ikema®

SCHAEFFLER

Smart Maintenance Tools

Maintenance & hydraulic tools for bearings and transmission parts













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BETEX SMART MAINTENANCE TOOLS

Maintenance and hydraulic tools for bearings and transmission parts

Schaeffler Smart Maintenance Tools is a manufacturer and distributor of special tools with its own brand name: BETEX®. BETEX® products ensure safe, cost-effective fitting and removal of bearings and drive components, etc. These tools are used in production and maintenance departments at MRO and OEM companies worldwide.

Dealer network
We export through a global network of distributors and supply various types of industries. For further information and details of a nearby dealer, please contact:
sales.smt@schaeffler.com

Schaeffler Smart Maintenance Tools is supplier of:

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BETEX Smart Maintenance Tools

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Aluminium hand pumps, 700 bar

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Custom made

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BETEX® induction heaters

Mounting & Dismounting

Why use induction heating?

Induction heating is a superior, fast and controlled method. It is a safe and environmentally-friendly alternative to traditional heating methods such as ovens, oil baths or blow torches. These methods not only generate smoke and fumes, but also cause burning of necessary lubricating greases and damage to rollers due to uncontrolled and localised overheating. This makes them hazardous for your personal safety and a healthy working environment.

It is common knowledge that a correct mounting method extends the bearing life. Controlled stress-free heating prevents unnecessary damage, while retaining the original bearing lubrication. Ideal for sealed bearings (2RS-ZZ). Bearing manufacturers recommend controlled induction heating as the best practice for bearing mounting.

Multifunctional, for mounting and dismounting
We offer solutions for Mounting (low-frequency) and Dismounting (medium-frequency). For bearings, gear wheels, bushings, couplings, etc.

Controlled heating
Temperature and/or time
Smart electronics ensure optimum control during the heating process. These automatically regulate the most efficient use of power and ensure even and rapid heating. No extra steps are necessary. Explosive heating is impossible (no discolouration or pitting of material).

Demagnetization
Reliable demagnetization is very important for bearings and transmission parts. The proven quality of BETEX® induction heaters guarantees maximum demagnetization (<2A/cm). This has a positive impact on the service life of bearings and gears and the like.

Energy efficient
All BETEX® induction heaters are energy efficient in comparison with traditional methods.

New generation with smart technology

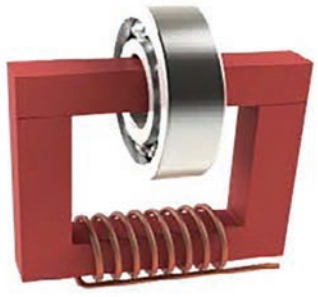
ΔT
Delta T

The heating process is displayed in a clear graph on a touchscreen. There is a log function to save or export data. A work log can be created as evidence. Thanks to the double temperature sensor it is possible to heat stress-free with preset values (ΔT).

For more control and stress-free mounting
Thanks to the ΔT monitoring, it is possible to measure the internal and external temperature of a workpiece with 2 temperature probes. Thus the maximum preset temperature difference between 2 points can never be exceeded. This achieves even and uniform heating and prevents unnecessary material stress.

Operating principle

The heater works by inducing a (low-frequency) current in the workpiece to be heated. This is achieved by incorporating the workpiece as a secondary winding in a transformer. The primary winding is connected to the mains power by means of an electronic control. The magnetic field induces a high current (short-circuit current) through the workpiece, which consequently becomes hot. The workpiece is automatically demagnetized after each heating cycle.



Difference between low- and medium-frequency
- Low-frequency: slow heating, great heat penetration depth
- Medium-frequency: fast heating, shallow heat penetration depth

Heating times are subject to the relationship between:
- Dimensions and weight
- Temperature and material
- Available power

Dutch design

Bega develops, manufactures and sells BETEX® induction heaters for professional use within industry and services sectors. Our induction heaters are used around the world, are reliable and user friendly.

Advantages of BETEX® induction heaters



- ✓ Safety for both the user and the component to be heated
- ✓ For mounting and dismounting
- ✓ Environmentally friendly: no smoke, no open flames, no fumes, no oil waste
- ✓ The energy saving alternative to traditional methods
- ✓ Robust design for use in industrial environments
- ✓ For sealed (2RS-ZZ) and pre-lubricated bearings
- ✓ Automatic power reduction
- ✓ Automatic demagnetization to ‹2A/cm
- ✓ Automatic reheat mode
- ✓ User-friendly swivel arm construction
- ✓ Designed for MRO and OEM departments
- ✓ 3-year warranty on electronic unit

Custom made

Bega has realised many projects aimed at optimising production processes and increasing production capacity. For serial heating or heating of non-standard shapes.

Read more in the “Sometimes customisation is the best solution” starting on page 186.



All heaters are supplied with:

- Instruction manual
- Heat-resistant gloves 250°C / 482 °F
- Magnetic temperature probe (240°C / 464 °F)
- Vaseline for maintenance

Dependable quality

BETEX® induction heaters are proven to be reliable. Their sturdy styling and user-friendly design guarantees uninterrupted, problem-free operation in an industrial environment.

Service & Warranty

Our expertise and experience ensure quality, reliability, professional advice and outstanding service. BETEX® induction heaters are supplied with clear instructions and a 3-year warranty on the electronic components.



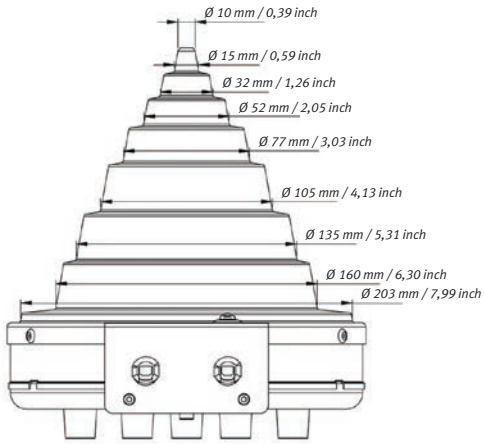




Electric heaters

BETEX Cone Heater, CH series





BETEX Cone Heater

For the heating of bearings, enabling easy mounting by means of shrinkage fitting.
Using the correct mounting method extends the bearing's service life. Electric heating is a safe alternative to traditional methods such as hammering, oil baths or blow torches. Suitable for the heating of gear wheels, bushings, couplings and other round metal workpieces.

The affordable alternative!
If your budget is limited, the BETEX Cone Heater is an affordable alternative to other heating systems. Easy to use and suitable for various sizes. In a lightweight aluminium housing. For quick and even heating.

Models with thermometer (CHC)
- Temperature control: with temperature preset to 120°C / 248 °F
- Thermostat feature: the unit will keep the bearing at a preset temperature

Advantages:
- ✓ Easy to use, just plug it in and switch it on
- ✓ Lightweight making it easier to move around
- ✓ Reliable and flexible
- ✓ Safe and clean operation
- ✓ Intermediate sizes also fit

Type BETEX Cone Heater	CHU	CHC
Art. no.	360600 - 120V 360610 - 230V	360700 - 120V 360710 - 230V
Power	725W	725W
Voltage/Amp	120V / 6A 230V / 3.2A	120V / 6A 230V / 3.2A
Frequency Hz	50/60	50/60
Max. weight ± kg	5-7	5-7
Min. ID Ø, mm	10	10
Max. ID Ø, mm	203	203
Max. OD Ø, mm	305	305
Temperature check in °C and °F Fixed temperature	-	120 °C / 248 °F
Heat retention function	No	Yes
Dimensions mm/inch (LxWxH)	365x220x240 / 14.4x8.7x9.5	365x220x240 / 14.4x8.7x9.5
Heater weight kg	2.4	2.6

Induction heaters

BETEX iDuctor 1 & 2 – hand tools





Supplied with case

Both devices are supplied in a handy plastic case, incl. a 2.0-metre flexible inductor, a 2.5-metre power cord, heat-resistant gloves (250°C) and an instruction manual.

BETEX iDuctor 1 & 2

The BETEX iDuctor is a small-sized professional hand tool for medium-frequency heating technology. This means it is a safe and clean method, free of open flames, that is perfect for use in workshops and on location.

BETEX iDuctors are the ultimate precision heating tool to loosen stuck parts (nuts, bolts, bearings). All sorts of metal parts, such as transmission parts, bearing housings, bolts, nuts, pipes and small surfaces can be heated locally. Thanks to the precise heating, the surroundings retain a normal temperature. As a result, stuck parts will expand and loosen, rust and sealants dissolve. The choice in inductors makes it a multipurpose tool which can be used for mounting, dismounting or preheating. Even for removal of decals, coating layers or paint residue from steel.

There are two types of iDuctor:

- The iDuctor 1 has a capacity of 1200 W.
- The more powerful iDuctor 2, with outputs of 2000 W and 2300 W, is more suitable for larger and heavier parts.

Read more about iDuctor accessories on page 10.

Advantages

- ✓ Heats extremely fast
- ✓ Additional inductors available
- ✓ Ergonomic design
- ✓ Time and Cost saving
- ✓ Can be operated with one hand
- ✓ No open flames
- ✓ Safe to use
- ✓ Multipurpose
- ✓ Suitable for difficult to access locations
- ✓ Maintenance free

Type	iDuctor 1	iDuctor 1	iDuctor 2	iDuctor 2	iDuctor 2	iDuctor 2	iDuctor 2
Certification	CE	UKCA	CE	UKCA	c(UL)us	CE	UKCA
Art. no.	231101	231121	231302	231322	231303	231301	231321
Power	1200W	1200W	2000W	2000W	2000W	2300W	2300W
Voltage/Amp	230V / 6A	230V / 6A	120V / 15A	120V / 15A	120V / 15A	230V / 10A	230V / 10A
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Frequency range	30-65kHz	30-65kHz	30-65kHz	30-65kHz	30-65kHz	30-65kHz	30-65kHz
Thermal protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Error message	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cooling fan	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Microprocessor controlled, automatic power control in case of overload or overheating	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LED lighting	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Weight kg	1,4	1,4	1,4	1,4	1,4	1,4	1,4

Induction heaters

BETEX iDuctor accessories

Flexible inductors and accessories

Flexible inductors can placed in or around a workpiece. Therefore, they are ideal for a large variety of parts.

1. Flexible inductor
2. ID-pad for local surface heating for removing decals, coating layers, paint residue etc. from steel.





Article	Art. no.	Wire thickness mm	Length mm	Temp. isolation °C (°F)
Flexible Inductor 1.1 mtr	231202	3.5	1100	650 (1202)
Flexible Inductor 2.0 mtr	231203	3.5	2000	650 (1202)
Flexible Inductor 2.5 mtr	231217	3.5	2500	650 (1202)
Flexible Inductor 3.0 mtr	231218	3.5	3000	650 (1202)
Flexible Inductor 3.5 mtr	231219	3.5	3500	650 (1202)
ID-pad	231205	3.5	-	150 (302)
Heat protective gloves (up to 250°C)	279998	-	-	250 (482)
Heat protective gloves (up to 300°C)	279992	-	-	300 (572)

Flexible inductors with a length of more than 2 metres are mainly used for larger and heavier components that require correspondingly higher power. We therefore recommend combining it with the iDuctor 2 variants with an output of 2000 W or 2300 W.









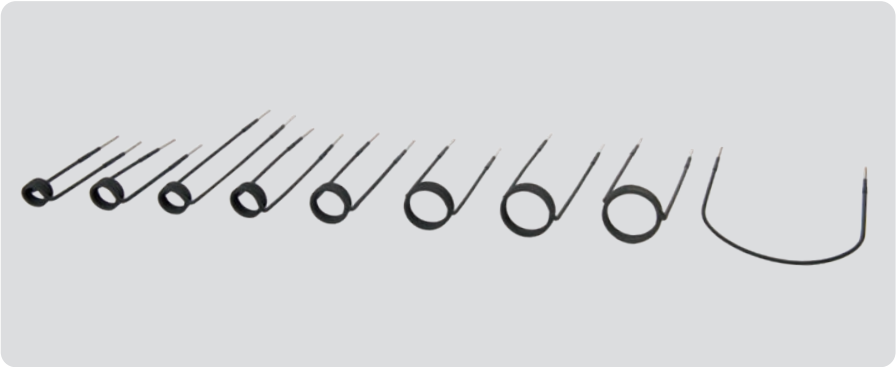




iDuctor 1 set

Set of nine inductors consisting of different bolt sizes and a flexible U-inductor for the iDuctor 1 variants.

Art. no: 231204

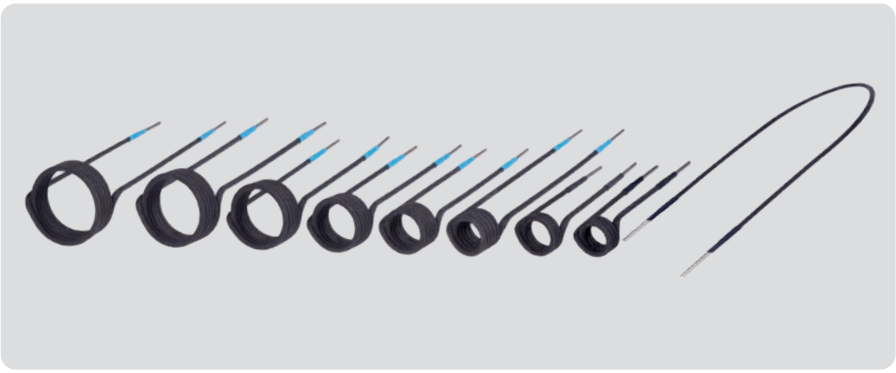


Set of 9 pcs.	Wire thickness mm	Internal diameter mm	Bolt size metric (imperial)	Windings	Length mm	Temp. isolation °C (°F)
52M30-240	3.5	52	M30 (1 1/4”)	2,5	240	325 (617)
47M24-240	3.5	47	M24 (1”)	2,5	240	325 (617)
40M20-200	3.5	40	M20 (3/4”)	3,5	200	325 (617)
32M16-200	3.5	32	M16 (9/16”)	3,5	200	325 (617)
26M12-200	3.5	26	M12 (7/16”)	3,5	200	325 (617)
23M10-250	3.5	23	M10 (7/16”)	3,5	250	325 (617)
23M10-150	3.5	23	M10 (7/16”)	3,5	150	325 (617)
18M08-150	3.5	18	M8 (5/16”)	3,5	150	325 (617)
U inductor 160-600	3.5	-	-	0,5	600	325 (617)

iDuctor 2 set

Set of nine inductors consisting of different bolt sizes and a flexible U-inductor for the iDuctor 2 variants.

Art. no: 231304



Set of 9 pcs.	Wire thickness mm	Internal diameter mm	Bolt size metric (imperial)	Windings	Length mm	Temp. isolation °C (°F)
52M30-240P+	3.5	52	M30 (1 1/4”)	5,5	240	325 (617)
47M24-240P+	3.5	47	M24 (1”)	5,5	240	325 (617)
40M20-200P+	3.5	40	M20 (3/4”)	5,5	200	325 (617)
32M16-200P+	3.5	32	M16 (9/16”)	5,5	200	325 (617)
26M12-200P+	3.5	26	M12 (7/16”)	5,5	200	325 (617)
23M10-250P+	3.5	23	M10 (7/16”)	5,5	250	325 (617)
23M10-150	3.5	23	M10 (7/16”)	3,5	150	325 (617)
18M08-150	3.5	18	M8 (5/16”)	3,5	150	325 (617)
U inductor 160-600	3.5	-	-	0,5	600	325 (617)

Induction heaters - lightweight: 7 kg

BETEX 24 XLDi



0
min. ID Ø mm

180
max. OD Ø mm

-
max. width mm

10
max. bearing weight kg

Read more about the benefits of induction heaters in Section “Why use induction heating?” starting on page 6.

BETEX 24 XLDi

- Portable induction heater, weighs as little as 7 kg
- Single temperature measurement
- Digital display
- Ideal for use in workshops or on-site
- No yokes necessary





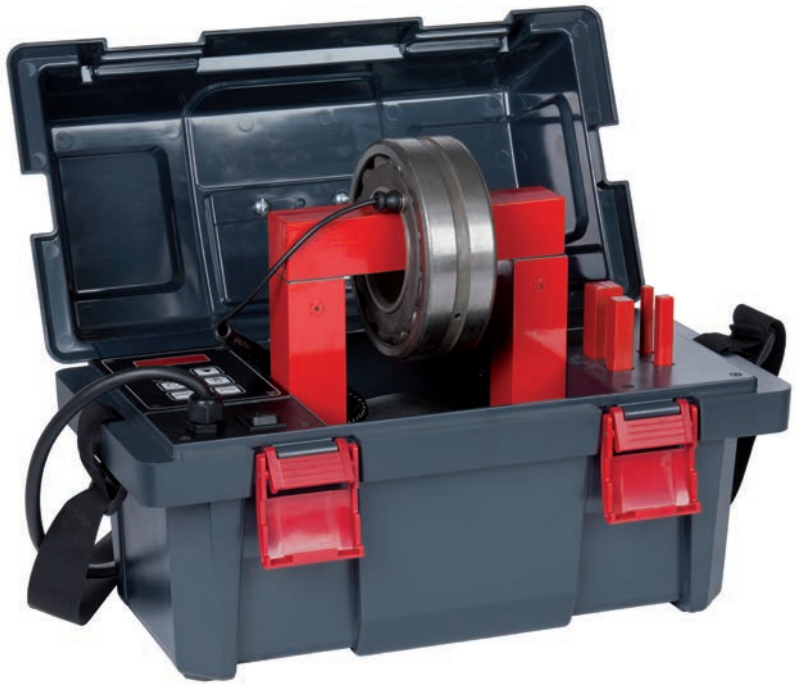
Type	BETEX 24 XLDi
Temperature control	Yes
Time control	Yes
Automatic demagnetization	‹2A/cm

Type	Art. no.	Voltage/Amp/Power	Certification
24 XLDi CE	230610	230V / 6A / 1,2kVA	CE

See page 30 for detailed technical specifications.

Induction heaters – portable

BETEX BLF 200 portable



10
min. ID Ø mm

240
max. OD Ø mm

120
max. width mm

20
max. bearing weight kg

Read more about the benefits of induction heaters in Section “Why use induction heating?” starting on page 6.

BETEX BLF 200

- Portable induction heater
- Single temperature measurement
- Digital display
- Ideal for use in workshops or on-site
- 5 yokes included



Type	BETEX BLF 200
Temperature check	Yes
Time check	Yes
Automatic demagnetising	‹2A/cm

Type	Art. no.	Voltage/Amp/Power	Certification
BLF 200 CE	4200150-CE	120V / 10A / 1,2kVA	CE
BLF 200 CE	4200250-CE	230V / 10A / 2,3kVA	CE
BLF 200 C-US	4200150-C-US	120V / 10A / 1,2kVA	cQPSus
BLF 200 C-US	4200250-C-US	240V / 5A / 1,2kVA	cQPSus
BLF 200 UKCA	4200250-UK	230V / 10A / 2,3kVA	UKCA

See page 30 for detailed technical specifications.



Induction heaters

BETEX BLF 201 & SLF 301



10/65
min. ID Ø mm

400
max. OD Ø mm

120
max. width mm

50
max. bearing weight kg

BETEX BLF 201

- Portable induction heater
- Single temperature measurement
- Digital display
- 3 yokes included.

Type	BETEX BLF 201 BASIC	BETEX SLF 301 SMART
Log functionality	No	Yes
Magnetic probe	1	2
Delta-T ΔT	No	Yes
Temperature check	Yes	Yes ΔT
Time control	Yes	Yes
Time or temperature control	No	Yes ΔT
Temperature and speed control	No	Yes ΔT
Automatic demagnetization	‹2A/cm	‹2A/cm

Type	Art. no.	Voltage/Amp/Power	Certification
BLF 201 CE	4201230-CE	230V / 13A / 3,0kVA	CE
BLF 201 C-US	4201130-C-US	120V / 13A / 1,5kVA	cQPSus
BLF 201 C-US	4201230-C-US	240V / 13A / 3,2kVA	cQPSus
BLF 201 UKCA	4201230-UK	230V / 13A / 3,0kVA	UKCA
SLF 301 CE	4301230-CE	230V / 13A / 3,0kVA	CE
SLF 301 C-US	4301130-C-US	120V / 13A / 1,5kVA	cQPSus
SLF 301 C-US	4301230-C-US	240V / 13A / 3,1kVA	cQPSus
SLF 301 UKCA	4301230-UK	230V / 13A / 3,0kVA	UKCA

See page 30 for detailed technical specifications.



ΔT
Delta T

10/65
min. ID Ø mm

400
max. OD Ø mm

120
max. width mm

50
max. bearing weight kg

Read more about the benefits of induction heaters in Section “Why use induction heating?” starting on page 6.

Use in combination with “BETEX Impact 33 & 39” starting on page 50.

BETEX SLF 301

- Portable induction heater
- Double temperature measurement ΔT
- Touchscreen with clear graph
- Log function and export to USB stick
- Create a proof work report
- Stress-free heating
- 3 yokes included.

ΔT

For more control and stress-free mounting
Thanks to the Delta-T ΔT monitoring, it is possible to measure the internal and external temperature of a workpiece with 2 temperature probes. Thus the maximum preset temperature difference between 2 points can never be exceeded. This achieves even and uniform heating and prevents material stress.



Log function and export to USB stick (not included)



Heating a hanging workpiece, for small bores



Recommended horizontal heating position

Induction heaters

BETEX BLF 202 & SLF 302



30/72
min. ID Ø mm

500
max. OD Ø mm

180
max. width mm

100
max. bearing weight kg

BETEX BLF 202

- Benchtop model, heating capacity up to 100 kg
- With swivel arm
- Single temperature measurement
- Digital display
- 2 yokes included

Type	BETEX BLF 202 BASIC	BETEX SLF 302 SMART
Log functionality	No	Yes
Magnetic probe	1	2
Delta-T ΔT	No	Yes
Temperature control	Yes	Yes ΔT
Time control	Yes	Yes
Time or temperature control	No	Yes ΔT
Temperature and speed control	No	Yes ΔT
Automatic demagnetization	‹2A/cm	‹2A/cm

Type	Art. no.	Voltage/Amp/Power	Certification
BLF 202 CE	4202220-CE	230V / 16A / 3,7kVA	CE
BLF 202 C-US	4202120-C-US	120V / 15A / 1,8kVA	cQPSus
BLF 202 C-US	4202220-C-US	240V / 16A / 3,8kVA	cQPSus
BLF 202 UKCA	4202220-UK	230V / 13A / 2,9kVA	UKCA
SLF 302 CE	4302220-CE	230V / 16A / 3,7kVA	CE
SLF 302 C-US	4302120-C-US	120V / 15A / 1,8kVA	cQPSus
SLF 302 C-US	4302220-C-US	240V / 16A / 3,8kVA	cQPSus
SLF 302 UKCA	4302220-UK	230V / 13A / 2,9kVA	UKCA

See page 30 for detailed technical specifications.



ΔT
Delta T

30/72
min. ID Ø mm

500
max. OD Ø mm

180
max. width mm

100
max. bearing weight kg

Read more about the benefits of induction heaters in Section “Why use induction heating?” starting on page 6.

Use in combination with “BETEX Impact 33 & 39” starting on page 50.

BETEX SLF 302

- Benchtop model, heating capacity up to 100 kg
- With swivel arm
- Double temperature measurement ΔT
- Touchscreen with clear graph
- Log function and export to USB stick
- Stress-free heating
- 2 yokes included

ΔT

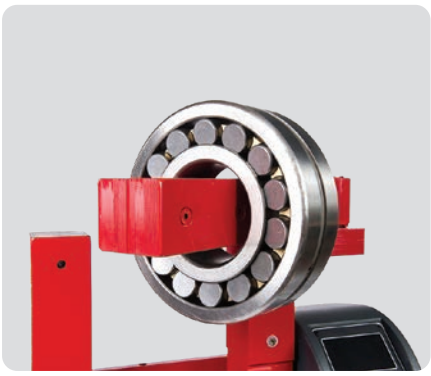
For more control and stress-free mounting
Thanks to the Delta-T ΔT monitoring, it is possible to measure the internal and external temperature of a workpiece with 2 temperature probes. Thus the maximum preset temperature difference between 2 points can never be exceeded. This achieves even and uniform heating and prevents material stress.



Log function and export to USB stick (not included)



Recommended horizontal heating position



Ergonomically designed swing arm

Induction heaters

BETEX BLF 203 & SLF 303



45/110
min. ID Ø mm

600
max. OD Ø mm

210
max. width mm

150
max. bearing weight kg

BETEX BLF 203

- Powerful benchtop model, heating capacity up to 150 kg
- With swivel arm
- Single temperature measurement
- Digital display
- 2 yokes included

Type	BETEX BLF 203 BASIC	BETEX SLF 303 SMART
Log functionality	No	Yes
Magnetic probe	1	2
Delta-T ΔT	No	Yes
Temperature control	Yes	Yes ΔT
Time control	Yes	Yes
Time or temperature control	No	Yes ΔT
Temperature and speed control	No	Yes ΔT
Automatic demagnetization	‹2A/cm	‹2A/cm

Type	Art. no.	Voltage/Amp/Power	Certification
BLF 203 CE	4203220-CE	230V / 16A / 3,7kVA	CE
BLF 203 C-US	4203220-C-US	240V / 16A / 3,8kVA	cQPSus
BLF 202 UKCA	4203220-UK	230V / 13A / 2,9kVA	UKCA
SLF 302 CE	4303220-CE	230V / 16A / 3,7kVA	CE
SLF 302 C-US	4303220-C-US	240V / 16A / 3,8kVA	cQPSus
SLF 302 UKCA	4303220-UK	230V / 13A / 2,9kVA	UKCA

See page 30 for detailed technical specifications.



ΔT
Delta T

45/110
min. ID Ø mm

600
max. OD Ø mm

210
max. width mm

150
max. bearing weight kg

Read more about the benefits of induction heaters in Section “Why use induction heating?” starting on page 6.

Use in combination with “BETEX Impact 33 & 39” starting on page 50.

BETEX SLF 303

- Powerful benchtop model, heating capacity up to 150 kg
- With swivel arm
- Double temperature measurement ΔT
- Touchscreen with clear graph
- Log function and export to USB stick
- Stress-free heating
- 2 yokes included

ΔT

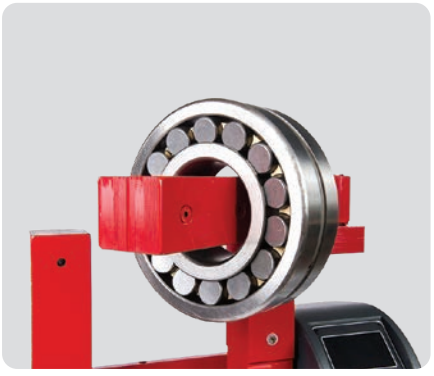
For more control and stress-free mounting
Thanks to the Delta-T ΔT monitoring, it is possible to measure the internal and external temperature of a workpiece with 2 temperature probes. Thus the maximum preset temperature difference between 2 points can never be exceeded. This achieves even and uniform heating and prevents material stress.



Log function and export to USB stick (not included)



Recommended horizontal heating position



Ergonomically designed swing arm

Induction heaters

BETEX BLF 204 & SLF 304



45/110
min. ID Ø mm

600
max. OD Ø mm

210
max. width mm

200
max. bearing weight kg

BETEX BLF 204

- Powerful benchtop model, heating capacity up to 200 kg
- With swivel arm
- Single temperature measurement
- Digital display
- 2 yokes included

Type	BETEX BLF 204 BASIC	BETEX SLF 304 SMART
Log functionality	No	Yes
Magnetic probe	1	2
Delta-T ΔT	No	Yes
Temperature control	Yes	Yes ΔT
Time control	Yes	Yes
Time or temperature control	No	Yes ΔT
Temperature and speed control	No	Yes ΔT
Automatic demagnetization	‹2A/cm	‹2A/cm

Type	Art. no.	Voltage/Amp/Power	Certification
BLF 204 CE	4204420-CE	2 ~ 400V / 20A / 8kVA	CE
BLF 204 CE	4204720-CE	2 ~ 450V / 16A / 8kVA	CE
BLF 204 CE	4204520-CE	2 ~ 500V / 16A / 8 kVA	CE
BLF 204 C-US	4204520-C-US	2 ~ 480V / 16A / 8kVA	cQPSus
BLF 204 C-US	4204620-C-US	2 ~ 600V / 14A / 8kVA	cQPSus
SLF 304 CE	4304420-CE	2 ~ 400V / 20A / 8kVA	CE
SLF 304 CE	4304720-CE	2 ~ 450V / 16A / 8kVA	CE
SLF 304 CE	4304520-CE	2 ~ 500V / 16A / 8 kVA	CE
SLF 304 C-US	4304520-C-US	2 ~ 480V / 16A / 8kVA	cQPSus
SLF 304 C-US	4304620-C-US	2 ~ 600V / 14A / 8kVA	cQPSus

See page 32 for detailed technical specifications.



ΔT
Delta T

45/110
min. ID Ø mm

600
max. OD Ø mm

210
max. width mm

200
max. bearing weight kg

Read more about the benefits of induction heaters in Section “Why use induction heating?” starting on page 6.

Use in combination with “BETEX Impact 33 & 39” starting on page 50.

BETEX SLF 304

- Powerful benchtop model, heating capacity up to 200 kg
- With swivel arm
- Double temperature measurement ΔT
- Touchscreen with clear graph
- Log function and export to USB stick
- Stress-free heating
- 2 yokes included

ΔT

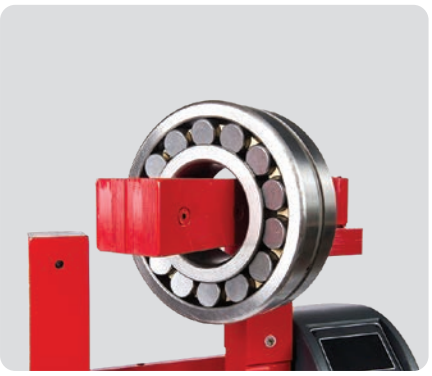
For more control and stress-free mounting
Thanks to the Delta-T ΔT monitoring, it is possible to measure the internal and external temperature of a workpiece with 2 temperature probes. Thus the maximum preset temperature difference between 2 points can never be exceeded. This achieves even and uniform heating and prevents material stress.



Log function and export to USB stick (not included)



Recommended horizontal heating position



Ergonomic swivel arm

Induction heaters

BETEX BLF 205 & SLF 305



30/135
min. ID Ø mm

850
max. OD Ø mm

320
max. width mm

400
max. bearing weight kg

BETEX BLF 205

- Powerful mobile model, heating capacity of up to 400 kg
- With swivel arm
- Single temperature measurement
- Digital display
- Including 1 yoke

Type	BETEX BLF 205 BASIC	BETEX SLF 305 SMART
Log functionality	No	Yes
Magnetic probe	1	2
Delta-T ΔT	No	Yes
Temperature control	Yes	Yes ΔT
Time control	Yes	Yes
Time or temperature control	No	Yes ΔT
Temperature and speed control	No	Yes ΔT
Automatic demagnetization	‹2A/cm	‹2A/cm

Type	Art. no.	Voltage/Amp/Power	Certification
BLF 205 CE	4205410-CE	2 ~ 400V / 30A / 12kVA	CE
BLF 205 CE	4205710-CE	2 ~ 450V / 25A / 12kVA	CE
BLF 205 CE	4205510-CE	2 ~ 500V / 24A / 12kVA	CE
BLF 205 C-US	4205510-C-US	2 ~ 480V / 24A / 12kVA	cQPSus
BLF 205 C-US	4205610-C-US	2 ~ 600V / 20A / 12kVA	cQPSus
SLF 305 CE	4305410-CE	2 ~ 400V / 30A / 12kVA	CE
SLF 305 CE	4305710-CE	2 ~ 450V / 25A / 12kVA	CE
SLF 305 CE	4305510-CE	2 ~ 500V / 24A / 12kVA	CE
SLF 305 C-US	4305510-C-US	2 ~ 480V / 24A / 12kVA	cQPSus
SLF 305 C-US	4305610-C-US	2 ~ 600V / 20A / 12kVA	cQPSus

See page 32 for detailed technical specifications.



ΔT
Delta T

30/135
min. ID Ø mm

850
max. OD Ø mm

320
max. width mm

400
max. bearing weight kg

Read more about the benefits of induction heaters in Section “Why use induction heating?” starting on page 6.

BETEX SLF 305

- Powerful mobile model, heating capacity of up to 400 kg
- Double temperature measurement ΔT
- Touchscreen with clear graph
- Log function and export to USB stick
- Stress-free heating
- Including 1 yoke

ΔT

For more control and stress-free mounting
Thanks to the Delta-T ΔT monitoring, it is possible to measure the internal and external temperature of a workpiece with 2 temperature probes. Thus the maximum preset temperature difference between 2 points can never be exceeded. This achieves even and uniform heating and prevents material stress.







Ergonomic swivel arm

Induction heaters

BETEX BLF 206 & SLF 306



60/150
min. ID Ø mm

1050
max. OD Ø mm

400
max. width mm

600
max. bearing weight kg

BETEX BLF 206

- Powerful mobile model, heating capacity of up to 600 kg
- With swivel arm
- Single temperature measurement
- Digital display
- Including 1 yoke

Type	BETEX BLF 206 BASIC	BETEX SLF 306 SMART
Log functionality	No	Yes
Magnetic probe	1	2
Delta-T ΔT	No	Yes
Temperature control	Yes	Yes ΔT
Time control	Yes	Yes
Time or temperature control	No	Yes ΔT
Temperature and speed control	No	Yes ΔT
Automatic demagnetization	‹2A/cm	‹2A/cm

Type	Art. no.	Voltage/Amp/Power	Certification
BLF 206 CE	4206410-CE	2 ~ 400V / 45A / 18kVA	CE
BLF 206 CE	4206710-CE	2 ~ 450V / 40A / 18kVA	CE
BLF 206 CE	4206510-CE	2 ~ 500V / 36A / 18kVA	CE
BLF 206 C-US	4206510-C-US	2 ~ 480V / 36A / 18kVA	cQPSus
BLF 206 C-US	4206610-C-US	2 ~ 600V / 30A / 18kVA	cQPSus
SLF 306 CE	4306410-CE	2 ~ 400V / 45A / 18kVA	CE
SLF 306 CE	4306710-CE	2 ~ 450V / 40A / 18kVA	CE
SLF 306 CE	4306510-CE	2 ~ 500V / 36A / 18kVA	CE
SLF 306 C-US	4306510-C-US	2 ~ 480V / 36A / 18kVA	cQPSus
SLF 306 C-US	4306610-C-US	2 ~ 600V / 30A / 18kVA	cQPSus

See page 32 for detailed technical specifications.



ΔT
Delta T

60/150
min. ID Ø mm

1050
max. OD Ø mm

400
max. width mm

600
max. bearing weight kg

Read more about the benefits of induction heaters in Section “Why use induction heating?” starting on page 6.

BETEX SLF 306

- Powerful mobile model, heating capacity of up to 600 kg
- Double temperature measurement ΔT
- Touchscreen with clear graph
- Log function and export to USB stick
- Stress-free heating
- Including 1 yoke

ΔT

For more control and stress-free mounting
Thanks to the Delta-T ΔT monitoring, it is possible to measure the internal and external temperature of a workpiece with 2 temperature probes. Thus the maximum preset temperature difference between 2 points can never be exceeded. This achieves even and uniform heating and prevents material stress.



Ergonomic swivel arm





Induction heaters

BETEX BLF 207 & SLF 307



260/60
min. ID Ø mm

1150
max. OD Ø mm

430
max. width mm

800
max. bearing weight kg

BETEX BLF 207

- Powerful mobile model, heating capacity of up to 800 kg
- Single temperature measurement
- Digital display
- Including 1 yoke
- Optional: electric crane for yokes and/or mobile

Type	BETEX BLF 207 BASIC	BETEX SLF 307 SMART
Log functionality	No	Yes
Magnetic probe	1	2
Delta-T ΔT	No	Yes
Temperature control	Yes	Yes ΔT
Time control	Yes	Yes
Time or temperature control	No	Yes ΔT
Temperature and speed control	No	Yes ΔT
Automatic demagnetization	‹2A/cm	‹2A/cm

Type	Art. no.	Voltage/Amp/Power	Certification
BLF 207 CE	4207410-CE	2 ~ 400V / 60A / 24kVA	CE
BLF 207 CE	4207710-CE	2 ~ 450V / 50A / 24kVA	CE
BLF 207 CE	4207510-CE	2 ~ 500V / 48A / 24kVA	CE
BLF 207 C-US	4207510-C-US	2 ~ 480V / 48A / 24kVA	cQPSus
BLF 207 C-US	4207610-C-US	2 ~ 600V / 40A / 24kVA	cQPSus
SLF 307 CE	4307410-CE	2 ~ 400V / 60A / 24kVA	CE
SLF 307 CE	4307710-CE	2 ~ 450V / 50A / 24kVA	CE
SLF 307 CE	4307510-CE	2 ~ 500V / 48A / 24kVA	CE
SLF 307 C-US	4307510-C-US	2 ~ 480V / 48A / 24kVA	cQPSus
SLF 307 C-US	4307610-C-US	2 ~ 600V / 40A / 24kVA	cQPSus

See page 32 for detailed technical specifications.



ΔT
Delta T

260/60
min. ID Ø mm

1150
max. OD Ø mm

430
max. width mm

800
max. bearing weight kg

Read more about the benefits of induction heaters in Section “Why use induction heating?” starting on page 6.

BETEX SLF 307

- Powerful mobile model, heating capacity of up to 800 kg
- Double temperature measurement ΔT
- Touchscreen with clear graph
- Log function and export to USB stick
- Stress-free heating
- Including 1 yoke
- Optional: electric crane for yokes and/or mobile

ΔT

For more control and stress-free mounting
Thanks to the Delta-T ΔT monitoring, it is possible to measure the internal and external temperature of a workpiece with 2 temperature probes. Thus the maximum preset temperature difference between 2 points can never be exceeded. This achieves even and uniform heating and prevents material stress.



Optional wheels and push bar



Adjustable support



Induction heaters

BETEX BLF 208 & SLF 308



330/90
min. ID Ø mm

1700
max. OD Ø mm

710
max. width mm

1600
max. bearing weight kg

BETEX BLF 208

- Powerful mobile model, heating capacity of up to 1600 kg
- Single temperature measurement
- Digital display
- Including 1 yoke
- Optional: electric crane for yokes and/or mobile

Type	BETEX BLF 208 BASIC	BETEX SLF 308 SMART
Log functionality	No	Yes
Magnetic probe	1	2
Delta-T ΔT	No	Yes
Temperature control	Yes	Yes ΔT
Time control	Yes	Yes
Time or temperature control	No	Yes ΔT
Temperature and speed control	No	Yes ΔT
Automatic demagnetization	‹2A/cm	‹2A/cm

Type	Art. no.	Voltage/Amp/Power	Certification
BLF 208 CE	4208410-CE	2 ~ 400V / 100A / 40kVA	CE
BLF 208 CE	4208710-CE	2 ~ 450V / 80A / 40kVA	CE
BLF 208 CE	4208510-CE	2 ~ 500V / 80A / 40kVA	CE
BLF 208 C-US	4208510-C-US	2 ~ 480V / 80A / 40kVA	cQPSus
BLF 208 C-US	4208610-C-US	2 ~ 600V / 65A / 40kVA	cQPSus
SLF 307 CE	4308410-CE	2 ~ 400V / 100A / 40kVA	CE
SLF 307 CE	4308710-CE	2 ~ 450V / 80A / 40kVA	CE
SLF 307 CE	4308510-CE	2 ~ 500V / 80A / 40kVA	CE
SLF 307 C-US	4308510-C-US	2 ~ 480V / 80A / 40kVA	cQPSus
SLF 307 C-US	4308610-C-US	2 ~ 600V / 65A / 40kVA	cQPSus

See page 32 for detailed technical specifications.



ΔT
Delta T

330/90
min. ID Ø mm

1700
max. OD Ø mm

710
max. width mm

1600
max. bearing weight kg

Read more about the benefits of induction heaters in Section “Why use induction heating?” starting on page 6.

BETEX SLF 308

- Powerful mobile model, heating capacity of up to 1600 kg
- Double temperature measurement ΔT
- Touchscreen with clear graph
- Log function and export to USB stick
- Stress-free heating
- Including 1 yoke
- Optional: electric crane for yokes and/or mobile

ΔT

For more control and stress-free mounting
Thanks to the Delta-T ΔT monitoring, it is possible to measure the internal and external temperature of a workpiece with 2 temperature probes. Thus the maximum preset temperature difference between 2 points can never be exceeded. This achieves even and uniform heating and prevents material stress.



Optional wheels and push bar



Adjustable support



Technical specifications







Type		24 XLDi Portable	BLF 200 Portable	BLF 201	BLF 202	BLF 203
Voltage/Amp/Power CE		230V / 6A / 1,2kVA	120V / 10A / 1,2kVA 230V / 10A / 2,3kVA	120V / 13A / 1,5kVA 230V / 13A / 3,0kVA	120V / 15A / 1,8kVA 230V / 16A / 3,7kVA	230V / 16A / 3,7kVA
Voltage/Amp/Power cQPSus		-	120V / 10A / 1,2kVA 240V / 5A / 1,2kVA	120V / 13A / 1,5kVA 240V / 13A / 3,2kVA	120V / 15A / 1,8kVA 240V / 16A / 3,8kVA	240V / 16A / 3,8kVA
Voltage/Amp/Power UKCA		-	230V / 10A / 2,3kVA	230V / 13A / 3,0kVA	230V / 13A / 2,9kVA	230V / 13A / 2,9kVA
Frequency Hz		50/60	50/60	50/60	50/60	50/60
Swivel arm		-	No	No	Yes	Yes
Max. workpiece weight kg (±)		10	20	50	100	150
Min. ID Ø mm, vertical/horizontal		-	10	10/65	30/72	45/110
Max. workpiece OD Ø mm	A	180	240	400	500	600
Max. width mm	B	-	120	120	180	210
Pole length mm	C	-	135	130	185	205
Pole diameter mm	D	-	40x40	40x50	50x50	70x80
Display		Digital	Digital	Digital	Digital	Digital
Log function		No	No	No	No	No
Magnetic probe		1	1	1	1	1
Delta-T ΔT		No	No	No	No	No
Temperature control		Yes	Yes	Yes	Yes	Yes
Time control		Yes	Yes	Yes	Yes	Yes
Time or temperature control		No	No	No	No	No
Temperature and speed control		No	No	No	No	No
Max. temperature °C / °F		150 °C / 302 °F	150 °C / 302 °F	240 °C / 464 °F	240 °C / 464 °F	240 °C / 464 °F
Max. time range		0-30 min.	0-30 min.	0-99 min.	0-99 min.	0-99 min.
Acoustic signal at the end of each heating cycle		Yes	Yes	Yes	Yes	Yes
Error message		Message	Message	Message	Message	Message
Temperature hold		Yes	Yes	Yes	Yes	Yes
Automatic power reduction		No	No	Yes	Yes	Yes
Aut. demagnetization, <2A/cm²		Yes	Yes	Yes	Yes	Yes
Thermal electronics protection		Yes	Yes	Yes	Yes	Yes
Support for horizontal heating		No	No	Yes	Yes	Yes
Dimensions mm/inch (lxwxh)		460x240x280 / 18x1x9.4x11	460x240x280 / 18x1x9.4x11	600x226x272 / 23.6x8.9x10.7	702x256x392 / 27.6x10.1x15.4	788x315x456 / 31x12.4x18
Heater weight kg excl. yokes		7	21 (incl. yokes)	21	31	52
Mobile		-	-	-	-	-

We reserve the right to alter technical specifications without prior notice.

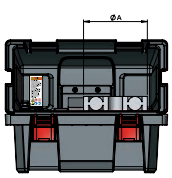
Heating times are subject to the relationship between:
- Minimum bore and maximum outside diameter, width and weight
- Required temperature and material type
- Available power

Induction accessories
Read more about the (swivel) yokes, magnetic sensors, gloves and Vaseline in Section “Induction heaters accessories” starting on page 34.

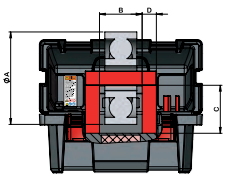




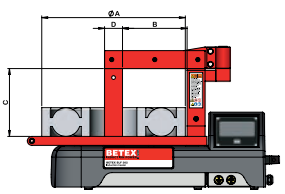
Type	SLF 301 ΔT	SLF 302 ΔT	SLF 303 ΔT
Voltage/Amp/Power CE	230V / 13A / 3,0kVA	230V / 16A / 3,7kVA	230V / 16A / 3,7kVA
Voltage/Amp/Power cQPSus	120V / 13A / 1,5kVA 240V / 13A / 3,1kVA	120V / 15A / 1,8kVA 240V / 16A / 3,8kVA	240V / 16A / 3,8kVA
Voltage/Amp/Power UKCA	230V / 13A / 3,0kVA	230V / 13A / 2,9kVA	230V / 13A / 2,9kVA
Frequency Hz	50/60	50/60	50/60
Swivel arm	No	Yes	Yes
Max. workpiece weight kg (±)	50	100	150
Min. ID Ø mm, vertical/horizontal	10/65	30/72	45/110
Max. workpiece OD Ø mm (A)	400	500	600
Max. width mm (B)	120	180	210
Pole length mm (C)	130	185	205
Pole diameter mm (D)	40x50	50x50	70x80
Display	Touch	Touch	Touch
Log function	Yes	Yes	Yes
Magnetic probe	2	2	2
Delta-T ΔT	Yes	Yes	Yes
Temperature control	Yes	Yes	Yes
Time control	Yes	Yes	Yes
Time or temperature control	Yes	Yes	Yes
Temperature and speed control	Yes	Yes	Yes
Max. temperature °C / °F	240 °C / 464 °F	240 °C / 464 °F	240 °C / 464 °F
Max. time range	0-99 min.	0-99 min.	0-99 min.
Acoustic signal at the end of each heating cycle	Yes	Yes	Yes
Error message	Report	Report	Report
Temperature hold	Yes	Yes	Yes
Automatic power reduction	Only in temp. & speed mode	Only in temp. & speed mode	Only in temp. & speed mode
Aut. demagnetization, ‹2A/cm2	Yes	Yes	Yes
Thermal electronics protection	Yes	Yes	Yes
Support for horizontal heating	Yes	Yes	Yes
Dimensions mm/inch (lxwxh)	600x226x272 / 23.6x8.9x10.7	702x256x392 / 27.6x10.1x15.4	788x315x456 / 31x12.4x18
Heater weight kg excl. yokes	21	31	52
Mobile	-	-	-



24 XLDi



BLF 200



BLF 201 - 204 / SLF 301 - 304

Technical specifications







Type		BLF 204	BLF 205	BLF 206	BLF 207	BLF 208
Voltage/Amp/Power CE + UKCA		2~400V/20A/8kVA 2~450V/16A/8kVA 2~500V/16A/8kVA	2~400V/30A/12kVA 2~450V/25A/12kVA 2~500V/24A/12kVA	2~400V/45A/18kVA 2~450V/40A/18kVA 2~500V/36A/18kVA	2~400V/60A/24kVA 2~450V/50A/24kVA 2~500V/48A/24kVA	2~400V/100A/40kVA 2~450V/80A/40kVA 2~500V/80A/40kVA
Voltage/Amp/Power cQPSus		2~480V/16A/8kVA 2~600V/14A/8kVA	2~480V/24A/12kVA 2~600V/20A/12kVA	2~480V/36A/18kVA 2~600V/30A/18kVA	2~480V/48A/24kVA 2~600V/40A/24kVA	2~480V/80A/40kVA 2~600V/65A/40kVA
Frequency Hz		50/60	50/60	50/60	50/60	50/60
Swivel arm		Yes	Yes	Yes	No	No
Max. workpiece weight kg (±)		200	400	600	800	1600
Min. ID Ø mm, vertical/horizontal		45/110	30/135	60/150	260/60	330/90
Max. workpiece OD Ø mm	A	600	850	1050	1150	1700
Max. width mm	B	210	320	400	430	710
Pole length mm	C	205	305	315	515	780
Pole diameter mm	D	70x80	80x100	90x110	180x180	230x230
Display		Digital	Digital	Digital	Digital	Digital
Log function		No	No	No	No	No
Magnetic probe		1	1	1	1	1
Delta-T ΔT		No	No	No	No	No
Temperature control		Yes	Yes	Yes	Yes	Yes
Time control		Yes	Yes	Yes	Yes	Yes
Time or temperature control		No	No	No	No	No
Temperature and speed control		No	No	No	No	No
Max. temperature °C / °F		240 °C / 464 °F	240 °C / 464 °F	240 °C / 464 °F	240 °C / 464 °F	240 °C / 464 °F
Max. time range		0-99 min.	0-99 min.	0-99 min.	0-99 min.	0-99 min.
Acoustic signal at the end of each heating cycle		Yes	Yes	Yes	Yes	Yes
Error message		Message	Message	Message	Message	Message
Temperature hold		Yes	Yes	Yes	Yes	Yes
Automatic power reduction		Yes	Yes	Yes	Yes	Yes
Aut. demagnetization, <2A/cm		Yes	Yes	Yes	Yes	Yes
Thermal electronics protection		Yes	Yes	Yes	Yes	Yes
Support for horizontal heating		Yes	Yes	Yes	Yes	Yes
Dimensions mm/inch (lxwxh)		788x315x456 / 31x12.4x18	1214x560x990 / 47.8x22x39	1344x560x990 / 52.9x22x39	1080x650x955 / 42.5x25.6x37.6	1520x750x1415 / 59.8x29.5x55.7
Heater weight kg excl. yokes		56	150	170	250	720
Electric crane for yokes		-	-	-	Optional	Optional
Mobile		-	Yes	Yes	Optional (Height + 70mm)	Optional (Height + 70mm)

We reserve the right to alter technical specifications without prior notice.

Heating times are subject to the relationship between:
- Minimum bore and maximum outside diameter, width and weight
- Required temperature and material type
- Available power

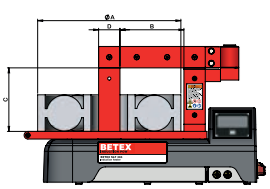
Induction accessories
Read more about the (swivel) yokes, magnetic sensors, gloves and Vaseline in Section “Induction heaters accessories” starting on page 34.



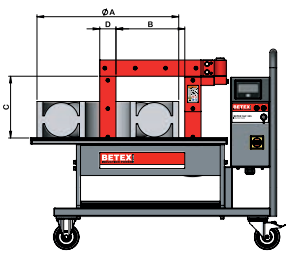




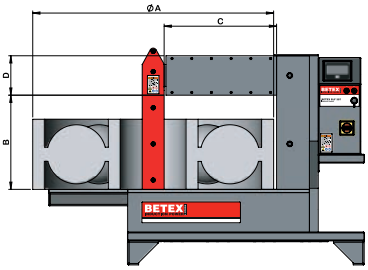
Type		SLF 304 ΔT	SLF 305 ΔT	SLF 306 ΔT	SLF 307 ΔT	SLF 308 ΔT
Voltage/Amp/Power CE + UKCA		2~400V/20A/8kVA 2~450V/16A/8kVA 2~500V/16A/8kVA	2~400V/30A/12kVA 2~450V/25A/12kVA 2~500V/24A/12kVA	2~400V/45A/18kVA 2~450V/40A/18kVA 2~500V/36A/18kVA	2~400V/60A/24kVA 2~450V/50A/24kVA 2~500V/48A/24kVA	2~400V/100A/40kVA 2~450V/80A/40kVA 2~500V/80A/40kVA
Voltage/Amp/Power cQPSus		2~480V/16A/8kVA 2~600V/14A/8kVA	2~480V/24A/12kVA 2~600V/20A/12kVA	2~480V/36A/18kVA 2~600V/30A/18kVA	2~480V/48A/24kVA 2~600V/40A/24kVA	2~480V/80A/40kVA 2~600V/65A/40kVA
Frequency Hz		50/60	50/60	50/60	50/60	50/60
Swivel arm		Yes	Yes	Yes	No	No
Max. workpiece weight kg (±)		200	400	600	800	1600
Min. ID Ø mm, vertical/horizontal		45/110	30/135	60/150	260/60	330/90
Max. workpiece OD Ø mm	A	600	850	1050	1150	1700
Max. width mm	B	210	320	400	430	710
Pole length mm	C	205	305	315	515	780
Pole diameter mm	D	70x80	80x100	90x110	180x180	230x230
Display		Touch	Touch	Touch	Touch	Touch
Log function		Yes	Yes	Yes	Yes	Yes
Magnetic probe		2	2	2	2	2
Delta-T ΔT		Yes	Yes	Yes	Yes	Yes
Temperature control		Yes	Yes	Yes	Yes	Yes
Time control		Yes	Yes	Yes	Yes	Yes
Time or temperature control		Yes	Yes	Yes	Yes	Yes
Temperature and speed control		Yes	Yes	Yes	Yes	Yes
Max. temperature °C / °F		240 °C / 464 °F	240 °C / 464 °F	240 °C / 464 °F	240 °C / 464 °F	240 °C / 464 °F
Max. time range		0-99 min.	0-99 min.	0-99 min.	0-99 min.	0-99 min.
Acoustic signal at the end of each heating cycle		Yes	Yes	Yes	Yes	Yes
Error message		Report	Report	Report	Report	Report
Temperature hold		Yes	Yes	Yes	Yes	Yes
Automatic power reduction		Only in temp. & speed mode	Only in temp. & speed mode	Only in temp. & speed mode	Only in temp. & speed mode	Only in temp. & speed mode
Aut. demagnetization, <2A/cm		Yes	Yes	Yes	Yes	Yes
Thermal electronics protection		Yes	Yes	Yes	Yes	Yes
Support for horizontal heating		Yes	Yes	Yes	Yes	Yes
Dimensions mm/inch (lxwxh)		788x315x456 / 31x12.4x18	1214x560x990 / 47.8x22x39	1344x560x990 / 52.9x22x39	1080x650x955 / 42.5x25.6x37.6	1520x750x1415 / 59.8x29.5x56.7
Heater weight kg excl. yokes		56	150	170	250	720
Electric crane for yokes		-	-	-	Optional	Optional
Mobile		-	Yes	Yes	Optional (Height + 70mm)	Optional (Height + 70mm)



BLF 201 - 204 / SLF 301 - 304



BLF 205 & 206 / SLF 305 & 306



BLF 207 & 208 / SLF 307 & 308

Induction heaters accessories

Yokes, sensors, gloves and Vaseline



Yoke 14x14x200



Swivel-arm yoke 60x60x280



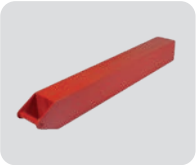
Swivel-arm yoke 30x30x350



Swivel-arm yoke 20x20x500



Swivel-arm yoke 80x80x500



Yoke 150x150x1140

Yokes BLF 200

Art. no.	Min. bore mm	Dimensions mm	Weight kg	Swivel arm	Scope of delivery	Optional
42000707	10	7x7x200	0,1	No	✓	-
42001010	15	10x10x200	0,2	No	✓	-
42001414	20	14x14x200	0,3	No	✓	-
42002020	30	20x20x200	0,6	No	✓	-
42004040	60	40x40x200	2,4	No	✓	-

Yokes BLF 201 / SLF 301

Art. no.	Min. bore mm	Dimensions mm	Weight kg	Swivel arm	Scope of delivery	Optional
42000707	10	7x7x200	0,1	No	✓	-
42001010	15	10x10x200	0,2	No	-	✓
42001414	20	14x14x200	0,3	No	✓	-
42002020	30	20x20x200	0,6	No	-	✓
42004040	60	40x40x200	2,4	No	-	✓
42014050	65	40x50x200	3,6	No	✓	-

Yokes BLF 202 / SLF 302

Art. no.	Min. bore mm	Dimensions mm	Weight kg	Swivel arm	Scope of delivery	Optional
42021010	15	10x10x280	0,3	No	-	✓
42021414	20	14x14x280	0,4	No	-	✓
42022020	30	20x20x280	0,9	No	✓	-
42023030	45	30x30x280	2,4	Yes	-	✓
42024040	60	40x40x280	3,9	Yes	-	✓
42025050	72	50x50x280	5,8	Yes	✓	-
42026060	85	60x60x280	8,1	Yes	-	✓

Yokes BLF 203 / BLF 204 / SLF 303 / SLF 304

Art. no.	Min. bore mm	Dimensions mm	Weight kg	Swivel arm	Scope of delivery	Optional
42031010	15	10x10x350	0,4	No	-	✓
42031414	20	14x14x350	0,5	No	-	✓
42032020	30	20x20x350	1,1	No	-	✓
42033030	45	30x30x350	3,6	Yes	✓	-
42034040	60	40x40x350	5,5	Yes	-	✓
42035050	72	50x50x350	7,9	Yes	-	✓
42036060	85	60x60x350	10,6	Yes	-	✓
42037070	100	70x70x350	14,0	Yes	-	✓
42037080	110	70x80x350	16,0	Yes	✓	-

Yokes BLF 205 / SLF 305

Art. no.	Min. bore mm	Dimensions mm	Weight kg	Swivel arm	Scope of delivery	Optional
42052020	30	20x20x500	3,0	Yes	-	✓
42053030	45	30x30x500	4,9	Yes	-	✓
42054040	60	40x40x500	7,6	Yes	-	✓
42056060	85	60x60x500	14,8	Yes	-	✓
42058080	115	80x80x500	26,0	Yes	✓	-

Yokes BLF 206 / SLF 306

Art. no.	Min. bore mm	Dimensions mm	Weight kg	Swivel arm	Content of delivery	Optional
42064040	60	40x40x600	8,6	yes	-	✓
42066060	85	60x60x600	17,7	yes	-	✓
42068080	115	80x80x600	29,0	yes	-	✓
42069090	130	90x90x600	38,0	yes	✓	-

Yokes BLF 207 / SLF 307

Art. no.	Min. bore mm	Dimensions mm	Weight kg	Swivel arm	Content of delivery	Optional
42074040	60	40x40x725	9,0	No	-	✓
42075050	72	50x50x725	14,5	No	-	✓
42076060	85	60x60x725	20,3	No	-	✓
42078080	115	80x80x725	36,1	No	-	✓
4207100100	145	100x100x725	56,4	No	✓	-

Yokes BLF 208 / SLF 308

Art. no.	Min. bore mm	Dimensions mm	Weight kg	Swivel arm	Content of delivery	Optional
42086060	85	60x60x1140	33,0	No	-	✓
42088080	115	80x80x1140	57,0	No	-	✓
4208100100	145	100x100x1140	89,0	No	-	✓
4208150150	215	150x150x1140	194,0	No	✓	-



Magnetic sensor spiral 240°C



Magnetic sensor green 350°C



Non-magnetic clamp temperature sensor 240°C



Magnetic sensor heavy duty 300°C



Heat-resistant gloves 250°C



Vaseline

Magnetic sensors

Type	Art. no.	Max. temperature °C	Length m
Magnetic temperature sensor (yellow) heavy duty	270572	300	1,1
Magnetic temperature sensor (black) spiral	270575	240	2,0
Non-magnetic clamp temperature sensor (yellow)	270581	240	1,1
Magnetic temperature sensor (green)	270583	350	2,0
Magnetic temperature sensor (green)	270584	350	3,5
Magnetic temperature sensor (green)	270585	240	1,1
Magnetic temperature sensor (red)	270588	350	3,5

Accessories

Type	Art. no.	Max. temperature °C	Weight kg
Pair of gloves heat resistant (cream)	279998	250	1,1
Pair of gloves heat resistant (black)	279992	300	2,0
Vaseline	279991	-	0,1

Induction heaters

BETEX MF Quick-Heaters - medium-frequency technology

Mounting, dismounting and preheating of metal components
Induction generators with medium-frequency technology are suitable not only for thermal assembly, but also for disassembly. Medium-frequency technology effectively transfers energy to the workpiece, allowing it to heat up easily and quickly. The BETEX MF Quick-Heater consists of a generator with a fixed or flexible inductor. Its compact dimensions make it easy to move around.

BETEX MF Quick-Heaters result in time savings as they can be deployed very rapidly (fewer actions) and heat faster than conventional methods. Energy use is much more efficient thanks to its lower power consumption. One of the major advantages of this type of induction heater is that they are not limited to components with a cylindrical shape: flexible inductors can be wound around any size or shape. This makes it possible to heat very large and heavy components.



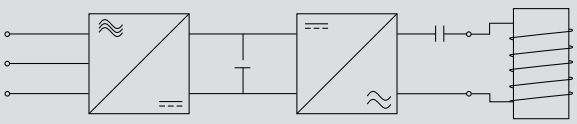
Advantages of BETEX MF Quick-Heaters
- ✓ For mounting, dismounting and preheating
- ✓ Suitable for steel, cast iron, stainless steel and titanium
- ✓ Temperature and/or time controlled heating
- ✓ Double temperature measurement (ΔT monitoring)
- ✓ Low connection power (32/63 Amp)
- ✓ Generators are adjustable from 2.5 to 3.5/10/22/44 kW
- ✓ Easy to use and flexible
- ✓ Suitable for production and maintenance applications
- ✓ No residual magnetism
- ✓ No fire hazard due to open flames
- ✓ No noise, fumes or smoke nuisance
- ✓ Air-cooled: no water cooling needed
- ✓ Because the work is carried out damage-free, expensive components can be reused
- ✓ A flexible or fixed inductor is recommended depending on the application

To be used for
- Bearings
- Labyrinth rings
- Bearing rings
- Bearing housings
- Gear wheels
- Rollers
- Tubes
- Bushings
- Couplings
- Train wheels/train wheel tyres
- Extruders
- Stator housings

The BETEX MF Quick-Heater
This heater consists of a generator and one or more inductors. The generator is designed for the connection of inductors used for heating ferromagnetic workpieces. Suitable materials include iron, steel, stainless steel, titanium and certain bronze alloys. The maximum capacity workpieces can be subjected to is 3.5, 10, 22 or 44 kW depending on the type of heater.

Operating principle
The three-phase voltage is rectified and smoothed. This rectified voltage is then converted by means of an inverter into an AC voltage with a frequency between 10 and 25 kHz. The power is then applied to the workpiece magnetically via a 'resonance capacitor' using an inductor (coil).

Since the frequency is relatively high, the penetration depth of the magnetic field is not too large, so that only the outer layer of the workpiece is heated. This principle makes heating using medium-frequency particularly suitable for dismantling purposes, such as removing bearing rings from shafts.



Testing
For special applications, we can carry out tests in advance with components that the client provides for this purpose.

Custom made
If necessary, we can supply a customised application. For standard applications, we have a large database with examples. We also use simulation programmes.

Savings
By supplying optimum solutions, we achieve significant savings. In fact, measurable savings are guaranteed simply by working damage-free and hence, being able to reuse the parts.

Induction heaters

Medium-frequency heating methods

Fixed inductor around the workpiece

Energy input from outside to inside. For dismounting of, for example, bearing rings, labyrinth rings, pipes and rings.



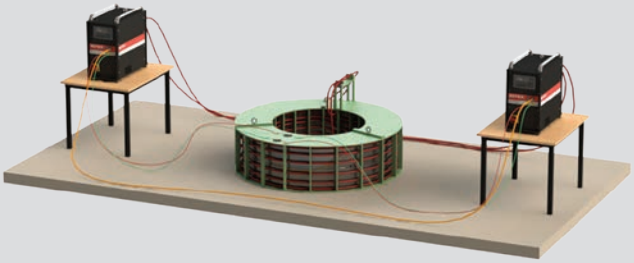
Fixed inductor in the workpiece

Heating a bore for bearing or shaft mounting.



Fixed inductor in and around the workpiece

For stress-free mounting of a bearing, two coupled generators are used. Inner and outer ring are heated simultaneously.



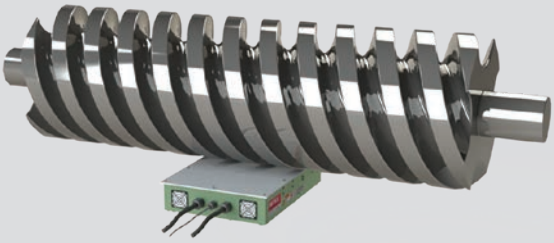
Pin inductor in the workpiece

Heating a bore for example for bearing or shaft mounting.



Table inductor

Local preheating for laser cladding.



Induction heaters

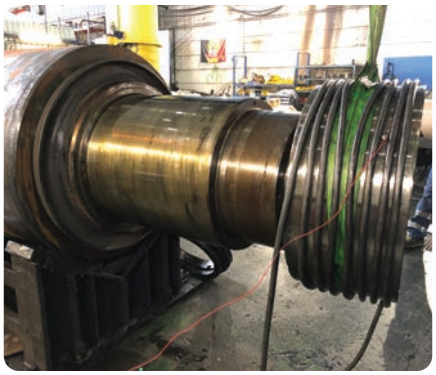
Medium-frequency projects





BETEX MF Quick-Heater 3.0, 22 kW
Mounting of wheels in an elevator plant using pin inductors. For this client, custom inductors were made, with the required lengths and diameters.





BETEX MF Quick-Heater 3.0, 22 kW
Dismounting in a steel plant using a flexible inductor wrapped around a bearing ring.

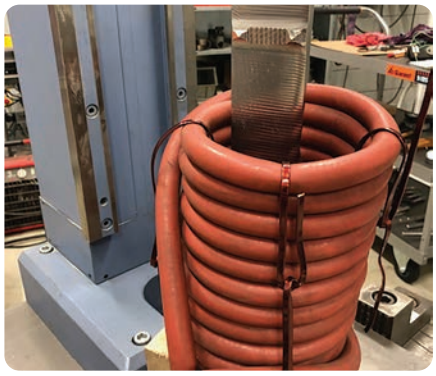
Temperature: 200°C
Time needed: 17 min.





BETEX MF Quick-Heater 3.0, 44 kW
Dismounting of a coupling at a gearbox repair company.

Temperature: 100°C
Time needed: 7 min.





BETEX MF Quick-Heater 3.0, 22 kW
Preheating in preparation for laser cladding.

Induction heaters

BETEX MF Quick-Heater 3.0 - 3.5kW

New



ΔT
Delta T

3.5
power kW

4,3"
display inch

230
voltages V

BETEX MF Quick-Heater 3.0 - 3.5kW

- Portable induction heater, weighs only 7.85 kg, ideal for working on site.
- Easy to connect to mains voltage (230V)
- Easy operation with 4,3" touchscreen
- Smart electronics ensure optimal operating frequency
- Dual temperature sensing (monitoring Delta T)
- Choice of flexible inductors: 5m, 7.5m, 10m (not included)

- Can heat according to preset temperature/time curve
- The heating process is displayed in a clear graph
- Log function to save and export data via a USB port

ΔT

For more control and stress-free mounting
Thanks to the Delta-T ΔT monitoring, it is possible to measure the internal and external temperature of a workpiece with 2 temperature probes. Thus the maximum preset temperature difference between 2 points can never be exceeded. This achieves even and uniform heating and prevents material stress.

Type	MF Quick-Heater 3.0, 3,5kW
Power	3,5kW
Heat curve in display	Yes
Setpoint power	No
Setpoint temperature	Yes, via touchscreen
Setpoint temperature curve	Yes, via touchscreen
Setpoint timer	Yes, via touchscreen
Inductor recognition	No
USB connection	Yes
Network connection	No
Heating log	Yes
Weight generator	7,85 kg

Type	Art. no.	Voltage/Amp	Certification
MF Quick-Heater 3.0, 3,5kW	33035230	230V / 13A*	CE
MF Quick-Heater 3.0, 3,5kW	33035230-UK	230V / 16A**	UKCA

See page 49 for detailed technical specifications.



Flexible inductor 180°C



Log function and export to USB stick (USB stick not included)

Induction heaters

BETEX MF Quick-Heater 2.5 & 3.0 - 10kW



ΔT
Delta T

10
power kW

3.5"
display inch

400/450/ 500/600
voltages V

BETEX MF Quick-Heater 2.5 - 10kW

- Compact design with 3.5" display
- User-friendly touchscreen operation
- Smart electronics ensure optimum operating frequency
- Adjustable power regulation
- Double temperature measurement (ΔT monitoring)
- Choice between fixed and flexible inductors

Type	MF Quick-Heater 2.5, 10kW	MF Quick-Heater 3.0, 10kW
Power	10kW	10kW
Heat curve in display	No	Yes
Setpoint power	Yes, via touchscreen	Yes, via touchscreen
Setpoint temperature	Yes, via touchscreen	Yes, via touchscreen
Setpoint temperature curve	No	Yes, via touchscreen
Setpoint timer	Yes, via touchscreen	Yes, via touchscreen
Inductor recognition	Yes	Yes
USB connection	No	Yes
Network connection	No	Yes
Heating log	No	Yes
Weight generator	46 kg	46 kg

Type	Art. no.	Voltage/Amp
MF Quick-Heater 2.5, 10kW	32510400	3 ~ 400V/16A
MF Quick-Heater 2.5, 10kW	32510450	3 ~ 450V/14A
MF Quick-Heater 2.5, 10kW	32510500	3 ~ 500V-12A
MF Quick-Heater 2.5, 10kW	32510600	3 ~ 600V-10A
MF Quick-Heater 3.0, 10kW	33010400	3 ~ 400V/16A
MF Quick-Heater 3.0, 10kW	33010450	3 ~ 450V/14A
MF Quick-Heater 3.0, 10kW	33010500	3 ~ 500V-12A
MF Quick-Heater 3.0, 10kW	33010600	3 ~ 600V-10A

See page 48 for detailed technical specifications.



ΔT
Delta T

10
power kW

7"
display inch

400/450/ 500/600
voltages V

BETEX MF Quick-Heater 3.0 - 10 kW

- Compact design with 7" display
- User-friendly touchscreen operation
- Smart electronics ensure optimum operating frequency
- Adjustable power regulation
- Double temperature measurement (ΔT monitoring)
- Choice between fixed and flexible inductors

- Can heat according to preset temperature/time curve
- The heating process is displayed in a clear graph
- Log function to save and export data via a USB port

SMART inductor recognition
The desired temperature and desired power do not have to be set if an inductor with SMART identification feature is connected. In this case the generator automatically adopts the settings defined in the program (1, 2 or 3) for the corresponding inductor.

ΔT

For more control and stress-free mounting
Thanks to the Delta-T ΔT monitoring, it is possible to measure the internal and external temperature of a workpiece with 2 temperature probes. Thus the maximum preset temperature difference between 2 points can never be exceeded. This achieves even and uniform heating and prevents material stress.



The MF 3.0 features a 7-inch touchscreen



Optional signal tower for MF 2.5 and 3.0

Induction heaters

BETEX MF Quick-Heater 2.5 & 3.0 - 22kW



ΔT
Delta T

22
power kW

3.5"
display inch

400/450/ 500/600
voltages V

BETEX MF Quick-Heater 2.5 - 22kW

- Compact design with 3.5" display
- User-friendly touchscreen operation
- Smart electronics ensure optimum operating frequency
- Adjustable power regulation
- Double temperature measurement (ΔT monitoring)
- Choice between fixed and flexible inductors

Type	MF Quick-Heater 2.5, 22kW	MF Quick-Heater 3.0, 22kW
Power	22kW	22kW
Heat curve in display	No	Yes
Setpoint power	Yes, via touchscreen	Yes, via touchscreen
Setpoint temperature	Yes, via touchscreen	Yes, via touchscreen
Setpoint temperature curve	No	Yes, via touchscreen
Setpoint timer	Yes, via touchscreen	Yes, via touchscreen
Inductor recognition	Yes	Yes
USB connection	No	Yes
Network connection	No	Yes
Heating log	No	Yes
Weight generator	46 kg	46 kg

Type	Art. no.	Voltage/Amp/Power
MF Quick-Heater 2.5, 22kW	32522400	3 ~ 400V-32A
MF Quick-Heater 2.5, 22kW	32522450	3 ~ 450V-30A
MF Quick-Heater 2.5, 22kW	32522500	3 ~ 500V-28A
MF Quick-Heater 2.5, 22kW	32522600	3 ~ 600V-23A
MF Quick-Heater 3.0, 22kW	33022400	3 ~ 400V-32A
MF Quick-Heater 3.0, 22kW	33022450	3 ~ 450V-30A
MF Quick-Heater 3.0, 22kW	33022500	3 ~ 500V-28A
MF Quick-Heater 3.0, 22kW	33022600	3 ~ 600V-23A

See page 48 for detailed technical specifications.



ΔT
Delta T

22
power kW

7"
display inch

400/450/ 500/600
voltages V

BETEX MF Quick-Heater 3.0 - 22kW

- Compact design with 7" display
- User-friendly touchscreen operation
- Smart electronics ensure optimum operating frequency
- Adjustable power regulation
- Double temperature measurement (ΔT monitoring)
- Choice between fixed and flexible inductors

- Can heat according to preset temperature/time curve
- The heating process is displayed in a clear graph
- Log function to save and export data via a USB port

SMART inductor recognition
The desired temperature and desired power do not have to be set if an inductor with SMART identification feature is connected. In this case the generator automatically adopts the settings defined in the program (1, 2 or 3) for the corresponding inductor.

ΔT

For more control and stress-free mounting
Thanks to the Delta-T ΔT monitoring, it is possible to measure the internal and external temperature of a workpiece with 2 temperature probes. Thus the maximum preset temperature difference between 2 points can never be exceeded. This achieves even and uniform heating and prevents material stress.



The MF 3.0 features a 7-inch touchscreen



Optional signal tower for MF 2.5 and 3.0

Induction heaters

BETEX MF Quick-Heater 2.5 & 3.0 - 44kW



ΔT
Delta T

44
power kW

3.5"
display inch

400/450/ 500/600
voltages V

BETEX MF Quick-Heater 2.5 - 44kW

- Compact design with 3.5" display
- User-friendly touchscreen operation
- Smart electronics ensure optimum operating frequency
- Adjustable power regulation
- Double temperature measurement (ΔT monitoring)
- Choice between fixed and flexible inductors

Type	MF Quick-Heater 2.5, 44kW	MF Quick-Heater 3.0, 44kW
Power	44kW	44kW
Heat curve in display	No	Yes
Setpoint power	Yes, via touchscreen	Yes, via touchscreen
Setpoint temperature	Yes, via touchscreen	Yes, via touchscreen
Setpoint temperature curve	No	Yes, via touchscreen
Setpoint timer	Yes, via touchscreen	Yes, via touchscreen
Inductor recognition	Yes	Yes
USB connection	No	Yes
Network connection	No	Yes
Heating log	No	Yes
Weight generator	78 kg	78 kg

Type	Art. no.	Voltage/Amp
MF Quick-Heater 2.5, 44kW	33044400	3 ~ 400V-63A
MF Quick-Heater 2.5, 44kW	33044450	3 ~ 450V-59A
MF Quick-Heater 2.5, 44kW	33044500	3 ~ 500V-55A
MF Quick-Heater 2.5, 44kW	33044600	3 ~ 600V-45A
MF Quick-Heater 3.0, 44kW	32544400	3 ~ 400V-63A
MF Quick-Heater 3.0, 44kW	32544450	3 ~ 450V-59A
MF Quick-Heater 3.0, 44kW	32544500	3 ~ 500V-55A
MF Quick-Heater 3.0, 44kW	32544600	3 ~ 600V-45A

See page 48 for detailed technical specifications.



ΔT
Delta T

44
power kW

7"
display inch

400/450/ 500/600
voltages V

SMART inductor recognition
The desired temperature and desired power do not have to be set if an inductor with SMART identification feature is connected. In this case the generator automatically adopts the settings defined in the program (1, 2 or 3) for the corresponding inductor.

BETEX MF Quick-Heater 3.0 - 44 kW

- Compact design with 7" display
- User-friendly touchscreen operation
- Smart electronics ensure optimum operating frequency
- Adjustable power regulation
- Double temperature measurement (ΔT monitoring)
- Choice between fixed and flexible inductors

- Can heat according to preset temperature/time curve
- The heating process is displayed in a clear graph
- Log function to save and export data via a USB port

ΔT

For more control and stress-free mounting
Thanks to the Delta-T ΔT monitoring, it is possible to measure the internal and external temperature of a workpiece with 2 temperature probes. Thus the maximum preset temperature difference between 2 points can never be exceeded. This achieves even and uniform heating and prevents material stress.



The MF 3.0 features a 7-inch touchscreen



Optional signal tower for MF 2.5 and 3.0

Induction heaters

Fixed inductors

This type is mainly used for workpieces of the same design that occur frequently and need to be heated. It is also frequently used for relatively small workpieces where a flexible inductor is not sufficient. The versions can vary from an inductor that heats the workpiece from inside a bore to a variant that heats the workpiece from the outside.

Fixed inductors are custom-made and basically suitable for 1 type of workpiece. If the dimensions of several workpieces are very similar, it is sometimes possible to use 1 inductor for several workpieces. Fixed inductors are generally equipped with inductor recognition and overheating protection.

Standard-sized fixed inductors
For specific applications in the rail industry, we have standard fixed inductors in our range. These fit the job perfectly and can be used in repetitive production.

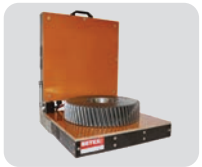
SMART inductor recognition
The desired temperature and desired power do not have to be set if an inductor with SMART identification feature is connected. In this case the generator automatically adopts the settings defined in the program (1, 2 or 3) for the corresponding inductor.



Fixed inductor



Labyrinth inductors



Sandwich table inductor



Pin inductor



Fixed inductor

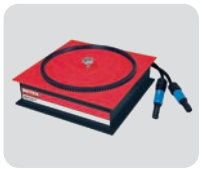


Table inductor



Connection set



Heating bearing rings for dismounting



Heating labyrinth rings for dismounting

Standard railway inductor type	Art. no.	Boring Ø mm	Width mm	Max. power kW	Max. temperature
Fixed inductor labyrinth	350200900	202	90	22	180 °C / 356 °F
Fixed inductor innering	350200902	171	150	22	150 °C / 302 °F
Fixed inductor labyrinth	350200903	177	90	22	180 °C / 356 °F

Other sizes can be ordered custom-made.

Induction heaters

Flexible inductors

Flexible inductors can be placed in or around a workpiece. Therefore, they are ideal for a large variety of parts. From large inner rings to very large components such as gear wheels and housings.

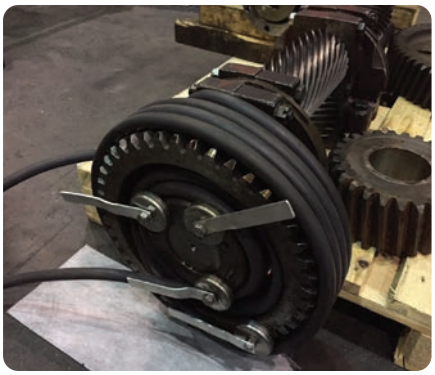
- Different cable lengths, temperature and power ratings are available. Thanks to their flexibility, a wide range of applications is possible.
- Flexible inductors are used to wrap a number of windings around, inside (bore) or on a workpiece (as a flat coil on a surface).
- Flexible inductors are meant to be used with BETEX medium-frequency generators. Make sure the capacity of the inductor corresponds with the capacity of the generator.

Caged flexible inductors
In this case, a flexible inductor is wrapped in a cage. This provides a lightweight construction that allows serial heating of a repetitive size. Often this solution is a lighter alternative to a comparable fixed inductor.



Magnetic holder

Optional: magnetic holders to secure the flexible inductors.





Flexible inductor 180°C



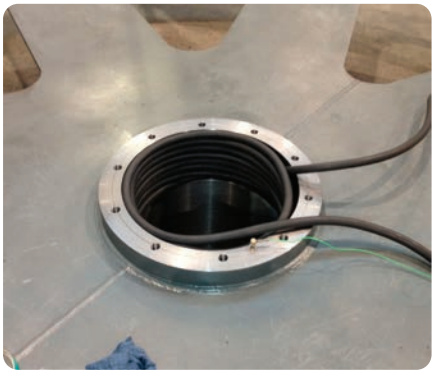
Flexible inductor 300°C



Caged flexible inductor



Connection set



Heating a bore for bearing or shaft mounting

Type	Length m	Max. temperature	Diameter cable Ø mm	Min. winding diameter mm
3.5 kW	5, 7.5, 10	180 °C / 356 °F	12	approx. 90
10 kW*	15, 20, 25, 30	180 °C / 356 °F	12	approx. 75
10 kW	15, 20, 25, 30, 35	180 °C / 356 °F	15	approx. 100
10 kW	15, 20, 25, 30	300 °C / 572 °F	20	approx. 120
22 kW*	15, 20, 25, 30	180 °C / 356 °F	12	approx. 75
22 kW	15, 20, 25, 30, 35	180 °C / 356 °F	15	approx. 100
22 kW	15, 20, 25, 30	300 °C / 572 °F	20	approx. 120
44 kW	15, 20, 25, 30, 35	180 °C / 356 °F	19	approx. 140
44 kW	15, 20, 25, 30	300 °C / 572 °F	28	approx. 220

**Short duration use*



Heating a coupling for dismounting

Technical specifications

Medium frequency 2.5





Type	MF Quick-Heater 2.5 10kW	MF Quick-Heater 2.5 22kW	MF Quick-Heater 2.5 44kW
Forced air cooling	Yes	Yes	Yes
Power	10kW	22kW	44kW
Frequency range	10-25 kHz	10-25 kHz	10-25 kHz
Voltage/Amperage	3 ~ 400V/16A 3 ~ 450V/14A 3 ~ 500V/12A 3 ~ 600V/10A	3 ~ 400V/32A 3 ~ 450V/30A 3 ~ 500V/28A 3 ~ 600V/23A	3 ~ 400V/63A 3 ~ 450V/59A 3 ~ 500V/55A 3 ~ 600V/45A
Frequency	50/60Hz	50/60Hz	50/60Hz
Temperature measurement	For type K thermocouple	For type K thermocouple	For type K thermocouple
Max. temperature °C / °F	300 °C / 572 °F	300 °C / 572 °F	300 °C / 572 °F
Accuracy	± 3.5°C / ± 6.3 °F	± 3.5°C / ± 6.3 °F	± 3.5°C / ± 6.3 °F
Inductor recognition	Yes	Yes	Yes
Temperature sensor (2 pieces)	Yes, for max 300°C / 572 °F	Yes, for max 300°C / 572 °F	Yes, for max 300°C / 572 °F
Extra thermocouple input	Yes	Yes	Yes
Dimensions of generator LxWxH	600x300x600 mm / 23.6x11.8x23.6 inch	600x300x600 mm / 23.6x11.8x23.6 inch	600x650x580 mm / 23.6x25.6x22.8 inch
Weight of generator	46 kg	46 kg	78 kg
Operation			
Dimensions display	3.5”	3.5"	3.5"
Heat curve in display	No	No	No
Delta T (ΔT)	Yes	Yes	Yes
Setpoint power	Via touchscreen	Via touchscreen	Via touchscreen
Setpoint temperature	Via touchscreen	Via touchscreen	Via touchscreen
Setpoint temperature curve	No	No	No
Setpoint timer	Via touchscreen	Via touchscreen	Via touchscreen
Selection operating mode	Via touchscreen	Via touchscreen	Via touchscreen
Digital readings temperature	Setpoint and actual value on touchscreen	Setpoint and actual value on touchscreen	Setpoint and actual value on touchscreen
Digital readings time	Setpoint and actual value on touchscreen	Setpoint and actual value on touchscreen	Setpoint and actual value on touchscreen
Digital readings power	Actual value on touchscreen	Actual value on touchscreen	Actual value on touchscreen
Digital readings frequency	Actual value on touchscreen	Actual value on touchscreen	Actual value on touchscreen
USB connection	No	No	No
Network connection	No	No	No
Heating log	No	No	No
Signaling by			
Installation in operational state	Green flash light	Green flash light	Green flash light
Error message	Red continuous light / acoustic signal	Red continuous light / acoustic signal	Red continuous light / acoustic signal
End of heating cycle	Green continuous light / acoustic signal	Green continuous light / acoustic signal	Green continuous light / acoustic signal
Signal tower	Optional	Optional	Optional

We reserve the right to alter technical specifications without prior notice.

Technical specifications

Medium frequency 3.0






Type	MF Quick-Heater 3.0 3.5kW	MF Quick-Heater 3.0 10kW	MF Quick-Heater 3.0 22kW	MF Quick-Heater 3.0 44kW
Forced air cooling	Yes	Yes	Yes	Yes
Power	3,0kW* / 3,5kW**	10kW	22kW	44kW
Frequency range	10-50kHz	10-25 kHz	10-25 kHz	10-25 kHz
Voltage/Amperage	230V / 13A* 230V / 16A**	3 ~ 400V / 16A 3 ~ 450V / 14A 3 ~ 500V / 12A 3 ~ 600V / 10A	3 ~ 400V / 32A 3 ~ 450V / 30A 3 ~ 500V / 28A 3 ~ 600V / 23A	3 ~ 400V / 63A 3 ~ 450V / 59A 3 ~ 500V / 55A 3 ~ 600V / 45A
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Temperature measurement	For type K thermo element	For type K thermocouple	For type K thermocouple	For type K thermocouple
Max. temperature °C / °F	240 °C / 464 °F	300 °C / 572 °F	300 °C / 572 °F	300 °C / 572 °F
Accuracy	± 3.5°C / ± 6.3 °F	± 3.5°C / ± 6.3 °F	± 3.5°C / ± 6.3 °F	± 3.5°C / ± 6.3 °F
Inductor recognition	No	Yes	Yes	Yes
Temperature sensor (2 pieces)	Yes, for max 300°C / 572 °F	Yes, for max 300°C / 572 °F	Yes, for max 300°C / 572 °F	Yes, for max 300°C / 572 °F
Extra thermocouple input	Yes	Yes	Yes	Yes
Dimensions of generator LxWxH	320 x 350 x 150 mm / 12.6x13.8x5.9 inch	600x300x600 mm / 23.6x11.8x23.6 inch	600x300x600 mm / 23.6x11.8x23.6 inch	600x650x580 mm / 23.6x25.6x22.8 inch
Weight of generator	7,85 kg	46 kg	46 kg	78 kg
Operation				
Dimensions display	4,3”	7”	7"	7"
Heat curve in display	Yes	Yes	Yes	Yes
Delta T (ΔT)	Yes	Yes	Yes	Yes
Setpoint power	No	Via touchscreen	Via touchscreen	Via touchscreen
Setpoint temperature	Via touchscreen	Via touchscreen	Via touchscreen	Via touchscreen
Setpoint temperature curve	Via touchscreen	Via touchscreen	Via touchscreen	Via touchscreen
Setpoint timer	Via touchscreen	Via touchscreen	Via touchscreen	Via touchscreen
Selection operating mode	Via touchscreen	Via touchscreen	Via touchscreen	Via touchscreen
Digital readings temperature	Setpoint and actual value on touchscreen	Setpoint and actual value on touchscreen	Setpoint and actual value on touchscreen	Setpoint and actual value on touchscreen
Digital readings time	Setpoint and actual value on touchscreen	Setpoint and actual value on touchscreen	Setpoint and actual value on touchscreen	Setpoint and actual value on touchscreen
Digital readings power	No	Actual value on touchscreen	Actual value on touchscreen	Actual value on touchscreen
Digital readings frequency	No	Actual value on touchscreen	Actual value on touchscreen	Actual value on touchscreen
USB connection	Yes	Yes	Yes	Yes
Network connection	No	Yes	Yes	Yes
Heating log	Yes	Yes	Yes	Yes
Signaling by				
Installation in operational state	LED on front	Via touchscreen	Via touchscreen	Via touchscreen
Error message	Acoustic signal	Acoustic signal	Acoustic signal	Acoustic signal
End of heating cycle	Acoustic signal	Acoustic signal	Acoustic signal	Acoustic signal
Signal tower	-	Optional	Optional	Optional

**UKCA model specifications.*
*** CE model specifications.*

Fitting tool sets

BETEX Impact 33 & 39

Fast and accurate bearing mounting
The use of an Impact fitting tool set is of absolute importance for the safe, precise and fast mounting of bearings.

Specially for bearings it is important that during mechanical mounting the bearing is supported on its inner and outer ring in order to avoid unnecessary damage and premature failure.

When an Impact fitting tool set is used, mounting forces are not transmitted via balls or rollers of the bearings and hence the raceways are not damaged.

By using impact-resistant plastic collets (made of unbreakable sheet material, instead of easily breaking injection moulded collets), metal to metal contact is avoided, and therefore damage to the shaft.



IMPACT 33

- With 3 sleeves
- With 33 rings, suitable for ± 375 different types of bearings.







Also for other machine components
The sets can be used for bore diameters from 10 to 60 mm or parts thereof. Mounting of other machine components such as bushings, sealing rings, gear wheels and pulleys can also be carried out safely, precisely and quickly using an Impact fitting tool set.

Your benefits:
- ✓ Safe, precise and quick mounting
- ✓ No more damage to shafts, bearing housings and bearing sealing rings
- ✓ Extended service life of bearings
- ✓ The impact-resistant plastic collets are made of unbreakable sheet material
- ✓ **The numbers of the collets are clearly engraved and coloured, so mistakes are impossible.**

Use in combination with BETEX Induction heaters.



IMPACT 39

- With 4 sleeves
- With 39 rings, suitable for ± 600 different types of bearings.

Type	Impact 33	Impact 39
Art. no.	399900-2	399900-4
Collet bore mm	10-50	10-60
Outer diameter	26-110	26-130
Sleeve bore mm	18, 32, 52	18, 32, 52, 62
Dead blow hammer	0.7 kg, absorbs shocks and vibrations	
Weight kg	4.8	6.5

Mechanical pullers

BETEX MSP 2/3-arm pullers, self-centering



self-centering

250
Max. shaft length mm

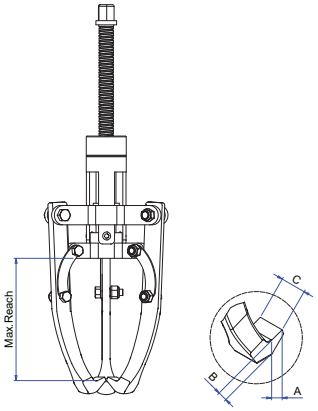
440
Max. spread mm

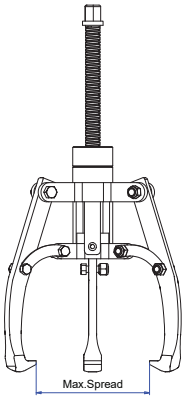
Prevent damage to shafts and spindles using the “BETEX 625/630 shaft protectors” starting on page 65.

BETEX MSP

Safe and easy dismounting of bearings, couplings, rings, etc.

- Ergonomic design, easy to operate by one person.
- Practical!
  Self-centering 2-arm or 3-arm puller, including locking. Easy to convert, can be used in any position.
- Safe!
  The arms slide inwards or outwards simultaneously. Bending or deflecting is impossible.
- Economical!
  2-arm or 3-arm puller combination, 2 pullers for the price of one.
- Strong!
  The harder the pulling force, the tighter the jaws grip around the workpiece.





Advantages of unique self-centering pullers:

- ✓ The arms slide inwards or outwards simultaneously.
- ✓ Prevents damage to shaft and object being pulled.
- ✓ Can be operated by one person.
- ✓ Work efficiently and save time.

Type	Art. no.	Cap. tons	Max. shaft length mm	Max. spread mm	Wrench size mm	Max. Torque Nm	A mm	B mm	C mm	Weight kg
MSP 2/3-120	798250	2	80	120	19	23	8	6	15	1.6
MSP 2/3-180	798300	3	120	180	19	34	6	7	15	2.3
MSP 2/3-270	798350	5	160	270	23	79	11	10	25	4.3
MSP 2/3-300	798400	8	210	300	23	139	13	14	27	6.1
MSP 2/3-380	798450	10	250	380	29	206	14	10	29	9.6
MSP 2/3-440	798500	12	250	440	29	243	14	10	29	11.2

Mechanical pullers

BETEX MP10/11 universal 2-arm pullers



900
Max. shaft length mm

980
Max. spread mm

Prevent damage to shafts and spindles using the “BETEX 625/630 shaft protectors” starting on page 65.



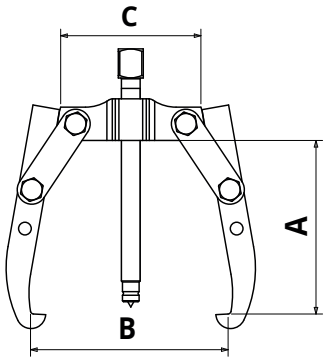
BETEX MP10/11

Simple, handy 2-arm puller for external grip. Suitable for dismantling pulleys, bearings, rings and fans of electric motors. During dismantling, the arms cannot slip because they are pressed against the puller bridge. The greater the pressing force, the tighter the arms grip on the workpiece!

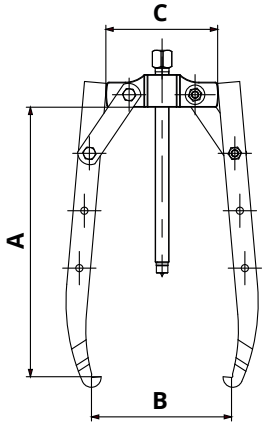
These pullers are also available with extended arms for even greater capacity.

- External puller
- 2-arms
- Available as MP10 in 9 standard sizes
- Available as MP11 in 9 sizes with extended arms

Type / Art. no.	Max. shaft length A mm	Max. spread B mm	C mm	Weight kg
MP10070	55	70	37	0,2
MP10100	85	100	70	0,4
MP10150	135	150	80	1,2
MP10200	180	200	113	2,3
MP10250	180	250	160	2,7
MP10310	300	310	161	5,5
MP10425	370	425	280	11,5
MP10520	460	520	325	25,5
MP10800	750	800	402	49
MP11090	70	90	37	0,2
MP11110	105	110	70	0,5
MP11175	185	175	80	1,4
MP11240	225	240	113	2,5
MP11290	225	290	160	2,9
MP11350	400	350	161	6
MP11480	480	480	280	13
MP11650	590	650	325	30
MP11980	900	980	402	55,5



MP10 series



MP11 series

Mechanical pullers

BETEX MP15/16 universal 2/3-arm pullers



900
Max. shaft length mm

980
Max. spread mm

Prevent damage to shafts and spindles using the “BETEX 625/630 shaft protectors” starting on page 65.

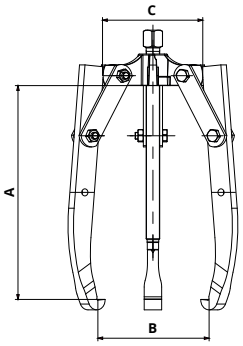


BETEX MP15/16

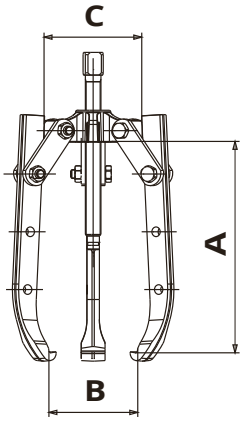
Simple, handy 2/3-arm puller for parts gripped externally like pulleys, bearings, rings, etc. Suitable for removing fans from electric motors. During operation, the arms cannot slip because they are pressed against the cross bar. The harder the pulling force, the tighter the jaws grip around the workpiece. These pullers are also available with extended arms for even larger capacity.

- External puller
- 2- or 3-arms
- Available in 9 standard sizes
- Available in 9 sizes with extended arms

Type / Art. no.	Max. shaft length A mm	Max. spread B mm	C mm	Weight kg
MP15070	55	70	37	0,3
MP15100	85	100	80	0,7
MP15150	135	150	104	1,8
MP15200	180	200	108	3,3
MP15250	180	250	160	3,7
MP15310	300	310	161	7,5
MP15425	370	425	280	17
MP15520	460	520	325	33,5
MP15800	750	800	402	65
MP16090	70	90	37	0,3
MP16110	105	110	80	0,7
MP16175	185	175	104	2,1
MP16240	225	240	108	3,5
MP16290	225	290	160	3,9
MP16350	400	350	161	8,5
MP16480	480	480	280	18,5
MP16650	590	650	325	39
MP16980	900	980	402	75



MP15 series



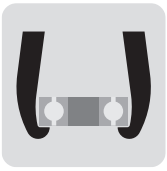
MP16 series

Mechanical pullers

BETEX MP20 mechanical 2-arm pullers









390
Max. shaft length mm

600
Max. spread mm

Prevent damage to shafts and spindles using the “BETEX 625/630 shaft protectors” starting on page 65.

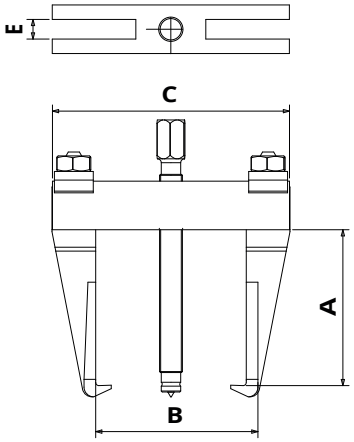


BETEX MP20

This 2-arm puller is extremely well-suited to applications involving the extraction of bearings, rings, sprockets, couplings etc. The jaws are forged and therefore extra strong. Reversal of the arms makes internal dismantling also possible. The self-locking system guarantees that the arms will not deflect.

- External and internal puller
- 2-arms, reversible
- Self-locking
- Also available as set MP20000 with a display including 5 sizes: MP20080, MP20115L, MP20155, MP20195, MP20250

Type / Art. no.	Max. shaft length A mm	Spread B mm		C mm	E mm	Weight kg
		Min.	Max.			
MP20060	50	12	60	72	6,1	0,3
MP20080	80	25	80	122	10,1	1
MP20080L	135	20	80	122	10,1	1,2
MP20115	80	25	115	156	10,1	1,1
MP20115L	135	25	115	156	10,1	1,3
MP20155	160	25	155	210	14,1	2,4
MP20145L	220	25	145	210	14,1	4
MP20195	220	60	195	260	14,1	4,4
MP20250	260	80	250	345	20,5	10,5
MP20390	260	125	390	475	20,5	13
MP20245	390	80	245	345	20,5	13,5
MP20375	390	125	375	475	20,5	15,8
MP20600	260	215	600	675	20,5	20
MP20600L	390	215	600	675	20,5	23
MP20000 set	80 - 260	25 - 80	80 - 250	122 - 345	10,1 - 20,5	22,7



Mechanical pullers

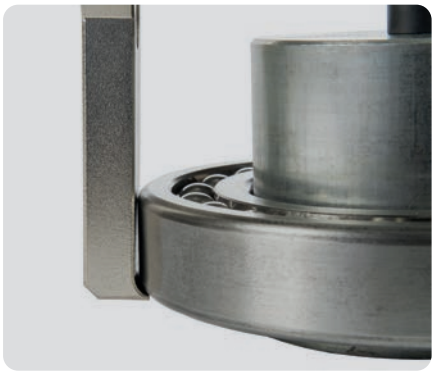
BETEX MP25 universal 2-arm bearing puller



110
Max. shaft length mm

245
Max. spread mm

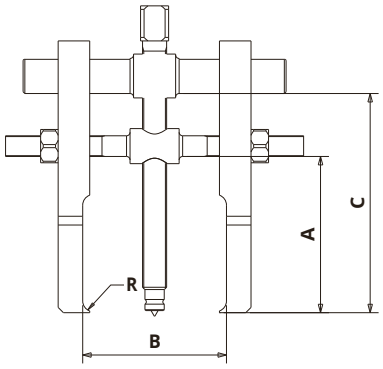
Prevent damage to shafts and spindles using the “BETEX 625/630 shaft protectors” starting on page 65.



BETEX MP25

These bearing pullers are particularly suitable for extracting bearings, bearing rings, gears, discs etc. for tight or difficult to reach areas. First lateral force is applied to grip the part with the sharp jaws. These grip on the radius of the outer ring. Due to the special construction, the arms cannot move during use. You prevent damage and save time.

- External puller
- 2-arms
- For tight spaces behind bearings
- Special jaw construction for extra strong grip



Type / Art. no.	Max. shaft length A mm	Spread B mm		C mm	R mm	Weight kg
		Min.	Max.			
MP25120	89	34	120	125	6	1,7
MP25245	110	59	245	155	6	4,8

Mechanical pullers

BETEX MP26 2-arm pullers, cross arms with tapered claws



160
Max. shaft length mm

125
Max. spread mm

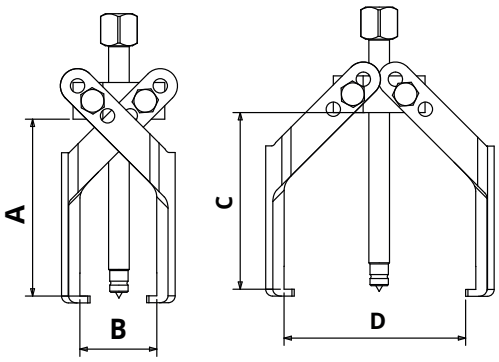
Prevent damage to shafts and spindles using the “BETEX 625/630 shaft protectors” starting on page 65.



BETEX MP26

This puller is particularly suitable for extracting bearings, pinions, pulleys etc. for tight or difficult to reach areas.

- External puller
- 2-arms
- For a wider spread and depth, puller arms can be assembled in variable positions
- Easy to handle, cross arm puller



Type / Art. no.	Min. shaft length A mm	Min. spread B mm	Max. shaft length C mm	Max. spread D mm	Weight kg
MP26095	90	55	90	95	0,3
MP26125	125	80	160	125	1

Mechanical pullers

BETEX MP30 mechanical 2/3-arm pullers, self-centering





self-centering

640
Max. shaft length mm

720
Max. spread mm

Prevent damage to shafts and spindles using the “BETEX 625/630 shaft protectors” starting on page 65.



BETEX MP30

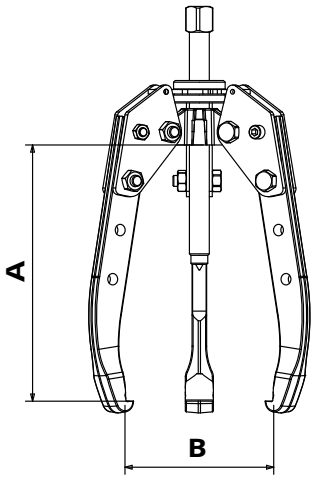
The 2/3 arms of these pullers adjust themselves simultaneously and symmetrically, inwards, or outwards. Work efficient with perfect positioning of the arms. The arms cannot bend or deflect. The higher the pulling force, the tighter the grip of the arms.

These pullers are also available with extended arms for even larger capacity.

- External puller
- 2- or 3-arms
- Self-centering
- Available in 6 standard sizes
- Available in 3 sizes with extended arms

Advantages of unique self-centering pullers:
- ✓ The arms slide inwards or outwards simultaneously.
- ✓ Prevents damage to shaft and object being pulled.
- ✓ Can be operated by one person.
- ✓ Work efficiently and save time.

Type / Art. no.	Max. shaft length A mm	Max. spread B mm	Weight kg
MP30110	105	110	0,8
MP30175	185	175	2
MP30240	225	240	6,5
MP30350	410	350	14,5
MP30480	500	480	31,5
MP30680	600	680	55,5
MP30405	490	405	16
MP30540	615	540	34,5
MP30720	640	720	61,5



Mechanical pullers

BETEX MP40 4-arm ball bearing puller





239
Max. arm length mm

10 - 60
Shaft diameter mm

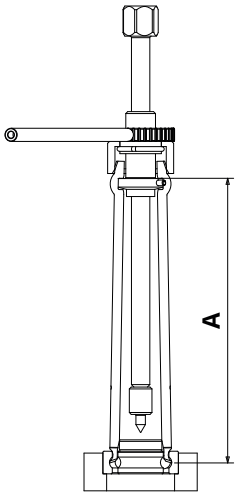


BETEX MP40

These four-arm bearing pullers have been specially developed to extract ball-bearings from casings and shafts simultaneously. For when there is no free space internally or externally. The arms grip the bearing between the inner- and outer ring. For extra grip and the desired leverage effect, a supplied ring can be used. The blue numbered bearings are dismantled without the ring.

Used for the 6000, 6200, 6300 and 6400 bearing series.

- Internal puller
- 4-arms
- Available as set MP40900 in handy case with 3 sizes: MP40100, MP40200, MP40300



Type / Art. no.	Arm no.	A mm	Bearing	Weight kg
MP40100	11	160	**6000 - 6001 - 6002 - 6003 - 6200 - 16002 - 16003 - 16100 - 16101**	1,3
	12	160	6004 - 6005 - 6006 - **6201** - 6202 - 6203 - 6300	1,3
	13	180	6204 - 6205 - 6301 - 6302 - 6303 - 62/22 - **63/22**	1,3
MP40200	21	196	**6007 - 6008 - 6009 - 6010 - 16011**	1,9
	22	196	**6011 - 6012** - 6206 - 6207 - 6304 - 6305 - 6306 - **62/28**	4,5
MP40300	31	237	**6013 - 6014 - 6015** - 6208 - 6209 - 6210 - 6307 - 6403 - **63/28**	4,5
	32	239	**6018 - 6019 - 6020 - 6211** - 6212 - 6308 - 6309 - 6310 - 6311 - 6404 - 6405	7,5
MP40900 set				

The green numbered bearings are removed without the ring.

Mechanical pullers

BETEX MP50 expanders, counter supports and slide hammers



5-76
Min./Max. diameter mm

89
Max. depth expander mm

BETEX MP50

This special expander system has been developed to facilitate rapid and effective dismantling under difficult conditions, e.g., in ‘blind holes’. The multiple adjustable jaws (up to 6) ensure the correct grip from behind the bearing. Deflection is impossible. The counter supports are universal, which means that the arms can be twisted in any direction to find the best point of pressure.

The larger types are equipped with a conical puller adapter in the expander, which prevents friction when tightening the screw. Bearings, bushings, seal rings etc. are extracted effortlessly.

- Internal puller combination
- Combine with sliding hammer or counter support
- Expanders MP50507 and MP50811 have no housing
- Also available in 7 different sets, including sliding hammer and/or counter support

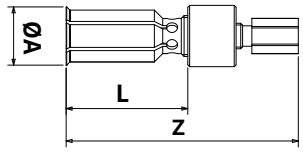


BETEX MP50350

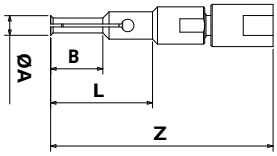
Used in combination with internal expander puller.

- Stroke of 250 mm
- Connection thread 1/2" UN20h

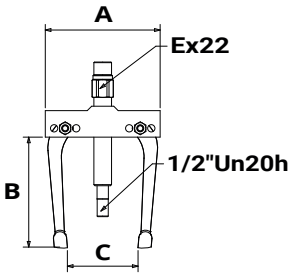
A major advantage of the slide hammer is that it can be used independently of any housing. No pressure points are required. After positioning the inner expander puller, the slide hammer is screwed on.



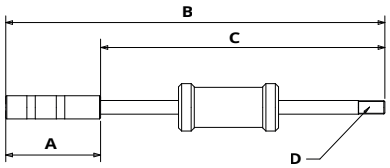
Expander MP51214 to MP56576



Expander MP50507 to MP50811



Counter support



Slide hammer

Counter support type / Art. no.	A mm	B mm	C mm	Weight kg
MP50300	130	124	135	1,6

Slide hammer type / Art. no.	A mm	B mm	C mm	D	Weight kg
MP50350	90	360	250	1/2 inch UN20h	1,4

Expander type / Art. no.	A Ø mm	B mm	L mm	Z mm	Weight kg	Set 1	Set 2	Set 3	Set 4	Set 5	Set 6	Set 7
MP50507	5 to 7	8	27	82	0,1	-	-	Yes	Yes	-	Yes	Yes
MP50811	8 to 11	20	40	90	0,1	-	-	Yes	Yes	-	Yes	Yes
MP51214	12 to 14	-	64	108	0,3	Yes	-	Yes	Yes	-	Yes	Yes
MP51519	15 to 19	-	64	125	0,3	Yes	Yes	Yes	Yes	-	Yes	Yes
MP52024	20 to 24	-	65	125	0,3	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MP52529	25 to 29	-	65	125	0,4	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MP53037	30 to 37	-	65	125	0,4	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MP53845	38 to 45	-	65	125	0,5	Yes	Yes	-	-	Yes	Yes	Yes
MP54654	46 to 54	-	88	175	1,3	-	-	-	-	Yes	-	Yes
MP55564	55 to 64	-	89	175	1,6	-	-	-	-	Yes	-	Yes
MP56576	65 to 76	-	89	175	2,0	-	-	-	-	Yes	-	Yes

Set 1: MP51245S - including slide hammer - 3.6 kg
Set 2: MP51245T - including counter support - 3.7 kg
Set 3: MP50537S - including slide hammer - 3.6 kg
Set 4: MP50537T - including counter support - 3.7 kg
Set 5: MP50560 - including slide hammer and counter support - 8.0 kg
Set 6: MP50545 - including slide hammer and counter support - 5.5 kg
Set 7: MP50576 - including slide hammer and counter support - 8.5 kg

Mechanical pullers

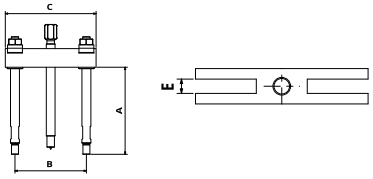
BETEX MP60/65 bearing splitters and counter supports



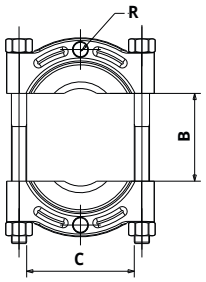
680
Max. shaft length mm

300
Max. spread mm

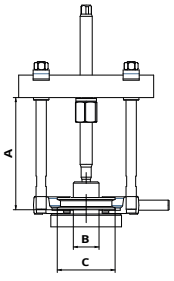
Prevent damage to shafts and spindles using the “BETEX 625/630 shaft protectors” starting on page 65.



Counter support



Bearing splitter



Sets

BETEX MP60/65

BETEX MP60/MP65 is constructed for the dismounting of hard-to-reach bearings and other parts, where there is insufficient space for grip with a puller. Suitable for multiple applications.

- External puller combination
- Available in 8 splitter sizes with matching counter supports
- Available separately or as set*
- Large spindles have retractable points

*The content of a set (combination of bearing splitters and counter supports) is stated in the art.no. of the set. For example: Set MP7 110 060 comprises Slide hammer MP65 **110** and Bearing splitter MP60 **060**.

Counter support Type / Art. no.	Shaft length A mm	Spread B mm		Bridge width C mm	E mm	Weight kg
		Min.	Max.			
MP65110	115	46	110	122	10,1	1
MP65140	115	46	140	156	10,1	1
MP65195	175	62	195	210	14,1	3
MP65445	245	173	445	475	20,5	12
MP65450	480	178	450	480	27	35
MP65580	680	219	580	617	32,5	53

Bearing splitters Type / Art. no.	Spread B mm		C mm	R mm	Weight kg
	Min.	Max.			
MP60060	4	60	60	3/8”	0,8
MP60080	6	81	80	3/8”	1,3
MP60110	10	110	110	5/8”	2,8
MP60150	12	134	155	5/8”	5,7
MP60180	13	210	180	5/8”	12,5
MP60260	17	255	260	1”	28,5
MP60300	20	300	300	1-1/4”	43,5
MP60330	35	300	330	1-1/4”	86,5

Sets Type / Art. no.	A mm	B mm	C mm
MP7110060	100	55	90
MP7140080	100	80	130
MP7195110	152	108	175
MP7195150	152	77	182
MP7445180	220	180	302
MP7450260	418	250	372
MP7580300	617	300	435
MP7580330	617	300	450

Mechanical pullers

BETEX KZZ Key Puller





BETEX KZZ

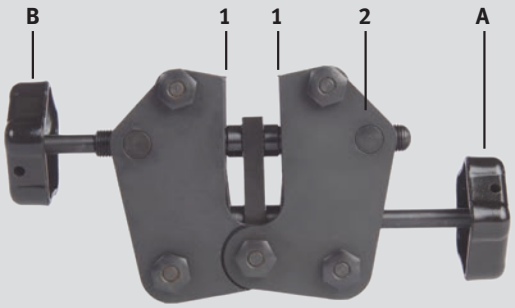
For professional removal of parallel keys
With the BETEX KZZ, you can easily remove keys from shafts of motors, pumps and all kinds of other applications in drive technology. For keys up to a width of 35 mm.

Safe!
Hammer and chisel are no longer needed.

Advantages
- ✓ Safe dismounting.
- ✓ Quick dismounting.
- ✓ No damage to shafts or keys due to perpendicular dismounting.
- ✓ Shafts remain straight.
- ✓ Saves time, labour and costs.
- ✓ Jaws are made from specially tempered steel.
- ✓ Threaded screws with left and right trapezoidal thread.

Easy to use

1. Turn both jaws (1) upwards or downwards with handwheel (A) until they are in line with the housing (2).
2. Use handwheel (B) to set the size of the key to be pulled, with ± 1 mm of play.
3. Turn handwheel (B) to screw both jaws hand-tight to the key.
4. Turn handwheel (A) to pull the key upwards perpendicularly.
5. Turn the jaws downwards with handwheel (A); use handwheel (B) to unscrew the key.



Type	Art. no.	Max. spread mm	Weight in kg
KZZ	4900011	35	2.2

Mechanical pullers

BETEX MP35 hydraulic mini press, 8 ton



8
capacity ton

5
Max. stroke mm

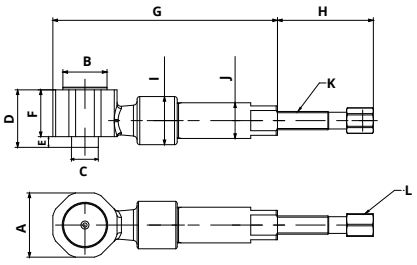
Prevent damage to shafts and spindles using the “BETEX 625/630 shaft protectors” starting on page 65.



BETEX MP35

This auxiliary tool is used to increase pressure for stuck parts. The hydraulic mini press is placed between the shaft and the spindle. It administers a 5 mm stroke; max pressing capacity is 8 tons. The impact loosens the stuck workpiece. This prevents overloading and wear on the spindels.

- Compatible with mechanical pullers
- Time-saving
- Prevents overload
- Protects spindles from bending
- Use for bearings, gears, sprockets, discs etc.



Type / Art. no.	A Ø mm	B Ø mm	C Ø mm	D mm	E mm	F mm	G mm	H mm	I Ø mm	J Ø mm	K	L	Weight kg
MP35100	45	34	20	43	8	35	168	72	36	26,7	M14	H17	1,3

Mechanical pullers

BETEX 625/630 shaft protectors



BETEX 625/630

Shaft protector sets for shaft centers and hollow shafts
These shaft protectors are indispensable between shaft and bearing puller, when dismounting bearings, couplings, etc. There are 2 types, BETEX 625 for shaft protection and BETEX 630 for hollow shafts.

By using these pressure pieces you prevent:
- Damage to the center hole and screw
- Puller overload due to tilting

BETEX 625 consists of 6 pieces:

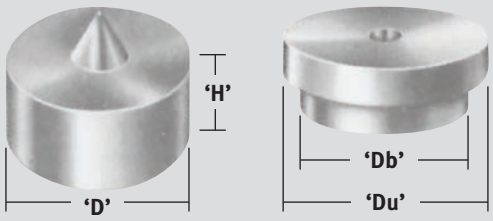
'D' min. = Ø 16 mm	'H' min. = Ø 16 mm
'D' max. = Ø 38 mm	'H' max. = Ø 19 mm

BETEX 630 'S' consists of 11 pieces

'Db' min. = Ø 19 mm	'Du' min. = Ø 25 mm
'Db' max. = Ø 51 mm	'Du' max. = Ø 64 mm

BETEX 630 'T' consists of 6 pieces

'Db' min. = Ø 54 mm	'Du' min. = Ø 67 mm
'Db' max. = Ø 76 mm	'Du' max. = Ø 89 mm



Hydraulic pullers

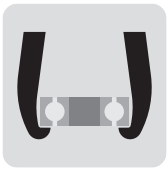
BETEX HP & HSP 2/3-arm pullers, with integrated pump and cylinder

Compact pullers for dismounting components such as bearings, bushings, wheels, couplings and pulleys

- The self-contained hydraulic pump saves space, as you don't need a separate pump, hose or cylinder.
- The stronger the pulling force, the tighter the jaws grip around the workpiece. Bending or deflecting is impossible.
- 2-arm or 3-arm puller combination, easy to convert.
- Integral safety release valve prevents overload and ensures that you never exceed the maximum force.
- The lightweight telescopic handle can be rotated 360°.
- Can be used in any position.
- Includes safety net/blanket, adapter(s) and shaft protector.
- In useful carrying case.
- HSP pullers are self-centering.

415
Max. shaft length mm

620
Max. spread mm



Use in combination with "BETEX Bearing Splitter" starting on page 72.

Advantages of unique self-centering pullers:

- ✓ The arms slide inwards or outwards simultaneously.
- ✓ Prevents damage to shaft and object being pulled.
- ✓ Can be operated by one person.
- ✓ Work efficiently and save time.



Lightweight telescopic handle



HSP is self-centering



PE carrying case

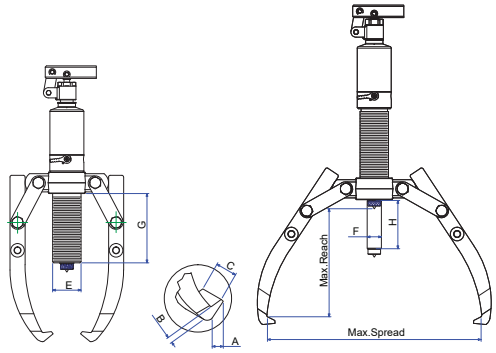


2-arm or 3-arm puller



Can be rotated 360°



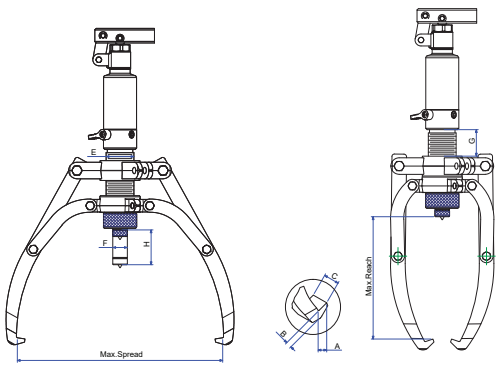


BETEX HP 2/3-arm Hydraulic pullers

Type	Art. no.	Cap. tons	Max. shaft length mm	Spread mm		Stroke H mm	A mm	B mm	C mm	E mm	F mm	G mm	Weight kg
				Min.	Max.								
HP 43*	791000	4	185	-	255	60	11	6	22	42	22	84	8,3
HP 63*	792000	6	220	-	330	70	13	10	22	45	23	94	8,5
HP 83*	793000	8	230	-	350	85	11	10	25	50	25	122	12,0
HP 123*	794000	12	270	-	375	85	14	10	29	60	28	118	17,2
HP 203**	796000	20	360	-	520	111	20	27	33	80	40	160	38,2
HP 303**	797000	30	360	-	550	111	20	27	38	98	50	155	50,6

** incl. safety net ** incl. safety blanket*





self-centering

BETEX HSP 2/3-arm hydraulic self-centering pullers

Type	Art. no.	Cap. tons	Max. shaft length mm	Spread mm		Stroke H mm	A mm	B mm	C mm	E mm	F mm	G mm	Weight kg
				Min.	Max.								
HSP 43*	791500	4	190	83	315	60	13	10	22	42	22	40	9,3
HSP 63*	792500	6	230	90	390	70	13	10	22	45	23	50	9,8
HSP 83*	793500	8	280	110	460	85	13	13	27.5	50	25	70	15,3
HSP 123*	794500	12	300	120	515	85	15	16.5	29	60	28	70	18,4
HSP 203**	796500	20	325	160	520	111	18	20	33	80	40	62	46,0
HSP 303**	797500	30	415	190	620	111	18	20	38	98	50	85	61,8

** incl. safety net ** incl. safety blanket*

Hydraulic pullers

BETEX HXP 2/3-arm pullers, self-centering



self-centering

455
Max. shaft length mm

860
Max. spread mm

Use in combination with “BETEX Bearing Splitter” starting on page 72 and “BETEX Pump sets 700 bar” starting on page 122.





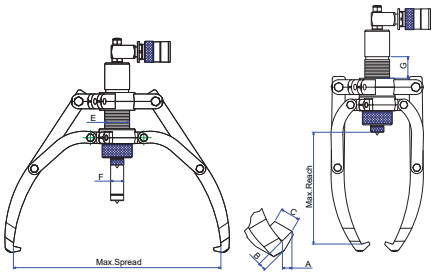
BETEX HXP

Safe and user-friendly dismounting of bearings, couplings, rings, etc.

- Separate 2-stage handpump available.
- Self-centering 2-arm or 3-arm puller, easy to convert.
- The arms slide inwards or outwards simultaneously.
- The stronger the pulling force, the tighter the jaws grip around the workpiece. Bending or deflecting is impossible.
- HXP503 is also available with mobile crane (HXPC 50T).
- Accessory sets available for the 8- and 12-ton versions.
- In useful carrying case.
- Includes adapter and shaft protector.

Advantages of unique self-centering pullers:

- ✓ The arms slide inwards or outwards simultaneously.
- ✓ Prevents damage to shaft and object being pulled.
- ✓ Can be operated by one person.
- ✓ Work efficiently and save time.



Type	Art. no.	Cap. tons	Oil cap. cm³	Max. shaft length mm	Spread mm		Stroke H mm	A mm	B mm	C mm	E mm	F mm	G mm	Weight kg
					Min.	Max.								
HXP 83*	793600	8	100	280	110	460	85	13	10	22	22	40	42	14,0
HXP 123*	794600	12	135	300	120	515	85	13	13	27.5	25	70	50	17,0
HXP 203**	796600	20	315	325	160	520	111	15	16.5	29	28	70	60	36,7
HXP 303**	797600	30	490	415	190	620	111	20	27	33	40	62	80	56,5
HXP 503**	799600	50	1116	455	160	860	159	23	35	60	40	-	127	140,0

** incl. safety net* *** incl. safety blanket*

Hydraulic pullers

BETEX Tri-section Puller set



284
Max. shaft length mm

340
Max. spread mm

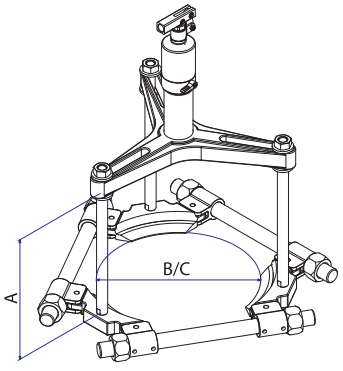


BETEX Tri-section puller set

- The complete hydraulic tri-section puller set is for safe and easy disassembly.
- The narrow plate edges enable the dismounting of hard-to-grip components.
- The Tri-section Plate is mounted behind the inner and outer bearing ring and prevents the pulling force from being transmitted through the moving parts, so the bearing is not damaged.
- Most parts are forged SCM440 alloy steel, creating a very safe and durable product.

This complete puller set is available in 4 capacities and consists of:

- Integrated pump and cylinder
- 360° adjustable handle
- Tri-section Plate
- Puller block
- Connection rods
- Steel storage case

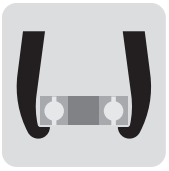


Type	Art. no.	Cap. tons	Max. shaft length A mm	Min. spread B mm	Max. spread C mm	Weight in kg
Tri-section set 4t	792160	4	211	30	160	20
Tri-section set 6t	792210	6	243	50	210	30
Tri-section set 8t	792340	8	243	50	270	34
Tri-section set 12t	792495	12	284	90	340	68

Hydraulic pullers

BETEX HPP, 3-in-1 Push Puller, self-centering









Use in combination with “BETEX Bearing Splitter” starting on page 72.

BETEX HPP

With its 3-in-1 design, the BETEX HPP hydraulic puller is a tool for mounting and dismounting, including internal dismounting of bearings, wheels and rings.

- The BETEX HPP is suitable for both dismounting and mounting bearings. Mounting is possible by using the supplied screw adapter (bolt size M12-P1.75). It can easily be screwed into the shaft, causing the arms of the HPP puller to exert a pushing force against the inner ring of the bearing.
- The BETEX HPP has a puller specifically designed to dismount bearings via the inner ring. This makes it possible to dismount bearings that cannot be dismounted externally. In this case, the arms of the outer puller push against the workpiece.



Pulling externally



Mounting



Pulling internally



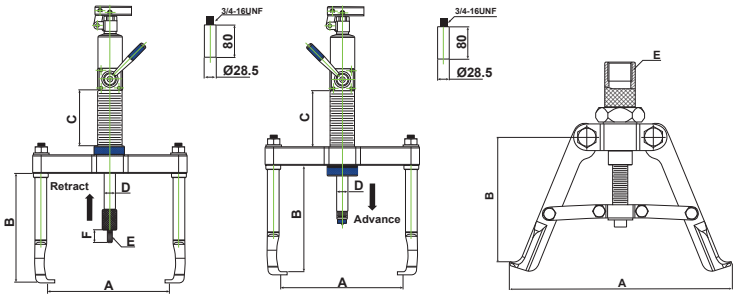
Practical example

User-friendly
- The special 3-in-1 design gives you one puller to easily fit or remove bearings, wheels and rings.
- The 3-arm design ensures an even and constant force when mounting and dismounting.
- Use the supplied extensions for longer shaft lengths.
- The arms of the self-centring inner puller shift inwards or outwards simultaneously, preventing slipping or deflecting.
- The BETEX HPP is equipped with an integrated pump and cylinder.

Safe
- The integrated safety relief valve guarantees user safety, and prevents damaging and overloading the BETEX HPP and workpiece. It also prevents the maximum pressure from being exceeded.
- Most parts are made of alloy steel, making the BETEX HPP a durable and safe product.

Cost savings
- The 3-in-1 design reduces preparation time, (dis)mounting time and working time.
- The BETEX HPP is ideal for mounting and dismounting a wide variety of parts such as rings, wheels, bearings, couplings and pulleys.



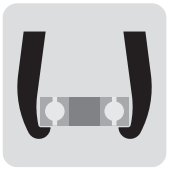


Type	Art. no.	Operations	Output tons	A mm	B mm	C mm	D mm	E	F mm	Weight kg
HPP 123	794200	Mounting	8	44-280	270	140	28	M12-P1.75	30	19.5
		Outer pulling	12	85-300	260	140	28	-	-	
		Inner pulling	8	110-245	130-150	-	-	1”-12UNF	-	

Accessory sets

BETEX Bearing Splitter





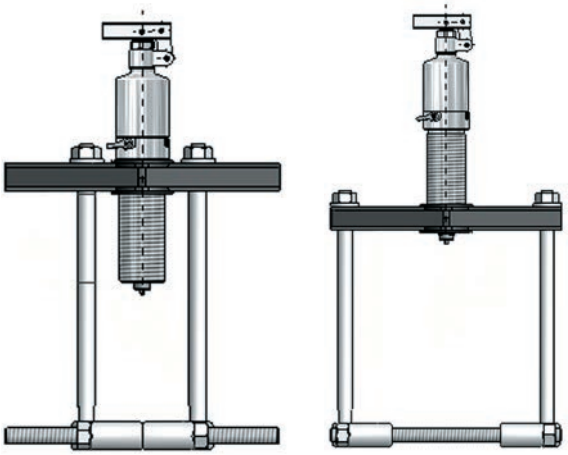


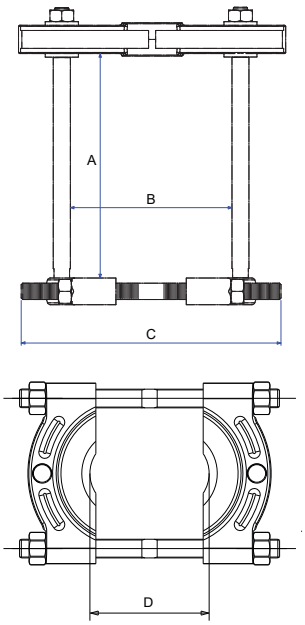
BETEX Bearing Splitter

Accessory sets for 4, 6, 8, 12 ton pullers HP, HSP, HXP, HPP.

This accessory set comprises:
- 1 Puller block
- 2 Sets of connection rods
- 2 Plates for min./max. Ø 12-225 mm

Use the pump/cylinder unit of the HP/HSP/HXP puller.
For the dismounting of hard-to-reach bearings and other parts, where there is insufficient space for grip with a puller. Suitable for multiple applications.





Type				Art. no.	Cap. tons	Shaft lenght A mm	B mm		C mm	Spread Ø D mm		Weight kg
							Min.	Max.		Min.	Max.	
Acc. set HP 43	HSP 43			791100	4	224	100	145	163	12	70	6.5
Acc. set HP 63	HSP 63			792100	6	255	115	220	260	28	150	10.5
Acc. set HP 83	HSP 83	HXP 83		793100	8	255	110	230	260	28	150	10,5
Acc. set HP 123	HSP 123	HXP 123	HPP 123	794100	12	298	140	310	360	40	225	11,5

Accessory sets

BETEX Tri-Section Plates



Use in combination with:
Tri-Section 160: HP/HSP 43, 63
Tri-Section 210: HP/HSP 63, 83
Tri-Section 340: HP/HSP/HXP 83, 123, 203, HPP 123
Tri-Section 495: HP/HSP/HXP 203, 303

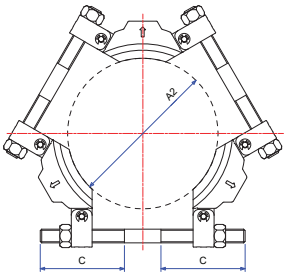


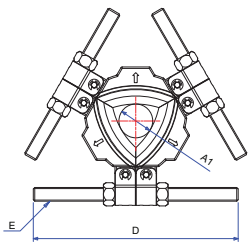


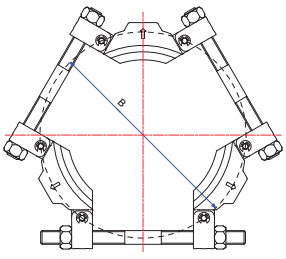
BETEX Tri-Section Plate

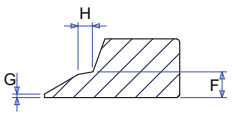
The Tri-Section Plate is specially designed for 3-arm (hydraulic) pullers.
The unique and patented design creates maximum spread and applies even force. The Tri-Section Plate can be mounted behind the inner and outer bearing ring. This prevents the pulling force from being transmitted through the moving parts, so the bearing is not damaged.

User friendly
- The unique design with hinge mechanism ensures maximum spread.
- Thanks to the Tri-Section Plate, the force is distributed evenly, so the bearing cannot bend or deform.
- Suitable for all 3-arm pullers.
- Available in a wide range, covering the most common shaft sizes.
- The Tri-section Plate consists of 4 different models suitable for shaft-mounted bearings from 26 to 495 mm.









Type	Art. no.	Cap. tons	Spread mm		B mm	C mm	D mm	E	F mm	G mm	H mm	Weight kg
			Min. A1	Max. A2								
Tri-section 160	791160	6	26	160	216	105	240	5/8”-11UNC	8	2	6.5	3.5
Tri-section 210	791210	8	50	210	280	117	285	7/8”-14UNF	10	2	9	5.5
Tri-section 340	791340	20	90	340	460	175	430	1 1/4”-12UNF	14	2	8	18
Tri-section 495	791495	30	140	495	660	235	610	1 1/4”-12UNF	20	2	12	45

Mobile hydraulic pullers

BETEX Mobipuller, hydraulic mobile puller

25 tons

50 tons

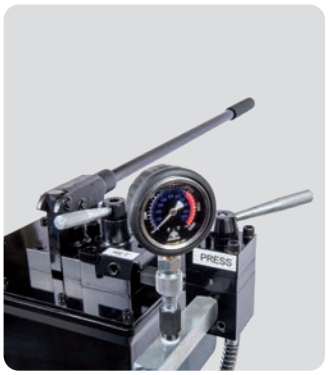




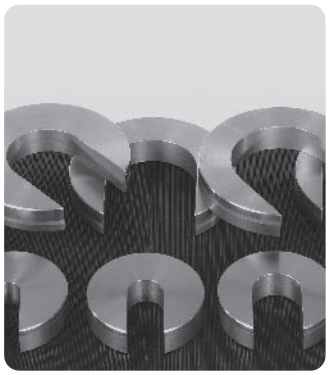
Double-acting electrical



Single-acting electrical



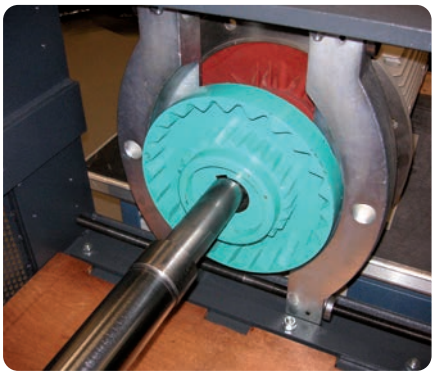
Single-acting manual



Option: adapters for inner rings, etc.

BETEX Mobipullers

For heavy-duty dismounting jobs. One person can do the job!
BETEX mobile hydraulic pulley puller quickly and easily removes machine parts such as bearings, couplings, bushings, gears, etc. The Mobipuller excels in functional and ergonomic handling. It is stable, mobile and adjustable in height. An operating pressure of up to 25 and 50 tons can be applied, at an opening of 430 mm.
To ensure safe and easy operation, the electrical versions are supplied with remote control.

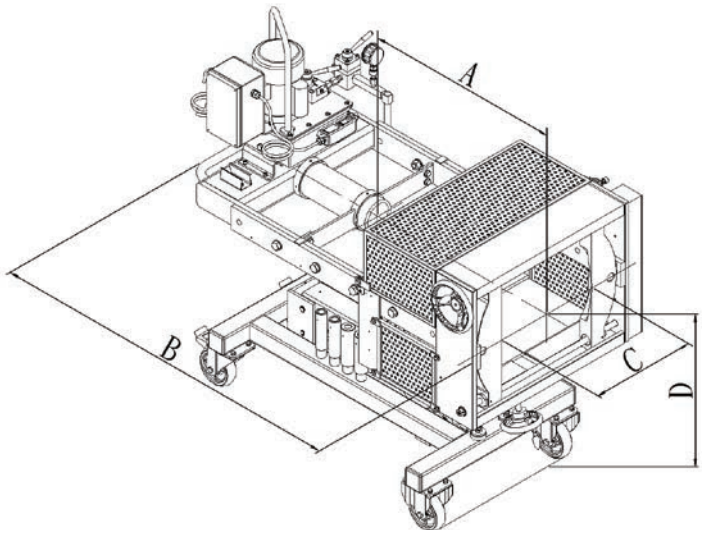






All models are equipped as standard with:
- Overload protection.
- Oil-filled pressure gauge.
- 4 adapters (extensions): 2 x Ø40 mm and 2 x Ø50 mm.
- 4 stable wheels with polyurethane tyres.
- 2 castor wheels with double-functioning brake.
- Safety cage.
- Dimensions LxWxH: 1570x990x1510 mm.
- The press frame can be extended in 2 steps of 190 mm each

Advantages
- ✓ Mobile
- ✓ Can be used when there is little space behind the workpiece
- ✓ One person can do the job
- ✓ Extra safe thanks to the safety cage



Type	Art. no.	Cap. tons	Cylinder stroke	Pump	A mm	B mm	C mm	D mm	Weight kg
25 HV 430 S 260	700001	25	260	single acting manual	770	1560	430	900/1430	415
25 EVA 430 S 260*	700002	25	260	single acting electrical, BETEX EP18S 230V**	770	1560	430	900/1430	430
50 HV 430 S 260	700003	50	260	single acting manual	740	1560	430	900/1430	435
50 EVA 430 S 260*	700004	50	260	single acting electrical, BETEX EP18S 230V**	740	1560	430	900/1430	450
50 EVA 430 S 340*	700005	50	340	single acting electrical, BETEX EP18S 230V**	660	1560	430	900/1430	455
50 EVAD 430 S 340*	700006	50	340	doucle acting electrical, BETEX EP18D 230V**	615	1560	430	900/1430	470
50 EVAD 430 S 460*	700007	50	460	double acting electrical, BETEX EP18D 230V**	470	1560	430	900/1430	485

** incl. remote control **optional 120V*

Mobile hydraulic puller

BETEX HXPC 2/3-arm puller, self-centering, with crane

50 tons

self-centering





Valve block



Adapters

BETEX HXPC 50 2/3-arm

For dismounting of all kinds of transmission parts such as bearings, couplings, gear wheels, wheels, etc.

- The puller is self-centering, easy to manoeuvre and adjustable in height. The puller is easy to convert into a 2- or 3-arm version. The arms slide inwards or outwards simultaneously.
- The stronger the pulling force, the tighter the jaws grip around the workpiece. Bending or deflecting is impossible.
- Integral safety release valve prevents overload and ensures that you never exceed the maximum force.
- Can be used in any position.
- Remote control included.
- Safety blanket included.

Operation

- An electrohydraulic 230V-700 bar pump operates the cylinder and the crane. This is a 2-stage pump with an output of 2.8 litres per minute at 7 bar counter pressure.
- The design prevents the puller arms from slipping or deflecting from behind the workpiece.
- The crane has 2 castor wheels and 2 fixed wheels.
- A hydraulic single-acting cylinder with max. operating pressure of 700 bar (50 tons).
- The total stroke is 159 mm. Two adapters (extensions) are included, with a total length of 310 mm.

Also available without crane,
HXP503 on page 68.



Advantages of unique self-centering pullers:

- ✓ The arms slide inwards or outwards simultaneously.
- ✓ Prevents damage to shaft and object being pulled.
- ✓ Can be operated by one person.
- ✓ Work efficiently and save time.

Type	HXPC 50
Art. no.	700016
Capacity tons	50
Max. stroke mm	159
Max. spread mm	860
Min. spread mm	160
Max. shaft length mm	455
Operation	Electrical, BETEX EP18S, 230V
Operation of self-centering jaws	manual
2 adapters, total length: 310 mm	1 x Ø 40: length 155, 1 x Ø 50: length 155
Min. height from centre mm	210
Max. height from centre mm	1550
Pressure gauge bar	700
Dimensions mm LxWxH	1850 x 970 x 1550
Weight kg	280

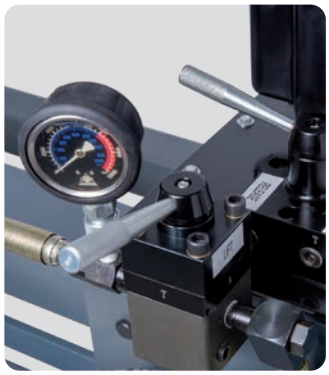
Mobile hydraulic puller

BETEX HXPM 50, 2-arm puller, self-centering

50 tons

self-centering





Valve block



Adapters

BETEX HXPM 50 2-arm

For dismounting of all kinds of transmission parts such as bearings, couplings, gear wheels, wheels, etc.

- The puller is self-centering, easy to manoeuvre and adjustable in height. The arms slide inwards or outwards simultaneously.
- The stronger the pulling force, the tighter the jaws grip around the workpiece. Bending or deflecting is impossible.
- Integral safety release valve prevents overload and ensures that you never exceed the maximum force.
- Remote control included.
- 4 adapters included.
- Safety blanket included.

Operation

- Double-acting cylinder for clasping, opening and closing the arms, for a safe and secure grip on the workpiece.
- An electrohydraulic 230V-700 bar pump operates the cylinder and the height adjustment. This is a 2-stage pump with an output of 2.8 litres/minute at 7 bar counter pressure.
- The design prevents the puller arms from slipping or deflecting.
- The mobile frame has 2 castor wheels (with brake) and 2 fixed wheels.
- The hydraulic single-acting cylinder has max. operating pressure of 700 bar (50 tons).
- The total stroke is 330 mm. Four adapters (extensions) are included, with a total length of 620 mm.

Advantages of unique self-centering pullers:

- ✓ The arms slide inwards or outwards simultaneously.
- ✓ Prevents damage to shaft and object being pulled.
- ✓ Can be operated by one person.
- ✓ Work efficiently and save time.

Type	HXPM 50 2-jaw
Art. no.	700019
Capacity tons	50
Max. stroke mm	330
Max. spread mm	1250
Min. spread mm	200
Max. shaft length mm	780
Operation	Electrical, BETEX EP18S, 230V
Operation of self-centering jaws	hand pump, double acting
4 adapters, total length: 620 mm	2 x Ø 40: length 155, 2 x Ø 50: length 155
Min. height from centre mm	310
Max. height from centre mm	1045
Pressure gauge bar	700
Dimensions mm LxWxH	2700 x 655 x 900
Weight kg	315

Mobile hydraulic pullers

BETEX HXPM 50, 2/3-arm puller, self-centering

50 tons

self-centering





Valve block



Adapters

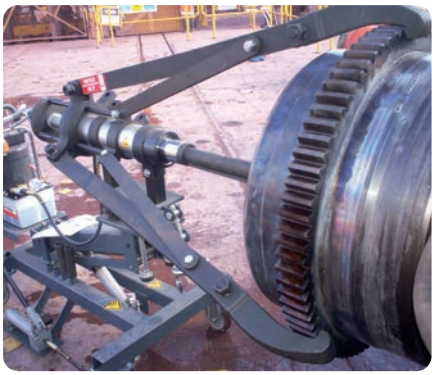


HXPM 50 2/3-arm SHORT



HXPM 50 2/3-arm LONG

BETEX HXPM 50 2/3-arm



For dismounting of all kinds of transmission parts such as bearings, couplings, gear wheels, wheels, etc.

- The puller is self-centering, easy to manoeuvre and adjustable in height. The arms slide inwards or outwards simultaneously.
- The stronger the pulling force, the tighter the jaws grip around the workpiece. Bending or deflecting is impossible.
- Integral safety release valve prevents overload and ensures that you never exceed the maximum force.
- Remote control included.
- Safety blanket included.

Operation

- Double-acting cylinder for clasping, opening and closing the arms, for a safe and secure grip on the workpiece.
- An electrohydraulic 230V-700 bar pump operates the cylinder and the height adjustment. This is a 2-stage pump with an output of 4.2 litres/minute at 7 bar counter pressure.
- The design prevents the puller arms from slipping or deflecting from behind the workpiece.
- The puller is easy to convert into a 2-arm or 3-arm version.
- The puller is vertically adjustable by 5°.
- The mobile frame has 2 castor wheels (with brake) and 2 fixed wheels.
- A hydraulic single-acting cylinder with max. operating pressure of 700 bar (50 tons).
- The total stroke is 330 mm. Four adapters (extensions) are included, with a total length of 620 mm.

Advantages of unique self-centering pullers:

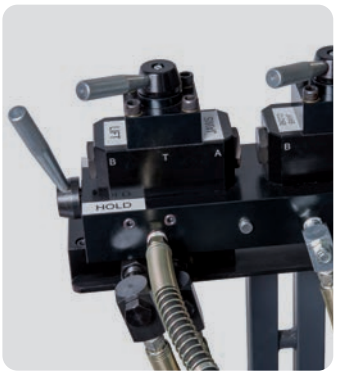
- ✓ The arms slide inwards or outwards simultaneously.
- ✓ Prevents damage to shaft and object being pulled.
- ✓ Can be operated by one person.
- ✓ Work efficiently and save time.

Type	HXPM 50 2/3-arm SHORT	HXPM 50 2/3-arm LONG
Art. no.	700017	700014
Capacity tons	50	50
Max. stroke mm	330	330
Max. spread mm	950	1250
Min. spread mm	200	200
Max. shaft length mm	500	780
Operation	Electrical, BETEX EP18S, 230V	Electrical, BETEX EP18S, 230V
Operation of self-centering jaws	Hand pump, double acting	Hand pump, double acting
4 adapters, total length: 620 mm	2 x Ø 40: length 155, 2 x Ø 50: length 155	2 x Ø 40: length 155, 2 x Ø 50: length 155
Min. height from centre mm	820	820
Max. height from centre mm	1370	1370
Pressure gauge bar	700	700
Dimensions mm LxWxH	2245 x 800 x 1155	2545 x 800 x 1155
Weight kg	385	400

Mobile hydraulic puller

BETEX HXPM 100, 2-arm puller, self-centering





Valve block



Adapters



Adjustable jaw tips for more grip

BETEX HXPM 100 2-arm

For dismounting of all kinds of transmission parts such as bearings, couplings, gear wheels, wheels, etc.

- The puller is self-centering, easy to manoeuvre and adjustable in height. The arms slide inwards or outwards simultaneously.
- The stronger the pulling force, the tighter the jaws grip around the workpiece. Bending or deflecting is impossible.
- Integral safety release valve prevents overload and ensures that you never exceed the maximum force.
- Remote control included.
- Blanket included.

Operation

- Double-acting cylinder for clasping, opening and closing the arms, for a safe and secure grip on the workpiece.
- An electrohydraulic 400V-700 bar pump operates the cylinder, height adjustment and arms. This is a 2-stage pump with an output of 9.5 litres/minute at 7 bar counter pressure.
- The design prevents the puller arms from slipping or deflecting.
- The mobile frame has 2 castor wheels (with brake) and 2 fixed wheels.
- A hydraulic single-acting cylinder with max. operating pressure of 700 bar (100 tons).
- The total stroke is 270 mm. Seven adapters (extensions) are included, with a total length of 1125 mm.
- Adjustable jaw tips for optimum grip.

Use in combination with UHAP 2800 high-pressure air pump on page 133.

Advantages of unique self-centering pullers:

- ✓ The arms slide inwards or outwards simultaneously.
- ✓ Prevents damage to shaft and object being pulled.
- ✓ Can be operated by one person.
- ✓ Work efficiently and save time.

Type	HXPM 100 2-jaw
Art. no.	700021
Capacity tons	100
Max. stroke mm	270
Max. spread mm	1500
Min. spread mm	300
Max. shaft length mm	1220
Operation	Electrical, BETEX EP420D, 400V
7 adapters, total length: 1125 mm	2 x Ø 70: length 300, 2 x Ø 70: length 150, 1 x Ø 70: length 100, 1 x Ø 70: length 75, 1 x Ø 70: length 50
Min. height from centre mm	320
Max. height from centre mm	790
Pressure gauge bar	700
Dimensions mm LxWxH	2915 x 1035 x 1350
Weight kg	870

Mobile hydraulic puller

BETEX HXPM 100, 2/3-arm puller, self-centering

100 tons

self-centering





Valve block



Pump detail



Adjustable jaw tips for more grip

BETEX HXPM 100 2/3-arm

For dismounting of all kinds of transmission parts such as bearings, couplings, gear wheels, wheels, etc.

- The puller is self-centering, easy to manoeuvre and adjustable in height. The puller is easy to convert into a 2- or 3-arm version. The arms slide inwards or outwards simultaneously.
- The stronger the pulling force, the tighter the jaws grip around the workpiece. Bending or deflecting is impossible.
- Integral safety release valve prevents overload and ensures that you never exceed the maximum force.
- Remote control included.

Operation

- Double-acting cylinder for clasping, opening and closing the arms for a steady grip on the workpiece.
- An electrohydraulic 400V-700 bar pump operates the cylinder. This is a 2-stage pump with an output of 9.5 litres per minute at 7 bar counter pressure.
- The design prevents the puller arms from slipping or deflecting from behind the workpiece.
- The puller is vertically adjustable by 5°.
- The mobile frame has 2 castor wheels (with brake) and 2 fixed wheels.
- A hydraulic single-acting cylinder with max. operating pressure of 700 bar (100 tons).
- The total stroke is 270 mm. Seven adapters (extensions) are included, with a total length of 1125 mm.
- Adjustable jaw tips for optimum grip.

Use in combination with UHAP 2800 high-pressure air pump on page 133.



Advantages of unique self-centering pullers:

- ✓ The arms slide inwards or outwards simultaneously.
- ✓ Prevents damage to shaft and object being pulled.
- ✓ Can be operated by one person.
- ✓ Work efficiently and save time.

Type	HXPM 100 - 2/3-jaw
Art. no.	700015
Capacity tons	100
Max. stroke mm	270
Max. spread mm	1500
Min. spread mm	300
Max. shaft length mm	1220
Operation	Electrical, BETEX EP420D, 400V
7 adapters, total length: 1125 mm	2 x Ø 70: length 300, 2 x Ø 70: length 150, 1 x Ø 70: length 100, 1 x Ø 70: length 75, 1 x Ø 70: length 50
Min. height from centre mm	820
Max. height from centre mm	1320
Pressure gauge bar	700
Dimensions mm LxWxH	2915 x 1035 x 1350
Weight kg	1120

Mobile hydraulic puller

BETEX HXPM 150, 3-arm puller, self-centering

150 tons

self-centering





Valve block



Pump block



Adapters



Adjustable jaw tips for more grip

BETEX HXPM 150 3-arm

For dismounting of all kinds of transmission parts such as bearings, couplings, gear wheels, wheels, etc.

- The puller is self-centering, easy to manoeuvre and adjustable in height. The arms slide inwards or outwards simultaneously.
- The stronger the pulling force, the tighter the jaws grip around the workpiece. Bending or deflecting is impossible.
- Integral safety release valve prevents overload and ensures that you never exceed the maximum force.
- Remote control included.

Operation

- Double-acting cylinder for clasping, opening and closing the arms, for a safe and secure grip on the workpiece.
- An electrohydraulic 400V-700 bar pump operates the cylinder. This is a 2-stage pump with an output of 9.5 litres/minute at 7 bar counter pressure.
- The design prevents the puller arms from slipping or deflecting.
- The mobile frame has 2 castor wheels (with brake) and 2 fixed wheels.
- A hydraulic double-acting cylinder with max. operating pressure of 700 bar (150 tons).
- The total stroke is 330 mm. Seven adapters (extensions) are included, with a total length of 1125 mm.
- Adjustable jaw tips for extra grip.

Use in combination with UHAP 2800 high-pressure air pump on page 133.



Advantages of unique self-centering pullers:

- ✓ The arms slide inwards or outwards simultaneously.
- ✓ Prevents damage to shaft and object being pulled.
- ✓ Can be operated by one person.
- ✓ Work efficiently and save time.

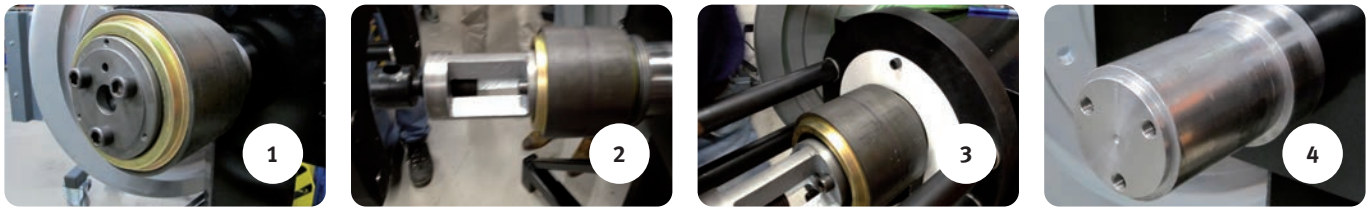
Type	HXPM 150 - 3-arm
Art. no	700025
Capacity tons	150
Max. stroke mm	330
Max. spread mm	1650
Min. spread mm	300
Max. shaft length mm	1175
Operation	Electrical, BETEX EP420D, 400V
7 adapters, total length: 1125mm	2 x Ø 70: length 300, 2 x Ø 70: length 150 1 x Ø 70: length 100, 1 x Ø 70: length 75, 1 x Ø 70: length 50
Min. height from centre mm	830
Max. height from centre mm	1330
Pressure gauge bar	700
Dimensions mm LxWxH	2990 x 1030 x 1390
Weight kg	1223

Mobile hydraulic pullers

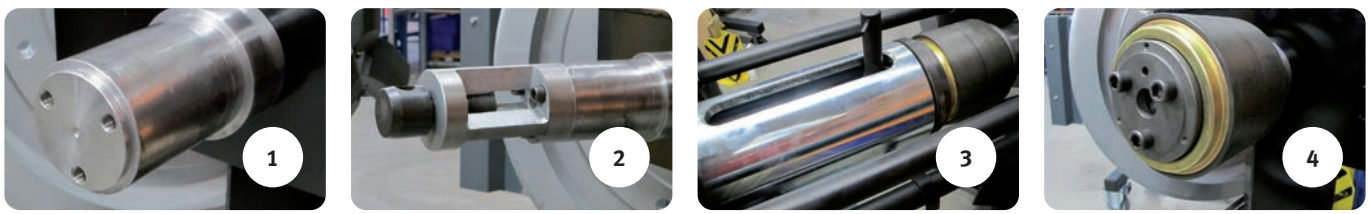
BETEX BPP & BPPS Side Shift Bearing Puller Pusher

100 tons





Step-by-step disassembly of TBU / SP / TAROL bearing sets



Step-by-step assembly of TBU / SP / TAROL bearing set

BETEX BPP & BPPS Side Shift

For mounting and dismounting of rail and metro bearing sets.
Specially for rail and metro workshops. Use the right equipment to remove or install tapered roller bearings. This hydraulic aid will allow you to save valuable time and help you work safely and efficiently. Easy to use roll-around model for both mounting and dismounting.

BETEX BPP & BPPS Side-Shift Bearing Puller Pusher

- Mobile and easy to use by one person
- Suitable for locomotives, passenger and freight cars.
- For safe, simple and fast mounting and dismounting of e.g. TBU, SP and TAROL bearing sets.
- Wide range of accessories available. The accessory sets are available in various sizes, metric and inch versions (housing-type locomotives and passenger cars).
- Pulling capacity (dismounting) 100 t max.
- BBP: Pushing capacity (mounting) adjustable to 68 t max.
- BBPS Side-Shift: Pushing capacity (mounting) adjustable to 100 t max.
- BPPS Side-Shift: Compact and easy to manoeuvre thanks to the 4 caster wheels.
- BPPS Side-Shift: For the different applications (mounting or dismounting) the BPPS must be converted.



Accessory set

Request our questionnaire for sound advice and price estimates.

To order the correct accessory set for bearings (housing-type locomotives and passenger cars), please provide us with the following information:

- Bearing number and manufacturer number
- Drawing of bearing and shaft

Pump
You can choose from 2 models, which are equipped with a manual valve (BETEX EP211D) or a solenoid valve (BETEX EP211DS).



Type	BPP 100	BPPS 100 Side-Shift
Art. no.	700018: incl. manual valve / excl. acc. 700020: incl. solenoid valve / excl. acc.	700023: incl. manual valve / excl. acc. 700024: incl. solenoid valve / excl. acc.
Pulling capacity, dismantling tons	max. 100 t	max. 100 t
Pushing capacity, mounting tons	adjustable to 68 t max.	max. 100 t
Max. stroke mm	392	255
Max. shaft diameter mm	Depending on acc.	Depending on acc.
Min. shaft diameter mm	Depending on acc.	Depending on acc.
Main cylinder operation & height adjustment	electro-hydraulic pump BETEX EP211D / EP211DS, 230V, 12A, 50Hz with remote control	electro-hydraulic pump BETEX EP211D / EP211DS, 230V, 12A, 50Hz with remote control
Min. height from centre to floor mm	370	384
Max. height from centre to floor mm	1050	731
Gauge bar	700	700
4 wheels	2 fixed wheels, 2 castor wheels	4 castor wheels
Dimensions mm LxWxH	2210 x 652 x 900	1299 x 627 x 909
Weight kg	560	400

Put together the right hydraulic set

Selecting the right cylinder, pump and accessories

A hydraulic set always comprises a cylinder, pump and accessories. By answering a few questions, we will put together the right combination for you. Depending on the desired application and use, many combinations are possible.







Step 1

Choose a hydraulic cylinder that suits the application best. What you need to consider:

- How many cylinders are required for this application?
  What push or pull tonnage is required per cylinder?
  - Note: always choose a cylinder with a capacity at least 20% more than what is needed.
- Does the cylinder need to be massive or hollow?
- Which stroke is required?
- Does the cylinder need to fit within limited-clearance work areas? What are the installation dimensions?
- Must the cylinder push, pull or both?
  - Single acting cylinders push
  - Double acting cylinders push and pull
- Is the weight of the cylinder important and affecting material choice: steel or aluminium?

Good to know

- Cylinders with swivel caps are available if the cylinder needs to withstand off-center loads. (JLLC series, NSSS 10, 25 ton)
- Locking collars are available if the lifted load needs to be supported for longer periods of time.

Step 2

Choose a hydraulic pump, that matches the selected cylinder, consider:

- Do you prefer a hand, foot, air, or electric powered pump?
- How much oil capacity is needed? (= oil capacity X number of cylinders)
- How fast must the pump be?
- What is the frequency of the application?
- Single-acting or double-acting?
- Is the weight of the pump important?
- Available air or electric supply?

Step 3

Choose necessary hydraulic accessories, consider:

- Required hose length and number
- Coupling sets for coupling and uncoupling
- Pressure gauge with T-adapter
- Manifolds
- Extra hydraulic oil

Put together the right hydraulic kit

Finding the right pump and cylinder combination

When looking for a suitable pump for a cylinder, the (usable) oil capacity should be considered. The usable oil capacity should always exceed the capacity of the cylinder.

Four scenarios are depicted below to explain the principle.

Suitable combination

Because the usable oil capacity of the pump is GREATER than the total oil capacity of the cylinder, this combination CAN be used.

BETEX AHP 702
Usable oil cap.: 750 cm^3



BETEX NSHS 603
Total oil cap.: 680 cm^3



Unsuitable combination

Because the usable oil capacity of the pump is LESS than the total oil capacity of the two cylinders, this combination can NOT be used.

BETEX AHP 702
Usable oil cap.: 750 cm^3



2x BETEX NSHS 603
Total oil cap.: 1360 cm^3



Suitable combination

Because the usable oil capacity of the pump is GREATER than the total oil capacity of the two cylinders, this combination CAN be used.

BETEX HC 2000
Usable oil cap.: 1800 cm^3



2x BETEX NSCS 502
Total oil cap.: 858 cm^3



Unsuitable combination

Because the usable oil capacity of the pump is LESS than the total oil capacity of the cylinder, this combination can NOT be used.

BETEX AHP 701
Usable oil cap.: 350 cm^3



BETEX NSCS 502
Total oil cap.: 429 cm^3

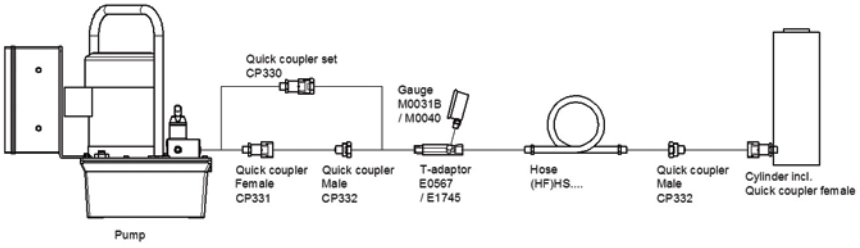


Put together the right hydraulic kit

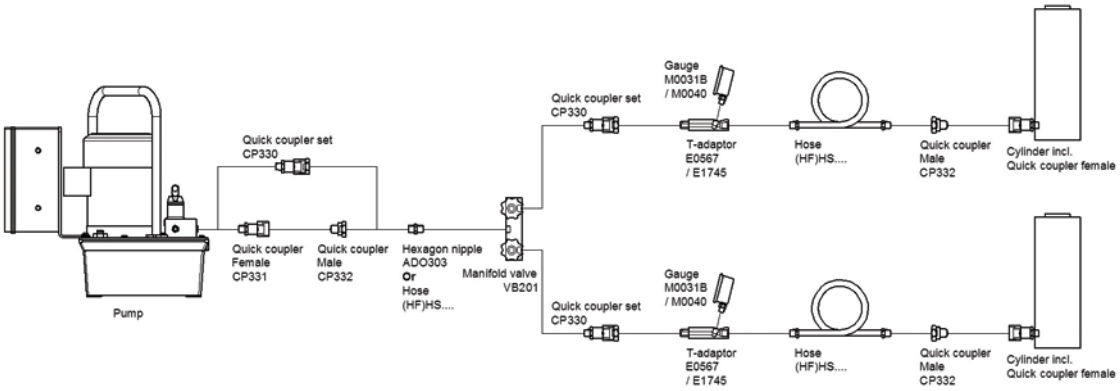
Examples of configurations

In every situation, a certain configuration is required to ensure that the hydraulic oil is used properly and safely. A number of configurations are shown below for different pump-cylinder combinations.

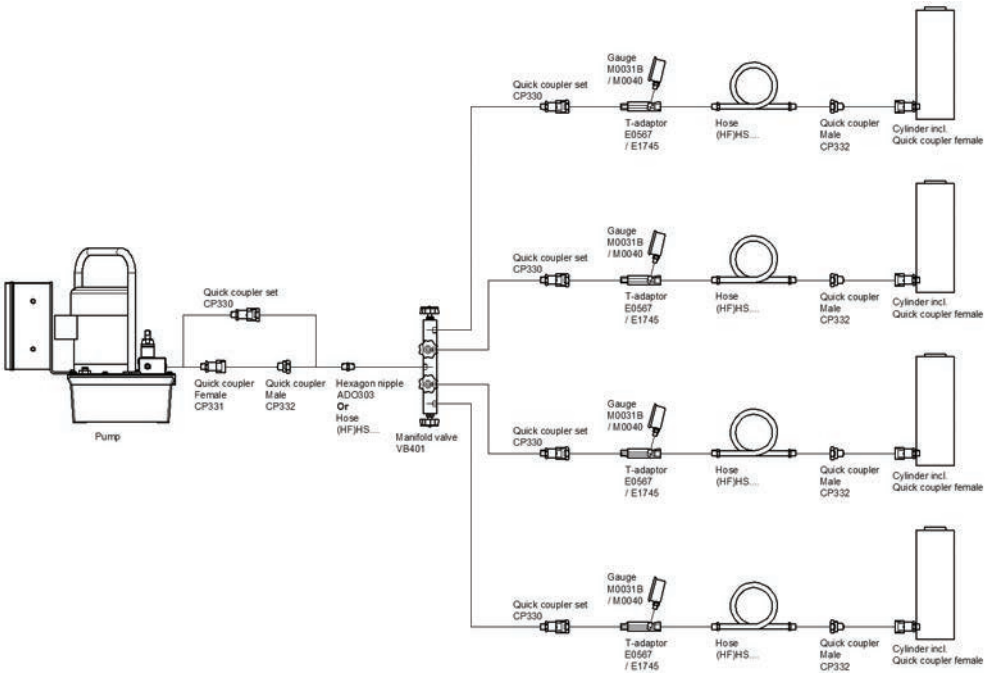
BETEX EP 18S + single-acting cylinder



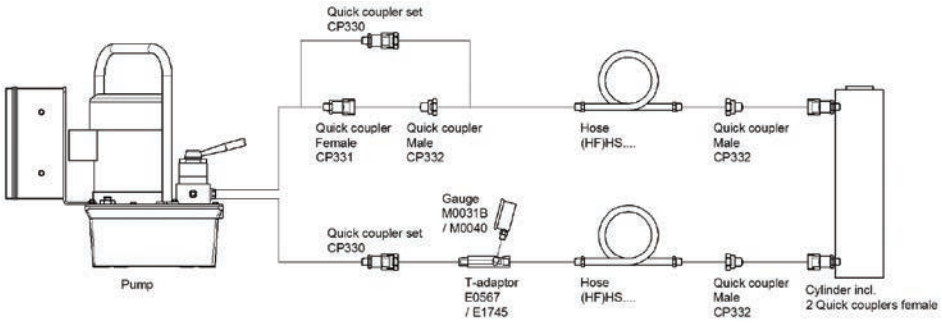
BETEX EP 18S + VB 201 + 2 single-acting cylinders



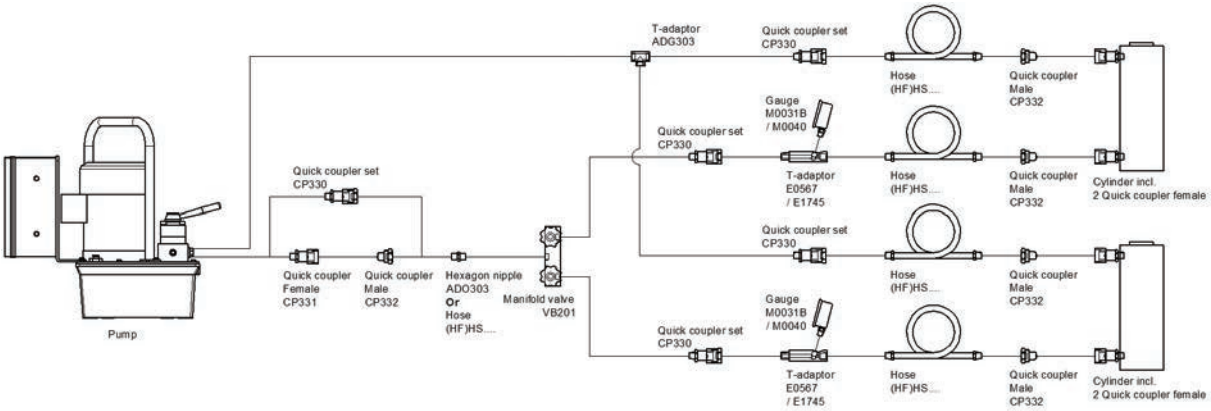
BETEX EP 18S + VB 401 + 4 single-acting cylinders



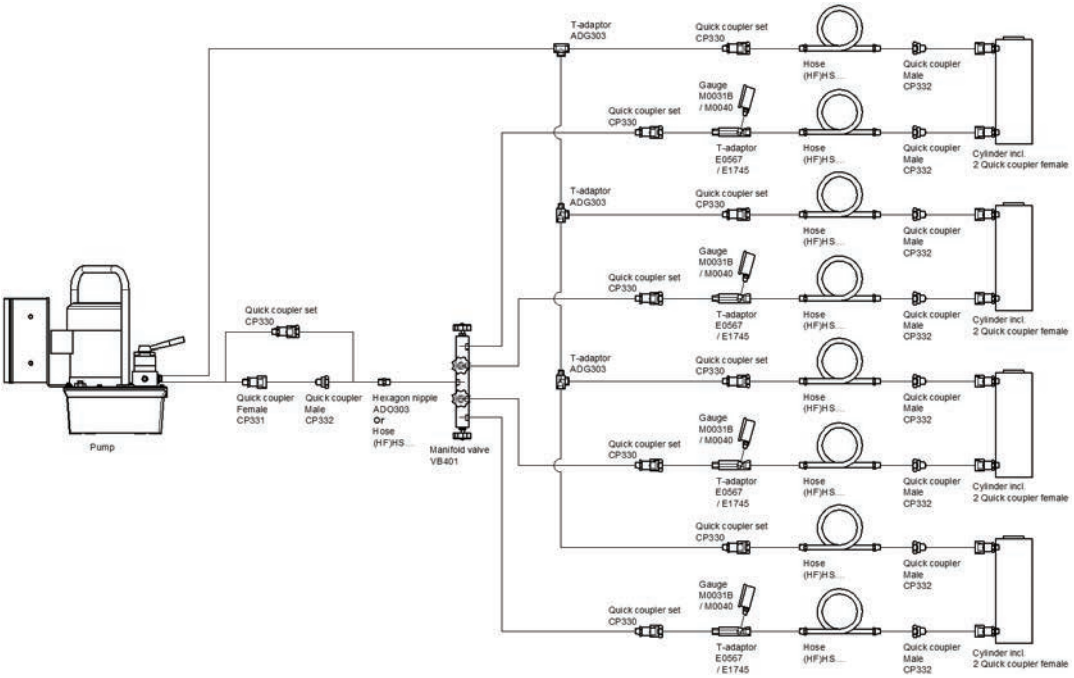
BETEX EP 18D + 1 double-acting cylinder



BETEX EP 18D + VB 201 + 2 double-acting cylinders

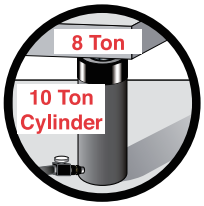


BETEX EP 18D + VB 401 + 4 double-acting cylinders

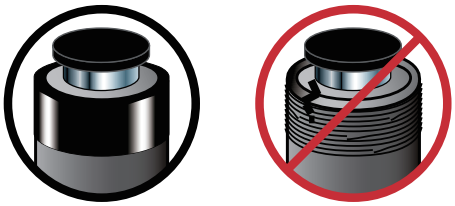


Safety tips

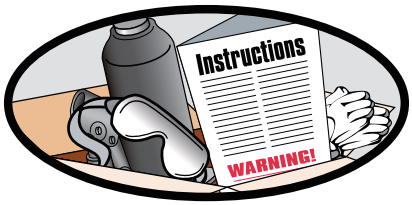
1. Choose the right cylinder
You must know the weight of what you intend to lift and choose a cylinder with at least 20% more capacity. Be aware of possible load shift requiring more capacity at any particular lifting point.



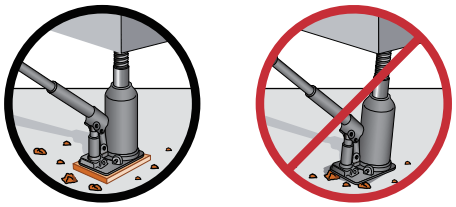
2. Check each component
Check each component before you set up your hydraulic system. Do not use damaged or worn components. Hand them in for repair or replacement.



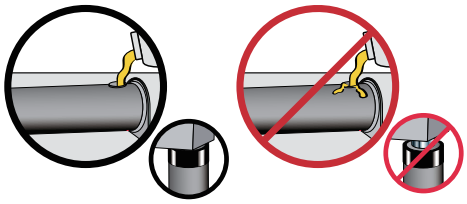
3. Safety instructions
Read all warning labels and instructions. Operating instructions must be understood before using equipment. Never remove labels from equipment. Replace missing, worn or damaged labels. Always wear safety goggles and protective clothing when using hydraulic equipment.



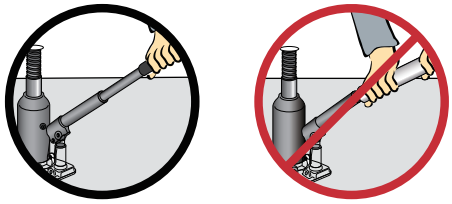
4. Properly and fully support each cylinder at its base
Every cylinder, whether used individually or in a system, should be completely supported on a solid, firm, non-sliding foundation capable of supporting the load.



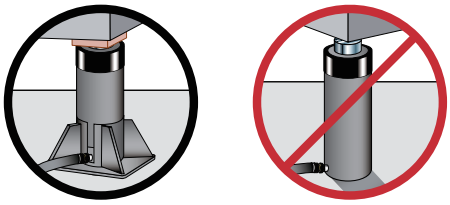
5. Fill oil reservoirs with cylinder retracted
Fill pump to the recommended level. Only fill the reservoir when the connected cylinder is fully retracted.



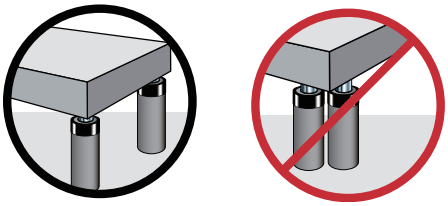
6. Know how your hydraulics work
Do not place any additional weight on the hydraulic cylinder or the hand pump to be able to increase the load.



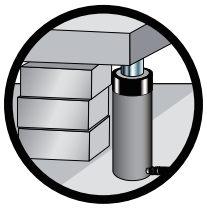
7. Center the load on the lifting point
The load must be centred on the cylinder, or equally distributed to multiple cylinders. Off-center loading can result in the load slipping and being lost.



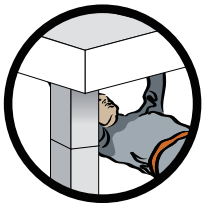
8. Distribute the load evenly when using multiple cylinders
For multiple cylinder lifts, you must be able to determine the location and number of lifting points that will allow the load to be evenly distributed to all the cylinders. This is called load balance. Size, center of gravity and load geometry must be considered in order to correctly determine load balance.

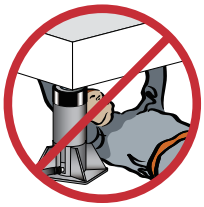


9. Support the load
Place blocking or cribbing under the load as you raise it. Insert more blocks as you raise the load. Position yourself in a manner that will keep you clear of the load and will prevent your hands or other body parts from being crushed between the load and blocks.

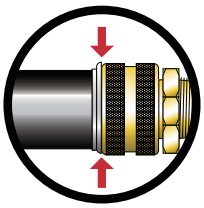


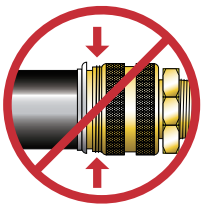
10. Do not use cylinders as permanent supports
Hydraulic cylinders are not meant to be used as permanent supports, but are designed to lift and lower a load. Blocks or BETEX cylinders with locknut should be used if the lifted load needs to be supported for longer periods of time.



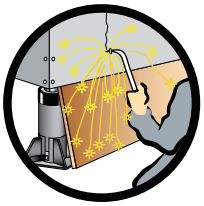


11. Connecting the hydraulics
When making connections with quick couplers, make sure the couplings are fully engaged. Threaded connections, such as fittings, gauges, etc., must be securely tightened and leak free. Never use excessive tightening force. This may distort the fittings or strip the thread profile.



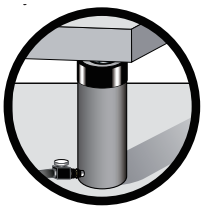


12. Avoid extreme heat or weld splatter
Weld splatter will damage plunger rods and hoses. Hydraulic fluid can ignite if vaporized or exposed to high temperatures.





13. Disconnecting the hydraulics
Never attempt to disconnect hydraulic hoses, fittings or couplers under pressure. Unload the cylinder, open the release screw on the hand pump and operate all hydraulic controls several times. If the system includes a pressure gauge, double-check the gauge to ensure pressure has been completely released



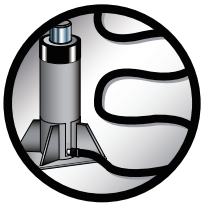


14. Do not move the pump by pulling at the hose
Dragging or carrying the pumps by a connected hose can damage the couplers and hoses. Using damaged couplers and hoses can be dangerous.





15. Keep hydraulic hoses free of obstructions
Do not drop sharp or heavy objects on the hose. Keep the hose out of heavy traffic areas. Avoid internal damage to hoses. Applying pressure to a damaged hose may cause it to rupture. Avoid sharp bends and kinks when routing hydraulic hoses.





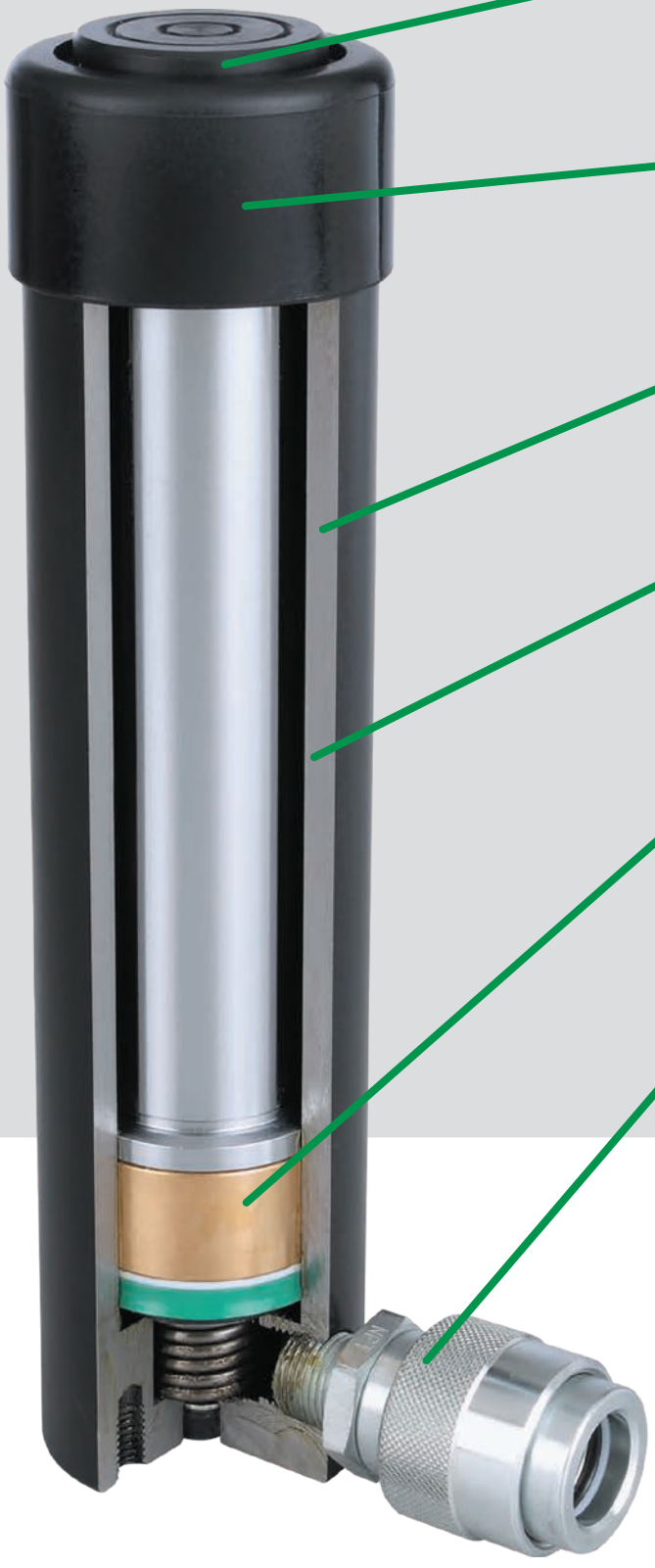
Explanation of cylinders

Features:

- ✓ BETEX® offers a wide selection of cylinder designs, capacities and strokes to match your day-to-day requirements.
- ✓ Built for heavy-duty industrial use. All BETEX® cylinders meet worldwide safety standards.
- ✓ Stop rings, plated pistons and heavy-duty construction provide trouble-free operation and a long service life.
- ✓ Heavy-duty, wound steel-plated springs provide fast and complete retraction, cycle after cycle, and retain their tension longer. Long-lasting springs contribute substantially to the cylinder's service life.
- ✓ Threaded collars and internal plunger threads withstand full loading for maximum flexibility in mounting.
- ✓ All BETEX® cylinders incorporate a positive piston stop to limit piston travel at the end of the stroke, allowing the cylinder to be operated at full stroke. Piston stops add strength and safety.
- ✓ Rod wiper cleans the rod surface during retraction, protecting the inner cylinder assembly from dirt, moisture and other contaminants.
- ✓ BETEX® steel cylinders have a black nitride coating that provides the cylinder with durable protection against dirt, moisture and other contaminants. All aluminium cylinders have a hard anodized finish.

Read more in section "Put together the right hydraulic set" starting on page 90

Series	Description	Type	Capacity tons	Stroke mm
NSSS	General purpose, spring return	Single-acting	4.5-100	25.4-406
NSLS	Compact, spring return	Single-acting	5-150	6-17
NSCS	Compact, spring return	Single-acting	10-100	38-62
NSHS	Hollow, spring return	Single-acting	12-100	8-160
JLLC	Pan lock nut, load return	Single-acting	50-1000	50-300
JLPC	Pan lock nut, load return	Single-acting	60-520	45-50
NDAC	General purpose	Double acting	10-100	150-470
NDAH	Hollow	Double acting	30-100	76-257
SSA	Aluminium, spring return	Single-acting	20-100	50-250
ACHC	Aluminium, hollow, spring return	Single-acting	30-60	50-150
ADHC	Aluminium, hollow	Double acting	30-60	50-250
ALNC	Aluminium, lock nut, load return	Single-acting	20-100	50-25



Stop rings for piston blow-out protection.

Heavy-duty, heat-treated, grooved cap.

Hard chrome-plated piston rods – resistant to scoring and corrosion.

Heavy-duty cylinder bodies – precision polished bore minimises friction and wear.

Brazing finish on piston rod for side load protection and long life.

High-quality high-flow couplers with dust cap.

Standard cylinders

BETEX NSSS series, spring-return, single-acting



4.5 - 100
capacity ton

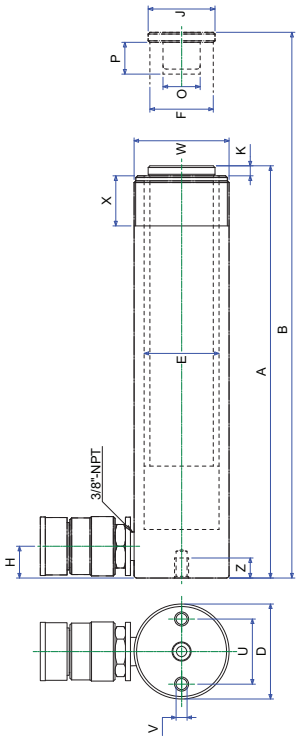
25.4 - 406
stroke mm

700
max. operating pressure bar

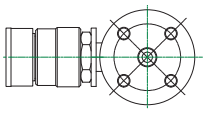
Use in combination with our hydraulic pumps and accessories.

BETEX NSSS series

- All cylinders are single-acting with spring-return.
- Pistons are hard chromed.
- Ram inside roll-polished.
- Exterior blasted with black nitride coating.
- Female coupler and dust cap included with all models.



NSSS 51 - NSSS 7513



NSSS 1006 - NSSS 10010

Type	Art. no.	Cap. ton	Stroke mm	Oil cap. cm³	Install. height mm		D mm	E ø mm	F ø mm	H mm	J mm	K mm	O ø un	P mm	U mm	V ø unc	W ø unc	X mm	Z mm	Weight kg
					A	B														
					Min.	Max.														
NSSS 51	8230051	4.5	26	17	110	136	38	28.6	25.4	19	25	6	3/4"-16	14	25	1/4"-20	1 1/2"-16	28	14	1
NSSS 53	8230053	5	76	54	165	241	38	30	25.4	19	25	6	3/4"-16	14	25	1/4"-20	1 1/2"-16	28	14	1.5
NSSS 55	8230055	5	127	90	216	343	38	30	25.4	19	25	6	3/4"-16	14	25	1/4"-20	1 1/2"-16	28	14	1.9
NSSS 57	8230057	5	183	129	273	456	38	30	25.4	19	25	6	3/4"-16	16	25	1/4"-20	1 1/2"-16	28	14	2.4
NSSS 59	8230059	5	232	164	324	556	38	30	25.4	19	25	6	3/4"-16	16	25	1/4"-20	1 1/2"-16	28	14	2.8
NSSS 101	8230101	10	25.4	36.5	90	115.4	57	42.8	38	19	-	-	10-24	6.5	39	5/16"-18	2 1/4"-14	30	13	1.8
NSSS 102	8230102	10	51	73	121	172	57	42.8	38	19	40	6	1"-8	19	39	5/16"-18	2 1/4"-14	30	13	2.3
NSSS 104	8230104	10	101	145	171	272	57	42.8	38	19	40	6	1"-8	19	39	5/16"-18	2 1/4"-14	30	13	3.3
NSSS 106	8230106	10	152.5	242	247	399.5	57	45	38	19	40	6	1"-8	19	39	5/16"-18	2 1/4"-14	30	13	4.4
NSSS 108	8230108	10	203.5	323	298	501.5	57	45	38	19	40	6	1"-8	19	39	5/16"-18	2 1/4"-14	30	13	5.4
NSSS 1010	8231010	10	255.5	406	350	605.5	57	45	38	19	40	6	1"-8	19	39	5/16"-18	2 1/4"-14	30	13	6.4
NSSS 1012	8231012	10	305.5	486	400	705.5	57	45	38	19	40	6	1"-8	19	39	5/16"-18	2 1/4"-14	30	13	6.8
NSSS 1014	8231014	10	356.5	567	451	807.5	57	45	38	19	40	6	1"-8	19	39	5/16"-18	2 1/4"-14	30	13	8.2
NSSS 151	8230151	15	26.5	63	124	150.5	73	55	40	19	38	9.6	1"-8	25.4	47.7	3/8"-16	2 3/4"-16	30	13	3.3
NSSS 152	8230152	15	52.5	125	149.6	202.1	73	55	40	19	38	9.6	1"-8	25.4	47.7	3/8"-16	2 3/4"-16	30	13	4.1
NSSS 154	8230154	15	102.5	243	200	302.5	73	55	40	19	38	9.6	1"-8	25.4	47.7	3/8"-16	2 3/4"-16	30	13	5.0
NSSS 156	8230156	15	153	363	271.6	424.6	73	55	40	25	38	9.6	1"-8	25.4	47.7	3/8"-16	2 3/4"-16	30	13	6.8
NSSS 158	8230158	15	203.5	483	322	525.5	73	55	40	25	38	9.6	1"-8	25.4	47.7	3/8"-16	2 3/4"-16	30	13	8.2
NSSS 1510	8231510	15	254.5	604	373	627.5	73	55	40	25	38	9.6	1"-8	25.4	47.7	3/8"-16	2 3/4"-16	30	13	9.5
NSSS 1512	8231512	15	305	724	424	729	73	55	40	25	38	9.6	1"-8	25.4	47.7	3/8"-16	2 3/4"-16	30	13	10.9
NSSS 1514	8231514	15	355.7	845	474.6	830.3	73	55	40	25	38	9.6	1"-8	25.4	47.7	3/8"-16	2 3/4"-16	30	13	11.8
NSSS 1516	8231516	15	406	824	523	929	73	55	40	25	38	9.6	1"-8	25.4	47.7	3/8"-16	2 3/4"-16	30	13	12.8
NSSS 251	8230251	25	25.5	98	139.5	165	88	70	55	25	50	10.5	1 1/2"-16	25.4	58	1/2"-13	3 5/16"-12	50	19	5.9
NSSS 252	8230252	25	51	196	165	216	88	70	55	25	50	10.5	1 1/2"-16	25.4	58	1/2"-13	3 5/16"-12	50	19	6.4
NSSS 254	8230254	25	102	392	216	318	88	70	55	25	50	10.5	1 1/2"-16	25.4	58	1/2"-13	3 5/16"-12	50	19	8.2
NSSS 256	8230256	25	158.5	610	273	431.5	88	70	55	25	50	10.5	1 1/2"-16	25.4	58	1/2"-13	3 5/16"-12	50	19	10
NSSS 258	8230258	25	209.5	806	324	533.5	88	70	55	25	50	10.5	1 1/2"-16	25.4	58	1/2"-13	3 5/16"-12	50	19	12.2
NSSS 2510	8232510	25	260.5	1002	375	636.5	88	70	55	25	50	10.5	1 1/2"-16	25.4	58	1/2"-13	3 5/16"-12	50	19	14.1
NSSS 2512	8232512	25	311	1196	425.5	736.5	88	70	55	25	50	10.5	1 1/2"-16	25.4	58	1/2"-13	3 5/16"-12	50	19	16.3
NSSS 2514	8232414	25	361.5	1390.5	476	837.5	88	70	55	25	50	10.5	1 1/2"-16	25.4	58	1/2"-13	3 5/16"-12	50	19	17.7
NSSS 308	8230308	30	209.5	925	387.5	597	103	75	60	57	50	10.5	1 1/2"-16	25.4	-	-	4"-12	50	-	18.1
NSSS 502	8230502	50	51	361	177	228	127	95	80	33	70	3	-	-	95	1/2"-13	5"-12	55	19	15
NSSS 504	8230504	50	101.5	719	229	330.5	127	95	80	33	70	3	-	-	95	1/2"-13	5"-12	55	19	19.1
NSSS 506	8230506	50	157.5	1116	283	440.5	127	95	80	33	70	3	-	-	95	1/2"-13	5"-12	55	19	23.1
NSSS 508	8230508	50	203	1446	349	552	127	95	80	33	70	3	-	-	95	1/2"-13	5"-12	55	19	27.1
NSSS 5010	8235010	50	260	1853	385	645	127	95	80	33	70	3	-	-	95	1/2"-13	5"-12	55	19	30.4
NSSS 5013	8235013	50	335.5	2377	461	796.5	127	95	80	33	70	3	-	-	95	1/2"-13	5"-12	55	19	37.6
NSSS 756	8230756	75	155	1752	285	440	152	120	95	30	70	3	-	-	-	-	5 3/4"-12	45	-	29.5
NSSS 7513	8237513	75	333.5	3770	491	824.5	152	120	95	30	70	3	-	-	-	-	5 3/4"-12	45	-	59
NSSS 1006	8231006	100	170	2432	358	528	177	135	105	40	70	3	-	-	139	3/4"-10	6 7/8"-12	45	25	59
NSSS 10010	82310010	100	260	3720	448	708	177	135	105	40	70	3	-	-	139	3/4"-10	6 7/8"-12	45	25	72.6

Flat cylinders

BETEX NSLS series, flat, low height, spring-return, single-acting



5 - 150
capacity ton

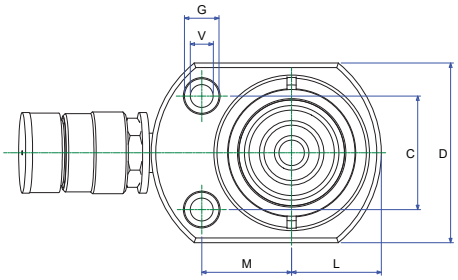
6 - 17
stroke mm

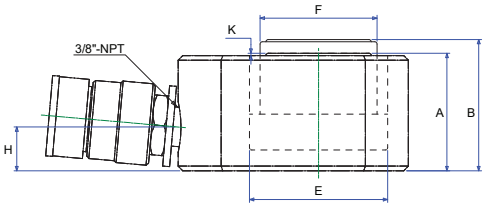
700
max. operating pressure bar

Use in combination with our hydraulic pumps and accessories.

BETEX NSLS series

- Suitable in confined spaces in combination with a long stroke.
- All cylinders are single-acting with spring-return.
- Pistons are hard chromed.
- Ram inside roll-polished.
- Exterior blasted with black nitride coating.
- Female coupler and dust cap included with all models.





Type	Art. no.	Cap. ton	Stroke mm	Oil cap. cm³	Install. height mm		C mm	D1 mm	D2 mm	E ø mm	F ø mm	G ø mm	H mm	K mm	L mm	M mm	V ø mm	Weight kg
					A	B												
					Min.	Max.												
NSLS 50	8210050	5	6	4.5	33	39	28.5	58.5	44	31	25.4	9.5	16	1	22	22	5.3	1.0
NSLS 100	8210100	10	12	18.0	42	54	36.5	82.5	60	44	38	11	19	1	30	34	7.5	1.4
NSLS 200	8210200	20	12	34.0	51	63	49.3	100	78	60	50.8	15	19	1	39	39	10	3.1
NSLS 300	8210300	30	13	54.0	58	71	52.3	117.5	95	73	63.5	16	19	2	47.5	47.5	10	4.5
NSLS 500	8210500	50	16	113.0	66	82	66.5	145	115	95	70	19	19	2	57.5	58	11	6.8
NSLS 750	8210750	75	16	180.0	79	95	76.2	170	145	120	82.5	20.5	19	2	72.5	70	13.5	11.3
NSLS 1000	8211000	100	16	229.0	85	101	76.2	185	160	135	92	20.5	19	2	80	78	13.5	14.5
NSLS 1500	8211500	150	17	363.0	100	117	117	225	195	165	115	20.5	23	2	97.5	85	13.5	26.3

Flat cylinders

BETEX NSLS series, telescopic, load-return, single-acting





10+5 and 20+10
capacity ton

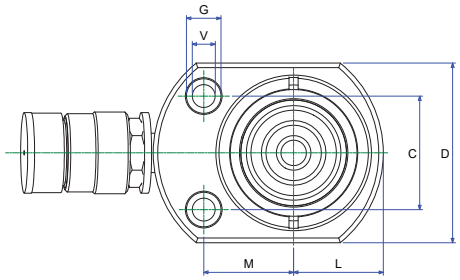
13
stroke mm

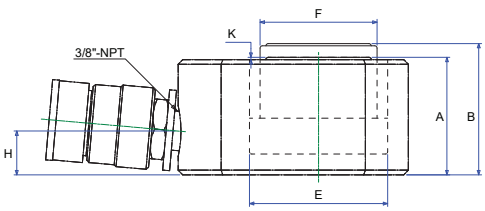
700
max. operating pressure bar

Use in combination with our hydraulic pumps and accessories.

BETEX NSLS telescopic series

- Suitable in confined spaces in combination with a long stroke.
- 2 different tonnages 10+5 and 20+10.
- All cylinders are single-acting with load-return.
- Pistons are hard chromed.
- Ram inside roll-polished.
- Exterior blasted with black nitride coating.
- Female coupler and dust cap included with all models.





Type	Art. no.	Cap. ton		Stroke mm		Oil cap. cm^3	Install. height mm A	B	C mm	D mm	E ø mm	F ø mm	G ø mm	H mm	K mm	L mm	M mm	V ø mm	Weight kg
		1st	2nd	1st	2nd		Min.	Max.											
NSLS 10-05	8211505	10	5	12	13	29	42	67	36.5	82,5x60	44	38	11	19	1	30	34	7.5	1.6
NSLS 20-10	8211510	20	10	12	13	55	51	76	49.3	100x78	60	50.8	15	19	1	39	39	10	2.6

Compact cylinders

BETEX NSCS series, short stroke, spring-return, single-acting



10 - 100
capacity ton

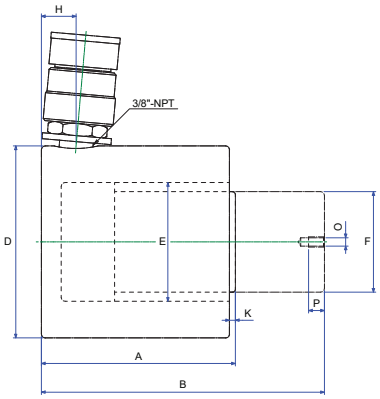
38 - 62
stroke mm

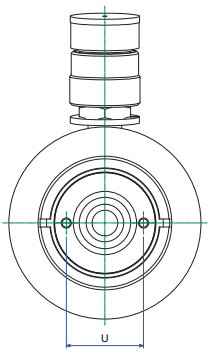
700
max. operating pressure bar

Use in combination with our hydraulic pumps and accessories.

BETEX NSCS series

- All cylinders are single-acting with spring-return.
- Pistons are hard chromed.
- Ram inside roll-polished.
- Exterior blasted with black nitride coating.
- Female coupler and dust cap included with all models.





Type	Art. no.	Cap. ton	Stroke mm	Oil cap. cm³	Install. height mm A	Install. height mm B	D mm	E ø mm	F ø mm	H mm	K mm	O ø mm	P ø mm	U mm	Weight kg
					Min.	Max.									
NSCS 101	8220101	10	38	55.0	88	126	78	42.8	38	17.5	5	M4	8	26	4.1
NSCS 201	8220201	20	45	127.0	98	143	97	60	50.8	17.5	3	M5	9	39	5.0
NSCS 302	8220302	30	62	274.0	117	179	107	75	63.5	19	3	M5	8	39	6.8
NSCS 502	8220502	50	60.5	429.0	127	187,5	127	95	70	19	2	M5	8	39	10.9
NSCS 1002	8221002	100	58	830.0	146,5	204,5	165	135	92	19	1.5	M8	10	55	22.7

Hollow cylinders

BETEX NSHS series, spring-return, single-acting



12 - 100
capacity ton

8 - 160
stroke mm

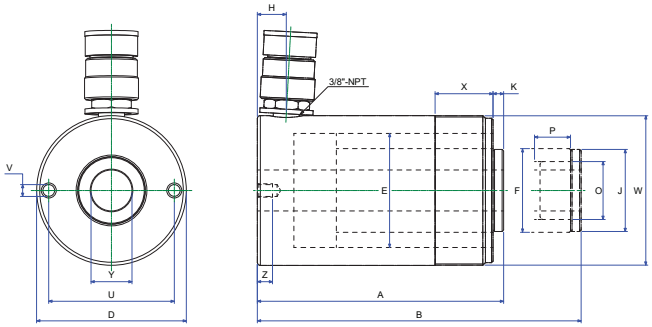
700
max. operating pressure bar

Use in combination with our hydraulic pumps and accessories.

BETEX NSHS series

- All cylinders are single-acting with spring-return.
- Pistons are hard chromed.
- Ram inside roll-polished.
- Exterior blasted with black nitride coating.
- Female coupler and dust cap included with all models.





Cylinder bore

Type	Art. no.	Cap. ton	Stroke mm	Oil cap. cm³	Install. height mm A Min.	Install. height mm B Max.	D ø mm	E ø mm	F ø mm	H mm	J mm	K mm	O ø mm	P mm	U mm	V ø mm	W ø mm	X mm	Y ø mm	Z mm	Weight kg
NSHS 120	8240120	12	8	14.8	60	68	73	54.1	35	12.5	-	-	3/4"-16	16	50.8	5/16"-18	2 3/4"-16	33	19.5	9	1.5
NSHS 121	8240121	12	42	79	120	162	73	55	35	19	-	-	-	-	50.8	5/16"-18	2 3/4"-16	33	19.5	12.7	3
NSHS 123	8240123	12	76	143.2	184	260	73	55	35	19	-	-	-	-	50.8	5/16"-18	2 3/4"-16	33	19.5	12.7	4.2
NSHS 202	8240202	20	51	173	162	213	98.5	75	55	19	54	7	1 9/16"-16	25	82.6	3/8"-16	3 7/8"-12	38	27	9.4	7.5
NSHS 206	8240206	20	155	527	306	461	98.5	75	55	19	54	7	1 9/16"-16	25	82.6	3/8"-16	3 7/8"-12	38	27	9.4	13.5
NSHS 302	8240302	30	65	310	178.5	243.5	117	90	65	21.5	59.9	0.5	1 7/8"-16	25	92	3/8"-16	4 1/2"-12	42	34	14	11
NSHS 306	8240306	30	160	763	330	490	117	90	65	21.5	59.9	0.5	1 7/8"-16	25	92	3/8"-16	4 1/2"-12	42	34	14	20.4
NSHS 603	8240603	60	76	680	247.5	323.5	158.6	125	90	32	89	12.5	2 3/4"-16	25	130	1/2"-13	6 1/4"-12	50	54	14	26.4
NSHS 606	8240606	60	152	1360	323.5	475.5	158.6	125	90	32	89	12.5	2 3/4"-16	25	130	1/2"-13	6 1/4"-12	50	54	14	34
NSHS 1003	8241003	100	76	1085	254	330	213	165	125	38	125	12	4"-16	30	178	5/8"-11	8 3/8"-12	60	79	19	50.1

Cylinders with locknut

BETEX JLLC series, high tonnage, load return, single acting



50 - 1000
capacity ton

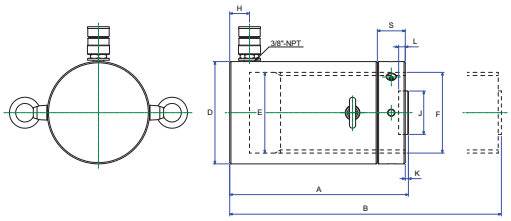
50 - 300
stroke mm

700
max. operating pressure bar

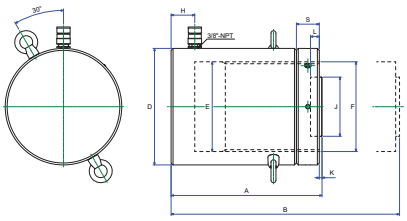
Use in combination with our hydraulic pumps and accessories.

BETEX JLLC series

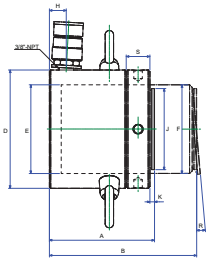
- All cylinders are single-acting with load-return.
- With locknut for positive and safe load holding over a long period of time.
- Chrome plated to prevent corrosion and to lower friction for smoother operation.
- Resistant to lateral loading up to 5% of the indicated cylinder capacity without scratching.
- Stop ring for piston blow-out protection.
- Interchangeable, hardened, grooved saddle as standard.
- High-flow coupler and dust cap included with all models.
- Female coupler and dust cap included with all models.
- Cylinders inside roll-polished, outside blasted with black nitride coating.



JLLC 50-200T model



JLLC 300-1000T model



Optional Tilt Saddle (TSA)

Type	Art. no.	Cap. ton	Stroke mm	Oil cap. cm³	Install. height mm		D ø mm	E ø mm	F mm	H mm	J mm	K mm	L mm	S mm	Weight kg	Optional Tilt Saddle		
					A	B												
					Min.	Max.										J1 mm	K1 mm	Type
JLLC 502	7200001	50	50	354.5	164	214	125	95	Tr95x4	20	70	4	13	35	15	70	22	TSA-100
JLLC 506	7200002	50	150	1063.5	264	414	125	95	Tr95x4	20	70	4	13	35	25	70	22	TSA-100
JLLC 5010	72000043	50	250	1772.5	364	614	125	95	Tr95x4	20	70	4	13	35	35	70	22	TSA-100
JLLC 1002	7200004	100	50	665	187	237	165	130	Tr130x4	32	70	4	13	45	30	70	22	TSA-100
JLLC 1006	7200005	100	150	1995	287	437	165	130	Tr130x4	32	70	4	13	45	48	70	22	TSA-100
JLLC 10010	7200006	100	250	3325	387	637	165	130	Tr130x4	32	70	4	13	45	64	70	22	TSA-100
JLLC 1502	7200007	150	50	1005	209	259	205	160	Tr160x6	49	125	4	25	45	53	125	20	TSA-200
JLLC 1506	7200008	150	150	3015	309	459	205	160	Tr160x6	49	125	4	25	45	78	125	20	TSA-200
JLLC 15012	7200009	150	300	6030	459	759	205	160	Tr160x6	49	125	4	25	45	117	125	20	TSA-200
JLLC 2002	7200010	200	50	1345	243	293	235	185	Tr185x6	52	125	4	25	50	83	125	20	TSA-200
JLLC 2006	7200011	200	150	4035	343	493	235	185	Tr185x6	52	125	4	25	50	117	125	20	TSA-200
JLLC 20012	7200012	200	300	8070	493	793	235	185	Tr185x6	52	125	4	25	50	170	125	20	TSA-200
JLLC 3002	7200013	300	50	2167.5	295	345	305	235	Tr235x6	62	160	5	25	60	173	195	75	TSA-300
JLLC 3006	7200014	300	150	6502.5	395	545	305	235	Tr235x6	62	160	5	25	60	233	195	75	TSA-300
JLLC 30012	7200015	300	300	13005	545	845	305	235	Tr235x6	62	160	5	25	60	323	195	75	TSA-300
JLLC 4002	7200016	400	50	2755	335	385	355	265	Tr265x6	76	160	5	25	70	250	225	85	TSA-400
JLLC 4006	7200017	400	150	8265	435	585	355	265	Tr265x6	76	160	5	25	70	327	225	85	TSA-400
JLLC 40012	7200018	400	300	16530	585	885	355	265	Tr265x6	76	160	5	25	70	441	225	85	TSA-400
JLLC 5002	7200019	500	50	3532.5	375	425	395	300	Tr300x6	81	180	5	25	80	367	250	90	TSA-500
JLLC 5006	7200020	500	150	10597.5	475	625	395	300	Tr300x6	81	180	5	25	80	466	250	90	TSA-500
JLLC 50012	7200021	500	300	21195	625	925	395	300	Tr300x6	81	180	5	25	80	617	250	90	TSA-500
JLLC 6002	7200022	600	50	4274	395	445	425	330	Tr330x6	89	195	5	25	85	446	275	95	TSA-600
JLLC 6006	7200023	600	150	12823	495	645	425	330	Tr330x6	89	195	5	25	85	562	275	95	TSA-600
JLLC 60012	7200024	600	300	25646	645	945	425	330	Tr330x6	89	195	5	25	85	737	275	95	TSA-600
JLLC 8002	7200025	800	50	5970	455	505	505	390	Tr390x6	105	225	5	25	100	709	320	120	TSA-800
JLLC 8006	7200026	800	150	17910	555	705	505	390	Tr390x6	105	225	5	25	100	870	320	120	TSA-800
JLLC 80012	7200027	800	300	35820	705	1005	505	390	Tr390x6	105	225	5	25	100	1110	320	120	TSA-800
JLLC 10002	7200028	1000	50	7257	495	545	555	430	Tr430x6	108	250	5	25	110	949	360	135	TSA-1000
JLLC 10006	7200029	1000	150	21772	595	745	555	430	Tr430x6	108	250	5	25	110	1141	360	135	TSA-1000
JLLC 100012	7200030	1000	300	43544	745	1045	555	430	Tr430x6	108	250	5	25	110	1430	360	135	TSA-1000

Cylinders with locknut

BETEX JLPC series, high tonnage, load return, compact, single acting





60 - 250
capacity ton

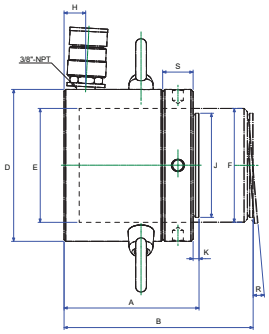
45 - 50
stroke mm

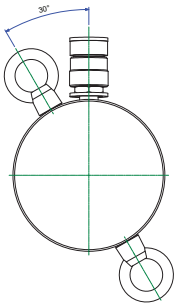
700
max. operating pressure bar

Use in combination with our hydraulic pumps and accessories.

BETEX JLPC series

- All cylinders are single-acting with load-return.
- Extremely low height for use in confined spaces.
- With locknut for positive and safe load holding over a long period of time.
- Chrome plated to prevent corrosion and to lower friction for smoother operation.
- Resistant to lateral loading up to 3% of the indicated cylinder capacity without scratching.
- Pressure relief valve port functions as a stroke limiter.
- Female coupler and dust cap included with all models.
- Cylinders inside roll-polished, outside blasted with black nitride coating.





Type	Art. no.	Cap. ton	Stroke mm	Oil cap. cm³	Install. height mm A	Install. height mm B	D mm	E ø mm	F ø mm	H mm	J ø mm	K mm	R mm	S mm	Weight kg
					Min.	Max.									
JLPC 602	7200031	60	50	433	124	174	140	105	Tr105x6	20	96	5	5°	28	15
JLPC 1002	7200032	100	50	715	137	187	175	135	Tr135x6	21	126	8	5°	31	26
JLPC 1502	7200033	150	45	963	148	193	220	165	Tr165x6	27	150	9	5°	40	44
JLPC 2002	7200034	200	45	1273.5	155	200	245	190	Tr190x6	30	180	10	5°	43	57
JLPC 2502	7200035	250	45	1633	159	204	275	215	Tr215x6	32	200	11	5°	44	74

Aluminium cylinders

BETEX ADHC series, hollow, double-acting



30 - 60
capacity ton

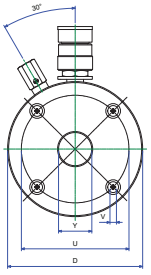
50 - 250
stroke mm

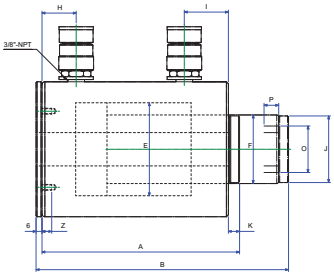
700
max. operating pressure bar

Use in combination with our hydraulic pumps and accessories.

BETEX ADHC series

- Considerably lighter than steel cylinders
- Hard-anodized coating reduces wear and corrosion.
- Stop rings for piston blow-out protection.
- Rod wiper protects inner cylinder from dirt.
- Female coupler and dust cap included with all models.
- Models are fitted with handles as standard.
- Mounting holes base plate: M6 (V), 10 mm deep (Z).





Cylinder bore

Type	Art. no.	Cap. ton	Stroke mm	Cap. tons		Oil cap. cm³		Install. height mm		D ø mm	E ø mm	F ø mm	H mm	I mm	J ø mm	K mm	P mm	O ø mm	U mm	Y ø mm	Weight kg
								A	B												
				Push	Pull	Push	Pull	Min.	Max.												
ADHC 302	7200050	30	50	38.5	22.7	275	162	202	252	138	95	70	35	45	68	11.5	25	1 7/8"-16	110	34	9,6
ADHC 306	7200051	30	150	38.5	22.7	825	486	327	477	138	95	70	35	45	68	11.5	25	-	110	34	14,8
ADHC 3010	7200052	30	250	38.5	22.7	1374	810	430	680	138	95	70	35	45	68	11.5	25	-	110	34	16
ADHC 602	7200053	60	50	62.6	31	448	221	250	300	200	125	100	50	50	89	14	25	2 3/4"-16	160	54	15.5
ADHC 606	7200054	60	150	62.6	31	1342	662	350	500	200	125	100	50	50	89	14	25	-	160	54	23
ADHC 6010	7200055	60	250	62.6	31	2237	1104	433	683	200	125	100	50	50	89	14	25	-	160	54	30.5

Aluminium cylinders

BETEX ACHC series, hollow, spring-return, single-acting



30 - 60
capacity ton

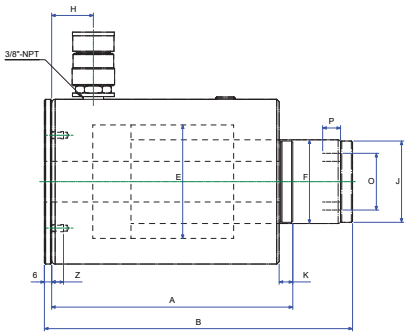
50 - 150
stroke mm

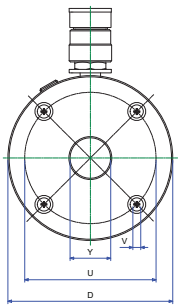
700
max. operating pressure bar

Use in combination with our hydraulic pumps and accessories.

BETEX ACHC series

- Considerably lighter than steel cylinders
- All cylinders are single-acting with spring-return.
- Chrome plated center hole for extra protection.
- Large piston surface for side load protection.
- Hard-anodized coating reduces wear and corrosion.
- Stop rings for piston blow-out protection.
- Female coupler and dust cap included with all models.
- Rod wiper protects inner cylinder from dirt.
- Carrying handles on some models.
- Mounting holes base plate: M6 (V), 10 mm deep (Z).





Cylinder bore

Type	Art. no.	Cap. ton	Stroke mm	Oil cap. cm³	Install. height mm A	Install. height mm B	D ø mm	E ø mm	F ø mm	H mm	J ø mm	K mm	O ø mm	U mm	Y ø mm	Weight kg
					Min.	Max.										
ACHC 302	7200046	30	50	275	202	252	138	95	70	35	68	11.5	1 7/8"-16	110	34	10
ACHC 306	7200047	30	150	825	327	477	138	95	70	35	68	11.5	-	110	34	14
ACHC 602	7200048	60	50	448	250	300	200	125	100	50	89	14	2 3/4"-16	160	54	19.5
ACHC 606	7200049	60	150	1342	350	500	200	125	100	50	89	14	-	160	54	25

Aluminium cylinders

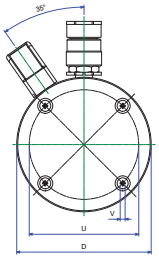
BETEX SSA series, spring-return, single-acting

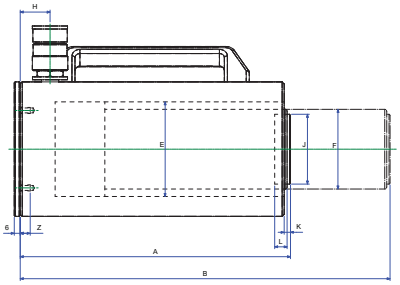


20 - 100
capacity ton

50 - 250
stroke mm

700
max. operating pressure bar





BETEX SSA series

- Considerably lighter than steel cylinders
- All cylinders are single-acting with spring-return.
- Large saddle surface for absorbing lateral loads.
- Special O-ring protects inside from dirt
- Hard-anodized coating reduces wear and corrosion.
- Female coupler and dust cap included with all models.
- Models are fitted with handles as standard.
- Mounting holes base plate: M6 (V), 10 mm deep (Z).

Type	Art. no.	Cap. ton	Stroke mm	Oil cap. cm³	Install. height mm A	Install. height mm B	D ø mm	E ø mm	F ø mm	H ø mm	J ø mm	K mm	L mm	U mm	Weight kg
					Min.	Max.									
SSA 202	725202	20	50	166	168	218	92	65	55	25	40	3	9	70	4.3
SSA 204	725204	20	100	332	218	318	92	65	55	25	40	3	9	70	5
SSA 206	725206	20	150	498	268	418	92	65	55	25	40	3	9	70	5.7
SSA 208	725208	20	200	664	318	518	92	65	55	25	40	3	9	70	6.5
SSA 302	725302	30	50	221	175	225	110	75	60	25	40	3	9	80	6
SSA 304	725304	30	100	442	225	325	110	75	60	25	40	3	9	80	6.9
SSA 306	725306	30	150	663	275	425	110	75	60	25	40	3	9	80	7.9
SSA 308	725308	30	200	884	325	525	110	75	60	25	40	3	9	80	8.8
SSA 502	725502	50	50	354.5	171	221	135	95	80	30	70	6	12	110	7.7
SSA 504	725504	50	100	709	221	321	135	95	80	30	70	6	12	110	9.1
SSA 506	725506	50	150	1063.5	271	421	135	95	80	30	70	6	12	110	11.7
SSA 508	725507	50	200	1418	321	521	135	95	80	30	70	6	12	110	13.5
SSA 5010	7251007	50	250	1772.5	371	621	135	95	80	30	70	6	12	110	16.4
SSA 1002	7251002	100	50	715	185	235	200	135	105	45	70	6	12	160	17.2
SSA 1004	7251004	100	100	1430	235	335	200	135	105	45	70	6	12	160	21
SSA 1006	7251006	100	150	2145	285	435	200	135	105	45	70	6	12	160	25.1
SSA 1008	7251008	100	200	2860	335	535	200	135	105	45	70	6	12	160	28.5
SSA 10010	72510010	100	250	3575	385	635	200	135	105	45	70	6	12	160	30.7

Aluminium cylinders

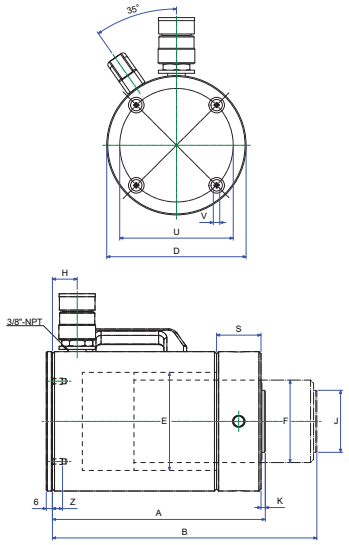
BETEX ALNC series, load-return, single-acting



20 - 100
capacity ton

50 - 250
stroke mm

700
max. operating pressure bar



BETEX ALNC series

- Considerably lighter than steel cylinders
- All cylinders are single-acting with load-return.
- Locknut for positive and safe load holding over a long period of time.
- Large piston surface for side load protection.
- Hard-anodized coating reduces wear and corrosion.
- Female coupler and dust cap included with all models.
- Carrying handles on all models as standard.
- Mounting holes bottom: M6 (V), 10 mm deep (Z).

Type	Art. no.	Cap. ton	Stroke mm	Oil cap. cm³	Install. height mm A	Install. height mm B	D ø mm	E ø mm	F ø mm	H ø mm	J ø mm	K mm	S mm	U mm	Weight kg
					Min.	Max.									
ALNC 202	7201030	20	50	151	212	243	92	62	Tr55x3	25	40	3	25	70	4,8
ALNC 204	7201031	20	100	302	262	343	92	62	Tr55x3	25	40	3	25	70	5,7
ALNC 206	7201032	20	150	453	312	443	92	62	Tr55x3	25	40	3	25	70	6,3
ALNC 208	7201033	20	200	604	412	543	92	62	Tr55x3	25	40	3	25	70	6,9
ALNC 302	7201034	30	50	221	205	255	110	75	Tr60x3	25	40	3	30	80	6,9
ALNC 304	7201035	30	100	442	255	355	110	75	Tr60x3	25	40	3	30	80	7,7
ALNC 306	7201036	30	150	663	305	455	110	75	Tr60x3	25	40	3	30	80	8,6
ALNC 308	7201037	30	200	884	355	555	110	75	Tr60x3	25	40	3	30	80	9,6
ALNC 502	7201038	50	50	354	212	262	135	95	Tr80x4	30	60	3	43	110	9,3
ALNC 504	7201039	50	100	708	262	362	135	95	Tr80x4	30	60	3	43	110	10,7
ALNC 506	7201040	50	150	1062	312	462	135	95	Tr80x4	30	60	3	43	110	14,5
ALNC 508	7201041	50	200	1418	362	562	135	95	Tr80x4	30	60	3	43	110	14,5
ALNC 5010	7201042	50	250	1770	412	662	135	95	Tr80x4	30	60	3	43	110	16,5
ALNC 1002	7201043	100	50	715	235	285	200	135	Tr105x6	45	70	3	51	160	21,9
ALNC 1004	7201044	100	100	1430	285	385	200	135	Tr105x6	45	70	3	51	160	25,2
ALNC 1006	7201045	100	150	2145	335	485	200	135	Tr105x6	45	70	3	51	160	29,2
ALNC 1008	7201046	100	200	2860	385	585	200	135	Tr105x6	45	70	3	51	160	33
ALNC 10010	7201047	100	250	3575	435	685	200	135	Tr105x6	45	70	3	51	160	35,4

Double-acting cylinders

BETEX NDAC series



10 - 100
capacity ton

150 - 470
stroke mm

700
max. operating pressure bar

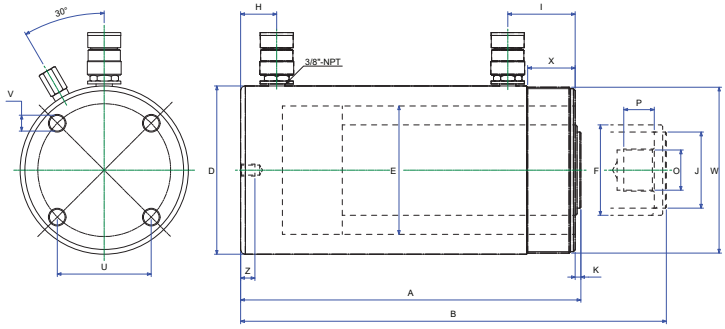
Use in combination with our hydraulic pumps and accessories.

BETEX NDAC series

- All cylinders are double-acting.
- Pistons are hard chromed.
- Ram inside roll-polished.
- Exterior blasted with black nitride coating.
- Female coupler and dust cap included with all models.
- Particularly suitable for construction sites, shipyards, utility companies, mining and maintenance workshops.



Overpressure valve



Type	Art. no.	Cap. ton		Stroke mm	Oil cap. cm³		Install. height mm		D ø mm	E ø mm	F ø mm	H mm	I mm	J ø mm	K mm	O ø mm	P mm	U mm	V ø mm	Z mm	W ø mm	X mm	Weight kg
							A	B															
		Push	Pull		Push	Pull	Min.	Max.															
NDAC 1010	8201010	10	4	251	399	144	408	659	78	45	36	36.5	55	40	8	1”-8	25.4	-	-	-	2¼”-14	27	13
NDAC 1012	8201012	10	4	301	478	172	458	759	78	45	36	36.5	55	40	8	1”-8	25.4	-	-	-	2¼”-14	27	15
NDAC 308	8200308	30	14	209	923	426	387	596	103	75	55	25	75	50	12	1½”-16	25.4	-	-	-	4”-12	50	20
NDAC 3014	8203014	30	14	368	1625	751	547	915	103	75	55	25	75	50	12	1½”-16	25.4	-	-	-	4”-12	50	29
NDAC 506	8200506	50	14	150	1062	309	331	481	127	95	80	30	70	70	5	1”-12	25.4	88,9	5/8”-11	22	5”-12	50	29
NDAC 5013	8205013	50	14	330	2338	680	511	841	127	95	80	30	70	70	5	1”-12	25.4	88,9	5/8”-11	22	5”-12	50	43
NDAC 5018	8205014	50	41	470	3330	968	675	1145	127	95	80	52	70	70	5	1”-12	25.4	88,9	5/8”-11	22	5”-12	50	59
NDAC 756	8200756	75	29.5	155	1752	654	348	503	152	120	95	30	75	70	5	1”-12	38	114,3	3/4”-10	22	5¾”-12	45	40
NDAC 7513	8207513	75	29.5	333	3764	1405	526	859	152	120	95	30	75	70	5	1”-12	38	114,3	3/4”-10	22	5¾”-12	45	58
NDAC 1006	8201006	100	50,6	160	2289	1155	358	518	177	135	95	38	71	80	5	1¾”-12	35	139,7	3/4”-10	25	6⅞”-12	50	59
NDAC 10013	82010013	100	50,6	330	4721	2383	528	858	177	135	95	38	71	80	5	1¾”-12	35	139,7	3/4”-10	25	6⅞”-12	50	83

Double-acting cylinders

BETEX NDAH series, hollow



30 - 100
capacity ton

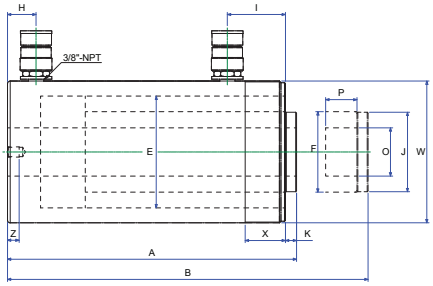
76 - 257
stroke mm

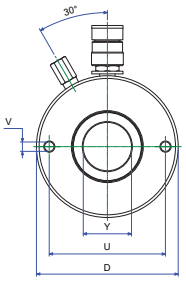
700
max. operating pressure bar

Use in combination with our hydraulic pumps and accessories.

BETEX NDAH series

- All cylinders are double-acting and hollow.
- Pistons are hard chromed.
- Ram inside roll-polished.
- Exterior blasted with black nitride coating.
- Female coupler and dust cap included with all models.
- Particularly suitable for construction sites, shipyards, utility companies, mining and maintenance workshops.





Cylinder bore

Type	Art. no.	Cap. ton		Stroke mm	Oil cap. cm³		Install. height mm		D ø mm	E ø mm	F ø mm	H mm	I mm	J ø mm	K mm	O ø mm	P mm	U mm	V ø mm	Z mm	W ø mm	X mm	Y ø mm	Weight kg
		Push	Pull		Push	Pull	A Min.	B Max.																
NDAH 307	82000307	30	21	178	849	541	330	508	117	90	65	21.5	60.5	60	0.5	1⁷/₈"-16	25	92	³/₈"-16	14	4¹/₂"-12	42	34	22
NDAH 3010	82003010	30	21	257	1226	782	431	688	117	90	65	21.5	60.5	60	10	1⁷/₈"-16	25	92	³/₈"-16	14	4¹/₂"-12	42	34	27
NDAH 603	82000603	60	41	89	797	526	247.5	336.5	158.6	125	90	32	65	89	12.5	2³/₄"-16	25	130	¹/₂"-13	14	6¹/₄"-12	50	54	28
NDAH 606	82000606	60	41	165	1477	975	323.5	488.5	158.6	125	90	32	65	89	12.5	2³/₄"-16	25	130	¹/₂"-13	14	6¹/₄"-12	50	54	35
NDAH 6010	82000550	60	41	257	2300	1518	437.5	694.5	158.6	125	90	32	65	89	12.5	2³/₄"-16	25	130	¹/₂"-13	14	6¹/₄"-12	50	54	45
NDAH 1003	82001003	100	64	76	1086	692	254	330	213	165	125	38	82	125	12	4"-16	30	178	⁵/₈"-11	19	8³/₈"-12	60	79	52
NDAH 1006	82001006	100	64	152	2172	1384	325	477	213	165	125	38	82	125	12	4"-16	30	178	⁵/₈"-11	19	8³/₈"-12	60	79	65
NDAH 10010	82000551	100	64	256	3656	2331	462	718	213	165	125	38	82	125	12	4"-16	30	178	⁵/₈"-11	19	8³/₈"-12	60	79	88

Aluminium hand pumps

BETEX AHP series, lightweight



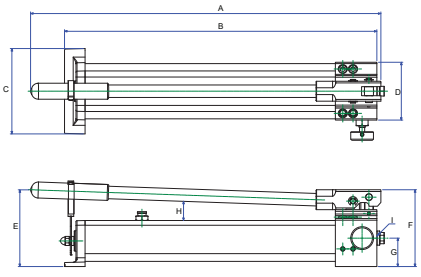
350 - 1620
usable oil-capacity cm³

700
bar

Use in combination with our hydraulic accessories.

BETEX AHP series

- The aluminium alloy and handy release knobs with locking mechanism make these pumps particularly suitable for industrial applications and day-to-day operations.
- Lightweight, so easy to carry and move.
- Two-stage pumps provide rapid pumping to load the cylinder quickly.
- AHP703D is designed especially for double-acting cylinders, without the need for an extra control valve and adapters.
- Automatic overload-relief valve (700 bar) protects components in hydraulic systems and ensures safe operation.
- **Available separately and as a complete set.**



Type	Art. no.	Operating pressure bar		Oil cap. cm³	Usable oil capacity cm³	Oil volume per stroke cm³		A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I	Weight kg
		1st stage	2nd stage			1st stage	2nd stage										
AHP 701	7265500	20	700	500	350	12.9	1.65	391	361	110	77	140	127	42.5	37	³/₈”-NPT	2.3
AHP 702	7265700	20	700	1000	750	12.9	1.65	542	513	110	77	130	127	42.5	37	³/₈”-NPT	3.5
AHP 703	7265750	20	700	2000	1620	12.9	2.3	623	556	150	102	135	135	50	37	³/₈”-NPT	6
AHP 703D	7265760	20	700	2000	1620	12.9	2.3	623	556	150	102	135	135	24/37	37	³/₈”-NPT	7

Steel hand pumps

BETEX PB / HC series, heavy-duty



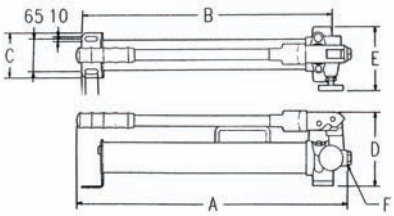
250 - 2200
usable oil-capacity cm³

700
bar

Use in combination with our hydraulic accessories.

BETEX PB / HC series

- Heavy-duty hydraulic hand pumps for the heavy jobs.
- Two-stage pump provides rapid pumping to load the cylinder quickly.
- Low handle effort required for easy operation.
- Automatic overload-relief valve (700 bar) protects components in hydraulic systems and ensures safe operation.
- External control and locking of maximum pressure.
- Our hand pumps are characterised by their rugged construction and easy-operation handles.
- Carrying handle for easy portability.
- The professional choice for a wide range of industrial applications.
- **Available separately and as a complete set.**



Type	Art. no.	Operating pressure bar		Usable oil capacity cm³	Oil volume per stroke cm³		A mm	B mm	C mm	D mm	E mm	F	Weight kg
		1st stage	2nd stage		1st stage	2nd stage							
PB 350	7262350	20	700	250	13.0	2.8	335	303	90	146	128	3/8”-NPT	5.5
PB 600	7262600	20	700	550	13.0	2.8	545	493	90	146	128	3/8”-NPT	7
PB 700	7262700	20	700	640	13.0	2.8	590	541	90	146	128	3/8”-NPT	7.3
HC 1500	72621500	20	700	1200	13.0	2.8	633	551	106	200	142	3/8”-NPT	11.2
HC 2000	72622000	20	700	1800	13.0	2.8	580	523	140	189	148	3/8”-NPT	11.5
HC 2500	72622500	20	700	2200	13.0	2.8	713	632	106	200	142	3/8”-NPT	12

Steel hand pumps

BETEX P 900 series, heavy-duty





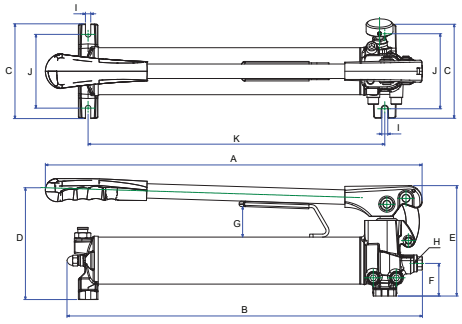

300 - 2500
usable oil-capacity cm³

700
bar

Use in combination with our hydraulic accessories.

BETEX P 900 series

- Heavy-duty hydraulic hand pumps for the heavy jobs.
- Two-stage pump provides rapid pumping to load the cylinder quickly.
- Low handle effort required for easy operation.
- Automatic overload-relief valve (700 bar) protects components in hydraulic systems and ensures safe operation.
- Our hand pumps are characterised by their rugged construction and easy-operation handles
- Carrying handle for easy portability.
- The professional choice for a wide range of industrial applications and day-to-day operations.
- The P904D is designed especially for double-acting cylinders, without the need for an extra control valve and adapters.
- **Available separately and as a complete set.**



Type	Art. no.	Max. pressure bar		Usable oil cap. cm³	Oil volume per stroke cm³		A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	K mm	Weight kg
		1st stage	2nd stage		1st stage	2nd stage												
P 901	7262901	20	700	300	19.4	1.2	447	369.5	140	163	164	48.5	45	³/₈" NPT	8	112	282	6.5
P 902	7262902	20	700	750	19.4	2.8	560	530	140	167	164	48.5	45	³/₈" NPT	8	112	442	7.8
P 903	7262903	20	700	1400	19.4	2.8	633	597.5	140	170	164	48.5	36.5	³/₈" NPT	8	112	510	10
P 904	7262904	27.5	700	2200	39.5	2.8	633	578	150	208	195	55	46	³/₈" NPT	8	121	502	13.5
P 904D	7262905	27.5	700	2200	35.6	2.8	633	609	150	208	195	38	47	³/₈" NPT	8	121	502	15

Steel hand pumps

BETEX HP 35 series, heavy-duty



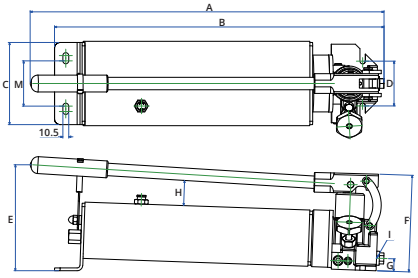
2950
usable oil-capacity cm³

700
bar

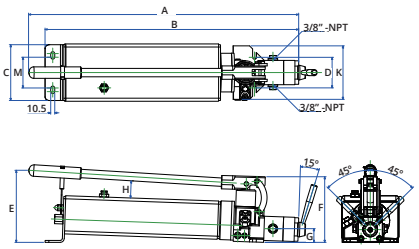
Use in combination with our hydraulic accessories.

BETEX HP 35 series

- Heavy-duty hydraulic hand pumps for the heavy jobs.
- Two-stage pump provides rapid pumping to load the cylinder quickly.
- Low handle effort required for easy operation.
- Automatic overload-relief valve (700 bar) protects components in hydraulic systems and ensures safe operation.
- Our hand pumps are characterised by their rugged steel construction and easy-operation handles.
- The handy release knobs with locking mechanism make these pumps particularly suitable for industrial applications and day-to-day operations.
- The HP 35D is designed especially for double-acting cylinders, without the need for an extra control valve and adapters.



HP 35 model



HP 35D model (double-acting)

Type	Art. no.	Operating pressure bar		Oil capacity cm³	Usable oil capacity cm³	Oil volume per stroke cm³		A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I	M mm	Weight kg
		1st stage	2nd stage			1st stage	2nd stage											
HP 35	7200056	28	700	3500	2950	30	3	626	586	146	79.7	190	79.9	22.35	45	³/₈"-NPT	80.5	16.5
HP 35D	7200057	28	700	3500	2950	30	3	741	680	146	79.7	190	79.7	36	45	³/₈"-NPT	80.5	19

Steel hand pumps

BETEX HP 80 series, heavy-duty



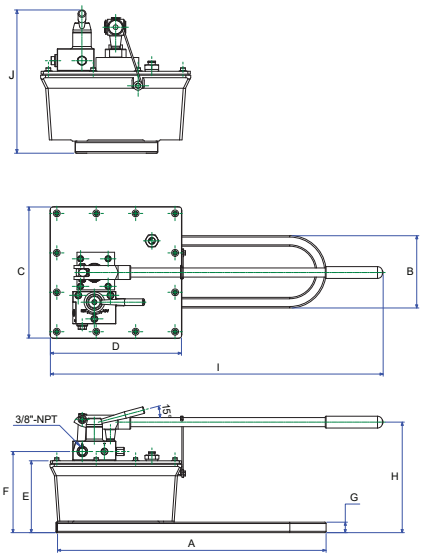
8000
usable oil-capacity cm³

700
bar

Use in combination with our hydraulic accessories.

BETEX HP 80 series

- Heavy-duty hydraulic hand pumps for the heavy jobs.
- Two-stage pump provides rapid pumping to load the cylinder quickly.
- Low handle effort required for easy operation.
- Automatic overload-relief valve (700 bar) protects components in hydraulic systems and ensures safe operation.
- The pumps are equipped with a slow discharge function. Which allows for multi-directional operation.
- The HP 80D is designed especially for double-acting cylinders, without the need for an extra control valve and adapters.



Type	Art. no.	Operating pressure bar		Oil capacity cm³	Usable oil capacity cm³	Oil volume per stroke cm³		A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	Weight kg
		1st stage	2nd stage			1st stage	2nd stage											
HP 80	7200063	27.5	700	8000	8000	113	4	635	171	310	310	170	192	25	261	787	298	24
HP 80D	7200064	27.5	700	8000	8000	113	4	635	171	310	310	170	196	25	261	787	298	25

Special hand pumps

BETEX P 350



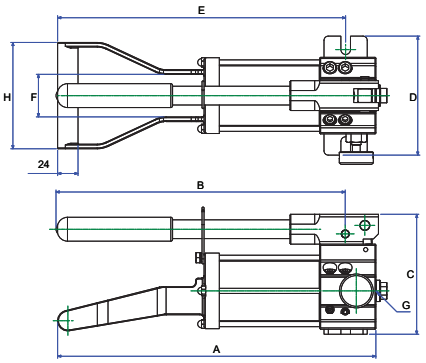
350
usable oil-capacity cm³

700
bar

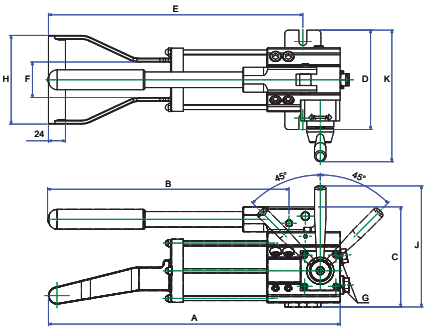
Use in combination with our hydraulic accessories.

BETEX P 350 series

- Special lightweight design with unique triangular basis which makes the pump easy to handle.
- The sealed aluminium oil reservoir allows the hand pumps to be used in a range of positions, without the risk of oil leakage.
- **This also allows for use under water/in the sea!**
- P 350A hand pump with single port for 1 single-acting cylinder.
- P 350B hand pump with 2 ports for simultaneous use of 2 single-acting cylinders.
- P 350D double-acting hand pump for 1 double-acting cylinder.



P 350A, P 350B



P 350D

Type	Art. no.	Max. pressure bar		Usable oil cap. cm³	Oil volume per stroke cm³		A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	K mm	Weight kg
		1st stage	2nd stage		1st stage	2nd stage											
P 350A	7262401	20	700	350	3,7	0,6	374	340	140	140	338.5	50	³/₈" NPT	125	-	-	3,4
P 350B	7262402	20	700	350	3,7	0,6	421	340	140	140	363.5	50	³/₈" NPT	125	-	-	4,3
P 350D	7262403	20	700	350	3,7	0,6	411	340	140	140	358.5	50	³/₈" NPT	125	171	185	5,5

Special hand pumps

BETEX P 550



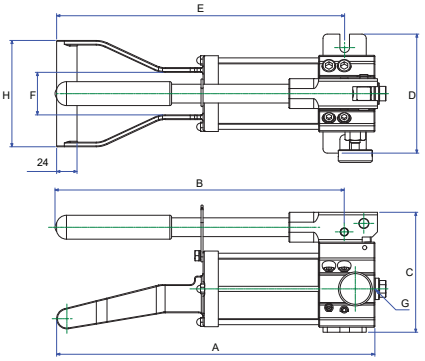
550
usable oil-capacity cm³

700
bar

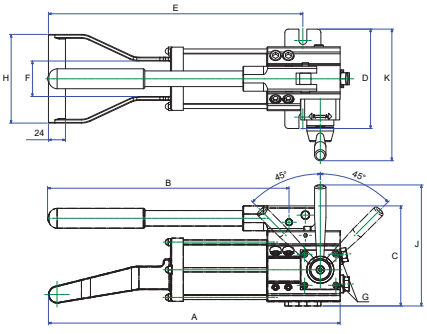
Use in combination with our hydraulic accessories.

BETEX P 550 series

- Special lightweight design with unique triangular basis which makes the pump easy to handle.
- The sealed aluminium oil reservoir allows the hand pumps to be used in a range of positions, without the risk of oil leakage.
- **This also allows for use under water/in the sea!**
- P 550B hand pump with 2 ports for simultaneous use of 2 single-acting cylinders.
- P 550D double-acting hand pump for 1 double-acting cylinder.



P 550A, P 550B



P 550D

Type	Art. no.	Max. pressure bar		Usable oil cap. cm³	Oil volume per stroke cm³		A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	K mm	Weight kg
		1st stage	2nd stage		1st stage	2nd stage											
P 550A	7262501	20	700	550	3,7	0,6	494	463	140	140	458.5	50	³/₈" NPT	125	-	-	4
P 550B	7262502	20	700	550	3,7	0,6	541	463	140	140	483.5	50	³/₈" NPT	125	-	-	5,3
P 550D	7262503	20	700	550	3,7	0,6	531	463	140	140	478.5	50	³/₈" NPT	125	171	185	6,5

Special hand pumps

BETEX P 1000



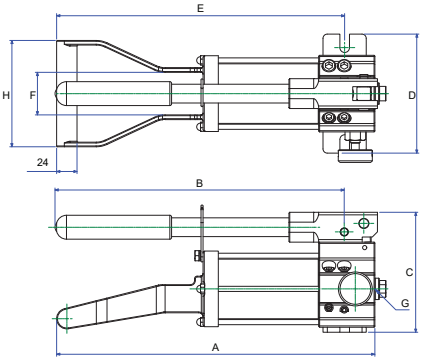
1070
usable oil-capacity cm³

700
bar

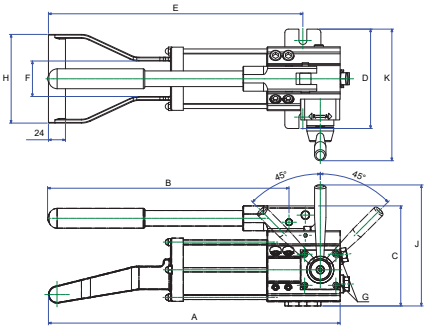
Use in combination with our hydraulic accessories.

BETEX P 1000 series

- Special lightweight design with unique triangular basis which makes the pump easy to handle.
- The sealed aluminium oil reservoir allows the hand pumps to be used in a range of positions, without the risk of oil leakage.
- **This also allows for use under water/in the sea!**
- P 1000A hand pump with single port for 1 single-acting cylinder.
- P 1000B hand pump with 2 ports for simultaneous use of 2 single-acting cylinders.
- P 1000D double-acting hand pump for 1 double-acting cylinder.



P 1000A, P 1000B



P 1000D

Type	Art. no.	Max. pressure bar		Usable oil cap. cm³	Oil volume per stroke cm³		A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	K mm	Weight kg
		1st stage	2nd stage		1st stage	2nd stage											
P 1000A	72621001	20	700	1070	3,7	0,6	694	568	140	140	658.5	50	³/₈" NPT	125	-	-	5,3
P 1000B	72621002	20	700	1070	3,7	0,6	741	568	140	140	683.5	50	³/₈" NPT	125	-	-	6,7
P 1000D	72621003	20	700	1070	3,7	0,6	731	568	140	140	678.5	50	³/₈" NPT	125	171	185	7,6

Steel foot pumps

BETEX FHB series



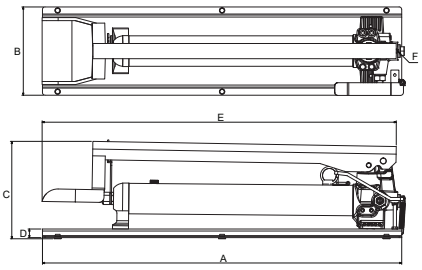
350 - 700
usable oil-capacity cm³

700
bar

Use in combination with our hydraulic accessories.

BETEX FHB series

- Heavy-duty hydraulic foot pumps for the heavy jobs.
- Two-stage pump provides rapid pumping to load the cylinder quickly.
- Forged construction made of steel.
- Automatic overload-relief valve (700 bar) protects components in hydraulic systems and ensures safe operation.
- The pumps are equipped with a slow discharge function. Which allows for multi-directional operation.



Type	Art. no.	Max. pressure bar		Usable oil capacity cm³	Oil volume per stroke cm³		A mm	B mm	C mm	D mm	E mm	F	Weight kg
		1st stage	2nd stage		1st stage	2nd stage							
FHB 350	7200058	13.8	700	350	13	2.8	474	174	192	17	461	³/₈"-NPT	8.8
FHB 600	7200059	13.8	700	600	13	2.8	660	174	192	17	647	³/₈"-NPT	10.8
FHB 700	7200060	13.8	700	700	13	2.8	708	174	192	17	695	³/₈"-NPT	12

Pump sets

Hand and foot pumps, 700 bar

BETEX Pump sets 700 bar

Lightweight aluminium or heavy-duty hand pumps, 2-stage. Robust construction for a long service life and easy-operation handles. Easy to move around.

- The double-acting models are provided with double hoses and adapters (AHP 703D and P 904D).
- The air-driven foot pump set AP1600S is designed for use with single-acting cylinders.

All hand pump sets are pre-mounted, you can get started right away!

The sets contain:
- Pump
- Pressure gauge, T-adapter
- Hose
- Couplings
- Steel storage case



Aluminium hand pump sets

Type	Art. no.
AHP 701	7265501
AHP 702	7265701
AHP 703	7265751
AHP 703D	7265761



Steel hand pump sets

Type	Art. no.
PB 350	7262351
PB 600	7262601
PB 700	7262701
HC 1500	72621501
HC 2000	72622001



Steel hand pump sets

Type	Art. no.
P 901	7262911
P 902	7262912
P 903	7262913
P 904	7262914
P 904D	7262915



Ultra-high pressure hand pump sets

Type	Art. no.
P 905	7262916
AHP 704	7265801
AHP 705	7265901
UHP 2800	7292801



Foot pump set

Type	Art. no.
AP 1600S	72000626

Air pumps

BETEX AP 1600 / 3000 / 8000 series, foot pumps



1300 - 7200
usable oil-capacity cm³

700
bar

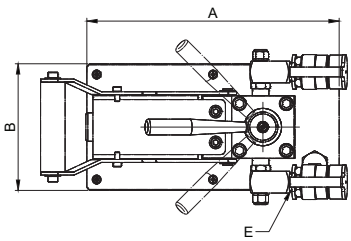
Use in combination with our hydraulic accessories.

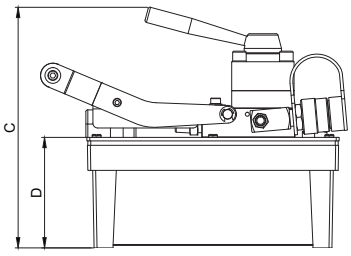


AP 8000 series

BETEX AP 1600 / 3000 / 8000 series

- The air-driven hydraulic foot pumps are designed for use with single-acting cylinders and tools such as the BETEX® cylinder series.
- Rugged construction: most components are made of aluminium alloy. They have a long service life, and are user-friendly and easy to move.
- The automatic overload-relief valve (700 bar) protects the components in the hydraulic system and ensures safe operation.
- The pumps are equipped with a slow discharge function. Which allows for multi-directional operation.
- Air pressure of 5-8 bar for optimum operation.
- The D models are designed especially for double-acting cylinders, without the need for an extra control valve and adapters.
- **Set:** The AP 1600S is also available as a set.





Type	Art. no.	Operation	Max. pressure bar	Reservoir volume cm³	Usable oil capacity cm³	Oil volume per stroke cm³/min		A mm	B mm	C mm	D mm	E	Weight kg
						1st stage	2nd stage						
AP 1600S	7200062	single	700	1600	1300	1250	195	244	129	207	114	³/₈"-NPT	7.3
AP 1600D	72000621	double	700	1600	1300	1250	195	244	129	207	114	³/₈"-NPT	9.3
AP 3000S	72000622	single	700	3000	2500	1250	195	309	160	247	114	³/₈"-NPT	9.1
AP 3000D	72000623	double	700	3000	2500	1250	195	309	160	247	114	³/₈"-NPT	12
AP 8000S	72000624	single	700	8000	7200	1250	195	311.6	311.6	236	143	³/₈"-NPT	19.1
AP 8000D	72000625	double	700	8000	7200	1250	195	311.6	311.6	276	143	³/₈"-NPT	31.5

Air pumps

BETEX AP 921 series, foot pumps



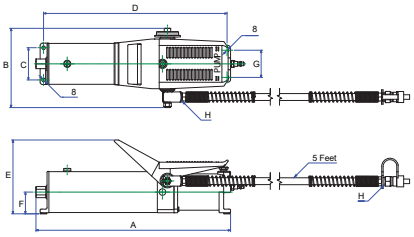
750
usable oil-capacity cm³

700
bar

Use in combination with our hydraulic accessories.

BETEX AP 921 series

- The air-driven hydraulic foot pump is designed for use with single-acting cylinders and tools such as the BETEX® cylinder series.
- Rugged construction: most components are made of aluminium alloy. They have a long service life, and are user-friendly and easy to move.
- Automatic overload-relief valve (700 bar) protects components in hydraulic systems and ensures safe operation.
- Air pressure of 5-8 bar for optimum operation.
- The pump is equipped with a slow deflation function, which allows for multi-directional operation.



Type	Art. no.	Max. pressure bar	Reservoir volume cm³	Usable oil capacity cm³	Oil volume per stroke cm³/min		A mm	B mm	C mm	D mm	E mm	F mm	G mm	H	Weight kg
					1st stage	2nd stage									
AP 921	7200061	700	850	750	700	100	423	170	70	399	160	47	59	1/4"-NPT	6,1

Air pumps
BETEX AP 13 series

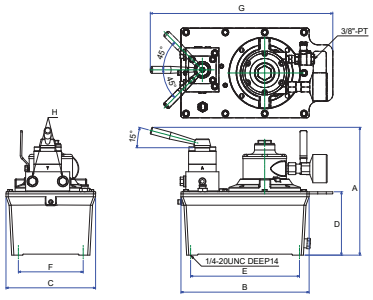


2400
usable oil-capacity cm³

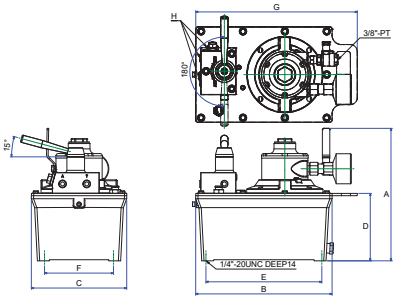
700
bar

BETEX AP 13 series

- The AP 13 has a 3-litre durable aluminium reservoir.
- Air motor capable of starting under full load.
- Two speed operation for fast cylinder advance.
- The automatic overload-relief valve (700 bar) protects the components in the hydraulic system and ensures safe operation.
- Air pressure of 5-8 bar for optimum operation.
- The AP 13D is single-acting; the AP 13D is designed especially for double-acting cylinders, without the need for an extra control valve and adapters.



AP 13D



AP 13S

Type	Art. no.	Operation	Max. pressure bar	Reservoir volume cm³	Usable oil capacity cm³	Oil volume per stroke cm³/min				A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Weight kg
						0	7	350	700									
AP 13S	72000613	single	700	3000	2400	4000	2800	330	280	287	295.5	206.5	146.2	251	149.4	350	3/8"NPT	14.4
AP 13D	72000614	double	700	3000	2400	4000	2800	330	280	295	295.5	206.5	146.2	251	149.4	421	3/8"NPT	15.4

Air pumps

BETEX AP 18 series

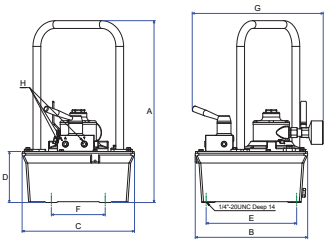


7200
usable oil-capacity cm³

700
bar

BETEX AP 18 series

- The AP 18 has a 8-litre durable aluminium reservoir.
- Air motor capable of starting under full load.
- Two speed operation for fast cylinder advance.
- The automatic overload-relief valve (700 bar) protects the components in the hydraulic system and ensures safe operation.
- Air pressure of 5-8 bar for optimum operation.
- The AP 18S is single-acting; the AP 18D is designed especially for double-acting cylinders, without the need for an extra control valve and adapters.



Type	Art. no.	Operation	Max. pressure bar	Reservoir volume cm³	Usable oil capacity cm³	Oil volume per stroke cm³/min				A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Weight kg
						0	7	350	700									
AP 18S	72000615	single	700	8000	7200	4000	2800	330	280	504	312	312	141.5	251	149.4	363	3/8"NPT	21.5
AP 18D	72000616	double	700	8000	7200	4000	2800	330	280	504	312	312	141.5	251	149.4	408	3/8"NPT	22

Electric pumps

BETEX EP 13 series



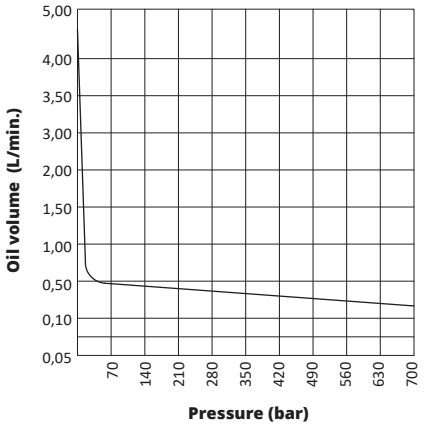
2.4
usable oil capacity litres

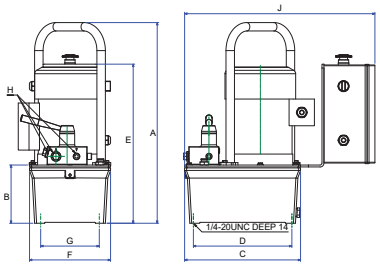
700
bar

Use in combination with our hydraulic accessories.

BETEX EP 13 series

- Electrohydraulic pump, 120/230V, 50/60Hz universal motor, thermal protection.
- Very quiet (about. 80 dBA at 700 bar).
- Remote control incl. cord (3 mtr).
- Automatic overload-relief valve (700 bar) protects components in hydraulic systems and ensures safe operation.
- The EP 13D is designed especially for double-acting cylinders, without the need for an extra control valve and adapters.





Type	EP 13S	EP 13S	EP 13D	EP 13D
Art. no.	8300010	8300012	8300011	8300013
Valve type	2 pos. / 2-way	2 pos. / 2-way	3 pos. / 4-way	3 pos. / 4-way
Valve function	Hold / return	Hold / return	Advance / hold / return	Advance / hold / return
Voltage	120V / 10A	230V / 5A	120V / 10A	230V / 5A
Motor	0.45kW, 50/60Hz, single phase			

Type	Operation	Reservoir volume l	Usable oil capacity l	Max. pressure bar	Oil volume (cm³/ min.@60Hz) in bar				A mm	B mm	C mm	D mm	E mm	F mm	G mm	H	J mm	Weight kg
					0	7	350	700										
EP 13S	single	3	2.4	700	4000	2800	330	280	511.5	148.5	295.5	251	406	206.5	149.4	³/₈”NPT	485	25.8
EP 13D	double	3	2.4	700	4000	2800	330	280	511.5	148.5	295.5	251	406	206.5	149.4	³/₈”NPT	485	26.6

Electric pumps

BETEX EP 18 series



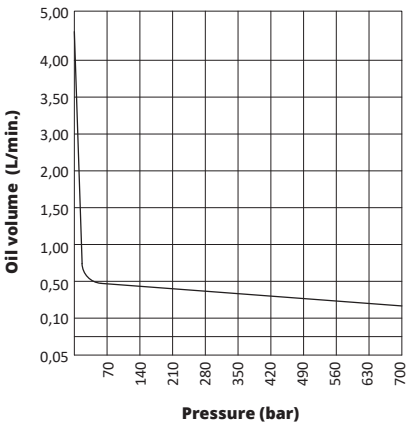
6
usable oil capacity litres

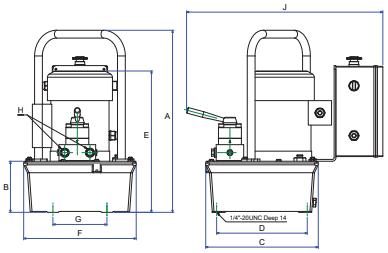
700
bar

Use in combination with our hydraulic accessories.

BETEX EP 18 series

- Electrohydraulic pump, 120/230V, 50/60Hz universal motor, thermal protection.
- Very quiet (about 80dBA at 700 bar).
- Remote control incl. cord (3 mtr).
- Automatic overload-relief valve (700 bar) protects components in hydraulic systems and ensures safe operation.
- The EP 18D is designed especially for double-acting cylinders, without the need for an extra control valve and adapters.
- The EP 18SS and EP 18DS types are fitted with a solenoid valve.





Type	EP 18S	EP 18S	EP 18D	EP 18D	EP 18SS	EP 18SS	EP 18DS	EP 18DS
Art. no.	8300021	8300031	8300023	8300033	8300022	8300032	8300024	8300034
Valve type	2 pos. / 2-way	2 pos. / 2-way	3 pos. / 4-way	3 pos. / 4-way	2 pos. / 2-way	2 pos. / 2-way	3 pos. / 4-way	3 pos. / 4-way
Valve function	Hold / return	Hold / return	Advance / hold / return	Advance / hold / return	Hold / return	Hold / return	Advance / hold / return	Advance / hold / return
Voltage	120V / 10A	230V / 5A	120V / 10A	230V / 5A	120V / 10A	230V / 5A	120V / 10A	230V / 5A
Motor	0.45kW, 50/60Hz, single phase							

Type	Operation	Reservoir volume l	Usable oil capacity l	Max. pressure bar	Oil volume (cm³/min.@60Hz) in bar				A mm	B mm	C mm	D mm	E mm	F mm	G mm	H	J mm	Weight kg
					0	7	350	700										
EP 18S	single	8	6	700	4000	2800	330	280	504	141.5	311.6	251	391.5	311.6	149.4	3/8"NPT	543.5	31.7
EP 18D	double	8	6	700	4000	2800	330	280	504	141.5	311.6	251	391.5	311.6	149.4	3/8"NPT	543.5	32.5
EP 18SS*	single	8	6	700	4000	2800	330	280	504	141.5	311.6	251	391.5	311.6	149.4	3/8"NPT	543.5	32.2
EP 18DS*	double	8	6	700	4000	2800	330	280	504	141.5	311.6	251	391.5	311.6	149.4	3/8"NPT	543.5	32.9

** Model with solenoid valve*

Electric pumps

BETEX EP 211 series



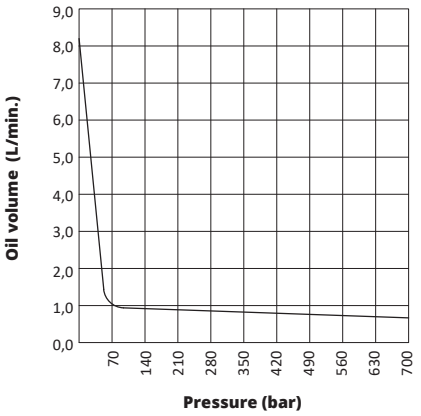
9.5
usable oil capacity litres

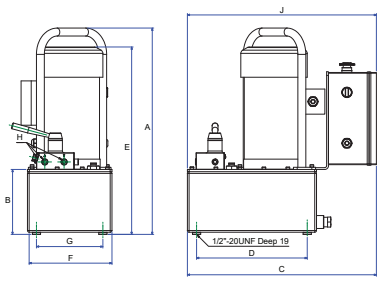
700
bar

Use in combination with our hydraulic accessories.

BETEX EP 211 series

- Electrohydraulic pump, 120/230V, 50/60Hz universal motor, thermal protection.
- Very quiet (about 80dBA at 700 bar).
- Remote control incl. cord (3 mtr).
- Automatic overload-relief valve (700 bar) protects components in hydraulic systems and ensures safe operation.
- The EP 211D is designed especially for double-acting cylinders, without the need for an extra control valve and adapters.
- The EP 211SS and EP 211DS types are fitted with a solenoid valve.





Type	EP 211S	EP 211S	EP 211D	EP 211D	EP 211SS	EP 211SS	EP 211DD	EP 211DD
Art. no.	8300041	8300051	8300043	8300053	8300042	8300052	8300044	8300054
Valve type	2 pos. / 2-way	2 pos. / 2-way	3 pos. / 4-way	3 pos. / 4-way	2 pos. / 2-way	2 pos. / 2-way	3 pos. / 4-way	3 pos. / 4-way
Valve function	Hold / return	Hold / return	Advance / hold / return	Advance / hold / return	Hold / return	Hold / return	Advance / hold / return	Advance / hold / return
Voltage	120V / 23A	230V / 12A	120V / 23A	230V / 12A	120V / 23A	230V / 12A	120V / 23A	230V / 12A
Motor	1.12kW, 50/60Hz, single phase							

Type	Operation	Reservoir volume l	Usable oil capacity l	Max. pressure bar	Oil volume (cm³/min.@60Hz) in bar				A mm	B mm	C mm	D mm	E mm	F mm	G mm	H	J mm	Weight kg
					0	7	350	700										
EP 211S	single	11	9.5	700	8200	7400	840	750	559	176	515.5	300	391.5	224.4	180	³/₈"NPT	515.5	35.6
EP 211D	double	11	9.5	700	8200	7400	840	750	559	176	515.5	300	391.5	224.4	180	³/₈"NPT	515.5	36.4
EP 211SS*	single	11	9.5	700	8200	7400	840	750	559	176	515.5	300	391.5	224.4	180	³/₈"NPT	515.5	36.1
EP 211DS*	double	11	9.5	700	8200	7400	840	750	559	176	515.5	300	391.5	224.4	180	³/₈"NPT	515.5	36.8

** Model with solenoid valve*

Electric pumps

BETEX EP 320 series



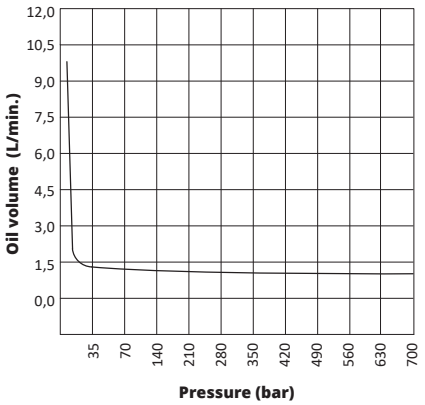
18
usable oil capacity litres

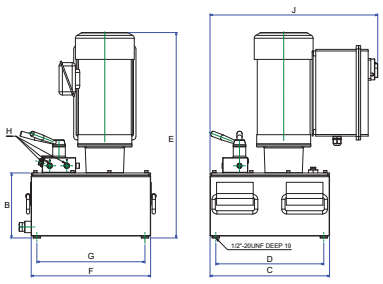
700
bar

Use in combination with our hydraulic accessories.

BETEX EP 320 series

- Electric hydraulic pump, 230/400V, 50/60Hz universal motor, thermally protected.
- Very quiet (about 80dBA at 700 bar).
- Remote control incl. cord (3 mtr).
- Automatic overload-relief valve (700 bar) protects components in hydraulic systems and ensures safe operation.
- The EP 320D is designed especially for double-acting cylinders, without the need for an extra control valve and adapters.
- Types EP 320SS and EP 320DS are equipped with a solenoid valve.





Type	EP 320S	EP 320D	EP 320SS	EP 320DS
Art. no.	8300061	8300063	8300062	8300064
Valve type	2 pos. / 2-way	3 pos. / 4-way	2 pos. / 2-way	3 pos. / 4-way
Valve function	Hold / return	Advance / hold / return	Hold / return	Advance / hold / return
Voltage	230V / 7.5A**, 400V / 5A	230V / 7.5A**, 400V / 5A	230V / 7.5A**, 400V / 5A	230V / 7.5A**, 400V / 5A
Motor	1.48kW, 50/60Hz, 3 phase			

Type	Operation	Reservoir volume l	Usable oil capacity l	Max. pressure bar	Oil volume (cm³/min.@60Hz) in bar				B mm	C mm	D mm	E mm	F mm	G mm	H	J mm	Weight kg
					7	70	350	700									
EP 320S	single	20	18	700	9500	1020	980	900	198.5	365	330	627.5	365	330	³/₈" NPT	512	56
EP 320D	double	20	18	700	9500	1020	980	900	198.5	365	330	627.5	365	330	³/₈" NPT	512	56.8
EP 320SS*	single	20	18	700	9500	1020	980	900	198,5	365	330	627,5	365	330	³/₈" NPT	512	56.5
EP 320DS*	double	20	18	700	9500	1020	980	900	198,5	365	330	627,5	365	330	³/₈" NPT	512	57.2

**Model with solenoid valve **Pumps use 3-phase 400V as standard. It is possible to convert this to 3-phase 230V.*

Electric pumps
BETEX EP 420 series



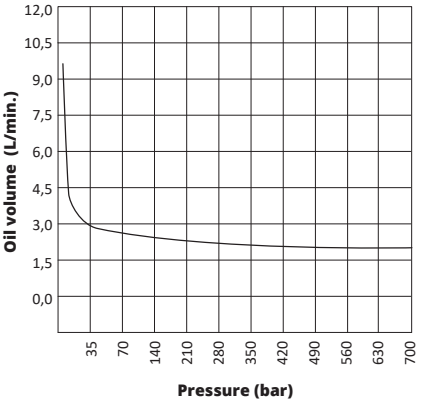
18
usable oil capacity litres

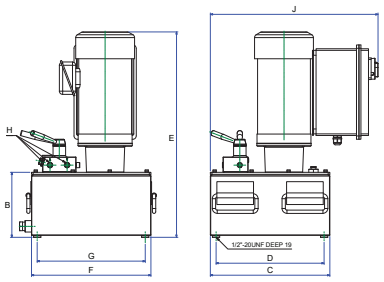
700
bar

Use in combination with our hydraulic accessories.

BETEX EP 420 series

- Electric hydraulic pump, 230/400V, 50/60Hz universal motor, thermally protected.
- Very quiet (about 80dBA at 700 bar).
- Remote control incl. cord (3 mtr).
- Automatic overload-relief valve (700 bar) protects components in hydraulic systems and ensures safe operation.
- The EP 420D is designed especially for double-acting cylinders, without the need for an extra control valve and adapters.
- Types EP 420SS and EP 420DS are equipped with a solenoid valve.





Type	EP 420S	EP 420D	EP 420SS	EP 420DS
Art. no.	8300081	8300083	8300082	8300084
Valve type	2 pos. / 2-way	3 pos. / 4-way	2 pos. / 2-way	3 pos. / 4-way
Valve function	Hold / return	Advance / hold / return	Hold / return	Advance / hold / return
Voltage	230V / 10A**, 400V/6A	230V / 10A**, 400V/6A	230V / 10A**, 400V/6A	230V / 10A**, 400V/6A
Motor	2.24kW, 50/60Hz, 3 phase			

Type	Operation	Reservoir volume l	Usable oil capacity l	Max. pressure bar	Oil volume (cm³/min.@60Hz) in bar				B mm	C mm	D mm	E mm	F mm	G mm	H	J mm	Weight kg
					7	70	350	700									
EP 420S	single	20	18	700	9500	2450	1950	1800	199	365	330	627.5	365	330	³/₈" NPT	512	57.6
EP 420D	double	20	18	700	9500	2450	1950	1800	199	365	330	627.5	365	330	³/₈" NPT	512	63.2
EP 420SS*	single	20	18	700	9500	2450	1950	1800	199	365	330	627.5	365	330	³/₈" NPT	512	63
EP 420DS*	double	20	18	700	9500	2450	1950	1800	199	365	330	627.5	365	330	³/₈" NPT	512	62

**Model with solenoid valve **Pumps use 3-phase 400V as standard. It is possible to convert this to 3-phase 230V.*

Ultra-high pressure pumps

BETEX P / AHP / UHP series

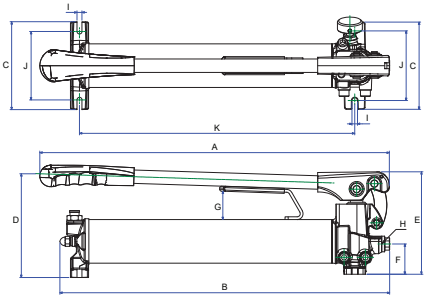


700 - 1620
usable oil capacity cm^3

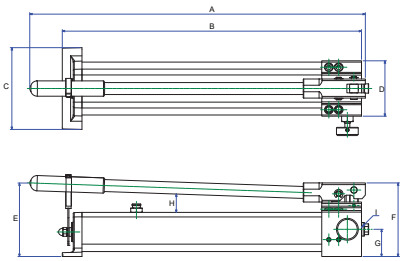
1000/1500/2800
bar

BETEX P / AHP / UHP series

- P 905: heavy-duty steel hand pump with ultra-high operating pressure of 1000 bar.
- AHP 704/705: lightweight aluminium hand pumps with an operating pressure up to 1000 / 1500 bar.
- UHP 2800: lightweight aluminium model with ultra-high 2800 bar operating pressure for special applications.
- Automatic overload-relief valve protects the components in hydraulic systems and ensures safe operation.
- **Available separately and as a complete set.**



P 905

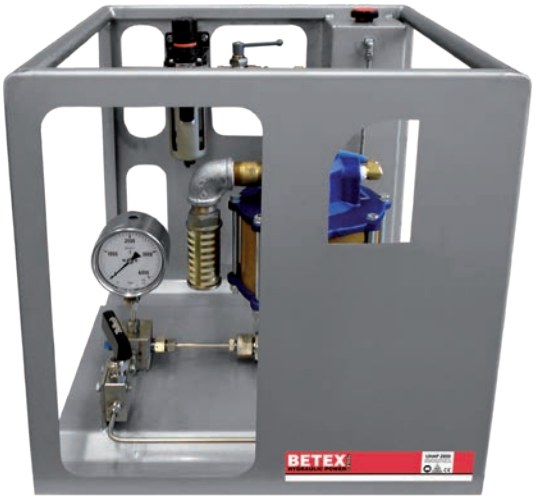


AHP 704, AHP 705, UHP 2800

Type	Art. no.	Max. pressure bar		Reservoir volume cm^3	Usable oil capacity cm^3	Oil volume per stroke cm^3		A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	Weight kg
		1st stage	2nd stage			1st stage	2nd stage										
P 905	7262906	20	1000	850	750	19.4	1.2	560	530	140	167	164	48.5	45	3/8"-NPT	8	7,8
AHP 704	7265800	20	1000	1000	750	12.9	1.65	539	501	110	77	145	127	42.5	37	3/8"-NPT	3.5
AHP 705	7265900	20	1500	2000	1620	12.9	1	699	629	150	102	152	157	50	37	3/4"-16UNF	6.7
UHP 2800	7292800	20	2800	1000	700	12.9	0.65	620	488	80	140	157	156,5	26	37	3/4"-16UNF	6.7

Ultra-high pressure pumps

BETEX UHAP series, aluminium air pumps



5
litre - reservoir capacity

2800
bar



BETEX UHAP series

General purpose air driven ultra-high pressure hydraulic pump. Suitable for pumping oil up to an operating pressure of 2800 bar.

- Portable, compact.
- Single-acting.
- Max. air pressure: 7 bar.
- Max. output pressure: 2800 bar.
- With easy to connect bayonet coupler and flexible hose (3 mtr).
- Automatic overload-relief valve.
- Air filter and pressure gauge included.
- Optional: trolley.
- Excl. oil.

Both pumps include:
- Pressure gauge (0-3000 bar scale)
- HD hose (3 mtr, incl extra coupler set 1/4")
- Nipple

Type	Art. no.	Air pressure bar	Max. pressure bar	Oil capacity cm3	Oil volume cm3/min. at 700 bar	Weight in kg
UHAP 2800	7292803	7	2800	5000	430	29
UHAP 2800 ULTRA	7292802	7	2800	5000	750	32

Hydraulic nuts
Schaeffler HYDNUT-E

New



M50 - M200 / Tr205 - Tr1180
inner diameter M / Tr

214 - 6296
Max. drive-up force kN

700
max. operating pressure bar

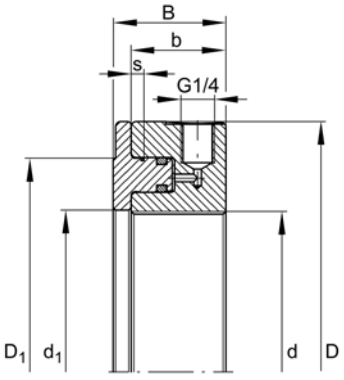
Use in combination with our “Pump sets for Schaeffler HYDNUT” starting on page 141.

Schaeffler HYDNUT-E

Schaeffler Hydraulic nuts are used to mount bearings with metric or trapezoidal threads on workpieces. The bearings can be mounted directly on a tapered shaft, on an adapter sleeve or on a retraction sleeve. Disassembly is also possible if the bearing is placed on a retraction sleeve or adapter sleeve. The hydraulic nut is suitable for small bearings to very large bearings that require a high drive-up force. These include ship propellers, rudder blades, shaft couplings and gears.

The range of metric nuts are suitable for threads based on DIN sizes M50 to M200. After M200, these nuts are Tr Threaded and available up to a thread diameter of 1,180 mm.

- To be used in combination with special pump sets, see page 141.
- The maximum pressure and available threads are indicated on the pressure ring.
- All hydraulic nuts have a red O-ring showing max. stroke.
- Digital (Art. No. 7499920) and analogue (Art. No. 7499910) dials for accurate measurement of floating clearance when mounting bearings are available as accessories.



Description	Designation
Thread type	d
Piston surface area cm²	H
Driving force max. kN	I

Type	Art. no.	d	D mm	B mm	b mm	D_1 mm	d_1 mm	s mm	H cm²	Oil cap. cm3	Pressure max. bar/psi	I kN	Weight kg
HYDNUT50-E	7410050	M50x1,5	110	40	36	88	51	4	30,6	16	700	214	2,4
HYDNUT55-E	7410055	M55x2	118	40	36	92	56	4	31,2	16	700	219	2,8
HYDNUT60-E	7410060	M60x2	125	40	36	96	61	4	31,7	16	700	222	3,0
HYDNUT65-E	7410065	M65x2	132	40	36	103	66	4	35,5	18	700	249	3,3
HYDNUT70-E	7410070	M70x2	140	40	36	110	71	4	40,9	21	700	286	3,7
HYDNUT75-E	7410075	M75x2	145	40	36	116	76	4	44,9	23	700	314	3,9
HYDNUT80-E	7410080	M80x2	150	40	36	122	81	4	49,0	25	700	343	4,0
HYDNUT85-E	7410085	M85x2	155	40	36	126	86	4	49,3	25	700	345	4,2

Type	Art. no.	d	D mm	B mm	b mm	D_1 mm	d_1 mm	s mm	H cm²	Oil cap. cm3	Pressure max. bar/psi	I kN	Weight kg
HYDNUT90-E	7410090	M90x2	160	41	37	130	91	5	49,4	30	700	346	4,5
HYDNUT95-E	7410095	M95x2	165	41	37	136	96	5	52,0	32	700	364	4,7
HYDNUT100-E	7410100	M100x2	170	41	37	142	101	5	54,5	33	700	381	4,9
HYDNUT105-E	7410105	M105x2	175	43	37	147	106	5	56,6	34	600	340	5,3
HYDNUT110-E	7410110	M110x2	180	43	37	152	111	5	58,7	36	600	352	5,5
HYDNUT115-E	7410115	M115x2	185	43	37	157	116	5	60,9	37	600	365	5,6
HYDNUT120-E	7410120	M120x2	190	43	37	162	121	5	63,0	38	600	378	5,8
HYDNUT125-E	7410125	M125x2	195	44	37	167	126	5	65,1	40	600	391	6,2
HYDNUT130-E	7410130	M130x2	200	44	37	171	131	5	64,5	39	600	387	6,4
HYDNUT135-E	7410135	M135x2	205	44	37	176	136	5	66,6	40	600	399	6,5
HYDNUT140-E	7410140	M140x2	210	44	37	182	141	5	69,0	42	600	414	6,7
HYDNUT145-E	7410145	M145x2	215	44	37	186	146	5	70,7	43	600	424	6,9
HYDNUT150-E	7410150	M150x2	220	44	37	191	151	5	75,3	46	600	452	7,1
HYDNUT155-E	7410155	M155x3	225	44	37	200	156	5	81,8	50	600	491	7,3
HYDNUT160-E	7410160	M160x3	235	47	40	206	161	6	87,2	62	600	523	8,7
HYDNUT165-E	7410165	M165x3	240	47	40	211	166	6	92,4	65	600	554	8,9
HYDNUT170-E	7410170	M170x3	245	47	40	216	171	6	94,7	67	600	568	9,1
HYDNUT180-E	7410180	M180x3	255	47	40	227	181	6	103,0	73	600	618	9,6
HYDNUT190-E	7410190	M190x3	270	50	42	240	191	8	115,9	105	600	695	11,5
HYDNUT200-E	7410200	M200x3	280	50	42	251	201	8	125,0	113	600	750	12,0
HYDNUT205-E	7410205	Tr205x4	290	50	42	258	207	8	132,2	119	500	661	13,0
HYDNUT210-E	7410210	Tr210x4	295	52	43	263	212	9	135,0	135	500	675	13,8
HYDNUT215-E	7410215	Tr215x4	300	52	43	268	217	9	137,7	138	500	689	14,1
HYDNUT220-E	7410220	Tr220x4	305	52	43	273	222	9	144,2	145	500	721	14,5
HYDNUT225-E	7410225	Tr225x4	315	53	44	282	227	10	153,1	169	500	766	16,0
HYDNUT230-E	7410230	Tr230x4	320	53	44	287	232	10	160,0	176	500	800	16,3
HYDNUT235-E	7410235	Tr235x4	325	53	44	290	237	10	161,8	178	500	809	16,6
HYDNUT240-E	7410240	Tr240x4	330	53	44	296	242	10	165,3	182	500	827	17,0
HYDNUT250-E	7410250	Tr250x4	345	54	44	310	252	10	182,2	201	500	911	18,9
HYDNUT260-E	7410260	Tr260x4	355	55	45	319	262	11	187,9	226	500	939	19,9
HYDNUT270-E	7410270	Tr270x4	370	56	46	332	272	12	196,0	255	500	980	22,3
HYDNUT275-E	7410275	Tr275x4	375	56	46	337	277	12	203,8	265	500	1019	22,6
HYDNUT280-E	7410280	Tr280x4	380	56	46	342	282	12	211,8	276	500	1059	23,0
HYDNUT290-E	7410290	Tr290x4	390	57	47	352	292	13	218,4	306	500	1092	24,1
HYDNUT295-E	7410295	Tr295x4	400	57	47	362	297	13	230,0	322	500	1150	25,9
HYDNUT300-E	7410300	Tr300x4	405	62	52	365	302	13	237,1	332	500	1185	28,5
HYDNUT310-E	7410310	Tr310x5	415	62	52	375	312	13	249,2	349	500	1246	29,3
HYDNUT315-E	7410315	Tr315x5	420	62	52	380	317	13	252,7	354	500	1264	29,7
HYDNUT320-E	7410320	Tr320x5	430	63	53	389	322	14	264,5	397	500	1322	32,3
HYDNUT330-E	7410330	Tr330x5	440	63	53	398	332	14	271,0	407	500	1355	33,7
HYDNUT335-E	7410335	Tr335x5	445	64	53	403	337	14	274,6	412	500	1373	34,2
HYDNUT340-E	7410340	Tr340x5	450	64	53	408	342	14	283,9	426	500	1419	34,6
HYDNUT345-E	7410345	Tr345x5	455	64	53	413	347	14	287,6	432	500	1438	35,0
HYDNUT350-E	7410350	Tr350x5	465	64	53	422	352	14	306,0	459	500	1530	37,3
HYDNUT355-E	7410355	Tr355x5	470	65	54	427	357	15	303,9	487	500	1519	38,4
HYDNUT360-E	7410360	Tr360x5	475	65	54	431	362	15	312,9	501	500	1564	38,9
HYDNUT365-E	7410365	Tr365x5	482	65	54	436	367	15	316,7	507	500	1584	40,1
HYDNUT370-E	7410370	Tr370x5	490	66	55	444	372	16	322,9	549	500	1614	42,4
HYDNUT375-E	7410375	Tr375x5	495	66	55	450	377	16	333,8	568	500	1669	42,9
HYDNUT380-E	7410380	Tr380x5	500	66	55	454	382	16	336,9	573	500	1685	43,4
HYDNUT385-E	7410385	Tr385x5	505	66	55	460	387	16	348,1	592	500	1740	43,9

Type	Art. no.	d	D mm	B mm	b mm	D_1 mm	d_1 mm	s mm	H cm²	Oil cap. cm3	Pressure max. bar/psi	I kN	Weight kg
HYDNUT395-E	7410395	Tr395x5	512	67	56	470	397	17	356,1	641	500	1780	44,3
HYDNUT400-E	7410400	Tr400x5	525	69	58	477	402	17	368,4	664	500	1842	49,7
HYDNUT410-E	7410410	Tr410x5	535	69	58	485	412	17	381,7	688	400	1527	50,8
HYDNUT415-E	7410415	Tr415x5	540	69	58	490	417	17	385,9	695	400	1543	51,3
HYDNUT420-E	7410420	Tr420x5	545	70	58	495	422	17	390,0	702	400	1560	52,2
HYDNUT430-E	7410430	Tr430x5	555	75	63	505	432	17	398,4	718	400	1593	57,5
HYDNUT435-E	7410435	Tr435x5	560	75	63	510	437	17	402,5	725	400	1610	58,1
HYDNUT440-E	7410440	Tr440x5	565	75	63	519	442	17	424,6	765	400	1699	58,7
HYDNUT450-E	7410450	Tr450x5	580	75	63	530	452	17	441,6	795	400	1766	62,6
HYDNUT460-E	7410460	Tr460x5	590	76	64	540	462	18	450,4	856	400	1802	64,3
HYDNUT470-E	7410470	Tr470x5	600	76	64	550	472	18	459,2	873	400	1837	65,9
HYDNUT480-E	7410480	Tr480x5	612	77	65	560	482	19	460,0	920	400	1840	69,2
HYDNUT490-E	7410490	Tr490x5	625	78	65	575	492	19	505,6	1.012	400	2022	73,2
HYDNUT500-E	7410500	Tr500x5	635	79	66	585	502	20	523,1	1.099	400	2092	75,5
HYDNUT510-E	7410510	Tr510x6	645	79	66	595	512	20	532,5	1.119	400	2130	76,8
HYDNUT520-E	7410520	Tr520x6	657	80	67	605	522	21	541,9	1.193	400	2168	80,5
HYDNUT530-E	7410530	Tr530x6	670	81	68	617	532	22	562,0	1.293	400	2248	84,9
HYDNUT540-E	7410540	Tr540x6	680	81	68	628	542	22	581,4	1.338	400	2326	86,3
HYDNUT550-E	7410550	Tr550x6	692	81	68	639	552	22	592,1	1.362	400	2369	89,1
HYDNUT560-E	7410560	Tr560x6	705	81	68	650	562	22	612,1	1.408	400	2448	92,3
HYDNUT570-E	7410570	Tr570x6	715	87	74	660	572	23	631,3	1.516	400	2525	101,2
HYDNUT580-E	7410580	Tr580x6	725	87	74	670	582	23	641,4	1.540	400	2566	102,8
HYDNUT590-E	7410590	Tr590x6	740	87	74	685	592	23	666,2	1.599	400	2665	108,4
HYDNUT600-E	7410600	Tr600x6	750	87	74	695	603	23	676,4	1.624	400	2706	109,3
HYDNUT610-E	7410610	Tr610x6	760	89	75	705	613	24	686,6	1.717	400	2747	113,5
HYDNUT625-E	7410625	Tr625x6	775	89	75	720	628	24	701,9	1.755	400	2808	116,0
HYDNUT630-E	7410630	Tr630x6	780	89	75	725	633	24	727,8	1.820	400	2911	116,8
HYDNUT650-E	7410650	Tr650x6	805	89	75	748	653	24	762,7	1.907	300	2288	124,6
HYDNUT655-E	7410655	Tr655x6	810	89	75	753	658	24	768,0	1.920	300	2304	125,5
HYDNUT670-E	7410670	Tr670x6	825	89	75	768	673	24	795,0	1.988	300	2385	128,1
HYDNUT680-E	7410680	Tr680x6	837	89	75	780	683	24	819,2	2.048	300	2458	131,6
HYDNUT690-E	7410690	Tr690x6	850	90	76	792	693	25	843,7	2.194	300	2531	137,8
HYDNUT695-E	7410695	Tr695x6	855	90	76	798	698	25	861,8	2.241	300	2585	138,7
HYDNUT710-E	7410710	Tr710x7	870	90	76	812	713	25	877,6	2.282	300	2633	141,6
HYDNUT720-E	7410720	Tr720x7	883	91	76	825	723	25	927,8	2.413	300	2783	147,8
HYDNUT740-E	7410740	Tr740x7	910	91	76	848	743	25	991,2	2.578	300	2974	158,7
HYDNUT750-E	7410750	Tr750x7	922	97	82	862	753	26	1033,0	2.790	300	3099	173,5
HYDNUT760-E	7410760	Tr760x7	935	97	82	872	763	26	1045,5	2.823	300	3137	179,0
HYDNUT780-E	7410780	Tr780x7	955	99	84	890	783	28	1068,1	3.098	300	3204	187,0
HYDNUT800-E	7410800	Tr800x7	970	100	84	909	803	28	1079,0	3.130	300	3237	183,1
HYDNUT830-E	7410830	Tr830x7	1000	101	85	938	833	29	1101,5	3.305	300	3304	195,4
HYDNUT850-E	7410850	Tr850x7	1020	101	85	960	853	29	1156,1	3.469	300	3468	199,6
HYDNUT880-E	7410880	Tr880x7	1050	101	85	988	883	29	1148,4	3.446	300	3445	206,0
HYDNUT900-E	7410900	Tr900x7	1070	101	85	1012	903	29	1250,7	3.753	300	3752	210,3
HYDNUT930-E	7410930	Tr930x8	1100	102	86	1042	933	30	1289,3	3.997	300	3868	218,8
HYDNUT950-E	7410950	Tr950x8	1185	102	86	1065	953	30	1319,0	4.089	300	3957	230,9
HYDNUT1000-E	7411000	Tr1000x8	1185	102	86	1123	1003	30	1491,5	4.624	300	4475	256,7
HYDNUT1060-E	7411060	Tr1060x8	1255	106	88	1185	1063	32	1611,6	5.319	300	4835	298,1
HYDNUT1080-E	7411080	Tr1080x8	1280	107	89	1207	1083	33	1677,8	5.705	300	5033	314,8
HYDNUT1120-E	7411120	Tr1120x8	1340	111	92	1260	1123	36	1900,7	7.033	300	5702	373,2
HYDNUT1180-E	7411180	Tr1180x8	1430	117	95	1325	1183	39	2098,8	8.396	300	6296	473,4

Hydraulic nuts
Schaeffler HYDNUT-E-INCH

New



49.9 - 950.2 / 1.9 - 37.4
inner diameter Ø mm / inch

214 - 3957
max. drive-up force kN

700
max. operating pressure bar

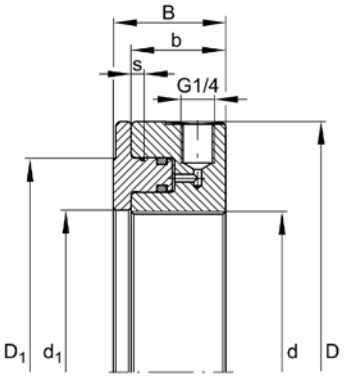
Use in combination with our “Pump sets for Schaeffler HYDNUT” starting on page 141.

Schaeffler HYDNUT-E-INCH

Schaeffler Hydraulic nuts are used to mount bearings with a UN or ACME thread on workpieces. The bearings can be mounted directly on a tapered shaft, on an adapter sleeve or on a retraction sleeve. Disassembly is also possible if the bearing is placed on a retraction sleeve or adapter sleeve. The hydraulic nut is suitable for small bearings to very large bearings that require a high drive-up force. These include ship propellers, rudder blades, shaft couplings and gears.

The range of Inch nuts are suitable for threads based on Inch sizes corresponding to M50 to Tr950. After UN320, these nuts are Tr Threaded and available up to a thread diameter of 950 mm.

- To be used in combination with special pump sets, see page 141.
- The maximum pressure and available threads are indicated on the pressure ring.
- All hydraulic nuts have a red O-ring showing max. stroke.
- Digital (Art. No. 7499920) and analogue (Art. No. 7499910) dials for accurate measurement of floating clearance when mounting bearings are available as accessories.



Description	Designation
Thread type	F
Number of thread turns per inch	G
Piston surface cm²	H
Drive up force max. kN	I

Type	Art. no.	d mm / inch	F	G	D mm	B mm	b mm	D_1 mm	d_1 mm	s mm	H cm²	Oil cap. cm3	Pressure max. bar/psi	I kN	Weight kg
HYDNUT50-E-INCH	7420050	49,962 / 1,967	UN	18	110	40	36	88	51	4	30,6	15,3	700 / 10150	214	2,4
HYDNUT55-E-INCH	7420055	54,788 / 2,157	UN	18	118	40	36	92	56	4	31,2	15,6	700 / 10150	219	2,7
HYDNUT60-E-INCH	7420060	59,944 / 2,360	UN	18	125	40	36	96	61	4	31,7	15,8	700 / 10150	222	3,0
HYDNUT65-E-INCH	7420065	64,719 / 2,548	UN	18	132	40	36	103	66	4	35,5	17,8	700 / 10150	249	3,3
HYDNUT70-E-INCH	7420070	69,873 / 2,751	UN	18	140	40	36	110	71	4	40,9	20,5	700 / 10150	286	3,7

Type	Art. no.	d mm / inch	F	G	D mm	B mm	b mm	D_1 mm	d_1 mm	s mm	H cm²	Oil cap. cm3	Pressure max. bar/psi	I kN	Weight kg
HYDNUT75-E-INCH	7420075	74,498 / 2,933	UN	12	145	40	36	116	76	4	44,9	22,4	700 / 10150	314	3,9
HYDNUT80-E-INCH	7420080	79,68 / 3,137	UN	12	150	40	36	122	81	4	49,0	24,5	700 / 10150	343	4,0
HYDNUT85-E-INCH	7420085	84,836 / 3,340	UN	12	155	40	36	126	86	4	49,3	24,6	700 / 10150	345	4,2
HYDNUT90-E-INCH	7420090	89,586 / 3,527	UN	12	160	41	37	130	91	5	49,4	29,6	700 / 10150	346	4,5
HYDNUT95-E-INCH	7420095	94,742 / 3,730	UN	12	165	41	37	136	96	5	52,0	31,2	700 / 10150	364	4,7
HYDNUT100-E-INCH	7420100	99,517 / 3,918	UN	12	170	41	37	142	101	5	54,5	32,7	700 / 10150	381	4,8
HYDNUT105-E-INCH	7420105	104,669 / 4,121	UN	12	175	43	37	147	106	5	56,6	34	600 / 8700	340	5,3
HYDNUT110-E-INCH	7420110	109,855 / 4,325	UN	12	180	43	37	152	111	5	58,7	35,2	600 / 8700	352	5,5
HYDNUT120-E-INCH	7420120	119,786 / 4,716	UN	12	190	43	37	162	121	5	63,0	37,8	600 / 8700	378	5,8
HYDNUT130-E-INCH	7420130	129,692 / 5,106	UN	12	200	44	37	171	131	5	64,5	38,7	600 / 8700	387	6,4
HYDNUT140-E-INCH	7420140	139,642 / 5,489	UN	12	210	44	37	182	141	5	69,0	41,4	600 / 8700	414	6,7
HYDNUT150-E-INCH	7420150	149,555 / 5,888	UN	12	220	44	37	191	151	5	75,3	45,2	600 / 8700	452	7,1
HYDNUT160-E-INCH	7420160	159,614 / 6,284	UN	8	235	47	40	206	161	6	87,2	61,1	600 / 8700	523	8,7
HYDNUT170-E-INCH	7420170	169,139 / 6,659	UN	8	245	47	40	216	171	6	94,7	66,3	600 / 8700	568	9,1
HYDNUT180-E-INCH	7420180	179,476 / 7,066	UN	8	255	47	40	227	181	6	103,0	72,1	600 / 8700	618	9,6
HYDNUT190-E-INCH	7420190	189,789 / 7,472	UN	8	270	50	42	240	191	8	115,9	104,3	600 / 8700	695	11,5
HYDNUT200-E-INCH	7420200	199,314 / 7,847	UN	8	280	50	42	251	201	8	125,0	112,5	600 / 8700	750	12,0
HYDNUT220-E-INCH	7420220	219,151 / 8,628	UN	8	305	52	43	273	222	9	144,2	144,2	500 / 7250	721	14,5
HYDNUT240-E-INCH	7420240	239,827 / 9,442	UN	6	330	53	44	296	242	10	165,3	181,9	500 / 7250	827	17,0
HYDNUT260-E-INCH	7420260	258,877 / 10,192	UN	6	355	55	45	319	262	11	187,9	225,4	500 / 7250	939	20,1
HYDNUT280-E-INCH	7420280	279,502 / 11,004	UN	6	380	56	46	342	282	12	211,8	275,3	500 / 7250	1059	23,1
HYDNUT300-E-INCH	7420300	299,339 / 11,785	UN	6	405	62	52	365	302	13	237,1	331,9	500 / 7250	1185	28,7
HYDNUT320-E-INCH	7420320	319,075 / 12,562	UN	6	430	63	53	389	322	14	264,5	396,7	500 / 7250	1322	32,5
HYDNUT340-E-INCH	7420340	338,811 / 11,339	ACME	5	450	64	53	408	342	14	283,9	425,8	500 / 7250	1419	34,8
HYDNUT360-E-INCH	7420360	359,918 / 14,170	ACME	5	475	65	54	431	362	15	312,9	500,6	500 / 7250	1564	39,0
HYDNUT380-E-INCH	7420380	379,908 / 14,957	ACME	5	500	66	55	454	382	16	336,9	572,8	500 / 7250	1685	43,6
HYDNUT400-E-INCH	7420400	399,923 / 15,745	ACME	5	525	69	58	477	402	17	368,4	663,1	500 / 7250	1842	49,9
HYDNUT420-E-INCH	7420420	419,913 / 16,532	ACME	5	545	70	58	495	422	17	390,0	702,1	400 / 5800	1560	52,8
HYDNUT440-E-INCH	7420440	439,903 / 17,319	ACME	5	565	75	63	519	442	17	424,6	764,3	400 / 5800	1699	58,9
HYDNUT460-E-INCH	7420460	459,918 / 18,107	ACME	5	590	77	64	540	462	18	450,4	855,7	400 / 5800	1802	64,9
HYDNUT480-E-INCH	7420480	479,908 / 18,894	ACME	5	612	79	65	560	482	19	460,0	920,1	400 / 5800	1840	69,4
HYDNUT500-E-INCH	7420500	499,923 / 19,682	ACME	5	635	81	66	585	502	20	523,1	1098,5	400 / 5800	2092	75,7
HYDNUT530-E-INCH	7420530	530,022 / 20,867	ACME	4	670	81	68	617	532	22	562,0	1292,5	400 / 5800	2248	85,1
HYDNUT560-E-INCH	7420560	560,019 / 22,048	ACME	4	705	87	68	650	562	22	612,1	1407,8	400 / 5800	2448	92,9
HYDNUT600-E-INCH	7420600	600,024 / 23,623	ACME	4	750	89	74	695	603	23	676,4	1623,4	400 / 5800	2706	110,1
HYDNUT630-E-INCH	7420630	630,022 / 24,804	ACME	4	780	89	75	725	633	24	727,8	1819,4	400 / 5800	2911	117,7
HYDNUT670-E-INCH	7420670	670,027 / 26,379	ACME	4	825	90	75	768	673	24	795,0	1987,5	300 / 4350	2385	128,9
HYDNUT710-E-INCH	7420710	710,209 / 27,961	ACME	3	870	97	76	812	713	25	877,6	2281,9	300 / 4350	2633	142,2
HYDNUT750-E-INCH	7420750	750,214 / 29,536	ACME	3	922	100	82	862	753	26	1033,0	2789	300 / 4350	3099	174,4
HYDNUT800-E-INCH	7420800	800,202 / 31,504	ACME	3	970	101	84	909	803	28	1079,0	3129,1	300 / 4350	3237	188,1
HYDNUT850-E-INCH	7420850	850,214 / 33,473	ACME	3	1020	101	85	960	853	29	1156,1	3468,3	300 / 4350	3468	200,7
HYDNUT900-E-INCH	7420900	900,201 / 35,441	ACME	3	1070	102	85	1012	903	29	1250,7	3752,1	300 / 4350	3752	211,5
HYDNUT950-E-INCH	7420950	950,214 / 37,410	ACME	3	1125	103	86	1065	953	30	1319,0	4088,8	300 / 4350	3957	231,8

Hydraulic nuts
Schaeffler HYDNUT-HEAVY

New



100 - 900
inner diameter Ø mm

920 - 12210
max. drive-up force kN

700
max. operating pressure bar

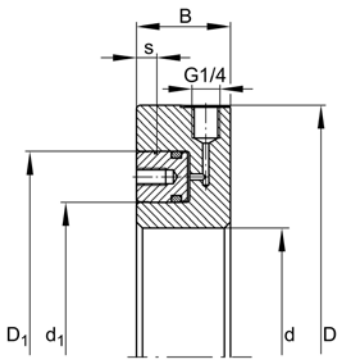
Use in combination with our “Pump sets for Schaeffler HYDNUT” starting on page 141.

Schaeffler HYDNUT-HEAVY

Schaeffler Hydraulic nuts are used to mount bearings with a tapered bore or thread on workpieces. The bearings can be mounted directly on a tapered shaft, on an adapter sleeve or on a retraction sleeve. Disassembly is also possible if the bearing is placed on a retraction sleeve or adapter sleeve. The hydraulic nut is suitable for small bearings to very large bearings that require a high drive-up force. These include ship propellers, rudder blades, shaft couplings and gears.

The range of Heavy nuts are threadless, and available with internal diameters up to 900 mm.

- To be used in combination with special pump sets, see page 141.
- The maximum pressure and available threads are indicated on the pressure ring.
- All hydraulic nuts have a red O-ring showing max. stroke.
- Digital (Art. No. 7499920) and analogue (Art. No. 7499910) dials for accurate measurement of floating clearance when mounting bearings are available as accessories.



Description	Designation
Inside diameter Ø mm	d
Outside diameter Ø mm	D
Width mm	B
Stroke max. mm	s
Piston surface cm²	H
Drive up force max. kN	I

Type	Art. no.	d mm	D mm	B mm	D1	d1	s mm	H cm²	Oil cap. cm3	Pressure max. bar	I kN	Weight kg
HYDNUT100-HEAVY	7430100	100	225	46	180	125	10	132	145	700	920	11,3
HYDNUT125-HEAVY	7430125	125	245	46	200	150	10	137	151	600	820	12,4
HYDNUT150-HEAVY	7430150	150	270	46	226	180	10	147	161	600	880	14,1
HYDNUT175-HEAVY	7430175	175	305	47	250	205	11	161	193	600	960	17,8

Type	Art. no.	d mm	D mm	B mm	D1	d1	s mm	H cm²	Oil cap. cm3	Pressure max. bar	l kN	Weight kg
HYDNUT200-HEAVY	7430200	200	330	48	280	230	12	200	260	600	1200	20,1
HYDNUT225-HEAVY	7430225	225	365	48	313	255	12	259	336	500	1290	24,0
HYDNUT250-HEAVY	7430250	250	390	48	345	280	12	319	415	500	1600	26,1
HYDNUT275-HEAVY	7430275	275	430	48	380	305	12	403	525	500	2020	31,8
HYDNUT300-HEAVY	7430300	300	470	54	410	335	13	439	614	500	2190	42,9
HYDNUT325-HEAVY	7430325	325	500	54	440	360	13	503	704	500	2510	47,3
HYDNUT350-HEAVY	7430350	350	540	54	475	385	13	608	851	500	3040	55,4
HYDNUT375-HEAVY	7430375	375	575	54	510	410	13	723	1012	500	3610	62,2
HYDNUT400-HEAVY	7430400	400	620	56	545	440	15	812	1300	500	4060	76,2
HYDNUT425-HEAVY	7430425	425	650	56	575	465	15	898	1438	400	3590	82,1
HYDNUT450-HEAVY	7430450	450	690	63	610	490	17	1037	1866	400	4150	104,5
HYDNUT475-HEAVY	7430475	475	725	63	642	515	17	1154	2077	400	4620	114,6
HYDNUT500-HEAVY	7430500	500	760	66	675	540	20	1288	2705	400	5150	131,1
HYDNUT525-HEAVY	7430525	525	800	66	710	565	20	1452	3049	400	5810	145,9
HYDNUT550-HEAVY	7430550	550	835	68	742	590	22	1590	3657	400	6360	162,8
HYDNUT575-HEAVY	7430575	575	870	68	775	615	22	1747	4018	400	6990	175,8
HYDNUT600-HEAVY	7430600	600	910	76	808	645	25	1860	4836	400	7440	215,8
HYDNUT625-HEAVY	7430625	625	945	76	840	670	25	2016	5242	400	8060	231,6
HYDNUT650-HEAVY	7430650	650	980	84	875	695	28	2220	6437	300	6660	274,0
HYDNUT675-HEAVY	7430675	675	1020	84	906	720	28	2375	6889	300	7130	297,9
HYDNUT700-HEAVY	7430700	700	1060	86	940	750	30	2522	7818	300	7570	330,5
HYDNUT750-HEAVY	7430750	750	1130	88	1007	800	32	2938	9695	300	8810	381,3
HYDNUT800-HEAVY	7430800	800	1205	92	1070	855	35	3251	11702	300	9750	453,1
HYDNUT850-HEAVY	7430850	850	1275	95	1135	905	38	3685	14372	300	11060	520,3
HYDNUT900-HEAVY	7430900	900	1350	97	1200	960	40	4072	16693	300	12210	595,6

Pump sets for Schaeffler HYDNUT

BETEX AHP / AP / EP

New





2500 - 18000
usable oil-capacity cm³

700/1000
max. operating pressure bar

Use in combination with our "Hydraulic nuts" starting on page 134.

The sets contain:
- Pump
- Pressure gauge, T-adapter
- Hose
- Couplings
- Steel storage box or wooden crate (EP320S)

BETEX pump sets for Schaeffler HYDNUT

Ready-to-use pump sets have been put together specifically for hydraulic nuts. Depending on the required oil capacity, a suitable pump set is always available. They are very easy to use and come pre-assembled. You can get started right away!

- The AHP 801 and AHP 802 hydraulic hand pumps feature a two-stage device for quick manual pressurisation. These pumps are suitable for hydraulic nuts with a required oil capacity of up to 2 litres.
- The AP 3000 and AP 8000 air-operated hydraulic foot pumps are suitable for hydraulic nuts with a required oil capacity of up to 3 and 8 litres, respectively. Foot controls mean you always have two hands free.
- The EP 320S electric hydraulic pump is suitable for all hydraulic nuts. A remote control allows operation from up to 3 metres away.

Type	Art. no.	Pressure bar		Max. pressure bar	Operation	Oil cap. cm³	Usable oil capacity cm³	Oil volume per stroke cm³		Oil volume (cm³/min.@60Hz) in bar				Coupler	Weight kg
		1e stage	2e stage					1e stage	2e stage	7	70	350	700		
AHP 801 HN-SET	7265781	20	700	-	-	3000	2500	12,9	1,65	-	-	-	-	CEJN	11,5
AHP 802 HN-SET	7265782	20	1000	-	-	3000	2500	12,9	1,65	-	-	-	-	CEJN	11,5
AP 3000S HN-SET	720006221	-	-	700	Single	3000	2500	1250	195	-	-	-	-	CEJN	11,2
AP 8000S HN-SET	720006241	-	-	700	Single	8000	7200	1250	195	-	-	-	-	CEJN	21,2
EP 320S HN-SET	8300067	-	-	700	Single	20000	18000	-	-	9500	1020	980	900	CEJN	67,1

Jacks

BETEX CJ series, spring-return, flat, low height



10 tons

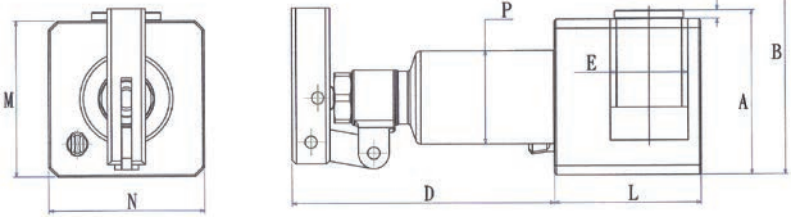
20 tons

Use in combination with “BETEX stainless steel shims” starting on page 168.

BETEX CJ series

- With integrated pump and cylinder.
- Available in 10 or 20 ton.
- Stroke: 41 mm.

- Max. operating pressure: 700 bar.
- Hard chromed piston.
- Ram inside roll-polished.
- Particularly suitable for jobs with limited space, such as positioning machines, mounting tools or load tests.
- Can be used in any position.



Type	Art. no.	Cap. tons	Stroke mm	Oil cap. cm³	Installation height A	Installation height B	C ø mm	D mm	E ø mm	F ø mm	K mm	L mm	M mm	N mm	P ø mm	Weight kg
					min.	max.										
CJ 100	7270100	10	41	155	95	136	40	152.5	45	37.95	4.9	85	90	70	53.8	5.5
CJ 200	7270200	20	41	250	95	136	40	152.5	65	50.8	4.9	110	90	110	69.5	8

Toe jacks

BETEX TOE series

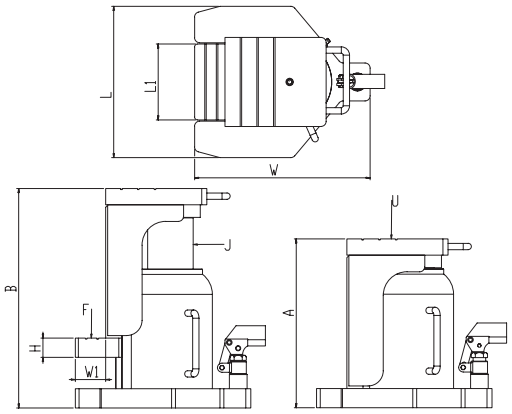


2.5 - 50
tons

Use in combination with “BETEX stainless steel shims” starting on page 168.

BETEX TOE series

- Heat-treated and chrome-plated hydraulic rod provides longer seal life and optimum performance
- Internal safety valve prevents toe jack being used beyond its rated capacity.
- Leakages are prevented by welding the housing onto the forged base.
- Low toe heights for tight spaces.
- Swivel sockets for easy operation.
- Toe jacks can be operated easily by hand.
- Removable handle makes unit easier to operate.



Type	Art. no.	Top cap. U tons	Lifting cap. F tons	Stroke mm	Min. height A mm	Max. height B mm	Piston rod diam. J mm	Dimension base plate LxW mm	Height H mm	Lifting plate L1xW1 mm	Weight kg
TOE-025	731025	2.5	1.2	100	194	294	19	140x190	19	65x50	7.4
TOE-040	731040	4	2	110	204	314	25	150x200	19	65x50	9
TOE-060	731060	6	3	110	212	322	36	160x217	19	65x50	11.3
TOE-100	731100	10	5	130	258	388	40	189x242	22	75x55	17
TOE-160	731160	16	8	131	275	406	52	211x256	25	90x55	23.2
TOE-200	731200	20	10	140	303	443	56	228x274	25	100x60	33.1
TOE-300	731300	30	15	147	322	469	70	259x305	32	110x60	52
TOE-500	731500	50	25	148	333	481	90	299x347	38	150x60	84

Portable power kits

BETEX PPK series



4 tons

10 tons

Use in combination with “BETEX stainless steel shims” starting on page 168.

BETEX PPK series

- 'Snap-on' design for quick and easy assembly and disassembly.
- Extra thick extensions designed for strength prevent bending.
- Single-acting pump, 700 bar with safety valve to prevent overloading.
- Flexible hydraulic hose, 1.8 mtr with spring guards at both ends.
- Versatile thanks to the wide range of accessories!
- All parts are made of forged steel.

Set PPK 4
Incl. 4-ton cylinder, 100 mm stroke, in handy carrying case.

Set PPK 10
Incl. 10-ton cylinder, 150 mm stroke, in handy carrying case on wheels.

Type	PPK 4
Art. no.	7560804
PA350	Heavy duty hydraulic hand pump
HS236	HD hose, 1.8 mtr
RA404	4-ton cylinder with 101.6 mm stroke length
SR05A	Spreader 0.5 ton
B0523	Extension 406.4 mm
B0524	Extension 304.8 mm
B0525	Extension 203.3 mm
B0526	Extension 101.6 mm
B0467	Adapter
F0180	Flat foot
F0181	90 degrees V foot
F0182	Wedge head
F0183	Plunjer toe
F0184	Ram toe
B0013	Flexible rubber cap
F0179	Serrated saddle
G0026	Transport case

Type	PPK 10
Art. no.	7560810
PA600	Heavy duty hydraulic hand pump
HS236	HD hose, 1.8 mtr
RA106L	10-ton cylinder with 152.4 mm stroke length
SR05E	Spreader 0.5 ton
B0711	Extension 482.6 mm
B0712	Extension 355.6 mm
B0713	Extension 254.0 mm
B0714	Extension 127.0 mm
B0406	Adapter
F0174	Flat foot
F0175	90 degrees V foot
F0176	Wedge head
F0177	Plunjer toe
F0178	Ram toe
B0083	Flexible rubber cap
F0173	Serrated saddle
G0021	Transport case on wheels

Hydraulic spreaders & lifting wedges

BETEX 15 TL / 15 TLS / 25 TLS series



15 tons

25 tons

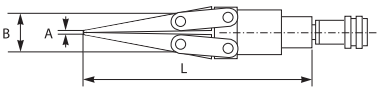
Use in combination with “BETEX stainless steel shims” starting on page 168.



BETEX 15 TL / 15 TLS / 25 TLS series

These patented Special Tools are easy to use and designed to spread or lift loads such as motors, gearboxes and flanges with ease and superior accuracy.

- Loads are lifted perpendicularly.
- Ideal for numerous industrial maintenance repair jobs.
- Accurate height adjustments (shaft alignment) can easily be executed by one person.
- Easy, light and very practical to use.
- Can be placed in gaps of 5-43 mm.
- Due to the reduced thickness of the jaws, made of high-quality hardened steel, these wedges can be used for jobs where working space is extremely limited.
- Including safety block to secure the load and remove the lifting wedge/spreader.
- Available separately and as a complete (duo) set in steel case.



Type	Art. no.	Max. cap. tons	Pump type	Max. operating pressure bar	A mm	B mm	L mm	Weight kg
15 TL	789170	15	single-acting	700	5	40	235	4
15 TL set	789180	15	single-acting	700	5	40	235	16
15 TL duo set	789181	2 x 15	single-acting	700	5	40	235	28
15 TLS	789150	15	single-acting	700	5	40	235	4
15 TLS set	789160	15	single-acting	700	5	40	235	16
15 TLS duo set	789162	2 x 15	single-acting	700	5	40	235	28
25 TLS	789250	25	single-acting	700	8	43	342	8
25 TLS set	789260	25	single-acting	700	8	43	342	20
25 TLS duo set	789261	2 x 25	single-acting	700	8	43	342	36

Hydraulic flange spreaders

BETEX PFS 10T series





10 tons



Safety block

BETEX PFS 10T series

- Spreading flanges safely and easily
- No more use of hammer and chisel, so less strenuous, time saving and most of all safe working
- Use flange spreaders in sets for an even higher spreading force
- Adjustable jaw tip widths from 104 to 216 mm for a wide range of applications
- Special wedge for larger spread
- Suitable up to a max. flange width of 2 x 92 mm. The flange bolt has a min. diameter of 31.75 m

Sets

Various combination sets available in carrying case. All sets are pre-mounted, you can get started right away!

Duo-sets

For more working accuracy, we supply duo-sets with two flange spreaders and a pump with manifold for separate oil flow.

- ✓ You double the spreading capacity
- ✓ Force is distributed more evenly and accurately, preventing warping

Type	Art. no.	Max. cap. tons	Bolt size	Standard wedge mm	Claw width mm	Pump type	Weight kg
PFS 10T	789410	10	M33	3.3 - 28.7	104 - 216	single-acting	15
PFS 10T set (case included)	789411	10	M33	3.3 - 28.7	104 - 216	single-acting	25.2
PFS 10T duo set (case included)	789412	2 x 10	M33	3.3 - 28.7	104 - 216	single-acting	46.6
PFS 10TI Integrated pump (case included)	789413	10	M33	3.3 - 28.7	104 - 216	single-acting	17.5

Sets & duo-sets

Hydraulic spreaders and wedges/spines for lifting, 700 bar

The set always contains:
- 2-stage hand pump
- Pressure gauge, T-adapter
- Male (hose) half coupler, complete quick coupler
- Multi-stage safety block
- Case

The duo-set always contains:
- Pump with manifold for separated oil flows
- 2 Pressure gauges, T-adapters
- 2 Male (hose) half couplers and 2 complete quick couplers
- 2 Multi-stage safety blocks
- Case

All sets are pre-mounted, you can get started right away!

Duo-sets

- For more precise lifting/spreading.
- The lifting force is divided evenly, thus preventing loads to be pressed askew or lopsided burdening.
- Safe: Perfect straight lifting movement prevents the load from tilting.
- The lifting and spreading capacity is doubled.



15 TL set

- Hydraulic spreader or lifting wedge
- Hose, 1.5 mtr
- Art. no: 789180



15 TLS Duo-set

- 2 hydraulic spreaders
- 2 hoses, 1.5 mtr
- Art. no: 789162



PFS 10T set

- Hydraulic flange spreader
- Hose, 1.5 mtr
- Art. no: 789411



PFS 10T Duo-set

- 2 hydraulic spreaders
- 2 hoses, 1.5 mtr
- Art. no: 789412



PFS 10T set

- Hydraulic flange spreader with integrated pump
- Case
- Type PFS 10TI has a built-in hydraulic system for which a separate hose, coupler and hand pump are not necessary. Not available as duo-set.
- Art. no: 789413

Nut splitters

BETEX HNS series

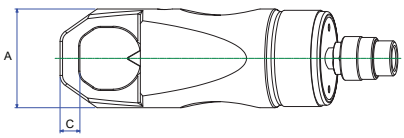


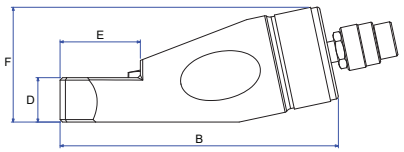
10 - 50
tons

Use in combination with hydraulic hand pumps.

BETEX HNS series

- Compact design used in confined space with enough force to split rusted nuts.
- All models feature a rugged one-piece cutting frame coupled to a heavy-duty hydraulic cylinder
- Specially designed 'tool steel' cutter blade cuts the nut to the precise point where it cracks.
- Unique angled head design to keep full contact with the nut being penetrated.
- Unique angled cutter blade with radius to have greater resistance to cutting and breaking nuts.
- 5 current models suitable up to and including nut class 12.9





Type	Art. no.	Bolt size mm	Thread diameter mm	Cap. tons	Oil cap. cm³	A mm	B mm	C mm	D mm	E mm	F mm	Weight kg
HNS 1924	781924	19-24	M12-M16	10	18	60	167.2	10	25	40	68	2.6
HNS 2432	782432	24-32	M16-M22	15	40	70	178	13	30	52	76	3.6
HNS 3241	783241	32-41	M22-M27	20	68	80	226	15	36	65	93	5.5
HNS 4150	784150	41-50	M27-M33	35	150	95	244	21	45	76	106	11.2
HNS 5060	785060	50-60	M33-M39	50	250	106	269	24	55	92	125	15.1

Tapered roller bearing press

BETEX TOOL-RAILWAY-SEALCAP-PRESS2

New



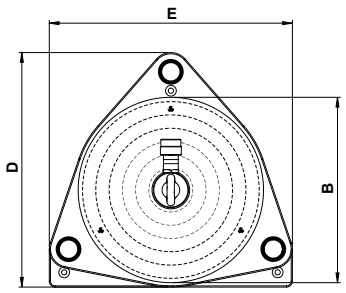
10 tons

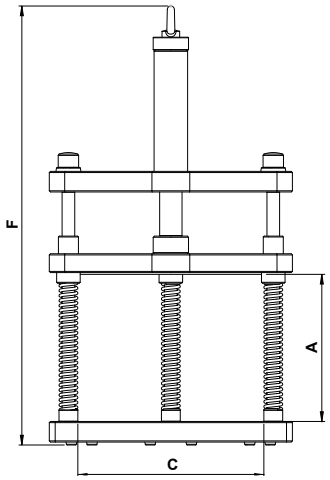
Use in combination with our hydraulic pumps and accessories.

BETEX TOOL RAILWAY SEALCAP PRESS2

The hydraulic press is used to assemble and disassemble seals on tapered roller bearing units, also known as TAROL units. Suitable for all common sizes of TAROL units in rail applications.

- The base plate has rubber feet at the corners and countersunk holes (M8) for mounting on a workbench or trolley.
- The TOOL RAILWAY SEALCAP PRESS2 is driven using the NSSS 106 cylinder (Capacity: 10 tons / Stroke: 152.2mm).
- The round stainless steel plate can be reordered as a spare part.
- Bearing-specific sealing cap tool kits are required for use and are tested and offered if required.





Type	Art. nr.	Cap. ton	Stroke mm	A mm		B ø mm	C mm	D mm	E mm	F mm	Max. operating pressure bar
				min.	max.						
TOOL RAILWAY SEALCAP PRESS2	7550100	10	152,5	172,5	325	315	316	398,5	413	746	700

Hydraulic accessories

Max. operating pressure, 700 bar

With this simple yet complete line of accessories, consisting of hydraulic hoses, couplers, fittings, manifolds and pressure gauges, BETEX Hydraulics has the right accessory for a secure and optimally functioning system.

Hoses

- Heavy-duty hoses for 700 bar, meet global safety standards.
- Hoses are black rubber coated with two layers of steel braided reinforcement.
- Flexible hoses with spring guards at both ends.
- Available to special lengths upon request.
- Hose connection 3/8" NPT



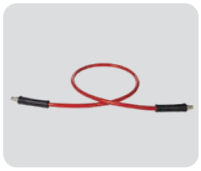
HS 332



HFHS 332



PHS 3312



HPHS 336

Rubber

ID Ø 6,4 mm		
Type	**Art. no.**	**Length m**
HS 332	7299032	0,6
HS 333	7299033	0,9
HS 335	7299035	1,5
HS 336	7299036	1,8
HS 338	7299037	2,4
HS 3310	7299038	3,0
HS 3312	7299039	3,6
HS 3315	72990391	4,5
HS 3320	72990392	6,0
HS 3330	72990393	9,0
HS 3350	72990394	15,0

Rubber High-Flow

ID Ø 9,4 mm		
Type	**Art. no.**	**Length m**
HFHS 332-BG	72990395	0,6
HFHS 333-BG	7299040	0,9
HFHS 334-BG	72990400	1,2
HFHS 335-BG	72990401	1,5
HFHS 336-BG	7299041	1,8
HFHS 338-BG	72990411	2,4
HFHS 3310-BG	7299042	3,0
HFHS 3312-BG	7299043	3,6
HFHS 3315-BG	7299044	4,5
HFHS 3320-BG	7299045	6,0

Polyurethane

ID Ø 6,4 mm		
Type	**Art. no.**	**Length m**
PHS 332	7299332	0,6
PHS 333	7299333	1,0
PHS 335	7299335	1,5
PHS 336	7299336	1,8
PHS 338	7299338	2,4
PHS 3310	72993310	3,0
PHS 3312	72993312	3,6
PHS 3315	72993315	4,5
PHS 3320	72993320	6,0
PHS 3330	72993330	9,0
PHS 3350	72993350	15,0

Polyurethane High-flow

ID Ø 9,7 mm		
Type	**Art. no.**	**Length m**
HPHS 332	7299432	0,6
HPHS 333	7299433	1,0
HPHS 335	7299435	1,5
HPHS 336	7299436	1,8
HPHS 338	7299438	2,4
HPHS 3310	72994310	3,0
HPHS 3312	72994312	3,6
HPHS 3315	72994315	4,5
HPHS 3320	72994320	6,0
HPHS 3330	72994330	9,0

Coupler sets

- BETEX supplies a variety of screw-set quick couplers in 4 different sizes. These can also be used on existing hydraulic systems.
- All couplers are rated to 700 bar and have an anti-leak mechanism that works at both high and low pressure.



CP 211



CP 212



CP 332B



CP 430



CP 330B



CP 331B



CP 431



CP 432

Type	Art. no.	One side	
CP 211	7200172	1/4" NPT	Standard coupler female
CP 212	7200171	1/4" NPT	Standard coupler male
CP 330B	7299179	3/8" NPT	Standard coupler set
CP 331B	7299131	3/8" NPT	Standard coupler female
CP 332B	7299132	3/8" NPT	Standard coupler male
CP 430	7209794	3/8" NPT	No-spill coupler set
CP 431	7209793	3/8" NPT	No-spill coupler female
CP 432	7209792	3/8" NPT	No-spill coupler male

Hydraulic accessories

Max. operating pressure, 700 bar

Pressure gauge

Liquid-filled, for damping needle vibrations. Calibrated for reading in bar and psi. Accuracy: maximum 1.6% deviation from full scale.

M0031B
- Dial 60 mm.

M0040
- Dial 100 mm.

M0031B
Art. no: 7299220



M0040
Art. no: 7299221

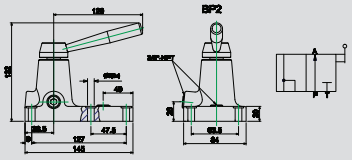


3-way directional control valve

BP2
- Manual operation: 2 positions, extend/ retract for single-acting cylinders.

BP2
Art. no: 7200219





4-way directional control valve

BP421
- Manual operation: extend/hold/retract.
- Mounting on hand pump
- Suitable for: double-acting cylinder or two single-acting cylinders.

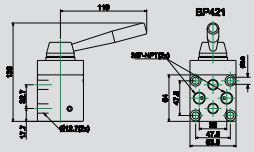
BP422
- Manual operation: extend/hold/retract.
- Mounting on hydraulic pipe
- Suitable for: double-acting cylinder or two single-acting cylinders.

BP423
- Manual operation: extend/hold/retract.
- Suitable for pump types: HP80D, AP13D, AP18D, EP13D, EP18D, EP211D, EP320D and EP420D.

BP425
- Manual operation: extend/hold/retract; lock for holding load.
- Suitable for pump types: HP80D, AP13D, AP18D, EP13D, EP18D, EP211D, EP320D and EP420D.

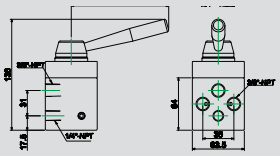
BP421
Art. no: 7200220





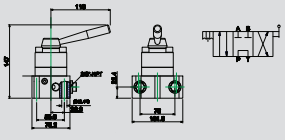
BP422
Art. no: 7200422





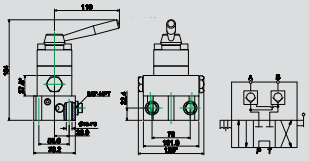
BP423
Art. no: 7200222





BP425
Art. no: 7200223



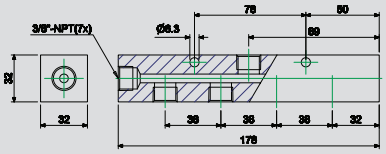


Hydraulic accessories

Max. operating pressure, 700 bar

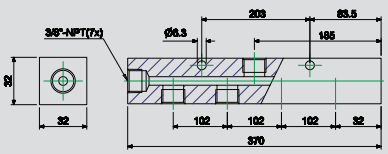
JP64
Manifold
Art. no: 7200139





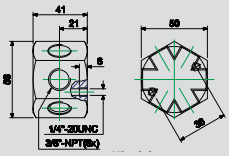
JP65
Manifold
Art. no: 7200140





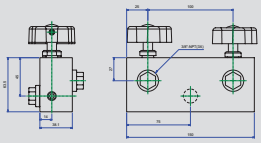
JP66
Manifold
Art. no: 7200141





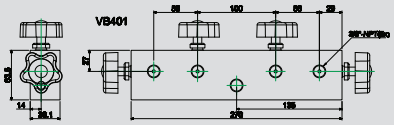
VB201
Manifold
Art. no: 7200066





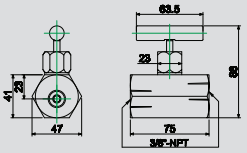
VB401
Manifold
Art. no: 7200067





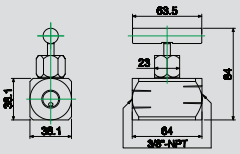
VB66
Control valve
Art. no: 7200226





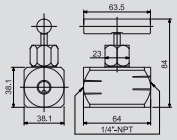
VB101
Control valve
Art. no: 7200224





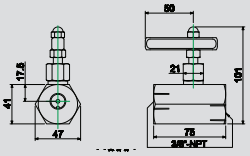
VB102
Control valve
Art. no: 7200225





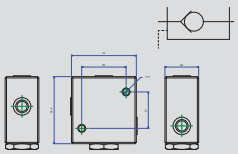
VC331
Control valve
Art. no: 7200068





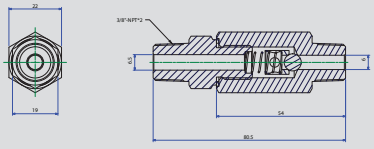
BV42
Safety valve
Art. no: 7200342





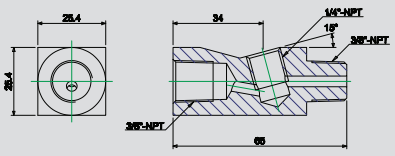
VH33
Non-return valve
Art. no: 7200229





E0567
T-adapter for
pressure gauge
Art. no: 7299230



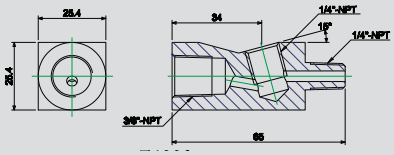


Hydraulic accessories

Max. operating pressure, 700 bar

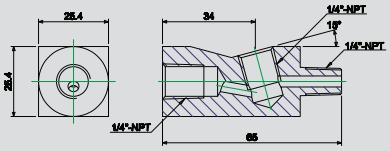
E1336
T-adapter for pressure gauge
Art. no: 7200181





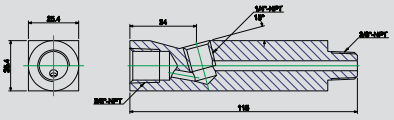
E1343
T-adapter for pressure gauge
Art. no: 7200182





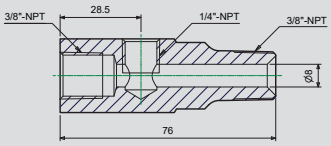
E1745
T-adapter for pressure gauge
Art. no: 7200183



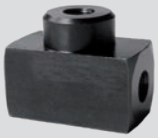


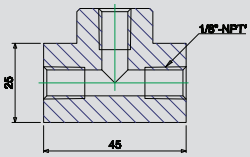
ADG323
T-adapter for high-flow pressure gauge
Art. no: 7299232





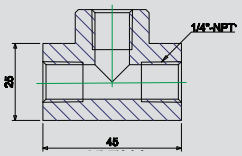
ADT101
T-piece
Art. no: 7200201





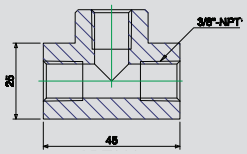
ADT202
T-piece
Art. no: 7200202





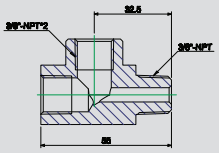
ADT303
T-piece
Art. no: 7200149





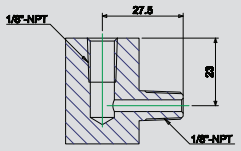
ADG303
T-piece
Art. no: 7200204





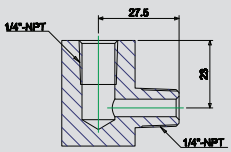
ADL101
Corner
Art. no: 7200142





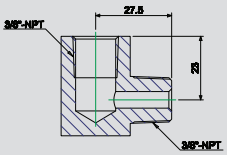
ADL202
Corner
Art. no: 7200143





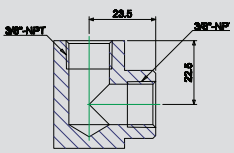
ADL303
Corner
Art. no: 7200144





ADC303
Corner
Art. no: 7200145



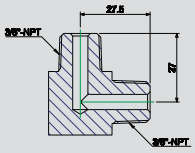


Hydraulic accessories

Max. operating pressure, 700 bar

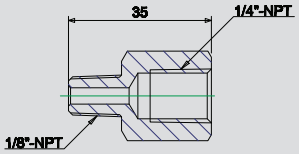
ADE303
Corner
Art. no: 7200200





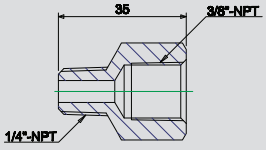
ADF102
Adapter
Art. no: 7200205





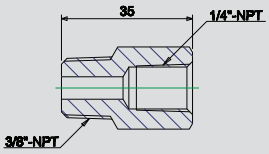
ADF203
Adapter
Art. no: 7200206





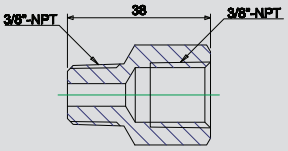
ADF302
Adapter
Art. no: 7200207





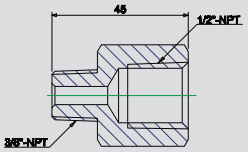
ADF303
Adapter
Art. no: 7200208





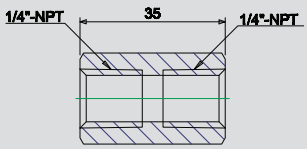
ADF304
Adapter
Art. no: 7200209



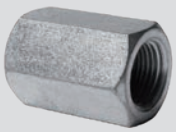


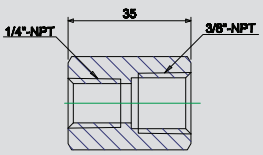
ADI202
Connector
Art. no: 7200210



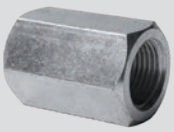


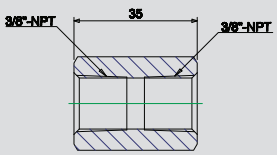
ADI203
Connector
Art. no: 7200211





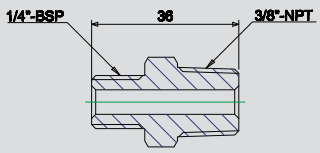
ADI303
Connector
Art. no: 7200212





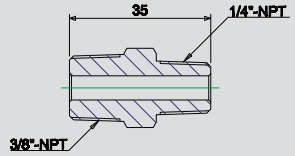
ADO2031
Reducing
connector
Art. no: 7200159





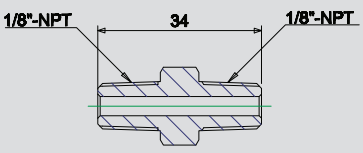
ADO203
Reducing
connector
Art. no: 7200160





ADO101
Hexagon nipple
Art. no: 7200161



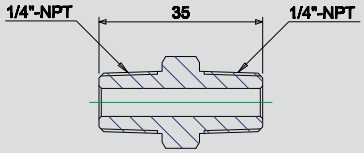


Hydraulic accessories

Max. operating pressure, 700 bar

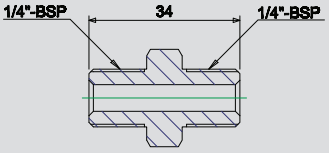
ADO202
Hexagon nipple
Art. no: 7200215





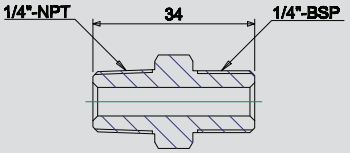
ADO204
Hexagon nipple
Art. no: 7200216





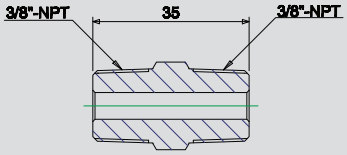
ADO205
Hexagon nipple
Art. no: 7200217





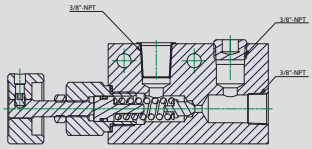
ADO303
Hexagon nipple
Art. no: 7200218





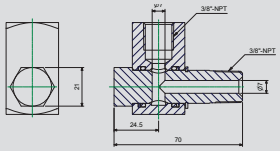
BG9623
Pressure
regulator
Art. no: 7200227





BG9705
High-low swivel
connector
Art. no: 79000661





Hydraulic oil

BETEX LPS 78, Premium hydraulic oil



BETEX LPS 78 equivalent to ISO-15

- High-quality hydraulic oil with low pour point.
- Contains anti-wear, anti-rust, anti-oxidant and anti-foaming additives with high viscosity index.
- For pumps and cylinders, 700 bar.
- Choice of 4 different volumes: 1, 2, 4 or 5 litres.

Art. no.	Description	Liter
789106	Hydraulic Oil LPS 78	1.0
789107	Hydraulic Oil LPS 78	2.0
789108	Hydraulic Oil LPS 78	4.0
789109	Hydraulic Oil LPS 78	5.0

Type	BETEX LPS 78
Gravity, API, 15.6°C / 60.08 °F	29.5
Viscosity, Kin, cSt @ 40°C / 104 °F	70
Viscosity, Kin, cSt @ 100°C / 212 °F	11.3
Viscosity Index	155
Pour Point, °C / °F	-39 / -38.2
Flash Point, COC, °C / °F	244 / 471.2
Color, D1500	L2.0
TAN, mgKOH/g	0.6
Carbon Residue, Rams.,%	0.17
Emulsion, 54°C / 129.2 °F, 40-37-3, min	15

Workbench

BETEX Mobilift





In case of bad working posture. Work desk too low. The feet cannot be placed under the workbench.

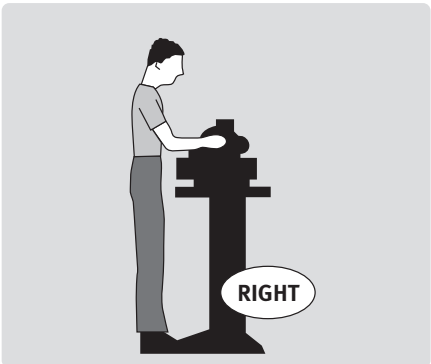
BETEX Mobilift

The BETEX Mobilift is a workbench with a modern construction based on a unique one-arm lifting principle. The workbench is mobile and stable. No hindrance from cables running across the floor thanks to the hydraulic pump. All these features make the BETEX Mobilift a very popular addition to workshops and – after getting acquainted with it – it is impossible to imagine working without it.

BETEX Mobilift workbenches are available with 2 types of load capacity, 400 or 1000 kg.

Advantages:

- Very stable, therefore very suitable as a workbench.
- Extra safe thanks to lack of 'scissor' movement.
- Wooden workbench prevents workpieces from slipping.
- Equipped with 2 lockable drawers.
- Easy operation.
- Promotes right working posture!



The adjustable working height and space for feet allow users to adopt the right working posture, with a straight back and the workbench close to the body.

Type	H400	H1000
Art. no.	260400	261000
Load capacity kg	400	1000
Dimensions in lowest position mm (LxWxH)	1500x950x620	1450x860x620
Workbench dimensions (LxW)	1220x800	1220x800
Min. working height mm	620	670
Max. working height mm	1160	1160
Height adjustment	Hydraulic foot pump	Hydraulic foot pump
Protection	Non-return valve	Non-return valve
Base / frame	2 castor wheels with brake 2 fixed wheels Ø 160	2 castor wheels with brake 2 fixed wheels Ø 160
Wheel width mm	50	50
Wheel base mm	630	630
Length mm	1080	1080
Tools drawer mm (LxWxH)	500x300x100	500x300x100

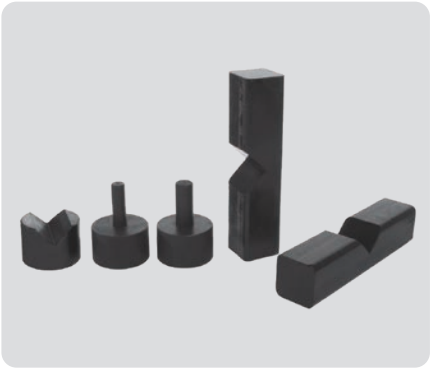
Workshop presses

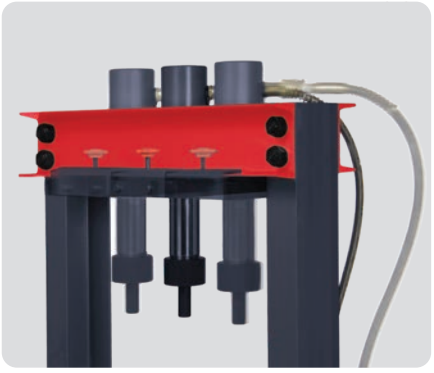
BETEX WSP, with hand, air or electric pump

10 tons

25 tons







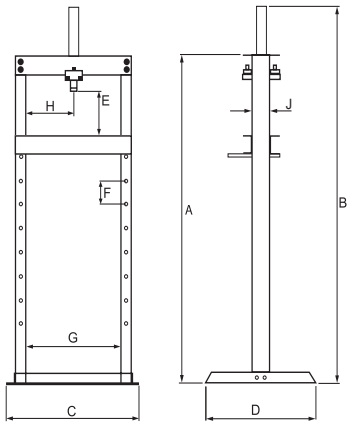
The WSP workshop presses are supplied with adapters and accessories.

BETEX WSP

BETEX WSP 10 ton
Ideal for small pressing jobs. Repair of motors, transmissions, mounting and dismounting of couplings, bearings and other workpieces.

BETEX WSP 25 ton
Suitable for heavy-duty pressing jobs, in garages, industrial workshops, for mounting and dismounting of couplings, bearings and other workpieces.

- The robust steel frame provides maximum stability and cannot bend.
- Various operating positions possible for the press bed.
- Steel crossbars prevent the frame from deforming when loaded.
- Available in 2 models: 10 and 25 tons.
- Includes pressure gauge for exact pressure readings.
- Single-acting and spring-return cylinder can be moved horizontally on the upper frame.
- Also available with hand, electric or air-hydraulic pump.



Type	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm
WSP 10 ton	1650	1900	740	610	225-1065	120	540	50-490	100
WSP 25 ton	1630	1880	920	700	268-980	120	620	100-520	125

Type	Art. no.	Cap. tons	Stroke mm	Pump type	Operating pressure bar	Cylinder type	Weight in kg
WSP10	7511301	10	250	manual	700	single-acting	87
WSPA10	7511302	10	250	air	700	single-acting	88
WSP10HD	7511401	10	250	manual	700	single-acting	87
WSPA10HD	7511402	10	250	air	700	single-acting	88
WSPE10HD	7511403	10	250	electric	700	single-acting	90
WSP25	7512201	25	250	manual	700	single-acting	145
WSPA25	7512202	25	250	air	700	single-acting	146
WSPE25	7512203	25	250	electric	700	single-acting	148

Workshop presses

BETEX WSPM, with hand and/or foot pump

15 tons

30 tons

50 tons

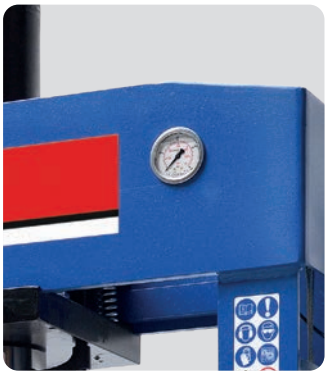




Hand and foot pedal for double operation



Height-adjustable table using a hoist



Integrated pressure gauge



Set of V adapters

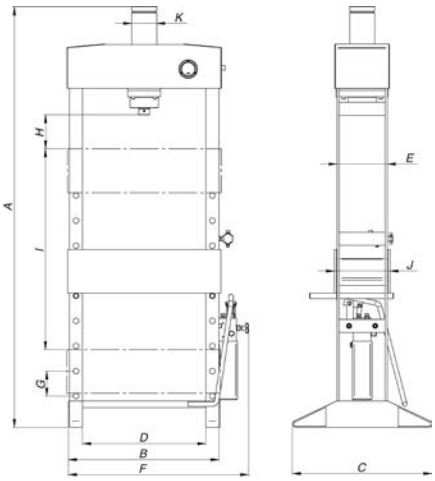
BETEX WSPM

These robust hydraulic workshop presses are suited for professional assembly work, or for professional testing of a wide range of workpieces. They are used for pressing, straightening, bending, punching, assembly, disassembly, etc.

The piston is easy to operate using the hand pump. While operating the press, operation can be switched from hand pump to foot pump.

- High quality! The robust steel frame is welded for maximum stability and a long services life.
- Work surface height is easy to adjust.
- Extremely suitable for high-precision work.
- The 50-ton version of the press is equipped with a hoist.
- Chrome-plated piston with automatic return.
- Single-acting and spring-return cylinder can be moved horizontally on the upper frame (for 50 ton models only).
- Includes pressure gauge for exact capacity readings.
- Includes a set of V adapters.

Dimensions (mm)	WSPM15	WSPM30	WSPM50
A	1880	2010	2025
B	680	685	910
C	600	643	764
D	560	565	750
E	190	230	300
F	828	836	1085
G	100	115	115
H	118	162	140
I	900	920	920
J	214	255	336
K	82	115	140



Type	WSPM15 S160 W560	WSPM30 S160 W565	WSPM50 S160 W750
Art. no.	7513001	7513002	7513003
Pushing force tons	15	30	50
Maximum pressure bar	382.2	374.6	399.5
Cylinder stroke mm	160	160	160
Reservoir volume liters	1.65	1.65	2.5
Fixed cylinder	Yes	Yes	No
Movable cylinder	No	No	Yes
Operating width mm	560	565	750
Weight in kg	135	185	360
Cylinder inner diameter mm	85	115	145
Piston rod diameter mm	40	40	50
Piston bottom diameter mm	50	50	60

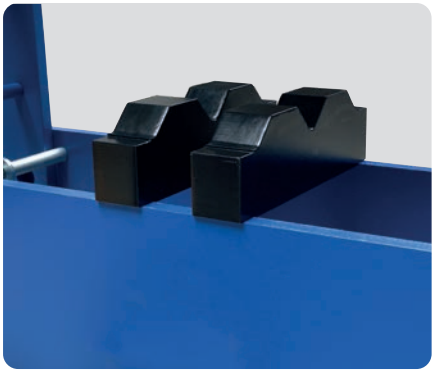
Workshop presses

BETEX WSPE, electric

30 - 300
tons



Dimensions mm	V block 30-60 t	V block 100 t	V block 160 t	V block 200 t
Length	350	440	505	560
Width	60	80	100	60
Height	120	140	170	120
Weight kg	15	25	35	50



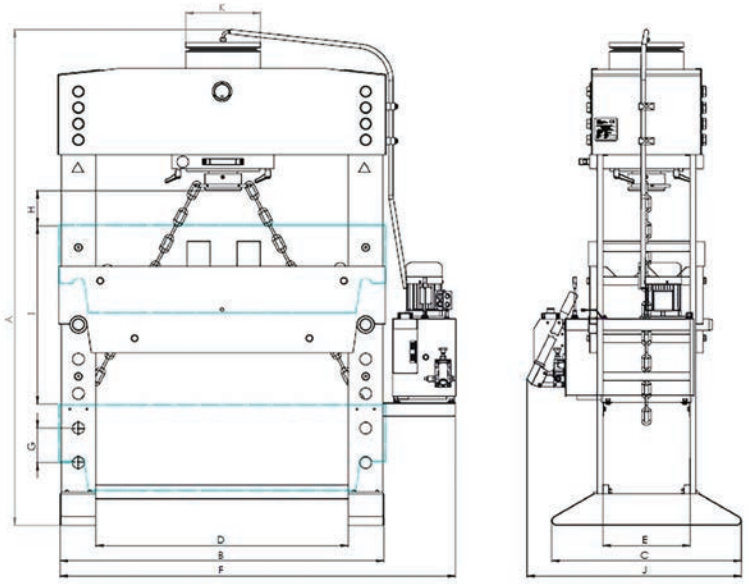
BETEX WSPE

These electric hydraulic workshop presses are suited for general assembly work, straightening, and for testing a wide range of workpieces.

Unique! You have a choice of two different piston speeds: as soon as the rapidly lowering piston detects counter pressure, it will automatically switch back to a lower speed.

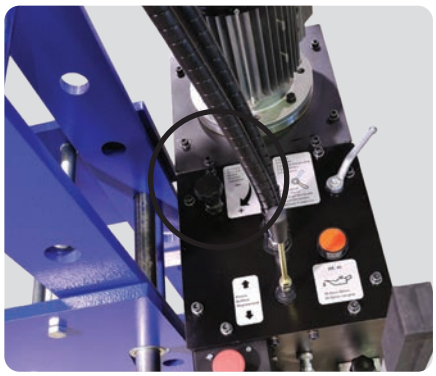
- High quality! The robust steel frame is welded for maximum stability and a long services life.
- Extremely well suited for high-precision work, manual or electric operation.
- Work surface height is easy to adjust.
- Cylinder can be moved horizontally on the upper frame.
- Two piston speeds, chrome-plated piston with removable piston head.
- Includes pressure gauge for exact pressure readings.
- Joystick for high-precision piston operation.
- Double-acting hand pump (100 to 200 ton version) for high-precision piston operation.
- 220V CEE connector to connect a lamp or drill, if required.
- The presses are supplied without oil. (Recommended: Tellus 46)

Optional
- Foot pedal (30-300t)
- Set of V blocks

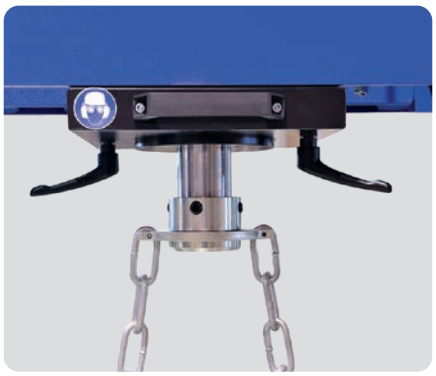


Type	WSPE30 S380 W750	WSPE60 S380 W750	WSPE100 S380 W1100	WSPE100 S380 W1500	WSPE160 S400 W1100	WSPE160 S400 W1500	WSPE200 S400 W1300	WSPE300 S480 W1750
A mm	2120	2120	2140	2080	2200	2270	2270	2250
B mm	1000	1000	1350	1750	1410	1810	1610	2120
C mm	695	695	755	755	825	825	865	985
D mm	750	750	1100	1500	1100	1500	1300	1750
E mm	260	260	300	300	380	380	410	500
F mm	1315	1315	1665	2065	1725	2125	1925	2550
G mm	150	150	150	150	150	150	150	177
H mm	200	197	180	130	180	180	180	180
I mm	750	750	750	750	750	750	750	531
J mm	805	805	865	865	935	935	975	1085
K mm	160	200	250	250	325	325	368	420

Operation



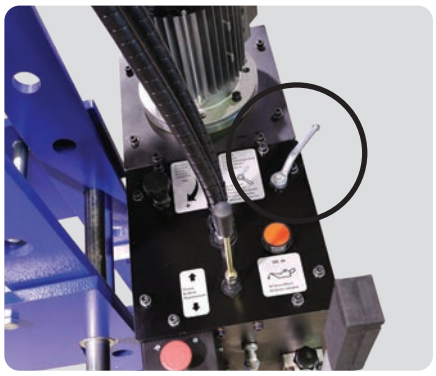
Press force regulation
Regulate the press force using this knob.



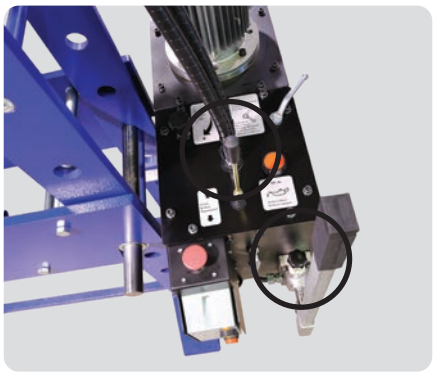
Work surface adjustment
Adjust the work surface height by placing the horseshoe (and the chain) around the piston. The chain is attached to the work surface. Use the joystick to raise or lower the work surface, using the pins to lock the work surface in place.



Cylinder position:
Positioning the cylinder is extremely fast (takes under 10 seconds). Move the cylinders to the left or the right by turning the levers and gripping the handle with your hand. Tighten the levers as soon as the cylinder is positioned the way you want it.

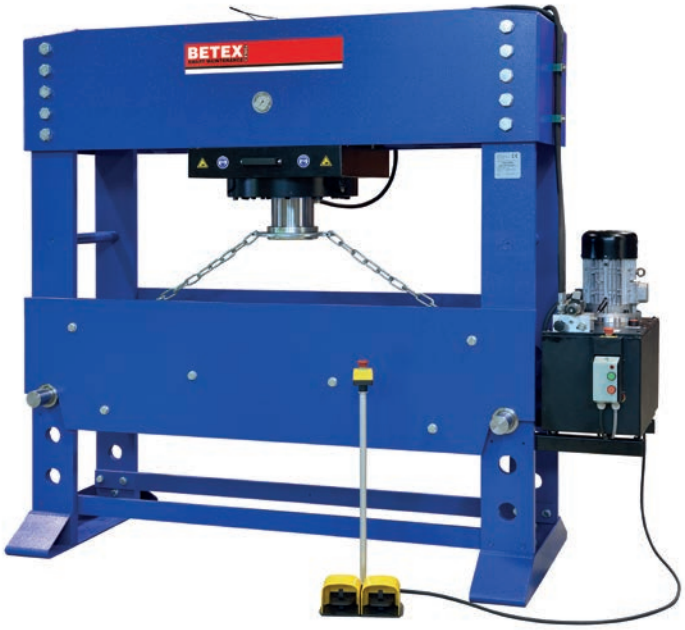


Speed
Unique: WSPE presses offer two operating speeds! At speed 1, the piston will move at ± 2.3 mm/sec. At speed 2, the piston will move at ± 9.5 mm/sec. As soon as the fast-lowering piston detects counter pressure, it will automatically switch back to the lower speed of 2.3 mm/sec. Exact speeds depend on the type of WSPE press.



Joystick:
Use the joystick to operate the WSPE presses, moving them up or down.

Hand pump:
The hand pump (100-200 tons versions) lets you perform high-precision work (in combination with the joystick). Note: the 300-ton press comes with a foot pedal or remote control.



Type	WSPE30 S380 W750	WSPE60 S380 W750	WSPE100 S380 W1100	WSPE100 S380 W1500	WSPE160 S400 W1100	WSPE160 S400 W1500	WSPE200 S400 W1300	WSPE300 S480 W1750
Art. no. 400 Volt	7513004	7513005	7513006	7513008	7513007	7513009	7513010	7513011
Art. no. 220 Volt (USA)	7513016	7513017	7513018	7513020	7513019	7513021	7513022	7513023
Pushing force tons	30	60	100	100	160	160	200	300
Maximum pressure bar	221	259	258	258	255	255	243	260
Cylinder stroke mm	380	380	380	380	400	400	400	480
Oil supply ltr/min	2.82/11.84	2.82/11.84	5.64/17.2	5.64/17.2	7.1/27.6	7.1/27.6	7.1/27.6	12/33
Oil (tank and system) capacity ltr	37	38	46	46	57	57	64	100
Pressing speed mm/sec	3	2.87	2.54	2.54	2.40	2.40	1.2	1.80
Approaching speed mm/sec	9.80	9.5	9.8	9.8	7.48	7.48	6	4.9
Return speed mm/sec	14	12	12	12	9.35	9.35	7.43	6.2
Engine kW	1.5	1.5	3	3	3	3	3	5.5
Voltage V/Ph	400/3 220/3	400/3 220/3	400/3 220/3	400/3 220/3	400/3 220/3	400/3 220/3	400/3 220/3	400/3 220/3
Frequency Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Nominal rpm	3000	3000	3000	3000	3000	3000	3000	2800
Level of protection IP	54	54	54	54	54	54	54	54
Safety class I	I	I	I	I	I	I	I	I
Electric operation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Manual operation	No	No	Yes	Yes	Yes	Yes	Yes	No
Fixed cylinder	Yes	Yes	No	No	No	No	No	No
Movable cylinder	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Speeds	2	2	2	2	2	2	2	2
Operating width mm	750	750	1100	1500	1100	1500	1300	1750
Weight in kg	385	540	970	1145	1195	1430	1690	3150
Cylinder inner diameter mm	130	170	220	220	280	280	320	380
Piston rod diameter mm	60	75	90	90	125	90	140	180
Piston bottom diameter mm	85	100	120	120	160	160	175	215

Workshop presses

BETEX PFPE Portal presses, manual/electric

100 tons

160 tons



BETEX PFPE

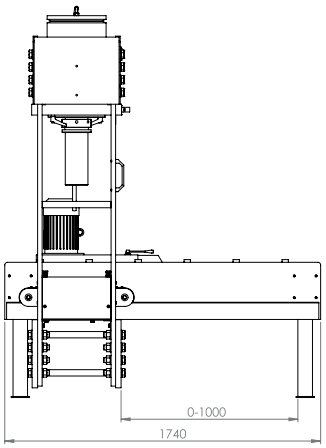
These robust hydraulic portal presses with a manually operated portal are made of high-grade steel. They are extremely suitable for the shaping, straightening or bending of large sheets and heavy materials.

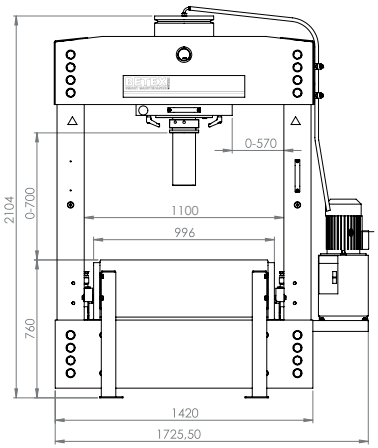
The frame can be moved lengthwise and the cylinder can be moved sideways, enabling access to the material from all sides.

The cylinder and frame can be moved manually. The hydraulic system is very precise, whether the press is operated electrically or manually (using the hand pump). This portal press is equipped with an integrated pressure gauge. The two-speed motorised hydraulic unit has automatic high-speed shutdown and includes a pressure regulator, a joystick to operate the cylinder and a hand pump for high-accuracy pressing.

The machine is supplied with cylinder extension as standard. (Excl. oil, Tellus 46).

Options:
- Flat lower table.
- Custom dimensions, versions and tonnages available on request.
- Set of V blocks.
- Remote control/foot pedal.





Type	PFPE100	PFPE160
Art. no.	7513024	7513025
Pushing force tons	100	160
Engine power kW	2.2	3
Maximum pressure bar	258	255
Cylinder stroke mm	380	400
Installation width mm	1100	1100
Installation height mm	700	700
Operating height mm	720	760
Workbench dimensions LxW mm	1740x996	1740x996
Weight kg	1685	2265

Workshop presses

BETEX PFPE Portal presses, electric



150 tons

220 tons

300 tons

BETEX PFPE

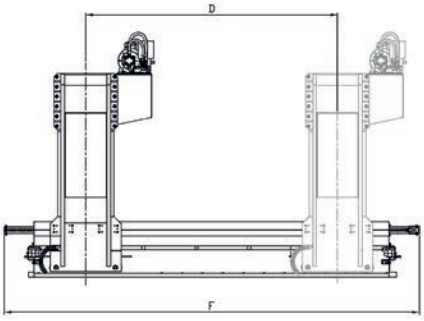
These robust hydraulic portal presses are made of high-grade steel. They are extremely suitable for the shaping, straightening or bending of large sheets and heavy materials. The frame can be moved lengthwise and the cylinder can be moved sideways, enabling access to the material from all sides.

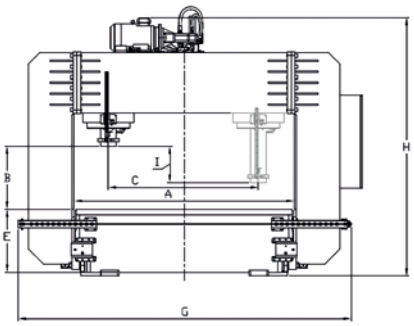
All portal presses are equipped with a double-acting cylinder with a chrome-plated piston and anti-wear guides to protect the cylinder. This press bushing has been designed especially so that different attachments can be fitted to it. The piston stroke is easy to set using the dedicated switches and suspended remote control, which can also be used for moving the frame and cylinder.

There is an emergency stop with interlock. The control panel (on the right side of the machine) includes a switch for the required work type (manual or semi-automatic). The two-speed electric hydraulic pump automatically switches to the lower speed when it detects counter pressure. The hydraulic pump is also equipped with a pressure controller and a gauge. (Excl. oil, Tellus 46).

- Made of ST-52.3 steel
- Large working desk with movable portal

Options:
- Flat lower table.
- Custom dimensions and tonnages available on request.





Type	PFPE160	PFPE220	PFPE300
Art. no.	7513013	7513014	7513015
Pushing force tons	160	220	300
Engine power kW	4	5.5	7.5
Maximum pressure bar	250	250	250
Cylinder stroke mm	460	460	460
Installation width mm	1565	2060	2560
Installation height mm	700	700	700
Operating height mm	600	700	750
Workbench dimensions LxW mm	3000x1800	3500x2000	4000x2500
Weight kg	8700	12000	16000

Type	PFPE160	PFPE220	PFPE300
A	1850	2050	2550
B	850	850	850
C	1150	1350	1960
D	2000	2650	2800
E	700	800	800
F	3500	4000	4500
G	2800	3200	3900
H	2700	3100	3300

Peel-off Shims

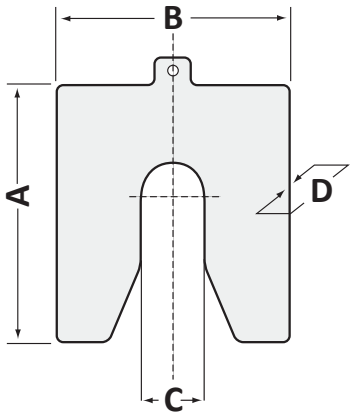
BETEX stainless steel shims



Use in combination with: jacks, spreaders and alignment equipment.

BETEX peel-off shims

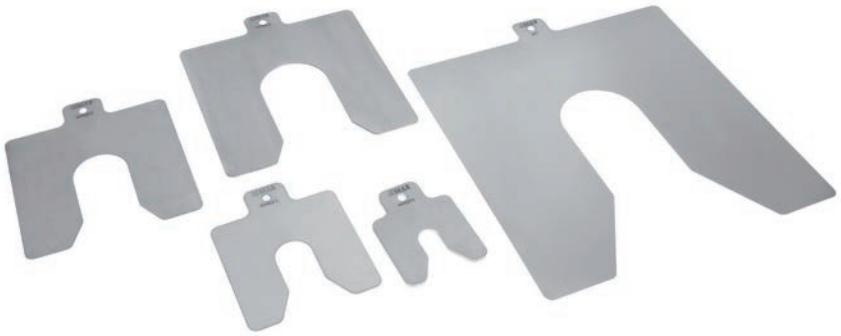
- Laminated pre-cut peel-off shims.
- Made of high-quality stainless steel to prevent corrosion.
- Available in 4 sizes.
- 12 peel-off layers (8 x 0.1 mm and 4 x 0.05 mm).
- Burr-free with specially rounded corners.
- They always fit! Simply peel off until the right thickness is obtained.



Art. no.	Material	Items	A mm	B mm	C mm	D mm	Bolt size
8125505	Stainless steel	10	35	30	9	1	M8
812552	Stainless steel	10	50	50	13	1	M12
812553	Stainless steel	10	75	75	21	1	M20
812554	Stainless steel	10	100	100	32	1	M30

Solid Shims

BETEX stainless steel shims



Use in combination with: jacks, spreaders and alignment equipment.

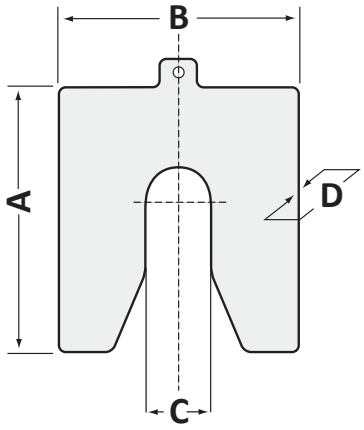
BETEX stainless steel shims

Precut stainless steel shims for fast, simple and precise machine alignment.

- Available in 6 difference sizes and 12 thicknesses.
- Packed in sets of 10 shims.
- High-quality, non-corroding material.
- The shim's thickness is etched on each shim.
- 24 standard combinations in handy cases.
- Suitable for reuse.

Your benefits:

- ✓ You have the right size available for immediate use.
- ✓ The shims have been smoothed and have no burrs.
- ✓ Precise machine alignment helps you get the best machine performance.
- ✓ Stock control. This is now simpler and easier to verify.
- ✓ Now also available in 2 and 3 mm thickness!



Shims Mini 35		Art. no.	D mm
A	35 mm	B035005Mn	0,05
		B035010Mp	0,10
B	30 mm	B035015Mq	0,15
		B035020Mr	0,20
C	9 mm	B035025Ms	0,25
		B035040Mt	0,40
M8		B035050Mu	0,50
		B035070Mv	0,70
		B035100Mw	1,00

Shims A 50		Art. no.	D mm
A	50 mm	B0500025Ak	0,025
		B050005An	0,05
B	50 mm	B050010Ap	0,10
		B050015Aq	0,15
C	13 mm	B050020Ar	0,20
		B050025As	0,25
M12		B050040At	0,40
		B050050Au	0,50
		B050070Av	0,70
		B050100Aw	1,00
		B050200Ax	2,00
		B050300Ay	3,00

Shims B 75		Art. no.	D mm
A	75 mm	B0750025Bk	0,025
		B075005Bn	0,05
B	75 mm	B075010Bp	0,10
		B075015Bq	0,15
C	21 mm	B075020Br	0,20
		B075025Bs	0,25
M20		B075040Bt	0,40
		B075050Bu	0,50
		B075070Bv	0,70
		B075100Bw	1,00
		B075200Bx	2,00
		B075300By	3,00

Shims C 100		Art. no.	D mm
A	100 mm	B1000025Ck	0,025
		B100005Cn	0,05
B	100 mm	B100010Cp	0,10
		B100015Cq	0,15
C	32 mm	B100020Cr	0,20
		B100025Cs	0,25
M30		B100040Ct	0,40
		B100050Cu	0,50
		B100070Cv	0,70
		B100100Cw	1,00
		B100200Cx	2,00
		B100300Cy	3,00

Shims D 125		Art. no.	D mm
A	125 mm	B1250025Dk	0,025
		B125005Dn	0,05
B	125 mm	B125010Dp	0,10
		B125015Dq	0,15
C	45 mm	B125020Dr	0,20
		B125025Ds	0,25
M42		B125040Dt	0,40
		B125050Du	0,50
		B125070Dv	0,70
		B125100Dw	1,00
		B125200Dx	2,00
		B125300Dy	3,00

Shims E 200		Art. no.	D mm
A	200 mm	B2000025Ek	0,025
		B200005En	0,05
B	200 mm	B200010Ep	0,10
		B200015Eq	0,15
C	55 mm	B200020Er	0,20
		B200025Es	0,25
M52		B200040Et	0,40
		B200050Eu	0,50
		B200070Ev	0,70
		B200100Ew	1,00
		B200200Ex	2,00
		B200300Ey	3,00

Solid Shims

BETEX Shim cases

- BETEX shims - solid stainless steel (AISI 304, DIN 1.4301) in robust carrying cases with convenient storage compartments. The ABCD & E cases have wheels.
- The cases contain various shims up to 5 dimensions (HxW): A 50mm, B 75mm, C 100mm, D 125mm and E 200mm.
- The shims are available in 12 different thicknesses from 0.025 to 3.00 mm.
- There are 24 standard combinations, other combinations are available on request.
- To refill the cases, the BETEX shims are supplied in packs of 10.

Use in combination with: jacks, spreaders and alignment equipment.



Case ABC
42x33x18 cm



Case ABCD & E
55x34x24 cm



Handy carrying case with 2 wheels

Art. no.	Case type	Number of shims per series / case in the given thicknesses in mm												Number per case	Weight kg
		0.025	0.05	0.10	0.15	0.20	0.25	0.40	0.50	0.70	1.00	2.00	3.00		
B020210	AB 10/9	-	10	10	-	10	10	10	10	10	10	10	-	180	5
B020230	AB 10/10	-	10	10	-	10	10	10	10	10	10	10	10	200	7
B020240	AB 10/11	10	10	10	-	10	10	10	10	10	10	10	10	220	7
B020270	AB 10/12	10	10	10	10	10	10	10	10	10	10	10	10	240	7
B020310	BC 10/9	-	10	10	-	10	10	10	10	10	10	10	-	180	8
B020330	BC 10/10	-	10	10	-	10	10	10	10	10	10	10	10	200	11
B020340	BC 10/11	10	10	10	-	10	10	10	10	10	10	10	10	220	11
B020370	BC 10/12	10	10	10	10	10	10	10	10	10	10	10	10	240	11
B020410	CD 10/9	-	10	10	-	10	10	10	10	10	10	10	-	180	13
B020430	CD 10/10	-	10	10	-	10	10	10	10	10	10	10	10	200	18
B020440	CD 10/11	10	10	10	-	10	10	10	10	10	10	10	10	220	18
B020470	CD 10/12	10	10	10	10	10	10	10	10	10	10	10	10	240	19
B020110	ABC 10/9	-	10	10	-	10	10	10	10	10	10	10	-	270	9
B020100	ABC 10/10	-	10	10	-	10	10	10	10	10	10	10	10	300	12
B020140	ABC 10/11	10	10	10	-	10	10	10	10	10	10	10	10	330	12
B020160	ABC 10/12	10	10	10	10	10	10	10	10	10	10	10	10	360	13
B020019	ABCD 10/9	-	10	10	-	10	10	10	10	10	10	10	-	360	16
B020030	ABCD 10/10	-	10	10	-	10	10	10	10	10	10	10	10	400	23
B020040	ABCD 10/11	10	10	10	-	10	10	10	10	10	10	10	10	440	23
B020060	ABCD 10/12	10	10	10	10	10	10	10	10	10	10	10	10	480	23
B020590	E 10/9	-	10	10	-	10	10	10	10	10	10	10	-	90	18
B020600	E 10/10	-	10	10	-	10	10	10	10	10	10	10	10	100	26
B020620	E 10/11	10	10	10	-	10	10	10	10	10	10	10	10	110	26
B020660	E 10/12	10	10	10	10	10	10	10	10	10	10	10	10	120	26

Height and width of shim: A shims 50 mm, B shims 75 mm, C shims 100 mm, D shims 125 mm, E shims 200 mm.

Shaft alignment system

Fixturlaser AT-100

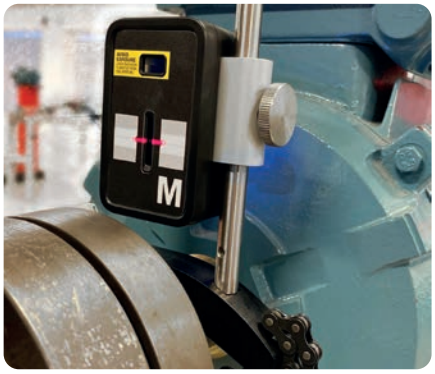
The Fixturlaser AT-100 consists of two wireless sensors. The use of line lasers minimizes setup time. To make it even easier, the sensors are pre-mounted and are pre-set to the most common setup.

The free software runs on an iOS or Android tablet or phone, guiding the user through the entire alignment process. The user interface is entirely graphical and uses no text, so there are no language barriers to overcome.

In addition, the screen clearly shows the current position of the machine and indicates when the alignment is completed. A log with all relevant information is created and saved automatically.

The Fixturlaser is designed for use with the free Laser Kit App.

- Adaptive user interface.
- VertiZontal Moves.
- Pre-mounted sensors.
- Bluetooth Auto Connect.



Complete system

- 2 measuring units (M8 & S8)
- 2 V-brackets with chain (500 mm)
- 1 tape measure, 5 m
- 1 charger
- 1 charging cable
- 1 shaft for rods
- 1 manual
- 1 carrying case

Use in combination with “BETEX stainless steel shims” starting on page 168.

Type	Fixturlaser AT-100
Art. no.	780380
Case	
Weight incl. all parts	4,35 kg
Dimensions LxWxH	400 x 300 x 200 mm
Sensor units	
Dimensions LxWxH	94 x 87 x 37 mm
Weight	0,222 kg
Detector	Digital line sensor
Detector reach	20 mm / 0.01 mm
Connection	Class I Bluetooth transmitter
Communication range	10 m (33 ft)
Measuring distance	Up to 2 m
Measurement accuracy	3% +/- 1 digit
Angular accuracy	+/- 3°
Laser type / Laser class	650 nm diode laser / Safety class II
Laser power	‹ 1 mW
Operating time	12 h
Protection class	IP54
Operating temperature	0 to 50 °C (32 to 122 °F)
Brackets	
Shaft diameter	Ø30 - 150 mm
Rods	2 pcs 150 mm



Shaft alignment system

Easy-Laser XT440

Easy alignment with maximum flexibility
The Easy-Laser XT440 is the first alignment system of the new XT generation. This shaft alignment system is platform independent and can therefore also be used with iOS and Android devices. The Easy-Laser XT440 is very robust, waterproof and dustproof (IP66/IP67). To make this new generation Easy-Laser as user-friendly as possible, all XT measuring programs have been collected in a single user-friendly app that can be downloaded for free.

- Able to align shafts both horizontally and vertically!
- The app works on your iOS or Android phone or tablet.
- No licenses. The measuring units determine which measurements can be carried out.
- Saves measurements.
- Possibility to save notes and photos.
- Information can be shared with your customer by email.
- The XT products are very robust, waterproof and dustproof (IP66/IP67).
- Long battery life.
- Use in combination with XT190.

Optional:
- XT12 display
- XT12 display with integrated thermal camera



Complete system

- 1 measuring unit XT40-M
- 1 measuring unit XT40-S
- 2 measuring units (M & S)
- 2 chain brackets with rods
- 4 rods, 60 mm
- 1 tape measure, 3 m
- 1 hex key set
- 1 charger (100-240V AC)
- 1 DC splitter cable
- DC-USB adapter, for charging
- 1 quick-start manual
- USB with manuals
- 1 carrying case

Type	Easy Laser XT440
Art. no.	780320
Dimensions LxWxH	460 x 350 x 175 mm
Weight incl. all parts	7.2 kg
Sensor unit M/S	
Detector	True PSD 30 mm
Connection	Bluetooth
Measurement accuracy	‹ 1 % / up to 10 m
Laser type / Laser class	Diode laser / Safety class II
Casing material	Anodised alu PC/ABS + TPE
Dimensions LxWxH	76 x 76.7 x 39.3 mm
Weight	245 g



Type	XT12 display
Art. no.	780319
Art. no. (With IR camera)	780318
Display unit XT12	
Operating temperature	-10 to 50°C / 14 to 122 °F
Display	VGA 8” colour display, LED
Power / Operating time	Heavy duty Li Ion rechargeable / 16 hours
Connection	WiFi
Casing material	PC/ABS + TPE
Dimensions LxWxH	274 x 190 x 44 mm
Weight	1,450 g
Cable (loading)	Splitter 1 m
Brackets (chain)	V bracket for chains, width 18 mm, shaft diameter 20-150 mm
Rods	120 mm, 60 mm extendable / Stainless steel



Shaft alignment system

Fixturlaser ECO

The ECO makes alignment equipment available to everyone thanks to its price/quality ratio.

The 20 mm sensors and user-friendly interface ensure that alignment can be performed in any situation.

- Integrated Bluetooth.
- Pre-mounted brackets.
- 4" colour display.
- VertiZontal Moves, innovative and time-saving features.
- Screen flip.
- 8 hours of battery time, when used continuously.
- CCD sensor technology.
- Actual values during adjustment.
- IP65 classified (resistant to extreme conditions).
- Narrow wireless sensor unit.



Complete system

- 1 display unit ECO
- 2 measuring units (S6 & M6)
- 1 tape measure, 5m
- 1 EUR/US power cable, 2 m
- 2 USB cable A-mini B 0.5 m black
- 2 USB cable A-mini B 1.5 m black
- 2 V-brackets with chain
- 2 universal tools
- 1 manual
- 1 carrying case

Use in combination with “BETEX stainless steel shims” starting on page 168.

Type	Fixturlaser ECO
Art. no.	780346
Weight incl. all parts	4.8 kg
Dimensions LxWxH	415 x 325 x 180 mm
Display unit	
Dimensions LxWxH	181 x 106 x 34 mm
Weight	0.36 kg
Display	4” (102 mm) diagonal 84x56 mm
Operating time	8 hours continuous
Sensor / units	
Weight	M6 200 g / S6 188 g
Protection class	IP65
Measuring distance	Up to 3 m
Detector	Digital line sensor
Detector reach / resolution	20 mm / 1% ±1 number
Measurement accuracy	0.3% ±7 µm
Brackets	
Shaft diameter	Ø25-175 mm / Ø25-450 mm + chain
Rods	4 pcs 150 mm



Shaft alignment system

Fixturlaser EVO

The new laser alignment system, the Fixturlaser EVO, is based on simplicity.
The user is guided through the alignment process using colour-coded symbols. The Fixturlaser EVO has an extensive software package, including the Feetlock program that can be used when machines are fixed.

- Integrated Bluetooth.
- 5" colour display, compact and lightweight.
- VertiZontal Moves, innovative and time-saving features.
- Screen flip.
- CCD sensor technology.
- Actual values during adjustment.
- IP65 classified (resistant to extreme conditions).
- Narrow wireless sensor units.
- 8 hours of battery time, when used continuously.



Complete system

- 1 display unit EVO
- 2 measuring units (M3 & S3)
- 2 V-brackets complete
- 2 chains, 8 mm
- 1 tape measure, 5 m
- 1 EUR/US power cable, 2 m
- 3 USB cable A-mini B 2 m, USB cable A-mini 0.5 m
- 1 EUR/US power supply, 2 m
- 2 universal tools
- 1 manual
- 1 carrying case

Type	Fixturlaser EVO
Art. no.	780347
Weight incl. all parts	5.4 kg
Dimensions LxWxH	415 x 325 x 180 mm
Display unit	
Dimensions LxWxH	181 x 103 x 180 mm
Weight	0.36 kg incl. battery
Display	5” (127 mm) diagonal / 111x63 mm
Operating time	8 hours continuous
Sensor / units	
Weight	M3 212 g / S3 188 g
Dimensions LxWxH	92 x 77 x 33 mm
Protection class	IP65
Measuring distance	Up to 10 m
Detector	2nd generation digital sensor
Detector reach / resolution	30 mm / 1 µm
Measurement accuracy	0.3% ±7 µm
Brackets	
Shaft diameter	Ø25 - 175 mm
With extension chain	Ø25 - 450 mm
Rods	4 pcs 150 mm

Use in combination with “BETEX stainless steel shims” starting on page 168.



Shaft alignment system

Fixturlaser NXA Pro

A shaft alignment system based on a digital laser! The NXA Pro is very compact: with a width of only 33.5 mm, the sensor units fit into the narrowest of spaces. The sensor units have long-life batteries, Bluetooth communication and gyroscopes. The gyroscopes make it possible to measure according to the Tripoint Method in the vertical shaft alignment application, something that no other shaft alignment instrument is capable of!

- OmniView: 6.5" display with icons and symbols to guide the user.
- Gyroscope with unique Tripoint Method for vertical shaft alignment.
- VertiZontal Moves, innovative and time-saving features.
- Integrated Bluetooth.
- Battery management, 10 hours of continuous operation, display charged to an 80% capacity within 1 hour.
- CCD sensor technology.
- Actual values during adjustment.
- IP65 classified (resistant to extreme conditions).
- Very compact sensor units.
- Measurements can be saved and copied to a USB stick.



Complete system

- 1 NXA Pro display unit
- 2 measuring units (M3 & S3)
- 2 V-brackets, 2 magnetic V-brackets
- 1 extension fixture
- 1 USB stick
- 1 magnetic base, 1 rod kit
- 1 power supply
- 1 chain 8 mm, 60 links
- 1 tape measure, 5 m
- 2 shafts for rods
- 1 manual (in English)
- 1 carrying case

Type	Fixturlaser NXA Pro
Art. no.	780348
Weight incl. all parts	7.7 kg
Dimensions LxWxH	415 x 325 x 180 mm
Display unit	
Dimensions LxWxH	124 x 158 x 49 mm
Weight	1.2 kg
Protection class	IP65
Display	6.5” (165 mm) diagonal (133x100mm)
Gyroscope	6-axis MEMS inertial meaurement sensor with drift compensation and autom. field calibration
Operating time	10 hours continuous (with 50% LCD display light)
Charge time / Operation time	1 hour of charging › 6 hours of operation
Sensor / units	
Weight	M3 212 g / S3 188 g
Dimensions LxWxH	92 x 77 x 33 mm
Protection class	IP65
Measuring distance	Up to 10 m
Detector	Quaity degree Ultra HD CCD
Detector reach / resolution	30 mm / 1 µm
Measurement accuracy	0.3% ±7 µm
Gyroscope	Refer to Display unit
Operating time	17 hours continuous
Shaft brackets	
Shaft diameter	Ø20 - 450 mm
Rods	4 pcs 85 mm and 4 pcs 160 mm (extendable to 245 mm)

Use in combination with “BETEX stainless steel shims” starting on page 168.



Shaft alignment system

Schaeffler LASER-EQUILIGN2

The accurate alignment of rotary shafts is essential for cost-effective production in any industry. This reduces energy consumption, increases machine availability and extends machine service life. LASER-EQUILIGN2, the new generation of laser alignment systems for horizontal applications, features maximum precision, extreme efficiency, and convenient operation. Single laser technology enables accurate measurements in any situation.

LASER-EQUILIGN2 can be installed quickly and easily. The portable tablet simplifies operation by guiding users step by step through the alignment process.

- Maximum precision thanks to single laser technology
- Economical solution for horizontal alignment
- Quick and easy to install
- User-friendly operation with non-verbal user interface
- Large 8-inch display with touchscreen



Complete system

- 1 handheld tablet
- 1 shaft brackets for laser/sensor unit and reflector
- 1 laser/sensor
- 1 reflector with roof prism
- Various cables for data transfer or charging sensor/tablet
- 1 tape measure
- 1 hex wrench, SW 4
- 1 carrying case

Use in combination with “BETEX stainless steel shims” starting on page 168.

Type	Schaeffler LASER-EQUILIGN2
Art. no.	780500
Weight incl. all parts	7.8 kg
Dimensions LxWxH	500 x 410 x 140 mm
Display unit	
Weight	0.71 kg
Dimensions LxWxH	256 x 149 x 35 mm
Protection class	IP68
Display	8” (203 mm) diagonal
Operating time	Up to 11 hours
Sensor / units	
Weight	210 g with dust cap
Dimensions LxWxH	105 x 96 x 55 mm
Protection class	IP65
Measuring distance	Up to 30 m
Detector	
Detector reach / resolution	Unlimited / 1 µm
Measurement accuracy	› 98%
Operating time	10 hours continuous



Pulley alignment system

Schaeffler LASER-SMARTY3

The LASER-SMARTY3 is an extremely affordable and universally applicable disc and pulley alignment system for aligning V-belts, toothed belts, flat belts and chain drives.

The LASER-SMARTY3 is applicable to both magnetic and non-magnetic discs. It has two magnetic aligning blocks with offset control to allow, if necessary, thickness differences of the pulley discs. This allows you to measure the parallel and angular errors between both pulleys directly in relation to the belt position in the groove. The magnetic straighteners and device can be mounted within seconds. A visible laser appears on the target blocks. If the laser line shines exactly through the slots of the alignment blocks, the discs are aligned. The result is a fast and accurate alignment.

- Displays parallel error and angular error between pulley discs.
- Works faster and more accurately.
- For both horizontal- and vertical-mounted machines.
- Can also be used with non-ferrous discs.
- Can be operated by 1 person.
- Measuring distance 0.04 - 3 metres. (LOW power mode)
- Measuring distance 0.5 - 10 metres. (HIGH power mode)

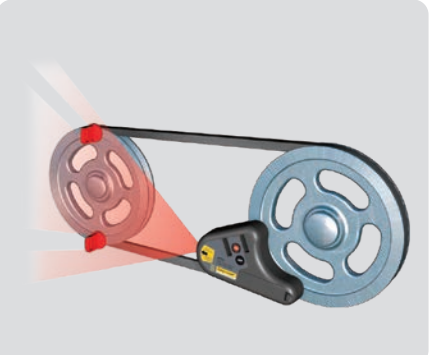


Complete system

- 1 laser
- 2 targets
- 1 nylon carrying bag + instructions for use

Use in combination with “BETEX stainless steel shims” starting on page 168.

Type	Schaeffler LASER-SMARTY3
Art. no.	7803105
Laser transmitter	
Disc diameters	Ø60mm and larger
Laser class	2
Laser wave length / radiation angle	635-670 nm / 60°
Accuracy	Laser plane – Reference plane Parallelity: ‹0.05°, Offset ‹0.2 mm
Power / Operating time	1x (AA) 1.5 V / 12 hours
Casing material	ABS plastic / hard anodised alu
Weight	265 g
Dimensions LxWxH	145 x 86 x 30 mm



Pulley alignment system

Schaeffler LASER-TRUMMY2

Proper belt tensioning is an essential prerequisite for maximum service life of the belt drive and drivetrain components.

The LASER-TRUMMY2 is a sturdy optical-electronic hand-held measuring instrument for measuring belt tension. The measuring instrument is equipped with a wireless measuring probe for direct connection and a wired measuring probe for hard-to-reach places. Measurement is carried out while the machine is stationary. The device displays two readings. The frequency in Hz and the belt tension in N. The corresponding measured value can be compared with the target value specified by the belt-drive manufacturers.

Maximum performance and optimum belt-drive service life depend on proper alignment.

Proper belt tension:
- Prevents damage to bearings
- Reduction of drive-component wear
- Reduction of running noise
- Lowers energy costs
- Simple operation and very user-friendly



Complete system

- 1 measuring instrument
- 1 measuring sensor with cable
- 1 plug-in sensor
- 1 battery 9V
- 1 carrying case

Use in combination with “BETEX stainless steel shims” starting on page 168.

Typ	Schaeffler LASER-TRUMMY2
Art. no.	780703
Dimensions case LxWxH mm	255 x 210 x 60
Sensor / units	
Weight kg	0,98
Dimensions LxWxH mm	80 x 126 x 37
Operating temperature	+10°C ... +50°C
Measuring range	10 Hz – 800 Hz
Display	2 lines LCD, 16 characters
Power	Battery (9V)
Casing material	Plastic (ABS)
Minimum free belt strand	› 150 mm
Display error	± 1 Hz
Total error	‹ 5%
Available languages	10
Input limit free strand length	≤ 9,99 m
Input limit belt mass	≤ 9,999 kg/m
Calibration (recommended)	max. 2 years (periodic)



Pulley alignment system

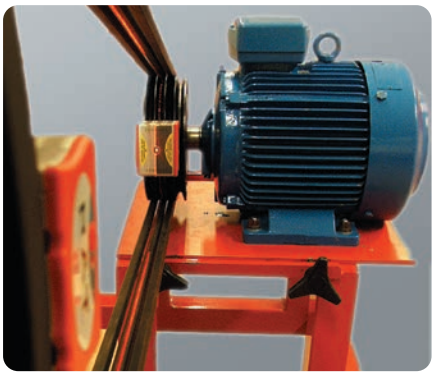
Fixturlaser PAT

The PAT alignment laser for pulleys will be your final solution for all your pulley alignment jobs! Because the groove of the belt is used as a reference, you can see at a glance whether the pulleys are properly aligned or not.

The PAT is supplied with two laser units, both equipped with a spring mechanism that can be fixed in the grooves of the pulleys. In addition, the PAT is equipped with various sized removable guides allowing the lasers to be mounted on most standard gauges (A-E 6 mm - 40 mm). Additional guides are available as accessories.

The use of two laser units makes it very easy for the user to determine the adjustment required, e.g. whether to correct a parallel error or an angular error. Within a few seconds it is clear whether the pulleys need to be aligned.

Timing belt tips/guides for timing-belt alignment are available as an accessory (Art. no. 780701).



Complete system

- 2 boxes of V-guide tips
- 1 pair of laser transmitters
- 4 AAA batteries
- 1 carrying case



Type	Fixturlaser PAT
Art. no.	780700
Weight incl. all parts	1.5 kg
Dimensions LxWxH	250 x 180 x 80 mm
Sensor units	
Weight	340 g
Dimensions LxWxH	61 x 77 x 61 mm
Laser	630 – 675 nm class 2 diode laser
Laser line angle	90°C
Laser power	‹ 1 mW
Measuring distance	50 mm - 6000 mm
Measurement accuracy	In excess of 0.5 m or 0.2 degrees
Disc diameter range	75 mm and larger
Pulley belt groove width	6 mm - 40 mm
Power / Operating time	2 AAA batteries / 20 hours continuous



Box with V-guide tips



Timing belt adapter set for PAT

Pulley alignment system

Easy-Laser XT190 BTA

A wireless and digital disc and pulley alignment system for the alignment of V-belts, toothed belts, flat belts and chain drives.

- Actual digital values for even greater accuracy.
- Possibility to save measurement results in a report/PDF creates long-term advantages and is beneficial for the service life of belts and chains.
- Can be used on your own Android or iOS device with app.
- Accurate, efficient and user-friendly.
- Simultaneous horizontal and vertical alignment.
- Easy to operate by 1 person.
- Use in combination with XT440.



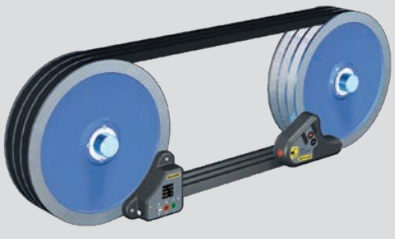
Complete system

- 1 laser / 1 sensor
- 2 targets
- 1 charger (100-240V AC) + cable
- 1 USB stick with documentation
- 1 carrying case

Use in combination with “BETEX stainless steel shims” starting on page 168.

Type	Easy-Laser XT190 BTA
Art. no.	7803104
Dimensions case LxWxH	270 x 225 x 80 mm
Laser transmitter	
Disc diameters	Ø60mm and larger
Laser class	2
Laser wave length / radiation angle	635-670 nm / 60˚
Accuracy	Laser plane – Reference plane Parallelity: ‹0.05˚, Offset ‹0.2 mm
Power / Operating time	1x (AA) 1.5 V / 8 hours
Casing material	ABS plastic / hard anodised alu
Weight	270 g
Dimensions LxWxH	145 x 86 x 30 mm
Detector	
Measuring distance	Up to 3 m between transmitter and receiver
Measuring range	Axial offset: ±3 mm. Angular value ±8˚
Display	Yellow OLED 96 x 96 pixels
Connection	Bluetooth wireless technology
Battery type / life	Li-Po / 5 hours continuous
Casing material	ABS plastic / anodised alu
Weight	190 g
Dimensions LxWxH	95 x 95 x 36mm





Monitoring
Laser thermometers

Portable digital laser/infrared thermometer with a perfect price/quality ratio. The instruments measure very accurately, are low in energy consumption and easy to operate.

Ideal for fast and safe measurement of liquids, gases and many other substances, as well as for temperature measurements of motors, brake systems and heating systems.

The thermometers all have:
- Illuminated LCD display
- Accuracy 0.1°C
- Automatic 'hold' function
- Readable temperature of 0.1°C
- Measurement in Celsius or Fahrenheit
- Batteries
- User Manual



BETEX 1240

Infrared thermometer
- Measuring range: -50°C to 500°C
- Incl. transport bag

Type	BETEX 1240
Art. no.	610040
Measuring range	-50 ... +500 °C / -58 ... +932 °F
Accuracy	±3 °C / 5,4 °F at -50 +20 °C / -58 +68 °F
Resolution	0.1 °C / 0.1 °F
Spot ratio	12:1
Emissivity	0,95 (fixed)
Laser class	Class 2
Automatic switch-off	Yes
Power	9V battery
Weight	250 g
Dimensions LxWxH	95 x 82 x 192 mm



BETEX 1300

Digital thermometer
- Measuring range: -210°C to 1372°C
- 2 thermowire sensors

Type	BETEX 1300
Art. no.	610260
Measuring range thermocouple K Type	-200 to 1372 °C / -328 to 2501 °F
Measuring range thermocouple J Type	-210 to 1100 °C / -346 to 2012 °F
Accuracy	›100 °C (148 °F) ± [0.15 % of reading +1 °C (1.8 °F)] ‹100 °C (148 °F) ± [0.5 % of reading +2 °C (3.6 °F)]
Measurement	Direct / differential (T1-T2)
Adjustable units	°C / °F / K
Automatic switch-off	After 20 min. of inactivity
Power	3x 1.5V AAA batteries
Weight	145 g
Dimensions LxWxH	160 x 60 x 25 mm

Monitoring

Decibel meter / Tachometer



BETEX 1500

Decibel meter / sound meter

Includes
- Adapters
- Wheel
- Inner and outer cone
- 3 reflective tapes
- Bag

Type	BETEX 1500
Art. no.	610270
Measuring range	35 - 135 dB
Dynamic range	50 dB
Frequency range	31.5 Hz - 8 kHz
Accuracy	±2 dB
Frequency	31.5 Hz - 8 kHz
Frequency measurement	A
Microphone type	1/2“ Elektret condensor microphone
Visual alarm limits	›100 dB: display shows “HI” ‹100 dB: display shows “LO”
Temperature accuracy	±1.5 °C
Resolution	0.1
Display update	300 ms
Automatic switch-off	After 15 min. of inactivity (may be deactivated)
Power / Operating time	3x 1.5V AAA batteries / ‹60 h
Dimensions LxWxH	144 x 56 x 30.5 mm
Weight	73 g



BETEX 1600

Tachometer

Includes:
- Wind-noise suppressor

Type	BETEX 1600
Art. no.	610280
Measuring range laser-optical	2 - 99999 r.p.m.
Measuring range mechanical	2 - 20000 r.p.m.
Resolution	0.1 r.p.m. in 2.0 - 9999.9 r.p.m. range
Accuracy	± 0.05% of r.p.m. measuring value; ± 1 digit
Measuring distance	50 - 500 mm
Memory	10 readings
Power	1 x 9V battery / external power source 6V
Casing material	Robust ABS plastic
Display	LCD, 5 digits, 22 mm high
Dimensions LxWxH	160 x 60 x 42 mm
Weight	200 g

Monitoring

Stethoscope / Endoscope



BETEX ELS12

Electronic stethoscope / vibration checker

Includes:
- Stethoscope
- Headphones
- Sensor of 70 mm & 290 mm
- Case

Type	BETEX ELS 12
Art. no.	610320
Frequency range	100 Hz - 10 kHz
Volume	Adjustable
Operating temperature	-10 to +55 °C / 14 to 131 °F
Power	9V battery
Casing material	ABS
Dimensions LxWxH	206 x 50 x 32 mm
Needle sensor (screw-in)	1 x 290 mm; 1 x 70 mm (length)
Sensor material	Steel
Weight	240 g incl. battery

For preventive maintenance and machine repairs. Easily locate the source of mechanical noise in many machines.

Applications include the monitoring of the operating state of valves, injectors, electrical relays, pumps, lubrication systems, shafts, transmissions and bearings, etc.



BETEX Endoscope

Electronic videoscope

Includes:
- Card reader
- 8G SD card (expandable to 32GB)
- Case

Type	BETEX Endoscope
Art. no.	7803110
Probe diameter	6 mm
Pixels	690,000
Light intensity	20.000 lux
Storage capacity	8GB (expandable to 32GB)
Protection class	IP67 (probe) / IP55 (casing)
Interface	HDMI
File type	Photo: BMP, Video: MP4
Display	3,5” TFT daylight display (sunlight readable)
Weight	≤ 0.45 kg (incl. battery)

User-friendly videoscope suitable for detection, examination and preventive maintenance.

- Provides access to hard-to-reach spaces thanks to the 360-degree articulating tip, which is equipped with LED lighting.
- The probe is suitable for the toughest conditions.
- Its double insulation structure make it waterproof, and oil and corrosion resistant.
- Easy HDMI connection to a large screen, so external personnel can assess the test results properly.
- The endoscope is equipped with a magnetic handle.
- Easy one-hand operation.
- Simple user menu.

Monitoring

Bearing Checker Bearing condition meter

This easy in use, light weight instrument is used for fast, on-site condition assessment of all types of ball and roller bearings, in motors, gearboxes, pumps and fans. It is used for regular measurements at predefined positions and under similar operating conditions.

Timely detection of damaged bearings (heat or vibration) is important to improve machine reliability. The BearingChecker can also be used to identify lubrication and cavitation issues. Unplanned downtime and unnecessary repair work can be reduced by regular checking of a bearing condition.

This is the ideal instrument for beginners or a supplement to more advanced instruments for evaluated shock pulse measurement. It is easy to carry around on maintenance rounds. Afterwards, simply transfer measurement results to a file for further processing e.g. in Microsoft Excel.

The instrument measures shock pulse levels with an internal probe or external sensor/ transducer. It can also be used as an electronic stethoscope for detecting machine sound irregularities.

- Ergonomic design, compact and lightweight
- Colour TFT LCD 2.4" display and push-button operation
- Measurement results can be transferred to e.g. Microsoft Excel
- Intuitive graphical user interface
- Protection class: IP65
- External or internal transducer
- Stethoscope function and connector for earphones (adaptor not included)



Complete system

- Bearing Checker
- USB cable
- Quick Start

Type	Bearing Checker
Art. no.	780302
Shock pulse measuring method	dBm/dBc, measuring range -9 to 90 dBsc, ±3 dBsv
Probe type	Integrated probe
Operating temperature	-10 to + 50°C / 14 to 122 °F
Resolution	1°C
Stethoscope	
Head phone mode	7 sound levels
Condition indication	Green, yellow and red LEDs
Measuring indication	Blue LED
General functionalities	Battery status display, probe line test, metric or imperial units, language-independent menus with symbols, memory for up to 10 readings
Protection class	IP65
Display	2.4” Color TFT LCD Display
Casing material	Copolyester/TPE
Power / Operating time	3.63V lithium-ion batteries or rechargeable USB, ›25 hours of normal use
Dimensions LxWxH	207 x 74 x 41 mm
Weight	335 g



Available accessories

Monitoring

VibChecker Vibration meter

Vibrations are often the result of mechanical problems in industrial machines. When integrated into your normal maintenance activities, periodic vibration measurement with VibChecker will go a long way to help keep your equipment operational.

The VibChecker combines handiness and ease of use with affordability and durability. Suitable for both new and experienced users, the VibChecker covers the basic vibration monitoring needs in your maintenance activities.

- Lightweight and compact instrument for vibration measurement in a frequency range of 10-1000 Hz.
- Immediately following the measurement, the results are assessed automatically according to ISO standards.
- Green-yellow-red LEDs indicate the severity of the vibrations measured.
- A real-time FFT spectrum displays the vibration components for easy error pattern recognition.
- The results can be saved for subsequent reporting and follow-up.
- Built-in accelerometer.
- Convenient button operation and large display.
- Clear symbols.



Complete system

- VibChecker
- USB cable
- Quick Start

Type	VibChecker
Art. no.	780202
Frequency range	10 tot 1000 Hz
Readings	RMS / peak / peak-peak
Measuring range:	
- Speed	100 mm/s RMS (4 ips) @ 80 Hz
- Accelleration	100 m/s2 (10 g) @ 10-1000 Hz
- Displacement	100 µm (4 mil) @ 80 Hz
Condition evaluation	Vibration level according to ISO2372 and ISO10816, part 2,34 ›600rpm
Spectrum	Linear, 200 lines, optical zoom, marking points
General functionalities	Battery status indicator, reading check, metric or imperial units, menus with symbols, memory for up to 10 readings
Condition indication	Green, yellow and red LEDs
Operating temperature	-10 to + 50°C / 14 to 122 °F
Display	2,4” colour TFT LCD
Casing material	Copolyester/TPE
Protection class	IP65
Power / Operating time	3.63V lithium-ion batteries or rechargeable USB, ›25 hours of normal use
Dimensions LxWxH	207 x 74 x 41 mm
Weight	335 g



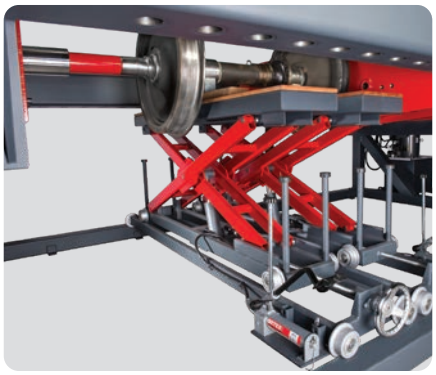
Custom made

Sometimes customisation is the best solution











Why custom-made?

Many customers already use our standard tools. But sometimes standard products are not enough. For example, if they want different dimensions or process parts that require special handling. In such cases, customised solutions are the answer. Our specialised R&D team is keen to think along with you.

From assessment to solution

A customised solution is specially developed in response to a problem in your production process. After all, specific problems require specific solutions. We always begin with a comprehensive analysis. We look at the total production process. This way, we can know exactly what you require.

We are committed to the project from beginning to end. From conception, engineering, and assembly, to the delivery. And afterwards, we are always stand-by for any advice and maintenance work.

Specialist for your customised products

A source of expertise. We have accumulated such knowledge since 1978. We are a specialist in maintenance and hydraulic tools for bearings and drive components.

Our knowledge of the international market results in a continuous development of people and products. We translate these new developments into our products. This enables us to apply the latest techniques to customised solutions.

Our custom-made products are found in all kinds of industries:

- Rail and metro
- Chemical industry
- Steel industry
- Paper industry
- Gearbox factories
- Mechanical engineering
- Transport sector
- MRO/OEM sector
- Wind power
- Power plants
- Mining industry

Custom made

Custom made hydraulic projects

Benefits of custom-made hydraulic projects

Customised products offer solutions for issues that cannot be solved with standard tools. Hydraulic custom work offers many advantages:

- ✓ More variety of solutions thanks to flexible use of hydraulics
- ✓ Size and tonnage as desired
- ✓ Hydraulic tools provide full control with simple and precise operation
- ✓ Controlled assembly and disassembly, no damage to (surrounding) workpieces
- ✓ Work safer and faster
- ✓ No noise pollution
- ✓ Custom-made solutions mean investments are sometimes lower than for standard products

Precise and safe
Instead of using heavy mechanical tools, hydraulics give you:

- Process control
- No excessive noise
- Safer workplace

Bogie Lifting Jack
This customised lifting jack is designed for maintenance and repair of bogies of trains, trams, and metros.

Between the rails 4 hydraulic lifting jacks are located. The jacks can be moved around in all directions. They allow a precise lifting and/or support of the part that needs service or repair.

- Lifting capacity: 14 tonnes
- Height and track width can both be easily adjusted







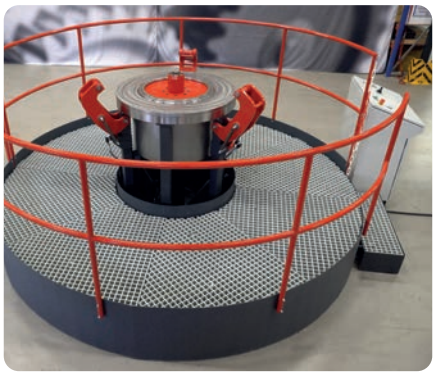
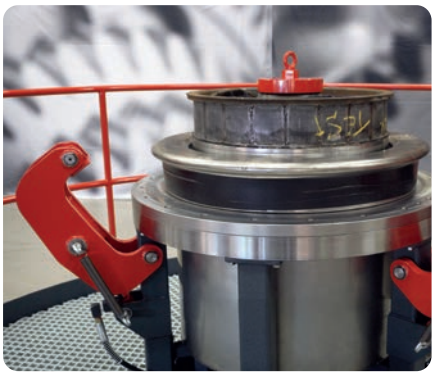
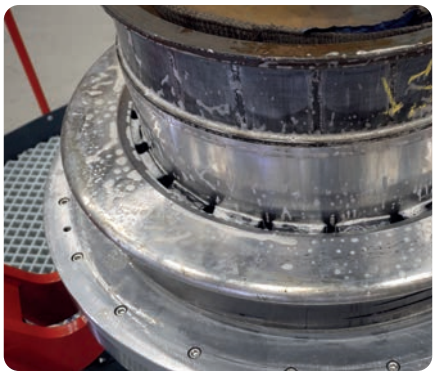
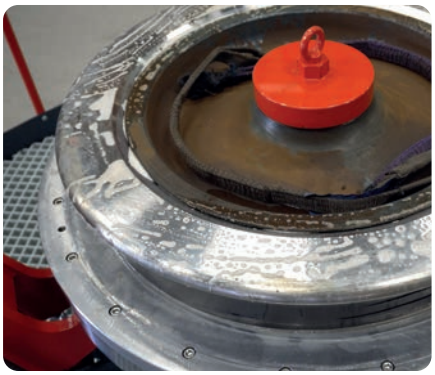


Assembly of wheel rims for metro and tram.
This hydraulic wheel rim press was developed to client specifications. The press is specially used to assemble wheel rims onto wheels, in combination with sound and vibration absorbing rubber blocks. These blocks are for travel comfort.

At assembly, a large cone is used to pull the wheel into the wheel rim hydraulically. The cone ensures that the rubber blocks are pressed together in a controlled manner, after which the wheel fits easily.

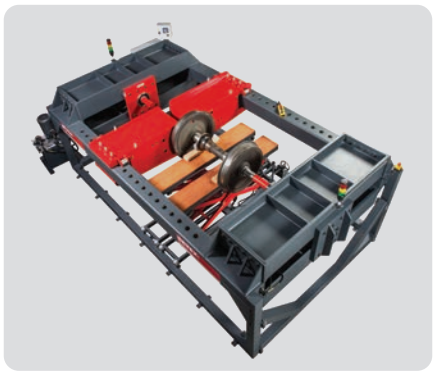
Objective: The wheel and wheel rim must align perfectly to prevent vibrations in the vehicle.

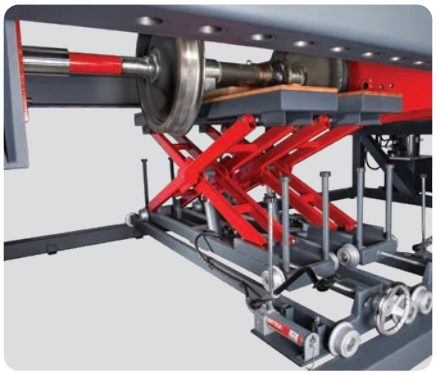
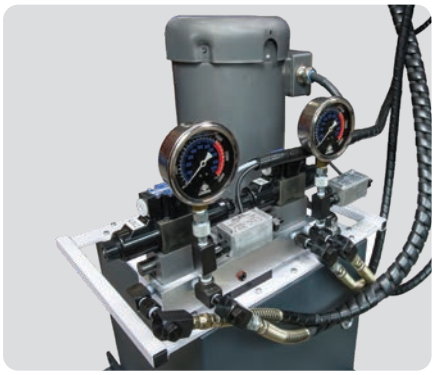
- 3 clamping arms
- Automatic centering
- Operation: from separate operating panel

BETEX HWS 150
This press is designed to customer specification. It is used for both installation and removal of wheels on the axle. It is also suitable for other parts like bearings, gears, and brake discs.

- Press force: 150 ton
- Stroke: 460 mm
- With press cylinders on both sides
- With 2 adapter jaws for dismounting when little space is available
- Positioning of wheel set with overhead crane
- Manual centring of the wheelset
- Flexible supports for positioning the wheelset
- Suitable for different wheel diameters or types of wheelsets
- Automatic storage of the force, distance, and speed of each press stroke. This data is downloadable



Custom made

Custom made induction projects

Advantages of custom induction heaters
Induction heaters are the ideal solution for safe heating of special parts or serial heating. In addition, induction heaters offer the following advantages:

- ✓ Can be used immediately, no preheating required
- ✓ Controlled heating, no loss of quality (Delta-T ΔT)
- ✓ Fast, safe, clean, stress-free heating
- ✓ Environmentally friendly and durable
- ✓ Capacities and designs to the client's requirements
- ✓ Low-frequency (50/60 Hz) and medium-frequency solutions

Fast and accurate heating
Induction heaters can be used immediately, preheating is not required. Local heating up to 300°C within seconds is possible. Users can work safely, cleanly and deliver high quality thanks to smart electronics. Whether it involves special parts or serial heating.

Whatever your requirements, induction heating enables you to achieve:

- ✓ A clean and safe workplace
- ✓ Improved productivity
- ✓ Lower production costs
- ✓ Efficient energy consumption

A clean and safe workplace
Instead of blow torches, ovens or oil baths, induction offers you:

- Process control
- No (open) flames
- No polluting fumes
- No excessive noise
- No hot oil

Safety first!

BETEX MF Quick-Heaters

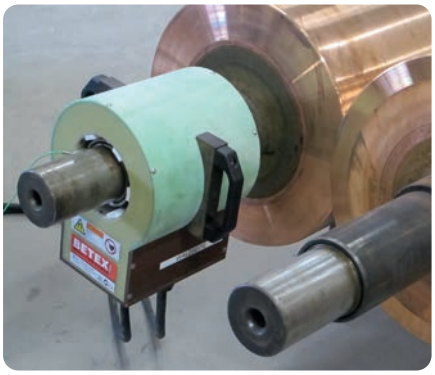
With BETEX medium-frequency induction heaters, difficult dismantling and assembly jobs can be done safely and without damage. These are examples of projects with customised fixed inductors. Read more about the benefits of MF Quick-Heaters in Section "Medium-frequency technology" starting on page 4.



Elevator industry
Mounting of wheels in an elevator plant using pin inductors. For this client, custom inductors were made, with the required lengths and diameters.



Railway and metro industry
Inner rings, NU-NJ bearings and labyrinth rings are safely heated with fixed inductors. Thanks to the fast and balanced heating, they are removed safely, cleanly and without damage.



Paper industry
Custom-made inductors quickly heat up the inner rings of these paper rolls, allowing them to be removed without any problems. The new working method eliminated the need for the customer to outsource this work. Also it prevented damage to the workpiece and paper roll.

BETEX low-frequency induction heaters

These are examples of existing low-frequency heating devices that have been modified or completely customised for the customer. Read more about the benefits of induction heating in Section “Why use induction heating?” starting on page 6.



BETEX GIGANT
Adapted for heating train wheels. The induction yoke is extendable.

Temperature: 240°C
Time needed: 27 min.



BETEX GIGANT
Adapted for heating large stainless steel pipes (1100 kg), used in wind turbines.

Temperature: 270°C
Time needed: 3 hours



BETEX GIGANT
Adapted for heating rails.

Temperature: 250°C
Time needed: 7 min.



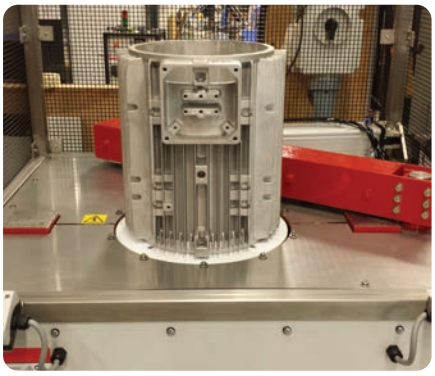
BETEX Twin Heater
For simultaneous heating of 2 bearings in the Railway industry.

Temperature: 110°C
Time needed: 4 min.



BETEX Coil heater
Thanks to this coil heater, the heating time of a train wheel was reduced from 40 minutes to 16 minutes. The outdated blow torches were discarded. This durable solution is safer, faster and offers complete control.

Temperature: 250°C
Time needed: 16 min.



BETEX Coil heater
Custom made Coil heaters can be used to quickly heat aluminium housings prior to mounting. The heater heats 5 different sizes.

Temperature: 250°C
Time needed: 30 sec. to 4 min.

KEEP YOUR MACHINES ROLLING

IKEMA spol. s.r.o.
Tabaková 2
900 27 Bernolákovo
SLOVAKIA

tel.: +421 (2) 4599 4876
e-mail: ikema@ikema.sk
www.ikema.sk