

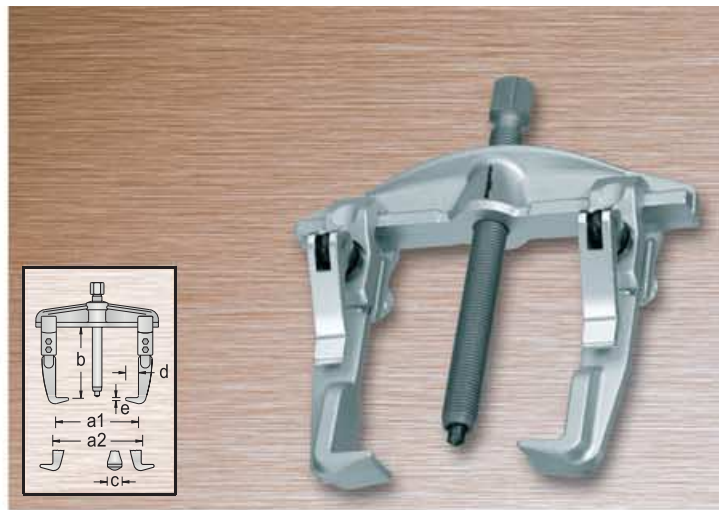
1.04 Puller

2-arm pattern

The new model for the safe and fast removal of pulleys, wheels, ball bearings, etc. Due to the bending-moment reinforcement on its back face, the energy-saving design of the cross piece means even stronger and safer pulling work. With the newly-developed cantilever hook design, it is possible to use these higher forces without losses over the whole width of the cross piece.

The high-speed adjustment feature supports the energy-saving and fast operation. The spindle possesses an interchangeable tip, meaning that a ball tip may also be employed if necessary.

Spindle may be exchanged for hydraulic pressure spindle (see table).



Code	No.	a ₁	a _{2 min}	a _{2 max}	b	⌀	Hydraulic spindle	⌀mm	c	d	e	max. t	⌀
1307703	1.04/1A	130	70	170	100	M 14x1,5 x 140		17	22	15	3,0	3,0	1.2
1307827	1.04/2A	200	110	260	150	G 1/2 x 210	1.06/HSP1	22	30	25	4,5	5,0	3.3
1307940	1.04/3A	350	150	420	200	G 3/4 x 280	1.06/HSP2	27	36	33	6,0	7,5	9.9

1.06 Universal puller

2-arm pattern

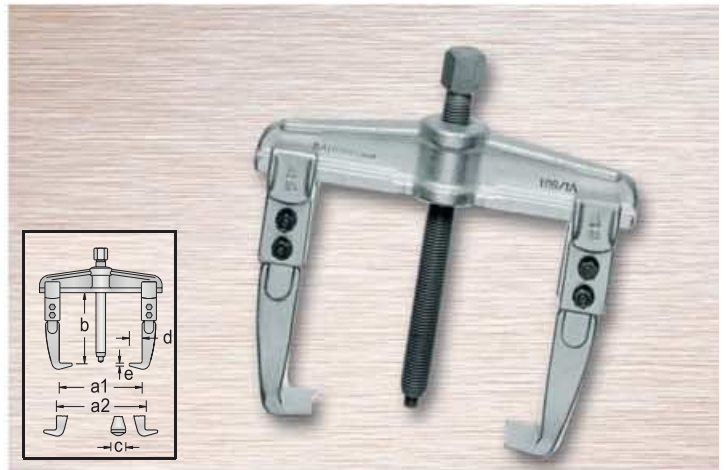
The reliable model for the fast and safe removal of pulleys, wheels, ball bearings, etc.

Strong drop forged design.

Reversible hooks permit use as an internal or external puller.

Available extras are replaceable hooks for various clamping reaches.

Spindle may be exchanged for hydraulic pressure spindle (see table).



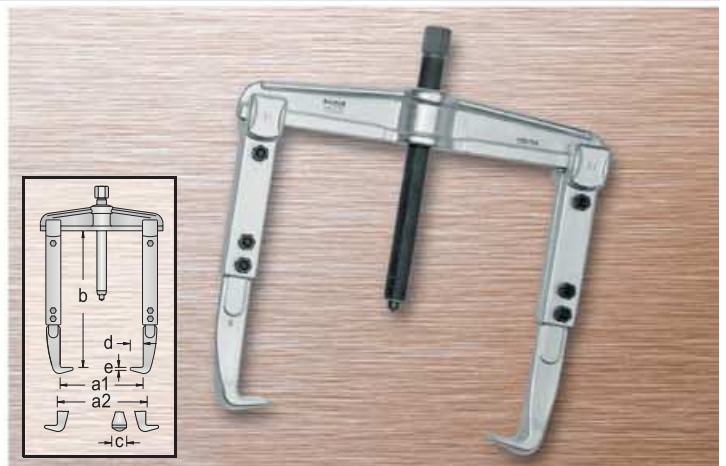
Code	No.	a ₁	a _{2 min}	a _{2 max}	b	⌀	Hydraulic spindle	⌀mm	c	d	e	max. t	⌀
8000230	1.06/1	90	60	140	100	M 14x1,5 x 140		17	22	12	3,0	3,0	1.1
8000310	1.06/1A	130	70	180	100	M 14x1,5 x 140		17	22	12	3,0	3,0	1.3
8000580	1.06/2	160	80	220	150	G 1/2 x 210	1.06/HSP1	22	30	18	3,5	5,0	3.2
8000660	1.06/2A	200	90	260	150	G 1/2 x 210	1.06/HSP1	22	30	18	3,5	5,0	3.6
8000740	1.06/3	250	125	330	200	G 3/4 x 280	1.06/HSP2	27	36	28	6,5	7,5	7.8
8000820	1.06/3A	350	125	420	200	G 3/4 x 280	1.06/HSP2	27	36	28	6,5	7,5	9.2
8000900	1.06/4	520	185	600	200	G 1 x 310	1.06/HSP3	36	36	28	6,5	10,0	15.2
8112970	1.06/5	640	230	715	225	G 1 x 310	1.06/HSP3	36	50	33	10,0	18,0	23.5

1.06 Universal puller

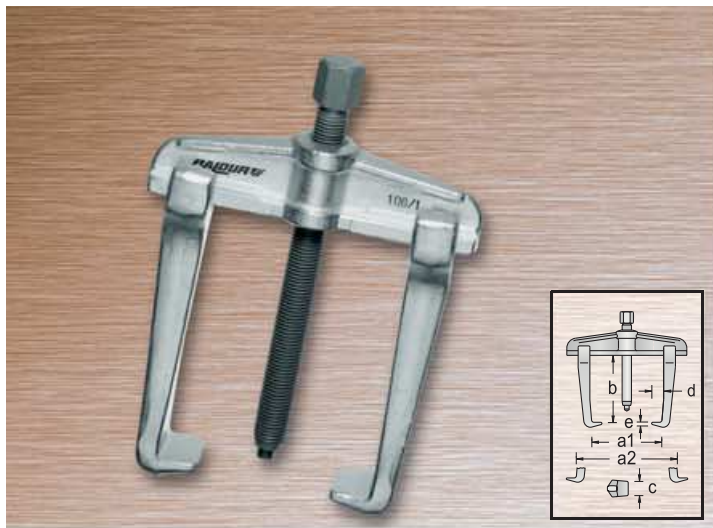
2-arm pattern, with extended hooks

As universal puller No. 1.06/1 to 1.06/4, but with extended pulling hooks.

Spindle may be exchanged for hydraulic pressure spindle (see table).



Code	No.	a ₁	a _{2 min}	a _{2 max}	b	⌀	Hydraulic spindle	⌀mm	c	d	e	max. t	⌀
8108350	1.06/1-2	90	60	140	200	M 14x1,5 x 140		17	22	12	3,0	3,0	1.5
8108430	1.06/1A-2	130	70	180	200	M 14x1,5 x 140		17	22	12	3,0	3,0	1.8
8108510	1.06/2-3	160	80	220	300	G 1/2 x 210	1.06/HSP1	22	30	18	3,5	5,0	4.4
8108780	1.06/2A-3	200	90	260	300	G 1/2 x 210	1.06/HSP1	22	30	18	3,5	5,0	4.8
8001200	1.06/3-3	250	125	330	300	G 3/4 x 280	1.06/HSP2	27	36	28	6,5	7,5	9.1
8108860	1.06/3A-3	350	125	420	300	G 3/4 x 280	1.06/HSP2	27	36	28	6,5	7,5	10.5
8108940	1.06/4-3	520	185	600	300	G 1 x 310	1.06/HSP3	36	36	28	6,5	10,0	16.5
8109080	1.06/3-4	250	125	330	400	G 3/4 x 280	1.06/HSP2	27	36	28	6,5	7,5	10.4
8109160	1.06/3A-4	350	125	420	400	G 3/4 x 280	1.06/HSP2	27	36	28	6,5	7,5	11.8
8109240	1.06/4-4	520	185	600	400	G 1 x 310	1.06/HSP3	36	36	28	6,5	10,0	17.8
8109320	1.06/3-5	250	125	330	500	G 3/4 x 280	1.06/HSP2	27	36	28	6,5	7,5	11.6
8112380	1.06/3A-5	350	125	420	500	G 3/4 x 280	1.06/HSP2	27	36	28	6,5	7,5	13.0
8112460	1.06/4-5	520	185	600	500	G 1 x 310	1.06/HSP3	36	36	28	6,5	10,0	19.0



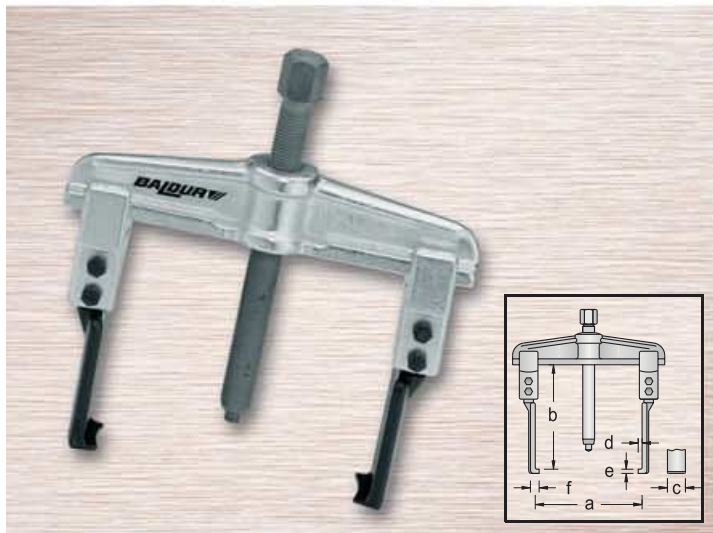
1.06 Universal puller

2-arm pattern, with rigid hooks

Design as universal puller No. 1.06/1 to 1.06/4, but with rigid pulling hooks. For greater ease in setting the clamping spread. The hooks clamp automatically when under tension.

The hooks may be reversed to convert the puller from an external one to an internal one. Spindle may be exchanged for hydraulic pressure spindle (see table).

Code	No.	a ₁	a ₂ min	a ₂ max	b	⌀	Hydraulic spindle	mm	c	d	e	max. t	kg
8001470	1.06/11	100	50	140	100	M 14x1,5 x 140		17	22	15	4,0	3,0	0,8
8001040	1.06/1A1	140	60	180	100	M 14x1,5 x 140		17	22	15	4,0	3,0	1,2
8001550	1.06/21	170	80	220	150	G 1/2 x 210	1.06/HSP1	22	30	24	3,5	5,0	2,7
8001120	1.06/2A1	210	90	260	150	G 1/2 x 210	1.06/HSP1	22	30	24	3,5	5,0	3,1
8001630	1.06/31	250	125	340	200	G 3/4 x 280	1.06/HSP2	27	36	32	5,0	7,5	6,6
8001390	1.06/3A1	340	125	430	200	G 3/4 x 280	1.06/HSP2	27	36	32	5,0	7,5	8,0
8109400	1.06/41	520	185	610	200	G 1 x 310	1.06/HSP3	36	36	32	5,0	10,0	14,0

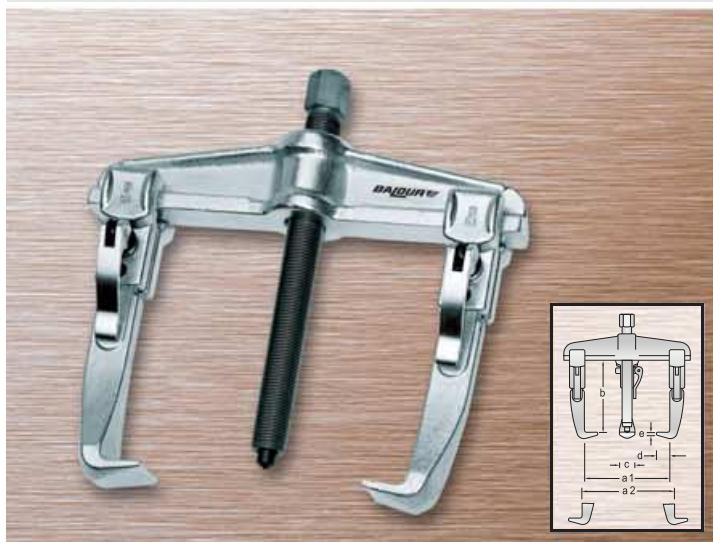


1.06 Universal puller

2-arm pattern, with slim hooks

The feet of the hooks are very slim and particularly suitable for barely-accessible places.

Code	No.	a	b	⌀	mm	c	d	e	f	max. t	kg
8113510	1.06/S1	100	100	M 14x1,5 x 140	17	27	6	3,6	13	2,5	1,0
8113780	1.06/S1A	140	100	M 14x1,5 x 140	17	27	6	3,6	13	2,5	1,2
8114830	1.06/S2	160	150	G 1/2 x 210	22	40	8	5,0	17	5,0	3,0
8114910	1.06/S2A	200	150	G 1/2 x 210	22	40	8	5,0	17	5,0	3,2



1.06 Fast clamping puller

2-arm pattern, with fast-clamp adjustment

The tried and tested model for the safe and fast removal of pulleys, wheels, ball bearings, etc. Strong drop forged pattern.

By reversing the hooks, this tool may be used as an internal or external puller. Exchangeable hooks for several clamping reaches available as accessories.

With the innovative high-speed clamps, fast and uncomplicated setting-up and readjustment is child's play.

Spindle may be exchanged for hydraulic pressure spindle (see table).

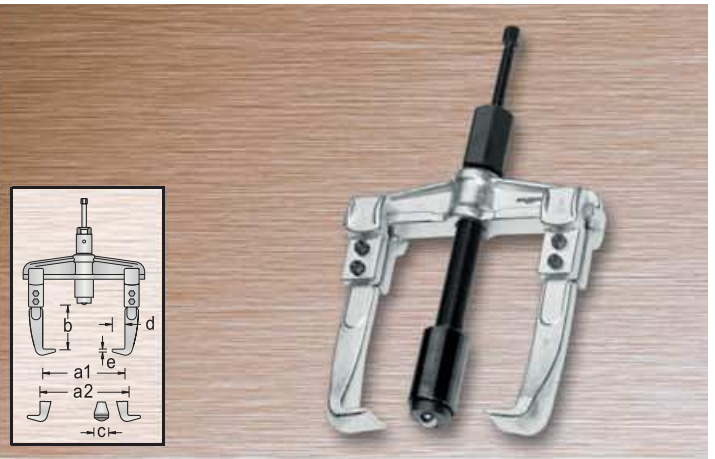
Code	No.	a ₁	a ₂ min	a ₂ max	b	⌀	Hydraulic spindle	mm	c	d	e	max. t	kg
1213830	1.06/1-E	90	60	140	100	M 14x1,5 x 140		17	22	12	3,0	3,0	1,1
1215140	1.06/1A-E	130	70	180	100	M 14x1,5 x 140		17	22	12	3,0	3,0	1,3
1216570	1.06/2-E	160	80	220	150	G 1/2 x 210	1.06/HSP1	22	30	18	3,5	5,0	3,2
1217720	1.06/2A-E	200	90	260	150	G 1/2 x 210	1.06/HSP1	22	30	18	3,5	5,0	3,6
1218980	1.06/3-E	250	125	330	200	G 3/4 x 280	1.06/HSP2	27	36	28	6,5	7,5	7,8
1220160	1.06/3A-E	350	125	420	200	G 3/4 x 280	1.06/HSP2	27	36	28	6,5	7,5	9,2

1.06 HSP Universal puller

hydraulic, 2-arm pattern

The tried and tested model for the safe and fast removal of pulleys, wheels, ball bearings, etc. Drop forged pattern.

By reversing the hooks, this tool may be used as an internal or external puller. With the hydraulic spindle, a controlled and safe pulling action is possible at all times.



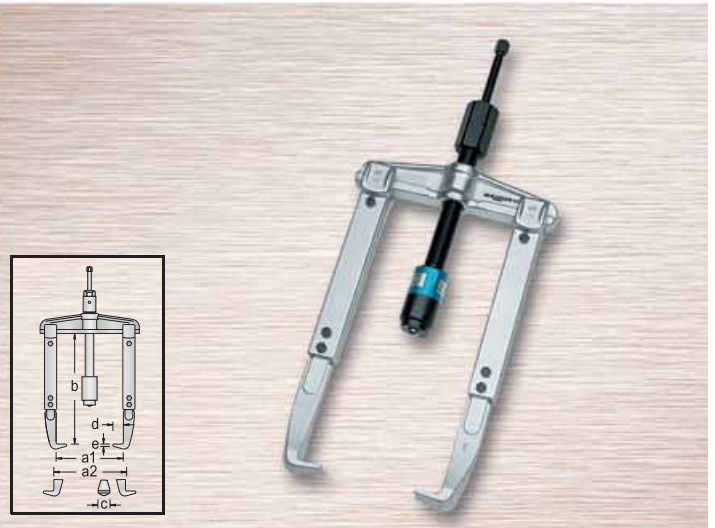
Code	No.	a ₁	a ₂	b	Spindle	c	d	e	max. t	
8000150	1.06/2-HSP1	160	220	75	1.06/HSP1	30	18	3,5	5,0	3.6
8002870	1.06/2A-HSP1	200	260	75	1.06/HSP1	30	18	3,5	5,0	4.0
8003170	1.06/3-HSP2	250	330	125	1.06/HSP2	36	28	6,5	7,5	8.2
8003920	1.06/3A-HSP2	350	420	125	1.06/HSP2	36	28	6,5	7,5	9.6
8004060	1.06/4-HSP3	520	600	90	1.06/HSP3	36	28	6,5	10,0	16.5
8004730	1.06/5-HSP3	640	715	110	1.06/HSP3	50	33	10,0	18,0	24.5

1.06 HSP Universal puller

hydraulic, 2-arm pattern, with extended hooks

For the highest requirements.

With the hydraulic spindle, a controlled and safe pulling action is possible at all times.



Code	No.	a ₁	a ₂	b	Spindle	c	d	e	max. t	
8005700	1.06/2-3-HSP1	160	220	225	1.06/HSP1	30	18	3,5	5,0	4.8
8005890	1.06/2A-3-HSP1	200	260	225	1.06/HSP1	30	18	3,5	5,0	5.2
8005970	1.06/3-3-HSP2	250	330	225	1.06/HSP2	36	28	6,5	7,5	9.5
8006940	1.06/3A-3-HSP2	350	420	225	1.06/HSP2	36	28	6,5	7,5	11.4
8007240	1.06/4-3-HSP3	520	600	190	1.06/HSP3	36	28	6,5	10,0	18.4
8007670	1.06/3-4-HSP2	250	330	325	1.06/HSP2	36	28	6,5	7,5	10.4
8007750	1.06/3A-4-HSP2	350	420	325	1.06/HSP2	36	28	6,5	7,5	11.3
8007830	1.06/4-4-HSP3	520	600	290	1.06/HSP3	36	28	6,5	10,0	19.4
8007910	1.06/3-5-HSP2	250	330	425	1.06/HSP2	36	28	6,5	7,5	12.4
8008480	1.06/3A-5-HSP2	350	420	425	1.06/HSP2	36	28	6,5	7,5	13.4
8008560	1.06/4-5-HSP3	520	600	390	1.06/HSP3	36	28	6,5	10,0	20.4

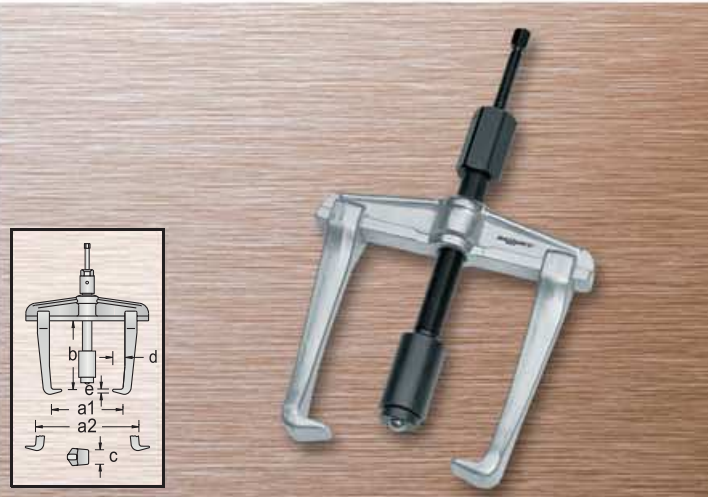
1.06 HSP Universal puller

hydraulic, 2-arm pattern, with rigid hooks

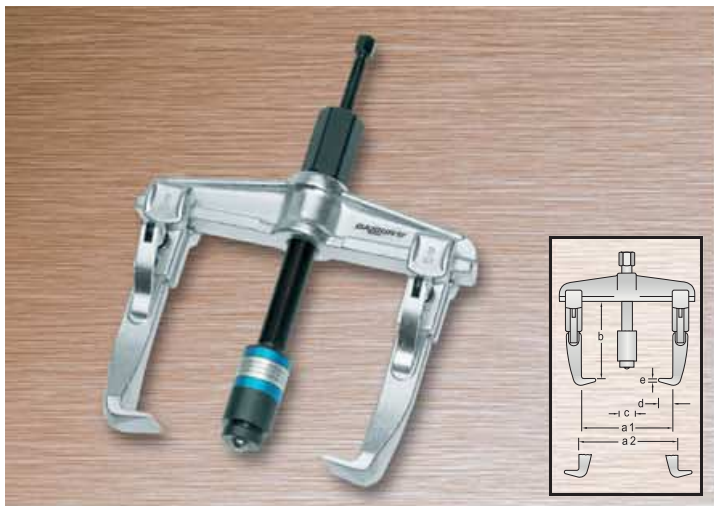
With pulling hooks in one piece, drop forged pattern.

By reversing the hooks, this tool may be used as an internal or external puller.

With the hydraulic spindle, a controlled and safe pulling action is possible at all times.



Code	No.	a ₁	a ₂	b	Spindle	c	d	e	max. t	
8008640	1.06/21-HSP1	170	220	75	1.06/HSP1	30	24	3,5	5,0	3.7
8008720	1.06/2A1-HSP1	210	260	75	1.06/HSP1	30	24	3,5	5,0	3.8
8008800	1.06/31-HSP2	250	340	115	1.06/HSP2	36	32	5,0	7,5	7.0
8008990	1.06/3A1-HSP2	340	430	115	1.06/HSP2	36	32	5,0	7,5	8.8
8009370	1.06/41-HSP3	520	610	80	1.06/HSP3	36	32	5,0	10,0	14.8



1.06 HSP Fast clamping puller hydraulic, 2-arm pattern

With the hydraulic spindle, a controlled and safe pulling action is possible at all times.

With the innovative high-speed clamps, fast and uncomplicated setting-up and readjustment is child's play.

Code	No.	a ₁	a ₂	b	Spindle	c	d	e	max. t	
1221256	1.06/2-E-HSP1	160	220	75	1.06/HSP1	30	18	3,5	5,0	3.7
1221450	1.06/2A-E-HSP1	200	260	75	1.06/HSP1	30	18	3,5	5,0	4.1
1221639	1.06/3-E-HSP2	250	330	125	1.06/HSP2	36	28	6,5	7,5	7.6
1221760	1.06/3A-E-HSP2	350	420	125	1.06/HSP2	36	28	6,5	7,5	8.8



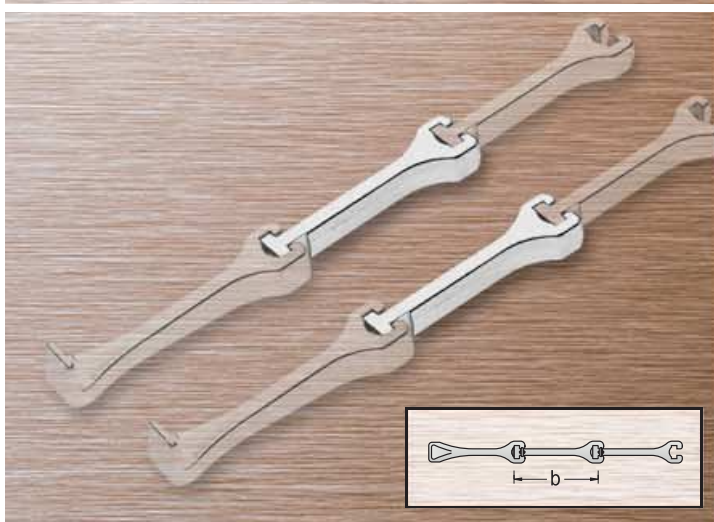
1.06 HSP Hydraulic pressure spindle

This grease-hydraulic pressure spindle has been designed for controlled and safe pulling work, and is set up for a pressure of up to 15 t.

Preparation for use:

- Before using, check whether the pressure spindle is screwed far enough out of the cap, so that the pressure pad is in the initial position in the hydraulic cylinder.
- Unscrew the cap from the spindle body. For this purpose, first slacken off the grub screw.
- Screw the spindle body from beneath into the cross piece of the puller until the body protrudes approx. 60 mm from the cross piece.
- Screw the cap onto the spindle body until the stop, and then fix it in position by turning in the grub screw. Use and operation: e.g. HSP3
- Place the puller into position and pre-tension the spindle body using a size 41 mm wrench.
- Screw the pressure spindle size 17 mm into the cap. The hydraulic effect will come into use. The stroke of the pressure pad in the hydraulic cylinder is max. 12 mm. The workpiece that has been loosened by the hydraulic force may be pulled off completely by turning the spindle body with the cap size 41 mm.
- Following its use, the pressure spindle (size 17 mm) is turned back into its initial position and the pressure pad pushed into the hydraulic cylinder.

Code	No.	a	b	c	d	e	f	Stroke mm	max. t	
8116100	1.06/HSP1	1/2"	55	135	350	12	32	12	12	1.1
8116290	1.06/HSP2	3/4"	80	205	420	12	36	12	12	1.8
8116370	1.06/HSP3	1"	125	165	465	17	41	12	15	3.6



1.06 Extension for pullers DGBM

The one-piece drop forged extensions enable the clamping reach to be extended indefinitely. The extensions may be used together with all hooks of the 1.06 range. (Delivery in pairs).

DGBM = German Federal Utility Patent

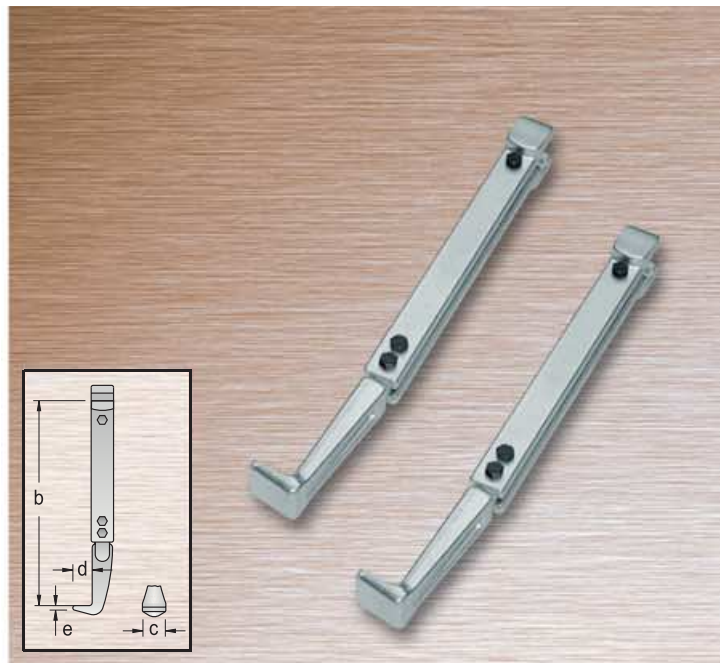
Code	No.		b	
8036500	1.06/V100	for 1.06/A and 1.06/100	100	0.4
8036690	1.06/V150	for 1.06/B and 1.06/150	150	1.2
8036770	1.06/V200	for 1.06/C and 1.06/200	200	2.6

1.06 Pulling hooks

set of 2 pieces

Pulling hooks (1 pair including clamping parts), in standard and special lengths.

Code	No.	†††	b	c	d	e	☺☺
8035020	1.06/A	1.06/1 /1A	100	22	12	3,0	0,6
8035100	1.06/B	1.06/2 /2A	150	30	18	3,5	1,6
8035290	1.06/C	1.06/3 /3A /4	200	36	28	6,5	3,5
8114400	1.06/D	1.06/5	225	50	35	11,0	3,5
8035370	1.06/AV	1.06/1 /1A	200	22	12	3,0	1,1
8035450	1.06/BV	1.06/2 /2A	300	30	18	3,5	2,8
8035530	1.06/CV	1.06/3 /3A /4	300	36	28	6,5	5,0
8035610	1.06/DV	1.06/3 /3A /4	400	36	28	6,5	6,3
8035880	1.06/EV	1.06/3 /3A /4	500	36	28	6,5	7,5
8112700	1.06/D-300	1.06/5	320	50	35	11,0	5,7
8112890	1.06/D-400	1.06/5	420	50	35	11,0	6,4
8113860	1.06/D-500	1.06/5	520	50	35	11,0	8,4



1.06 Pulling hooks

set of 2 pieces, rigid pattern

Code	No.	†††	b	c	d	e	☺☺
8036260	1.06/100	1.06/11 1.06/1A1	100	22	15	3,0	0,4
8111490	1.06/150	1.06/21 1.06/2A1	150	30	24	3,5	1,1
8036420	1.06/200	1.06/31 1.06/3A1 1.06/41	200	36	32	5,0	2,4

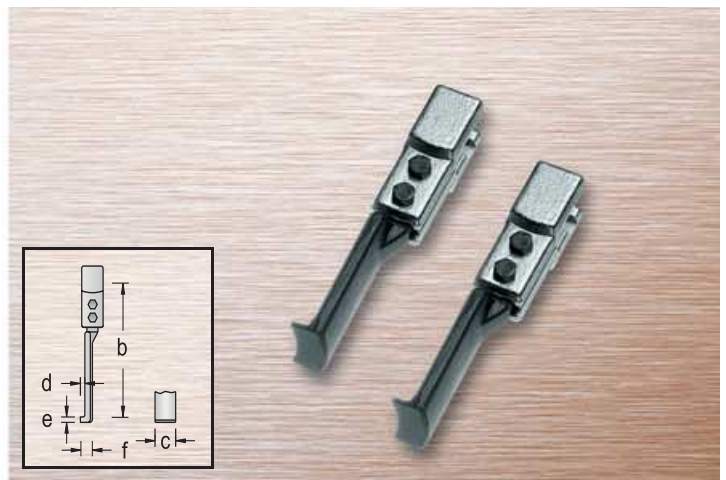


1.06 Pulling hooks

set of 2 pieces, slim pattern

The forged hook feet are very shallow and thus particularly suitable for barely-accessible places.

Code	No.	†††	b	c	d	e	f	☺☺
1175513	1.06/S100	1.06/S1 1.06/S1A	100	27	6	3,6	13	0,5
1175548	1.06/S200	1.06/S1 1.06/S1A	200	27	6	3,6	13	1,0
1175556	1.06/S250	1.06/S1 1.06/S1A	250	27	6	3,6	13	1,2
1554840	1.06/S100S	1.06/S1 1.06/S1A	100	27	6	2,3	13	0,5
1554859	1.06/S200S	1.06/S1 1.06/S1A	200	27	6	2,3	13	1,0
1554867	1.06/S250S	1.06/S1 1.06/S1A	250	27	6	2,3	13	1,2
1175564	1.06/S150	1.06/S2 1.06/S2A	150	40	8	5,0	17	1,3
1175572	1.06/S220	1.06/S2 1.06/S2A	220	40	8	5,0	17	1,7
1175580	1.06/S300	1.06/S2 1.06/S2A	300	40	8	5,0	17	2,2



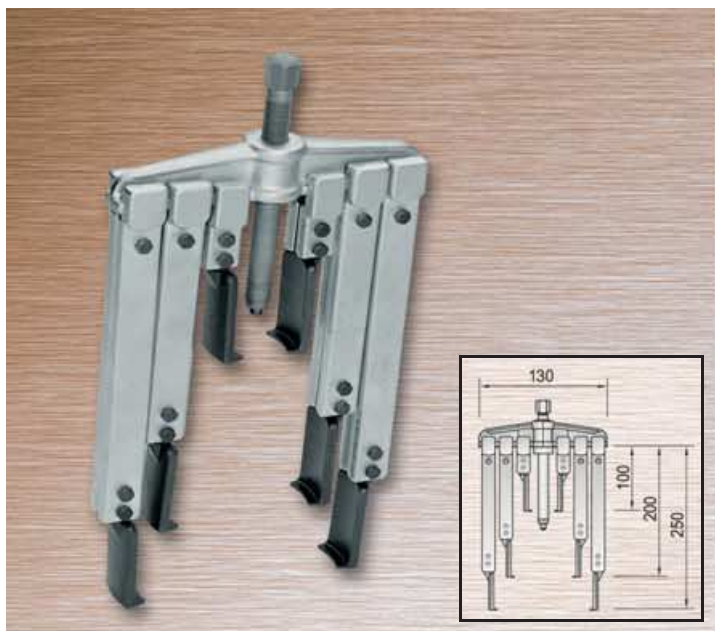
1.06 Fast clamping pulling hooks

set of 2 pieces

With the innovative high-speed clamps, fast and uncomplicated setting-up and readjustment is child's play.

Code	No.	†††	b	c	d	e	☺☺
1221213	1.06/A-E	1.06/1-E 1.06/1A-E	100	22	12	3,0	0,6
1221221	1.06/B-E	1.06/2-E 1.06/2A-E	150	30	18	3,5	1,6
1221248	1.06/C-E	1.06/3-E 1.06/3A-E	200	36	28	6,5	3,5





1.06 AS Puller set

2-arm pattern with 6 slim hooks

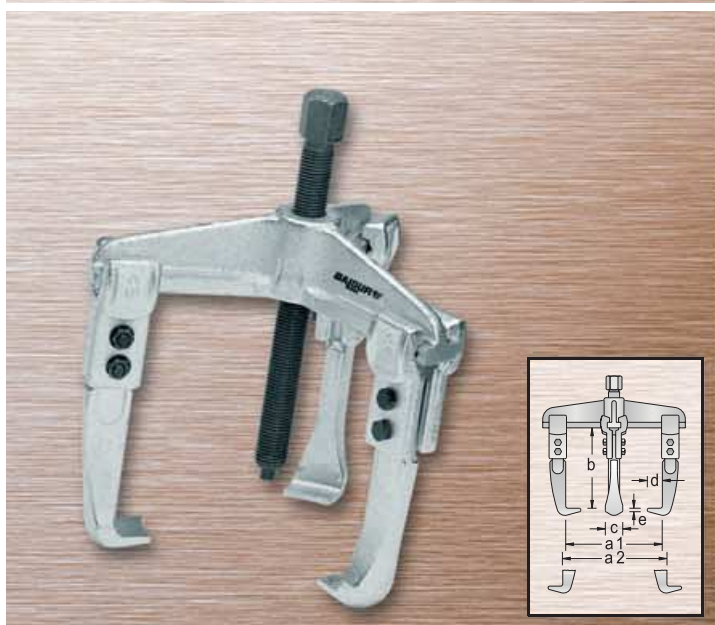
With very slim forged hooks, thus particularly suitable for barely-accessible places.

Code	No.	Contents 2 each	
8001710	1.06/AS	1.06/S100 S200 S250	3.3



1.06 Puller set with display stand

Code	No.		
8111570	1.06/ST	1.06/1 /1A /2 /2A /3	17.5
8111650	1.06/ST1	1.06/11 /1A1 /21 /2A1 /31	15.0
1322745	1.06/ST-E	1.06/1-E /1A-E /2-E /2A-E /3-E	20.0



1.07 Universal puller 3-arm pattern

For use as internal or external puller.

The even load distribution on the three pulling hooks guarantees secure grip and central pulling.

Hooks in special lengths available.

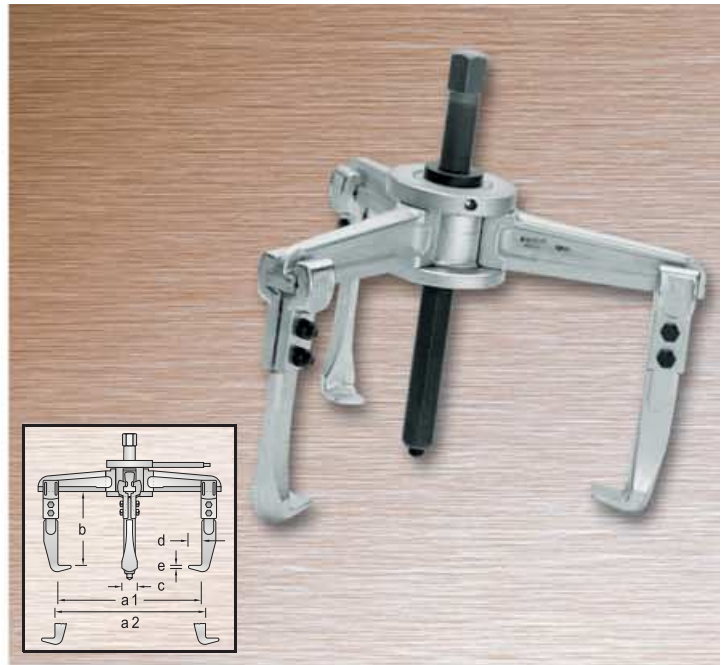
Hooks 1.07/AV (clamping reach 200 mm) for 1.07/1 and 1.07/1A, and hooks 1.07/BV (clamping reach 300 mm) for 1.07/2 and 1.07/2A. Spindle may be exchanged for hydraulic pressure spindle (see table).

Code	No.	a ₁	a ₂ min	a ₂ max	b	Hydraulic spindle	mm	c	d	e	max. t		
8113940	1.07/1	90	70	140	100	M 14x1,5 x 140	17	22	12	3,0	3,0	1.4	
8114080	1.07/1A	130	80	180	100	M 14x1,5 x 140	17	22	12	3,0	3,0	1.6	
8114160	1.07/2	160	100	220	150	G 1/2 x 210	1.06/HSP1	22	30	18	3,5	5,0	3.6
8114240	1.07/2A	200	100	260	150	G 1/2 x 210	1.06/HSP1	22	30	18	3,5	5,0	4.0
1541757	1.07/3	250	100	400	200	G 3/4 x 280	1.06/HSP2	27	36	28	6,5	7,5	9.0

1.07/4 Universal puller

3-arm pattern

Just like our standard model No. 1.06, this puller is designed for all branches of industry, but particularly for the construction of electric motors. It is also suitable for removing heavy, multistage pulley wheels, flywheels, gear wheels, etc. Pins are used to lock the arms at 120° to each other on the hub. The clamping reach may be extended to 490 mm by using extensions No. 1.07/CV, 1.07/DV and 1.07/EV. Spindle may be exchanged for hydraulic pressure spindle (see table). This puller may also be used with the hydraulic aid 1.50 without requiring any reduction bushing.

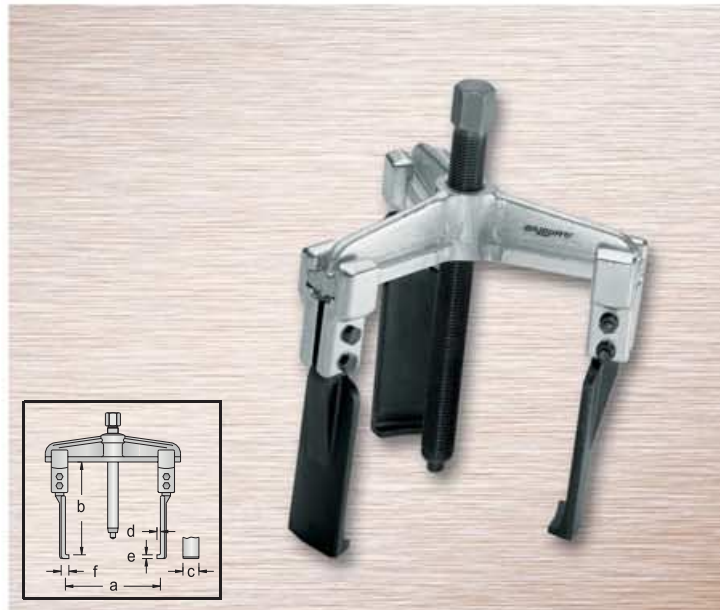


Code	No.	a ₁	a ₂	b		Hydraulic spindle		c	d	e	max. t	
8002440	1.07/4	450	530	200	G 1 x 360	1.06/HSP3	36	36	28	6,5	10	19.0

1.07 Universal puller

3-arm pattern, with slim hooks

The feet of the hooks are very slim and particularly suitable for barely-accessible places.

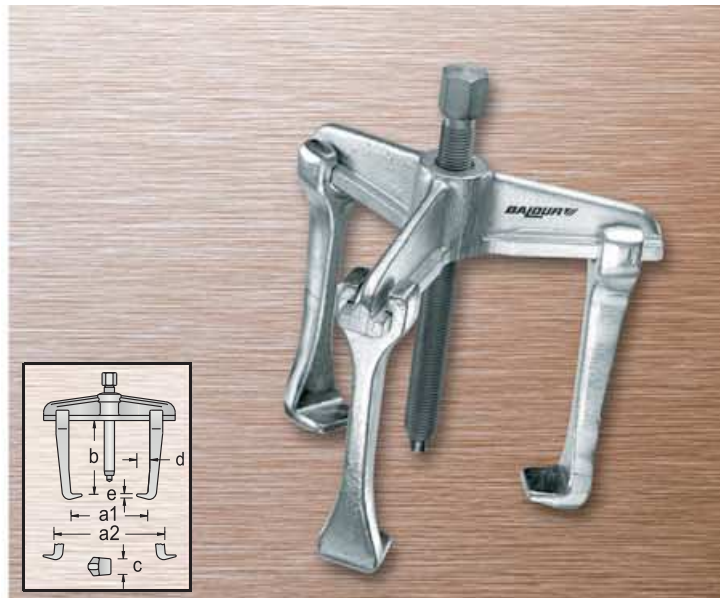


Code	No.	a	b			c	d	e	f	max. t	
8116450	1.07/S1	90	100	M 14x1,5 x 140	17	27	6	3,6	13	2,5	1.3
8116530	1.07/S1A	130	100	M 14x1,5 x 140	17	27	6	3,6	13	2,5	1.4
8116610	1.07/S2	160	150	G 1/2 x 210	22	40	8	5,0	17	5,0	3.6
8116880	1.07/S2A	200	150	G 1/2 x 210	22	40	8	5,0	17	5,0	4.0

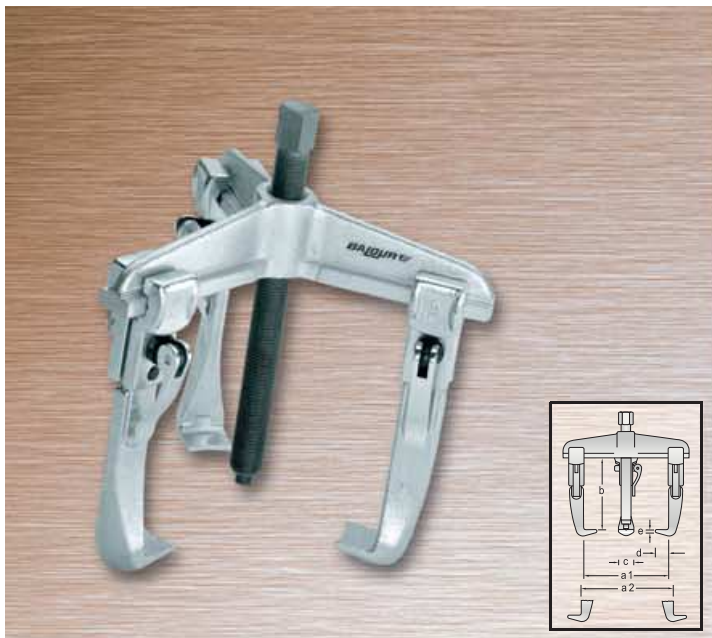
1.07 Universal puller

3-arm pattern, with rigid hooks

Design as universal puller No. 1.07/1 to 1.07/3, but with rigid pulling hooks. For greater ease in setting the clamping spread. The hooks clamp automatically when under tension. The hooks may be reversed to convert the puller from an external one to an internal one. Spindle may be exchanged for hydraulic pressure spindle (see table).



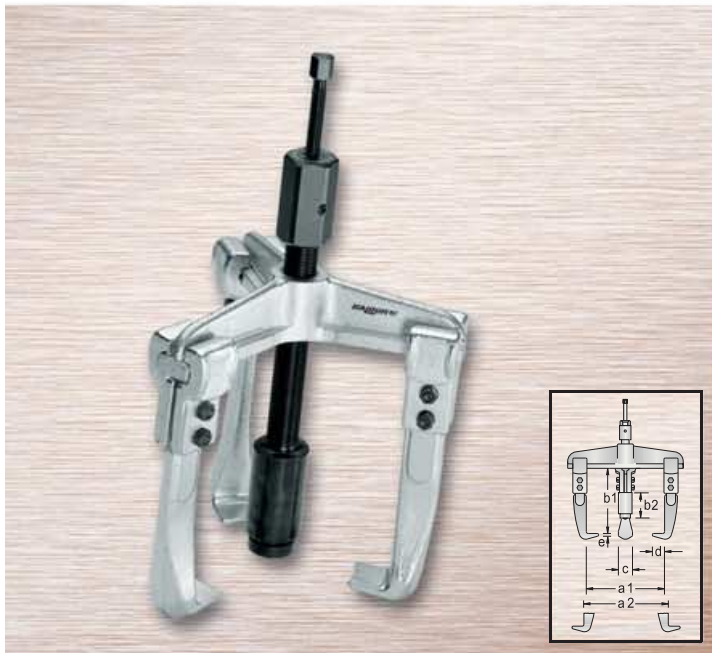
Code	No.	a ₁	a _{2 min}	a _{2 max}	b		Hydraulic spindle		c	d	e	max. t	
1305549	1.07/11	90	70	140	100	M 14x1,5 x 140		17	22	15	4,0	3,0	1.3
1306022	1.07/1A1	130	80	180	100	M 14x1,5 x 140		17	22	15	4,0	3,0	1.5
1306154	1.07/21	160	100	220	150	G 1/2 x 210	1.06/HSP1	22	30	24	3,5	5,0	3.0
1306278	1.07/2A1	200	100	260	150	G 1/2 x 210	1.06/HSP1	22	30	24	3,5	5,0	3.2
1554778	1.07/31	250	100	400	200	G 3/4 x 280	1.06/HSP2	27	36	28	6,5	7,5	9.0



1.07 Fast clamping puller 3-arm pattern, with fast-clamp adjustment

May be used as an internal or external puller. The even distribution of the loading over the three hooks results in secure grip and centered pulling action. With the innovative high-speed clamps, fast and uncomplicated setting-up and readjustment is child's play. Spindle may be exchanged for hydraulic pressure spindle (see table).

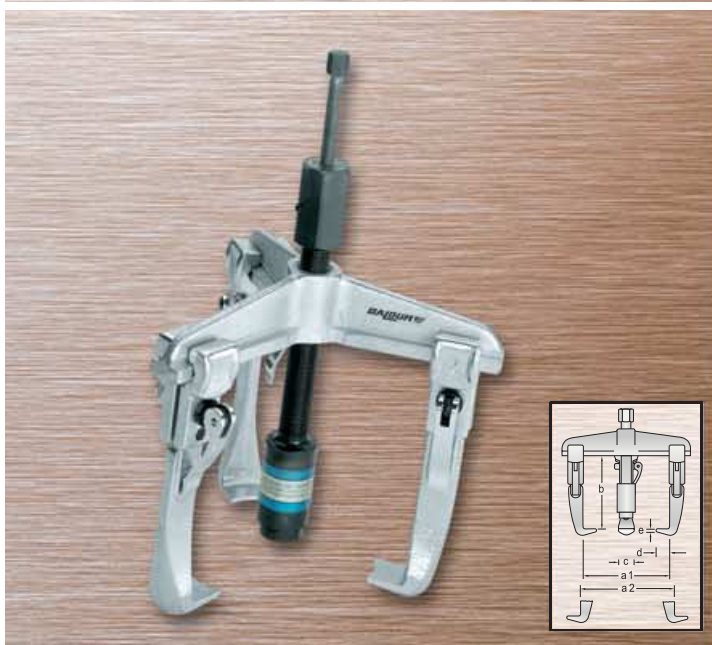
Code	No.	a ₁	a ₂ min	a ₂ max	b	Hydraulic spindle	mm	c	d	e	max. t		
1222902	1.07/1-E	90	70	140	100	M 14x1,5 x 140	17	22	12	3,0	3,0	1.4	
1225901	1.07/1A-E	130	80	180	100	M 14x1,5 x 140	17	22	12	3,0	3,0	1.6	
1227335	1.07/2-E	160	100	220	150	G 1/2 x 210	1.06/HSP1	22	30	18	3,5	5,0	3.6
1227459	1.07/2A-E	200	100	260	150	G 1/2 x 210	1.06/HSP1	22	30	18	3,5	5,0	4.0
1554751	1.07/3-E	250	100	400	200	G 3/4 x 280	1.06/HSP2	27	36	28	6,5	7,5	9.0



1.07 HSP Universal puller hydraulic, 3-arm pattern

The tried and tested model for the removal of pulleys, wheels, ball bearings, etc. Drop forged pattern. By reversing the hooks, this tool may be used as an internal or external puller. With the hydraulic spindle, a controlled and safe pulling action is possible at all times.

Code	No.	a ₁	a ₂	b	Spindle	c	d	e	max. t	
8009960	1.07/2-HSP1	160	220	75	1.06/HSP1	30	18	3,5	5,0	4.4
8010970	1.07/2A-HSP1	200	260	75	1.06/HSP1	30	18	3,5	5,0	4.8
1554816	1.07/3-HSP2	250	100	80	1.06/HSP2	36	28	6,5	7,5	9.3
8012400	1.07/4-HSP3	450	530	80	1.06/HSP3	36	28	6,5	10,0	19.4



1.07 HSP Fast clamping puller hydraulic, 3-arm pattern

With the hydraulic spindle, a controlled and safe pulling action is possible at all times. With the innovative high-speed clamps, fast and uncomplicated setting-up and readjustment is child's play.

Code	No.	a ₁	a ₂	b	Spindle	c	d	e	max. t	
1221922	1.07/2-E-HSP1	160	220	75	1.06/HSP1	30	18	3,5	5,0	4.5
1222554	1.07/2A-E-HSP1	200	260	75	1.06/HSP1	30	18	3,5	5,0	4.7
1554824	1.07/3-E-HSP2	250	400	80	1.06/HSP2	36	28	6,5	7,5	9.3

1.07 Extension for pullers

set of 3 pieces

The one-piece drop forged extensions enable the clamping reach to be extended. The extensions may be used together with all hooks of the 1.07 range.

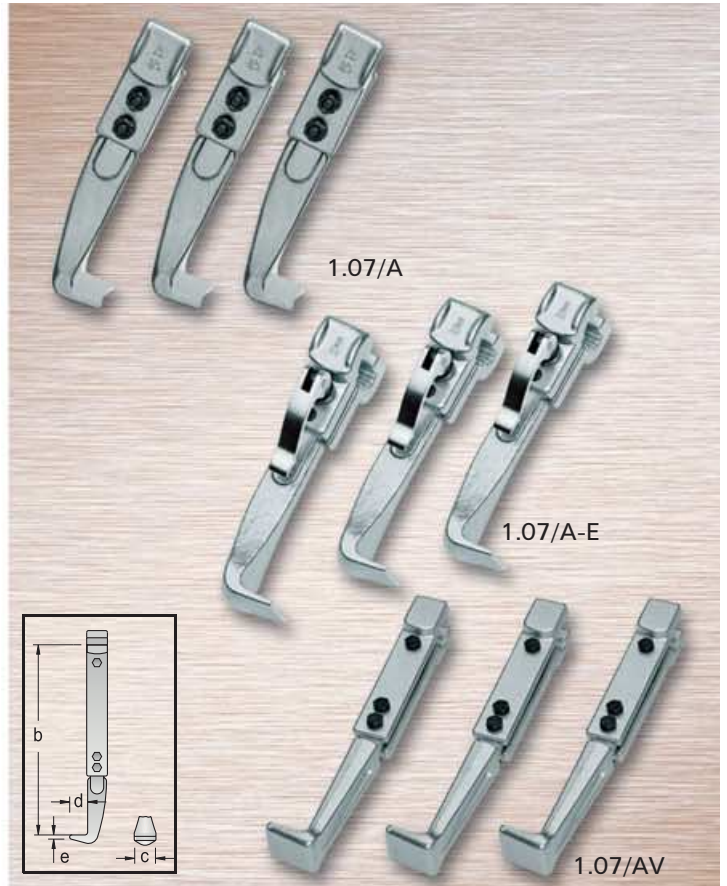
Code	No.	†††	b	↔
1307576	1.07/V100	for 1.07/A and 1.07/100	100	0.4
1307584	1.07/V150	for 1.07/B and 1.07/150	150	1.6
1307592	1.07/V200	for 1.07/C and 1.07/200	200	2.6



1.07 Pulling hooks

set of 3 pieces

Code	No.	†††	b	c	d	e	↔
1307401	1.07/A	1.07/1 1.07/1A	100	22	12	3,0	0.9
1307428	1.07/B	1.07/2 1.07/2A	150	30	118	3,5	2.4
1307436	1.07/C	1.07/3 1.07/4	200	36	28	6,5	5.2
1307452	1.07/A-E	1.07/1 1.07/1A	100	22	12	3,0	0.9
1307460	1.07/B-E	1.07/2 1.07/2A	150	30	18	3,5	0.9
1307479	1.07/C-E	1.07/3 1.07/4	200	36	28	6,5	8.0
1307487	1.07/AV	1.07/1 1.07/1A	200	22	12	3,0	1.6
1307495	1.07/BV	1.07/2 1.07/2A	300	30	18	3,5	4.2
1307509	1.07/CV	1.07/3 1.07/4	300	36	28	6,5	7.5
1307517	1.07/DV	1.07/3 1.07/4	400	36	28	6,5	9.4
1307525	1.07/EV	1.07/3 1.07/4	500	36	28	6,5	11.2



1.07 Pulling hooks

set of 3 pieces, rigid pattern

for 3-arm pullers.

Code	No.	†††	b	c	d	e	↔
1307533	1.07/100	1.07/11 1.07/1A1	100	22	15	3,0	0.6
1307541	1.07/150	1.07/21 1.07/2A1	150	30	24	3,5	1.6
1307568	1.07/200	1.07/3 1.07/4	200	36	32	5,0	3.7



1.07 Pulling hooks

set of 3 pieces, slim pattern

The feet of the hooks are very slim and thus particularly suitable for barely-accessible places.

Code	No.	†††	b	c	d	e	f	↔
1307606	1.07/S100	1.07/S1 1.07/S1A	100	27	6	3,6	13	1.2
1307622	1.07/S200	1.07/S1 1.07/S1A	200	27	6	3,6	13	2.4
1307630	1.07/S250	1.07/S1 1.07/S1A	250	27	6	3,6	13	3.0
1554786	1.07/S100S	1.07/S1 1.07/S1A	100	27	6	2,3	13	0.8
1554794	1.07/S200S	1.07/S1 1.07/S1A	200	27	6	2,3	13	1.6
1554808	1.07/S250S	1.07/S1 1.07/S1A	250	27	6	2,3	13	2.0
1307649	1.07/S150	1.07/S2 1.07/S2A	150	40	8	5,0	17	2.7
1307657	1.07/S220	1.07/S2 1.07/S2A	220	40	8	5,0	17	3.4
1307665	1.07/S300	1.07/S2 1.07/S2A	300	40	8	5,0	17	5.0





1.07 AS Puller set

3-arm pattern with 9 slim hooks

The feet of the hooks are very slim and thus particularly suitable for barely-accessible places.

Code	No.	Contents 3 each	
8117260	1.07/AS	1.07/S100 S200 S250	4.3



1.07/KSE Puller set

Contents: case, spindle, 1 cross piece each 2-arm and 3-arm pattern and 3 puller hooks length 100 mm.

Code	No.	
1438484	1.07/K-1-SE	2.1



1.07 K Puller set

with 9 hooks, in plastic case

Contents: case, spindle, 1 cross piece each 2-arm and 3-arm pattern and 9 puller hooks in length 100, 200, 250 mm.

Code	No.	a _{max}	b ₁	b ₂	b ₃		mm	c	d	e	
8117340	1.07/K	120	100	200	250	M 14x1,5 x 140	17	27	6	3,6	5.0



1.07 Puller set

in plastic case

With three quick-clamping hooks and hydraulic spindle. Suitable for internal and external pulling work, 2-arm or 3-arm, with powerful hydraulic spindle and quick-clamping hooks. The right puller for the job - and ready in a second. The best equipment for the professional for everyday heavy duty work. For industrial or car and truck repairs - set of two. Your price advantage: 1 spindle and 2 hooks saved. Hydraulic spindle HSP1 (max. 12 t force). Three quick-clamping hooks for internal and external use. Heavy duty cross pieces for 2-arm or 3-arm use. And everything stored safely in a handy case. Contents: case, spindle, 1 cross piece each 2-arm and 3-arm, 3 puller hooks.




Code	No.	a ₁	a ₂	b		mm	c	d	e	
1438492	1.07/K-2-E-HSP1	160	220	75	1.06/HSP1	30	18	3	5	2.1

1.08 Universal puller

2-arm pattern, with fast spindle adjustment

Twice as fast and twice as simple. With the fast spindle adjustment feature, the spindle can be set the desired range in a moment. When the clamping yoke is released, the 4-part internal thread closes, and takes the full working pressure.

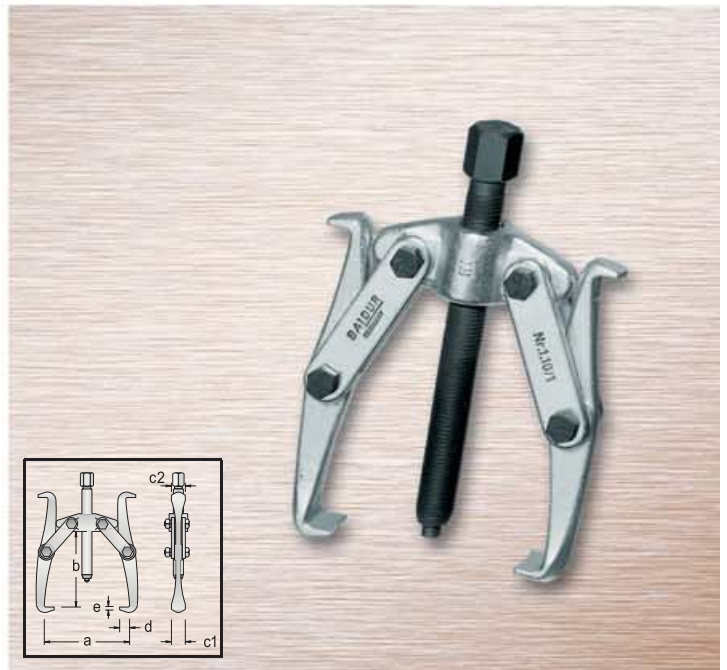





Code	No.	a ₁	a ₂ min	a ₂ max	b			c	d	e	max. t	
8019090	1.08/1A	130	80	180	100	M 14x1,5 x 140	17	22	12	3,0	3,0	1.4
8000070	1.08/2A	200	110	260	150	G 1/2 x 210	22	30	18	3,5	5,0	3.8
8018950	1.08/3A	350	130	420	200	G 3/4 x 280	27	36	28	6,5	7,5	10.2

1.10 Puller

2-arm pattern

The reliable, heavy duty model for the removal of pulleys, wheels, ball bearings, etc. The double hook ends, wide or narrow, grip automatically. The wide hook ends of the puller 1.10/2 and 1.11/2 possess 8 mm slots, so that pulleys or gears may also be pulled off using 8 mm bolts.






Code	No.	a _{max}	b			c ₁	c ₂	d	e	max. t	
8002600	1.10/1	90	80	M 14x1,5 x 125	17	17	10	7	2	2	0.7
8002790	1.10/2	160	130	M 18x1,5 x 170	19	24	20	13	3	5	2.0

1.11 Puller

3-arm pattern

The reliable, heavy-duty model for the removal of pulleys, wheels, ball bearings, etc. The double hook ends, wide or narrow, grip automatically. The wide hook ends of the puller 1.10/2 and 1.11/2 possess 8 mm slots, so that pulleys or gears may also be pulled off using 8 mm bolts.



Code	No.	a _{max}	b			c ₁	c ₂	d	e	max. t	
8002950	1.11/1	90	80	M 14x1,5 x 125	17	17	10	7	2	3,0	0.9
8003090	1.11/2	160	130	M 18x1,5 x 170	19	24	20	13	3	7,5	2.7

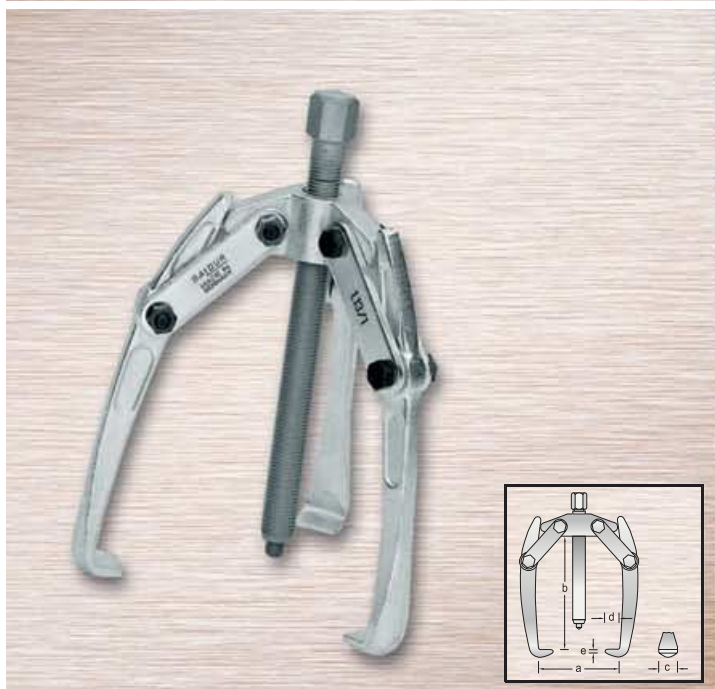


1.12 Puller

2-arm pattern

Handy robust model for the removal of pulleys, wheels, ball bearings, etc. Inexpensive economy model. The hook tips grip automatically.

Code	No.	a _{max}	b	—	● mm	c	d	e	max. t	↕
8003250	1.12/0	70	80	M 12x1,5 x 110	14	14	8	2,0	1	0.4
8003330	1.12/1	90	120	M 14x1,5 x 155	17	18	11	2,5	2	0.7
8003410	1.12/2	130	160	M 18x1,5 x 200	19	25	14	3,0	5	1.9
8003680	1.12/3	180	200	G 1/2 x 250	22	32	20	3,5	8	3.7



1.13 Puller

3-arm pattern

Handy robust model for the removal of pulleys, wheels, ball bearings, etc. Inexpensive economy model. The hook tips grip automatically.

Code	No.	a _{max}	b	—	● mm	c	d	e	max. t	↕
8004140	1.13/0	70	80	M 12x1,5 x 110	14	14	8	2,0	1,5	0.5
8004220	1.13/1	90	120	M 14x1,5 x 155	17	18	11	2,5	3,0	1.0
8004300	1.13/2	130	160	M 18x1,5 x 200	19	25	14	3,0	7,5	2.6
8004490	1.13/3	180	200	G 1/2 x 250	22	32	20	3,5	12,0	5.1



1.12 Battery-terminal puller

2-arm pattern

The perfect tool for removing small parts such as battery terminals, pulleys, wheels, ball bearings, etc. The hook tips grip automatically.

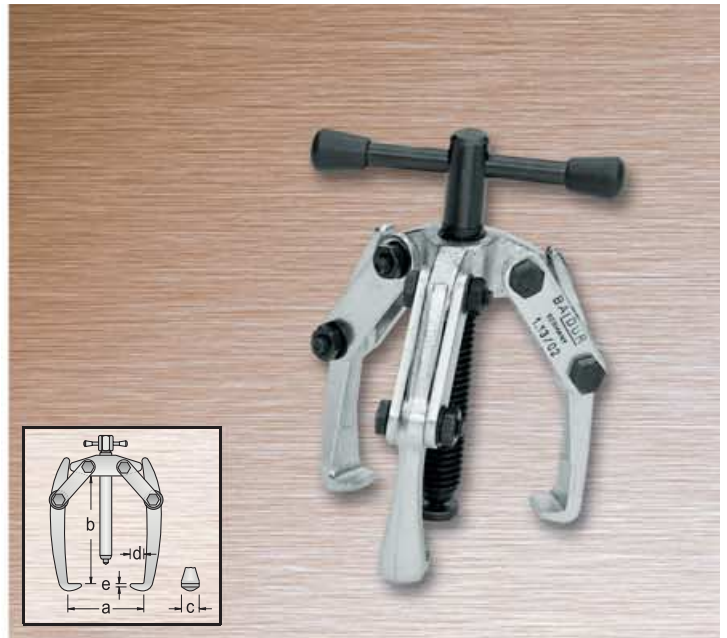
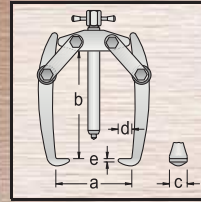
Code	No.	a _{max}	b	—	c	d	e	max. t	↕
8003760	1.12/01	60	60	M 10x1,5 x 80	10	5	2	0,5	160
8003840	1.12/02	60	40	M 10x1,5 x 60	10	5	2	0,5	120

1.13 Battery-terminal puller

3-arm pattern

The perfect tool for removing small parts such as battery terminals, pulleys, wheels, ball bearings, etc. The hook tips grip automatically.

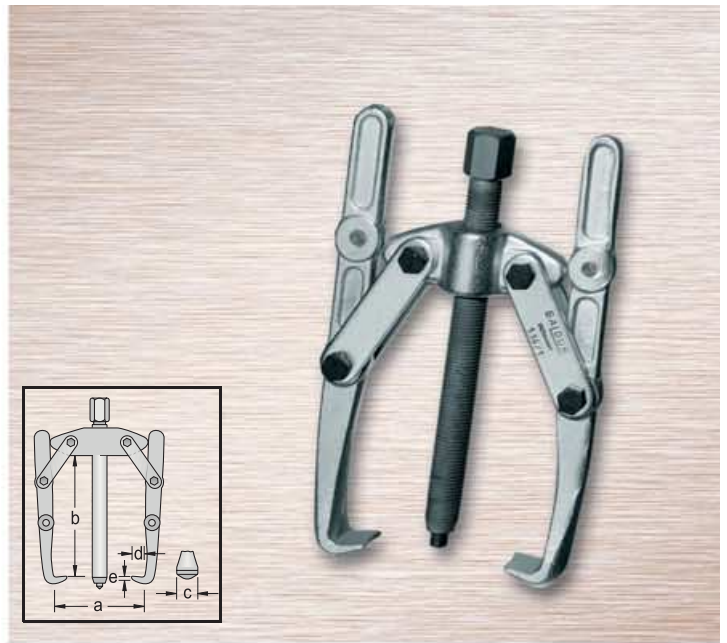
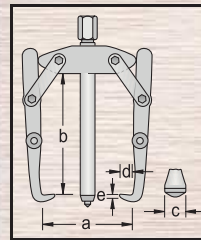
Code	No.	a _{max}	b	⌀	c	d	e	max. t	↺↻
8004570	1.13/01	60	60	M 10x1,5 x 80	10	5	2	0,75	200
8004650	1.13/02	60	40	M 10x1,5 x 60	10	5	2	0,75	150



1.14 Puller

2-arm pattern

The reliable, extra-strong model for the removal of pulleys, wheels, ball bearings, etc. With technical and economical benefits due to the variable clamping reach and automatic grip of the hooks. Especially suited to removing V-belt pulley wheels and flywheels mounted on longer shafts. Spindle may be exchanged for hydraulic pressure spindle (see table).



Code	No.	a _{max}	b	⌀	Hydraulic spindle	⌀mm	c	d	e	max. t	↺↻
8004810	1.14/0	90	100	M 12x1,5 x 110		14	14	9	2,0	1	500
8005030	1.14/1	130	140	M 14x1,5 x 140		17	18	11	2,0	2	800
8005380	1.14/2	200	210	M 18x1,5 x 200		19	25	16	3,0	5	2100
8005460	1.14/3	250	260	G 1/2 x 250	1.06/HSP1	24	32	18	3,5	8	4300
8005540	1.14/4	280	390	G 1/2 x 250	1.06/HSP1	24	32	20	3,5	8	5100
8005620	1.14/5	420	480	G 1/2 x 350	1.06/HSP1	24	32	20	3,5	8	5800

1.14 HSP Puller

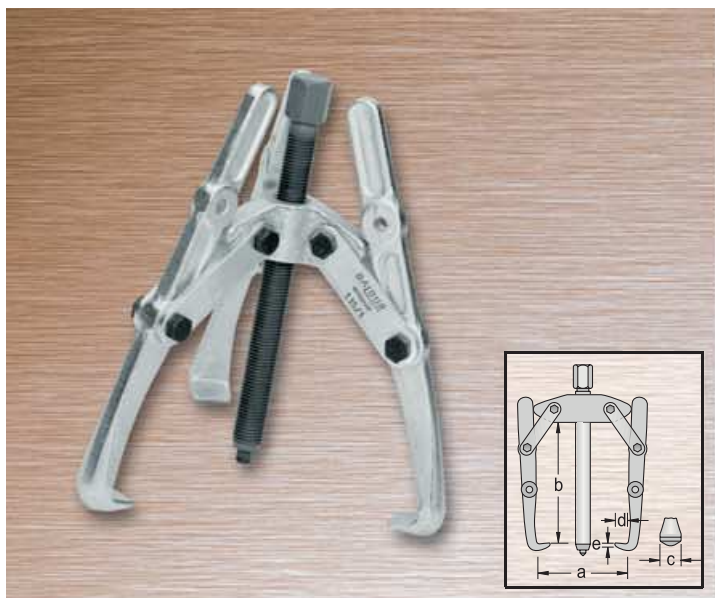
hydraulic, 2-arm pattern

The reliable, extra-strong model for the removal of pulleys, wheels, ball bearings, etc. With technical and economical benefits due to the variable clamping reach and automatic grip of the hooks. Especially suited to removing V-belt pulley wheels and flywheels mounted on longer shafts.

With the hydraulic spindle, a controlled and safe pulling action is possible at all times.

Code	No.	a _{max}	b	⌀mm	c	d	e	max. t	↺↻
1392883	1.14/3-HSP1	250	260	1.06/HSP1	22	32	18	3,5	8 4.3
1392913	1.14/4-HSP1	280	390	1.06/HSP1	22	32	20	3,5	8 5.1





1.15 Puller

3-arm pattern

The reliable, extra-strong model for the removal of pulleys, wheels, ball bearings, etc. With technical and economical benefits due to the variable clamping reach and automatic grip of the hooks. Especially suited to removing V-belt pulley wheels and flywheels mounted on longer shafts. Spindle may be exchanged for hydraulic pressure spindle (see table).

Code	No.	a _{max}	b	⌀	Hydraulic spindle	●mm	c	d	e	max. t	↕
8006000	1.15/0	90	100	M 12x1,5 x 110		14	14	9	2,0	2	650
8006190	1.15/1	130	140	M 14x1,5 x 140		17	18	11	2,0	3	1100
8006350	1.15/2	200	210	M 18x1,5 x 200		19	25	16	3,0	8	2900
8006430	1.15/3	250	260	G 1/2 x 250	1.06/HSP1	24	32	18	3,5	12	6100
8006510	1.15/4	280	390	G 1/2 x 250	1.06/HSP1	24	32	20	3,5	12	7100
8006780	1.15/5	420	480	G 1/2 x 350	1.06/HSP1	24	32	20	3,5	12	8200



1.15 HSP Puller

hydraulic, 3-arm pattern

The reliable, extra-strong model for the removal of pulleys, wheels, ball bearings, etc. With technical and economical benefits due to the variable clamping reach and automatic grip of the hooks. Especially suited to removing V-belt pulley wheels and flywheels mounted on longer shafts. With the hydraulic spindle, a controlled and safe pulling action is possible at all times.

Code	No.	a _{max}	b	⌀	●mm	c	d	e	max. t	↕
1392956	1.15/3-HSP1	250	260	1.06/HSP1	22	32	18	3,5	12	6.1
1392980	1.15/4-HSP1	280	390	1.06/HSP1	22	32	20	3,5	12	7.1



1.14 L Fan puller

2-arm pattern




The especially-slender hooks reach through the slots the collar of the fan. Due to their slender hooks and the three adjustment positions of its clamping reach, these pullers are also particularly suitable for the dismantling of gear arrangements. Hooks grip automatically.

Code	No.	a _{max}	b	⌀	●mm	c	d	e	max. t	↕
8005110	1.14/1L	150	200	M 14x1,5 x 155	17	10	6	2	2	0.9

1.15 L Fan puller

3-arm pattern

The especially-slender hooks reach through the slots the collar of the fan. Due to their slender hooks and the three adjustment positions of its clamping reach, these pullers are also particularly suitable for the dismantling of gear arrangements. Hooks grip automatically.




Code	No.	a _{max}	b			c	d	e	max. t	
8006270	1.15/1L	150	200	M 14x1,5 x 155	17	10	6	2	3	1.3

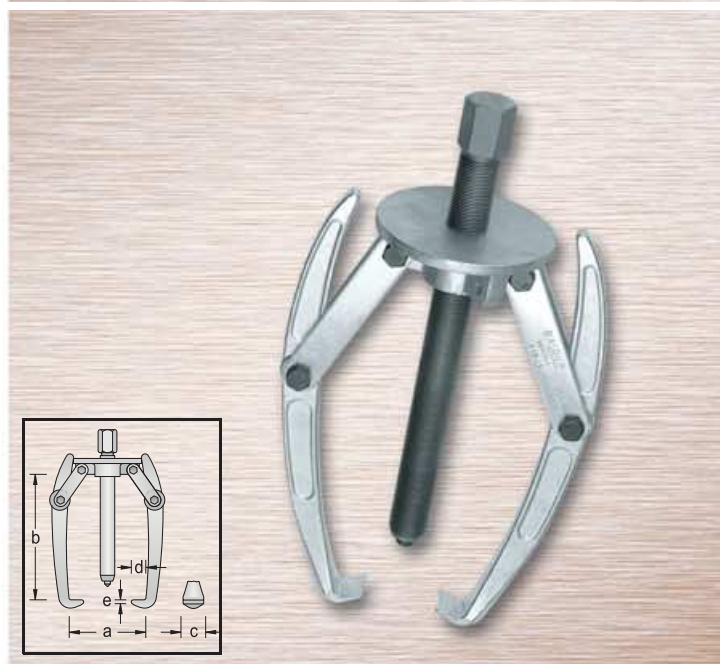


1.16 Puller

2-arm pattern

Very strong type. Especially suitable for industrial purposes and for heavy agricultural and construction machines. Hooks grip automatically. Spindle may be exchanged for hydraulic pressure spindle (see table).




Code	No.	a _{max}	b		Hydraulic spindle		c	d	e	max. t	
8007080	1.16/1	280	300	G 1 x 360	1.06/HSP3	36	32	19	3	8	8.0
8007160	1.16/2	420	420	G 1 x 500	1.06/HSP3	36	32	22	3	8	10



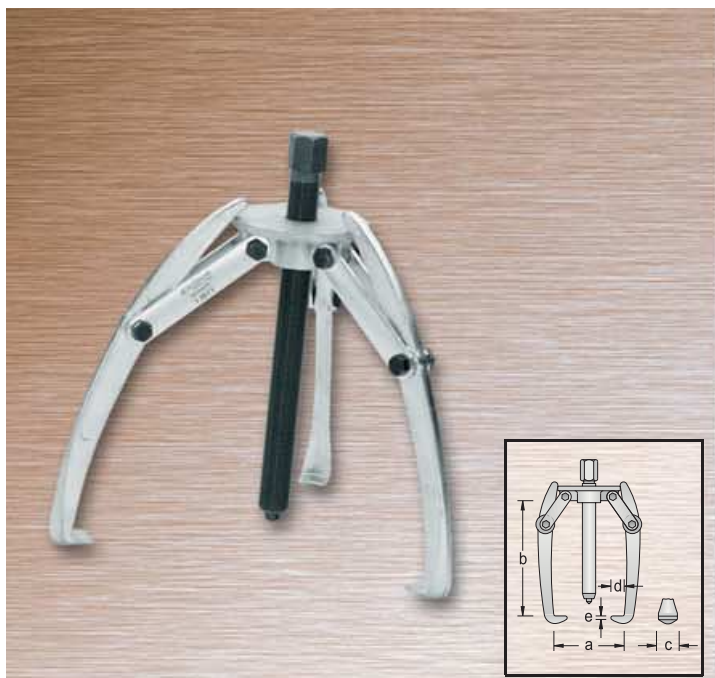
1.16 HSP Puller

hydraulic, 2-arm pattern

Very strong type. Especially suitable for industrial purposes and for heavy agricultural and construction machines. Hooks grip automatically. With the hydraulic spindle, a controlled and safe pulling action is possible at all times.




Code	No.	a _{max}	b			c	d	e	max. t	
8012590	1.16/1-HSP3	280	190	1.06/HSP3	36	32	19	3	8	9.3
8012670	1.16/2-HSP3	420	310	1.06/HSP3	36	32	22	3	8	11.3

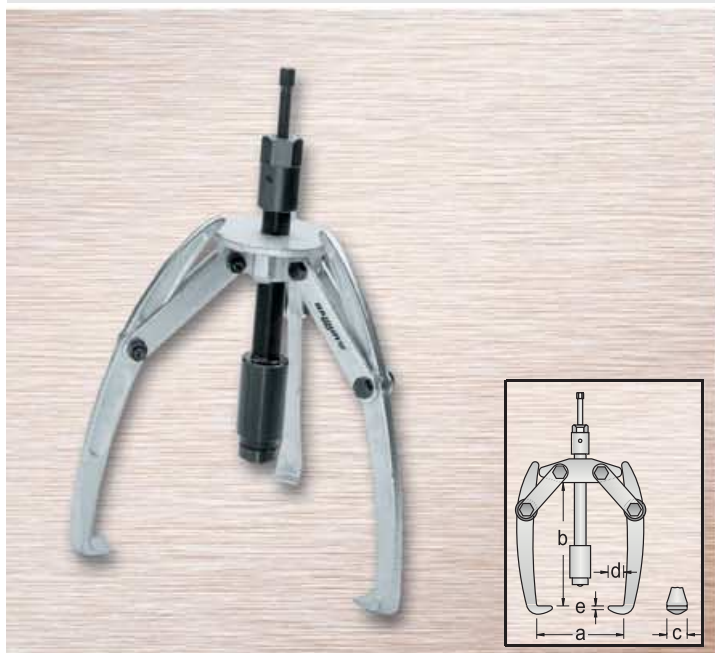




1.17 Puller 3-arm pattern




Very strong type. Especially suitable for industrial purposes and for heavy agricultural and construction machines. Hooks grip automatically. Spindle may be exchanged for hydraulic pressure spindle (see table).

Code	No.	a _{max}	b		Hydraulic spindle	 mm	c	d	e	max. t	
8007320	1.17/1	300	300	G 1 x 360	1.06/HSP3	36	32	19	3	12	9.7
8007400	1.17/2	425	425	G 1 x 500	1.06/HSP3	36	32	22	3	12	13.2



1.17 HSP Puller hydraulic, 3-arm pattern




Very strong type. Especially suitable for industrial purposes and for heavy agricultural and construction machines. Hooks grip automatically. With the hydraulic spindle, a controlled and safe pulling action is possible at all times.

Code	No.	a _{max}	b		 mm	c	d	e	max. t	
8014290	1.17/1-HSP3	300	190	1.06/HSP3	36	32	19	3	12	11
8014370	1.17/2-HSP3	425	315	1.06/HSP3	36	32	22	3	12	14.5



1.18 Puller ECO 2-arm pattern

The tried and tested range for economical bearing removal.

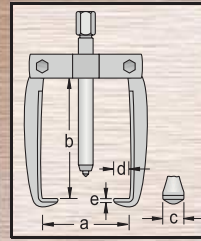
Code	No.	a _{max}	b		 mm	c	d	e	max. t	
1464965	1.18/1	110	110	M 14x1,5 x 163	17	17	18	5,0	2	1.0
1464973	1.18/2	160	140	M 18x1,5 x 215	19	21	20	6,5	3	1.9
1464981	1.18/3	200	200	G 1/2 x 282	22	22	22	7,5	5	2.3

1.19 Puller ECO

3-arm pattern

The tried and tested range for economical bearing removal.

Code	No.	a _{max}	b	—	mm	c	d	e	max. t	
1465007	1.19/1	110	110	M 14x1,5 x 163	17	17	18	5,0	2	1.3
1465015	1.19/2	160	140	M 18x1,5 x 215	19	21	20	6,5	3	2.5
1465023	1.19/3	200	200	G 1/2 x 282	22	22	22	7,5	5	4.0

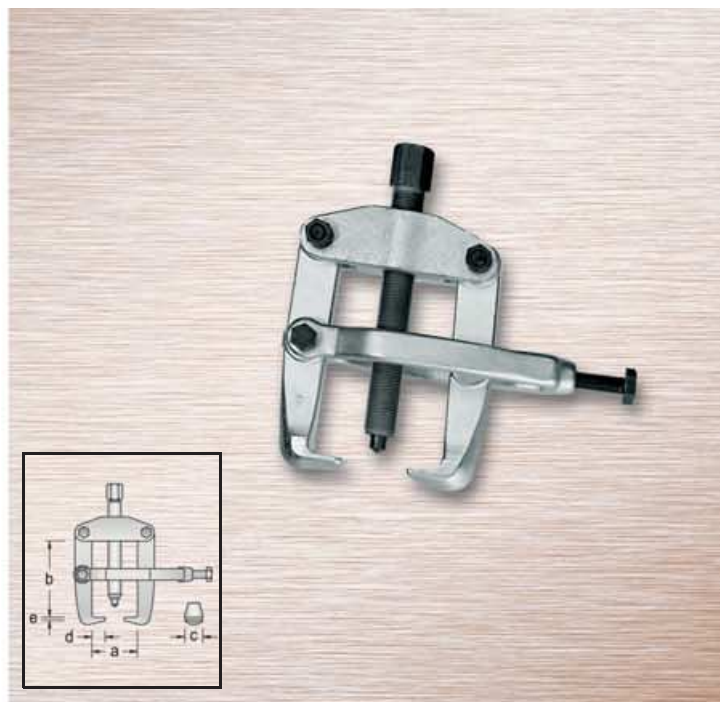
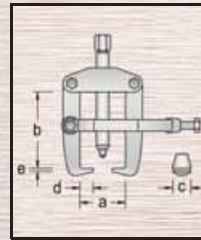


1.20 Puller

with clamping yoke

These pullers are mainly employed for removing car and truck steering arms. The clamping yoke presses the hooks firmly behind the part to be removed and prevents the puller from slipping out of position.

Code	No.	a _{max}	b	—	mm	c	d	e	max. t	
8008050	1.20/1	90	85	M 18x1,5 x 130	19	22	12	3,0	5,0	1.2
8008130	1.20/2	90	100	M 18x1,5 x 130	19	24	15	3,0	5,0	1.8
8008210	1.20/3	150	140	G 1/2 x 175	22	30	18	3,5	7,5	3.3

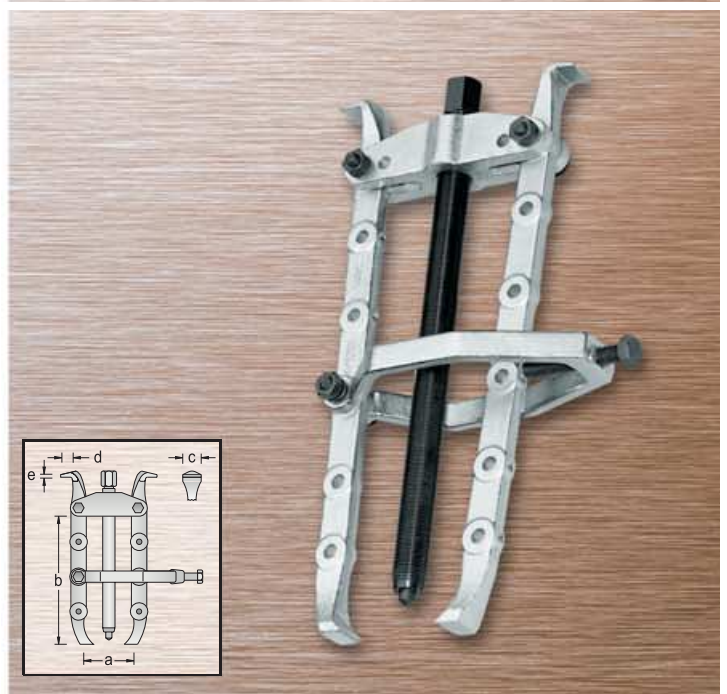
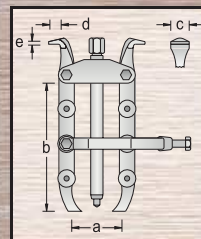


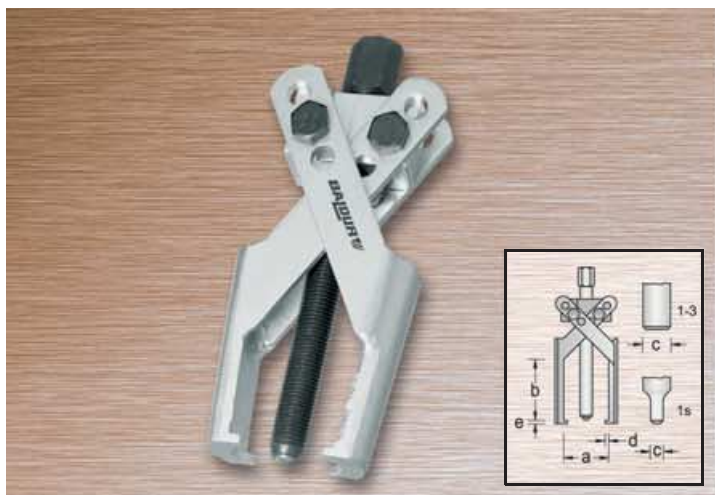
1.22 Puller

with clamping yoke

Due to its double-ended hooks, this tool is particularly suitable for separating and removing flush-seated parts, such as axle bearings, pinions, etc. Especially economical, this is a multi-functional tool to cover a range of sizes.

Code	No.	a _{max}	b	—	mm	c	d	e	max. t	
8009020	1.22/1	110	170	M 18x1,5 x 200	19	25	14	3,5	5,0	2.1
8009100	1.22/2	160	260	G 1/2 x 350	22	25	14	3,5	7,5	4.1
8009290	1.22/3	160	325	G 1/2 x 350	22	25	14	3,5	7,5	4.5





1.23 Puller with slim hooks

For removing bearings in confined spaces. The scissor-pattern hook design means that the hooks are pressed firmly onto the part during the removal procedure.

Code	No.	a _{max}	b	—	● mm	c	d	e	max. t	↕
8084580	1.23/1S	80	85	M 10 x 105	12	11	4,5	2,5	1,5	0.4
8084310	1.23/1	80	85	M 10 x 105	12	23	4,5	2,5	2,0	0.4
8084660	1.23/2	120	120	M 14x1,5 x 130	17	31	5,0	3,5	3,5	0.8
8084740	1.23/3	120	150	M 14x1,5 x 205	17	31	5,0	3,5	3,5	1.0



1.26 Nut splitter

For splitting jammed or stripped nuts without damaging the bolt thread. Suitable for nuts up to property class 6.

Code	No.	for nuts up to	—	● mm	↕
8009880	1.26/1	SW 17, M 10	M 14x1,5 x 37	17	0.2
8009610	1.26/2	SW 24, M 16	M 14x1,5 x 37	17	0.3
8010030	1.26/3	SW 36, M 24	M 22x1,5 x 70	24	1.0

1.26/12 Nut splitter set

In plastic wallet.

Code	No.	Contents 1 each	↕
8010110	1.26/12	1.26/1 1.26/2	0.5



1.26 HYD Nut splitter hydraulic

With strong chisel, additionally induction hardened at the cutting edge for breakage resistance. The chamfer at the chisel's edge improves the splitting effect and prevents breakage. With smooth chisel function. Channel walls rolled, thus mirror-smooth and wear resistant. No force necessary when turning back the chisel. For nuts up to property class 10.

Code	No.	for nuts up to	max. t	↕
8009450	1.26/1 HYD	SW 7 - SW 22, M 4 - M 14	5	0.7
8009530	1.26/2 HYD	SW 22 - SW 36, M 14 - M 24	13	3.8



1.28 Stud extractor

For inserting and removing studs. These tools will reliably grip even extremely short stud ends. Slim pattern.

Code	No.	∅-Stud	● mm	↕
8010620	1.28/1	6-13	19	230
8010700	1.28/2	8-19	19	300
8010890	1.28/3	19-25	19	390



1.28/4 Stud extractor

For inserting and removing studs. These tools will reliably grip even extremely short stud ends.

Code	No.	∅-Stud	● mm	↕
1465031	1.28/4	5-26	19	390

1.29 Ball bearing extractor

These special extractors have been developed for removing ball bearings that are both on a shaft and in a housing. These hooks selected using the table are inserted into the ball race, evenly distributed in the outer ring according to the number of balls. The support rings supplied for the ball bearings to be removed are placed on the bearings' inner races. The bridge with spindle is then placed on the centering depression of the shaft and the spindle put under tension with the hooks.

Code	No.	—	mm	↕
8011000	1.29/1	M 10 x 160	14	150
8011190	1.29/2	M 12 x 195	14	280
8011270	1.29/3	M 14 x 210	17	420
8011350	1.29/4	M 18 x 230	19	750
8011430	1.29/5	M 20 x 235	22	1100



Tool inventory at the professional fire brigade in Bochum.



1.29 Pulling hooks

set of 4 pieces

* Support rings are used for pulling these bearings.

Code	No.	l-mm	for bridge - for ball bearing No.	↕
8011510	1.29/10	145	1.29/1 - 6000 6001 6002	80
8011780	1.29/15	145	1.29/1 - 6003 6004 6005 6200 6201 6202	100
8011860	1.29/20	177	1.29/2 - 6006 6203	200
8011940	1.29/25	177	1.29/2 - 6007 6008 6009 6010 6204 6205 6300 6301 6302	200
8012080	1.29/30	185	1.29/2 - 6303 6304	300
8012160	1.29/35	187	1.29/3 - 6011 6012	400
8012240	1.29/40	235	1.29/3 - 6206 6207 6208 6305	600
8012240	1.29/40	235	1.29/4 - 6209 6210	600
8110250	1.29/45	236	1.29/4 - 6211 6212 6308* 6404 6405 1.29/5 - 6309* 6310* 6311* 6406*	800



1.29 K Ball bearing extractor set

In sheet metal case, dimensions: 285 x 190 x 75 mm.

Code	No.	Contents	↕
8110330	1.29/1K	3 hubs with spindle 1.29/1 - 1.29/3 6 sets hooks 1.29/10 - 1.29/35 1 plug-in handle 1.29/0	4.7
8012320	1.29/3K	5 hubs with spindle 1.29/1 - 1.29/5 6 sets hooks 1.29/10 - 1.29/45 1 plug-in handle 1.29/0 and 4 support rings	8.0





1.92 Ball bearing extractor PLUS

Using the new BALDUR ball bearing extractor, the removal of shaft-mounted ball bearings in a housing is now possible without any problems. Due to its great degree of functionality combined with the simplified handling, this novel design makes a PLUS in effectiveness and productivity possible. This tool is distinguished by its extreme user-friendliness. The hooks are fixed in the slot.

The self-locking arrangement means that the force applied is 100% utilised. Secure at all times against slipping off - and a straight pulling force for precise working.

Suitable for more than 40 standard ball bearings up to 6311.

* with supporting ring 6309

** with supporting ring 6310

*** with supporting ring 6311

Code	No.	Bearing	Hook	Head size
		6000	10	1-7
		6001	10	1-4
		6002	10	1-3
		6003	10	1-4
		6200	10	1-4
		6201	20	1-7
		6202	20	1-4
		6203	20	1-4
		6004	20	1-3
		6005	20	1-3
		6006	20	1-3
1553534	1.92/1	6300	30	1-3
		6301	30	1-3
		6302	30	1-7
		6007	40	1-3
		6008	40	1-3
		6204	40	1-4
		6009	40	1-3
		6010	40	1-3
		6205	40	1-3
		6303	40	1-7
		6304	40	1-7
		6011	50	2-3
		6012	50	2-3
		6206	50	2-3
		6207	50	2-3
		6305	50	2-7
		6403	60	2-3
		6306	60	2-4
		6307	60	2-4
		6208	60	2-3
		6209	60	2-3
1553542	1.92/2	6210	60	2-3
		6211	60	2-3
		6407*	60	2-3
		6404	70	2-7
		6405	70	2-7
		6406	70	2-7
		6308	70	2-4
		6309	70	2-4
		6212	70	2-3
		6310**	70	2-4
		6311***	70	2-4
1553550	1.92/12	Contents of set 1.92/1 and 1.92/2		

1.30 Internal extractor

For extremely-tightly-packed ball bearings, bearing races, bushings, and oil seals®.

Operation:

The internal extractor is inserted into the bearing and the spindle screwed in. The sharp turned-out shoulders of the pulling shell jaws will press outwards behind the part to be extracted. The counter-support brace is then added. Both feet must be aligned parallel to the spindle to ensure rigidity.

Code	No.	M	mm	mm	mm
8012750	1.30/0	M 10	5-8	10	150
8012830	1.30/1	M 10	8-12	10	160
8012910	1.30/2	M 10	12-15	10	170
8013130	1.30/3	M 10	15-19	14	170
8013480	1.30/4	M 10	19-25	14	200
8013560	1.30/4A	M 10	25-30	14	300
8013640	1.30/5	M 10	30-35	14	350
8013720	1.30/6	M 14x1,5	35-45	17	650
8013800	1.30/7	M 14x1,5	45-55	17	800
8013990	1.30/8	M 14x1,5	55-70	19	1400
8014020	1.30/9	M 14x1,5	70-100	27	2900



1.30 N Internal extractor with reinforced shoulder

Especially suitable for the safe and trouble-free extraction of needle roller bearings, ball bearings and brass sleeves from crankshafts.

Note:

The shoulder of the shell jaw must be applied behind the bearing.

Code	No.	M	mm	mm	mm
8013050	1.30/2N	M 10	12-14	10	170
8013210	1.30/3N	M 10	14-19	14	170



1.30/10 Internal extractor

Suitable for removing large ball bearings and bearing outer races.

Operation:

The extraction jaws are spread by turning the nut. The newly-developed spreading system enables a simple, step-free and time-saving adjustment to the desired diameter to be made. The sharp-edged sections of the extraction jaws seat flush beneath when spread.

Code	No.	M	mm	mm	mm
8014100	1.30/10	G 1/2"	60-160	36	2450



1.35 Impact bearing puller

Suited for the removal of small ball bearings since there is often not enough room for support braces.

Code	No.	for internal extractor	with adaptor	M	mm	mm
8016070	1.35/1	1.30/1 - 1.30/2	-	M 10	17	550
8039010	1.35/2	1.30/0 - 1.30/7	M 14 x 1,5	M 10	24	3200





1.36 Support brace

For internal extractors Nos. 1.30/0 – 1.30/9.

Operation:

The support brace is placed on the housing and the spindle screwed onto the spindle of the internal extractor. The toggle is held firmly, and the bearing extracted by tightening the nut.

Code	No.	for internal extractor	M	mm	
8016580	1.36/1	1.30/1 - 1.30/5	M 10	27	600
8016660	1.36/2	1.30/6 - 1.30/8	M 14x1,5	32	1400
8016740	1.36/3	1.30/9	M 14x1,5	32	3000

1.36/4 Support brace

For internal extractor No. 1.30/10.

Operation see No. 1.36

Code	No.	for internal extractor	M	mm	
8016820	1.36/4	1.30/10	G 1/2"	36	7700



1.31 Internal extractor set

The handy sheet metal case contains the most used extractor sizes for the removal of ball bearings, bearing races, bushings, oil seals®, etc.

Code	No.	Contents	
8014450	1.31/0N	4 internal extractors 12-30 mm 1.30/2 -3 -4 -4A 1 support brace 1.36/1	2.4
8014530	1.31/0	4 internal extractors 12-30 mm 1.30/2N -3N -4 -4A 1 support brace 1.36/1	2.4
8014610	1.31/1	6 internal extractors 12-46 mm 1.30/2 - 6 2 support braces 1.36/1 - 2	5.9
8014880	1.31/2	8 internal extractors 12-70 mm 1.30/2 - 8 2 support braces 1.36/1 - 2	10.0



1.32 Set of internal and external extractors

In a handy sheet metal case. Sets comprise internal extractors, support braces, pulling chucks, external extractors and stud extractors.

Code	No.	Contents	
8015260	1.32/1	6 internal extractors 12-46 mm 1.30/2 - 6 2 support braces 1.36/1 - 2 1 pulling chuck 1.44 1 battery-terminal puller 1.12/02 1 puller, 2-arm pattern 1.06/1	10.0
8015340	1.32/2	8 internal extractors 12-70 mm 1.30/2 - 8 2 support braces 1.36/1 - 2 1 pulling chuck 1.44 1 battery-terminal puller 1.12/02 2 pullers, 2-arm pattern 1.06/1 - 2 1 stud extractor 1.28/1	19.0

1.37 Cylinder liner puller

complete with support brace

Wet heavy-vehicle (e.g. Daimler Benz, MAN) cylinder liners, automobile and stationary-engine liners, and other parts may be extracted using this puller.

Operation:

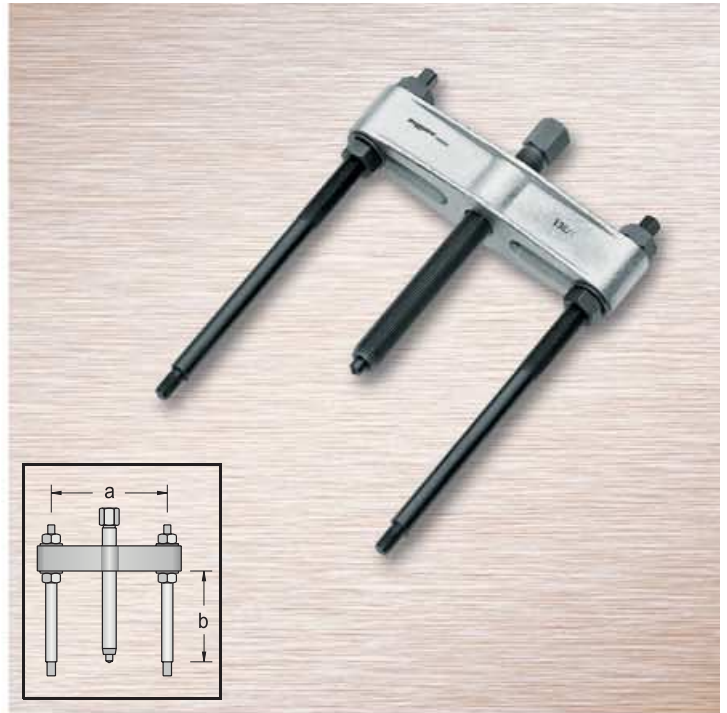
The spindle of the support brace is screwed into the clamping nut of the puller, and the puller inserted into the liner.

The support brace is placed on to the cylinder block.

Due to the newly-developed spreading system, when the spindle is turned, all three jaws spread quickly and without difficulty, until they are firmly seated beneath the edge of the liner.






Then the nut of the support brace is tightened.

Code	No.	 M	 mm	 mm	
8017200	1.37/2	G 1/2"	60-160	36	6800






1.38 Separator puller

These separator pullers are used together with the bearing separators No. 1.40. The tension bolts are screwed into the threaded holes in the bearing separators.

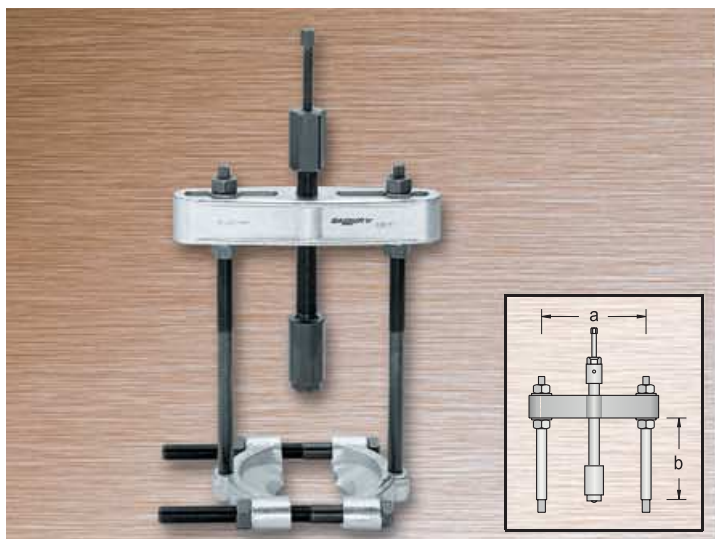
Code	No.	for separator	a	b	 mm	 mm	 M /  M top	Hydraulic spindle	
8017550	1.38/0	1.40/0	40-120	160	M 14 x 120	17	M 10 / M 12x1,5		1.0
8017630	1.38/1	1.40/1	60-165	230	M 18 x 170	19	M 10 / M 14x1,5		2.4
8017710	1.38/2	1.40/2	70-215	250	G 1/2 x 210	22	M 14x1,5 / M 16x1,5	1.06/HSP1	3.8
8017980	1.38/3	1.40/3	90-300	270	G 3/4 x 280	27	M 18x1,5 / M 20x1,5	1.06/HSP2	7.2
8018010	1.38/4	1.40/4	125-380	350	G 1 x 310	36	M 22x1,5 / M 24x1,5	1.06/HSP3	11.3
8018280	1.38/5	1.40/5	140-440	400	G 1 x 360	36	M 24x1,5 / M 26x1,5	1.06/HSP3	16.3

1.38 V Extension rod

For separator puller No. 1.38.

Code	No.	for separator	 M	 mm	
8018440	1.38/AV	1.38/0 1.38/1	M 10	100	0.2
8018520	1.38/CV	1.38/2	M 14 x 1,5	100	0.5
8018600	1.38/DV	1.38/3	M 18 x 1,5	100	0.6
8018790	1.38/EV	1.38/4	M 22 x 1,5	200	2.1
8018870	1.38/FV	1.38/5	M 24 x 1,5	200	2.7





1.38 HSP Separator puller hydraulic, for separating blades

These pullers are used together with the separating blades No. 1.40. The tension bolts are screwed into the threaded bores of the separating blades.

Code	No.	for separator	a	b	M	mm
8014960	1.38/2-HSP1	1.40/2	70-215	175	M 14 x 1,5	4.0
8015180	1.38/3-HSP2	1.40/3	90-300	195	M 18 x 1,5	6.8
8015420	1.38/4-HSP3	1.40/4	125-380	240	M 22 x 1,5	11.8
8015500	1.38/5-HSP3	1.40/5	140-440	290	M 24 x 1,5	16.6



1.40 Bearing separator

For removing taper roller and ball bearings, inner bearing races, and other tightly-seated or thin-walled parts.

Operation:

To remove tightly-seated parts, the sharp edges of the separator blades are pressed behind the part and it is then withdrawn using the correct puller No. 1.38. To avoid damage to delicate parts, the flat surfaces of the separator blades are used. This produces a large support surface that prevents deformation.

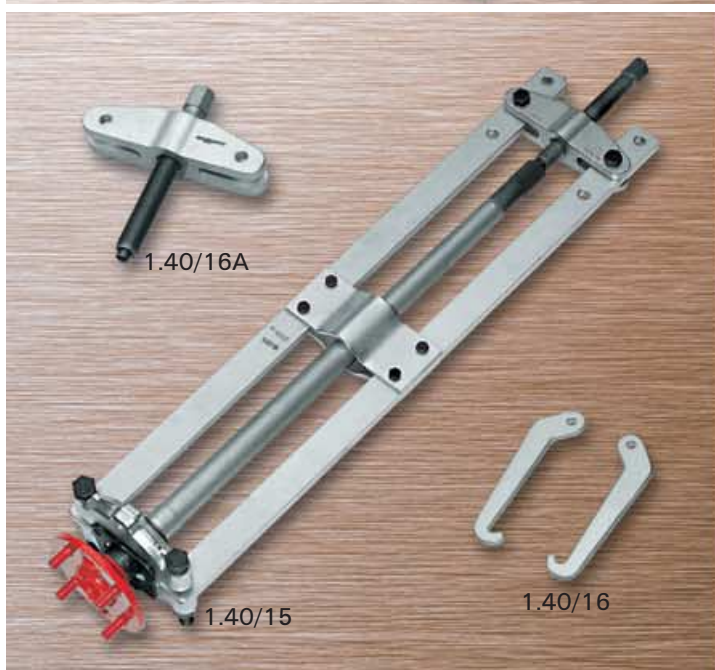
Code	No.	for puller	M	mm	mm
8019680	1.40/0	1.38/0	M 10	5-60	0.4
8019760	1.40/1	1.38/1	M 10	12-75	1.0
8019840	1.40/2	1.38/2	M 14 x 1,5	22-115	2.3
8019920	1.40/3	1.38/3	M 18 x 1,5	30-155	4.4
8020180	1.40/4	1.38/4	M 22 x 1,5	30-200	8.9
8020260	1.40/5	1.38/5	M 24 x 1,5	30-250	15.3



1.41 Separator and puller set

Set in sheet metal case, comprising separator, puller, and extension rods. Dimensions: 420 x 320 x 80 mm.

Code	No.	Contents	mm
8109750	1.41/0	1.38/0 1.38/AV 1.40/0	2.8
8109830	1.41/1	1.38/1 1.38/AV 1.40/1	4.1
8109910	1.41/2	1.38/2 1.38/CV 1.40/2	9.1
8110090	1.41/3	1.38/3 1.38/DV 1.40/3	16.1
8110170	1.41/4	1.38/4 1.38/EV 1.40/4	28.6



1.40/15 Drive shaft bearing puller

Operation:

The separator blades are placed evenly behind the bearing and the pulling arms aligned parallel to the axle and spindle.

Code	No.	Aperture	mm	mm	mm
8010380	1.40/15	45-75	750	G 1/2 x 160	22 11.8

1.40/16 Set of hooks

2 pieces

These hooks, together with the crossbeam and separator blades of No. 1.40/15, are used for mounting drive-shaft bearings.


Operation:

The separator blades are placed with the flat side behind the bearing, and the hooks inserted behind the clamping bolt of the separator blades. When the spindle is tightened, the bearing is pulled against the axle flange.

Code	No.	Description	mm
8010460	1.40/16	1 pair hooks as illustrated	1.4
8010540	1.40/16A	Crossbeam with spindle	2.2

1.44 Pulling chuck

For removing the inner races of dynamos, magnetos, motors, and other machine parts. Simple operation by tightening the cap nut.

Code	No.	Clamping range mm	Clamping reach mm	
8022040	1.44/1	5-32	125	1.4




Forging of the heavy-duty puller crossbeams in the BALDUR works in Remscheid.



1.50 Hydraulic pump and cylinder set

This hydraulic set, consisting of hand pump 1.50/1 and hydraulic cylinder 1.51, is suitable for pressing, straightening, lifting, bending, and pulling.

Code	No.	consisting of:	
8110410	1.50/10	Hydraulic hand pump 1.50/1 Hydraulic cylinder 1.51/10	11.0
8110680	1.50/11	Hydraulic hand pump 1.50/1 Hydraulic cylinder 1.51/11	13.0




1.50/1 Hydraulic hand pump

Supplied complete with 1.50 m high-pressure hose, to fit hydraulic cylinder 1.51.

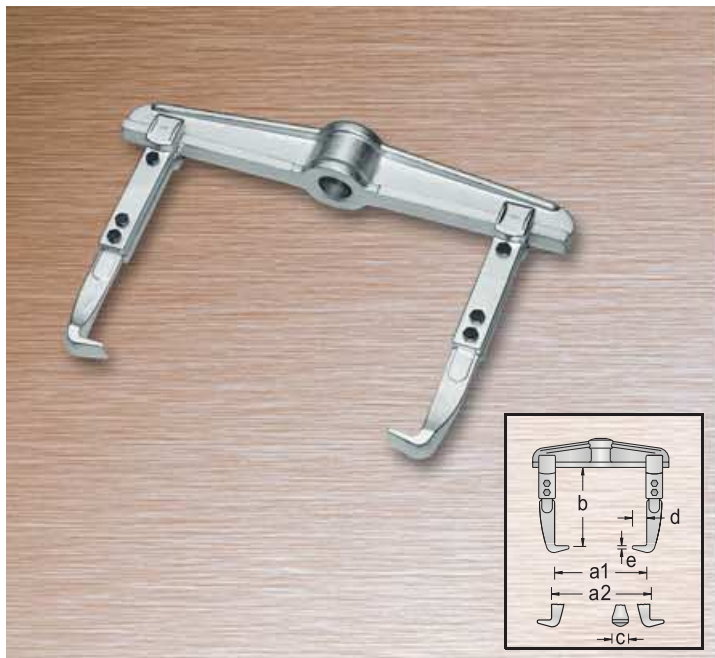
Code	No.	for hydraulic cylinder	
8022710	1.50/1	1.51/10 1.51/11	7.0



1.51 Hydraulic cylinder

Code	No.	Stroke height mm	max. t	
8023440	1.51/10	140	10	4.0
8110760	1.51/11	200	10	6.0

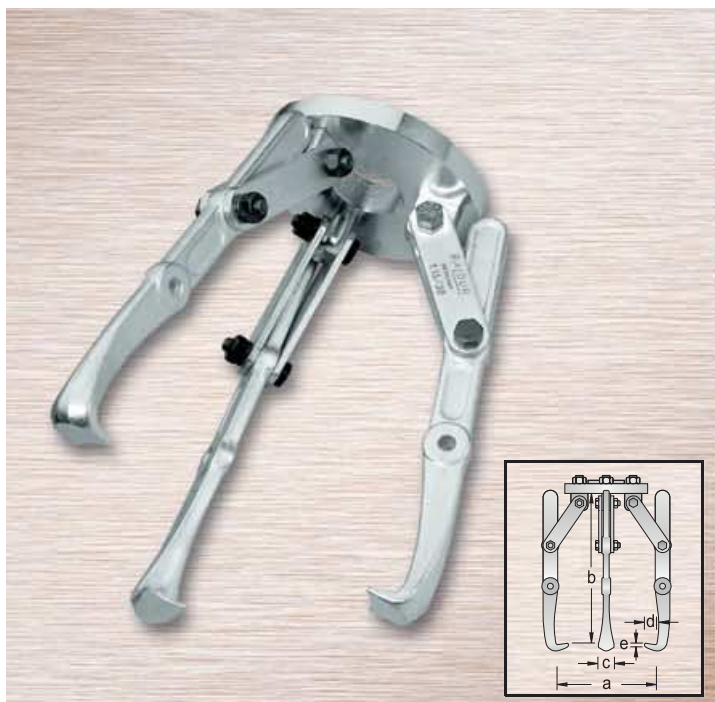




1.06 Puller for hydraulic implement 1.50

For the fast and damage-free removal of pulleys, wheels, ball bearings, etc. Robust pattern, designed for rigidity and heavy duty use. By reversing the hooks, this tool may be used as an internal or external puller. The reach may be increased both by using pulling hooks in special lengths, and by using extensions.

Code	No.	a ₁	a _{2 min}	a _{2 max}	b	c	d	e	max. t	
8112620	1.06/40	520	185	600	200	36	28	6,5	10	11.0
8113000	1.06/50	640	230	715	225	50	33	10,0	18	24.0



1.15 H Puller for hydraulic implement 1.50

Heavy duty pattern for the removal of gear wheels, spoked wheels, pulleys, etc. The hook tips grip automatically. The hooks may be moved to use this tool as a 2-arm puller. The adjustable reach means that this puller is very versatile.

Code	No.	a _{max}	b	c	d	e	max. t	
8006860	1.15/30	250	260	32	18	3,5	12	9.0
8109590	1.15/40	280	390	32	20	3,5	12	9.5



1.17 H Puller for hydraulic implement 1.50

Heavy duty pattern for the removal of gear wheels, spoked wheels, pulleys, etc. The hook tips grip automatically.

Code	No.	a _{max}	b	c	d	e	max. t	
8007590	1.17/10	300	300	36	19	3,5	12	11.4
8109670	1.17/20	425	425	36	22	3,5	12	12.3

1.55 Hydraulic press

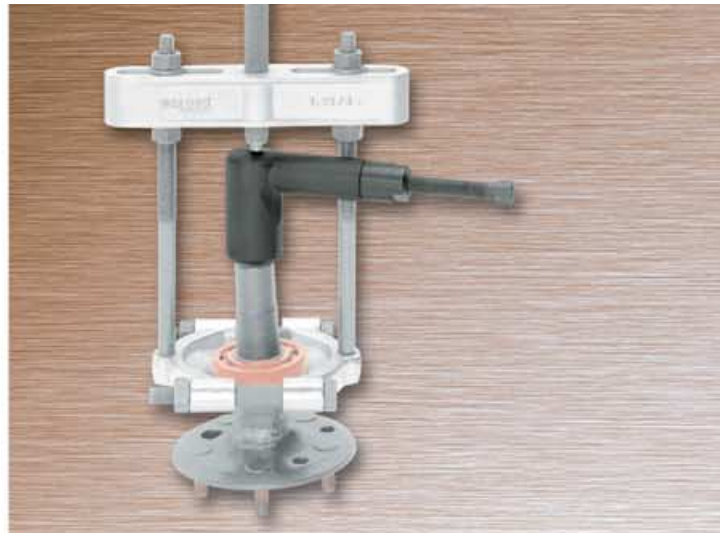
This piece of auxiliary equipment considerably increases the capability of the standard pressure spindle.

Operation:

With pressure released, the press is placed between the pressure spindle and the end of the shaft. The pressure spindle is then tightened firmly. Care must be taken that the centreline of the shaft, the hydraulic press, and the pressure spindle are exactly in alignment. Then the hydraulic spindle is screwed inwards.

Important note: Release the hydraulic press after use.

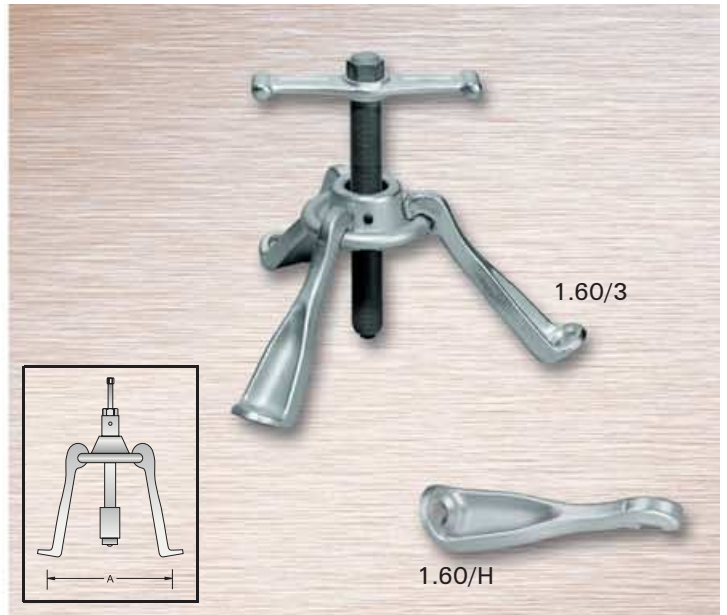
Code	No.	Stroke height mm	Installed height mm	max. t	
8024090	1.55/1	10	75	8	0.7
8024170	1.55/2	15	90	15	1.3



1.60 Wheel-hub puller

For cars and trucks with wheel stud circles up to 225 mm. Easy to use. With wheel stud protection using rotating nut apertures that always lie flat to the hub. Spindle may be exchanged for hydraulic pressure spindle (see table).

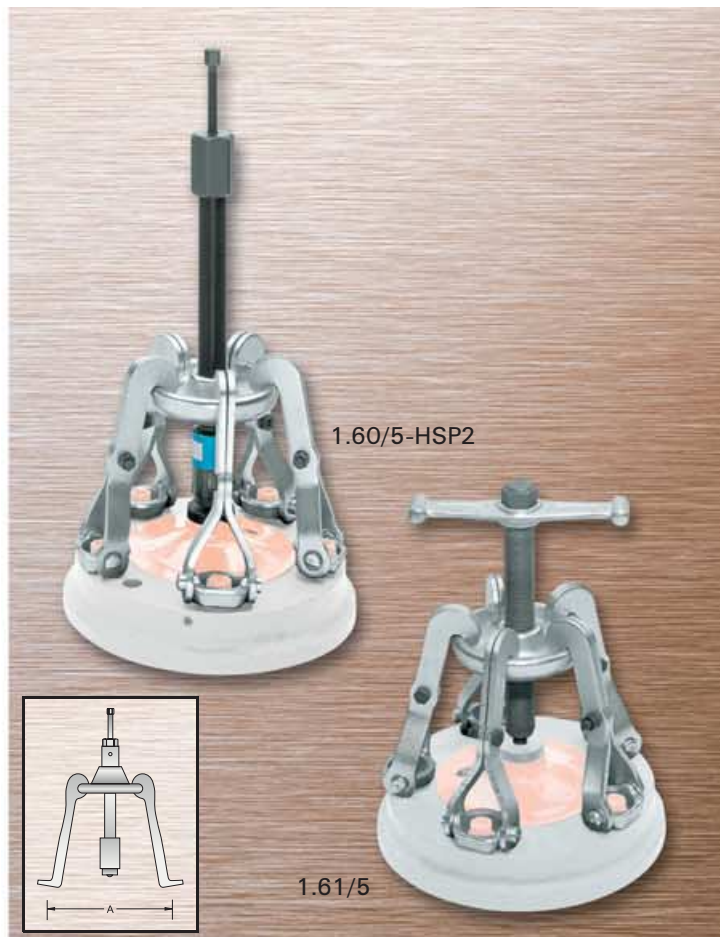
Code	No.	No. of hooks		Hydraulic spindle	
8024840	1.60/3	3	G 3/4 x 200	1.06/HSP2	4.0
8110840	1.60/5	4	G 3/4 x 200	1.06/HSP2	4.5
8024920	1.60/4	5	G 3/4 x 200	1.06/HSP2	5.0
8110920	1.60/H	1	spare hook		0.5



1.60 HSP Wheel-hub puller hydraulic

For cars and trucks with wheel stud circles up to 225 mm. Easy to use. With wheel stud protection using rotating nut apertures that always lie flat to the hub.

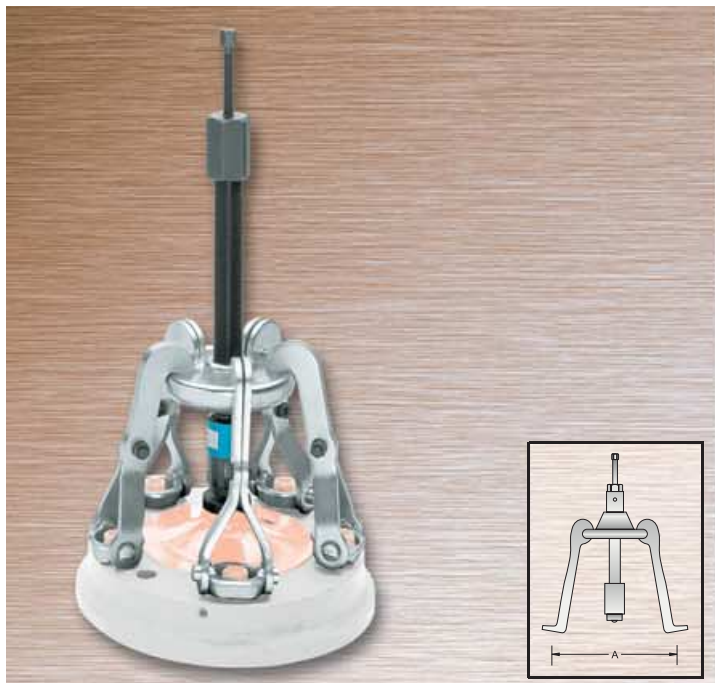
Code	No.	No. of hooks		Hydraulic spindle	
8015690	1.60/3-HSP2	3		1.06/HSP2	4.6
8015770	1.60/4-HSP2	4		1.06/HSP2	5.1
8015850	1.60/5-HSP2	5		1.06/HSP2	5.6



1.61 Wheel-hub puller

For cars and trucks with wheel stud circles up to 250 mm. Simple use. Just place the plate with the spindle on the centre-marking of the axle and fold back the hooks onto the plate. With swivelling nut holders always lying flat on the hub to prevent wheel-stud damage. Spindle may be exchanged for hydraulic pressure spindle (see table).

Code	No.	No. of hooks		Hydraulic spindle	
8111060	1.61/3	3	G 3/4 x 200	1.06/HSP2	5.0
8111140	1.61/4	4	G 3/4 x 200	1.06/HSP2	5.6
8025300	1.61/5	5	G 3/4 x 200	1.06/HSP2	6.2
8111220	1.61/H	1	spare hook		0.6



1.61 HSP Wheel-hub puller

hydraulic

For cars and trucks with wheel stud circles up to 250 mm. Easy to use. With wheel stud protection using rotating nut apertures that always lie flat to the hub.

Code	No.	No. of hooks	Hydraulic spindle	
8015930	1.61/3-HSP2	3	1.06/HSP2	5.6
8016150	1.61/4-HSP2	4	1.06/HSP2	6.2
8016230	1.61/5-HSP2	5	1.06/HSP2	6.8



1.62 Wheel-hub puller

For trucks with wheel stud circles up to 350 mm. Easy to use. With wheel stud protection using rotating nut apertures that always lie flat to the hub. This tool may also be used with the hydraulic aid without requiring a reduction bushing.

Code	No.	No. of hooks	A	Hydraulic spindle	
8026030	1.62/8	8	G 1 x 310	1.06/HSP3	10.5
8111220	1.61/H	1	spare hook		0.6

1.62 HSP Wheel-hub puller

hydraulic

For trucks with wheel stud circles up to 350 mm. Easy to use. With wheel stud protection using rotating nut apertures that always lie flat to the hub.

Code	No.	No. of hooks		
8016310	1.62/8-HSP3	8	1.06/HSP3	11.9



1.64 Drive shaft puller

Suitable for drive shafts with 4 or 5 apertures. For wheel stud circles 100-180 mm.

Operation:

The puller is attached to the drive shaft flange using the nuts of the wheel bolts. By striking the spindle head with the sliding hammer, the shaft may be removed easily and without damage.

Code	No.		
8026700	1.64/1	max. M14	3.8



1.65 Pulling flange

The flange possesses slots for hole pitches of 180, 120, and 90 degrees. Additional holes may be drilled to render the flange suitable for other pitches and aperture diameters. A very sturdy model for heavy parts and the highest requirements.

Spindle may be exchanged for hydraulic pressure spindle (see table).

Code	No.	Stud \varnothing mm		Hydraulic spindle	
8027000	1.65/1	up to 16	G 1 x 270	1.06/HSP3	16.3

1.66 Pulling flange

For wheels and discs with tapped holes up to M10. The flange is fitted with slots for hole pitches of 180 and 120 degrees, and using one pair each of long and short hooks and a protective cap for the thread of the steering column, this tool is suitable as a steering wheel puller.

Code	No.	Stud Ø mm		mm	
8027510	1.66/1	up to 10	M 12 x 110	14	0.7
8027780	1.66/11	with hooks in length 85 + 135 mm, 1 pair each	M 12 x 110	14	1.0



1.67 Steering-wheel puller

Steering-wheel puller for cars. The puller includes one pair of short hooks, one pair of long hooks, and a protective cap for the thread of the steering column.

Code	No.	Clamping reach	Hook length up to		mm	
8028240	1.67/1	35-90	135	M 14x1,5 x 150	17	0.6



1.68 Steering-wheel puller

Steering-wheel puller featuring one pulling ring each with 100 mm and 150 mm diameter for 3-spoke and 4-spoke steering wheels. To protect the steering-wheels, the pulling rings are fitted with sliding rubber sleeves.

Code	No.	Hook length mm		mm	
8028750	1.68/1	120	M 18 x 170	19	2.0



1.70 Dismantling and assembly fork

The wedge-shaped fork end makes the fast removal of track rod and push rod ends, steering arms, and other steering parts possible. Also suitable for removing shock absorbers and other separating and dismantling work. The forks are suitable for use in the most confined spaces. Hammer blows on the handle ends are used to separate the parts.

Code	No.	A mm	B mm	C mm	
8029210	1.70/1	18	340	80	0.8
8029480	1.70/2	23	340	80	0.8
8029560	1.70/3	29	350	90	1.0
8029640	1.70/4	40	350	90	1.1
8085040	1.70/5	45	355	95	1.2





1.72 Ball joint puller

For the simple and damage-free removal of ball pins on track rods and push rods.

Code	No.	a	b	c	←	mm	↕
8030300	1.72/1	18	35	40	M 14x1,5 x 50	17	0.3
8030490	1.72/2	23	45	50	M 14x1,5 x 50	17	0.5
8030570	1.72/3	27	56	60	M 18x1,5 x 80	19	0.7
8030650	1.72/4	37	78	75	G 1/2 x 110	22	1.5



1.73 Universal ball joint puller

For removing ball joints on cars and trucks.

Code	No.	mm	Clamping height	Fork depth	↕
8030810	1.73/1	23	65	24	0.7
8033240	1.73/3	32	85	28	2.4



1.74 Universal ball joint puller

For removing the ball joint journals on track rods, stabilizers, etc. Simple operation due to slender lower part and two-stage lever position.

Code	No.	mm	Clamping height	Fork depth	↕
8085200	1.74/1	20	12-50	35	1.0
8085390	1.74/2	20	50-80	35	1.4



1.75 Oil filter hook

3-arm pattern

For removing firmly seated oil filters.

Code	No.	mm	Drive	↕
8117420	1.75/1	60-120	without adaptor G 3/8, with adaptor 17 mm external, G 1/2 internal	0.6



1.76 Cartridge spanner

3-arm pattern

For removing firmly seated granulate cartridges.


Code	No.	mm	Drive	↕
1523651	1.76/1	80-150	1/2"	0.6

1.78 S Safety coil spring compressor

Safety coil spring compressor for the safe installation and removal of coil springs with a diameter of 110–180 mm. The spindles (M18) have 13 mm hexagon drive nut, so that when compressing the springs, they turn downwards, thus preventing damage to bodywork above the springs.

Safety note:

When the spindles are tightened evenly, the clamping heads grip the coils tightly, rendering sideways slip impossible. VPA-GS-tested safety.

Code	No.	Clamping reach mm	
8031110	1.78/S1	180	2.2
8031380	1.78/S2	280	2.5
8031460	1.78/S3	380	2.8



1.78 P Universal coil spring compressor


A coil spring compressor for MacPherson suspension strut and transverse link axles with spring diameters of 110-180 mm. Shock absorbers may be replaced without removing the suspension struts.

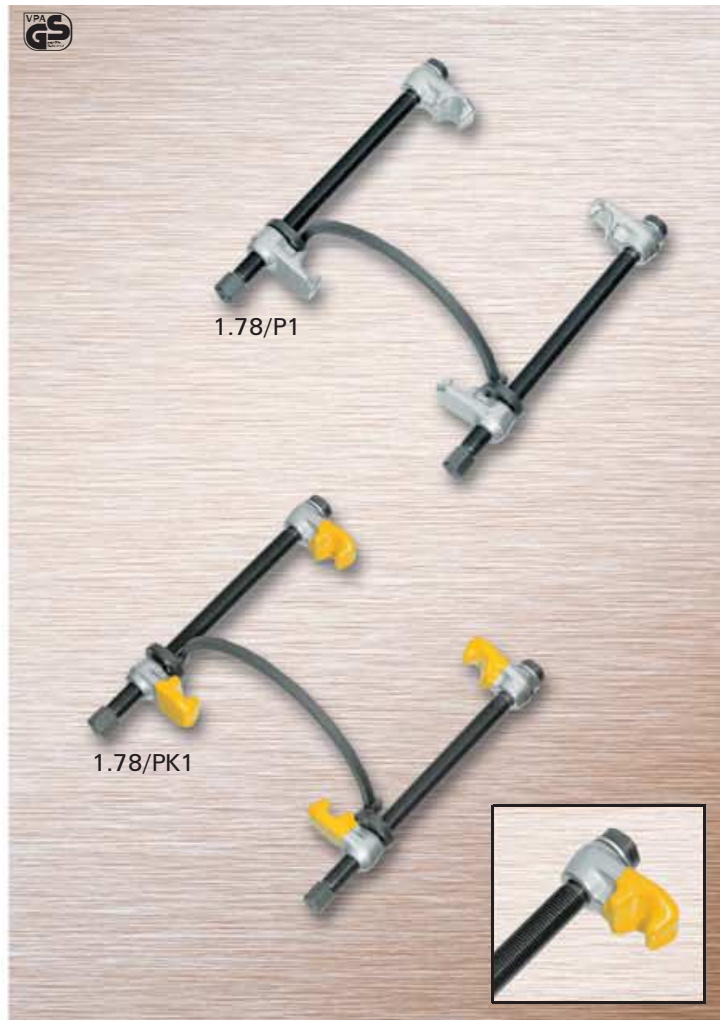
The safety holder renders slipping impossible.

VPA-GS-tested safety.

The hooks are drop forged.

The wide support rests are matched to the coil spring pitch.

Code	No.	Clamping reach mm	max. t	
8111300	1.78/P1	240	3,5	3.5
8031030	1.78/PK1	240	3,5	3.5



1.79 Spring spreader

This has been especially designed for VAG exhaust installations, where the pipe is not held by bolts to the exhaust manifold, but clamped on using springs.

Code	No.	
8112540	1.79/1	0.4





1.80/1 Spindle pressure pads

for axle bores (hollow shafts)

The BALDUR pressure pads are used for the removal of such parts as bearings and gear wheels that are mounted on hollow shafts or in housings. Here, the spindle pressure pad serves as a counter-axis to the BALDUR puller, where the spindle now transfers the force to the pressure pad.

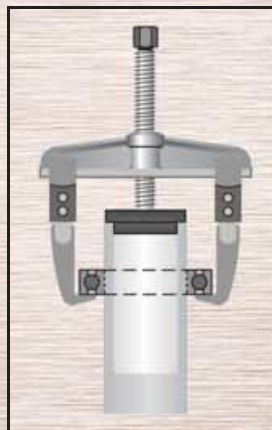
Code	No.	Plate Ø mm	Holder Ø mm	
1120697	1.80/1	25	19	2.2
		28	22	
		32	25	
		35	28	
		41	32	
		44	35	
		48	38	
		50	41	
		54	44	
		60	48	
		64	50	

1.80/2 Spindle pressure pads

for axle bores (hollow shafts)

See No. 1.80/1 for description.

Code	No.	Plate Ø mm	Holder Ø mm	
1120700	1.80/2	67	54	2.3
		70	57	
		73	60	
		78	64	
		83	70	
		90	76	

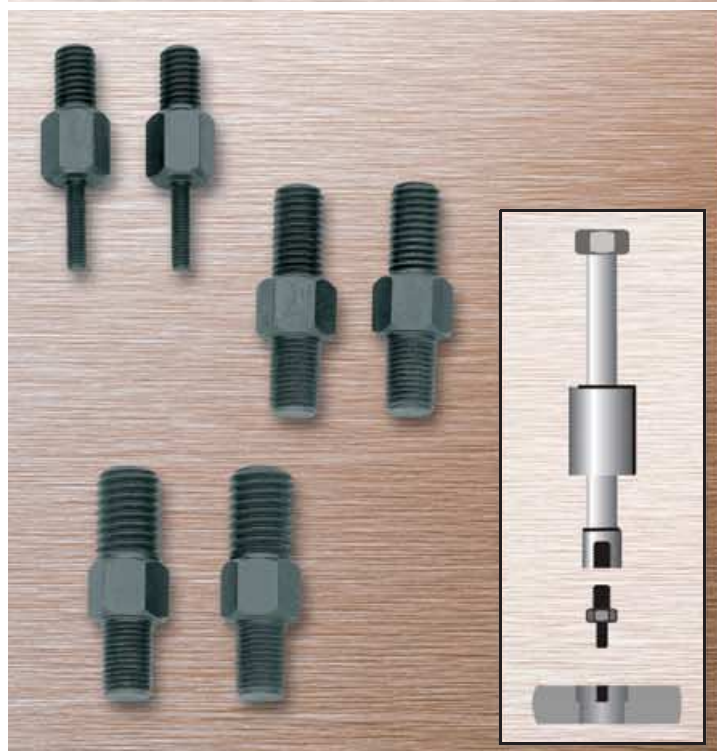


1.80/3 Spindle pressure pads

for axle bores (hollow shafts)

See No. 1.80/1 for description.

Code	No.	Plate Ø mm	Holder Ø mm	
1120719	1.80/3	41	32	4.2
		44	35	
		48	38	
		50	41	
		54	44	
		60	48	
		64	50	
		67	54	
		70	57	
		73	60	
		78	64	
83	70			
90	76			



1.81/1 Threaded inserts

The BALDUR threaded inserts make the removal of threaded caps, for example, possible, when these possess one threaded hole.

For slide hammers 1.35/1, 1.35/2, threaded support 1.36/1.

Code	No.	Connecting / Insert thread	
1120727	1.81/1	M 10 - M 4	200
		M 10 - M 5	
		M 10 - M 6	
		M 10 - M 8	
		M 10 - M 10	
		M 10 - M 12	

1.81/2 Threaded inserts

See No. 1.81/1 for description.

For slide hammers 1.35/2, 1.36/2, threaded support 1.36/3.

Code	No.	Connecting / Insert thread	
1120743	1.81/2	M 14x1,5 - M 8	470
		M 14x1,5 - M 10	
		M 14x1,5 - M 12	
		M 14x1,5 - M 14	
		M 14x1,5 - M 16	
		M 14x1,5 - M 18	

1.81/10 Threaded inserts

for 1-hole and 2-hole uses, 2 each

The BALDUR threaded inserts make the removal of threaded caps, for example, possible, when these possess one or two threaded holes. For separator puller 1.38/0, 1.38/1.

Code	No.	Connecting / Insert thread	
1120735	1.81/10	M 10 - M 4	460
		M 10 - M 5	
		M 10 - M 6	
		M 10 - M 8	
		M 10 - M 10	
		M 10 - M 12	
	Adaptor		

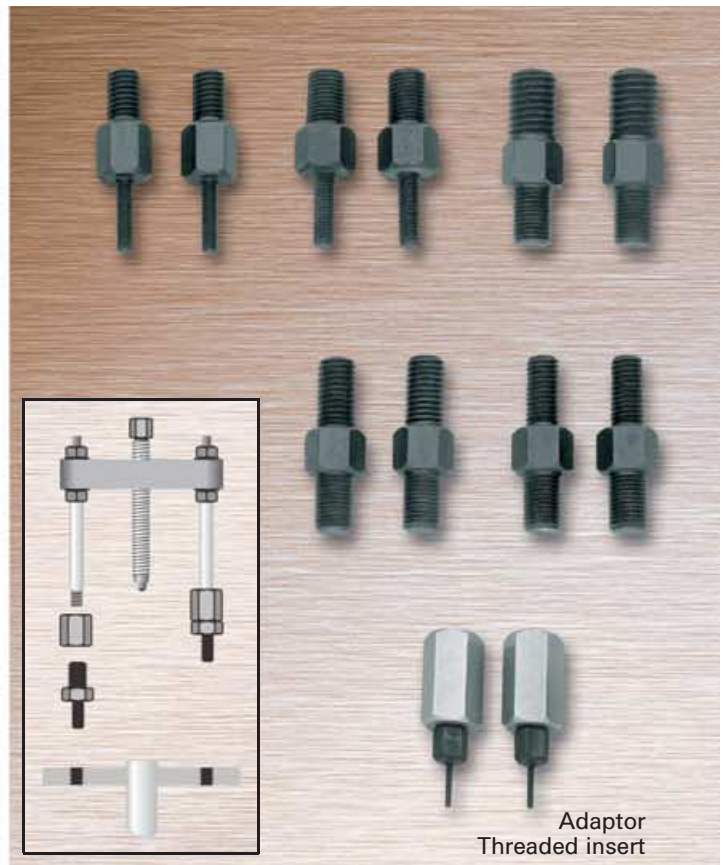
1.81/20 Threaded inserts

for 1-hole and 2-hole uses, 2 each

See No. 1.81/10 for description.

For separator puller 1.38/2.

Code	No.	Connecting / Insert thread	
1120751	1.81/20	M 14x1,5 - M 8	1010
		M 14x1,5 - M 10	
		M 14x1,5 - M 12	
		M 14x1,5 - M 14	
		M 14x1,5 - M 16	
		M 14x1,5 - M 18	
	Adaptor		



Adaptor
Threaded insert



1.85/1 Professional plastic bearing installation set

This sturdy plastic bearing installation set combines the advantages of the usual models in metal with the advantages of plastic. The impact-resistant plastic is handily light, but just as robust as the metal variants.

Using this bearing installation set, which consists of 33 impact rings, more than 200 types of bearings may be re-installed effortlessly and without damage. The set is completed with three aluminium impact sleeves and a recoil-free bodywork hammer with nylon heads, all in a strong plastic case. This set guarantees that the installed bearings will suffer no damage that might have happened when working "metal to metal". No deformations of the bearing housings, sealing rings, or shafts.

Code	No.	Contents	
1120778	1.85/1	Impact rings 10-50 mm, for external Ø 26-110 mm, hammer 1,2 kg, case dimensions 450 x 360 x 140 mm	4.6

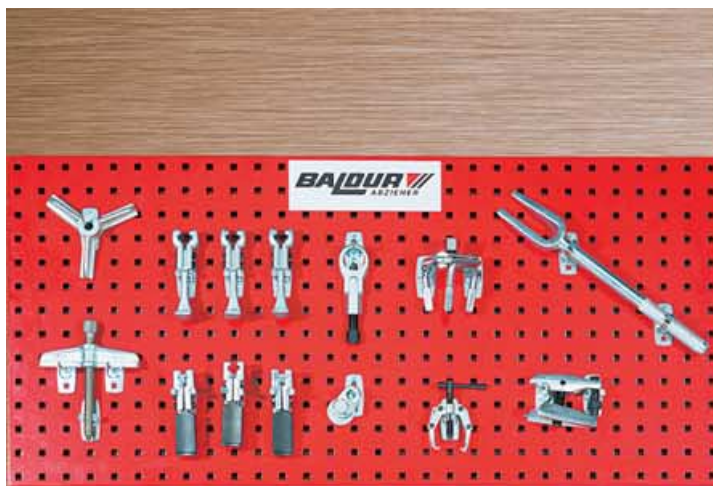


1.91 Tyre removing tool

For breaking the adhesion between truck tyres and wheel rims.

Code	No.	↳mm←	
8032270	1.91	300	1.8





2.10 Automobile workshop set

Add-on system

Clearly arranged module system, everything at hand on perforated wall-board.

Code	No.	Contents	kg
1088696	2.10	as below stated	11.5
Code	No.	Description	Qty.
1076469	106/103	Cross piece, 2-arm pattern, 140 mm	1
1076981	107/103	Cross piece, 3-arm pattern, 140 mm	1
1120514	106/A	Pulling hook, 100 mm	3
1175343	106/S100	Pulling hook, slim pattern, 100 mm	3
8003840	1.12/02	Battery-terminal puller, 2-arm pattern	1
8009610	1.26/2	Nut splitter	1
8010700	1.28/2	Stud extractor	1
8029480	1.70/2	Dismantling and assembly fork	1
8030810	1.73/1	Universal ball joint puller	1
8117420	1.75/1	Oil filter hook	1
1120638	71010	Perforated board	1
1081616	1500 H 1	Hook	4
1081624	1500 H 2	Spring clamp	9
1081632	1500 H 3	Spring clamp	5



2.20 Truck workshop set

Add-on system

Clearly arranged module system, everything at hand on perforated wall-board.

Code	No.	Contents	kg
1088718	2.20	as below stated	14.0
Code	No.	Description	Qty.
1076612	106/2A03	Cross piece, 2-arm pattern, 260 mm	1
1077023	107/2A03	Cross piece, 3-arm pattern, 260 mm	1
1120530	106/B	Pulling hook, 100 mm	3
1175475	106/S220	Pulling hook, slim pattern, 220 mm	3
1123947	106/BV	Pulling hook, 300 mm	3
1084593	1.2106210	Spindle	1
8116100	1.06/HSP1	Hydraulic pressure spindle	1
8019840	1.40/2	Bearing separator	1
1120638	71010	Perforated board	1
1081616	1500 H 1	Hook	10
1081632	1500 H 3	Spring clamp	5



2.30 Industrial pulling set

Add-on system

For the assembly of the tried and tested 1.06 and 1.07 versions. Using this set, you will be able to assemble more than 12 of the usual versions with high-speed clamping hooks, including hydraulic spindle, in seconds.

Code	No.	Contents	kg
1393014	2.30	as below stated	17.5
Code	No.	Description	Qty.
1076469	106/103	Cross piece, 2-arm pattern, 140 mm	1
1076485	106/1A03	Cross piece, 2-arm pattern, 180 mm	1
1076590	106/203	Cross piece, 2-arm pattern, 220 mm	1
1076612	106/2A03	Cross piece, 2-arm pattern, 260 mm	1
1076981	107/103	Cross piece, 3-arm pattern, 140 mm	1
1077007	107/1A03	Cross piece, 3-arm pattern, 180 mm	1
1077015	107/203	Cross piece, 3-arm pattern, 220 mm	1
1077023	107/2A03	Cross piece, 3-arm pattern, 260 mm	1
1084488	1.1406140	Spindle	1
1084593	1.2106210	Spindle	1
8116100	1.06/HSP1	Hydraulic pressure spindle	1
1178199	106/A-E	Pulling hook	3
1178253	106/B-E	Pulling hook	3
1120638	71010	Perforated board	1
1081616	1500 H 1	Hook	12
1081624	1500 H 2	Spring clamp	4
1081632	1500 H 3	Spring clamp	6

2.40 Pulling set for construction machines

Add-on system

For the assembly of the robust and handy strap-pattern pulling tools 1.14 and 1.15.

With this set, you will be able to assemble 10 of the usual flexible strap-pattern pulling tools from the range 1.14/1.15, including the new hydraulic spindle.

Code	No.	Contents	
1393030	2.40	as below stated	24.5
Code	No.	Description	Qty.
1077856	114/204	Head	1
1077910	114/304	Head	1
1078054	115/204	Head	1
1078070	115/304	Head	1
1084569	1.1806200	Spindle	1
1084631	1.2106250	Spindle	1
8116100	1.06/HSP1	Hydraulic pressure spindle	1
1077821	114/201	Pulling hook, 210 mm	3
1077899	114/301	Pulling hook, 260 mm	3
1077953	114/401	Pulling hook, 390 mm	3
1077872	114/208	Strap	6
1077937	114/308	Strap	6
1120638	71010	Perforated board	1
1081616	1500 H 1	Hook	6
1081624	1500 H 2	Spring clamp	2
1081632	1500 H 3	Spring clamp	20
Code	Accessories No.		Qty.
1075225	Hexagon bolt M10		6
1075144	Hexagon bolt M12		12
1074946	Hexagon nut M10		6
1074954	Hexagon nut M12		12
1074431	Spring washer M10		6
1074458	Spring washer M12		12



Dump truck at work.



3.01 Track alignment gauge

For inside measurement.

Suitable for all vehicle types.

With simple, telescopic length adjustment.

Immediate track-difference readings may be taken from the millimetre scale. Extensive measurement range from 835 to 1500 mm, and with extensions up to 2100 mm.

Track difference measurable from 0–35 mm.

Notes on Use:

The vehicle to be tested must be standing on level ground.

The front wheels must be set for running straight ahead and have the same tyre pressure.

The play in the steering linkage must be removed by pressing the front wheels apart.

The track alignment gauge must be set roughly at the axle centre-line between the front tyres in such a manner that the two chain ends contact the ground.

The scale is set a "0".

The car is allowed to roll forward approx. one half turn of the wheel, until the chain ends again contact the ground.

The track difference may then be read off on the scale.

Code	No.	Description	Measurement range	
8033080	3.01	Track alignment gauge	835-1500	2.0
8033160	3.01/V	Extension for track alignment gauge	1500-2100	0.4

