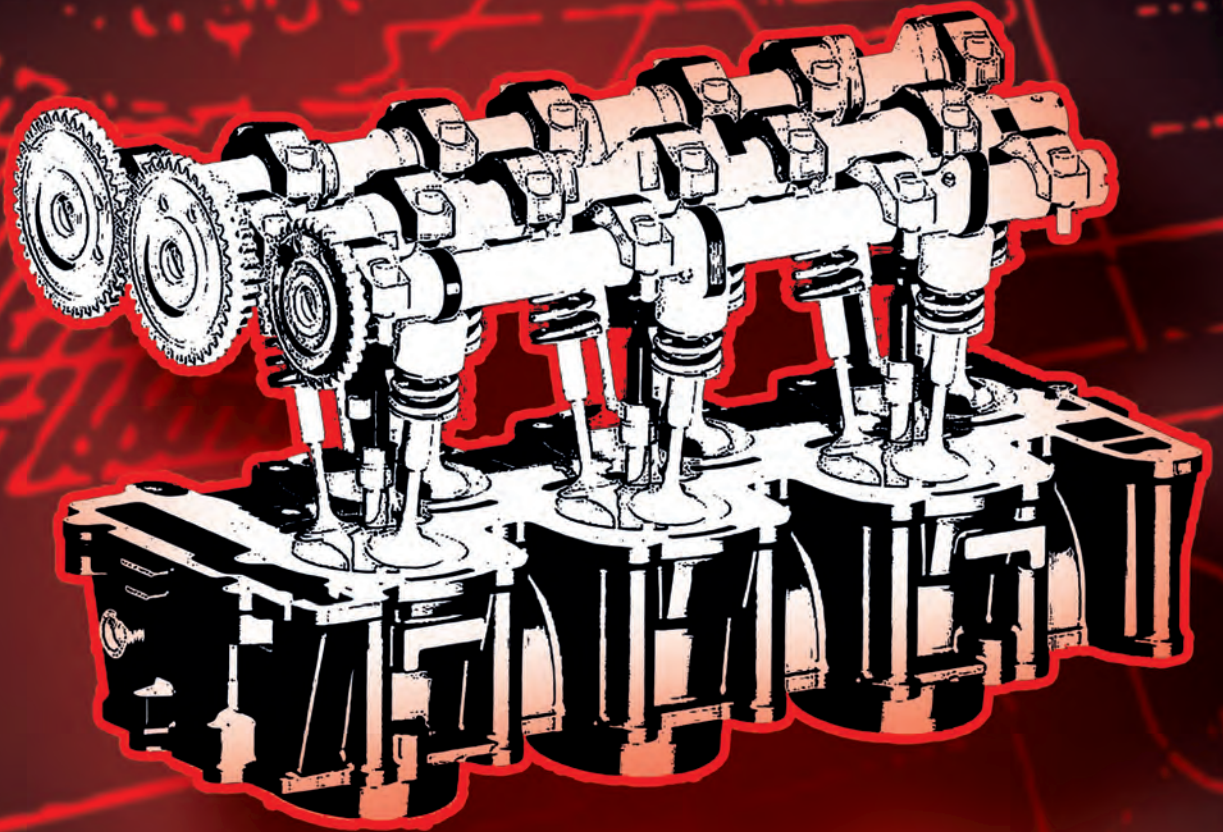


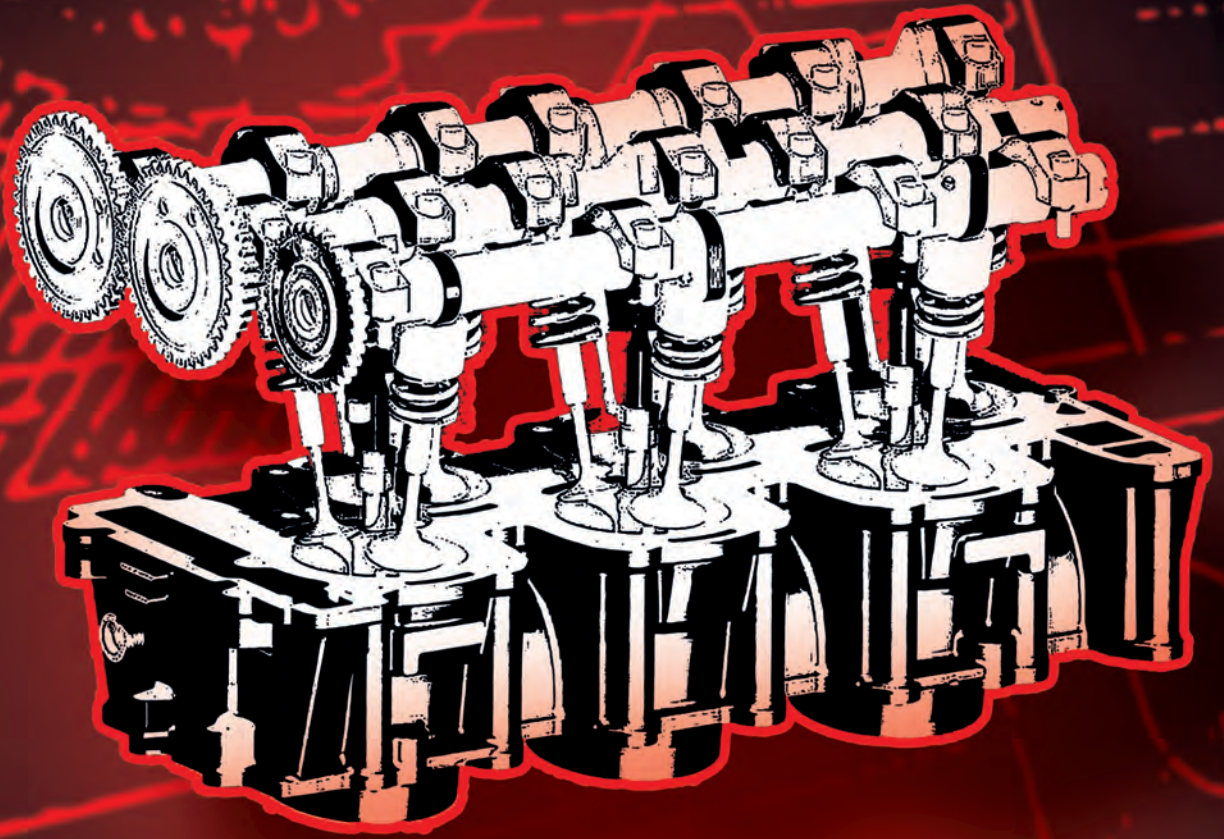
K15



KS TOOLS



ENGINE - CYLINDER HEAD / ENGINE BLOCK 01



Innovation is
our mission!



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TOOLS FOR ENGINE BLOCK SCREWS

VAG Engine support socket set, extra short

- 12-point
- For the assembly and removal of the aluminium engine support (hard to reach sites)
- Ideal for timing belt change
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Extra-short design
- For manual operation
- Matt finish
- Chrome vanadium

Application range: For timing belt change on Volkswagen Golf IV, Audi, Škoda, Seat etc.



		g	
911.1295	2 pcs VAG Engine support socket set, extra short	110	

consists of:

		g	
911.1293	12-point socket, 16.0 mm, L=30 mm	40	
911.1294	12-point socket, 16.0 mm, L=47.5 mm	67	

TX-E socket for Mercedes, extra-short

- TX-E
- Ideally suited for various engine screws
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Extra-short design
- For manual operation
- Matt finish
- Chrome vanadium

Application range: Engine screws (e.g. various supports, housing cover, etc.) on Mercedes diesel engines 642, 651 and petrol engines 276, 278, 271



		D mm	L mm	g
911.1288	E12	22.0	25.0	40

VAG Bit socket for hexagon screws, extra long

- Hexagon socket with ball head
- For releasing and tightening the TDC sensor
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Extra-long design
- For manual operation
- Matt finish
- Chrome vanadium

Application range: VAG models from 2005, 4-cylinder 2.0l diesel engines



		mm	D mm	L mm	g
911.1598		4,0	11,0	300,0	80

Bit socket for five star tamperproof screws

- Five star bit, tamperproof
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium

Application range: Control devices, alternator, air quantity meter, exterior mirror, insertion pumps for pump-line-nozzle system, door lock fastening screw for Volkswagen, Audi, Ford, Mercedes, Rover, Seat, Škoda, Volvo etc.



		D	D mm	L mm	T mm	g
911.2471	TS8	12.0	25.0	5.0	10	
911.1471	TS10	12.0	25.0	6.0	10	
911.1472	TS15	12.0	25.0	6.0	10	
911.1473	TS20	12.0	25.0	7.0	10	
911.1474	TS25	12.0	25.0	7.0	10	
911.1475	TS27	12.0	25.0	8.0	10	
911.1476	TS30	12.0	25.0	8.0	10	
911.1477	TS40	12.0	25.0	9.0	10	

Bit socket set for tamperproof five star screws

- Five star bit, tamperproof
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail

Application range: Control devices, alternator, air quantity meter, exterior mirror, insertion pumps for pump-line-nozzle system, door lock fastening screw for Volkswagen, Audi, Ford, Mercedes, Rover, Seat, Škoda, Volvo etc.

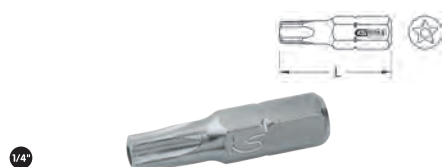


		g	
911.1470	7 pcs TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40	160	

CLASSIC Bit for tamperproof five star bits

- Five star bit, tamperproof
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6.3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special steel

Application range: Control devices, alternator, air quantity meter, exterior mirror, insertion pumps for pump-line-nozzle system, door lock fastening screw for Volkswagen, Audi, Ford, Mercedes, Rover, Seat, Škoda, Volvo etc.



		L mm	Content	g
911.3101	TS10	30.0	1	5
911.3102	TS15	30.0	1	5
911.3103	TS20	30.0	1	5
911.3104	TS25	30.0	1	6
911.3105	TS27	30.0	1	6
911.3106	TS30	30.0	1	6
911.3107	TS40	30.0	1	8

CLASSIC Bit set for tamperproof five star screws

- Five star bit, tamperproof
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6.3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special steel

Application range: Control devices, alternator, air quantity meter, exterior mirror, insertion pumps for pump-line-nozzle system, door lock fastening screw for Volkswagen, Audi, Ford, Mercedes, Rover, Seat, Škoda, Volvo etc.



		g	
911.1480	8 pcs TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40	50	

Five star profile tamperproof key wrench set

- Long design
- Bore hole at the short and long end
- Continuous hardened
- Matt chrome
- Special steel

Application range: Control devices, alternator, air quantity meter, exterior mirror, insertion pumps for pump-line-nozzle system, door lock fastening screw for Volkswagen, Audi, Ford, Mercedes, Rover, Seat, Škoda, Volvo etc.



		g	
151.2470	9 pcs TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45 - TS50	330	

ERGOTORQUE® screwdriver for TX screws, long

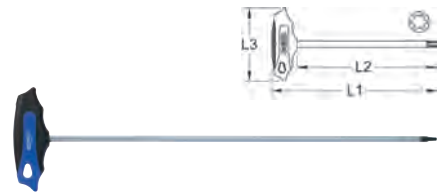
- One component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	g
911.1670	T15	330.0	250.0	80.0	60
911.1671	T20	343.0	250.0	93.0	60
911.1672	T25	345.0	250.0	95.0	70
911.1673	T30	360.0	250.0	110.0	70

ERGOTORQUE^{plus} T-handle TX key wrench, long

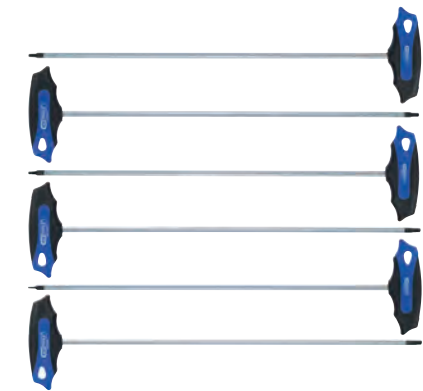
- Extra long execution
- With two component handle
- Continuous hardened
- Tip burnished
- Chrome plated and mirror polished
- Special steel



		L1 mm	L2 mm	L3 mm	g
158.8051	T10	403.0	373.0	80.0	30
158.8052	T15	403.0	373.0	80.0	30
158.8053	T20	403.0	373.0	100.0	40
158.8054	T25	408.0	373.0	100.0	40
158.8055	T27	408.0	373.0	100.0	40
158.8056	T30	408.0	373.0	100.0	45

ERGOTORQUE^{plus} T-handle TX key wrench set

- Extra long execution
- With two component handle
- Continuous hardened
- Tip burnished
- Chrome plated and mirror polished
- Special steel

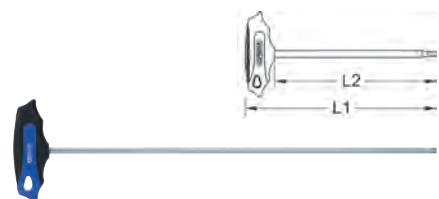


		g
158.8050	6 pcs T10 - T15 - T20 - T25 - T27 - T30	375

CHROME^{plus} T handle RIBE profile extra long

- Extra-long design
- With 2 component handle
- Continuous hardened
- Chrome plated and mirror polished
- Special steel

Application range: e.g. valve cover and spark plug cover for Alfa Romeo, Fiat, Lancia etc.



		L1 mm	L2 mm	g
158.5121	M4	280.0	250.0	100
158.5122	M5	280.0	250.0	100
158.5123	M6	280.0	250.0	100
158.5124	M7	280.0	250.0	130
158.5125	M8	280.0	250.0	145
158.5126	M9	280.0	250.0	145
158.5127	M10	290.0	250.0	316

TOOLS FOR CYLINDER BLOCK SCREWS

ERGOTORQUE^{precision} torque wrench with rotary mushroom ratchet head

- Actuation accuracy: $\pm 3\%$ tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Torque setting by pulling out and pushing in the slide in knob at the end of the handle
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Double scale in N·m and lb·ft divisions for precise adjustment
- Includes micrometer scale in N·m divisions for precise and fine adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- Exact gearing 72 teeth ratchet mechanism
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Individually marked with serial number unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard

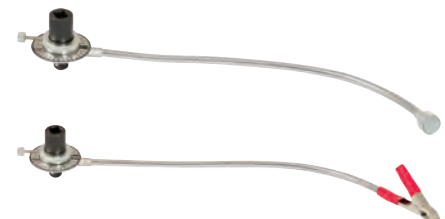
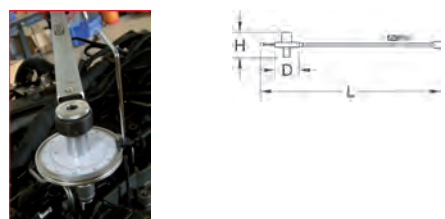


1/4" 3/8" 1/2" 3/4" 1"

	N·m	Division N·m	lb·ft	L mm	D mm	H mm	g
516.1412	1/4"	1-25	0.10	0,8 - 18	289.0	35.0	18.0
516.1422	3/8"	5-50	0.25	4 - 37	350.0	45.0	23.0
516.1432	1/2"	10-100	0.50	8 - 75	412.0	45.0	23.0

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



	Arm	Pitch	D mm	H mm	L mm	g	
516.1195	1/2"	1/2"	magnet	2°	67.0	63.0	480.0
516.1196	1/2"	1/2"	claw	2°	67.0	63.0	538.0

Cylinder head bit socket for TX screws, extra-long

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fitted nickel plated insert bit
- For manual operation
- Matt finish
- Chrome vanadium



		D mm	L mm	T mm	g
911.1937	T40	22	140.0	72.0	125
911.1938	T45	22	140.0	72.0	125
911.1939	T50	22	140.0	72.0	125
911.1940	T55	22	140.0	72.0	125

Cylinder head bit socket for TX screws, long

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long design
- With press fitted nickel plated insert bit
- For manual operation
- Matt finish
- Chrome vanadium

Application range: e.g. Ford 1.8l Diesel (Turbo), Fiesta, Escort, Sierra and Mazda 121 >1996



		D mm	L mm	T mm	g
911.1517	T70	22.0	110.0	72.0	120

Cylinder head bit socket for spline (XZN®) screws, long

- Spline (XZN®)
- For loosening and tightening cylinder head screws
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long design
- With press fitted nickel plated insert bit
- For manual operation
- Matt finish
- Chrome vanadium

Application range: e.g. cylinder head screws on Toyota Corolla 1.4l, Yaris 1.0l and VM diesel engines (e.g. Chrysler, Volkswagen, Audi, Opel etc.



		D mm	L mm	T mm	g
911.1350	M5	22.0	110.0	72.0	107
911.1351	M6	22.0	110.0	72.0	109
911.1352	M8	22.0	110.0	72.0	109
911.1359	M9	22.0	110.0	72.0	112
911.1353	M10	22.0	110.0	72.0	112
911.1354	M12	22.0	110.0	72.0	138
911.1355	M14	22.0	110.0	72.0	179
911.1356	M16	22.0	110.0	72.0	250

Cylinder head bit socket for spline (XZN®) screws, extra-long

- Spline (XZN®)
- For loosening and tightening cylinder head screws
- This length allows deep seated and difficult to access cylinder head screws to be removed and inserted without problem
- Internal square in accordance with DIN 3121 / ISO 1174
- Extra-long design
- With press fitted nickel plated insert bit
- For manual operation
- Matt finish
- Chrome vanadium

Application range: Japanese cars with petrol engines, e.g. Daihatsu, Toyota etc.



		D mm	L mm	kg
911.1394	M9	22.0	140.0	72

Cylinder head impact bit socket for RIBE® screws, extra-long

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



		D mm	L mm	kg
911.1395	M9 / M10	25.0	128.0	110

Cylinder head impact bit socket for RIBE® screws, extra-long

- RIBE®
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Extra-long design
- With press fitted nickel plated insert bit
- For manual operation
- Matt finish
- Chrome vanadium

Application range: Polydrive cylinder head screws for VAG



		Ø mm	L mm	kg
515.1281	M10	22.0	165.0	160

Cylinder head bit socket for RIBE® screws, long

- For tamperproof RIBE® profile
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fitted nickel plated insert bit
- For manual operation
- Matt finish
- Chrome vanadium



		D mm	L mm	T mm	kg
911.3951	M5	22.0	110.0	72.0	120
911.3952	M6	22.0	110.0	72.0	120
911.3953	M7	22.0	110.0	72.0	120
911.3954	M8	22.0	110.0	72.0	120
911.3955	M9	22.0	110.0	72.0	130
911.3956	M10	22.0	110.0	72.0	130
911.3957	M12	22.0	110.0	72.0	150
911.3958	M13	22.0	110.0	72.0	180
911.3959	M14	22.0	110.0	72.0	180

Cylinder head bit socket set for RIBE® screws, long

- For RIBE® screws
- RIBE® profile for tamperproof screws
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long design
- With press fitted insert bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail

Application range: Fiat Bravo, Brava, Alfa Romeo, Lancia Dedra, Tipo, Tempira, diesel engines 1.9 – 2.5l; Opel 1.9l DTH (Fiat-Motor), Audi, Seat, Škoda, Volkswagen etc.



		kg
911.1630	9 pcs M5 - M6 - M7 - M8 - M9 - M10 - M12 - M13 - M14	1.24

Cylinder head surface drive socket, long

- Special profile (Surface-Drive)
- For loosening and tightening cylinder head screws
- Internal square in accordance with DIN 3121 / ISO 1174
- Long design
- For machinery usage
- Phosphate
- Chrome molybdenum

Application range: PSA (all new engines >2005)



		Ø mm	D mm	L mm	kg
515.1277		13.0	20.5	77.0	120

Cylinder head 12-point socket, long

- 12-point
- For loosening and tightening cylinder head screws
- Internal square in accordance with DIN 3121 / ISO 1174
- Long design
- For machinery usage
- Phosphate
- Chrome molybdenum

Application range: Honda, Mitsubishi, Toyota, Suzuki



	Ø mm	D mm	L mm	kg
515.1276	10.0	15.5	130.0	225

Cylinder head TX-E socket, long

- TX-E
- For loosening and tightening TX-E cylinder head screws
- With incorporated retaining ball for accurate removing of the bolt
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long design
- For manual operation
- Matt finish
- Chrome vanadium

Application range: M 42 1.8l, 4 cylinder engine with four-valve technology 318is from 1989, M50 2.0l, 2.5l, 6 cylinder with four-valve technology 5 series from 1991, Audi V6 engine, Opel, Mercedes CDI engines etc.



		L mm	kg
911.4451	E10	150.0	260
911.4452	E12	150.0	260
911.4453	E14	150.0	260
911.4454	E16	150.0	260
911.4455	E18	150.0	260
911.4456	E20	150.0	260

Cylinder head TX-E socket set, long

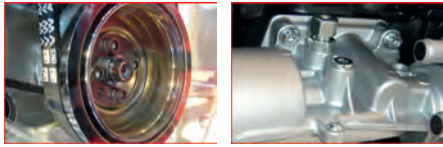
- TX E
- For loosening and tightening TX E cylinder head screws
- With incorporated retaining ball for accurate removing of the bolt
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finish
- Chrome vanadium
- In durable plastic storage case



		kg
911.4450	6 pcs E10 - E12 - E14 - E16 - E18 - E20	1.90

Cylinder head 12-point impact socket set, short

- 12 point
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- In durable plastic case



515.0950	10 pcs	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 mm	1.65	

Cylinder head 12-point impact socket set, long

- 12 point
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- In durable plastic case



515.0900	13 pcs	10 - 12 - 13 - 14 - 15 - 16 - 17 - 19 - 20 - 21 - 22 - 23 - 24 mm	2.80	

Cylinder head bit socket set for TX PLUS screws

- Ideal set compilation for TX and TX PLUS screws
- With external hexagon drive to DIN 3126 / ISO 1173 Form C 6,3 and C 8
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Nickel plated
- Special steel
- In durable plastic storage box

Applications for TX PLUS:

Opel (Corsa) / Volkswagen Passat / Fiat 1,3 / 1,4 / Toyota / Nissan / Renault / Subaru / GM / Ford etc.
e.g.: flywheel / timing belt housing cover / general engine / transmission

Applications for TX PLUS:

Volkswagen, Mercedes Benz (passenger car+HGV Actros/Atego), Audi, Bosch, MAN, Ford, Opel, John Deere, etc.
e.g.: plug-in pumps of pump-line-nozzle systems, air mass meters, EWS3 immobiliser controller / injection pumps / alternators, etc.



911.3120	22 pcs	TX PLUS socket set	432	

consists of:

911.3101	1/4" CLASSIC bit for five star, bore hole, TS10	5	
911.3102	1/4" CLASSIC bit for five star, bore hole, TS15	5	
911.3103	1/4" CLASSIC bit for five star, bore hole, TS20	5	
911.3104	1/4" CLASSIC bit for five star, bore hole, TS25	6	
911.3106	1/4" CLASSIC bit for five star, bore hole, TS30	6	
911.3240	1/4" CLASSIC TX PLUS bit, 30 mm, IP10	5	
911.3241	1/4" CLASSIC TX PLUS bit, 30 mm, IP15	6	
911.3242	1/4" CLASSIC TX PLUS bit, 30 mm, IP20	5	
911.3243	1/4" CLASSIC TX PLUS bit, 30 mm, IP25	5	
911.3244	1/4" CLASSIC TX PLUS bit, 30 mm, IP30	5	
911.3260	10mm CLASSIC TX PLUS bit, 30 mm, IP40	13	
911.3261	10mm CLASSIC TX PLUS bit, 30 mm, IP45	14	
911.3262	10mm CLASSIC TX PLUS bit, 30 mm, IP50	16	
911.3263	10 mm CLASSIC TX PLUS bit, IP55	20	
911.3264	10 mm CLASSIC TX PLUS bit, IP60	25	
911.4327	1/4" bit adaptor socket, with clamping ring	10	
911.4311	3/8" bit adaptor socket, for bits 10 mm	30	
911.3121	10 mm CLASSIC bit for five star, bore hole, TS40	10	
911.3122	10 mm CLASSIC bit for five star, bore hole, TS45	11	
911.3123	10 mm CLASSIC bit for five star, bore hole, TS50	11	
911.3124	10 mm CLASSIC bit for five star, bore hole, TS55	13	
911.3125	10 mm CLASSIC bit for five star, bore hole, TS60	22	



Cylinder head impact bit socket set for RIBE® screws

- Ideal set compilation for RIBE® screws
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Precise arrangement of the popular 5/16" RIBE® bits
- Phosphate finish
- Special steel
- In durable plastic storage case



911.4306	14 pcs	CLASSIC Bit set	820	
1 x		1/2"		
6 x		M5 - M6 - M7 - M8 - M10 - M12		
7 x		M7 - M8 - M9 - M10 - M12 - M13 - M14		

Cylinder head bolt socket set

- Range of all current inserts for cylinder head screws
- Correct and quick engine repair
- Chrome vanadium
- In durable plastic storage case

Application range: Audi, Seat, Škoda, Volkswagen from 1996, Mercedes 6/8/12 cylinder engines, Opel, Ford, Japanese models, Renault, Opel (V6) and BMW from 1990



911.4460	11 pcs	Cylinder head bolt socket set	1.51	

consists of:

911.4452	1/2" TX-E-socket, long, E12	260	
911.4453	1/2" TX-E-socket, long, E14	260	
911.1940	1/2" bit socket TX, T55, 140 mm	125	
911.1942	1/2" bit socket TX, T70, 140 mm	125	
911.1359	1/2" bit socket XZN, M9, 110 mm	112	
911.1970	1/2" bit socket XZN, M10, 140 mm	125	
911.1972	1/2" bit socket XZN, M12, 140 mm	125	
911.1995	1/2" bit socket for RIBE® screws, M12, 110 mm	175	
911.1996	1/2" bit socket for RIBE® screws, M13, 110 mm	175	
911.1997	1/2" bit socket for RIBE® screws, M14, 110 mm	175	
911.1395	1/2" impact bit socket for RIBE screws, XL	110	

Cylinder head screws socket wrench set

- Matt finish
- Chrome vanadium
- In durable plastic storage case

Application range: Cylinder head screws, air quantity meter, oil drain plugs, gearbox oil, airbag, brake saddle, etc.



1/4" 1/2"

			9
911.4500	38 pcs	Automotive bit socket set	6.50

consists of:

			9
911.1701	5 Star bit socket, 1/4", TS10	10	
911.1702	5 Star bit socket, 1/4", TS15	10	
911.1703	5 Star bit socket, 1/4", TS20	10	
911.1704	5 Star bit socket, 1/4", TS25	10	
911.1705	5 Star bit socket, 1/4", TS27	10	
911.1706	5 Star bit socket, 1/4", TS30	10	
911.1707	5 Star bit socket, 1/4", TS40	10	
911.1708	5 Star bit socket, 1/4" -TS45	10	
911.1709	5 Star bit socket, 1/4" -TS50	10	
911.1314	Hex bit socket, 1/2", 14mm	120	
911.1317	Hex bit socket, 1/2", 17mm	150	
911.1319	Hex bit socket, 1/2", 19mm	200	
911.1322	Hex bit socket, 1/2", 22mm	200	
911.1324	Hex bit socket, 1/2", 24mm	200	
911.1348	XZN bit socket tamperproof, 1/2", M16	140	
911.0954	Impact bit socket XZN, 1/2", M18, L=75mm	146	
911.1925	RIBE bit socket long, M9	112	
911.1359	1/2" Bit socket XZN,L=110mm,M9	112	
911.1356	XZN bit socket, 1/2", deep, M16	250	
911.1632	1/2" TAMPER-TORX-BIT SOCKET T80 x 110mmL	125	
911.1960	Hex bit socket long, 1/2", 10	90	
911.1961	Hex bit socket long, 1/2", 11	100	
911.1963	Hex bit socket long, 1/2", 13	100	
911.1937	TX bit socket long, 1/2", T40	125	
911.1938	TX bit socket long, 1/2", T45	125	
911.1939	TX bit socket long, 1/2", T50	125	
911.1940	1/2" Bit socket TX,L=140mm,T55	125	
911.1941	TX bit socket long, 1/2", T60	125	
911.1942	1/2" Bit socket TX,L=140mm,T70	125	

consists of:

			9
911.1970	1/2" Bit socket XZN,L=140mm,M10	125	
911.1972	1/2" Bit socket XZN,L=140mm,M12	125	
911.1974	XZN bit socket long, 1/2", M14	125	
911.1685	Ball head hex bit socket, 1/2", 5x160mm	125	
911.1327-240	Hex bit socket, 1/2", 7x240mm	185	
911.1993	RIBE bit socket, 1/2", M7x240mm	175	
911.1994	RIBE bit socket, 1/2", M8x240mm	175	
911.1980	RIBE bit socket, 1/2", M10x240mm	194	
911.1624-300	TX bit socket, 1/2", T30, 300mm	125	

Cylinder head bit socket set for RIBE® screws

- Ideal configuration for the most common RIBE® cylinder head screws
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short and long design
- With press fitted insert bit
- For manual operation
- Matt finish
- Chrome vanadium
- In durable plastic storage case

Application range: Fiat, Alfa Romeo, Lancia, Opel, Audi, Seat, Škoda, Volkswagen etc.



1/2"

			9
911.4530	32 pcs	RIBE® bit socket set	5.46

consists of:

			9
911.4511	Bit socket for RIBE® screws, M5, length 55 mm	32	
911.4512	Bit socket for RIBE® screws, M6, length 55 mm	34	
911.4513	Bit socket for RIBE® screws, M7, length 55 mm	35	
911.4514	Bit socket for RIBE® screws, M8, length 55 mm	35	
911.4515	Bit socket for RIBE® screws, M9, length 55 mm	36	
911.4516	Bit socket for RIBE® screws, M10, length 55 mm	37	
911.4517	Bit socket for RIBE® screws, M12, length 55 mm	39	
911.4518	Bit socket for RIBE® screws, M13, length 55 mm	39	
911.4519	Bit socket for RIBE® screws, M14, length 55 mm	40	
911.1921	1/2" bit socket for RIBE® screws, M5, 110 mm	108	
911.1922	1/2" bit socket for RIBE® screws, M6, 110 mm	108	
911.1923	1/2" bit socket for RIBE® screws, M7, 110 mm	109	
911.1924	1/2" bit socket for RIBE® screws, M8, 110 mm	109	
911.1925	1/2" bit socket for RIBE® screws, M9, 110 mm	112	
911.1926	1/2" bit socket for RIBE® screws, M10, 110 mm	112	
911.1995	1/2" bit socket for RIBE® screws, M12, 110 mm	175	
911.1996	1/2" bit socket for RIBE® screws, M13, 110 mm	175	
911.1997	1/2" bit socket for RIBE® screws, M14, 110 mm	175	

consists of:

			9
911.4521	Bit socket for RIBE® screws, M8, length 140 mm	130	
911.4522	Bit socket for RIBE® screws, M9, length 140 mm	131	
911.1980	1/2" bit socket for RIBE® screws, M10, 240 mm	194	
911.4506	Bit socket for RIBE® screws, M10.3, length 140 mm	132	
911.4523	Bit socket for RIBE® screws, M12, length 140 mm	163	
911.4524	Bit socket for RIBE® screws, M13, length 140 mm	202	
911.4525	Bit socket for RIBE® screws, M14, length 140 mm	205	
911.4508	Bit socket for RIBE® screws, M8, length 200 mm	175	
911.4526	Bit socket for RIBE® screws, M9, length 200 mm	175	
911.4509	Bit socket for RIBE® screws, M10, length 200 mm	175	
911.4507	Bit socket for RIBE® screws, M10.3, length 200 mm	175	
911.4528	Bit socket for RIBE® screws, M12, length 200 mm	220	
911.4529	Bit socket for RIBE® screws, M13, length 200 mm	280	
911.4531	Bit socket for RIBE® screws, M14, length 200 mm	285	

Cylinder head bit socket set for Spline (XZN®) screws

- Vielzahn (XZN®)
- Ideal for the most common cylinder head screws
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/2"

			9
911.1635	26 pcs	XZN® socket-set	4.46

consists of:

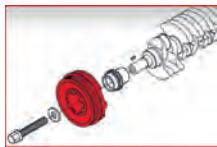
			9
911.1340	1/2" bit socket XZN, M5, 55 mm	80	
911.1341	1/2" bit socket XZN, M6, 55 mm	80	
911.1342	1/2" bit socket XZN, M8, 55 mm	90	
911.1313	1/2" bit socket XZN, M9, 55 mm	95	
911.1343	1/2" bit socket XZN, M10, 55 mm	100	
911.1344	1/2" bit socket XZN, M12, 55 mm	100	
911.1345	1/2" bit socket XZN, M14, 55 mm	110	
911.1346	1/2" bit socket XZN, M16, 55 mm	140	
911.1350	1/2" bit socket XZN, M5, 110 mm	107	
911.1351	1/2" bit socket XZN, M6, 110 mm	109	
911.1352	1/2" bit socket XZN, M8, 110 mm	109	
911.1359	1/2" bit socket XZN, M9, 110 mm	112	
911.1353	1/2" bit socket XZN, M10, 110 mm	112	
911.1354	1/2" bit socket XZN, M12, 110 mm	138	
911.1355	1/2" bit socket XZN, M14, 110 mm	179	
911.1391	Bit socket XZN®, M5, length 140 mm	67	
911.1392	Bit socket for XZN®, M6, length 140 mm	68	
911.1393	Bit socket for XZN®, M8, length 140 mm	71	
911.1394	Bit socket XZN®, M9, length 140 mm	72	
911.1970	1/2" bit socket XZN, M10, 140 mm	125	
911.1972	1/2" bit socket XZN, M12, 140 mm	125	
911.1974	1/2" bit socket XZN, M14, 140 mm	125	
911.1593	Bit socket XZN®, M8, length 200 mm	70	
911.1594	Bit socket for XZN® screws, M10, length 200 mm	71	
911.1596	Bit socket XZN®, M12, length 200 mm	110	
911.1597	Bit socket XZN®, M14, length 200 mm	160	

VIBRATION DAMPER TOOLS

BMW Vibration damper holding screw set

- For clamping the crank shaft when loosening and tightening the crankshaft central screw
- Prevents slipping whilst holding
- With replaceable and tight-fit guide sleeves (Ø 57.0 / 59.5 / 60.5 mm)
- Minimal force required thanks to extra-long lever
- Matt finish
- Chrome vanadium

Application range: When working on the timing drive of BMW M47 TU / TU2 engines with old and new vibration damper design



911.1720	5 pcs	BMW Vibration damper holding screw set	4.60

consists of:

911.1721	Extension pipe, 1000 mm	1900
911.1722	Vibration damper holding wrench insert, 22.0 mm	1400
911.1723	Guide sleeve, Ø 57.0 mm	380
911.1724	Guide sleeve, Ø 59.5 mm	440
911.1725	Guide sleeve, Ø 60.5 mm	480

VAG pulley wheel counter hold wrench

- For the professional engine repair
- Simple assembly and disassembly of the crank shaft pulley wheel or vibration dampers
- Special profiles allows for counter holding when releasing or securing the crank shaft central screw
- The handle can be lengthened via the 3/4" internal square
- Very high degree of accuracy

Application range: VAG group vehicles with 2.4 engines, in particular Volkswagen T2, T3, T4 Transporter, LT, Golf, Passat and Audi (engine code: AAB, AJA, ADG, ABL, 1X, 1Y, 1W, 1V, CS, CW, KY, JR, JX, JD, JP, 1Z, AAT, AEL, AAZ, AHU, AFN, AEY, AVG, ALE, AFF, AHH, ACV, AHY, AJT, AUF, AXG, AXL, AYC)

Please carry out an up-to-date cross reference test for the specific vehicle on www.timingtools.de



400.9042	Suitable for VAG	714

SERVICE STANDS AND PARTS STATIONS

Cylinder head service pillar

- Suitable for all current cylinder heads
- Especially for engines with horizontal camshafts
- Damage free working on the cylinder head
- Special steel



	Replacement base	Replacement column	
150.1170	150.1171	150.1172	4.20

Parts storage for cylinder head components

- Ideal organisational aid for the systematic storage of small parts from the cylinder head
- Suitable for all cylinder heads
- No-loss work on cylinder heads
- Made from rugged plastic



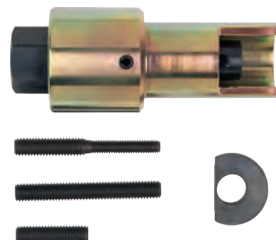
	L mm	B mm	H mm	
150.1173	404.0	450.0	230.0	1.70

SLIDE RAIL BOLTS EXTRACTION TOOLS

Puller set for slide rail bolts

- Allows simple removal for chain slide rail bolts
- For repair without cooler removal
- Includes tension bolts and adapter screw
- Special steel

Application range: for chain slide rail bolts for Mercedes, BMW etc.



700.1135	5 pcs	Puller set for slide rail bolts	580

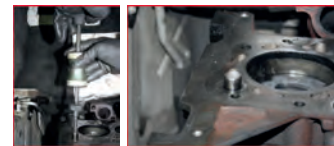
consists of:

700.1136	Basic pullers	520
700.1137	Tension bolts M8 x 30 mm	5
700.1138	Tension bolts M6 x 60 mm	20
700.1139	Tension bolts M8 x 60 mm	20
700.1141	Adapter disk	15

GUIDE SLEEVES INTERNAL EXTRACTOR

Guide sleeves internal puller set for engines and gearboxes

- Damage-free removal and insertion of guide sleeves on engines and gearboxes
- Prevents damage to the guide sleeves from possible use of pliers or a hammer
- Centring shaft
- Enormous time and cost saving
- Universal usage
- Special steel
- In durable plastic storage case



700.1520	7 pcs	Guide sleeves internal puller set for engines and gearboxes	2.40

consists of:

700.1521	Impact hammer M8x1.25	1320
700.1522	Collet for internal Ø 5 mm	80
700.1523	Collet for internal Ø 6 mm	80
700.1524	Collet for internal Ø 7 mm	80
700.1525	Collet for internal Ø 8 mm	80
700.1526	Collet for internal Ø 9 mm	80
700.1527	Collet for internal Ø 10 mm	80

EXTRACTION TOOL AND SPIRAL PROFILE SOCKETS

Epoxy metal Quicksteel

- Optimal adhesive power
- Enables durable repair
- Mechanical preparation after the curing possible
- Firmly set after 15 minutes
- Cures after 60 minutes completely
- Also suitable for use under water
- Temperature resistant up to 260
- Approx three years use duration
- Resistant to oil, diesel, petrol and battery acid

Application range: Metal, glass, plastic, ceramics, wood, concrete optical fiber reinforced plastic, etc.



500.1015		Epoxy metal Quicksteel	80

Screw grab screw assistance

- Increases the static friction by up to 400%
- Residue free washes off and non-toxic
- Immediate effect without waiting
- Applicable for all screw heads
- Unlimited storage

Application range: In rounded turned screw heads



Content		
500.1010	15 ml	250

Stud bolt puller

- For screwing in or extracting out stud bolts
- Clockwise and anticlockwise clamping function
- Also suitable for extra long stud bolts
- Special steel



	Ø mm	max N·m	Hex	g
670.0231	5 - 15	120	19 mm	360
670.0232	10 - 19	120	19 mm	400
670.0233	18 - 28	120	19 mm	450

Stud bolt puller

- For screwing in or extracting out stud bolts
- Clockwise and anticlockwise clamping function
- Also suitable for extra long stud bolts
- Special steel



	Ø mm	max N·m	Hex	g
670.0241	5 - 20	120	19 mm	400

Stud bolt puller

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- External drive hexagon socket 21 mm
- Right and left hand clamping function
- Safe clamping due to 3 rollers
- Stud screws can be screwed in or out without using counter nuts on the bolt
- Also for extra long studs that will go through the through socket
- Chrome plated and mirror polished
- Chrome vanadium



		g
152.1005	M5	150
152.1006	M6	160
152.1007	M7	160
152.1008	M8	170
152.1010	M10	180
152.1012	M12	200
152.1014	M14	200
152.1016	M16	303
152.1018	M18	838
152.1002	M20	818
152.1003	M22	748
152.1004	M24	728
152.1029	M30	1677

Screw bolt puller set

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- External drive hexagonal socket 13.0 mm
- Right and left hand clamping function
- Safe clamping due to 3 rollers
- Stud screws can be screwed in or out without using counter nuts on the bolt
- Also for extra long studs that will go through the through socket
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case



		g
152.1100	4 pcs M6 - M8 - M10 - M12	790

Screw bolt puller set

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- External drive hexagon socket 21 mm
- Right and left hand clamping function
- Safe clamping due to 3 rollers
- Stud screws can be screwed in or out without using counter nuts on the bolt
- Also for extra long studs that will go through the through socket
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case



			g
152.1101	7 pcs M5 - M6 - M7 - M8 - M10 - M12 - M14		1.50

Spiral extractor

- Extra-short design
- With external drive hexagonal socket 13.0 mm
- Slightly conical tapered spiral
- Can also be used for broken screws and stud bolts
- Counter effect motion guarantees easy extraction
- Special steel

Application range: Hexagon head, brakes + Water pumps, Spline drives etc.



	D	L mm	g
150.1371	1/8"	36.0	20
150.1373	3/16"	36.0	20
150.1375	1/4"	36.0	20
150.1379	3/8"	36.0	20
150.1381	1/2"	36.0	20
150.1386	3 mm	36.0	20
150.1387	4 mm	36.0	20
150.1388	5 mm	36.0	20
150.1389	5,5 mm	36.0	30
150.1390	6 mm	36.0	30
150.1391	8 mm	36.0	30
150.1392	10 mm	36.0	30
150.1393	11 mm	36.0	30
150.1394	12 mm	36.0	40
150.1395	14 mm	36.0	40

Captive bolt extractor set

- Extra short execution
- With hexagon drive SW 13
- Slightly conical tapered spiral
- Applicable also for dismantled screws and stand bolt
- Counter effect motion guarantees easy extraction
- Special steel
- In durable plastic storage case

Application range: Hexagon head, brakes + water pumps, spline drives etc.



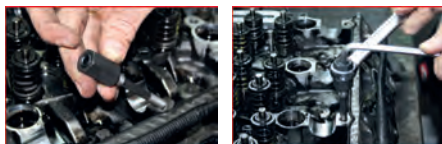
150.1385	15 pcs	Captive bolt extractor set	360
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consists of:

Part No.	Description	Quantity
150.1371	Extractor 1/8"	20
150.1373	Extractor 3/16"	20
150.1375	Extractor 1/4"	20
150.1379	Extractor 3/8"	20
150.1381	Extractor 1/2"	20
150.1386	Extractor 3 mm	20
150.1387	Extractor 4 mm	20
150.1388	Extractor 5 mm	20
150.1389	Extractor 5.5 mm	30
150.1390	Extractor 6 mm	30
150.1391	Extractor 8 mm	30
150.1392	Extractor 10 mm	30
150.1393	Extractor 11 mm	30
150.1394	Extractor 12 mm	40
150.1395	Extractor 14 mm	40

Stud bolt extraction and insertion tool set

- For screwing in or extracting out stud bolts
- With external hexagonal socket drive 17.0 mm and 19.0 mm
- Very flat compact and compact design
- Clockwise and anticlockwise clamping function
- Also suitable for extra-long stud bolts
- Special steel
- In durable plastic storage case



670.0255	12 pcs	Stud bolt extraction and insertion tool set	544
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consists of:

Part No.	Description	Quantity
670.0256	Expansion sleeve, 2 pcs. M10 x 1.5	60
670.0257	Expansion sleeve, 2 pcs. M10 x 1.25	60
670.0258	Expansion sleeve, 2 pcs. M8 x 1.25	40
670.0259	Expansion sleeve, 2 pcs. M6 x 1.0	60
670.0263	Mounting sleeve, M10 x 1.5	40
670.0264	Mounting sleeve, M10 x 1.25	40
670.0266	Mounting sleeve, M8 x 1.25	40
670.0267	Mounting sleeve, M6 x 1.0	40

Screw extractor set

- For screws from M3 - M18
- Enable the loosening of screws and bolts with turned off heads
- Conical tapered spiral
- In durable plastic storage case



150.1330	6 pcs	M3-M6 - M6-M8 - M8-M11 - M11-M14 - M14-M18 - M18-M24	64
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Spiral profile socket nut

- Very flat compact and robust execution
- Rejuvenating special profile with aggressive spiral nut
- Bites firmly to give a firm connection between stuck nut and head
- Can be used with a socket or ring spanner
- Phosphate finish
- Chrome molybdenum



Part No.	Size	mm	Quantity
913.3881	M8	16,0	10
913.3882	M10	16,0	10
913.3883	M11	18,0	10
913.3884	M12	19,0	10
913.3885	M13	19,0	20
913.3886	M14	21,0	20
913.3887	M15	23,0	20
913.3888	M16	24,0	30
913.3889	M17	26,0	40
913.3890	M19	27,0	40

Spiral profile socket nut set

- For loosening and unscrewing of fixed bolt and nuts with damaged "round turned" threads or heads
- Special, left handed cutting edge thread with 6 conical reducing cutting edges
- Very flat compact and robust execution
- The drive can be used alternatively with a socket ring or combination spanner
- In durable plastic case



913.3880	10 pcs	M8 - M10 - M11 - M12 - M13 - M14 - M15 - M16 - M17 - M19	300
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Spiral profile impact socket

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum



Part No.	mm	D mm	L mm	Quantity
913.1473	6,0	17,0	32,0	40
913.1408	8,0	17,0	32,0	40
913.1410	10,0	17,0	32,0	40
913.1470	11,0	17,0	32,0	40
913.1412	12,0	17,0	32,0	40
913.1413	13,0	19,0	32,0	40

Spiral profile socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum
- Includes storage rail



913.1450	4 pcs	Spiral profile socket set	200
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Spiral profile impact socket

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum



Part No.	mm	D mm	L mm	Quantity
913.3860	10,0	15,0	34,0	30
913.3861	11,0	16,0	34,0	30
913.3862	12,0	18,0	34,0	40
913.3863	13,0	18,5	34,0	40
913.3864	14,0	20,5	34,0	40
913.3865	15,0	22,0	34,0	60
913.3866	16,0	22,5	34,0	60
913.3867	17,0	24,5	34,0	70
913.3868	18,0	26,0	34,0	80
913.3869	19,0	27,0	34,0	80

Spiral profile impact socket

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum



	mm	L mm	g
913.1469	12,0	34,0	40
913.1468	13,0	34,0	50
913.1467	14,0	34,0	70
913.1466	15,0	34,0	70
913.1465	17,0	34,0	70
913.1464	19,0	34,0	90
913.1249	19,0	50,0	90
913.1250	20,0	50,0	110
913.1463	21,0	34,0	90
913.1252	22,0	50,0	120
913.1253	23,0	50,0	130
913.1462	24,0	34,0	110
913.1255	25,0	50,0	150
913.1461	27,0	34,0	110



Spiral profile socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum



	mm	L mm	g
913.3850	4 pcs		200

consists of:

	mm	L mm	g
913.3858	3/8" Spiral profile socket, 8 mm		30
913.3860	3/8" Spiral profile socket, 10 mm		30
913.3862	3/8" Spiral profile socket, 12 mm		40
913.3863	3/8" Spiral profile socket, 13 mm		40

Spiral profile impact socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Drive out pin
- Phosphate finish
- Chrome molybdenum
- In durable plastic case



	mm	L mm	g
913.3855	10 pcs		660

consists of:

	mm	L mm	g
913.3860	3/8" Spiral profile socket, 10 mm		30
913.3861	3/8" Spiral profile socket, 11 mm		30
913.3862	3/8" Spiral profile socket, 12 mm		40
913.3863	3/8" Spiral profile socket, 13 mm		40
913.3864	3/8" Spiral profile socket, 14 mm		40
913.3865	3/8" Spiral profile socket, 15 mm		60
913.3866	3/8" Spiral profile socket, 16 mm		60
913.3867	3/8" Spiral profile socket, 17 mm		70
913.3869	3/8" Spiral profile socket, 19 mm		80
913.3870	Burr arbor		30

Spiral profile impact socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Drive out pin
- Phosphate finish
- Chrome molybdenum
- In durable plastic case



	mm	L mm	g
913.1460	15 pcs		1.10

8 x		1/2": 13 - 14 - 15 - 17 - 19 - 21 - 24 - 27 mm
5 x		1/4": 6 - 8 - 10 - 11 - 12 mm
2 x		1/4"

NUT SPLITTER

Mechanical nut splitter

- For the splitting of seized or over tightened bolts without damage to the bolt thread
- Suitable for nuts to a tensile strength class 6
- Special steel



	mm	L mm	Height of head mm	for nut	g
700.1181	12,0	76,0	9 mm	9-12 mm	90
700.1182	14,0	93,0	11 mm	12-16 mm	170
700.1183	19,0	124,0	16 mm	16-22 mm	380
700.1184	21,0	150,0	18 mm	22-27 mm	660

Mechanical nut splitter set

- For the splitting of seized or over tightened bolts without damage to the bolt thread
- Suitable for nuts to a tensile strength class 6
- Special steel



	mm	L mm	g
700.1180	4 pcs		1.58

consists of:

	mm	L mm	g
700.1181	Nut splitter 9 - 12 mm, drive 12 mm		90
700.1182	Nut splitter 12 - 16 mm, drive 14 mm		170
700.1183	Nut splitter 16 - 22 mm, drive 19 mm		380
700.1184	Nut splitter 22 - 27 mm, drive 21 mm		660

Hydraulic nut splitter

- Small execution
- Suitable for nuts to a tensile strength class 10
- Work pressure max. 5 t
- Especially suitable for narrow hard to access areas



	mm	D	L mm	g
700.1150	7 -21	M4 - M14	210,0	700

Hydraulic nut splitter set

- Large execution
- Suitable for nuts to a tensile strength class 10
- Work pressure max. 13 t
- In durable plastic storage case



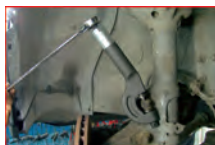
700.1160	4 pcs	22 - 36 mm; M14 - M24	3.80
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consists of:

700.1161	Replacement chisel large	100
700.1162	Replacement plate large	100
700.1163	Nut splitter	3600
151.2073	Hexagon key 3/8" for replacement plate large	110

Hydraulic nut splitter set

- For the splitting of seized or over tightened bolts without damage to the bolt thread
- Working range from 7.0 - 36.0 mm
- Inductively hardened cutting edge
- Suitable for nuts to a tensile strength class 10
- Requires light expenditure of energy
- Special steel



700.1170	7 pcs	Hydraulic nut splitter set	5.00
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consists of:

700.1150	Hydraulic nut splitter 7.0 - 21.0 mm	700
700.1163	Nut splitter	3600
700.1151	Replacement chisel small	50
700.1152	Replacement plate small	50
700.1161	Replacement chisel large	100
700.1162	Replacement plate large	100
151.2073	Hexagon key 3/8" for replacement plate large	110

THREAD BORING TOOL AND BORE JIGS

Stud extractor set

- Set contents for extensive applications
- For removing of threaded bolts, studding and screws
- No damage of the thread
- Only negligible enlarging of the threaded bolt through special profile extractor pin
- For screws and bolts M5 - M16
- Special steel
- In durable plastic storage case



150.1305	25 pcs	Stud extractor set	650
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extractor:

	Size mm	Ø mm	Ø	Thread	L mm	Extractor pin Ind thrust bolt	g
150.0521	1	3,2	1/8"	M5 - M6	60.0	150.0511S	150
150.0522	2	4,8	3/16"	M7 - M8	70.0	150.0512S	180
150.0523	3	6,4	1/4"	M9 - M10	78.0	150.0513S	230
150.0524	4	8,0	5/16"	M12	83.0	150.0514S	300
150.0525	5	8,7	11/32"	M14 - M16	94.0	150.0515S	350

extractor nut:

	Size mm	Pin dim mm	g	L mm	g
150.0511	1	1	10,0	16,0	130
150.0512	2	2	11,0	16,0	230
150.0513	3	3	13,0	16,0	350
150.0514	4	4	14,0	16,0	470
150.0515	5	5	17,0	16,0	590

drill:

	Ø mm	Ø	Drill bush	L mm	g
150.1305-21	3,2	1/8"	1 - 4	65.0	20
150.1305-22	4,8	3/16"	5 - 7	86.0	20
150.1305-23	6,4	1/4"	8	101.0	20
150.1305-24	8,0	5/16"	9	117.0	20
150.1305-25	8,7	11/32"	10	125.0	20

bushes:

	Size mm	Ø1 mm	Ø2 mm	Ø3 mm	Ø4 mm	Ø3	Ø4	L mm	g
150.0501	1	6.0	5.0	4.0	3.2	5/32"	1/8"	30.0	3
150.0502	2	8.0	6.0	4.8	3.2	3/16"	1/8"	30.0	8
150.0503	3	9.0	7.0	4.8	3.2	3/16"	1/8"	30.0	10
150.0504	4	10.0	8.0	4.8	3.2	3/16"	1/8"	30.0	14
150.0505	5	10.0	8.0	6.0	4.8	9/32"	3/16"	30.0	12
150.0506	6	11.0	9.0	7.0	4.8	9/32"	3/16"	30.0	14
150.0507	7	12.0	10.0	7.0	4.8	9/32"	3/16"	30.0	18
150.0508	8	13.0	11.0	7.0	4.8	9/32"	3/16"	30.0	22
150.0509	9	13.0	11.0	9.0	6.5	1/4"	3/16"	30.0	17
150.0510	10	14.0	12.0	9.5	6.5	3/8"	1/4"	30.0	21

Cylinder head bore jig set

- Permits the quick and accurate boring out of broken or torn out stud screws on cylinder heads or exhaust flanges directly on the vehicle
- Universal usage
- High time savings of up to 4 hours
- Cylinder head does not need to be removed
- Straight boring out of old screw
- In durable plastic storage case

Application range: Can be used universally on cylinder heads or exhaust flanges with bolt threads M8 and M10



150.7040	28 pcs	Cylinder head bore jig set	1.36
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consists of:

	X	g
150.7030	1 Drilling template	120
150.7031	3 Centring pin, conical	40
150.7032	3 Guide sleeve, Ø 8.0 mm	20
150.7033	3 Guide sleeve, Ø 10.0 mm	20
150.7034	2 Hexagon collar nut, M8	12
150.7035	2 Hexagon collar nut, M10	18
150.7036	1 Drill bush with cylinder pin, 4.0 mm	35
150.7037	1 Drill bush with cylinder pin, 6.5 mm	30
150.7038	1 Drill bush with cylinder pin, 8.5 mm	25
150.7039	1 Guide sleeve, M8	60
150.7041	1 Guide sleeve, M10	60
150.7042	1 Drilling stop with cylinder screws, 4.0 mm	40
150.7043	1 Drilling stop with cylinder screws, 6.5 mm	40
150.7044	1 Drilling stop with cylinder screws, 8.5 mm	40
150.7045	1 Hexagonal key socket wrench, 2 mm	8
150.7046	1 Hexagonal key socket wrench, 4 mm	13
150.7047	1 Hexagonal key socket wrench, 5 mm	22
150.7048	1 Special spiral drill, Ø 4.0 mm	14
150.7049	1 Special spiral drill, Ø 6.5 mm	23
150.7050	1 Special spiral drill, Ø 8.5 mm	28



CRANK SHAFT FACING TOOLS

Face milling attachment for crank shaft mating surfaces

- Precise repair of damaged mating surfaces on the front of the crank shaft
- Prevents repeated loosening of the toothed belt wheel by reworking the mating surfaces
- Accurately guided mill using the centring pin
- Front is reworked precisely on angles and planes
- Correct seat of the new toothed belt wheel

Application range: Audi, Volkswagen, Ford, Seat, Škoda 1.9l diesel engines, 5-cylinder engines (engine code: e.g. ACV, AHY), 4-cylinder engines with crank shaft thread M16x1.5 engine code AGR, Volkswagen 5-cylinder engine code ACV from engine number 048 995 and AAB from engine number 424 606



Part No.	Description	Quantity	Weight (g)
150.7010	4 pcs Face milling attachment for crank shaft mating surfaces	385	

consists of:

Part No.	Description	Quantity	Weight (g)
150.7011	Face milling cutter, Ø 35.0 mm	150	
150.7012	Cleaning brush	11	
150.7013	Special socket	65	
150.7014	Centring bolts, M14 x 1.5 x 73 mm	50	

VALVE GAUGES

Feeler gauge

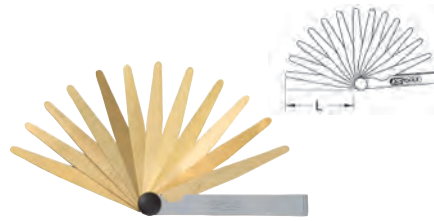
- For the testing of intervals, contact distances, etc.
- Feeler gauge conical tapered
- Fixing nut
- Leaves individually marked with size
- Blades made out of hardened spring steel



Part No.	Tooth pitch	L mm	Measuring range mm	Weight (g)
300.0600	20	100.0	0,05-0,10-0,15-0,20-0,25-0,30-0,35-0,40-0,45-0,50-0,55-0,60-0,65-0,70-0,75-0,80-0,85-0,90-0,95-1,00	88

Antimagnetic brass feeler gauge

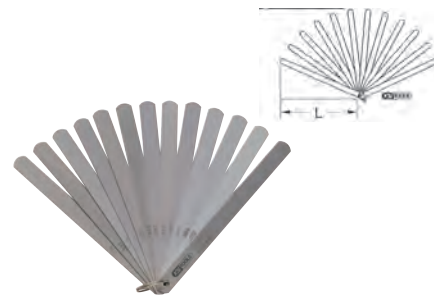
- For the testing of intervals, contact distances, etc.
- Feeler gauge conical tapered
- Fixing nut
- Leaves individually marked with size
- Blades made of brass



Part No.	Tooth pitch	Measuring range mm	L mm	Weight (g)
300.0611	8	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5	100.0	55
300.0612	13	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5-0,6-0,7-0,8-0,9-1,0	100.0	70
300.0613	20	0,05-0,1-0,15-0,2-0,25-0,3-0,35-0,4-0,45-0,5-0,55-0,6-0,65-0,7-0,75-0,8-0,85-0,9-0,95-1,0	100.0	85

Piston tolerance gauge

- For the testing of intervals, contact distances, etc.
- Feeler gauge cylindrical
- Blades fan shaped on a ring
- Leaves individually marked with size
- Blades made out of hardened spring steel



Part No.	Tooth pitch	Measuring range mm	L mm	Weight (g)
300.0614	8	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5	150.0	30
300.0617	8	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5	200.0	50
300.0615	13	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5-0,6-0,7-0,8-0,9-1,0	150.0	80
300.0618	13	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5-0,6-0,7-0,8-0,9-1,0	200.0	150
300.0616	20	0,05-0,1-0,15-0,2-0,25-0,3-0,35-0,4-0,45-0,5-0,55-0,6-0,65-0,7-0,75-0,8-0,85-0,9-0,95-1,0	150.0	150

VALVE PNEUMATIC ADAPTER

Valve pneumatic adapter

- For holding up the installed valves when removing and fitting the valve fixing wedges on the cylinder head
- Suitable for spark plug thread M14 x 1.25 and M18 x 1.5
- Ideal when replacing the valve shaft seals without removing the cylinder head
- With 13 mm hexagon pneumatic connection and rubber rings for sealing
- Special steel



Part No.	Length mm	Weight (g)
515.1002	140.0	240

Valve pneumatic adapter, flexible

- For holding up the installed valves when removing and fitting the valve fixing wedges on the cylinder head
- Can be used universally in place of the spark plugs or glow plugs
- Ideal when replacing the valve shaft seals without removing the cylinder head
- For hard to reach spark plugs and glow plugs too
- Can also be used as an adapter for pressure loss testing
- Flexible reinforced hose



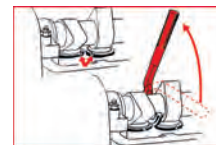
Part No.	Thread	Length mm	Weight (g)
515.1043	M12 x 1,25	250.0	150
515.1041	M14 x 1,25	250.0	150
515.1042	M10 x 1,25	250.0	150

VALVE RETAINER AND VALVE SPRING TENSIONER

Tappet retainer

- Required for valve adjustment
- For retaining the tappet
- Functional area additionally surface hardened
- Phosphate
- Chrome vanadium

Application range: all 4 / 5 / 6-cylinder engines with tappet



Part No.	Length mm	Weight (g)
150.0909	245.0	220

Valve retainer

- For the suppression of the cup valve stem for the removal of the valve platelets
- Special steel

Application range: Opel-Diesel 1,5 D + 1,7 DT-Isuzu Renault 1,7 Diesel, Engines F2N + F3N + F8Q z.B. Clio, R19, R21, R9, Super 5 Volvo Diesel 340, 440, 460 + 480 Engines B 172K + B 18KD, Mazda 323 S - 1.7 TD



Part No.	Length mm	Weight (g)
150.1211	145.0	445

Valve spring assembly tool

- Required the assembly and removal of the valves
- Universal usage
- Enormous time and cost saving
- Expansion of the cylinder head is generally not necessary
- Special steel

Application range: BMW, Ford, Mercedes, Opel, Porsche, VAG etc. with SV OHV and OHC engines



	Length mm	
150.0918	305.0	745

Valve spring clamp for Ford CVH-engines

- For clamping the valve springs in the course of restoration works in the area of the cylinder head

Application range: 1.3 / 1.4 and 1.6 litre of CVH engines in the Escort (incl. XR31 and RS Turbo), Fiesta (incl. RS Turbo) and Orion



		L mm	
150.1160	24	100.0	320

Valve spring tension

- Easy and quick change of the valve
- Expansion of the cylinder head is not necessary
- Use in conjunction with pneumatic adapter 150.1105 / 150.1107
- Special steel



	L mm	
150.1210	130.0	442

Valve spring compressor for VAG

- For retaining the valve springs
- Replaceable plastic pressure piece
- Chrome vanadium
- Surface finished in chrome

Application range: e.g. VAG with tappet engines 1.3 – 1.8l with stud bolts M8



	Length mm	Spare thrust piece	
150.0919	405.0	150.0919-1	700

PSA - Valve spring compressor

- For the professional engine repair
- For retaining the valve springs
- Universal usage
- Includes 8 screws with pressure cone and 2 locking screws
- Chrome vanadium
- Very high degree of accuracy

Application range: Citroën Berlingo, Xsara petrol engines with 1.0, 1.1, 1.4, 1.6l, and Peugeot 106, 205, 206, 306, 307, 405 with petrol engines

Please carry out an up-to-date cross reference test for the specific vehicle on www.timingtools.de



	Length mm	
400.9001	390.0	2.50

Valve spring clamping yoke

- Robust, adjustable and cam assembly tool with parallel stroke
- The tool is to be sure special for motors with horizontal camshaft (OHC motors) conceives, can however also be used in small and medium-sized OHV engines where needed
- The activity handles locks automatically after the clamping of the valve spring so that the hands remain free for removing and/or placing of the valve wedges

Application range: Passenger cars and vans



	Type	Min span depth mm	Max span depth mm	Span width mm	Pressure pad small	Pressure pad big	
150.1135	1	10.0	135.0	160.0	25.0	30.0	2.00
150.1140	2	20.0	120.0	240.0	25.0	30.0	2.00

Valve spring compressor for Peugeot

- For assembly and removal of valve springs
- For fitted or removed cylinder head
- For valve springs with tappet with Ø 38.0 mm
- Universal usage
- Chrome vanadium

Application range: Peugeot



	Length mm	
150.0924	400.0	1.22

Valve mounting bridge set

- For assembly and removal of valve springs
- For fitted or removed cylinder head
- Can be used universally with various assembly and adjustment options
- Enormous cost and time saving
- Removal of cylinder head not necessary for repair of valve shaft seals or valve springs
- Flange fastenings can be attached crossways or parallel to the cam shaft axis from the cylinder head
- Optionally upgradeable with specific pressure pieces
- Special steel

Application range: All cylinder heads from 1 to 12-cylinder engines, 2 to 4 valve technology for which the valves are arranged in a row or in a V.



160.0270 15 pcs Valve mounting bridge set	8.28

consists of:

	X	
160.0271	2 Foot	1240
160.0272	1 Rod	1940
160.0273	2 O-ring 17 x 4	10
160.0274	1 Pressure lever	880
160.0275	1 Threaded pin M8 x 50	20
160.0276	1 Clevis with spring cap bolts M8 x 32	60
160.0277	4 Thrust bolt	60
160.0279	2 Hexagon bolt M8	10
160.0295	1 Valve pressure adaptors for mounting bridges	120

Valve pressure adaptors for mounting bridges

- For assembly and removal of valve springs
- For use in conjunction with valve mounting bridge
- Special steel



		Suitable for	
160.0280	Pressure adaptor external Ø 21 mm	Peugot, Citroën HDI	40
160.0281	Pressure adaptor external Ø 24 mm	Opel, Seat, Audi, VW	50
160.0282	Pressure adaptor external Ø 25 mm	Hyundai	60
160.0283	Pressure adaptor external Ø 28 mm	Toyota, Ford 16V	70
160.0284	Pressure adaptor external Ø 30 mm	Nissan	80
160.0285	Pressure adaptor external Ø 31 mm	Toyota	90
160.0286	Pressure adaptor external Ø 32 mm	Opel, Peugeot	100
160.0287	Pressure adaptor external Ø 33 mm	Renault 19/Clio	120
160.0288	Pressure adaptor external Ø 34 mm	BMW, VW, Peugeot Diesel	120
160.0289	Pressure adaptor external Ø 35 mm	Renault, Mazda, Peugeot 106, Mercedes M102, M104	130
160.0290	Pressure adaptor external Ø 37 mm	Fiat	140
160.0291	Pressure adaptor external Ø 38 mm	Peugot, Citroën	150
160.0292	Pressure adaptor external Ø 40 mm	Mercedes OM 601, 602, 603	160
160.0293	Pressure adaptor external Ø 42 mm	Ford	170
160.0294	Pressure adaptor external Ø 44 mm	Fiat Diesel	180
160.0295	Pressure adaptor external Ø 34 mm	BMW M40	120

Valve dismantling and assembly tool set

- Assortment for changing of defective sealings on the cylinder head
- Enormous time savings as the cylinder head does not need to be dismantled
- For a correct and damage free use
- In durable plastic storage case



150.1100	25 pcs Valve dismantling and assembly tool set	4.20	

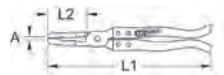
consists of:

115.1061	Valve shaft sealing Pliers, 275 mm	380	
150.1101	Male coupling AG 1/4", TSC 06	20	
150.1103	Male coupling AG 1/4", ORG 08	20	
150.1104	Male coupling AG 1/4", IRC 06	20	
150.1105	Pneumatic adaptor Ext.M14x1,25+M18x1,5 m	220	
150.1106	Hold down	380	
150.1107	Pneumatic adaptor tube AG M14 x 1,25 + M18 x 1,5	80	
150.1108	Valve wedge tool, with magnet	60	
150.1109	Pneumatic adaptor AG M24 x 2,0 + IG M14 x 1,25	150	
150.1110	Valve spring plate Adaptor	130	
150.1111	Connection shaft, 510 mm	710	
150.1112	Valve shaft sealing Pliers, angled	330	
150.1113	Assembly sleeve	120	
150.1114	Impact arbor	310	
150.1115	Screw and bolt set, 14 pcs for hold down	60	
150.1116	Cheeks for bridge 2 pieces	260	
150.1117	Assembly sleeve No.6 17 x 11 mm	40	
150.1118	Assembly sleeve No.5 15 x 10 mm	40	
150.1119	Assembly sleeve No.4 13 x 8 mm	30	
150.1120	Assembly sleeve No.3 12 x 7 mm	30	
150.1121	Assembly sleeve No.2 10 x 6 mm	40	
150.1122	Assembly sleeve No.1 10 x 5 mm	40	
150.1124	Screw set for cheeks, 8 pcs	100	

VALVE SHAFT SEALING TOOLS

Valve shaft removal pliers

- Slim execution
- Plastic coated jaws
- Knurled handle
- With self opening mechanism
- Quick and easy removal of valves from the valve shaft
- For the extension of the valve spring lever
- Ideally suitable for engines with 4 valve technology
- Nickel plated execution
- Special tool steel

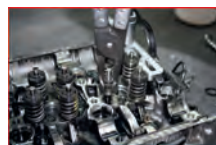


	A mm	L1 mm	L2 mm	
115.1061	0-125	275,0	100,0	380

Valve sealing ring pliers

- For removing valve shaft seals on 2-valve engines
- Hardened jaws
- Longitudinal teeth
- Functional area dip-insulated to avoid damage to the valve control
- Straight design
- Special steel

Application range: Volkswagen, Audi, Ford, Opel, Nissan etc.



	Length mm	
115.3007	250,0	340

Valve sealing ring pliers, long

- For removing valve shaft seals on multi-valve engines
- For easy removal of deep seated valve shaft seals using extra-long jaws
- Hardened jaws
- Longitudinal teeth
- Functional area dip-insulated to avoid damage to the valve control
- Straight design
- Special steel

Application range: Volkswagen, Audi, Ford, Opel, Nissan etc.



	Length mm	
115.3008	270,0	340

Valve shaft sealing pliers

- Slim design
- Knurled handle
- Quick and clean removal of valve shaft sealing rings
- For removal of the valve spring support
- Ideal for engines with 4 valve technology
- Nickel-plated finish
- Special tool steel



	Length mm	
150.1112	275,0	330

Valve plate pliers for Volkswagen

- For replacing the valve plates
- Tempered tips
- Special steel

Application range: Volkswagen tappet engines from 1.3 l



	Length mm	
115.3009	265,0	220

Valve shaft seal pusher

- For pushing on valve shaft seals Ø 7.0 mm on multi-valve engines
- Universal usage
- Plastic

Application range: Multi-valve engines M104, M119, M120



	Length mm	
150.0945	265.0	80

Valve shaft seal pusher

- For pushing on valve shaft seals Ø 7.0 mm and 8.0 mm
- Phosphate finish
- Special steel

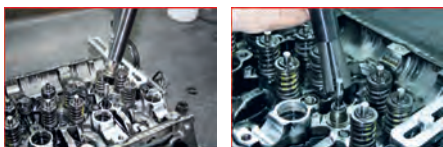
Application range: BMW and Opel Omega B 2.5l turbo diesel



	Length mm	
150.8001	150.0	98

Slide hammer puller for valve shaft sealing ring

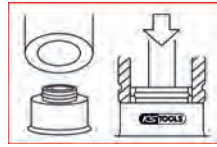
- Special construction allows quick and easy removal of seized valve shaft sealing rings
- Universal usage
- Secure working without damage to the tappet guide on the cylinder head
- With collet and plastic sleeve
- Special steel



	Ø Bore mm	Length mm	
150.0941	10 - 19	350.0	1.38

Valve shaft sealing ring tool set

- Permits the assembly and removal of valve shaft sealing rings
- Universal usage
- Damage-free operation due to wear-resistant plastic pusher
- Includes extra-long pliers and slide hammer puller with collets
- In durable plastic storage case



150.3510 16 pcs Valve shaft sealing ring tool set	3.36

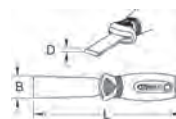
consists of:

150.3511 Push-on mandrel Ø 9.5 mm	60
150.3512 Push-on mandrel Ø 10.0 mm	60
150.3513 Push-on mandrel Ø 10.5 mm	60
150.3514 Push-on mandrel Ø 11.0 mm	60
150.3515 Push-on mandrel Ø 11.5 mm	60
150.3516 Push-on mandrel Ø 12.0 mm	60
150.3517 Push-on mandrel Ø 12.5 mm	60
150.3518 Push-on mandrel Ø 13.0 mm	60
150.3519 Push-on mandrel Ø 13.5 mm	60
150.3520 Push-on mandrel Ø 14.0 mm	60
150.3521 Push-on mandrel Ø 15.0 mm	60
150.3522 Collet for valve shaft sealing ring	340
150.3523 Collet for valve shaft sealing ring, small	240
150.3524 Slide hammer puller basic unit	1220
150.3526 Plastic sleeve	20
115.3008 Valve sealing ring pliers, long	340

GASKET SCRAPER

STAINLESS STEEL Chisel scraper

- Ideal for removing stickers, seal and glue residues
- Also suitable for the removal and chiselling of plates or welding spots
- Heavy, continuous stainless steel blade that can be re-sharpened
- With reinforcement eyelet
- With hammer cap on the handle
- With ergonomic moulded two component handle
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	B mm	D mm	L mm	
907.2211	32.0	1,2	190.0	160
907.2213	25.0	1,2	165.0	100
907.2212	32.0	2,5	190.0	160
907.2214	25.0	2,5	165.0	110

STAINLESS STEEL Chisel scraper set

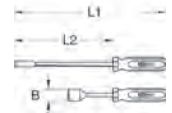
- Continuous stainless steel blade that can be re sharpened
- With reinforcement eyelet
- With hammer cap on the handle
- With ergonomic moulded two component handle
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



907.2210 4 pcs 32 x 1,2; 32 x 2,5; 25 x 1,2; 25 x 2,5 mm	580

Gasket scraper

- Ideal for removing stickers, seal and glue residues
- Blades can be re-sharpened
- Blade 10° angled
- Extra-long design for hard to reach areas
- Also for removing extremely stubborn impurities and seal residue
- With ergonomic moulded one component handle



	B mm	L1 mm	L2 mm	
907.2231	12.5	200.0	100.0	120
907.2232	25.0	200.0	100.0	140
907.2233	12.5	300.0	200.0	180
907.2234	25.0	300.0	200.0	200

Gasket scraper set

- Ideal for removing stickers, seal and glue residues
- Blades can be re-sharpened
- Blade 10° angled
- Extra-long design for hard to reach areas
- Also for removing extremely stubborn impurities and seal residue
- With ergonomic moulded one component handle



907.2230 4 pcs 12,5 x 200; 25 x 200; 12,5 x 300; 25 x 300 mm	1.28

Gasket scraper set

- For removing seal residue, e.g. cylinder head seals
- With replacement blade
- Extra-long design for hard to reach areas
- Angled blade head
- With ergonomic moulded two component handle
- Special steel



907.2280	2 pcs	Gasket scraper set		180

consists of:

907.2281	Scraper, 270 mm			155
907.2282	Scraper blade			5

Scraper blades

- 5 replacement blades for seal scraper 907.2280
- For removing seal residue, e.g. cylinder head seals
- For angled blade head
- Special steel

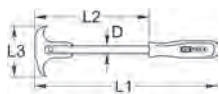


Content	Length mm	Width mm	Height mm		
907.2285	5	22.0	12.0	21.0	25

SEALING RING TOOLS

Double hook tool

- sickle-shaped
- For the removal of sealing rings
- Quick and easy to remove
- Long durability through hardened leverage
- Universal usage
- With one component handle



L1 mm	L2 mm	L3 mm	D mm		
550.1060	300.0	195.0	85.0	12.0	380

Slide hammer puller with thread tip

- For the removal of radial shaft seals and small bearings
- For hard to reach places too
- Quick and easy to remove
- Using the blow weight the thread tip is hit into the radial shaft seal and turned by hand and then removed with the blow weight
- Universal usage
- With two component handle
- Special steel



150.3611	Slide hammer puller with thread tip		500

Radial shaft seal remover set

- For the removal of radial shaft seals and small bearings
- For hard to reach places too
- Quick and easy to remove
- Using the blow weight the thread tip is hit into the radial shaft seal and turned by hand and then removed with the blow weight
- Long durability through hardened leverage
- Universal usage
- Special steel



150.3610	2 pcs	Radial shaft seal remover set		880

consists of:

550.1060	Gasket ring dismantling tool			380
150.3611	Slide hammer puller with thread tip			500

Hook tool set

- Ideal for removing and use of O rings and seals
- Special steel



550.1040	2 pcs	Hook tool set		30

consists of:

550.1041	Hook tool with double blade 90° short/180° short angled			11
550.1042	Hook tool with double blade 45° long / 90° long			11

Magnet and hook tool set

- Ideal for removing and inserting O-rings and seals
- With telescopic magnet attachment and replaceable hook
- Storage compartment in the handle for the various attachments
- Special steel



550.1080	6 pcs	Magnet and hook tool set		70

consists of:

550.1081	Basic unit		35
550.1082	Telescopic magnet attachment, 90 - 390 mm		13
550.1083	Hook attachment, straight, 75 mm		5
550.1084	Hook attachment, 90°, 75 mm		5
550.1085	Hook attachment, 120°, 75 mm		5
550.1086	Hook attachment, lateral bend, 75 mm		5

Hook tool set

- Ideal for removing and use of O rings and seals
- With one component handle
- With hanging hole
- Special steel



550.1045	4 pcs	Hook tool set		120

consists of:

550.1046	Hook tool 120mm blade, straight version			27
550.1047	Hook tool 120mm blade, 45° angled version			27
550.1048	Hook tool 120mm blade, 90° angled version			27
550.1049	Hook tool 120mm blade, 135° angled version			27

Master hook tool set

- Ideal for removing and use of O rings and seals
- With hanging hole
- Special steel



550.1070	9 pcs	Master hook tool set	680
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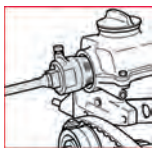
consists of:

550.1046	Hook tool 120mm blade, straight version	27
550.1047	Hook tool 120mm blade, 45° angled version	27
550.1048	Hook tool 120mm blade, 90° angled version	27
550.1049	Hook tool 120mm blade, 135° angled version	27
550.1071	Hook tool large, straight	91
550.1072	Hook tool large, 90° offset	105
550.1073	Hook tool large, sickle form	88
550.1074	T-handle hook tool, S-form small	42
550.1075	T-handle hook tool, S-form big	96

Sealing ring removal tool for VAG

- For the quick and correct removal of the sealing rings on engine shafts such as the crank shaft, cam shaft or intermediate shaft
- Enormous cost and time saving
- No need to strip the engine
- Universal usage
- With external drive hexagonal socket 22.0 mm
- With internal square drive to DIN 3120 / ISO 1174
- Special steel

Application range: e.g. Volkswagen, Audi, Seat, Škoda engines etc.



mm	Ø mm	Length mm	
150.3616	22.0	27.0	67.0 465
150.3617	22.0	32.0	68.0 622
150.3618	22.0	55.0	69.0 757

Sealing ring assembly set for BMW

- For assembly and removal of sealing rings
- Specially for the front crankshaft radial sealing ring
- Includes puller and mounting tool
- Special steel
- In durable plastic storage case

Application range: BMW engines N40, N42, N43, N45, N45T, N46, N51, N52, N52K, N53, N54



150.3625	4 pcs	Sealing ring assembly set for BMW	2.18
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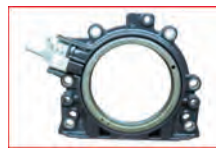
consists of:

150.3626	Extraction tool	500
150.3627	Mounting tool Ø 90 mm	280
150.3628	Mounting tool Ø 60 mm	560
150.3629	Mounting tool nut	100

Assembly tool set for sealing flange with sensor wheel

- For the correct and damage-free assembly of the sealing flange
- With integrated pulse sensor wheel
- Exact sensor wheel adjustment - Precise sensor signal
- No need for reworking with repeated removal of the gearbox
- Enormous time and cost saving

Application range: Volkswagen, Audi, Seat, Škoda, Mitsubishi petrol and diesel engines e.g. 1.0, 1.4, 16V, 1.4 FSI, 1.6 16V, 1.6 FSI, 1.9 TDI, 2.0 TDI, 2.0 TDI 16V, 2.0 SDI, 2.0 DI-D with Audi (A2, A3), Volkswagen (Polo, Golf IV/V/Plus, Passat), Seat (Arosa, Ibiza, Leon), Škoda (Fabia, Octavia) and Mitsubishi (Grandis, Outlander)



150.3650	7 pcs	Assembly tool set for sealing flange with sensor wheel	1.74
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consists of:

X			
150.3651	1	Housing with centring pin	880
150.3652	1	Flange with spindle and nut	460
150.3653	2	Guide bolts, Ø 10 mm	30
150.3654	3	Guide bolts, Ø 6 mm	31

Universal crank seal remover and installer set

- Suitable for the damage-free and correct assembly and removal of radial shaft seals and drive shaft circlips
- For tight-fit application on engine shafts such as crank shaft, cam shaft or intermediate shaft
- Can used universally for radial sealing rings in diameters from 21.5 mm to 64.0 mm
- Enormous cost and time saving
- No need to strip the engine
- Prevents damage to the aluminium fits
- Set contents for extensive applications
- Includes puller and pressing tool
- Prevents the ring from becoming loose
- In durable plastic storage case

Application range: Extensive universal tool including pressing tools for radial sealing rings in diameters from 21.5 mm to 64.0 mm on almost all vehicles



700.1280	24 pcs	Universal crank seal remover and installer set	1.90
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consists of:

700.1277	Steel sleeve 22 mm, long for 700.1280	180
700.1278	Steel sleeve 27 mm, long for 700.1280	220
700.1279	Main body for 700.1280	140
700.1281	Hook 70 mm, for 700.1280 5 pcs	12
700.1282	Hook 114 mm, for 700.1280 5 pcs	22
700.1283	Adapter sleeve for 700.1280	75
700.1284	Nut 20.2 mm for 700.1280	25
700.1285	Nut 18.2 mm for 700.1280	23
700.1286	Nut 16.2 mm for 700.1280	21
700.1287	Nut 14.2 mm for 700.1280	19
700.1288	Nut 12.2 mm for 700.1280	17
700.1289	Nut 10.2 mm for 700.1280	15
700.1290	Nut 8.1 mm for 700.1280	10
700.1291	Adapter 27.6 mm for 700.1280	37
700.1292	Adapter 45.9 mm for 700.1280	27
700.1293	Adapter 48.9 mm for 700.1280	27
700.1294	Adapter 56 mm for 700.1280	35
700.1295	Adapter 64 mm for 700.1280	55
700.1296	Adapter 33.6 mm for 700.1280	35
700.1297	Adapter 41.9 mm for 700.1280	30
700.1298	Steel sleeve 10 mm for 700.1280	80
700.1299	Steel sleeve 18 mm for 700.1280	145



VALVE SEAT CUTTER

Universal valve milling set for valve seat machining

- Suitable for reworking/milling valve seats
- Milling heads prevent chatter marks and ensure uniform force distribution
- Can be used universally for unhardened valve seats
- Special steel
- In durable plastic storage case

Application range: for engines with lead-free fuel



			kg
150.3570	12 pcs	Universal valve milling set for valve seat machining	1.90

consists of:

			kg
150.3571	T-handle		400
150.3572	Double-sided mill, 45°+75°, 28-35 mm		50
150.3573	Double-sided mill, 45°+75°, 37-44 mm		65
150.3574	Double-sided mill, 45°+75°, 44-52 mm		95
150.3575	Double-sided mill, 45°+75°, 44-52 mm		105
150.3576	Double-sided mill, 45°+75°, 46-60 mm		175
150.3577	Double-sided mill, 45°+75°, 52-65 mm		150
150.3578	Stepless adjustable guide, 6.5 mm		60
150.3579	Stepless adjustable guide, 8.0 mm		80
150.3580	Stepless adjustable guide, 9.5 mm		100
150.3581	Stepless adjustable guide, 12.5 mm		130
150.3582	Valve milling guide 5.5 mm		45

VALVE CUTTER

Valve grinder

- With two sided sucker
- For grinding the valve seat in the cylinder head
- Body made out of sealed hard wood
- Suckers made out of rubber



		L mm	kg
150.1133	16/21	210.0	60
150.1131	19/22	245.0	33
150.1132	22/32	255.0	34
150.1134	29/35	225.0	60

Valve seat grinding set

- With two sided sucker
- For the bow on the valve seat in the cylinder head
- Body made out of sealed hard wood
- Suckers made out of rubber



			kg
150.1130	2 pcs	Valve seat grinding set	2.21

consists of:

			kg
150.1131	Valve set grinder	19/22 mm, 245 mm long	33
150.1132	Valve set grinder	22/32 mm, 255 mm long	34

Valve grinding tool with 2 suction discs

- 8 mm bore reception
- For the grinding of the valve seats for repair work
- The detention of the device body is automatically generated via a transmission, the typical right left wing movement used in grinding
- Gives you convenient and rapid seat grinding with the drill between approx. 500-1.000 rpm



	L mm	Replacement plate Ø 22 mm	Replacement plate Ø 28 mm	kg
150.1165	130.0	150.1166	150.1167	442

Pneumatic valve grinding tool with 4 suction discs

- For grinding the valve seats after repair work
- Allows convenient and rapid grinding
- In durable plastic storage case



			kg
515.2005	5 pcs	Pneumatic valve grinding tool with 4 suction discs	1.69

consists of:

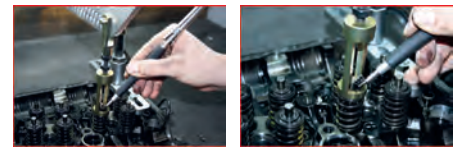
			kg
515.2006	Pneumatic valve grinder		1430
515.2007	Sucker, Ø 20 mm		4
515.2008	Sucker, Ø 30 mm		7
515.2009	Sucker, Ø 34 mm		16
515.2010	Sucker, Ø 45 mm		20

VALVE WEDGE ASSEMBLY

Valve wedge assembly tool Ø 5mm, Opel, Volkswagen, Audi

- For the assembly of valve wedges
- Easy to fit even in cramped spaces
- Also suitable for valve springs that are arranged deep in the cylinder head or are seated in a cup guide
- Allows easy and secure assembly of one- and three-grooved valve wedges on fitted and removed cylinder head
- Special steel

Application range: Opel, Volkswagen, Audi



		Ø mm	kg
150.7056		5	50

VALVE ADJUSTMENT TOOLS

Valve adjustment push-through square

- Push-through square
- Valve adjustment tool for spinning the engine when adjusting the valve, control times
- Serviceable from both sides
- For use with a 1/2" push-through ratchet
- Special steel

Application range: Mercedes engine type 102, 103, 104, 110, 115, 116, 117, 119, 120, 123

		Length mm	kg
150.3585		80.0	80

Ratchet

- Ratchet with 1/2" square drive
- E.g. for tuning the engine crank alignment tool

		L mm	kg
130.1000		270.0	500

Valve adjustment spanner

- For adjusting the valves
- Prevents the valve plate
- Universal usage
- Can be used in conjunction with 150.3589 or 150.3590
- Special steel



	mm	Length mm	kg
150.3587	30,0	170,0	135

Valve adjustment spanner

- For adjusting the valves
- Can be used in conjunction with 150.3587
- Can be used in pairs
- Special steel

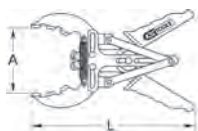


	mm	Length mm	kg
150.3589	14,0	225,0	140
150.3590	14,0	160,0	100

PISTON RING TOOLS

Piston ring pliers

- PVC dipped handle
- For the safe disassembly and assembly of piston rings
- Nickel plated surface
- Special tool steel



	Ø mm	A mm	L mm	kg
150.1175	50-100	0-100	210,0	305
150.1176	80-120	0-120	220,0	340
150.1177	110-160	0-160	280,0	445

Piston ring pliers

- Special wheel clamps with suspension hole for fixing the piston ring when splaying
- With restriction of the splaying dimension
- Special steel



	Ø mm	Ø	kg
115.1301	60-140	2.3/8" - 5.1/2"	330

Piston ring pliers

- For the removal and replacement of piston rings
- Suitable for most passenger cars and vans
- Plastic coated handle
- Self closing pliers
- Special steel



	L mm	kg
150.1179	221,0	210

Piston ring tensioning tool

- Flexible tool for assembly and removal of piston rings
- Profiled tension band Ø 38.0 mm
- Low friction between tension band and piston ring
- The profile band cannot slip between the piston and cylinder
- Universal usage



	Ø mm	Length mm	kg
115.3014	75,0-125,0		123

Piston ring tension band set

- For the pretensioning of the piston rings when inserting the piston in the cylinder
- Self locking ratchet function
- Phosphate finish
- In durable plastic storage case



	kg
150.1150 7 pcs Piston ring tension band set	1,62

consists of:

		kg
150.1151	Piston ring tension band plier	380
150.1152	Tension band, Ø 73 - 79 (2.7/8" - 3.1/8")	90
150.1153	Tension band, Ø 79 - 86 (3.1/8" - 3.3/8")	90
150.1154	Tension band, Ø 86 - 92 (3.3/8" - 3.5/8")	100
150.1155	Tension band, Ø 92 - 98 (3.5/8" - 3.7/8")	110
150.1156	Tension band, Ø 98 - 105 (3.7/8" - 4.1/8")	110
150.1157	Tension band, Ø 105 - 111 (3.7/8" - 4.3/8")	120

Piston ring tension band

- For the pretensioning of the piston rings when inserting the piston in the cylinder
- Continuous adjustment of operating tool
- Spring steel strip



	Ø mm	Ø	H mm	kg
150.1141	45 - 90	1.3/4" - 3.1/2"	50,0	158
150.1142	57 - 125	2.1/4" - 5"	100,0	300
150.1143	90 - 175	3.1/2" - 7"	100,0	340
150.1144	90 - 175	3.1/2" - 7"	150,0	555

CYLINDER LINER TOOLS

Securing straps for PSA

- Prevents the lift-off of the cylinder liners from their seat
- Securing straps prevent the cylinder liners coming away from the engine block
- Can be used with wet cylinder liners
- Supplied in pairs
- Special steel

Application range: Citroën, Peugeot and Renault engines



	Hole spacing mm	hole diameter	Length mm	kg
150.3593 2 pcs	75,0-106,0	12,0 mm	130,0	260

Lever for cylinder head for PSA

- For removing cylinder heads on engines with wet cylinder liners
- Prevents the lift-off of the cylinder liners from their seat
- Cylinder head should not be lifted off, but instead rolled off to the side and secured with the securing straps 150.3593
- Supplied in pairs
- Special steel

Application range: Citroën, Peugeot and Renault etc.



	Stud Ø mm	Length mm	kg
150.3594 2 pcs	12,0	280,0	1,14

CYLINDER HON DEVICES

Cylinder honing machine

- For honing / deburring of cylinders, bearings, bores, pipes, etc.
- Interchangeable honing
- Automatic spigot end and exact honing
- Flexible drive shaft for air or electric drills
- Special steel

Application range: Automotive brake and clutch cylinders, engine cylinders of motor cycles, lawn mowers, outboard motors, hydraulic cylinders, marine and industrial engines, etc.



	Ø mm	Arm	Honing stone set	kg
150.1180	18 - 63	2	150.1181	0.90
150.1185	19 - 69	3	150.1186	1.30
150.1190	32 - 89	3	150.1191	1.40
150.1195	51 - 177	3	150.1196	1.90

Replacement stones

- Replacement honing stones for 150.1195
- For Honing/Deburring of cylinders, bearings, bores, pipes, etc.
- Special steel

Application range: car brake and clutch cylinders, engine cylinders of motorbikes, lawn mowers, outboard motors, hydraulic cylinders, ship engines and industrial motors, etc.

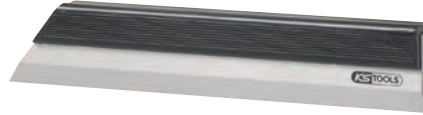
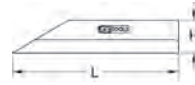


		L mm	kg
150.1181	2 pcs	28.8	10
150.1186	3 pcs	28.8	15
150.1191	3 pcs	51.0	30
150.1196	3 pcs	76.0	80

TEST AND MEASURING TOOLS

Precision straightedge

- In accordance with DIN 874/00
- Hand warmth protection
- Test area precise and finely engineered
- Flatness tolerance for highest accuracy
- For controlled and test working in the light gap procedure
- Hardened
- Stainless steel



	L mm	H mm	kg
300.0630	50.0	25.0	40
300.0631	75.0	25.0	60
300.0632	100.0	25.0	80
300.0633	125.0	25.0	100
300.0634	150.0	25.0	120
300.0635	200.0	25.0	160
300.0636	300.0	25.0	240
300.0637	400.0	25.0	320
300.0638	500.0	25.0	400
300.0639	600.0	25.0	480

Precision straightedge

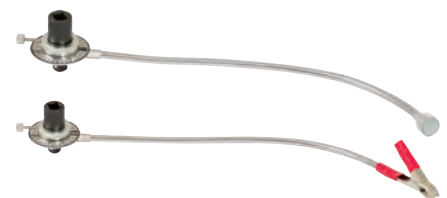
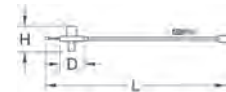
- For the inspection and the exact working on cylinder heads
- In accordance with DIN 874/1
- Double T profile rail with rear 5 hand slots
- On edge and flat sides examination process
- Hanging hole
- Steel



	L mm	H mm	S mm	kg
152.1090	600.0	30.0	16.0	2.10

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



	□	■	Arm	Pitch	D mm	H mm	L mm	kg
516.1195	1/2"	1/2"	magnet	2°	67.0	63.0	480.0	170
516.1196	1/2"	1/2"	claw	2°	67.0	63.0	538.0	60

Electronic professional stethoscope

- For the professional defect diagnosis
- Serves the acoustic test and judgment of a component under load
- Delivers fast, absolutely clear and unambiguous test results over sounds
- Contains 6 independent sensors that can mounted for example on the vehicle floor or in the engine compartment for ease
- Simple coordination of the defect source through colour coded cable and colour table on the box
- In durable plastic storage case

Application range:

Engine: Valves, 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	Headset for 150.1695	350
150.1695	Amplifier for 150.1695	115
150.1695	Hand held stethoscope for 150.1695	165
150.1695	Velcro strap for 150.1695, 8 pcs	9
150.1695	Sensor for 150.1695	10
150.1695	Colour coded cable for 150.1695, 6 pcs	755



Synchronous carburettor test device with 4 synchronous clocks

- For synchronous measurement on 2 – 4 carburettors with vacuum connection to the carburettor
- After adjustment and inspection of the valve clearances the carburettors should be synchronised
- Universal usage
- Unit for vacuum measurement: 0-70 cmHg / in0-30 inHg
- Generally necessary after a major inspection
- Optimum results for mechanical function-free engines
- Must be used with running engine
- Pressure gauges are fitted on the plate
- In durable plastic storage case

Application range: Multi-cylinder engines require synchronous opening of the throttle valve. Through tolerances in the intake system, adjustment of the throttle valve stop is not sufficient. Dynamic adjustment is required here. Through synchronisation, the same vacuum is reached before the carburettors. A dial is required for each carburettor for synchronisation. Adjustment of the individual compressors is done via the adjustment mechanisms.



150.3600	28 pcs	Synchronous carburettor test device with 4 synchronous clocks	3.00
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consists of:

X			
150.3601	4	Pressure gauge Ø 92 mm fitted on the plate	1600
150.3602	4	Rubber house 8 x 5 x 750 mm	20
150.3603	4	Hose clamp with replacement sealing ring	1
150.3604	4	Connection piece 53 mm, M6 x 0.75 mm	8
150.3605	4	Connection piece 60 mm, M6 x 1.0 mm	12
150.3606	4	Extension 3.9 x 52 mm	8
150.3607	4	Extension 3.9 x 122 mm	12

Oil pressure testing equipment

- Quick safe and problem free testing of the oil pressure on the engine
- incl. 10 adaptors
- Colour coding: Black= metric / silver = imperial
- Adaption with oil pressure sensor thread
- Manometer Ø 80 mm with rubber safety cover
- Flexible tube (L=1,3 m) with anti-kink device, decompression valve and quick coupling
- Robust execution
- In durable plastic storage case



150.1920	12 pcs	Oil pressure testing equipment	1.89
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150.1921	Manometer with tube, 10 bar	594
150.1922	90° Adaptor angled	44
150.1920-1	Screw adaptor no 1, R1/8"	23
150.1920-10	Screw adaptor no 10, M18 x 1.5	34
150.1920-2	Screw adaptor no 2, 1/8" x 27 NPT	24
150.1920-3	Screw adaptor no 3, 1/4" x 18 NPT	33
150.1920-4	Screw adaptor no 4, 3/8" x 20 UNF	23
150.1920-5	Screw adaptor no 5, 1/2" x 20 UNF	27
150.1920-6	Screw adaptor no 6, M10 x 1.0	24
150.1920-7	Screw adaptor no 7, M12 x 1.5	24
150.1920-8	Screw adaptor no 8, M14 x 1.5	29
150.1920-9	Screw adaptor no 9, M16 x 1.5	33

CO² Cylinder head leak testing set

- For the locating of leaks on combustion engines
- Rational and dependable finding of cracks and leakages
- Potential CO² content in the coolant solution is detected
- Ideally suited for the cylinder head, cylinder head seals and engine block
- Leakages are visible through discoloration of the test fluid
- For all current vehicles with water cooled engines (Gas, Diesel and Petrol)
- Automatic regenerating reaction fluid for multiple use
- In durable plastic storage case



150.1910	8 pcs	CO ² Cylinder head leak testing set	1.43
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consists of:

150.1911	Intake-squeeze bulb	30
150.1912	Two way brass valve	120
150.1913	Basic device with 2 Test chambers and cones	120
150.1914	Reaction fluid, 250 ml	250
150.1915	Empty container, 250 ml (for required fluid)	30
150.1916	Bayonet Adaptor Gr 1	60
150.1917	Bayonet Adaptor Gr 2	80
150.1918	Bayonet Adaptor Gr 3	110



Cylinder leak detector tester set

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

Test results:

Outlet valves not tight:

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

Inlet valves not tight:

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

Piston rings, pistons, cylinder bore damaged:

Air noises on the crankcase breather or on the dipstick

Cylinder head seal defective:

Air noises in the adjacent cylinder, spark plug bore

Cylinder head seal defective or tear in cylinder head

Air noises or bubble formation in the cooling system or reservoir



150.1780	9 pcs	Cylinder leak detector tester set	2.30
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consists of:

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

Compression pressure test instrument for diesel engines

- Complete test tool set with or without direct injection
- Compact adaptor pieces with quick couplings
- Includes extensive adaptor assortment
- Very flexible tube for hard to access places
- In durable plastic storage case



Technical data:

Manometer:	0,0-70,0 bar
Tube length:	355,0
Manometer gauge:	bar, psi or KPA

			g
150.1680	13 pcs	Compression pressure test instrument for diesel engines	2.56

consists of:

			g
150.1680-1	Manometer with tube	640	
150.1680-2	Glow plug adaptor, M10x1,25	40	
150.1680-3	Glow plug adaptor, M12x1,25	40	
150.1680-4	Glow plug adaptor, M14x1,25	70	
150.1680-5	Compression pressure test adaptor, 114mm	220	
150.1680-6	Compression pressure test adaptor, M24x2	160	
150.1680-7	Compression pressure test adaptor	60	
150.1680-8	Glow Plug Adaptor M 10 x 1,25	60	
150.1680-9	Glow plug adaptor, M10x1	45	
150.1680-10	Compression pressure test adaptor	145	
150.1680-11	Replacement sealings and washers	15	
150.1680-12	Angle connecting piece	50	
150.1680-13	Clamp arch	70	

Digital compression pressure test set for petrol engines

- For dry and wet compression tests
- Compact adaptor pieces with quick couplings
- Includes extensive adaptor assortment and analogue manometer (psi)
- Digital manometer with reading storage up to 12 cylinders
- By means of brass coupling the repair is possible on valve seals without dismantling of the cylinder head
- Very flexible tube for hard to access places
- In durable plastic storage case



			g
150.1650	10 pcs	Digital compression pressure test set for petrol engines	2.20

consists of:

			g
150.1650-1	Manometer digital	420	
150.1650-10	Replacement seals and valve assortment	5	
150.1650-2	Manometer analogue	120	
150.1650-3	Adaptor tube M18 x 1,5	100	
150.1650-4	Adaptor tube M14 x 1,25 long	90	
150.1650-5	Adaptor tube M14 x 1,25 short	110	
150.1650-6	Adaptor bush L=64 mm, M18 x 1,5	105	
150.1650-7	Adaptor bush L=42 mm, M12 x 1,25	40	
150.1650-8	Adaptor bush L=42 mm, M10 x 1,0	40	
150.1650-9	Coupling 1/4" IG	80	

Master fuel injection system pressure test set for petrol engines

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

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



			g
150.2325	42 pcs	Master fuel injection system pressure test set for petrol engines	4.00

consists of:

			g
X	Type		
150.2326	1 A	Manometer Ø 100.00 mm, 0 - 10 bar with 1/4" quick coupling	360
150.2327	1 B	Manometer Ø 75.00 mm, 0 - 1 bar with 1/4" quick coupling	202
150.2328	2 GA	Adapter piece M14x1.5 internal thread and 1/4" hose connection	41
150.2329	2 GT	Adapter piece M16x1.5 internal thread and 1/4" hose connection	39
150.2340	1 GS	Double-sided adapter piece 5/8"x18 internal thread	28
150.2341	2 GV	Adapter piece 5/8"x1.8 external thread and 1/4" hose connection	26
150.2342	2 GU	Adapter piece M16x1.5 external thread and 1/4" hose connection with sealant ring	48
150.2343	2 GB	Adapter piece M14x1.5 external thread and 1/4" hose connection with sealant ring	39

consists of:

			g
X	Type		
150.2344	1 GC	Connection adapter piece M14x1.5 external thread and 16 mm hexagon with sealant ring	37
150.2345	1 AE	Adapter piece (long) M8x1.0 external thread and 1/4" hose connection with sealant ring	70
150.2346	1 AB	Dual adapter piece M16x1.5 internal and external thread and 3/8" hose connection	65
150.2347	1 AA	Dual adapter piece M14x1.5 internal and external thread and 3/8" hose connection	65
150.2348	1 AI	Adapter piece M10x1.0 external thread and 1/4" hose connection with sealant ring	35
150.2349	1 AJ	Adapter piece M10x1.0 internal thread and 1/4" hose connection	21
150.2360	1 HO	Hollow bolt M8x1.0 and 1/4" hose connection	22
150.2361	1 HN	Hollow bolt M6x1.0 and 1/4" hose connection	19
150.2362	1 G	Manometer connection hose with 1/4" hose connection with valve for Bosch CSI and GM TBI systems	110
150.2363	1 W	Manometer connection hose with 1/4" hose connection for Ford EFI systems	324
150.2364	1 F	Manometer connection hose with 1/4" hose connection for universal use with 3/8" and 5/16" high-pressure hose connections	160
150.2365	1 C	Adapter hose for small Schrader valve 5/16"x32 UNF internal thread and 1/4" hose connection	95
150.2366	1 D	Manometer connection hose with 1/4" hose connection including pressure release valve, transparent hose	110
150.2367	1 E	Adapter hose for standard Schrader valve 7/16"x20 UNF internal thread and 1/4" hose connection	116
150.2368	1 X	Manometer 5/16" quick coupling connection hose with 1/4" hose connection for Ford EFI systems	40
150.2369	1 XA	Manometer 5/16" quick coupling connecting hose with 1/4" hose connection for GM TBI systems	55
150.2650	2 AM	Adapter piece M8x1.0 external thread and 1/4" hose connection with sealant ring	13
150.2651	2 AK	Adapter piece M12x1.5 internal thread and 1/4" hose connection	24
150.2652	1 AL	Adapter piece M8x1.0 internal thread and 1/4" hose connection	22
150.2653	1 AC	Dual adapter piece M14x1.25 internal and external thread and 1/4" hose connection	63
150.2654	1 AG	Adapter piece (long) M8x1.0 internal thread and 1/4" hose connection	64
150.2655	1 HA	Adapter piece (long) for 1/4", 3/8", 1/2" hoses and 1/4" hose connection	51
150.2656	1 HE	Hollow bolt M14x1.5 and 1/4" hose connection	28
150.2657	1 HR	Hollow bolt M12x1.5 and 1/4" hose connection	38
150.2658	1 HQ	Hollow bolt M12x1.25 and 1/4" hose connection	33
150.2659	1 HP	Hollow bolt M10x1.0 and 1/4" hose connection	29
150.2661	1	Replacement sealant ring packet 20 Pieces	10



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