Internal extractors

INTERNAL EXTRACTOR OVERVIEW

In a class of its own due to the precision manufacturing technology

The simple handling method guarantees the fast and uncomplicated withdrawal of ball bearings.

Because of their titanium nitrided coating the surfaces have increased hardness and are provided with better protection.

Force transmission is increased and improved by precise manufacturing accuracy.

The expansion ranges have been increased, thus fewer pullers are necessary for the same overall expansion range.

› with matching counter-stays and sliding hammers

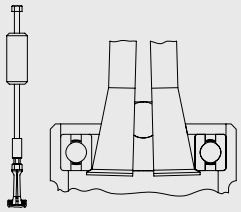
Contents:

› 1.34/10 - 5-piece internal extractor set for closely-fitting ball bearings
› Attractive set arrangement
› Can be used with sliding hammer or counter-support brace

FEATURES MATERIAL

Titanium nitrided surface

› Harder
› More wear-resistant
› Better surface protection
› More heat-resistant
› Fine design
› Fast compensation of temperature differences



1.34/1 - 1.34/4 INTERNAL EXTRACTOR

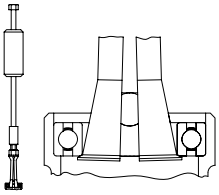
› For use with sliding hammer no. 1.35/0 or counter-support brace no. 1.36/1
› Multiple wrench size (11 + 13 mm)

mm	M	kg	Code	No.
5,0-8,5	M10	0.040	1638556	1.34/1
8,0-15,0	M10	0.060	1638564	1.34/2
15,0-25,0	M10	0.080	1638572	1.34/3
25,0-36,0	M10	0.100	1638580	1.34/4

1.34/10 INTERNAL EXTRACTOR SET

5 pieces

› For tightly-fitting ball bearings, bearing races, bushings and shaft seals
› Titanium-nitrided surface
› Multiple wrench size (11 + 13 mm)
› M10 connecting thread
› 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 or the sliding hammer is then added.
› In plastic case



Contents	kg	Code	No.
1 internal extractor 5-8.5 mm, No. 1.34/1 **1 internal extractor 8-15 mm, No. 1.34/2** **1 internal extractor 15-24 mm, No.1.34/3** **1 internal extractor 25-36 mm, No.1.34/4** **1 sliding hammer, No. 1.35/0**	1.3	1638629	1.34/10

1.30/0-9
INTERNAL EXTRACTOR

- For extremely-tightly-packed ball bearings, bearing races, bushings, and shaft seals Simmering®
- 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.
- The design can vary from the image
- Can be used with either sliding hammer or counter-support brace

○ mm min - max	M	⬢ mm		Sliding hammer	kg	Code	No.
5-8	M10	10	1.36/1	1.35/1A	0.120	8012750	1.30/0
8-12	M10	10	1.36/1	1.35/1A	0.120	8012830	1.30/1
12-15	M10	10	1.36/1	1.35/1A	0.130	8012910	1.30/2
15-19	M10	13	1.36/1	1.35/1A	0.170	8013130	1.30/3
19-25	M10	13	1.36/1	1.35/2	0.200	8013480	1.30/4
25-30	M10	13	1.36/1	1.35/2	0.300	8013560	1.30/4A
30-35	M10	13	1.36/1	1.35/2	0.400	8013640	1.30/5
35-45	M14x1,5	17	1.36/2	1.35/2	0.650	8013720	1.30/6
45-55	M14x1,5	17	1.36/2	1.35/3	0.800	8013800	1.30/7
55-70	M14x1,5	19	1.36/3	1.35/3	1.800	8013990	1.30/8
70-100	M14x1,5	27	1.36/3	1.35/3	3.050	8014020	1.30/9

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 soulder of the shell jaw must be applied behind the bearing

○ mm	M	⬢ mm	kg	Code	No.
12-14	M10	10	0.170	8013050	1.30/2N
14-19	M10	13	0.170	8013210	1.30/3N

1.35 ›481

1.36 ›481

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
- Both internal extractors can be used with sliding hammer 1.35/3
- Adapter 135/325-I M16x1,5 G 1/2" (Code 1123750) must also be ordered if sliding hammer 1.35/3 is used.

1.30/10

mm	M		mm	a	b	c	d	e	h1	h2	kg	Code	No.
60-160	G 1/2"	1.36/4 1.35/3	36	70	192	33	5	1	213	269	2.312	8014100	1.30/10
60-160	G 1/2"	1.36/4 1.35/3	36	70	187	33	5	6	213	269	2.312	2724804	1.30/10N

130/10
SPARE LEG FOR 1.30/10

- One spare hook including screws
- Suitable for 1.30/10 and 1.30/10N
- Recommendation: In case of a broken hook, all three hooks should be replaced

	b	c	d	e	h1	kg	Code	No.
1.30/10 1.30/10N	192	33	5	1	213	0.360	2827565	130/10-200
1.30/10N 1.30/10	187	33	5	6	213	0.360	2827573	130/10-200-N

1.81 ›490

1.35
SLIDING HAMMER

› Suited for the removal of small ball bearings since there is often not enough room for counter-support braces
› Can also be used with threaded inserts no. 1.81

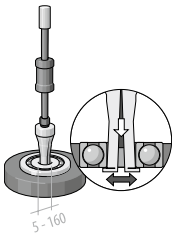
1.35/0

1.35/1A

1.35/1

1.35/2

1.35/3



for internal extractors	M	with adaptor	mm	mm	Sliding surface	Impact weight in g	kg	Code	No.
1.34/1 - 1.34/4	M10	-	13	230	160	200	0.400	1958062	1.35/0
1.30/0 - 1.30/5	M10	-	13	270	200	200	0.450	8016070	1.35/1
1.34/1 - 1.34/4									
1.30/0 - 1.30/7	M10	M 14x1,5	13	270	200	700	0.950	1958070	1.35/1A
1.30/0 - 1.30/9	M 14x1,5	M10	24	520	340	1700	3.030	8039010	1.35/2
1.30/6 - 1.30/10	M 14x1,5	-	24	620	440	3000	4.200	1958089	1.35/3

1.36
COUNTER-SUPPORT BRACE

› Operation: The counter-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.

1.36/1 - 1.36/3

1.36/4

for internal extractors	M	mm	kg	Code	No.
1.30/0 - 1.30/5	M10	27	0.750	8016580	1.36/1
1.34/1 - 1.34/4					
1.30/6 - 1.30/7	M14x1,5	32	1.650	8016660	1.36/2
1.30/8 - 1.30/9	M14x1,5	32	3.000	8016740	1.36/3
1.30/10	G 1/2"	36	7.600	8016820	1.36/4

1.37/2
CYLINDER LINER PULLER
complete with support brace

- Wet heavy-vehicle (e.g. Mercedes Benz, MAN) cylinder liners, automobile and stationary-engine liners, and other parts may be extracted using this puller
- Operation: The spindle of the counter-support brace is screwed into the clamping nut of the puller, and the puller inserted into the liner. The counter-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 counter-support brace is tightened.

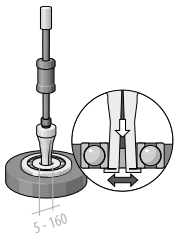
mm	M	mm	kg	Code	No.
60-160	G 1/2"	36	6.8	8017200	1.37/2

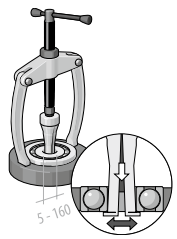
1100-1.30
INTERNAL EXTRACTOR SET
in L-BOXX® 136, 7 pieces

- For Ø 12 - 35 mm
- For extremely-tightly-packed ball bearings, bearing races, bushings, and shaft seals Simmering®
- Sliding hammer 1.7 kg and counter-support brace
- 1100 CT2-1.30 to retrofit existing L-BOXX®es 136
- With Check-Tool insert for quick check of completeness
- As tools are fully sunk in the foam, the equipped insert can be stacked
- Insert for use in drawers with min. dimensions 400 x 310 x 60 mm

1100 CT2-1.30

1100-1.30





Contents	kg	Code	No.
1.30/2 **1.30/3** **1.30/4** **1.30/4A** **1.30/5** **1.36/1** **1.35/2** **+ 1100 L**	7.2	2836041	1100-1.30

Contents	kg	Code	No.
1.30/2 **1.30/3** **1.30/4** **1.30/4A** **1.30/5** **1.36/1** **1.35/2**	5.0	2836025	1100 CT2-1.30

Description	kg	Code	No.
Foam insert 2/2 L-BOXX 136, empty	0.200	2836033	EI-1100 CT2-1.30

1.31
INTERNAL EXTRACTOR SET

› Sets comprise the most used extractor sizes for the removal of ball bearings, bearing races, bushings, shaft seals, etc.
› In handy sheet metal case

1.31/0

1.31/2

Contents	kg	Code	No.
4 internal extractors 12-30 mm, No. 1.30/2 /3 /4 /4A **1 counter-support brace No. 1.36/1**	2.6	8014530	1.31/0
6 internal extractors 12-46 mm, No. 1.30/2 - /6 **2 counter-support braces No. 1.36/1 - /2**	6.4	8014610	1.31/1
8 internal extractors 12-70 mm, No. 1.30/2 - /8 **2 counter-support braces No. 1.36/1 - /2**	9.2	8014880	1.31/2

1.32
SET OF INTERNAL AND EXTERNAL EXTRACTORS

› The handy sheet metal case comprises internal extractors, support braces, pulling chucks, external extractors and stud extractors

1.32/1

1.32/2

1.32/2

Contents	kg	Code	No.
6 internal extractors 12-46 mm No. 1.30/2 - /6 **2 counter-support braces No. 1.36/1 - /2** **1 puller with extra slim legs No. 1.19/0XS** **1 battery-terminal puller No. 1.12/02** **1 puller, 2-arm pattern, No. 1.06/1**	10.4	8015260	1.32/1

Contents	kg	Code	No.
8 internal extractors 12-70 mm No. 1.30/2 - /8 **2 counter-support braces No. 1.36/1 - /2** **1 puller with extra slim legs No. 1.19/0XS** **1 battery-terminal puller No. 1.12/02** **2 pullers, 2-arm pattern, No. 1.06/1 1.06/2** **1 stud extractor No. 1.28/1**	19.0	8015340	1.32/2