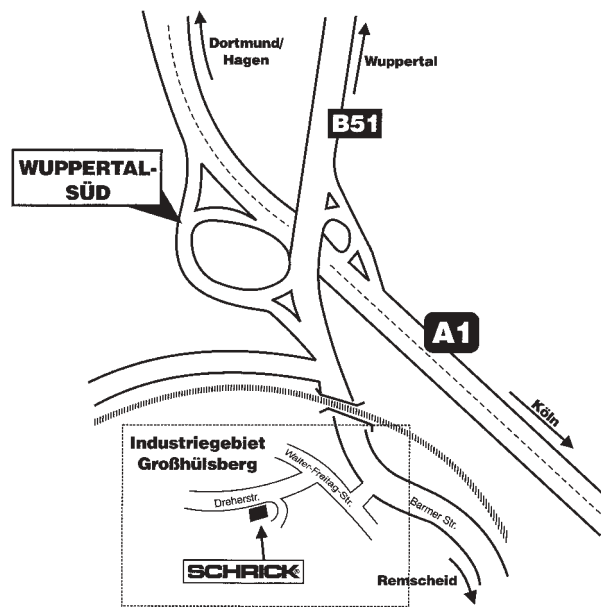


07/2002

Office hours
Monday to Tuesday
7.30 am - 16.00 pm
Friday
7.30 am - 14.45 pm



SCHRICK®

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Performance
Engine
Components

SCHRICK®

Explanation of the catalog

Tuners and engine builders will find in this catalog a selection of the camshafts and other engine performance parts that we have in stock, or can deliver on short notice.

What is the difference between a Sport- and Standard camshaft?

Standard camshafts offers a good compromise between the daily requirements from an automotive engine: sustained high speed on open roads, smooth engine idle at low rpm and low exhaust emissions.

If the importance of one or more of these parameters are reduced, the camshaft can be designed to function better in the remaining parameters.

Racing camshafts offers a substantial power increase at high rpm. Engine idle at low rpm is not possible anymore.

Sport camshafts increase the valve lift, valve opening duration and the inlet/outlet valve overlap. This improves the cylinder filling at high rpm. Engine idle at low rpm becomes erratic, due to the mixing of intake air and exhaust gasses. (see: "Which camshafts are good for Street-tuning?" and "What is the Swing-boost effect?")

Why are SCHRICK camshafts so special?

- They are manufactured by highly qualified specialists, who also supply the automotive industry.

- They are machined to precise tolerances, using the latest CNC machines.
- They are usually made from expensive, extremely wear-resistant "chilled" cast-iron.
- Warranty: 1 year without kilometer limitation.
- The only manufacturer to design camshafts with the "Swing-boost" effect.

What is the "Swing-boost" effect?

After long experimental- and test procedures, we have developed a method of high acceleration to the inlet- and exhaust valves. This causes an intensive resonance amplification of the gas column in the inlet tract, resulting in a very good cylinder filling.

The difference to other manufacturer's camshafts: We reach similar or better max. power figures, but with much smaller opening durations.

Smaller opening durations means substantially better torque delivery in the mid- to lower rpm range and a smoother, stable engine idle.

Which camshafts are good for Street-tuning?

If the vehicle is intended for normal street use, i.e. with a stable engine idle and the ability to pass an emissions test (idle to lower rpm range), it is important to consider a small valve lift at TDC.

The table gives a guideline for valve lift at TDC.

2 Valve engines with solid lifters	2.3 mm
4 Valve engines with solid lifters	1.5 mm
2 Valve engines with hydraulic lifters	1.9 mm
4 Valve engines with hydraulic lifters	1.1 mm

When these values are exceeded, the engine idle will become increasingly unstable and the torque delivery in the lower rpm range will be noticeably weaker.

Camshafts with larger valve durations, and a resulting higher valve lift at TDC, should only be considered for racing applications, or when each cylinder have it's own butterfly valve i.e. 2 twin-choke carburetors on a 4 cylinder engine.

We have to point out that technical changes to an engine voids the vehicle's type approval.

What precaution must be taken with valve springs?

When we recommend the use of special valve springs, it is advisable to do so. SCHRICK camshafts usually have an increased valve lift. If the standard valve springs are used, it is important to increase the spring's installed height, so that the increased lift will not overly compress the valve springs (possibly causing spring breakage or unacceptable cam/follower loads).

When we do not list your required camshaft?

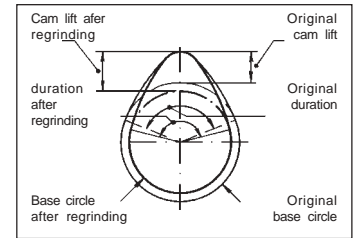
We have several possibilities to help you:

1. We grind your required profile on a camshaft blank. The machine set-up cost will be added to the price of a comparable camshaft.
2. We re-grind your standard camshaft to your required profile (see: "What is re-grinding?").
3. We can machine a camshaft from billet steel (single piece or small-batch production). We would be glad to help and advise you on your specific application.

What is re-grinding?

Re-grinding is the process where the cam lobes of an existing camshaft, e.g. standard camshaft, are ground to a new cam lobe profile. Sport camshaft lobes are usually thicker and higher than standard lobes, due to the requirement for increased valve lift and -opening duration.

The following sketch shows that it is still possible to grind a sport cam lobe profile on a standard cam lobe. It also shows that the cam lobe base circle is smaller than before. This reduction have to be compensated by either using valve



lash caps or valves with longer stems.

Explaining the listed technical data

Valve timing and valve opening durations are shown minus the ramps.

Valve timing is shown as IO (Inlet opens in °Crankshaft before TDC), IC (Inlet closes in °Crankshaft after BDC), EO (Exhaust opens in °Crankshaft before BDC) and EC (Exhaust closes in °Crankshaft after TDC).

Peak timing is shown as °Crankshaft and defines the angle between the gas exchange TDC and the lobe center line of the inlet- or exhaust valves.

All valve lift figures are shown without deduction of valve lash, i.e. the actual valve lift is the stated valve lift minus the valve lash.

Since engines with hydraulic lifters have no valve lash, the stated valve lift is also the actual valve lift.

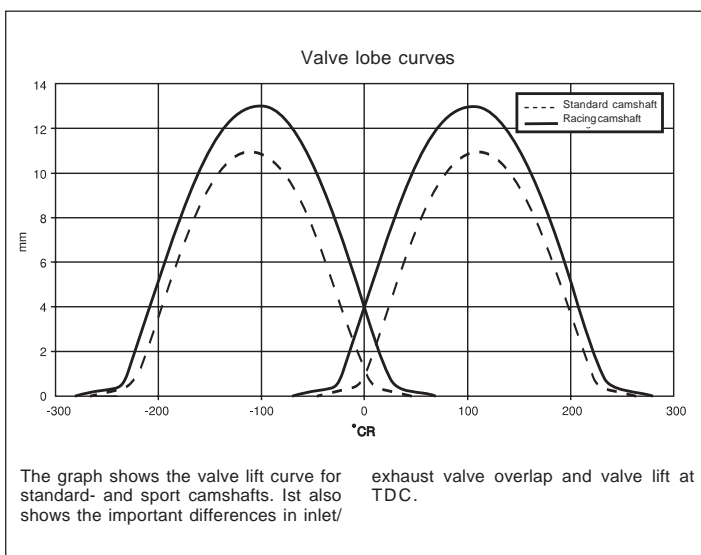
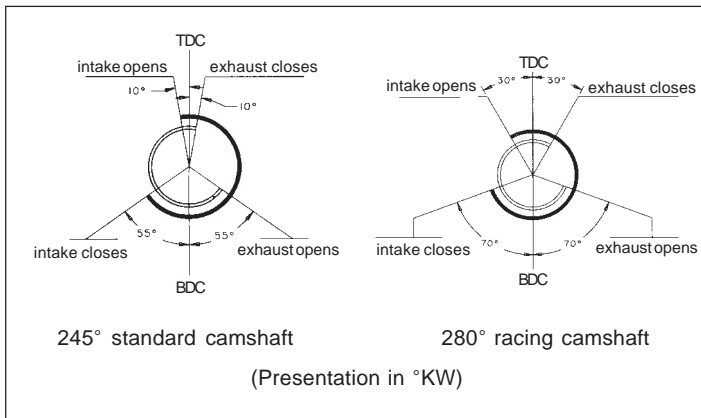
Valve lift at TDC is also shown without deduction of valve lash, i.e. the actual valve lift at TDC is the stated lift minus the valve lash.

The graph shows the valve opening duration and valve lift curve for Standard- and Sport camshafts. It also shows the important differences in inlet/exhaust valve overlap and valve lift at TDC.

General note

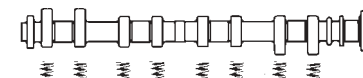
All products in this catalog (except advertising material) are only available through the automotors trade.

This catalog supersedes all previous catalogs. Part specifications and prices subject to change.





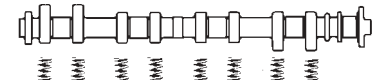
Camshaft Kits



Part No.	includes:				Price EUR / per Kit excl. VAT	Discount group	Remarks
	Camshaft	Valve Springs	Valve Spring Retainers	Cam followers, accessories			
Audi 5 Cyl. 2 Valve							
064 10 721-02	1 x 064 01 721-02	10 x 013 02 062 10 x 013 02 026	10 x 014 13 194 Titanium 10 x 014 13 094 Steel 20 x 894 13 8M8 Key	10 x 863 13 801 hydr. tappet	715,00	1	without fuel pump-drive without vacuum pump drive fits pulley inner diam. 22,0 mm cyl.
064 10 761-00	1 x 064 01 761-00	10 x 013 02 062 10 x 013 02 026	10 x 014 13 194 Titanium 10 x 014 13 094 Steel 20 x 894 13 8M8 Key	10 x 863 13 801 hydr. tappet	715,00	1	without fuel pump-drive without vacuum pump drive fits pulley inner diam. 22,0 mm cyl.
Audi 4 Cyl. 5 Valve (A3, A4, VW Golf 4, Passat, Skoda Octavia..)							
301 10 960-00	1 x 301 E1 960-00 1 x 301 A1 920-00	12 x 301 02 060 8 x 014 02 054 8 x 014 02 027	12 x 301 13 007 Titanium 8 x 301 13 008 Titanium 8 x 301 13 009 Steel 40 x 894 13 8M6 Key	20 x 863 14 500 mech. spacer	1465,00	1	group A, using standard valves
301 10 960-10	1 x 301 E1 960-00 1 x 301 A1 920-00	12 x 301 02 060 8 x 299 02 050 8 x 299 02 031	12 x 301 13 010 Titanium 8 x 299 13 006 Titanium 8 x 299 13 007 Steel 40 x 894 13 8S6 Key 12 x 301 13 011 int. valve 8 x 301 13 012 exh. valve	20 x 863 14 500 mech. spacer	2050,00	1	group H, with Schrick valves
BMW M30 6 Cyl. 2 Valve (2,8 - 3,5 l)							
022 10 840-24	1 x 022 01 840-04	12 x 056 02 062 12 x 056 02 022			502,00	1	Motronic 2 double valve springs (1985 -); without fuel pump drive
BMW M20 6 Cyl. 2 Valve (2,0 - 2,5 l)							
056 10 720-20 056 10 720-10	1 x 056 01 720-00 1 x 056 01 720-00	12 x 002 02 090 12 x 056 02 062 12 x 056 02 022			382,00 483,00	1 1	single valve springs (- 1985) double valve springs (1985 -)
BMW S14 4 Cyl. 4 Valve (M3 E30)							
227 10 840-00	1 x 227 D1 840-00 1 x 227 D1 760-01	16 x 013 02 064 16 x 220 02 026	16 x 227 13 051 Titanium 16 x 227 13 052 Steel 32 x 894 13 8M7 Key 8 x 227 13 016 int. valve 8 x 227 13 017 exh. valve		1799,00	1	
227 10 200-00	1 x 227 D1 200-02 1 x 227 D1 080-01	16 x 227 02 113	16 x 227 13 055 Titanium 16 x 227 13 058 Steel 32 x 894 13 8L7 Key 8 x 227 13 053 int. valve 8 x 227 13 054 exh. valve		2139,00	2	Tappets 227 13 803 necessary



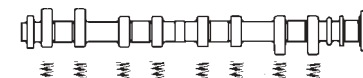
Camshaft Kits



Part No.	Camshaft	includes:			Price EUR / per Kit excl. VAT	Discount group	Remarks
		Valve Springs	Valve Spring Retainers	Cam followers, accessories			
Ford CVH 4 Cyl. 2 Valve Aluminium Cylinder Head (Fiesta, Escort, Orion..)							
086 10 881-02	1 x 086 01 881-02	8 x 086 02 080	8 x 086 13 024		306,00	1	
Ford Zetec SE 4 Cyl. 4 Valve (1,7l Puma..)							
330 10 600-V0	1 x 330 E1 600-V0 1 x 330 A1 360-00	16 x 002 02 043	16 x 330 13 003 Titanium 32 x 894 13 8L6 Key	16 x 866 13 070 lash cap	1071,00	1	
Opel OHC 4 Cyl. 2 Valve Aluminium Cyl. Head, "Big Block" (Kadett, Ascona, Manta..)							
092 10 761-11	1 x 092 01 761-01	8 x 092 02 086	8 x 092 13 046 Titanium 4 x 092 13 035 Steel 4 x 092 13 036 Steel 16 x 894 13 8K7 Key	8 x 092 13 800 rocker arms	500,00	1	For valves with 7 mm stem dia.
Opel 16 V C20XE 4 Cyl. 4 Valve (2,0 l Kadett, Astra, Calibra, Vectra..1988 - 1994)							
242 10 681-00	1 x 242 E1 681-00 1 x 242 A1 681-00	16 x 242 02 065	16 x 242 13 030 Titanium 32 x 894 13 8M7 Key	16 x 863 13 803 hydr. tappet	1085,00	1	
242 10 040-00	1 x 242 E1 040-00 1 x 242 A1 040-00	16 x 242 02 054 16 x 242 02 019	16 x 242 13 029 Titanium 16 x 242 13 010 Steel 32 x 894 13 8M7 Key	16 x 863 14 600 mech. spacer	1174,00	1	group A racing
Opel 16 V "Small Block" 4 Cyl. 4 Valve (1,4 - 1,6 l Corsa, Tigra, Astra, Vectra..)							
281 10 800-00	1 x 281 E1 800-00 1 x 281 A1 800-00	16 x 242 02 065	16 x 299 13 004 Titanium 32 x 894 13 8M6 Key	16 x 863 14 600 mech. spacer	946,00	1	group A rallye
Porsche 911 6 Cyl. 2 Valve							
005 10 200-01	1 x 005 L1 200-01 1 x 005 R1 200-01	12 x 013 02 064 12 x 013 02 031	12 x 005 13 036 Titanium 12 x 005 13 035 Steel 24 x 894 13 8R8 Key	6 x 005 13 003 int. valve 6 x 005 13 004 exh. valve	1697,00	1	Internal thread, bearings 49 mm dia. Porsche racing rocker arms Nr. 96210530800 required
005 10 880-02	1 x 005 L1 880-02 1 x 005 R1 880-02	12 x 013 02 064 12 x 013 02 031	12 x 005 13 042 Titanium 12 x 005 13 035 Steel		1172,00	1	Internal thread, bearings 49 mm dia. (Carrera 2 and Carrera 4)
005 10 921-01	1 x 005 L1 921-01 1 x 005 R1 921-01	12 x 013 02 064 12 x 013 02 031	12 x 005 13 041 Titanium 12 x 005 13 035 Steel 12 x 005 13 043 Steel 24 x 894 13 8M8 Key	6 x 005 13 001 int. valve 6 x 005 13 002 exh. valve	1674,00	1	Internal thread, bearings 49 mm dia. (993 - Carrera 1994-)



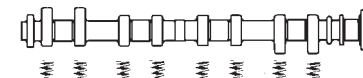
Camshaft Kits



Part No.	includes:				Price EUR / per Kit excl. VAT	Discount group	Remarks
	Camshaft	Valve Springs	Valve Spring Retainers	Cam followers, accessories			
VW 827 4 Cyl. 2 Valve (1,5 - 2,0 l Golf, Scirocco, Jetta, Passat, Vento, Polo Classic, Audi 80/90, A4, A3, Seat Toledo, Cordoba, Ibiza, Skoda Octavia ..)							
014 10 681-01	1 x 014 01 681-01	8 x 013 02 062 8 x 013 02 026	8 x 014 13 194 Titanium 8 x 014 13 094 Steel 16 x 894 13 8M8 Key	8 x 863 13 801 hydr. tappet	570,00	1	Also recommended for G 60
014 10 681-11	1 x 014 01 681-01	8 x 014 02 054 8 x 014 02 027	8 x 014 13 198 Titanium 8 x 014 13 199 Steel 16 x 894 13 8M7 Key	8 x 863 13 801 hydr. tappet	598,00	1	Valve stem 7 mm (MY 1995- and New Beetle)
014 10 721-02	1 x 014 01 721-02	8 x 013 02 062 8 x 013 02 026	8 x 014 13 194 Titanium 8 x 014 13 094 Steel 16 x 894 13 8M8 Key	8 x 863 13 801 hydr. tappet	570,00	1	Please secure, that the cams are free travelling.
014 10 760-00 (1,8 l)	1 x 014 01 760-00	8 x 013 02 062 8 x 013 02 026	8 x 014 13 194 Titanium 8 x 014 13 094 Steel 16 x 894 13 8M8 Key		472,00	1	Please secure, that the cams are free travelling.
014 10 760-10 (1,6 l)	1 x 014 01 760-00	8 x 013 02 062 8 x 013 02 026	8 x 014 13 195 Titanium 8 x 014 13 094 Steel 16 x 894 13 8R8 Key		475,00	1	Please secure, that the cams are free travelling.
VW 16 V 4 Cyl. 4 Valve (1,8 - 2,0 l Golf, Passat, Scirocco, Corrado, Audi 80/90, Seat Toledo, Cordoba, Ibiza..)							
220 10 601-00	1 x 220 E1 601-02 1 x 220 A1 601-02	16 x 013 02 062 16 x 013 02 026	16 x 014 13 094	16 x 863 13 801 hydr. tappet	1003,00	1	
220 10 681-00	1 x 220 E1 681-01 1 x 220 A1 681-01	16 x 013 02 062 16 x 013 02 026	16 x 014 13 094	16 x 863 13 801 hydr. tappet	1003,00	1	
220 10 840-03	1 x 220 E1 840-03V 1 x 220 A1 840-03	16 x 013 02 062 16 x 013 02 026	16 x 014 13 094	16 x 863 14 ... mech. spacer 1 x 220 13 045 adjust. timing gear 1 x 220 13 015 adj. sprocket on int. cam.	1176,00	1	group A rallye
220 10 000-03	1 x 220 E1 000-03V 1 x 220 A1 000-03	16 x 013 02 064 16 x 220 02 026	16 x 220 13 133 Titanium 16 x 220 13 135 Steel 32 x 894 13 8R7 Key 8 x 220 13 020 int. valve 8 x 220 13 021 exh. valve	16 x 863 14 ... mech. spacer 1 x 220 13 045 adjust. timing gear 1 x 220 13 015 adj. sprocket on int. cam.	1905,00	1	group A racing
VW VR6 6 Cyl. 2 Valve (Golf, Passat, Corrado, Vento, Sharan, Ford Galaxy, Mercedes V..)							
268 10 681-00	1 x 268 L1 681-00 1 x 268 R1 681-00	12 x 013 02 062 12 x 013 02 026	12 x 895 00 811 12 x 895 00 814	12 x 863 13 801 hydr. tappet	901,00	1	use Schrick valve springs with washer 1.0 mm 895 00 811/814



Camshaft Kits



Part No.	includes:				Price EUR / per Kit excl. VAT	Discount group	Remarks
	Camshaft	Valve Springs	Valve Spring Retainers	Cam followers, accessories			
VW 16 V "Small Block" 4 Cyl. 4 Valve Hydr. Tappets (Polo, Lupo..)							
299 10 561-00	1 x 299 E1 561-00 1 x 299 A1 561-00	16 x 242 02 065	16 x 299 13 004 Titanium 16 x 299 13 005 Steel 32 x 894 13 8M6 Key		1015,00	1	
299 10 800-00	1 x 299 E1 800-00 1 x 299 A1 800-00	16 x 242 02 065	16 x 299 13 004 Titanium 16 x 299 13 005 Steel 32 x 894 13 8M6 Key	16 x 863 11 600 mech. spacer	1111,00	1	group A rallye
299 10 920-01	1 x 299 E1 920-01 1 x 299 A1 920-01	16 x 299 02 050 16 x 299 02 031	16 x 299 13 006 Titanium 16 x 299 13 007 Steel 32 x 894 13 8S6 Key 8 x 299 13 010 int. valve 8 x 299 13 011 exh. valve	16 x 863 11 700 mech. spacer	1631,00	1	group A racing
299 10 920-11	1 x 299 E1 920-01 1 x 299 A1 920-01	16 x 299 02 050 16 x 299 02 031	16 x 299 13 006 Titanium 16 x 299 13 007 Steel 32 x 894 13 8S6 Key 8 x 299 13 008 int. valve 8 x 299 13 009 exh. valve		1535,00	1	group H racing



Camshafts



Part No.	Cam lift (Valve lift) I/A [mm]	Duration ° CRA Intake/Exhaust Peak Timing	Valve timing ° CRA IO-IC-EO-EC	Valve lift at TDC I/E [mm]	Valve clearance I/E [mm]	fat printed accessories are necessary, other ones are recommended		Price EUR/ea. excl. VAT	Discount group	Remarks
						Valve springs	Valve spring retainer, accessories			
Alfa Romeo Twin Spark 16V 4 Cyl. 4 Valve (GTV, Spider, 145, 146, 155, 156..)										
306 E1 641-V1	10,25	264/ /118-93	14-70 - 39-45	0,4-3,2	hydr.	306 02 053		350,00	2	Calibration by Schrick Installation tool 306 13 002
306 A1 681-01	10,25	268/ /110	-64-24	1,4	hydr.	306 02 019		350,00	2	Valve-springs installed hight has to be checked
						306 02 053				Calibration by Schrick Installation tool 306 13 002
						306 02 019				Valve-springs installed hight has to be checked
Audi 5 Cyl. 2 Valve										
064 01 720-00	11,0	272/272/110	26-66-66-26	2,1	0,35/0,45	013 02 062/026	upper 014 13 194 lower 014 13 094 key 894 13 8M8 tappet 863 13 801	315,00	2	without fuel pump-drive without vacuum pump drive fits pulley inner diam. 22,0 mm cyl.
064 01 721-02	11,4	272/272/110	26-66-66-26	1,6/1,7	hydr.	013 02 062/026	upper 014 13 194 lower 014 13 094 key 894 13 8M8 tappet 863 13 801	315,00	2	without fuel pump-drive without vacuum pump drive fits pulley inner diam. 22,0 mm cyl.
064 01 761-00	11,5	276/276/110	28-68-68-28	2,1	hydr.	013 02 062/026	upper 014 13 194 lower 014 13 094 key 894 13 8M8 tappet 863 13 801	315,00	2	without fuel pump-drive without vacuum pump drive fits pulley inner diam. 22,0 mm cyl.
Audi 4 Cyl. 5 Valve (A3, A4, VW Golf 4, Passat, Skoda Octavia..)										
301 E1 681-00	9,1	268/ /112	22-66-	1,0	hydr.			370,00	2	
301 A1 601-00	10,4	/260/114	-64-16	0,7	hydr.			370,00	2	
301 E1 521-00	8,2	252/ /110	16-56-	0,8	hydr.			370,00	2	
301 E1 960-00	10,0	296/ /104	44-72-	3,7	0,25	301 02 060	upper 301 13 007/010 Key 894 13 8M6/8S6	370,00	2	for turbo charged engines, with exhaust camshaft 301 A1 601-00
301 A1 920-00	11,5	/292/104	-70-42	3,8	0,35	014 02 054/27 299 02 050/31	upper 301 13 008/299 13 006 lower 301 13 009/299 13 007 Key 894 13 8M6/8S6	370,00	2	for application of springs, retainers and keys please look on page 3 – camshaft kits 301 10 ...
Audi 4 Cyl. 5 Valve (A4, 2,0 L ab Modell B6)										
301 E1 601-V0	9,2	260/126	4-76-	0,4	hydr.			370,00	2	German TÜV approval for legal street use with A4 and A6
301 A1 681-00	10,8	/268/114	68-20	0,84	hydr.			370,00	2	German TÜV approval for legal street use with A4 and A6
Audi 5 Cyl. 4 Valve										
246 E1 601-01	10,9	260/ /112	18-62-	0,8	hydr.		tappet 863 13 801	395,00	2	
246 A1 601-01	10,9	/260/112	-62-18	0,9	hydr.		tappet 863 13 801	395,00	2	



Camshafts



Part No.	Cam lift (Valve lift) I/A [mm]	Duration ° CRA Intake/Exhaust Peak Timing	Valve timing ° CRA IO-IC-EO-EC	Valve lift at TDC I/E [mm]	Valve clearance I/E [mm]	fat printed accessories are necessary, other ones are recommended		Price EUR/ea. excl. VAT	Discount group	Remarks
						Valve springs	Valve spring retainer, accessories			
Audi V 6 Cyl. 2 Valve										
269 L1 601-00	11,1	260/260/112	18-62-62-18	0,9/1,1	hydr.		tappet 863 13 801	325,00	2	
269 R1 601-00	11,1	260/260/112	18-62-62-18	0,9/1,1	hydr.		tappet 863 13 801	325,00	2	
BMW M10 4 Cyl. 2 Valve										
002 01 840-01	7,2 (9,5)	284/284/110	32-72-72-32	2,0	0,20/0,20	-1985 002 02 090 1985 - 056 02 062/022		280,00	2	clockwise distributor (- 9/80)
002 01 840-02	7,2 (9,5)	284/284/110	32-72-72-32	2,0	0,20/0,20	-1985 002 02 090 1985 - 056 02 062/022		280,00	2	anti-clockwise distributor (9/80 -)
002 01 920-01	7,6 (10)	292/292/110	36-76-76-36	2,6	0,20/0,20	-1985 002 02 090 1985 - 056 02 062/022		280,00	2	clockwise distributor (- 9/80)
002 01 920-02	7,6 (10)	292/292/110	36-76-76-36	2,6	0,20/0,20	-1985 002 02 090 1985 - 056 02 062/022		280,00	2	anti-clockwise distributor (9/80 -)
002 01 040-01	8,2 (10,7)	304/304/108	44-80-80-44	2,9	0,25/0,25	-1985 002 02 090 1985 - 056 02 062/022		280,00	2	clockwise distributor (- 9/80)
002 01 040-02	8,2 (10,7)	304/304/108	44-80-80-44	2,9	0,25/0,25	-1985 002 02 090 1985 - 056 02 062/022		280,00	2	anti-clockwise distributor (9/80 -)
002 01 160-03	9,1 (11,9)	316/316/100	58-78-78-58	5,6	0,25/0,25	002 02 080/043		385,00	2	a small slot must be bored in the middle bearing First and second bearing 2 mm larger in dia.
002 01 160-04	9,1 (11,9)	316/316/100	58-78-78-58	5,6	0,25/0,25	002 02 080/043		385,00	2	clockwise distributor First and second bearing 2 mm larger in dia. anti-clockwise distributor (9/80 -)
BMW M30 6 Cyl. 2 Valve (2,8 - 3,5 l)										
022 01 820-00	8,4 (10,6)	282/282/110	31-71-71-31	1,8	0,25/0,25	002 02 090		345,00	2	Distributor drive, not for motronic, without fuel pump drive
022 01 840-01	8,7/8,6 (10,9/10,8)	284/280/110	32-72-70-30	1,9/1,7	0,25/0,25	002 02 090		345,00	2	Motronic 1 (- 9/83); without fuel pump drive
022 01 840-04	8,7/8,6 (10,9/10,8)	284/280/110	32-72-70-30	1,9/1,7	0,25/0,25	-1985 002 02 090 1985 - 056 02 062/022		345,00	2	Motronic 2 (9/83 -); without fuel pump drive
BMW M20 6 Cyl. 2 Valve (2,0 - 2,5 l)										
056 01 720-00	7,0 (11,0)	272/272/111	25-67-67-25	1,6	0,25/0,25	-1985 002 02 090 1985 - 056 02 062/022		325,00	2	
056 01 840-00	7,3/7,0 (11,4/11,0)	284/272/110	32-72-66-26	2,2/1,7	0,25/0,25	-1985 002 02 090 1985 - 056 02 062/022		325,00	2	
056 01 880-00	7,3 (11,4)	288/288/110	34-74-74-34	2,8	0,25/0,25	-1985 002 02 090 1985 - 056 02 062/022		325,00	2	
056 01 040-00	7,7 (12,2)	304/304/105	47-77-77-47	4,0	0,25/0,25	-1985 002 02 090 1985 - 056 02 062/022		325,00	2	



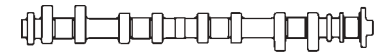
Camshafts



Part No.	Cam lift (Valve lift) I/A [mm]	Duration ° CRA Intake/Exhaust Peak Timing	Valve timing ° CRA IO-IC-EO-EC	Valve lift at TDC I/E [mm]	Valve clearance I/E [mm]	fat printed accessories are necessary, other ones are recommended		Price EUR/ea. excl. VAT	Discount group	Remarks
						Valve springs	Valve spring retainer, accessories			
BMW M88, S38 6 Cyl. 4 Valve (M1, M5, 635Csi)										
207 D1 720-00	11,0	272/110	26-66-66-26	2,5	0,35/0,35			660,00	2	Engine M 88 (- 1988)
207 D1 800-00	11,0	280/110	30-70-70-30	2,7	0,35/0,35			660,00	2	Engine S 38 (1989 -)
BMW S14 4 Cyl. 4 Valve (M3 E30)										
227 D1 760-01	11,3	276/276/106	32-64-64-32	3,2	0,35/0,40	013 02 064 220 02 026	upper 227 13 051 lower 227 13 052 Key 894 13 8M7	375,00	2	
227 D1 840-00	11,5	284/284/106	36-68-68-36	3,5	0,25/0,30	013 02 064 220 02 026	upper 227 13 051 lower 227 13 052 Key 894 13 8M7	375,00	2	
227 D1 080-01	12,2	308/308/102	52-76-76-52	5,5	0,20/0,25	227 02 113	upper 227 13 055 lower 227 13 058 Key 894 13 8L7 tappet 227 13 803 int. valve 227 13 053 exh. valve 227 13 054	400,00	2	Tappets 227 13 803 necessary
227 D1 200-02	13,0	320/320/102	58-82-82-58	6,4	0,20/0,25	227 02 113	upper 227 13 055 lower 227 13 058 Key 894 13 8L7 tappet 227 13 803 int. valve 227 13 053 exh. valve 227 13 054	400,00	2	Tappets 227 13 803 necessary
BMW M40 4 Cyl. 2 Valve (318 i)										
237 01 681-00	6,5/6,3 (11,3/11,0)	268/264/110	24-64-62-22	1,5/1,3	hydr.			325,00	2	
BMW M70 V12 Cyl. 2 Valve										
239 L1 641-00	6,3 (11,0)	264/264/112	20-64-64-20	1,1	hydr.			510,00	2	
239 R1 641-00	6,3 (11,0)	264/264/112	20-64-64-20	1,1	hydr.			510,00	2	
BMW M42 4 Cyl. 4 Valve (318is)										
256 E1 561-00	10,4	256/ /110	18-58-	1,2	hydr.	256 02 062/022	tappet 863 13 801	285,00	2	
256 A1 561-00	10,4	/256/110	-58-18	1,2	hydr.	256 02 062/022	tappet 863 13 801	285,00	2	



Camshafts



Part No.	Cam lift (Valve lift) I/A [mm]	Duration ° CRA Intake/Exhaust Peak Timing	Valve timing ° CRA IO-IC-EO-EC	Valve lift at TDC I/E [mm]	Valve clearance I/E [mm]	fat printed accessories are necessary, other ones are recommended		Price EUR/ea. excl. VAT	Discount group	Remarks
						Valve springs	Valve spring retainer, accessories			
BMW M43 4Cyl. 2 Valve Rollet Cam Follower (316i, 318i, Z3 1.8 ..)										
353 01 561-00	6,34/6,34 (11,1)/(11,1)	256/103 /256 /106	25-51-54-22	1,05/0,86	hydr.			335,00	2	
353 01 641-00	6,34/6,34 (11,1)/(11,1)	264/110 /264 /110	22-62-62-22	1,22/1,22	hydr.			335,00	2	
BMW M50 6 Cyl. 4 Valve (320i - 328i, 520i - 528i)										
261 E1 561 00	10,4	256/ /106	22-54-	1,5	hydr.			400,00	2	Intake camshaft M52 engine no vanos built bef. 09/1992 Recommended exhaust camshaft 261.A1.441-00
261 A1 441 00	9,5	/244/106	-48-16	0,8	hydr.			400,00	2	
BMW M52 6 Cyl. 4 Valve (320i - 328i, 520i - 528i) single VANOS!										
261 E1 521 V0	10,2	252/ /116-91	10-62 - 35-37	0,3-3,2	hydr.			425,00	2	Intake camshaft M52 engine single vanos engine Recommended exhaust camshaft 261.A1.441-00
261 A1 441 00	9,5	/244/106	- 48-16	0,8	hydr.			400,00	2	
BMW M52 TU 6 Cyl. 4 Valve (320i - 328i, 520i - 528i) dual VANOS!										
261 E1 481 DV0	10,0	248/ /120-80	4-64 - 44-24	0,1-4,4	hydr.			425,00	2	German TÜV approval for legal street use with 3-series / Z3 / 5-series – M52TU Dual Vanos
261 A1 481 DV0	10,0	/248/112-87	56-12 - 31-37	0,6-3,6	hydr.			425,00	2	German TÜV approval for legal street use with 3-series / Z3 / 5-series – M52TU Dual Vanos
BMW M54 6 Cyl. 4 Valve (330i, 530i, X5 3,0 L) dual VANOS!										
261 E1 641 DV0	10,5	264/ /126-86	6-78 - 46-38	0,15-4,05	hydr.			425,00	2	
261 A1 481 DV0	10,0	/248/112-87	56-12 - 31-37	0,6-3,6	hydr.			425,00	2	
BMW S54 (B32) 6 Cyl. 4 Valve (M3 E46)										
415 E1 800-00	11,6 (12,50)	280/ /132-72	8 - 92/ 68 - 22	0,55-8,0	0,25			490,00	2	
415 A1 720-00	11,6 (12,50)	/272/128-83	53 - 37/ 8 - 82	0,55-6,15	0,25			490,00	2	
BMW S62 V 8 Cyl. 4 Valve (M 5 E 39)										
409 E1 681-L0	11,3	268/ /134-74	0-88	0,05-6,40	hydr.			460,00	2	
409 E1 681-R0	11,3	268/ /134-74	0-88	0,05-6,40	hydr.			460,00	2	
409 A1 681-L0	11,3	/268/136-76	58-38	0,1-6,15	hydr.			460,00	2	
409 A1 681-R0	11,3	/268/136-76	58-38	0,1-6,15	hydr.			460,00	2	
BMW R 259 2 Cyl. 4 Valve Boxer (R850 GS, R, R1100S, R, GS, RS R1200C ..)										
392 01 920-00	9,5 (11,3)	292/292/108	38-74 - 74-38	3,3	0,20/0,35			165,00	2	Please secure, that the cams are free travelling.
392 01 120-00	9,5 (11,3)	312/312/104	52-80 - 80-52	4,6	0,20/0,35			165,00	2	Please secure, that the cams are free travelling.



Camshafts



Part No.	Cam lift (Valve lift) I/A [mm]	Duration ° CRA Intake/Exhaust Peak Timing	Valve timing ° CRA IO-IC-EO-EC	Valve lift at TDC I/E [mm]	Valve clearance I/E [mm]	fat printed accessories are necessary, other ones are recommended		Price EUR/ea. excl. VAT	Discount group	Remarks
						Valve springs	Valve spring retainer, accessories			
BMW S50, S52 6 Cyl. 4 Valve (M3 E36)										
284 E1 840-0V1	11,9	284/ /122-80	20-84 - 62-42	1,3-6,7	0,25			445,00	2	M 3 single Vanos 3,0 L intake
284 A1 840-001	11,9	/284/108	-70-34	3,1	0,25			445,00	2	M 3 single Vanos 3,0 L exhaust
284 E1 960-0V1	12,4	296/ /122-80	26-90 - 68-48	2,15-7,5	0,25			465,00	2	M 3 single Vanos 3,0 L intake
284 A1 960-001	12,4	/296/108	40 - 76	4,0	0,25			465,00	2	M 3 single Vanos 3,0 L exhaust
284 E1 840-0V2	11,9	284/ /129-69	13-91 - 73-31	0,8-7,95	0,25			445,00	2	Vanos system for intake- and exhaust 3,2 L
284 A1 840-0V2	11,9	/284/114-76	72-28 - 38-66	2,32-7,15	0,25			445,00	2	Vanos system for intake- and exhaust 3,2 L
284 E1 960-0V2	12,4	296/69-129	79-73/19-97	1,35-8,68	0,25			465,00	2	Vanos system for intake- and exhaust 3,2 L
284 A1 960-0V2	12,4	/296/76-114	44-72/82-34	3,2-7,94	0,25			465,00	2	Vanos system for intake- and exhaust 3,2 L
Chrysler PT Cruiser 4 Cyl. 4 Valve (2,0 L)										
406 E1 641-00	5,15 (9,00)	264/ /111	21-63	0,86	hydr.			405,00	2	
406 A1 561-00	5,15 (9,00)	/256/109	57-19	0,64	hydr.			405,00	2	
Ducati V 2 Cyl. 4 Valve (916, 748, 996)										
359 EV 280-00	9,93 (12,0)	328/104	60-88	3,9	0,2			405,00	2	
359 EH 280-00	9,93 (12,0)	328/104	60-88	3,9	0,2			405,00	2	
359 AV 160-00	9,93 (12,0)	316/104	82-54	3,2	0,25			405,00	2	
359 AH 160-00	9,93 (12,0)	316/104	82-54	3,2	0,25			405,00	2	
Fiat 20V 5 Cyl. 4 Valve (Bravo, Coupé)										
310 E1 601-V0	10,0	260/ /120-101	10-70 - 29-51	0,2-1,9	hydr.	306 02 054 306 02 019		375,00	2	Calibration by Schrick installation tool 306 13 002
310 A1 521-00	9,0	252/106	-52-20	0,95	hydr.	306 02 054 306 02 019		375,00	2	Calibration by Schrick installation tool 306 13 002
Ford OHC 4 Cyl. 2 Valve Cast Iron Cyl. Head (Escort, Capri, Taunus..)										
019 01 740-00	6,5 (10,6)	274/274/110	27-67-67-27	1,9	0,20/0,25	092 02 086		290,00	2	
Ford CVH 4 Cyl. 2 Valve Aluminium Cylinder Head (Fiesta, Escort, Orion..)										
086 01 881-02	6,5 (10,6)	288/ /116 /280/109	28-80-69-31	1,4/1,8	hydr.	086 02 080	lower 086 13 024	230,00	2	
Ford Zetec 4 Cyl. 4 Valve (1,6 - 2,0l Escort, Mondeo, Fiesta, Focus ...)										
252 E1 601-00	9,9	260/ /114	16-64-	0,9	hydr.			300,00	2	
252 A1 601-00	9,9	/260/114	-64-16	1,0	hydr.			300,00	2	
252 E1 640-00	10,0	264/ /114	18-66	1,5	0,3			300,00	2	for solid tappets (MY 1998 -) Focus
252 A1 560-00	9,7	/256/114	-62-14	1,1	0,35			300,00	2	for solid tappets (MY 1998 -) Focus



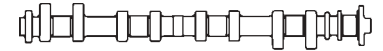
Camshafts



Part No.	Cam lift (Valve lift) I/A [mm]	Duration ° CRA Intake/Exhaust Peak Timing	Valve timing ° CRA IO-IC-EO-EC	Valve lift at TDC I/E [mm]	Valve clearance I/E [mm]	fat printed accessories are necessary, other ones are recommended		Price EUR/ea. excl. VAT	Discount group	Remarks
						Valve springs	Valve spring retainer, accessories			
Ford 4 Cyl. 4 Valve (2,0 - 2,3 l Escort, Scorpio, Galaxy..)										
270 E1 601-01	10,5	260/ /112	18-62-	1,1	hydr.			250,00	2	
270 A1 601-01	10,1	/260/116	-66-14	1,0	hydr.			250,00	2	
Ford Zetec SE 4 Cyl. 4 Valve (1,7 l Puma..)										
330 E1 600-V0	9,0	260/ /126-86	4-76 - 44-36	0,5-4,1	0,3	002 02 043	upper ret. 330 13 003 key 894 13 8L6 lash cap 866 13 070	350,00	2	camshaft can not be assembled without fat printed accessories!
330 A1 360-00	8,0	/236/106	-44-12	0,9	0,35	002 02 043	upper ret. 330 13 003 key 894 13 8L6 lash cap 866 13 070	300,00	2	camshaft can not be assembled without fat printed accessories!
Honda S2000 2,0L roller follower V-Tec 4 Cyl. 4 Valve										
438 E1 080-00	7,15 (12,5)	244/ /116 308/ /102	6-58 52-76	0,46 4,40	0,3			425,00	2	
438 A1 000-00	6,93 (12,2)	/244/116 /300/102	58-6 72-48	0,5 3,80	0,35			425,00	2	
Honda Civic Type R 2,0L roller follower I V-Tec 4 Cyl. 4 Valve										
432 E1 960-00	7,33 (12,8)	232 296/ /78-130	2-50/54-2 18-98/70-46	0,43 0,95-7,4	0,3			425,00	2	
432 A1 900-00	6,81 (12,0)	/236 290/112	50-6 77-33	0,52 2,20	0,35			425,00	2	
Honda Hornett 4 Cyl. 4 Valve 600cm³										
442 E1 840-00	8,8	284/104	38-66	2,5	0,16			360,00	2	
442 A1 000-00	8,0	/300/106	76-44	2,0	0,25			360,00	2	
Mazda MX5 4 Cyl. 4 Valve, 1,6L										
441 E1 601-01	8,4	260/ /110	20-60	0,8	hydr.			300,00	2	
441 A1 601-00	9,0	/260/110	60-20	0,77	hydr.			300,00	2	
Mazda MX5 4 Cyl. 4 Valve, 1,9L										
436 E1 641-00	9,5	264/ /110	22-62	0,9				300,00	2	
436 A1 641-00	9,5	/264/110	62-22	0,9				300,00	2	
Mercedes M102 4 Cyl. 2 Valve (190 E, 200-230E..)										
201 01 681-01	7,6 (11,3)	268/268/112	22-66-66-22	1,0	hydr.	208 02 102		325,00	2	only use DB rocker arms no.102 050 0633
Mercedes M104 6 Cyl. 4 Valve (300E-24, C280..)										
255 E1 401-00	9,7	240/ /126-92	0-60 - 28-32	0-2,3	hydr.			610,00	2	only use DB tappets no. 104 050 0925
255 A1 521-00	9,6	/252/113	-59-13	0,8	hydr.			610,00	2	only use DB tappets no. 104 050 0925



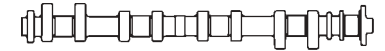
Camshafts



Part No.	Cam lift (Valve lift) I/A [mm]	Duration ° CRA Intake/Exhaust Peak Timing	Valve timing ° CRA IO-IC-EO-EC	Valve lift at TDC I/E [mm]	Valve clearance I/E [mm]	fat printed accessories are necessary, other ones are recommended		Price EUR/ea. excl. VAT	Discount group	Remarks
						Valve springs	Valve spring retainer, accessories			
Mercedes M111 4 Cyl. 4 Valve (C180-220, E230, CLK200..)										
285 E1 641-00	10,3	264/ /120-100 (112)	12-72 - 32-52 (20-64)	0,3-2,3 (1,0)	hydr.		tappet 863 13 801	425,00	2	
285 A1 601-01	10,0	/260/110	-60-20	1,3	hydr.		tappet 863 13 801	425,00	2	
Mercedes M112 V 6 Cyl. 3 Valve (C, CLK, E, SLK..)										
351 01 561-L0	7,25 (10,8)	256/268/114	14-62 - 68-20	0,5/1,0	hydr.			690,00	2	
351 01 561-R0	7,25 (10,8)	256/268/114	14-62 - 68-20	0,5/1,0	hydr.			690,00	2	
Mercedes M113 V 8 Cyl. 3 Valve (C, CLK, E, S, SL..)										
352 01 561-L0	7,25 (10,8)	256/268/114	14-62 - 68-20	0,5/1,0	hydr.			795,00	2	
352 01 561-R0	7,25 (10,8)	256/268/114	14-62 - 68-20	0,5/1,0	hydr.			795,00	2	
Mercedes M137 V 12 Cyl. 3 Valve (S, SL..)										
383 L1 641-00	7,35 (11,2)	256/264/113	15-61-65-19	0,63/0,95	hydr.			980,00	2	
383 R1 641-00	7,35 (11,2)	256/264/113	15-61-65-19	0,63/1,12	hydr.			980,00	2	
Mini 4 Cyl. 4 Valve (also Cooper and Cooper S)										
424 01 601-00	5,77/6,24 (9,5/9,0)	260/260/114	16-64 - 64-16	0,42	hydr.			355,00	2	
Opel OHC 4 Cyl. 2 Valve Aluminium Cyl. Head "Small Block" (Corsa, Kadett, Vectra, Astra..)										
073 01 801-00	6,5 (10,8)	280/280/112	28-72-72-28	1,4	hydr.			215,00	2	Please use new rocker arms ref. 092 13 800
Opel OHC 4 Cyl. 2 Valve Aluminium Cyl. Head, "Big Block" (Kadett, Ascona, Manta..)										
092 01 761-01	7,3/7,1 (11,8/11,5)	276/272/110	28-68-66-26	1,4/1,3	hydr.	092 02 086	7 mm: 894 13 8K7 092 13 046/035/036 8 mm: 894 13 8K8 092 13 047/050	215,00	2	Please use new rocker arms ref. 092 13 800
092 01 961-00	7,3 (11,8)	296/296/105	43-73-73-43	3,6	hydr.	092 02 086	7 mm: 894 13 8K7 092 13 046/035/036 8 mm: 894 13 8K8 092 13 047/050	215,00	2	Please use new rocker arms ref. 092 13 800



Camshafts



Part No.	Cam lift (Valve lift) I/A [mm]	Duration ° CRA Intake/Exhaust Peak Timing	Valve timing ° CRA IO-IC-EO-EC	Valve lift at TDC I/E [mm]	Valve clearance I/E [mm]	fat printed accessories are necessary, other ones are recommended		Price EUR/ea. excl. VAT	Discount group	Remarks
						Valve springs	Valve spring retainer, accessories			
Opel V 6 Cyl. 4 Valve (Calibra, Omega, Vectra, Sintra, Saab V6..)										
219 D1 561-00	10,5	256/256/113 /103	15-61-51-25	0,4/1,9	hydr.		tappet 863 13 803	250,00	2	
Opel 16 V C20XE 4 Cyl. 4 Valve (2,0 I Kadett, Astra, Calibra, Vectra.. 1988 - 1994)										
242 E1 681-00	10,4	268/ /110	24-64-	1,5	hydr.	242 02 065	upper 242 13 030 Key 894 13 8M7	265,00	2	
242 A1 681-00	10,4	/268/110	-64-24	1,5	hydr.	242 02 065	upper 242 13 030 Key 894 13 8M7	265,00	2	
242 E1 761-00	10,7	276/ /110	28-68-	2,0	hydr.	242 02 065	upper 242 13 030 Key 894 13 8M7	265,00	2	
242 A1 761-00	10,7	/276/110	-68-28	2,1	hydr.	242 02 065	upper 242 13 030 Key 894 13 8M7	265,00	2	
242 E1 040-00	12,0	304/ /105	47-77-	5,1	0,25/0,30	242 02 054/019	upper 242 13 029 lower 242 13 010 Key 894 13 8M7 spacer 863 14 700	265,00	2	
242 A1 040-00	12,0	/304/105	-77-47	5,1	0,25/0,30	242 02 054/019	upper 242 13 029 unten 242 13 010 Key 894 13 8M7 spacer 863 14 700	265,00	2	
Opel C30SE 6 Cyl. 4 Valve (Omega 3,0 24 V „Dual RAM“)										
250 E1 601-01	10,0	260/ /110	20-60-	1,0	hydr.			320,00	2	
250 A1 601-01	10,0	/260/110	-60-20	1,1	hydr.			320,00	2	
Opel 16V "Small Block" 4 Cyl. 4 Valve (1,4 - 1,6 I Corsa, Tigra, Astra, Vectra..)										
281 E1 561-00	9,5	256/ /110	18-58	0,7	hydr.	242 02 065	upper 299 13 004 tappet 863 13 803	240,00	2	Please secure, that the cams are free trevelling.
281 A1 561-00	9,5	/256/110	-58-18	0,8	hydr.	242 02 065	upper 299 13 004 tappet 863 13 803	240,00	2	Please secure, that the cams are free trevelling.
281 E1 641-00	9,8	264/ /110	22-62	1,0	hydr.	242 02 065	upper 299 13 004 tappet 863 13 803	240,00	2	Please secure, that the cams are free trevelling.
281 A1 641-00	9,8	/264/110	-62-22	1,2	hydr.	242 02 065	upper 299 13 004 tappet 863 13 803	240,00	2	Please secure, that the cams are free trevelling.
281 E1 800-00	10,25	280/ /110	30-70	2,5	0,25	242 02 065	upper 299 13 004 spacer 863 14 600	260,00	2	base circle radius R=17,25 (1,25 mm smaller than standard)
281 A1 800-00	10,25	/280/110	-70-30	2,5	0,30	242 02 065	upper 299 13 004 spacer 863 14 600	260,00	2	base circle radius R=17,25 (1,25 mm smaller than standard)
281 D1 920-00	11,50	292/104	42-70 - 70-42	4,0	0,25/0,30	299 02 050 299 02 031	upper 299 13 006 lower 291 13 003 Key 894 13 8S6 int. valve 281 13 005 exh. valve 281 13 006 tappet 863 14 800/863 13 008	260,00	2	base circle radius R=16 (2,5 mm smaller than standard), camshaft for intake and exhaust



Camshafts



Part No.	Cam lift (Valve lift) I/A [mm]	Duration ° CRA Intake/Exhaust Peak Timing	Valve timing ° CRA IO-IC-EO-EC	Valve lift at TDC I/E [mm]	Valve clearance I/E [mm]	fat printed accessories are necessary, other ones are recommended		Price EUR/ea. excl. VAT	Discount group	Remarks
						Valve springs	Valve spring retainer, accessories			
Opel 16 V "Ecotec" 4 Cyl. 4 Valve (1,8 - 2,2 Astra, Vectra, Sintra.. 1995 -)										
291 D1 561-00	10,2	256/110	18-58 - 58-18	0,9/1,0	hydr.		tappet 863 13 803	260,00	2	
291 D1 641-00	10,5	264/110	22-62 - 62-22	1,3/1,4	hydr.		tappet 863 13 803	260,00	2	
291 D1 721-00	10,5	272/110	26-66 - 66-26	1,7/1,8	hydr.		tappet 863 13 803	315,00	2	
Opel 4 Cyl. 4 Valve. roller cam follower (2,2 Zafira, Speedster . . .)										
412 E1 521-00	6,32 (10,8)	252/ /116	10 - 62	0,24	hydr.			375,00	2	
412 A1 521-00	6,32 (10,8)	/252/103	49 - 23	1,2	hydr.			375,00	2	
Peugeot XU.. 4 Cyl. 2 Valve (1,9 205, 309, 405..)										
234 01 680-03	12,0	268/268/112	22-66-66-22	1,7	0,20/0,35			265,00	2	Please ensure correct valve-springs installed hight.
Peugeot XU.. MI16 4 Cyl. 4 Valve (1,9 - 2,0 309, 405, Citroen ZX..)										
247 E1 681-02	10,4	268/ /114	20-68	1,3	hydr.			350,00	2	Made of steel
247 A1 641-02	10,2	/264/114	18-66	1,2	hydr.			350,00	2	Made of steel
Peugeot TU.. 4 Cyl. 2 Valve (1,3 - 1,6 205, 106, 306, Citroen AX..)										
257 01 720-00	7,0 (11,4)	272/272/112	24-68-68-24	1,6	0,20/0,35			275,00	2	Peugeot 205, Citroen AX (smaller bearing dia.) without fuel pump-drive
257 01 840-01	7,0 (11,4)	284/284/108	34-70-70-34	2,5	0,20/0,35			275,00	2	Peugeot 205, Citroen AX (smaller bearing dia.) without fuel pump-drive
257 01 040-00	7,4/7,2 (12,0/11,7)	304/296/105	47-77-73-43	4,1/3,6	0,20/0,35			275,00	2	Peugeot 205, Citroen AX (smaller bearing dia.) without fuel pump-drive
257 01 720-01	7,0 (11,4)	272/272/110	26-66-66-26	1,8	0,20/0,35					Peugeot 106, 306 (larger bearing dia.) without fuel pump-drive
257 01 840-02	7,0 (11,4)	284/284/108	34-70-70-34	2,5	0,20/0,35			275,00	2	Peugeot 106, 306 (larger bearing dia.) without fuel pump-drive
257 01 040-01	7,4/7,2 (12,0/11,7)	304/296/105	47-77-73-43	4,1/3,6	0,20/0,35			275,00	2	Peugeot 106, 306 (larger bearing dia.) without fuel pump-drive
Peugeot TU5J4 4 Cyl. 4 Valve (1,6 106, Citroen Saxo..)										
326 E1 601-00	9,3	260/ /110	20-60-	1,1	hydr.			230,00	2	
326 A1 601-00	9,3	/260/110	-60-20	1,1	hydr.			230,00	2	
Peugeot XU10J4 4 Cyl. 4 Valve (2,0 306, Citroen Xsara ..)										
336 E1 681-00	10,5	268/ /114	20-68-	1,1	hydr.			330,00	2	
336 A1 681-00	10,5	/268/114	-68-20	1,2	hydr.			330,00	2	



Camshafts



Part No.	Cam lift (Valve lift) I/A [mm]	Duration ° CRA Intake/Exhaust Peak Timing	Valve timing ° CRA IO-IC-EO-EC	Valve lift at TDC I/E [mm]	Valve clearance I/E [mm]	fat printed accessories are necessary, other ones are recommended		Price EUR/ea. excl. VAT	Discount group	Remarks
						Valve springs	Valve spring retainer, accessories			
Porsche 911 6 Cyl. 2 Valve										
005 L1 880-02	8,8 (13,2)	288/280/114	30-78-74-26	2,1/1,7	0,20/0,20			370,00	2	Internal thread, bearings Ø 49 mm dia. (Carrera 2 and Carrera 4)
005 R1 880-02	8,8 (13,2)	288/280/114	30-78-74-26	2,1/1,7	0,20/0,20			370,00	2	Internal thread, bearings Ø 49 mm dia. (Carrera 2 and Carrera 4)
005 L1 921-01	8,8 (13,2)	292/284/114	32-80-76-28	1,8/1,5	hydr.			370,00	2	Internal thread, bearings Ø 49 mm dia. (993 - Carrera, 1994-)
005 R1 921-01	8,8 (13,2)	292/284/114	32-80-76-28	1,8/1,5	hydr.			370,00	2	Internal thread, bearings Ø 49 mm dia. (993 - Carrera 1994-)
005 L1 200-01	8,8 (13,2)	320/308/108	52-88-82-46	5,0/4,3	0,20/0,20	013 02 064 013 02 031	upper 005 13 036 lower 005 13 035 Valves 005 13 003/004 Key 894 13 8R8	420,00	2	Internal thread, bearings Ø 49 mm dia. Porsche racing rocker arms Nr. 96210530800 required
005 R1 200-01	8,8 (13,2)	320/308/108	52-88-82-46	5,0/4,3	0,20/0,20	013 02 064 013 02 031	upper 005 13 036 lower 005 13 035 Valves 005 13 003/004 Key 894 13 8R8	420,00	2	Innengewinde, Lager Ø 49 mm Porsche racing rocker arms Nr. 96210530800 required
Porsche 996 6 Cyl. 4 Valve Water Cooling (Boxster, 911 Carrera 1998 -)										
319 E1 641-R0	10,7	264/ /120-95	12-72 - 37-47	0,4-3,3	hydr.			370,00	2	2,5 L engine (Boxster) with adjustable sprocket
319 A1 641-R0	10,7	/264/108	-60-24	1,7	hydr.			370,00	2	2,5 L engine (Boxster)
319 E1 641-L0	10,7	264/ /120-95	12-72 - 37-47	0,4-3,3	hydr.			370,00	2	2,5 L engine (Boxster) with adjustable sprocket
319 A1 641-L0	10,7	/264/108	-60-24	1,7	hydr.			370,00	2	2,5 L engine (Boxster)
319 E1 801-R0	10,7	280/ /127-102	13-87 - 38-62	0,4-3,2	hydr.			370,00	2	3,4 L engine (911) with adjustable sprocket
319 A1 721-R0	10,7	/272/113	-69-23	1,5	hydr.			370,00	2	3,4 L engine (911)
319 E1 801-L0	10,7	280/ /127-102	13-87 - 38-62	0,4-3,2	hydr.			370,00	2	3,4 L engine (911) with adjustable sprocket
319 A1 721-L0	10,7	/272/113	-69-23	1,5	hydr.			370,00	2	3,4 L engine (911)
319 E1 800-R0	12,2	280/ /127-102	13-87 - 38-62	0,95-4,0	0,30			405,00	2	3,4 L engine (911) with adjustable sprocket
319 A1 720-R0	12,0	/272/113	-69-23	2,06	0,35			405,00	2	3,4 L engine (911)
319 E1 800-L0	12,2	280/ /127-102	13-87 - 38-62	0,4-3,2	0,30			405,00	2	3,4 L engine (911) with adjustable sprocket
319 A1 720-L0	12,0	/272/113	-69-23	1,5	0,35			405,00	2	3,4 L engine (911)
Renault 16V F7P 4 Cyl. 4 Valve (Clio, Williams, R19, Mégane..)										
272 E1 641-01	10,3	264/ /112	20-64-	1,0	hydr.			330,00	2	
272 A1 641-01	10,3	/264/112	-64-20	1,2	hydr.			330,00	2	
Renault D7F 4 Cyl. 2 Valve Roller Cam Follower (1997- Twingo, Clio..)										
332 01 520-01	5,85 (10,3)	252/113	13-59 - 59-13	0,7	0,2 / 0,3			345,00	2	
Renault K4M 4 Cyl. 4 Valve Roller Cam Follower (1999 - Mégane, Laguna..)										
374 E1 441-00	5,02 (10,0)	244/106	16-48 -	0,7	hydr.			375,00	2	
374 A1 441-00	5,02 (10,0)	244/106	-48-16	0,7	hydr.			375,00	2	



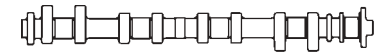
Camshafts



Part No.	Cam lift (Valve lift) I/A [mm]	Duration ° CRA Intake/Exhaust Peak Timing	Valve timing ° CRA IO-IC-EO-EC	Valve lift at TDC I/E [mm]	Valve clearance I/E [mm]	fat printed accessories are necessary, other ones are recommended		Price EUR/ea. excl. VAT	Discount group	Remarks
						Valve springs	Valve spring retainer, accessories			
Renault 4 Cyl. 4 Valve Roller Cam Follower (2,0 L Clio RS)										
381 E1 881-00	5,66 (11,42)	288/125	19-89	0,57	hydr.			405,00	2	
381 A1 801-01	5,66 (11,42)	280/110	70-30	1,4	hydr.			405,00	2	
VW 827 4 Cyl. 2 Valve (1,5 - 2,0 l Golf, Scirocco, Jetta, Passat, Vento, Polo Classic, Audi 80/90, A4, A3, Seat Toledo, Cordoba, Ibiza, Skoda Octavia..)										
014 01 601-01	11	260/260/116	14-66-66-14	0,6/0,7	hydr.	014 02 054/027	upper 014 13 198 f. 7 mm v. stem Key 894 13 8 M7 lower 014 13 199	250,00	2	Recommended for model year 2000 or later
014 01 681-01	11,2	268/268/113	21-67-67-21	1,2	hydr.	013 02 062/026	upper 014 13 194 f. 8 mm v. stem Key 894 13 8M8 lower 014 13 094	250,00	2	Also recommended for G 60
014 01 721-02	11,4	272/272/110	26-66-66-26	1,6/1,7	hydr.	013 02 062/026	upper 014 13 194 f. 8 mm v. stem Key 894 13 8M8 lower 014 13 094	250,00	2	
014 01 761-00	11,5	276/276/110	28-68-68-28	2,1	hydr.	013 02 062/026	upper 014 13 194 f. 8 mm v. stem Key 894 13 8M8 lower 014 13 094	250,00	2	
014 01 881-00	11,7	288/288/110	34-74-74-34	2,9	hydr.	013 02 062/026	upper 014 13 194 f. 8 mm v. stem Key 894 13 8M8 lower 014 13 094	250,00	2	
014 01 760-00	11,3	276/276/110	28-68-68-28	2,7	0,35/0,45	013 02 062/026	upper 014 13 195 (1,6 l) Key 894 13 8R8 upper 014 13 194 (1,8 l) Key 894 13 8M8 lower 014 13 094	250,00	2	Please secure, that the cams are free trevelling.
014 01 880-02	11,7	288/288/108	36-72-72-36	3,4	0,35/0,45	013 02 062/026	upper 014 13 195 (1,6 l) Key 894 13 8R8 upper 014 13 194 (1,8 l) Key 894 13 8M8 lower 014 13 094 (all)	300,00	2	Please secure, that the cams are free trevelling.
014 01 040-06	12,3	304/304/106	46-78-78-46	4,6	0,35/0,45	013 02 064/031	upper 050 13 133/RK8 050 13 325/MK8 lower 050 13 126 Key 894 13 8R8/8M8 spacer 863 14 ...	310,00	2	Base circle 34 mm dia. Not for tappets with external lash adjustment plates, (cam contact surface Ø 35 required)
014 01 200-01	12,9	320/320/102	58-82-82-58	6,1	0,35/0,45	013 02 064/031	upper 050 13 133/RK8 050 13 325/MK8 lower 050 13 126 Key 894 13 8R8/8M8 spacer 863 14 ...	310,00	2	Base circle 34 mm dia. Not for tappets with external lash adjustment plates, (cam contact surface Ø 35 required)



Camshafts



Part No.	Cam lift (Valve lift) I/A [mm]	Duration ° CRA Intake/Exhaust Peak Timing	Valve timing ° CRA IO-IC-EO-EC	Valve lift at TDC I/E [mm]	Valve clearance I/E [mm]	fat printed accessories are necessary, other ones are recommended		Price EUR/ea. excl. VAT	Discount group	Remarks	
						Valve springs	Valve spring retainer, accessories				
VW 16 V 4 Cyl. 4 Valve (1,8 - 2,0 I Golf, Passat, Scirocco, Corrado, Audi 80/90, Seat Toledo, Cordoba, Ibiza..)											
220 E1 601-02	11,2	260/ /114	16-64-	0,9	hydr.	013 02 062/026	lower tappet	014 13 094 863 13 801	300,00	2	
220 A1 601-02	11,2	/260/114	-64-16	1,0	hydr.	013 02 062/026	lower tappet	014 13 094 863 13 801	300,00	2	
220 E1 681-01	11,5	268/ /112	22-66-	1,6	hydr.	013 02 062/026	lower tappet	014 13 094 863 13 801	300,00	2	
220 A1 681-01	11,5	/268/112	-66-22	1,7	hydr.	013 02 062/026	lower tappet	014 13 094 863 13 801	300,00	2	
220 E1 761-01	11,5	276/ /110	28-68-	2,4	hydr.	013 02 062/026	lower tappet	014 13 094 863 13 801	300,00	2	
220 A1 761-02	11,5	/276/110	-68-28	2,5	hydr.	013 02 062/026	lower tappet	014 13 094 863 13 801	300,00	2	
220 E1 840-03	11,6	284 / 108	34 - 70	3,1	0,25	013 02 062/026	lower tappet	014 13 094 863 13 801	320,00	2	
220 A1 840-03	11,6	284 / 108	70 - 34	3,1	0,30	013 02 062/026	lower tappet	014 13 094 863 13 005	320,00	2	
220 E1 000-03	12,0	300 / 105	45 - 75	4,2	0,25	013 02 064/ 220 02 026	upper lower Key tappet	220 13 133 220 13 135 894 13 8R7 863 13 005	320,00	2	
220 A1 000-03	12,0	300 / 105	75 - 45	4,2	0,30	013 02 064/ 220 02 026	upper lower Key tappet	220 13 133 220 13 135 894 13 8R7 863 13 005	320,00	2	
VW 111 4 Cyl. 2 Valve Bucket Tappets, Cross Flow Cyl. Head (1,0 - 1,6 I Polo, Golf, Jetta, Vento, Seat Cordoba, Ibiza, Arosa, Skoda Felicia..)											
244 01 521-00	9,6/10,0	252/276/111	17-55-71-25	0,7/1,3	hydr.		tappet	863 13 801	250,00	2	especially for G40
244 01 641-03	9,8	264/260/112	20-64-62-18	0,9	hydr.		tappet	863 13 801	250,00	2	please secure, that spring travel is min. 1.5 mm more than full lift
244 01 681-01	9,3	268/268/113	21-67-67-21	1,2	hydr.		tappet	863 13 801	250,00	2	please secure, that spring travel is min. 1.5 mm more than full lift
244.01.681-02	10/9,8	268/264/112	22-66-64-20	1,2	hydr.		tappet	863 13 801	250,00	2	please secure, that spring travel is min. 1.5 mm more than full lift
VW VR6 6 Cyl. 2 Valve (Golf, Passat, Corrado, Vento, Sharan, Ford Galaxy, Mercedes V..)											
268 R1 681-00	11,4	268/268/115	18-70-68-20	0,8/1,1	hydr.	013 02 062/026	lower tappet	895 00 811/814 863 13 801	315,00	2	use Schrick valve springs with washer 1.0 mm 895 00 811/814
268 L1 681-00	11,4	268/268/115	18-70-68-20	0,8/1,1	hydr.	013 02 062/026	lower tappet	895 00 811/814 863 13 801	315,00	2	use Schrick valve springs with washer 1.0 mm 895 00 811/814
268 R1 641-01	11,4/11,2	264/260/115	17-67-65-15	0,91/0,75	hydr.	013 02 062/026	lower tappet	895 00 811/814 863 13 801	315,00	2	use Schrick valve springs with washer 1.0 mm 895 00 811/814
268 L1 641-01	11,4/11,2	264/260/115	17-67-65-15	0,91/0,75	hydr.	013 02 062/026	lower tappet	895 00 811/814 863 13 801	315,00	2	use Schrick valve springs with washer 1.0 mm 895 00 811/814



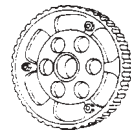
Camshafts



Part No.	Cam lift (Valve lift) I/A [mm]	Duration ° CRA Intake/Exhaust Peak Timing	Valve timing ° CRA IO-IC-EO-EC	Valve lift at TDC I/E [mm]	Valve clearance I/E [mm]	fat printed accessories are necessary, other ones are recommended		Price EUR/ea. excl. VAT	Discount group	Remarks
						Valve springs	Valve spring retainer, accessories			
VW 16V "Small Block" 4 Cyl. 4 Valve bucket Tappets (Polo, Lupo..)										
299 E1 561-00	9,5	256/ /112	16-60-	0,6	hydr.	242 02 065	upper 299 13 004 lower 299 13 005	300,00	2	
299 A1 561-00	9,5	/256/112	-60-16	0,7	hydr.	242 02 065	upper 299 13 004 lower 299 13 005	300,00	2	
299 E1 641-00	10,0	264/ /110	22-62-	1,1	hydr.	242 02 065	upper 299 13 004 lower 299 13 005	300,00	2	
299 A1 641-00	10,0	/264/110	-62-22	1,2	hydr.	242 02 065	upper 299 13 004 lower 299 13 005	300,00	2	
299 E1 800-00	10,4	280/ /110	33-67-	3,0	0,25	242 02 065	upper/lower 299 13 004/5 spacer 863 11 600	300,00	2	base circle radius R = 16,5 (0,5 mm smaller than standard)
299 A1 800-00	10,4	/280/110	-67-33	3,0	0,30	242 02 065	upper/lower 299 13 004/5 spacer 863 11 600	300,00	2	base circle radius R = 16,5 (0,5 mm smaller than standard)
299 E1 920-01	11,6	292/ /104	42-70-	4,2	0,25	299 02 050 299 02 031	upper/lower 299 13 006/7 Key 894 13 8S6 int. valve 299 13 008/010 exh. valve 299 13 009/011 spacer 863 11 700	300,00	2	base circle radius R = 15,5 (1,5 mm smaller than standard)
299 A1 920-01	11,6	/292/104	-70-42	4,2	0,30	299 02 050 299 02 031	upper/lower 299 13 006/7 Key 894 13 8S6 int. valve 299 13 008/010 exh. valve 299 13 009/011 spacer 863 11 700	300,00	2	base circle radius R = 15,5 (1,5 mm smaller than standard)
VW 16 V "Small Block" 4 Cyl. 4 Valve Roller Cam Follower (Polo, Lupo, Golf 4..)										
350 E1 441-00	4,69 (9,0)	244/ /107	15-49-	0,7	hydr.			275,00	2	
350 A1 441-00	4,69 (9,0)	/244/107	-49-15	0,7	hydr.			275,00	2	
VW 16 V "Small Block" 4 Cyl. 4 Valve Roller Cam Follower (Polo, Lupo, Golf 4..) variable intake camshaft										
350 E1 561-V0	4,80 (9,15)	256/ /125	03 - 73	0,1 -	hydr.			300,00	2	For engines with variable intake camshaft
350 A1 441-00	4,69 (9,0)	/244/107	-49-15	0,7	hydr.			275,00	2	
VW V6 24 Valve Roller Cam Follower (Golf 4 V6)										
389 E1 521-00	5,47 (11,0)	252/ /122-91,5	4 - 68	0,09-2,9	hydr.			405,00	2	For engines without variable intake camshaft
389 A1 521-00	5,47 (11,0)	/252/110	58 - 18	0,7	hydr.			405,00	2	
Yamaha YZF R6 4 Cyl. 4 Valve										
433 E1 080-02	8,9	308/ /100	54 - 74	4,0	0,2			350,00	2	
433 A1 960-02	8,5	/296/112	80 - 36	2,35	0,3			350,00	2	



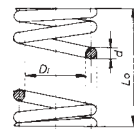
Timing gears and accessories



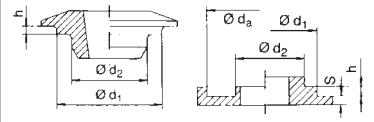
Part No.	Specification	Price EUR/ea. excl. VAT	Discount group	Part No.	Specification	Price EUR/ea. excl. VAT	Discount group
050 13 206	Adjustable timing gear for VW Golf (014..) + Polo (013..)	115,00	3	220 13 807	Standard sprocket for VW Golf 16 valve	29,00	3
220 13 045	Adjustable timing gear for: VW Golf 16 valve Audi 4 cyl. 5 valve Audi 5 cyl. 4 valve	125,00	3	899 00 001	Degree wheel, Aluminium for precise cam adjustment. (with printed instructions)	8,85	2
220 13 015	Adjustable sprocket for VW Golf 16 valve	130,00	3	899 00 002	Locking bolt for precise determination of TDC	6,75	2



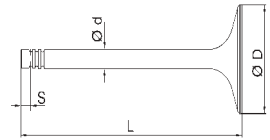
Valve Springs




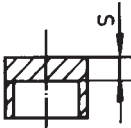
Part No.	Di [mm] inner diameter	d [mm] wire diameter	L1 [mm] max. installed height	L2 [mm] min. operating height	S [mm] max. valve lift	F1 [N] force at L1	F2 [N] force at L2	Price DM/ea. excl. VAT	Discount group	Remarks
002 02 090	23,3	4,5	38,5	26,5	12	270	880	6,45	1 - 8	single spring
002 02 080	23,5	4,2	37	24	13	280	780	11,00	2 - 8	outer spring to 002 02 043
002 02 043	17	3	35	22	13	140	410	11,00	2 - 8	inner spring to 002 02 080
013 02 062	23	3,85	31,5	20	11,5	208	610	6,45	1 - 8	outer spring to 013 02 026
013 02 026	16,3	2,5	27,5	16	11,5	82	250	6,45	1 - 8	inner spring to 013 02 062
013 02 064	23,6	3,85	34	21	13	202	630	10,20	1 - 8	outer spring to 013 02 031 and to 220 02 026
013 02 031	16,8	2,7	31,8	18,8	13	97	325	10,20	1 - 8	inner spring to 013 02 064
014 02 054	22,4	3,6	33,8	22,3	11,5	220	533	6,90	1 - 8	outer spring to 014 02 027
014 02 027	16,6	2,6	29,3	17,8	11,5	94	268	6,90	1 - 8	inner spring to 014 02 054
056 02 062	22,2	3,8	37,4	25,9	11,5	240	610	7,65	1 - 12	outer spring to 056 02 022
056 02 022	15,6	2,4	35,4	23,9	11,5	90	220	7,65	1 - 12	inner spring to 056 02 022
086 02 080	23,5	4,2	35	24,5	10,5	400	820	6,50	1 - 8	single spring
092 02 086	23,5	4,3	36	24	12	285	834	9,15	1 - 8	single spring
208 02 102	24,8	4,7	40,2	29,2	11	430	1000	11,00	1 - 8	single spring
220 02 026	17,4	2,6	30	17	13	80	255	10,20	1 - 8	inner spring to 013 02 064
227 02 113	16,6	3,9/3,1	36	23	13	309	1130	41,00	2 - 16	contact spring set
242 02 065	20,4	3,7	32,7	22,3	10,4	290	640	8,45	1 - 16	single spring
242 02 019	15,9	2,15	28,7	16,3	12,4	90	190	8,60	1 - 16	inner spring to 242 02 054
242 02 054	21	3,5	32,7	20,3	12,4	200	530	8,60	1 - 16	outer spring to 242 02 019
256 02 062	22	3,9	37	26	11	265	620	8,45	1 - 16	outer spring to 256 02 022
256 02 022	16	2,5	30,3	19,3	11	100	220	8,45	1 - 16	inner spring to 256 02 062
256 02 082	22,2	4,2	37	25,1	11,9	300	835	11,50	2 - 16	single spring
261 02 075	16/22	4,1	37	27,8	9,2	300	750	13,20	2 - 24	conical spring BMW M52 Group N
299 02 050	21,5	3,4	31,6	19,6	12	156	496	10,20	1 - 16	outer spring to 299 02 031
299 02 031	16	2,65	29,5	17,5	12	99	313	10,20	1 - 16	inner spring to 299 02 050
301 02 060	14,2	3,3	36,5	26,5	10	209	602	18,40	1 - 12	single spring
306 02 053	22,1	3,6	32,2	21,7	10,5	252	545	8,45	1 - 16	outer spring to 306 02 019
306 02 019	16,2	2,25	27,5	17	10,5	91	200	8,45	1 - 16	inner spring to 306 02 053





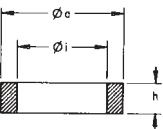
Part No.	d1 [mm]	d2 [mm]	h [mm]	s [mm]	Keys	Type, material	Spring reference	Price DM/ea. excl. VAT	Discount group	Remarks
005 13 035	22,6	31,4	-1	3,9		lower, steel	013 02 064 013 02 031	6,65	2 - 12	
005 13 036	23,6	17	3		10° RK8 894 13 8R8	upper, titanium	013 02 064 013 02 031	16,90	2 - 12	
005 13 041	23,6	17	3		14,25° MK8 894 13 8M8	upper, titanium	013 02 064 013 02 031	16,90	2 - 12	Porsche Carrera (993) 005 13 001/002 valves 005 13 035+043 lower retainer
005 13 042	23,6	17	3		14,25° MK9 894 13 8M9	upper, titanium	013 02 064 013 02 031	16,90	2 - 12	Porsche Carrera 2+4 005 13 035 lower retainer
005 13 043				3,3		lower steel		6,65	2 - 12	Porsche Carrera (993) centering spacer for 005 13 035 lower retainer
014 13 094	22,5	16	2	1		lower steel	013 02 062/026	4,10	2 - 8	
014 13 194	23	16,3	2		14,25° MK8 894 13 8M8	upper, titanium	013 02 062/026	14,80	2 - 8	
014 13 195	23	16,3	2		10° RK8 894 13 8R8	upper, titanium	013 02 062/026	14,80	2 - 8	
014 13 198	22,4	16,6	2,2		14,25° MK7 894 13 8M7	upper, titanium	014 02 054/027	14,80	2 - 8	
014 13 199	22,4	16,6	2,2	1,5		lower, steel	014 02 054/027	6,15	2 - 8	
050 13 126	23,3	16,6	1	1		lower, steel	013 02 064/031	6,15	2 - 8	
050 13 133	23,3	16,7	1		10° RK8 894 13 8R8	upper steel	013 02 064/031	9,20	2 - 8	
050 13 325	23,6	17	1		14,25° MK8 894 13 8M8	upper steel	013 02 064/031	9,20	2 - 8	
086 13 024	23,3	13,8	2	3,5		lower, steel	086 02 080	6,15	2 - 8	
086 13 040						lower, steel	086 02 080	6,15	2 - 8	
092 13 035	23,5			8,5		lower, steel	092 13 086/092	6,15	2 - 4	exhaust, 7 mm valve stem
092 13 050	23,5			8,5		lower, steel	092 02 086/092	6,15	2 - 4	exhaust, 8 mm valve stem
092 13 036	23,5			1		lower, steel	092 02 086/092	6,15	2 - 4	intake, 7 mm valve stem
092 13 046	23,3				14,25° KK7 894 13 8K7	upper, titanium	092 02 086	14,80	2 - 8	
092 13 047	23,3				14,25 KK8 894 13 8K8	upper, titanium	092 02 086	14,80	2 - 8	
220 13 133	23,6	17,4	2		10° RK7 894 13 8R7	upper, titanium	013 02 064 220 02 026	14,80	2 - 16	
220 13 134	23,6	17,4	2		14,25° MK7 894 13 8M7	upper, titanium	013 02 064 220 02 026	14,80	2 - 16	
220 13 135	23,6	17,4	2	1,5		lower, steel	013 02 064 220 02 026	6,15	2 - 16	
227 13 051	23,6	17,4	2		14,25° MK7 894 13 8M7	upper, titanium	013 02 064 220 02 026	16,90	2 - 16	
227 13 052	23,6	17,4	2	2		lower, steel	013 02 064 220 02 026	6,65	2 - 16	
227 13 055	22,8	16,6	2		14,25° LK7 894 13 8L7	upper, titanium	227 02 113	16,90	2 - 16	
227 13 058		16,6	0	1		lower, steel	227 02 113	6,65	2 - 16	
227 13 057	23,6	17,4	2		894 13 8L6 14,25° LK6	upper, titanium	013 02 064 220 02 026	16,90	2 - 16	
242 13 010	21,4	16,3	2	1,8		lower, steel	242 02 054/019	6,15	2 - 16	
242 13 029	21	15,9	2,1		14,25° MK7 894 13 8M7	upper, titanium	242 02 054/019	14,80	2 - 16	
242 13 030	20,4				14,25° MK7 894 13 8M7	upper, titanium	242 02 065	14,80	2 - 16	
291 13 003	16			1		lower, steel	299 02 050/031	6,15	2 - 16	
299 13 004	20,4				14,25° MK6 894 13 8M6	upper, titanium	242 02 065	14,80	2 - 16	
299 13 005	20,4			1,5		lower, steel	242 02 065	6,15	2 - 16	
299 13 006	21,5	16	2,1		10° SK6 894 13 8S6	upper, titanium	299 02 050/031	14,80	2 - 16	
299 13 007	28,3		0	1,5		lower, steel	299 02 050/031	6,15	2 - 8	
299 13 012	21,5	16	2,1		10° SK5 894 13 8S5	upper, titanium	299 02 050/031	14,80	2 - 16	
301 13 007	14,2				14,25° MK6 894 13 8M6	upper, titanium	301 02 060	14,80	2 - 12	intake
301 13 008	22,4	16,6	2,7		14,25° MK6 894 13 8M6	upper, titanium	014 02 054/027	14,80	2 - 8	exhaust
301 13 009	22,2	16,6	2			lower, steel	014 02 054/027	6,15	2 - 8	exhaust
301 13 010	14,2				10° SK6 894 13 8S6	upper, titanium	301 02 060	14,80	2 - 12	intake
330 13 003	17				14,25° LK6 894 13 8L6	upper, titanium	002 02 043	14,80	2 - 16	intake



Part No.	D [mm] Head dia.	L [mm] Length	d [mm] Stem dia.	s [mm] groove position	Number of grooves	Keys	Type	Price DM/ea. excl. VAT	Discount group	Remarks
Audi 4 Cyl. 5 Valve (A3, A4, VW Golf 4, Passat, Skoda Octavia..)										
301 13 011	27,5	105,2	6	3,8	1	SK6	intake	23,00	2 - 12	
301 13 012	30	104	6	3,8	1	SK6	exhaust	38,35	2 - 8	Nimonic
BMW M10 4 Cyl. 2 Valve										
002 13 005	39	103,5	8	3,8	3	MK8	exhaust	23,00	2 - 4	
002 13 022	48	103,5	8	3,8	3	MK8	intake	23,00	2 - 4	
BMW M20 6 Cyl. 2 Valve (2,0 - 2,5 l)										
056 13 001	42	103	7	4,6	3	MK7	intake	23,00	2 - 6	
056 13 002	36	103	7	4,6	3	MK7	exhaust	23,00	2 - 6	
BMW S14 4 Cyl. 4 Valve (M3 E30)										
227 13 016	38	123	7	12,2	3	MK7	intake	28,15	2 - 8	
227 13 017	32	125	7	13,2	3	MK7	exhaust	40,50	2 - 8	Nimonic
227 13 053	39	123	7	12,7	1	LK7	intake	33,25	2 - 8	
227 13 054	32,5	125	7	13,7	1	LK7	exhaust	45,50	2 - 8	Nimonic
BMW R259 2 Cyl. 4 Valve Boxer (R850 GS, R, R1100S, R, GS, RS R1200C..)										
392 13 002	37	115,9	5	4	1	SK5	intake	30,15	2 - 4	
392 13 001	33	117,5	5	5,5	1	SK5	exhaust	30,15	2 - 4	
Porsche 911 6 Cyl. 2 Valve										
005 13 001	50	111	8	4	3	MK8	intake	30,15	2 - 6	
005 13 002	43	110	8	4	3	MK8	exhaust	45,50	2 - 6	Nimonic
005 13 003	52	109	8	6	1	RK8	intake	30,15	2 - 6	retainer reference 005 13 036
005 13 004	44	108	8	6	1	RK8	exhaust	45,50	2 - 6	Nimonic, retainer reference 005 13 036
VW 4 Zyl. 4 Valve engine mech rocker arms (0,9 - 1,3 l Polo, Golf, Derby, Audi 50..)										
013 13 045	31,8	104,4	8	5,9	1	RK8	exhaust	23,00	2 - 4	
013 13 046	37,8	104,4	8	5,9	1	RK8	intake	23,00	2 - 4	
VW 827 4 Cyl. 2 Valve (1,5 - 2,0 l Golf, Scirocco, Jetta, Passat, Vento, Audi 80/90 ..)										
014 13 018	35	106,5	8	3,5	1	RK8	exhaust	23,00	2 - 4	Heron-combustion chamber
014 13 017	40	106,5	8	3,5	1	RK8	intake	23,00	2 - 4	Heron-combustion chamber
014 13 174	33,1	90,8	8	2,8	3	MK8	exhaust	23,00	2 - 4	
014 13 173	40	90,8	8	3	3	MK8	intake	23,00	2 - 4	
VW 16 V 4 Cyl. 4 Valve (1,8 - 2,0 l Golf, Passat, Scirocco, Corrado, Audi 80/90, Seat Toledo, Cordoba, Ibiza..)										
220 13 020	32	95,4	7	4,5	1	RK7	intake	23,00	2 - 8	
220 13 021	28	98,2	7	4,5	1	RK7	exhaust	23,00	2 - 8	
220 13 022	27	98,2	7	4,5	1	RK7	exhaust	23,00	2 - 8	
VW VR6 6 Cyl. 2 Valve (Golf, Passat, Corrado, Vento, Sharan, Ford Galaxy, Mercedes V..)										
268 13 001	41	106	7	3	3	MK7	intake	23,00	2 - 6	
268 13 002	36,2	106,4	7	3	3	MK7	exhaust	23,00	2 - 6	
VW 16 V "Small Block" 4 Cyl. 4 Valve bucket Tappets (Polo, Lupo..)										
299 13 008	32	111,1	6	17,7	1	SK6	intake	23,00	2 - 8	
299 13 009	28	110,4	6	17,7	1	SK6	exhaust	23,00	2 - 8	
299 13 010	29,5	97,9	6	4,5	1	SK6	intake	23,00	2 - 8	
299 13 011	26	97,2	6	4,5	1	SK6	exhaust	23,00	2 - 8	

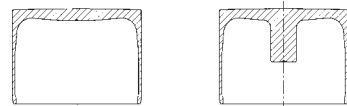
			<h2 style="text-align: center;">Valve lash caps</h2>								
Preis EUR/ea. excl. VAT		4,25	Discount group		2-8	Preis EUR/ea. excl. VAT		4,25	Discount group		2-8
inner dia. 5 mm Part No.	inner dia. 5,5 mm Part No.	inner dia. 6 mm Part No.	inner dia. 7 mm Part No.	inner dia. 8 mm Part No.	S thicknes [mm]	inner dia. 5 mm Part No.	inner dia. 5,5 mm Part No.	inner dia. 6 mm Part No.	inner dia. 7 mm Part No.	inner dia. 8 mm Part No.	S thicknes [mm]
865 13 200	855 13 200	866 13 070	867 13 200	868 13 200	0,70	865 13 280	855 13 280	866 13 280	867 13 280	868 13 280	2,80
865 13 205	855 13 205	866 13 200	867 13 205	868 13 205	2,00	865 13 285	855 13 285	866 13 285	867 13 285	868 13 285	2,85
865 13 210	855 13 210	866 13 205	867 13 210	868 13 210	2,05	865 13 290	855 13 290	866 13 290	867 13 290	868 13 290	2,90
865 13 215	855 13 215	866 13 210	867 13 215	868 13 210	2,10	865 13 295	855 13 295	866 13 295	867 13 295	868 13 295	2,95
865 13 220	855 13 220	866 13 215	867 13 220	868 13 215	2,15	865 13 300	855 13 300	866 13 300	867 13 300	868 13 300	3,00
865 13 225	855 13 225	866 13 220	867 13 225	868 13 220	2,20	865 13 305	855 13 305	866 13 305	867 13 305	868 13 305	3,05
865 13 230	855 13 230	866 13 225	867 13 230	868 13 225	2,25	865 13 310	855 13 310	866 13 310	867 13 310	868 13 310	3,10
865 13 235	855 13 235	866 13 230	867 13 235	868 13 230	2,30	865 13 315	855 13 315	866 13 315	867 13 315	868 13 315	3,15
865 13 240	855 13 240	866 13 235	867 13 240	868 13 235	2,35	865 13 320	855 13 320	866 13 320	867 13 320	868 13 320	3,20
865 13 245	855 13 245	866 13 240	867 13 245	868 13 240	2,40	865 13 325	855 13 325	866 13 325	867 13 325	868 13 325	3,25
865 13 250	855 13 250	866 13 245	867 13 250	868 13 245	2,45	865 13 330	855 13 330	866 13 330	867 13 330	868 13 330	3,30
865 13 255	855 13 255	866 13 250	867 13 255	868 13 250	2,50	865 13 335	855 13 335	866 13 335	867 13 335	868 13 335	3,35
865 13 260	855 13 260	866 13 255	867 13 260	868 13 255	2,55	865 13 340	855 13 340	866 13 340	867 13 340	868 13 340	3,40
865 13 265	855 13 265	866 13 260	867 13 265	868 13 260	2,60	865 13 345	855 13 345	866 13 345	867 13 345	868 13 345	3,45
865 13 270	855 13 270	866 13 265	867 13 270	868 13 265	2,65	865 13 350	855 13 350	866 13 350	867 13 350	868 13 350	3,50
865 13 275	855 13 275	866 13 270	867 13 275	868 13 270	2,70	865 13 400	855 13 400	866 13 400	867 13 400	868 13 400	4,00
865 13 280	855 13 280	866 13 275	867 13 280	868 13 275	2,75	865 13 450	855 13 450	866 13 450	867 13 450	868 13 450	4,50

			<h2 style="text-align: center;">Valve keys</h2>				
Part No.	Specification	Price EUR/ea. excl. VAT	Discount group	Part No.	Specification	Price EUR/ea. excl. VAT	Discount group
894 13 8K6	clamping, 14,25°, KK6, hardened	0,75	2 - 16	894 13 8S6	clamping, 10°, SK6, hardened	0,93	2 - 16
894 13 8K7	clamping, 14,25°, KK7, hardened	0,54	2 - 16	894 13 8M5	non-clamping, 14,25°, MK5, hardened	0,85	2 - 16
894 13 8K8	clamping, 14,25°, KK8, hardened	0,54	2 - 16	894 13 8M6	non-clamping, 14,25°, MK6, hardened	0,85	2 - 16
894 13 8L6	clamping, 14,25°, LK6, hardened	0,85	2 - 16	894 13 8M7	non-clamping, 14,25°, MK7, hardened	0,78	2 - 16
894 13 8L7	clamping, 14,25°, LK7, hardened	0,94	2 - 16	894 13 8M8	non-clamping, 14,25°, MK8, hardened	0,35	2 - 16
894 13 8R6	clamping, 10°, RK6, hardened	1,03	2 - 16				
894 13 8R7	clamping, 10°, RK7, hardened	0,98	2 - 16				
894 13 8R8	clamping, 10°, RK8, hardened	0,57	2 - 16				
894 13 8S5	clamping, 10°, SK5, hardened	0,93	2 - 16				
894 13 8S55	clamping, 10°, SK5,5, hardened	0,93	2 - 16				

			<h2 style="text-align: center;">Seat ring blanks</h2>			
Part No.	outer dia. D [mm]	inner dia. d [mm]	Hight h s [mm]	PriceEUR/ea. excl. VAT.	Discount group	Remarks
893 13 811	38	26	10	7,45	0	Otto-, Diesel and turbocharged engines, intake and exhaust
893 13 814	44	32	10	9,50	0	Otto-, Diesel and turbocharged engines, intake and exhaust
893 13 816	51	38	10	15,10	0	Otto-, Diesel and turbocharged engines, intake and exhaust



Cam followers to replace with a camshaft



Part No.	Specification	Price EUR/ea. excl. VAT	Discount group	Remarks
Opel OHC (Schrick 092, 073)				
092 13 800	finger follower	9,50	1 - 8	
Audi, VW, BMW, Mercedes (Schrick: 064, 269, 246, 014, 220, 244, 268, 256, 261, 274, 285)				
863 13 801	hydr. bucket tappet Ø 35 x 26 x 17,5 x Ø 14	13,30	1 - 8	
863 13 004	bucket tappet Ø 35 x 26 x 3,3	40,00	3 - 8	steel
863 13 005	bucket tappet Ø 35 x 26 x 14,5	45,50	3 - 8	steel
BMW-M (Schrick 227, 207, 284)				
227 13 803	bucket tappet Ø 37,5 x 28 x 4,6	75,00	3 - 16	steel
Renault, BMW M52 (Schrick: 272, 261)				
863 13 802	hydr. bucket tappet Ø 33 x 24,5 x 17,5 x Ø 12	13,30	1 - 8	
863 13 007	bucket tappet Ø 33 x 26 x 17,5	45,50	3 - 8	steel
863 13 006	bucket tappet Ø 33 x 26 x 3,3	40,00	3 - 8	steel
Opel, Peugeot (Schrick: 242, 250, 281, 219, 247)				
863 13 803	hydr. bucket tappet Ø 32 x 26 x 17,5 x Ø 12	13,30	1 - 8	
863 13 009	bucket tappet Ø 32 x 26 x 15	45,50	3 - 8	steel
863 13 008	bucket tappet Ø 32 x 26 x 3,3	40,00	3 - 8	steel
Mechanical spacers (to modify hydr. tappets for mechanical operation)				
863 11 500	mechanical spacer Ø 11 x 15 mm	6,50	2 - 8	steel
863 11 600	mechanical spacer Ø 11 x 16 mm	6,50	2 - 8	steel
863 11 700	mechanical spacer Ø 11 x 17 mm	6,50	2 - 8	steel
863 11 800	mechanical spacer Ø 11 x 18 mm	6,50	2 - 8	steel
863 11 900	mechanical spacer Ø 11 x 19 mm	6,50	2 - 8	steel
863 12 500	mechanical spacer Ø 12 x 15 mm	6,50	2 - 8	steel
863 12 600	mechanical spacer Ø 12 x 16 mm	6,50	2 - 8	steel
863 12 700	mechanical spacer Ø 12 x 17 mm	6,50	2 - 8	steel
863 12 800	mechanical spacer Ø 12 x 18 mm	6,50	2 - 8	steel
863 12 900	mechanical spacer Ø 12 x 19 mm	6,50	2 - 8	steel
863 14 500	mechanical spacer Ø 14 x 15 mm	6,50	2 - 8	steel
863 14 600	mechanical spacer Ø 14 x 16 mm	6,50	2 - 8	steel
863 14 700	mechanical spacer Ø 14 x 17 mm	6,50	2 - 8	steel
863 14 800	mechanical spacer Ø 14 x 18 mm	6,50	2 - 8	steel
863 14 900	mechanical spacer Ø 14 x 19 mm	6,50	2 - 8	steel



Washers for valve springs

Part No.	s[mm]thickness	d x D [mm]	Price EUR/ea. excl. VAT	Discount group	Part No.	s[mm]thickness	d x D [mm]	Price EUR/ea. excl. VAT	Discount group
234 13 002	2,30	24 x 34	1,80	2 - 8	895 00 811	1,00	16 x 22	0,90	2 - 8
234 13 004	2,00	24 x 34	1,30	2 - 8	895 00 812	0,25	23 x 30	0,90	2 - 8
234 13 005	0,30	24 x 34	0,90	2 - 8	895 00 814	1,00	23 x 30	0,90	2 - 8
895 00 801	0,25	16,5 x 32	0,90	2 - 12	895 00 815	0,25	14 x 26	0,90	2 - 8
895 00 802	0,50	16,5 x 32	0,90	2 - 12	895 00 816	0,50	14 x 26	0,90	2 - 8
895 00 803	0,75	16,5 x 32	0,90	2 - 12	895 00 817	1,00	14 x 26	0,90	2 - 8
895 00 804	1,00	16,5 x 32	0,90	2 - 12	895 00 818	0,25	16 x 28	0,90	2 - 8
895 00 805	0,25	14,5 x 30	0,90	2 - 8	895 00 819	0,50	16 x 28	0,90	2 - 8
895 00 806	0,50	14,5 x 30	0,90	2 - 8	895 00 820	1,00	16 x 28	0,90	2 - 8
895 00 807	0,75	14,5 x 30	0,90	2 - 8	895 00 821	0,25	12 x 20	0,90	2 - 8
895 00 808	1,00	14,5 x 30	0,90	2 - 8	895 00 822	0,50	12 x 20	0,90	2 - 8
895 00 809	0,25	16 x 22	0,90	2 - 8	895 00 823	1,00	12 x 20	0,90	2 - 8



Valve blanks

Stem ground, Head premashed, without key grooves

Part No.	d [mm] Stern dia.	D [mm] Head dia.	L [mm] Length	Price EUR/ea. excl. VAT	Discount group	Part No.	d [mm] Stern dia.	D [mm] Head dia.	L [mm] Length	Price EUR/ea. excl. VAT	Discount group
Bimettal - Steel , for intake and exhaust up to appr. 70 KW/l						Bimettal - Nimonic , for exhaust, when more than appr. 70 KW/l					
894 50 30S	4,98	30	124	11,50	3	894 50 30N	4,98	30	124	19,70	3
894 55 30S	5,48	30	124	11,50	3	894 55 30N	5,48	30	124	19,70	3
894 60 30S	5,98	30	139	11,50	3	894 60 30N	5,98	30	139	19,70	3
894 70 30S	6,98	30	139	11,50	3	894 70 30N	6,98	30	139	19,70	3
894 80 30S	7,98	30	139	11,50	3	894 13 095	7,98	30	139	19,70	3
894 50 34S	4,98	34	124	12,43	3	894 50 34N	4,98	34	124	46,20	3
894 55 34S	5,48	34	124	12,43	3	894 55 34N	5,48	34	124	46,20	3
894 60 34S	5,98	34	139	12,43	3	894 60 34N	5,98	34	139	23,65	3
894 70 34S	6,98	34	139	12,43	3	894 70 34N	6,98	34	139	23,65	3
894 80 34S	7,98	34	139	12,43	3	894 13 086	7,98	34	139	23,65	3
894 50 38S	4,98	38	124	13,45	3	894 55 38N	5,48	38	124	26,45	3
894 55 38S	5,48	38	124	13,45	3	894 60 38N	5,98	38	139	26,45	3
894 60 38S	5,98	38	139	13,45	3	894 70 38N	6,98	38	139	26,45	3
894 70 38S	6,98	38	139	13,45	3	894 80 38N	7,98	38	139	26,45	3
894 80 38S	7,98	38	139	13,45	3	894 13 087	6,98	41	139	29,87	3
894 60 41S	5,98	41	139	14,20	3	894 80 41N	7,98	41	139	29,87	3
894 70 41S	6,98	41	139	14,20	3	894 70 45N	6,98	45	139	32,39	3
894 80 41S	7,98	41	139	14,20	3	894 80 45N	7,98	45	139	32,39	3
894 70 45S	6,98	45	139	15,15	3	894 13 101	6,98	50	139	36,62	3
894 80 45S	7,98	45	139	15,15	3	894 80 50N	7,98	50	139	36,62	3
894 70 50S	6,98	50	139	16,35	3						
894 80 50S	7,98	50	139	16,35	3						
894 80 53S	7,98	53	139	17,10	3						



Special Products



Part No.	Specification	Price EUR/ea. excl. VAT	Discount group
261 16 017-00	Intake manifold for BMW M52 (B25..B32), aluminium casting, two part design. German TÜV approval for legal street use with 3-series / Z3 / 5-series	735,00	3
268 16 020-00	Res. Int. Manif. for VW VR6, mechanical controlled throttle body (old version, external idle control valve). SCHRICK - logo	1375,00	3
268 16 020-01	Res. Int. Manif. for VW VR6, electronic controlled throttle body (new version) SCHRICK -logo	1375,00	3
268 16 042-00	Res. Int. Manif. for VW VR6, mechanical controlled throttle body (old version, external idle control valve). neutral - without logo	1375,00	3
268 16 042-01	Res. Int. Manif. for VW VR6, electronic controlled throttle body (new version), neutral - without logo	1375,00	3
014 11 071	Aluminium Oil Pan for VW 827 4 Cyl. 2 Valve 1,5 - 2,0 l (approx. 3/4 l more content)	135,50	3
306 13 002	Installation tool for Schrick camshafts: 306 -Alfa Romeo and 310 -Fiat	150,00	3



Advertising articles

Order No.	Specification	Price EUR/ea. excl. VAT	Discount group
999 991	SCHRICK T-Shirt , white or blue, size M, L, XL, high-quality cotton	9,91	0
999 995	SCHRICK Polo-Shirt , dark blue, size M, L, XL	18,53	0
999 996	Mag-Lite pocket lamp with SCHRICK-Logo	18,53	0
999 997	Office clock with SCHRICK-Logo	17,24	0
999 998	Mag-Lite lamp with SCHRICK-Logo	30,17	0