

SHIMS

BETEX SOLID STAINLESS STEEL SHIMS Precut stainless steel shims for fast, simple and precise machine alignment.

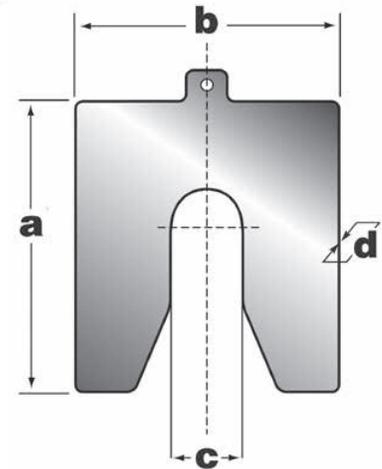
- Available in 6 difference sizes and 11 thicknesses.
- Packed in sets of 10 shims.
- High-quality, non-corroding material.
- The shim's thickness is etched on each shim.
- 31 standard combinations in handy carrying cases.
- Suitable for reuse.

Your advantages:

- 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 is now simpler and easier to verify.
- **Now also available in 2 and 3 mm thickness!**



Packed in sets of 10 shims.



Sizes of solid shims (AISI 304)

	Art. no.	package	a mm	b mm	c mm	d mm	bolt size
MINI	B035005Mn	10	35	30	9	0.05	M8
	B035010Mp	10	35	30	9	0.10	M8
	B035020Mr	10	35	30	9	0.20	M8
	B035025Ms	10	35	30	9	0.25	M8
	B035040Mt	10	35	30	9	0.40	M8
	B035050Mu	10	35	30	9	0.50	M8
	B035070Mv	10	35	30	9	0.70	M8
	B035100Mw	10	35	30	9	1.00	M8
A	B0500025Ak	10	50	50	13	0.025	M12
	B050005An	10	50	50	13	0.05	M12
	B050010Ap	10	50	50	13	0.10	M12
	B050020Ar	10	50	50	13	0.20	M12
	B050025As	10	50	50	13	0.25	M12
	B050040At	10	50	50	13	0.40	M12
	B050050Au	10	50	50	13	0.50	M12
	B050070Av	10	50	50	13	0.70	M12
	B050100Aw	10	50	50	13	1.00	M12
	B050200Ax	10	50	50	13	2.00	M12
	B050300Ay	10	50	50	13	3.00	M12
B	B0750025Bk	10	75	75	21	0.025	M20
	B075005Bn	10	75	75	21	0.05	M20
	B075010Bp	10	75	75	21	0.10	M20
	B075020Br	10	75	75	21	0.20	M20
	B075025Bs	10	75	75	21	0.25	M20
	B075040Bt	10	75	75	21	0.40	M20
	B075050Bu	10	75	75	21	0.50	M20
	B075070Bv	10	75	75	21	0.70	M20
	B075100Bw	10	75	75	21	1.00	M20
	B075200Bx	10	75	75	21	2.00	M20
	B075300By	10	75	75	21	3.00	M20

	Art. no.	package	a mm	b mm	c mm	d mm	bolt size
C	B1000025Ck	10	100	100	32	0.025	M30
	B100005Cn	10	100	100	32	0.05	M30
	B100010Cp	10	100	100	32	0.10	M30
	B100020Cr	10	100	100	32	0.20	M30
	B100025Cs	10	100	100	32	0.25	M30
	B100040Ct	10	100	100	32	0.40	M30
	B100050Cu	10	100	100	32	0.50	M30
	B100070Cv	10	100	100	32	0.70	M30
	B100100Cw	10	100	100	32	1.00	M30
	B100200Cx	10	100	100	32	2.00	M30
	B100300Cy	10	100	100	32	3.00	M30
D	B1250025Dk	10	125	125	45	0.025	M42
	B125005Dn	10	125	125	45	0.05	M42
	B125010Dp	10	125	125	45	0.10	M42
	B125020Dr	10	125	125	45	0.20	M42
	B125025Ds	10	125	125	45	0.25	M42
	B125040Dt	10	125	125	45	0.40	M42
	B125050Du	10	125	125	45	0.50	M42
	B125070Dv	10	125	125	45	0.70	M42
	B125100Dw	10	125	125	45	1.00	M42
	B125200Dx	10	125	125	45	2.00	M42
	B125300Dy	10	125	125	45	3.00	M42
E	B200005En	10	200	200	55	0.05	M52
	B200010Ep	10	200	200	55	0.10	M52
	B200020Er	10	200	200	55	0.20	M52
	B200025Es	10	200	200	55	0.25	M52
	B200040Et	10	200	200	55	0.40	M52
	B200050Eu	10	200	200	55	0.50	M52
	B200070Ev	10	200	200	55	0.70	M52
	B200100Ew	10	200	200	55	1.00	M52
	B200200Ex	10	200	200	55	2.00	M52
	B200300Ey	10	200	200	55	3.00	M52



Case ABCD



Case ABC



Case ABC

31 standard combinations in handy carrying case (other combinations on request)

Art. no	Thickness:	Number of shims per series / case in various sizes in mm											Total per case
		0.025	0.05	0.10	0.20	0.25	0.40	0.50	0.70	1.00	2.00	3.00	
		Case type:											
B020210	AB 10/9		10	10	10	10	10	10	10	10	10		180
B020230	AB 10/10		10	10	10	10	10	10	10	10	5	5	180
B020240	AB 10/11	10	10	10	10	10	10	10	10	10	5	5	200
B020220	AB 20/9		20	20	20	20	20	20	20	20	10		340
B020250	AB 20/10		20	20	20	20	20	20	20	20	5	5	320
B020260	AB 20/11	20	20	20	20	20	20	20	20	20	5	5	360
B020310	BC 10/9		10	10	10	10	10	10	10	10	10		180
B020330	BC 10/10		10	10	10	10	10	10	10	10	5	5	180
B020340	BC 10/11	10	10	10	10	10	10	10	10	10	5	5	200
B020320	BC 20/9		20	20	20	20	20	20	20	20	10		340
B020350	BC 20/10		20	20	20	20	20	20	20	20	5	5	320
B020360	BC 20/11	20	20	20	20	20	20	20	20	20	5	5	360
B020410	CD 10/9		10	10	10	10	10	10	10	10	10		180
B020430	CD 10/10		10	10	10	10	10	10	10	10	5	5	180
B020440	CD 10/11	10	10	10	10	10	10	10	10	10	5	5	200
B020420	CD 20/9		20	20	20	20	20	20	20	20	10		340
B020450	CD 20/10		20	20	20	20	20	20	20	20	5	5	320
B020460	CD 20/11	20	20	20	20	20	20	20	20	20	5	5	360
B020110	ABC 10/9		10	10	10	10	10	10	10	10	10		270
B020100	ABC 10/10		10	10	10	10	10	10	10	10	5	5	270
B020140	ABC 10/11	10	10	10	10	10	10	10	10	10	5	5	300
B020120	ABC 20/9		20	20	20	20	20	20	20	20	10		510
B020130	ABC 20/10		20	20	20	20	20	20	20	20	5	5	480
B020150	ABC 20/11	20	20	20	20	20	20	20	20	20	5	5	540
B020019	ABCD 10/9		10	10	10	10	10	10	10	10	10		360
B020030	ABCD 10/10		10	10	10	10	10	10	10	10	5	5	360
B020040	ABCD 10/11	10	10	10	10	10	10	10	10	10	5	5	400
B020029	ABCD 20/9		20	20	20	20	20	20	20	20	10		680
B020031	ABCD 20/10		20	20	20	20	20	20	20	20	5	5	640
B020032	ABCD 20/11	20	20	20	20	20	20	20	20	20	5	5	720
B020600	E 10/10		10	10	10	10	10	10	10	10	5	5	90

SHIMS

BETEX PEEL-OFF HARD BRASS OR STAINLESS STEEL SHIMS

- Laminated pre-cut shims (peel-off)
- 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

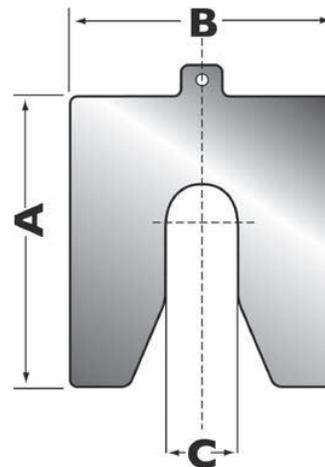
Size of peel-off shims in mm

Art. no.	Material	Package	A mm	B mm	C mm	Bolt size
8125005	HMS	10	35	30	9	M8
812502	HMS	10	50	50	13	M12
8125035	HMS	10	75	75	21	M18
812504	HMS	10	100	100	32	M27
8125045	HMS	10	125	125	45	M36
812506	HMS	10	200	200	55	M52

Art. no.	Material	Package	A mm	B mm	C mm	Bolt size
8125505	STAINLESS STEEL	10	35	30	9	M8
812552	STAINLESS STEEL	10	50	50	13	M12
812553	STAINLESS STEEL	10	75	75	21	M18
812554	STAINLESS STEEL	10	100	100	32	M27
8125545	STAINLESS STEEL	10	125	125	45	M36
812556	STAINLESS STEEL	10	200	200	55	M52

Size of peel-off shims in mm

Art. no.	Material	Dimensions mm
812508	HMS	610 x 1220 x 1.00
812558	STAINLESS STEEL	610 x 1220 x 1.00



TIP!

Use in combination with:
 Toe jacks, page 113-114
 Spreaders, page 116
 Alignment computers: 143 -146

SHAFT ALIGNMENT COMPUTERS

LASER KIT SHAFT ALIGNMENT SYSTEM

The Fixturlaser Laser Kit consists of two wireless sensor units utilizing two line lasers. The use of line lasers minimizes setup time. To make it even easier, the sensors come pre-mounted on its fixtures 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, no language barriers to overcome.

The software leaves you without any doubt how your machine is aligned and when your job is completed. Reporting is automatic and contains all relevant information.

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



Technical details	
Art. nr.:	780328
Case:	
Weight incl. all parts case	2.75 kg
Dimensions mm (lwxhx)	357x305x96 mm
Displayed resolution	0.01 mm
Sensor units:	
Weight	156 g
Dimensions mm (lwxhx)	139x79x40 mm
Measurement distance	70 mm - 850 mm
Detector	PSD (single axis)
Detector area	8.5 x 0.9 mm (0.3 x 0.4 inch)
Measurement accuracy	3% +/- 0.01 mm
Inclinometer accuracy	+/- 2°
Wireless communication	Bluetooth transceiver with multi-drop capability
Shaft brackets:	
Shaft diameter	ø 30 - 150 mm
Rods	2 pcs 150 mm

TIP!

Use in combination with:
 Betex toe jacks, page 113 -114
 Betex spreaders, page 116
 Betex shims, page 140 -142

SHAFT ALIGNMENT COMPUTERS

EASY-LASER® E420

Easy-Laser® is used to align pumps and motors for all types of installations in a variety of industries. Correctly set-up and aligned machines are necessary to reduce energy consumption and achieve optimum service life.

Easy-Laser® E420 sets a new standard

in entry level laser systems for shaft alignment. Wireless measuring units, a large 5.7" colour display and an IP65-rated design that withstands harsh environments. These are the features you would normally only find in more expensive systems. Simply put, Easy-Laser® E420 has everything an entry level system should have, and more. Take the next step into wireless freedom! Using Easy-Laser® E420 makes it easy to measure both horizontal and vertical/flange-mounted machines.



What you can measure and align:

Horizontal machines: horizontally mounted machines often consist of a pump and a motor, but can also include other types of machines such as gearboxes and compressors.

Vertical/flange-mounted machines: vertical and flange-mounted machines, e.g. pumps, motors, gear boxes.

- Art nr.: 780326



Advantages E420 and E540:

- Easy to learn and use.
- Compact measuring units for use on most machine designs.
- All wireless units with integrated rechargeable battery.
- Large 5.7" colour display.
- Programs with both symbols and text = easy to understand.
- TruePSD technology with unlimited resolution.
- Dual PSD, dual laser beams and dual inclinometers for superior control and accuracy.

- 3 year warranty gives assurance.
- Fast service and support. 48-hours Express service if necessary.
- Low overall costs during the entire lifecycle of the product, for example calibration, accessories, etc.

Extra E540:

- Produce PDF reports directly from the Display unit and save to USB memory.
- Expandable / Adaptable. A range of accessories means that you can adapt the measurement system to your needs, now and in the future.

EASY-LASER® E540 wireless

Easy-Laser® is a cost effective investment that will pay itself back quickly by eliminating unplanned downtime, and reducing energy consumption and the need for spare parts. Simply efficient!

Easy-Laser® E540 is a precise and competent alignment system for your rotating machinery. Easy-Laser® E540 provides the ideal balance between performance and price allowing you to create the best conditions to operate your machinery economically and problem-free:

- Alignment of horizontal and vertical/flange mounted machines.
- Keep track of machinery status with vibration level check*.
- Check the prerequisites for a correct alignment before aligning, e.g. bearing play and soft foot.
- Measure and align in three easy steps.
- Document the result.
- Art nr.: 780317



BELT ALIGNMENT COMPUTERS

BTA EASY-LASER D90

Easy-Laser® D90 pulley alignment system is installed in a few seconds, and the laser line that is projected on the targets clearly shows how to adjust the machines. The laser line allows you to quickly ascertain and correct the misalignment. The tool has targets that can be read out "visually" and which give excellent degrees of accuracy that are sufficient for most users. If, in the future, you wish to have the option of digital readouts with the corresponding advantages, you can add a digital detector.



Applications: Suitable for most types of belts/chain drives	
Art. no.	7803103
Dimensions (wxdxh)	145 x 86 x 30 mm
Material	ABS plastic
Weight	270 grams
Pulley diameters	60 mm diameter and bigger
Operating range	maximum 10 metres

BTA DIGITAL EASY-LASER E180

Wireless and digital system for the alignment of pulleys

The Easy-Laser® E180 allows even more accurate and efficient alignment of sheaves/pulleys! Easy-Laser® is unique to the market in being able to offer digital read off. Digital readings allow greater precision, and combined with one of our display units*, make it easier to follow the belt manufacturer's tolerances and results are documented directly as PDF. This is a unique characteristic that gives advantages in the long term, not least in the service life of belts and sheaves/pulley.



- Compared with old measurement methods, it is this way of more accurately and efficiently align, since both the horizontal and the vertical alignment take place at the same time.
- Easily operated by one person.
- For all types of drives/pulleys, such as:
V-belts, flat belts, timing belts and chain drives.
- Measure range: up to 3 meter between transmitter and detector.

TIP!

Use in combination with
Betex toe jacks, page 113 -114
Betex spreaders, page 116
Betex shims, page 140 -142

*The display unit is not supplied as standard with the Easy-Laser E180.

Technical data Easy-Laser E180 BTA		Art. no. 7803180	
1 Laser transmitter	1 Detector		
2 Targets	1 Charger (100-240V AC)		
1 Carrying case	270 x 225 x 80 mm (10.6"x8.8"x3.1) + 1 Manual		
Laser transmitter		Detector unit	
Sheave diameters	Ø60 mm (2.5") and larger	Measurement distance	Up to 3 m (9.8") between Transmitter + Detector
Laser class	2	Measurement range	Axial offset: ±3 mm (0.12"). Angular value: ±8°
Output power	< 1mW	Display type	Yellow OLED 96x96 pixels
Laser wavelength	635 - 670nm	Connection	Bluetooth Wireless Technology
Beam angle	60°	Battery type / operation	Li-Po / 5 hours continuously
Accuracy	Laser plane - Reference plane	Material	ABS-plastics / Anodized Aluminium
	Parallelity: <0.05°, Offset <0,2 mm (0.008")	Dimensions	WxHxD: 95x95x36 mm (3.7x3.7x1.4")
Battery type	1xR6 (AA) 1,5 V (8 h battery operation)	Weight (without Batteries)	190 g (6.7 oz)
Material	ABS-plastics/Hard anodized Aluminium		
Dimensions	WxHxD: 145x86x30 mm		
Weight	270 g (9.5 oz)		

BELT ALIGNMENT COMPUTERS

PAT PULLEY ALIGNMENT LASER

The PAT pulley alignment laser is the definitive solution for all your pulley alignment jobs! Because the belts' grooves are used as reference points, you can see instantly whether the pulleys are correctly aligned or not.

The PAT is supplied with two spring-loaded laser units that can be mounted in the pulley grooves. The PAT also has standard tapers allowing the lasers to be mounted on most standard gauges (A-E 6 mm - 40 mm). Other gauges 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. You can see in no time whether your pulleys are correctly aligned.



Specifications:	
Art. no.	780700
Material	anodised aluminium
Dimensions	61 x 76 x 60 mm (l x h x w)
Weight	0.64 kg
Battery type	2) AAA batteries
Operating range	from 15.2 mm to 609.6 mm
Laser	class 2
Pulley diameters	76 mm diameter and bigger



TIP!

Use in combination with
Betex toe jacks, page 113 -114
Betex spreaders, page 116
Betex shims, page 140 -142

Monitoring

BETEX BEARING CHECKER



An economic three- in-one-instrument for on-site condition monitoring.

Bearing Checker is unique, being the first portable, pocket-size instrument (weight 185 g, size 158 x 62 x 30 mm) for evaluated shock pulse measurement. It can be operated using push buttons and you can enter the required data manually. Besides shock pulses, Bearing Checker measures machine surface temperature with infrared light, and can also be used as an electronic stethoscope for listening to machine sounds.

The instrument can be used on most rotating machinery, in a diversity of industrial environments,

such as:

- electric motors
- fans
- pumps

Bearing Checker – your affordable expert

Take your maintenance to the next level with this easy to use and affordable instrument for checking bearing condition.

OPTIONAL ACCESSORIES:



ADVANTAGES:

- Proactive approach to maintenance
- Useful and economical complement to your maintenance toolbox
- No specialized training
- Potential problem sources can be detected well before damage is detectable by heat or vibration
- Easy-to-operate with clear symbols on display
- Art nr.: 80322



Monitoring

BETEX VIBCHECKER VIBRATION MONITORING



VibChecker: portable and user friendly vibration measurement

VibChecker is a light and compact-sized instrument for vibration measurement in the 10-1000 Hz. Measurement results are immediately and automatically evaluated against ISO standards. Green - yellow - red LEDs indicate vibration severity and a real time FFT spectrum is produced for easy pattern recognition. Results can be stored for documentation and follow-up.

With its built-in probe, easy button operation and clear symbols, VibChecker is an all set to go instrument; just point the probe and measure to locate vibration-related problems.

Vibration monitoring: a cost-effective strategy

Vibration monitoring is a cost-effective predictive maintenance tool. In most cases, vibration measurement can detect a problem long before damage to the machine is done. The repair of equipment failing while in service is many times costlier than planned repairs made possible through vibration monitoring.

VibChecker: minding your machinery

Machine vibration is the cause of many problems in industrial equipment. Integrated in your normal maintenance activities, periodic vibration measurement with VibChecker will go a long way to help keep your equipment operational. VibChecker combines handiness and ease of use with cost effectiveness and durability. Suited to both new and experienced users, VibChecker covers the basic vibration monitoring needs of your maintenance organization.

Art nr.: 780201



Monitoring

LASER THERMOMETERS

Our digital laser thermometers are ideal for fast and safe measurement of liquids, gases, and many other substances, also suitable for temperature measurements of motors, brake systems, heating systems, etc. The built-in laser pointer can determine the correct measuring point distance, measured value can then be within half a second read and recorded automatically.

The thermometers all have:

- Backlit display
- Precision 0.1°C
- Automatic "hold" function
- Readable temperature of 0.1°C
- Measurement in Celsius or Fahrenheit

BETEX 1220 – LASER THERMOMETER UP TO 300°C

- Measurement range: -50°C - 300°C
- Fast response time (within 0.9 sec.)
- Dimensions: 155 x 50 x 72mm
- Battery type: 2 AAA batteries (incl.)
- Weight: 68 gr
- Art nr.: 610020



BETEX 1230 – LASER THERMOMETER UP TO 380°C

- Measurement range: -50°C - 380°C
- Max. height: 1500mm
- Fast response time (within 0.5 sec.)
- Dimensions: 153 x 101 x 43 mm Incl. batteries
- Weight: 147,50 gr
- Art nr.: 610030



BETEX 1250 – LASER THERMOMETER UP TO 1000°C

- Measurement range: -50°C - 1000°C
- Max. height: 1500mm
- Fast response time (within 0.1 sec.)
- Dimensions: 260 x 155 x 54 mm
- Incl. 9V battery, carrying case, instruction manual
- Weight: 295 gr
- Art nr.: 610030



BETEX 1300 – LASER THERMOMETER UP TO 1370°C

- Measurement range: -100°C - 1370°C
- Also suitable for surface measurements
- Dimensions: 120 x 68 x 31mm
- Incl. 9V battery, canvas bag, instruction manual
- Weight: 112 gr
- Art nr.: 610002



Monitoring

DECIBEL METER / TACHOMETER / STETHOSCOPE

DECIBEL METER - SOUND METER

With this professional microprocessor controlled sound level meter you can accurately measure the volume. The meter is carried out in a robust ABS housing and is designed such that it is to handle comfortably.

The instruments feature an extra large display with digit height 20 mm. The meters also have a hold function to hold the measurement data on the display and has the capability to carry out measurement interval, wherein the time between each measurement can be set up. In these measurements, the time, and sensitivity to be selected independently. Also, it is possible to store the highest value automatically.

BETEX 1500

- Measuring range: 30 - 130 dB (A)
- Frequency: 31.5 Hz - 8500 Hz
- Resolution: 0.1 dB
- AC adapter connector
- Dimensions: 260 x 69 x 32 mm
- Weight: 270 gr
- Art nr.: 610150

Includes:

- Microprocessor controlled sound meter
- Wind cap for microphone
- PE storage case and instruction guide
- Battery

BETEX 1510

- Measuring range: 40 - 130 dB (A)
- Frequency: 31.5 Hz - 8500 Hz
- Resolution: 0.1 dB
- AC adapter connector
- Dimensions: 260 x 69 x 32 mm
- Weight: 350 gr
- Art nr.: 610151

Includes:

- Microprocessor controlled sound meter
- Wind cap for microphone
- PE storage case and instruction guide
- Standard
- Battery



Betex 1620 – DIGITAL LASER TACHOMETER

This digital laser tachometer is very suitable for maintenance and servicing of engines, rotating equipment and machines.

- 5-digit 10 mm LCD display.
- Test range of measurement: 5 to 99,999 rpm.
- Display: 0.1 r.p.m. at 0.5 to 999,99 r.p.m.
- Display: 1.0 r.p.m. above 1000 r.p.m.
- Reading: 1 x second.
- Accuracy: +/- 0.5 %
- Measuring distance 50 to 300 mm.
- Memory: last, maximum and minimum measured value.
- Dimensions: 72 x 190 x 37 mm.
- Weight 250 gr
- Art nr.: 520820

Includes:

- 3 reflective strips.
- Carrying case and instruction manual.
- 9V battery



BETEX ELS14 ELECTRONIC STETHOSCOPE SET

A simple method to detect machine failure in a noisy environment. For preventive system maintenance with stethoscope. Applications include checking the operational status of valves, injectors, electric relays, pumps, lubrication systems, shafts, drivetrains and bearings.

The measuring probe tip is placed against the machine housing. The sound level can be adjusted. The speakers are integrated in a headphone which reduces the ambient noise effectively.

- Temperature range: 0°C to + 55°C.
- Strong housing in black ABS moulding.
- Lightweight, with 290 mm measuring probe tip, only 300 grams.
- Alkaline 9V battery provides a long operating time, approx. 30 hours in normal use.
- Includes: headphone and bag
- Measuring rod: 60 mm and 290 mm
- Dimensions: 205 x 50 x 40 mm
- Art nr.: 6500015

