal Ø 60 mm, external Ø 70 mm			1 x	
700.1728	Pressure sleeve, internal Ø 62 mm, external Ø 72 mm			1 x	
700.1729	Pull sleeve, internal Ø 64mm, external Ø 74mm	1 x		1 x	
700.1730	Pressure sleeve, internal Ø 66 mm, external Ø 76 mm			1 x	
700.1731	Pressure sleeve, internal Ø 68 mm, external Ø 78 mm			1 x	
700.1732	Pull sleeve, internal Ø 70mm, external Ø 80mm	1 x		1 x	
700.1733	Pull sleeve, internal Ø 72mm, external Ø 82mm	1 x		1 x	
<b>Thread width</b>					
980.1090	Special thread grease	2 x			
980.1085	Special thread grease				1 x

**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

**Attention:** the spindles need to be greased with a good lubricant for each application! Do not overload spindles, otherwise the thread lengthens and the pitch of the nut and spindle no longer match. The result: the nuts will seize up. Always check the applied force at the drive with a torque wrench!

**Maximum permitted torque:**

- Spindle M10x1,5 60 Nm
- Spindle M12x1,5 100 Nm



700.2355	22 pcs	Press and pull sleeve set	8.74
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**consists of:**

700.1701	Thrust bolt, M10 with bearing	125
700.1702	Thrust bolt, M12	124
700.1706	Stepped plates, #1	350
700.1707	Stepped plates, #2	390
700.1708	Stepped plates, #3	420
700.1709	Stepped plates, #4	450
700.1710	Spindle, M10, 350 mm	170
700.1711	Spindles, M12, 350 mm	253
700.1800-10	Check nut M 10	350
700.1800-11	Check nut M 12	350
700.1800-17	Spindle TR 20, short	350
700.1800-19	Thrust bolt TR 20 with bearing 2 pcs	350
700.2356	Step pressure sleeve, internal Ø 14 mm, external Ø 24 mm	260
700.2357	Step pressure sleeve, internal Ø 16 mm, external Ø 26 mm	280
700.2358	Step pressure sleeve, internal Ø 18 mm, external Ø 28 mm	300
700.2359	Step pressure sleeve, internal Ø 20 mm, external Ø 30 mm	320
700.2361	Step pressure sleeve, internal Ø 22 mm, external Ø 32 mm	360
700.2362	Step pressure sleeve, internal Ø 24 mm, external Ø 34 mm	380
700.2363	Step pressure sleeve, internal Ø 26 mm, external Ø 36 mm	400
700.2364	Step pressure sleeve, internal Ø 28 mm, external Ø 38 mm	420
700.2365	Step pressure sleeve, internal Ø 30 mm, external Ø 40 mm	440
700.2366	Step pressure sleeve, internal Ø 32 mm, external Ø 42 mm	460



**Press and pull sleeve set BASIC**

- 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

**Attention:** the spindles need to be greased with a good lubricant for each application! Do not overload spindles, otherwise the thread lengthens and the pitch of the nut and spindle no longer match. The result: the nuts will seize up. Always check the applied force at the drive with a torque wrench!

**Maximum permitted torque:**

- Spindle M10x1,5 60 Nm
- Spindle M12x1,5 100 Nm
- Spindle M14x1,5 180 Nm
- Spindle M16x1,5 250 Nm



700.1760	20 pcs	Press and pull sleeve set BASIC	8.32
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**consists of:**

700.1702	Thrust bolt, M12	124
700.1704	Thrust bolt, M16	130
700.1706	Stepped plates, #1	350
700.1707	Stepped plates, #2	390
700.1708	Stepped plates, #3	420
700.1709	Stepped plates, #4	450
700.1711	Spindles, M12, 350 mm	253
700.1713	Spindles, M16, 350 mm	473
700.1714	Pull sleeve, internal Ø 34mm, external Ø 44mm	250
700.1718	Pull sleeve, internal Ø 42mm, external Ø 52mm	300
700.1719	Pull sleeve, internal Ø 44mm, external Ø 54mm	320
700.1720	Pull sleeve, internal Ø 46mm, external Ø 56mm	330
700.1723	Pull sleeve, internal Ø 52mm, external Ø 62mm	370
700.1729	Pull sleeve, internal Ø 64mm, external Ø 74mm	440
700.1732	Pull sleeve, internal Ø 70mm, external Ø 80mm	480
700.1733	Pull sleeve, internal Ø 72mm, external Ø 82mm	490

**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

**Attention:** the spindles need to be greased with a good lubricant for each application! Do not overload spindles, otherwise the thread lengthens and the pitch of the nut and spindle no longer match. The result: the nuts will seize up. Always check the applied force at the drive with a torque wrench!

**Maximum permitted torque:**

- Spindle M10x1,5 60 Nm
- Spindle M12x1,5 100 Nm
- Spindle M14x1,5 180 Nm
- Spindle M16x1,5 250 Nm



700.1700	36 pcs	Press and pull sleeve set	14.80
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**consists of:**

700.1701	Thrust bolt, M10 with bearing	125
700.1702	Thrust bolt, M12 with bearing	124
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, 350 mm	170
700.1711	Spindle, M12, 350 mm	253
700.1712	Spindle, M14, 350 mm	350
700.1713	Spindle, M16, 350 mm	473
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

**Press and pull sleeve kit**

- For the assembly and disassembly of bearings
- Ideally for silent bearings, hydro bearings, bushings, ball bearings, simmer rings, etc.
- Universal use for passenger cars, trucks, communal, agricultural and forest vehicles
- 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

**Caution:** The spindles must be greased before fit use! Overloading leads to unwanted material stresses or breakage. Always check the power settings on the drive with a torque wrench. Not to be combined with other systems.

**Maximum allowable torque moments:**  
 Spindle (ACME) M10 x P1.5 60 Nm  
 Spindle (ACME) M12 x P2.0 120 Nm  
 Spindle (ACME) M14 x P2.0 150 Nm  
 Spindle (ACME) M16 x P2.5 250 Nm



700.1550	29 pcs	Press and pull sleeve kit	17.00
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consists of:

Part No.	Description	QTY
700.1550-34	Pull sleeve, internal Ø 34mm, external Ø 44mm	250
700.1550-36	Pull sleeve, internal Ø 36mm, external Ø 46mm	260
700.1550-38	Pull sleeve, internal Ø 38mm, external Ø 48mm	280
700.1550-40	Pull sleeve, internal Ø 40mm, external Ø 50mm	290
700.1550-42	Pull sleeve, internal Ø 42mm, external Ø 52mm	300
700.1550-44	Pull sleeve, internal Ø 44mm, external Ø 54mm	320
700.1550-46	Pull sleeve, internal Ø 46mm, external Ø 56mm	330
700.1550-48	Pull sleeve, internal Ø 48mm, external Ø 58mm	340
700.1550-50	Pull sleeve, internal Ø 50mm, external Ø 60mm	350
700.1550-52	Pull sleeve, internal Ø 52mm, external Ø 62mm	360
700.1550-54	Pull sleeve, internal Ø 54mm, external Ø 64mm	380
700.1550-56	Pull sleeve, internal Ø 56mm, external Ø 66mm	390
700.1550-58	Pull sleeve, internal Ø 58mm, external Ø 68mm	410
700.1550-60	Pull sleeve, internal Ø 60mm, external Ø 70mm	420
700.1550-62	Pull sleeve, internal Ø 62mm, external Ø 72mm	430
700.1550-64	Pull sleeve, internal Ø 64mm, external Ø 74mm	440
700.1550-66	Pull sleeve, internal Ø 66mm, external Ø 76mm	460
700.1550-68	Pull sleeve, internal Ø 68mm, external Ø 78mm	470
700.1550-70	Pull sleeve, internal Ø 70mm, external Ø 80mm	480
700.1550-72	Pull sleeve, internal Ø 72mm, external Ø 82mm	490
700.1550-75	Pull sleeve, internal Ø 75mm, external Ø 85mm	500
700.1550-80	Pull sleeve, internal Ø 80mm, external Ø 90mm	520
700.1551	Spindle M10x1.5	170
700.1552	Spindle M12x2.0	200
700.1553	Spindle M14x2.0	350
700.1554	Spindle M16x2.5	380
700.1555	Pressure adapter for step panel hgvy size	350
700.1556	Step panel adaptor with 3 holes, A+B side	350
700.1551-01	Pressure nut for M10 x P1.5	30
700.1551-02	Pressure nut with bearing for M10xP1.5	30
700.1552-01	Pressure nut for M12 x P1.75	30
700.1552-02	Pressure nut with bearing for M12xP1.75	30
700.1553-01	Pressure nut for M14 x P2.0	30
700.1553-02	Pressure nut with bearing for M14xP2.0	30
700.1554-01	Pressure nut for M16 x P2.0	30
700.1554-02	Pressure nut with bearing for M16xP2.0	30

**UNIVERSAL PRESS FRAME SYSTEM PP I**

**Universal press frame, 5 pcs without 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



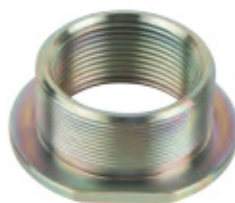
700.1751	5 pcs	Universal press frame, 5 pcs without hydraulic spindle	8.90
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**accessories:**

700.1751-1	Connection bar 205 mm for 700.1751 (1 piece)	0.71
700.1751-2	Connection bar 350 mm for 700.1751 (1 piece)	1.20

**KS hydraulic PP2 to Sauer, Müller, KS PP1 tools**

- For use of the KS Tools hydraulic cylinder PP2 (8.5-22 t) with Sauer-, Müller-, KS PP1 special tools
- Adapter 1.1/2" PP2 to 2.1/4"-16 UN (Sauer, Müller, KS PP1)
- Special steel



440.0034	KS hydraulic PP2 to Sauer, Müller, KS PP1 tools	230
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**HYDRAULIC SUPPORT SYSTEM PP I**

**Hydraulic pressure spindle for press frame**

- Ideal for enlarging the press frame
- Compact shape with extremely high pressure (10 t)
- Extremely high and uniform power construction
- Pre-tensioning and positioning via the outer thread on the cylinder
- For a controlled and safe removal
- The hydraulics are set into motion via a hydraulic pump (3/8" NPT)
- Extremely robust spindle with hardened thread
- Special steel



Part No.	Total length mm	Stroke extension mm	Stroke mm	Ø mm	Weight kg
700.1785	300.0	240.0	170.0	10	200.0

**Hydraulic pressure spindle for press frame**

- Ideal for enlarging the press frame
- Compact shape with extremely high pressure (10 t)
- The hydraulic pistons move in a linear way which prevents rubbing on the pressure tip
- Maximum pressure with little effort
- Pre-tensioning and positioning via the outer thread on the cylinder
- For a controlled and safe removal
- The hydraulics are set in motion with the knob or the external hexagon drive
- Extremely robust spindle with hardened thread
- Special steel



Part No.	Stroke extension mm	Total length mm	Stroke mm	Ø mm	Weight kg
700.1400-1	92.0	260.0	10	15.0	17

**HYDRAULIC SUPPORT UNIVERSAL**

**Hydraulic hollow piston cylinder set, 12 t with spindle**

- For the assembly and disassembly of silent bearings, steering pins, track rod ends, wheel bearings, etc.
- Extremely high and uniform power construction
- Maximum pressure with little effort
- Industrial design with forged piston
- Suitable for both pressurised and tensioned uses
- Special steel



**Technical data cylinder**

Capacity:	12 t
Connection thread:	3/8" NPT IG
Piston:	Industrial forged execution
Stroke:	42.0 mm

700.1788	2 pcs	Hydraulic hollow piston cylinder set, 12 t with spindle	3.40
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consists of:

700.1789	Hydraulic hollow piston cylinders, 12 t	2.20
700.1787	Hydraulic pull piston	1.20

**Hydraulic hollow piston cylinder set 20 t with spindle**

- For the assembly and disassembly of silent bearings, steering pins, track rod ends, wheel bearings, etc.
- Extremely high and uniform power construction
- Maximum pressure with little effort
- Industrial design with forged piston
- Suitable for both pressurised and tensioned uses
- Special steel



**Technical data cylinder**

Capacity:	20 t
Connection thread:	3/8" NPT IG
Piston:	Industrial forged execution
Stroke:	52.0

700.1786	2 pcs	Hydraulic hollow piston cylinder set 20 t with spindle	8.80
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consists of:

700.1796	Hydraulic foot shaft M20 x 2.5	1.50
700.1791	Hydraulic hollow piston cylinders, 20 t	7.30

**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 manometer and hydraulic tube
- Special steel



**Technical data:**  
 Connection thread: 3/8" NPT IG  
 Hand pump: 700 bar high pressure pump  
 Dimensions: 410 x 150 x 135

700.1792	Hydraulic hand pump	5.50
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**Hydraulics tube, 2 m including connection**

- Ideally suited for commercial vehicles

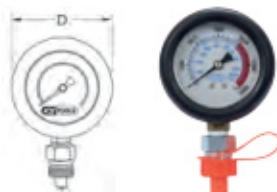


**Technical data:**  
 Connection thread: 3/8" NPT AG x 3/8" NPT AG  
 Length: 2000 mm

700.1793	Hydraulics tube, 2 m including connection	1.10
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**Manometer**

- Max. 700 bar
- Special steel



	D mm	kg
700.1790-2	80.0	334

**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



700.1790	4 pcs Hydraulic tension and pressure unit	15.40
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consists of:

700.1791	Hydraulic hollow piston cylinder, 20 l	7.30
700.1792	Hydraulic hand pump, 700 bar	5.50
700.1793	Hydraulic hose, 2 m	1.10
700.1796	Feed shaft for hydraulic M20 x 500 mm	1.50

**Pneumatic hydraulic pump**

- Pneumatic working
- For simply agent press cylinders
- Safety valve for overload protection
- Includes pressure tube 1.8 meters
- Usable tank volume 2081cm<sup>3</sup> = 2.081l
- Operating pressure max. 700 bar
- Output per stroke:  
 0.8 l/min up to 200 bar  
 0.1 l/min up to 700 bar



	Connection thread mm	L mm	B mm	H mm	kg
640.0020	3/8" - 18 NPT	255	130	200	11.00

**C-FRAME SYSTEM PP I**

**C-clamp and adaptor set, short**

- 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 Tr.27 with ball stored pressure tip
- Special steel



		Max open width mm	Max open depth mm	Length mm	Width mm	kg
700.1780	4 pcs	170.0	65.0	320.0	150.0	6.42

consists of:

700.1781	Uni C-clamp	5.50
700.1782	Spindle with trapezoid thread Tr.27	0.90
700.1783	C attachment set for stepped puller, 2 pcs	0.02

**C-clamp and adaptor set, long**

- 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 Tr.27 with ball stored pressure tip
- Special steel



		Max open width mm	Max open depth mm	Length mm	Width mm	kg
700.1795	5 pcs	245.0	95.0	380.0	180.0	7.82

consists of:

700.1754	Threaded adaptor with AG 1-1/2" x 16G and IG trapezoid thread Tr.27	0.60
700.1756	Universal C-clamp	7.00
700.1757	Spindle with trapezoid thread Tr.27, length 300 mm, drive 24 mm	2.00
700.1758	Spindle reception adaptor	0.80
700.1759	C-Clamp reception adaptor	0.60

**BALL JOINT SYSTEM PP I**

**Pressure sleeve set Volkswagen and Mercedes**

- For the assembly and disassembly of the ball joint (ball pins) Ø 45 mm
- Can be used directly on the vehicle
- Saves a lot of time
- For use with the universal press frame 700.1751 and spindle
- Special steel

**Application range:** Mercedes Sprinter from 1996-2007, Volkswagen LT and Crafter from 1996-2007



700.2305	4 pcs Pressure sleeve set Volkswagen and Mercedes	5.70
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consists of:

700.2306	Pressure sleeve for installation	1.54
700.2307	Pressure sleeve for removal, Ø 60 mm	1.64
700.2308	Pressure sleeve for removal, Ø 62 mm	1.40
700.2309	Press sleeve for installation and removal	0.42

accessories:

700.2310	Pressure sleeve for removal on models after 2007	1.46
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**Pressure sleeve set for Mercedes ball joint**

- Quick and problem-free assembly and disassembly of the ball joint
- For use alongside C frame 700.1780
- Special steel

**Application range:** Mercedes W211 and W220



700.1620	4 pcs Pressure sleeve set for Mercedes ball joint	1.42
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consists of:

		Length mm	kg
700.1621	Pressure sleeve, 57 mm	45.0	400
700.1622	Pressure sleeve, 51 mm	75.0	390
700.1623	Pressure sleeve, 60 mm	90.0	470
700.1624	Pressure sleeve, 33 mm	41.0	150

**Pressure sleeve set for Mercedes torsion bar joint**

- Quick and problem-free assembly and disassembly of the torsion bar joint
- For use alongside C frame 700.1755
- Special steel

**Application range:** Mercedes W211 and W220



700.1625	3 pcs	Pressure sleeve set for Mercedes torsion bar joint	900
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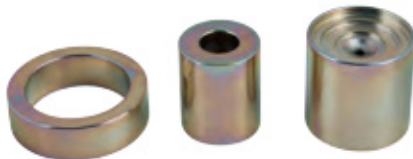
consists of:

		Length mm	
700.1626	Pressure sleeve, 34 mm	86.0	300
700.1627	Pressure sleeve, 48 mm	78.5	420
700.1628	Pressure sleeve, 37 mm	39.0	180

**Pressure sleeve for Mercedes**

- For the assembly and disassembly of the external ball joint (ball pins)
- Can be used directly on the vehicle
- Saves a lot of time
- For use with the universal press frame 700.1751 and spindle
- Special steel

**Application range:** Mercedes W124, W129, W201 on the external ball joint (ball pins)



700.2300	3 pcs	Pressure sleeve for Mercedes	1.43
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consists of:

700.2301	Pressure sleeve 52 x 52 mm	770
700.2302	Pressure sleeve 40 x 48 mm	390
700.2303	Pressure sleeve 70 x 20 mm	270

**Press sleeve set for Renault Master and Opel Movano**

- For the assembly and disassembly of the ball joint (ball pins) on the upper front-axle
- Can be used directly on the vehicle
- Saves a lot of time
- For use with the universal press frame 700.1751 and spindle
- Special steel

**Application range:** Renault Master and Opel Movano ball joint (ball pins) on the upper front axle



700.2275	4 pcs	Press sleeve set for Renault Master and Opel Movano	3.15
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consists of:

700.2276	Pressure sleeve, 42 x 60 mm	460
700.2277	Pressure sleeve straight, 71 x 60 mm	690
700.2278	Pressure sleeve with recess, 71 x 60 mm	880
700.2279	Pressure sleeve slopes, 79.5 mm	1120

**Press sleeve set for Renault Master and Opel Movano**

- For the assembly and disassembly of the ball joint (ball pins) on the lower front-axle
- Can be used directly on the vehicle
- Saves a lot of time
- For use with the universal press frame 700.1751 and spindle
- Special steel

**Application range:** Renault Master and Opel Movano ball joint (ball pins) on the lower front axle



700.2270	4 pcs	Press sleeve set for Renault Master and Opel Movano	2.33
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consists of:

700.2271	Pressure sleeve with recess, 71 x 50 mm	620
700.2272	Pressure sleeve, 58 x 80 mm	710
700.2273	Pressure sleeve, 52 x 55 mm	480
700.2274	Pressure sleeve without recess, 71 x 50 mm	520

**Pressure sleeve set for Volkswagen T4**

- For the assembly and disassembly of the ball joint (ball pins) on the upper wishbones
- Can be used directly on the vehicle
- Saves a lot of time
- For use with the universal press frame 700.1751 and spindle
- Special steel

**Application range:** Volkswagen T4 from 1992 onwards, ball joint (ball pin) on upper wishbones



700.2290	4 pcs	Pressure sleeve set for Volkswagen T4	2.32
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consists of:

700.2291	Pressure sleeve 51 x 78 mm	653
700.2292	Pressure sleeve 73 x 31 mm	520
700.2293	Pressure sleeve 39 x 78 mm	650
700.2294	Pressure sleeve 73 x 43 mm	500



**HYDRAULIC SUPPORT SYSTEM PP II**

**Pressure and pull hydraulic cylinder set**

- For the assembly and disassembly of silent bearings, steering pin bolts, wheel bearings, etc.
- Can be used in the narrowest of spaces
- With adjustable pressure rods and impact body
- With automatic piston return
- Special steel



**Technical data cylinder**

Capacity:	8.5 t
Connection thread:	Cejn quick coupling
Piston:	industrial forged execution
piston-inner thread:	M22
outer thread:	1.1/2"
Stroke:	25.0 mm

440.0020	4 pcs	Pressure and pull hydraulic cylinder set	2.19
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consists of:

440.0021	Hydraulic cylinder, 8.5 t	1800
440.0022	Impact body with sealing ring	140
440.0023	Adjustable pressure rod M22, L = 100 mm	240
440.0024	(CEJN-) Nipple hydraulic for connection thread 1 1/2"	10

**Pressure and pull hydraulic cylinder set, 16t**

- For the assembly and disassembly of silent bearings, steering pins, track rod ends, wheel bearings, etc.
- Suitable for both pressurised and tensioned uses
- With impact body for screwing in
- Extremely high and uniform power construction
- Universal usage with reduction M10-M22
- Special steel



**Technical data cylinder**

Capacity:	16 t
Connection thread:	Cejn quick coupling
Piston:	industrial forged execution
piston-inner thread:	M22
outer thread:	1.1/2"
Stroke:	67.0 mm

440.0005	10 pcs	Pressure and pull hydraulic cylinder set, 16t	5.48
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consists of:

440.0001	Hydraulic cylinder, 16 t	3380
440.0002	Pressure axle, M24 x 3 mm, L = 129.5 mm	600
440.0003	Pressure foot, M24 x 3 mm	90
440.0004	Adjustable pressure rod M24, L = 92 mm	240
440.0006	Protective ring for thread, 2.1/4"	100
440.0007	Collar nut, M18	80
440.0008	Pressure rod, M18/M22, L = 250 mm	440
440.0011	Impact body, M22 x 2.5 mm	220
440.0012	Adjustable pressure sleeve, M24, L = 132 mm	320
440.0009	(CEJN-) Nipple hydraulic for connection thread 1 1/4"	10



**Pressure and pull hydraulic cylinder set**

- For the assembly and disassembly of silent bearings, steering pins, track rod ends, wheel bearings, etc.
- Suitable for both pressurised and tensioned uses
- With impact body for screwing in
- Extremely high and uniform power construction
- Universal usage with reduction M10-M22
- With automatic piston return
- Ideally suited to transporters
- Special steel



**Technical data cylinder**

Capacity: 22 l  
 Connection thread: Cejn quick coupling  
 Piston: industrial forged execution  
 piston-inner thread: M22  
 outer thread: 1.1/2"  
 Stroke: 70.0 mm

440.0010	10 pcs	Pressure and pull hydraulic cylinder set	6.90
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**consists of:**

440.0013	Hydraulic cylinder, 22 l	4640
440.0011	Impact body, M22 x 2.5 mm	220
440.0003	Pressure foot, M24 x 3 mm	90
440.0004	Adjustable pressure rod M24, L = 92 mm	240
440.0006	Protective ring for thread, 2.1/4"	100
440.0014	Pressure axle, M24 x 3, L = 151 mm	740
440.0016	Adjustable pressure sleeve, M24, L = 109 mm	340
440.0007	Collar nut, M18	80
440.0008	Pressure rod, M18/M22, L = 250 mm	440
440.0009	(CEJN) Nipple hydraulic for connection thread 1/4"	10

**Pressure and pull hydraulic cylinder set, 32l**

- Optimal for universal use in car garages
- Suitable for both pressurised and tensioned uses
- Extremely high and uniform power construction
- Industrial design with forged piston
- Pressure of the hydraulic cylinders can be combined with the impact body with impact force during use
- Universal usage with reduction M10-M22
- Ideally used with transporters and commercial vehicles
- Special steel



**Technical data cylinder**

Capacity: 32 l  
 Connection thread: Cejn quick coupling  
 Piston: industrial forged execution  
 piston-inner thread: M24  
 outer thread: 2.1/2"  
 Stroke: 113.0 mm

440.0025	6 pcs	Pressure and pull hydraulic cylinder set, 32l	9.35
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**consists of:**

440.0026	Hydraulic cylinder, 32 l	8020
440.0016	Adjustable pressure sleeve, M24, L = 109 mm	340
440.0027	Protective ring for thread, 2.5	200
440.0028	Collar nut, M22	100
440.0029	Pressure rod, M22, L = 250 mm	620
440.0009	(CEJN) Nipple hydraulic for connection thread 1/4"	10

**Short-stroke hydraulic cylinder set**

- For the assembly and disassembly of silent bearings, steering pin bolts, wheel bearings, etc.
- With adjustable pressure rod
- Maximum pressure with little effort
- Especially for use with press tool and press stand 440.0190 and 440.0180
- With automatic piston return
- Special steel



**Technical data cylinder**

Capacity: 14 l  
 Connection thread: Cejn quick coupling  
 Piston: industrial forged execution  
 piston-inner thread: M24  
 outer thread: 1.1/2"  
 Stroke: 55.0 mm

440.0015	3 pcs	Short-stroke hydraulic cylinder set	2.67
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**consists of:**

440.0017	Hydraulic cylinder, 14 l	2420
440.0004	Adjustable pressure rod M24, L = 92 mm	240
440.0009	(CEJN) Nipple hydraulic for connection thread 1/4"	10

**Pull rod, collar nut, adapter set**

- Universal usage
- Extremely robust spindle with inductive hardened thread (M10-M22)
- Optimal use with trucks, transporters and commercial vehicle tools with corresponding reduction
- Ideally suited to hydraulic cylinders 440.0005, 440.0010 and 440.0020
- Special steel

**Caution:** The spindles must be greased before fi st use!



440.0040	13 pcs	Pull rod, collar nut, adapter set	1.98
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**consists of:**

440.0041	Pressure rod, M10	80
440.0042	Pressure rod, M12	180
440.0043	Pressure rod, M14	240
440.0008	Pressure rod, M18/M22, L = 250 mm	440
440.0029	Pressure rod, M22, L = 250 mm	620
440.0044	Adapter, M22-M10	50
440.0045	Adapter, M22-M12	50
440.0046	Adapter, M22-M14	40
440.0047	Collar nut, M10	20
440.0048	Collar nut, M12	20
440.0049	Collar nut, M14	60
440.0007	Collar nut, M18	80
440.0009	Collar nut, M22	100

**Hydraulic foot pump set**

- For simple acting press cylinder
- Safety valve for prevention against too much force
- With automatic return
- Includes hydraulic hose with quick coupling



**Technical data:**

Connection thread: Cejn quick coupling  
 Volume: 0,75 l  
 Operating pressure: 700 bar  
 Tube length: 2200 mm

440.0060	4 pcs	Hydraulic foot pump set	7.83
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**consists of:**

440.0057	Hydraulic hose, 2200 mm	900
440.0058	Cejn quick coupling	200
440.0061	Hydraulic foot pump	6720
440.0070	Seal set	10

**Pneumatic hydraulic pump set**

- Pneumatic operation
- For simple acting press cylinder
- Safety valve for prevention against too much force
- With automatic return
- Includes hydraulic hose with quick coupling



**Technical data:**

Connection thread: Cejn quick coupling  
 Volume: 1,4 l  
 Operating pressure: 700 bar  
 Tube length: 2200 mm

440.0055	3 pcs	Pneumatic hydraulic pump set	6.32
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**consists of:**

440.0056	Pneumatic hydraulic pump	5220
440.0057	Hydraulic hose, 2200 mm	900
440.0058	Cejn quick coupling	200

### Manometer

- With Cejn quick coupling for direct coupling to all KS Tools hydraulic pumps
- With easy-to-read scale in psi and bar

**Caution:** The maximum pressure values for the hydraulic cylinder and given in the appropriate operator's manual



440.0063	Manometer	500
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### ADAPTER

#### Klann hydraulic to KS PP2-tool

- For using the Klann hydraulic cylinder (17 t) with KS Tools tool 1.1/2" internal thread
- Adapter 2.1/4"-14 UNS (Klann thread) to 1.1/2" PP2
- Special steel



440.0038	Klann hydraulic to KS PP2-tool	1.08
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#### KS hydraulic PP2 to Klann tools

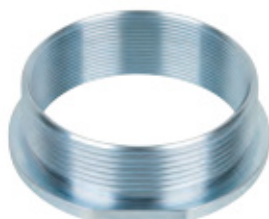
- For use with the KS Tools hydraulic cylinder PP2 (8.5-22 t) with Klann special tool
- Adapter 1.1/2" PP2 to 2.1/4"-14 UNS (Klann thread)
- Special steel



440.0036	KS hydraulic PP2 to Klann tools	200
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#### KS hydraulic PP2 to Klann (commercial vehicles-commercial vehicles-special tools)

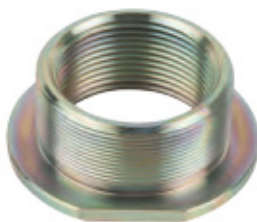
- For using the KS tools hydraulic cylinder PP2 (32t) with the Klann special tool (connection 2.3/4"-16 UNS)
- Adapter 2.1/2" PP2 to 2.3/4"-16 UNS (Klann thread)
- Special steel



440.0409	KS hydraulic PP2 to Klann (commercial vehicles-commercial vehicles-special tools)	760
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### KS hydraulic PP2 to Sauer, Müller, KS PP1 tools

- For use of the KS Tools hydraulic cylinder PP2 (8.5-22 t) with Sauer-, Müller-, KS PP1 special tools
- Adapter 1.1/2" PP2 to 2.1/4"-16 UN (Sauer, Müller, KS PP1)
- Special steel



440.0034	KS hydraulic PP2 to Sauer, Müller, KS PP1 tools	230
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#### Paschke hydraulic to KS PP2 tools

- For using the Paschke hydraulic cylinder with KS Tools special tools PP2
- Adapter M68x2 mm (Paschke thread) to 1.1/2" PP2
- Special steel



440.0407	Paschke hydraulic to KS PP2 tools	110
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#### KS hydraulic to Paschke tools

- For using the Paschke KS Tools hydraulic cylinder PP2 (8.5-22 t) with Paschke special tools
- Adapter 1.1/2" PP2 auf M68x2 mm (Paschke thread)
- Special steel



440.0408	KS hydraulic to Paschke tools	330
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#### KS hydraulic PP2 to KS commercial vehicles-special tools

- For use with hydraulic cylinder PP2 (16 and 22 t) to KS Tools tools PP2 with 2.1/2" thread
- Adapter 1.1/2" PP2 to 2.1/2" thread PP2 (large traverse - commercial vehicles)
- Special steel



440.0037	KS hydraulic PP2 to KS commercial vehicles-special tools	570
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### PRESS TOOL SYSTEM PP II

#### Press tool

- Forged press tool for removing the ball joints and stabiliser ball pins
- Maximum force 16 t
- Ideal for use with a hydraulic cylinder
- Optimally used with ball joint sets 440.0230 and 440.0240 as well as stabiliser ball pin set 440.0235
- Secure and easy to use
- Minimum work time
- Special steel

**Recommended hydraulic cylinder:** 8.5 t (440.0020), 14 t (440.0015), 16 t (440.0005), 22 t (440.0010)

**Application range:** Mercedes, Ford



440.0190	Press tool	5.78
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### PRESS STAND SYSTEM PP II

#### Universal press stand

- With open stand plate and adapter ring set
- Ideal for replacing ball joints and rear-axle bushes
- Can be used directly on the vehicle
- Adjustable with ball joint press sleeves from KS Tools
- For use with hydraulic cylinder
- Secure and easy to use
- Special steel

**Recommended hydraulic cylinder:** 14 t (440.0015), 16 t (440.0005), 22 t (440.0010)



440.0180	9 pcs Universal press stand	5.62
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#### consists of:

	X		
440.0176	1	Upper traverse with internal thread 1.1/2"	2040
440.0178	2	Connecting struts	440
440.0179	4	Screw M16 x 40 mm	80
440.0185	1	Insert ring	340
440.0204	1	Lower traverse with open side	2040

### BALL JOINT SYSTEM PP II

#### Pressure sleeve set BMW E30/E36, internal

- For the assembly and disassembly of the internal ball joint (ball pins)
- For use with the universal press stand (440.0180)
- Can be used directly on the vehicle
- Saves a lot of time
- Special steel

**Application range:** Internal ball joint for BMW E30 and E36



440.0420	3 pcs Pressure sleeve set BMW E30/E36, internal	1.55
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consists of:

440.0184	Pressure sleeve	500
440.0186	Pressure sleeve	430
440.0187	Pressure sleeve	620

**Pressure sleeve set BMW E30/E36, external**

- For the assembly and disassembly of the external ball joint (ball pins)
- For use with the universal press stand (440.0180)
- Can be used directly on the vehicle
- Saves a lot of time
- Special steel

**Application range:** External ball joint for BMW E30 and E36



440.0425	3 pcs Pressure sleeve set BMW E30/ E36, external	1.52
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consists of:

440.0181	Pressure sleeve	860
440.0182	Pressure sleeve	340
440.0183	Pressure sleeve	320

**Pressure sleeve set, Hyundai**

- For the assembly and disassembly of the ball joint (ball pins)
- For use with the universal press stand (440.0180)
- Can be used directly on the vehicle
- Saves a lot of time
- Special steel

**Application range:** Ball joint Hyundai Trajet, Santa Fe



440.0470	3 pcs Pressure sleeve set, Hyundai	1.70
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consists of:

440.0194	Pressure sleeve	720
440.0197	Pressure sleeve	560
440.0202	Pressure sleeve	420

**Ball joint set, Ford**

- Ideal for the assembly and disassembly of ball joints together with press tool 440.0190
- Secure and easy to use
- Robust design
- Special steel

**Application range:** Ford Transit



440.0240	4 pcs Ball joint set, Ford	1.51
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consists of:

440.0241	Pressure sleeve	540
440.0242	Assembly/disassembly cover	620
440.0243	Assembly sleeve	210
440.0244	Disassembly sleeve	140

**Stabiliser ball joint set, Mercedes**

- Ideal for the assembly and disassembly of stabiliser ball joints together with press tool 440.0190
- Removal of shock absorbers not necessary
- Secure and easy to use
- Minimum work time
- Special steel

**Application range:** Mercedes E-class type 211, S-class type 220



440.0235	2 pcs Stabiliser ball joint set, Mercedes	630
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consists of:

440.0236	Pressure sleeve	320
440.0237	Pressure sleeve	310

**Ball joint disassembly sleeve, Mercedes**

- Expansion sleeve for ball joint set 440.0230
- Ideal for the assembly and disassembly of ball joints together with press tool 440.0190
- Secure and easy to use
- Robust design
- Special steel

**Application range:** Mercedes ML 163



440.0238	Ball joint disassembly sleeve, Mercedes	300
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**Ball joint set, Mercedes**

- Ideal for the assembly and disassembly of ball joints together with press tool 440.0190
- Secure and easy to use
- Robust design
- With ball joint disassembly sleeve (440.0238) also suitable for Mercedes ML 163
- Special steel

**Application range:** Mercedes E-class type 211/219, S-class type 220, SL-class type 230



440.0230	4 pcs Ball joint set, Mercedes	1.06
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consists of:

440.0231	Pressure sleeve	320
440.0232	Assembly sleeve	120
440.0233	Disassembly ring	300
440.0012	Adjustable pressure sleeve, M24, L = 132 mm	320

**Pressure sleeve set Mercedes Sprinter and Volkswagen LT 35**

- For the assembly and disassembly of the ball joint (ball pins)
- For use with the universal press stand (440.0180)
- Can be used directly on the vehicle
- Saves a lot of time
- Special steel

**Application range:** Ball joint Mercedes Sprinter, ball joint on Volkswagen LT 35



440.0435	2 pcs Pressure sleeve set Mercedes Sprinter and Volkswagen LT 35	1.04
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consists of:

440.0191	Pressure sleeve	520
440.0192	Pressure sleeve	520

**Pressure sleeve set Mercedes Sprinter > 2007 and Volkswagen Crafter**

- For the assembly and disassembly of the ball joint (ball pins)
- For use with the universal press stand (440.0180)
- Can be used directly on the vehicle
- Saves a lot of time
- Special steel

**Application range:** Ball joint Mercedes Sprinter > 2007, ball joint on Volkswagen Crafter



440.0440	3 pcs Pressure sleeve set Mercedes Sprinter > 2007 and Volkswagen Crafter	1.81
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consists of:

440.0198	Pressure sleeve	760
440.0199	Pressure sleeve	520
440.0201	Pressure sleeve	530

**Pressure sleeve set Mercedes W 124**

- For the assembly and disassembly of the ball joint (ball pins)
- For use with the universal press stand (440.0180)
- Can be used directly on the vehicle
- Saves a lot of time
- Special steel

**Application range:** Ball joint on Mercedes W 124



440.0430	3 pcs Pressure sleeve set Mercedes W 124	1.71
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consists of:

440.0184	Pressure sleeve	500
440.0186	Pressure sleeve	430
440.0189	Pressure sleeve	780

### Pressure sleeve set Renault/Nissan/Opel

- For the assembly and disassembly of the upper and lower ball joint (ball pins)
- For use with the universal press stand (440.0180)
- Can be used directly on the vehicle
- Saves a lot of time
- Special steel

**Application range:** Upper and lower ball joint Renault Master, Nissan Interstar, Opel Movano



440.0455	4 pcs	Pressure sleeve set Renault/Nissan/Opel	2.66
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consists of:

440.0188	Pressure sleeve	600
440.0193	Pressure sleeve	820
440.0194	Pressure sleeve	720
440.0196	Pressure sleeve	520

### Pressure sleeve set Renault

- For the assembly and disassembly of the ball joint (ball pins)
- For use with the universal press stand (440.0180)
- Can be used directly on the vehicle
- Saves a lot of time
- Special steel

**Application range:** Ball joint Renault Laguna 1, Megane 2 and Scenic 2



440.0450	3 pcs	Pressure sleeve set Renault	1.48
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consists of:

440.0184	Pressure sleeve	500
440.0202	Pressure sleeve	420
440.0203	Pressure sleeve	560

### Pressure sleeve set Volkswagen T4

- For the assembly and disassembly of the ball joint (ball pins)
- For use with the universal press stand (440.0180)
- Can be used directly on the vehicle
- Saves a lot of time
- Special steel

**Application range:** Ball joint on Volkswagen T4



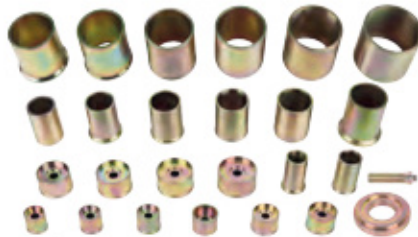
440.0445	2 pcs	Pressure sleeve set Volkswagen T4	1.34
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consists of:

440.0191	Pressure sleeve	520
440.0193	Pressure sleeve	820

### Universal press tool set

- For the assembly and disassembly of bearings, bushes and ball joints
- Adapter and pressure crank allow for use with the universal press stand (440.0180)
- 24 press sleeves in different sizes
- 61 various internal and external diameters between 30.5 mm and 79.7 mm
- Universal usage for passenger cars and transporters
- Excellent usage also with work bench press
- Special steel



440.0300	26 pcs	Universal press tool set	9.67
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consists of:

440.0348	Adapter plate	250
440.3049	Adjustable pressure rod M24 x 90 mm	280
440.0301	Press sleeve 40.7 x 42.5 x 35.2 mm	200
440.0302	Press sleeve 43.7 x 45.5 x 38.2 mm	220
440.0303	Press sleeve 46.7 x 48.5 x 41.2 mm	260
440.0304	Press sleeve 49.7 x 51.5 x 44.2 mm	280
440.0305	Press sleeve 52.7 x 54.5 x 47.2 mm	320
440.0306	Press sleeve 55.7 x 57.5 x 50.2 mm	360
440.0307	Press sleeve 58.7 x 60.5 x 53.2 mm	400
440.0308	Press sleeve 61.7 x 63.5 x 56.2 mm	440
440.0309	Press sleeve 65.7 x 67.5 x 60.2 mm	500
440.0310	Press sleeve 69.7 x 71.5 x 64.2 mm	560
440.0311	Press pipe 38.7 x 44.7 x 30.5 mm	260
440.0312	Press pipe 41.7 x 44.7 x 34 mm	260
440.0313	Press pipe 44.7 x 44.7 x 37.2 mm	260
440.0314	Press pipe 47.7 x 55 x 40.2 mm	320
440.0315	Press pipe 50.7 x 55 x 43.2 mm	320
440.0316	Press pipe 53.7 x 55 x 46.2 mm	320
440.0317	Press pipe 56.7 x 55 x 49.2 mm	340
440.0318	Press pipe 59.7 x 70 x 52.2 mm	480
440.0319	Press pipe 62.7 x 70 x 55.2 mm	480
440.0320	Press pipe 65.7 x 70 x 58.2 mm	480
440.0321	Press pipe 68.7 x 70 x 61.2 mm	480
440.0322	Press pipe 71.7 x 70 x 64.2 mm	500
440.0323	Press pipe 75.7 x 75.7 x 68.2 mm	540
440.0324	Press pipe 79.7 x 79.7 x 72.2 mm	560

### Universal press tool expansion set

- Ideal sleeve assortment for expanding the press tool set (440.0300)
- For use with the universal press stand (440.0180)
- For use on passenger cars and transporters
- 11 press rings in different sizes
- Excellent usage also with work bench press
- Optimal for bushes, bearings and ball joints
- Special steel



440.0325	12 pcs	Universal press tool expansion set	4.42
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consists of:

440.0204	Plate with open side	2040
440.0326	Press ring 59 x 70 x 52.2 mm	180
440.0327	Press ring 62 x 70 x 55.5	160
440.0328	Press ring 65 x 70 x 58.2 mm	140
440.0329	Press ring 68 x 70 x 61.2 mm	120
440.0331	Press ring 71 x 90 x 64.2 mm	300

consists of:

440.0332	Press ring 74 x 90 x 67.2 mm	280
440.0333	Press ring 77 x 90 x 70.2 mm	260
440.0334	Press ring 80 x 90 x 73.2 mm	240
440.0336	Press ring 84 x 90 x 77.2 mm	200
440.0337	Press ring 88 x 90 x 81.2 mm	160
440.0338	Adapter	340

### BALL JOINT SYSTEM PP III

#### Carrier joint tool set

- For the dismantling and assembly of upper carrier joints without removing the wishbone
- Hardened spindle with ball lock for pressure sleeves
- 3 pressure sleeves adaptor for spindle
- 2 forks for installation with locking mechanism for basic unit
- Colour coding in dismantling and/or assembly tools
- In durable plastic storage case

**Application:** T4 bus / Multivan / California / pickup etc.



700.1640	6 pcs	Carrier joint tool set	3.82
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consists of:

700.1641	Basic unit with window H=135mm	1930
700.1642	Spindle TR24, SW24 L=110mm	350
700.1643	Thrust sleeve installation, gold, Ø52xH41mm	260
700.1644	Thrust sleeve removal no.1, black, Ø40xH30mm	185
700.1645	Thrust sleeve removal no.2, black, Ø40xH30mm	195
700.1646	Fork installation, black, 55.5mm	102
700.1647	Fork installation, gold, 51mm	122
700.1648	Retaining ring for spindle	2

### WRENCHES FOR BALL JOINT ASSEMBLY

#### Ball joint pin wrench for Mercedes M-class

- For releasing and securing the securing screws on the ball joint
- Perfectly sized for damage-free assembly
- Internal square drive to DIN 3120/ISO 1174 with ball reception
- Special steel

**Application range:** Mercedes M-class W163



700.1660	Outer Ø mm	Inner Ø mm	Slot width mm	Weight kg
	63.0	53.0	7.5	280

**Ball joint pin wrench for Citroën and Peugeot**

- For releasing and securing the screwed in ball joint
- Perfectly sized for damage-free assembly
- Internal square drive to DIN 3120/ISO 1174 with ball reception
- Special steel

**Application range:** Citroën BX from 09/1982 to 1994, Citroën C5, Citroën Xantia, Peugeot 305 from 07/1982 to 1990, Peugeot 405 >06/1987, Peugeot 406, Peugeot 605, Peugeot 607



	Outer Ø mm	Inner Ø mm	Slot width mm	Weight
700.1661	52.0	42.5	5.5	500

**Ball joint socket for Citroën and Peugeot**

- 12-point
- For releasing and securing the screwed in ball joint
- Perfectly sized for damage-free assembly
- Internal square drive to DIN 3120/ISO 1174 with ball reception
- Special steel

**Application range:** Peugeot 307, Peugeot 308, Peugeot 3008, Peugeot 5008, Peugeot Partner, Peugeot RCZ, Citroën Berlingo, Citroën C4



	Weight	D1 mm	D2 mm	L mm	T mm	Weight
700.1662	41	54.0	43.0	90.0	23.0	700

**Ball joint socket for Renault Master and Opel Movano**

- 12-point
- For releasing and securing the screwed in ball joint
- Perfectly sized for damage-free assembly
- Internal square drive to DIN 3120/ISO 1174 with ball reception
- Special steel

**Application range:** Renault Master and Opel Movano from 2010 onwards



	Weight	D1 mm	D2 mm	L mm	T mm	Weight
700.1663	46	66.0	38.0	85.0	44.0	880

**Bit socket for spline (XZN®) screws**

- Necessary for the removal of the lower ball joint
- Spline (XZN®)
- Internal square drive to DIN 3120/ISO 1174 with ball reception
- With press fitted nickel-plated insert bit
- For manual operation
- Matt finish
- Chrome vanadium

**Application range:** Volkswagen T4 and Volkswagen T5



	D mm	L mm	T mm	Weight
911.1345	M14	22.0	55.0	17.0

**Special VAG ball joint socket**

- Ideally suited to assembly and disassembly of ball joints
- Special profil
- Internal square in accordance with DIN 3120/ISO 1174 or outer hexagonal drive 27.00 mm
- Extremely robust design
- Special steel

**Application range:** Audi A4, A5, A6, A7 > 2005, Volkswagen



	Weight	Total length mm	Weight
150.1712	27.0	37.0	135

**VIBRO IMPACT**

**Vibro impact pneumatic chisel hammer set**

- With non slip soft grip handle
- Air exhaust through the handle
- Ergonomic designed handle
- Ideal for industry
- Efficient, gentle loosening of screw fittings
- With stepless impact regulation
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light housing from two component plastic



	Weight
515.3880 6 pcs Vibro impact pneumatic chisel hammer set	5.70

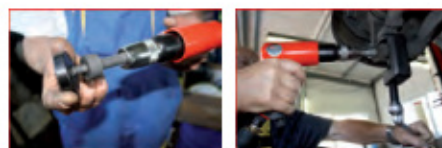
consists of:

		Weight
515.3881	Pneumatic chisel hammer	2.17
515.3882	Holder for pneumatic chisel hammer	1.55
515.3886	Pneumatic chisel track rod loosener, 110mm	0.14
515.3887	Pneumatic chisel hammer, 110mm	0.15
515.3888	Pneumatic chisel loosening adapter, 130mm	0.16
515.3889	Pneumatic chisel loosening mandrel, 100x25x12mm	0.19

**Special Vibro chisel set**

- For loosening seized screw joints and loosening components
- Gentle peeling and driving
- Vibration is transmitted directly to the screw connections
- Impact mandrel attachment as ingenious aid to any removal operation
- For hexagonal and round 10 mm machine mountings
- Including pressure plate adapter for driving out bearings, sleeves, bushings

**Caution:** Use only in conjunction with a pneumatic hammer chisel!



	Weight
515.3885 4 pcs Special Vibro chisel set	774

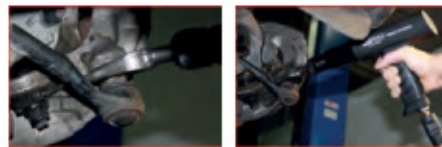
consists of:

		Weight
515.3886	Pneumatic chisel track rod loosener, 110mm	138
515.3887	Pneumatic chisel hammer, 110mm	148
515.3888	Pneumatic chisel loosening adapter, 130mm	159
515.3889	Pneumatic chisel loosening mandrel, 100x25x12mm	190

**Vibro Power hammer chisel accessories**

- Supplements Vibro-Power System 515.3880
- Can be used universally for bodywork and chassis repairs
- Expanded areas of use
- Utilises the vibration and impact impulse of the Vibro-power pneumatic hammer
- Robust, made from one piece of forged chisel

**Application:** For removing ball bearing joints and bolts



		Weight
515.3961	10 mm Punch Ø6.5mm	95
515.3967	Vibro Power fork separator 20mm	295
515.3968	Vibro Power fork separator 24mm	375
515.3969	Vibro Power fork separator 35mm	395

### Impact tie rod tool

- Vibration supported release of tracking rods, contoured screws or screws in the axle area, etc.
- Adjustable in connection with a pneumatic chisel hammer
- Thanks to the special vibrating mandrel, an impact impulse is given to the screws to be released
- which loosens the rust and aids the release process
- For 10 mm machine attachment
- Special steel

**Caution:** May only be used alongside a pneumatic chisel hammer



	Width mm	Length mm	opening mm	
150.1608	50.0	290.0	27.0	2.36

### Vibro-Power ball joint releaser

- Vibration supported release on ball joints
- Adjustable, e.g. conical seat connections to wheel bearing houses and wishbones
- Pneumatic chisel adapter (10 mm) for use with pneumatic chisel hammers on the market
- Special steel

**Caution:** May only be used alongside a pneumatic chisel hammer



	Length mm	Width mm	Height mm	Drive	
515.3884	68.0	40.0	130.0	Ø 10 mm	340

### SEPARATION AND ASSEMBLY FORK

#### Separation and assembly fork set

- With interchangeable fork heads
- With a manual handle grip (200 mm) for use with hammer
- Pneumatic chisel adapter (10 mm) for use with pneumatic chisel hammers on the market
- For the quick release of tracking and push rod bodies, steering arm levers and other steering parts
- Ideally suited to narrow spaces
- Special steel
- In durable plastic storage case



670.0090	5 pcs Separation and assembly fork set	1.90

consists of:

670.0085	Handle grip, 200 mm	420
670.0086	Pneumatic chisel adapter	160
670.0087	Forked head 17,5 x 70 mm	290
670.0088	Forked head 23,5 x 70 mm	300
670.0089	Forked head 28,5 x 70 mm	370

#### Separating and assembly fork

- For quick loosening of track and steering rod ends steering arms and additional controlling parts
- Ideal for confined spaces
- Special steel



	A mm	L mm	
670.0091	18	330.0	0.90
670.0092	23	330.0	0.90
670.0093	31	330.0	1.10
670.0094	35	330.0	1.30
670.0095	45	330.0	1.50

### TRACK ROD TOOLS

#### 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)
- Square drive 1/2"
- For use on the workbench or directly on the vehicle
- Special steel



150.1635	1-50	1-42	300

#### 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)
- 1/2" drive
- For use on the workbench or directly on the vehicle
- Additional stopper prevents slipping during the splitting process
- Special steel



150.1642	25-55	25-46	800

### 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)
- 1/2" drive
- For use on the workbench or directly on the vehicle
- Additional stopper prevents slipping during the splitting process
- Special steel



150.1640	23-45	31-35	300

### Special axial joint wrench set

- For the disassembly of axle joints on the track rods
- 3 special parts from 30-45 mm
- Usable on square, hexagonal, octagonal and round external profiles
- Gentle removal without damaging the external joint surfaces
- Frictional connection
- For narrow spaces
- Special steel
- In durable plastic storage case



150.1125	4 pcs Special axial joint wrench set	4.72

consists of:

150.1126	Drive special wrench, 360 mm	1160
150.1127	Special piece, 30-35 mm	750
150.1128	Special piece, 35-40 mm	760
150.1129	Special piece, 40-45 mm	1060

**Special axial joint wrench**

- For removal and installation of axial joints on track rods
- For use on square, hexagonal, octagonal and round outside profile
- Gentle removal and installation without damaging the joint outer surface
- Positive connection
- For working in confined spaces
- Special steel



	mm	mm	L mm	kg
150.1600	30	35 - 45	420.0	1.82

**Adjustable pliers for push rods**

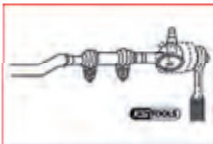
- For releasing and adjusting secure or hard-to-reach push rods with a diameter of 14-23 mm
- Special flange shape on the clamp jaw to prevent damage to the push rod
- Optimal force distribution
- With two handles
- Special steel



	mm	Length mm	kg
150.1602	14-23	260 / 390	1000

**Tie rod end socket**

- For simple installation and removal of push rod bodies
- Universal usage
- Internal square drive to DIN 3120/ISO 1174
- Special steel



	Length mm	U opening mm	Inner Ø mm	kg
150.1627	57.0	35x19	23.8	490

**Insertable open-ended wrench**

- For tightening and loosening pipe connections
- For manual operation
- Internal square drive to DIN 3120/ISO 1174
- Special steel

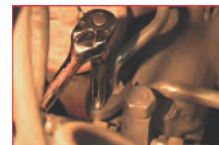


	mm	kg
913.1941	18	140
913.1942	22	150
913.1943	24	160
913.1944	27	170
913.1945	32	180
913.1946	34	220
913.1947	36	230
913.1948	37	240
913.1949	38	280
913.1950	41	380

**Crows foot spanner**

- 12-point
- For tightening and loosening pipe connections
- For manual operation
- Slim design
- For hard-to-reach areas
- Burnished
- Special steel
- In durable plastic storage case

**Application range:** Commercial vehicles, construction vehicles, agricultural vehicles, town and forest vehicles, etc.



		mm	kg
913.1301	3/8"	19	62
913.1302	1/2"	21	94
913.1303	1/2"	22	112
913.1304	1/2"	24	120
913.1305	1/2"	27	153
913.1306	1/2"	30	170
913.1307	1/2"	32	168
913.1308	3/4"	36	337
913.1309	3/4"	41	400
913.1310	3/4"	46	632

**XXL wobble extension**

- Internal square to DIN 3120/ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Matt finish
- Chrome vanadium



	L mm	kg
911.1548	350.0	150
911.1549	600.0	260

**XXL wobble extension**

- Internal square to DIN 3120/ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Matt finish
- Chrome vanadium



	L mm	kg
911.1487	450.0	0.75
911.1488	600.0	1.00
911.1489	750.0	1.25

**One handed multi function spanner**

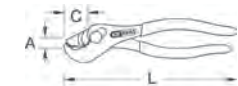
- Multi-function wrench with ratchet function
- For all screw work
- Adapts itself automatically to the screw size
- Self-clamping on flange pipes, bolts, shafts, and unscrewed bodies of hexagonal screws
- No slips thanks to the coarse teeth
- Chrome vanadium



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

**Special pipe wrench**

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



	A mm	L mm	C mm	kg
115.1361	0-16	178.0	23.0	180

**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



	A mm	L mm	
115.1362	0-30	242.0	470

**Special pipe wrench**

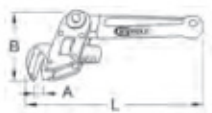
- 6 stage industrial adjustment
- PVC dipped handle
- Optimum power transfer
- Grooved handle adjustment
- Polished surface
- Ideally suited for twisting both thrust and track rods
- Usably on axle joints and exhaust pipes
- Chrome vanadium



	A mm	L mm	C mm	
115.1363	0-51	345.0	41.0	1.10

**Pipe wrench with adjustable head**

- Type "Stillson"
- Aluminium cast body
- Upper jaw HRC 54-57
- Lower jaw HRC 52-55
- Stepless adjustment via milled nut
- 160° revolving handle
- Aluminium handle



	A	B mm	L mm	
111.3550	1.1/2	97.0	250.0	650

**TRACKING ADJUSTMENT TOOLS**

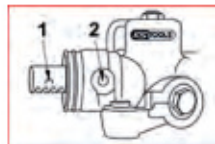


Push rod installation tools for the rear axle can be found in section 21 – Axles on page 545.

**Locking screw to the gear rack centring for VAG**

- Ideally suited to the correct gear rack centre positioning of the steering in order to also carry out the camber initial installation
- Insert screws after ensuring floor consistency of the steering with the housing boreholes
- Special steel

**Application range:** Audi A4, A6, Volkswagen Passat from 1997 onwards

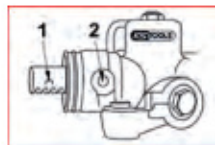


700.1694	Locking screw to the gear rack centring for VAG 20

**Locking screw set for gear rack centring**

- Ideally suited to the correct gear rack centre positioning of the steering in order to also carry out the camber initial installation
- Insert screws after ensuring floor consistency of the steering with the housing boreholes
- Special steel

**Application range:** Mercedes W107, W114, W115, W116



700.1690	3 pcs Locking screw set for gear rack centring 100

consists of:

700.1691	Locking screw 1 33
700.1692	Locking screw 2 33
700.1693	Locking screw 3 33

**Push rod gauge set**

- Ideally suited to changing track rod heads
- No further measurement of the axle required
- Saves times and reduces costs
- Special steel
- In durable plastic storage case



700.1685	9 pcs Push rod gauge set 2.80

consists of:

	X	
700.1686	1 Device with guide bolts for joint head fix g	325
700.1687	2 Clamp jaws for device	182
700.1688	1 Joint head fixi g, long, Ø 12 mm	280
700.1689	1 Joint head fixi g, short, Ø 12 mm	190
700.1695	1 Joint head fixi g, Ø 10 mm	170
700.1696	1 Joint head fixi g, Ø 17.5 mm	222
700.1697	1 Adapter for device and joint head fixi g	261
700.1698	1 Depth gauge for four-wheel drive axles (VAG)	203

**VAG multi-link axle gauge auxiliary bridge set**

- Ideally suited to front track centring
- Also suitable for installation
- Includes six adapter pairs
- Can also be used on lowered vehicles
- Robust design
- Aluminium bridge
- Adapter made from special steel

**Application range:** Audi A4, A6, A8 and Volkswagen Passat as well as all VW group vehicles with multi-drive axles



700.1630	13 pcs VAG multi-link axle gauge auxiliary bridge set 29.10



consists of:

700.1631	Axle gauge auxiliary bridge	24.20	
700.1632	Adapter set with thread, Audi A8, long, 2 pcs	1.35	
700.1633	Adapter set with thread, Audi A8, short, 2 pcs	0.22	
700.1634	Adapter set without thread, Audi A8, long, 2 pcs	0.75	
700.1635	Adapter set with thread, Audi A4, long, 2 pcs	1.02	
700.1636	Adapter set with thread, Audi A4, short, 2 pcs	0.82	
700.1637	Adapter set without thread, Audi A4, short, 2 pcs	0.49	

**CAMBER ADJUSTMENT TOOLS**

**Camber level**

- Ideally suited to adopting the prescribed camber adjustment values before removing the shock absorbers
- The level is secured with the magnetic side on the brake discs or wheel hubs and the value can be read
- Following the repair the adjustment value is easily restored
- Quick and correct work without a great amount of effort
- Saves measuring the axle
- With adjustment wheel to allow for a zero setting
- Includes strong magnetic feet
- In durable plastic storage case

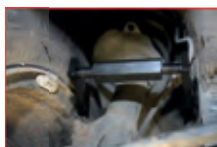


Total length mm		
150.9431	125.0	450

**Camber adjustment tool**

- Ideally suited to setting the camber on vehicles with separated spring feet
- One-man operation
- The tool is tensioned between the rim and the bodywork (wings)
- Clear reduction in time required
- Adjustment is carried out by turning the sturdy hexagonal nut
- External drive hexagonal socket 22.0 mm
- Special steel

**Application range:** Seat Toledo, Volkswagen Golf, Jetta, etc.

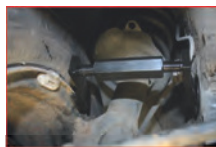


Clamping range mm		
150.9415	135.0 - 175.0	1.16

**Camber adjustment tool**

- Ideally suited to setting the camber on vehicles with separated spring feet
- One-man operation
- The tool is tensioned between the rim and the bodywork (wings)
- Clear reduction in time required
- Adjustment is carried out by turning the sturdy hexagonal nut
- External drive hexagonal socket 22.0 mm
- Special steel

**Application range:** Seat Cordoba, Volkswagen Polo > 1995, etc.



Clamping range mm		
150.9420	135.0 - 200.0	1.21

**Camber setting tool for BMW**

- Ideally suited to setting the camber on the front axle
- It is used after knocking out the locating bolt of the strut bearing in a downwards direction via the spring strut bearing
- Quick and correct work without a great amount of effort
- One-man operation
- The adjustment process is carried out via the exact alignment of the upper spring strut bearing
- Without this tool the correct and exact adjustment of the camber is almost impossible
- Aluminium

**Application range:** BMW 1 series (E81, E82, E87, E88), 3 series (E46, E90, E91, E92, E93), X3 (E83), X5 (E53), Z4 (E85, E86)



	Ø mm	Height mm	
150.1821	82,0	25,0	347

**Camber setting tool for BMW**

- Ideally suited to setting the camber on the front axle
- It is used after knocking out the locating bolt of the strut bearing in a downwards direction via the spring strut bearing
- Quick and correct work without a great amount of effort
- One-man operation
- The adjustment process is carried out via the exact alignment of the upper spring strut bearing
- Without this tool the correct and exact adjustment of the camber is almost impossible
- Aluminium

**Application range:** BMW 5 series, (E39, E60, E61), 6 series (E63, E64), 7 series (E38, E65, E66, E67)

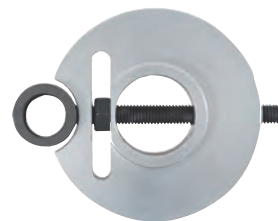
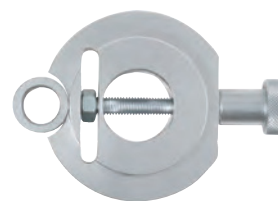


	Ø mm	Height mm	
150.1822	83,0	17,0	343

**BMW camber setting tool set**

- Ideally suited to setting the camber on the front axle
- It is used after knocking out the locating bolt of the strut bearing in a downwards direction via the spring strut bearing
- Quick and correct work without a great amount of effort
- One-man operation
- The adjustment process is carried out via the exact alignment of the upper spring strut bearing
- Without this tool the correct and exact adjustment of the camber is almost impossible
- Aluminium

**Application range:** BMW 1 series (E81, E82, E87, E88), 3 series (E46, E90, E91, E92, E93), 5 series, (E39, E60, E61), 6 series (E63, E64), 7 series (E38, E65, E66, E67), X3 (E83), X5 (E53), Z4 (E85, E86)



150.1820	2 pcs BMW camber setting tool set	689

consists of:

150.1821	BMW camber adjustment tool, 1 series, 3 series, X3, X5, Z4	347
150.1822	BMW camber adjustment tool, 5 series, 6 series, 7 series	343

**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	
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

**ERGOTORQUE<sup>plus</sup> sock et screwdriver, extra long**

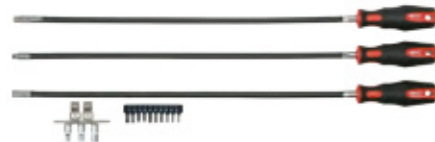
- 6 point
- Flexible
- Limited torque
- Double spiral shaft
- Plastic protective coating
- Two component handle
- With hanging hole
- Chrome vanadium



	Ø mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	Ø
911.1175	5	11.9	614.0	500.0	114.0	8.9	270
911.1176	6	10.9	614.0	500.0	114.0	11.3	280
911.1177	7	11.7	614.0	500.0	114.0	11.3	280
911.1178	8	11.7	614.0	500.0	114.0	11.3	280

**ERGOTORQUE<sup>®</sup> 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

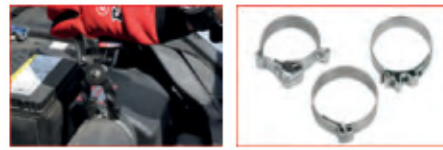


	Ø mm	Length mm	Weight g
911.1180	16 pcs	ERGOTORQUE <sup>®</sup> screwdriver set	1.30
1 x	1/4"		
1 x	1/4"		
1 x	7 mm		
3 x	5 - 6 - 8 mm		
2 x	5.5 - 6.5 mm		
2 x	PH1 - PH2		
6 x	T10 - T15 - T20 - T25 - T27 - T30		



**Hose clamp pliers**

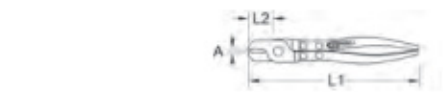
- With moveable jaws
- 45° angled head
- Suitable for the correct assembly and disassembly of Click, Click-R and Cobra clamps
- Also suitable for self-tensioning hose clamps with 13 pinch ends
- Suitable for narrow spaces
- Chrome molybdenum



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

**Hose clamp pliers, ear type**

- 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



	A mm	L1 mm	L2 mm	Weight g
115.1039	0-60	230.0	25.0	320

**Hose clip pliers for earless hose bands**

- With PVC dipped handle
- For working of earless clamps
- Also suitable for thermoplastic axle boots
- Uniform compressing of the ear piece
- No damage to the sleeve
- With lever translation
- Nickel-plated finish
- Chrome molybdenum

**Application range:** Axle boots for Audi, BMW, Chrysler, Ford, GM, Honda, Mazda, Mercedes, Nissan, Opel, Porsche, Volkswagen, etc.

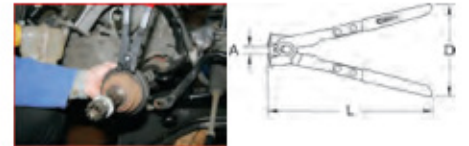


	Ø mm	Length mm	Weight g
115.1210	100	248.0	330

**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	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**

- Work side
- For compressing locking hose clips
- With PVC dipped handle
- Chrome vanadium



	L mm	Weight g
115.1185	240.0	335

**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	
115.1056	0-45	270.0	880

**Plier for stainless steel ball-lock cable ties**

- Ideal for working stainless steel cable binders
- Can be used up to a tape width of 12 mm
- Controlled tensioning and precise cutting off of the cable binder in a single step
- Tensile force is determined by the operator
- Suitable for steel, stainless steel and epoxy cable binder
- Special steel



	Length mm	
115.1590	210.0	650

**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.



115.1104 4 pcs Automotive hose clamp pliers set	1,12

consists of:

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



**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



	L mm	
115.1186	220.0	345

**Stainless steel ball-lock cable ties**

- Ideal for fastening axle boots, steering joints, etc.
- Adjustable as desired
- Stainless steel 304



	Length mm	Width mm	Content	
115.1591	200.0	4.6	100	200
115.1592	250.0	4.6	100	300
115.1593	350.0	4.6	100	400
115.1594	500.0	4.6	100	500

**Clamping and cutting tool for tubing bands**

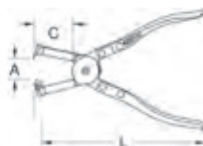
- Straps for attaching to CV joint boots
- Integrated clamping and cutting device
- Suitable for prefabricated and endless band clamps up to 9.5 mm
- Special steel



	L mm	
115.1059	163.0	437

**Hose strap cutter, angled**

- For cutting off earless hose clamps
- 45° angled head
- For connections on axle boots, cooler and fuel hoses
- Damage-free opening of clamps and tubing bands
- Universal usage
- Nickel-plated finish



	A mm	C mm	L mm	
115.1191	0 - 30.0	50.0	230.0	330

**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

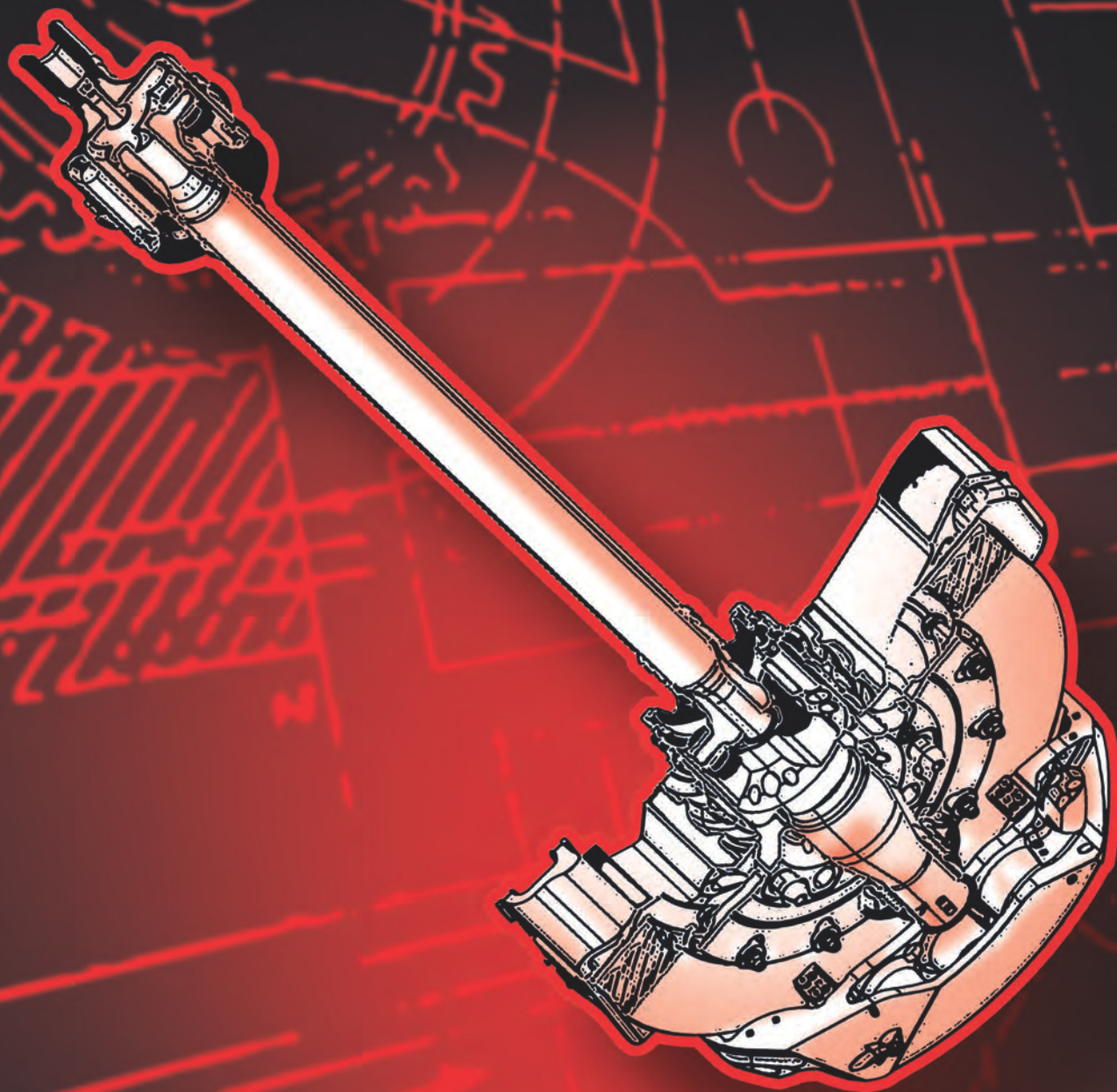


115.1055 7 pcs Automotive hose clamp pliers set	4,00

consists of:

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

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Innovation is  
our mission!



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## WHEEL BEARING SYSTEM PP I

### Tool set for compact wheel hub/bearing unit

- Includes spindle M18/M20
- Enables use directly on the vehicle
- Minimum labour - high time savings
- Safe and simple use
- Use also in connection with workshop press
- Possible expansion for bearing  $\varnothing$  62+66 mm
- Special steel

**Application area:** Audi A2 from MY 00, Skoda Fabia from MY 00, Volkswagen Polo from MY 02 / Fox from MY 05, Seat Ibiza from MY 02, etc.



		$\varnothing$ mm	
150.2145	10 pcs	72,0	9,74

#### consists of:

X		
150.2146	1 Drive unit, 3 pcs	0,54
150.2134	1 Pressure bell universal with bore hole M22	2,10
150.2133	1 Half cup pair black for bearing $\varnothing$ 72mm	1,71
150.2149	1 Thrust piece for 150.2143	0,43
150.2138	3 Fixing screw for half cup, M14x1,5	0,05

### Drive spindle

- As complement to wheel bearing puller 150.2145-1
- Special steel



#### Technical data:

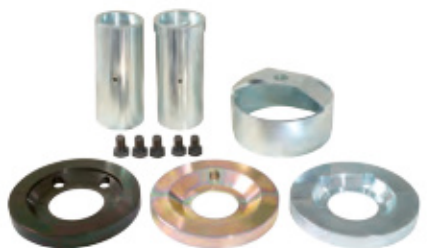
Thread:	M20
Drive spindle:	External hexagon 22,0 mm
Drive nut:	External hexagon 30,0 mm

		L mm	
150.2146	3 pcs	300,0	540

### 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:** Volkswagen-Polo new, Audi A2, Skoda Fabia, Seat Ibiza



150.2130	14 pcs VAG wheel bearing tool set	17,20

#### consists of:

X		
150.2131	1 Half cup pair anodised for bearing $\varnothing$ 62mm	1,99
150.2132	1 Half cup pair chrome for bearing $\varnothing$ 66mm	1,46
150.2133	1 Half cup pair black for bearing $\varnothing$ 72mm	1,71
150.2134	1 Pressure bell universal with bore hole M22	2,10
150.2135	1 Thrust bearing, 66/72mm, L=160mm	4,20
150.2136	1 Thrust bearing, 62mm, L=160mm	4,03
150.2137	2 Fixing screw for half cup, M12x1,5	0,03
150.2138	3 Fixing screw for half cup, M14x1,5	0,05

### Half cup auxiliary kit $\varnothing$ 62 mm

- As complement to 150.2145
- Special steel

**Application range:** Volkswagen Lupo, Audi A2 1.2L, etc.



		$\varnothing$ mm	
150.2141	5 pcs	62,0	3,00

#### consists of:

X		
150.2147	1 Thrust piece for 150.2141	427
150.2131	1 Half cup pair anodised for bearing $\varnothing$ 62mm	1990
150.2137	2 Fixing screw for half cup, M12x1,5	30

### Half cup auxiliary kit $\varnothing$ 66 mm

- As complement to 150.2145
- Special steel

**Application range:** Volkswagen Polo from MY 02, Skoda Fabia from MY 00, etc.



		$\varnothing$ mm	
150.2142	6 pcs	66,0	3,10

#### consists of:

X		
150.2148	1 Thrust piece for 150.2142	427
150.2132	1 Half cup pair chrome for bearing $\varnothing$ 66mm	1460
150.2138	3 Fixing screw for half cup, M14x1,5	50

### Half cup auxiliary kit $\varnothing$ 72 mm

- As complement to 150.2145
- Special steel

**Application range:** Audi A2 from MY 00, Skoda Fabia from MY 00, Volkswagen Polo from MY 02 / Fox from MY 05, Seat Ibiza from MY 02, etc.



		$\varnothing$ mm	
150.2143	6 pcs	72,0	2,90

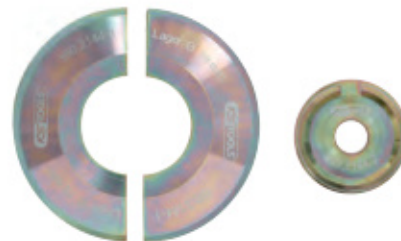
#### consists of:

X		
150.2149	1 Thrust piece for 150.2143	427
150.2133	1 Half cup pair black for bearing $\varnothing$ 72mm	1710
150.2138	3 Fixing screw for half cup, M14x1,5	50

### Half-shell expansion set $\varnothing$ 78 mm

- To expand 150.2145
- Special steel

**Application range:** Ford Focus, Volvo



150.2144	3 pcs Half-shell expansion set $\varnothing$ 78 mm	2,50

#### consists of:

150.2144-2	Pressure piece, 80 x 20 x 22 mm	0,61
150.2144-1	Half-shell set, 2 pcs (gold)	1,84

## HYDRAULIC SYSTEM PP II

### Pressure and pull hydraulic cylinder set, 8,5t

- For the assembly and disassembly of silent bearings, steering pin bolts, wheel bearings, etc.
- Can be used in the narrowest of spaces
- With adjustable pressure rods and impact body
- With automatic piston return
- Special steel



#### Technical data cylinder

Capacity:	8,5 t
Connection thread:	Cojn quick coupling
Piston:	Industrial forged execution
piston-inner thread:	M22
outer thread:	1.1/2"
Stroke:	25,0 mm

440.0020	4 pcs Pressure and pull hydraulic cylinder set, 8,5t	2,19

#### consists of:

440.0021	Hydraulic cylinder, 8,5 t	1800
440.0022	Impact body with sealing ring	140
440.0023	Adjustable pressure rod M22, L = 100 mm	240
440.0024	(CEJN) Nipple hydraulic for connection thread 1 1/2"	10

**Pressure and pull hydraulic cylinder set, 16t**

- For the assembly and disassembly of silent bearings, steering pins, track rod ends, wheel bearings, etc.
- Suitable for both pressurised and tensioned uses
- With impact body for screwing in
- Extremely high and uniform power construction
- Universal usage with reduction M10-M22
- Special steel



**Technical data cylinder**

Capacity:	16 t
Connection thread:	Cejn quick coupling
Piston:	industrial forged execution
piston-inner thread:	M22
outer thread:	1.1/2"
Stroke:	67.0 mm

440.0005	10 pcs	Pressure and pull hydraulic cylinder set, 16t	5.48
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**consists of:**

440.0001	Hydraulic cylinder, 16 t	3380
440.0002	Pressure axle, M24 x 3 mm, L = 129.5 mm	600
440.0003	Pressure foot, M24 x 3 mm	90
440.0004	Adjustable pressure rod M24, L = 92 mm	240
440.0006	Protective ring for thread, 2.1/4"	100
440.0007	Collar nut, M18	80
440.0008	Pressure rod, M18/M22, L = 250 mm	440
440.0011	Impact body, M22 x 2.5 mm	220
440.0012	Adjustable pressure sleeve, M24, L = 132 mm	320
440.0009	(CEJN-) Nipple hydraulic for connection thread 1/4"	10

**Pressure and pull hydraulic cylinder set, 22t**

- For the assembly and disassembly of silent bearings, steering pins, track rod ends, wheel bearings, etc.
- Suitable for both pressurised and tensioned uses
- With impact body for screwing in
- Extremely high and uniform power construction
- Universal usage with reduction M10-M22
- Ideally suited to transporters
- With automatic piston return
- Special steel



**Technical data cylinder**

Capacity:	22 t
Connection thread:	Cejn quick coupling
Piston:	industrial forged execution
piston-inner thread:	M22
outer thread:	1.1/2"
Stroke:	70.0 mm

440.0010	10 pcs	Pressure and pull hydraulic cylinder set, 22t	6.90
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**consists of:**

440.0013	Hydraulic cylinder, 22 t	4640
440.0011	Impact body, M22 x 2.5 mm	220
440.0003	Pressure foot, M24 x 3 mm	90
440.0004	Adjustable pressure rod M24, L = 92 mm	240
440.0006	Protective ring for thread, 2.1/4"	100
440.0014	Pressure axle, M24 x 3, L = 151 mm	740
440.0016	Adjustable pressure sleeve, M24, L = 109 mm	340
440.0007	Collar nut, M18	80
440.0008	Pressure rod, M18/M22, L = 250 mm	440
440.0009	(CEJN-) Nipple hydraulic for connection thread 1/4"	10

**Pressure and pull hydraulic cylinder set, 32t**

- Optimal for universal use in car garages
- Suitable for both pressurised and tensioned uses
- Extremely high and uniform power construction
- Industrial design with forged piston
- Pressure of the hydraulic cylinders can be combined with the impact body with impact force during use
- Universal usage with reduction M10-M22
- Ideally used with transporters and commercial vehicles
- Special steel



**Technical data cylinder**

Capacity:	32 t
Connection thread:	Cejn quick coupling
Piston:	industrial forged execution
piston-inner thread:	M24
outer thread:	2.1/2"
Stroke:	113.0 mm

440.0025	6 pcs	Pressure and pull hydraulic cylinder set, 32t	9.35
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**consists of:**

440.0026	Hydraulic cylinder, 32 t	8020
440.0016	Adjustable pressure sleeve, M24, L = 109 mm	340
440.0027	Protective ring for thread, 2.5	200
440.0028	Collar nut, M22	160
440.0029	Pressure rod, M22, L = 250 mm	620
440.0009	(CEJN-) Nipple hydraulic for connection thread 1/4"	10

**Short-stroke hydraulic cylinder set, 14t**

- For the assembly and disassembly of silent bearings, steering pin bolts, wheel bearings, etc.
- With adjustable pressure rod
- Maximum pressure with little effort
- Especially for use with press tool and press stand 440.0190 and 440.0180
- With automatic piston return
- Special steel



**Technical data cylinder**

Capacity:	14 t
Connection thread:	Cejn quick coupling
Piston:	industrial forged execution
piston-inner thread:	M24
outer thread:	1.1/2"
Stroke:	55.0 mm

440.0015	3 pcs	Short-stroke hydraulic cylinder set, 14t	2.67
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**consists of:**

440.0017	Hydraulic cylinder, 14 t	2420
440.0004	Adjustable pressure rod M24, L = 92 mm	240
440.0009	(CEJN-) Nipple hydraulic for connection thread 1/4"	10

**Pull rod, collar nut, adapter set**

- Universal usage
- Extremely robust spindle with inductive hardened thread (M10-M22)
- Optimal use with trucks, transporters and commercial vehicle tools with corresponding reduction
- Ideally suited to hydraulic cylinders 440.0005, 440.0010 and 440.0020
- Special steel

**Caution:** The spindles must be greased before fit use!



440.0040	13 pcs	Pull rod, collar nut, adapter set	1.98
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**consists of:**

440.0041	Pressure rod, M10	80
440.0042	Pressure rod, M12	180
440.0043	Pressure rod, M14	240
440.0008	Pressure rod, M18/M22, L = 250 mm	440
440.0029	Pressure rod, M22, L = 250 mm	620
440.0044	Adaptor, M22-M10	50
440.0045	Adaptor, M22-M12	50
440.0046	Adaptor, M22-M14	40
440.0047	Collar nut, M10	20
440.0048	Collar nut, M12	20
440.0049	Collar nut, M14	60
440.0007	Collar nut, M18	80
440.0028	Collar nut, M22	160

**Hydraulic foot pump set**

- For simple acting press cylinder
- Safety valve for prevention against too much force
- With automatic return
- Includes hydraulic hose with quick coupling



**Technical data:**

Connection thread:	Cejn quick coupling
Volume:	0,75 l
Operating pressure:	700 bar
Tube length:	2200 mm

440.0060	4 pcs	Hydraulic foot pump set	7.83
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**consists of:**

440.0057	Hydraulic hose, 2200 mm	900
440.0058	Cejn quick coupling	200
440.0061	Hydraulic foot pump	6720
440.0070	Seal set	10

### Pneumatic hydraulic pump set

- Pneumatic operation
- For simple acting press cylinder
- Safety valve for prevention against too much force
- With automatic return
- Includes hydraulic hose with quick coupling



#### Technical data:

Connection thread:	Cejn quick coupling
Volume:	1,4 l
Operating pressure:	700 bar
Tube length:	2200 mm

440.0055	3 pcs	Pneumatic hydraulic pump set	6.32
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#### consists of:

440.0056	Pneumatic hydraulic pump	5220
440.0057	Hydraulic hose, 2200 mm	900
440.0058	Cejn quick coupling	200

### Manometer

- With Cejn quick coupling for direct coupling to all KS Tools hydraulic pumps
- With easy-to-read scale in psi and bar

**Caution:** The maximum pressure values for the hydraulic cylinder and given in the appropriate operator's manual



440.0063	Manometer	500
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### ADAPTER

#### Klann hydraulic to KS PP2-tool

- For using the Klann hydraulic cylinder (17 t) with KS Tools tool 1.1/2" internal thread
- Adapter 2.1/4"-14 UNS (Klann thread) to 1.1/2" PP2
- Special steel



440.0038	Klann hydraulic to KS PP2-tool	1.08
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#### KS hydraulic PP2 to Klann tools

- For use with the KS Tools hydraulic cylinder PP2 (8,5-22 t) with Klann special tool
- Adapter 1.1/2" PP2 to 2.1/4"-14 UNS (Klann thread)
- Special steel



440.0036	KS hydraulic PP2 to Klann tools	200
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#### KS hydraulic PP2 to Klann (commercial vehicles-commercial vehicles-special tools)

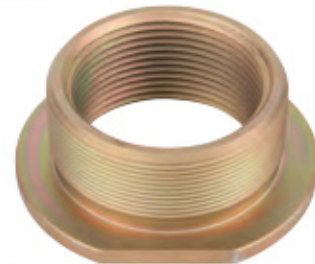
- For using the KS tools hydraulic cylinder PP2 (32t) with the Klann special tool (connection 2.3/4"-16 UNS)
- Adapter 1.1/2" PP2 to 2.3/4"-16 UNS (Klann thread)
- Special steel



440.0409	KS hydraulic PP2 to Klann (commercial vehicles-commercial vehicles-special tools)	140
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#### KS hydraulic PP2 to Sauer, Müller, KS PP1 tools

- For use of the KS Tools hydraulic cylinder PP2 (8,5-22 t) with Sauer-, Müller-, KS PP1 special tools
- Adapter 1.1/2" PP2 to 2.1/4"-16 UN (Sauer, Müller, KS PP1)
- Special steel



440.0034	KS hydraulic PP2 to Sauer, Müller, KS PP1 tools	230
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#### Paschke hydraulic to KS PP2 tools

- For using the Paschke hydraulic cylinder with KS Tools special tools PP2
- Adapter M68x2 mm (Paschke thread) to 1.1/2" PP2
- Special steel



440.0407	Paschke hydraulic to KS PP2 tools	1240
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#### KS hydraulic to Paschke tools

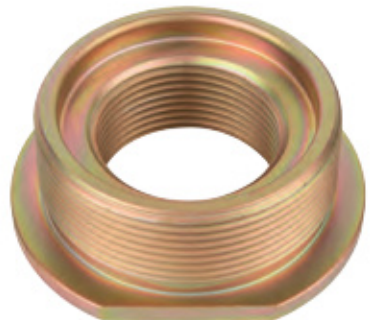
- For using the Paschke KS Tools hydraulic cylinder PP2 (8,5-22 t) with Paschke special tools
- Adapter 1.1/2" PP2 auf M68x2 mm (Paschke thread)
- Special steel



440.0408	KS hydraulic to Paschke tools	330
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#### KS hydraulic PP2 to KS commercial vehicles-special tools

- For use with hydraulic cylinder PP2 (16 and 22 t) to KS Tools tools PP2 with 2.1/2" thread
- Adapter 1.1/2" PP2 to 2.1/2" thread PP2 (large traverse - commercial vehicles)
- Special steel



440.0037	KS hydraulic PP2 to KS commercial vehicles-special tools	570
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### UNIVERSAL SPINDLE DRIVE

#### Mechanical spindle set

- Universally usable pressure rod including collar nut and pressure piece
- Extremely robust spindle with inductively hardened thread
- Ideally suited to tool sets 440.0075, 440.0065, 440.0095, 440.0100, 440.0073 and 440.0105
- Special steel

**Caution:** The spindles must be greased before fit use!



440.0035	4 pcs	Mechanical spindle set	1.11
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#### consists of:

440.0031	Pressure rod with collar nut, M18, L = 330 mm	660
440.0032	Ring washer	60
440.0033	Pressure disk, Ø 65 mm	310
440.0007	Collar nut, M18	80



**WHEEL BEARING ASSEMBLY SYSTEM PP II**

**Universal tool set for compact wheel bearing assembly**

- For the assembly of compact wheel bearings with and without securing ring
- Correct installation directly on the vehicle
- Max. load 22 t
- Adjustability allows for use on all compact bearing types
- Can be used with hydraulic cylinders or mechanical spindles
- Minimum work time
- Secure and easy to use
- Can be used alongside 440.0072, 440.0069, 440.0071 and 440.0064
- Special steel

**Recommended hydraulic cylinder:** 16 t (4400005) and 22 t (440.0010)

**Application range:** Volkswagen Polo, Lupo, Touareg, Fox, T5; Audi A2; Seat Ibiza, Cordoba; Škoda Fabia; Ford Focus, C-Max, Mondeo, S-Max, Kuga; Landrover Freelander 2; Mazda 3-5, 6, CX-7; Mercedes Sprinter, Vito; Volvo V50, S40, V70, S80, XC60; Mitsubishi Colt; Smart Forfour



440.0065	9 pcs	Universal tool set for compact wheel bearing assembly	7.25
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consists of:

X			
440.0066	1	Securing plate	2080
440.0067	4	Press foot	1240
440.0068	4	Screw, M14 x 30	60

**Assembly retainer plate Ford/Mazda/Volvo**

- Ideal for compact bearing insertion as a retainer
- Secure and easy to use
- Optimal fit
- Suitable for spindle M20
- Special steel

**Application range:** Ford Mondeo, Focus, C-Max; Mazda 3, 6; Volvo V70, S40, V50



440.0072	19.5	1420
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**Assembly ring Ford/Mazda/Volvo**

- Ideal for pressing in compact bearings
- Special steel

**Application range:** Volvo V70 > 2007, Ford Mondeo, Mazda 6



440.0069	Assembly ring Ford/Mazda/Volvo	60
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**Retainer plate assembly, Volkswagen**

- Ideal for retaining during wheel bearing assembly
- Simple handling
- Suitable for spindle M20
- Special steel

**Application range:** Volkswagen T5, Touareg

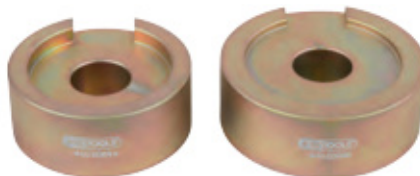


440.0071	19.5	2080
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**Assembly retainer plate Volkswagen/Audi/Seat/Skoda**

- Ideal for compact bearing insertion as a retainer
- Simple handling
- Suitable for spindle M20
- Special steel

**Application range:** Volkswagen Polo, Lupo, Fox, Audi A2, Seat Ibiza, Cordoba, Škoda Fabia, Smart Forfour, Mitsubishi Colt



440.0064	20.25	1200
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**WHEEL HUB DISASSEMBLY SYSTEM PP II**

**Universal tool for compact wheel bearing assembly**

- For the disassembly of compact wheel bearings with or without securing ring
- Correct disassembly directly on the vehicle
- Max. load 22 t
- Adjustability ensures use on all compact bearing types
- Can be used with hydraulic cylinders or mechanical spindles
- Minimum work time
- Secure and easy to use
- Can be used alongside 440.0074
- Special steel

**Recommended hydraulic cylinder:** 16 t (4400005) and 22 t (440.0010)

**Application range:** Volkswagen Polo, Lupo, Touareg, Fox, T5; Audi A2; Seat Ibiza, Cordoba; Škoda Fabia; Ford Focus, C-Max, Mondeo, S-Max, Kuga; Landrover Freelander 2; Mazda: 3-5, 6, CX-7; Mercedes Sprinter, Vito; Volvo V50, S40, V70, S80, XC60; Mitsubishi Colt; Smart Forfour

440.0073	Universal tool for compact wheel bearing assembly	7.32
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consists of:

440.0501	Locking screw M14	200
440.0502	Screw M12	50
440.0503	Traverse	2780
440.0507	Disassembly - pressure foot set for compact wheel bearings, 2 pcs.	4200

**Universal disassembly disk, conical**

- Conical disk for the assembly of compact wheel bearings
- Suitable for all sizes
- Special steel



440.0074	Universal disassembly disk, conical	110
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**Universal wheel bearing drive axle hub set**

- Universal front-wheel bearing set with combined wheel hub/ drive shaft frame
- Ideal for use alongside hydraulic cylinders or mechanical spindles
- For the assembly and disassembly of wheel bearings, hubs and drive shafts directly on the vehicle
- No removal of the ABS sender, axle joint, spring feet or track rod joint
- Saves a lot of time since the axle does not need to be measured again
- Secure and easy to use
- Can be used alongside 440.0095, 440.0150 and 440.0100
- Special steel

**Recommended hydraulic cylinder:** 16 t (4400005) and 22 t (440.0010)



440.0075	16 pcs	Universal wheel bearing drive axle hub set	11.14
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consists of:

440.0076	Hub screw, Ø 32 mm	30
440.0077	Hub screw, Ø 40 mm	70
440.0078	Hub screw, Ø 45 mm	100
440.0079	Hub screw, Ø 52 mm	130
440.0081	Pressure disk, 18 mm	550
440.0082	Adaptor for 440.0075	150
440.0083	Retainer, 122 mm	810
440.0084	Pressure tube, Ø 54 mm	500
440.0086	Bearing shell, 77 mm	780
440.0087	Bearing screw, Ø 63 mm	300
440.0088	Bearing screw, Ø 68 mm	350
440.0089	Bearing screw, Ø 71 mm	400
440.0091	Bearing screw, Ø 74 mm	440
440.0092	Bearing screw, Ø 78 mm	480
440.0093	Bearing screw, Ø 83 mm	550
440.0094	Press frame for drive shaft and hub	5500

### Bearing and hub shell set

- Expansion for universal wheel bearing drive axle hub set (440.0075)
- Ideal for the assembly and disassembly of wheel bearings and hubs
- Secure and easy to use
- Special steel

**Application range:** Ford C-Max, Mazda 3, Volvo S40/V50, as well as certain models from Citroën, Peugeot, Renault and VAG with separated wheel bearings/hubs



		X	Q
440.0095	2 pcs Bearing and hub shell set		4.98

consists of:

		X	Q
440.0096	Pressure disk, large		2.20
440.0097	Pressure pipe, large		2.78

### Adjustable wheel bearing plate

- Ideally used when disassembling wheel bearings which are removed from the inside
- Allows for a full press surface with 3 installation screws
- The wheel bearings do not tilt
- Used together with the universal wheel bearing axle drive hub set (440.0075)
- Secure and easy to use
- Special steel

**Application range:** Citroën, Peugeot and Renault



		X	Q
440.0100	4 pcs Adjustable wheel bearing plate		1.98

consists of:

		X	Q
440.0102	3 screw		120
440.0103	1 Plate		1660

### Separator screw set for Volkswagen wheel bearing

- Expansion for universal wheel bearing drive axle hub set (440.0075)
- Ideal for the assembly and disassembly of wheel bearings and hubs
- Special for Volkswagen models, front and rear
- Secure and easy to use
- Special steel

**Application range:** Volkswagen T5, Touareg



		X	Q
440.0150	9 pcs Separator screw set for Volkswagen wheel bearing		480

consists of:

		X	Q
440.0132	2 Spacer screw, front		20
440.0133	1 Spacer bolt, front		200
440.0134	3 Spacer screw rear, drum brake		40
440.0137	3 Spacer screw, rear		40

### Wheel bearing set, front for Ford

- For the assembly and disassembly of compact bearings on the front axle
- Correct installation and removal directly on the vehicle
- Wheel bearing replacement direct on the vehicle with minimal time required
- Replacing the brake disks or destroyed wheel bearings
- Secure and easy to use
- For use with hydraulic cylinder
- Special steel

**Recommended hydraulic cylinder:** 32 t (440.0025)

**Application range:** Ford Transit > 2000



		X	Q
440.0130	6 pcs Wheel bearing set, front for Ford		9.25

consists of:

		X	Q
440.0096	Pressure disk, large		2200
440.0097	Pressure pipe, large		2780
440.0111	Hub disk, Ø 44 mm		110
440.0131	Hub tool, Ford Transit		3000
440.0113	Bearing disk for wheel bearing set, front Citroën/Flat/Ford/Peugeot		470
440.0098	Pressure tube, Ø 55 mm		690

### Wheel bearing set, rear for Ford

- For assembly and disassembly on compact bearings on the rear axle
- Correct installation and removal directly on the vehicle
- M14 x 2 special nuts for the best centring
- Ideal for 5 hole hubs
- Secure and easy to use
- For use with hydraulic cylinder
- Special steel

**Recommended hydraulic cylinder:** 32 t (440.0025)

**Application range:** Ford Transit > 2000



		X	Q
440.0135	6 pcs Wheel bearing set, rear for Ford		4.53

consists of:

		X	Q
440.0124	Drive shaft press out device, 5 hole		4080
440.0136	Special nut set, 5 pcs, M14 x 2		450

### Wheel bearing set, front for Renault/Nissan/Opel

- For the assembly and disassembly of compact bearings on the front axle
- Correct installation and removal directly on the vehicle
- Minimum work time
- Secure and easy to use
- No damage to the ABS sender
- Special steel

**Recommended hydraulic cylinder:** 32 t (440.0025)

**Application range:** Renault Master, Nissan Interstar, Opel Movano > 2010



		X	Q
440.0165	8 pcs Wheel bearing set, front for Renault/Nissan/Opel		12.81

consists of:

		X	Q
440.0166	Pressure sleeve, front for Renault/Nissan/Opel		1060
440.0111	Hub disk, Ø 44 mm		110
440.0112	Pressure disk, Ø 167 mm		3170
440.0113	Bearing disk for wheel bearing set, front Citroën/Flat/Ford/Peugeot		470
440.0127	Pressure tube, Ø 170 mm		3620
440.0098	Pressure tube, Ø 55 mm		690
440.0085	Pressure ring set for wheel bearing set, front, 4 pcs		2760
440.0162	Pressure disk, Ø 89 mm		930

### Wheel bearing set, front for Nissan/Opel/Renault

- For the assembly and disassembly of compact bearings on the front axle
- Correct installation and removal directly on the vehicle
- Minimum work time
- Secure and easy to use
- No damage to the ABS sender
- Special steel

**Recommended hydraulic cylinder:** 16 t (440.0005), 22 t (440.0010), 32 t (440.0025)

**Application range:** Nissan Primastar, Opel Vivaro, Renault Trafic



		X	Q
440.0155	8 pcs Wheel bearing set, front for Nissan/Opel/Renault		9.62

consists of:

		X	Q
440.0083	Retainer, 122 mm		810
440.0084	Pressure tube, Ø 54 mm		500
440.0139	Bearing disk Ø 57 mm		250
440.0093	Bearing screw, Ø 83 mm		550
440.0138	Bearing disk Ø 88 mm		610
440.0111	Hub disk, Ø 44 mm		110
440.0112	Pressure disk, Ø 167 mm		3170
440.0127	Pressure tube, Ø 170 mm		3620

**Wheel bearing set, front for Citroën/Fiat/Peugeot**

- For the assembly and disassembly of compact bearings on the front axle
- Only for use alongside the bearing disk (440.0113) and hub disk (440.0123)
- Correct installation and removal directly on the vehicle
- Minimum work time
- Secure and easy to use
- No damage to the ABS sender
- For all models >2007 the press ring (440.0085) must be used
- Special steel

**Recommended hydraulic cylinder:** 32 t (440.0025)

**Application range:** Citroën Jumper, Fiat Ducato, Peugeot Boxer, < 2007



440.0125	8 pcs	Wheel bearing set, front for Citroën/Fiat/Peugeot	11.71
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consists of:

440.0126	Press ring	1290
440.0112	Pressure disk, Ø 167 mm	3170
440.0127	Pressure tube, Ø 170 mm	3620
440.0128	Bearing disk, Ø 90 mm	970
440.0129	Retainer, Ø 108 mm	1610
440.0098	Pressure tube, Ø 55 mm	690
440.0099	Hub disk, Ø 48 mm	160
440.0104	Drive nut, M22	200

**Wheel bearing set, rear for Citroën/Fiat/Ford/Peugeot**

- For assembly and disassembly on compact bearings on the rear axle
- Ideally suited as a drive shaft tool for all 5 hole hubs
- Correct installation and removal directly on the vehicle
- Minimum work time
- Secure and easy to use
- No damage to the ABS sender
- Suitable for all transport vehicles
- Special steel

**Recommended hydraulic cylinder:** 32 t (440.0025)

**Application range:** Citroën Jumper, Fiat Ducato, Peugeot Boxer, Ford Transit



440.0120	6 pcs	Wheel bearing set, rear for Citroën/Fiat/Ford/Peugeot	7.06
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consists of:

440.0011	Impact body, M22 x 2.5 mm	220
440.0113	Bearing disk for wheel bearing set, front Citroën/Fiat/Ford/Peugeot	470
440.0121	Pressure sleeve, Ø 105 mm	1620
440.0122	Adaptor ring	450
440.0123	Hub disk for wheel bearing set, front Citroën/Fiat/Ford/Peugeot	220
440.0124	Drive shaft press out device, 5 hole	4080

**Wheel bearing set, front for Renault/Nissan/Opel 2002-2010**

- For the assembly and disassembly of compact bearings on the front axle
- Correct installation and removal directly on the vehicle
- Minimum work time
- Secure and easy to use
- No damage to the ABS sender
- For all models >2010 the press sleeve (440.0166) and the press ring set (440.0085) must be used
- Special steel

**Recommended hydraulic cylinder:** 16 t (440.0005), 22 t (440.0010), 32 t (440.0025)

**Application range:** Nissan Interstar, Opel Movano, Renault Master 2002-2010



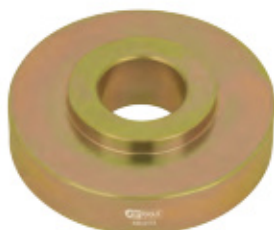
440.0160	9 pcs	Wheel bearing set, front for Renault/Nissan/Opel 2002-2010	13.93
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consists of:

440.0085	Press ring set for wheel bearing set, front, 4 pcs	2760
440.0098	Pressure tube, Ø 55 mm	690
440.0111	Hub disk, Ø 44 mm	110
440.0112	Pressure disk, Ø 167 mm	3170
440.0113	Bearing disk for wheel bearing set, front Citroën/Fiat/Ford/Peugeot	470
440.0127	Pressure tube, Ø 170 mm	3620
440.0161	Bearing shell, Ø 98 mm	1540
440.0162	Pressure disk, Ø 89 mm	930
440.0163	Pressure disk, Ø 83 mm	640

**Bearing disk for wheel bearing set, front Citroën/Fiat/Ford/Peugeot**

- For expanding the wheel bearing set, front 440.0125, if the wheel bearing set, rear (440.0120) is not available
- Special steel



440.0113	Bearing disk for wheel bearing set, front Citroën/Fiat/Ford/Peugeot	470
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**Hub disk for wheel bearing set, front Citroën/Fiat/Ford/Peugeot**

- For expanding the wheel bearing set, front (440.0125), if the wheel bearing set, rear (440.0120) is not available
- Special steel



440.0123	Hub disk for wheel bearing set, front Citroën/Fiat/Ford/Peugeot	220
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**Press ring set for wheel bearing set, front**

- Press ring for expansion of the various wheel bearing sets (440.0125 and 440.0160)
- Special steel

**Application range:** Citroën Jumper, Fiat Ducato, Peugeot Boxer > 2007, Renault > 2010, Nissan > 2010, Opel > 2010



440.0085	4 pcs	Press ring set for wheel bearing set, front	2.76
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**Pressure sleeve, front for Renault/Nissan/Opel**

- Press sleeve for wheel bearing set (440.0160)
- Ideally suited to expanding the set for the wheel bearing assembly on models >2010
- Special steel



440.0166	Pressure sleeve, front for Renault/Nissan/Opel	1.06
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**Drive shaft press out device, 5 hole**

- Specially for the removal of rusty and stuck drive shafts directly on the vehicle
- Suitable for all transport vehicles with 5 hole hubs
- For hole diameters of 100-170 mm
- Ideal for the disassembly of the wheel hub with hydraulic cylinder
- No damage to the drive shaft or other parts
- Secure and easy to use
- Minimum work time
- Special steel

**Recommended hydraulic cylinder:** 32 t (440.0025)

**Application range:** Transport vehicles



440.0124	Drive shaft press out device, 5 hole	4.08
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**Wheel hub set, front for Renault**

- Expansion for wheel bearing set (440.0160)
- Ideal for the removal of wheel hubs and wheel bearings
- Secure and easy to use
- Optimal usage for brake disks mounted behind the wheel hub
- Pressing out the hub with the help of the wheel hub tool (440.0124)
- Minimum work time
- Special steel

**Recommended hydraulic cylinder:** 32 t (440.0025)

**Application range:** Renault Master, models with the brake disks mounted behind the wheel hub



440.0170	7 pcs	Wheel hub set, front for Renault	3.44

consists of:

X		
440.0171	3 Pressure piece, 43 mm	980
440.0172	1 Press cone	1000
440.0173	1 Cover	740
440.0174	1 Disassembly ring, 20 mm	640
440.0007	1 Collar nut, M18	80

**Wheel hub puller set, Iveco**

- Special tool for removing the prop shaft or the wheel hub
- Ideal for use with a hydraulic cylinder
- Easy installation and easy handling
- Special steel

**Recommended hydraulic cylinder:** 16 t (440.0005), 22 t (440.0010)

**Application range:** Iveco Daily 29-50



440.0140	4 pcs	Wheel hub puller set, Iveco	1.42

consists of:

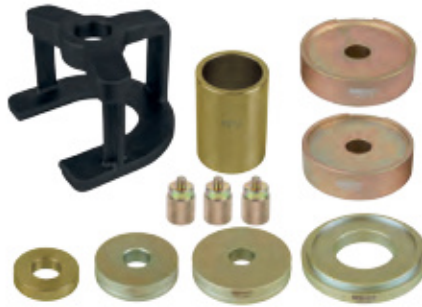
X		
440.0114	3 Screw M14 x 40	60
440.0168	1 Plate	1240

**Wheel bearing set, rear for Mercedes**

- For assembly and disassembly on compact bearings on the rear axle
- Correct installation and removal directly on the vehicle
- Minimum work time
- Secure and easy to use
- No damage to the ABS sender
- Special steel

**Recommended hydraulic cylinder:** 16 t (440.0005) and 22 t (440.0010)

**Application range:** Mercedes Vito, Viano (W639) 2003-2010



440.0090	11 pcs	Wheel bearing set, rear for Mercedes	8.31

consists of:

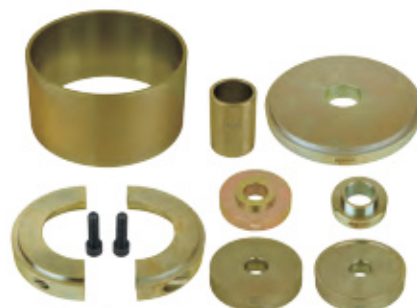
X		
440.0071	1 Assembly retainer plate for VW	2080
440.0078	1 Hub screw, Ø 45 mm	100
440.0081	1 Pressure disk, 18 mm	550
440.0084	1 Pressure tube, Ø 54 mm	500
440.0087	1 Bearing screw, Ø 63 mm	300
440.0092	1 Bearing screw, Ø 78 mm	480
440.0094	1 Press frame for drive shaft and hub	5500
440.0137	3 Spacer screw, rear	40

**Wheel bearing set for Volkswagen/Audi/Porsche**

- For assembly and disassembly on compact bearings on the front and rear axle
- Correct installation and removal directly on the vehicle
- Minimum work time
- Secure and easy to use
- No damage to the ABS sender
- Special steel

**Recommended hydraulic cylinder:** 16 t (440.0005), 22 t (440.0010) and 32 t (440.0025)

**Application range:** Audi Q7, Volkswagen Touareg, Porsche Cayenne



440.0105	10 pcs	Wheel bearing set for Volkswagen/Audi/Porsche	10.33

consists of:

X		
440.0084	Pressure tube, Ø 54 mm	500
440.0106	Pressure tube, 90 mm	1780
440.0107	Pressure tube, 28 mm	2500
440.0108	Bearing disk, 19 mm	870
440.0109	Bearing disk, 19 mm	930
440.0113	Bearing disk for wheel bearing set, front Citroën/Fiat/Ford/Peugeot	470
440.0111	Hub disk, Ø 44 mm	110
440.0112	Pressure disk, Ø 167 mm	3170

**WHEEL HUB TOOL SYSTEM PP III**

**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:** Volkswagen, Audi, Opel, Mercedes Benz, Peugeot, Citroen, Renault, Ford, Honda, Mazda, Mitsubishi, Nissan, Toyota, Austin-Maestro, BMW



150.2250	31 pcs	Universal car wheel bearing tool set	11.24

consists of:

X		
150.2092	Threaded bolt, M12x1.5 pack of 3	100
150.2093	Threaded bolt, M14x1.5 pack of 3	120
150.2251	Bearing plate #1	525
150.2252	Bearing plate #2	458
150.2253	Bearing plate #3	432
150.2254	Bearing plate #4	386
150.2255	Bearing plate #5	358
150.2256	Bearing plate #6	340
150.2257	Bearing plate #7	304
150.2258	Bearing plate #8	344
150.2259	Bearing plate #9	304
150.2260	Bearing plate #10	282
150.2261	Bearing plate #11	247
150.2262	Bearing plate #12	200
150.2263	Bearing plate #13	217
150.2264	Bearing plate #14	203
150.2265	Stepped plate, small, Ø77+68mm	608
150.2266	Stepped plate, large, Ø92+81mm	879
150.2267	Puller sleeve, 68mm	399
150.2268	Puller sleeve, 77mm	552
150.2269	Puller sleeve, 81mm	639
150.2270	Puller sleeve, 92mm	707
150.2271	Spindle sleeve	227
150.2272	Thrust bolt, 60 mm	230
150.2273	Washer	20
150.2274	Spindle, 310 mm	911
150.2275	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:** Volkswagen, Audi, Opel, Mercedes Benz, Peugeot, Citroen, Renault, Ford, Honda, Mazda, Mitsubishi, Nissan, Toyota, Austin-Maestro, BMW



150.2075	19 pcs	Universal car wheel bearing tool set	7.51
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**consists of:**

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)	100
150.2093	Threaded bolt Set M14 x 1.5 (3 pieces)	120



**Wheel bearing tool kit Ford Transit**

- For the assembly and disassembly of the compact wheel hub/bearing unit
- Correct installation and removal directly on the vehicle
- Minimum work time
- Secure and easy to use
- Special steel
- In durable plastic storage case

**Application range:** Front axle Ford Transit from 2006



150.2370	17 pcs	Wheel bearing tool kit Ford Transit	8.77
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**consists of:**

150.2371	Counter bracket for wheel hub flange	570
150.2372	Wheel hub flange with threaded adaptor 1.1/2" x 16G	2310
150.2373	Pressure plate big	350
150.2374	Pressure plate small	160
150.2375	Locking pin for wheel hub flange, 5 pcs	260
150.2376	Thrust bolt 1.1/2" x 16G	2030
150.2377	Half shell coupling for bearing ring, 2 pcs	910
150.2378	Trailing arm for half shell coupling, 3 pcs	405
150.2379	Locking pin for half shell coupling, 2 pcs	60

**Wheel bearing tool set**

- Removal and installation of the compact wheel hubs / bearing unit
- Enables de- and assembly directly on the vehicle
- Minimum labour
- Safe and simple use
- Special steel
- In durable plastic storage case

**Application range:** Volkswagen T5 Transporter



150.2350	13 pcs	Wheel bearing tool set	20.00
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**consists of:**

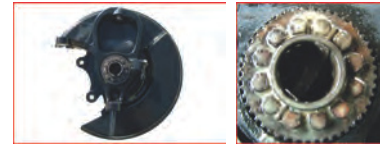
150.2351	Cross member with threaded ring	2600
150.2352	Tie rod set, 2 pcs	1100
150.2353	Half cup mounting, 2 pcs	4950
150.2354	Half cup set, 2 pcs Removal	1700
150.2355	Half cup set, 2 pcs Installation	1900
150.2356	Thrust piece removal	550
150.2357	Thrust piece installation	950
150.2358	Trapezoidal threaded spindle with 2x thrust bearing and nut	1250
980.1085	Special thread grease, gun	22

**ABS ROTOR TOOL**

**Special nut for ABS rotor, Jaguar**

- Ideally suited to the assembly and disassembly of the ABS rotors, e.g. when changing the wheel bearings
- Internal square in accordance with DIN 3121 / ISO 1174
- Special profil
- For manual operation
- Matt finish
- Chrome vanadium

**Application range:** Jaguar XK8 and XKR (X100) 3.5/XK8 and XKR (X100) 5.0/Jaguar XJ8 and XJR (X308) 3.2 and 4.0/all S Type V8/all XF V8/all XJ (X351) V8



150.2490	Height mm	Ø mm	Weight
	62.0	70.0	760

**WHEEL HUB TOOL SYSTEM PP I**

**Universal slide hammer**

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



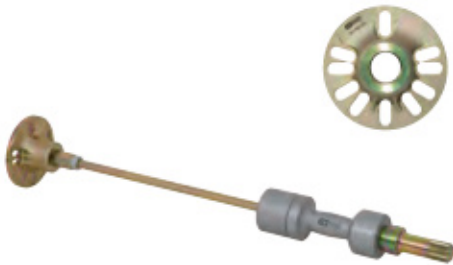
700.1415	L mm	Weight
	850.0	12.00

**accessories:**

700.1411	Wheel hub/drive flange dismantling tool	2.55
700.1421	Adaptor ET UN 1.1/2" x IT M20 x 1.5	0.72
700.1423	Adaptor for double hook	0.27
700.1424	Universal hook M20 x 1.5 for ball joints + car body	2.40
700.1425	Double hook	0.75
700.1428	Adaptor ET UN 1.1/2" x IT M16 x 2.0	0.72
700.1430	Adaptor ET UN 1.1/2" x IT M16 x 1.5	0.72
152.1056	Single screw adaptor AG M17 x 1	0.24

**Universal wheel hub extractor set**

- Extra heavy and solid execution
- For the extension of the wheel hub
- Ideal for passenger cars and small vans
- Enormous impact delivery of up to 11 t
- With 6 kg impact weight
- Includes 3 kg additional weight
- With M 20 x 1.5 mm connection thread
- Weights variably attachable and removable
- Special steel



	Flange diameter Ø mm	Hub Ø mm	mm	L mm	kg
700.1420	98-138	max. M14	AG M20x1,5	930.0	15.27

consists of:

		kg
700.1411	Wheel hub/drive flange dismantling tool	2.55
700.1415	Universal slide hammer 6 + 3 kg, 850mm	12.00
700.1421	Adaptor ET UN 1.1/2" x IT M20 x 1.5	0.72

**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



		kg
700.1410	7 pcs Wheel hub and bearing dismantling set	4.80

consists of:

		kg
700.1411	Wheel hub/drive flange dismantling tool	2.55
700.1400-1	Hydraulic spindle with centering point - Ag 1.1/2" x 16 G	13.44
700.1412	Reception ring set, 5 pcs.	1.50



**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



		kg
700.1435	21 pcs Wheel hub and bearing extractor supplement set	2.88

consists of:

		kg
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

**WHEEL HUB TOOL SYSTEM PP II**

**Impact hammer**

- Ergonomic handle
- Ideal for use alongside the adapter (440.0119) and the drive shaft press out device set (440.0115) or the wheel hub disassembly set (440.0110)



	Connector thread mm	Impact weight kg	kg
440.0080	M18	5.20	7.60

**Adapter for impact hammer**

- Ideally used for adapting the drive shaft press out device set (440.0115) and the impact hammer (440.0080)
- Special steel



	Connector thread mm	kg
440.0119	M18	4.30

**Drive shaft press out device set, 4 and 5 hole**

- Ideally suited to pressing out rusty and stuck drive shafts
- For all passenger cars and transporters with 4 and 5 hole hubs
- For hole diameters up to 120 mm
- Optimal for the disassembly of the wheel hub with a hydraulic cylinder or adapter (440.0119) and the impact hammer (440.0080)
- No damage to the drive shaft or other parts
- Secure and easy to use
- Minimum work time
- Special steel

Recommended hydraulic cylinder: 16 t (4400005) and 22 t (440.0010)



			kg
440.0115	2 pcs	Drive shaft press out device set, 4 and 5 hole	4.52

consists of:

		kg
440.0116	Drive shaft 4 hole, hole 98-120 mm	2.28
440.0117	Drive shaft 5 hole, hole 100-120 mm	2.24

**Wheel hub disassembly set**

- Ideally suited to the disassembly of the wheel hub with impact hammer (440.0080)
- Special steel



		kg	
440.0110	5 pcs	Wheel hub disassembly set	6.40

consists of:

		kg
440.0076	Hub screw, Ø 32 mm	30
440.0077	Hub screw, Ø 40 mm	70
440.0078	Hub screw, Ø 45 mm	100
440.0079	Hub screw, Ø 52 mm	130
440.0007	Collar nut, M18	80
440.0118	Pressure rod, M18, L = 150 mm	230

**WHEEL HUB TOOL SYSTEM PP III**

**Wheel hub impact puller**

- Suitable for removing 4 and 5 hole wheel hubs
- Holes from 100 to 150 mm
- With 1.2 kg impact force
- Optimal grip with plastic handle
- Ideally used when replacing wheel bearings
- Simple handling
- Special steel



	Flange diameter Ø mm	Hub Ø mm	Hammer Ø mm	Slide rail Ø mm	Adaptor thread mm	kg
670.0001	100-150	max. 14	60	60	M16 x 1.5	3.70

**Universal wheel bearing puller and drive shaft puller, hydraulic**

- Special tool for expressing the joint hubs or drawing off of the wheel hub
- Massive tool, made out of a one piece
- Special steel



700.1400	11 pcs	Universal wheel bearing puller and drive shaft puller, hydraulic	9.34
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consists of:

700.1400-1	Hydraulic spindle with centering point - Ag 1.1/2" x 16 G	1344
700.1400-2	Disc traverse 100 mm	920
700.1400-3	Puller pull arm set, 5 pcs	500
700.1400-4	Impact spanner, 30mm, L=200mm	935
700.1400-5	Impact spindle	2015
700.1400-7	Extension, small	60

**Universal wheel hub extractor set**

- For bolt circle diameter up to 250 mm
- Clamp foot hole for bolts 14 mm, 18 mm + 22 mm
- Special steel



670.0013	5 pcs	Universal wheel hub extractor set	3.60
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**Universal wheel hub extractor set**

- For bolt circle diameter up to 250 mm
- Clamp foot hole for bolts 14 mm, 18 mm + 22 mm
- Special steel



670.0014	6 pcs	Universal wheel hub extractor set	4.10
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**Universal wheel hub extractor set**

- For bolt circle diameter up to 250 mm
- Clamp foot hole for bolts 14 mm, 18 mm + 22 mm
- Special steel



670.0015	7 pcs	Universal wheel hub extractor set	4.60
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**BEARING RING TOOL**

**Universal bearing ring puller 2 arm with clamping yoke**

- Clamp compresses hooks firm y
- Prevents slippage
- Pressure peak centers itself optimally in the cone of the hub boring
- Extremely robust spindle with inductively hardened thread
- Special steel



700.1260	A mm	B mm	max t	mm	mm	D mm	E mm	F mm	G mm	kg
	90	100	1,2	M16 x 150	17	6,5	8,5	22,5	27,1	1,76

**Bearing ring puller 3-arm with clamping cone**

- Ideally suited to the disassembly for the bearing internal shell
- With conical tension screw for proportional tension force distribution
- Self-centring jaw puller
- Central adjustment screw for different radii
- Ideal for confined spaces
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case



700.1270	A mm	B mm	mm	mm	D mm	E mm	F mm	G mm	kg
	10-125	96	21	M20x1,5 x 235	0,6	6	22	35	3,51

**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



450.0030	L mm	kg
	300.0	1.13
450.0031	L mm	kg
	500.0	1.89

**PLIERS FOR SECURING RINGS**

**Securing ring tool set**

- For assembly and disassembly of the securing rings on wheel bearings
- Strengthens the adjusting screw with 1/4" ratchet
- Simple handling
- Ideal for passenger cars and transporters
- Very easy to replace the stud
- Special steel



440.0340	7 pcs	Securing ring tool set	770
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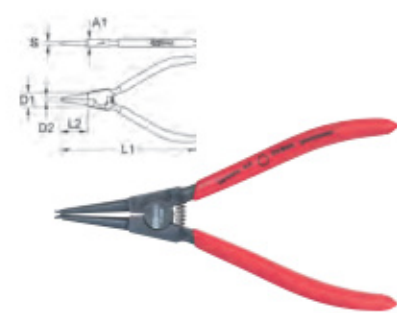
consists of:

440.0344	Securing ring tool	740
440.0341	Replacement pins, Ø 2.5 mm, 2 pcs.	10
440.0342	Replacement pins, Ø 3.0 mm, 2 pcs.	10
440.0343	Replacement pins, Ø 3.5 mm, 2 pcs.	10



**Circlip pliers for external circlips**

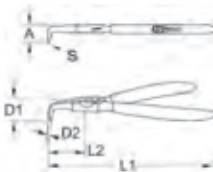
- In accordance to DIN 5254
- Slip inhibiting machined precision tips
- Durable, straight design
- Self closing
- With rubber grip
- Power version
- Die forged
- Chrome vanadium



	mm	A1 mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm	W
119.2051	10,0 - 25,0	8,0	1,0	13,5	3,5	135,0	30,0	80
119.2056	19,0 - 60,0	9,0	1,5	15,0	4,5	175,0	40,0	150
119.2061	40,0 - 100,0	10,0	2,5	20,0	6,0	230,0	50,0	250

**Circlip pliers for external circlips, angled**

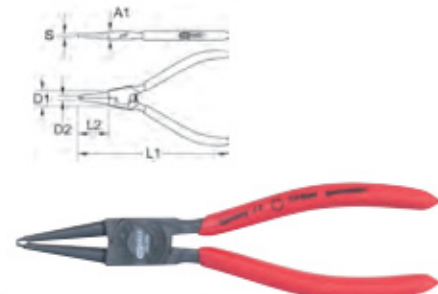
- In accordance to DIN 5256
- Slip inhibiting machined precision tips
- 90° angled version
- Self closing
- With rubber grip
- Power version
- Die forged
- Chrome vanadium



	mm	A mm	D1 mm	D2 mm	L1 mm	L2 mm	W
119.2052	10,0 - 25,0	20,0	15,0	3,0	125,0	20,0	80
119.2057	19,0 - 60,0	25,0	20,0	4,5	165,0	32,0	150
119.2062	40,0 - 100,0	30,0	25,0	6,0	210,0	40,0	250

**Circlip pliers for internal circlips**

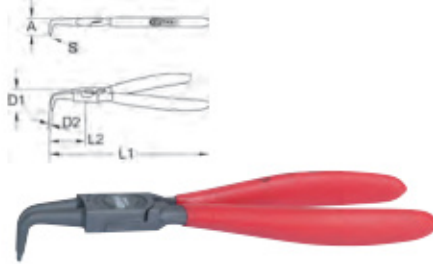
- In accordance to DIN 5254
- Slip inhibiting machined precision tips
- Durable, straight design
- With rubber grip
- Power version
- Die forged
- Chrome vanadium



	mm	A1 mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm	W
119.2053	12,0 - 25,0	7,5	1,2	15,0	2,7	135,0	30,0	80
119.2058	19,0 - 60,0	9,5	1,6	18,0	5,0	180,0	40,0	150
119.2063	40,0 - 100,0	10,0	2,5	20,0	6,0	230,0	50,0	250

**Circlip pliers for internal circlips, angled**

- In accordance to DIN 5256
- Slip inhibiting machined precision tips
- 90° angled tips
- With rubber grip
- Power version
- Die forged
- Chrome vanadium



	mm	A mm	D1 mm	D2 mm	L1 mm	L2 mm	W
119.2054	12,0 - 25,0	16,5	14,5	2,5	125,0	20,0	80
119.2059	19,0 - 60,0	21,0	18,0	3,0	165,0	25,0	150
119.2064	40,0 - 100,0	25,0	20,0	5,0	210,0	35,0	250

**Drive shaft securing ring teeth with serrated tips**

- With PVC dipped handle
- Serrated and angular tips
- Self-closing
- For assembly and disassembly of the securing rings on drive shafts
- For external security rings
- No slipping due to the serrated tips
- Chrome molybdenum

**Application range:** Opel, Mercedes, Volkswagen, etc.

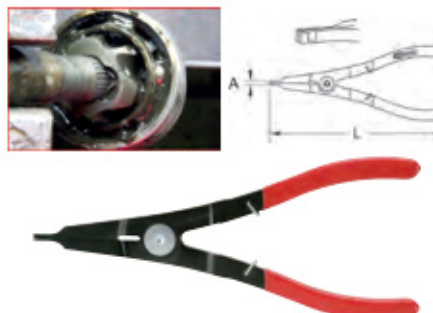


	A mm	L mm	W
115.1048	0-20	210,0	220

**Drive shaft securing ring teeth with shaped tips**

- With PVC dipped handle
- Shaped tips
- Self-closing
- For assembly and disassembly of the securing rings on drive shafts
- For external security rings
- No slipping due to the serrated tips
- Chrome molybdenum

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



	A mm	L mm	W
115.1049	0-20	240,0	600

**Wheel bearing circlip pliers, angled**

- Sturdy precision tips
- 45° angled tips
- Self-opening
- With PVC dipped handle
- For assembly and disassembly of wheel bearing securing rings
- Can be used on the front and rear axle
- For all common wheel bearing securing rings
- Chrome vanadium



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	W
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

**Drive shaft securing ring teeth with 30° angled tips**

- 30° angled
- With PVC dipped handle
- Self-closing
- Plier head with cut out and ring stop body
- For the disassembly and assembly of nut caps without lug retainer
- Chrome vanadium

**Application range:** For the dismantling of the external (below joints in the exchange of the axle boots and / or the drive shaft sleeves). e.g.: for Audi, Opel, Volkswagen (Golf, T4), Fiat, Mitsubishi.



	A mm	L1 mm	L2 mm	W
115.0991	0-33	210,0	50,0	215

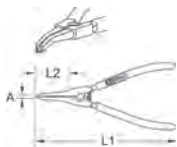
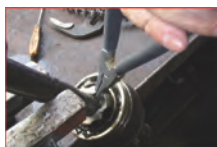




**Drive shaft securing ring teeth with slightly angled tips**

- Slightly angled
- With PVC dipped handle
- Self-closing
- Checkered plier head
- For the disassembly and assembly of drive shaft circlips without lug retainer
- Slip proof
- Chrome vanadium

**Application range:** For the removal of external circlips e.g. on synchronisation joints

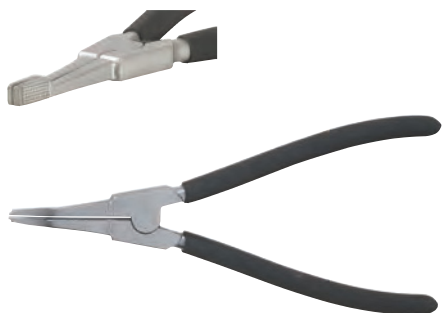
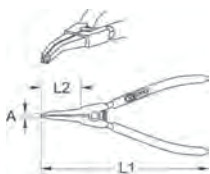
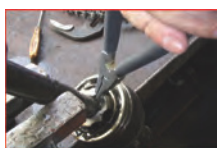


	A mm	L1 mm	L2 mm	g
115.0992	0-37	210,0	50,0	256

**Drive shaft securing ring teeth with straight tips**

- Straight form
- With PVC dipped handle
- Self-closing
- Checkered plier head
- For the disassembly and assembly of drive shaft circlips without lug retainer
- Slip proof
- Chrome vanadium

**Application range:** For the removal of external circlips e.g. on drive shafts, transmissions, etc



	A mm	L1 mm	L2 mm	g
115.0993	0-37	210,0	48,0	220

**PROP SHAFT TOOL**

**Universal CV joint removal puller**

- For correct removal of the constant velocity joint on the drive shaft
- Extra wide frame for large joints
- Anti-slip and adjustable jaws
- Ideal for swapping the rubber collar or joint
- Robust design
- Simple handling
- Special steel



	Ø mm	L mm	max mm	g
150.1850	30,0	260,0	97,0	2.25

**Drive shaft thread repair set**

- For the repair of internal and external threads
- Ideal for drive shafts, lambda probes, wheel bolts, etc.
- Correct thread repair for damaged or sliced threads
- Suitable for a wide range of applications
- Drive optional with t-handle or external hexagon drive
- In durable plastic storage case



		g
150.1470	9 pcs Thread repair set	1,37

consists of:

		g
150.1466	T bar, 8x80mm	30
150.1471	Thread chaser for M14 x 1.5 for male and female threads	150
150.1472	Thread chaser for M16 x 1.5 for male and female threads	80
150.1473	Thread chaser for M18 x 1.5 for male and female threads	90
150.1474	Thread chaser for M20 x 1.5 for male and female threads	120
150.1475	Thread chaser for M22 x 1.5 for male and female threads	150
150.1476	Thread chaser for M24 x 1.5 for male and female threads	170
150.1477	Thread chaser for M27 x 2.0 for male and female threads	180
150.1478	Thread chaser for M28 x 1.5 for male and female threads	200

**Drive shaft insertion tool set**

- Ideally suited to pulling in the drive shaft to the wheel hub
- Pulling tool with hardened spindle
- Includes 10 pulling sleeves with various threads
- Robust design
- Simple handling
- Special steel
- In durable plastic storage case

**Application range:** BMW, Mercedes, Porsche, Volkswagen, Audi, etc.



		g
150.2750	16 pcs Drive shaft insertion tool set	3.02

consists of:

		g
150.2751	Pulling sleeve, M20x1.25 mm	36
150.2752	Pulling sleeve, M22x1.0 mm	70
150.2753	Pulling sleeve, M27x1.5 (Volkswagen, Porsche)	114
150.2754	Pulling sleeve, M22x1.5 (BMW E30, E46)	74
150.2755	Pulling sleeve, M20x1.5 (Volkswagen, Porsche)	38
150.2756	Pulling sleeve, M18 x 1.5 mm	48
150.2757	Pulling sleeve, M16 x 1.5 (Subaru)	34
150.2758	Pulling sleeve, M20x1.0 mm	41
150.2759	Pulling sleeve, M30x1.5 (BMW E34)	210
150.2771	Pulling sleeve, M24x1.5 (BMW E36, Mercedes W203)	87
150.2772	Spindle, M16 x 2.0, 230 mm with pulling sleeve for bolts	240
150.2773	Thrust bolt, M16x2.0 mm	32
150.2774	Bush, Ø 39 mm, 80 mm	348
150.2775	Bush, Ø 49.9 mm, 110 mm	714
150.2776	Bolts, M14 x 1.5, 80 mm	95
150.2777	Bolts, M16 x 1.5, 80 mm	109

**Special drive shaft impact socket, long**

- 12 point
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For use in a 1/2" impact wrench
- For machinery usage
- Phosphate finish
- Chrome molybdenum

**Application range:** Drive shafts, flange shafts, fuel injectors, Mercedes Benz Truck Transmissions G2/24/26, Mercedes Benz Actros, etc.



1/2"

	mm	D mm	L mm	g
150.1703	27,0	40,5	85,0	350
150.1705	30,0	42,0	85,0	450
150.1706	32,0	44,0	85,0	490
150.1704	34,0	46,0	85,0	430
150.1707	36,0	50,0	85,0	520

**Special drive shaft bit socket**

- Extremely robust 1/2" sockets, for use with 1/2" impact wrench
- Length: 43 mm
- Phosphate finish
- Chrome molybdenum

**Application e.g.:** Brake pads, brake disks, drive shaft connections etc.



	mm	L mm	W
150.1708	14	43.0	80
150.1709	17	43.0	100
150.1710	19	43.0	110

**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



	mm	D mm	L mm	W
150.1719	52.0	70.0	77.0	210

**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.



	mm	D mm	L mm	W
150.1711	33.0	44.5	85.0	490

**Drive shaft impact socket**

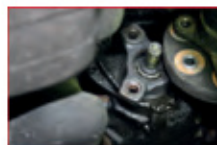
- 12 point
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Very robust execution
- To operate the drive shaft center bolt
- Special steel



	mm	D mm	L mm	W
150.1702	24.0	34.0	51.5	370

**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



	mm	W
150.1750	8 pcs	4.20

consists of:

		W
150.1703	Special drive shaft impact socket, 1/2", 27mm	350
150.1704	Special drive shaft impact socket, 1/2", 34mm	430
150.1705	Special drive shaft impact socket, 1/2", 30mm	450
150.1706	Special drive shaft impact socket, 1/2", 32mm	490
150.1707	Special drive shaft impact socket, 1/2", 36mm	520
150.1708	Drive shaft bit socket hex, 1/2", 14mm	80
150.1709	Drive shaft bit socket hex, 1/2", 17mm	100
150.1710	Drive shaft bit socket hex, 1/2", 19mm	110

**Drive shaft bit socket for spline (XZN®) screws**

- Ideally suited to assembly and disassembly of screws on drive shaft flange (transmission side) from the wheel casing
- Internal square drive to DIN 3120/ISO 1174 with ball reception
- Extra-long execution
- With sand blasted bit insert
- Matt finish
- Chrome vanadium

**Application range:** Audi, Seat, Škoda, Volkswagen, etc.



		L mm	W
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-bit socket-set for spline (XZN®)- Screws**

- Ideally suited to assembly and disassembly of screws on drive shaft flange (transmission side) from the wheel casing
- Internal square drive to DIN 3120/ISO 1174 with ball reception
- Extra-long execution
- With sand blasted bit insert
- Matt finish
- Chrome vanadium

**Application range:** Audi, Seat, Škoda, Volkswagen, etc.



	mm	W
150.1740	4 pcs	2.50



**XXL wobble extension**

- Internal square to DIN 3120/ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Matt finish
- Chrome vanadium



	L mm	W
911.1548	350.0	150
911.1549	600.0	260

**XXL wobble extension**

- Internal square to DIN 3120/ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Matt finish
- Chrome vanadium

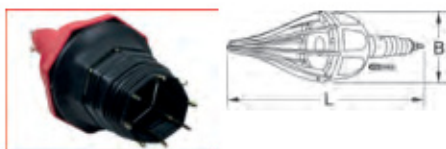


	L mm	W
911.1487	450.0	0.75
911.1488	600.0	1.00
911.1489	750.0	1.25

**AXLE BOOTS**

**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 pneumatic 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: 25 - 115 mm  
 Operating pressure: max. 8 bar  
 Min. tube diameter: 3/8" - 10 mm  
 Connection thread: 1/4"PT

	B mm	L mm	Weight
515.3100	200.0	490.0	2.27

**Universal CV joint boot kit, small, crimping 23-30 mm, joint 70-105 mm**

- 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



**Technical data:**  
 Suitable for crimping: 23.0 - 30.0 mm  
 Suitable for joints: 70.0 - 105.0 mm  
 Temperature constancy: -40°C - +110°C

	Weight
515.3115 Universal CV joint boot kit, small, crimping 23-30 mm, joint 70-105 mm	240

**Universal CV joint boot kit, large, crimping 28-40 mm, joint 80-125 mm**

- 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

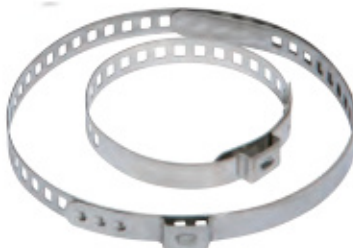


**Technical data:**  
 Suitable for crimping: 28.0 - 40.0 mm  
 Suitable for joints: 80.0 - 125.0 mm  
 Temperature constancy: -40°C - +110°C

	Weight
515.3120 Universal CV joint boot kit, large, crimping 28-40 mm, joint 80-125 mm	360

**Stainless steel band**

- For CV joint boots
- Sizes adjustable
- Stainless steel



	Content	Weight
515.3170	19.0-50.0	100
515.3175	40.0-120.0	100

**HOSE CLAMP TOOL**

**ERGOTORQUE® socket screwdriver**

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



	D mm	L1 mm	L2 mm	L3 mm	L4 mm	Weight
911.1126	6	10.8	259.0	150.0	109.0	9.3
911.1127	7	11.7	259.0	150.0	109.0	10.0
911.1128	8	11.9	259.0	150.0	109.0	10.0
911.1125	10	12.5	279.0	170.0	109.0	14.3

**ERGOTORQUE® socket screwdriver, extra long**

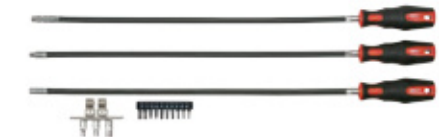
- 6 point
- Flexible
- Limited torque
- Double spiral shaft
- Plastic protective coating
- Two component handle
- With hanging hole
- Chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm	L4 mm	Weight
911.1175	5	11.9	614.0	500.0	114.0	8.9
911.1176	6	10.9	614.0	500.0	114.0	11.3
911.1177	7	11.7	614.0	500.0	114.0	11.3
911.1178	8	11.7	614.0	500.0	114.0	11.3

**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



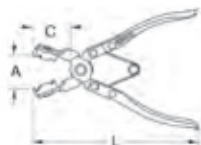
	Content	Weight
911.1180	16 pcs ERGOTORQUE® scr ewdriver set	1.30

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 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 fl 1.3 pinch ends
- Suitable for narrow spaces
- Chrome molybdenum

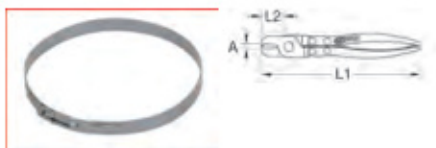


	A mm	C mm	L mm	Weight
115.1057	0-30	45.0	200.0	180



**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



	A mm	L1 mm	L2 mm	Weight
115.1039	0-60	230.0	25.0	320

**Hose clip pliers for earless hose bands**

- With PVC dipped handle
- For working of earless clamps
- Also suitable for thermoplastic axle boots
- Uniform compressing of the ear piece
- No damage to the sleeve
- With lever translation
- Nickel-plated finish
- Chrome molybdenum

**Application range:** Axle boots for Audi, BMW, Chrysler, Ford, GM, Honda, Mazda, Mercedes, Nissan, Opel, Porsche, Volkswagen, etc.

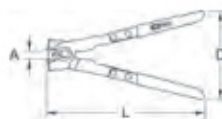


	Ø mm	Length mm	Weight
115.1210	100	248.0	330

**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	L mm	Weight
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
115.1053	0-17	240.0	540

**Hose clamp pliers**

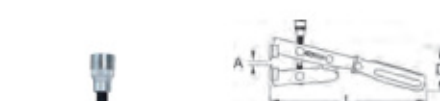
- Work side
- For compressing locking hose clips
- With PVC dipped handle
- Chrome vanadium



	L mm	Weight
115.1185	240.0	335

**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
115.1056	0-45	270.0	880

**Stainless steel ball-lock cable ties**

- Ideal for fastening axle boots, steering joints, etc.
- Adjustable as desired
- Stainless steel 304



	Length mm	Width mm	Content	
115.1591	200.0	4.6	100	200
115.1592	250.0	4.6	100	300
115.1593	350.0	4.6	100	400
115.1594	500.0	4.6	100	500

**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
- Special steel



	L mm	
115.1059	163.0	437

**Plier for stainless steel ball-lock cable ties**

- Ideal for working stainless steel cable binders
- Can be used up to a tape width of 12 mm
- Controlled tensioning and precise cutting off of the cable binder in a single step
- Tensile force is determined by the operator
- Suitable for steel, stainless steel and epoxy cable binder
- Special steel



	Length mm	
115.1590	210.0	650

**Hose strap cutter, angled**

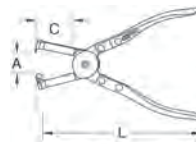
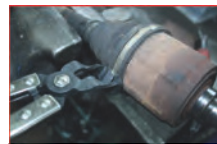
- To be sliced from earless hose clamps
- For connections on axle boots, coolers and fuel hoses
- Dipped covered handle
- Chrome vanadium



	L mm	
115.1186	220.0	345

**Hose strap cutter, angled**

- For cutting off earless hose clamps
- 45° angled head
- For connections on axle boots, cooler and fuel hoses
- Damage-free opening of clamps and tubing bands
- Universal usage
- Nickel-plated finish



	A mm	C mm	L mm	
115.1191	0 - 30.0	50.0	230.0	330

**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.



	Length mm	
115.1104	4 pcs	1,12

consists of:

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**

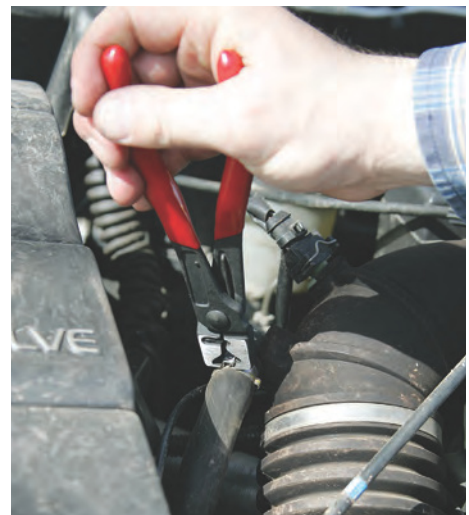
- PVC dipped handle
- For opening and closing of cobra hose clamps
- Swivel pressed jaws
- Includes locking mechanism and ratchet function
- Self opening mechanism
- For the dismantling and assembly of hose clamps
- Includes bowden cable
- Chrome molybdenum



	Content	
115.1055	7 pcs Automotive hose clamp pliers set	4,00

consists of:

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



700.1701 - 700.1704



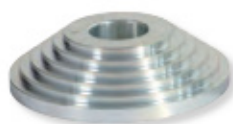
700.1800-19



700.1800-10 - 700.1800-11



700.1706 - 700.1709



700.1710 - 700.1713



700.1800-17



700.1714 - 700.1733



980.1085 - 980.1090



item	Description	700.1760 20 pcs	700.2355 22 pcs	700.1700 36 pcs	700.1735 12 pcs
<b>Pressure nut</b>					
700.1701	Thrust bolt, M10 with bearing		2 x	2 x	2 x
700.1702	Thrust bolt, M12	2 x	2 x	2 x	2 x
700.1703	Thrust bolt, M14 with bearing			2 x	2 x
700.1704	Thrust bolt, M16	2 x		2 x	2 x
700.1800-19	Thrust bolt TR 20 with bearing 2 pcs		1 x		
700.1800-10	Check nut M 10		1 x		
700.1800-11	Check nut M 12		1 x		
<b>Step plate</b>					
700.1706	Stepped plates,#1	1 x	1 x	1 x	
700.1707	Stepped plates,#2	1 x	1 x	1 x	
700.1708	Stepped plates,#3	1 x	1 x	1 x	
700.1709	Stepped plates,#4	1 x	1 x	1 x	
<b>Spindles</b>					
700.1710	Spindle, M10		1 x	1 x	1 x
700.1711	Spindles, M12	1 x	1 x	1 x	1 x
700.1712	Spindle, M14			1 x	1 x
700.1713	Spindles, M16	1 x		1 x	1 x
700.1800-17	Spindle TR 20, short		1 x		
<b>Step pressure sleeve</b>					
700.2356	Step pressure sleeve, internal Ø 14 mm, external Ø 24 mm		1 x		
700.2357	Step pressure sleeve, internal Ø 16 mm, external Ø 26 mm		1 x		
700.2358	Step pressure sleeve, internal Ø 18 mm, external Ø 28 mm		1 x		
700.2359	Step pressure sleeve, internal Ø 20 mm, external Ø 30 mm		1 x		
700.2361	Step pressure sleeve, internal Ø 22 mm, external Ø 32 mm		1 x		
700.2362	Step pressure sleeve, internal Ø 24 mm, external Ø 34 mm		1 x		
700.2363	Step pressure sleeve, internal Ø 26 mm, external Ø 36 mm		1 x		
700.2364	Step pressure sleeve, internal Ø 28 mm, external Ø 38 mm		1 x		
700.2365	Step pressure sleeve, internal Ø 30 mm, external Ø 40 mm		1 x		
700.2366	Step pressure sleeve, internal Ø 32 mm, external Ø 42 mm		1 x		
<b>Pressure sleeve</b>					
700.1714	Pull sleeve, internal Ø 34mm, external Ø 44mm	1 x		1 x	
700.1715	Pressure sleeve, internal Ø 36 mm, external Ø 46 mm			1 x	
700.1716	Pressure sleeve, internal Ø 38 mm, external Ø 48 mm			1 x	
700.1717	Pressure sleeve, internal Ø 40 mm, external Ø 50 mm			1 x	
700.1718	Pull sleeve, internal Ø 42mm, external Ø 52mm	1 x		1 x	
700.1719	Pull sleeve, internal Ø 44mm, external Ø 54mm	1 x		1 x	
700.1720	Pull sleeve, internal Ø 46mm, external Ø 56mm	1 x		1 x	
700.1721	Pressure sleeve, internal Ø 48 mm, external Ø 58 mm			1 x	
700.1722	Pressure sleeve, internal Ø 50 mm, external Ø 60 mm			1 x	
700.1723	Pull sleeve, internal Ø 52mm, external Ø 62mm	1 x		1 x	
700.1724	Pressure sleeve, internal Ø 54 mm, external Ø 64 mm			1 x	
700.1725	Pressure sleeve, internal Ø 56 mm, external Ø 66 mm			1 x	
700.1726	Pressure sleeve, internal Ø 58 mm, external Ø 68 mm			1 x	
700.1727	Pressure sleeve, internal Ø 60 mm, external Ø 70 mm			1 x	
700.1728	Pressure sleeve, internal Ø 62 mm, external Ø 72 mm			1 x	
700.1729	Pull sleeve, internal Ø 64mm, external Ø 74mm	1 x		1 x	
700.1730	Pressure sleeve, internal Ø 66 mm, external Ø 76 mm			1 x	
700.1731	Pressure sleeve, internal Ø 68 mm, external Ø 78 mm			1 x	
700.1732	Pull sleeve, internal Ø 70mm, external Ø 80mm	1 x		1 x	
700.1733	Pull sleeve, internal Ø 72mm, external Ø 82mm	1 x		1 x	
<b>Thread width</b>					
980.1090	Special thread grease	2 x			
980.1085	Special thread grease				1 x

**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

**Attention:** the spindles need to be greased with a good lubricant for each application! Do not overload spindles, otherwise the thread lengthens and the pitch of the nut and spindle no longer match. The result: the nuts will seize up. Always check the applied force at the drive with a torque wrench!

**Maximum permitted torque:**

Spindle M10x1,5 60 Nm  
Spindle M12x1,5 100 Nm



700.2355	22 pcs	Press and pull sleeve set	8,74
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**consists of:**

700.1701	Thrust bolt, M10	125
700.1702	Thrust bolt, M12	124
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, 350 mm	170
700.1711	Spindle, M12, 350 mm	253
700.1800-10	Check nut M 10	350
700.1800-11	Check nut M 12	350
700.1800-17	Spindle TR 20, short	350
700.1800-19	Thrust bolt TR 20 with bearing 2 pcs	350
700.2356	Step pressure sleeve, internal Ø 14 mm, external Ø 24 mm	260
700.2357	Step pressure sleeve, internal Ø 16 mm, external Ø 26 mm	280
700.2358	Step pressure sleeve, internal Ø 18 mm, external Ø 28 mm	300
700.2359	Step pressure sleeve, internal Ø 20 mm, external Ø 30 mm	320
700.2361	Step pressure sleeve, internal Ø 22 mm, external Ø 32 mm	360
700.2362	Step pressure sleeve, internal Ø 24 mm, external Ø 34 mm	380
700.2363	Step pressure sleeve, internal Ø 26 mm, external Ø 36 mm	400
700.2364	Step pressure sleeve, internal Ø 28 mm, external Ø 38 mm	420
700.2365	Step pressure sleeve, internal Ø 30 mm, external Ø 40 mm	440
700.2366	Step pressure sleeve, internal Ø 32 mm, external Ø 42 mm	460



**Press and pull sleeve set BASIC**

- 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

**Attention:** the spindles need to be greased with a good lubricant for each application! Do not overload spindles, otherwise the thread lengthens and the pitch of the nut and spindle no longer match. The result: the nuts will seize up. Always check the applied force at the drive with a torque wrench!

**Maximum permitted torque:**

Spindle M10x1,5 60 Nm  
Spindle M12x1,5 100 Nm  
Spindle M14x1,5 180 Nm  
Spindle M16x1,5 250 Nm



700.1760	20 pcs	Press and pull sleeve set BASIC	8,32
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**consists of:**

700.1702	Thrust bolt, M12	124
700.1704	Thrust bolt, M16	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
700.1711	Spindle, M12, 350 mm	253
700.1713	Spindle, M16, 350 mm	473
700.1714	Pressure sleeve, internal Ø 34 mm, external Ø 44 mm	250
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
700.1723	Pressure sleeve, internal Ø 52 mm, external Ø 62 mm	370
700.1729	Pressure sleeve, internal Ø 64 mm, external Ø 74 mm	440
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

**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

**Attention:** the spindles need to be greased with a good lubricant for each application! Do not overload spindles, otherwise the thread lengthens and the pitch of the nut and spindle no longer match. The result: the nuts will seize up. Always check the applied force at the drive with a torque wrench!

**Maximum permitted torque:**

Spindle M10x1,5 60 Nm  
Spindle M12x1,5 100 Nm  
Spindle M14x1,5 180 Nm  
Spindle M16x1,5 250 Nm



700.1700	36 pcs	Press and pull sleeve set	14,80
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**consists of:**

700.1701	Thrust bolt, M10 with bearing	125
700.1702	Thrust bolt, M12 with bearing	124
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, 350 mm	170
700.1711	Spindle, M12, 350 mm	253
700.1712	Spindle, M14, 350 mm	350
700.1713	Spindle, M16, 350 mm	473
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

**Press and pull sleeve kit**

- For the assembly and disassembly of bearings
- Ideally for silent bearings, hydro bearings, bushings, ball bearings, simmer rings, etc.
- Universal use for passenger cars, trucks, communal, agricultural and forest vehicles
- 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

Caution: The spindles must be greased before first use!  
Overloading leads to unwanted material stresses or breakage  
Always check the power settings on the drive with a torque wrench Not to be combined with other systems

Maximum allowable torque moments:  
Spindle (ACME) M10 x P1.5 60 Nm  
Spindle (ACME) M12 x P2.0 120 Nm  
Spindle (ACME) M14 x P2.0 150 Nm  
Spindle (ACME) M16 x P2.5 250 Nm



700.1550	29 pcs	Press and pull sleeve kit	17.00
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**consists of:**

700.1550-34	Pull sleeve, internal Ø 34mm, external Ø 44mm, of 700.1550	250	
700.1550-36	Pull sleeve, internal Ø 36mm, external Ø 46mm, of 700.1550	260	
700.1550-38	Pull sleeve, internal Ø 38mm, external Ø 48mm, of 700.1550	280	
700.1550-40	Pull sleeve, internal Ø 40mm, external Ø 50mm, of 700.1550	290	
700.1550-42	Pull sleeve, internal Ø 42mm, external Ø 52mm, of 700.1550	300	
700.1550-44	Pull sleeve, internal Ø 44mm, external Ø 54mm, of 700.1550	320	
700.1550-46	Pull sleeve, internal Ø 46mm, external Ø 56mm, of 700.1550	330	
700.1550-48	Pull sleeve, internal Ø 48mm, external Ø 58mm, of 700.1550	340	
700.1550-50	Pull sleeve, internal Ø 50mm, external Ø 60mm, of 700.1550	350	
700.1550-52	Pull sleeve, internal Ø 52mm, external Ø 62mm, of 700.1550	360	
700.1550-54	Pull sleeve, internal Ø 54mm, external Ø 64mm, of 700.1550	380	
700.1550-56	Pull sleeve, internal Ø 56mm, external Ø 66mm, of 700.1550	390	
700.1550-58	Pull sleeve, internal Ø 58mm, external Ø 68mm, of 700.1550	410	
700.1550-60	Pull sleeve, internal Ø 60mm, external Ø 70mm, of 700.1550	420	
700.1550-62	Pull sleeve, internal Ø 62mm, external Ø 72mm, of 700.1550	430	
700.1550-64	Pull sleeve, internal Ø 64mm, external Ø 74mm, of 700.1550	440	
700.1550-66	Pull sleeve, internal Ø 66mm, external Ø 76mm, of 700.1550	460	
700.1550-68	Pull sleeve, internal Ø 68mm, external Ø 78mm, of 700.1550	470	
700.1550-70	Pull sleeve, internal Ø 70mm, external Ø 80mm, of 700.1550	480	
700.1550-72	Pull sleeve, internal Ø 72mm, external Ø 82mm, of 700.1550	490	
700.1550-75	Pull sleeve, internal Ø 75mm, external Ø 85mm, of 700.1550	500	
700.1550-80	Pull sleeve, internal Ø 80mm, external Ø 90mm, of 700.1550	520	
700.1551	Spindle M10x1.5	170	
700.1552	Spindle M12x2.0	200	
700.1553	Spindle M14x2.0	350	
700.1554	Spindle M16x2.5	380	
700.1555	Pressure adapter for step panel HGV	350	
700.1556	Step panel adaptor with 3 holes, A+B side	350	
700.1551-01	Pressure nut with lock function for spindle M10 x P1.5	140	
700.1551-02	Pressure nut with bearing for spindle M10xP1.5	160	
700.1552-01	Pressure nut with lock function for spindle M12 x P1.75	120	
700.1552-02	Pressure nut with bearing for spindle M12xP1.75	160	
700.1553-01	Pressure nut with lock function for spindle M14 x P2.0	120	
700.1553-02	Pressure nut with bearing for spindle M14xP2.0	140	
700.1554-01	Pressure nut with lock function for spindle M16 x P2.0	100	
700.1554-02	Pressure nut with bearing for spindle M16xP2.0	140	

**UNIVERSAL PRESS FRAME SYSTEM PP I**

**Universal press frame, 5 pcs without 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



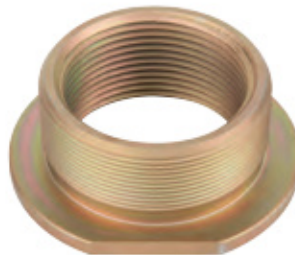
700.1751	5 pcs	Universal press frame, 5 pcs without hydraulic spindle	8.90
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**accessories:**

700.1751-1	Connection bar 205 mm for 700.1751 (1 piece)	0.71
700.1751-2	Connection bar 350 mm for 700.1751 (1 piece)	1.20

**KS hydraulic PP2 to Sauer, Müller, KS PP1 tools**

- For use of the KS Tools hydraulic cylinder PP2 (8.5-22 t) with Sauer-, Müller-, KS PP1 special tools
- Adapter 1.1/2" PP2 to 2.1/4"-16 UN (Sauer, Müller, KS PP1)
- Special steel



440.0034	KS hydraulic PP2 to Sauer, Müller, KS PP1 tools	230
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**HYDRAULIC SUPPORT SYSTEM PP I**

**Hydraulic pressure spindle for press frame**

- Ideal for enlarging the press frame
- Compact shape with extremely high pressure (10 t)
- Extremely high and uniform power construction
- Pre-tensioning and positioning via the outer thread on the cylinder
- For a controlled and safe removal
- The hydraulics are set into motion via a hydraulic pump (3/8" NPT)
- Extremely robust spindle with hardened thread
- Special steel



	Total length mm	Stroke extension mm	Stroke mm	Max. l	Stroke mm	Ø mm	
700.1785	300.0	240.0	170.0	10	200.0	54.0	5.52

**Hydraulic pressure spindle for press frame**

- Ideal for enlarging the press frame
- Compact shape with extremely high pressure (10 t)
- The hydraulic pistons move in a linear way which prevents rubbing on the pressure tip
- Maximum pressure with little effort
- Pre-tensioning and positioning via the outer thread on the cylinder
- For a controlled and safe removal
- The hydraulics are set in motion with the knob or the external hexagon drive
- Extremely robust spindle with hardened thread
- Special steel



	Stroke extension mm	Total length mm	Ø mm	Stroke mm	Max. l	Ø mm	
700.1400-1	AG 1.1/2"-12 UNF	92.0	250.0	10	15.0	17	1.34

**HYDRAULIC SUPPORT UNIVERSAL**

**Hydraulic hollow piston cylinder set, 12 t with spindle**

- For the assembly and disassembly of silent bearings, steering pins, track rod ends, wheel bearings, etc.
- Extremely high and uniform power construction
- Maximum pressure with little effort
- Industrial design with forged piston
- Suitable for both pressurised and tensioned uses
- Special steel



**Technical data cylinder**

Capacity:	12 t
Connection thread:	3/8" NPT IG
Piston:	industrial forged execution
Stroke:	42.0 mm

700.1788	2 pcs	Hydraulic hollow piston cylinder set, 12 t with spindle	3.40
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**consists of:**

700.1789	Hydraulic hollow piston cylinders, 12 t	2.20
700.1787	Hydraulic pull piston	1.20

**Hydraulic hollow piston cylinder set 20 t with spindle**

- For the assembly and disassembly of silent bearings, steering pins, track rod ends, wheel bearings, etc.
- Extremely high and uniform power construction
- Maximum pressure with little effort
- Industrial design with forged piston
- Suitable for both pressurised and tensioned uses
- Special steel



**Technical data cylinder**

Capacity:	20 t
Connection thread:	3/8" NPT IG
Piston:	industrial forged execution
Stroke:	52.0

700.1786	2 pcs	Hydraulic hollow piston cylinder set 20 t with spindle	8.80
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consists of:

		kg
700.1796	Hydraulic feed shaft M20 x 2.5	1.50
700.1791	Hydraulic hollow piston cylinders, 20 t	7.30

**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 manometer and hydraulic tube
- Special steel



**Technical data:**

Connection thread: 3/8" NPT IG  
 Hand pump: 700 bar high pressure pump  
 Dimensions: 410 x 150 x 135

		kg
700.1792	Hydraulic hand pump	5.50

**Hydraulics tube, 2 m including connection**

- Ideally suited for commercial vehicles



**Technical data:**

Connection thread: 3/8" NPT AG x 3/8" NPT AG  
 Length: 2000 mm

		kg
700.1793	Hydraulics tube, 2 m including connection	1.10

**Manometer**

- Max. 700 bar
- Special steel



	D mm	kg
700.1790-2	80.0	334

**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



		kg
700.1790	4 pcs Hydraulic tension and pressure unit	15.40

consists of:

		kg
700.1791	Hydraulic hollow piston cylinder, 20 t	7.30
700.1792	Hydraulic hand pump, 700 bar	5.50
700.1793	Hydraulic hose, 2 m	1.10
700.1796	Feed shaft for hydraulic M20 x 500 mm	1.50

**Pneumatic hydraulic pump**

- Pneumatic working
- For simply agent press cylinders
- Safety valve for overload protection
- Includes pressure tube 1.8 meters
- Usable tank volume 2081cm<sup>3</sup> = 2.081l
- Operating pressure max. 700 bar
- Output per stroke:  
0.8 l/min up to 200 bar  
0.1 l/min up to 700 bar



	Connection thread DIN	L mm	B mm	H mm	kg
640.0020	3/8" - 18 NPT	255	130	200	11.00

**C-FRAME SYSTEM PP I**

**C-clamp and adaptor set, short**

- 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 Tr.27 with ball stored pressure tip
- Special steel



		Max span width mm	Max span depth mm	Length mm	Width mm	kg
700.1780	4 pcs	170.0	65.0	320.0	150.0	6.42

consists of:

		kg
700.1781	Uni C-clamp	5.50
700.1782	Spindle with trapezoid thread Tr.27	0.90
700.1783	C attachment set for stepped puller, 2 pcs	0.02

**C-clamp and adaptor set, long**

- 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 Tr.27 with ball stored pressure tip
- Special steel



		Max span width mm	Max span depth mm	Length mm	Width mm	kg
700.1755	5 pcs	245.0	95.0	380.0	180.0	7.82

consists of:

		kg
700.1754	Threaded adaptor with AG 1-1/2" x 16G and IG trapezoid thread Tr.27	0.60
700.1756	Universal C-clamp	7.00
700.1757	Spindle with trapezoid thread Tr.27, length 300 mm, drive 24 mm	2.00
700.1758	Spindle reception adaptor	0.80
700.1759	C-Clamp reception adaptor	0.60

**HYDRAULIC SYSTEM PP II**

**Pressure and pull hydraulic cylinder set, 8.5t**

- For the assembly and disassembly of silent bearings, steering pin bolts, wheel bearings, etc.
- Can be used in the narrowest of spaces
- With adjustable pressure rods and impact body
- With automatic piston return
- Special steel



**Technical data cylinder**

Capacity: 8.5 t  
 Connection thread: Cejn quick coupling  
 Piston: industrial forged execution  
 piston-inner thread: M22  
 outer thread: 1.1/2"  
 Stroke: 25.0 mm

		kg
440.0020	4 pcs Pressure and pull hydraulic cylinder set, 8.5t	2.19

consists of:

		kg
440.0021	Hydraulic cylinder, 8.5 t	1800
440.0022	Impact body with sealing ring	140
440.0023	Adjustable pressure rod M22, L = 100 mm	240
440.0024	(CEJN-) Nipple hydraulic for connection thread 1/8"	10

### Pressure and pull hydraulic cylinder set, 16t

- For the assembly and disassembly of silent bearings, steering pins, track rod ends, wheel bearings, etc.
- Suitable for both pressurised and tensioned uses
- With impact body for screwing in
- Extremely high and uniform power construction
- Universal usage with reduction M10-M22
- Special steel



#### Technical data cylinder

Capacity:	16 t
Connection thread:	Cejn quick coupling
Piston:	industrial forged execution
piston-inner thread:	M22
outer thread:	1.1/2"
Stroke:	67.0 mm

440.0005	10 pcs	Pressure and pull hydraulic cylinder set, 16t	5.48
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#### consists of:

440.0001	Hydraulic cylinder, 16 t	3380
440.0002	Pressure axle, M24 x 3 mm, L = 129.5 mm	600
440.0003	Pressure foot, M24 x 3 mm	90
440.0004	Adjustable pressure rod M24, L = 92 mm	240
440.0006	Protective ring for thread, 2.1/4"	100
440.0007	Collar nut, M18	80
440.0008	Pressure rod, M18/M22, L = 250 mm	440
440.0011	Impact body, M22 x 2.5 mm	220
440.0012	Adjustable pressure sleeve, M24, L = 132 mm	320
440.0009	(CEJN) Nipple hydraulic for connection thread 1/4"	10

### Pressure and pull hydraulic cylinder set, 22t

- For the assembly and disassembly of silent bearings, steering pins, track rod ends, wheel bearings, etc.
- Suitable for both pressurised and tensioned uses
- With impact body for screwing in
- Extremely high and uniform power construction
- Universal usage with reduction M10-M22
- Ideally suited to transporters
- With automatic piston return
- Special steel



#### Technical data cylinder

Capacity:	22 t
Connection thread:	Cejn quick coupling
Piston:	industrial forged execution
piston-inner thread:	M22
outer thread:	1.1/2"
Stroke:	70.0 mm

440.0010	10 pcs	Pressure and pull hydraulic cylinder set, 22t	6.90
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#### consists of:

440.0013	Hydraulic cylinder, 22 t	4640
440.0011	Impact body, M22 x 2.5 mm	220
440.0003	Pressure foot, M24 x 3 mm	90
440.0004	Adjustable pressure rod M24, L = 92 mm	240
440.0006	Protective ring for thread, 2.1/4"	100
440.0014	Pressure axle, M24 x 3, L = 151 mm	740
440.0016	Adjustable pressure sleeve, M24, L = 109 mm	340
440.0007	Collar nut, M18	80
440.0008	Pressure rod, M18/M22, L = 250 mm	440
440.0009	(CEJN) Nipple hydraulic for connection thread 1/4"	10

### Pressure and pull hydraulic cylinder set, 32t

- Optimal for universal use in car garages
- Suitable for both pressurised and tensioned uses
- Extremely high and uniform power construction
- Industrial design with forged piston
- Pressure of the hydraulic cylinders can be combined with the impact body with impact force during use
- Universal usage with reduction M10-M22
- Ideally used with transporters and commercial vehicles
- Special steel



#### Technical data cylinder

Capacity:	32 t
Connection thread:	Cejn quick coupling
Piston:	industrial forged execution
piston-inner thread:	M24
outer thread:	2.1/2"
Stroke:	113.0 mm

440.0025	6 pcs	Pressure and pull hydraulic cylinder set, 32t	9.35
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#### consists of:

440.0026	Hydraulic cylinder, 32 t	8020
440.0016	Adjustable pressure sleeve, M24, L = 109 mm	340
440.0027	Protective ring for thread, 2.5	200
440.0028	Collar nut, M22	160
440.0029	Pressure rod, M22, L = 250 mm	620
440.0009	(CEJN) Nipple hydraulic for connection thread 1/4"	10

### Short-stroke hydraulic cylinder set, 14t

- For the assembly and disassembly of silent bearings, steering pin bolts, wheel bearings, etc.
- With adjustable pressure rod
- Maximum pressure with little effort
- Especially for use with press tool and press stand 440.0190 and 440.0180
- With automatic piston return
- Special steel



#### Technical data cylinder

Capacity:	14 t
Connection thread:	Cejn quick coupling
Piston:	industrial forged execution
piston-inner thread:	M24
outer thread:	1.1/2"
Stroke:	55.0 mm

440.0015	3 pcs	Short-stroke hydraulic cylinder set, 14t	2.67
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#### consists of:

440.0017	Hydraulic cylinder, 14 t	2420
440.0004	Adjustable pressure rod M24, L = 92 mm	240
440.0009	(CEJN) Nipple hydraulic for connection thread 1/4"	10

### Pull rod, collar nut, adapter set

- Universal usage
- Extremely robust spindle with inductive hardened thread (M10-M22)
- Optimal use with trucks, transporters and commercial vehicle tools with corresponding reduction
- Ideally suited to hydraulic cylinders 440.0005, 440.0010 and 440.0020
- Special steel

Caution: The spindles must be greased before fit use!



440.0040	13 pcs	Pull rod, collar nut, adapter set	1.98
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#### consists of:

440.0041	Pressure rod, M10	80
440.0042	Pressure rod, M12	180
440.0043	Pressure rod, M14	240
440.0008	Pressure rod, M18/M22, L = 250 mm	440
440.0029	Pressure rod, M22, L = 250 mm	620
440.0044	Adaptor, M22-M10	50
440.0045	Adaptor, M22-M12	50
440.0046	Adaptor, M22-M14	40
440.0047	Collar nut, M10	20
440.0048	Collar nut, M12	20
440.0049	Collar nut, M14	60
440.0007	Collar nut, M18	80
440.0028	Collar nut, M22	160

### Hydraulic foot pump set

- For simple acting press cylinder
- Safety valve for prevention against too much force
- With automatic return
- Includes hydraulic hose with quick coupling



#### Technical data:

Connection thread:	Cejn quick coupling
Volume:	0.75 l
Operating pressure:	700 bar
Tube length:	2200 mm

440.0060	4 pcs	Hydraulic foot pump set	7.83
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#### consists of:

440.0057	Hydraulic hose, 2200 mm	900
440.0058	Cejn quick coupling	200
440.0061	Hydraulic foot pump	6720
440.0070	Seal set	10

**Pneumatic hydraulic pump set**

- Pneumatic operation
- For simple acting press cylinder
- Safety valve for prevention against too much force
- With automatic return
- Includes hydraulic hose with quick coupling



**Technical data:**

Connection thread: Cejn quick coupling  
 Volume: 1,4 l  
 Operating pressure: 700 bar  
 Tube length: 2200 mm

440.0055	3 pcs Pneumatic hydraulic pump set	6.32
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**consists of:**

440.0056	Pneumatic hydraulic pump	5220
440.0057	Hydraulic hose, 2200 mm	900
440.0058	Cejn quick coupling	200

**Manometer**

- With Cejn quick coupling for direct coupling to all KS Tools hydraulic pumps
- With easy-to-read scale in psi and bar

**Caution:** The maximum pressure values for the hydraulic cylinder and given in the appropriate operator's manual



440.0063	Manometer	500
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**ADAPTER**

**Klann hydraulic to KS PP2-tool**

- For using the Klann hydraulic cylinder (17 t) with KS Tools tool 1.1/2" internal thread
- Adapter 2.1/4"-14 UNS (Klann thread) to 1.1/2" PP2
- Special steel



440.0038	Klann hydraulic to KS PP2-tool	1.08
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**KS hydraulic PP2 to Klann tools**

- For use with the KS Tools hydraulic cylinder PP2 (8,5-22 t) with Klann special tool
- Adapter 1.1/2" PP2 to 2.1/4"-14 UNS (Klann thread)
- Special steel



440.0036	KS hydraulic PP2 to Klann tools	200
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**KS hydraulic PP2 to Klann (commercial vehicles-commercial vehicles-special tools)**

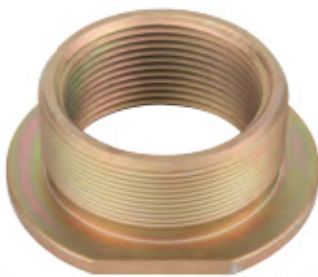
- For using the KS tools hydraulic cylinder PP2 (32t) with the Klann special tool (connection 2.3/4"-16 UNS)
- Adapter 2.1/2" PP2 to 2.3/4"-16 UNS (Klann thread)
- Special steel



440.0409	KS hydraulic PP2 to Klann (commercial vehicles-commercial vehicles-special tools)	140
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**KS hydraulic PP2 to Sauer, Müller, KS PP1 tools**

- For use of the KS Tools hydraulic cylinder PP2 (8,5-22 t) with Sauer-, Müller- KS PP1 special tools
- Adapter 1.1/2" PP2 to 2.1/4"-16 UN (Sauer, Müller, KS PP1)
- Special steel



440.0034	KS hydraulic PP2 to Sauer, Müller, KS PP1 tools	230
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**Paschke hydraulic to KS PP2 tools**

- For using the Paschke hydraulic cylinder with KS Tools special tools PP2
- Adapter M68x2 mm (Paschke thread) to 1.1/2" PP2
- Special steel



440.0407	Paschke hydraulic to KS PP2 tools	1240
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**KS hydraulic to Paschke tools**

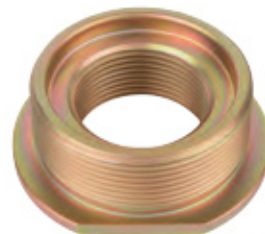
- For using the Paschke KS Tools hydraulic cylinder PP2 (8,5-22 t) with Paschke special tools
- Adapter 1.1/2" PP2 auf M68x2 mm (Paschke thread)
- Special steel



440.0408	KS hydraulic to Paschke tools	330
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**KS hydraulic PP2 to KS commercial vehicles-special tools**

- For use with hydraulic cylinder PP2 (16 and 22 t) to KS Tools tools PP2 with 2.1/2" thread
- Adapter 1.1/2" PP2 to 2.1/2" thread PP2 (large traverse - commercial vehicles)
- Special steel



440.0037	KS hydraulic PP2 to KS commercial vehicles-special tools	570
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**PRESS STAND SYSTEM PP II**

**Universal press stand**

- With open stand plate and adapter ring set
- Ideal for replacing ball joints and rear-axle bushes
- Can be used directly on the vehicle
- Adjustable with ball joint press sleeves from KS Tools
- For use with hydraulic cylinder
- Secure and easy to use
- Special steel

**Recommended hydraulic cylinder:** 14 t (440.0015), 16 t (440.0005), 22 t (440.0010)



440.0180	9 pcs Universal press stand	5.62
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**consists of:**

	X		
440.0176	1	Upper traverse with internal thread 1.1/2"	2040
440.0178	2	Connecting struts	440
440.0179	4	Screw M16 x 40 mm	80
440.0185	1	Insert ring	340
440.0204	1	Lower traverse with open side	2040

**SILENT BEARING TOOL SYSTEM PP II**

**Silent bearing tool set for BMW rear axles**

- For the assembly and disassembly of the rear axle silent bearings
- Ideal for secure bearings
- Secure and easy to use
- For use with hydraulic cylinder
- Special steel

**Recommended hydraulic cylinder:** 16 t (440.0005), 22 t (440.0010)

**Application range:** BMW E60- E65 (5 series, 6 series, 7 series), E81-E88 (1 series), E90 (3 series)



440.0255	21 pcs	Silent bearing tool set for BMW rear axles	12.87
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consists of:

440.0153	Pressure pipe Touring	1460
440.0154	Pressure disk Touring	1310
440.0256	Assembly disk E32/E34	740
440.0121	Pressure sleeve	1620
440.0254	Pressure disk	480
440.0257	Retainer ring E32/E34	320
440.0252	Retainer ring	660
440.0253	Assembly disk	1040
440.0008	Pressure rod, M18/M22, 250 mm	440
440.0258	Pressure rod, M18/M22, 180 mm	320
440.0259	Assembly ring	160
440.0261	Retainer	440
440.0262	Disk with thread	480
440.0263	Disk with thread	380
440.0264	Pressure disk	520
440.0266	Retainer ring	640
440.0267	Assembly ring	100
440.0268	Disk with thread	740
440.0046	Adapter, M22-M14	40
440.0043	Pressure rod, M14, 250 mm	240
440.0269	Retainer plate E32/E34	740

**Silent bearing tool set for BMW X5 rear axles**

- For the assembly and disassembly of the rear axle silent bearings
- Ideal for secure bearings
- Simple and safe manual operation
- For use with hydraulic cylinder
- Special steel

**Recommended hydraulic cylinder:** 16 t (440.0005), 22 t (440.0110)

**Application range:** BMW X5 (E53)



440.0250	8 pcs	Silent bearing tool set for BMW X5 rear axles	7.77
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consists of:

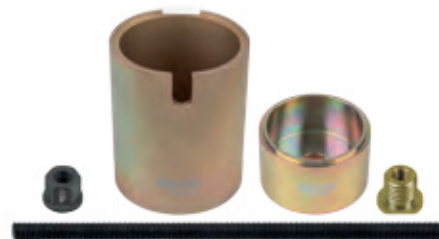
440.0251	Disk with thread	760
440.0252	Retainer ring	660
440.0253	Assembly disk	1040
440.0121	Pressure sleeve	1620
440.0254	Pressure disk	480
440.0153	Pressure pipe Touring	1460
440.0154	Pressure disk Touring	1310
440.0008	Pressure rod, M18/M22, 250 mm	440

**Wishbone bush set for Ford Transit, front**

- For the assembly and disassembly of the rear wishbone bushes on the front wishbone
- Correct installation and removal directly on the vehicle
- Ideal for use on secure bearing bushes
- For use with hydraulic cylinder
- Secure and easy to use
- Special steel

**Recommended hydraulic cylinder:** 16 t (440.0005), 22 t (440.0010)

**Application range:** Ford Transit > 2000



440.0285	5 pcs	Wishbone bush set for Ford Transit, front	1.94
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consists of:

440.0286	Pressure sleeve	500
440.0287	Pressure tube	1100
440.0043	Pressure rod, M14, 250 mm	240
440.0046	Adapter, M22-M14	40
440.0049	Collar nut, M14	60

**Wishbone bush set, read for Ford/Mazda/Volvo**

- For assembly and disassembly of the rear axle bushes
- For use with the universal press stand (440.0180)
- Ideal for use directly on the vehicle
- Simple handling
- Saves a lot of time
- Special steel

**Application range:** Ford Focus >1999, Mazda 3 >2004, Volvo V50/S40 >2004



440.0225	4 pcs	Wishbone bush set, read for Ford/Mazda/Volvo	1.82
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consists of:

440.0226	Disassembly/assembly sleeve	800
440.0227	Assembly disk, Ø 90 mm	500
440.0228	Retainer ring, Ø 90 mm	320
440.0229	Pressure disk, Ø 52 mm	200

**Silent bearing tool set for Ford / Volvo**

- For the assembly and disassembly of the rear axle silent bearings
- Ideal for secure bearings
- Required for correct installation
- Secure and easy to use
- For use with hydraulic cylinder
- Special steel

**Recommended hydraulic cylinder:** 14 t (440.0015), 16 t (440.0005), 22 t (440.0010)

**Application range:** Ford Mondeo, S-Max, Galaxy >2007, Volvo S60, S80, V60, V70, XC60, XC70 >2007



440.0245	7 pcs	Silent bearing tool set for Ford / Volvo	6.76
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consists of:

440.0246	1	Adapter ring	180
440.0247	1	Press frame	2460
440.0248	1	Pressure tube	1320
440.0249	1	Pressure plate	600
440.0176	1	Upper traverse with internal thread 1.1/2"	2040
440.0179	2	Screw M16 x 40 mm	80

**Silent bearing tool set for Hyundai rear axles**

- For the assembly and disassembly of the rear axle silent bearings
- Ideal for replacing all four bushes on the rear axle
- Work directly on the vehicle
- For use with hydraulic cylinder
- Secure and easy to use
- Special steel

**Recommended hydraulic cylinder:** 16 t (440.0005), 22 t (440.0010)

**Application range:** Hyundai Santa Fe 2006-2012



440.0275	8 pcs	Silent bearing tool set for Hyundai rear axles	5.08
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consists of:

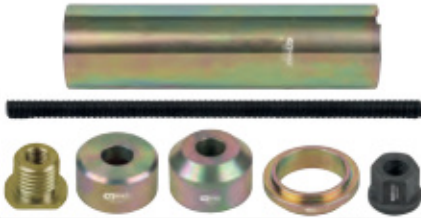
440.0276	Pressure tube	960
440.0277	Pressure disk	880
440.0278	Disassembly disk	420
440.0279	Pressure disk	660
440.0281	Assembly disk	980
440.0282	Disassembly ring	420
440.0283	Disassembly ring	260
440.0084	Pressure tube	500

**Steering bushes set for Mercedes, rear**

- For the assembly and disassembly of the rear, lower bushes in the axle body
- Correct assembly and disassembly directly on the vehicle
- For use with hydraulic cylinder
- Secure and easy to use
- Special steel

Recommended hydraulic cylinder: 16 t (440.0005), 22 t (440.0010)

Application range: Mercedes C, E and S class



440.0270	7 pcs	Steering bushes set for Mercedes, rear	1.62
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consists of:

440.0271	Disassembly ring	80
440.0272	Assembly sleeve	160
440.0273	Pressure tube	980
440.0274	Retainer ring, installation	60
440.0043	Pressure rod, M14, 250 mm	240
440.0046	Adapter, M22-M14	40
440.0049	Collar nut, M14	60

**Rear axle bushes set for Renault**

- Ideal for the assembly and disassembly of rear axle bushes
- For use with the universal press stand (440.0180)
- Can be used directly on the vehicle
- Simple handling
- Saves a lot of time
- Special steel

Application range: Renault Laguna 2



440.0205	3 pcs	Rear axle bushes set for Renault	2.60
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consists of:

440.0206	Pressure piece, 33 mm	540
440.0207	Pressure piece, 38 mm	900
440.0208	Pressure piece, 66 mm	1160

**Double silent bearing set, VAG**

- For the assembly and disassembly of the double silent bearings on VAG
- Correct installation and removal directly on the vehicle
- Secure and easy to use
- For use with hydraulic cylinder
- Special steel

Recommended hydraulic cylinder: 16 t (440.0005) and 22 t (440.0010)

Application range: Volkswagen Caddy 2004-2010, Eos > 2006, Golf V 2003-2009, Scirocco > 2005, Jetta 2005-2010, Passat 2005-2010, Tiguan > 2007, Touran > 2003, Seat Altea > 2004, Leon > 2005, Toledo 2004-2009, Škoda Octavia 2004-2010, Audi A3 > 2005, TT 2006-2010



440.0290	3 pcs	Double silent bearing set, VAG	1.44
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consists of:

440.0291	Pressure tube	1220
440.0292	Pressure disk	660
440.0293	Assembly pipe	560

**Silent bearing set for Volkswagen/Audi/Seat/Škoda**

- For the assembly and disassembly of the rear, lower bushes in the double wishbone
- Robust spindle with inductive hardened thread
- Ideal for manual use
- Secure and easy to use
- Special steel

Application range: Volkswagen Polo 9N, Fox, Audi A2 2000-2005, Seat Ibiza, Altea, Cordoba 2003-2005, Škoda Fabia 2000-2004 and similarly constructed vehicles



440.0295	7 pcs	Silent bearing set for Volkswagen/Audi/Seat/Škoda	1.46
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consists of:

440.0049	2	Collar nut, M14	60
440.0234	1	Pressure rod M14, L = 150 mm	140
440.0296	1	Disassembly/sleeve/disk	280
440.0297	1	Pressure tube	340
440.0298	1	Assembly disk	440
440.0299	1	Disassembly disk	200

**Wishbone bushes set for Volkswagen T5, front**

- For the assembly and disassembly of the rear wishbone bushes on the front wishbone
- Correct installation and removal directly on the vehicle
- Ideal for use on secure bearing bushes
- For use with hydraulic cylinder
- Secure and easy to use
- Special steel

Recommended hydraulic cylinder: 16 t (440.0005), 22 t (440.0010)

Application range: Volkswagen T5 2004-2013



440.0415	5 pcs	Wishbone bushes set for Volkswagen T5, front	1.46
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consists of:

440.0416	Pressure rod, L = 250 mm	240
440.0417	Pressure plate	340
440.0418	Sleeve	780
440.0049	Collar nut, M14	60
440.0046	Adapter, M22-M14	40

**Rear axle bushes set for Volkswagen/Audi/Seat/Škoda**

- For the assembly and disassembly of the rear axle bushes
- For use with the universal press stand (440.0180)
- Ideal for use directly on the vehicle
- Simple handling
- Saves a lot of time
- Special steel

Application range: Audi A3, Volkswagen Golf 4, Seat Ibiza, Škoda Fabia



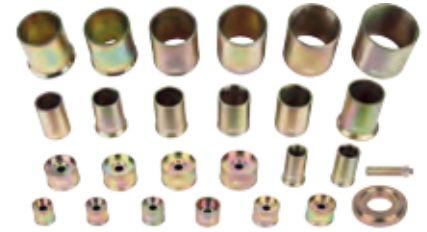
440.0210	4 pcs	Rear axle bushes set for Volkswagen/Audi/Seat/Škoda	1.65
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consists of:

440.0213	1	Disassembly sleeve, Ø 68 mm	600
440.0214	1	Disassembly ring, Ø 90 mm	300
440.0216	1	Assembly sleeve, Ø 82 mm	570
440.0217	1	Assembly ring, Ø 90 mm	160

**Universal press tool set**

- For the assembly and disassembly of bearings, bushes and ball joints
- Adapter and pressure crank allow for use with the universal press stand (440.0180)
- 24 press sleeves in different sizes
- 61 various internal and external diameters between 30.5 mm and 79.7 mm
- Universal usage for passenger cars and transporters
- Excellent usage also with work bench press
- Special steel



440.0300	26 pcs	Universal press tool set	9.67
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consists of:

440.0348	Adaptor plate	250
440.3049	Adjustable pressure rod M24 x 90 mm	280
440.0301	Press sleeve 40.7 x 42.5 x 35.2 mm	200
440.0302	Press sleeve 43.7 x 45.5 x 38.2 mm	220
440.0303	Press sleeve 46.7 x 48.5 x 41.2 mm	260
440.0304	Press sleeve 49.7 x 51.5 x 44.2 mm	280
440.0305	Press sleeve 52.7 x 54.5 x 47.2 mm	320
440.0306	Press sleeve 55.7 x 57.5 x 50.2 mm	360
440.0307	Press sleeve 58.7 x 60.5 x 53.2 mm	400
440.0308	Press sleeve 61.7 x 63.5 x 56.2 mm	440
440.0309	Press sleeve 65.7 x 67.5 x 60.2 mm	500
440.0310	Press sleeve 69.7 x 71.5 x 64.2 mm	560
440.0311	Press pipe 38.7 x 44.7 x 30.5 mm	260
440.0312	Press pipe 41.7 x 44.7 x 34 mm	260
440.0313	Press pipe 44.7 x 44.7 x 37.2 mm	260
440.0314	Press pipe 47.7 x 55 x 40.2 mm	320
440.0315	Press pipe 50.7 x 55 x 43.2 mm	320
440.0316	Press pipe 53.7 x 55 x 46.2 mm	320
440.0317	Press pipe 56.7 x 55 x 49.2 mm	340
440.0318	Press pipe 59.7 x 70 x 52.2 mm	480
440.0319	Press pipe 62.7 x 70 x 55.2 mm	480
440.0320	Press pipe 65.7 x 70 x 58.2 mm	480
440.0321	Press pipe 68.7 x 70 x 61.2 mm	480
440.0322	Press pipe 71.7 x 70 x 64.2 mm	500
440.0323	Press pipe 75.7 x 75.7 x 68.2 mm	540
440.0324	Press pipe 79.7 x 79.7 x 72.2 mm	560

**Universal press tool expansion set**

- Ideal sleeve assortment for expanding the press tool set (440.0300)
- For use with the universal press stand (440.0180)
- For use on passenger cars and transporters
- 11 press rings in different sizes
- Excellent usage also with work bench press
- Optimal for bushes, bearings and ball joints
- Special steel



440.0325	12 pcs	Universal press tool expansion set	4.42
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consists of:

440.0204	Lower traverse with open side	2040
440.0326	Press ring 59 x 70 x 52.2 mm	180
440.0327	Press ring 62 x 70 x 55.5 mm	160
440.0328	Press ring 65 x 70 x 58.2 mm	140
440.0329	Press ring 68 x 70 x 61.2 mm	120
440.0331	Press ring 71 x 90 x 64.2 mm	300
440.0332	Press ring 74 x 90 x 67.2 mm	280
440.0333	Press ring 77 x 90 x 70.2 mm	260
440.0334	Press ring 80 x 90 x 73.2 mm	240
440.0336	Press ring 84 x 90 x 77.2 mm	200
440.0337	Press ring 88 x 90 x 81.2 mm	160
440.0338	Adaptor	340

**SILENT BEARING TOOL SYSTEM PP III**

**Silent bearing set for BMW and Mini front axle**

- For the assembly and disassembly of the front silent bearings (hydro bearing) in the wishbone
- Saves a lot of time since the replacement is carried out as it is
- Special steel

**Application range:** BMW Mini R50 Mini One, One D and Cooper from 2001-2006 and R53 Mini Cooper S from 2002-2006

**Caution:** The spindles must be greased before fit use! Overloading leads to unwanted material stresses or breakage. Always check the power settings on the drive with a torque wrench



700.2135	7 pcs	Silent bearing set for BMW and Mini front axle	3.40
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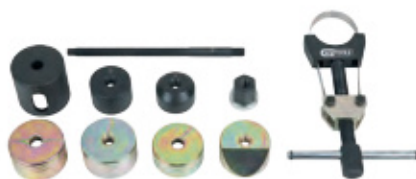
consists of:

700.2136	Spindle M14, 205mm	250
700.2137	Nut with bearing	160
700.2138	Pulling sleeve	608
700.2139	Bush with serrated edge	633
700.2140	Disassembly bush with thread	317
700.2141	Assembly bush with thread	391
700.2142	Assembly bush without thread	393

**Silent bearing tool set for BMW rear axles**

- For assembly and disassembly of the lower silent bearings on the rear axle
- No removal of the wheel mounts
- With pre-tensioning tool suitable for slit silent bearings
- For damage-free installation
- Special steel

**Application range:** BMW E81/E82/E87/E88 and BMW E90/E91/E92/E93 silent bearings on the rear axle



700.2145	10 pcs	Silent bearing tool set for BMW rear axles	3.84
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consists of:

700.2146	Spindle M12 x 1.75 mm	143
700.2147	Nut, M12 x 1.75 mm	105
700.2148	Tension wrench with 1-handle	687
700.2149	Press piece 1 x 57.0 mm	468
700.2150	Press piece 2 x 45.0 mm	232
700.2151	Press piece 3 x 43.0 mm	194
700.2152	Press piece 4 x 58.0 mm	388
700.2153	Press piece 5 x 58.0 mm	420
700.2154	Press piece 6 x 54.7 mm	240
700.2155	Press piece 7 x 53.9 mm	300

**Silent bearing tool set for BMW rear axles**

- For assembly and disassembly of the front and rear spherical bearings
- For all rear axle supports
- For assembly in built in condition
- With pre-tensioning tool suitable for rubber bearings
- For damage-free installation and removal
- Special steel

**Application range:** BMW E81/E82/E87/E88 and BMW E90/E91/E92/E93 spherical bearings on the rear axle



700.2160	13 pcs	Silent bearing tool set for BMW rear axles	7.20
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consists of:

		<b>X</b>	
700.2161	1	Spindle, M16 x 2.0 mm	350
700.2162	1	Ring, Ø 32.4 mm	30
700.2163	2	Nut, M16 x 2.0 mm	68
700.2164	1	Pre-tensioning tool	1928
700.2165	1	Pressure piece, 58.0 x 38.0 mm	218
700.2166	1	Pressure piece, 42.0 x 62.7 mm	198
700.2167	1	Pressure piece, 123.0 x 95.0 mm	1106
700.2168	1	Pressure piece, 128.0 x 100.0 mm	1194
700.2169	1	Pressure piece, 84.0 mm	642
700.2170	1	Pressure piece, 89.0 mm	526
700.2171	1	Pressure piece, 87.0 mm	418
700.2172	1	Pressure piece, 99.0 mm	498

**Silent bearing tool set for Ford and Volvo rear wheel mounting**

- For assembly and disassembly of silent bearings both on and off the vehicle
- Removes the necessity to remove the brake pipes and securing plate
- Saves a lot of time
- Special steel

**Application range:** Ford Galaxy from 2006-2010, Ford Mondeo from 2007-2013, Ford S-Max from 2006-2013, Volvo S60 from 2010-2013, Volvo V70 from 2007-2013

**Caution:** The spindles must be greased before fit use! Overloading leads to unwanted material stresses or breakage. Always check the power settings on the drive with a torque wrench



700.2210	5 pcs	Silent bearing tool set for Ford and Volvo rear wheel mounting	7.80
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consists of:

		<b>X</b>	
700.2211	1	Press screw M24 with bearing	0.53
700.2212	1	Press frame 275 mm	4.35
700.2213	1	Beaker for installation and removal	2.00
700.2214	1	Separator ring	0.30
700.2215	1	Step ring	0.40

**Silent bearing tool set for Land Rover wishbone**

- For assembly and disassembly of silent bearings both on and off the vehicle
- Minimises the normally necessary disassembly work hugely
- Removes the complete removal of the wishbone
- Saves a lot of time
- Special steel


**Application range:** Land Rover Discovery 3 and Range Rover Sport

**Caution:** The spindles must be greased before fit use! Overloading leads to unwanted material stresses or breakage. Always check the power settings on the drive with a torque wrench



700.2220	11 pcs	Silent bearing tool set for Land Rover wishbone	4.37
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consists of:

		
700.2221	Spindle M16 x 1.5	45
700.2222	Press ball	750
700.2223	Assembly plate	800
700.2224	Assembly disk	584
700.2225	Press ball, large, 85 mm	1271
700.2182	Press nut M16	151
700.2183	Counter nut M16	51
700.2228	Half-shell pair with screws and nuts, 4 pcs	725


**Silent bearing tool set for Land Rover rear axle**

- For assembly and disassembly of silent bearings both on and off the vehicle
- For the upper silent bearings on the rear wheel mounting
- Saves a lot of time
- Special steel


**Application range:** Land Rover Discovery 3, Land Rover Discovery 4, Range Rover Sport and Land Rover L322

**Caution:** The spindles must be greased before fit use! Overloading leads to unwanted material stresses or breakage. Always check the power settings on the drive with a torque wrench.



			
700.2230	5 pcs	Silent bearing tool set for Land Rover rear axle	1.19

consists of:

		
700.2201	Spindle M12 x 1.75	191
700.2232	Press ball, large, 55 mm	497
700.2233	Press ball, small, 34 mm	200
700.2202	Press nut M12, 35 mm	171
700.2203	Counter nut, M12 x 1.75	20


**Silent bearing tool set for Land Rover rear wheel mounting**

- For assembly and disassembly of silent bearings both on and off the vehicle
- For the lower silent bearings on the rear wheel mounting
- Saves a lot of time
- Special steel


**Application range:** Land Rover Discovery 3, Land Rover Discovery 4, Range Rover Sport and Land Rover L322

**Caution:** The spindles must be greased before fit use! Overloading leads to unwanted material stresses or breakage. Always check the power settings on the drive with a torque wrench.



			
700.2240	6 pcs	Silent bearing tool set for Land Rover rear wheel mounting	1.77

consists of:

		
700.2201	Spindle M12 x 1.75	191
700.2242	Bush slit	700
700.2243	Press ball, large, 30 mm	340
700.2244	Press ball, small, 30 mm	235
700.2202	Press nut M12, 35 mm	171
700.2203	Counter nut, M12 x 1.75	20


**Silent bearing tool set for Mitsubishi Lancer wishbone**

- For assembly and disassembly of silent bearings both on and off the vehicle
- Removes work on ball joints
- Saves a lot of time
- Special steel


**Application range:** Mitsubishi Lancer EVO 4/5/6 from 1996-2001

**Caution:** The spindles must be greased before fit use! Overloading leads to unwanted material stresses or breakage. Always check the power settings on the drive with a torque wrench.



			
700.2200	5 pcs	Silent bearing tool set for Mitsubishi Lancer wishbone	975

consists of:


		
700.2201	Spindle M12 x 1.75	191
700.2202	Press nut M12, 35 mm	171
700.2203	Counter nut, M12 x 1.75	20
700.2204	Pressure sleeve, 63 mm	505
700.2205	Pressure piece, 18 mm	88

**Silent bearing cutting set for Nissan, Renault and Opel front axles**


- For the disassembly of silent bearings on and off the vehicle
- Simple removal of the outer ring of the silent bearing
- Due to the construction of the help frame and the silent bearings with heightened external ring of the silent bearing must be cut
- Once the external ring has been cut the rest of the silent bearing can be pressed in with 700.2180
- Removes removal of the help frame
- Saves a lot of time since the replacement is carried out built in
- Special steel

**Application range:** Renault Trafic, Nissan Primaster, Opel Vivaro 2001-2013



			
700.2190	4 pcs	Silent bearing cutting set for Nissan, Renault and Opel front axles	393

consists of:

		
700.2191	Hole saw attachment bracket	53
700.2192	Hole saw Ø 54 mm	129
700.2193	Conical brass silent bearing guide	91
700.2194	1/4" centring shank	120


**Silent bearing tool set for Nissan, Renault and Opel front axle**

- For assembly and disassembly of silent bearings both on and off the vehicle
- Removes the removal of the help frame in connection with 700.1290
- Saves a lot of time since the replacement is carried out built in
- Special steel


**Application range:** Renault Trafic, Nissan Primaster, Opel Vivaro 2001 – 2013

**Caution:** The spindles must be greased before fit use! Overloading leads to unwanted material stresses or breakage. Always check the power settings on the drive with a torque wrench.



			
700.2180	7 pcs	Silent bearing tool set for Nissan, Renault and Opel front axle	2.42

consists of:


		
700.2181	Spindle M16	280
700.2182	Press nut M16	151
700.2183	Counter nut M16	51
700.2184	Press sleeve, large	847
700.2185	Pressure plate	330
700.2186	Conical press sleeve	220
700.2187	Press sleeve, small	543

**Silent bearing tool set for Audi and Volkswagen**


- For the assembly and disassembly of silent bearings, hydro and plastic bearings
- Can be used directly on the vehicle
- Saves a lot of time
- For use with the universal press frame 700.1751 and spindle
- Special steel

**Application range:** Audi A2, A3, Volkswagen Golf 4



			
700.2340	9 pcs	Silent bearing tool set for Audi and Volkswagen	4.20

consists of:


		
700.2341	Counter bearing with recess	718
700.2342	Separating device	1880
700.2343	Internal hexagon screw M12 x 50, 2 pcs	54
700.2344	Press bolts with nut M12 x 200	200
700.2347	Pressure piece, 25 mm	639
700.2348	Press piece with opening	520
700.2349	Press piece for hydro bearings	620
700.2350	Press piece for plastic bearings	652

**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 omitted
- In durable plastic storage case

**Application range:** Volkswagen Polo (9N), Seat Ibiza IV, Cordoba (from model 2002), Altea, Skoda Fabia, Roomster, Audi A2 + structurally identical group vehicles



		
700.1650	8 pcs Silent bearing tool set for VAG Front axle consoles	3.20

consists of:

		
700.1651	Working spindle M10x1,25, 180 mm	170
700.1652	Spindle extension M10x1,25, 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 Ø74mm, installation	390
700.1656	Special thrust piece Ø74mm, installation	1070
700.1657	Distance piece with knurled, extension	240
700.1658	Distance piece with collar, extension	240




**Silent bearing tool set for VAG rear axles**

- For assembly and disassembly of bearings both on and off the vehicle
- For the replacement of silent bearings from the wheel bearing housing, axle guide/trailing arm, wishbone lower/internal as built in, push rod and the upper wishbone not built-in
- For use alongside mechanical spindle
- Special steel
- In durable plastic storage case


**Application range:** Volkswagen Golf 5 Plus/Variant/4 Motion from 2005-2012; Volkswagen Scirocco 2009-2012; Volkswagen Beetle >2012; Volkswagen EOS 2006-2012; Seat Altea from 2004-2012; Seat Leon from 2006-2012; Seat Toledo from 2005-2009; Audi A3/S3 from 2004-2012; Audi TT/TTS Coupe/Roadster from 2007-2012

**Caution:** The spindles must be greased before fi st use! Overloading leads to unwanted material stresses or breakage Always check the power settings on the drive with a torque wrench.



		
700.2110	18 pcs Silent bearing tool set for VAG rear axles	4.24

consists of:

		
700.2111	Pressure piece, 35.7 mm	60
700.2112	Pressure piece, 37.6 mm, 19 mm	160
700.2113	Pressure piece, 37.6 mm, 16 mm	80
700.2114	Pressure piece, 39.5 mm	100
700.2115	Pressure piece, 41.3 mm	100
700.2116	Pressure piece, 42.0 mm	60
700.2117	Pressure piece, 49.0 mm	300
700.2118	Pressure piece, 49.9 mm	60
700.2119	Pressure piece, 50.0 mm	220
700.2120	Pressure piece, 59.4 mm	220
700.2121	Pressure piece, 67.0 mm	300
700.2122	Pressure piece, 80.0 mm, 13 mm	160
700.2123	Pressure piece, 80.0 mm, 13 mm	320
700.2124	Pressure piece, 80.4 mm	840
700.2108	Ring, Ø 40.0 mm	60
700.2130	Drive spindle M12 x 1.5, including press nut and nuts	310

**Silent bearing tool set for VAG rear axles**

- For assembly and disassembly of the rubber meta or rubber plastic bearings on the rear axle
- For use alongside mechanical spindle
- For secure bearings a hollow piston cylinder may also be used
- Special steel
- In durable plastic storage case


**Application range:** Audi A3; Volkswagen Golf 4; Škoda Octavia >1997, Seat Leon; Toledo >2001

**Caution:** The spindles must be greased before fi st use! Overloading leads to unwanted material stresses or breakage. Always check the power settings on the drive with a torque wrench.



		
700.2100	11 pcs Silent bearing tool set for VAG rear axles	4.98

consists of:

		
700.2101	Pressure piece, 68.7 mm	340
700.2102	Pressure piece, 76.6 mm	580
700.2103	Pressure piece, 83.8 mm	780
700.2104	Pressure piece, 90.0 mm	300
700.2105	Pressure piece, 90.3 mm	1030
700.2106	Pressure piece, 96.3 mm	620
700.2107	Pressure piece, 97.9 mm	100
700.2108	Ring, Ø 40.0 mm	60
700.2130	Drive spindle M12 x 1.5, including press nut and nuts	310

**Drive spindle**

- Pressure bearing protects against increased friction during the process
- Spindle M12 x 1.5
- Double sided press bearing for quick installation and removal of bushes
- Includes press nut and nuts
- Chrome molybdenum

**Caution:** The spindles must be greased before fi st use! Overloading leads to unwanted material stresses or breakage Always check the power settings on the drive with a torque wrench



		
700.2130	3 pcs Drive spindle	310

consists of:

		
700.2126	Spindle M12	180
700.2125	Press nut M12, 24mm	120
700.2109	Thrust bolt	10



CAMBER ADJUSTMENT TOOLS

Camber level

- Ideally suited to adopting the prescribed camber adjustment values before removing the shock absorbers
- The level is secured with the magnetic side on the brake discs or wheel hubs and the value can be read
- Following the repair the adjustment value is easily restored
- Quick and correct work without a great amount of effort
- Saves measuring the axle
- With adjustment wheel to allow for a zero setting
- Includes strong magnetic feet
- In durable plastic storage case



	Total length mm	Weight kg
150.9431	125.0	450



Camber adjustment tool

- Ideally suited to setting the camber on vehicles with separated spring feet
- One-man operation
- The tool is tensioned between the rim and the bodywork (wings)
- Clear reduction in time required
- Adjustment is carried out by turning the sturdy hexagonal nut
- External drive hexagonal socket 22.0 mm
- Special steel

Application range: Seat Cordoba, Volkswagen Polo > 1995, etc.



	Clamping range mm	Weight kg
150.9420	135.0 - 200.0	1.21

Camber adjustment tool

- Ideally suited to setting the camber on vehicles with separated spring feet
- One-man operation
- The tool is tensioned between the rim and the bodywork (wings)
- Clear reduction in time required
- Adjustment is carried out by turning the sturdy hexagonal nut
- External drive hexagonal socket 22.0 mm
- Special steel

Application range: Seat Toledo, Volkswagen Golf, Jetta, etc.



	Clamping range mm	Weight kg
150.9415	135.0 - 175.0	1.18

Camber setting tool for BMW

- Ideally suited to setting the camber on the front axle
- It is used after knocking out the locating bolt of the strut bearing in a downwards direction via the spring strut bearing
- Quick and correct work without a great amount of effort
- One-man operation
- The adjustment process is carried out via the exact alignment of the upper spring strut bearing
- Without this tool the correct and exact adjustment of the camber is almost impossible
- Aluminium

Application range: BMW 1 series (E81, E82, E87, E88), 3 series (E46, E90, E91, E92, E93), X3 (E83), X5 (E53), Z4 (E85, E86)



	Ø mm	Height mm	Weight kg
150.1821	82.0	25.0	347

Camber setting tool for BMW

- Ideally suited to setting the camber on the front axle
- It is used after knocking out the locating bolt of the strut bearing in a downwards direction via the spring strut bearing
- Quick and correct work without a great amount of effort
- One-man operation
- The adjustment process is carried out via the exact alignment of the upper spring strut bearing
- Without this tool the correct and exact adjustment of the camber is almost impossible
- Aluminium

Application range: BMW 5 series, (E39, E60, E61), 6 series (E63, E64), 7 series (E38, E65, E66, E67)



	Ø mm	Height mm	Weight kg
150.1822	83.0	17.0	343

BMW camber setting tool set

- Ideally suited to setting the camber on the front axle
- It is used after knocking out the locating bolt of the strut bearing in a downwards direction via the spring strut bearing
- Quick and correct work without a great amount of effort
- One-man operation
- The adjustment process is carried out via the exact alignment of the upper spring strut bearing
- Without this tool the correct and exact adjustment of the camber is almost impossible
- Aluminium

Application range: BMW 1 series (E81, E82, E87, E88), 3 series (E46, E90, E91, E92, E93), 5 series, (E39, E60, E61), 6 series (E63, E64), 7 series (E38, E65, E66, E67), X3 (E83), X5 (E53), Z4 (E85, E86)



		Weight kg
150.1820	2 pcs BMW camber setting tool set	689

consists of:

		Weight kg
150.1821	BMW camber adjustment tool, 1 series, 3 series, X3, X5, Z4	347
150.1822	BMW camber adjustment tool, 5 series, 6 series, 7 series	343

TRACKING ADJUSTMENT TOOLS

Axle tracking adjustment tool for VAG passenger cars with 4 wheel drive

- Ideally suited to tracking adjustments to the rear axle
- Suitable for the hard-to-reach adjustment screws
- Quick and correct work without a great amount of effort
- One-man operation
- 90° angled
- With 2 component handle
- Matt finish
- Chrome vanadium

Application range: all Audi and Volkswagen vehicles with all-wheel drive, e.g. Audi A4 Quattro, Volkswagen Passat 4motion, etc.



	Tool length mm	Weight kg
150.9426	M12 310.0	340



**Axle tracking adjustment tool for Mercedes**

- Ideally suited to tracking adjustments to the rear axle
- Suitable for the hard-to-reach adjustment screws
- Quick and correct work without a great amount of effort
- One-man operation
- Twice angled
- Without this tool the correct and exact adjustment of the tracking is almost impossible
- Includes interchangeable spline bits
- With 2 component handle
- Matt finish
- Chrome vanadium

**Application range:** Mercedes C class and S class, also for older models with under body panels and vehicles with level sensors



150.9470	3 pcs	Axle tracking adjustment tool for Mercedes	440
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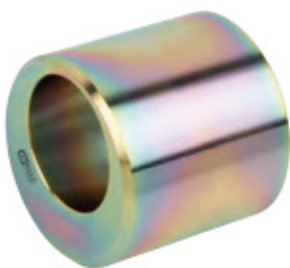
consists of:

150.9471		Basic adjustment tool for Mercedes	410
150.9472		10 mm attachment XZN® bit , M10	14
150.9443		10 mm attachment XZN® bit , M12	16

**Tracking adjustment cam nut for BMW**

- Ideal for adjusting the tracking on the rear axle as well as camber adjustment on the wishbone
- For adjustment the screws must be removed from the lower wishbone
- By putting in and turning the cam nut on the securing screw the wishbone is moved to the required camber adjustment
- Internal square drive to DIN 3120/ISO 1174
- Special steel

**Application range:** BMW E36, BMW E46, BMW E83, BMW E85



700.1671	40.0	300
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**Tracking adjustment tool for Mercedes**

- Ideally suited to tracking adjustments to the rear axle
- Removes mounting of the exhaust system
- Saves a lot of time
- No adjustment of the cam screw when removing the counter nut
- External double-hex drive 21 mm with integrated TX 55 use and internal hexagon drive 17 mm
- Special steel

**Application range:** Mercedes W211, Mercedes C219 and Mercedes W209

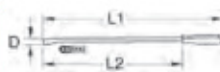


700.1672	21.0	T55	17	260.0	280
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**LEVER / PRY BARS**

**Pry bar**

- Ideally suited to assembly and disassembly work
- For pressure testing securely-fitted parts
- Suitable for positioning parts or holding parts in place
- 1 piece handle
- Hardened
- Chrome molybdenum



	D mm	L1 mm	L2 mm	W
911.8101	11.0	200.0	115.0	130
911.8102	15.0	300.0	185.0	220
911.8103	18.0	450.0	320.0	420
911.8104	18.0	600.0	470.0	560

**Pry bar sets**

- Ideally suited to assembly and disassembly work
- For pressure testing securely-fitted parts
- Suitable for positioning parts or holding parts in place
- 1 piece handle
- Hardened
- Chrome molybdenum



911.8100	4 pcs	11 x 115 mm - 15 x 185 mm - 18 x 320 mm - 18 x 470 mm	1.33
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**Mechanics pry bar**

- Angular lever end guarantees non-slip surface
- With go through blade and hammer cap
- Ideally suited to assembly and disassembly work
- For pressure testing securely-fitted parts
- Suitable for positioning parts or holding parts in place
- Suitable for the testing of defective bearings
- With two component handle
- Heavy design especially for commercial vehicles
- Special steel



	Bent radius	L mm	W
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

**Mechanics pry bar set**

- Angular lever end guarantees non-slip surface
- With go through blade and hammer cap
- Ideally suited to assembly and disassembly work
- For pressure testing securely-fitted parts
- Suitable for positioning parts or holding parts in place
- Suitable for the testing of defective bearings
- With two component handle
- Heavy design especially for commercial vehicles
- Special steel
- In durable plastic storage case



911.8410	4 pcs	Mechanics pry bar set	8.70
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consists of:

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

**Intexable ratchet pry bar**

- 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



	L mm	Assembly levels	kg
911.8176	250.0	5	600
911.8177	300.0	5	600
911.8178	400.0	5	600
911.8179	620.0	5	1810

**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



		kg
911.8175	3 pcs Adjustable joint roll head pry bar set	1.20

consists of:

		kg
911.8176	Ratched pry bar, 10"	600
911.8177	Ratched pry bar, 12"	600
911.8178	Ratched pry bar, 15"	600

**Roller head telescopic pry bar**

- Handle can be lengthened by the push button in ratchet steps
- Rolling head adjustable in stages
- Extra thin with embedded rolling head
- Maximum power in the smallest areas
- Optimal leverage in minimal work area
- Ideally suited to assembly and disassembly work
- For pressure testing securely-fitted parts
- Suitable for positioning parts or holding parts in place
- Suitable for the testing of defective bearings
- Ideal for use in passenger cars and commercial vehicles
- Special steel



	L mm	H mm	B mm	kg
911.8186	325-460	90,0	12,0	780
911.8187	600-915	120,0	20,0	1900
911.8188	865-1350	145,0	24,0	4260

**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 set and time savings also
- Stable construction - optimal stop
- Special steel



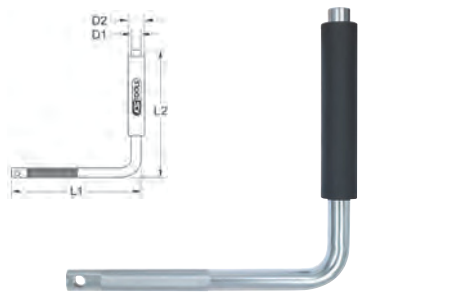
	L mm	kg
700.1460	1000.0	4.36

**AXLE PLAY TEST TOOL**

**Axle play detector bar**

- For localising sources of faults in the vehicle axle area
- Testing under load
- Large time savings during fault diagnostics
- Suitable for all passenger cars up to 3.5 t
- Special steel

**Application range:** Dome bearings / silent bearings / carrier joint / track rod end / coupling rod / wheel bearings / axial joint / steering gear / stabiliser, etc.



	L1 mm	L2 mm	D1 mm	D2 mm	kg
700.1465	400,0	400,0	25,0	50,0	1,90

**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 bearings, ball joints (Tie rod joints) suspension joints/coupling rods etc



	Ø mm	L mm	kg
700.1455	36,0	840,0	6,00

consists of:

		kg
700.1411	Wheel hub/drive flange dismantling tool	2,55
700.1450	Movement Test lever, Reception AG 1.1/2" x 16G	3,24

**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 be 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, bearings, piston pins  
 Alternator: Bearing sounds  
 Differential: Barrel sounds  
 Bodywork: Creak and squeak sounds



		kg
150.1695	18 pcs Electronic professional stethoscope	2,50

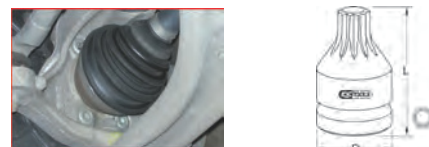
consists of:

		kg
150.1695-1	Headset	350
150.1695-2	Amplifier	115
150.1695-3	Hand held stethoscope	165
150.1695-4	Velcro strap, 8 pcs	9
150.1695-5	Sensor	10
150.1695-6	Colour coded cable, 6 pcs	755

**SOCKET SET FOR CHASSIS BOLTING**

**Impact bit socket for spline( XZN®) screws**

- Spline (XZN®)
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



		L mm	D mm	T mm	kg
515.1171	M14	45,0	25,0	20,0	110
515.1173	M16	45,0	25,0	20,0	120
515.1175	M18	45,0	25,0	20,0	130

**Impact bit socket for spline (XZN®) screws**

- Spline (XZN®)
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



	L	D	T	⚙️	
	mm	mm	mm		
515.1172	M14	75.0	25.0	50.0	150
515.1174	M16	75.0	25.0	50.0	170
515.1176	M18	75.0	25.0	50.0	190

**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



	⚙️
515.1160 7 pcs Impact bit socket set for spline (XZN®) screws, long	1.05

consists of:

	⚙️
515.1167 3/4" Impact socket, 24mm	280
515.1161 1/2" DUODRIVE Special Impact Socket XZN, M14,43mm short	83
515.1162 1/2" DUODRIVE Special Impact Socket XZN, M14,78mm long	120
515.1163 1/2" DUODRIVE Special Impact Socket XZN, M16,43mm short	85
515.1164 1/2" DUODRIVE Special Impact Socket XZN, M16,78mm long	83
515.1165 1/2" DUODRIVE Special Impact Socket XZN, M18,43mm short	120
515.1166 1/2" DUODRIVE Special Impact Socket XZN, M18,78mm long	160

**Impact bit socket set**

- TX tamperproof
- Spline tamperproof
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Matt finish
- Chrome molybdenum
- In durable steel storage case



	⚙️
515.0010 6 pcs Impact bit socket set	2.20

consists of:

	⚙️
515.0012 3/4" Impact bit socket XZN, tamperproof, short, M16	270
515.0013 3/4" Impact bit socket XZN tamperproof, short, M18	270
515.0016 3/4" Impact bit socket TX, tamperproof short, TB70	270
515.0017 3/4" Impact bit socket TX tamperproof short, TB80	270
515.0018 3/4" Impact bit socket TX tamperproof short, TB90	280
515.0019 3/4" Impact bit socket TX tamperproof short, TB100	290

**VIBRO IMPACT**

**Vibro impact pneumatic chisel hammer set**

- With non slip soft grip handle
- Air exhaust through the handle
- Ergonomic designed handle
- Ideal for industry
- Efficient, gentle loosening of screw fittings
- With stepless impact regulation
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light housing from two component plastic



	⚙️
515.3880 6 pcs Vibro impact pneumatic chisel hammer set	5.70

consists of:

	⚙️
515.3881 Pneumatic chisel hammer	2.17
515.3882 Holder for pneumatic chisel hammer	1.55
515.3886 Pneumatic chisel track rod loosener, 110mm	0.14
515.3887 Pneumatic chisel hammer, 110mm	0.15
515.3888 Pneumatic chisel loosening adapter, 130mm	0.16
515.3889 Pneumatic chisel loosening mandrel, 100x25x12mm	0.19

**Vibro-Power ball joint releaser**

- Vibration supported release on ball joints
- Adjustable, e.g. conical seat connections to wheel bearing houses and wishbones
- Pneumatic chisel adapter (10 mm) for use with pneumatic chisel hammers on the market
- Special steel

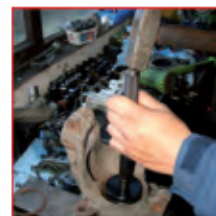
**Caution:** May only be used alongside a pneumatic chisel hammer



	Length	Width	Height	Drive	⚙️
	mm	mm	mm		
515.3884	68.0	40.0	130.0	∅ 10 mm	340

**Universal bearing and bush driver set**

- Universal applicable range
- Can be used manually with a hammer or workshop press
- Applications from 18.0 - 65.0 mm
- Pressure plates are for the two driving spindles
- Special steel
- In durable plastic storage case



	⚙️
700.1350 51 pcs Universal bearing and bush driver set	8.00

consists of:

Part No.	Description	Quantity
700.1348	Reception adaptor, 45mm	500
700.1349	Impact drive knurled grip, 220mm	42
700.1351	Pressure plate, 18mm	12
700.1352	Pressure plate, 19mm	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, 75mm	500

**EXTRACTOR**

**Brass and aluminium punch**

- For extracting bearing, bolts and bushes, etc.
- Rimed handle for better control
- Brass / Aluminium



Part No.	Material	Ø mm	L mm	Weight
156.0415	brass	20,0	300,0	1.13
156.0416	aluminium	30,0	300,0	1.89

**PRESS UNDERLAYS**

**Universal press support**

- Universal adjustable support
- Through the height adjustable bolts a fix ure 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

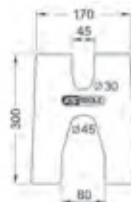


Part No.	L mm	B mm	H mm	Weight
700.1740	245,0	200,0	40,0	8.10



**Prism plate extra narrow, Ø 30,0/45,0 mm**

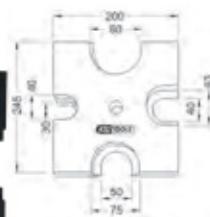
- Universally usable plates
- Especially suitable for tight spaces (up to 4 mm)
- For pressing on and off bearings or cogs on bearing shafts, e.g. on engines, transmissions, etc.
- Special steel



Part No.	Length mm	Width mm	Weight
700.1744	300,0	170,0	1.10

**Universal prism plate Ø 40.0/63.0/75.0/80 mm**

- Universally usable plates
- For the pressing on and off of bearing on rear axles, engines and transmissions
- Special steel



Part No.	Length mm	Width mm	Weight
700.1738	245,0	200,0	7.32

**Prism plate Ø 62,0 mm**

- Universally usable plates
- For pressing on and off bearings or cogs on bearing shafts, e.g. on engines, transmissions, etc.
- in connection with workshop presses
- Special steel



Part No.	Length mm	Width mm	Weight
700.1739	200,0	180,0	4.36

**Prism plate Ø 67,0 mm**

- Universally usable plates
- For pressing on and off bearings or cogs on bearing shafts, e.g. on engines, transmissions, etc.
- in connection with workshop presses
- Special steel



Part No.	Length mm	Width mm	Weight
700.1742	200,0	180,0	4.28

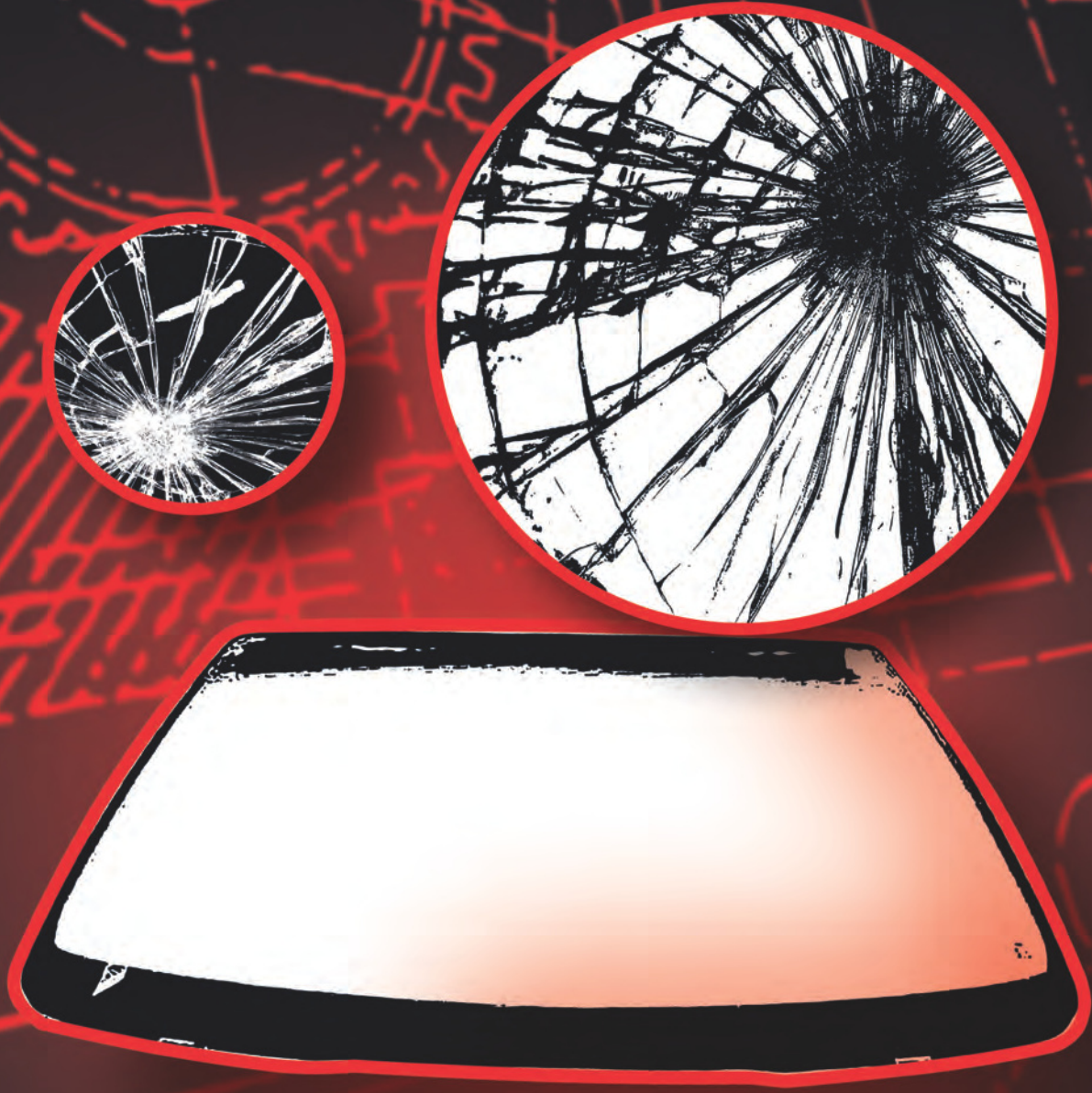
**Prism plate Ø 72,0 mm**

- Universally usable plates
- For pressing on and off bearings or cogs on bearing shafts, e.g. on engines, transmissions, etc.
- in connection with workshop presses
- Special steel



Part No.	Length mm	Width mm	Weight
700.1743	200,0	180,0	4.14

AUTO GLASS



Innovation is our mission!



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