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BEGA
SPECIAL TOOLS
ANNO 1978

Maintenance & hydraulic tools for bearings and transmission parts









BETEX TOOLS
MAINTENANCE®

www.begaspecialtools.com

Maintenance and hydraulic tools for bearings and transmission parts

Bega Special Tools, established in 1978, is an internationally operating company. We are manufacturer and distributor of special tools under our brand name BETEX®. These special maintenance tools are used for the safe and cost-effective mounting and dismounting of bearings and transmission parts.

Dealer network
The tools are used in production and maintenance departments in MRO and OEM companies. Bega exports through a network of distributors and delivers to all types of industries. For further information and details of a nearby dealer, please contact: sales@bega.nl.

Bega is distributor of:

Perma automatic lubrication systems
Catalogue on request

Power Team
Catalogue on request

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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 heating method. It is a safe and environmentally-friendly alternative to traditional heating methods such as ovens, oil baths or blow torches. These methods generate smoke, fumes or oil waste and are 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 major impact on the service life of for instance bearings and gear wheels.

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

New generation with smart technology

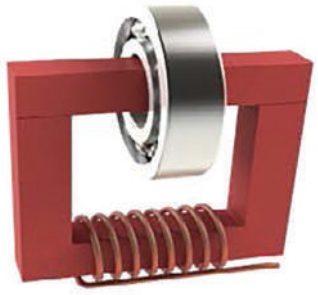
ΔT
Delta T

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 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-frequency 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 in industry and industrial services. Our induction heaters are used around the world, are reliable and user friendly.

Advantages of BETEX® induction heaters

- ✓ Safety for the user and the workpiece 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” chapter.



All heaters are supplied with:

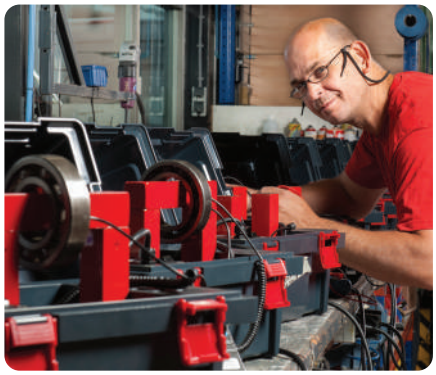
- Instruction manual
- Heat-resistant gloves 250°C / 482 °F
- Magnetic temperature probe (240°C / 464 °F)
- Vaseline for maintenance

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.



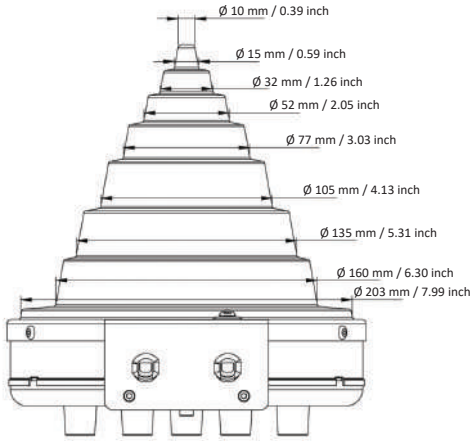




ELECTRIC HEATERS

BETEX Cone Heater, CH series





BETEX Cone Heater

For the heating of bearings, enabling easy mounting by means of shrink-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	50/60Hz	50/60Hz
Max. weight ± kg	5-7 kg	5-7 kg
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	-	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 – hand tool

The ultimate tool for flameless heating
The BETEX iDuctor is a professional type of induction hand tool. 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. Also suitable for removing decals and coating layers.

Advantages
- ✓ Ergonomic design
- ✓ Time savings
- ✓ Cost savings
- ✓ Convenient
- ✓ Can be operated with one hand
- ✓ No open flames
- ✓ Safe to use
- ✓ Versatile
- ✓ Suitable for difficult to access locations
- ✓ Maintenance free



Supplied with case

Both devices are supplied in a handy PE case with a 2-mtr flexible inductor and heat-resistant gloves (250°C).



BETEX iDuctor 1 – 1200W

This is an ideal solution for stuck nuts, bolts, etc., where often a conventional blow torch or grinder is used. Using a blow torch with open flames entails some form of risk and may cause pollution. A grinder can spark and cause damage to the area surrounding the part. Workplaces become safer, cleaner and more efficient with the BETEX iDuctor 1.



BETEX iDuctor 2 – 2300W

The only induction hand tool on the market with an output of no less than 2300 Watts. Using the BETEX iDuctor 2 you can heat larger and heavier workpieces even faster. No open flames. Considerable time savings.









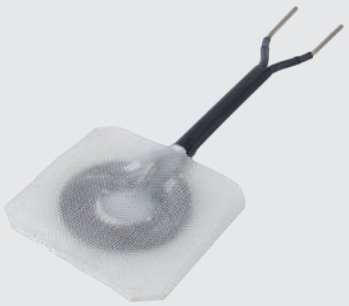




Type	iDuctor 1	iDuctor 1	iDuctor 1	iDuctor 2	iDuctor 2
	CE	CE, incl. transformer	Incl. c(UL)us transformer	CE	c(UL)us
Art. no.	231101	231102	231103	231301	231303
Power	1200	1200W	1200W	2300W	2000W
Voltage/Amp	230V/6A	120V/12A	120V/6A	230V/10A	120V/10A
Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Thermal protection	Yes	Yes	Yes	Yes	Yes
Error message	Yes	Yes	Yes	Yes	Yes
Cooling fan	Yes	Yes	Yes	Yes	Yes
Microprocessor controlled, automatic power control in case of overload or overheating	Yes	Yes	Yes	Yes	Yes
LED lighting	Yes	Yes	Yes	Yes	Yes

Optional

- Set of 9 inductors, consisting of 8 induction coils with min/max inner diameter: 18-52 mm (bolt sizes M8-M30) and 1 U-inductor, inner diameter 160 mm; easy to exchange
- Flexible inductor for BETEX iDuctor 1: 1.1 meters
- Flexible inductor for BETEX iDuctor 2: 2.5, 3, 3.5 meters
- ID pad for localised heating of surfaces, removal of decals, adhesives and coatings
- Heat-resistant gloves up to 300°C / 572 °F







	Art. no	Inductor diameter / length mm	Temp. isolation
iDuctor 1			
Inductor 1.1 mtr	231202	3.5 / 1100	650°C
Inductor 2.0 mtr	231203	3.5 / 2000	650°C
ID-pad	231205	3.5 / -	250°C
Inductor set 9 pcs.	231204	3.5 / -	250°C
iDuctor 2			
Inductor 2.0 mtr	231203	3.5 / 2000	650°C
Inductor 2.5 mtr	231217	3.5 / 2500	650°C
Inductor 3.0 mtr	231218	3.5 / 3000	650°C
Inductor 2.5 mtr	231219	3.5 / 3500	650°C
ID-pad	231205	3.5 / -	250°C
Inductor set 9 pcs.	231304	3.5 / -	250°C

Inductor sets consist of:
BETEX iDuctor 1 – Induction coils:
M30, M24, M20, M16, M12, M10, M08, (with a 3.5-mm winding), U-coil

BETEX iDuctor 2 – Induction coils:
M30, M24, M20, M16, M12, M10, M08*, (with a 3.5-mm* or 5.5-mm winding), U-coil*

INDUCTION HEATERS – LIGHTWEIGHT: 7 KG

BETEX 24 XLDi



0
min. ID Ø mm

180
max. OD Ø mm

50
max. width mm

10
max. bearing weight kg

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

Read more about the advantages of induction heaters in the "Why use induction heating?" chapter.



Type	BETEX XLDi
Power	1200W
Voltage/Amp standard	230V/6A
Frequency Hz	50-60
Temperature control	Yes
Time control	Yes
Max. temperature °C / °F	150 °C / 302 °F
Max. time range	0-30 min.
Temperature hold	Yes
Automatic demagnetization	<2A/cm
Weight in kg	7

See page 36 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

BASIC
SERIES

BETEX BLF 200

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

Read more about the advantages of induction heaters in the "Why use induction heating?" chapter.





Type	BETEX BLF 200
Power 230 V	2,3 kVA
Power 120 V	1,2 kVA
Voltage/Amp standard	230 V/10 A
Voltage/Amp optional	120 V/10 A
Frequency Hz	50-60
5 yokes included, mm	Ø 7, 10, 14, 20, 40
Temperature check	Yes
Time check	Yes
Max. temperature °C / °F	150 °C / 302 °F
Max. time range	0-30 min.
Temperature hold	Yes
Automatic demagnetising	<2A/cm
Weight kg (incl. yokes)	21

See page 36 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

BASIC
SERIES

BETEX BLF 201

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

Read more about the advantages of induction heaters in the "Why use induction heating?" chapter.

Type	BETEX BLF 201 BASIC	BETEX SLF 301 SMART
Power 230V	3.0 kVA	3.0 kVA
Power 120V	1.5 kVA	1.5 kVA
Voltage/Amp standard	230V/13A	230V/13A
Voltage/Amp optional	120V/13A	120V/13A
Frequency Hz	50-60	50-60
Log functionality	No	Yes
Magnetic probe	1	2
Delta-T ΔT	No	Yes
3 yokes included, mm	Ø 7, 14, 40x50	Ø 7, 14, 40x50
Temperature check	Yes	Yes ΔT
Time control	Yes	Yes ΔT
Time or temperature control	No	Yes ΔT
Temperature and speed control	No	Yes ΔT
Max. temperature °C / °F	240 °C / 464 °F	240 °C / 464 °F
Max. time range	0-99 min.	0-99 min.
Temperature hold	Yes	Yes
Automatic demagnetization	<2A/cm	<2A/cm
Weight kg (excl. yokes)	21	21

See page 36 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

SMART
SERIES

BETEX SLF 301

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

Use in combination with Impact fitting tool sets.

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



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

BASIC
SERIES

BETEX BLF 202

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

Read more about the advantages of induction heaters in the "Why use induction heating?" chapter.

Type	BETEX BLF 202 BASIC	BETEX SLF 302 SMART
Power 230V	3.7 kVA	3.7 kVA
Power 120V	1.8 kVA	1.8 kVA
Voltage/Amp standard	230V/16A	230V/16A
Voltage/Amp optional	120V/15A	120V/15A
Frequency Hz	50-60	50-60
Log functionality	No	Yes
Magnetic probe	1	2
Delta-T ΔT	No	Yes
2 yokes included, mm	Ø 20, 50	Ø 20, 50
Temperature control	Yes	Yes ΔT
Time control	Yes	Yes ΔT
Time or temperature control	No	Yes ΔT
Temperature and speed control	No	Yes ΔT
Max. temperature °C / °F	240 °C / 464 °F	240 °C / 464 °F
Max. time range	0-99 min.	0-99 min.
Temperature hold	Yes	Yes
Automatic demagnetization	<2A/cm	<2A/cm
Weight kg (excl. yokes)	31	31

See page 36 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

SMART
SERIES

BETEX SLF 302

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

Use in combination with Impact fitting tool sets.

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



Recommended horizontal heating position



Ergonomic swivel 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

BASIC
SERIES

BETEX BLF 203

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

Read more about the advantages of induction heaters in the "Why use induction heating?" chapter.

Type	BETEX BLF 203 BASIC	BETEX SLF 303 SMART
Power 230V	3.7 kVA	3.7 kVA
Power 120V	No	No
Voltage/Amp standard	230V/16A	230V/16A
Voltage/Amp optional	No	No
Frequency Hz	50-60	50-60
Log functionality	No	Yes
Magnetic probe	1	2
Delta-T ΔT	No	Yes
2 yokes included, mm	Ø 30, 70x80	Ø 30, 70x80
Temperature control	Yes	Yes ΔT
Time control	Yes	Yes ΔT
Time or temperature control	No	Yes ΔT
Temperature and speed control	No	Yes ΔT
Max. temperature °C / °F	240 °C / 464 °F	240 °C / 464 °F
Max. time range	0-99 min.	0-99 min.
Temperature hold	Yes	Yes
Automatic demagnetization	<2A/cm	<2A/cm
Weight kg (excl. yokes)	52	52

See page 36 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

SMART
SERIES

BETEX SLF 303

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

Use in combination with Impact fitting tool sets.

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



Recommended horizontal heating position



Ergonomic swivel arm

INDUCTION HEATERS

BETEX BLF 204 & SLF 304

New



45/110
min. ID Ø mm

600
max. OD Ø mm

210
max. width mm

200
max. bearing weight kg

BASIC
SERIES

BETEX BLF 204

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

Read more about the advantages of induction heaters in the "Why use induction heating?" chapter.

Type	BETEX BLF 204 BASIC	BETEX SLF 304 SMART
Aansluitwaarde 230V	8 kVA	8 kVA
Aansluitwaarde 120V	-	-
Voltage/Amp standaard	400V/20A	400V/20A
Voltage/Amp optioneel	480V/16A, 600V/14A	480V/16A, 600V/14A
Frequentie Hz	50-60	50-60
Logfunctie	Nee	Ja
Magneetsensor	1	2
Delta-T ΔT	Nee	Ja
Inclusief 2 staven, mm	Ø 30, 70x80	Ø 30, 70x80
Temperatuurcontrole	Ja	Ja ΔT
Tijdcontrole	Ja	Ja ΔT
Tijd- of temperatuurcontrole	Nee	Ja ΔT
Temperatuur- en snelheidscontrole	Nee	Ja ΔT
Max. bereik temperatuur °C	240 °C	240 °C
Max. bereik tijd	0-99 min.	0-99 min.
Temperatuurpendel	Ja	Ja
Automatische demagnetisering	<2A/cm	<2A/cm
Gewicht kg (excl. staven)	56	56

See page 36 for detailed technical specifications.

New

ΔT
Delta T



45/110
min. ID Ø mm

600
max. OD Ø mm

210
max. width mm

200
max. bearing weight kg

SMART
SERIES

BETEX SLF 304

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

Use in combination with Impact fitting tool sets.

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



Recommended horizontal heating position



Ergonomic swivel arm

INDUCTION HEATERS

BETEX BLF 205 & SLF 305

New



30/135
min. ID Ø mm

850
max. OD Ø mm

320
max. width mm

400
max. bearing weight kg

BASIC
SERIES

BETEX BLF 205

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

Read more about the advantages of induction heaters in the "Why use induction heating?" chapter.

Type	BETEX BLF 205 BASIC	BETEX SLF 305 SMART
Power 400V	12 kVA	12 kVA
Voltage/Amp standard	400V/30A	400V/30A
Voltage/Amp optional	500V/24A, 600V/20A	500V/24A, 600V/20A
Frequency Hz	50-60	50-60
Log functionality	No	Yes
Magnetic probe	1	2
Delta-T ΔT	No	Yes
1 yoke included, mm	80x80x500	80x80x500
Yokes, optional mm	20, 30, 40, 60	20, 30, 40, 60
Temperature control	Yes	Yes ΔT
Time control	Yes	Yes ΔT
Time or temperature control	No	Yes ΔT
Temperature and speed control	No	Yes ΔT
Max. temperature °C / °F	240 °C / 464 °F	240 °C / 464 °F
Max. time range	0-99 min.	0-99 min.
Temperature hold	Yes	Yes
Automatic demagnetization	<2A/cm	<2A/cm
Weight kg (excl. yokes)	150	150

See page 36 for detailed technical specifications.

New

ΔT
Delta T



30/135
min. ID Ø mm

850
max. OD Ø mm

320
max. width mm

400
max. bearing weight kg

SMART
SERIES

BETEX SLF 305

- Powerful benchtop model, heating capacity up to 400 kg
- 1 yoke included
- Double temperature measurement ΔT
- Touchscreen with clear graph
- Log function and export to USB stick
- Create proof of work report
- Stress-free heating

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.

INDUCTION HEATERS

BETEX BLF 206 & SLF 306

New



60/150
min. ID Ø mm

1050
max. OD Ø mm

400
max. width mm

600
max. bearing weight kg

BASIC
SERIES

BETEX BLF 206

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

Read more about the advantages of induction heaters in the "Why use induction heating?" chapter.

Type	BETEX BLF 206 BASIC	BETEX SLF 306 SMART
Power 400V	18 kVA	18 kVA
Voltage/Amp standard	400V/45A	400V/45A
Voltage/Amp optional	500V/36A, 600V/30A	500V/36A, 600V/30A
Frequency Hz	50-60	50-60
Log functionality	No	Yes
Magnetic probe	1	2
Delta-T ΔT	No	Yes
1 yoke included, mm	90x90x600	90x90x600
Yokes, optional mm	40, 60, 80	40, 60, 80
Temperature control	Yes	Yes ΔT
Time control	Yes	Yes ΔT
Time or temperature control	No	Yes ΔT
Temperature and speed control	No	Yes ΔT
Max. temperature °C / °F	240 °C / 464 °F	240 °C / 464 °F
Max. time range	0-99 min.	0-99 min.
Temperature hold	Yes	Yes
Automatic demagnetization	<2A/cm	<2A/cm
Weight kg (excl. yokes)	170	170

See page 36 for detailed technical specifications.

New

ΔT
Delta T



60/150
min. ID Ø mm

1050
max. OD Ø mm

400
max. width mm

600
max. bearing weight kg

SMART
SERIES

BETEX SLF 306

- Powerful benchtop model, heating capacity up to 600 kg
- 1 yoke included
- Double temperature measurement ΔT
- Touchscreen with clear graph
- Log function and export to USB stick
- Create proof of work report
- Stress-free heating

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.

INDUCTION HEATERS

BETEX BLF 207 & SLF 307

New



260/60
min. ID Ø mm

800
max. OD Ø mm

430
max. width mm

800
max. bearing weight kg

BASIC
SERIES

BETEX BLF 207

- Powerful benchtop model, heating capacity up to 800 kg
- Single temperature measurement
- Digital display
- 1 yoke included
- Optional: Electric crane for yokes / mobile

Read more about the advantages of induction heaters in the "Why use induction heating?" chapter.

Type	BETEX BLF 207 BASIC	BETEX SLF 307 SMART
Power 400V	24 kVA	24 kVA
Voltage/Amp standard	400V/60A	400V/60A
Voltage/Amp optional	500V/48A, 600V/40A	500V/48A, 600V/40A
Frequency Hz	50-60	50-60
Log functionality	No	Yes
Magnetic probe	1	2
Delta-T ΔT	No	Yes
1 yoke included, mm	100x100x725	100x100x725
Yokes, optional mm	40, 60, 80	40, 60, 80
Temperature control	Yes	Yes ΔT
Time control	Yes	Yes ΔT
Time or temperature control	No	Yes ΔT
Temperature and speed control	No	Yes ΔT
Max. temperature °C / °F	240 °C / 464 °F	240 °C / 464 °F
Max. time range	0-99 min.	0-99 min.
Temperature hold	Yes	Yes
Automatic demagnetization	<2A/cm	<2A/cm
Weight kg (excl. yokes)	250	250

See page 36 for detailed technical specifications.

New

ΔT
Delta T



260/60
min. ID Ø mm

800
max. OD Ø mm

430
max. width mm

800
max. bearing weight kg

SMART
SERIES

BETEX SLF 307

- Powerful benchtop model, heating capacity up to 800 kg
- 1 yokes included and optional electric crane for yokes / mobile
- Double temperature measurement ΔT
- Touchscreen with clear graph
- Log function and export to USB stick
- Create proof of work report
- Stress-free heating

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.

INDUCTION HEATERS

BETEX BLF 208 & SLF 308

New



330/90
min. ID Ø mm

1700
max. OD Ø mm

710
max. width mm

1600
max. bearing weight kg

BASIC
SERIES

BETEX BLF 208

- Powerful benchtop model, heating capacity up to 1600 kg
- Single temperature measurement
- Digital display
- 1 yoke included
- Optional: Electric crane for yokes / mobile

Read more about the advantages of induction heaters in the "Why use induction heating?" chapter.

Type	BETEX BLF 208 BASIC	BETEX SLF 308 SMART
Power 400V	40 kVA	40 kVA
Voltage/Amp standard	400V/100A	400V/100A
Voltage/Amp optional	500V/80A, 600V/65A	500V/80A, 600V/65A
Frequency Hz	50-60	50-60
Log functionality	No	Yes
Magnetic probe	1	2
Delta-T ΔT	No	Yes
1 yoke included, mm	150x150x1140	150x150x1140
Yokes, optional mm	60, 80, 100	60, 80, 100
Temperature control	Yes	Yes ΔT
Time control	Yes	Yes ΔT
Time or temperature control	No	Yes ΔT
Temperature and speed control	No	Yes ΔT
Max. temperature °C / °F	240 °C / 464 °F	240 °C / 464 °F
Max. time range	0-99 min.	0-99 min.
Temperature hold	Yes	Yes
Automatic demagnetization	<2A/cm	<2A/cm
Weight kg (excl. yokes)	720	720

See page 36 for detailed technical specifications.

New

ΔT
Delta T



330/90
min. ID Ø mm

1700
max. OD Ø mm

710
max. width mm

1600
max. bearing weight kg

SMART
SERIES

BETEX SLF 308

- Powerful benchtop model, heating capacity up to 1600 kg
- 1 yokes included and optional electric crane for yokes / mobile
- Double temperature measurement ΔT
- Touchscreen with clear graph
- Log function and export to USB stick
- Create proof of work report
- Stress-free heating

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.

INDUCTION HEATERS – STANDARD

BETEX 38 ZFD



30
min. ID Ø mm

720
max. OD Ø mm

340
max. width mm

300
max. bearing weight kg

BETEX 38 ZFD

- Mobile heater with heating capacity up to 300 kg
- Suitable for horizontal and vertical heating
- With swivel arm
- Electronically controlled power regulation
- Acoustic signal at the end of each heating cycle
- Push buttons for easy operation
- Digital display
- Including magnetic sensor up to 240°C (optionally up to 350°C)
- Automatic power reduction
- Yokes: selection of 5 sizes
- **Voltages: 400V, 480V, 500V and 600V**

Read more about the advantages of induction heaters in the "Why use induction heating?" chapter.



Ergonomic swivel arm

Type	BETEX 38 ZFD
Power	12 kVA
Voltage/Amp standard	2 ~ 400V/30A
Frequency Hz	50-60
Temperature control	Yes
Time control	Yes
Max. temperature °C / °F	240 °C / 464 °F (Optional 350 °C / 662 °F)
Max. time range	0-99 min.
Temperature control	Yes
Automatic demagnetization	<2A/cm
Weight in kg	125

See page 40 for detailed technical specifications.



Folding operating panel

INDUCTION HEATERS – TURBO

BETEX 40 RSD & 40 RSDm TURBO



30/160
min. ID Ø mm

790
max. OD Ø mm

315
max. width mm

350
max. bearing weight kg

TURBO
- The TURBO effect only works when the workpiece is in a horizontal position
- High output, energy efficient

BETEX 40 RSD & 40 RSDm TURBO - Mobile version

- Powerful benchtop model, heating capacity up to 350kg
- Suitable for horizontal and vertical heating
- With swivel arm
- Electronically controlled power regulation
- Acoustic signal at the end of each heating cycle
- Push buttons for easy operation
- Digital display
- Including magnetic sensor up to 240°C / 464 °F (optionally up to 350°C / 622 °F)
- Automatic power reduction
- Yokes: selection of 5 sizes
- Mobile version BETEX 40 RSDm
- **Voltages: 400V, 480V, 500V and 600V**

Read more about the advantages of induction heaters in the "Why use induction heating?" chapter.



Type	BETEX 40 RSD and RSDm (mobile) TURBO
Power	8 kVA
Voltage/Amp standard	2 ~ 400V/20A
Frequency Hz	50-60
Temperature control	Yes
Time control	Yes
Max. temperature °C / °F	240 °C / 464 °F (Optional 350 °C / 662 °F)
Max. time range	0-60 min.
Temperature hold	Yes
Automatic demagnetization	<2A/cm
Weight in kg	97 (RSD) 160 (RSDm)



BETEX 40 RSDm TURBO mobile

See page 40 for detailed technical specifications.

INDUCTION HEATERS – TURBO

BETEX 40 RMD TURBO



60/175
min. ID Ø mm

920
max. OD Ø mm

365
max. width mm

600
max. bearing weight kg

TURBO
- The TURBO effect only works when the workpiece is in a horizontal position
- High output, energy efficient

BETEX 40 RMD TURBO

- Mobile heater with heating capacity up to 600kg
- Suitable for horizontal and vertical heating
- With swivel arm
- Electronically controlled power regulation
- Acoustic signal at the end of each heating cycle
- Push buttons for easy operation
- Digital display
- Including magnetic sensor up to 240°C / 464 °F (optionally up to 350°C / 622 °F)
- Yokes: selection of 4 sizes
- Automatic power reduction
- Including fixed or adjustable supports for maximum support
- **Voltages: 400V, 480V, 500V and 600V**

Read more about the advantages of induction heaters in the "Why use induction heating?" chapter.



Type	BETEX 40 RMD TURBO
Power	12 kVA
Voltage/Amp standard	2 ~ 400V/30A
Frequency Hz	50-60
Temperature control	Yes
Time control	Yes
Max. temperature °C / °F	240 °C / 464 °F (Optional 350 °C / 662 °F)
Max. time range	0-99 min.
Temperature hold	Yes
Automatic demagnetization	<2A/cm
Weight adjustable supports kg	205
Weight fixed supports kg	185

See page 40 for detailed technical specifications.



Folding operating panel

INDUCTION HEATERS – STANDARD

BETEX SUPER & SUPER DL-700



BETEX SUPER

60
min. ID Ø mm

900
max. OD Ø mm

400
max. width mm

600
max. bearing weight kg

BETEX SUPER DL-700

60
min. ID Ø mm

1300
max. OD Ø mm

700
max. width mm

600
max. bearing weight kg

BETEX SUPER

- Heavy-duty heaters for special applications, in maintenance and production
- Heating capacity up to 600 kg
- Electronically controlled power regulation
- Push buttons for easy operation
- Digital display
- Acoustic signal at the end of each heating cycle
- Including magnetic sensor up to 240°C (optionally up to 350°C)
- Optional: electric crane
- **Voltages: 400V, 480V, 500V and 600V**

Read more about the advantages of induction heaters in the "Why use induction heating?" chapter.

Type	BETEX SUPER / DL-700
Power	24 kVA
Voltage/Amp standard*	2 ~ 400V/60A
Frequency Hz	50-60
Temperature control	Yes
Time control	Yes
Max. temperature °C / °F	240 °C / 464 °F (Optional 350 °C / 662 °F)
Max. time range	0-99 min.
Temperature hold	Yes
Automatic demagnetization	<2A/cm
Weight in kg	220/320

** See page 41 for detailed technical specifications and other voltages.*



INDUCTION HEATERS – TURBO

BETEX SUPER TURBO



175/200
min. ID Ø mm

1700
max. OD Ø mm

750
max. width mm

1200
max. bearing weight kg

TURBO
- The TURBO effect only works when the workpiece is in a horizontal position
- High output, energy efficient

BETEX SUPER TURBO

- Heavy-duty heaters for special applications, in maintenance and production, with sliding yoke construction
- Heating capacity up to 1200kg
- Electronically controlled power regulation
- Push buttons for easy operation
- Digital display
- Acoustic signal at the end of each heating cycle
- Including magnetic sensor up to 240°C (optionally up to 350°C)
- Including 1 sliding yoke, 100 mm
- **Voltages: 400V, 480V, 500V and 600V**

Read more about the advantages of induction heaters in the "Why use induction heating?" chapter.

Type	BETEX SUPER TURBO
Power	24 kVA
Voltage/Amp standard*	2 ~ 400V/60A
Frequency Hz	50-60
Temperature control	Yes
Time control	Yes
Max. temperature °C / °F	240 °C / 464 °F (Optional 350 °C / 662 °F)
Max. time range	0-99 min.
Temperature hold	Yes
Automatic demagnetization	<2A/cm
Weight in kg	450 (incl. yoke)

** See page 41 for detailed technical specifications and other voltages.*



Extendable yoke

INDUCTION HEATERS – STANDARD

BETEX GIANT, 40, 100 kVA



85/215
min. ID Ø mm

1400-2500
max. OD Ø mm

440-990
max. width mm

1500-3500
max. bearing weight kg

Multiple types available
Various capacities and designs are possible. See page 41 for detailed technical specifications.

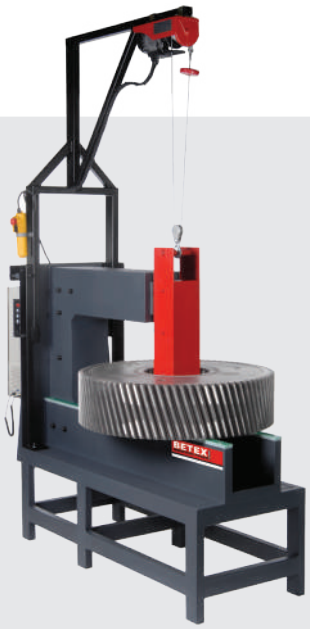
BETEX GIANT

- Heavy-duty heaters for special applications, in maintenance and production
- Heating capacities from 1500 to 3500 kg
- Electronically controlled power regulation
- Push buttons for easy operation
- Digital display
- Acoustic signal at the end of each heating cycle
- Including magnetic sensor up to 240°C (optionally up to 350°C)
- Yokes: see technical specifications
- Optional: electric crane

Read more about the advantages of induction heaters in the "Why use induction heating?" chapter.



BETEX GIANT, 100 kVA



Optional crane

TECHNICAL SPECIFICATIONS







Type	24 XLDi Portable	BLF 200 Portable	BLF 201	BLF 202	BLF 203
Standard power 230V	1200W	2.3 kVA	3.0 kVA	3.7 kVA	3.7 kVA
Optional power 120V		1.2 kVA	1.5 kVA	1.8 kVA	
Voltage/Amp*: standard	230V/6A	230V/10A*	230V/13A	230V/16A	230V/16A
Voltage/Amp*: optional		120V/10A*	120V/13A	120V/15A	
Frequency Hz	50/60	50/60	50/60	50/60	50/60
Yokes, standard mm	-	7, 10, 14, 20, 40	7, 14, 40x50	20, 50	30, 70x80
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. OD Ø mm (A)	180	240	400	500	600
Max. width mm (B)	-	120	120	180	210
Pole height mm (C)	-	135	130	185	205
Pole diameter mm (D)	-	40x40	40x50	50x50	70x80
Max. width at horizontal heating mm	-	-	125	180	200
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	-	-	-	-	-

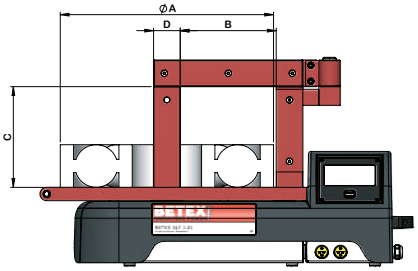
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Type	SLF 301 ΔT	SLF 302 ΔT	SLF 303 ΔT
Standard power 230V	3.0 kVA	3.7 kVA	3.7 kVA
Optional power 120V	1.5 kVA	1.8 kVA	-
Voltage/Amp*: standard	230V/13A	230V/16A	230V/16A
Voltage/Amp*: optional	120V/13A	120V/15A	-
Frequency Hz	50/60	50/60	50/60
Yokes, standard mm	7, 14, 40x50	20, 50	30, 70x80
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. OD Ø mm (A)	400	500	600
Max. width mm (B)	120	180	210
Pole height mm (C)	130	185	205
Pole diameter mm (D)	40x50	50x50	70x80
Max. width at horizontal heating mm	125	180	200
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	-	-	-

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



TECHNICAL SPECIFICATIONS

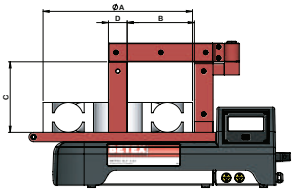






Type	BLF 204	BLF 205	BLF 206	BLF 207	BLF 208
Standard power 230V	8 kVA	12 kVA	18 kVA	24 kVA	40 kVA
Voltage/Amp: standard	2 ~ 400V/20A	2 ~ 400V/30A	2 ~ 400V/45A	2 ~ 400V/60A	2 ~ 400V/100A
Voltage/Amp: optional	2 ~ 450V/16A 2 ~ 500V/16A 2 ~ 480V/16A 2 ~ 600V/14A	2 ~ 450V/25A 2 ~ 500V/24A 2 ~ 480V/24A 2 ~ 600V/20A	2 ~ 450V/40A 2 ~ 500V/36A 2 ~ 480V/36A 2 ~ 600V/30A	2 ~ 450V/50A 2 ~ 500V/48A 2 ~ 480V/48A 2 ~ 600V/40A	2 ~ 450V/80A 2 ~ 500V/80A 2 ~ 480V/80A 2 ~ 600V/65A
Frequency Hz	50/60	50/60	50/60	50/60	50/60
Yokes, standard mm / set 1	30,70x80	80x80x500	90x90x600	100x100x725	150x150x1140
Yokes, standard mm / set 2	-	20, 30, 40, 60	40, 60, 80	40, 60, 80	60, 80, 100
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. OD Ø mm (A)	600	850	1050	1150	1700
Max. width mm (B)	210	320	400	430	710
Pole height mm (C)	205	305	315	515	780
Pole diameter mm (D)	70x80	80x100	90x110	180x180	230x230
Max. width at horizontal heating mm	200	300	310	505	770
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.



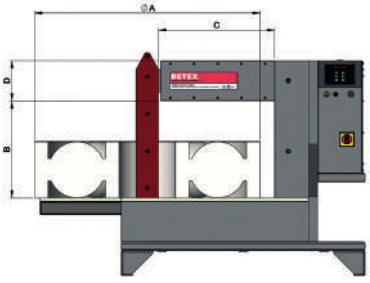






Type	SLF 304	SLF 305	SLF 306	SLF 307	SLF 308
Standard power 230V	8 kVA	12 kVA	18 kVA	24 kVA	40 kVA
Voltage/Amp: standard	2 ~ 400V/20A	2 ~ 400V/30A	2 ~ 400V/45A	2 ~ 400V/60A	2 ~ 400V/100A
Voltage/Amp: optional	2 ~ 450V/16A 2 ~ 500V/16A 2 ~ 480V/16A 2 ~ 600V/14A	2 ~ 450V/25A 2 ~ 500V/24A 2 ~ 480V/24A 2 ~ 600V/20A	2 ~ 450V/40A 2 ~ 500V/36A 2 ~ 480V/36A 2 ~ 600V/30A	2 ~ 450V/50A 2 ~ 500V/48A 2 ~ 480V/48A 2 ~ 600V/40A	2 ~ 450V/80A 2 ~ 500V/80A 2 ~ 480V/80A 2 ~ 600V/65A
Frequency Hz	50/60	50/60	50/60	50/60	50/60
Yokes, standard mm / set 1	30,70x80	80x80x500	90x90x600	100x100x725	150x150x1140
Yokes, standard mm / set 2	-	20, 30, 40, 60	40, 60, 80	40, 60, 80	60, 80, 100
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. OD Ø mm (A)	600	850	1050	1150	1700
Max. width mm (B)	210	320	400	430	710
Pole height mm (C)	205	305	315	515	780
Pole diameter mm (D)	70x80	80x100	90x110	180x180	230x230
Max. width at horizontal heating mm	200	300	310	505	770
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)

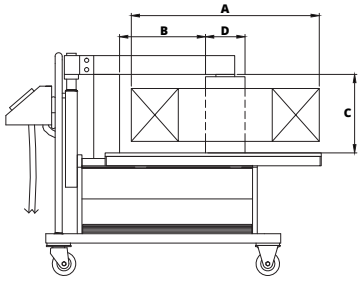
Heating times are subject to the relationship between:
- Minimum bore and maximum outside diameter, width and weight
- Required temperature and material type
- Available power



TECHNICAL SPECIFICATIONS

			
Type	**40RSD and RSDm (mobile) TURBO**	**38ZFD**	**40RMD TURBO**
Standard power 230V	8 kVA	12 kVA	12 kVA
Voltage/Amp*: standard	2 ~ 400V/20A	2 ~ 400V/30A	2 ~ 400V/30A
Voltage/Amp*: optional	2 ~ 500V/16A 2 ~ 480V/16A 2 ~ 600V/14A	2 ~ 500V/24A 2 ~ 480V/24A 2 ~ 600V/20A	2 ~ 500V/24A 2 ~ 480V/24A 2 ~ 600V/20A
Frequency Hz	50/60	50/60	50/60
Yokes, standard mm / set 1	Optional	Optional	Optional
Yokes, standard mm / set 2	20, 30, 40, 60, 80	20, 30, 40, 60, 80	40, 60, 80
Swivel arm	Yes	Yes	Yes
Max. workpiece weight kg (±)	350	300	600
Min. ID Ø mm, vertical/horizontal	30/Ø160	30/Ø130	60/Ø175
Max. OD Ø mm (A)	790	720/1080 *1	920
Max. width mm (B)	315	340	365
Pole height mm (C)	320	340	305
Pole diameter mm (D)	Ø160	80	Ø175
Max. width at horizontal heating mm	280	290	305 telescopic supports 320 fixed supports
Display	Digital	Digital	Digital
Log function	No	No	No
Magnetic probe	1	1	1
Delta-T ΔT	No	No	No
Temperature control	Yes	Yes	Yes
Time control	Yes	Yes	Yes
Max. temperature °C / °F	240 °C *2 / 464 °F *2	240 °C *2 / 464 °F *2	240 °C *2 / 464 °F *2
Max. time range	0-60 min.	0-99 min.	0-99 min.
Acoustic signal at the end of each heating cycle	Yes	Yes	Yes
Error message	Yes	Yes	Yes
Temperature hold	Yes	Yes	Yes
Automatic power reduction	Yes	Yes	Yes
Aut. demagnetization, <2A/cm	Yes	Yes	Yes
Thermal electronics protection	Yes	Yes	Yes
Support for horizontal heating	Yes	Yes	Yes
Dimensions mm (lxwxh)	1200x500x650 1200x640x1000/M	1200x640x1000	1200x640x1000
Heater weight kg excl. yokes	97 (RSD) 160 (RSDm)	125	205 (telescopic supports) 185 (fixed supports)
Electric crane for yokes	-	-	-
Alarm signal	-	-	-
Mobile	Yes (RSDm)	Yes	Yes

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



**1 With adaptor yokes, only available for the Standard models*
**2 On request: 350°C, with heavy-duty sensor and extra isolation*
**3 Subject to power and design*

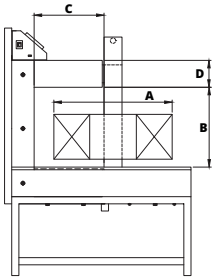
On request: other voltage/amperage/higher temperature up to 480°C






Type	SUPER Standard / DL-700	SUPER TURBO	GIANT Standard / DL-700	GIANT DL-700 / DL-1000
Standard power 230V	24 kVA	24 kVA	40 kVA	100 kVA
Voltage/Amp*: standard	2 ~ 400V/60A	2 ~ 400V/60A	2 ~ 400V/100A	2 ~ 400V/120, 250A
Voltage/Amp*: optional	2 ~ 500V/48A 2 ~ 480V/48A 2 ~ 600V/40A	2 ~ 500V/48A 2 ~ 480V/48A 2 ~ 600V/40A	2 ~ 500V/80A 2 ~ 480V/80A 2 ~ 600V/65A	2 ~ 500V/100, 200A 2 ~ 480V/80A 2 ~ 600V/65A
Frequency Hz	50/60	50/60	50/60	50/60
Yokes, standard mm / set 1	Optional	Includes	Optional	Optional
Yokes, standard mm / set 2	40, 50, 60, 80, 100 *3	1 yoke	60, 80, 100, 150 *3	60, 80, 100, 150, 200 *3
Swivel arm	-	-	-	-
Max. workpiece weight kg (±)	600	1200	1500/2000 *3	3000/3500 *3
Min. ID Ø mm, vertical/horizontal	60/85 *3	175/Ø200	85 *3	85/215 *3
Max. OD Ø mm (A)	900/1300 *3	1700	1400/1700 *3	1700/2500 *3
Max. width mm (B)	400/700 *3	750	620/700 *3	700/900 *3
Pole height mm (C)	390	595	660/740 *3	740/1000 *3
Pole diameter mm (D)	100 *3	Ø200	150 *3	150/200 *3
Max. width at horizontal heating mm	390/690 *3	600	440/730 *3	730/990 *3
Display	Digital	Digital	Digital	Digital
Log function	No	No	No	No
Magnetic probe	1	1	1	1
Delta-T ΔT	No	No	No	No
Temperature control	Yes	Yes	Yes	Yes
Time control	Yes	Yes	Yes	Yes
Max. temperature °C / °F	240/350 °C *2 / 464/662 °F *2	240/350 °C *2 / 464/662 °F *2	240/350 °C *2 / 464/662 °F *2	240/350 °C *2 / 464/662 °F *2
Max. time range	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
Error message	Yes	Yes	Yes	Yes
Temperature hold	Yes	Yes	Yes	Yes
Automatic power reduction	Yes	Yes	Yes	Yes
Aut. demagnetization, <2A/cm	Yes	Yes	Yes	Yes
Thermal electronics protection	Yes	Yes	Yes	Yes
Support for horizontal heating	Yes	Yes	Yes	Yes
Dimensions mm (lxwxh)	1000x500x1350 *3	1600x700x1300	1750x600x1470 *3	2150x900x2210 *3
Heater weight kg excl. yokes	220/320 *3	450 (incl. yoke)	660/800 *3	800/1700 *3
Electric crane for yokes	Optional	-	Optional	Optional
Alarm signal	Optional	Optional	Optional	Optional
Mobile	Optional	Optional	Optional	Optional

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 HEATERS

BETEX MF Quick-Heaters – medium-frequency technology

Mounting, dismounting and preheating of metal components

Fast and/or controlled heating with ΔT

Thanks to medium-frequency technology, energy is transferred to the workpiece effectively, so it is heated 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.

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.



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 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

To be used for

- Bearings
- Labyrinth seals
- Bearing rings
- Bearing housings
- Gear wheels
- Rollers
- Tubes
- Bushings
- Couplings
- Train wheels/train wheel tyres
- Extruders
- Stator housings

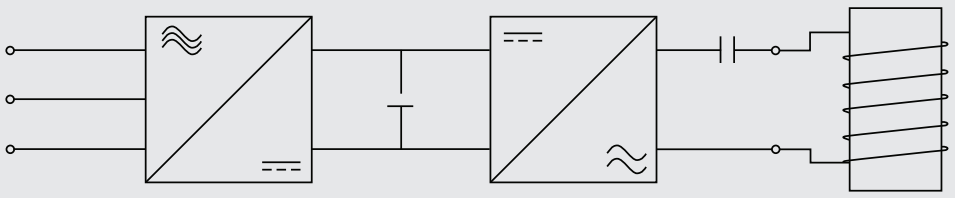
The BETEX MF Quick-Heater

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 22 kW or 44 kW, depending on the type of heater.

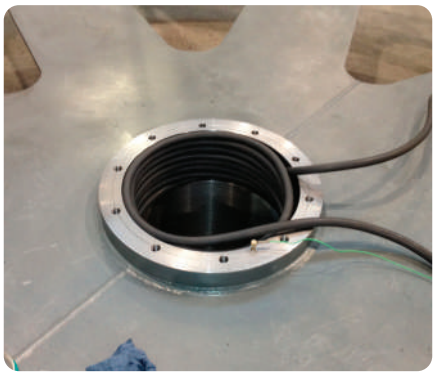
Operating principle

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).

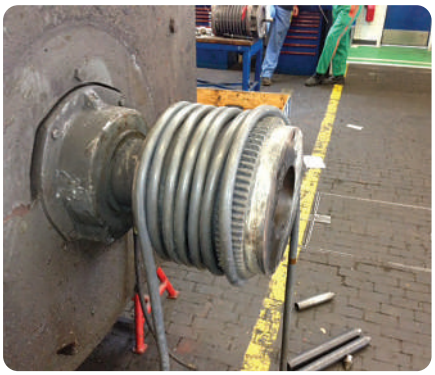
Since the frequency is relatively high, the penetration depth of the magnetic field is not too large, so that only the outer layer of the workpiece is heated. This principle makes heating using medium-frequency particularly suitable for dismantling purposes, such as removing bearing rings from shafts.



Flexible inductors
Flexible inductors are a multifunctional solution for various shapes or sizes. They can be used in or around a workpiece.



Heating a bore for bearing or shaft mounting

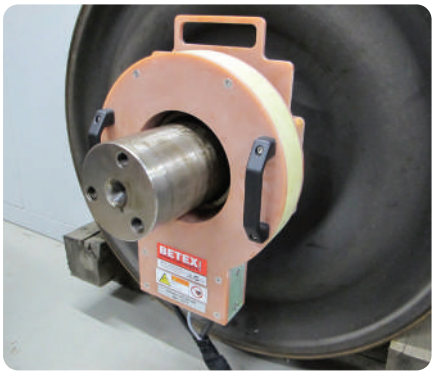


Heating a coupling for dismounting

Fixed inductors
Fixed inductors are used for serial work.



Heating bearing rings for dismounting

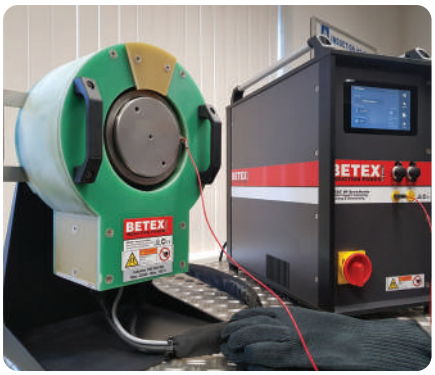


Heating labyrinth rings for dismounting

Testing
For special applications, we can carry out tests in advance with components that the client provides for this purpose. If necessary, we can supply a customised application.

For standard applications, we have a large database with examples. We also use simulation programmes.

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

BETEX MF Quick-Heaters – medium-frequency technology

ΔT
Delta T



44 kW

22/44
power kW

3.5"
display inch

400/450/ 500/600
voltages V

BETEX MF Quick-Heater 2.5

- Compact design with 3.5" display
- User-friendly touchscreen operation
- Choice of 2 generators: 10, 22 or 44 kW
- Smart electronics ensure optimum operating frequency
- Adjustable power regulation
- Double temperature measurement (ΔT monitoring)
- Choice between fixed and flexible inductors



22 kW



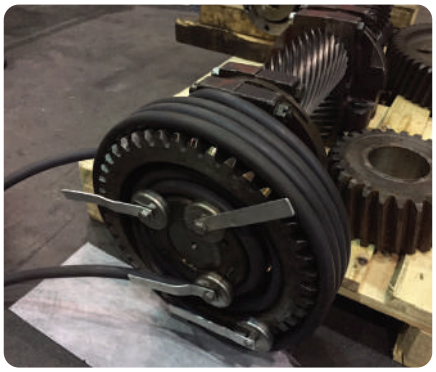
10 kW

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.

Magnetic holder
Optional: magnetic holders to secure the flexible inductors.





ΔT
Delta T



22/44
power kW

7"
display inch

400/450/ 500/600
voltages V

BETEX MF Quick-Heater 3.0

- Compact design with 7" display
- User-friendly touchscreen operation
- Choice of 2 generators: 10, 22 or 44 kW
- 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
- Create proof of work report
- Log function to save data or export it via a USB port





Which inductor?

For the MF Quick-Heater, choose a suitable inductor for your application. Request our product questionnaire for proper advice and a quotation.


Flexible inductor

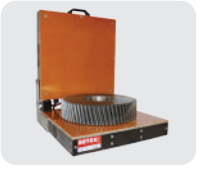

Fixed inductor


Fixed inductor


Pin inductor


Fixed inductor


Table inductor


Sandwich table inductor

SMART inductor recognition
When a fixed inductor is connected to the generator for a second time, it will automatically select the correct settings. All you have to do is press START.

Bearing rings and labyrinth rings can be dismounted using custom inductors.

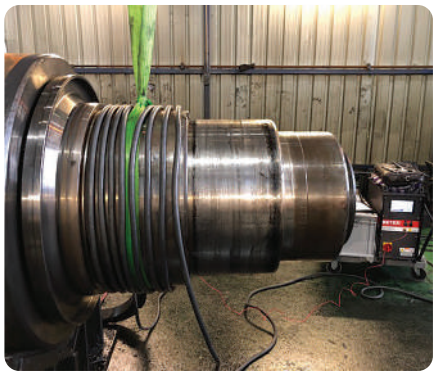
INDUCTION HEATERS

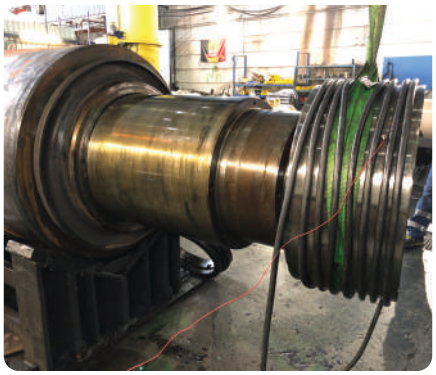
Medium-frequency projects





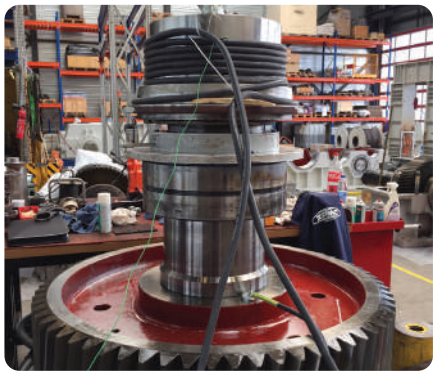
BETEX 3.0, 22 kW
Mounting of wheels in an elevator plant using pin inductors. For this client, custom inductors were made, with the required lengths and diameters.





BETEX 3.0, 22 kW
Dismounting in a steel factory, using a flexible inductor wrapped around a bearing ring.

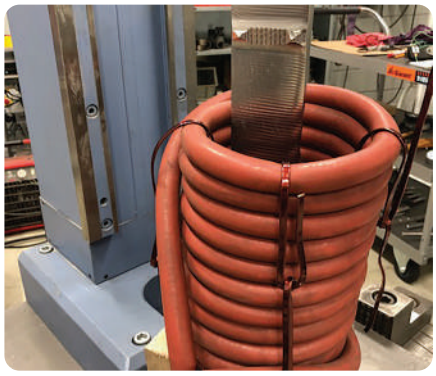
Temperature: 200°C
Time needed: 17 min.





BETEX 3.0, 44 kW
Dismounting of a coupling at a gearbox repair company.

Temperature: 100°C
Time needed: 7 min.





BETEX 3.0, 22 kW
Preheating in preparation for laser cladding.

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.



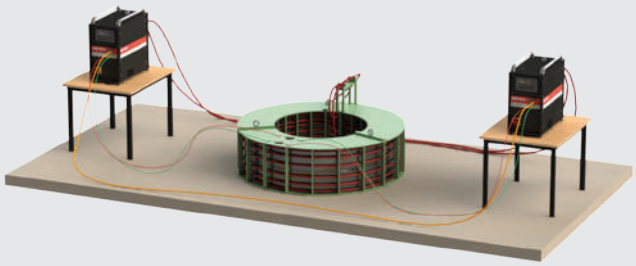
Fixed inductor in the workpiece

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.



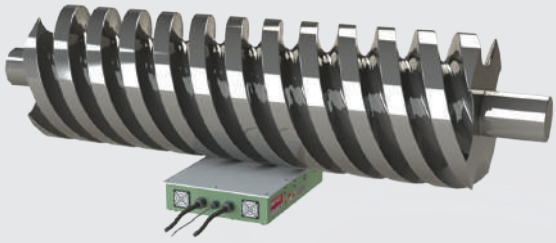
Pin inductor in the workpiece

Heating a bore for example for bearing or shaft mounting.



Table inductor

Local preheating for laser cladding.



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	10-25 kHz	10-25 kHz	10-25 kHz
Voltage/Amperage	3 ~ 400V/16A	3 ~ 400V/32A	3 ~ 400V/63A
Voltage/Amperage	3 ~ 450V/14A	3 ~ 450V/30A	3 ~ 450V/59A
Voltage/Amperage	3 ~ 500V/12A	3 ~ 500V/28A	3 ~ 500V/55A
Voltage/Amperage	3 ~ 600V/10A	3 ~ 600V/23A	3 ~ 600V/45A
Frequency	50/60Hz	50/60Hz	50/60Hz
Temperature measurement	For type K thermocouple	For type K thermocouple	For type K thermocouple
Accuracy	± 3.5°C / ± 38.2 °F	± 3.5°C / ± 38.2 °F	± 3.5°C / ± 38.2 °F
Inductor recognition	Yes	Yes	Yes
Temperature sensor	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	600x300x600 mm / 23.6x11.8x23.6	600x650x580 mm / 23.6x25.6x22.8
Weight of generator	46 kg	46 kg	78 kg
Trolley	Optional	Optional	Optional
Operation			
Dimensions display	3.5”	3.5"	3.5"
Heat curve in display	Yes	Yes	Yes
Setpoint power	Via touchscreen	Via touchscreen	Via touchscreen
Setpoint temperature	Via touchscreen	Via touchscreen	Via touchscreen
Setpoint temperature curve	Yes	Yes	Yes
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

Min. winding diameter flexible inductors 10kW

Type m / °C/°F	Diameter cable	Min. winding diameter
15/20/25/30 m/180°C / 356 °F	Ø 12 mm	ca. 75 mm
15/20/25/30/35 m/180°C / 356 °F	Ø 15 mm	ca. 100 mm
15/20/25/30 m/300°C / 572 °F	Ø 20 mm	ca. 120 mm

Min. winding diameter flexible inductors 22kW

Type m / °C/°F	Diameter cable	Min. winding diameter
15/20/25/30m/180°C / 356 °F	Ø 12 mm	ca. 75 mm
15/20/25/30m/180°C / 356 °F	Ø 15 mm	ca. 100 mm
15/20/25/30m/300°C / 572 °F	Ø 20 mm	ca. 120 mm

TECHNICAL SPECIFICATIONS

Medium-frequency 3.0





Type	MF Quick-Heater 3.0, 10kW	MF Quick-Heater 3.0, 22kW	MF Quick-Heater 3.0, 44kW
Forced air cooling	Yes	Yes	Yes
Power	10kW	22kW	44kW
Frequency	10-25 kHz	10-25 kHz	10-25 kHz
Voltage/Amperage	3 ~ 400V/16A	3 ~ 400V/32A	3 ~ 400V/63A
Voltage/Amperage	3 ~ 450V/14A	3 ~ 450V/30A	3 ~ 450V/59A
Voltage/Amperage	3 ~ 500V/12A	3 ~ 500V/28A	3 ~ 500V/55A
Voltage/Amperage	3 ~ 600V/10A	3 ~ 600V/23A	3 ~ 600V/45A
Frequency	50/60Hz	50/60Hz	50/60Hz
Temperature measurement	For type K thermocouple	For type K thermocouple	For type K thermocouple
Accuracy	± 3.5°C / ± 38.2 °F	± 3.5°C / ± 38.2 °F	± 3.5°C / ± 38.2 °F
Inductor recognition	Yes	Yes	Yes
Temperature sensor	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 mm/inch LxWxH	600x300x600 mm / 23.6x11.8x23.6	600x300x600 mm / 23.6x11.8x23.6	600x650x580 mm / 23.6x25.6x22.8
Weight of generator	46 kg	46 kg	78 kg
Trolley	Optional	Optional	Optional
Operation			
Dimensions display	7”	7"	7"
Heat curve in display	Yes	Yes	Yes
Setpoint power	Via touchscreen	Via touchscreen	Via touchscreen
Setpoint temperature	Via touchscreen	Via touchscreen	Via touchscreen
Setpoint temperature curve	Yes	Yes	Yes
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	Yes	Yes	Yes
Network connection	Yes	Yes	Yes
Heating log	Yes	Yes	Yes
Signaling by			
Installation in operational state	Light optional	Light optional	Light optional
Error message	Acoustic signal / light optional	Acoustic signal / light optional	Acoustic signal / light optional
End of heating cycle	Acoustic signal	Acoustic signal	Acoustic signal

Min. winding diameter flexible inductors 44kW		
Type m / °C/°F	**Diameter cable**	**Min. winding diameter**
15/20/25/30m/180°C / 356 °F	Ø 19 mm	ca. 140 mm
15/20/25/30m/300°C / 572 °F	Ø 28 mm	ca. 220 mm



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.

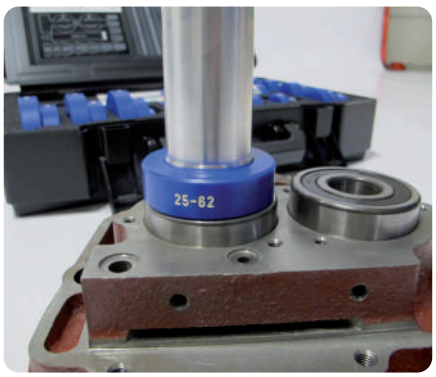
By using impact-resistant plastic collets (made of unbreakable sheet material, instead of easily breaking injection moulded collets), metal to metal contact is avoided, and therefore damage to the shaft.



IMPACT 33

- With 3 sleeves
- With 33 collets, suitable for ± 375 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.

Use in combination with BETEX Induction heaters.

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.**



IMPACT 39

- With 4 sleeves
- With 39 collets, suitable for ± 600 bearings.

Impact	33	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 in kg	4.8	6.5

MECHANICAL PULLERS

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



self-centering

250
Max. shaft length mm

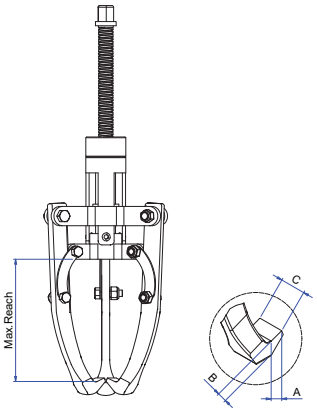
440
Max. spread mm

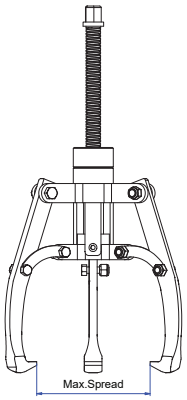
Prevent damage to shafts and spindles, use BETEX 625/630 shaft protectors.

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	A mm	B mm	C mm	Weight in kg
MSP 2/3-120	798250	2	80	120	8	6	15	1.6
MSP 2/3-180	798300	3	120	180	6	7	15	2.3
MSP 2/3-270	798350	5	160	270	11	10	25	4.3
MSP 2/3-300	798400	8	210	300	13	14	27	6.1
MSP 2/3-380	798450	10	250	380	14	10	29	9.6
MSP 2/3-440	798500	12	250	440	14	10	29	11.2

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

MECHANICAL PULLERS

BETEX MP10/11 universal 2-arm pullers



900
Max. shaft length mm

980
Max. spread mm

TIP!
Prevent damage to shafts and spindles, use BETEX 625/630 shaft protectors.



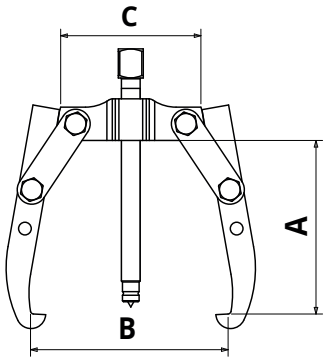
BETEX MP10/11

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!

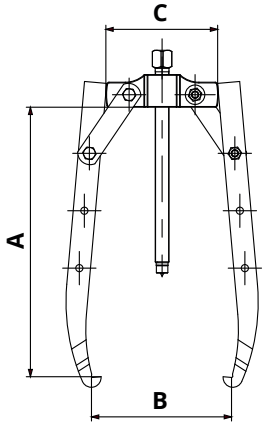
These pullers are also available with extended arms for even greater capacity.

- 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, use BETEX 625/630 shaft protectors.

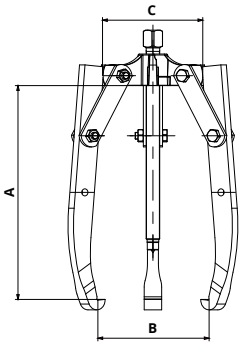


BETEX MP15/16

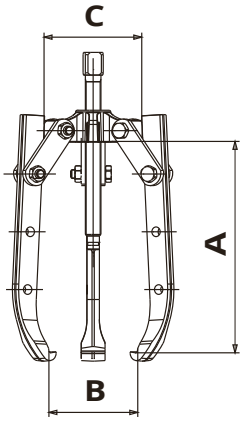
Simple, handy 2/3-arm puller for parts gripped externally like pulleys, bearings, rings, etc. Suitable for removing fans from electric motors. During operation, the arms cannot slip because they are pressed against the cross bar. The harder the pulling force, the tighter the jaws grip around the workpiece. 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, use BETEX 625/630 shaft protectors.

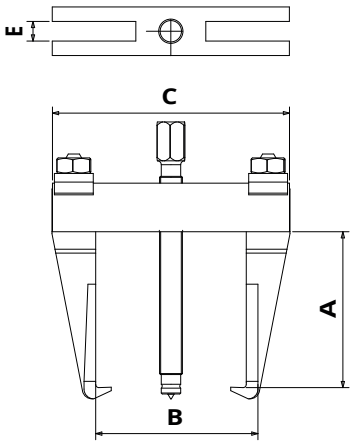


BETEX MP20

This 2-arm puller is extremely well-suited to applications involving the extraction of bearings, rings, sprockets, couplings etc. The jaws are forged and therefor 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, MP2025

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

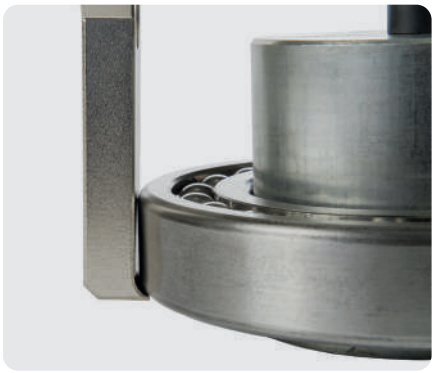
BETEX MP25 universal 2-arm bearing puller



110
Max. shaft length mm

245
Max. spread mm

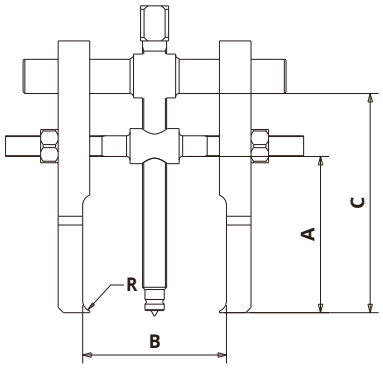
Prevent damage to shafts and spindles, use BETEX 625/630 shaft protectors.



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
- 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

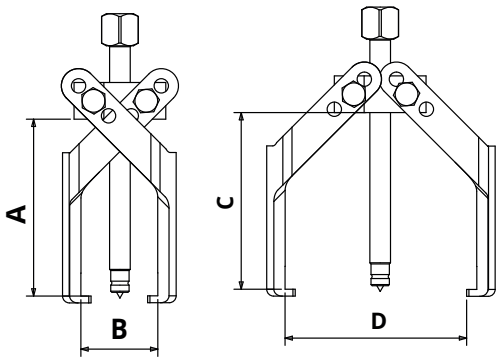
Prevent damage to shafts and spindles, use BETEX 625/630 shaft protectors.



BETEX MP26

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

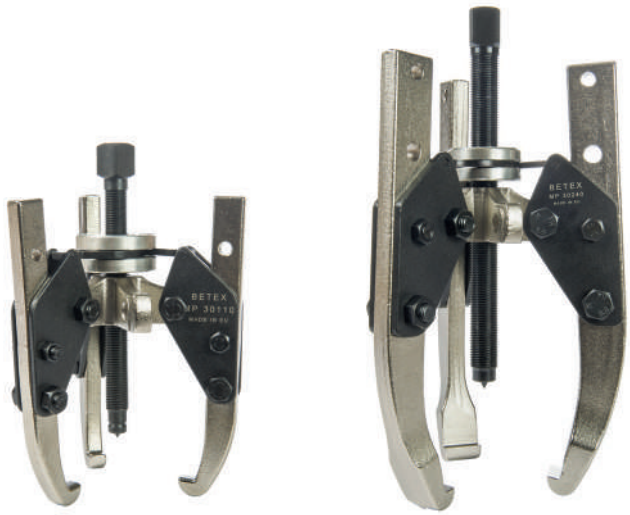
- External puller
- 2-arms
- For a wider spread and depth, puller arms can be assembled in variable positions
- Easy to handle, cross arm puller



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

TIP!
Prevent damage to shafts and spindles, use BETEX 625/630 shaft protectors.



BETEX MP30

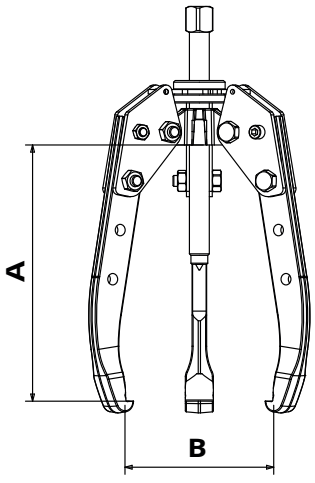
The 2/3 arms of these pullers adjust themselves simultaneously and symmetrically, inwards, or outwards. Work efficient with perfect positioning of the arms. The arms cannot bend or deflect. The higher the pulling force, the tighter the grip of the arms.

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

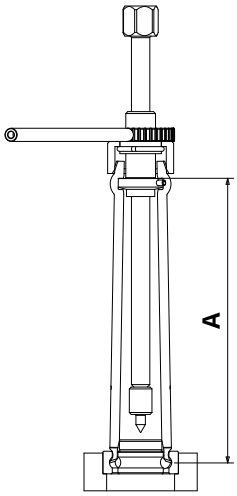


BETEX MP40

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** - 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	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	6208 - 6209 - 6210 - 6307 - 6403 - 63/28	4,5
	32	239	**6211** - 6212 - 6308 - 6309 - 6310 - 6311 - 6404 - 6405 - 6406	7,5
MP40900 set				

The blue-numbered bearings can be dismantled without a ring.

MECHANICAL PULLERS

BETEX MP50 expanders, countersupports 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
- Collets MP50507 and MP50811 have no housing
- Also available in 7 different sets, including sliding hammer and/or counter support

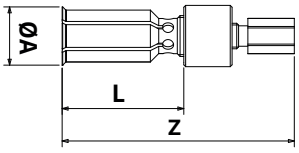


BETEX MP50350

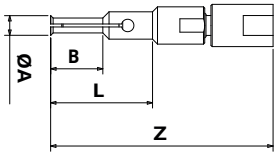
Used in combination with internal expander puller.

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

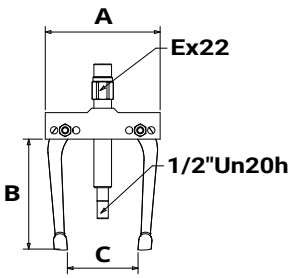
A major advantage of the slide hammer is that it can be used independently of any housing. No pressure points are required. After positioning the inner expander puller, the slide hammer is screwed on.



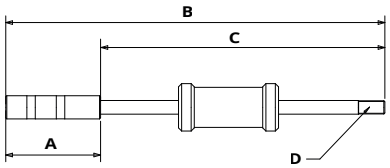
Expander MP51214 to MP56576



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 counter support - 3,6 kg
Set 4: MP50537T - including slide hammer and 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

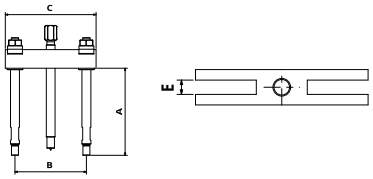
BETEX MP60/65 bearing splitters and countersupports



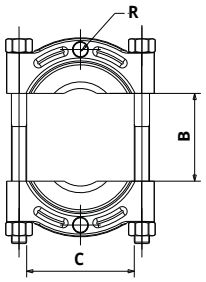
680
Max. shaft length mm

300
Max. spread mm

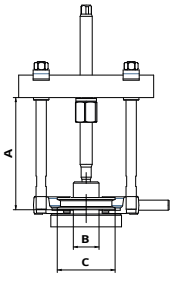
Prevent damage to shafts and spindles, use BETEX 625/630 shaft protectors.



Counter support



Bearing splitter



Sets

BETEX MP60/65

BETEX MP60/MP65 are 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 countersupports) is stated in the art.no. For example: Set MP7 110 060 consists of Countersupport 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

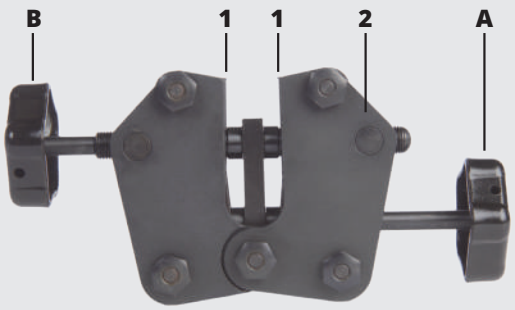
For professional removal of parallel keys
With the BETEX KZZ, you can easily remove keys from shafts of motors, pumps and all kinds of other applications in drive technology. For keys up to a width of 35 mm.

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
Cap. Ton

5
Max. stroke mm

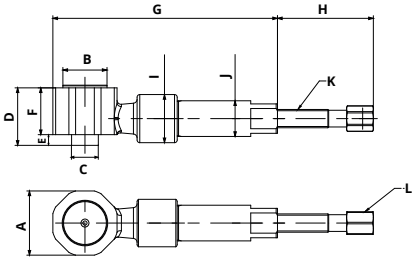
Prevent damage to shafts and spindles, use BETEX 625/630 shaft protectors.



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.

- Combine 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 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, 625 for shaft center protection and 630 for hollow shafts.

By using these shaft protectors you prevent:
- damage to the center hole and screw
- puller overload due to tilting

BETEX 625 consists of 6 pieces:

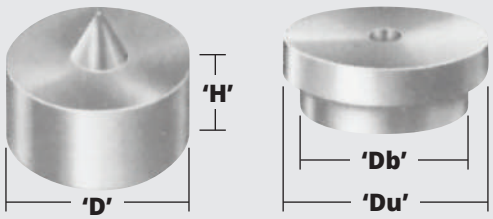
'D' min. = Ø 19 mm	'H' min. = Ø 16 mm
'D' max. = Ø 38 mm	'H' max. = Ø 19 mm

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

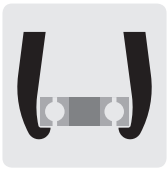
BETEX HP & HSP 2/3-arm pullers, with integrated pump and cylinder

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.
- Safety net/blanket and adapters included.
- In useful carrying case.
- HSP pullers are self-centering.

415
Max. shaft length mm

620
Max. spread mm



TIP!

Use in combination with the BETEX bearing splitters.

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

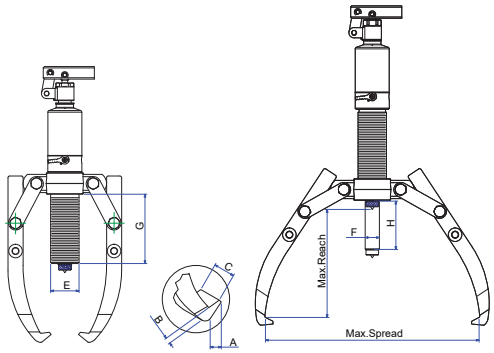


2-arm or 3-arm puller



can be rotated 360°



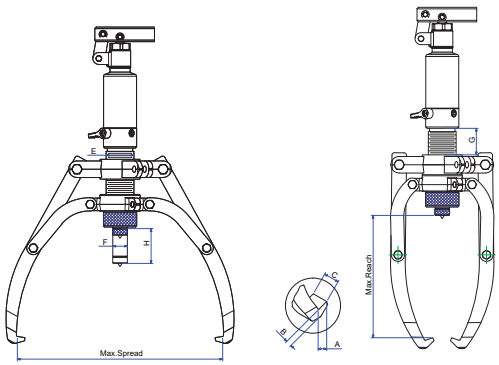


BETEX HP 2/3-arm Hydraulic pullers

Type	Art. no	Cap. tons	Max. shaft length mm	Max. spread mm	Stroke H mm	A mm	B mm	C mm	E mm	F mm	G mm	Weight in kg
HP 43*	791000	4	185	255	60	11	6	22	42	22	84	4.5
HP 63*	792000	6	220	330	70	13	10	22	45	23	94	5.5
HP 83*	793000	8	230	350	85	11	10	25	50	25	122	6.5
HP 123*	794000	12	270	375	85	14	10	29	60	28	118	8.0
HP 203**	796000	20	360	520	111	20	27	33	80	40	160	22.0
HP 303**	797000	30	360	550	111	20	27	38	98	50	155	32.0

** 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	Max. spread mm	Stroke H mm	A mm	B mm	C mm	E mm	F mm	G mm	Weight in kg
HSP 43*	791500	4	190	315	60	13	10	22	42	22	40	8.0
HSP 63*	792500	6	230	390	70	13	10	22	45	23	50	10.0
HSP 83*	793500	8	280	460	85	13	13	27.5	50	25	70	12.0
HSP 123*	794500	12	300	515	85	15	16.5	29	60	28	70	15.0
HSP 203**	796500	20	325	520	111	18	20	33	80	40	62	26.0
HSP 303**	797500	30	415	620	111	18	20	38	98	50	85	36.0

** 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 and hand and foot pump sets.



BETEX HXP

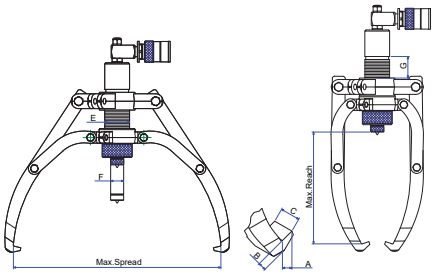
Safe and user-friendly dismounting of bearings, couplings, rings, etc.

- 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 also available with mobile crane.
- Accessory sets available for the 8-ton and 12-ton versions.
- In useful carrying case.
- Adapters included.



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	Stroke H mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	Weight in kg
HXP 83*	793600	8	280	460	85	13	10	22	-	22	40	42	9.0
HXP 123*	794600	12	300	515	85	13	13	27.5	-	25	70	50	11.7
HXP 203**	796600	20	325	520	111	15	16.5	29	-	28	70	60	24.0
HXP 303**	797600	30	415	620	111	20	27	33	-	40	62	80	34.0
HXP 503**	799600	50	455	860	159	23	35	60	-	40	-	127	140.0

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

HYDRAULIC PULLERS

BETEX Tri-Section Pullers



284
Max. shaft length mm

340
Max. spread mm

BETEX Tri-section pullers

- Complete hydraulic tri-section puller set for safe and easy dismounting.
- 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 mm	Min. spread mm	Max. spread 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 the BETEX bearing splitters.

BETEX HPP

A unique patented 3-in-1 puller for dismounting and mounting of rings, wheels, bearings, etc.
Suitable for easy and safe mounting/dismounting of bearings and rings through the inner and/or outer ring. With integrated pump and cylinder.

The push puller is designed in such a way that it can be used to mount and dismount parts. The forces are evenly distributed, creating a perfectly axial process.

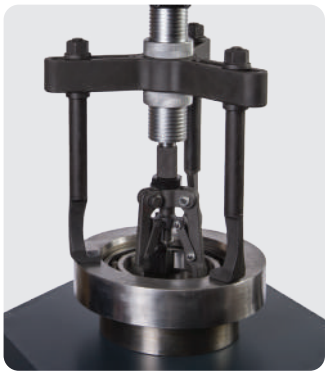
When mounting, the puller arms press on the inner bearing ring, which prevents the transmission of force and/or heat through the outer ring to the moving parts, so the bearing is not damaged.



Pulling externally



Mounting



Pulling internally



Practical example

User friendly

- Unique jaw design for mounting and outer ring pulling without removing and changing.
- Thanks to the 3-arm design, there is always an even and constant force when mounting and dismounting parts through the inner and/or outer ring.
- Extensions are available for larger shaft lengths.
- The self-centering design distributes the force evenly, preventing the puller arms from slipping or coming off during use.

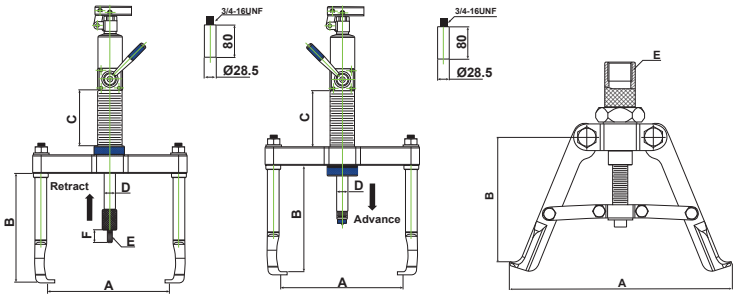
Safe

- The integrated overpressure valve guarantees user safety, prevents damage and overload to push puller and workpiece. It also ensures that the maximum pressure is not exceeded.
- Most parts are forged SCM440 alloy steel, creating a very safe and durable product.

Cost savings

- The 3-in-1 design reduces preparation time, dismounting time and working time.
- The push puller is ideal for mounting and dismounting a wide variety of parts such as rings, wheels, bearings, couplings and pulleys.

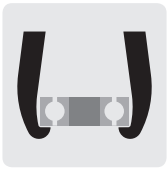




Type	Art. no	Operations	Output tons	A mm	B mm	C mm	D mm	E	F mm	Weight in kg
HPP 123	794200	Mounting	8	44-280	270	140	28	M12-P1.75	30	19.5
		Outer pulling	12	85-300	260	140	28	-	-	
		Inner pulling	8	110-245	130-150	-	-	1”-12UNF	-	

ACCESSORY SETS
BETEX BEARING SPLITTERS





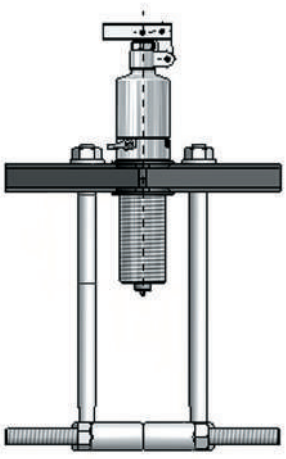


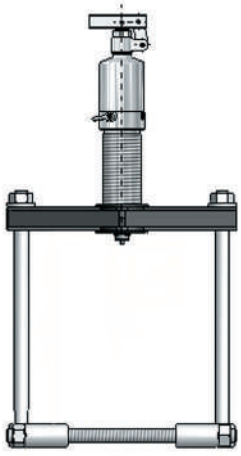
BETEX BEARING SPLITTERS

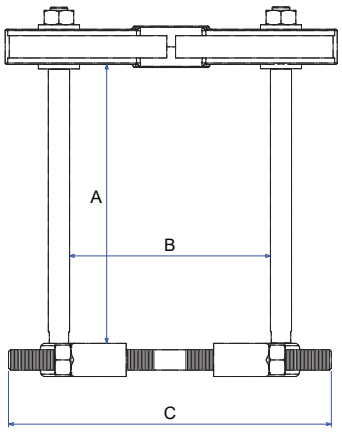
Accessory sets for 4, 6, 8 and 12 ton HP, HSP, HXP and HPP pullers.

This accessory set consists of:
- 1 Puller block
- 2 Sets of connection rods
- 2 Plates for min/max Ø 15-290 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.







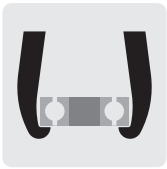
Type				Art. no	Cap. tons	Shaft length A mm	Min. spread B mm	Max. spread C mm	Weight in kg
Acc. Set HP 43	HSP 43			791100	4	224	Ø 12	Ø 145	7.5
Acc. Set HP 63	HSP 63			792100	6	255	Ø 28	Ø 220	11.5
Acc. Set HP 83	HSP 83	HXP 83		793100	8	255	Ø 28	Ø 230	12.0
Acc. Set HP 123	HSP 123	HXP 123	HPP 123	794100	12	298	Ø 38	Ø 310	21.0

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



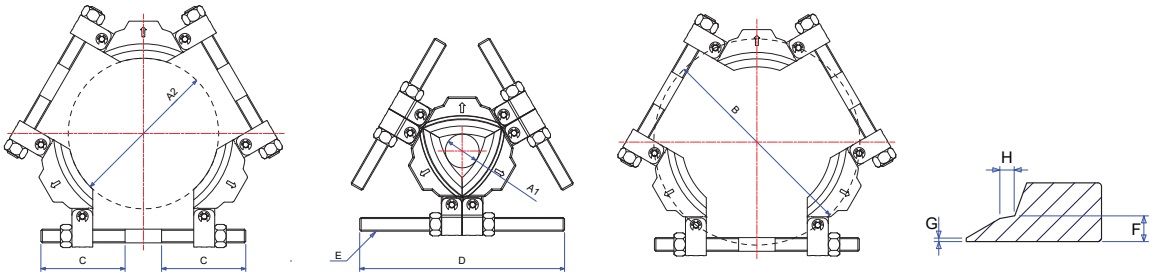
BETEX Tri-Section Plate

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 comes in 4 different models suitable for bearings with shafts from 26 to 495 mm.



Type	Art. no	Cap. tons	Available shaft diam		Max. Spread B mm	C mm	D mm	E	F mm	G mm	H mm	Weight in kg
			A1 mm	A2 mm								
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

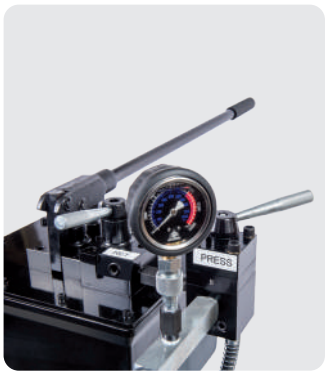




Double-acting electrical



Single-acting electrical



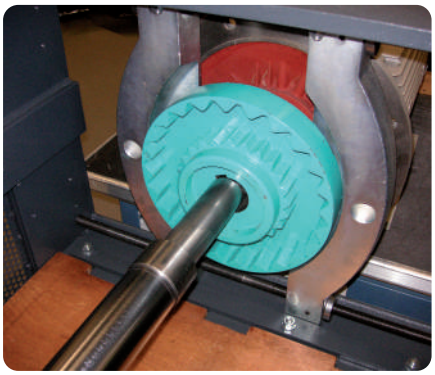
Single-acting manual



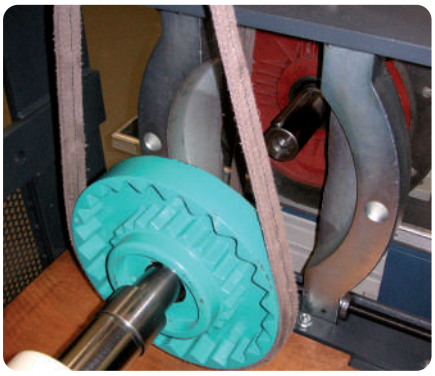
Option: adapters for inner rings, etc.

BETEX Mobipullers

For heavy-duty dismounting jobs. One person can do the job!
The BETEX mobile hydraulic puller quickly and easily removes machine parts such as bearings, couplings, bushings, gear wheels, etc. The Mobipuller excels in its functional and ergonomic operation. 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.





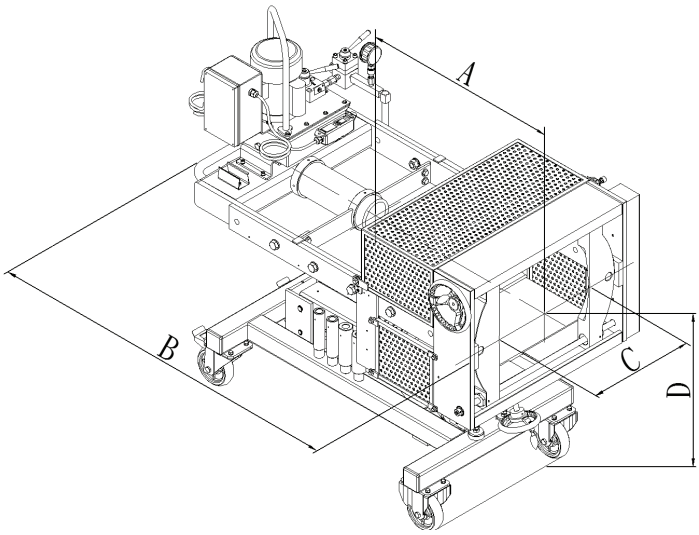


All models are equipped as standard with:

- 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 in 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	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	740	1560	430	900/1430	450
50 EVA 430 S 340*	700005	50	340	single acting electrical	660	1560	430	900/1430	455
50 EVAD 430 S 340*	700006	50	340	doucle acting electrical	615	1560	430	900/1430	470
50 EVAD 430 S 460*	700007	50	460	double-acting electrical	470	1560	430	900/1430	485

** Remote control included*

MOBILE HYDRAULIC PULLER

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





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. It is easy to convert into a 2-arm 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.

TIP!

Also available without crane, HXP503.



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 (self-braking) and 2 fixed wheels.
- The hydraulic cylinder is of the spring-return type with a 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.

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	140
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 in kg	280

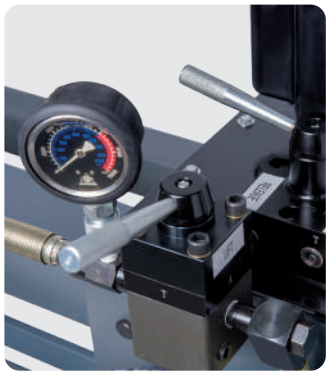
MOBILE HYDRAULIC PULLER

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 (self-braking) and 2 fixed wheels.
- The hydraulic cylinder is of the spring-return type with a 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 in kg	315

MOBILE HYDRAULIC PULLERS

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

50 tons

self-centering





Valve block



Adapters

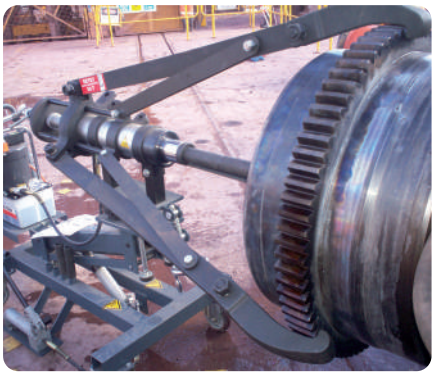


HXPM 50 2/3-arm SHORT



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 (self-braking) and 2 fixed wheels.
- The hydraulic cylinder is 2-stage, of the spring-return type with a 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 in kg	385	400

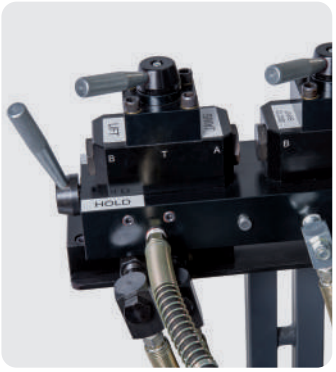
MOBILE HYDRAULIC PULLER

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

100 tons

self-centering





Valve block



Adapters



Adjustable jaw tips for optimum 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 (self-braking) and 2 fixed wheels.
- The hydraulic cylinder is of the spring-return type with a 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.

TIP!

Use in combination with UHAP2800 high pressure pump.

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	2450 x 1350 x 1200
Weight in 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 optimum 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 (self-braking) and 2 fixed wheels.
- The hydraulic cylinder is 2-stage, of the spring-return type with a 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.

TIP!

Use in combination with UHAP2800 high pressure pump.



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	2790 x 1030 x 1410
Weight in 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 optimum 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 (self-braking) and 2 fixed wheels.
- The hydraulic cylinder is of the spring-return type with a max. operating pressure of 700 bar (150 tons).
- The total stroke is 325 mm. Seven adapters (extensions) are included, with a total length of 1125 mm.
- Adjustable jaw tips for extra grip.

TIP!

Use in combination with UHAP2800 high pressure pump.



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.

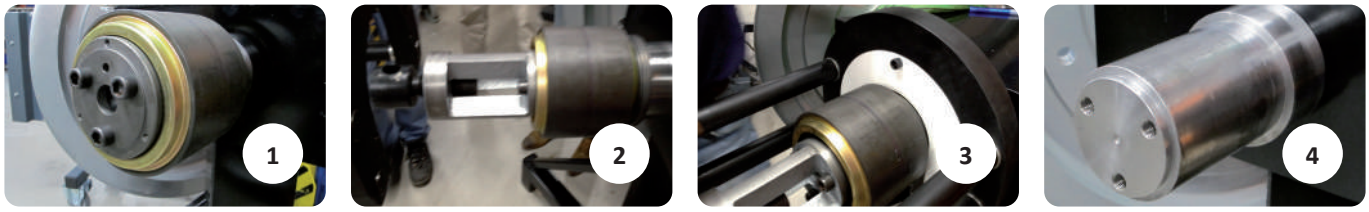
Type	HXPM 150 - 2/3-jaw
Art. no	700025
Capacity tons	150
Max. stroke mm	330
Max. spread mm	1650
Min. spread mm	300
Max. shaft length mm	1175
Operation	Electrical, BETEX EP420D, 400V
7 adapters, total length: 1125mm	2 x Ø 70: length 300, 2 x Ø 70: length 150 1 x Ø 70: length 100, 1 x Ø 70: length 75, 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 in kg	1200

MOBILE HYDRAULIC PULLERS

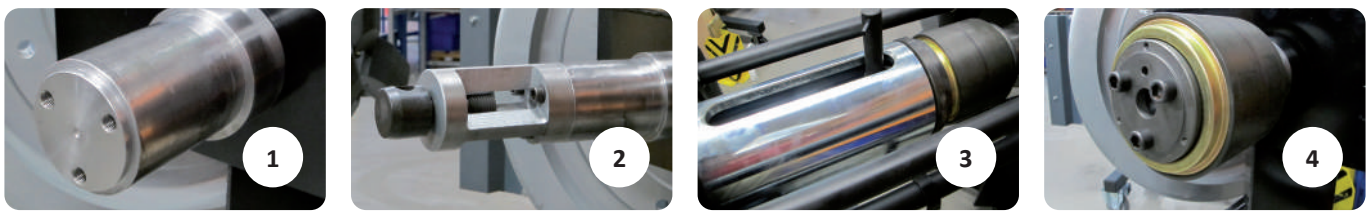
BETEX BPP & BPPS Side Shift Bearing Puller Pusher

100 tons





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



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

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
- Pulling capacity (dismounting) adjustable to 100 t max.
- Pushing capacity (mounting) adjustable to 68 t max.
- 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).
- The side-shift model is extra compact and easy to manoeuvre thanks to the 4 castor wheels.

The BPPS Side-Shift model is compact and easy to manoeuvre because of the 4 castors wheels.



Accessory set

Request our questionnaire for sound advice and quotations.

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	adjustable to 100 t max.	adjustable to 100 t max.
Pushing capacity, mounting tons	adjustable to 68 t max.	adjustable to 68 t max.
Max. stroke mm	392	255
Max. shaft diameter mm depending on acc.	178	178
Min. shaft diameter mm depending on acc.	120	90
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 in kg	560	400

EXPLANATION OF CYLINDERS

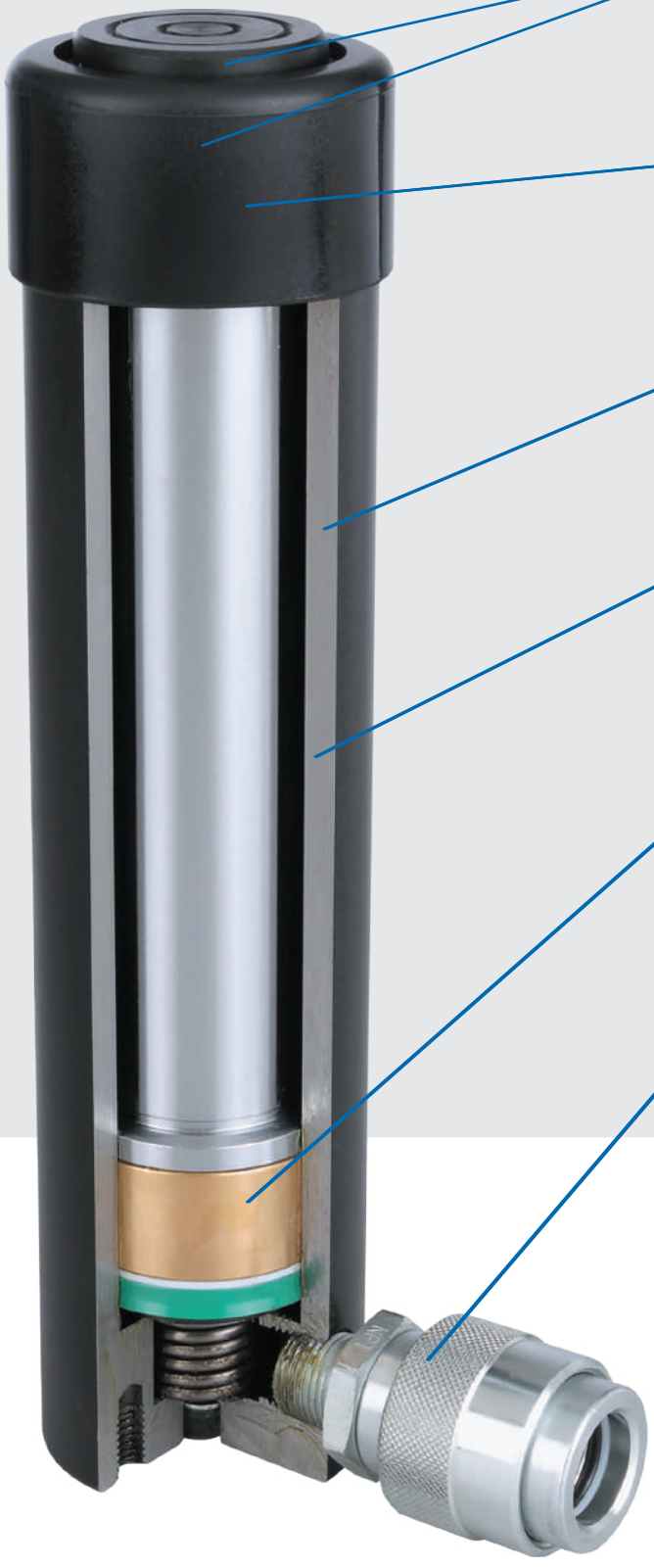
Features:

- ✓ 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.

TIP!

Read more in the "Selecting the right hydraulic set-up" chapter.

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

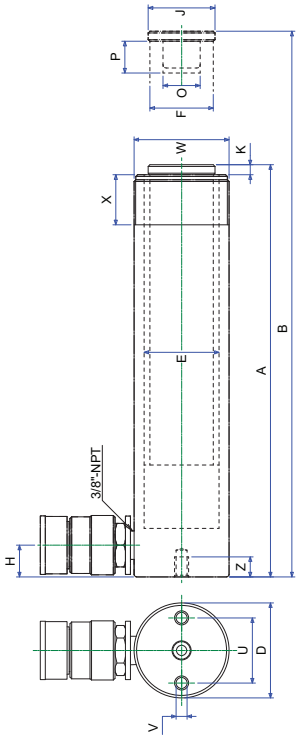
700
max. operating pressure bar

TIP!

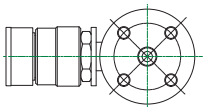
Use in combination with our hydraulic pumps and accessories.

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	Cap. ton	Stroke mm	Oil cap. m³	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	4.5	26	17	110	136	38	28.6	25.4	19	25	6	³/₄"-16	14	25	¹/₄"-20	1¹/₂"-16	28	14	1
NSSS 53	5	76	54	165	241	38	30	25.4	19	25	6	³/₄"-16	14	25	¹/₄"-20	1¹/₂"-16	28	14	1.5
NSSS 55	5	127	90	216	343	38	30	25.4	19	25	6	³/₄"-16	14	25	¹/₄"-20	1¹/₂"-16	28	14	1.9
NSSS 57	5	183	129	273	456	38	30	25.4	19	25	6	³/₄"-16	16	25	¹/₄"-20	1¹/₂"-16	28	14	2.4
NSSS 59	5	232	164	324	556	38	30	25.4	19	25	6	³/₄"-16	16	25	¹/₄"-20	1¹/₂"-16	28	14	2.8
NSSS 101	10	25.4	36.5	90	115.4	57	42.8	38	19	-	-	#10-24	6.5	39	⁵/₁₆"-18	2¹/₄"-14	30	13	1.8
NSSS 102	10	51	73	121	172	57	42.8	38	19	40	6	1"-8	19	39	⁵/₁₆"-18	2¹/₄"-14	30	13	2.3
NSSS 104	10	101	145	171	272	57	42.8	38	19	40	6	1"-8	19	39	⁵/₁₆"-18	2¹/₄"-14	30	13	3.3
NSSS 106	10	152.5	242	247	399.5	57	45	38	19	40	6	1"-8	19	39	⁵/₁₆"-18	2¹/₄"-14	30	13	4.4
NSSS 108	10	203.5	323	298	501.5	57	45	38	19	40	6	1"-8	19	39	⁵/₁₆"-18	2¹/₄"-14	30	13	5.4
NSSS 1010	10	255.5	406	350	605.5	57	45	38	19	40	6	1"-8	19	39	⁵/₁₆"-18	2¹/₄"-14	30	13	6.4
NSSS 1012	10	305.5	486	400	705.5	57	45	38	19	40	6	1"-8	19	39	⁵/₁₆"-18	2¹/₄"-14	30	13	6.8
NSSS 1014	10	356.5	567	451	807.5	57	45	38	19	40	6	1"-8	19	39	⁵/₁₆"-18	2¹/₄"-14	30	13	8.2
NSSS 151	15	26.5	63	124	150.5	73	55	40	19	38	9.6	1"-8	25.4	47.7	³/₈"-16	2³/₄"-16	30	13	3.3
NSSS 152	15	52.5	125	149.6	202.1	73	55	40	19	38	9.6	1"-8	25.4	47.7	³/₈"-16	2³/₄"-16	30	13	4.1
NSSS 154	15	102.5	243	200	302.5	73	55	40	19	38	9.6	1"-8	25.4	47.7	³/₈"-16	2³/₄"-16	30	13	5.0
NSSS 156	15	153	363	271.6	424.6	73	55	40	25	38	9.6	1"-8	25.4	47.7	³/₈"-16	2³/₄"-16	30	13	6.8
NSSS 158	15	203.5	483	322	525.5	73	55	40	25	38	9.6	1"-8	25.4	47.7	³/₈"-16	2³/₄"-16	30	13	8.2
NSSS 1510	15	254.5	604	373	627.5	73	55	40	25	38	9.6	1"-8	25.4	47.7	³/₈"-16	2³/₄"-16	30	13	9.5
NSSS 1512	15	305	724	424	729	73	55	40	25	38	9.6	1"-8	25.4	47.7	³/₈"-16	2³/₄"-16	30	13	10.9
NSSS 1514	15	355.7	845	474.6	830.3	73	55	40	25	38	9.6	1"-8	25.4	47.7	³/₈"-16	2³/₄"-16	30	13	11.8
NSSS 1516	15	406	824	523	929	73	55	40	25	38	9.6	1"-8	25.4	47.7	³/₈"-16	2³/₄"-16	30	13	12.8
NSSS 251	25	25.5	98	139.5	165	88	70	55	25	50	10.5	1¹/₂"-16	25.4	58	¹/₂"-13	3⁵/₁₆"-12	50	19	5.9
NSSS 252	25	51	196	165	216	88	70	55	25	50	10.5	1¹/₂"-16	25.4	58	¹/₂"-13	3⁵/₁₆"-12	50	19	6.4
NSSS 254	25	102	392	216	318	88	70	55	25	50	10.5	1¹/₂"-16	25.4	58	¹/₂"-13	3⁵/₁₆"-12	50	19	8.2
NSSS 256	25	158.5	610	273	431.5	88	70	55	25	50	10.5	1¹/₂"-16	25.4	58	¹/₂"-13	3⁵/₁₆"-12	50	19	10
NSSS 258	25	209.5	806	324	533.5	88	70	55	25	50	10.5	1¹/₂"-16	25.4	58	¹/₂"-13	3⁵/₁₆"-12	50	19	12.2
NSSS 2510	25	260.5	1002	375	636.5	88	70	55	25	50	10.5	1¹/₂"-16	25.4	58	¹/₂"-13	3⁵/₁₆"-12	50	19	14.1
NSSS 2512	25	311	1196	425.5	736.5	88	70	55	25	50	10.5	1¹/₂"-16	25.4	58	¹/₂"-13	3⁵/₁₆"-12	50	19	16.3
NSSS 2514	25	361.5	1390.5	476	837.5	88	70	55	25	50	10.5	1¹/₂"-16	25.4	58	¹/₂"-13	3⁵/₁₆"-12	50	19	17.7
NSSS 308	30	209.5	925	387.5	597	103	75	60	57	50	10.5	1¹/₂"-16	25.4	-	-	4"-12	50	-	18.1
NSSS 502	50	51	361	177	228	127	95	80	33	70	3	-	-	95	¹/₂"-13	5"-12	55	19	15
NSSS 504	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	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	50	203	1446	349	552	127	95	80	33	70	3	-	-	95	¹/₂"-13	5"-12	55	19	27.1
NSSS 5010	50	260	1853	385	645	127	95	80	33	70	3	-	-	95	¹/₂"-13	5"-12	55	19	30.4
NSSS 5013	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	75	155	1752	285	440	152	120	95	30	70	3	-	-	-	-	5³/₄"-12	45	-	29.5
NSSS 7513	75	333.5	3770	491	824.5	152	120	95	30	70	3	-	-	-	-	5³/₄"-12	45	-	59
NSSS 1006	100	170	2432	358	825	177	135	105	40	70	3	-	-	139	³/₄"-10	6⁷/₈"-12	45	25	59
NSSS 10010	100	260	3720	448	708	177	135	105	40	70	3	-	-	139	³/₄"-10	6⁷/₈"-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

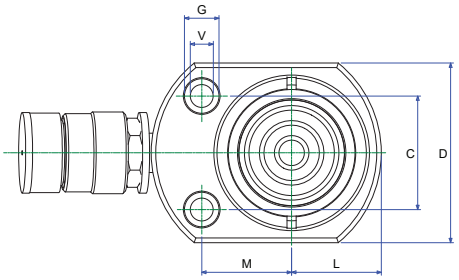
700
max. operating pressure bar

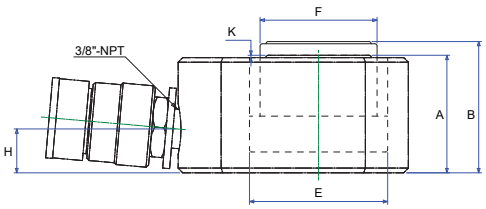
TIP!

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	Cap. ton	Stroke mm	Oil cap. cm³	Install. height mm		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
				A	B											
				Min.	Max.											
NSLS 50	5	6	4.5	33	39	28.5	58.5 x 44	31	25.4	9.5	16	1	22	22	5.3	1.0
NSLS 100	10	12	18.0	42	54	36.5	82.5 x 60	44	38	11	19	1	30	34	7.5	1.4
NSLS 200	20	12	34.0	51	63	49.3	100 x 78	60	50.8	15	19	1	39	39	10	3.1
NSLS 300	30	13	54.0	58	71	52.3	117.5 x 95	73	63.5	16	19	2	47.5	47.5	10	4.5
NSLS 500	50	16	113.0	66	82	66.5	145 x 115	95	70	19	19	2	57.5	58	11	6.8
NSLS 750	75	16	180.0	79	95	76.2	170 x 145	120	82.5	20.5	19	2	72.5	70	13.5	11.3
NSLS 1000	100	16	229.0	85	101	76.2	185 x 160	135	92	20.5	19	2	80	78	13.5	14.5
NSLS 1500	150	17	363.0	100	117	117	225 x 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

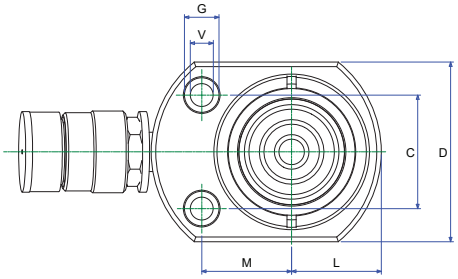
13
stroke mm

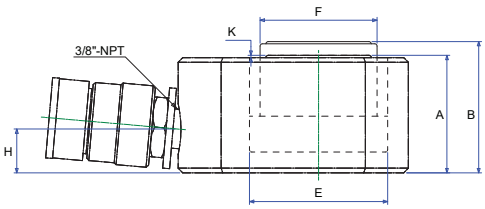
700
max. operating pressure bar

TIP!
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	Cap. ton		Stroke mm		Oil cap. cm³	Install. height mm		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		A Min.	B Max.											
NSLS 10-05	10	5	13	12	29	42	67	36.5	82,5x60	44	38	11	19	1	30	34	7.5	1.6
NSLS 20-10	20	10	13	12	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

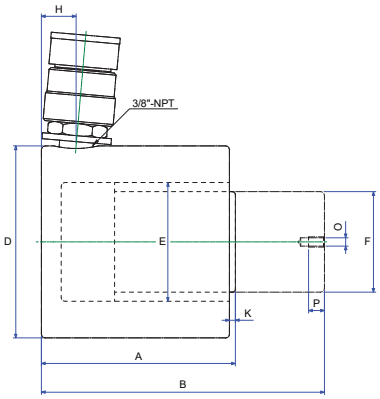
700
max. operating pressure bar

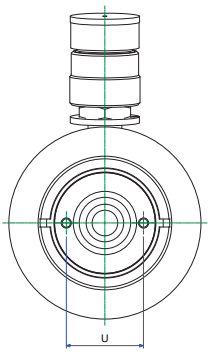
TIP!

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	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	10	38	55.0	88	126	78	42.8	38	17.5	5	M4	8	26	4.1
NSCS 201	20	45	127.0	98	143	97	60	50.8	17.5	3	M5	9	39	5.0
NSCS 302	30	62	274.0	117	179	107	75	63.5	19	3	M5	8	39	6.8
NSCS 502	50	60.5	429.0	122	182	127	95	70	19	2	M5	8	39	10.9
NSCS 1002	100	58	830.0	141.5	199.5	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

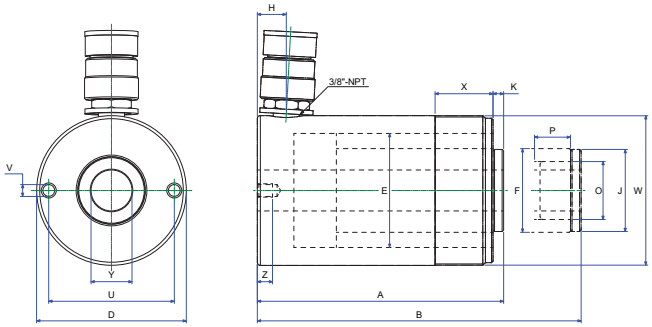
TIP!

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	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 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
				Min.	Max.															
NSHS 120	12	8	14.8	60	68	73	54.1	35	12.5	-	-	¾"-16	16	50.8	5/16"-18	2¾"-16	33	19.5	9	1.5
NSHS 121	12	42	79	120	162	73	55	35	19	-	-	-	-	50.8	5/16"-18	2¾"-16	33	19.5	12.7	3
NSHS 123	12	76	143.2	184	260	73	55	35	19	-	-	-	-	50.8	5/16"-18	2¾"-16	33	19.5	12.7	4.2
NSHS 202	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	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	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	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	60	76	680	247.5	323.5	158.6	125	90	32	89	12.5	2¾"-16	25	130	1/2"-13	6 1/4"-12	50	54	14	26.4
NSHS 606	60	152	1360	323.5	475.5	158.6	125	90	32	89	12.5	2¾"-16	25	130	1/2"-13	6 1/4"-12	50	54	14	34
NSHS 1003	100	76	1085	254	330	213	165	125	38	125	14	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

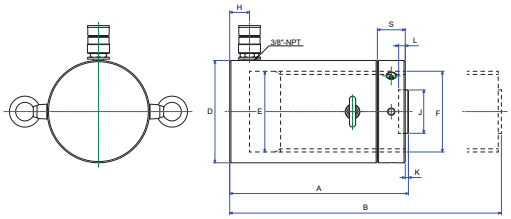
700
max. operating pressure bar

TIP!

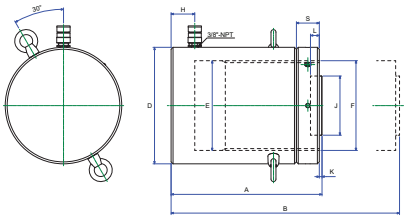
Use in combination with our hydraulic pumps and accessories.

BETEX JLLC series

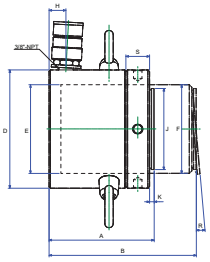
- Single-acting, load return.
- With locknut for positive and safe load holding over a long period of time.
- Chrome plated to prevent corrosion and to lower friction for smoother operation.
- Withstands side-load forces up to 5% of rated cylinder capacity without scoring.
- Stop ring for piston blow-out 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	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	50	50	354.5	164	214	125	95	Tr95x4	20	70	4	13	35	15	70	24	TSA-100
JLLC 506	50	150	1063.5	264	414	125	95	Tr95x4	20	70	4	13	35	25	70	24	TSA-100
JLLC 5010	50	250	1772.5	364	614	125	95	Tr95x4	20	70	4	13	35	35	70	24	TSA-100
JLLC 1002	100	50	665	187	237	165	130	Tr130x4	32	70	4	13	45	30	70	24	TSA-100
JLLC 1006	100	150	1995	287	437	165	130	Tr130x4	32	70	4	13	45	48	70	24	TSA-100
JLLC 10010	100	250	3325	387	637	165	130	Tr130x4	32	70	4	13	45	64	70	24	TSA-100
JLLC 1502	150	50	1005	209	259	205	160	Tr160x6	49	125	4	25	45	53	125	20	TSA-200
JLLC1506	150	150	3015	309	459	205	160	Tr160x6	49	125	4	25	45	78	125	20	TSA-200
JLLC 15012	150	300	6030	459	759	205	160	Tr160x6	49	125	4	25	45	117	125	20	TSA-200
JLLC 2002	200	50	1345	243	293	235	185	Tr185x6	52	125	4	25	50	83	125	20	TSA-200
JLLC 2006	200	150	4035	343	493	235	185	Tr185x6	52	125	4	25	50	117	125	20	TSA-200
JLLC 20012	200	300	8070	493	793	235	185	Tr185x6	52	125	4	25	50	170	125	20	TSA-200
JLLC 3002	300	50	2167.5	295	345	305	235	Tr235x6	62	160	5	25	60	173	195	75	TSA-300
JLLC 3006	300	150	6502.5	395	545	305	235	Tr235x6	62	160	5	25	60	233	195	75	TSA-300
JLLC 30012	300	300	13005	545	845	305	235	Tr235x6	62	160	5	25	60	323	195	75	TSA-300
JLLC 4002	400	50	2755	335	385	355	265	Tr265x6	76	160	5	25	70	250	225	85	TSA-400
JLLC 4006	400	150	8265	435	585	355	265	Tr265x6	76	160	5	25	70	327	225	85	TSA-400
JLLC 40012	400	300	16530	585	885	355	265	Tr265x6	76	160	5	25	70	441	225	85	TSA-400
JLLC 5002	500	50	3532.5	375	425	395	300	Tr300x6	81	180	5	25	80	367	250	90	TSA-500
JLLC 5006	500	150	10597.5	475	625	395	300	Tr300x6	81	180	5	25	80	466	250	90	TSA-500
JLLC 50012	500	300	21195	625	925	395	300	Tr300x6	81	180	5	25	80	617	250	90	TSA-500
JLLC 6002	600	50	4274	395	445	425	330	Tr330x6	89	195	5	25	85	446	275	95	TSA-600
JLLC 6006	600	150	12823	495	645	425	330	Tr330x6	89	195	5	25	85	562	275	95	TSA-600
JLLC 60012	600	300	25646	645	945	425	330	Tr330x6	89	195	5	25	85	737	275	95	TSA-600
JLLC 8002	800	50	5970	455	505	505	390	Tr390x6	105	225	5	25	100	709	320	120	TSA-800
JLLC 8006	800	150	17910	555	705	505	390	Tr390x6	105	225	5	25	100	870	320	120	TSA-800
JLLC 80012	800	300	35820	705	1005	505	390	Tr390x6	105	225	5	25	100	1110	320	120	TSA-800
JLLC 10002	1000	50	7257	495	545	555	430	Tr430x6	108	250	5	25	110	949	360	135	TSA-1000
JLLC 10006	1000	150	21772	595	745	555	430	Tr430x6	108	250	5	25	110	1141	360	135	TSA-1000
JLLC 100012	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 - 520
capacity ton

45 - 50
stroke mm

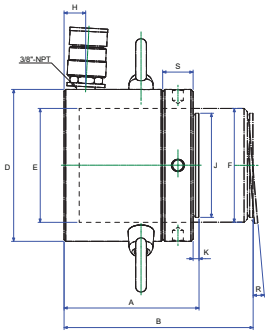
700
max. operating pressure bar

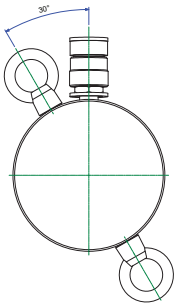
TIP!

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.
- Withstands side-load forces up to 3% of rated cylinder capacity without scoring.
- 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	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	60	50	433	124	174	140	105	Tr105x4	20	96	5	5°	28	15
JLPC 1002	100	50	715	137	187	175	135	Tr135x6	21	126	8	5°	31	26
JLPC 1502	150	45	963	148	193	220	165	Tr165x6	27	150	9	5°	40	44
JLPC 2002	200	45	1273.5	155	200	245	190	Tr190x6	30	180	10	5°	43	57
JLPC 2502	250	45	1633	159	204	275	215	Tr215x6	32	200	11	5°	44	74
JLPC 4002	400	45	2574	178	223	350	270	Tr270x6	39	250	11	5°	55	134
JLPC 5002	520	45	3179	192	237	400	300	Tr300x6	48	285	10	5°	62	189

ALUMINIUM CYLINDERS

BETEX ADHC series, hollow, double-acting



30 - 60
capacity ton

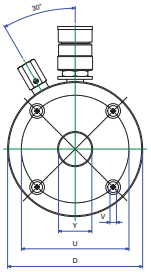
50 - 250
stroke mm

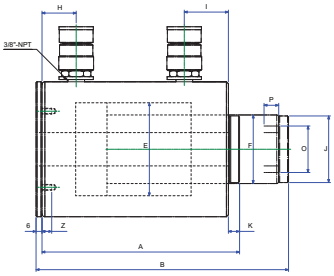
700
max. operating pressure bar

TIP!
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.
- Carrying handles on all models as standard.
- Mounting holes base plate: M6, 10 mm deep (V).





Cylinder bore

Type	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	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	9.3
ADHC 306	30	150	38.5	22.7	825	486	327	477	138	95	70	35	45	68	11.5	25	-	110	34	13
ADHC 3010	30	250	38.5	22.7	1374	810	430	680	138	95	70	35	45	68	11.5	25	-	110	34	16
ADHC 602	60	50	62.6	31	447.5	221	250	300	200	125	100	50	50	89	14	25	2 3/4"-16	160	54	15.5
ADHC 606	60	150	62.6	31	1342	662	350	500	200	125	100	50	50	89	14	25	-	160	54	23
ADHC 6010	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

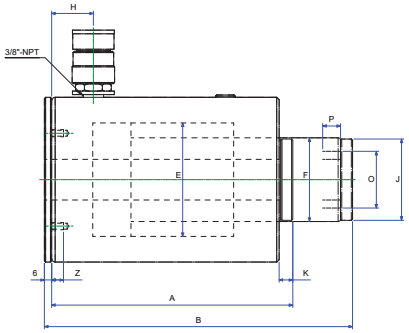
700
max. operating pressure bar

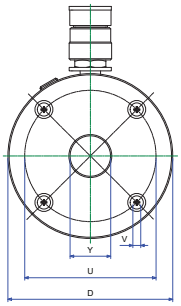
TIP!

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, 10 mm deep (V).





Cylinder bore

Type	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 mm	J ø mm	K mm	O ø mm	L mm	U mm	Y ø mm	Weight kg
				Min.	Max.											
ACHC 302	30	50	275	202	252	138	95	70	35	68	11.5	1 7/8"-16	25	110	34	10
ACHC 306	30	150	825	327	477	138	95	70	35	68	11.5	-	25	110	34	14
ACHC 602	60	50	447.5	250	300	200	125	100	50	89	14	2 3/4"-16	25	160	54	19.5
ACHC 606	60	150	1342	350	500	200	125	100	50	89	14	-	25	160	54	25

ALUMINIUM CYLINDERS

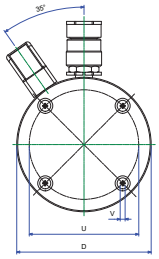
BETEX SSA series, spring-return, single-acting

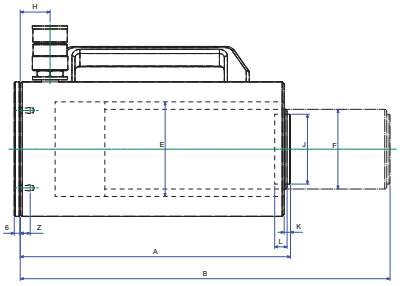


20 - 100
capacity ton

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 side load protection.
- Special O-ring protects inside from dirt.
- 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 base plate: M6, 10 mm deep (V).

Type	Cap. ton	Stroke mm	Oil cap. cm³	Install. height mm		D ø mm	E ø mm	F ø mm	H ø mm	J ø mm	K mm	L mm	U mm	Weight kg
				A	B									
				Min.	Max.									
SSA 202	20	50	166	168	218	92	65	55	25	40	3	9	70	4.3
SSA 204	20	100	332	218	318	92	65	55	25	40	3	9	70	5
SSA 206	20	150	498	268	418	92	65	55	25	40	3	9	70	5.7
SSA 208	20	200	664	318	518	92	65	55	25	40	3	9	70	6.5
SSA 302	30	50	221	175	225	110	75	60	25	40	3	9	80	6
SSA 304	30	100	442	225	325	110	75	60	25	40	3	9	80	6.9
SSA 306	30	150	663	275	425	110	75	60	25	40	3	9	80	7.9
SSA 308	30	200	884	325	525	110	75	60	25	40	3	9	80	8.8
SSA 502	50	50	354.5	171	221	135	95	80	30	70	6	12	110	7.7
SSA 504	50	100	709	221	321	135	95	80	30	70	6	12	110	9.1
SSA 506	50	150	1063.5	271	421	135	95	80	30	70	6	12	110	11.7
SSA 508	50	200	1418	321	521	135	95	80	30	70	6	12	110	13.5
SSA 5010	50	250	1772.5	371	621	135	95	80	30	70	6	12	110	16.4
SSA 1002	100	50	715	185	235	200	135	105	45	70	6	12	160	17.2
SSA 1004	100	100	1430	235	335	200	135	105	45	70	6	12	160	21
SSA 1006	100	150	2145	285	435	200	135	105	45	70	6	12	160	25.1
SSA 1008	100	200	2860	335	535	200	135	105	45	70	6	12	160	28.5
SSA 10010	100	250	3575	388	638	200	135	105	45	70	6	12	160	30.7

ALUMINIUM CYLINDERS

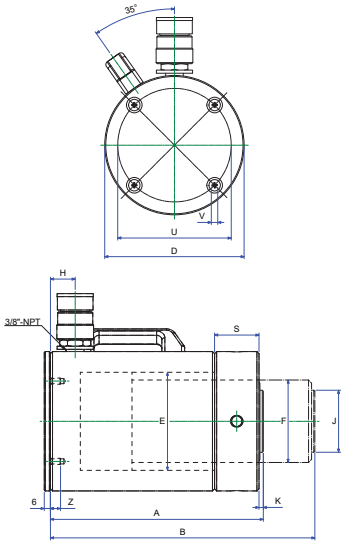
BETEX ALNC series, load-return, single-acting



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, 10 mm deep (V).

Type	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.									
ALNC 202	20	50	166	212	262	92	65	Tr55x3	25	40	3	25	70	4.8
ALNC 204	20	100	332	262	362	92	65	Tr55x3	25	40	3	25	70	5.5
ALNC 206	20	150	498	312	462	92	65	Tr55x3	25	40	3	25	70	6.3
ALNC 208	20	200	664	412	612	92	65	Tr55x3	25	40	3	25	70	6.9
ALNC 302	30	50	221	205	255	110	75	Tr60x3	25	40	3	30	80	6.9
ALNC 304	30	100	442	255	355	110	75	Tr60x3	25	40	3	30	80	7.7
ALNC 306	30	150	663	305	455	110	75	Tr60x3	25	40	3	30	80	7.6
ALNC 308	30	200	884	355	555	110	75	Tr60x3	25	40	3	30	80	9.6
ALNC 502	50	50	354	212	262	135	95	Tr80x4	30	60	3	43	110	9.3
ALNC 504	50	100	708	262	362	135	95	Tr80x4	30	60	3	43	110	10.7
ALNC 506	50	150	1062	312	462	135	95	Tr80x4	30	60	3	43	110	13.7
ALNC 508	50	200	1418	362	562	135	95	Tr80x4	30	60	3	43	110	14.5
ALNC 5010	50	250	1770	412	662	135	95	Tr80x4	30	60	3	43	110	16.5
ALNC 1002	100	50	715	235	285	200	135	Tr105x6	45	70	3	51	160	21.7
ALNC 1004	100	100	1430	285	385	200	135	Tr105x6	45	70	3	51	160	25.2
ALNC 1006	100	150	2145	335	485	200	135	Tr105x6	45	70	3	51	160	29.2
ALNC 1008	100	200	2860	385	585	200	135	Tr105x6	45	70	3	51	160	33
ALNC 10010	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

TIP!

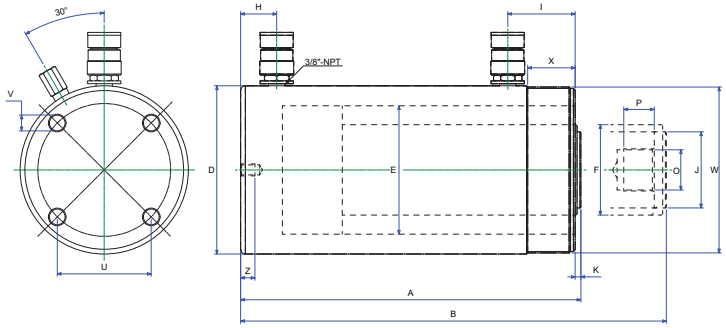
Use in combination with our hydraulic pumps and accessories.

BETEX NDAC series

- 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	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	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	10	4	301	478	172	458	759	78	45	36	36.5	55	40	8	1"-8	25.4	-	-	-	2¼"-14	27	15
NDAC 2512	25	10	305	1175	450	476.5	781.5	103	70	55	25	75	50	11.5	1½"-16	25	69.85	½"-13	19	4"-12	40	29
NDAC 308	30	14	209	923	426	387	596	103	75	55	25	75	50	12	1½"-16	25.4	-	-	-	4"-12	50	20
NDAC 3014	30	14	368	1625	751	547	915	103	75	55	25	75	50	12	1½"-16	25.4	-	-	-	4"-12	50	29
NDAC 506	50	14	150	1062	309	331	481	127	95	80	30	70	70	5	1"-12	25.4	-	-	-	5"-12	50	29
NDAC 5013	50	14	330	2338	680	511	841	127	95	80	30	70	70	5	1"-12	25.4	-	-	-	5"-12	50	43
NDAC 5018	50	41	470	3330	968	675	1145	127	95	80	52	70	70	5	1"-12	25.4	88.9	⅝"-11	22	5"-12	50	59
NDAC 756	75	29.5	155	1752	654	348	503	152	120	95	30	75	70	5	1"-12	38	114.3	¾"-10	22	5¾"-12	45	40
NDAC 7513	75	29.5	333	3764	1405	526	859	152	120	95	30	75	70	5	1"-12	38	114.3	¾"-10	22	5¾"-12	45	58
NDAC 1006	100	43	160	2289	1155	358	518	177	135	95	38	71	80	5	1¾"-12	35	139.7	¾"-10	25	6⅞"-12	50	59
NDAC 10013	100	43	330	4721	2383	528	858	177	135	95	38	71	80	5	1¾"-12	35	139.7	¾"-10	25	6⅞"-12	50	83

DOUBLE-ACTING CYLINDERS

BETEX NDAH series, hollow



30 - 100
capacity ton

76 - 257
stroke mm

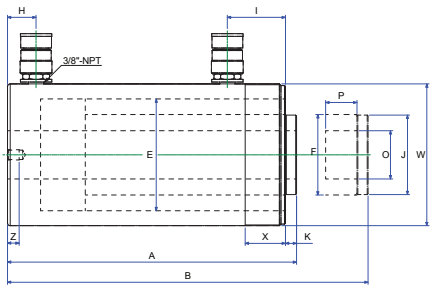
700
max. operating pressure bar

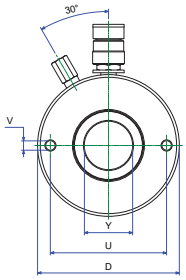
TIP!

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	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
						A	B																
	Push	Pull		Push	Pull	Min.	Max.																
NDAH 307	30	21	178	849	541	330	508	117	90	65	21.5	60.5	59.5	0.5	1⁷/₈"-16	25	92	³/₈"-16	14	4¹/₂"-12	42	34	22
NDAH 3010	30	21	257	1226	782	431	688	117	90	65	21.5	60.5	59.5	10	1⁷/₈"-16	25	92	³/₈"-16	14	4¹/₂"-12	42	34	27
NDAH 603	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	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	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	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	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	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



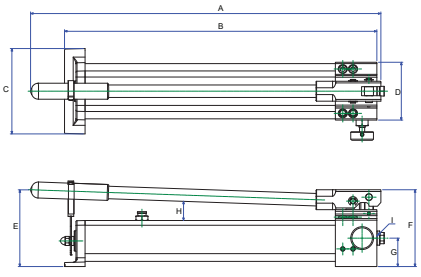
350 - 1620
usable oil-capacity cm³

700
bar

TIP!
Use in combination with our hydraulic pumps and 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



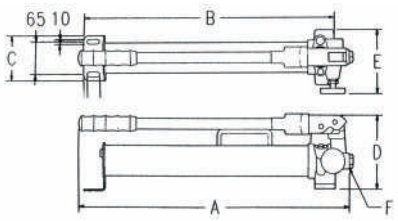
350 - 2500
usable oil-capacity cm³

700
bar

TIP!
Use in combination with hydraulic accessories.

BETEX PB / HC series

- Heavy-duty hydraulic hand pumps.
- 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 in kg
		1st stage	2nd stage		1st stage	2nd stage							
PB 350	7262350	13.8	700	350	13.0	2.8	335	303	90	146	128	³/₈"-NPT	5.5
PB 600	7262600	13.8	700	600	13.0	2.8	545	480	90	146	128	³/₈"-NPT	7
PB 700	7262700	13.8	700	700	13.0	2.8	590	541	90	146	128	³/₈"-NPT	7.3
HC 1500	72621500	13.8	700	1200	13.0	2.8	633	551	106	200	142	³/₈"-NPT	11.2
HC 2000	72622000	13.8	700	1800	13.0	2.8	580	523	140	189	148	³/₈"-NPT	11.5
HC 2500	72622500	13.8	700	2200	13.0	2.8	713	632	106	200	142	³/₈"-NPT	12

STEEL HAND PUMPS

BETEX P 900 series, heavy-duty



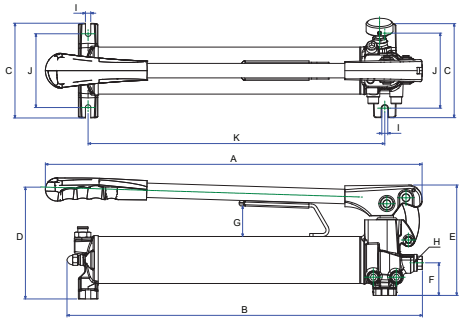
300 - 2200
usable oil-capacity cm³

700
bar

TIP!
Use in combination with hydraulic accessories.

BETEX P 900 series

- Heavy-duty hydraulic hand pumps.
- 2-stage hand pumps provide 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		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	450	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	850	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	1600	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	2500	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	2500	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



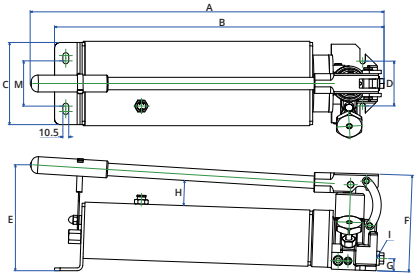
3500
usable oil-capacity cm³

700
bar

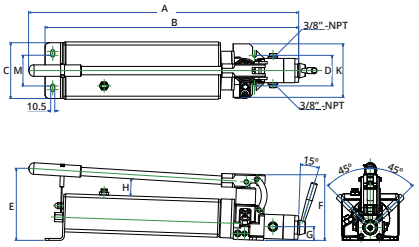
TIP!
Use in combination with hydraulic accessories.

BETEX HP 35 series

- Heavy-duty hydraulic hand pumps.
- 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	3500	30	3	628	586	146	79.7	190	79.9	22.35	45	³/₈"-NPT	80.5	16.5
HP 35D	7200057	28	700	3500	3500	30	3	715	662	146	79.7	190	79.7	36	45	³/₈"-NPT	80.5	16.8

STEEL HAND PUMPS

BETEX HP 80 series, heavy-duty



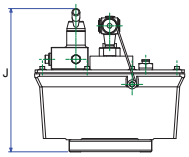
8000
usable oil-capacity cm³

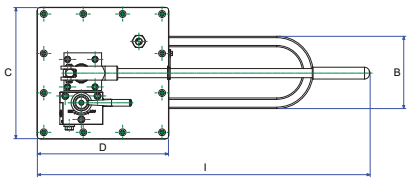
700
bar

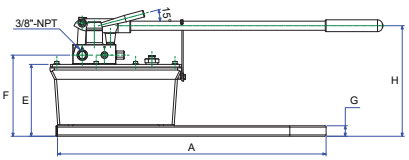
TIP!
Use in combination with hydraulic accessories.

BETEX HP 80 series

- Heavy-duty hydraulic hand pumps.
- 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



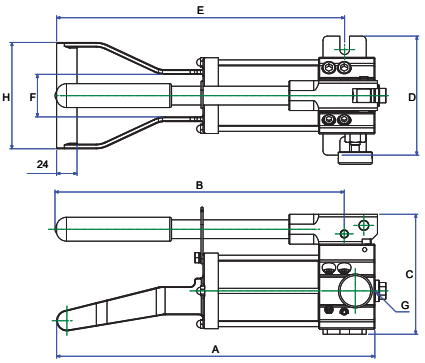
350
usable oil-capacity cm³

700
bar

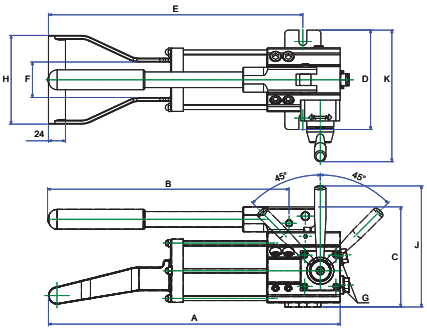
TIP!
Use in combination with hydraulic accessories.

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		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	5.8	0.9	374	340	140	140	338.5	50	³/₈" NPT	125	-	-	4.4
P 350B	7262402	20	700	350	5.8	0.9	421	340	140	140	363.5	50	³/₈" NPT	125	-	-	6.2
P 350D	7262403	20	700	350	5.8	0.9	411	340	140	140	358.5	50	³/₈" NPT	125	171	185	5.3

SPECIAL HAND PUMPS

BETEX P 550



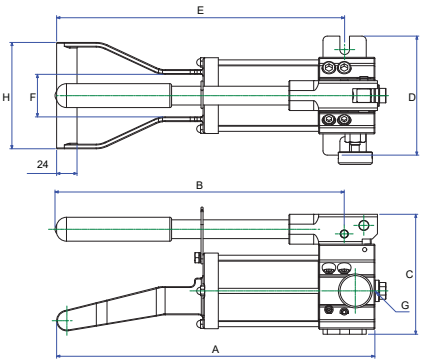
550
usable oil-capacity cm³

700
bar

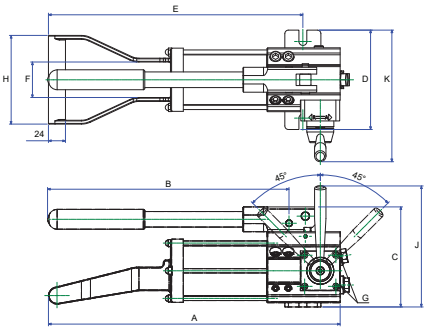
TIP!
Use in combination with hydraulic accessories.

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		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	5.8	0.9	494	463	140	140	458.5	50	³/₈" NPT	125	-	-	6
P 550B	7262502	20	700	550	5.8	0.9	541	463	140	140	483.5	50	³/₈" NPT	125	-	-	7.1
P 550D	7262503	20	700	550	5.8	0.9	531	463	140	140	478.5	50	³/₈" NPT	125	171	185	5.5

SPECIAL HAND PUMPS

BETEX P 1000



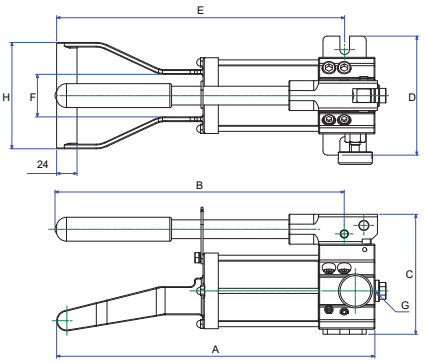
1000
usable oil-capacity cm³

700
bar

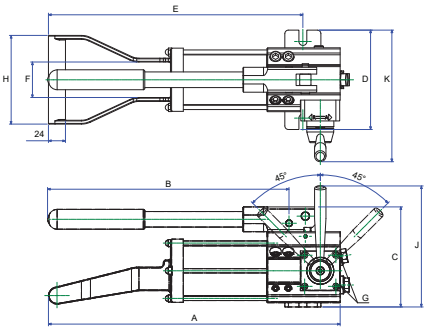
TIP!
Use in combination with hydraulic accessories.

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		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	1000	5.8	0.9	694	568	140	140	658.5	50	³/₈" NPT	125	-	-	6.6
P 1000B	72621002	20	700	1000	5.8	0.9	741	568	140	140	683.5	50	³/₈" NPT	125	-	-	8.3
P 1000D	72621003	20	700	1000	5.8	0.9	731	568	140	140	678.5	50	³/₈" NPT	125	171	185	7.7

STEEL FOOT PUMPS

BETEX FHB series



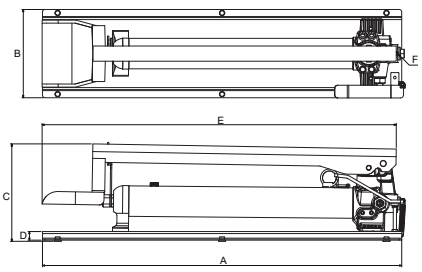
350 - 700
usable oil-capacity cm³

700
bar

TIP!
Use in combination with hydraulic accessories.

BETEX FHB series

- Heavy-duty hydraulic foot pumps.
- 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	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							
FHB 350	7200058	13.8	700	350	13	2.8	474	174	192	17	461	³/₈"-NPT	8.5
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	11.1

PUMP SETS

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



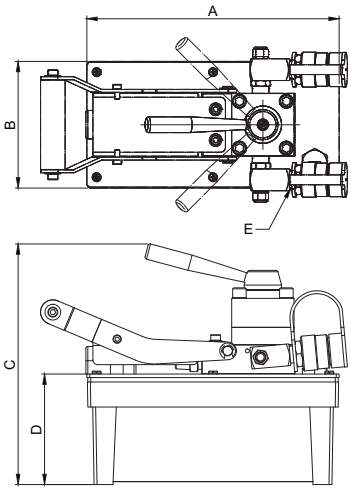
1300 - 7200
usable oil-capacity cm³

700
bar

TIP!
Use in combination with hydraulic accessories.



New: 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. See page 100.
- **New in this series is the AP 8000 with a larger capacity, 7200cm³**

Type	Art. no	Operation	Operating 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	⅜"-NPT	7.3
AP 1600D	72000621	double	700	1600	1300	1250	195	244	129	207	114	⅜"-NPT	9.3
AP 3000S	72000622	single	700	3000	2500	1250	195	309	160	247	114	⅜"-NPT	9.1
AP 3000D	72000623	double	700	3000	2500	1250	195	309	160	247	114	⅜"-NPT	12
AP 8000S	72000624	single	700	8000	7200	1250	195	311.6	311.6	236	143	⅜"-NPT	19.1
AP 8000D	72000625	double	700	8000	7200	1250	195	311.6	311.6	276	143	⅜"-NPT	21.5

AIR PUMPS

BETEX AP 921 series, foot pumps



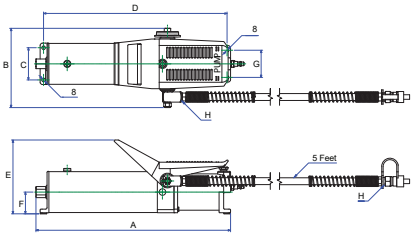
750
usable oil-capacity cm³

700
bar

TIP!
Use in combination with 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	Operating 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	¼"-NPT	5.4

AIR PUMPS

BETEX AP 13 series

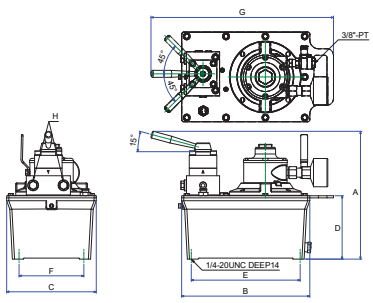


2400
usable oil-capacity cm³

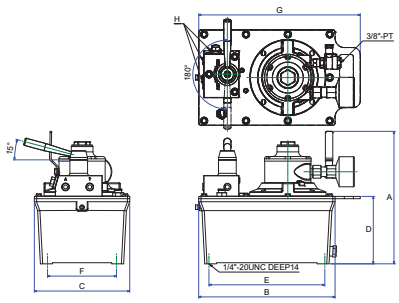
700
bar

BETEX AP 13

- 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	Operating 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	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	18.7
AP 13D	72000614	double	700	3000	2400	4000	2800	330	280	295	295.5	206.5	146.2	251	149.4	421	19.2

AIR PUMPS

BETEX AP 18 series

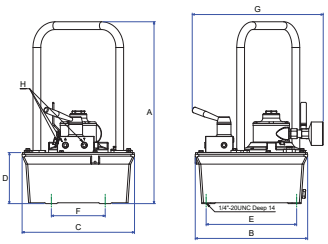


7200
usable oil-capacity cm³

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	Operating 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	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	20
AP 18D	72000616	double	700	8000	7200	4000	2800	330	280	504	312	312	141.5	251	149.4	408	20.5

ELECTRIC PUMPS
BETEX EP 13 series



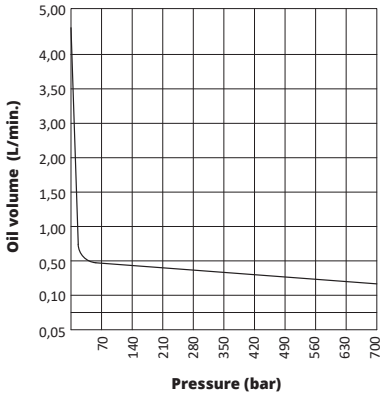
2.4
usable oil capacity litres

700
bar

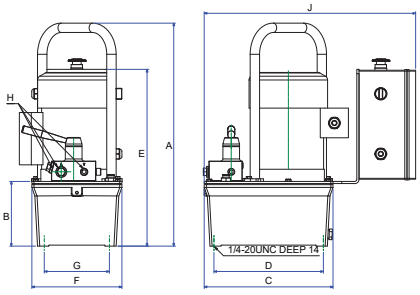
TIP!
Use in combination with hydraulic accessories.

BETEX EP 13 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 13D is designed especially for double-acting cylinders, without the need for an extra control valve and adapters.



Type	Art. no	Voltage	Valve type	Valve function	Motor
EP 13S	8300010	120V	2 pos. / 2-way	Hold / return	0.37kW, 120V/10A-230V/5A 50/60Hz, single phase
EP 13S	8300012	230V	2 pos. / 2-way	Hold / return	
EP 13D	8300011	120V	3 pos. / 4-way	Advance / hold / return	
EP 13D	8300013	230V	3 pos. / 4-way	Advance / hold / return	



Type	Operation	Reservoir volume (liters)	Usable oil capacity (liters)	Max. pressure (bar)	Oil volume (cm^3/min.@60Hz) in bar				A mm	B mm	C mm	D mm	E mm	F mm	G mm	H	J mm	Weight in 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	⅜"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	⅜"NPT	485	25.8

ELECTRIC PUMPS

BETEX EP 18 series



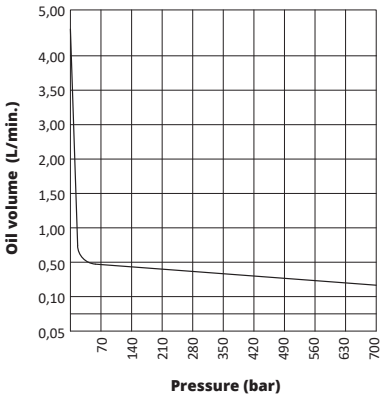
6
usable oil capacity litres

700
bar

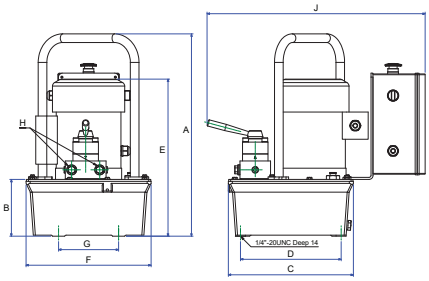
TIP!
Use in combination with hydraulic accessories.

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	Art. no	Voltage	Valve type	Valve function	Motor
EP 18S	8300021 8300031	120V 230V	2 pos. / 2-way 2 pos. / 2-way	Hold / return Hold / return	0.37kW, 120V/10A-230V/5A 50/60Hz, single phase
EP 18D	8300023 8300033	120V 230V	3 pos. / 4-way 3 pos. / 4-way	Advance / hold / return Advance / hold / return	
EP18SS	8300022 8300032	120V 230V	2 pos. / 2-way 2 pos. / 2-way	Hold / return Hold / return	
EP18DS	8300024 8300034	120V 230V	3 pos. / 4-way 3 pos. / 4-way	Advance / hold / return Advance / hold / return	



Type	Operation	Reservoir volume (liters)	Usable oil capacity (liters)	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 in 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	⅜"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	⅜"NPT	543.5	31.7
EP 18SS*	single	8	6	700	4000	2800	330	280	504	141.5	311.6	251	391.5	311.6	149.4	⅜"NPT	543.5	31.7
EP 18DS*	double	8	6	700	4000	2800	330	280	504	141.5	311.6	251	391.5	311.6	149.4	⅜"NPT	543.5	31.7

** Model with solenoid valve*

ELECTRIC PUMPS

BETEX EP 211 series



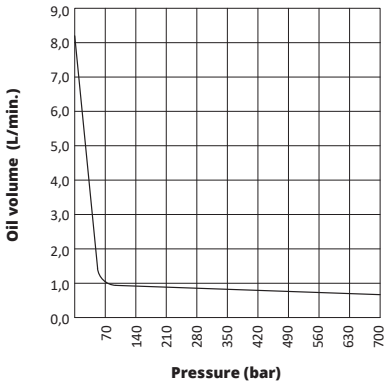
8.5
usable oil capacity litres

700
bar

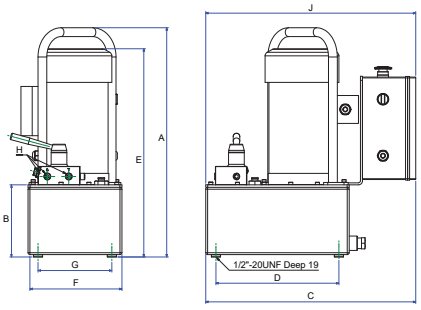
TIP!
Use in combination with hydraulic accessories.

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	Art. no	Voltage	Valve type	Valve function	Motor
EP 211S	8300041 8300051	120V 230V	2 pos. / 2-way 2 pos. / 2-way	Hold / return Hold / return	1.12kW, 120V/23A-230V/12A 50/60Hz, single phase
EP 211D	8300043 8300053	120V 230V	3 pos. / 4-way 3 pos. / 4-way	Advance / hold / return Advance / hold / return	
EP211SS	8300042 8300052	120V 230V	2 pos. / 2-way 2 pos. / 2-way	Hold / return Hold / return	
EP 211DD	8300044 8300054	120V 230V	3 pos. / 4-way 3 pos. / 4-way	Advance / hold / return Advance / hold / return	



Type	Operation	Reservoir volume (liters)	Usable oil capacity (liters)	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 in kg
					0	7	350	700										
EP 211S	single	11	8.5	700	8200	7400	840	750	559	176	515.5	300	391.5	224.4	180	⅜"NPT	515.5	38.9
EP 211D	double	11	8.5	700	8200	7400	840	750	559	176	515.5	300	391.5	224.4	180	⅜"NPT	515.5	38.9
EP 211SS*	single	11	8.5	700	8200	7400	840	750	559	176	515.5	300	391.5	224.4	180	⅜"NPT	515.5	38.9
EP 211DS*	double	11	8.5	700	8200	7400	840	750	559	176	515.5	300	391.5	224.4	180	⅜"NPT	515.5	38.9

** Model with solenoid valve*

ELECTRIC PUMPS

BETEX EP 320 series



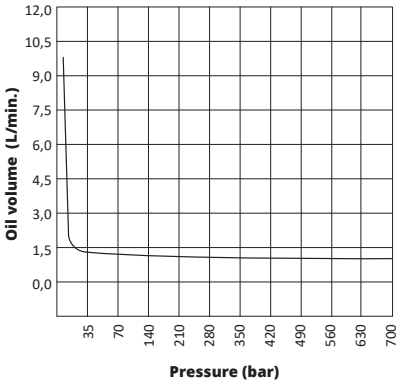
15
usable oil capacity litres

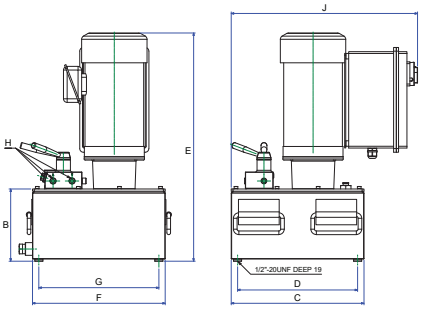
700
bar

TIP!
Use in combination with hydraulic accessories.

BETEX EP 320 series

- Electrohydraulic pump, 230/400V, 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 320D is designed especially for double-acting cylinders, without the need for an extra control valve and adapters.





Type	Art. no	Valve type	Valve function	Motor
EP 320S	8300061	2 pos. / 2-way	Hold / return	1.49kW 230V/7.5A-400V/5A 50/60Hz 3 phase
EP 320D	8300063	3 pos. / 4-way	Advance / hold / return	

Type	Operation	Reservoir volume (liters)	Usable oil capacity (liters)	Max. pressure (bar)	Oil volume (cm^3/min.@60Hz) in bar				B mm	C mm	D mm	E mm	F mm	G mm	H	Weight in kg
					7	70	350	700								
EP 320S	single	20	15	700	9500	1020	980	900	198.5	365	330	627.5	365	330	⅜" NPT	65
EP 320D	double	20	15	700	9500	1020	980	900	198.5	365	330	627.5	365	330	⅜" NPT	65

ELECTRIC PUMPS

BETEX EP 420 series



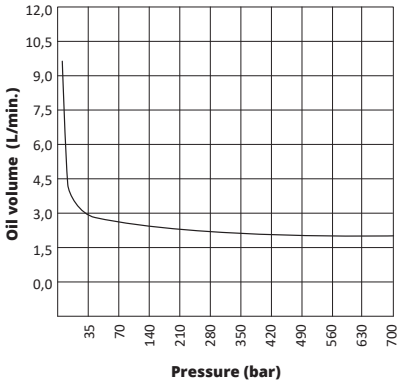
15
usable oil-capacity litres

700
bar

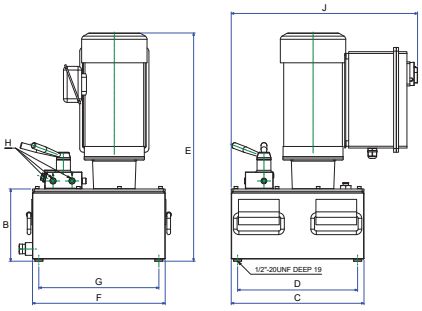
TIP!
Use in combination with hydraulic accessories.

BETEX EP 420 series

- Electrohydraulic pump, 230/400V, 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 420D is designed especially for double-acting cylinders, without the need for an extra control valve and adapters.



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



Type	Operation	Reservoir volume (liters)	Usable oil capacity (liters)	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 in kg
					7	70	350	700									
EP 420S	single	20	15	700	9500	2450	1950	1800	199	365	330	627.5	365	330	³/₈" NPT	510	65
EP 420D	double	20	15	700	9500	2600	2100	1950	199	365	330	627.5	365	330	³/₈" NPT	510	65

ULTRA-HIGH PRESSURE PUMPS

BETEX P / AHP / UHP series

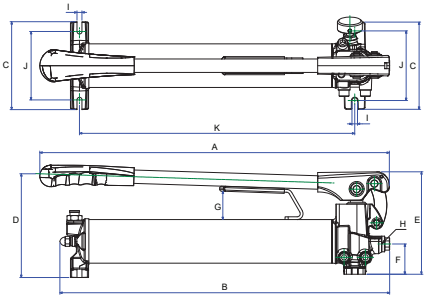


700 - 1620
usable oil capacity cm³

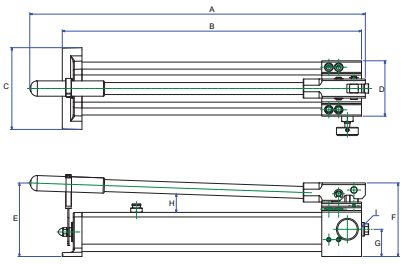
1000/1500/2800
bar

BETEX P / AHP / UHP series

- P 905: heavy-duty steel hand pump with ultra-high 1000 bar operating pressure.
- 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

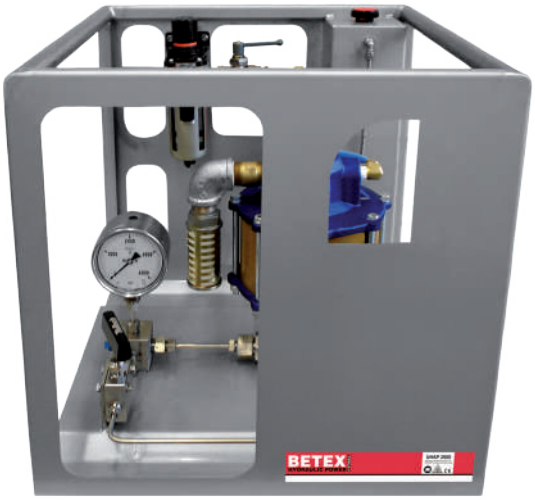


AHP 704, AHP 705, UHP 2800

Type	Art. no	Operating pressure bar		Reservoir volume 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)	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	⅜"-NPT	8	7,8
AHP 704	7265800	20	1000	1000	750	12.9	1.65	539	501	110	77	145	127	42.5	37	⅜"-NPT	3.5
AHP 705	7265900	20	1500	2000	1620	12.9	1	699	629	150	102	152	157	50	37	¾"-16UNF	6.7
UHP 2800	7292800	20	2800	1000	700	12.9	0.65	620	488	80	140	157	156,5	26	37	¾"-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 water and oil up to an operating pressure of 2800 bar.

- Portable, compact.
- Single-acting.
- Max. operating 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.



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

Type	Art. no	Capacity (bar)	Oil capacity (liters)	Max. capacity	Weight in kg
UHAP 2800	7292803	2800	5	0.43 Liter p/min, at 7 bar air pressure	29
UHAP 2800 ULTRA	7292802	2800	5	0.75 Liter p/min, at 7 bar air pressure	32

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.

Coupler sets

- BETEX supplies a variety of screw-set quick couplers in 4 different sizes. These can also be used with 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 330B



CP 331B



CP 332B



CP 430



CP 431



CP 432

Type	Art. no	One side	
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	7299794	³/₈" NPT	No-spill coupler set
CP 431	7299793	³/₈" NPT	No-spill coupler female
CP 432	7299792	³/₈" NPT	No-spill coupler male

Hoses

- Heavy-duty hoses for 700 bar, which 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.



HFHS 332



HS 332



PHS 3312



HPHS 336

Rubber			Rubber High-flow			Polyurethane			Polyurethane High-flow		
ID Ø 6.4 mm			ID Ø 9.4 mm			ID Ø 6.4 mm			ID Ø 9.7 mm		
Type	**Art. no**	**Length mm**	**Type**	**Art. no**	**Length mm**	**Type**	**Art. no**	**Length mm**	**Type**	**Art. no**	**Length mm**
HS 332	7299032	600	HFHS 332-BG	72990395	600	PHS 332	7299332	600	HPHS 332	7299432	600
HS 333	7299033	900	HFHS 333-BG	7299040	900	PHS 333	7299333	1000	HPHS 333	7299433	1000
HS 335	7299035	1500	HFHS 335-BG	72990401	1500	PHS 335	7299335	1500	HPHS 335	7299435	1500
HS 336	7299036	1800	HFHS 336-BG	7299041	1800	PHS 336	7299336	1800	HPHS 336	7299436	1800
HS 338	7299037	2400	HFHS 338-BG	72990411	2400	PHS 338	7299338	2400	HPHS 338	7299438	2400
HS 3310	7299038	3000	HFHS 3310-BG	7299042	3000	PHS 3310	72993310	3000	HPHS 3310	72994310	3000
HS 3312	7299039	3600	HFHS 3312-BG	7299043	3600	PHS 3312	72993312	3600	HPHS 3312	72994312	3600
HS 3315	72990391	4500	HFHS 3315-BG	7299044	4500	PHS 3315	72993315	4500	HPHS 3315	72994315	4500
HS 3320	72990392	6000	HFHS 3320-BG	7299045	6000	PHS 3320	72993320	6000	HPHS 3320	72994320	6000
HS 3330	72990393	9000				PHS 3330	72993330	9000	HPHS 3330	72994330	9000
HS 3350	72990394	15000				PHS 3350	72993350	15000			

ACCESSORIES

Max. operating pressure, 700 bar

Pressure gauge

M0031B

Liquid-filled, for damping needle vibrations. Calibrated to read in bar, psi. External diameter of pressure gauge – 2½"; accuracy meets DIN standard, deviation 1.6% of full scale.

Art. no: 7299220



M0040

All functions similar to M0031B except the dial 100 mm.

Art. no: 7299221



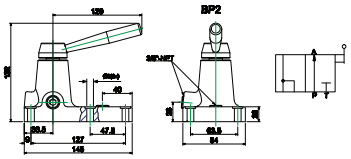
3-way directional control valve

BP2

700 bar; 17 l/min manual operation, 2 positions, advance/retract for single-acting cylinders.

Art. no: 7200219





4-way directional control valve

BP421 and BP422

For use with one double-acting cylinder or two single-acting cylinders 700 bar; 17 l/min manual operation, advance/hold/retract.

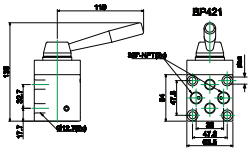
BP423 and BP425

Manual operation, advance/hold/retract; lock for load holding.

BP421

Art. no: 7200220

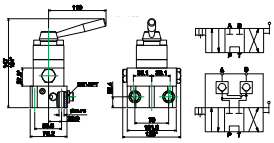




BP423

Art. no: 7200222

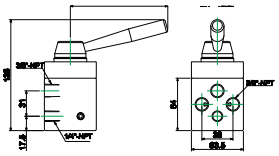




BP422

Art. no: 7200422

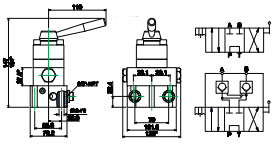




BP425

Art. no: 7200223

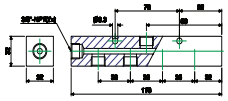




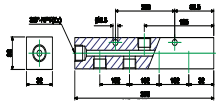
ACCESSORIES

Max. operating pressure, 700 bar

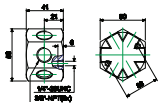
JP64
Manifold
Art. no: 7200139

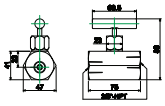
JP65
Manifold
Art. no: 7200140

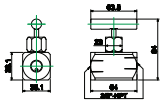
JP66
Manifold
Art. no: 7200141

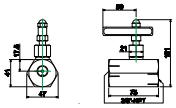
VB66
Control valve
Art. no: 7200226

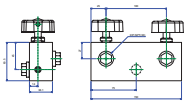
VB101
Control valve
Art. no: 7200224

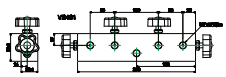
VC331
Control valve
Art. no: 7200068

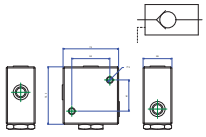
VB201
Manifold
Art. no: 7200066

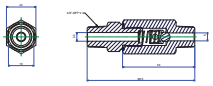
VB401
Manifold
Art. no: 7200067

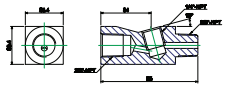
BV42
Safety valve
Art. no: 7200342

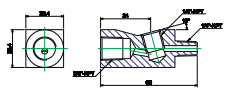
VH33
Non-return valve
Art. no: 7200229

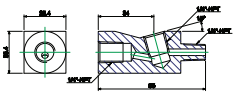
E0567
T-adapter for
pressure gauge
Art. no: 7299230

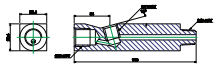
E1336
T-adapter for
pressure gauge
Art. no: 7200181

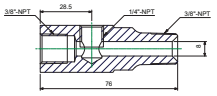
E1343
T-adapter for
pressure gauge
Art. no: 7200182

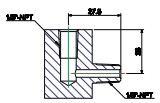
E1745
T-adapter for
pressure gauge
Art. no: 7200183

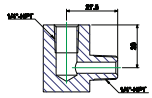
ADG323
T-adapter for high-
flow pressure gauge
Art. no: 7299232

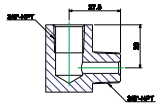
ADL101
Corner
Art. no: 7200142

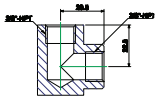
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Corner
Art. no: 7200143

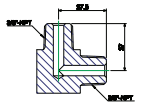
ADL303
Corner
Art. no: 7200144

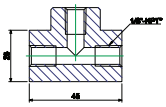
ADC303
Corner
Art. no: 7200145

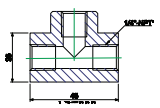
ADE303
Corner
Art. no: 7200200

ADT101
T-piece
Art. no: 7200201

ADT202
T-piece
Art. no: 7200202

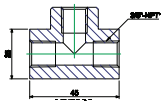



ACCESSORIES

Max. operating pressure, 700 bar

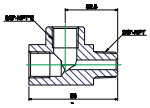
ADT303
T-piece
Art. no: 7200149





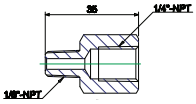
ADG303
T-piece
Art. no: 7200204





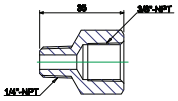
ADF102
Adapter
Art. no: 7200205





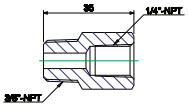
ADF203
Adapter
Art. no: 7200206





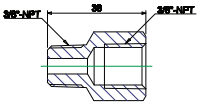
ADF302
Adapter
Art. no: 7200207





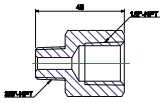
ADF303
Adapter
Art. no: 7200208





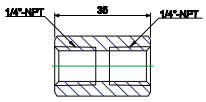
ADF304
Adapter
Art. no: 7200210





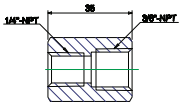
ADI202
Connector
Art. no: 200210





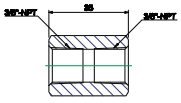
ADI203
Connector
Art. no: 7200211





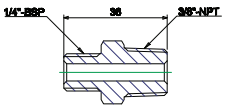
ADI303
Connector
Art. no: 7200212





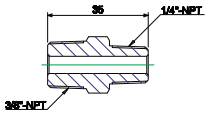
ADO2031
Reducing connector
Art. no: 7200159





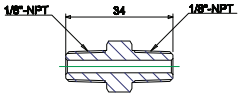
ADO203
Reducing connector
Art. no: 7200160





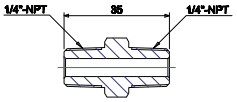
ADO101
Hexagon nipple
Art. no: 7200161





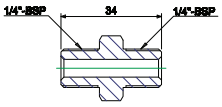
ADO202
Hexagon nipple
Art. no: 7200215





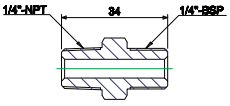
ADO204
Hexagon nipple
Art. no: 7200216





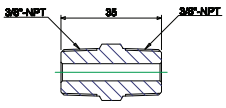
ADO205
Hexagon nipple
Art. no: 7200217





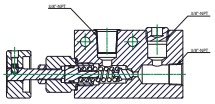
ADO303
Hexagon nipple
Art. no: 7200218





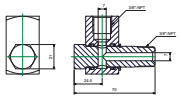
BG9623
Pressure regulator
Art. no: 7200227





BG9705
High-low swivel connector
Art. no: 79000661





HYDRAULIC OIL

BETEX LPS 68 / ISO 15, Premium hydraulic oil



BETEX LPS 68 / 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.
- Available in 4 different cans containing 1, 2, 4 or 5 litres.

Art. no	Description	Liter
789106	Hydraulic Oil LPS 68	1.0
789107	Hydraulic Oil LPS 68	2.0
789108	Hydraulic Oil LPS 68	4.0
789109	Hydraulic Oil LPS 68	5.0

Type	BETEX LPS 68
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
	LA68068

JACKS

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



10 tons

20 tons

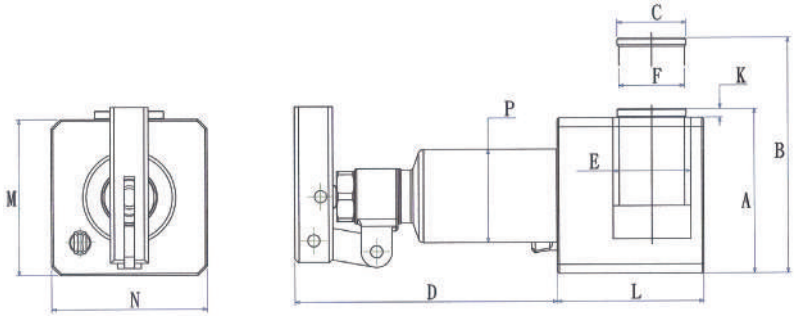
TIP!

Use in combination with BETEX shims.

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.



Type	Art. no	Cap. tons	Stroke mm	Oil cap. cm^3	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 in kg
					min.	min.										
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

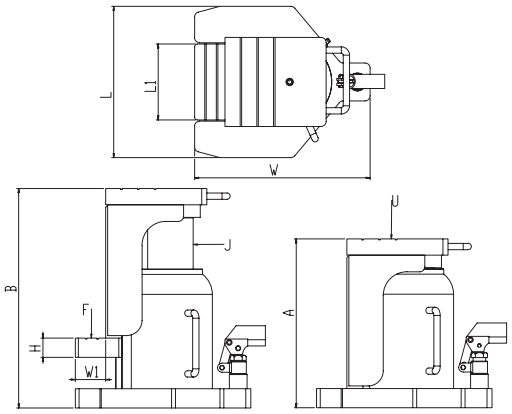


2.5 - 50
tons

TIP!
Use in combination with BETEX shims.

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

TIP!

Use in combination with BETEX shims.

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
SR05A	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

TIP!

Use in combination with BETEX shims.

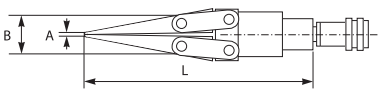
BETEX 15 TL / 15 TLS / 25 TLS series

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 set, see page 123.



Safety block



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

HYDRAULIC LIFTING WEDGE

BETEX HLW 18T series

18 tons

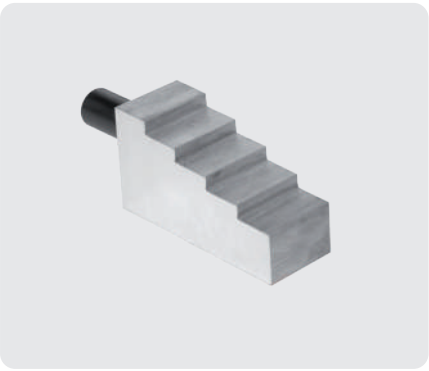


BETEX HLW 18T series

Specially designed to raise or lower heavy loads in one fluent, straight, vertical movement. The HLW series guarantees a safe and solid grip. For use on flanges with a minimum opening of 9.5 mm.

- Lifting heavy loads, placing and moving machines, and machine alignment.
- Maintenance, mounting and dismounting activities.
- Steady lift movement, fluent, straight, vertical lifting.
- Robust and exact, solid fixed grip at every stage by using stepped blocks.
- Safe, saves time and costs, ergonomic design.
- Single-acting piston, spring-return.
- Suitable for minimum openings from 9.5 mm.
- Lifting capacity: per step 19 mm lifting height.
- Maximum lift when using a multi-stage block of 67.5 mm.
- Lifting power: max. 36 tons (using 2 pcs. HLW 18T(I) or duo-set).
- Including safety block to secure the load and remove the lifting wedge.
- Available separately and as a complete set, see page 123.

Lifting height:
9.5 mm - 29.5 mm using the first step.
9.5 mm - 51 mm using 4 steps (without multi-stage raising block).
39.5 - 67.5 mm using multi-stage raising block.



Safety block



Raising block

Type	Art. no	Max. cap. tons	Lifting height mm	Type of pump	Max. operating pressure bar	Weight kg
HLW 18T	789501	18	9.5 - 67.5*	single-acting	700	10.8
HLW 18T duo set (complete in case)	789503	2 x 18	9.5 - 67.5*	single-acting	700	37

** using raising block*

HYDRAULIC FLANGE SPREADERS

BETEX PFS 10T series



10 tons

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 mm.
- Including safety block to remove the spreader and carry the load.
- Available separately and as a complete set.



Safety block

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

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
- Case
- 2 Pressure gauges, T-adapters
- 2 Male (hose) half couplers and 2 complete quick couplers
- 2 Multi-stage safety blocks

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: 789181



HLW 18T set

- Hydraulic lifting wedge
- Hose, 2.1 mtr
- Art. no: 789502



HLW 18T Duo-set

- 2 hydraulic lifting wedges
- 2 hoses, 2.1 mtr
- Art. no: 789503



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 10TI 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

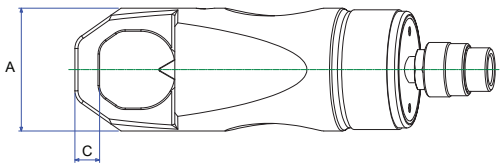


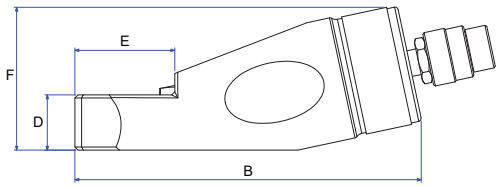
10 - 50
tons

TIP!
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	20	60	167.2	10	25	40	68	2.1
HNS 2432	782432	24-32	M16-M22	15	60	70	178	13	30	52	76	3.1
HNS 3241	783241	32-41	M22-M27	20	80	80	226	15	36	65	93	4.2
HNS 4150	784150	41-50	M27-M33	35	155	95	244	21	45	76	106	8.0
HNS 5060	785060	50-60	M33-M39	50	240	106	269	24	55	92	125	11.5

WORKSHOP PRESSES

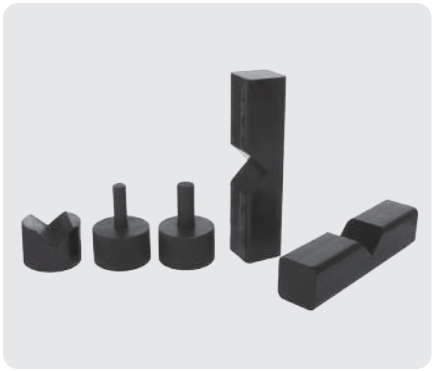
BETEX WSP, with hand, air or electric pump



10 tons

25 tons





The WSP workshop presses are supplied with adapters and accessories.

BETEX WSP

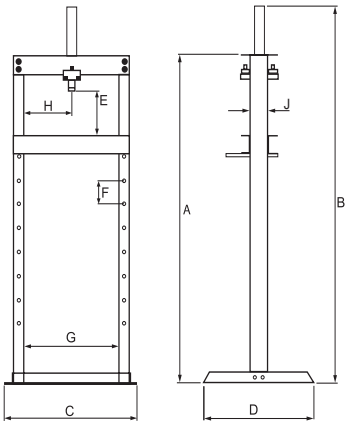
- The robust steel frame provides maximum stability and cannot bend.
- Various operating positions possible for the press bed.
- Steel crossbars prevent the frame from deforming when loaded.
- Available in 2 models: 10 and 25 tons.
- Includes pressure gauge for exact pressure readings.
- Single-acting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

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.



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

** cap. up to 200 tons available.*

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 work surface with hoist



Integrated pressure gauge



Set of V adapters

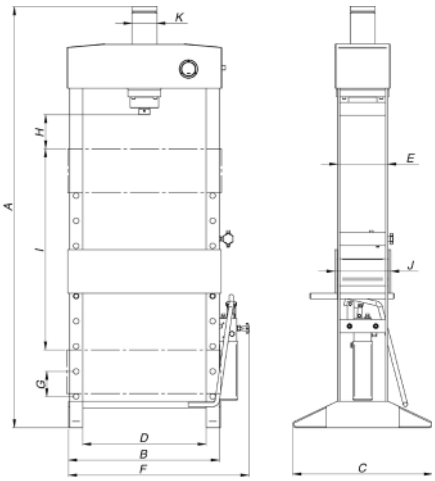
BETEX WSPM

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.
- 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	No	No
Movable cylinder	No	Yes	Yes
Operating width mm	**560**	**565**	**750**
Weight in kg	117	165	340
Cylinder inner diameter mm	82	115	140
Piston rod diameter mm	40	40	50
Piston bottom diameter mm	50	50	60

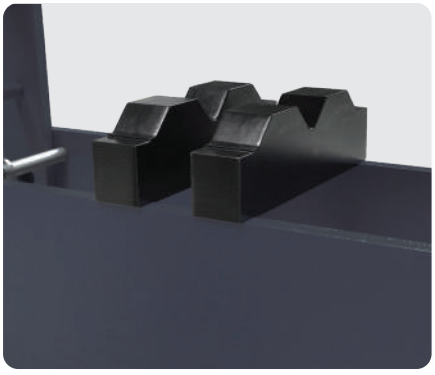
WORKSHOP PRESSES

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 in kg	15	25	35	50



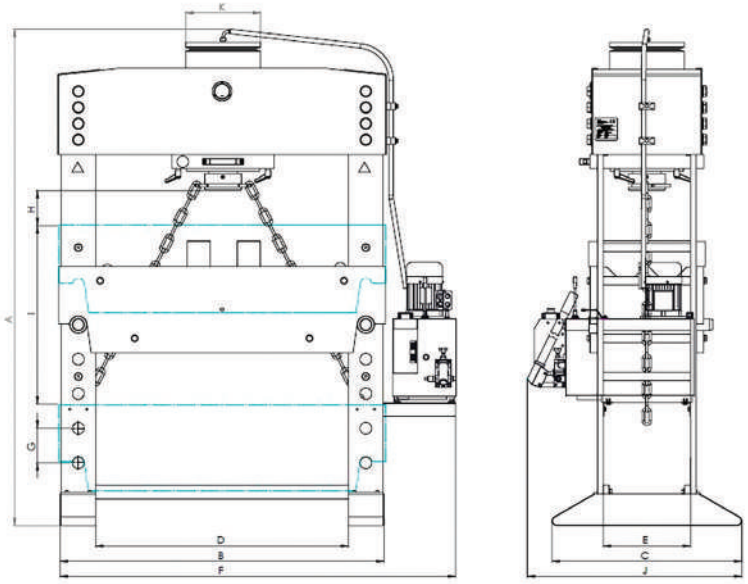
BETEX WSPE

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.

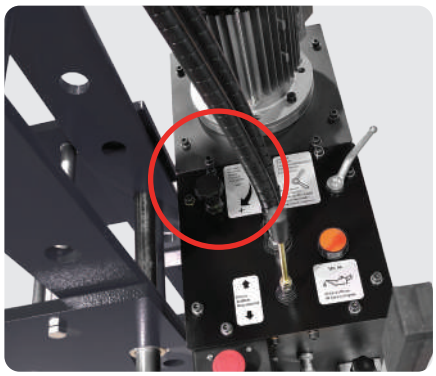
- High quality! The robust steel frame is welded for maximum stability and a long services life.
- Extremely well suited for high-precision work, manual or electric operation.
- Work surface height is easy to adjust.
- Cylinder can be moved horizontally on the upper frame.
- Two piston speeds, chrome-plated piston with removable piston head.
- Includes pressure gauge for exact capacity readings.
- Joystick for high-precision piston operation.
- Double-acting hand pump (except for 300-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



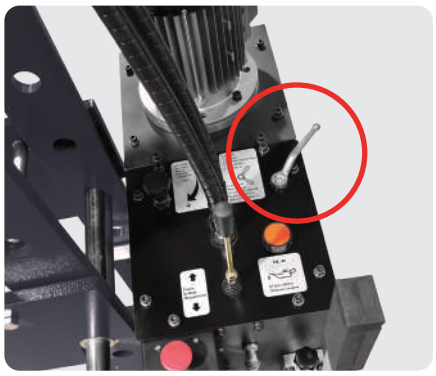
Press force regulation
Regulate the press force using this knob.



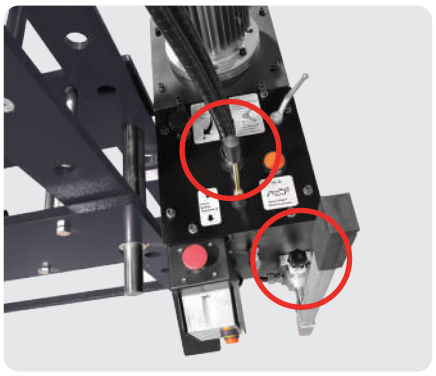
Work surface adjustment
Adjust the work surface height by placing the horseshoe (and the chain) around the piston. The chain is attached to the work surface. Use the joystick to raise or lower the work surface, using the pins to lock the work surface in place.



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 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	37	41	46	46	57	57	64	100
Pressing speed mm/sec	3.57	2.07	2.47	2.47	2.40	2.40	1.84	1.80
Approaching speed mm/sec	9.80	8.69	7.54	7.54	7.48	7.48	5.73	4.9
Return speed mm/sec	18.11	10.79	9.06	9.06	9.35	9.35	7.08	6.2
Engine kW	1.5	1.5	2.2	2.2	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	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Fixed cylinder	Yes	No	No	No	No	No	No	No
Movable cylinder	No	Yes	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	55	75	90	90	125	125	140	180
Piston bottom diameter mm	80	100	120	120	160	160	175	215

WORKSHOP PRESSES

BETEX PFPE Portal presses, manual/electric



100 tons

160 tons

BETEX PFPE

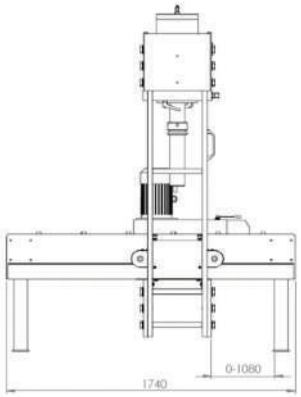
These robust hydraulic portal presses with a manually operated portal are made of high-grade steel. They are extremely suitable for the shaping, straightening or bending of large sheets and heavy materials.

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

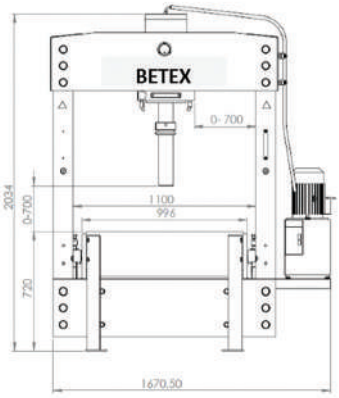
The cylinder and frame can be moved manually.
The hydraulic system is very precise, whether the press is operated electrically or manually (using the hand pump). This portal press is equipped with an integrated pressure gauge.
The two-speed motorised hydraulic unit has automatic high-speed shutdown and 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 in kg	1650	2185



WORKSHOP PRESSES

BETEX PFPE Portal presses, electric



150 tons

220 tons

300 tons

BETEX PFPE

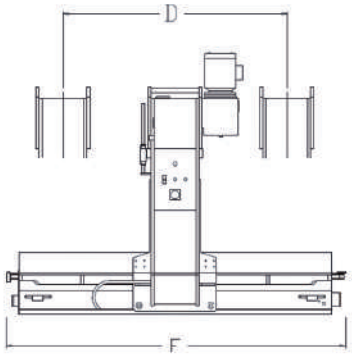
These robust hydraulic portal presses are made of high-grade steel. They are extremely suitable for the shaping, straightening or bending of large sheets and heavy materials. The frame can be moved lengthwise and the cylinder can be moved sideways, enabling access to the material from all sides.

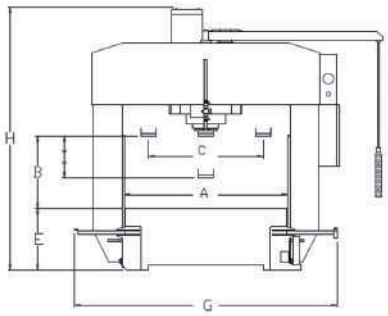
All portal presses are equipped with a double-acting cylinder with a chrome-plated piston and anti-wear guides to protect the cylinder. This press bushing has been designed especially so that different attachments can be fitted to it. The piston stroke is easy to set using the dedicated switches and 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	PFPE150	PFPE220	PFPE300
Art. no	7513013	7513014	7513015
Pushing force tons	150	220	300
Engine power kW	4	5.5	7.5
Maximum pressure bar	315	315	315
Cylinder stroke mm	450	450	450
Installation width mm	1565	2060	2560
Installation height mm	700	700	700
Operating height mm	600	700	750
Workbench dimensions LxW mm	3000x1550	3500x2045	4000x2545
Weight in kg	6500	13000	16000

Type	PFPE150	PFPE220	PFPE300
A	1565	2060	2560
B	700	700	700
C	1100	1550	2000
D	2150	2500	3000
E	600	700	750
F	3260	3860	4360
G	2520	3430	3930
H	2640	3000	3100

WORKBENCH
BETEX Mobilift





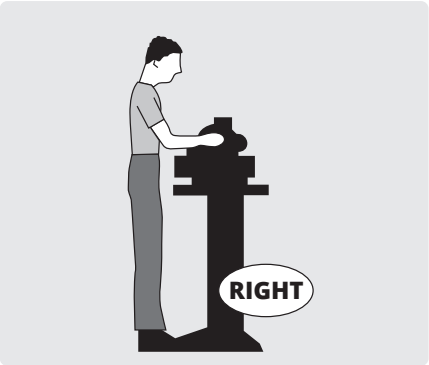
In case of bad working posture. Work desk too low. The feet cannot be placed under the workbench.

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

SELECTING THE RIGHT HYDRAULIC SET-UP





Step 1

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

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

- 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:

1. Do you prefer a hand, foot, air, or electric powered pump?
2. How much oil capacity is required? (= oil capacity x no. of cylinders)
3. How fast must the pump be?
4. What is the frequency of the application?
5. Single-acting or double-acting?
6. Is the weight of the pump important?
7. Available air or electric supply?

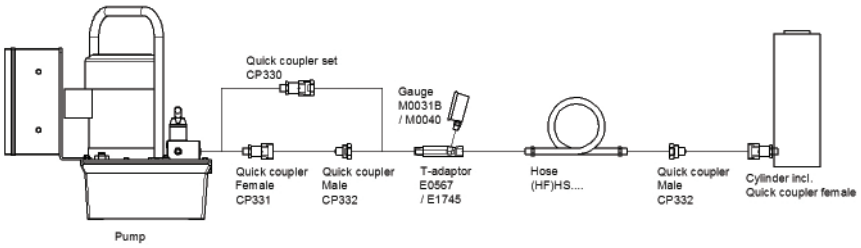
Step 3

Choose necessary hydraulic accessories, consider:

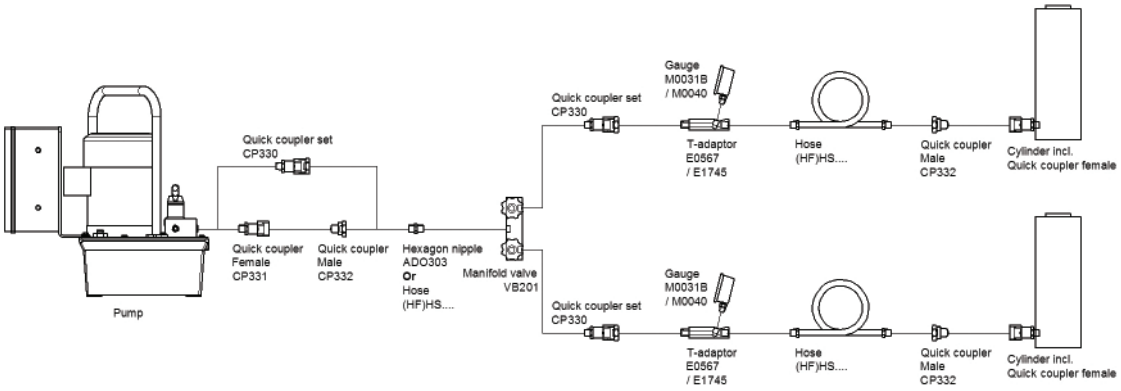
1. Required hose length and number
2. Coupling sets for coupling and uncoupling
3. Pressure gauge with T-adapter
4. Manifolds
5. Extra hydraulic oil

SELECTING THE RIGHT HYDRAULIC SET-UP

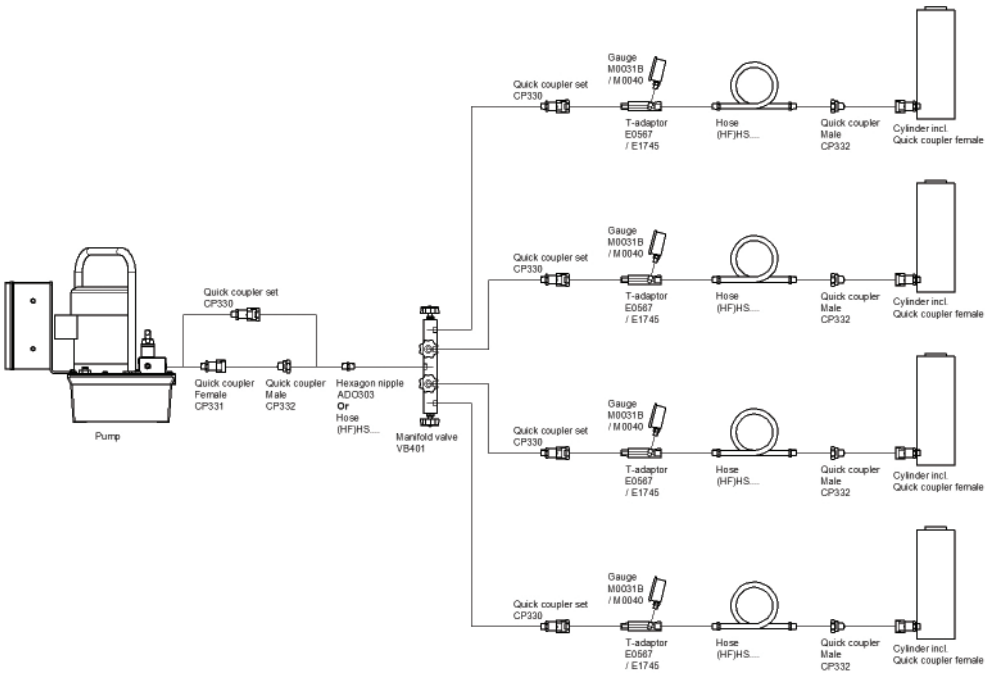
BETEX EP 18S + Single-acting cylinder



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

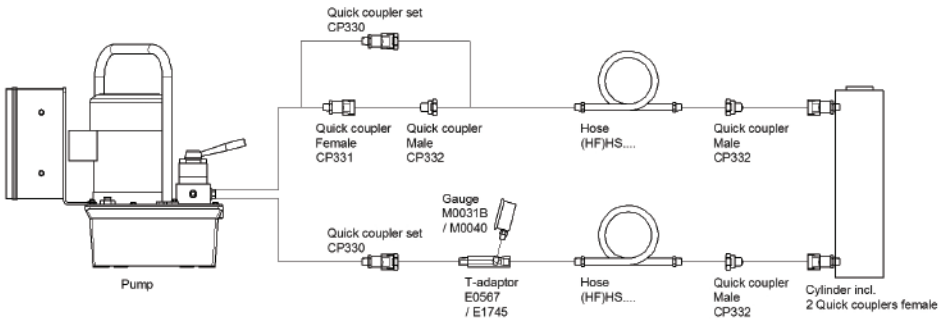


BETEX EP 18S + VB 401 + 4 single-acting cylinders

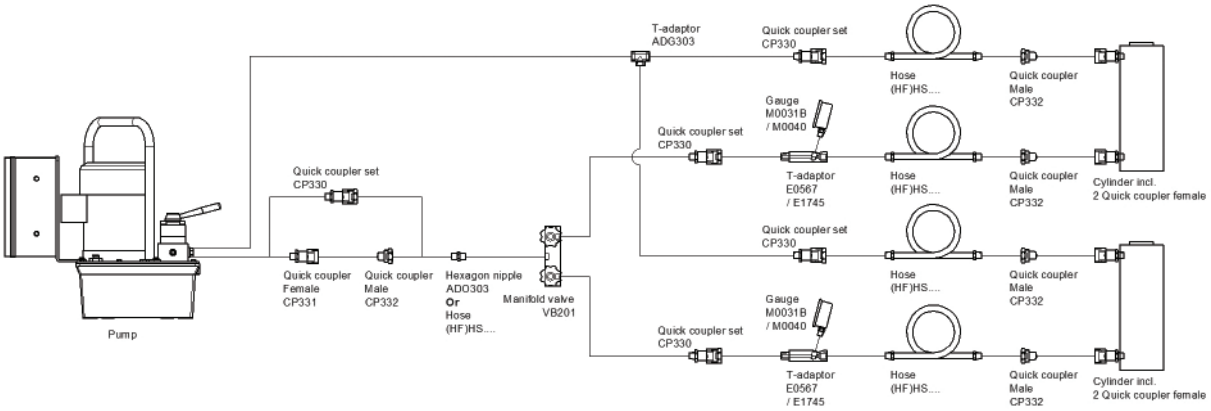


SELECTING THE RIGHT HYDRAULIC SET-UP

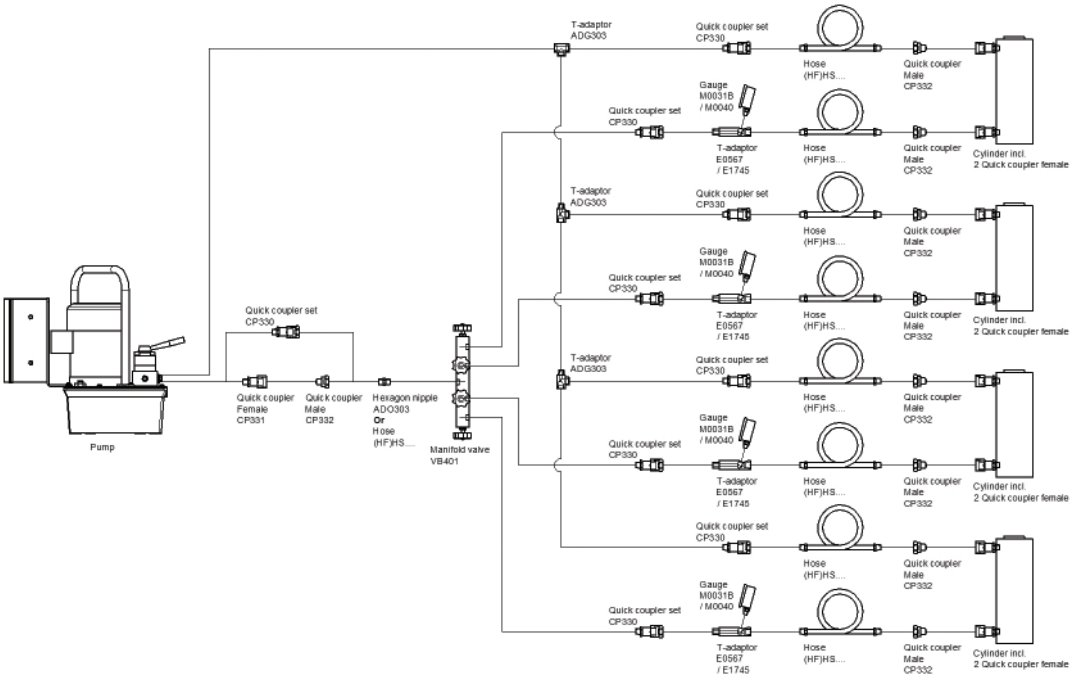
BETEX EP 18D + 1 double-acting cylinder



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



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

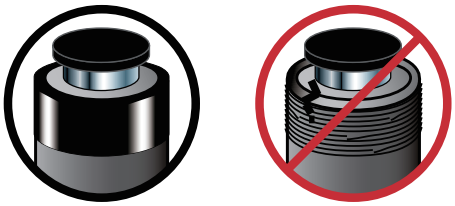


SAFETY TIPS

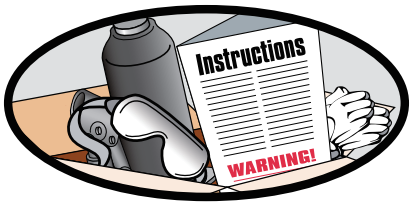
1. Choose the right cylinder
You must know the weight of what you intend to lift and choose a cylinder with at least 20% more capacity. Be aware of possible load shift requiring more capacity at any particular lifting point.



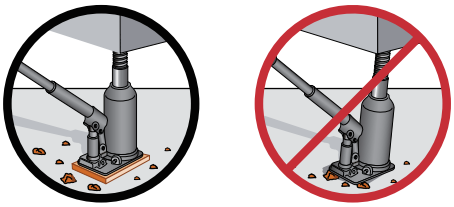
2. Check each component
Check each component before you set up your hydraulic system. Do not use damaged or worn components. Hand them in for repair or replacement.



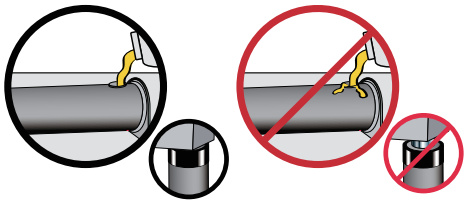
3. Safety instructions
Read all warning labels and instructions. Operating instructions must be understood before using equipment. Never remove labels from equipment. Replace missing, worn or damaged labels. Always wear safety goggles and protective clothing when using hydraulic equipment.



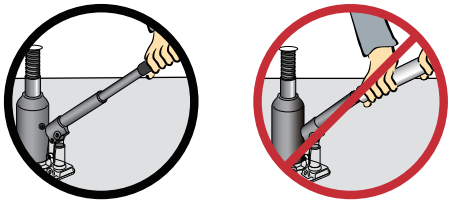
4. Properly and fully support each cylinder at its base
Every cylinder, whether used individually or in a system, should be completely supported on a solid, firm, non-sliding foundation capable of supporting the load.



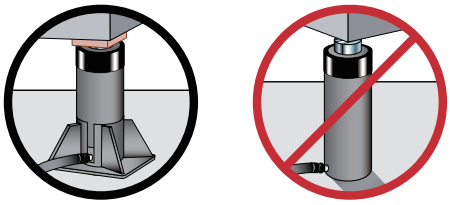
5. Fill oil reservoirs with cylinder retracted
Fill pump to the recommended level. Only fill the reservoir when the connected cylinder is fully retracted.



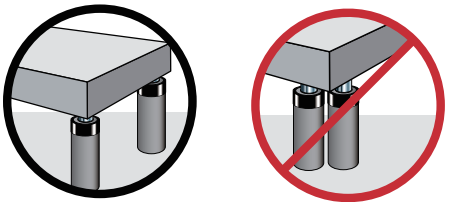
6. Know how your hydraulics work
Do not place any additional weight on the hydraulic cylinder or the hand pump to be able to increase the load.



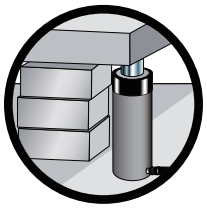
7. Center the load on the lifting point
The load must be centred on the cylinder, or equally distributed to multiple cylinders. Off-center loading can result in the load slipping and being lost.



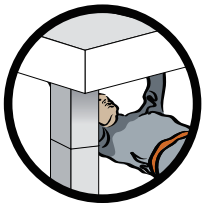
8. Distribute the load evenly when using multiple cylinders
For multiple cylinder lifts, you must be able to determine the location and number of lifting points that will allow the load to be evenly distributed to all the cylinders. This is called load balance. Size, center of gravity and load geometry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

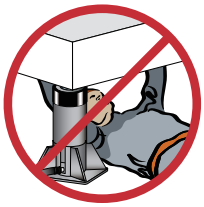


9. Support the load
Place blocking or cribbing under the load as you raise it. Insert more blocks as you raise the load. Position yourself in a manner that will keep you clear of the load and will prevent your hands or other body parts from being crushed between the load and blocks.

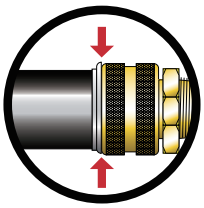


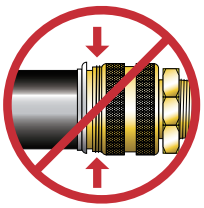
10. Do not use cylinders as permanent supports
Hydraulic cylinders are not meant to be used as permanent supports, but are designed to lift and lower a load. Blocks or BETEX cylinders with locknut should be used if the lifted load needs to be supported for longer periods of time.



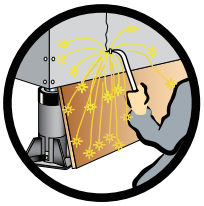


11. Connecting the hydraulics
When making connections with quick couplers, make sure the couplings are fully engaged. Threaded connections, such as fittings, gauges, etc., must be securely tightened and leak free. Never use excessive tightening force. This may distort the fittings or strip the thread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



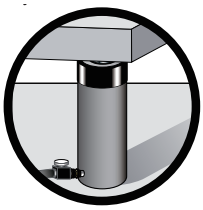


12. Avoid extreme heat or weld splatter
Weld splatter will damage plunger rods and hoses. Hydraulic fluid can ignite if vaporized or exposed to high temperatures.





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



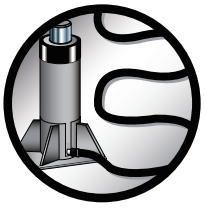


14. Do not move the pump by pulling at the hose
Dragging or carrying the pumps by a connected hose can damage the couplers and hoses. Using damaged couplers and hoses can be dangerous.





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.





HYDRAULICS SELECTION TABLE

		Cylinder capacity tons																			
Type	**Oil cap. cm³**	**5**	**10**	**12**	**15**	**20**	**25**	**30**	**50**	**60**	**75**	**100**	**150**	**200**	**250**	**300**	**400**	**500**	**600**	**800**	**1000**
PB 350	350																				
PB 600	600																				
PB 700	700																				
HC 1500	1500																				
HC 2000	2000																				
HC 2500	2500																				
AHP 701	350																				
AHP 702	1000																				
AHP 703	2000																				
AHP 703D	2000																				
HP 35	3500																				
HP 35D	3500																				
HP 80	8000																				
HP 80D	8000																				
FHB 350	350																				
FHB 600	700																				
FHB 700	700																				
AP 921	750																				
AP 1600S	1600																				
AP 1600D	1600																				
AP 3000S	3000																				
AP 3000D	3000																				
AP 8000S	8000																				
AP 8000D	8000																				
EP 13S	3000																				
EP 13D	3000																				
EP 18S	8000																				
EP 18D	8000																				
EP18SS	8000																				
EP18DS	8000																				
EP 211S	11000																				
EP 211D	11000																				
EP211SS	11000																				
EP 211DS	11000																				
EP 320S	15000																				
EP 320D	15000																				
EP 420S	15000																				
EP 420D	15000																				

Generally recommended

Marginal, check requirements

Not recommended for most applications

SOLID SHIMS

BETEX Shim cases



Case ABC
42x33x18 cm



Case ABCD & E
55x34x24 cm



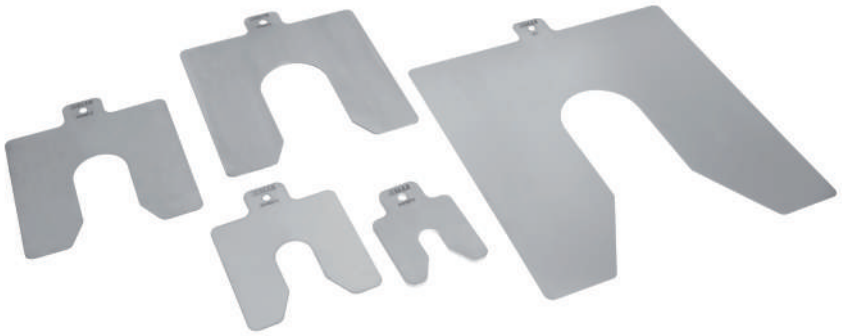
Handy carrying case with 2 wheels

24 standard combinations in handy case (other combinations on request)

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	-	90	5
B020230	AB 10/10	-	10	10	-	10	10	10	10	10	10	10	10	100	7
B020240	AB 10/11	10	10	10	-	10	10	10	10	10	10	10	10	110	7
B020270	AB 10/12	10	10	10	10	10	10	10	10	10	10	10	10	120	7
B020310	BC 10/9	-	10	10	-	10	10	10	10	10	10	10	-	90	8
B020330	BC 10/10	-	10	10	-	10	10	10	10	10	10	10	10	100	11
B020340	BC 10/11	10	10	10	-	10	10	10	10	10	10	10	10	110	11
B020370	BC 10/12	10	10	10	10	10	10	10	10	10	10	10	10	120	11
B020410	CD 10/9	-	10	10	-	10	10	10	10	10	10	10	-	90	13
B020430	CD 10/10	-	10	10	-	10	10	10	10	10	10	10	10	100	18
B020440	CD 10/11	10	10	10	-	10	10	10	10	10	10	10	10	110	18
B020470	CD 10/12	10	10	10	10	10	10	10	10	10	10	10	10	120	19
B020110	ABC 10/9	-	10	10	-	10	10	10	10	10	10	10	-	90	9
B020100	ABC 10/10	-	10	10	-	10	10	10	10	10	10	10	10	100	12
B020140	ABC 10/11	10	10	10	-	10	10	10	10	10	10	10	10	110	12
B020160	ABC 10/12	10	10	10	10	10	10	10	10	10	10	10	10	120	13
B020019	ABCD 10/9	-	10	10	-	10	10	10	10	10	10	10	-	90	16
B020030	ABCD 10/10	-	10	10	-	10	10	10	10	10	10	10	10	100	23
B020040	ABCD 10/11	10	10	10	-	10	10	10	10	10	10	10	10	110	23
B020060	ABCD 10/12	10	10	10	10	10	10	10	10	10	10	10	10	120	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

SOLID SHIMS

BETEX stainless steel shims



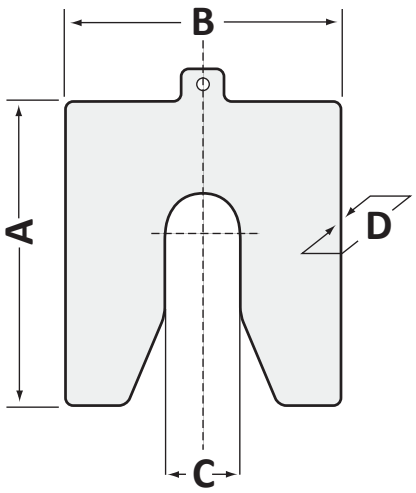
BETEX stainless steel shims

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

- Available in 6 difference sizes and 11 thicknesses.
- Packed in sets of 10 shims.
- High-quality, non-corroding material.
- The shim's thickness is etched on each shim.
- 31 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!



		Art. no	D mm
Shims Mini 35			
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			
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			
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			
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			
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			
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
		B200300Ev	3.00

PEEL-OFF SHIMS

BETEX hard brass or stainless steel shims

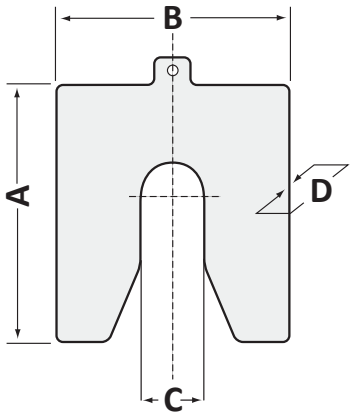


TIP!

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

BETEX peel-off shims

- Laminated pre-cut peel-off shims.
- Made of high-quality hard brass or stainless steel to prevent corrosion.
- Available in 7 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
8125005	HMS	10	35	30	9	1	M8
812502	HMS	10	50	50	13	1	M12
8125035	HMS	10	75	75	21	1	M20
812504	HMS	10	100	100	32	1	M30
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

SHAFT ALIGNMENT SYSTEM

Fixturlaser Laser Kit

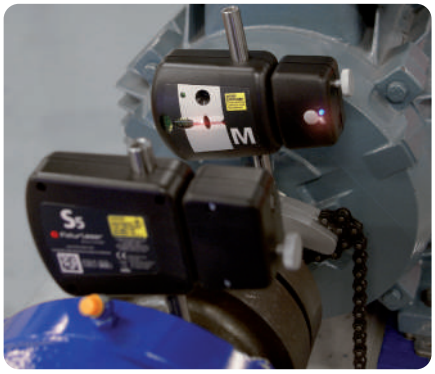
The Fixturlaser Laser Kit consists of two wireless sensors. The use of line lasers minimizes setup time. To make it even easier, the sensors are pre-mounted and are pre-set to the most common setup.

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 Fixturelaser is designed to be used with the free Laser Kit App.

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



Complete system

- 2 measuring units (M5 & S5)
- 2 V-brackets with chain
- 1 tape measure, 5 m
- 1 charger
- 1 charging cable
- 1 shaft for rods
- 1 manual

TIP!

Use in combination with BETEX shims.

Type	Fixturlaser Laser Kit
Art. no	780328
Case	
Weight incl. all parts	2.75 kg
Dimensions	357 x 305 x 96 mm
Sensor units	
Weight	156 g
Dimensions	139 x 79 x 40 mm
Measuring distance	70 - 850 mm
Detector	PSD (single shaft)
Detector reach	8.5 x 0.9 mm
Measurement accuracy	3% +/- 0.01 mm
Angular accuracy	+/- 2°
Wireless communication	Class I Bluetooth transceiver with multi-drop capability. BLE Bluetooth Low Energy (BT 4.0)
Brackets	
Shaft diameter	Ø30 - 150 mm
Yokes	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:

- Thermal camera XT11



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 small case

Type	Easy Laser XT440
Art. no (with display)	7803190
Art. no (without display)	780320
Dimensions	460 x 350 x 175 mm
Weight incl. all parts	7.2 kg
Sensor unit M/S	
Detector type	True PSD 30 mm
Communication	Bluetooth
Measuring error / measuring range	< 1 % / up to 10 m
Laser type / Laser class	Diode laser / Safety class II
Casing material	Anodised alu PC/ABS + TPE
Dimensions / weight	76 x 76.7 x 39.3 mm / 245 g
Display unit XT11	-10 to 50°C / 14 to 122 °F
Display type	VGA 8” colour display, LED
Battery type / life	Heavy duty Li Ion rechargeable / 16 hours
Communication	WiFi
Casing material	PC/ABS + TPE
Dimensions / weight	274 x 190 x 44 mm / 1,450 g
Cable (loading)	Splitter 1 m
Brackets (chain)	V bracket for chains, width 18 mm, shaft diameter 20-150 mm
Yokes	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 cables A-mini B 0.5 m black
- 2 USB cables A-mini B 1.5 m black
- 2 V-brackets with chain
- 2 universal tools
- 1 manual

TIP!

Use in combination with BETEX shims.

Type	Fixturlaser ECO
Art. no	780346
Weight incl. all parts	4.8 kg
Dimensions	415 x 325 x 180 mm
Display unit	
Dimensions	181 x 106 x 34 mm
Weight	0.36 kg
Display size	4” (102 mm) diagonal 84x56 mm
Service life	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
Yokes	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 cables A-mini B 2 m, USB cable A-mini 0.5 m
- 1 EUR/US power supply, 2 m
- 2 universal tools
- 1 manual

Type	Fixturlaser EVO
Art. no	780347
Weight incl. all parts	5.4 kg
Dimensions	415 x 325 x 180 mm
Display unit	
Dimensions	181 x 103 x 180 mm
Weight	0.36 kg incl. battery
Display size	5” (127 mm) diagonal / 111x63 mm
Service life	8 hours continuous
Sensor / units	
Weight	M3 212 g / S3 188 g
Dimensions	92 x 77 x 33 mm
Protection class	IP65
Measuring distance	Up to 10 m
Detector	2nd generation digital sensor
Large 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
Yokes	4 pcs 150 mm

TIP!

Use in combination with BETEX shims.



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)

TIP!

Use in combination with BETEX shims.

Type	Fixturlaser NXA Pro
Art. no	780348
Weight incl. all parts	7.7 kg
Dimensions	415 x 325 x 180 mm
Display unit	
Weight / Dimensions	1.2 kg / 124 x 158 x 49 mm
Protection class	IP65
Display size	6.5” (165 mm) diagonal (133x100mm)
Gyroscope	6-axis MEMS inertial meaurement sensor with drift compensation and autom. field calibration
Service life	10 hours continuous (with 50% LCD display light)
X-press battery charging time	1 hour of charging > 6 hours of operation
Sensor / units	
Weight	M3 212 g / S3 188 g
Dimensions	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
Service life	17 hours continuous
Shaft brackets	
Shaft diameter	Ø20 - 450 mm
Yokes	4 pcs 85 mm and 4 pcs 160 mm (extendable to 245 mm)



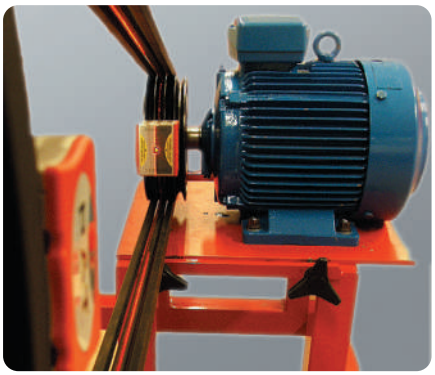
PULLEY ALIGNMENT SYSTEM

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.



Complete system

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





Type	Fixturlaser PAT
Art. no	780700
Weight incl. all parts	1.5 kg
Dimensions	250 x 180 x 80 mm
Sensor units	
Weight	340 g
Dimensions	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	2 AAA batteries / 20 hours continuous



PULLEY ALIGNMENT SYSTEM

Easy-Laser D90 BTA

The D90 BTA is an extremely affordable and universally applicable disc and pulley alignment system for the alignment of V-belts, toothed belts, flat belts and chain drives.

- 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.
- Operating range up to 10 mtr.



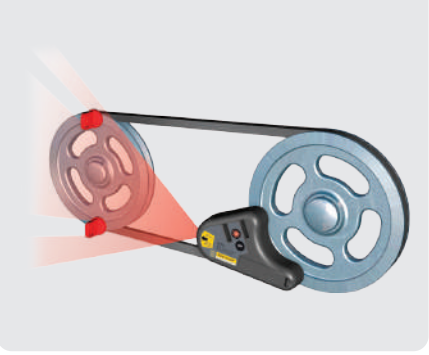
Complete system

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

TIP!

Use in combination with BETEX shims.

Type	Easy Laser D90 BTA
Art. no	7803103
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
Battery type / life	1x (AA) 1.5 V / 8 hours
Material	ABS plastic / hard anodised alu
Weight	270 g
Dimensions	145 x 86 x 30 mm
Detector	
Measuring distance	-
Measuring range	-
Display	-
Connection	-
Battery type / life	-
Material	-
Weight	-
Dimensions	-



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

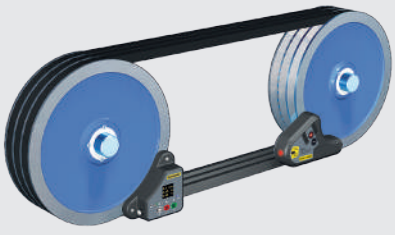
- 1 laser / 1 sensor
- 2 targets
- 1 charger (100-240V AC) + cable
- 1 USB stick with documentation
- 1 carrying case

TIP!

Use in combination with BETEX shims.

Type	Easy-Laser XT190 BTA
Art. no	7803104
Case	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
Battery type / life	1x (AA) 1.5 V / 8 hours
Material	ABS plastic / hard anodised alu
Weight	270 g
Dimensions	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
Material	ABS plastic / anodised alu
Weight	190 g
Dimensions	95 x 95 x 36mm





MONITORING
BETEX Bearing Checker

The Bearing Checker is a unique instrument, small and lightweight, designed for fast, on-site condition assessment of all types of ball and roller bearings.

Problems are detected at an early stage; well before bearing damage is noticeable due to an increase in vibrations or temperature.

The assessed checking results provide service technicians and engineers with immediate information on the current condition of the bearing and the cause of potential problems with the machine. They can be determined without specialist training.

- Shock pulse method. With the quick coupling shock pulse sensor, the instrument can be used for bearing checks in a large number of rotating industrial machines that are supplied with standard checking nipples.
- An infrared temperature sensor measures the surface temperature.
- The instrument also has an electronic stethoscope function to listen to machine sounds.
- Checking results in green, yellow and red (the traffic light effect) give an immediate and reliable indication of the machine's condition in an easy-to-understand way.



Complete system

- Bearing Checker
- USB cable
- Quick Start

Type	BETEX Bearing Checker
Art. no	780302
Shock pulse measuring method	dBm/dBc, measuring range -9 to 90 dBsc, ±3 dBsv
Probe type	Integrated probe
Temperature measuring range	-10 to + 50°C / 14 to 122 °F
Resolution	1°C
Stethoscope	
Head phone mode	7 sound levels
Bearing 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
Keyboard	Sealed membrane
Display	Graphic monochrome, 64 x 128 pix, LED
Casing material	Copolyester/TPE
Power	3.63V lithium-ion batteries or rechargeable USB, >25 hours of normal use
Dimensions	207 x 74 x 41 mm
Weight	335 g



Available accessories

MONITORING
BETEX VibChecker

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.
- The results can be saved for subsequent follow-up.
- 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	BETEX 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 / Protection class	Copolyester/TPE/IP65
Power	3.63V lithium-ion batteries or rechargeable USB, >25 hours of normal use
Dimensions	207 x 74 x 41 mm
Weight	335 g



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” feature
- Readable temperature of 0.1°C
- Measurement in Celsius or Fahrenheit
- Batteries
- User Manual



BETEX 750 - K-Type

Digital thermometer
- Measuring range:
  -50°C to 750°C / -58 to 1382 °F
- Protective cover and sensor included

Type	BETEX 750
Art. no	610001
Measuring range	-50 to 750˚C / -58 to 1382 °F
Accuracy	± 0.5%+1°C
Resolution	0.1°C
Data hold key	
Adjustable units	°C, °F
Thermocouple sensor	TP-01 type-K sensor with plug
Power	2x 1.5V AAA batteries
Weight	110 g
Dimensions	128 x 61 x 25 mm



BETEX 1220

Laser thermometer
- Measuring range:
  -50°C to 300°C / -58 to 572 °F

Type	BETEX 1220
Art. no	610020
Measuring range	-50 to 300°C / -58 to 572 °F
Accuracy	± 2 °C
Resolution	1 °C
Response time	<0.8 sec.
Emissivity	0.95 (adjustable 0.1-0.99)
Adjustable units	°C, °F
Power	2x AAA batteries
Weight	70 g
Dimensions	155 x 50 x 72 mm



BETEX 1240

Infrared thermometer

- Measuring range:
  -40°C to 800°C / -40 to 1472 °F
- Mounting hooks included

Type	BETEX 1240
Art. no	610240
Measuring range	-40 to 800˚C / -40 to 1472 °F
Accuracy	-40 to 0 °C: ± 4 °C 0 to 400 °C: ± 1,5 °C 400 to 800 °C: ± 2 °C
Resolution	0.1 °C at > 199.9 °C
Optical resolution	12:1
Emissivity	0.1 to 1.0 (adjustable)
Laser	Class 2
Automatic switch-off	After 30 sec. of inactivity
Power	9V battery
Weight	250 g
Dimensions	95 x 82 x 192 mm



BETEX 1300

Digital thermometer

- Measuring range:
  -210°C to 1372°C / -346 to 2012 °F
- Incl. 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	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
Battery life	<60 h
Automatic switch-off	After 15 min. of inactivity (may be deactivated)
Power	3x 1.5V AAA batteries
Dimensions	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	Robust ABS plastic
Display	LCD, 5 digits, 22 mm high
Dimensions	160 x 60 x 42 mm
Weight	200 g

MONITORING
Stethoscope / Endoscope



Type	BETEX ELS 12
Art. no	610320
Frequency range	100 Hz - 10 kHz
Volume	Adjustable
Ambient temperature	-10 to +55 °C / 14 to 131 °F
Power	9V battery
Casing	ABS
Base	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

BETEX ELS12

Electronic stethoscope / vibration checker

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.

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

BETEX Endoscope

Electronic videoscope

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.

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

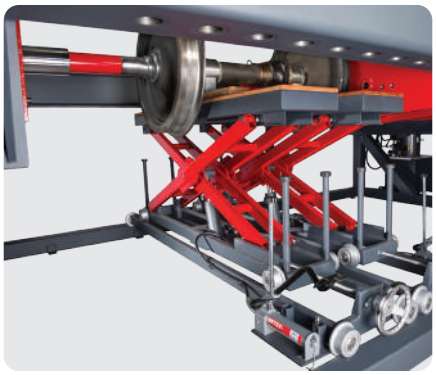
CUSTOM MADE

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 customised products can be 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

Advantages of hydraulic custom 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
- ✓ Sometimes investments for customised solutions are lower than for standard products

Precise and safe

Rather using heavy mechanical tools, hydraulics offers the advantage of:

- Process control
- No noise hindrance
- 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









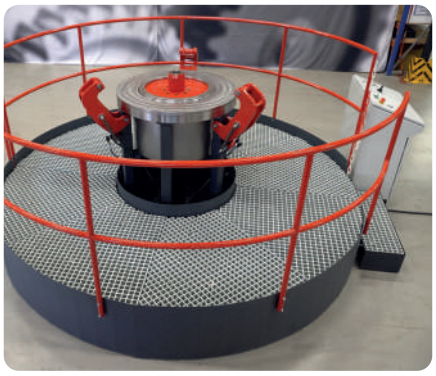
Assembly of wheel rims for metro and tram.

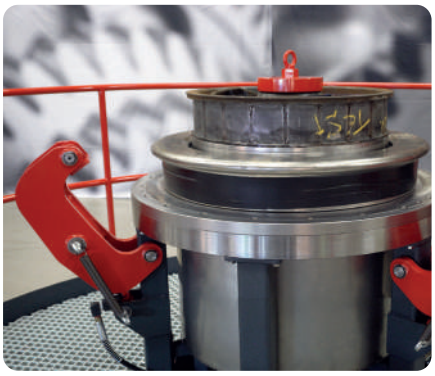
This hydraulic wheel rim press was developed to client specifications. The press is specially used to assemble wheel rims onto wheels, in combination with sound and vibration absorbing rubber blocks. These blocks are for travel comfort.

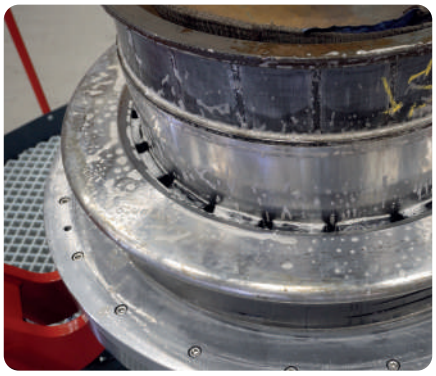
At assembly, a large cone is used to pull the wheel into the wheel rim hydraulically. The cone ensures that the rubber blocks are pressed together in a controlled manner, after which the wheel fits easily.

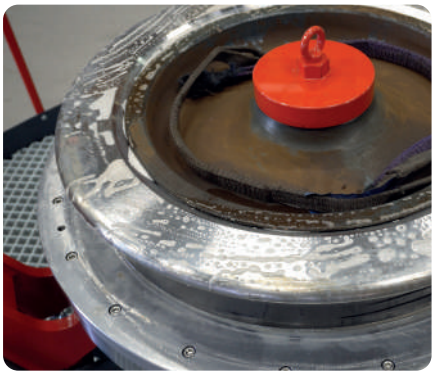
Objective: The wheel and wheel rim must align perfectly to prevent vibrations in the vehicle.

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



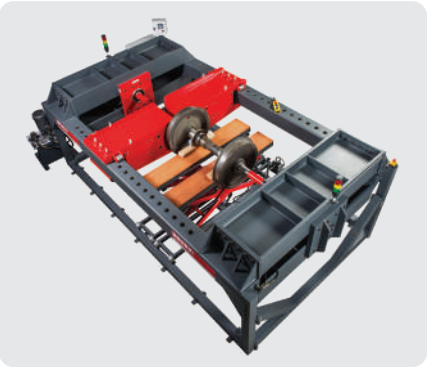




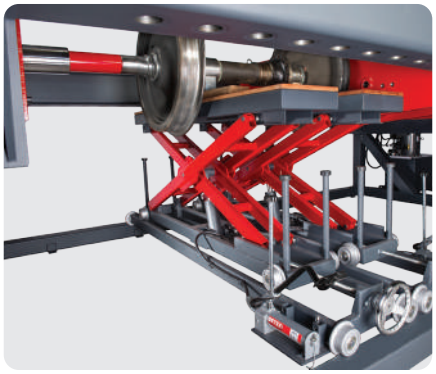


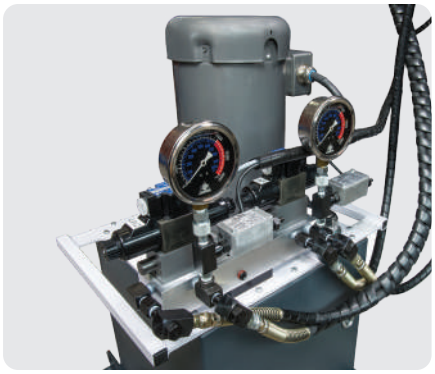
BETEX HWS 150
This press was designed to client's specifications. It is used for both installation and removal of wheels on the axle. It is also suitable for other parts like bearings, gears, and brake discs.

- Press force: 150 ton
- Stroke: 460 mm
- With press cylinders on both sides
- With 2 adapter jaws for dismantling when little available space is available
- Positioning of wheel set with overhead crane
- Manual centering of wheel set
- 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!

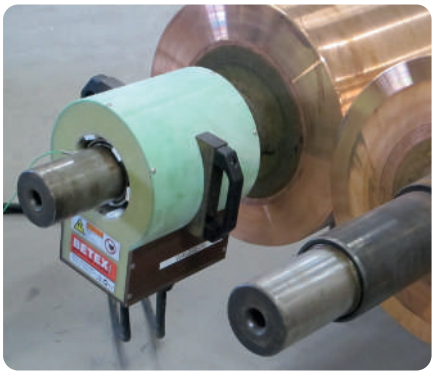
BETEX MF Quick-Heaters
With BETEX medium-frequency induction heaters, difficult dismantling and assembly jobs can be done safely and without damage. These are examples of projects with customised fixed inductors. Read more about the advantages of the MF Quick-Heater in the chapter "Medium-frequency technology".



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 advantages of induction heating in the chapter “Why use induction heating?”.



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.



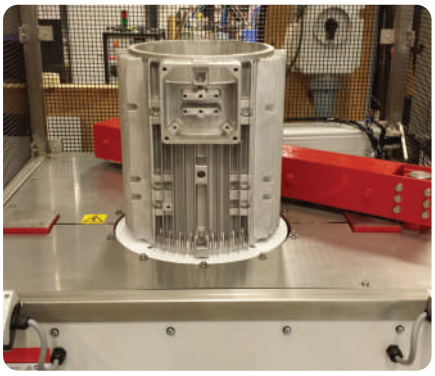
BETEX Twin Heater
For simultaneous heating of 2 bearings in the Railway industry.

Temperature: 110°C
Time needed : 4 min.



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.



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.