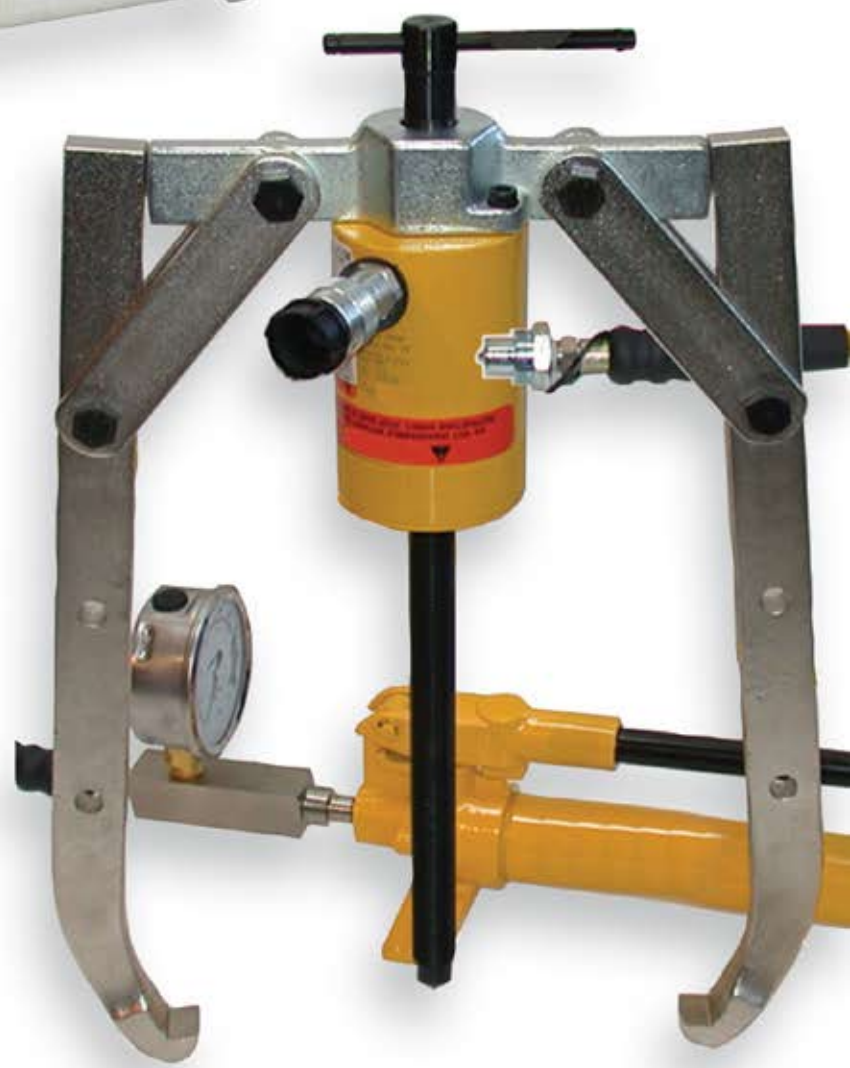
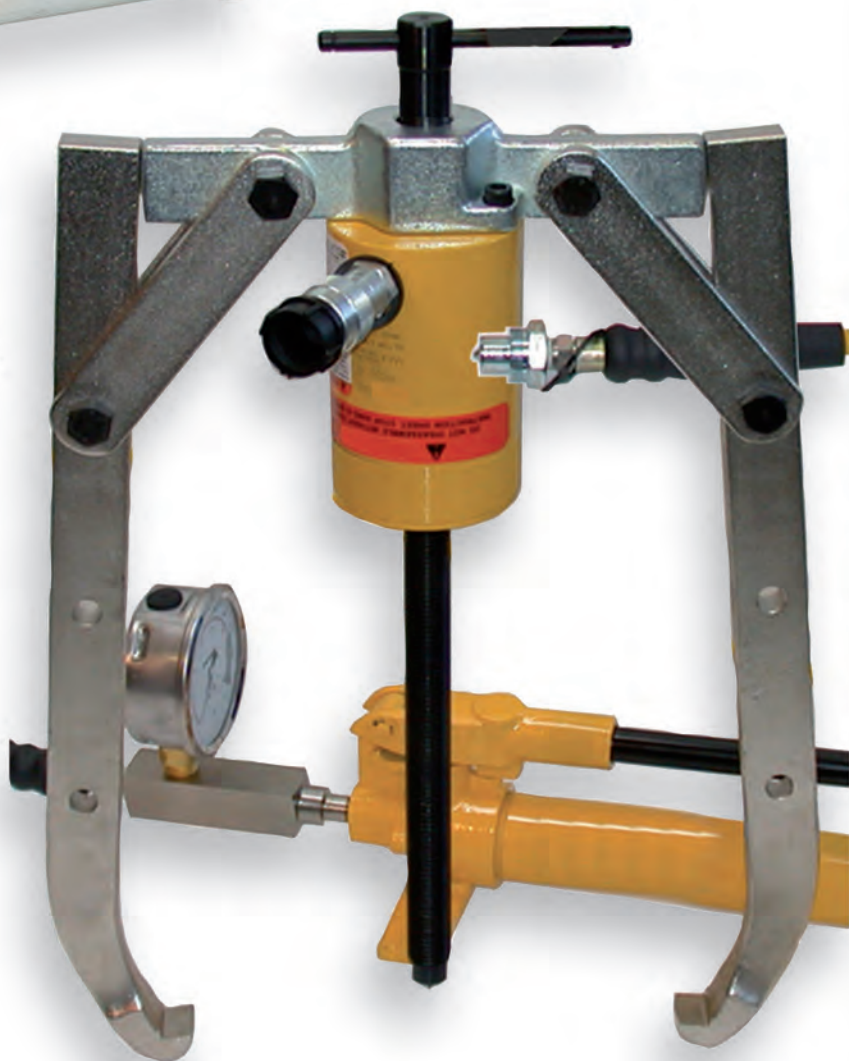


KTS



KS TOOLS

PULLERS



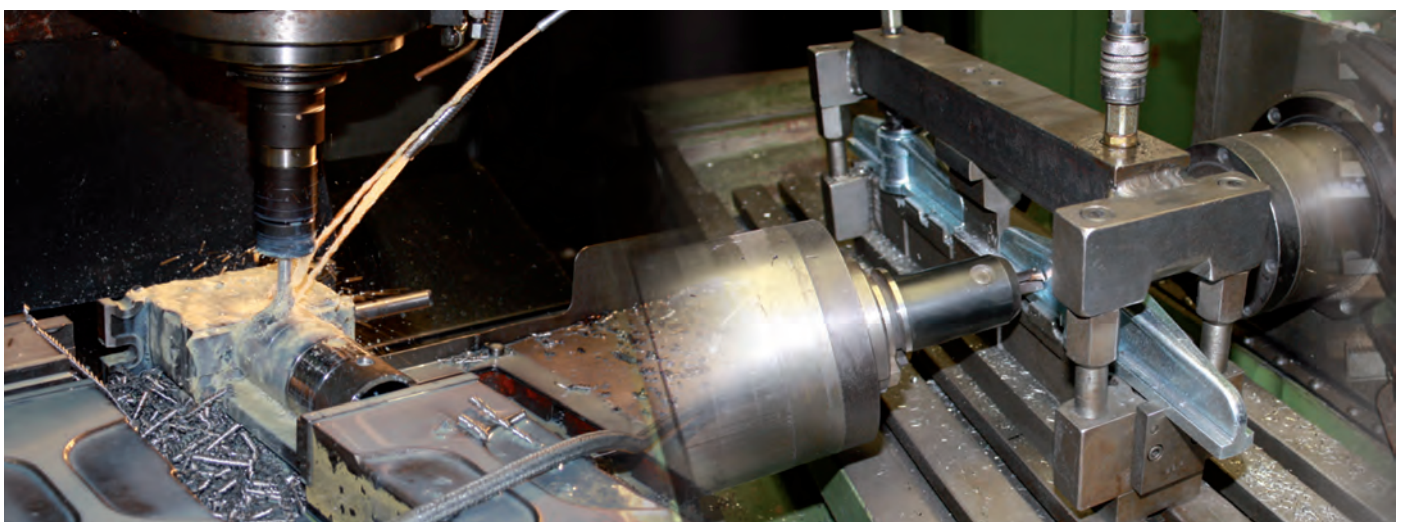
Innovation is
our mission!

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SAFETY AND USAGE INSTRUCTIONS

Removing components may require very high forces. The use of a puller involves risks that should not be underestimated. Therefore great care must be observed and attention given to safety during each pulling process.

- Prior to commissioning, read through the operating instructions thoroughly and obtain advice from the manufacturer's application consultancy service if anything is unclear.
- Before use, learn about the correct employment of the tool to be used, taking into account the safety measures required.
- Apply pullers securely and monitor the forces that occur during the pulling procedure. If there are signs of overloading for example stiffness - break off pulling procedure immediately and use a larger puller or if necessary another puller model.
- Check the application of force on spindle drives with a torque wrench and on pump-driven, hydraulic puller tools using a pressure gauge. Never exceed the torque and load information on manufacturers' nameplates, in operating instructions or tables.
- Do not use electrical or pneumatic force or impact wrenches to operate pulling tools.
- The use of an extension to increase the transferred torque on the active tool can lead to overload and thus to breakage.
- **Caution:** The load and torque details are to be determined in the laboratory with new pullers and pulling equipment under normal conditions of use. Wear and tear caused by use and unfavourable usage circumstances can negatively influence the values.
- **Important:** The performance capacity of a combination piece of equipment, such as a puller with a hydraulics system, always depends on the weakest element.
- During the pulling procedure, always cover the danger zone, puller/part to be pulled, with an accident protection tarpaulin, in order to avoid injuries.
- Warming up the component is one method of positively influencing the pulling procedure.
Caution: In the process, the puller should never be warmed, as otherwise its strength characteristics can be negatively influenced.
- Check state of the puller tool prior to any use and immediately replace damaged, manipulated or worn parts.
- Keep spindle threads or traverses clean and well-oiled.
- Regular maintenance lengthens the lifespan of the equipment, protects against accidents and ensures that the puller tool is ready for use.
- Make no alterations whatsoever to the puller tools. Any alteration may lead to dangerous consequences for the operator and automatically results in the expiry of the guarantee claim.
- In accordance with the UVV (Accident Prevention Regulations) or country-specific legislation, always wear prescribed personal protective equipment such as safety shoes, helmet, protective goggles, gloves, etc.



PREVENTIVE ACCIDENT PROTECTION MEASURES

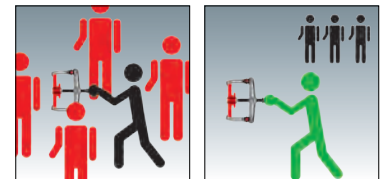
Accident protection tarpaulin covers

During pulling work there are typically very powerful forces which can jerk components loose or even cause parts to break off or splinter from the pulling object. Parts flying around out of control represent a potential danger to the life and limb of the operator. Our accident protection tarpaulins were developed to effectively eliminate this danger. The tarpaulins consist of particularly highly-elastic, tear-resistant and oil-resistant special material and will be tautened prior to the pulling procedure around component and puller. To ensure that it is still possible to properly monitor and control the pulling procedure, the tarpaulins are transparent. When the working area is being enclosed, the tarpaulins will be securely fastened and held in position with worked-in belts.

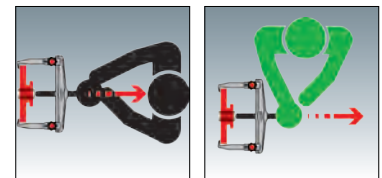


General safety instructions

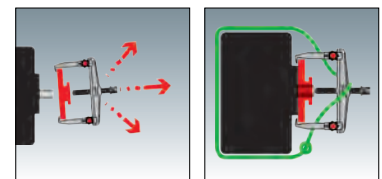
During the pulling procedure as few people as possible should be in the puller's working area.



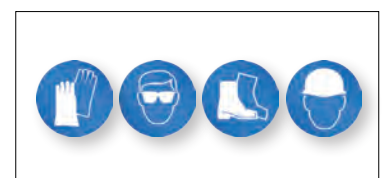
During the pulling procedure, always position yourself at the side and not in the puller's pulling axis. If the component comes loose abruptly, it can lead to the puller shooting away.



If necessary secure the puller against falling or uncontrolled motion away, after successful loosening of the component, with chain or belt, etc.



In accordance with the UVV (accident-prevention regulations) or country-specific legislation always wear prescribed, personal protective equipment, e.g. safety shoes, helmet, protective goggles, gloves, etc.



SMALL PULLING PRIMER

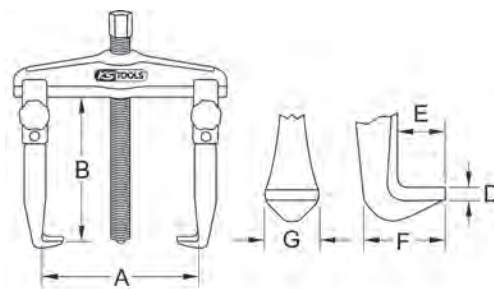
Selection of the puller according to the work task

Inquire about:

type of component	bearing / belt pulley / gear wheel / bushes, etc.
diameter of the component	selection of the work area
pulling depth	selection of the arm length
gripping options on the component	external puller / internal puller / special puller
spatial conditions	standard puller or slim design / 2-arm or 3-arm
support options on the component	on the central axle (spindle) / outside of the housing (bridge yoke) / no support option (slide hammer)

In general, the model determined in this way will exhibit the required characteristics. Regardless of this, however, the largest possible model should always be used as safety must always be paramount here.

Insofar as spatial conditions permit, a three-armed variant should always be preferred to a two-armed variant. Three-armed pullers have a better load distribution of the pulling force than two-armed pullers. This ensures easy, secure and even pulling.



Diameter and pulling depth from the table directly at the item

Torque and max. load

	A mm	B mm	C mm	max. t	mm	SW mm	D mm	E mm	F mm	G mm	
620.1701	20-90	100	70-130	4,5	M14x1,5 x 130	17	3	13	25	20	1,00
620.1702	25-130	100	80-180	4,5	M14x1,5 x 130	17	3	13	25	20	1,20
620.1703	50-160	150	108-220	6,5	G1/2"x14g x 210	22	4	16	35	25	3,00
620.1704	60-200	150	120-270	6,5	G1/2"x14g x 210	22	4	16	35	25	3,30
620.1705	80-250	200	160-330	11	G3/4"x14g x 280	27	5	25	54	35	7,40
620.1706	80-350	200	160-420	11	G3/4"x14g x 280	27	5	25	54	35	8,50

max. Drehmoment	max. Belastung t	max. Belastung t
30	2	2
40	2,5	2,5
70	4	4
605.0114	90	5

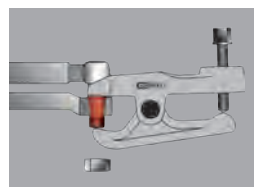
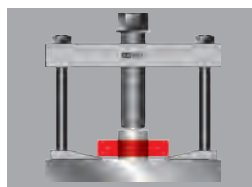
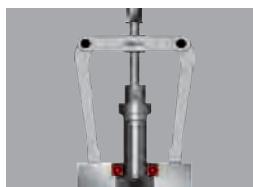
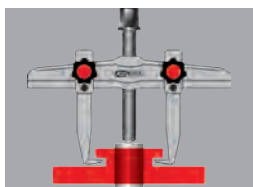
External puller

Internal puller

Puller and extractor

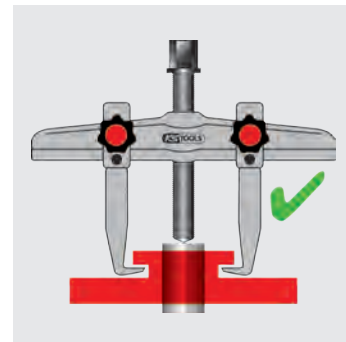
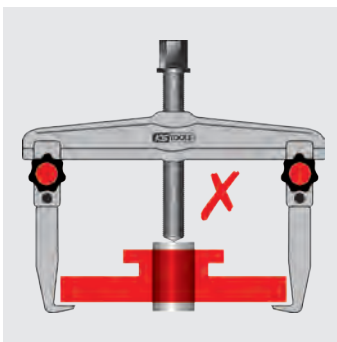
Separation equipment

Special puller

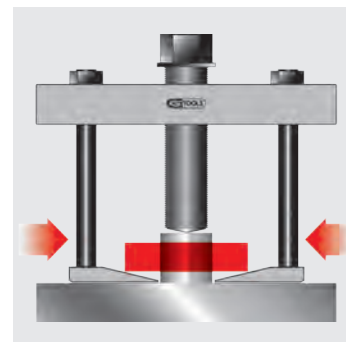
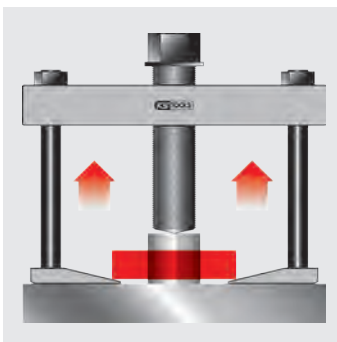


CORRECT PLACEMENT OF A PULLER

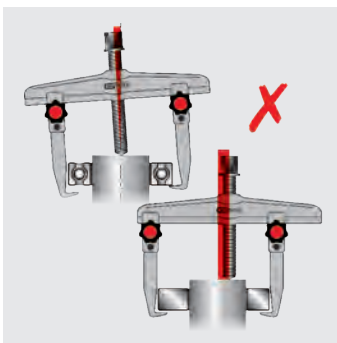
When pulling from belt pulleys, gear wheels, flanges, etc. the puller arm should always be placed as close as possible in the direction of the centre (at the shaft) (between the spokes / at a collar, etc.). With large components in particular the direct application of force in the base area is significantly more effective than on the external diameter and the dimensions of the traverse / arm can be smaller.



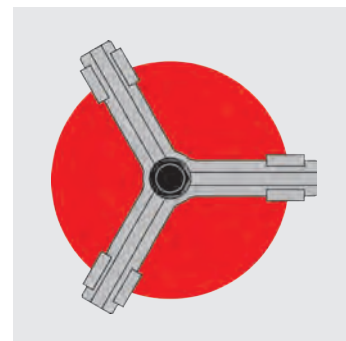
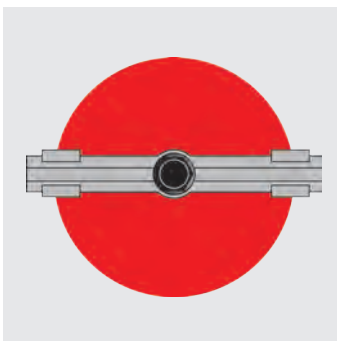
Components lying flush require tapered gripping elements, such as a knife (e.g. slitting knife/internal extractor/separating puller). To ensure the gripping elements have an optimal and secure fit, after a brief, powerful pull of the working spindle the puller should be loosened again, in order for the clamping element to then be able to clamp again. This allows the gripping elements to get an even better rear grip.



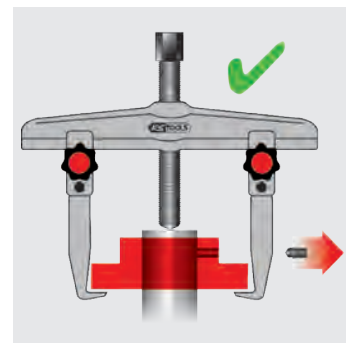
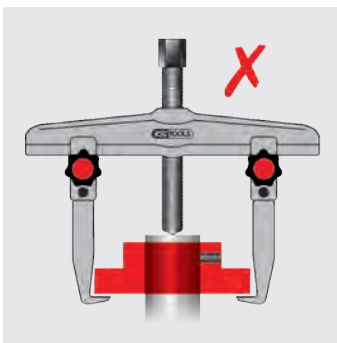
Place the puller arm carefully and ensure that the puller sits precisely in the pulling axis.



Insofar as spatial conditions permit, a three-armed variant should always be preferred over a two-armed variant. Three-armed pullers have a better load distribution of the pulling force than two-armed pullers. This ensures easy, secure and even pulling.



Before the pulling procedure remove everything that would prevent the unobstructed outwards movement of the part to be pulled. (wedges, screws, flanges, nuts, dowel pins, etc.)



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USE OF THE CORRECT DRIVE TOOLS

Torque wrench

To achieve optimal work results, it is necessary to monitor the application of force to mechanical spindle drives with a suitable torque wrench. On the next page is a table with technical data such as information on the maximum input torque at the drive spindle and the maximum load-bearing capacity of the puller. Note that this input torque is to be measured in such a way that the maximum draw-off strength can be achieved.

Therefore avoid extending the drive tools as this may lead to overload and thus to breakage.

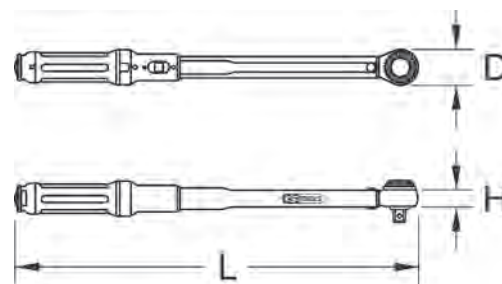
The torque tools listed below are of matched perfectly in type and design to the usage requirements of all KS Tools pullers and correspond to the DIN EN 6789 standards.



ERGOTORQUE® precision torque wrench with rotary button reversible ratchet head

- Release accuracy: $\pm 3\%$ tolerance from set scale value
- Repeat-accurate and precise for at least 5,000 load reversals
- for controlled clockwise and counterclockwise operation
- with ribbed knob at the reversal square for manual pulling
- The direction of operation is changed by reversing the drive square
- Double scale in N·m and lbf·ft division for precise setting
- including finely divisible N·m micrometer scale for fine and precise setting
- large viewing window with magnifying function optimises readability
- clearly audible and palpable torque release through close-gap release
- with robust 30-tooth ratchet mechanism
- Torque-setting quickly and safely by turning the handle
- secure locking option on the handle
- ergonomic and hand-friendly 2-component grip with soft zone
- square drive in accordance with DIN 3120 - ISO 1174 with ball-locking device
- individual series number for clear product identification
- including certificate in accordance with DIN EN ISO 6789:2003 - traceable to national standard

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



item		N·m	lbf·ft	Division N·m	L mm	D mm	H mm	kg
516.1412	1/4"	1 - 25	0,8 - 18	0,10	289,0	35,0	18,0	0,46
516.1422	3/8"	5 - 50	4 - 37	0,25	350,0	45,0	23,0	0,61
516.1432	1/2"	10 - 100	8 - 75	0,50	412,0	45,0	23,0	0,91
516.1442	1/2"	20 - 200	15 - 150	1,00	500,0	45,0	23,0	1,30
516.1472	1/2"	60 - 320	45 - 236	1,00	585,0	45,0	23,0	1,45
516.1482	1/2"	80 - 420	60 - 310	1,00	678,0	45,0	23,0	2,10

DRIVE TORQUES AND MAXIMUM TENSILE FORCE

(1t=1Mp=10KN)

item	Max. torque Nm	Max. load t
150.2075	200	6
150.2130	-	10
150.2145	300	-
150.2146	300	-
150.2250	200	6
150.2350	300	-
150.3115	40	2,5
150.3130	35	2,5
150.3140	35	2,5
150.3170	35	2,5
152.1005	100	-
152.1006	100	-
152.1007	100	-
152.1008	100	-
152.1010	100	-
152.1012	100	-
152.1014	100	-
152.1080	30	1,5
152.1100	100	-
152.1101	100	-
450.0000	700	15
450.0001	700	15
450.0002	700	15
450.0003	700	15
450.0004	700	15
450.0035	400	12
450.0040	700	20
450.0050	60	10
450.0051	450	10
450.0060	300	-
450.0061	600	-
450.0062	600	-
450.0070	170	7
450.0071	170	7
450.0075	220	-
450.0076	220	-
450.0085	700	10
450.0120	-	20
450.0126	-	20
450.0300	280	-
450.0305	280	-
500.8610	100	2,5
500.8620	180	2,25
500.8700	-	2,6
605.0111	30	2
605.0112	40	2,5
605.0113	70	4
605.0114	90	5
605.0115	140	7
605.0116	150	13
615.0001	30	12
615.0002	60	12
615.0003	60	12
615.0004	70	15
620.0101	80	4,5
620.0102	80	4,5
620.0103	150	6,5
620.0104	150	6,5
620.0105	320	11
620.0106	320	11

item	Max. torque Nm	Max. load t
620.0107	360	13
620.0108	400	18
620.0301	-	6,5
620.0302	-	6,5
620.0303	60	12
620.0304	60	12
620.0305	60	12
620.0306	60	12
620.0307	60	15
620.0501	80	4,5
620.0502	80	4,5
620.0503	150	6,5
620.0504	150	6,5
620.0505	320	11
620.0506	320	11
620.0507	360	13
620.0508	320	11
620.0509	320	11
620.0510	360	13
620.0511	320	11
620.0512	320	11
620.0513	360	13
620.0701	60	6,5
620.0702	60	6,5
620.0703	60	12
620.0704	60	12
620.0705	60	12
620.0706	60	12
620.0707	60	12
620.0708	60	12
620.0709	60	12
620.0710	60	12
620.0711	60	12
620.0901	80	4,5
620.0902	80	4,5
620.0903	150	6,5
620.0904	150	6,5
620.1101	80	4,5
620.1102	80	4,5
620.1103	150	6,5
620.1104	150	6,5
620.1301	60	3,5
620.1302	60	3,5
620.1303	120	6
620.1304	120	6
620.1305	150	8
620.1306	150	8
620.1701	80	4,5
620.1702	80	4,5
620.1703	150	6,5
620.1704	150	6,5
620.1705	320	11
620.1706	320	11
620.1901	60	6,5
620.1902	60	6,5
620.1903	60	12
620.1904	60	12
620.3001	50	3,5
620.3002	60	4
620.3101	18	1

item	Max. torque Nm	Max. load t
620.3102	20	1,2
620.3103	24	2
620.3401	50	3,5
620.3402	60	4
620.3601	20	2,5
620.3602	50	3,5
620.3603	60	4
620.3604	120	6
620.3605	120	6
620.3606	120	6
620.3607	120	6
620.3608	120	6
620.3609	120	6
620.3610	120	6
620.3801	70	15
620.3802	70	15
620.3803	70	15
620.3804	70	15
620.3805	70	15
620.3806	70	15
620.4101	25	2,5
620.4102	35	3
620.4103	45	3,5
620.4301	25	2,5
620.4302	35	3
620.4303	45	3,5
620.4304	50	4
620.5201	25	1,5
620.5202	60	3,5
620.5203	80	4,5
620.5301	18	1
620.5302	35	2
620.5401	120	5
620.5402	120	6
620.5403	150	8
620.5501	120	5
620.5502	120	6
620.5503	150	8
630.0101	90	5,5
630.0102	90	5,5
630.0103	180	7
630.0104	180	7
630.0301	-	6,5
630.0302	-	6,5
630.0901	90	5
630.0902	90	5
630.0903	150	6,5
630.0904	150	6,5
630.1101	90	5
630.1102	90	5
630.1103	150	6,5
630.1104	150	6,5
630.1701	90	5,5
630.1702	90	5,5
630.1703	180	7
630.1704	180	7
630.1901	-	6,5
630.1902	-	6,5
630.2301	400	15
630.3001	60	4

item	Max. torque Nm	Max. load t
630.3002	70	4,5
630.3101	20	1,2
630.3102	21	1,3
630.3103	40	2,5
630.3401	60	4
630.3402	70	4,5
630.3601	25	3
630.3602	60	4
630.3603	70	4,5
630.3604	220	12
630.3605	220	12
630.3606	220	12
630.3607	220	12
630.3608	220	12
630.3609	220	12
630.3610	220	12
630.3801	220	12
630.3802	220	12
630.3803	220	12
630.3804	220	12
630.3805	220	12
630.3806	220	12
630.3807	220	12
630.4101	25	2,5
630.4102	35	3
630.4103	45	3,5
630.4301	25	2,5
630.4302	35	3
630.4303	45	3,5
640.0010	133	119
640.0020	130	200
640.0030	244	362
640.0110	-	10
640.0120	-	15
640.0130	-	17
640.0140	-	10
640.0150	-	20
640.0160	60	8
640.0165	70	15
640.0170	-	20
640.0180	-	30
640.0190	-	50
640.0210	-	10
640.0215	-	15
640.0217	-	17
640.0220	-	20
640.0230	-	30
640.0250	-	50
640.0310	-	10
640.0315	-	15
640.0317	-	17
640.0320	-	20
640.0330	-	30
640.0350	-	50
640.2315	-	15
640.2317	-	17
640.2415	-	15
640.2417	-	17
640.2420	-	20

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DRIVE TORQUES AND MAXIMUM TENSILE FORCE (1t=1Mp=10KN)

item	Max. torque Nm	Max. load t	item	Max. torque Nm	Max. load t	item	Max. torque Nm	Max. load t	item	Max. torque Nm	Max. load t
640.2430	-	30	670.0111	70	3,5	700.1181	10	-	700.1700	250	4,3
640.2450	-	50	670.0121	40	3,5	700.1182	40	-	700.1710	60	1
660.0601	30	-	670.0122	40	3,5	700.1183	60	-	700.1711	100	1,9
660.0602	60	-	670.0131	200	10	700.1184	80	-	700.1712	180	3,2
660.0603	60	-	670.0141	30	10	700.1185	30	2	700.1713	250	4,3
660.0604	70	-	670.0151	-	10	700.1190	30	1,2	700.1740	-	15
660.0605	100	-	670.0161	200	20	700.1191	15	1	700.1750	60	10
670.0013	280	14	670.0171	30	12	700.1192	20	1,5	700.1755	300	-
670.0014	280	14	670.0181	-	20	700.1193	15	1	700.1757	300	-
670.0015	280	14	670.0191	70	4	700.1200	60	10	700.1790	-	20
670.0021	-	3,5	670.0201	30	2,5	700.1240	40	2,5	700.1791	-	20
670.0031	-	1,8	670.0211	40	2,5	700.1250	200	5	700.1796	300	16
670.0041	-	3,5	670.0221	60	-	700.1260	35	1,2	700.5610	40	3
670.0051	-	1,8	670.0231	120	-	700.1300	70	4	700.5615	40	3
670.0060	80	4	670.0232	120	-	700.1400	60/400	10	700.5620	40	2,5
670.0061	60	4	670.0233	120	-	700.1400-1	60	10	700.5625	40	2,5
670.0062	60	4	670.0241	120	-	700.1400-5	400	-	700.5630	70	3,5
670.0063	80	4	700.1100	35/50	2,5/3	700.1405	400	-			
670.0101	50	-	700.1120	18	1,2	700.1410	60	10			
670.0102	120	-	700.1130	30	2	700.1415	-	11			
670.0103	160	-	700.1150	45	-	700.1420	-	11			
670.0104	280	-	700.1160	80	-	700.1470	-	11			
670.0105	400	-	700.1170	80	-	700.1500	15	1,5			
670.0106	280	-	700.1180	80	-	700.1650	20	1,5			

Handling puller spindles

The overloading of a spindle is under no circumstances dependent on the number of applications and should therefore be avoided by a considered approach in the selection (e.g. dimension) or use.

The foundation for a long working life will already be laid at the time of first use. If work is done here without the lubrication required, it leads quickly to overheating and thus to spindle wear, which naturally has an abrupt negative influence on the working life.

To avoid this:

- Excessive heating, e.g. with a welding torch leads to structural alterations in the spindle material, which will adversely influence characteristics such as breakage resistance and stretchability.
- Ensure that the spindle is precisely positioned in the pulling axis to prevent the spindle suffering from bending stress.
- Introduce work breaks in order to avoid excessive overheating of the spindle, traverse thread or nut.
- Under no circumstances may spindles be operated with electrical or impact wrenches.

Maintenance and care:

- Regular cleaning of the spindle with cleaner's solvent, brake cleaner, part-cleaning solution etc.
- After cleaning, lubricate spindle with machine oil
- For conditions of extreme stress the use of a high-performance lubricant is recommended on the stressed spindle parts
- Suitable lubricants: See below for high-performance fitting lubricant
- Check spindles regularly for bending by rolling them on a plane surface
- Spindles showing significant bending should be replaced



Special thread compound

This special compound is an outstanding lubricant for static highly-stressed components such as, for example, thread spindles. Influence factors, e.g. moisture or friction, lead as a rule to increased wear and jamming.

Thanks to its special composition and the solids it contains the surface roughness of the surface to be protected is completely filled in.

In this way a fully enclosed surface is formed, which significantly reduces friction and offers an effective protection from corrosion.

This increases the working life of the thread spindles substantially and ensures problem-free functioning even at intense heating of up to max. 1200°C.

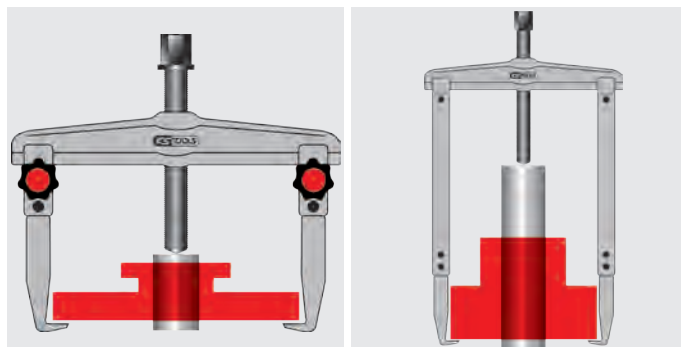
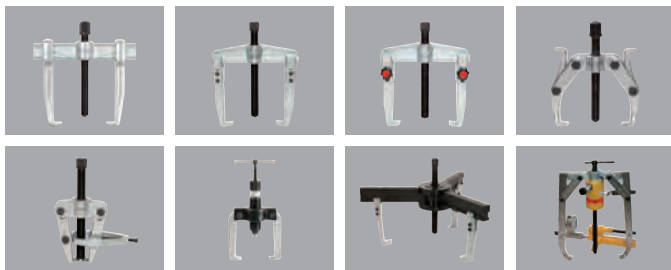


Item			
980.1085	Special thread grease, gun	50	
980.1090	Special thread grease, tube	5	

BASIC PULLER VARIANTS AND AREAS OF APPLICATION

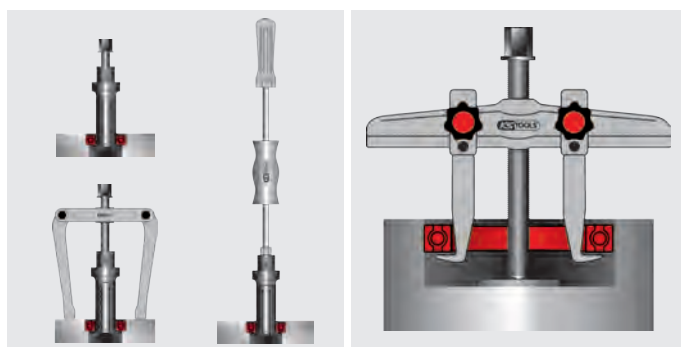
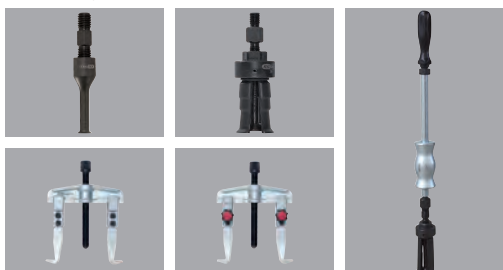
External pulling

Pulling component of a shaft or axle
e.g.: Ball bearing, tapered roller bearing, gear wheels, belt pulleys, etc.



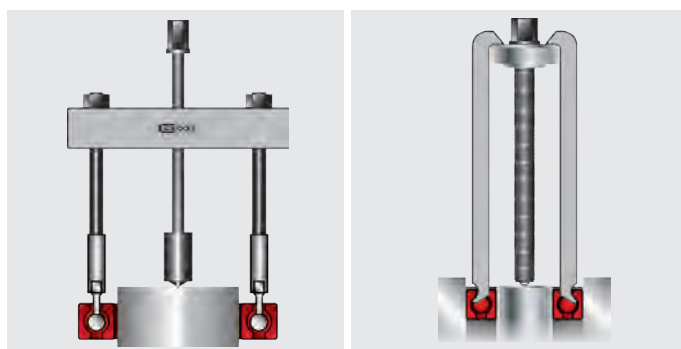
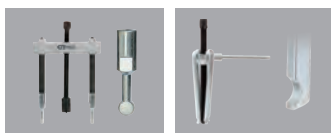
Internal pulling

Component is in a housing (hole)
e.g.: Ball bearing, needle bearing, outer bearing ring, bushes, sleeves, etc.



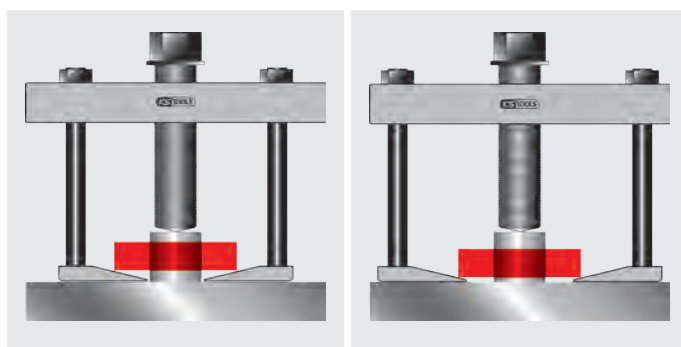
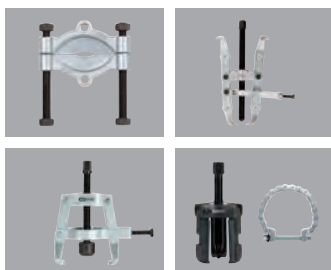
Extraction and pulling from housings

Component is in the housing and on a shaft or axle
e.g.: Ball-bearing



Separator puller

Pull component from a shaft or axle - back is tight or flush on
e.g.: Ball bearing, roller bearing, gear wheels, bushes, sleeves, etc.



SPECIAL PULLER

Ball bearing extractor

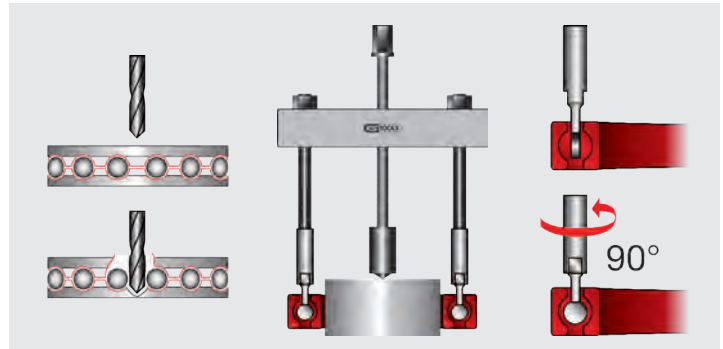
Application areas:

These special pullers are always used when the ball bearing sits on a shaft and at the same time in a housing and cannot be gripped through the hole either from outside or from inside. Thanks to the slim design lower-lying bearings can also be extracted or pulled.

Ball bearing extractor (hemisphere)

Work steps:

- 1.) Drill bearing cage at two opposite points in each case between two balls
- 2.) Bend cage plate and create space for the hemisphere adapter
- 3.) Position puller with the spindle on the shaft spigot
- 4.) Place appropriate hemisphere into the bearing (ball groove) and turn by 90°
- 5.) By activating the spindle bring the hooks to the pull and extract bearing.

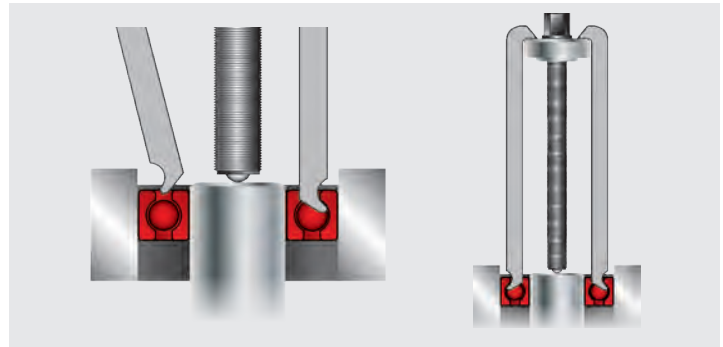


Ball bearing extractor (claws)

Work steps:

- 1.) Determine the number of ball bearings to be pulled
- 2.) Using the application table (see below) select the right puller with the appropriate claws.

Tip: If the number of ball bearings to be pulled cannot be defined, the distance between the outer and inner bearing ring is to be measured. When this measurement is rounded to the nearest millimetre, the result is usually the shaft strength of the hook required.
- 3.) Place the hooks as symmetrically as possible after one another with the claws between the balls in the external bearing ring.
- 4.) Position spindle on the shaft spigot of the shaft end and hang hooks on the traverse.
- 5.) By activating the spindle bring the hooks to the pull and extract bearing.



Application table for 650.0010

Extractor no.	Hook set no.	for ISO ball bearing no.			
650.0011	655.0011	6000	6200		
		6001			
		6002			
		6003			
	655.0012	6004	6201		
		6005	6202		
650.0012	655.0013	6006	6203	6300	
	655.0014	6007	6204	6301	
		6008	6205	6302	
	655.0015			6303	
				6304	
650.0013	655.0014				

Extractor no.	Hook set no.	for ISO ball bearing no.			
650.0013	655.0015		6206		
	655.0016		6207	6305	
650.0014	655.0015	6009			
	655.0017		6208	6306	
650.0015	655.0015	6010			
		6011			
	655.0016	6012			
			6209	6307	6403
	655.0018		6210	6308*	6404*
			6211*	6309*	6405*
			6212*	6310*	6406*
					6410*

Ball bearing nos. with (*) are held and pulled with the spacer plates screwed on to the hook base (655.0018). Using 12 screwed-on, folding spacer plates each, the distance between the inner bearing ring and hook base is variably balanced out. Unlisted bearings or special sizes are available on demand.

PRECISION INTERNAL EXTRACTOR



Strut adapter



Strut adapter with bridge



Strut adapter with hammer



660.0601
660.0602
660.0603
660.0604



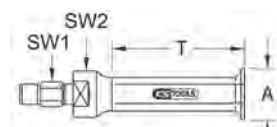
660.0605



660.0501
660.0502



660.0503
660.0504
660.0505



Item	∅ A mm min. - max.	T mm	Internal extractors need as removing tool suitable				Adaptor thread C	SW1 mm	SW2 mm	max. torque with double ended support	
			double ended support		slide hammer					max Nm	Double ended support
660.0101	5-7	30					M10	10	13	3	660.0601
660.0102	6-8	30					M10	10	13	3	660.0601
660.0103	7-9	30					M10	10	13	7	660.0601
660.0104	8-10	30					M10	10	13	7	660.0601
660.0105	9-12	30					M10	10	13	12	660.0601
660.0106	10-13	30					M10	10	13	15	660.0601
660.0107	12-15	30					M10	10	13	15	660.0601
660.0108	13-17	50					M10	10	13	24	660.0601
660.0109	14-19	60					M10	10	13	28	660.0601
660.0111	15-20	60					M10	10	13	28	660.0601
660.0112	16-21	60					M10	10	13	32	660.0601
660.0113	18-23	60					M10	10	17	40	660.0601
660.0114	20-25	60					M10	10	17	40	660.0601
660.0115	22-27	60					M10	10	17	40	660.0601
660.0116	25-30	60					M10	10	17	40	660.0601
660.0117	25-40	45					M10	13	19	45	660.0601
660.0118	28-35	60					M10	10	17	45	660.0601
660.0119	30-37	70					M10	17	22	45	660.0601
660.0121	35-42	70					M10	17	22	45	660.0601
660.0122	38-45	70					M10	17	22	45	660.0601
660.0123	40-47	70					M10	17	22	45	660.0601
660.0124	43-50	70					M10	17	22	45	660.0601
660.0125	40-75	100					G 3/8"	17	27	45	660.0602
660.0126	45-55	100					G 3/8"	19	27	45	660.0602
660.0127	50-60	100					G 3/8"	19	27	45	660.0602
660.0128	70-115	100					G 3/8"	19	27	45	660.0602

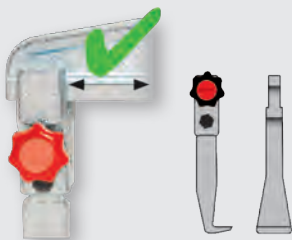
STRUCTURE OF A PULLER

Quick-clamp device

- The quick-clamping device enables tool-free and secure clamping of the arms by hand
- To move - loosen the knurled thumb screws

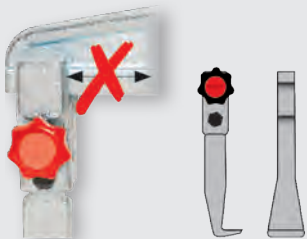
Hook with stepping

- Hooks can be moved by loosening the upper quick-clamping device



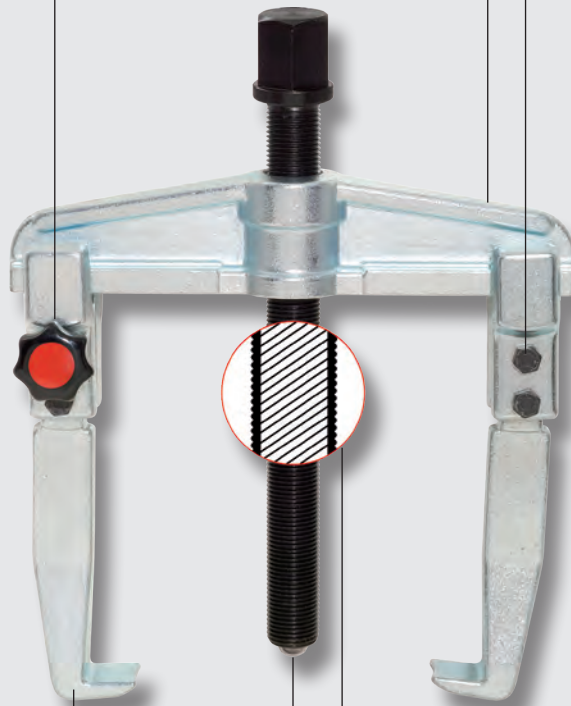
Standard hook without stepping

- Movement of the hooks by loosening the upper fast-action nut not possible. Here the fast-action nuts and lower nuts need to be loosened.



Traverse

- Traverse formed from quenched and tempered steel
- Precision-milled guides
- Designed for the highest stress

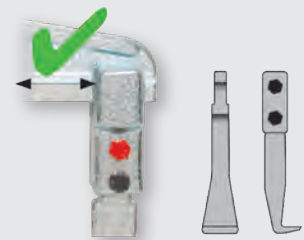


Two-screw quick-clamp device

- Using the fixing screws the hooks are braced securely on the traverse. The lower screw forms a positive connection of the adjustable block with the hooks. The upper screw clamps the adjustable block on the traverse.

Hook with stepping

- Hooks can be moved by loosening the upper nut



Standard hook without stepping

- Movement of the hooks by loosening the upper fast-action nut not possible. Here both nuts must be loosened.



Universal hooks Spindle

- Formed from quenched and tempered steel and functional surfaces are precision-milled
- Positive and force-closed connection between traverse hooks
- Turned from quenched and tempered steel
- The thread is rolled and thus has a high stability and precision
- Especially wear-resistant, case-hardened spindles, from G1/2" all spindles inductively hardened
- Hex drive with anti-slip device (collar)

Different pressure peaks

Differences after few work cycles

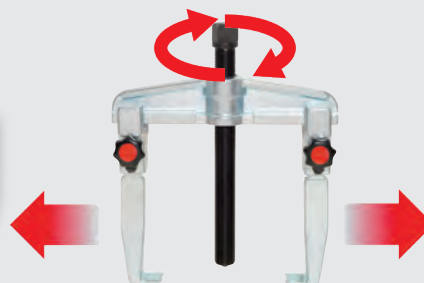


Spindle with ball



Spindle with live centre

- No wear recognisable
- Central pressing of the spindle continues to be guaranteed



- Jamming in the spindle body
- Deformation of the dead centre
- Pressing the spindle centrally is no longer possible
- Replacement of the spindle required

HYDRAULIC SPINDLES WITH MECHANICAL DRIVE

Advantages

- Low force
- Compact form with very high compressive force
- Spindle-saving straight-line motion - min. friction at the pressure peaks
- Prevention of turning movement especially with rotating parts
- Minimum application of force 60- 70 N•m at maximum output of up to 15t/150KN

Hydraulic press

- Draw-off strength 8t/80KN or 15t/150KN
- Short stroke of 8 or 12 mm
- Can be used in conjunction with all mechanical pullers
- Used between shaft end and puller spindle
- The use saves the thread of the original puller spindle



Grease hydraulic spindle short

- Draw-off strength 10t/100KN / 12t/120KN
- Short stroke 10 mm
- Use in the module system and special pullers with UN support 1-1/2"x16 thread
- Pre-tensioning and positioning via the external thread on the cylinder
- The hydraulics are activated with a tommy bar or hex drive of the pressure spindle
- 12t spindle with safety pin



Grease hydraulic spindle long

- Lean form - draw-off strength 12t/120KN or 15t/150KN
- Short stroke 12 mm
- Use in standard and special pullers with G support 1/2"x14 thread / G 3/4"x14 thread and G 1"x11 thread
- Pre-tensioning and positioning via the external thread of the large spindle
- The hydraulics are activated using the small pressure spindle



Guide on switching to a grease hydraulic spindle long



- Loosen stud
- Screw off whole cap (SW large)
- Screw spindle body into puller
- Screw cap back on up to limit stop
- Place stud on again and secure by tightening

Working method:

- Place on puller
- Pre-tension mechanically with large width across flats
- Secure puller position sichern
- Screw pressure spindle into the press

Caution: Power wrench prohibited

- If the piston stroke is not sufficient for loosening, the work step must be repeated. Turn pressure spindle back, pre-tension again mechanically and screw pressure spindle in again

Safety note:

- Tighten all screw connections before pulling, as otherwise there is a danger of slipping

OIL HYDRAULICS



Advantages

- Highest-performance drive form for the use of 10t/100KN up to max. 50t/100KN
- As screw-in / spindle / flat-topped and trunk piston cylinder
- Hydraulic pumps optionally as manual / pneumatic or electrical variant
- Hydraulic units work very conveniently and with low application of force
- The advantages lie in the long work path (stroke) of the pistons and the extremely high pressure force

Combination options oil hydraulics with puller

Spindle hydraulics cylinder

Flat hydraulics cylinder

Screw-in hydraulics cylinder

Trunk piston hydraulics cylinder

Spindle hydraulics cylinder		Flat hydraulics cylinder		Screw-in hydraulics cylinder		Trunk piston hydraulics cylinder					
Hydraulics cylinder	640.0130	640.0140	640.0150	640.0110	640.0120	640.0170	640.0180	640.0190			
Driver thread	G1" x 11g	2xthread M6 depth gauge 36,6	2xbore hole M10 depth gauge 36,6	UNC 2.1/4"x14	M68x2	UNC 1" -8	UNC 1.1/4" -7	UNS 1.5/8"-5.1/2"			
Max. power	17t / 170KN	10t / 100KN	20t / 200KN	10t / 100KN	15t / 150KN	20t / 200KN	30t / 300KN	50t / 500KN			
		Arms/Mod.				Arms/Mod.				Arms/Mod.	
Use with puller	620.0108 640.0217 640.0317 640.2317 640.2417	2 B 2 B 3 L 3 BRS 3 LRS	670.0151 670.0181	670.0181	640.0210 640.0310	640.0215 640.0315 640.2315 640.2415	2 B 3 L 3 BRS 3 LRS	640.0220 640.0320 640.2420	640.0230 640.0330 640.2430	640.0250 640.0350 640.2450	2 L 3 L 3 LRS
Use with puller leg	645.0217 645.0317 645.2317 645.2417	3 L 3 BRS 3 LRS			645.0210 645.0310	645.0215 645.0315 645.2315 645.2415	3 L 3 BRS 3 LRS	645.0220 645.0320 645.2420	645.0230 645.0330 645.2430	645.0250 645.0350 645.2450	3 L 3 LRS

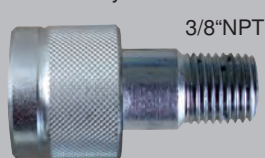
KS Standard hydraulics coupling appropriate for typical systems in the market such as Celette, Enerpac, Sun, etc.

All oil hydraulics cylinders can be combined or operated with the following pumps:

Loose half - tube side



Fixed half - cylinder side



640.0010



640.0020



640.0030

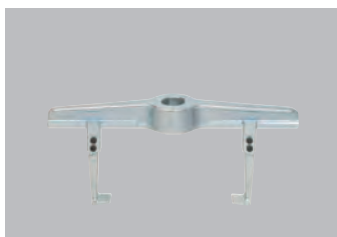


B = Standard/ bar puller

L = side plate puller

BRS = Standard/ bar puller with radially swivelling arms

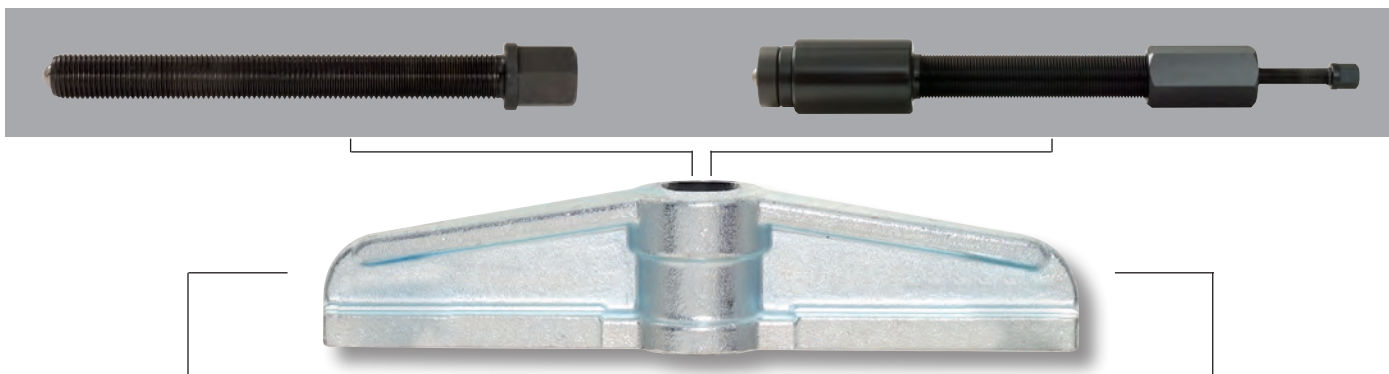
LRS = side plate puller with radially swivelling arms



COMBINATION OPTIONS FOR STANDARD / BAR PULLER

Mechanical spindle

Hydraulic spindle



Hooks with quick-clamping device

Hooks with two-screw clamping device



Quick-clamping hooks

No. hooks	for puller
615.1001	620.1101 / 620.1102 630.1101 / 630.1102
615.1002	620.1101 / 620.1102 630.1101 / 630.1102
615.1003	620.1101 / 620.1102 630.1101 / 630.1102
615.1004	620.1101 / 620.1102 630.1101 / 630.1102
615.1005	620.1101 / 620.1102 630.1101 / 630.1102
615.1006	620.1101 / 620.1102 630.1101 / 630.1102
615.1007	620.1103 / 620.1104 630.1103 / 630.1104
615.1008	620.1103 / 620.1104 630.1103 / 630.1104
615.1009	620.1103 / 620.1104 630.1103 / 630.1104
615.1101	620.1701 / 620.1702 630.1701 / 630.1702
615.1102	620.1703 / 620.1704 630.1703 / 630.1704
615.1103	620.1705 / 620.1706 630.1903 / 630.1904

Two-screw clamp hooks

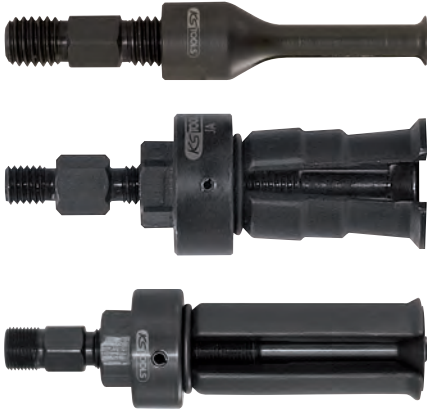
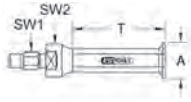
No. hooks	for puller	No. hooks	for puller	No. hooks	for puller
615.0101	620.0101 / 620.0102 630.0101 / 630.0102	615.0503	620.0105 / 620.0106 620.0107 620.0505 / 620.0506 620.0507 620.0703 / 620.0704 620.0705	615.0508	620.0108 630.2301 640.0210 / 640.0215 640.0217 640.2315 / 640.2317
615.0102	620.0103 / 620.0104 630.0103 / 630.0104		620.0105 / 620.0106 620.0107 620.0508 / 620.0509 620.0510 620.0706 / 620.0707 620.0708	615.0901	620.0901 / 620.0902 630.0901 / 630.0902
615.0103	620.0105 / 620.0106 620.0107 620.0303 / 620.0304 620.0305 / 620.0306	615.0504	620.0105 / 620.0106 620.0107 620.0508 / 620.0509 620.0510 620.0706 / 620.0707 620.0708	615.0902	620.0901 / 620.0902 630.0901 / 630.0902
615.0104	620.0108 620.0307 630.2301 640.0210 / 640.0215 640.0217 640.2315 / 640.2317	615.0505	620.0105 / 620.0106 620.0107 620.0511 / 620.0512 620.0513 620.0709 / 620.0710 620.0711	615.0903	620.0901 / 620.0902 630.0901 / 630.0902
615.0501	620.0101 / 620.0102 620.0103 / 620.0104 620.0301 / 620.0302 620.0501 / 620.0502 630.0101 / 630.0102 630.0103 / 630.0104 630.0301 / 630.0302	615.0506	620.0105 / 620.0106 620.0107 620.0511 / 620.0512 620.0513 620.0709 / 620.0710 620.0711	615.0904	620.0103 / 620.0104 620.0903 / 620.0904 630.0903 / 630.0904
615.0502	620.0101 / 620.0102 620.0103 / 620.0104 620.0301 / 620.0302 620.0501 / 620.0502 630.0101 / 630.0102 630.0103 / 630.0104 630.0301 / 630.0302	615.0507	620.0108 630.2301 640.0210 / 640.0215 640.0217 640.2315 / 640.2317	615.0905	620.0103 / 620.0104 620.0903 / 620.0904 630.0903 / 630.0904
	620.0103 / 620.0104 620.0503 / 620.0504 620.0701 / 620.0702 630.0103 / 630.0104 630.0301 / 630.0302		620.0108 630.2301 640.0210 / 640.0215 640.0217 640.2315 / 640.2317	615.0906	620.0101 / 620.0102 620.0903 / 620.0904 630.0903 / 630.0904
				615.0907	620.0101 / 620.0102 620.0901 / 620.0902 630.0901 / 630.0902
				615.0908	620.0101 / 620.0102 620.0901 / 620.0902 630.0901 / 630.0902
				615.0909	620.0101 / 620.0102 620.0901 / 620.0902 630.0901 / 630.0902

Caution: The hooks marked in red are not the original hooks relating to the pullers indicated, but can be used in these.

INTERNAL EXTRACTORS

Precision internal extractor

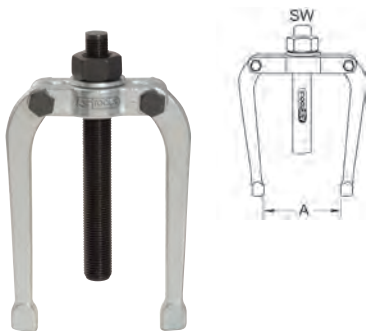
- Centering shaft
- For the accurate fitting of bearings and bushes
- Special steel



	A mm	Connection thread mm	SW1 mm	SW2 mm	T mm	max N·m	kg
660.0101	5-7	M10	10	13	30.0	3	50
660.0102	6-8	M10	10	13	30.0	3	50
660.0103	7-9	M10	10	13	30.0	7	50
660.0104	8-10	M10	10	13	30.0	7	50
660.0105	9-12	M10	10	13	30.0	12	50
660.0106	10-13	M10	10	13	30.0	15	50
660.0107	12-15	M10	10	13	30.0	15	50
660.0108	13-17	M10	10	13	50.0	24	70
660.0109	14-19	M10	10	13	60.0	28	90
660.0111	15-20	M10	10	13	60.0	28	90
660.0112	16-21	M10	10	13	60.0	32	90
660.0113	18-23	M10	10	17	60.0	40	110
660.0114	20-25	M10	10	17	60.0	40	110
660.0115	22-27	M10	10	17	60.0	40	110
660.0116	25-30	M10	10	17	60.0	40	120
660.0117	25-40	M10	13	19	45.0	45	260
660.0118	28-35	M10	10	17	60.0	45	280
660.0119	30-37	M10	17	22	70.0	45	280
660.0121	35-42	M10	17	22	70.0	45	280
660.0122	38-45	M10	17	22	70.0	45	290
660.0123	40-47	M10	17	22	70.0	45	300
660.0124	43-50	M10	17	22	70.0	45	310
660.0125	40-75	G 3/8"	17	27	100.0	45	760
660.0126	45-55	G 3/8"	19	27	100.0	45	650
660.0127	50-60	G 3/8"	19	27	100.0	45	680
660.0128	70-115	G 3/8"	19	27	130.0	45	1400

Double ended support for internal extractor

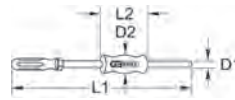
- Extremely robust spindle with inductively hardened thread
- Special steel



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

Slide hammer

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



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



INTERNAL EXTRACTORS SETS

Precision internal extractor set ø 10,0 - 37,0 mm

- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel



		kg
660.0014	7 pcs Precision internal extractor set ø 10,0 - 37,0 mm	3.30

consists of:

		kg
660.0106	Internal extractor, 10-13mm	50
660.0109	Internal extractor, 14-19mm	90
660.0114	Internal extractor, 20-25mm	110
660.0116	Internal extractor, 25-30mm	120
660.0119	Internal extractor, 30-37mm	280
660.0601	Double ended support, 35-75mm	700
660.0501	Slide hammer, 170mm, M10	400

Precision internal extractor set ø 10,0 - 45,0 mm

- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel



		kg
660.0011	7 pcs Precision internal extractor set ø 10,0 - 45,0 mm	3.20

consists of:

		kg
660.0106	Internal extractor, 10-13mm	50
660.0109	Internal extractor, 14-19mm	90
660.0114	Internal extractor, 20-25mm	110
660.0116	Internal extractor, 25-30mm	120
660.0119	Internal extractor, 30-37mm	280
660.0122	Internal extractor, 38-45mm	290
660.0601	Double ended support, 35-75mm	700

Precision internal extractor set ø 10,0 - 75,0 mm

- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel



		kg
660.0012	9 pcs Precision internal extractor set ø 10,0 - 75,0 mm	6.80

consists of:

		kg
660.0106	Internal extractor, 10-13mm	50
660.0109	Internal extractor, 14-19mm	90
660.0114	Internal extractor, 20-25mm	110
660.0116	Internal extractor, 25-30mm	120
660.0119	Internal extractor, 30-37mm	280
660.0122	Internal extractor, 38-45mm	290
660.0125	Internal extractor, 40-75mm	760
660.0601	Double ended support, 35-75mm	700
660.0602	Double ended support, 60-130mm	1600

Precision internal extractor set ø 15,0 - 75,0 mm

- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel



		kg
660.0015	5 pcs Precision internal extractor set ø 15,0 - 75,0 mm	4.50

consists of:

		kg
660.0111	Internal extractor, 15-20mm	90
660.0114	Internal extractor, 20-25mm	110
660.0117	Internal extractor, 25-40mm	260
660.0125	Internal extractor, 40-75mm	760
660.0602	Double ended support, 60-130mm	1600

Precision internal extractor set ϕ 10,0 - 115,0 mm

- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel



660.0013	10 pcs	Precision internal extractor set ϕ 10,0 - 115,0 mm	12.00
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consists of:

660.0106	Internal extractor, 10-13mm	50	
660.0109	Internal extractor, 14-19mm	90	
660.0114	Internal extractor, 20-25mm	110	
660.0116	Internal extractor, 25-30mm	120	
660.0119	Internal extractor, 30-37mm	280	
660.0122	Internal extractor, 38-45mm	290	
660.0125	Internal extractor, 40-75mm	760	
660.0128	Internal extractor, 70-115mm	1400	
660.0601	Double ended support, 35-75mm	700	
660.0604	Double ended support, 60-210mm	3700	

INTERNAL EXTRACTORS & PULLER SETS

Precision internal extractor and puller set 10 - 45 mm

- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel



660.0022	10 pcs	Precision internal extractor and puller set 10 - 45 mm	7.30
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consists of:

660.0106	Internal extractor, 10-13mm	50	
660.0109	Internal extractor, 14-19mm	90	
660.0114	Internal extractor, 20-25mm	110	
660.0116	Internal extractor, 25-30mm	120	
660.0119	Internal extractor, 30-37mm	280	
660.0122	Internal extractor, 38-45mm	290	
660.0601	Double ended support, 35-75mm	700	
620.0101	2 leg puller, 20-90mm	1000	
620.3101	Pole clamp 2 leg puller, 10-60mm	160	
670.0221	Shaft ring puller, ϕ 5-32mm	1400	

Precision internal extractor and puller set 10 - 75 mm

- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel



660.0023	13 pcs	Precision internal extractor and puller set 10 - 75 mm	15.40
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consists of:

660.0106	Internal extractor, 10-13mm	50	
660.0109	Internal extractor, 14-19mm	90	
660.0114	Internal extractor, 20-25mm	110	
660.0116	Internal extractor, 25-30mm	120	
660.0119	Internal extractor, 30-37mm	280	
660.0122	Internal extractor, 38-45mm	290	
660.0125	Internal extractor, 40-75mm	760	
660.0601	Double ended support, 35-75mm	700	
660.0603	Double ended support, 60-130mm	1500	
620.0101	2 leg puller, 20-90mm	1000	
620.0103	2 leg puller, 50-160mm	3000	
620.3101	Pole clamp 2 leg puller, 10-60mm	160	
670.0221	Shaft ring puller, ϕ 5-32mm	1400	

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Precision internal extractor and puller set 10 - 115 mm

- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel



660.0021	14 pcs	Precision internal extractor and puller set 10 - 115 mm	20.00
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consists of:

660.0106	Internal extractor, 10-13mm	50	
660.0109	Internal extractor, 14-19mm	90	
660.0114	Internal extractor, 20-25mm	110	
660.0116	Internal extractor, 25-30mm	120	
660.0119	Internal extractor, 30-37mm	280	
660.0122	Internal extractor, 38-45mm	290	
660.0125	Internal extractor, 40-75mm	760	
660.0128	Internal extractor, 70-115mm	1400	
660.0601	Double ended support, 35-75mm	700	
660.0605	Double ended support, 55-205mm	3800	
620.0101	2 leg puller, 20-90mm	1000	
620.0103	2 leg puller, 50-160mm	3000	
620.3101	Pole clamp 2 leg puller, 10-60mm	160	
670.0221	Shaft ring puller, ϕ 5-32mm	1400	



BALL BEARING EXTRACTORS

Universal ball bearing extractor set

- Less risk of slippage due to the automatically closing draw off arms
- 13 puller variants possible
- Extremely robust spindle with inductively hardened thread
- Excellent power transfer
- Special steel
- Supplied in a durable plastic case



				kg
650.0010	37 pcs	Universal ball bearing extractor set		8.00

consists of:

				kg
650.0011	Ball bearing extractor without legs, 26mm			300
650.0012	Ball bearing extractor without legs, 34mm			400
650.0013	Ball bearing extractor without legs, 41mm			500
650.0014	Ball bearing extractor without legs, 49mm			900
650.0015	Ball bearing extractor without legs, 63mm			1200
655.0011	Adaptor legs, 4pcs, 120mm			100
655.0012	Adaptor legs, 4pcs, 120mm			100
655.0013	Adaptor legs, 4pcs, 130mm			200
655.0014	Adaptor legs, 4pcs, 130mm			200
655.0015	Adaptor legs, 4pcs, 150mm			300
655.0016	Adaptor legs, 4pcs, 150mm			400
655.0017	Adaptor legs, 4pcs, 190mm			600
655.0018	Adaptor legs, 4pcs, 190mm			800

Ball bearing extractor without legs

- Consists of adaptor and spindle
- For ball bearings in waves or housings
- Extremely robust spindle with inductively hardened thread
- Special steel



	Ø mm	mm	dim mm	kg
650.0011	26	M10 x 150	12	0.30
650.0012	34	M12 x 199	14	0.40
650.0013	41	M14x1,5 x 200	17	0.50
650.0014	49	M18x1,5 x 240	19	0.90
650.0015	63	G1/2"x14g x 230	22	1.20

Adaptor legs for ball bearing extractor, 4 pcs

- Can be used with adaptor legs and spindles available separately
- For ball bearings in waves or housings
- Special steel



	L mm	Substrate for ISO bearing	kg
655.0011	120	6000, 6001, 6002, 6003, 6200	0.10
655.0012	120	6004, 6005, 6201, 6202	0.10
655.0013	130	6006, 6203, 6300	0.20
655.0014	130	6007, 6008, 6204, 6205, 6301, 6302	0.20
655.0015	150	6009, 6010, 6206, 6303, 6304	0.30
655.0016	150	6011, 6012, 6207, 6305	0.40
655.0017	190	6208, 6306	0.60
655.0018	190	6209- 6212, 6307- 6310, 6403- 6406, 6410 0.80	

Universal ball bearing puller set

- For simple and fast removing of ball bearings without removal of the shaft
- Pulling power influences uniformly on the interior and outside ring
- Special steel
- In durable plastic storage case
- Suited for ISO bearings: 6004-6010, 6201-6206, 6300-6304

Ideal for use in SKF, FAG, Timken, NTN bearings, etc.
Adaptor diameter: 5.5 - 6 - 8 mm



				kg
700.1500	21 pcs	Universal ball bearing puller set		0.82

consists of:

				kg
700.1501	Extension set long, 2 pcs			110
700.1502	Centre point			30
700.1503	Tie rod set, 2 pcs			60
700.1504	Ball head bearing adaptor set, 2 pcs, Ø 5.5 mm			24
700.1505	Ball head bearing adaptor set, 2 pcs, Ø 6.0 mm			24
700.1506	Ball head bearing adaptor set, 2 pcs, Ø 8.0 mm			26
700.1507	Extension set short, 2 pcs			30
700.1508	U disc set for tie rod, 4 pcs			10
700.1509	Spindle			164
700.1510	Traverse			202
700.1511	Nut set for tie rod, 2 pcs			10

Universal ball bearing puller set

- For simple and fast removing of ball bearings without removal of the shaft
- Pulling power influences uniformly on the interior and outside ring
- Special steel
- In durable plastic storage case
- Suited for ISO bearings: 6207-6211, 6205-6208, 6303-6305

Ideal for use in SKF, FAG, Timken, NTN bearings, etc.
Adaptor diameter: 11 - 12.5 - 15 mm



				kg
700.1600	21 pcs	Universal ball bearing puller set		1.69

consists of:

				kg
700.1601	Extension set long, 2 pcs			204
700.1602	Centre point			50
700.1603	Tie rod set, 2 pcs			178
700.1604	Ball head bearing adaptor set, 2 pcs, Ø 11.0 mm			88
700.1605	Ball head bearing adaptor set, 2 pcs, Ø 12.5 mm			96
700.1606	Ball head bearing adaptor set, 2 pcs, Ø 15.0 mm			110
700.1607	Extension set short, 2 pcs			88
700.1608	U disc set for tie rod, 4 pcs			10
700.1609	Spindle			130
700.1610	Traverse			345
700.1611	Nut set for tie rod, 2 pcs			10

BEARING AND BUSH DRIVER

Bearing punch set Ø 25.0 mm

- In durable plastic storage case



				kg
156.0425	7 pcs	Bearing punch set Ø 25.0 mm		640

consists of:

				kg
156.0426	Punch holder without impact			355
156.0447	Punch attachable head 2 pcs, polyamide, Ø 25 mm			20
156.0455	Punch attachable head 2 pcs, aluminium, Ø 25 mm			50
156.0463	Punch attachable head 2 pcs, brass, Ø 25 mm			150

Bearing punch set Ø 10.0 - 14.0 mm

- In durable plastic storage case



156.0440	10 pcs	Bearing punch set Ø 10.0 - 14.0 mm	240
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consists of:

156.0436	Punch holder	95
156.0441	Punch attachable head 2 pcs, polyamide, Ø 10 mm	10
156.0442	Punch attachable head 2 pcs, polyamide, Ø 12 mm	10
156.0443	Punch attachable head 2 pcs, polyamide, Ø 14 mm	10
156.0449	Punch attachable head 2 pcs, aluminium, Ø 10 mm	10
156.0450	Aluminium punch set, 2 pcs., Ø 12 mm	10
156.0451	Punch attachable head 2 pcs, aluminium, Ø 14 mm	20
156.0457	Punch attachable head 2 pcs, brass, Ø 10 mm	20
156.0458	Punch attachable head 2 pcs, brass, Ø 12 mm	20
156.0459	Punch attachable head 2 pcs, brass, Ø 14 mm	50

Universal bearing and bush driver set

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



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

700.1348	Reception adaptor, 45mm	500
700.1349	Impact drive knurled grip, 220mm	42
700.1351	Pressure plate, 18mm	12
700.1352	Pressure plate, 19mm	14
700.1353	Pressure plate, 20mm	16
700.1354	Pressure plate, 21mm	20
700.1355	Pressure plate, 22mm	22
700.1356	Pressure plate, 23mm	27
700.1357	Pressure plate, 24mm	30
700.1358	Pressure plate, 25mm	34
700.1359	Pressure plate, 26mm	38
700.1360	Pressure plate, 27mm	43
700.1361	Pressure plate, 28mm	47
700.1362	Pressure plate, 29mm	50
700.1363	Pressure plate, 30mm	53
700.1364	Pressure plate, 31mm	59
700.1365	Pressure plate, 32mm	65

consists of:

700.1366	Pressure plate, 33mm	68
700.1367	Pressure plate, 34mm	72
700.1368	Pressure plate, 35mm	77
700.1369	Pressure plate, 36mm	82
700.1370	Pressure plate, 37mm	89
700.1371	Pressure plate, 38mm	94
700.1372	Pressure plate, 39mm	97
700.1373	Pressure plate, 40mm	105
700.1374	Pressure plate, 41mm	111
700.1375	Pressure plate, 42mm	119
700.1376	Pressure plate, 43mm	125
700.1377	Pressure plate, 44mm	132
700.1378	Pressure plate, 45mm	138
700.1379	Pressure plate, 46mm	144
700.1380	Pressure plate, 47mm	153
700.1381	Pressure plate, 48mm	159
700.1382	Pressure plate, 49mm	165
700.1383	Pressure plate, 50mm	172
700.1384	Pressure plate, 51mm	181
700.1385	Pressure plate, 52mm	188
700.1386	Pressure plate, 53mm	196
700.1387	Pressure plate, 54mm	205
700.1388	Pressure plate, 55mm	213
700.1389	Pressure plate, 56mm	221
700.1390	Pressure plate, 57mm	231
700.1391	Pressure plate, 58mm	238
700.1392	Pressure plate, 59mm	247
700.1393	Pressure plate, 60mm	258
700.1394	Pressure plate, 61mm	266
700.1395	Pressure plate, 62mm	276
700.1396	Pressure plate, 63mm	284
700.1397	Pressure plate, 64mm	294
700.1398	Pressure plate, 65mm	305
700.1399	Support plate, 75mm	500

Brass and aluminium punch

- For extracting bearing, bolts and bushes, etc.
- Rimed handle for better control
- Brass / Aluminium



	Material	Ø mm	L mm	
156.0415	brass	20,0	300,0	1.13
156.0416	aluminium	30,0	300,0	1.89

Bearing assembly and disassembly tool set

- Can be used manually with a hammer or workshop press
- Optimal placing through the pressure plates
- For easy and damage free assembly
- For the correct dismantling and assembly of bearings
- Suitable for commercial, agricultural engineering and construction machines
- Forged, robust execution
- Special steel
- In durable plastic storage case



450.0080	5 pcs	Bearing assembly and disassembly tool set	6.45
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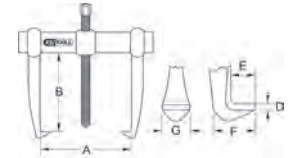
consists of:

450.0082	Pressure plates (use with press)	0.51
450.0083	Impact plates long (use with a hammer)	1.91
450.0084	Special 6 point socket for mandral shaft	0.34
450.0088	Universal 3 jaw thrust piece	0.20
450.0087	Locking bolt for jaw spreading	2.07

UNIVERSAL 2 ARM PULLER

Universal 2 arm puller set with hardened steel legs

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



	A mm	B mm	C mm	max t mm	dim mm	D mm	E mm	F mm	G mm	
620.1301	15-80	100	70-130	3.5	M14x1,5 x 130	17	3	12	22	0.90
620.1302	15-120	100	80-170	3.5	M14x1,5 x 130	17	3	12	22	1.00
620.1303	20-160	150	110-210	6	G1/2"x14g x 210	22	4	16	30	2.70
620.1304	20-200	150	120-250	6	G1/2"x14g x 210	27	4	16	30	3.00
620.1305	40-250	200	170-300	8	G3/4"x14g x 280	27	6,5	23	43	6.50
620.1306	40-350	200	190-400	8	G3/4"x14g x 280	27	6,5	23	43	7.60

Universal 2 arm puller

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

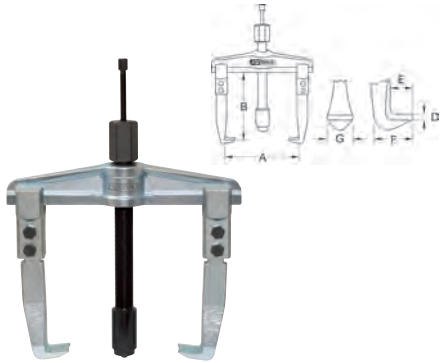


	A mm	B mm	C mm	max t mm	dim mm	D mm	E mm	F mm	G mm	
620.0101	20-90	100	70-130	4.5	M14x1,5 x 140	17	3	13	25	20
620.0102	25-130	100	25-130	4.5	M14x1,5 x 140	17	3	13	25	20
620.0103	50-160	150	50-160	6,5	G1/2"x14g x 210	22	4	16	35	25
620.0104	60-200	150	60-200	6,5	G1/2"x14g x 210	22	4	16	35	25
620.0105	80-250	200	80-250	11	G3/4"x14g x 280	27	5	25	54	35
620.0106	90-350	200	90-350	11	G3/4"x14g x 280	27	5	25	54	35
620.0107	110-520	200	110-520	13	G3/4"x14g x 280	27	5	25	54	35
620.0108	170-640	225	170-640	18	G1"x119 x 310	36	10	33	55	23.70

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Hydraulic universal 2 arm puller

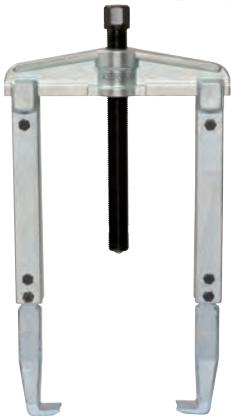
- Quickly modified for internal or external applications
- Different leg variants available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special steel



	A mm	B mm	max t	Hydraulic spindle	dim mm	D mm	E mm	F mm	G mm	
620.0301	50-160	145	12	615.0002	13/32	4	16	35	25	3.40
620.0302	50-200	145	12	615.0002	13/32	4	16	35	25	3.80
620.0303	80-250	125	12	615.0003	13/36	5	25	54	35	8.00
620.0304	80-350	125	12	615.0003	13/36	5	25	54	35	9.00
620.0305	110-520	125	12	615.0003	13/36	5	25	54	35	13.50
620.0306	170-640	125	12	615.0003	13/36	5	25	54	35	21.00
620.0307	170-640	210	15	615.0004	17/41	10	33	55	50	27.00

Universal 2 arm puller set with extended legs

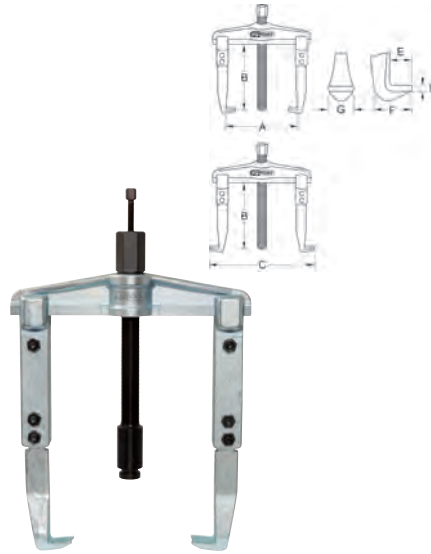
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2" / G3/4"
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	
620.0501	20-90	200	4,5	M14x1,5 x 140	17	3	13	25	20	1.50
620.0502	25-130	200	4,5	M14x1,5 x 140	17	3	13	25	20	1.70
620.0503	50-160	300	6,5	G1/2"x14g x 210	22	4	16	35	25	4.00
620.0504	60-200	300	6,5	G1/2"x14g x 210	22	4	16	35	25	4.30
620.0505	80-250	300	11	G3/4"x14g x 280	27	5	25	54	35	9.20
620.0506	80-350	300	11	G3/4"x14g x 280	27	5	25	54	35	10.30
620.0507	110-520	300	13	G3/4"x14g x 280	27	5	25	54	35	14.80
620.0508	80-250	400	11	G3/4"x14g x 280	27	5	25	54	35	10.50
620.0509	80-350	400	11	G3/4"x14g x 280	27	5	25	54	35	11.60
620.0510	110-520	400	13	G3/4"x14g x 280	27	5	25	54	35	16.10
620.0511	80-250	500	11	G3/4"x14g x 280	27	5	25	54	35	11.90
620.0512	80-350	500	11	G3/4"x14g x 280	27	5	25	54	35	13.00
620.0513	110-520	500	13	G3/4"x14g x 280	27	5	25	54	35	17.50

Hydraulic universal 2 arm puller

- Quickly modified for internal or external applications
- Hydraulic spindles available for thread G1/2"
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special steel



	A mm	B mm	C mm	max t	Hydraulic spindle	dim mm	D mm	E mm	F mm	G mm	
620.0701	50-160	225	105-220	6,5	615.0002	13	4	16	35	25	3.90
620.0702	50-200	225	120-270	6,5	615.0002	13	4	16	35	25	4.80
620.0703	80-250	225	160-330	12	615.0002	13	5	25	54	35	9.80
620.0704	80-350	225	160-420	12	615.0002	13	5	25	54	35	10.80
620.0705	110-520	225	195-600	12	615.0002	13	5	25	54	35	15.30
620.0706	80-250	325	160-330	12	615.0002	13	5	25	54	35	11.10
620.0707	80-350	325	160-420	12	615.0002	13	5	25	54	35	12.10
620.0708	110-520	325	195-600	12	615.0002	13	5	25	54	35	16.60
620.0709	80-250	425	160-330	12	615.0002	13	5	25	54	35	12.50
620.0710	80-350	425	160-420	12	615.0002	13	5	25	54	35	13.50
620.0711	110-520	425	195-600	12	615.0002	13	5	25	54	35	18.00

Quick release universal 2 arm puller

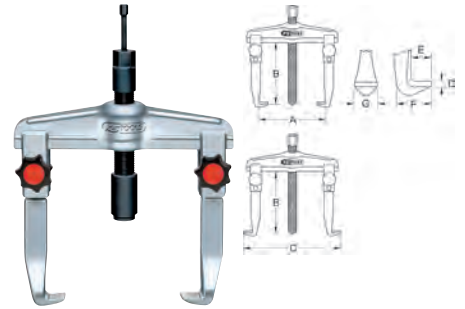
- Quick release function
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2" / G3/4"
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	C mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	
620.1701	20-90	100	70-130	4,5	M14x1,5 x 130	17	3	13	25	20	1.00
620.1702	25-130	100	80-180	4,5	M14x1,5 x 130	17	3	13	25	20	1.20
620.1703	50-160	150	108-220	6,5	G1/2"x14g x 210	22	4	16	35	25	3.00
620.1704	60-200	150	120-270	6,5	G1/2"x14g x 210	22	4	16	35	25	3.30
620.1705	80-250	200	160-330	11	G3/4"x14g x 280	27	5	25	54	35	7.40
620.1706	80-350	200	160-420	11	G3/4"x14g x 280	27	5	25	54	35	8.50

Hydraulic quick release universal 2 arm puller

- Quick release function
- Through reversing the arms internal and external applications are possible
- Different leg variants available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special steel



	A mm	B mm	C mm	max t	Hydraulic spindle	dim mm	D mm	E mm	F mm	G mm	
620.1901	50-160	145	105-220	12	615.0003	13/32	4	16	35	25	3.40
620.1902	50-200	145	120-270	12	615.0003	13/32	4	16	35	25	3.80
620.1903	80-250	125	160-330	12	615.0004	13/32	5	25	54	35	8.00
620.1904	80-350	125	160-420	12	615.0004	13/32	5	25	54	35	9.00

Universal 2 arm puller set with narrow legs

- Best suited for limited access areas
- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Supplied with different leg variants and hydraulic thrust spindle
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	
620.0901	20-90	100	4,5	M14x1,5 x 140	17	3,6	6	13	27	1.00
620.0902	25-130	100	4,5	M14x1,5 x 140	17	3,6	6	13	27	1.20
620.0903	50-160	150	6,5	G1/2"x14g x 210	22	5	8	17	40	3.00
620.0904	60-200	150	6,5	G1/2"x14g x 210	22	5	8	17	40	3.30

Quick release universal 2 arm puller set with narrow legs

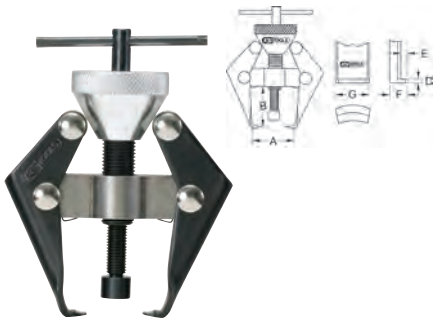
- Quick release function
- Best suited for limited access areas
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	
620.1101	20-90	100	4,5	M14x1,5 x 140	17	3,6	6	13	27	1.00
620.1102	25-130	100	4,5	M14x1,5 x 140	17	3,6	6	13	27	1.20
620.1103	50-160	150	6,5	G1/2"x14g x 210	22	5	8	17	40	3.00
620.1104	60-200	150	6,5	G1/2"x14g x 210	22	5	8	17	40	3.30

Battery clamp and wiper arm puller 2 arm

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



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

Pole clamp 2 arm puller

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



	A mm	B mm	max t mm	mm	D mm	E mm	F mm	G mm	kg	
620.3101	10-60	40	1	M8 x 85	10	1	5	12	8	160
620.3102	10-70	44/74	1,2	M8 x 85	10	1	5	12	8	200
620.3103	10-90	84	2	M10 x 105	12	1,8	10	20	12	300

Universal 2 arm puller

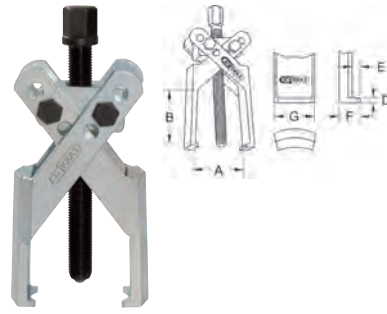
- Robust spindle with hexagon drive
- 640.4103 with locking handle
- Special steel



	A mm	B mm	max t mm	mm	D mm	E mm	F mm	G mm	kg	
620.4101	10-60	45	2,5	M10x1 x 90	12	2	9	18	10	0.27
620.4102	10-70	65	3	M10x1 x 110	12	2	9	18	10	0.30
620.4103	10-100	80	3,5	M12x1,25 x 140	14	2,3	12	25	13	0.61

Universal 2 arm puller

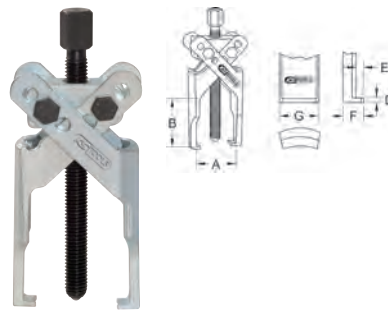
- Legs are adjustable in the working depth
- Independent pressure of the hooks
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t mm	mm	dim mm	D mm	E mm	F mm	G mm	kg
620.5201	6-100	70/85	1,5	M10 x 105	12	2,5	4,5	8,5	23	0.40
620.5202	10-140	85/120	3,5	M14x1,5 x 130	17	3,5	5	10	31	0.90
620.5203	15-140	125/155	4,5	M14x1,5 x 200	17	3,5	5	10	31	1.10

Universal 2 arm puller set with narrow legs

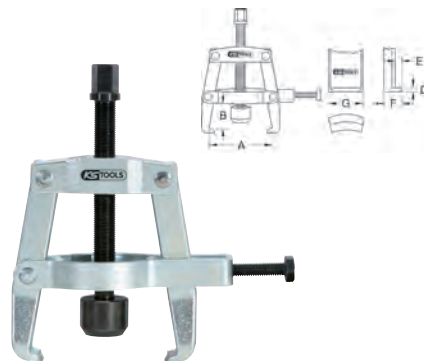
- Legs are adjustable in the working depth
- Ideal for confined spaces
- Independent pressure of the hooks
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t mm	mm	dim mm	D mm	E mm	F mm	G mm	kg
620.5301	6-100	70/85	1	M10 x 105	12	2,5	4,5	8,5	11	0.40
620.5302	15-140	125/155	2	M14x1,5 x 200	17	3,5	5	11	12	1.00

Universal bearing ring puller 2 arm with clamping yoke

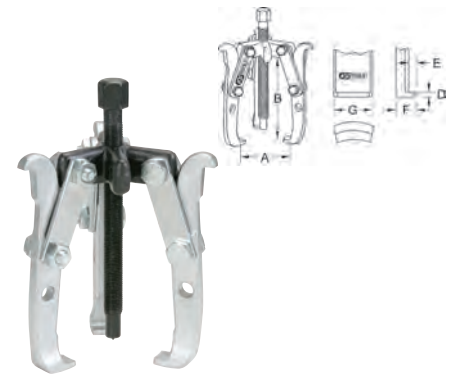
- Clamp compresses hooks firmly
- Prevents slippage
- Pressure peak centers itself optimally in the cone of the hub boring
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t mm	mm	dim mm	D mm	E mm	F mm	G mm	kg
700.1260	90	100	1,2	M16 x 150	17	6,5	8,5	22,5	27,1	1.76

Universal puller 2 and 3 arm

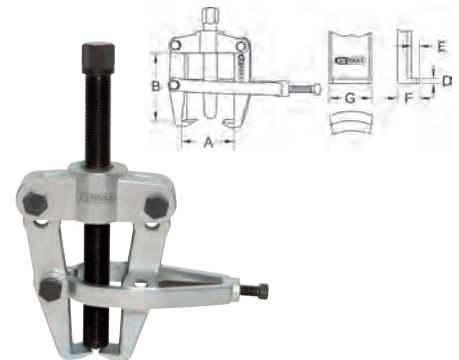
- Hooks for double sided applications
- Reception star for 2 or 3 hooks
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t mm	mm	dim mm	D mm	E mm	F mm	G mm	kg
700.1120	70	75	1,2	3/8"x24Gg x 120	13	3,2	8,4	20	8,4	0.96
700.1130	120	150	1,2	M14x1,25 x 175	16	7,2	7	17,8	7,0	1.83

Universal 2 arm puller set with clamping yoke

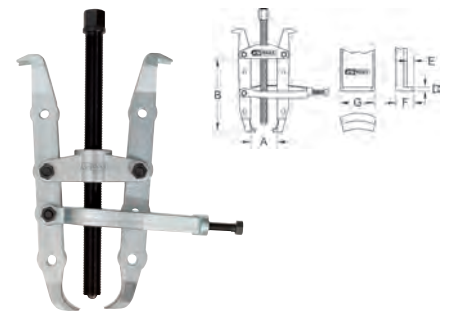
- Clamping yoke compresses the legs firmly
- Prevents slipping
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t mm	mm	dim mm	D mm	E mm	F mm	G mm	kg
620.5401	80	90	5	M18 x 1,5 x 130	19	3	12	26	24	1.70
620.5402	100	110	6	G1/2"x14g x 210	22	3	14	25	24	2.60
620.5403	150	150	8	G1/2"x14g x 210	22	3	14	25	24	3.40

Universal 2 arm puller set with clamping yoke

- Legs are adjustable in the working depth
- Double ended puller legs
- Clamping yoke compresses the legs firmly
- Prevents slipping
- Ideally suited for flush sitting bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel

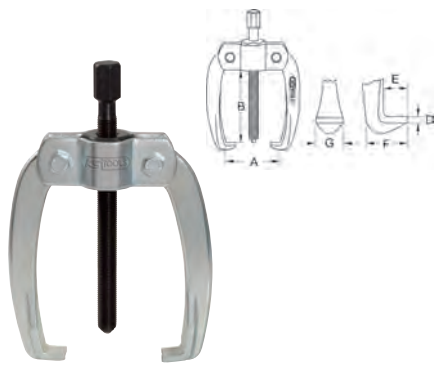


	A mm	B mm	max t mm	mm	dim mm	D mm	E mm	F mm	G mm	kg
620.5501	110	170	5	M18x1,5 x 240	19	3	12	25	24	2.30
620.5502	150	270	6	G1/2"x14g x 270	22	3	14	25	24	4.10
620.5503	150	330	8	G1/2"x14g x 270	22	3	14	25	24	4.50

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Basic universal 2 arm puller

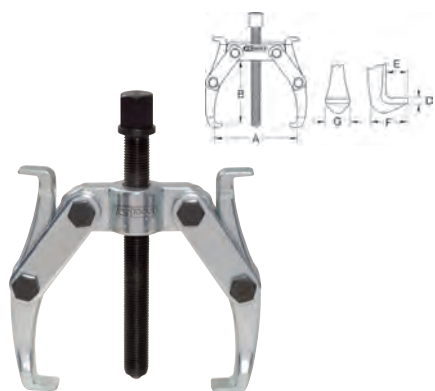
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
620.4301	10-100	80	2,5	M12x1,25 x 162	14	4	12	26	13	0.68
620.4302	10-120	120	3	M14x1,5 x 193	17	5	14	30	16	1.14
620.4303	20-160	160	3,5	M18x1,5 x 243	19	6	18	36	20	2.00
620.4304	20-200	200	4	M22x2 x 293	24	7	22	40	24	3.50

Universal 2 arm puller

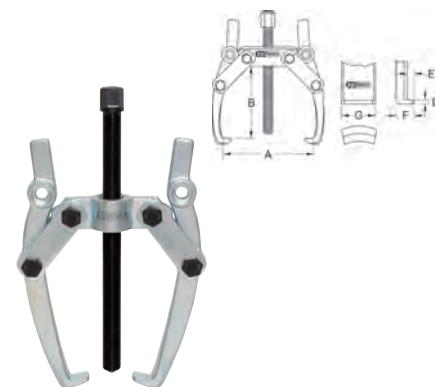
- Double ended legs
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
620.3001	20-150	85	3,5	M14x1,5 x 130	17	2	9	21	12	0.90
620.3002	40-220	130	4	M18x1,5 x 240	19	4	11	25	21	2.20

Universal 2 arm puller

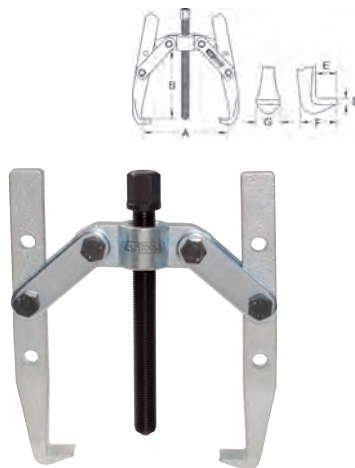
- Legs are adjustable in the working depth
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
620.3401	20-170	130	3,5	M14x1,5 x 130	17	2	11	23	16	1.00
620.3402	20-230	200	4	M18x1,5 x 240	19	4,5	16	33	20	2.30

Universal 2 arm puller

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



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
620.3601	18-100	85	2,5	M10 x 105	12	2	10	20	14	0.40
620.3602	20-200	150	3,5	M14x1,5 x 130	17	3	14	25	18	1.20
620.3603	35-250	220	4	M18x1,5 x 240	19	4	20	35	25	2.80
620.3604	50-300	250	6	G1/2"x14g x 270	22	5	25	48	30	5.40
620.3605	50-350	350	6	G1/2"x14g x 270	22	5	25	48	30	6.10
620.3606	50-400	400	6	G1/2"x14g x 270	22	5	25	48	30	6.40
620.3607	50-450	450	6	G1/2"x14g x 270	22	5	25	48	30	6.90
620.3608	50-500	500	6	G1/2"x14g x 270	22	5	25	48	30	7.00
620.3609	50-500	650	6	G1/2"x14g x 270	22	5	25	48	30	8.40
620.3610	50-500	1000	6	G1/2"x14g x 270	22	5	25	48	30	11.00

Hydraulic universal 2 arm puller

- Legs are adjustable in the working depth
- Different leg variants available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special steel



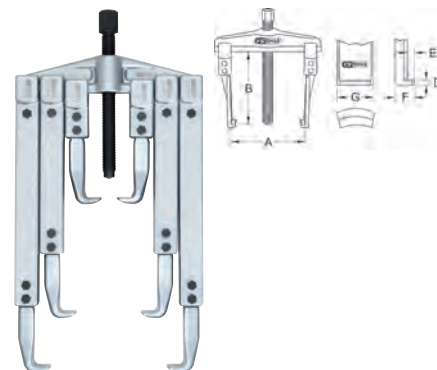
	A mm	B mm	max t	Hydraulic spindle	dim mm	D mm	E mm	F mm	G mm	kg
620.3801	50-300	175	12	615.0002	13/32	5	25	48	30	5.70
620.3802	50-350	275	12	615.0002	13/32	5	25	48	30	6.40
620.3803	50-400	325	12	615.0002	13/32	5	25	48	30	6.70
620.3804	50-450	375	12	615.0002	13/32	5	25	48	30	7.20
620.3805	50-500	425	12	615.0002	13/32	5	25	48	30	7.30
620.3806	50-500	575	12	615.0002	13/32	5	25	48	30	8.70

UNIVERSAL 2 ARM PULLER SET

Universal puller set

- Through reconnecting the hooks internal and external applications are suitable
- Two armed traverse for 2 or 3 hooks
- Different hook variants and hydraulic spindles can be retrofitted
- Extremely robust spindle with inductively hardened thread
- Special steel

Application range: Gear wheels, bearings, pinions, synchroniser hubs, etc.



	A mm	B mm	max t	max N-mm	dim mm	kg
700.1320	8 pcs	120	260	4,5	80	M14x1,5x150 17 3.54

consists of:

		kg
700.1311	Spindle, M14x1,5	180
700.1312	Two armed traverse	485
700.1314	Puller arm, 100mm	250
700.1315	Puller arm, 210mm	530
700.1316	Puller arm, 260mm	640

Universal 2 arm puller set with display stand

- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special steel
- Supplied inclusive of substantial steel bench display



		kg
620.0250	5 pcs Universal 2 arm puller set with display stand	17.80

consists of:

		kg
620.0101	Universal 2 leg puller, 20-90mm, legs 100 mm	1.00
620.0102	Universal 2 leg puller, 25-130mm, legs 100 mm	1.20
620.0103	Universal 2 leg puller, 50-160mm, legs 150 mm	3.00
620.0104	Universal 2 leg puller, 60-200mm, legs 150 mm	3.30
620.0105	Universal 2 leg puller, 80-250mm, legs 200 mm	7.40

Universal 2 arm puller set with display stand

- Quick release function
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special steel
- Supplied inclusive of substantial steel bench display



620.1850	5 pcs	Universal 2 arm puller set with display stand	17.80
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consists of:

620.1701	Quick release universal 2 arm puller, 20-90mm	1.00
620.1702	Quick release universal 2 arm puller, 25-130mm	1.20
620.1703	Quick release universal 2 arm puller, 50-160mm	3.00
620.1704	Quick release universal 2 arm puller, 60-200mm	3.30
620.1705	Quick release universal 2 arm puller, 80-250mm	7.40

Universal puller set

- Hooks for double sided applications
- Reception star for 2 or 3 hooks
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case



700.1100	3 pcs	Universal puller set	4.39
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consists of:

700.1120	Mechanical 2 and 3 leg puller, 4"	0.96
700.1130	Mechanical 2 and 3 leg puller, 6"	1.83
700.1140	Bearing splitter, for max. Ø 50 mm	1.15

Quick adjustment universal puller set

- With quick release function
- Ideal for confined spaces
- Through reconnecting the hooks internal and external applications are suitable
- Different hook variants and hydraulic spindles can be retrofitted
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case



	A	B	mm	max	
625.1701	7 pcs	20 - 90	100	M14 x 1,5	5,5 2,30

consists of:

620.1701	Quick release universal 2 arm puller, 20-90mm	1.00
630.1701	Quick release 3 arm puller, 20-90mm	1.30
980.1090	Special thread grease, tube	0.01

Quick adjustment universal puller set

- With quick release function
- Ideal for confined spaces
- Through reconnecting the hooks internal and external applications are suitable
- Different hook variants and hydraulic spindles can be retrofitted
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case



	A	B	mm	max	
625.1703	7 pcs	50 - 160	150	G1/2"x14Gg	7 6.50

consists of:

620.1703	Quick release universal 2 arm puller, 50-160mm	3.00
630.1703	Quick release 3 arm puller, 50-160mm	3.50
980.1090	Special thread grease, tube	0.01

Hydraulic universal puller set 2 arm and 3 arm

- Less risk of slippage due to automatically closing pulling arm
- 8 length positions possible
- Extremely robust spindle with inductively hardened thread
- Requires light expenditure of energy
- Special steel
- In durable plastic storage case



700.1200	22 pcs	Hydraulic universal puller set 2 arm and 3 arm	16.40
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consists of:

700.1202	Puller legs, ground pulling lugs, 4"	410
700.1203	Puller legs, ground pulling lugs, 6"	600
700.1204	Puller legs, ground pulling lugs, 8"	840
700.1205	Yoke f.2 legs, quickly modified	300
700.1206	Yoke f.3 legs, quickly modified	760
700.1207	Thrust bolt extension, 20 mm	50
700.1208	Thrust bolt extension, 35 mm	130
700.1209	Thrust bolt extension, 85 mm	320
700.1210	Pulling ring f.hydraulic thrust bolt	290
700.1220	Separator/puller tool, for max. Ø 105 mm	2540
700.1221	Yoke f.bearing separator tool	1480
700.1222	Extension f.bearing separator tool, 185mm	1060
700.1223	Spigot f.bearing separator tool, 235mm	1110
700.1400-1	Hydraulic spindle 10 t	210

Universal puller set

- Slim hooks
- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Through reconnecting the hooks internal and external applications are suitable
- Different hook variants and hydraulic spindles can be retrofitted
- Extremely robust spindle with inductively hardened thread
- Requires light expenditure of energy
- Special steel



700.1300	12 pcs	Universal puller set	6.69
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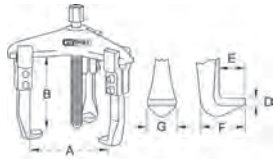
consists of:

700.1311	Spindle, M14x1,5	180
700.1312	Two armed traverse	485
700.1313	Three armed traverse	675
700.1314	Puller arm, 100mm	250
700.1315	Puller arm, 210mm	530
700.1316	Puller arm, 260mm	640

UNIVERSAL 3 ARM PULLER

Universal 3 arm puller

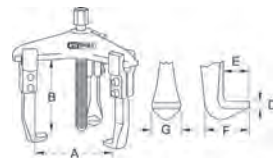
- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Excellent power transfer
- Special steel



	A mm	B mm	max t mm	Hydraulic spindle	dim mm	D mm	E mm	F mm	G mm	kg
630.0101	20-90	100	5,5	M14x1,5 x 130	17	3	13	25	20	1.30
630.0102	25-130	100	5,5	M14x1,5 x 130	17	3	13	25	20	1.50
630.0103	50-160	150	7	G1/2"x14g x210	22	4	16	35	25	3.50
630.0104	50-200	150	7	G1/2"x14g x210	22	4	16	35	25	4.00

Quick release 3 arm puller

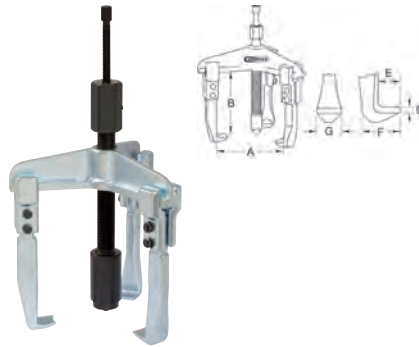
- Quick release
- Best suited for limited access areas
- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t mm	Hydraulic spindle	dim mm	D mm	E mm	F mm	G mm	kg
630.1701	20-90	100	5,5	M14x1,5 x 130	17	3	13	25	20	1.30
630.1702	25-130	100	5,5	M14x1,5 x 130	17	3	13	25	20	1.50
630.1703	50-160	150	7	G1/2"x14g x210	22	4	16	35	25	3.50
630.1704	60-200	150	7	G1/2"x14g x210	22	4	16	35	25	4.00

Hydraulic universal 3 arm puller

- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Different leg variants available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special steel



	A mm	B mm	max t mm	Hydraulic spindle	dim mm	D mm	E mm	F mm	G mm	kg
630.0301	50-160	145	12	G1/2"x14g x210	13/32	4	16	35	25	4.00
630.0302	60-200	145	12	G1/2"x14g x210	13/32	4	16	35	25	4.40

Hydraulic quick release universal 3 arm puller

- Quick release function
- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Different leg variants available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special steel



	A mm	B mm	max t mm	Hydraulic spindle	dim mm	D mm	E mm	F mm	G mm	kg
630.1901	50-100	145	12	G1/2"x14g x210	13/32	4	16	35	25	4.00
630.1902	50-200	145	12	G1/2"x14g x210	13/32	4	16	35	25	4.40

Universal 2 + 3 arm puller

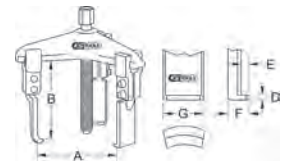
- Hooks for double sided applications
- Reception star for 2 or 3 hooks
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t mm	Hydraulic spindle	dim mm	D mm	E mm	F mm	G mm	kg
640.4203	60	65	2,0	G3/8"x1,06px110	13	3	10	18	11	0.44
640.4204	90	100	5,0	G9/16"x2,0px190	17	4	15,5	29	17	1.40
640.4205	165	170	7,0	G3/4"x2,0px285	22	4	15,5	29	17	2.88

Universal 3 arm puller set with narrow legs

- Best suited for limited access areas
- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t mm	Hydraulic spindle	dim mm	D mm	E mm	F mm	G mm	kg
630.0901	20-90	100	5	M14x1,5 x 130	17	3,6	6	13	27	1.30
630.0902	25-130	100	5	M14x1,5 x 130	17	3,6	6	13	27	1.50
630.0903	50-160	150	6,5	G1/2"x14g x210	22	5	8	17	40	3.50
630.0904	60-200	150	6,5	G1/2"x14g x210	22	5	8	17	40	4.00

Quick release 3 arm puller set with narrow legs

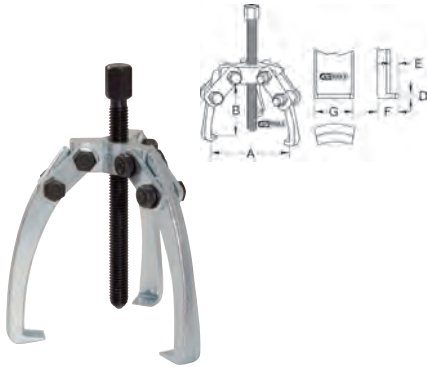
- Quick release
- Best suited for limited access areas
- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t mm	Hydraulic spindle	dim mm	D mm	E mm	F mm	G mm	kg
630.1101	20-90	100	5	M14x1,5 x 130	17	3,6	6	13	27	1.30
630.1102	25-130	100	5	M14x1,5 x 130	17	3,6	6	13	27	1.50
630.1103	50-160	150	6,5	G1/2"x14g x210	22	5	8	17	40	3.50
630.1104	60-200	150	6,5	G1/2"x14g x210	22	5	8	17	40	4.00

Pole clamp 3 arm puller

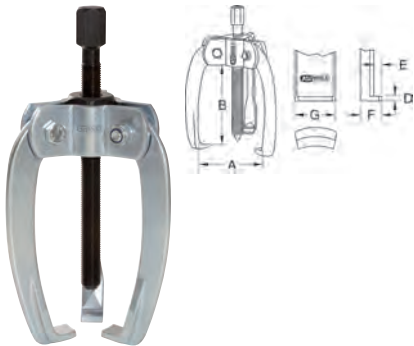
- Uniform load distribution and self centered
- Ideally suited for extracting small parts
- Automatic pressure on the legs
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B max mm	t mm	mm	dim mm	D mm	E mm	F mm	G mm	W kg
630.3101	10-60	40	1,2	M8 x 85	10	1	5	12	8	0.20
630.3102	10-70	44/74	1,3	M8 x 85	10	1	5	12	8	0.30
630.3103	10-90	84	2,5	M10 x 105	12	1,8	10	20	12	0.50

Basic universal 3 arm puller

- Uniform load distribution and self centered
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B max mm	t mm	mm	dim mm	D mm	E mm	F mm	G mm	W kg
630.4301	10-100	80	2,5	M12x1,25 x 162	14	4	12	26	13	0.91
630.4302	10-120	120	3	M14x1,5 x 193	17	5	14	30	16	1.49
630.4303	20-160	160	3,5	M18x1,5 x 243	19	6	18	36	20	2.50
630.4304	20-200	200	4	M22x2 x 293	24	7	22	40	24	4.20

Universal 3 arm puller

- Double ended legs
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B max mm	t mm	mm	dim mm	D mm	E mm	F mm	G mm	W kg
630.3001	20-150	85	4	M14x1,5 x 130	17	2	9	21	12	1.20
630.3002	40-220	130	4,5	M18x1,5 x 240	19	4	11	25	21	2.90

Universal 3 arm puller

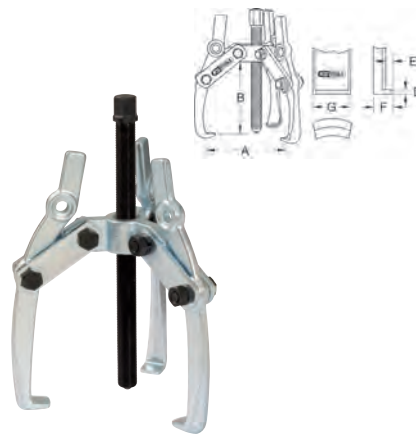
- Locking handle
- Uniform load distribution and self centered
- Ideally suited for extracting small parts
- Automatic pressure on the legs
- Extremely robust spindle with inductively hardened thread
- Special steel



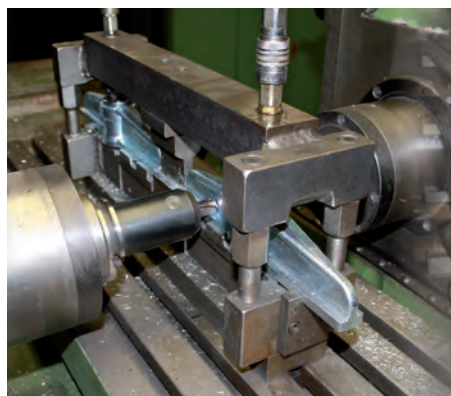
	A mm	B max mm	t mm	mm	dim mm	D mm	E mm	F mm	G mm	W kg
630.4101	10-60	45	2,5	M10x1 x 90	12	2	9	18	10	0.30
630.4102	10-70	65	3	M10x1 x 110	12	2	9	18	10	0.30
630.4103	10-100	80	3,5	M12x1,25 x 140	14	2,3	12	25	13	0.80

Universal 3 arm puller

- Legs are adjustable in the working depth
- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Extremely robust spindle with inductively hardened thread
- Special steel

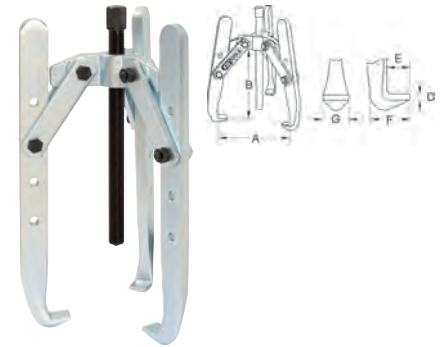


	A mm	B max mm	t mm	mm	dim mm	D mm	E mm	F mm	G mm	W kg
630.3401	20-170	130	4	M14x1,5 x 130	17	2	11	23	16	1.30
630.3402	20-230	200	4,5	M18x1,5 x 240	19	4,5	16	33	20	3.10



Universal 3 arm puller

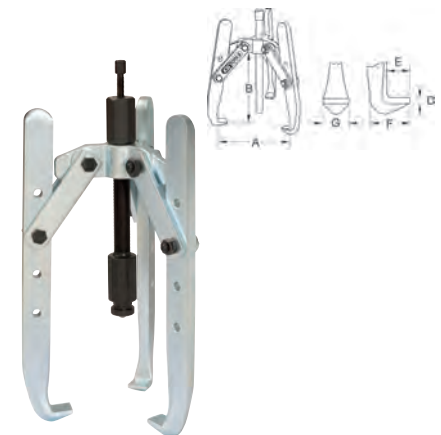
- Legs are adjustable in the working depth
- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B max mm	t mm	mm	dim mm	D mm	E mm	F mm	G mm	W kg
630.3601	18-100	85	3	M10 x 105	12	2	10	20	14	0.50
630.3602	20-200	150	4	M14x1,5 x 130	17	3	14	25	18	1.70
630.3603	35-250	220	4,5	M18x1,5 x 240	19	4	20	36	25	3.90
630.3604	50-300	250	12	G1/2"x14g x 270	22	5	25	48	30	7.30
630.3605	50-350	350	12	G1/2"x14g x 270	22	5	25	48	30	8.30
630.3606	50-400	400	12	G1/2"x14g x 270	22	5	25	48	30	8.80
630.3607	50-450	450	12	G1/2"x14g x 270	22	5	25	48	30	9.40
630.3608	50-500	500	12	G1/2"x14g x 270	22	5	25	48	30	10.00
630.3609	50-500	650	12	G1/2"x14g x 270	22	5	25	48	30	11.60
630.3610	50-500	1000	12	G1/2"x14g x 270	22	5	25	48	30	16.00

Hydraulic universal 3 arm puller

- Legs are adjustable in the working depth
- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Different leg variants available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special steel



	A mm	B max mm	t mm	mm	dim mm	D mm	E mm	F mm	G mm	W kg
630.3801	50-300	250	12	M14x1,5 x 100	17	5	25	48	30	12.50
630.3802	50-350	350	12	M14x1,5 x 100	17	5	25	48	30	13.50
630.3803	50-400	400	12	M14x1,5 x 100	17	5	25	48	30	14.00
630.3804	50-450	450	12	M14x1,5 x 100	17	5	25	48	30	14.50
630.3805	50-500	500	12	M14x1,5 x 100	17	5	25	48	30	15.00
630.3806	50-500	650	12	M14x1,5 x 100	17	5	25	48	30	16.60
630.3807	50-500	1000	12	M14x1,5 x 100	17	5	25	48	30	21.50

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Universal 3 arm puller

- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Draw off arms radial revolving
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B max mm	mm t	dim mm	D mm	E mm	F mm	G mm	kg	
630.2301	150-700	200	15	G1"x11g x 370	36	10	33	55	50	42.50



UNIVERSAL 3 ARM PULLER SET

Universal puller set

- Hooks for double sided applications
- Reception star for 2 or 3 hooks
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case



	A mm	B mm	mm t	max t	kg
700.1100	3 pcs				4.39

consists of:

	A mm	B mm	mm t	max t	kg
700.1120	Mechanical 2 and 3 leg puller, 4"				0.96
700.1130	Mechanical 2 and 3 leg puller, 6"				1.83
700.1140	Bearing splitter, for max. Ø 50 mm				1.15

Quick adjustment universal puller set

- With quick release function
- Ideal for confined spaces
- Through reconnecting the hooks internal and external applications are suitable
- Different hook variants and hydraulic spindles can be retrofitted
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case



	A mm	B mm	mm t	max t	kg	
625.1701	7 pcs	20 - 90	100	M14 x 1,5	5,5	2.30

consists of:

	A mm	B mm	mm t	max t	kg
620.1701	Quick release universal 2 arm puller, 20-90mm				1.00
630.1701	Quick release 3 arm puller, 20-90mm				1.30
980.1090	Special thread grease, tube				0.01

Quick adjustment universal puller set

- With quick release function
- Ideal for confined spaces
- Through reconnecting the hooks internal and external applications are suitable
- Different hook variants and hydraulic spindles can be retrofitted
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case



	A mm	B mm	mm t	max t	kg	
625.1703	7 pcs	50 - 160	150	G1/2"x14Gg	7	6.50

consists of:

	A mm	B mm	mm t	max t	kg
620.1703	Quick release universal 2 arm puller, 50-160mm				3.00
630.1703	Quick release 3 arm puller, 50-160mm				3.50
980.1090	Special thread grease, tube				0.01

Hydraulic universal puller set 2 arm and 3 arm

- Less risk of slippage due to automatically closing pulling arm
- 8 length positions possible
- Extremely robust spindle with inductively hardened thread
- Requires light expenditure of energy
- Special steel
- In durable plastic storage case



	A mm	B mm	mm t	max t	kg
700.1200	22 pcs				16.40

consists of:

	A mm	B mm	mm t	max t	kg
700.1202	Puller legs, ground pulling lugs, 4"				410
700.1203	Puller legs, ground pulling lugs, 6"				600
700.1204	Puller legs, ground pulling lugs, 8"				840
700.1205	Yoke f.2 legs, quickly modified				300
700.1206	Yoke f.3 legs, quickly modified				760
700.1207	Thrust bolt extension, 20 mm				50
700.1208	Thrust bolt extension, 35 mm				130
700.1209	Thrust bolt extension, 85 mm				320
700.1210	Pulling ring f.hydraulic thrust bolt				290
700.1220	Separator/puller tool, for max. Ø 105 mm				2540
700.1221	Yoke f.bearing separator tool				1480
700.1222	Extension f.bearing separator tool, 185mm				1060
700.1223	Spigot f.bearing separator tool, 235mm				1110
700.1400-1	Hydraulic spindle 10 t				210

Universal puller set

- Slim hooks
- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Through reconnecting the hooks internal and external applications are suitable
- Different hook variants and hydraulic spindles can be retrofitted
- Extremely robust spindle with inductively hardened thread
- Requires light expenditure of energy
- Special steel



	A mm	B mm	mm t	max t	kg
700.1300	12 pcs				6.69

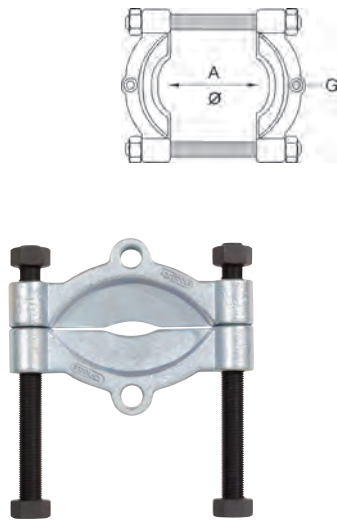
consists of:

	A mm	B mm	mm t	max t	kg
700.1311	Spindle, M14x1,5				180
700.1312	Two armed traverse				485
700.1313	Three armed traverse				675
700.1314	Puller arm, 100mm				250
700.1315	Puller arm, 210mm				530
700.1316	Puller arm, 260mm				640

SEPARATOR PULLER TOOL

Separator puller tool

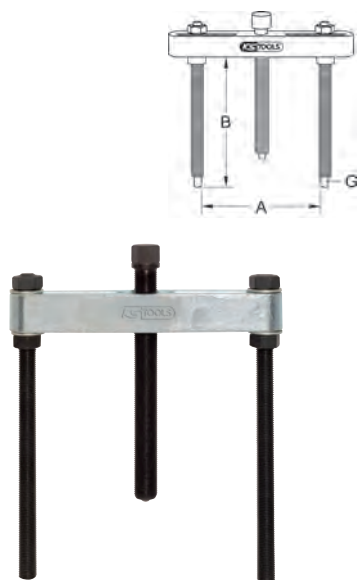
- To be used with separately available separator device
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	G	mm	dim mm	kg
605.0501	5-60	M12	M10 x 120	17	0.40
605.0502	12-75	M12	M12 x 140	19	0.70
605.0503	22-115	M16	M16x1,5 x 180	24	1.90
605.0504	25-155	M20x1,5	M20x1,5 x 250	30	4.20
605.0505	30-220	M20x1,5	M24x1,5 x 410	36	12.00
605.0506	40-280	M24x1,5	M28x1,5 x 410	41	15.80

Yoke for bearing separator tool

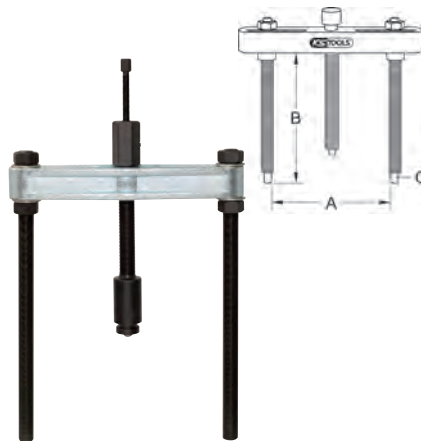
- For use with the separator
- The train bolts are screwed into the threads of the separator
- Extremely robust spindle with inductively hardened thread
- Hydraulic thrust spindle available
- Special steel



	A mm	B mm	G	max t	mm	dim mm	kg
605.0111	40-115	150	M12	2	M14x1,5 x 130	17	0.80
605.0112	45-140	150	M12	2,5	M14x1,5 x 130	17	1.10
605.0113	55-205	210	M16	4	G1/2"x14g x 210	22	2.70
605.0114	90-260	315	M20x1,5	5	G1/2"x14g x 210	22	5.20
605.0115	100-360	305	M20x1,5	7	G3/4"x14g x 280	27	8.80
605.0116	140-435	320	M24x1,5	13	G1"x11g x 370	36	16.70

Hydraulic thrust bolt with yoke for bearing separator tool

- For use with the separator
- The train bolts are screwed into the threads of the separator
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special steel



	A mm	B mm	G	max t	mm	Hydraulic spindle	dim mm	kg
605.0301	55-205	135	M16	4	M16 x 280	615.0002	13/32	3.20
605.0302	90-260	240	M20x1,5	5	M20x1,5 x 370	615.0002	13/32	5.70
605.0303	100-360	230	M20x1,5	7	M20x1,5 x 370	615.0003	13/36	9.10
605.0304	140-435	230	M24x1,5	13	M24x1,5 x 460	615.0004	17/41	17.60



SEPARATOR PULLER TOOL SET

Separator set inclusive with yoke ø 5,0 - 60,0 mm

- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel



	kg	
605.0001	3 pcs Separator set inclusive with yoke Ø 5,0 - 60,0 mm	2.50

consists of:

	kg	
605.0501	Bearing separator, 5-60mm	0.40
605.0111	Yoke for bearing separator tool, 40-115mm	0.80

Separator set inclusive with yoke ø 12,0 - 75,0 mm

- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel



	kg	
605.0002	3 pcs Separator set inclusive with yoke Ø 12,0 - 75,0 mm	3.00

consists of:

	kg	
605.0502	Bearing separator, 12-75mm	0.70
605.0112	Yoke for bearing separator tool, 45-140mm	1.10

Separator set inclusive with yoke ø 22,0 - 115,0 mm

- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Hydraulic thrust spindle available
- Special steel



	kg	
605.0003	3 pcs Separator set inclusive with yoke Ø 22,0 - 115,0 mm	7.60

consists of:

	kg	
605.0503	Bearing separator, 22-115mm	1.90
605.0113	Yoke for bearing separator tool, 55-205mm	2.70

Separator set inclusive with yoke \varnothing 22,0 - 115,0 mm

- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Hydraulic thrust spindle available
- Special steel



605.0004	3 pcs Separator set inclusive with yoke \varnothing 22,0 - 115,0 mm	13.30	

consists of:

605.0504	Bearing separator, 25-155mm	4.20	
605.0114	Yoke for bearing separator tool, 90-260mm	5.20	

Separator set inclusive with yoke \varnothing 30,0 - 220,0 mm

- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Hydraulic thrust spindle available
- Special steel



605.0005	3 pcs Separator set inclusive with yoke \varnothing 30,0 - 220,0 mm	29.00	

consists of:

605.0505	Bearing separator, 30-220mm	12.00	
605.0115	Yoke for bearing separator tool, 100-360mm	8.80	

ACCESSORIES

Universal clamping yoke

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



A mm			
615.5101	10-130	800	

Special thread grease for puller and pusher spindles and nuts subjected high loads

- Lubricant for components subjected to high static loads, e.g. threaded spindles
- Prevents excessive wear and seizing
- Irregularities in the surface to be protected are completely filled
- Minimises the friction thanks to the closed surface
- Effective protection against corrosion
- Increases the service life of threaded spindles
- Ensures reliable function even at high temperatures up to max. 1200°C



980.1085	Special thread grease	22	
980.1090	Special thread grease	5	

REPLACEMENT HOOK

Puller legs, forged ground steel

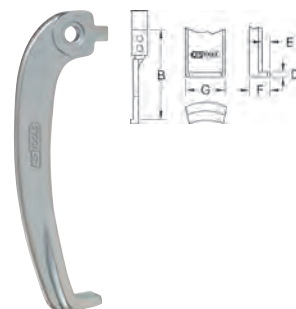
- For 2 arm and 3 arm basic universal puller
- Special steel



		For pullers		B mm	D mm	E mm	F mm	G mm			
615.4101	620.4101+630.4101	45	2	9	18	10	40				
615.4102	620.4102+630.4102	65	2	9	18	10	50				
615.4103	620.4103+630.4103	80	2,3	12	25	13	100				

Puller legs, forged ground steel

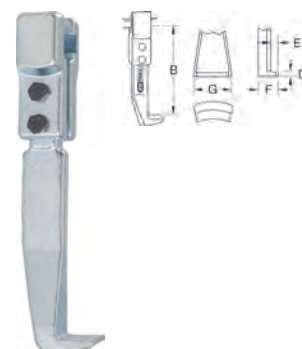
- For 2 arm and 3 arm basic universal puller
- Special steel



		For pullers		B mm	D mm	E mm	F mm	G mm			
615.4301	620.4301+630.4301	80	4	12	26	13	130				
615.4302	620.4302+630.4302	120	5	14	30	16	210				
615.4303	620.4303+630.4303	160	6	18	35	20	350				
615.4304	620.4304+630.4304	200	7	22	40	24	600				

Puller legs

- For 2 arm and 3 arm pullers
- Special steel



		B mm	max t	D mm	E mm	F mm	G mm				
615.0101	100	4,5	3	13	25	20	250				
615.0102	150	6,5	4	16	35	25	650				
615.0103	200	11,0	5	25	54	35	1650				
615.0104	225	11,0	10	33	50	55	2150				

Puller legs, extra long design

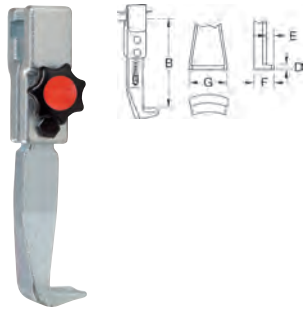
- For 2 arm and 3 arm pullers
- Special steel



		B mm	D mm	E mm	F mm	G mm					
615.0501	200	3	13	25	20	0.50					
615.0502	300	4	16	35	25	1.10					
615.0503	300	5	25	54	35	2.50					
615.0504	400	5	25	54	35	3.20					
615.0505	500	5	25	54	35	3.90					
615.0506	300	10	33	55	50	3.00					
615.0507	400	10	33	55	50	3.70					
615.0508	500	10	33	55	50	4.40					

Quick adjustment puller legs

- Quick release function
- For 2 arm and 3 arm pullers
- Special steel



	B mm	D mm	E mm	F mm	G mm	W
615.1101	100	3	13	25	20	200
615.1102	150	4	16	35	25	700
615.1103	200	3	13	25	20	500

Puller legs, narrow design

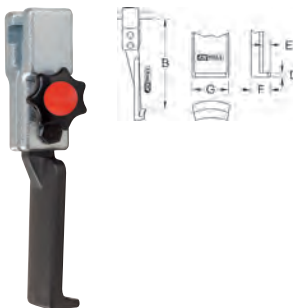
- Best suited for limited access areas
- For 2 arm and 3 arm pullers
- Special steel



	B mm	D mm	E mm	F mm	G mm	W
615.0901	100	3,6	6	13	27	200
615.0902	200	3,6	6	13	27	500
615.0903	250	3,6	6	13	27	600
615.0904	100	2	6	13	27	200
615.0905	200	2	6	13	27	500
615.0906	250	2	6	13	27	1100
615.0907	150	5	8	17	40	600
615.0908	220	5	8	17	40	800
615.0909	300	5	8	17	40	1800

Quick adjustment puller legs, narrow design

- Quick release function
- Best suited for limited access areas
- For 2 arm and 3 arm pullers
- Special steel



	B mm	D mm	E mm	F mm	G mm	W
615.1001	100	3,6	6	13	27	250
615.1002	200	3,6	6	13	27	500
615.1003	250	3,6	6	13	27	600
615.1004	100	2,0	6	13	27	250
615.1005	200	2,0	6	13	27	500
615.1006	250	2,0	6	13	27	600
615.1007	150	5,0	8	17	40	650
615.1008	220	5,0	8	17	40	900
615.1009	300	5,0	8	17	40	1100

Pair of puller legs

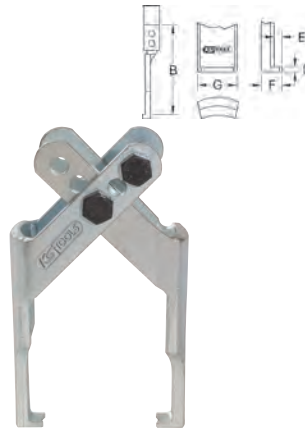
- Legs are adjustable in the working depth
- Special steel



For pullers		B mm	D mm	E mm	F mm	G mm	W
615.5201	620.5201	70-85	2,5	4,5	8,5	23	180
615.5202	620.5202	85-120	3,5	5	10	31	450
615.5203	620.5203	125-155	3,5	5	10	31	550

Pair of puller legs, narrow design

- Legs are adjustable in the working depth
- Best suited for limited access areas
- Special steel



For pullers		B mm	D mm	E mm	F mm	G mm	W
615.5301	620.5301	70-85	2,5	4,5	8,5	11	150
615.5302	620.5302	85-120	3,5	5	11	12	500

Puller legs with clamping yoke

- For puller legs with quick adjustment
- Clamping yoke compresses the legs firmly
- Prevents slipping
- Special steel



For pullers		B mm	D mm	E mm	F mm	G mm	W
615.5401	620.5401	90	3	12	26	24	260
615.5402	620.5402	110	3	14	25	24	320
615.5403	620.5403	150	3	14	25	24	420

Puller legs with clamping yoke

- For 2 arm pullers with quick adjustment
- Legs are adjustable in the working depth
- Legs double ended usable
- Clamping yoke compresses the legs firmly
- Extremely robust spindle with inductively hardened thread
- Special steel



For pullers		B mm	D mm	E mm	F mm	G mm	W
615.5501	620.5501	170	3	12	25	24	530
615.5502	620.5502	270	3	14	25	24	800
615.5503	620.5503	330	3	14	25	24	850

Puller legs double ended usable

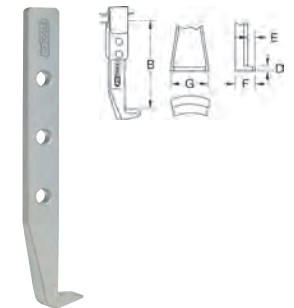
- Legs double ended usable
- Special steel



For pullers		B mm	D mm	E mm	F mm	G mm	W
615.3001	620.3001+630.3001	85	2	9	21	12	100
615.3002	620.3002+630.3002	130	4	11	25	21	320

Puller legs

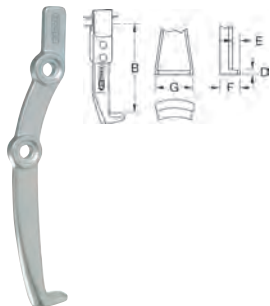
- Legs are adjustable in the working depth
- Special steel



For pullers		B mm	D mm	E mm	F mm	G mm	W
615.3601	620.3601+630.3601	85	3	14	25	18	100
615.3602	620.3602+630.3602	150	4	20	36	25	260
615.3603	620.3603+630.3603	220	5	25	48	30	650
615.3604	620.3604+630.3604	250	5	25	48	30	1200
615.3605	620.3605+630.3605	350	5	25	48	30	1600
615.3606	620.3606+630.3606	400	5	25	48	30	1800
615.3607	620.3607+630.3607	450	5	25	48	30	2000
615.3608	620.3608+630.3608	500	5	25	48	30	2200
615.3609	620.3609+630.3609	650	5	25	48	30	2800
615.3610	620.3610+630.3610	1000	5	25	48	30	4200

Puller legs

- Legs are adjustable in the working depth
- Special steel



For pullers		B mm	D mm	E mm	F mm	G mm	kg
615.3401	620.3401+630.3401	130	2	11	23	16	150
615.3402	620.3402+630.3402	200	4,5	16	33	20	400

REPLACEMENT SPINDLE

Spindle

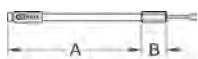
- Extremely robust spindle with inductively hardened thread
- Special steel



	dim mm	L mm	H mm	Ø mm	mm	kg
610.1401	12	150	15	10	M10	100
610.1402	14	190	20	12	M12	200
610.1701	17	60	21	14	M14 x 1,5	100
610.1702	17	130	21	14	M14 x 1,5	200
610.1703	17	200	21	14	M14 x 1,5	300
610.1704	17	250	21	14	M14 x 1,5	550
610.1705	17	60	20	16	M16 x 1,5	100
610.1706	17	70	20	16	M16 x 1,5	100
610.1707	17	90	20	16	M16 x 1,5	200
610.1901	19	70	20	18	M18 x 1,5	200
610.1902	19	130	20	18	M18 x 1,5	300
610.1903	19	170	20	18	M18 x 1,5	400
610.1904	19	240	20	18	M18 x 1,5	500
610.2201	22	110	23	21	G1/2"x14g	300
610.2202	22	160	23	21	G1/2"x14g	400
610.2203	22	175	23	21	G1/2"x14g	500
610.2204	22	210	23	21	G1/2"x14g	600
610.2205	22	235	23	21	G1/2"x14g	700
610.2206	22	270	23	21	G1/2"x14g	800
610.2701	27	180	35	26	G3/4"x14g	1000
610.2702	27	280	35	26	G3/4"x14g	1300
610.2703	27	360	35	26	G3/4"x14g	1700
610.3601	36	310	45	33	G1"x11g	2300
610.3602	36	360	45	33	G1"x11g	2650
610.3603	36	455	45	33	G1"x11g	3100
700.5612	21	113	27	16	M16 x 130	200

Hydraulic compression spindle

- With low effort maximal pressure
- Special steel

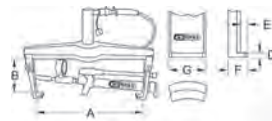


	L mm	H mm	max t mm	Ø Body mm	Body mm	Pressure spindle mm	dim mm	kg
615.0001	260	23	12	41	UN1.1/2"x16	M11x85	17	1.60
615.0002	410	55	12	32	G1/2"x14	M10x90	13	1.10
615.0003	410	55	12	36	G3/4"x14	M10x90	13	1.60
615.0004	480	80	15	41	G1"x11	M11x1,5x100	17	3.50

HYDRAULIC PULLERS AND PUMP

Universal 2 arm puller for using with hydraulic cylinder

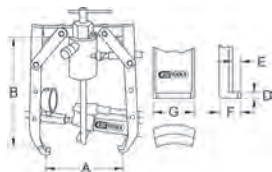
- Consists of traverse and legs
- Through reversing the arms internal and external applications are possible
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special steel



	A mm	B mm	max t mm	D mm	E mm	F mm	G mm	kg
640.0210	640	225	10	10	33	55	50	20.00
640.0215	640	225	15	10	33	55	50	20.00
640.0217	640	225	17	10	33	55	50	21.50

Universal 2 arm puller for using with hydraulic cylinder

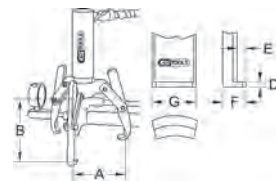
- Consists of traverse and legs
- Through reversing the arms internal and external applications are possible
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special steel



	A mm	B mm	max t mm	D mm	E mm	F mm	G mm	kg
640.0220	420	290	20	17	16	32	32	11.50
640.0230	700	400	30	24	23	48	40	20.00
640.0250	1000	700	50	35	42	87	50	50.00

Universal 3 arm puller for using with hydraulic cylinder

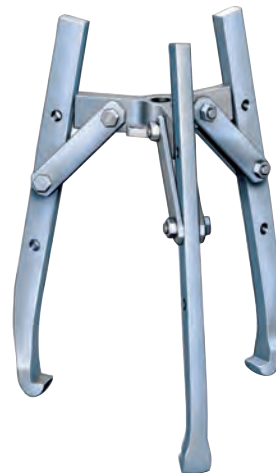
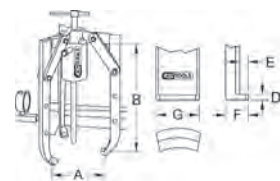
- Consists of traverse and legs
- Legs are adjustable in the working depth
- Traverse arm radial revolving and interchangeable
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special steel



	A mm	B mm	mm	max t mm	D mm	E mm	F mm	G mm	kg
640.0310	350	250	UNC2.1/4" x 14	10	5	25	48	30	9.50
640.0315	350	250	M6 x 2	15	5	25	48	30	7.50
640.0317	350	250	G 1"x11g	17	5	25	48	30	8.50

Universal 3 arm puller for using with hydraulic cylinder

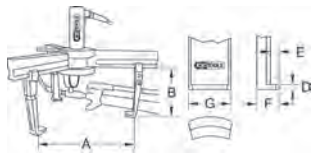
- Consists of traverse and legs
- Legs are adjustable in the working depth
- Traverse arm radial revolving and interchangeable
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special steel



	A mm	B mm	max t mm	D mm	E mm	F mm	G mm	kg
640.0320	420	290	20	17	16	32	32	17.00
640.0330	700	400	30	24	23	48	40	30.00
640.0350	1000	700	50	35	42	87	50	70.00

Universal 3 arm puller for using with hydraulic cylinder

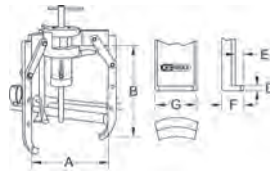
- Consists of traverse and legs
- Legs are adjustable in the working depth
- Traverse arm radial revolving and interchangeable
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special steel



	A mm	B mm	mm	max t	D mm	E mm	F mm	G mm	kg
640.2315	150-700	200	M68x2	15	10	33	55	50	38.00
640.2317	150-700	200	G1"x11g	17	10	33	55	50	40.00

Universal 3 arm puller for using with hydraulic cylinder

- Consists of traverse and legs
- Legs are adjustable in the working depth
- Traverse arm radial revolving and interchangeable
- Uniform load distribution and centered tightening
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special steel



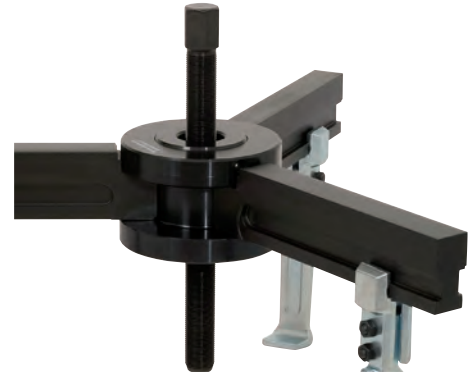
	A mm	B mm	max t	D mm	E mm	F mm	G mm	kg
640.2420	500	270	20	17	16	32	32	27.00
640.2430	750	310	30	24	23	48	40	26.00
640.2450	1000	660	50	35	42	87	50	106.00

Traverse arm for hydraulic gear puller

- For hydraulic 3 arm puller
- Special steel

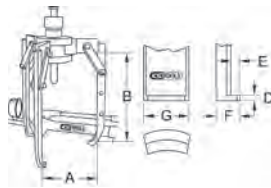


	For pullers	kg
645.2316	640.2315-17	7.00
645.2416	640.2415-17	4.00
645.2421	640.2420	4.00
645.2431	640.2430	5.00
645.2451	640.2450	10.00



Hydraulic universal 3 arm puller

- Consists of traverse and legs
- Legs are adjustable in the working depth
- Traverse arm radial revolving and interchangeable
- Uniform load distribution and centered tightening
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special steel



	A mm	B mm	mm	max t	D mm	E mm	F mm	G mm	kg
640.2415	500	440	M68x2	15	17	16	32	32	22.00
640.2417	500	440	G1"x11g	17	17	16	32	32	24.00



Traverse with clamping ring

- For hydraulic 2 arm puller
- Special steel



	max t	For pullers	kg
645.0210	10	640.0210	16.00
645.0215	15	640.0215	15.00
645.0217	17	640.0217	16.00
645.0220	20	640.0220	5.00
645.0230	30	640.0230	8.00
645.0250	50	640.0250	16.00

Traverse with clamping ring

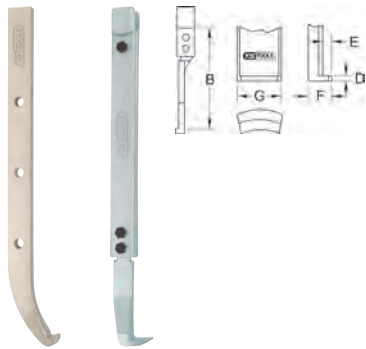
- For hydraulic 3 arm puller
- Special steel



	max t	For pullers	kg
645.0310	10	640.0310	4.00
645.0315	15	640.0315	3.50
645.0317	17	640.0317	4.50
645.0320	20	640.0320	7.00
645.0330	30	640.0330	11.50
645.0350	50	640.0350	20.00
645.2315	15	640.2315	10.00
645.2317	17	640.2317	12.50
645.2415	15	640.2415	10.00
645.2417	17	640.2417	12.50
645.2420	20	640.2420	15.00
645.2430	30	640.2430	27.00
645.2450	50	640.2450	27.00

Puller legs

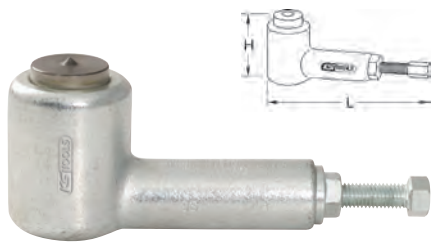
- For 2 arm and 3 arm hydraulic pullers
- Special steel



For pullers		B mm	D mm	E mm	F mm	G mm	kg
645.0251	640.0210-17 +640.2315-17	225	10	33	55	50	2.10
645.0252	640.0210-17 +640.2315-17	300	10	33	55	50	3.00
645.0253	640.0210-17 +640.2315-17	400	10	33	55	50	3.70
645.0254	640.0210-17 +640.2315-17	500	10	33	55	50	4.40
645.0261	640.0220	290	17	16	32	32	3.30
645.0262	640.0230	400	24	23	48	40	6.50
645.0263	640.0250	700	35	42	87	50	17.00
645.0351	640.0310-17	250	5	25	48	30	1.80
645.0352	640.0310-17	350	5	25	48	30	1.90
645.0353	640.0310-17	400	5	25	48	30	2.00
645.0354	640.0310-17	500	5	25	48	30	2.20
645.0361	640.0320	290	17	16	32	32	3.30
645.0362	640.0330	400	24	23	48	40	6.50
645.0363	640.0350	700	35	42	87	50	17.00
645.2461	640.2415-17	440	17	16	32	32	3.30
645.2462	640.2420	270	17	16	32	32	3.30
645.2463	640.2430	310	24	23	48	40	6.50
645.2464	640.2450	660	35	42	87	50	17.00

Hydraulic press

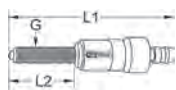
- For mechanical pullers
- Power increase with the normal pressure spindle
- Maximum pressure power with slight power expense
- Special steel



	L mm	H mm	max t	Hydraulic fit mm	mm	kg
640.0160	150.0	75.0	8	8	M14x1,5 x 60	0.80
640.0165	180.0	90.0	15	12	M14x1,5 x 85	1.80

Spindle hydraulic cylinder

- Simply working with spring withdrawal
- Necessary minimal oil volume 120 cm³ = 0,12 l
- Maximum pressure power with slight power expense
- Special steel



Connection thread mm	L1 mm	L2 mm	Stroke mm	G	max t	kg	
640.0130	3/8" - 18 NPT	403	150.0	156	G1"x11g	17	4.50

Flat hydraulic cylinder

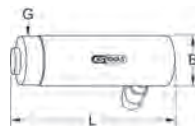
- Simple working with spring withdrawal
- Maximum pressure power with slight power expense
- Special steel



	Connection thread mm	L mm	H mm	Stroke mm	Minimal oil volume cm ³	max t	kg
640.0140	3/8" - 18 NPT	140	42	12	18/0,018	10	1.60
640.0150	3/8" - 18 NPT	170	51	11	32/0,032	20	2.80

Single screw hydraulic cylinder

- Simply working with spring withdrawal
- Interchangeable pressure piece
- Low effort maximal pressure
- Special steel

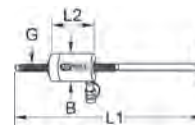


	Connection thread mm	L mm	B mm	Stroke mm	G	max t	kg
640.0110	3/8" - 18 NPT	403	247	156	UNC2.1/4x14	10	4.00
640.0120	3/8" - 18 NPT	423	271	152	M68x2	15	7.00

Hollow piston hydraulic cylinder with spindle

- Simply working with spring withdrawal
- Nickel plated appliance pipe
- Maximum pressure power with slight power expense
- Special steel

Mounting thread at cylinder: 1.) 2 threaded hole with cylinder base (tube side) 2.) external thread: 20t=3-7/8"x12G30t=4-1/2"x12G50t=6-1/4"x12G



	Connection thread mm	L1 mm	L2 mm	B mm	Stroke mm	G	max t	kg
640.0170	3/8" - 18 NPT	670	162.0	98	49	UNC1"-8	20	10.60
640.0180	3/8" - 18 NPT	790	178.0	114	64	UNC1.1/4"-7	30	15.20
640.0190	3/8" - 18 NPT	975	247.0	159	76	UNC1.5/8"-5.1/2	50	40.50

Hydraulic hand pump

- Single stage
- Reverse valve for advance and return stroke
- Safety valve for overload protection
- Includes pressure tube 1.8 meters
- Operating pressure max. 700 bar



	Connection thread mm	L mm	B mm	H mm	Flow rate per Hub cm ³	kg
640.0010	3/8" - 18 NPT	585	133	119	2.62	9.00



Pneumatic hydraulic pump

- Compressed air working
- For simply agent press cylinders
- Safety valve for overload protection
- Includes pressure tube 1.8 meters
- Operating pressure max. 700 bar
- Output per stroke:
 - 0.8 l/min up to 200 bar
 - 0.1 l/min up to 700 bar



	Connection thread mm	L mm	B mm	H mm	kg
640.0020	3/8" - 18 NPT	255	130	200	11.00

Electric hydraulic pump

- Two stepped for simply agent press cylinders
- Safety valve for overload protection
- Useful tank volume 1900 cm³ = 1.9l
- Includes pressure tube 1.8 meters
- Motor specification 0.37kW - 220/230 V - 50/60 hertz, single phase (3.2 amps)
- 1st Step: max. 13 bar
- 2nd. Step: max. 700 bar
- Output per stroke:
 - 1. Steps 3.31 l/min
 - 2. Step: 0.32 l/min



	Connection thread mm	L mm	B mm	H mm	kg
640.0030	3/8" - 18 NPT	244	244	362	14.00

Hydraulic tension and pressure unit

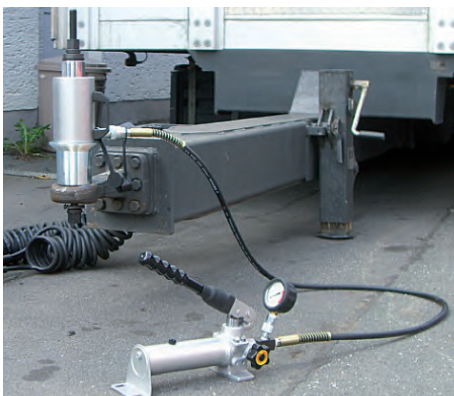
- For the dismantling and assembly of silent support, steering pin, track rod ends, wheel bearings, etc.
- Extremely high and uniform power construction
- Industrial execution with forged piston
- Suitable for both pressure and train uses
- Ideally suited for commercial vehicles
- Special steel
- In durable plastic storage case



		kg
700.1790	4 pcs Hydraulic tension and pressure unit	15.40

consists of:

		kg
700.1791	Hydraulic hollow piston cylinder, 20 t	7.30
700.1792	Hydraulic hand pump, 700 bar	5.50
700.1793	Hydraulic hose, 2 m	1.10
700.1796	Feed shaft for hydraulic M20 x 500 mm	1.50



Hydraulic hollow piston spindle

- Simply working with spring withdrawal
- Nickel plated centre tube
- With low effort maximal pressure
- Special steel



Technical data:
 Capacity: 20 t
 Connection thread: 3/8" NPT IG
 Piston: industrial forged execution
 Stroke: 52 mm

	L mm	D1 mm	D2 mm	D3 mm	kg
700.1791	164.0	100.0	26.0	55.0	7.30

Hydraulic hand pump

- For the dismantling and assembly of silent support, steering pin, track rod ends, wheel bearings, etc.
- Extremely high and uniform power construction
- Suitable for both pressure and train uses
- Ideally suited for commercial vehicles
- Supplied without without manometer and hydraulic tube
- Special steel



Technical data:
 Connection thread: 3/8" NPT IG
 Hand pump: 700 bar high pressure pump
 Dimensions: 410 x 150 x 135

		kg
700.1792	Hydraulic hand pump	5.50

Hydraulics tube, 2 m including connection

- Ideally suited for commercial vehicles



Technical data:
 Connection thread: 3/8" NPT AG x 3/8" NPT AG
 Length: 2000 mm

		kg
700.1793	Hydraulics tube, 2 m including connection	1.10

Feed shaft for hydraulic

- Including nuts and spherical washer



Technical data:
 Flat collar nut: SW 30
 Spherical washer: Ø 36 mm
 U-Washer: Ø 51 x 7.5 mm, with central cone

	L mm	Thread	kg
700.1796	500.0	M 20 x 2.5	1.50

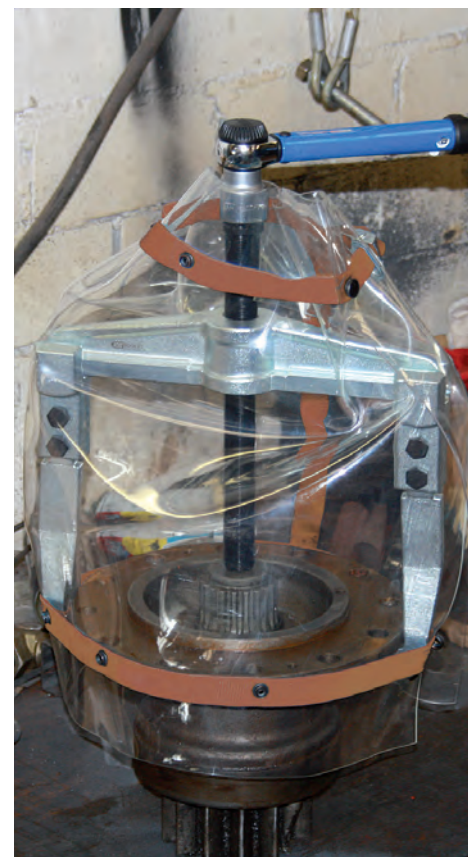
SAFETY COVERING FOIL

Safety covering foil

- Two ply welded
- High tearing resistance
- Variable adjustment
- UV resistant
- Temperature range of -25°C to +50°C



	B mm	L mm	max t	kg
610.0100	510.0	915.0	18	3.90

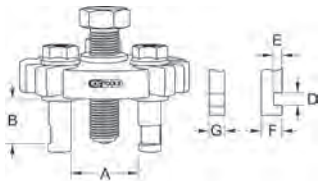


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UNIVERSAL BELT PULLER

Universal belt pulley puller 3 arm

- For the damage free drawing off of pulley belts
- Universal suitable for several diameters and different hole divisions
- Less space requirement through compact method of building
- Suited for working on and finishing engines
- Special steel

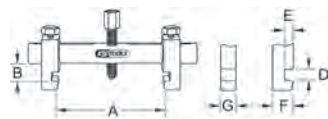


	A mm	B mm	mm	dim mm	D mm	E mm	F mm	G mm	kg
150.3130	90	30	M16x1,5 x 75	24	10	6	11	12	0.90



Universal belt pulley puller 2 arm

- For grooved belt pulleys
- Draw-off arms with locking device
- Clamp compresses hooks firmly
- Prevents slippage
- Less space requirement through compact method of building
- Suited for working on and finishing engines
- Special steel



	A mm	B mm	mm	dim mm	D mm	E mm	F mm	G mm	kg
150.3170	40-165	30	M12 x 75	17	10	9	18	35	1.60

Universal drive pulley puller set

- Suitable for 5 and 6 spoked camshaft wheels
- Suitable for many VAG models
- Special steel
- In durable plastic case



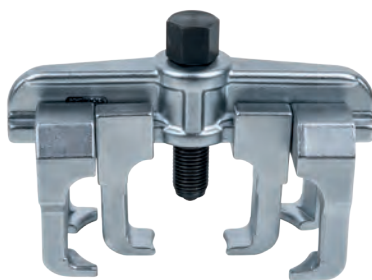
			kg
150.3115	6 pcs	Universal drive pulley puller set	1.54

consists of:

		kg
150.3116	Traverse	360
150.3117	Spindle M 14 x 1,5, Length 70 mm	80
150.3118	Basic arm simply	130
150.3119	Double arm, narrow	270
150.3120	Double arm, wide	280

Universal camshaft solid wheel puller 2 arm

- Four special hooks for 5 and 6 armed spoked wheels
- Suitable for many VAG models
- Extremely robust spindle with inductively hardened thread
- Special steel

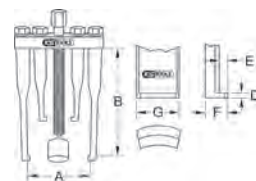


	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
670.0211	130	44	2,5	M14x1,5 x 55	17	4	9	20	15	0.90

STEERING WHEEL PULLER

Universal steering wheel puller 2 arm for cars

- Short and long hooks as well as pressure piece for spindle
- Extremely robust spindle with inductively hardened Thread
- Special steel

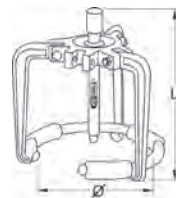


	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
670.0201	90	135	2,5	M14x1,5 x 130	17	5	3,5	11	7,5	0.90



Universal steering wheel puller 3 arm

- For steering wheels with three or four spokes
- Tie rings with rubber sleeve for protection on the steering wheel
- Special steel



	Ø mm	L mm	max t	dim mm	mm	kg
670.0191	160	120	4	17	M14x1,5 x 130	1.90

WINDSCREEN WIPER ARM PULLER

Universal windscreen wiper arm puller type 1

- Special steel



	A mm	B mm	mm	dim mm	kg
700.1193	16	28	M8 x 45	11	0.14

Universal windscreen wiper arm puller type 2

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



	A mm	B mm	mm	dim mm	kg
700.1191	26	28	M8 x 75	13	0.45

Universal windscreen wiper arm puller type 3

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



	A mm	B mm	mm	dim mm	kg
700.1192	16	41	M10 x 80	17	0.51

Universal windscreen wiper arm puller 2 arm

- Hollow draw off spindle to prevent any damage to the rear wiper blades
- Special steel



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

Universal windscreen wiper arm puller set

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



			kg
700.1240	13 pcs	Universal windscreen wiper arm puller set	3.81

consists of:

		kg
700.1231	Slide hammer	1130
700.1232	Hollow spindle, L=95mm, M12	170
700.1233	Pull hook Gr.1, opening 22 mm, H = 50 mm	110
700.1234	Pull hook Gr.2, opening 25 mm, H = 50 mm	140
700.1235	Pull hook Gr.3, opening 16 mm, H = 60 mm	150
700.1236	Pull hook Gr.4, opening 25 mm, H = 41 mm	110
700.1237	Pull hook Gr.5, opening 30 mm, H = 50 mm	150
700.1238	Pull hook Gr.6, opening 20 mm, H = 50 mm	100
700.1239	Pull hook Gr.7, opening 17 mm, H = 56 mm	100
700.1241	Pull hook Gr 8, opening 16 mm, H = 80 mm	170
700.1242	Universal 2 Arm Wiper arm puller set with two pairs of arms	690
700.1243	Spindle extension, 30 mm, for 700.1232 and 700.1242	20
700.1244	Spindle design hollow, for 700.1232 and 700.1242	20

BALL JOINT PULLERS

Ball joint extractor cap „VIBRO IMPACT“

- Pressure pieces in the spindle rotating mouted
- Spindle suitable for impact wrenches
- Less space required
- Cast forged execution
- Special steel
- With inspection panel



	A mm	B mm	mm	dim mm	kg
450.0060	30	58	Tr.22	18	1.10
450.0061	32	90	Tr.24	25	2.51

Ball joint extractor cap „VIBRO IMPACT“

- Pressure pieces in the spindle rotating mouted
- Spindle suitable for impact wrenches
- Less space required
- Cast forged execution
- Special steel
- Without inspection panel



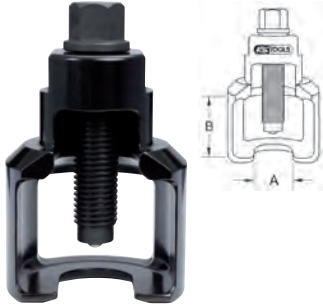
	A mm	B mm	mm	dim mm	kg
450.0062	39	58	Tr.24	25	2.83



Ball joint puller „VIBRO-IMPACT“ with window

- Pressure pieces in the spindle rotating mounted
- Spindle suitable for impact wrenches
- Less space required
- Cast forged execution
- Special steel

Application range: Universal in the HGV sector, e.g. SCANIA, MB, MAN (e.g. 414 drag link), HINO, etc.



	mm	A mm	B mm	dim mm	kg
450.0066	Tr.26	39	60	39	2.20

Impact ball joint puller

- Optimal positioning between suspension arm and axle casing
- Mouted spherical centering point
- Retrofit bar hydraulic pressure spindle
- Special steel



	A mm	B mm	mm	dim mm	kg
450.0085	35	60	M27 x 130	24	3.37

Universal ball joint ejector

- For many automobiles and commercial vehicles
- Special steel



	A mm	B mm	max t	dim mm	mm	kg
670.0061	23	55	4	17	M16x1,5 x 60	0.80
670.0062	28	55	4	17	M16x1,5 x 60	0.80
670.0063	34	63	4	19	M18x1,5 x 70	0.90

Universal ball joint extractor

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

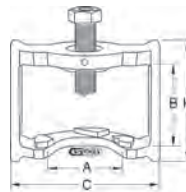


			kg
670.0060	3 pcs	23 - 28 - 34 mm	2.90



Brake linkage adjuster extractor, BPW

- Substantial construction for drawing off firmly sitting BPW brake linkage adjusters
- Suitable for older and automatic linkage adjusters
- Special steel



	A mm	B mm	C mm	H mm	mm	dim mm	kg
450.0305	65	78	160	127	M22x1,5 x 90	32	2.70

Universal ball joint separator

- For many automobiles and commercial vehicles
- Special steel



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

Brake linkage adjuster extractor, HALDEX

- Substantial construction for drawing off firmly sitting brake linkage adjuster
- Certain stop through ring shaped bearing area
- Special steel



	A mm	B mm	C mm	H mm	mm	dim mm	kg
450.0300	65	78	160	127	M22x1,5 x 95	32	3.10

Universal ball joint extractor

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



	A mm	B mm	C mm	dim mm	mm	kg
450.0075	30	75	63	24	M22 x 135	1.63
450.0076	46	100	76	24	M22 x 135	1.84

Universal ball joint separator 2 stage adjustable

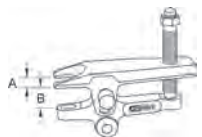
- Separator 2 stage adjustable
- Ideal for confined spaces
- Spindle hexagonal with additional drive point
- Forged
- Special steel



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

Universal ball joint separator 4 stage adjustable

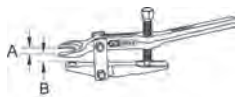
- Separator 4 stage adjustable
- Spindle hexagonal with additional drive point
- Forged
- Special steel
- Stage 1: 24 mm
- Stage 2: 30 mm
- Stage 3: 40 mm
- Stage 4: 45 mm



	A mm	B mm	mm	dim mm	kg
700.5630	20	24-45	M14 x 105	18	1.50

Universal ball joint separator

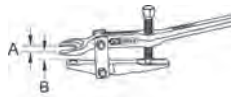
- Extra flat execution
- Forged
- Special steel



	A mm	B mm	mm	dim mm	kg
700.5620	18	20-37	M14 x 85	16	0.97

Universal ball joint separator

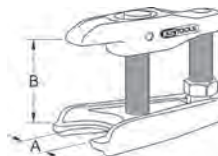
- Extra strong execution
- Forged
- Special steel



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

Universal ball joint extractor

- Robust model for loosening the track heads and push pole heads
- Optimal positioning through compact design and slim fork piece
- Adjustment of the clamp by means of the spindle
- Special steel



	A mm	B mm	mm	dim mm	kg
450.0070	32	75	M22 x 90	30	2.49
450.0071	45	80	M22 x 90	30	2.61

Ball joint puller HGV, mechanical

- Massive execution for loosening the track heads and push pole heads
- Enormous power through lever transmission
- Special steel



	A mm	B mm	mm	dim mm	kg
450.0051	36	70	M24x3x160	36	4.34

Hydraulic universal ball joint extractor set

- Massive execution for loosening the track heads and push pole heads
- Enormous power through lever transmission
- Requires light expenditure of energy
- Special steel



			kg
450.0050	3 pcs	Hydraulic universal ball joint extractor set	6.55

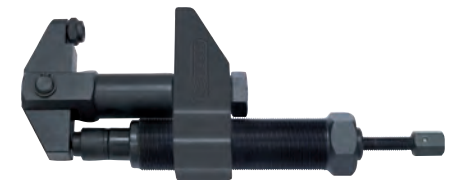
consists of:

		kg
450.0051	Ball Joint Puller HGV, mechanical	4.34
450.0052	Adaptor M24 x 3 for Hydraulic Thrust bolt.	0.66
700.1400-1	Hydraulic spindle with centering point - Ag 1.1/2" x 16 G	0.21

Clamp screw ejector set

- For loosening seized clamping screws (M10) on 4-link axles
- For right and left wishbone clamping screws
- For aluminium and steel four link axles
- Release force up to max. 12 t
- Universally applicable hydraulic spindle (mounting thread 1.1/2"x16 start)
- Fine adjustment for optimum efficiency
- In durable plastic storage case

Application range: Audi A4, A6, VW Passat from 97, identical group vehicles



		A mm	kg
670.0075	5 pcs	65 - 125	4.15

consists of:

		kg
670.0074	Clamp screw ejector	1.20
670.0077	Flat thrust piece	0.03
670.0078	Mandrel thruster	0.03
670.0079	Spindle M20x1,5 incl. nuts and rings	0.27
980.1090	Special thread grease	0.01



Clamp screw ejector set without spindle

- For loosening seized clamping screws (M10) on 4-link axles
- For right and left wishbone clamping screws
- For aluminium and steel four link axles
- Release force up to max. 12 t
- Universally applicable hydraulic spindle (mounting thread 1.1/2"x16 start)
- Fine adjustment for optimum efficiency
- In durable plastic storage case

Application range: Audi A4, A6, VW Passat from 97, identical group vehicles



		A mm	kg
670.0076	3 pcs	65 - 125	2.70

consists of:

		kg
670.0074	Clamp screw ejector	1.20
670.0077	Flat thrust piece	0.03
670.0078	Mandrel thruster	0.03

Hydraulic universal ball joint ejector set

- For extracting the ball joints and ball plug at track rod ends, direct transmissions and suspension axles
- Revolving cylinder reception
- Compact construction
- Requires light expenditure of energy
- Special steel



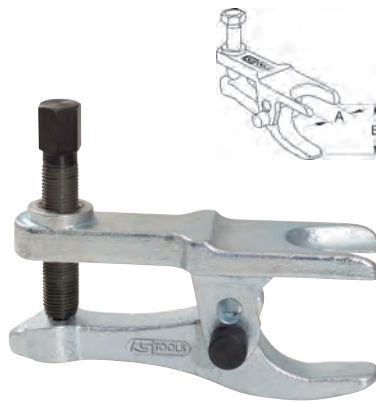
		kg
450.0120	6 pcs Hydraulic universal ball joint ejector set	9.57

consists of:

		kg
450.0121	Ball joint ejector	2.40
450.0122	Clevis, Ø max 25mm	1.35
450.0123	Clevis, Ø max 33mm	1.27
450.0124	Clevis, Ø max 47mm	1.21
450.0126	Hydraulic flat cylinder, 20 t	2.90
450.0127	Safety chain	0.44

Universal ball joint separator

- For separating the ball plug in the extension of the ball joint
- Suitable for many vehicles + transporter
- also suitable for aluminum undercarriages
- Special steel



	A mm	B mm	max t	dim mm	mm	kg
670.0121	24	50	3,5	17	M16x1,5x70	1.40
670.0122	24	60-80	3,5	17	M15x1,5x90	1.80

Universal ball joint separator 2 stage adjustable

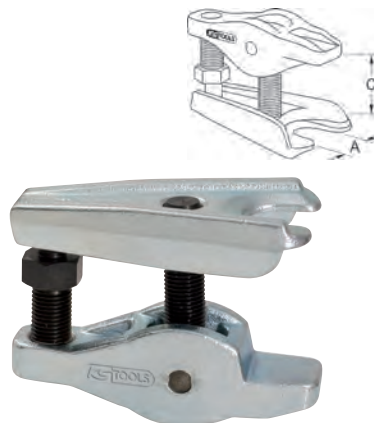
- Separator 2 stage adjustable
- Ideal for confined spaces
- Extremely high clamping range
- Spindle hexagonal with additional drive point
- Forged
- Special steel



	A mm	B mm	mm	dim mm	kg
700.5615	18-24	23-110	M16 x 130	16	1.20

Universal ball joint separator

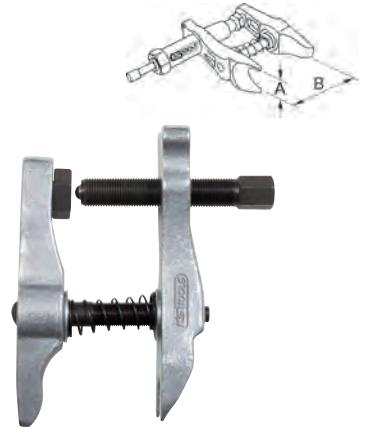
- For separating the ball plug in the extension of the ball joint
- Suitable for many vehicles
- Special steel



	A mm	B mm	max t	dim mm	mm	kg
670.0111	18-22	50	3,5	19	M14x1,5x48	0.90

Universal ball joint separator

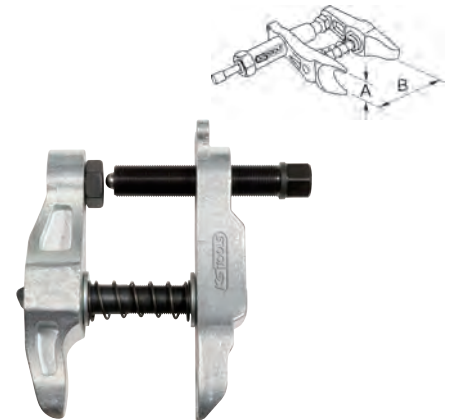
- For separating the ball plug in the extension of the ball joints
- Suitable for many vehicles + moderately heavy trucks
- Special steel



	A mm	B mm	max t	dim mm	mm	kg
670.0131	36	90	10	22	G1/2"x14gx110	3.70

Universal ball joint separator

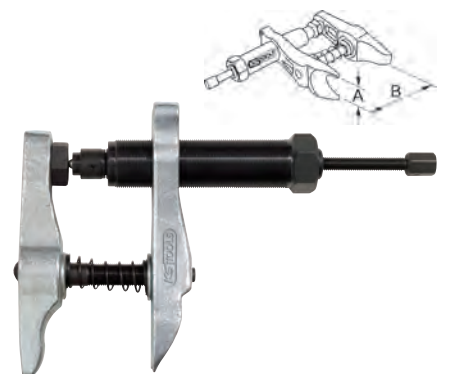
- For separating the ball plug in the extension of the ball joints
- Suitable for many heavy trucks, buses + low floor bus
- For bolts Ø 35.0 - 45.0 mm
- Special steel



	A mm	B mm	max t	dim mm	mm	kg
670.0161	45	115	20	27	G3/4"x14gx125	6.40

Hydraulic universal ball joint separator

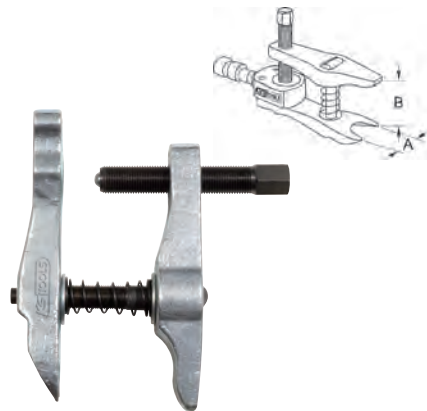
- For separating the ball plug in the extension of the ball joints
- Suitable for many vehicles + moderately heavy trucks
- For bolts Ø 27.0 - 36.0 mm
- Special steel



	A mm	B mm	max t	dim mm	mm	kg
670.0141	36	90	10	17	1.1/2"x16G	4.70

Universal ball joint separator

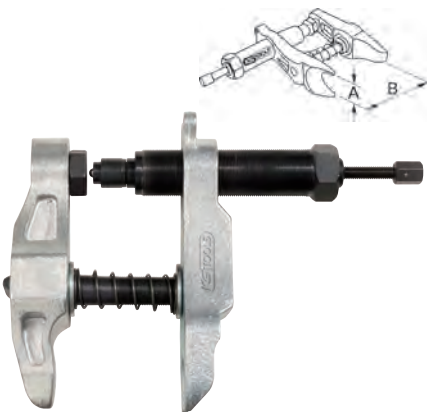
- For separating the ball plug in the extension of the ball joints
- Suitable for many vehicles + moderately heavy trucks
- For bolts Ø 27.0 - 36.0 mm
- Upgrade without hydraulic cylinder possible
- Special steel



	A mm	B mm	max t	Adjusting screw mm	Ambo spindle mm	dim mm	kg
670.0151	36	90	10	M18x1,5x120	G1/2"x14x110	22	3.50

Hydraulic universal ball joint separator

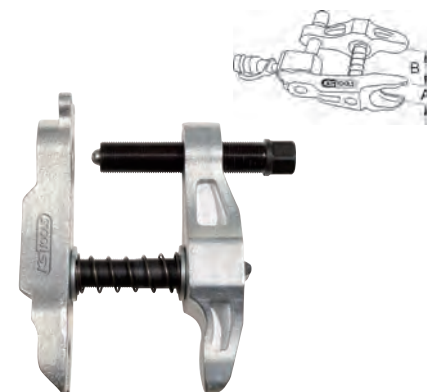
- For separating the ball plug in the extension of the ball joints
- Suitable for many heavy trucks, buses + low floor bus
- For bolts Ø 35.0 - 45.0 mm
- Special steel



	A mm	B mm	max t	dim mm	mm	kg
670.0171	45	115	20	17	M14x1,5x50	7.00

Universal ball joint separator without hydraulic cylinder

- For separating the ball plug in the extension of the ball joints
- Suitable for many heavy trucks, buses + low floor bus
- For bolts Ø 35.0 - 45.0 mm
- Special steel



	A mm	B mm	max t	dim mm	mm	kg
670.0181	45	115	20	27	G3/4"x14gx125	6.00

Draw off flange with impact puller

- For stuck axles with 4 or 5 hole divisions
- Special steel



	Rim diameter Ø mm	Ball Ø mm	Hammer Ø mm	Slip rail Ø mm	Adaptor thread mm	kg
670.0001	100-150	max. 14	60-100	60x330	M16 x 1.5	3.70

WHEEL HUB EXTRACTOR & DRIVE SHAFT EJECTOR

Flange extractor set

- In order to separate the flanges in pipes to enable gasket changing or maintenance works
- For screws M16 - M24
- Special steel



		Ø mm	mm	dim mm	kg
670.0251	2 pcs	80-250	M24x1,5x110	24	5.60

Separating and assembly fork

- For quick loosening of track and steering rod ends steering arms and additional controlling parts
- Ideal for confined spaces
- Special steel



	A mm	L mm	kg
670.0091	18	330.0	0.90
670.0092	23	330.0	0.90
670.0093	31	330.0	1.10
670.0094	35	330.0	1.30
670.0095	45	330.0	1.50

Universal wheel hub extractor set

- For bolt circle diameter up to 250 mm
- Clamp foot hole for bolts 14 mm, 18 mm + 22 mm
- Special steel



			kg
670.0013	5 pcs	Universal wheel hub extractor set	3.60

Universal wheel hub extractor set

- For bolt circle diameter up to 250 mm
- Clamp foot hole for bolts 14 mm, 18 mm + 22 mm
- Special steel



			kg
670.0014	6 pcs	Universal wheel hub extractor set	4.10

Universal wheel hub extractor set

- For bolt circle diameter up to 250 mm
- Clamp foot hole for bolts 14 mm, 18 mm + 22 mm
- Special steel



			kg
670.0015	7 pcs	Universal wheel hub extractor set	4.60

accessories:

			kg
670.0017	Traverse bar for weehl hub extractor set		820
670.0018	Puller leg + reception ring Ø14mm + Ø18mm		540
670.0019	Reception ring Ø 14mm		22
670.0020	Reception ring Ø 18mm		16
610.2701	Spindle, 27mm, G3/4"x14Gx180mm		1000

Universal wheel bearing puller and drive shaft puller, hydraulic

- Special tool for expressing the joint hubs or drawing off of the wheel hub
- Massive tool, made out of a one piece
- Special steel



			kg
700.1400	11 pcs	Universal wheel bearing puller and drive shaft puller, hydraulic	9.34

consists of:

			kg
700.1400-1	Hydraulic spindle with centering point - Ag 1.1/2" x 16 G		210
700.1400-2	Disc traverse 100 mm		920
700.1400-3	Puller pull arm set, 5 pcs		500
700.1400-4	Impact spanner, 30mm, L=200mm		935
700.1400-5	Impact spindle		2015
700.1400-7	Extension, small		60



Universal wheel hub extractor

- Variable use for bolt circle diameter up to 300 mm
- Universal use for bolts up to max. Ø 22 mm
- Impact spindle includes impact wrench
- Optionally upgradeable with hydraulic spindle or slide hammer
- Special steel



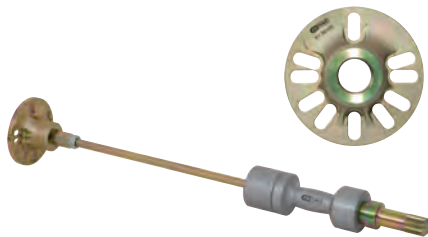
		kg
450.0040	12 pcs Universal wheel hub extractor	15.00

consists of:

		kg
450.0041	Tapered thrust bolt Tr.30	1680
450.0043	Traverse, 370 mm	8000
450.0044	Extension and nut	800
450.0045	Thread adaptor, M18 x 1,5	600
450.0046	Thread adaptor, M20 x 1,5	600
450.0055	Thread adaptor, M22 x 1,5	604
450.0048	Locating thrust piece size1, 90 mm / 65 mm	1140
450.0049	Locating thrust piece size2, 110 mm / 85 mm	1340

Universal wheel hub extractor set

- Extra heavy and solid execution
- For the extension of the wheel hub
- Ideal for assenger cars and small vans
- Enormous impact delivery of up to 11 t
- With 6 kg impact weight
- Includes 3 kg additional weight
- With M 20 x 1.5 mm connection thread
- Weights variably attachable and removable
- Special steel



	Rim diameter Ø mm	Bolt Ø mm	mm	L mm	kg
700.1420	98-138	max. M14	AG M20x1,5	930.0	15.27

consists of:

		kg
700.1411	Wheel hub/drive flange dismatling tool	2.55
700.1415	Universal slide hammer 6 + 3 kg, 850mm	12.00
700.1421	Adaptor ET UN 1.1/2" x IT M20 x 1.5	0.72

Brake disc puller set for Ford Transit

- For damage free removal of the brake disc
- No damages to wheel bearing and ABS sensor
- Quick attachment - large working freedom
- Optimum release force thanks to axially guided impact
- Extra heavy and solid execution
- Enormous impact delivery of up to 11 t
- With 6 kg impact weight
- Includes 3 kg additional weight
- With M 20 x 1.5 mm connection thread
- Weights variably attachable and removable
- Special steel

Application range:

Ford Transit 2000.5 (01/200 - 05/2006)
 Ford Transit 2006.5 (04/2006 -)
 except vehicles with reinforced front axle (payload over 1850 kg)



	Bolt Ø mm	mm	L mm	kg
700.1470	M10	AG M20x1,5	1000.0	14.50

consists of:

		kg
700.1415	Universal slide hammer 6+3kg, 850mm	12.00
700.1471	Brake disc puller flange Ford Transit	2.00
700.1472	Adaptor for slide hammer f.700.1471	0.50



Wheel hub and bearing dismantling set

- Special tool for expressing the joint hubs or drawing off of the wheel hub
- Massive tool, made out of a one piece
- Special steel



		kg
700.1410	7 pcs Wheel hub and bearing dismantling set	4.80

consists of:

		kg
700.1400-1	Hydraulic spindle with centering point - Ag 1.1/2" x 16 G	210
700.1411	Wheel hub/drive flange dismatling tool	2550
700.1412	Reception ring set, 5 pcs.	150

Universal wheel hub extractor for commercial vehicles

- Extracting the wheel hubs and/or housing over the grease cap thread
- Six sided drive enable unscrewing on the cap
- Robust execution
- Trapezoid thread spindle for high removal power drive SW 30
- Special steel



	Ø mm	mm	dim mm	kg
450.0000	AG M115x1,5	Tr.30x260	30	3.74
450.0001	AG M125x2,0	Tr.30x260	30	1.56
450.0002	IG M135x2,0	Tr.30x260	30	2.19
450.0003	IG M136x2,5	Tr.30x260	30	1.48
450.0004	IG M155x3,0	Tr.30x260	30	0.71

UNIVERSAL AUTOMOTIVE PULLERS

Draw off lining

- For drawing off the shoulder housings interior ring of light machines, motor parts and other machine parts
- Special steel



	Ø mm	L mm	max N·m	dim mm	mm	kg
670.0221	5-32	135	60	17	M14x1,5 x 130	1.40

Universal press support

- Universal adjustable support
- Through the height adjustable bolts a fixture and vibration safe 3 level points construction is created
- The amount and arrangement at thread enable the conformity to almost every component surface
- Includes lateral safety device



	L mm	B mm	H mm	Replacement bolt & nut set	kg
700.1740	245.0	200.0	40.0	700.1741	8.10

Universal slide hammer

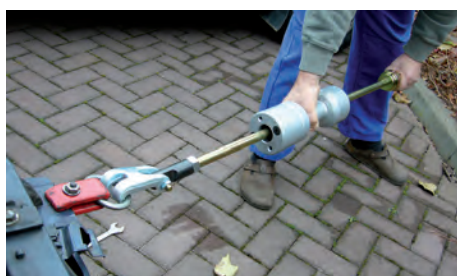
- Extra heavy and solid execution
- For universal use for automobiles + trucks
- Enormous impact delivery of up to 11 tonnes
- With 6 kg impact weight
- Includes 3 kg additional weight
- With M 20 x 1.5 mm connection thread
- Additional weights can be screwed together
- Special steel



	L mm	kg
700.1415	850.0	12.00

accessories:

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

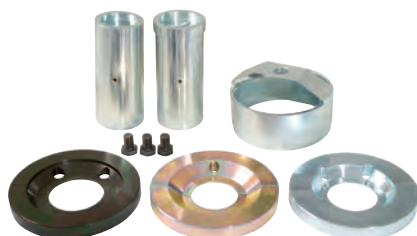


WHEEL BEARING PULLER

VAG wheel bearing tool set

- For the new VAG models with wheel housings/hub unit
- Required for the correct installation
- High time saving - faster execution at workshop press than at the vehicle ideally suited for Wheel bearing diameters 62 mm / 66 mm / 72 mm (13" / 14" / 15" -undercarriages)
- The extension of the wheel housing takes place by means of the available workshop facility

Application range: VW-Polo new, Audi A2, Skoda Fabia, Seat Ibiza



	kg
150.2130 12 pcs VAG wheel bearing tool set	17.20

consists of:

	kg
150.2131 Half shell coupling anodized, for bearing Ø 62 mm	1.99
150.2132 Half shell coupling chrome, for bearing Ø 66 mm	1.46
150.2133 Half shell coupling black, for bearing Ø 72 mm	1.71
150.2134 Pressure bell universal M22	2.40
150.2135 Thrust bearing Gr. 66 / 72 mm, Length 160 mm	4.20
150.2136 Thrust bearing gr. 62 mm, length 160 mm	4.03
150.2137 Fixing screw M12 x 1.5, for half shell, set of 3 pieces	0.03
150.2138 Fixing screw M14 x 1.5, for half shell, set of 3 pieces	0.05

Tool set for compact wheel hub/bearing unit

- Includes spindle M18/M20
- Enables use directly on the vehicle
- Minimum labour - high time savings
- Safe and simple use
- Use also in connection with workshop press
- Possible expansion for bearing Ø 62+66 mm
- Special steel

Application area: Audi A2 from MY 00, Skoda Fabia from MY 00, VW Polo from MY 02 / Fox from MY 05, Seat Ibiza from MY 02, etc.



	Ø mm	kg
150.2145	72,0	9.74

consists of:

	kg
150.2146 Drive unit, 3 pcs	0.54
150.2134 Pressure bell universal	2.40
150.2133 Half cup pair black f.bearing Ø72mm	1.71
150.2149 Thrust piece for 150.2143	0.43
150.2138 Fixing screw f.half cup,M14x1,5,3 per pack	0.05

accessories:

	kg
150.2145-1 Compact wheel hub tool set,Ø72mm -spindle	4.16



Half cup auxiliary kit Ø 62 mm

- As complement to 150.2145
- Special steel

Application range: VW Lupo, Audi A2 1,2L, etc.



		Ø mm	kg
150.2141	5 pcs	62,0	3.00

consists of:

		kg
150.2147 Thrust piece for 150.2141	427	
150.2131 Half cup pair anodised f.bearing Ø62mm	1990	
150.2137 Fixing screw f.half cup,M12x1,5,3 per pack	30	

Half cup auxiliary kit Ø 66 mm

- As complement to 150.2145
- Special steel

Application range: VW Polo from MY 02, Skoda Fabia from MY 00, etc.



		Ø mm	kg
150.2142	6 pcs	66,0	3.10

consists of:

		kg
150.2148 Thrust piece for 150.2142	0.43	
150.2132 Half cup pair chrome f.bearing Ø66mm	1.46	
150.2138 Fixing screw f.half cup,M14x1,5,3 per pack	0.05	

Half cup auxiliary kit Ø 72 mm

- As complement to 150.2145
- Special steel

Application range: Audi A2 from MY 00, Skoda Fabia from MY 00, VW Polo from MY 02 / Fox from MY 05, Seat Ibiza from MY 02, etc.



		Ø mm	kg
150.2143	6 pcs	72,0	2.90

consists of:

		kg
150.2149 Thrust piece for 150.2143	0.43	
150.2133 Half cup pair black f.bearing Ø72mm	1.71	
150.2138 Fixing screw for half cup, M14x1,5,3 per pack	0.05	

Drive spindle

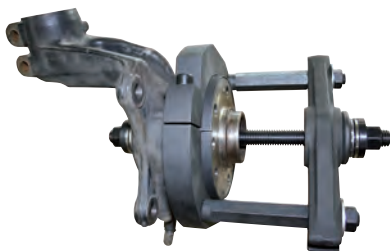
- As complement to wheel bearing puller 150.2145-1
- Special steel



Technical data:

Thread: M20
 Drive spindle: SW 22
 Drive nut: SW 30

		L mm	
150.2146	3 pcs	300.0	540



Wheel bearing tool set

- Removal and installation of the compact wheel hubs / bearing unit
- Enables de- and assembly directly on the vehicle
- Minimum labour
- Safe and simple use
- Special steel
- In durable plastic storage case

Application range: VW T5 Transporter



150.2350	13 pcs Wheel bearing tool set	20.00

consists of:

150.2351	Cross member with threaded ring	2.60
150.2352	Tie rod set, 2 pcs	1.10
150.2353	Half cup mounting, 2 pcs	4.95
150.2354	Half cup set, 2 pcs Removal	1.70
150.2355	Half cup set, 2 pcs Installation	1.90
150.2356	Thrust piece removal	0.55
150.2357	Thrust piece installation	0.95
150.2358	Trapezoidal threaded spindle with 2x thrust bearing and nut	1.25
980.1085	Special thread grease	0.02

Wheel hub and bearing extractor supplement set

- By means of this supplement assortment wheel hubs with a hub alliance of more than Ø 75 mm can be correctly dismantled
- The wheel hub- and joint cover dismantling flange is through long thread bolts and Distance sheath is a slight distance away so the hub alliance can be placed
- Special bevelled edge which the hub can easily be replaced with contamination to the wheel hub housings
- Includes wall holder



700.1435	21 pcs Wheel hub and bearing extractor supplement set	2.88

consists of:

700.1436	Wall holder for supplement set	600
700.1437	Spacer sleeve, length 40 mm	115
700.1438	Threaded bolt M12 x 1.5 mm, length 80 mm	90
700.1439	Threaded bolt M14 x 1.5 mm, length 40 mm	90
700.1440	Threaded bolt M14 x 1.5 mm, length 80 mm	90

Universal car wheel bearing tool set

- For the dismantling and assembly of wheel housings and hub directly on the vehicle
- Extension of the suspension strut and axle joint is no longer required
- Correct and protective installation of the housings through the correct pressure point at the bearing outer ring
- Suited for axle tube and for axle with the housing adjoining at an alliance
- High time savings as reactive axle alignment is not necessarily required
- 300 mm gear pulling spindle
- Through enclosed bolts (M12 + M14) wheel hubs can be removed
- Pressure bearing protects against increased friction during the process
- Special steel
- In durable plastic storage case

Application range: VW, Audi, Opel, Mercedes Benz, Peugeot, Citroen, Renault, Ford, Honda, Mazda, Mitsubishi, Nissan, Toyota, Austin-Maestro, BMW



150.2250	27 pcs Universal car wheel bearing tool set	11.24

consists of:

150.2092	Threaded bolt, f.150.2250, M12x1,5 3p	100
150.2093	Threaded bolt, f.150.2250, M14x1,5 3p	120
150.2251	Bearing plate #1 f.150.2250	525
150.2252	Bearing plate #2 f.150.2250	458
150.2253	Bearing plate #3 f.150.2250	432
150.2254	Bearing plate #4 f.150.2250	386
150.2255	Bearing plate #5 f.150.2250	358
150.2256	Bearing plate #6 f.150.2250	340
150.2257	Bearing plate #7 f.150.2250	304
150.2258	Bearing plate #8 f.150.2250	344
150.2259	Bearing plate #9 f.150.2250	304
150.2260	Bearing plate #10 f.150.2250	282
150.2261	Bearing plate #11 f.150.2250	247
150.2262	Bearing plate #12 f.150.2250	200
150.2263	Bearing plate #13 f.150.2250	217
150.2264	Bearing plate #14 f.150.2250	203
150.2265	Stepped plate, small f.150.2250, Ø77+68mm	608
150.2266	Stepped plate, large f.150.2250, Ø92+81mm	879
150.2267	Puller sleeve f.150.2250, 68mm	399
150.2268	Puller sleeve f.150.2250, 77mm	552
150.2269	Puller sleeve f.150.2250, 81mm	639
150.2270	Puller sleeve f.150.2250, 92mm	707
150.2271	Spindle sleeve f.150.2250	227
150.2272	Thrust bolt f.150.2250	230
150.2273	Washer f.150.2250	20
150.2274	Spindle f.150.2250	911
150.2275	Bearing f.150.2250	55

Bearing assembly and deassembly tool set

- Can be used manually with a hammer or workshop press
- Optimal placing through the pressure plates
- For easy and damage free assembly
- For the correct dismantling and assembly of bearings
- Suitable for commercial, agricultural engineering and construction machines
- Forged, robust execution
- Special steel
- In durable plastic storage case



450.0080	5 pcs Bearing assembly and deassembly tool set	6.45

consists of:

450.0082	Pressure plates (use with press)	0.51
450.0083	Impact plates long (use with a hammer)	1.91
450.0084	Special 6 point socket for mandral shaft	0.34
450.0088	Universal 3 jaw thrust piece	0.20
450.0087	Locking bolt for jaw spreading	2.07



Press and pull sleeve set

- For the disassembly and assembly of bearings
- Ideally for silent bearings, hydro bearings, bushings, ball bearing, simmerrings, etc
- Universal use for automobile, truck, municipally, country and forestry technology, etc.
- Outstanding to use also in connection with workshop press or hollow piston cylinder
- According to use application the sheaths individually can be reworked
- Pressure bearing protects against increased friction during the process
- In durable plastic storage case

Attention: : the spindles need to be greased with a good lubricant for each application! Do not overload spindles, otherwise the thread lengthens and the pitch of the nut and spindle no longer match. The result: the nuts will seize up. Always check the applied force at the drive with a torque wrench!

Maximum permitted torque:
 Spindle M10x1,5 60 Nm
 Spindle M12x1,5 100 Nm
 Spindle M14x1,5 180 Nm
 Spindle M16x1,5 250 Nm



700.1700	36 pcs	Press and pull sleeve set	14.80
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consists of:

700.1701	Thrust bolt, M10 with bearing	120
700.1702	Thrust bolt, M12 with bearing	120
700.1703	Thrust bolt, M14 with bearing	130
700.1704	Thrust bolt, M16 with bearing	130
700.1706	Stepped plate, #1	350
700.1707	Stepped plate, #2	390
700.1708	Stepped plate, #3	420
700.1709	Stepped plate, #4	450
700.1710	Spindle, M10	170
700.1711	Spindle, M12	250
700.1712	Spindle, M14	350
700.1713	Spindle, M16	470
700.1714	Pressure sleeve, Internal Ø: 34 mm, External Ø: 44 mm	250
700.1715	Pressure sleeve, Internal Ø: 36 mm, External Ø: 46 mm	260
700.1716	Pressure sleeve, Internal Ø: 38 mm, External Ø: 48 mm	280
700.1717	Pressure sleeve, Internal Ø: 40 mm, External Ø: 50 mm	290
700.1718	Pressure sleeve, Internal Ø: 42 mm, External Ø: 52 mm	300
700.1719	Pressure sleeve, Internal Ø: 44 mm, External Ø: 54 mm	320
700.1720	Pressure sleeve, Internal Ø: 46 mm, External Ø: 56 mm	330
700.1721	Pressure sleeve, Internal Ø: 48 mm, External Ø: 58 mm	340
700.1722	Pressure sleeve, Internal Ø: 50 mm, External Ø: 60 mm	350
700.1723	Pressure sleeve, Internal Ø: 52 mm, External Ø: 62 mm	370
700.1724	Pressure sleeve, Internal Ø: 54 mm, External Ø: 64 mm	380
700.1725	Pressure sleeve, Internal Ø: 56 mm, External Ø: 66 mm	390
700.1726	Pressure sleeve, Internal Ø: 58 mm, External Ø: 68 mm	410
700.1727	Pressure sleeve, Internal Ø: 60 mm, External Ø: 70 mm	420
700.1728	Pressure sleeve, Internal Ø: 62 mm, External Ø: 72 mm	430
700.1729	Pressure sleeve, Internal Ø: 64 mm, External Ø: 74 mm	440
700.1730	Pressure sleeve, Internal Ø: 66 mm, External Ø: 76 mm	460
700.1731	Pressure sleeve, Internal Ø: 68 mm, External Ø: 78 mm	470
700.1732	Pressure sleeve, Internal Ø: 70 mm, External Ø: 80 mm	480
700.1733	Pressure sleeve, Internal Ø: 72 mm, External Ø: 82 mm	490

Press and pull sleeve kit

- For the disassembly and assembly of bearings
- Ideally for silent bearings, hydro bearings, bushings, ball bearing, simmerrings, etc
- Universal use for automobile, truck, municipally, country and forestry technology, etc.
- Outstanding to use also in connection with workshop press or hollow piston cylinder
- According to use application the sheaths individually can be reworked
- Pressure bearing protects against increased friction during the process
- In durable plastic storage case

Attention: the spindles need to be greased with a good lubricant for each application! Do not overload spindles, otherwise the thread lengthens and the pitch of the nut and spindle no longer match. The result: the nuts will seize up. Always check the applied force at the drive with a torque wrench!

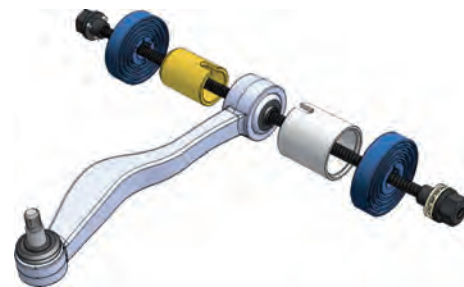
Maximum permitted torque:
 Spindel (ACME) M10xP1,5 60 Nm
 Spindel (ACME) M12xP2,0 120 Nm
 Spindel (ACME) M14xP2,0 150 Nm
 Spindel (ACME) M16xP2,5 250 Nm



700.1550	29 pcs	Press and pull sleeve kit	17.00
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consists of:

700.1550-34	Pull sleeve, internal Ø 34mm, external Ø 44mm	250
700.1550-36	Pull sleeve, internal Ø 36mm, external Ø 46mm	260
700.1550-38	Pull sleeve, internal Ø 38mm, external Ø 48mm	280
700.1550-40	Pull sleeve, internal Ø 40mm, external Ø 50mm	290
700.1550-42	Pull sleeve, internal Ø 42mm, external Ø 52mm	300
700.1550-44	Pull sleeve, internal Ø 44mm, external Ø 54mm	320
700.1550-46	Pull sleeve, internal Ø 46mm, external Ø 56mm	330
700.1550-48	Pull sleeve, internal Ø 48mm, external Ø 58mm	340
700.1550-50	Pull sleeve, internal Ø 50mm, external Ø 60mm	350
700.1550-52	Pull sleeve, internal Ø 52mm, external Ø 62mm	360
700.1550-54	Pull sleeve, internal Ø 54mm, external Ø 64mm	380
700.1550-56	Pull sleeve, internal Ø 56mm, external Ø 66mm	390
700.1550-58	Pull sleeve, internal Ø 58mm, external Ø 68mm	410
700.1550-60	Pull sleeve, internal Ø 60mm, external Ø 70mm	420
700.1550-62	Pull sleeve, internal Ø 62mm, external Ø 72mm	430
700.1550-64	Pull sleeve, internal Ø 64mm, external Ø 74mm	440
700.1550-66	Pull sleeve, internal Ø 66mm, external Ø 76mm	460
700.1550-68	Pull sleeve, internal Ø 68mm, external Ø 78mm	470
700.1550-70	Pull sleeve, internal Ø 70mm, external Ø 80mm	480
700.1550-72	Pull sleeve, internal Ø 72mm, external Ø 82mm	490
700.1550-75	Pull sleeve, internal Ø 75mm, external Ø 85mm	500
700.1550-80	Pull sleeve, internal Ø 80mm, external Ø 90mm	520
700.1551	Spindle M10x1,5	170
700.1552	Spindle M12x1.75	200
700.1553	Spindle M14x2.0	350
700.1554	Spindle M16x2.0	380
700.1555	Pressure adapter for step panel hgv size	350
700.1556	Step panel adaptor with 3 holes, A+B side	350
700.1551-01	Pressure nut for M10 x P1,5	30
700.1551-02	Pressure nut with bearing for M10xP1,5	30
700.1552-01	Pressure nut for M12 x P1,75	30
700.1552-02	Pressure nut with bearing for M12xP1,75	30
700.1553-01	Pressure nut for M14 x P2,0	30
700.1553-02	Pressure nut with bearing for M14xP2,0	30
700.1554-01	Pressure nut for M16 x P2,0	30
700.1554-02	Pressure nut with bearing for M16xP2,0	30



Press and pull sleeve set BASIC

- For the disassembly and assembly of bearings
- Ideally for silent bearings, hydro bearings, bushings, ball bearing, simmerrings, etc
- Universal use for automobile, truck, municipally, country and forestry technology, etc.
- Outstanding to use also in connection with workshop press or hollow piston cylinder
- According to use application the sheaths individually can be reworked
- Pressure bearing protects against increased friction during the process
- In durable plastic storage case

Attention: : the spindles need to be greased with a good lubricant for each application! Do not overload spindles, otherwise the thread lengthens and the pitch of the nut and spindle no longer match. The result: the nuts will seize up. Always check the applied force at the drive with a torque wrench!

Maximum permitted torque:
 Spindle M10x1,5 60 Nm
 Spindle M12x1,5 100 Nm
 Spindle M14x1,5 180 Nm
 Spindle M16x1,5 250 Nm



700.1760	20 pcs	Press and pull sleeve set BASIC	8.32
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consists of:

700.1702	Thrust bolt, M12	120
700.1704	Thrust bolt, M16	130
700.1706	Stepped plates, #1	350
700.1707	Stepped plates, #2	390
700.1708	Stepped plates, #3	420
700.1709	Stepped plates, #4	450
700.1711	Spindles, M12	250
700.1713	Spindles, M16	470
700.1714	Pull sleeve, internal Ø 34mm, external Ø 44mm	250
700.1718	Pull sleeve, internal Ø 42mm, external Ø 52mm	300
700.1719	Pull sleeve, internal Ø 44mm, external Ø 54mm	320
700.1720	Pull sleeve, internal Ø 46mm, external Ø 56mm	330
700.1723	Pull sleeve, internal Ø 52mm, external Ø 62mm	370
700.1729	Pull sleeve, internal Ø 64mm, external Ø 74mm	440
700.1732	Pull sleeve, internal Ø 70mm, external Ø 80mm	480
700.1733	Pull sleeve, internal Ø 72mm, external Ø 82mm	490

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Universal car wheel bearing tool set

- For the dismantling and assembly of wheel housings and hub directly on the vehicle
- Extension of the suspension strut and axle joint is no longer required
- Suited for axle tube and for axle with the housing adjoining at an alliance
- High time savings as reactive axle alignment is not necessarily required
- With 300 mm gear pulling spindle
- Through enclosed bolts (M12 + M14) wheel hubs can be removed
- Extra long execution 65 mm pressure nut for better load distribution
- Pressure bearing protects against increased friction during the process
- Special steel
- In durable plastic storage case

Application range: VW, Audi, Opel, Mercedes Benz, Peugeot, Citroen, Renault, Ford, Honda, Mazda, Mitsubishi, Nissan, Toyota, Austin-Maestro, BMW



				kg
150.2075	19 pcs	Universal car wheel bearing tool set		7.51

consists of:

				kg
150.2076		Ball bearing Adaptor 55.5 mm		175
150.2077		Ball bearing Adaptor 59 mm		200
150.2078		Ball bearing Adaptor 62 mm		220
150.2079		Ball bearing Adaptor 65 mm		245
150.2080		Ball bearing Adaptor 66 mm		250
150.2081		Ball bearing Adaptor 71.5 mm		315
150.2082		Ball bearing Adaptor 73 mm		335
150.2083		Ball bearing Adaptor 78 mm		380
150.2084		Ball bearing Adaptor 84 mm		470
150.2085		Reducing sheath 76 mm		270
150.2086		Bell 88 mm		850
150.2087		Bell 91 mm		920
150.2089		Spindle includes Nut, bearing, Discs and sheaths		540
150.2092		Threaded bolt Set M12 x 1.5 (3 pieces)		100
150.2093		Threaded bolt Set M14 x 1.5 (3 pieces)		120



Universally press frame with hydraulic spindle

- For the use in connection with the pressure and pull sleeve set 700.1700 for pressing out and pressing on of silent bearings, hydro bearings, bushings, etc.
- Enables de- and assembly directly on the vehicle
- Through the long trailing arm also especially high housings release themselves without problem on and pressing out
- Extremely robust spindle with inductively hardened thread
- Special steel



				kg
700.1750	6 pcs	Universally press frame with hydraulic spindle		9.80

consists of:

				kg
700.1400-1		Hydraulic spindle with centering point - Ag 1.1/2" x 16 G		0.21
700.1751		Universally-press frame-set, 5 pcs without hydraulic spindle		8.90



Universal press frame, 5 pcs without hydraulic spindle



				kg
700.1751	5 pcs	Universal press frame, 5 pcs without hydraulic spindle		8.90

accessories:

				kg
700.1751-1		Connection bar 205 mm for 700.1751 (1 piece)		0.71
700.1751-2		Connection bar 350 mm for 700.1751 (1 piece)		1.20

C-clamp and adaptor set

- Very robust execution
- Valuable supplement to the pressure set and hub sheath set 700.1700
- The drive can be used alternatively mechanically or hydraulically
- Suitable for impact wrenches
- Through use of trapezoid spindle and Impact screw maximum power can be transferred (Hammer impact effect)
- Removeable spindle and clamping device with staged reception plate
- Silent bearings, sheaths, bushings etc. lets it incorporated itself in that or expanded condition on and compressed
- Trapezoid thread spindle Tr.27 with ball stored pressure tip
- Special steel



				L mm	Depth mm	kg
700.1755	5 pcs		309.0	95.0	9.00	

consists of:

				kg
700.1754		Threaded adaptor with AG 1-1/2" x 16G and IG trapezoid thread Tr.27		0.60
700.1756		Universal C-clamp		7.00
700.1757		Spindle with trapezoid thread Tr.27, length 300 mm, drive 24 mm		2.00
700.1758		Spindle reception adaptor		0.80
700.1759		C-Clamp reception adaptor		0.60

accessories:

				kg
700.1400-1		Hydraulic spindle with centering point - Ag 1.1/2" x 16 G		210
700.1208		Thrust bolt extension, 35 mm		130
700.1209		Thrust bolt extension, 85 mm		320

Silent bearing tool set for VAG Front axle consoles

- With this tool the plastic silent bearing of the front axle console can be correctly and quickly dismantled and mounted
- By means of the specially pressure piece the plastic housing is safely accepted by what means a damage-free assembly is enabled
- With this the tool it can incorporated the condition and can the costly correction of the axle alignment and the dismantling of often strongly console-reinforcements-screws that can be corroded
- Simple handling
- Enables use directly on the vehicle
- High time savings
- Adapter with protective axle-pressure thrust bearing -spindle
- Axle alignment can be omitted
- In durable plastic storage case

Application range: VW Polo (9N), Seat Ibiza IV, Cordoba (from model 2002), Altea, Skoda Fabia, Roomster, Audi A2 + structurally identical group vehicles



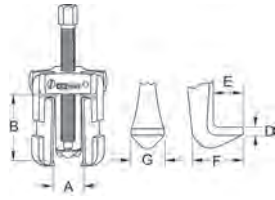
				kg
700.1650	8 pcs	Silent bearing tool set for VAG Front axle consoles		3.20

consists of:

				kg
700.1651		Working spindle M10 x 1,25, 180 mm		170
700.1652		Spindle extension M10 x 1,25, 200 mm		140
700.1653		Special nut with cone shaft 45mm		80
700.1654		Special adaptor with thrust bearing		160
700.1655		Thrust plate stepped Ø 74mm, Installation		390
700.1656		Special thrust piece Ø 74mm, installation		1070
700.1657		Distance piece with knurled, extension		240
700.1658		Distance piece with collar, extension		240

Universal bearing ring puller 3 arm with clamping yoke

- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case



	A	B	C	D	dim	E	F	G	kg
	mm	mm	mm	mm	mm	mm	mm	mm	
700.1250	20-150	98	M20x1.5 x 200	4	21	6	14	27	3.50

INJECTOR & GLOW PLUG EXTRACTORS

Glow plug extractor for CDI engines

- For turning off and pulling out the glow plugs from the glow plug canal in the cylinder head
- Especially suitable in glow plugs jammed by corrosion and/or soot coal
- Optimum power transmission with rotary and train movements
- Correct easy and damage free dismantling of the glow plug
- Chrome vanadium

Application range: Glow plug dim/10 mm, CDI engines.



	3/8"	L	kg
		mm	
152.1080	3/8"	190.0	315

Injector extractor for 1.25 kg impact weight

- For Mercedes CDI Bosch common rail injectors
- For the extraction of the firmly burned injectors in the cylinder head
- Arched lever area on the handle hook for exact extraction
- Tilting and jamming of the injector is avoided
- Claw and impact weight can be used separately
- Includes impact weight
- Special steel



	Impact weight	Thread	L	Replacement	Replacement	kg
	kg	impact weight	mm	daw	impact weight	
152.1050	1.25	M10 x 1.5	410.0	152.1045	152.1040	1.45

Injector extractor with 6 + 3 kg impact weight

- For Mercedes CDI Bosch common rail injectors
- Robust execution
- For the extraction of the firmly burned injectors in the cylinder head
- Enables short and intensive impact through impact weight
- Cylinder head does not work against the thrust bearing
- Tilting and jamming of the injector is avoided
- Includes impact weight
- Special steel



		kg
152.1055	3 pcs Injector extractor with 6 + 3 kg impact weight	12.50

consists of:

		kg
700.1415	Universal slide hammer 6 + 3 kg, 850mm	12.00
152.1056	Single screw adaptor AG M17 x 1	0.24
152.1057	Hexagon socket, tamperproof 10 mm	0.10



STUD BOLT PULLER

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	max	kg
	mm	N·m	
670.0231	5 - 15	120	360
670.0232	10 - 19	120	400
670.0233	18 - 28	120	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	max	kg
	mm	N·m	
670.0241	5 - 20	120	400

Eccentric clamping and turning device

- For the removal and rotation of the round or hexagonal track rod joints (steering and wheel end)
- Due to the knurled eccentric cam it allows from optimal grip even at the joints without drive (round)
- Hexagon socket dim. 19
- For use on the workbench or directly on the vehicle
- Additional stopper prevents slipping during the splitting process
- Special steel



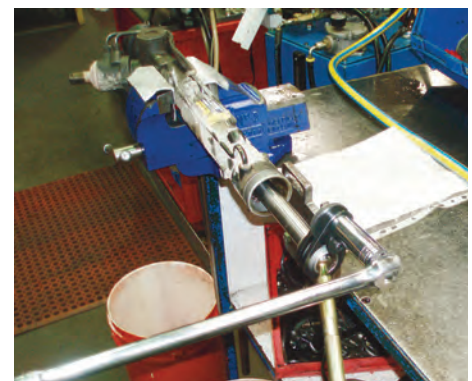
	Ø	Ø	kg
	mm	mm	
150.1640	33-41	31-35	300

Eccentric clamping and turning device

- For the removal and rotation of the round or hexagonal track rod joints (steering and wheel end)
- Due to the knurled eccentric cam it allows from optimal grip even at the joints without drive (round)
- 1/2" drive
- For use on the workbench or directly on the vehicle
- Additional stopper prevents slipping during the splitting process
- Special steel



	Ø	Ø	kg
	mm	mm	
150.1642	25-55	25-46	800



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



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	



Screw bolt puller set

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



152.1100	4 pcs	M6 - M8 - M10 - M12	0.79

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



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

NUT SPLITTER

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



700.1180	4 pcs	Mechanical nut splitter set	1.58

consists of:

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 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

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	

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



	dim mm	L mm	
700.1150	7 -21	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



				kg
700.1160	4 pcs	22 - 36 mm; M14 - M24	3.80	

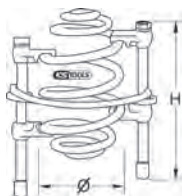
consists of:

				kg
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	

COIL SPRING COMPRESSOR

Coil spring compressor with safety latch

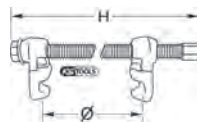
- Change without removing the shock absorber strut
- Variable safety bar prevents slipping
- For vehicles up to max. 2000 kg
- Suitable for impact wrenches
- Meets the requirements of the professional (ZH1/454)
- GS approved
- Special steel



	Ø mm	H mm	Max travel mm	max t	key mm	dim mm	kg
670.0021	110-180	240	200	3,5	M18x2x280	19	2.40
670.0041	110-180	300	300	1,8	M16x380	17	2.80

Coil spring compressor with safety latch and plastic coated hook

- Change without removing the shock absorber strut
- Variable safety bar prevents slipping
- For vehicles up to max. 2000 kg
- Suitable for impact wrenches
- Meets the requirements of the professional (ZH1/454)
- GS approved
- Special steel



	Ø mm	H mm	Max travel mm	max t	key mm	dim mm	kg
670.0031	110-180	305	200	3,5	M18x2x280	17	2.50
670.0051	110-180	300	380	1,8	M16x380	17	2.90

Universal telescopic centre clamp kit

- For removal/installation of spiral springs on spring strut and independent multilink suspensions
- Safe removal and installation without dismantling the axle
- High time savings
- New, revised version with longer clamping stroke
- Suitable cup springs for reliable holding of the spiral spring
- Clamps the spring reliably in the middle of the spring
- Good positioning thanks to compact form
- Overload protection with torsion drive element
- Suitable for use on vehicles with very small access bores
- Only coil spring compressor which can be used for VW Touran, Citroen C3, Skoda Octavia and Peugeot 107
- Spring holder with special geometry



Technical data:

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

				kg
500.8610	6 pcs	Universal telescopic centre clamp kit	4.42	

consists of:

			kg
500.8611	Spring compressor based unit, 2500 kg		0.64
500.8612	Spring holder pair Ø 90-120 mm		0.84
500.8613	Spring holder pair Ø120-140 mm		1.15
500.8614	Torsion drive 1/2"x1/2", 100 Nm		0.26

Coil spring compressor set

- Universal for 90% of all common types of vehicles
- With 2 standard jaw holders
- Simple and secure clamping in the vise
- Ergonomic high-tech polyurethane grip
- With working spindle that can be used with an impact wrench
- Jaw holders plastic coated
- Jaws are fitted with a nose that locks the spring during stretching to increase security and safety
- Can bear according to the TÜV approval extraordinarily high loads with a maximum capacity of 2250 kg
- A shear pin protects against overload
- Special steel



technical data:

Spring force max: 2250 kg
 Opening of jaws min: 65.0 mm
 Jaw width max: 375.0 mm
 Spring capacity: 80.0 - 195.0 mm

				kg
500.8620	5 pcs	Coil spring compressor set	10.70	

consists of:

			kg
500.8621	Base body max. load 2250 kg		5.20
500.8504	Special jaws for spring compressor 80 - 165 mm → 500.8501/8601/8621		1.30
500.8505	Special jaws for spring compressor 145 - 195 mm → 500.8501/8601/8621		1.70

accessories:

			kg
500.8503	Standard spring jaw, 1pcs, Ø 80-120mm		3.36
500.8504	Special jaws, f spring diameter 80-165mm		1.30
500.8505	Special jaws, f spring diameter 145-195mm		1.70
500.8506	Standard spring jaw, 1pcs, Ø 145-195mm		4.00
500.8507	Standard spring jaw, 1pcs, Ø 80-145mm		3.20
500.8509	Spring holder, f. BMW E39/E46+Renault Megane 2.1 pc		2.40
500.8510	Spring holder, f. MERCEDES C classe type 203, 1 pc		0.80
500.8511	Standard jaw, 1pcs, Ø 140-170mm		3.50
500.8512	Standard jaw, 1pcs, Ø 180-230mm		4.50
500.8513	Special jaw, 1pcs, Mercedes E class		2.40
500.8514	Special spring holder, Peugeot Break+Citroen C15, 1 pc		2.50
500.8515	Special jaw, 1pcs, Chrysler voyager		2.80

Other tools in relation to special automotive tools can be found in our special automotive catalogue or on our homepage: www.kstools.com

Universal coil spring compressor set

- For all standard vehicle springs in the cars and vans sector
- 2 standard jaw holders
- Robust execution
- Cost effective and robust alternative to conventional spring tensioner
- Also suitable for conical and ball springs
- Universal for 90% of all common types of vehicles
- Working spindle that can be used with an impact wrench
- Jaw holders plastic coated
- Can bear according to the TÜV approval extremely high loads, with a maximum load of 2600 kg
- A shear pin protects against overload
- Special steel
- Includes safety arrester rope



Adaptor set for Mercedes Benz and BMW

- For Mercedes Benz C- and E-class, BMW 3 Series (E64) and 5 series (E39)
- Can be used in conjunction with the spring tensioner 500.8700
- Adaptor is used in conjunction with the standard jaws
- Special steel

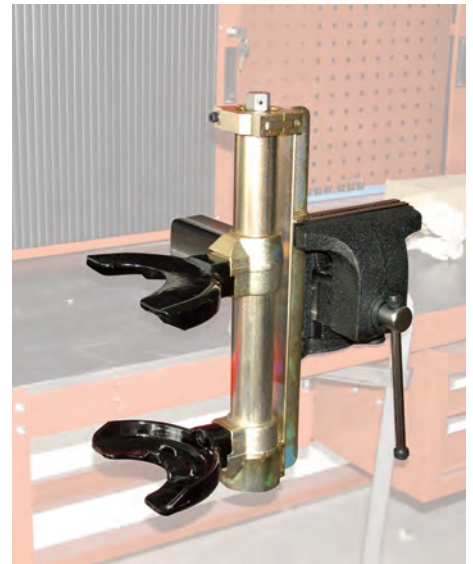


Special adaptor for BMW E90/81

- For BMW E 90/81
- Use only in combination with adapter set 500.8710
- For spring compressor 500.8700
- Adapter is used in conjunction with the standard jaws
- Special steel

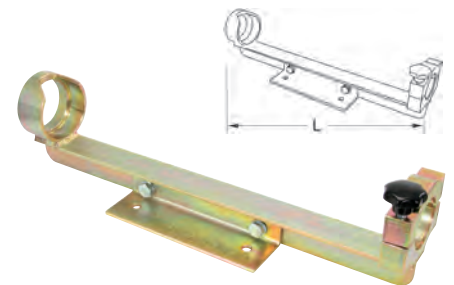


500.8713	Special adaptor for BMW E90/81	1.34
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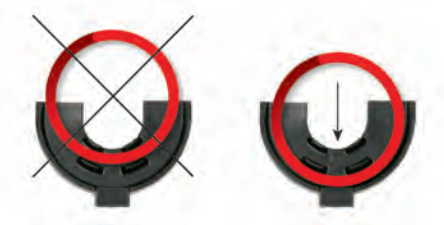


Spring compressor bracket

- Bracket specially designed for spring compressor 500.8700
- Makes working on suspension struts easy and safe
- Can be wall or vice mounted
- Special steel



500.8704	L mm	500.0	1.50
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Technical data:

Spring force max:	2600 kg
Opening of jaws min:	50.0 mm
Jaw width max:	310.0 mm
Spring capacity:	80,0-195,0

500.8700	5 pcs	Universal coil spring compressor set	13.50
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consists of:

500.8701	Spring compressor based unit, 500 mm, max spring pressure, 2600 kg	6.00
500.8703	Safety pin set 4 + 5 mm, 10 pcs.	0.10
500.8705	Standard spring holder with a double stop function, gr. 1 80 - 160 mm	3.50
500.8706	Standard spring holder with a double stop function, gr. 2 140 - 195 mm	4.00

500.8710	2 pcs	Adaptor set for Mercedes Benz and BMW	500
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consists of:

500.8711	Adaptor large	350
500.8712	Adaptor small	150





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our mission!*

PULLERS

