

78010

Mechanical nut splitters



Type

With one chisel. Easy retraction of the chisel out of the split nut thanks to **pull-back technology**. The tool does not get stuck.

Use

For splitting non-detachable seized nuts to quality class 6.

Size	AF mm	Length mm	78010	...
0	4 - 10	75		101
1	10 - 18	100		102
2	19 - 27	130		103
3	27 - 36	150		104



78015

Mechanical nut splitters



Type

Double splitting power thanks to 2 chisels, galvanized. Easy retraction of the chisel out of the split nut thanks to **pull-back technology**. The tool does not get stuck.

Use

For removal of non-detachable seized nuts to up to quality classes 5, 6 and 8.

Quality

Chrome-vanadium-steel.

AF mm	Length mm	78015	...
10 - 27	130		101
17 - 36	160		102



78018

Hydraulic nut splitter



Use

For splitting securely seated nuts of quality 5, 6, 8 and 10. Application even in tight areas thanks to double offset. A minimal expenditure of force suffices due to the **hydraulic system**.

Quality

Special steel.



Size	for AF mm	for AF inch	for thread M	78018	...
1	7 - 22	9/32 - 7/8	-		101
2	22 - 36	7/8 - 1.7/16	-		102
3	24 - 46	-	16 - 30	#	103



78020

Stud inserters and extractors



Type

Hardened and tempered, the stud bolt is securely pressed against the internal toothing by the eccentrically positioned knurled wheel with groove, use open end or ring wrench.

Use

For right- and left-hand thread studs.

Size	for bolts mm	inch	AF mm	78020	...
1	5 - 10	3/16 - 3/8	17		101
2	8 - 19	5/16 - 3/4	27		102
3	18 - 25	3/4 - 1	36		103



78025

Stud inserter and extractor



Type
Universal, continuously variable.

Use
For use in narrow areas, also suitable for rusted or scaled screws.

78025



Clamping range mm	78025	...
6 - 12	#	101

78029

Stud inserters and extractors sets

Type
For inserting and extracting studs. For right-hand and left-hand operation. Rugged steel body with lateral through-bore. The studs are clamped carefully thanks to three eccentrically configured rollers. The only action necessary is to fit the device on the stud and to turn it. Clamping and holding of the stud is done automatically.

Use
For bolts, express screws and hanger bolts.

Quality
CV-steel, chrome-plated.

78029 101



78029 102



Set contents	for bolt Ø mm	Inner square inch	Type	78029	...
4-piece	6 / 8 / 10 / 12	1/2	in box		101
7-piece	5 / 6 / 7 / 8 / 10 / 12 / 14	1/2	in box		102

78030

Stud inserters and extractors

Type
For inserting and extracting studs. For right-hand and left-hand operation. Rugged steel body with lateral through-bore. The studs are clamped carefully thanks to three eccentrically configured rollers. The only action necessary is to fit the device on the stud and to turn it. Clamping and holding of the stud occurs automatically.

Use
For bolts, express screws and hanger bolts.

Quality
CV-steel, chrome-plated.



78030 205-208



For bolt Ø mm	Outer Ø mm	6-point drive AF mm	Length mm	Inner square inch	78030	...
5	24	22	65	1/2		205
6	24	22	65	1/2		206
7	24	22	65	1/2	#	207
8	24	22	65	1/2		208
10	28	22	75	1/2		210
12	28	22	75	1/2		212
14	28	22	75	1/2		214

78030 210-214



78050 - 78060

Two-arm and three-arm extractor sets



Type
Drop-forged, with 2 or 3 sliding, always parallel positioned pull hooks of each size. Excellent operating characteristics and fixation of the hooks on the traverse thanks to the new **Glide & FIX technology**. The **ARM-LOCK technology**, through the cross-hooks, guarantees maximum stability of the suspension in the sliding block. This prevents the extractor from slipping off of the part to be extracted. Universal implementation, interchangeable pull hooks for each required clamping depth.

Use
For difficult-to-access areas. Can be used as internal and external extractor. For centric and eccentric extracting.

78050



78060



Clamping width mm	Clamping depth mm	2-armed	3-armed	...
		78050	78060	
120	100/200 + 250		101	
120	100/200 + 250			101



78070

Two-armed and Three-armed universal extractor set



**KUKKO
BOX
SYSTEM**

78070

Use

For narrow intermediate spaces in multiple clamping depths.

Consisting of	
1	two-armed extractor with 3 pairs of pull hooks, clamping width 120 mm.
1	three-armed extractor with 3 pairs of pull hooks, clamping width 130 mm.

Clamping width mm	Clamping depth mm	Weight approx. kg	Type	78070	...
120	100/200/250	8,5	in tool case with foam insert		101



78101 - 78102

Two-armed and three-armed extractors



Type

With automatic high-speed clamping. Automatic guidance and centring of the hooks.

Use

For ball bearings, pistons, gear wheels, pulleys, etc.



78101



78102

Size	Clamping width mm	Clamping depth mm	2-armed	
			78101	...
3/1	60	50		101
3/2	70	70		102
3/3	80	80		103
4/1	100	100		104
4/2	120	120		105
4/3	160	160		106
4/4	250	200		107

Size	Clamping width mm	Clamping depth mm	Three-armed	
			78102	...
3/11	60	50		101
3/12	70	70		102
3/13	80	80		103
5/1	100	100		104
5/2	120	120		105
5/3	160	160		106
5/4	250	200		107

78105

Two-armed extractors



Type

Quality tool steel. Excellent operating characteristics and fixation of the pull hooks on the traverse thanks to the new **Glide & FIX technology**. The **ARM-LOCK technology**, through the cross-hooks, guarantees maximum stability of the suspension in the sliding block. This prevents the extractor from slipping off of the part to be extracted.

Use

Can be used as internal and external extractor.

Size	Clamping width mm	Clamping depth mm	78105	...
1	90	100		101
10	120	100		102
2	160	150		103
20	200	150		104
3	250	200		105
30	350	200		106
4	520	200		107



78105



Glide & FIX
TECHNOLOGY



ARM-LOCK

78106 - 78107

Spare hooks for two-armed extractors cat.-no. 78105



Type

Complete with slide, pairs. Special steel, drop-forged.

for size	Clamping depth mm	Standard	
		78106	...
1/10	100		101
2/20	150		102
3/30/4	200		103

for size	Clamping depth mm	Extended	
		78107	...
1	200		201
10	250	#	202
2/20	300	#	203
3	300	#	204
30	400		205



78106



78107



Extractors

78108

Two-armed extractor with quick adjustment



Type

Quality tool steel. Mechanical extractor with standard legs and lengths and **Quick-adjust** for fast loosening and shifting of the hooks on the traverse without wrench. Excellent operating characteristics and fixation of the pull hooks on the traverse thanks to the **Glide & FIX technology**.

The **ARM-LOCK technology**, through the cross-hooks, ensures maximum stability of the suspension in the sliding block. This prevents the extractor from slipping off of the part to be extracted.

Use

Can be used as internal and external extractor.

Size	Clamping width mm	Clamping depth mm	78108	...
1	90	100		101
10	120	100		102
2	160	150		103
20	200	150		104
3	250	200		105
30	350	200		106



78108

78109

Spare hooks for two-armed extractors cat.-no. 78108



Type

Complete with sliding block, in pairs, quality tool steel, with fast adjustment.

for size	Clamping depth mm	Standard 78109	...
1/10	100	#	101
2/20	150	#	104
3/30	200	#	106

for size	Clamping depth mm	extended 78109	...
1/10	200	#	102
1/10	250	#	103
2/20	300	#	105
3/30	300	#	107
3/30	400	#	108
3/30	500	#	109



78109

78110

Hydraulic presses



Type

Steel body with hydraulic mechanism.

Use

Used for increasing the pressure capacity of mechanical extractors when removing particularly tight parts. To protect against overload, only use with extractors whose spindles have a minimum diameter of 25 to 30 mm.

Mode of operation:

Set the press by screwing back spindle between shaft and extractor spindle, and clamp using extractor spindle. Hydraulic pressure is exerted by tightening the spindle.

Size	Force kN	max. torque Nm	Stroke mm	Height mm	Ø mm	For spindles from Ø mm	78110	...
9/1	100	35	10	62	37	25		101
9/2	150	50	12	80	50	30		102



78110



78115

Separating and extracting devices



Type

Special steel, drop-forged.

Use

Gripper for normal use and for loosening of flush-seated parts.

Note:

The clamping collar forces the separators behind the part which is then extracted.

Size	Clamping width mm	Clamping depth mm	78115	...
1	95	170		101
2	135	270	#	102
3	150	325	#	103



78115

78125

Three-armed extractor



Type

Special steel, drop-forged, with pull arms for places that are difficult to access.

Use

For extracting ball bearings, gears, belt pulleys, etc.

Note:

The clamping width is set using a spanner. The hooks can not slip off the part to be extracted.

78125 101-103



78125 104-105



Size	Clamping width mm	Clamping depth mm	78125	...
1	100	100		101
2	150	125		102
3	200	180		103
4	250	225	#	104
5	350	275	#	105

78126

Three-armed extractor



Type

Three-armed universal extractor with standard pull hooks, guarantees uniform load distribution with a particularly secure hold. Excellent operating characteristics and fixation of the hooks thanks to the new **Glide & FIX technology**. Parallel pulls hooks in every position.

Use

Through turning over the pull hooks, can be used as external as well as internal extractor.



78126



Size	Clamping width mm	Clamping depth mm	78126	...
1	90	100	#	101
10	120	100	#	102
2	160	150	#	103
20	200	150		104
3	250	200		105

78127

Spare hooks for three-armed extractor cat.-no. 78126



Type

Complete with sliding block, 3-pc. Quality tool steel.

78127



		Standard	
for size	Clamping depth mm	78127	...
1/10	100	#	101
2/20	150	#	103
3	200	#	105
		extended	
for size	Clamping depth mm	78127	...
1/10	200	#	102
2/20	300	#	104
3	300	#	106



78128

Three-armed universal extractor with fast adjustment



78128 101-106

3-armed universal extractor

Type

Quality tool steel. Mechanical extractor with standard pull hooks and lengths and **Quick-adjust** for fast loosening and shifting of the hooks on the traverse without wrench. Excellent operating characteristics and fixation of the hooks on the traverse thanks to the **Glide & FIX technology**. The **ARM-LOCK technology**, through the cross-hooks, guarantees maximum stability of the suspension on the sliding block. This prevents the extractor from slipping off of the part to be extracted.

Use

Can be used as internal and external extractor.

78128 201-206

Spare hooks for 3-armed extractors

Type

Complete with sliding block, 3-pc. Quality tool steel with fast adjustment.



Size	Clamping width mm	Clamping depth mm	78128	...
1	90	100		101
10	130	100		102
2	160	150	#	103
20	200	150	#	104
3	250	200	#	105
30	350	200	#	106

Standard		78128	...
for Clamping depth size	mm		
1/10	100	#	201
2/20	150	#	203
3/30	200	#	205

extended		78128	...
for Clamping depth size	mm		
1/10	200	#	202
2/20	300	#	204
3/30	300	#	206



78129

Three-armed extractor



Type

Special steel, drop-forged. With mechanical pressure spindle.

Use

For heavy-duty application, for carefully extracting heavy gear wheels, pulleys etc. Can be used as internal and external extractor.

Size	Clamping width mm	Clamping depth mm	78129	...
11/0	375	200		101
11/1	520	200	#	102
11/2	650	200	#	103



Workshop Supplies

78140 - 78141

Ball bearing internal extractors



Type

Made of special steel, drop-forged.

Use

For extracting ball bearings, outer rings of ball bearings, bushings, etc.

Note:

Bearings fitted flush to a rear wall are also firmly gripped and quickly extracted. The complete extractor device consists of inner extractor and counter support.

78141

Counter support

Type

Easy activation of the counter-support nut, through integrated thrust bearing. Friction resistance is reduced to a minimum (**easy-screw technology**). Easy-movement, adjustable hooks through interior spring suspension (**Light-Shift technology**).

Use

For inner extractor, cat-no. 78140.



78140

78141



78140

Internal extractor

Internal extractor		78140	...
Size	for bores mm		
0	5 - 8		201
00	6 - 10		202
01	8 - 12		203
02	10 - 14		204
1	12 - 16		205
2	14 - 19		206
3	18 - 23		207

Internal extractor		78140	...
Size	for bores mm		
4	20 - 30		208
5	28 - 40		209
6	36 - 46		210
7	45 - 58		211
8	56 - 70		212
9	70 - 100		213

Counter support		78141	...
Size	for Size		
1	0 - 5		101
2	3 - 8		102
3	9	#	103

78150

Ball bearing inserter and extractor sets



**KUKKO
BOX
SYSTEM**

Type

Made of special steel, drop-forged.

Use

For extracting ball bearings, outer rings of ball bearings, bushings, etc.

Note:

Bearings fitted flush to a rear wall are also firmly gripped and quickly extracted.

78150 104



78150 101



78150 102



78150 103



Type	Number of parts	for ball bearing Inner Ø mm	Weight approx. kg	78150	...
25-K	4	6 - 19	3,5		101
25-A	8	12 - 46	7,0		102
25-B	10	12 - 70	9,9		103
25-C	11	12 - 110	17,8		104

78160

Pull-off chucks



Type

Mode of operation same as for keyless three-jaw chuck.

Use

For extracting inner shoulder bearing races on magnets, dynamos, electric motors, small machines etc.

78160



Clamping width mm	78160	...
5 - 32	#	101

78165

Extractor with slide hammer



Type

Complete with thread inserts M4 / M5 / M6 / M8 / M10 / M12 and slide hammer device.

Use

For re- and extracting pins with internal threads (DIN 7978/ISO 8736 or DIN7979/ISO 8735) and parts with thread holes. The appropriate thread

insert is screwed into the tapped bore of the part to be pulled off, and is pulled off with knocks of the slide hammer.

78165



for thread	78165	...
M4 - M12		101

78164

Slide hammer device for inner extractor



Type

Extremely effective, because the slide hammer device can be used even if there is not much space because it does not need a support surface. Suitable for many workshop implementations, particularly if a strong shock effect is required.

Use

For pulling out tightly fitting ball bearings, outer ball bearing races and bushings. For cat.-no. 78140.

Note:

With 78164 103 the impact weight and thus the impact force can optionally be increased by screwing in one or more supplemental weights.

78164 101



78164 102



78164 103



L mm	Striking length mm	Weight sliding block approx. kg	Weight ca.kg	78164	...
250	150	0,50	0,70		101
340	230	1,70	2,50		102
530	340	5,00	6,50	#	103



78166

Slide hammer set



Type
Contents:
1 slide hammer,
6 adapters, burnished, each with connecting thread M12 for mounting on the slide hammer base. The interchangeable threaded pins on the adapter side have the thread dimensions M3 / M4 / M5 / M6 / M8 and M10.

3 adapters, galvanised, for mounting all KUKKO internal extractors size 00 through 9.
Use
 For KUKKO internal extractors cat.-no. 78140 and other applications. The stop is situated in the weight, therefore the length of the slide hammer's guiding rod is used optimally and injuries are kept to a minimum.

78166



Contents	Type	78166	...
10-piece	in plastic case with foam insert		101

78168

Ball joint extractor



Type
 Steel, drop-forged.

Use
 For pressing out the ball pivots when removing the ball joints.

78168



Size	Clear height A mm	Clear width B mm	Opening C mm	78168	...
1	38	36	18	#	101
2	48	45	23		102
3	60	60	29		103
4	80	60	40		104
5	100	75	46		105

78170

Ball Bearing Extractor Sets



Use
 Universal implementation, for extracting ball bearings, bearings, gears, inner shoulder bearing races, deep-groove ball bearings, etc. For extracting tightly fitting ball bearings, outer ball bearing races and bushings.

- Set consisting of:**
- cat.-no. 78170 101, Size 1**
 6 inner extractors (size 1-6) 12-46 mm
 2 counter supports (size 1 and 2)
 1 battery terminal extractor size 1
 1 two-armed extractor (size 1) 90 mm
 1 pull-off chuck
cat.-no. 78140, cat.-no. 78141, cat.-no. 78101, cat.-no. 78105, cat.-no. 78160.
 - cat.-no. 78170 102, Size 2**
 Like size 1, additionally:
 2 inner extractors (size 7 and 8) 45-70 mm,
 1 two-armed extractor (size 2) 160 mm.
cat.-no. 78140, cat.-no. 78105.
 - cat.-no. 78170 103, Size 3**
 Like size 1, additionally:
 1 inner extractor (size 7) 45-58 mm,
 1 inner extractor (size 8 and 9) 56-110 mm
 1 counter support (for size 8 and 9),
 1 two-armed extractor (size 2) 160 mm.
cat.-no. 78140, cat.-no. 78140, cat.-no. 78141, cat.-no. 78105.

78170

Size	Type	78170	...
1	in metal case		101
2	in metal case	#	102
3	in metal case	#	103



78182

Ball bearing extractor set



Use
 For extracting deep-groove ball bearings. Selection table with the ball bearing numbers in the lid of the case.

Mode of operation:
 Insert the hooks into the outer bearing race with the claws between the balls. Squeeze the hooks together at the top and press with the recesses around the hub collar. Tighten the clamping disc, pushing the retaining bush over the hooks. The ball bearing can only be extracted when the clamping disc is securely tightened.

- Set consisting of:**
- 1 extractor size 1 and 1 set of hooks 150 mm long,** for ball bearings 6000-6003, 6200,
 - 1 set of hooks 150 mm long,** for ball bearings 6004-6006, 6201-6203, 6300,
 - 1 set of hooks 170 mm long,** for ball bearings 6204-6205, 6301-6303,
 - 1 extractor size. 2 and 1 set of hooks 180 mm long,** for ball bearings 6007-6010, 6013,
 - 1 set of hooks 180 mm long,** for ball bearings 6011-6012, 6206-6207, 6304-6306,
 - 1 extractor size. 3 and 1 set of hooks 217 mm long,** for ball bearings 6208-6210, 6307, 6403, 6407,
 - 1 set of hooks 217 mm long,** for ball bearings 6211-6212, 6308-6311, 6404-6406, 6408,
 - 26 support rings.**

78182

Type	78182	...
in metal case	#	101



78183

Deep groove ball bearing extractor set

Use

For extracting grooved ball bearings, which might be situated on a shaft or embedded in a housing.

Thanks to the guide ring assembly into the inner ring is easy.

78183



Consisting of

- 7** set pull hooks with ball heads
- 1** set of hooks 3-piece, 150 mm long, for ball bearings 6000-6003, 6200
- 1** set of hooks 3-piece, 150 mm long, for ball bearings 6004-6006, 6201-6203, 6300
- 1** set of hooks 3-piece, 170 mm long, for ball bearings 6204, 6205, 6301-6303,
- 1** set of hooks 4-piece, 180 mm long, for ball bearings 6007-6010, 6013
- 1** set of hooks 4-piece, 180 mm long, for ball bearings 6011, 6012, 6206, 6207, 6304-6306,
- 1** set of hooks 4-piece, 217 mm long, for ball bearings 6208-6210, 6307, 6403, 6407,
- 1** set of hooks 4-piece, 217 mm long, for ball bearings 6211, 6212, 6308-6311, 6404-6406, 6408,
- 2** index plates with counter nut and spindle
- 2** guide rings and
- 26** different support rings

Type	78183	...
in plastic case	#	101

78185

Roller bearing installation tool set

Use

For safe, quick and precise installation of bearings, bushings, seals and pulleys with bore hole Ø 10-50 mm. For SKF, FAG, Timken, NTN and appropriate bearings made by other manufacturers. Its lightweight design makes it especially suitable for use on construction sites and outdoor installations.

- Consisting of**
- 33** impact rings of extremely impact-resistant plastic
 - 3** impact tubes of anodised aluminium
 - 1** Dead blow hammer
 - 1** Selection table for roller bearings



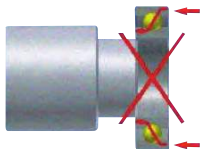
78185

Set contents	Type	78185	...
38-piece	in plastic case		201

Info

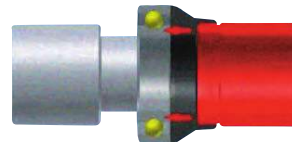
Professional installation of roller bearings

Anti-friction bearings could be damaged by unprofessional installation. This leads to premature failure of the bearing and break-down of the machine or plant. **This is why the professionals use a tool set !**



Incorrect installation

When installing a roller bearing you must ensure that the install forces are not transmitted to the bearing seat via the roller body.



Professional installation of roller bearings

Thanks to the tool set the forces created during installation will be directed to the internal and/or external race of the bearing. The recoilless soft face hammer ensures even distribution of the forces.

78187

Roller bearing installation tool set



Use

For safe, fast installation of roller bearings with a max. bore Ø up to 50 mm and for easy installation of bushings, sealing rings, pulleys etc. For SKF, FAG, NTN and similar bearings from other manufacturers.

- Set contents**
- 33** different, hardened impact rings
 - 5** impact sleeves, which up to 220 mm can be fitted over the respective end of the shaft
 - 1** Dead blow hammer 0,7 kg with sparkless nylon head.



78187

Set contents	Type	78187	...
39-piece	in case		101

78189

Sets of separating and extracting devices



Type
With 2-screw tightening, special steel, drop-forged.

Use
For extracting closely fitting ball bearings, inner races etc. The blades of the separating jaws are forced behind the parts to be extracted, releasing them from their fitting.

Note:
For extracting, the separating device is combined with a suitable extracting device.

78189



Item no.	Separating device Size	Extracting device Size	Extension (1 pair) Length mm
78189101	0	0	100
78189102	1	1	100
78189103	2	2	100
78189104	3	3	100

Clamping range mm	Weight approx. kg	Type	78189	...
60	2,7	in metal box		101
75	4,7	in metal box		102
115	8,4	in metal box		103

78190 - 78192

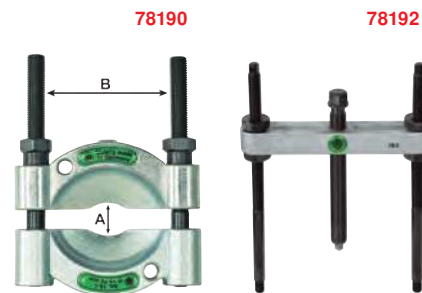
Separating and extracting devices



Type
With 2-screw tightening, special steel, drop-forged.

Use
For extracting closely fitting ball bearings, inner races etc. The blades of the separating jaws are forced behind the parts to be extracted, releasing them from their fitting.

Note:
The tension bolts are screwed into the threaded holes of the separating jaws.



Size	A mm	B mm	Clamping width mm	Length of Drawbolt mm	Separating devices		Extracting devices	
					78190	...	78192	...
0	5 - 60	60	50 - 110	150		101	101	
1	12 - 75	75	60 - 150	200		102	102	
2	22 - 115	115	60 - 200	250		103	103	
3	25 - 155	155	80 - 300	300	#	104	104	

78400 - 78401

Numeral and letter punch sets extra quality

Type
Medium-narrow type to DIN 1451 up to 5 mm, anything above is narrow. With visible engraving, cold-drawn material in silk-gloss matt finish, standard model negative die for legible -impression.

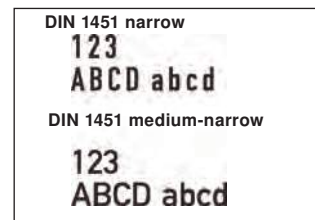
Use
For standard requirements, for workpieces with a strength of up to approx. 800 N/mm². For punching in iron, steel, leather, wood, plastic.

Note:
Positive die – giving mirror-image impression, for moulds and dies, available on request.

78400 - 78401



Type height mm	Hardness engraving HRC	Type	0 - 9		A - Z	
			78400	...	78401	...
2	58 - 60	in plastic box	#	102		102
3	58 - 60	in plastic box		103		103
4	58 - 60	in plastic box		104		104
5	58 - 60	in plastic box		105		105
6	58 - 60	in plastic box		106		106
8	58 - 60	in plastic box		107		107
10	58 - 60	in plastic box		108		108
12	58 - 60	in plastic box		109		109
15	58 - 60	in plastic box		110		



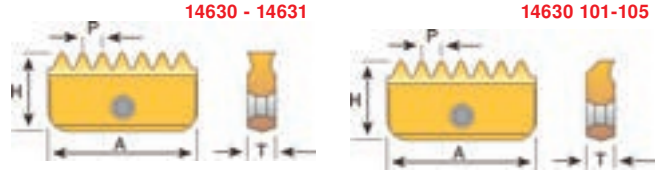


Type
Stable, 2x useable full profile indexable insert.
Use
Universal implementation in many materials.
Quality
VHM/AMT7 TiAlN-coated.

Note:
14630 101-105 cuts on one side.

14630
Type
Full profile 60° internal.
Use
For bores.

14631
Type
Full profile 60° external.
Use
For projections.



Designation	P mm	A mm	H mm	T mm	Internal		External	
					14630	...	14631	...
12 I 0,5 ISO	0,50	12	6,3	2,9	101			
12 I 0,75 ISO	0,75	12	6,3	2,9	102			
12 I 1,0 ISO	1,00	12	6,3	2,9	103			
12 I 1,25 ISO	1,25	12	6,3	2,9	104			
12 I 1,5 ISO	1,50	12	6,3	2,9	105			
14 I 0,5 ISO	0,50	14	7,5	3,1	106			
14 I/E 0,75 ISO	0,75	14	7,5	3,1	107		107	
14 I/E 1,0 ISO	1,00	14	7,5	3,1	108		108	
14 I/E 1,25 ISO	1,25	14	7,5	3,1	109		109	
14 I/E 1,5 ISO	1,50	14	7,5	3,1	110		110	
14 I/E 1,75 ISO	1,75	14	7,5	3,1	111		111	
14 I/E 2,0 ISO	2,00	14	7,5	3,1	112		112	
14 I/E 2,5 ISO	2,50	14	7,5	3,1	113		113	
21 I/E 1,0 ISO	1,00	21	12	4,7	114		114	
21 I/E 1,5 ISO	1,50	21	12	4,7	115		115	
21 I 1,75 ISO	1,75	21	12	4,7	116			
21 I/E 2,0 ISO	2,00	21	12	4,7	117		117	
21 I/E 2,5 ISO	2,50	21	12	4,7	118		118	
21 I/E 3,0 ISO	3,00	21	12	4,7	119		119	
21 I 3,5 ISO	3,50	21	12	4,7	120			
30 I/E 1,5 ISO	1,50	30	16	5,5	121		121	
30 I/E 2,0 ISO	2,00	30	16	5,5	122		122	
30 I/E 3,0 ISO	3,00	30	16	5,5	123		123	
30 I/E 3,5 ISO	3,50	30	16	5,5	124		124	
30 I/E 4,0 ISO	4,00	30	16	5,5	125		125	
30 I 4,5 ISO	4,50	30	16	5,5	126			
30 I 5,0 ISO	5,00	30	16	5,5	127			

Al<10%Si	Al>10%Si	Cu	St<520N	St<750N	St<900N	St<1100N	St<1200N	St<1400N	<45HRC	<55HRC	<60HRC	<67HRC	VA-steel<900N	VA-steel>900N	Ti alloys	GG(G)	Plastics
180-460	180-460	115-460	130-280	120-240	115-200	110-190	105-180	105-180	-	-	-	-	130-190	130-190	25-80	60-170	115-460

14800

HELICOIL® plus repair assortment



Use
The world leader when it comes to quick thread repair solutions:
- For scrap recovery and thread repair
- For repair of damaged or worn-off thread
- For thread reinforcement, where materials of lower shear strength, e.g. aluminium, are used (machine tools, automotive engineering, electrical engineering and medical technology, etc.)
- Absolutely firm seat, even under extreme loads, abrasion-resistant threaded insert of corrosion-resistant, wear-resistant and heat resistant CrNi steel, ideal transmission of force, and increased load capacity of nut thread and bolt thread

230-part, set contents:
20 of each thread inserts
M 5 x 5 / M 5 x 7,5 / M 5 x 10 / M 6 x 6 / M 6 x 9 / M 6 x 12,
10 of each thread inserts
M 8 x 8 / M 8 x 12 / M 8 x 16 / M 10 x 10 / M 10 x 15 / M 10 x 20 / M 12 x 12 / M 12 x 18 / M 12 x 24,
5 twist drills,
5 hand taps,
5 setting tools,
5 pin breakers.

14800



Set contents	Set size	14800	...
230-part	M 5 - M 12	202	

14810 HELICOIL® plus repair packs

HELICOIL® plus
made by BOLLHOFF

Use
For metric ISO coarse-pitch thread DIN 13.
Quality
Stainless steel thread inserts.

14810 103-106

Type
Set contents:
60 threaded inserts, (20 each per nominal length),
1 twist drill,
1 hand tap,
1 setting tool,
1 pin breaker.

14810 107-112

Type
Set contents:
30 thread inserts (10 pcs. per nominal length),
1 twist drill,
1 hand tap,
1 setting tool,
1 pin breaker.

14810 113-114

Type
Set contents:
30 thread inserts (10 pcs. per nominal length),
1 hand tap, 1 setting tool.



d mm	Nominal length mm	Core hole Ø mm	Number of inserts	14810	...
M 3	3 / 4,5 / 6	3,2	60		103
M 4	4 / 6 / 8	4,2	60		104
M 5	5 / 7,5 / 10	5,2	60		105
M 6	6 / 9 / 12	6,3	60		106
M 7	7 / 10,5 / 14	7,3	30		107
M 8	8 / 12 / 16	8,4	30		108

d mm	Nominal length mm	Core hole Ø mm	Number of inserts	14810	...
M 9	9 / 13,5 / 18	9,4	30		109
M 10	10 / 15 / 20	10,5	30		110
M 11	11 / 17,5 / 22	11,5	30		111
M 12	12 / 18 / 24	12,5	30		112
M 14	14 / 21 / 28	14,5	30		113
M 16	16 / 24 / 32	16,5	30		114

14802 - 14808 Component parts for HELICOIL® plus Kat.-Nr. 14800 + 14810

HELICOIL® plus
made by BOLLHOFF

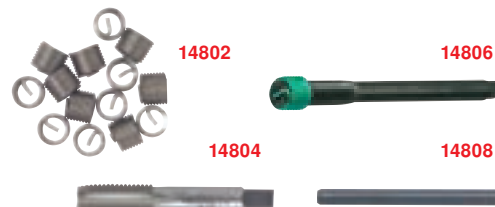
14802

Thread inserts
M 3 - M 6, pack = 20 pcs.,
M 8 - M 12, pack = 10 pcs.

14804
Single-pass thread tap HSS.

14806
Setting tool.

14808
Pin breaker.



Size	Core hole Ø mm	Thread inserts		Taps		Setting tools		Pin breakers	
		14802	...	14804	...	14806	...	14808	...
M 3 x 3	3,2		114		102		102		102
M 3 x 4,5	3,2		115		102		102		102
M 3 x 6	3,2		116		102		102		102
M 4 x 4	4,2		120		104		104		103
M 4 x 6	4,2		121		104		104		103
M 4 x 8	4,2		122		104		104		103
M 5 x 5	5,2		126		106		106		104
M 5 x 7,5	5,2		127		106		106		104
M 5 x 10	5,2		128		106		106		104
M 6 x 6	6,3		130		107		107		104
M 6 x 9	6,3		131		107		107		104
M 6 x 12	6,3		132		107		107		104
M 8 x 8	8,4		141		109		109		105
M 8 x 12	8,4		142		109		109		105
M 8 x 16	8,4		143		109		109		105
M 10 x 10	10,5		156		112		112		106
M 10 x 15	10,5		157		112		112		106
M 10 x 20	10,5		158		112		112		106
M 12 x 12	12,5		176		116		116		107
M 12 x 18	12,5		177		116		116		107
M 12 x 24	12,5		178		116		116		107

11069

Solid carbide thread boring tools

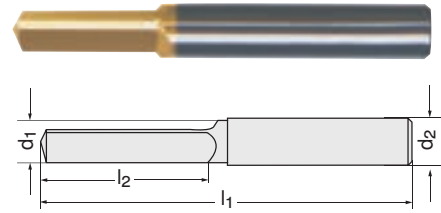


Type
With straight shank, self-centring.

Use
For drilling out broken HSS and HSS-E taps.

Quality
Solid carbide micro finest grit/TiN-coated.

Note:
Stable clamping operation required. Bore dry and free of cutting oil.



11069

d ₁ h ₉ mm	l ₂ mm	l ₁ mm	d ₂ h ₆ mm	11069	...
3.3	50	15	6		101
4.2	50	15	6		103

d ₁ h ₉ mm	l ₂ mm	l ₁ mm	d ₂ h ₆ mm	11069	...
5.0	50	15	6		105
6.8	60	20	8		107

d ₁ h ₉ mm	l ₂ mm	l ₁ mm	d ₂ h ₆ mm	11069	...
8.5	70	25	10		109
10.2	75	30	12		111

Al<10%Si	Al>10%Si	Cu	St<520N	St<750N	St<900N	St<1100N	St<1200N	St<1400N	<45HRC	<55HRC	<60HRC	<67HRC	VA-steel<900N	VA-steel>900N	Ti alloys	GG(G)	Plastics
-	-	-	-	-	-	-	-	-	-	-	-	35-45	-	-	-	-	-

14900 - 14905

Tap Extractors

14900-14903

Use
For broken off taps. The fingers are inserted into the flutes of the broken off tap. This is done by moving the upper sliding ring (1). They are then secured with the guiding sleeve (2). A tap wrench is used to toggle the broken part until it comes loose and can be unscrewed.

14900 102-104

Sets of Tap Extractors
Use
For three-fluted taps. Delivery complete in case.

14900 106-108

Sets of Tap Extractors
Use
For four-fluted taps. Delivery complete in case.

14902

Tap extractor, single
Use
For three-fluted taps.

14903

Tap extractor, single
Use
For four-fluted taps.

14904

Replacement fingers
For three-fluted tap extractors.

14905

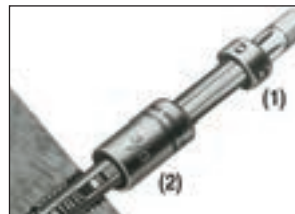
Replacement fingers
For four-fluted tap extractors.



14900

14902-14903

14904-14905



Sets	Extractor	3 flutes	...	4 flutes	...
Set contents		14900		14900	
6-part	M 4 / 5 / 6 / 8 / 10 / 12		102		106
10-part	M 3 / 4 / 5 / 6 / 8 / 10 / 12 / 14 / 16 / 20		104		
10-part	M 4 / 5 / 6 / 8 / 10 / 12 / 14 / 16 / 20 / 22				108

Single for taps Metric / Whitworth	3 flutes	...	4 flutes	...	3 spare fingers	...	4 spare fingers	...
	14902		14903		14904		14905	
M 3 / 1/8		102				102		
M 4 / 5/32		104		104		104		104
M 5 / 3/16		105		105		105		105
M 6 / 1/4		107		107		107		107
M 8 / 5/16		109		109		109		109
M 10 / 3/8		111		111		111		111
M 12 / 1/2		113		113		113		113
M 14 / 9/16		114		114		114		114
M 16 / 5/8		115		115		115		115
M 20 / 3/4		117		117		117		117



Tap Extractors | Bolt extractors | Arc erosion drilling machines

14929 Sets of Tap Extractors

Use
For screwing out taps that have broken off.

14929 101
Type
- 6-part
- Size 1 - 4 three-flute
- Size 5 - 6 four-flute

14929 101



14929 102
Type
- 9-part
- Size 2 - 4 three-flute
- Size 5 - 10 four-flute

Set contents	14929	...
6-part		101
9-part		102



14930 - 14931 Sets of Tap Extractors

Use
For screwing out taps that have broken off.

14930
For **three-fluted** taps.

14930



14931
For **four-fluted** taps.

14931



Size	for tap Metric / Whitworth	Total length mm	Square mm	14930	...	14931	...
1	M 4 / 5/32	55	3,0		101		
2	M 5 / 3/16	60	3,5		102		
3	M 6 / 1/4	60	3,8		103		103
4	M 8 / 5/16	60	5,0		104		104
5	M 10 / 3/8	70	6,0		105		105
6	M 12 / 1/2	70	7,5		106		106
7	M 14 / 9/16	70	8,5		107		107
8	M 16 / 5/8	80	10,5		108		108
9	M 20 / 3/4	80	13,0		109		109

14933 Bolt extractor set

Use
For drilling out torn-off studs
M 5 - M 16.

Quality
Special steel, burnished.

14933

Set contents:	
5	HSS-E drills
10	Guidance aids
5	Drilling out pins
5	Drilling out nuts

Set contents	for stud Ø mm	Type	14933	...
25-part	5-16	in the box		201



The new eromobil®



More compact, more functional, more practical

Since its start in 1972 eromobil® is and remains the most effective solution for tool break. Within minutes broken off taps, twist drills, reamers, etc. are eroded. The device can quickly be used on column drills, radial drills and magnetic drills, milling machines, drilling machines, as well as CNC machines. Thus production faults are minimised, workpiece damage and costs are avoided. With its new design, the eromobil® is more compact and more functional. The new intelligent design integrates all components in a well-organised and space-saving manner; handling is easy and convenient.

Functional principle

The hollow electrode is clamped into the vibration head. This is smaller in diameter than broken off tool. When eroding, the core piece of the broken-off tool is removed. Consequently, the cutting blades come loose and can be removed easily. The electrode does not come into contact with the workpiece, thus the thread remains undamaged. The boring emulsion generally used in the shop is used as coolant.

Generator in robust, compact housing with ergonomic handles for easy lift-out and transport

Supply hose 2 m from the generator to the vibration head (available to 7.5 m)

Vibration head with ergonomic handles, LED indicator light and straight shank receptacle 12 mm

Magnetic stands

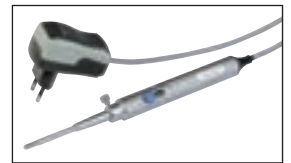
Ground cable 2 m with workpiece clamp (available up to 7.5 m)

Front view

14935 103-104

Deep hole test light

With lamp holder Ø 5 mm, 100 mm long for illuminating the bores after electrical discharge machining. Also with plug transformer 230 V for universal monitoring tasks.



14935 105

Vibration head receptacle:

MK2 directly in the centre sleeve of machine tool.



Select from two models

eromobil®-er 230 s-ND

- For thread from M2 to approx. M20
- 220/230 V
- 50 Hz AC
- 3,6 kVA
- 16 amp

eromobil®-er 400 t-ND

- For thread from M2 to approx. M40
- Optimally suited for deep holes and carbide tools
- 380/400 V
- 50 Hz three-phase current
- 6,0 kVA
- 16 amp

Standard scope of supply

- Generator in the trolley
- Vibration head
- Supply hose
- Ground cable
- Coolant pump
- Coolant tank
- 1 each fork spanner AF 19 and AF 24
- 10 splash guard bags

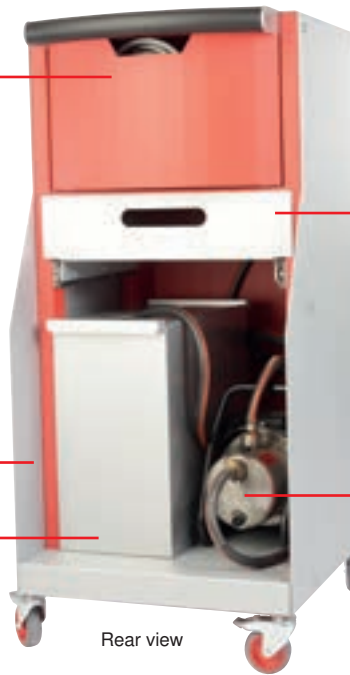
Storage compartment for vibration head, supply hose, and ground cable



Opened cover housing compartment with vibration head supply hose

Trolley with placement surface for coolant pump and coolant container, with easy running castors

Coolant tanks with two chambers for intake and return, with practical handles



Rear view

Tool drawer with interior compartment settings for electrodes, collet chucks, fork spanners, splash protection bags and accessories, pulls out on easy-running profile rollers



Coolant pump for effective flushing with approx. 3,4 bar pressure incl. 2 m suction hose with foot valve, as well as 2 pressure hose with quick-release coupling (hoses to 5 m are available)

Erosion drilling machine	14934	...
er 230 s-ND	201	
er 400 t-ND	202	

Special accessories	14935	...
Deep hole test light	103	
Lamp holder, 100 mm long	104	
Vibration head receptacle, MK 2	105	

Continuation ▶

Arc erosion drilling machines | Tap Sets

14936 - 14937 Electrodes and collets for eromobil®

Continuation ▶

14936
Copper electrodes

Use
For tools made of HSS.

14937
Collets

14936



14937



Note:
Special electrodes up to diameter 30 mm and 1.000 mm length and electrodes made of graphite and tungsten copper for machining carbide metal tools are available on request.

Electrode Ø x length mm	for thread M	14936	...
1,0 x 250	2 - 2,6		101
1,5 x 250	3		102
2,0 x 250	4		103
2,5 x 250	5		104
3,0 x 250	5 - 6		105
3,5 x 250	6		106
4,0 x 250	6 - 8		107
4,5 x 250	8		108
5,0 x 250	8 - 10		109
6,0 x 250	10		110
7,0 x 250	12		111
8,0 x 250	12 - 14		112
10,0 x 250	16 - 20		113

Collets Ø mm	14937	...
1.0		101
1.5		102
2.0		103
2.5		104
3.0		105
3.5		106
4.0		107
4.5		108
5.0		109
6.0		110
7.0		111
8.0		112
10.0		113

System Prefab Office SHB 50



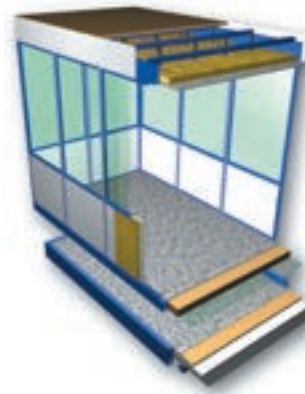
Design

Use

Individual spatial concepts - turnkey solutions.

The Prefab Office SHB 50 is the optimal spatial solution - from the small foreman's office to the 2-storey large facility with many advantages:

- Fast and easy installation through monoblock elements
- Optimal protection against noise and dust
- Effective use of space
- Turnkey solution
- Easy extensibility
- Cost-effective transferability
- Room heights to 3000 mm



Standard floor

Transport floor

Additional information on request



1-storey spatial solution



2-storey spatial solution



Spatial solution on a platform



Transportable spatial solution

51985 - 51986 Screw extractors, two cutting blades



Type

Non-slip insertion by two cutting blades into the screw or stud bolt. With lathe centre. Surface burnished, cutting blades polished.

Use

For non-damaging extracting of broken-off screws or stud bolts from threaded holes.

For use with right-hand or left-hand thread.

In order to ensure a safe grip of the extractor, it is hammered into the bore.

Quality

Chrome-vanadium steel, hardened.

51985



51986



Set	No. of extractors	Set contents Size	Type	51985	...
	5	1 - 5	in metal case		101

single

Size	AF mm	Borehole Ø min. mm	Borehole Ø max. mm	Screw size min.	Screw size max.	Type	51986	...
1	6.35	3.2	4.8	M 5	M 6	in plastic box		101
2	9.50	4.8	7.1	M 8	M 10	in plastic box		102
3	12.70	6.4	9.5	M 10	M 12	in plastic box		103
4	15.90	8.7	12.7	M 12	M 16	in plastic box	#	104
5	19.00	11.1	15.9	M 16	M 20	in plastic box	#	105
6	22.00	14.3	19.1	M 20	M 24	in plastic box		106
7	25.40	19.1	23.8	-	M 30	in plastic box		107

51990 - 51992 Screw extractors



Type

Rolled thread, ground shank.

Use

Maximum torque in Nm at a test element with a material tension of 1147 N/mm² and a hardness of 35 HRC. For extracting broken-off screws with right-hand thread and broken-off pipe ends from fittings.

Quality

59 chrome-vanadium steel, hardened, 54-56 HRC.

51991

HITRAC screw extractors

Type

Additionally with milled groove.

Due to the improved design and thread length considerably less power is required for extracting. Available in two different set sizes.

51990 101



51990 102



51991 100



51991 101



51992



Set	No. of Extractors	Set contents Size	Type	51990	...	HITRAC 51991	...
	5	1 - 5	in plastic box	100		100	
	6	1 - 6	in plastic box	101		101	
	8	1 - 8	in plastic box	102			

single

Size	Ø tips mm	Ø shank mm	Overall length mm	Recommended drill Ø mm	for screws	51992	...
1	1.4	3.6	50	1.8	M 3 - 4		101
2	2.1	4.9	57	3.2	M 5 - 7		102
3	3.1	6.5	64	4.5	M 8 - 10		103
4	4.8	8.8	71	6.5	M 11 - 14		104
5	6.2	11.0	79	8.5	M 16 - 18		105
6	9.4	15.0	85	11.8	M 18 - 24		106
7	12.7	19.0	92	15.3	M 24 - 33		107
8	17.5	24.0	100	20.0	M 33 - 45	#	108

