

Friction welding machines



RS02

The unique friction welding machine RS02 for polyurethane profiles eliminates downtime with a perfect weld on each application!

Features at a glance

- No long heating-up and set-up times, spliced within seconds.
- Precise pressure and automatical O-positioning prevents uneven welds and premature failure.
- Automatic alignment ensures that the belt ends are aligned perfectly.
- Temperature variation is never a concern (no guesswork).
- Without the risk of injury or fire due to hot metal.
- Due to its small size the RS02 press can be used in confined spaces.
- Thanks to its exchangeable jaws the RS02 is suitable for splicing round belts from Ø 6 mm and V-belts from 6x4mm made of polyurethane.



original DESIGN

Scope of delivery:

- 1 pc. Friction welding machine RS02
- 1 set standard profile jaws at your choice
- 1 pc. Torque wrench
- 1 pc. Scissors AS02
- 1 pc. Edge cutter SE02
- 1 pc. Carrying case with durable and predective foam inlay

Dimensions (HxWxD): 390x105x123 mm Weight: approx. 2450 g, Power: 500 W

Description 230 Volt

Order No. FBWRS022230V





Tutorialvideo: https://youtu.be/7GhtkzLiiyl

RS02 AKKU

Battery-operated friction welding machine for polyurethane profiles for improved high-mobility maintenance.

Features at a glance

Same characteristics as RS02, but with the following distinguishing features:

- Cordless; battery-operated
- Larger scope of delivery



original DESIGN

Scope of delivery:

1 pc. Friction welding machine RS02 AKKU

1 set standard profile jaws at your choice

1 pc. Torque wrench

1 pc. Scissors AS02

1 pc. Scissors AS04

1 pc. Edge cutter SE02

2 pcs. Battery pack

1 pc. Charger

1 pc. Assortment box

1 pc. Carrying case with durable and predective foam inlay

Dimensions (HxWxD): 390x105x123 mm Weight approx. 2780 g, Power: 18V 4Ah (72Wh)

Description 230 Volt

Order No. FBWRS02A230





Friction welding machines

Our Alu clamping jaw range

1 set of jaws consists of 4 parts

Features at a glance

- Please note each belt profile requires a matching set of jaws.
- Therefore, please select the appropriate clamping jaws for the required profile geometry.
- On request, we also manufacture clamping jaws for PU special profiles.





for V-belts

Round belts

| RS Clamping jaws round belt Ø 6,0mm | FBWSBR060 |
|--------------------------------------|-----------|
| RS Clamping jaws round belt Ø 6,3mm | FBWSBR063 |
| RS Clamping jaws round belt Ø 7,0mm | FBWSBR070 |
| RS Clamping jaws round belt Ø 7,9mm | FBWSBR079 |
| RS Clamping jaws round belt Ø 8,0mm | FBWSBR080 |
| RS Clamping jaws round belt Ø 9mm | FBWSBR090 |
| RS Clamping jaws round belt Ø 9,5mm | FBWSBR095 |
| RS Clamping jaws round belt Ø 10,0mm | FBWSBR100 |
| RS Clamping jaws round belt Ø 12,0mm | FBWSBR120 |
| RS Clamping jaws round belt Ø 12,5mm | FBWSBR125 |
| RS Clamping jaws round belt Ø 12,7mm | FBWSBR127 |
| RS Clamping jaws round belt Ø 13,0mm | FBWSBR130 |
| RS Clamping jaws round belt Ø 14,0mm | FBWSBR140 |
| RS Clamping jaws round belt Ø 14,3mm | FBWSBR143 |
| RS Clamping jaws round belt Ø 15,0mm | FBWSBR150 |
| RS Clamping jaws round belt Ø 15,9mm | FBWSBR159 |
| RS Clamping jaws round belt Ø 17,0mm | FBWSBR170 |
| RS Clamping jaws round belt Ø 18,0mm | FBWSBR180 |
| RS Clamping jaws round belt Ø 19,0mm | FBWSBR190 |
| RS Clamping jaws round belt Ø 20,0mm | FBWSBR200 |
| | |



V-belts

| RS Clamping jaws V-belt (Y) 6x4mm | FBWSBK06 |
|-------------------------------------|----------|
| RS Clamping jaws V-belt (M) 8x5mm | FBWSBK08 |
| RS Clamping jaws V-belt (Z) 10x6mm | FBWSBK10 |
| RS Clamping jaws V-belt (A) 13x8mm | FBWSBK13 |
| RS Clamping jaws V-belt (B) 17x11mm | FBWSBK17 |
| RS Clamping jaws V-belt (C) 22x14mm | FBWSBK22 |

V-belts special versions

| RS Clamping jaws V-belt 8x6,5mm | FBWSBK8X65 |
|--|------------|
| RS Clamping jaws V-belt 10x8mm | FBWSBK10X8 |
| RS Clamping jaws Supergrip (Z) 10x6mm | FBWSBK10G |
| RS Clamping jaws Supergrip (A) 13x8mm | FBWSBK13G |
| RS Clamping jaws Supergrip (B) 17x11mm | FBWSBK17G |
| RS Clamping jaws Supergrip (C) 22x14mm | FBWSBK22G |
| RS Clamping jaws (B) 17x11 for brush 90° | FBWSBK17B |
| RS Clamping jaws (C) 22x14 for brush 90° | FBWSBK22B |
| | |

Rigde top V-belts

| RS Clamping jaws SK1 (B) 17x19mm | FBWSBK17X19 |
|----------------------------------|-------------|
| RS Clamping jaws SK1 (C) 22x24mm | FBWSBK22X24 |

Twin V-belts

| RS Clamping jaws Twin V-belt 21x8mm | FBWSBK21X8 |
|---|-------------|
| RS Clamping jaws Twin V-belt (Z) 24x6,8mm | FBWSBK24X68 |
| RS Clamping jaws Twin V-belt 30x8mm | FBWSBK30X8 |

T-Profiles

| RS Clamping jaws T-Profile 15x5mm | FBWSBST15X5 |
|-------------------------------------|-------------|
| RS Clamping jaws T-Profile 5x5x25mm | FBWSBST5525 |

Special profiles

| RS Clamping jaws square profile 11,8x11,8mm | FBWSBSQ118 |
|---|-------------|
| RS Clamping jaws U-Profile 18x11,8mm | FBWSBSU180 |
| RS Clamping jaws prism V-belt 33x8mm | FBWSBS33X8 |
| RS Clamping jaws peach profile 28x29mm | FBWSBS28X29 |



FRICTION WELDING TECHNOLOGY FOR PU

The unique friction welding machine RS02 is the professional tool for the maintenance operator and also the fastest and most reliable way of welding belt profiles. Constantly good quality connections are produced in a few seconds with repeatable accuracy due to fixed welding parameters.

Welding clamping jaws tuned to the respective profile ensure reliable clamping and perfect alignment of the profile.

Thanks to its handy type of construction, the friction welding machine can even be used in narrow space conditions for comfortable welding. The recently developed battery version is now available to ensure unlimited freedom of motion.









Tutorialvideo: https://youtu.be/7GhtkzLiiyl

USE

Which profiles can be welded?

The RS02 friction welding machine can be used for butt welding of PU round belts with/without reinforcement from 6 to 20 mm and PU V-belts with/without reinforcement from 6×4 mm to 22×14 mm.

Still many other geometrical shapes and special profiles can be joined by means of special clamping jaws using this welding technology.

How does friction welding work?

Basically this welding technology uses the reciprocal coefficients of friction of the profile materials and thus effect fusion of the material in the joint under pressure and in executing a rotational movement. It is up to the user to decide when the process can be terminated when a welding bead has been produced all over the joint.

What has to be observed to produce a proper weld?

Clamping jaws tuned to the respective geometry are required for reliable clamping of the profiles during this procedure.

Flat and angularly cut belt ends are an important prerequisite for this welding procedure to create optimum welding conditions and produce friction over the entire joint surface. For belt profiles with reinforcement it is required before welding, as usual, to drill out the reinforcement at the joint surfaces by some millimetres to prevent the reinforcement from crossing in the joint and consequently deterioration of the welded connection.

An exception is the patented weldable glass fibre reinforcement of BEHAbelt where this working step is unnecessary.

HIGHLIGHTS

- Mobile use thanks to small design.
- Welding parameters defined by the speed and pressure.
- TOP welding quality thanks to welding results with repeatable accuracy.
- Machine is immediately ready for use; no heating time required.
- High process mastery with excellent repeat accuracy.
- Reduction of the risk of accidents, as no hot parts are involved.





EErgo 60

| | — 60 mm | → |
|---------|---------|--------------|
| | | |

EErgo 90

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|---|---|--------------|----|
| | | | |
| 1 | | —— 90 mm ——— | _1 |
| ı | | —— 90 mm ——— | |
| 1 | (| | / |

Scope of supply:

1 pc. EErgo 60 or 90 1 pc. Carrying bag

EErgo 60

Dimensions: $185 \times 210 \times 55 \text{ mm (HxWxD)}$ Weight: approx. 380 g, Power: 120 W

EErao 90

Dimensions: 185 x 240 x 55 mm (HxWxD) Weight: approx. 420 g, Power: 120 W

Description

EErgo 60, 230 V/60mm EErgo 90, 230 V/90mm Order No. FBWEE001 FBWEE019



EERGO 60 & 90

The BEHAbelt EErgo paddle welding tools were specially developed for the connection of PU and TPE profiles or flat belt strips.

Features at a glance

- Strong, fiberglass-reinforced ergonomic housing.
- Unique control panel for one-handed operation.
- No adhesion of PU and TPE materials, thanks to Teflon-coated welding paddle.
- Easy cleaning with cloth.

Highlights



Heating-up time: approx. 5 minutes.



Innovative safety rest for safe placement on the work surface.



Ergonomic design for a natural working position.



Easy to use temperature selector regulates correct temperature to weld PU or TPE profiles.



Constant welding temperature at different ambient temperatures.

Spare parts

Spare paddle EERGO 60 Order No. FBWEE002

Dimensions (HxWxD): 43 x 65 x 6 mm



Spare paddle EERGO 90 Order No. **FBWEE025**

Dimensions (HxWxD): 43 x 95 x 6 mm





EERGO-Set "small" 60

Professional welding set for small profiles: Round belts up to 10mm and V-belts up to profile 10x6 (Z)

1 pc. EErgo paddle welding tool

2 pcs. Guide clamps FZ01

1 pc. Edge cutter SE02

1 pc. Scissors AS02 with stop

1 pc. Carrying bag small



Professional welding set for small profiles: Round belts up to 10mm and V-belts up to profile 10x6 (Z)

1 pc. EErgo paddle welding tool

1 pc. Guide clamp FZ01 Vario

1 pc. Edge cutter SE02

1 pc. Scissors AS02 with prism

1 pc. Carrying bag small





DescriptionEErgo-Set "small" 230 V / 60 mm
EErgo-Set Vario "small" 230 V / 60 mm

Order No. FBWEE003 FBWEE011

EERGO-Set "universal" 60

Professional welding set for small and big profiles: round belts all sizes an V-belts up to profile 32 (D)

1 pc. EErgo paddle welding tool

2 pcs. Guide clamps FZ01

1 pc. Edge cutter SE02

1 pc. Scissors AS04 with stop

1 pc. Guide clamp FZ02/3

1 pc. Carrying bag big



Description

EErgo-Set "universal" 230 V / 60 mm EErgo-Set Vario "universal" 230 V / 60 mm Order No. FBWEE004 FBWEE014

EERGO-Set Vario "universal" 60

Professional welding set for small and big profiles: round belts all sizes an V-belts up to profile 32 (D)

1 pc. EErgo paddle welding tool

1 pc. Guide clamp FZ01 Vario

1 pc. Edge cutter SE02

1 pc. Guide clamp FZ02/3

1 pc. Scissors AS04 with stop

1 pc. Carrying bag big



Hot paddle welding tools



Continuously temperature control

Scope of supply:

1 pc. Multi TC welding toolt Temperature-controlled welding tool for two temperature ranges: PU 290 °C / Polyester 240 °C

Dimensions: 295 x 35 x 25 mm (HxWxD)

Weight: approx. 250 g Heating time: approx. 5 Min.

Temperature range: continuously 200...300 °C

Power: 75 W

Description Multi TC 230 V Order No. FBWMTC230

Multi TC

BEHAbelt Multi TC is the proven continuously adjustable paddle welding tool for polyurethane and polyester.

Features at a glance

- Easy and safe handling.
- Very fast heating-up period.
- Variable temperature setting through adjusting wheel.
- Continuous welding temperature through temperature control even at long-term operation.
- LED display for signal of optimum welding temperature.
- Teflon coated welding paddle.
- Easy cleaning with cloth.



Spare parts

Spare paddle Multi TC Order No. **FBWMTC1**

Dimensions (HxWxD): 35 x 35 x 2 mm



Spare paddle Multi TC for flat belts

Order No. FBWMTC2

Dimensions (HxWxD): 25 x 70 x 2 mm





SG02 / SG03

The cost-effective welding technology. SG02 for PU SG03 for TPE

Features at a glance

- Easy and safe operation.
- Fixed, unregulated temperature setting.
- Reaches the welding temperature after approx. 10 min.
- Small, convenient and tough welding tool.
- No adhesion of PU and TPE materials, thanks to Teflon-coated welding paddle.
- Easy to clean with a cotton cloth.

Caution! Not suitable for continuous use.



Scope of supply:

1 pc. SG02 welding tool for Polyurethane (PU) 280 °C - 290 °C

1 pc. SG03 welding tool for Polyester (TPE) 225 °C - 240 °C

Dimensions: 280 x 33 x 33 mm (HxWxD) Weight: approx. 227 g Heating time: approx. 10 min.

Power: 80W (SG02); 40W (SG03)

Description SG02 PU - 230 V SG03 TPE - 230 V Order No. FBWSG02 FBWSG03

Spare parts

Spare paddle SG02 or SG03 Order No. FBWTC72

Dimensions (HxWxD): 35 x 35 x 2 mm



Order No. FBWTC76

Dimensions (HxWxD): 22,5 x 75 x 2 mm







Guiding clamps



Description Guiding clamp FZ02/3

Order No. FBWFZ02/3 Adapter insert for special profiles FBWFZ020T00

FZ02/3 and FZ02/2S

Guiding clamp FZ02/3 Standard

Robust and accurate for V-belts up to profile 32 (D) and round belts from \emptyset 8 mm.

Guiding clamp FZ02/2S customized adapter

Customized adapter for the guiding clamp FZ02/3 for custom profile geometries according to your specifications. Existing geometries in mm: 12,5x5, 15x5, 16x8, 18x6, 24x6,8, 25x5, 30x8, 38x2, 6x4x9, 21x8, 28x10, flat profile, square profile, U-profile, T-profile 10x6, 28x10



Recommended for use with EErgo 60



Dimensions: 205 x 90 x 100 mm (HxWxD) Weight: approx. 617 g

Description Guiding clamp FZ02/3F Adapter insert for special profiles

Order No. FBWFZ02/3F FBWFZ020T00

FZ02/3F

Guiding clamp FZ02/3F for flat belts

Robust and accurate for flat profiles. Width max. 80 mm and Height 1,6 - 5 mm.



Recommended for use with EErgo 90



FZ01 Vario

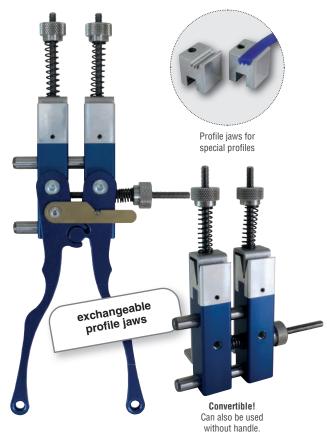
Guiding clamp FZ01 Vario metal can be assembled in two operating modes. With and without handle!

Convenient and tough for round belts up to \varnothing 10 mm and V-belts up to profile 10 (Z).

Exchangeable profile jaws allow custom profiles to be spliced easily.

Highlights

- Fast, reliable and exceptionally precise connecting of PU and TPE profiles.
- → Special inserts for: PJ2, PJ3 and PJ4 ribbed V-belts.
- → Your choice for standard and customized profiles!





Quick clamp device for inserting the profiles in exchangeable profile jaws.



Automatic unlocking starts off lateral pressure.



Precise welding thanks to constant pressure.

Dimensions: 240x125x50 mm

140x195x50 mm without handle

Weight: approx. 365 g

approx. 320 g without handle

Description

Profile jaws PJ2/PJ3/PJ4 Profile jaws T-Profile 10x4,5 Profile jaws T-Profile 9,5x3,5 Order No. FBWFZ01V FBWPBPJ2-4 FBWPBT10x45 FBWPBT95x35

FZ01

Handy and lightweight for round belts up to \emptyset 10 mm and V-belts up to profile 10 (Z).

Highlights

- Fast, reliable and exceptionally precise connecting of PU and TPE profiles.
- → Your choice for standard profiles!



Dimensions: Weight: 127x70x35 mm approx. 140 g

DescriptionGuiding clamp FZ01

Order No. FBWFZ01

Overlap welding with hot presses



Scope of supply:

1 pc. hot press HP01 AIR, 1 pc. PPuls Controller Element,

1 pc. Edge cutter SE02, 1 pc. Screw driver,

1 pc. Scissors AS04, 1 pc. Aluminium case

Dimensions (HxWxD): 240x167x200 mm Weight: approx. 4800 g

DescriptionStandard Set HP01/Air cooling/230 V

Order No. FBWHP011L230



HP01 AIR

HP01 AIR is the air-cooled version of the hot press and offers mobility thanks to its compact design.

Features at a glance

- Very easy to use.
- Reduces operator errors through a fully automatic and controlled welding and vulcanization process.
- Thanks to its exchangeable moulds the HP01 is suitable for splicing many different profiles and flat belts made of PU and TPE as well as timing belts.
- User friendly operation through self-explanatory menu of controller (no expertise required).
- Perfect welding within minutes.
- Temperature variation is never a concern (no guesswork).
- Real time data logging & diagnostics function for quality assurance of the splice.
- Different types of welds possible (overlap welds, butt welds and angle welds).
- Due to its small size and the hook for hanging up the press during the welding process, the HP01 can be used in confined spaces "on-site".
- Best welding solution for reinforced profiles (aramid, polyester and steel) through overlap welding.

HP01 WATER

HP01 WATER is the water cooled version of the hot press and offers higher cooling capacity.

Features at a glance

Same characteristics as HP01 AIR, but with the following distinguishing features:

- Higher cooling capacity
- Cooling drum included in scope of supply
- Could also be cooled with compressed air

Scope of supply:

- 1 pc. hot press HP01 WATER, 1 pc. Cooling unit with pump
- 1 pc. PPuls Controller Element, 1 pc. Edge cutter SE02,
- 1 pc. Screw driver, 1 pc. Scissors AS04,
- 1 Set Connecting hoses, 1 pc. Aluminium case





Standard moulds for HP01 Hotpress

Moulds for PU and TPE round- and V-belts. Other dimensions on request.



Mould for timing belt

Round belts

| Mould Ø 6,0 mm | FBWFS060 |
|-----------------|----------|
| Mould Ø 6,3 mm | FBWFS063 |
| Mould Ø 7,0 mm | FBWFS070 |
| Mould Ø 8,0 mm | FBWFS080 |
| Mould Ø 9,5 mm | FBWFS095 |
| Mould Ø 10,0 mm | FBWFS100 |
| Mould Ø 12,0 mm | FBWFS120 |
| Mould Ø 12,5 mm | FBWFS125 |
| Mould Ø 14,3 mm | FBWFS143 |
| Mould Ø 15,0 mm | FBWFS150 |
| Mould Ø 18,0 mm | FBWFS180 |
| Mould Ø 20,0 mm | FBWFS200 |

Timing belts (width max. 50mm)

| Mould for timing belt HTD5 | FBWFZHTD5MN |
|---------------------------------------|-------------|
| Mould for timing belt HTD8 | FBWFZHTD8MN |
| Mould for timing belt T5 | FBWFZT5N |
| Mould for timing belt T10 | FBWFZT10N |
| Mould for timing belt AT5 | FBWFZAT5N |
| Mould for timing belt AT10 | FBWFZAT10N |
| Mould for timing belt AT20 | FBWFZAT20N |
| Mould for timing belt H (W:50,8mm/2") | FBWFZHO |
| Mould for timing belt L (W:50,8mm/2") | FBWFZLO |
| Mould for timing belt RPP 8M | FBWFZRPP8MN |
| | |

V-belts

| Mould (Z) 10x6 mm | FBWFS100X060 |
|--------------------|--------------|
| Mould (A) 13x8 mm | FBWFS130X080 |
| Mould (B) 17x11 mm | FBWFS170X110 |
| Mould (C) 22x14 mm | FBWFS220X140 |



V-belt special version

| Mould 8x6,5 mm vaulted top | FBWFS080X065 |
|---------------------------------|--------------|
| Mould 10x8 mm | FBWFS100X080 |
| Mould 16,35x11,3 mm (Bluepower) | FBWFS163X113 |
| Mould 17x11,3 mm (Bluepower) | FBWFS170X113 |

Belt edge special version

Belt edge 14x28 mm FBWFS14X28



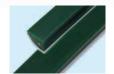


We would be happy to check the realisation for your belt edge profile.

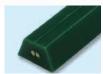
Belt edge profiles can be found on page 80.











After overlap welding

Scope of supply

1 pc. Belt cutter SH01,

1 pc. Screwdriver

1 pc. Profile adapter at your choice

1 pc. End wrench

1 set Washers

Adapters available for the following profiles:

■ Round belts \varnothing 6,0 - 20,0 mm

■ V-belts 13x8 (A), 17x11 (B), 22x14 (C), bluepower Dimensions (HxWxD): 200 x 80 x 45 mm Weight: approx. 1,3 kg

 Description
 Order No.

 Belt cutter SH01
 with 1 profile adapter at your choice
 FBWSH1



Profile adapter for round belts



Profile adapter for V-belts

SH01

Designed to accurately cut and prepare reinforced profiles for overlap welding with the BEHAbelt HP01 hot press.

Profile adapters for round belts

| Order No. | Description | Dimension |
|------------|----------------------------------|-----------|
| FBWSH1R060 | Profile adapters for round belts | Ø 6,0mm |
| FBWSH1R063 | Profile adapters for round belts | Ø 6,3mm |
| FBWSH1R080 | Profile adapters for round belts | Ø 8,0mm |
| FBWSH1R095 | Profile adapters for round belts | Ø 9,5mm |
| FBWSH1R100 | Profile adapters for round belts | Ø 10,0mm |
| FBWSH1R120 | Profile adapters for round belts | Ø 12,0mm |
| FBWSH1R125 | Profile adapters for round belts | Ø 12,5mm |
| FBWSH1R150 | Profile adapters for round belts | Ø 15,0mm |
| FBWSH1R180 | Profile adapters for round belts | Ø 18,0mm |
| FBWSH1R200 | Profile adapters for round belts | Ø 20,0mm |

Profile adapters for V-belts

| Order No. | Description Dimension | |
|-------------|--|-----------|
| FBWSH1K10 | Profile adapters for V-belts | 10x6 (Z) |
| FBWSH1K13 | Profile adapters for V-belts | 13x8 (A) |
| FBWSHSK17BP | Profile adapters for V-belts bluepower | 17 x 11,3 |
| FBWSH1K17 | Profile adapters for V-belts | 17x11 (B) |
| FBWSH1K22 | Profile adapters for V-belts | 22x14 (C) |

Profile adapters for special profiles on request

Joining Set CRIMP (steel reinforced)



Joining Set CRIMP* - for steel reinforced profiles

The new and improved CRIMP connection supports you to achieve perfect results when connecting belts with steel reinforcement.



Canning industry: Crimp Connection

A special design is the connection of belts with steel reinforcement. Here, the exposed tension member is connected with press sleeves and the resulting gap in the connection point is then filled again with material inserts. Using a moulding shoe and hot press, these are pressed and connected to the remaining material. Our RH-2 joining set is available for this purpose and provides you with the complete equipment and material for creating such a splice.



Carrying bag



CU crimps



inner and outer shell is supplied by the meter



Stripping hook for can cable



cable stripper cutter for can cable



Join exposed reinforcement with press sleeves



Fill the gap with material inserts



3 Placing in moulding shoe



Profile joined by hot press

for welding



Scope of supply CRIMP-Set RH-2

- 1 pc. Carrying bag
- 1 pc. Crimping tool RH-2
- 1 pc. Stripping hook
- 1 pc. Cable stripper
- 3m respectively polyester sleeves (outside/inside)
- 100 pc. CU crimps

Description

Crimp Joining Set RH-2 Ø 9,5 mm Crimp Joining Set RH-2 Ø 10 mm Crimp Joining Set RH-2 Ø 12 mm Crimp Joining Set RH-2 Ø 12,5 mm Order No. FBWRH2SET095 FBWRH2SET100 FBWRH2SET120 FBWRH2SET125

GENERAL

This welding technology provides perfect process control with the BEHAbelt HP01 hot press especially developed for belt profiles and the associated PPuls Element temperature control for sophisticated industrial production of a welded connection.

Thanks to the small design and a number of smart design details this hot press is perfectly suitable for on-site use and in confined spaces. The unit can be made upon request of the customer as a water- or air-cooled version.

HP01 is the best choice for the best welding results in particular for the production of overlap welds of belt profiles.



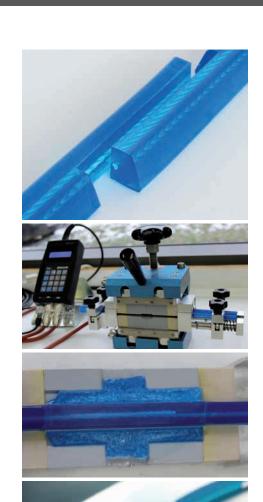
OVERLAP JOINTS

HP01 is particularly well suited for the production of butt and overlap welds for round and V-belts with a diameter from 6 to 20 mm and for V-belts from 6x4 to 22x14 mm. A suitable mould is used to press the splice under temperature and pressure influence thus producing a firm connection.

For overlap welding, a preparatory work step is required to prepare the welding point by cutting the belt to size. For this purpose the special cutting aid SH01 has been developed which ensures precise preparation for welding in repeatable accuracy. The overlap weld thus achieves the strength of approx. 50% of the reinforcement used. Overlap welding always results in a stiff welding area and therefore it is required to consider this fact when selecting the minimum pulley diameter.

TIMING BELTS AND FLAT BELTS

Hot press HP01 also offers a further additional benefit with regard to the option of welding timing belts and flat belts up to the max. width of 50 mm in using appropriate moulds. The respective mould delivery program is available. Punching technology for preparation of the connection is not available.





Overlap welding set with EErgo-Z



FZ03/1 & EErgo Z

Overlap welding set consisting of guide unit and EErgo Z

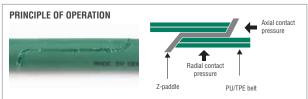
Product features FZ03/1

- Professional and easy to use guide clamps for overlap welding of reinforced profiles.
- Completely tool-free adjustment of the welding position for welding with Z-paddle.
- Uniform contact pressure over the entire welding surface of the profile for perfect welding quality
- Application range for round belts from 6-20mm and for V-belts from 8x5mm to 32x20mm.
- Safe handling with high repeat accuracy of the welding position thanks to toggle lever.
- Scope of delivery includes assembly option with table mounting and vice.
- Unique contact pressure in radial and axial alignment!

Product features EErgo-Z

- Robust, fibreglass-reinforced and ergonomic handle.
- Special Z-paddle for overlap welding with guide clamp FZ03/1.
- Correct temperature setting thanks to predefined buttons per welding material (PU 280 °C / Polyester 240 °C).
- Precise and stable temperature control for avoidance of temperature fluctuations under different welding conditions
- No adhesion of PU and TPE material thanks to Teflon-coated welding paddle
- Matching magnetic storage stand for safe storage of the welding paddle even when welding in the system





Compact guide unit for overlap welding by means of Z-paddle with vertical and horizontal contact pressure



Hot paddle welding tool EErgo with Z-paddle

Spare parts

Spare paddle EERGO ZOrder No. **FBWEE024**Dimensions (WxDxH):
approx. 100 x 65 x 6 mm



Scope of supply:

1 pc. Set FZ03/1 (consisting of: FZ03/1, EErgo Z, Storage stand with magnetic base, AS04, SE02, 1 Clamping jaw set of your choice, table mounting, Carrying case, Instruction manual)

 Description
 Order No.

 FZ03/1-Set
 FBWFZ03/1A

 8,0 kg, approx. 550 x 210 x 350 mm (WxDxH)

EErgo Z **FBWEE026** 450 g, approx. 210 x 210 x 55 mm (WxDxH) Power: 240 W

FZ03/1 Guide unit **MBWFZ03/1A** 3,3 kg, approx. 210 x 250 x 70 mm (WxDxH)

Overlap welding set with EErgo-Z

Clamping pieces for FZ03/1

1 set of clamping pieces consists of 2 parts

Features at a glance

- Please note each belt profile requires a matching set of clamping pieces.
- Therefore, please select the appropriate clamping pieces for the required profile geometry.
- On request, we also manufacture clamping pieces for PU special profiles.



for Round belts



for V-belts

Round belts

| Clamping piece for FZ03/1 Ø 6,0 mm | FBWKS1R060 |
|-------------------------------------|------------|
| Clamping piece for FZ03/1 Ø 6,3 mm | FBWKS1R063 |
| Clamping piece for FZ03/1 Ø 7,0 mm | FBWKS1R070 |
| Clamping piece for FZ03/1 Ø 7,9 mm | FBWKS1R079 |
| Clamping piece for FZ03/1 Ø 8,0 mm | FBWKS1R080 |
| Clamping piece for FZ03/1 Ø 9,5 mm | FBWKS1R095 |
| Clamping piece for FZ03/1 Ø 10,0 mm | FBWKS1R100 |
| Clamping piece for FZ03/1 Ø 12,0 mm | FBWKS1R120 |
| Clamping piece for FZ03/1 Ø 12,5 mm | FBWKS1R125 |
| Clamping piece for FZ03/1 Ø 12,7 mm | FBWKS1R127 |
| Clamping piece for FZ03/1 Ø 13,0 mm | FBWKS1R130 |
| Clamping piece for FZ03/1 Ø 14,0 mm | FBWKS1R140 |
| Clamping piece for FZ03/1 Ø 14,3 mm | FBWKS1R143 |
| Clamping piece for FZ03/1 Ø 15,0 mm | FBWKS1R150 |
| Clamping piece for FZ03/1 Ø 15,9 mm | FBWKS1R159 |
| Clamping piece for FZ03/1 Ø 17,0 mm | FBWKS1R170 |
| Clamping piece for FZ03/1 Ø 18,0 mm | FBWKS1R180 |
| Clamping piece for FZ03/1 Ø 19,0 mm | FBWKS1R190 |
| Clamping piece for FZ03/1 Ø 20,0 mm | FBWKS1R200 |

In the upper part of the transport bag there is a generally usable space for the side cutter SE02 and free compartments for 9 optional clamping piece pairs.

V-belts

| Clamping piece for FZ03/1 (M) 8x5 mm | FBWKS1K8 |
|--|-----------|
| Clamping piece for FZ03/1 (Z) 10x6 mm | FBWKS1K10 |
| Clamping piece for FZ03/1 (A) 13x8 mm | FBWKS1K13 |
| Clamping piece for FZ03/1 (B) 17x11 mm | FBWKS1K17 |
| Clamping piece for FZ03/1 (C) 22x14 mm | FBWKS1K22 |
| Clamping piece for FZ03/1 (D) 32x20 mm | FBWKS1K32 |



Robust transport case for the overlap welding set FZ03/1.



HS 400 & 800

Specially developed heating paddles for butt welding of conveyor belts. The design of the welding device allows easy and professional handling.

Product features

- HS400 for up to 400 mm belt width
- HS800 for up to 800 mm belt width
- Sophisticated design with positioning aids and stoppers ensures highly repeatable accuracy of weldings
- Clamping lever with locking device
- Robust and handy design of the individual components
- Exact temperature adjustment via control unit
- No adhesion of PU or TPE material due to Teflon-coated heating paddle
- Easy cleaning of the heating blade with a cotton cloth
- Reduced risk of injury during cutting due to practical
- Welding unit delivered in a mobile, stable transport box for easy use on site
- Smallest weldable belt length Lf = 800 mm



Robust and easy to use control unit for temperature control



Clamping bars with chamfer for optimum shaping of the welding bead



Insert bar for repeatable welds



Easy removal of the welding bead with the supplied tool



Scope of supply:

1 pc. HS 400-Set (consisting of HS-BOX, HS400, FT400, Bead remover, insert-bar and transport case 400)

1 pc. HS 800-Set (consisting of HS-BOX, HS800, FT800, Bead remover, insert-bar and transport case 800)

Description Order No. HS400 Welding set in case FBWHS400 35,0 kg, approx. 50 x 95 x 30 cm (WxLxH)

HS800 Welding set in case FBWHS800

48,0 kg, approx. 50 x 135 x 30 cm (WxLxH)

Individual components:

Power: 2,3 kW / 230 V AC

Power: 3,2 kW / 230 V AC

FBWHSB01 HS BOX (Control unit for HS400/800) 1,2 kg, approx. 18 x 20 x 15 cm (WxLxH) Power: max. 3,2 kW / 230V AC

FBWHS400S01 HS400 (Heating paddle 400mm) 1,2 kg, approx. 8 x 60 x 17 cm (WxLxH)

HS800 (Heating paddle 800mm)

FBWHS800S01 1,7 kg, approx. 8 x 100 x 17 cm (WxLxH)

Power: 3,2 kW / 230 V AC

HS400S (Heating paddle 400mm) FBWHS400S02 1,2 kg, approx. 8 x 60 x 17 cm (WxLxH) Power: 2,3 kW / 230 V AC

HS800S (Heating paddle 800mm) FBWHS800S02 1,7kg, approx. 8 x 100 x 17 cm (WxLxH)

FT400 (Joining table for HS400) FBWHS400FT01 12,5 kg, approx. 28 x 55 x 20 cm (WxLxH)

FT800 (Joining table for HS800) FBWHS800FT01

20,0 kg, approx. 28 x 95 x 20 cm (WxLxH)

Heating paddle with joining table

WELDING TECHNOLOGY FOR ELASTIC MONOLITHIC BELTS

Elastic monolithic PU conveyor belts from BEHAbelt offer new fabrication possibilities. Due to the lack of traction layers joining by finger welding is no longer necessary, as the monolithic belt has a homogeneous design – even in the weld seam.

The welding device HS from BEHAbelt is a simple, handy, reliable and cost-effective tool for butt joining of monolithic belts. Depending on customer requirements, two versions are available with the joining table and heating paddle for max. belt widths up to 400 and up to 800 mm.

The simple operation in combination with the intuitive production aids enables a repeatable and high-quality connection of the belts.

Optional adapter plates ensure precise positioning and clamping of the butt ends to be welded.



Compact and mobile: the practical HS welding tool for monolithic conveyor belts

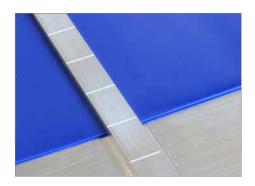




Locking pins ensure the correct positioning of the adapter plates on the joining table.

Adapter plates for HS400 & 800

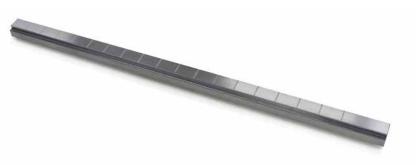
| Adapter plates Spikes (HS400) | FBWHS4APSP |
|-------------------------------|------------|
| Adapter plates Spikes (HS800) | FBWHS8APSP |
| Adapter plates AT5 (HS400) | FBWHS4APT5 |
| Adapter plates AT5 (HS800) | FBWHS8APT5 |



Precise and aligned insertion of the belt ends.



For optimum alignment and clamping of the belts to be welded in the joining table, optional adapter plates for more complex structures are available (not included in the standard product range).



A robust aluminium bar supports the precise insertion of the belt ends and ensures a high repeat accuracy (included in the standard scope of delivery).

Spare parts & Accessories





RS02-Adapter

Clamping jaw adapter plastic or aluminium for friction welding machines RS02 and RS02 CORDLESS

Order No.

FBWAPRS02

FBWAPRS02A



O-Rings for RS02-Adapter & clamping jaws

O-rings for fixing the clamping jaws and adapters in RS02 and RS02 **CORDLESS**

black, rubber, suitable for all RS clamping jaws and adapters

Description 0-Rings for

Order No.

clamping jaws (10 pcs.) MNORING01



Assortment box

Assortment box for clamping jaws for RS02 / RS02 CORDLESS

with 9 pockets, transparent Box



RSH01 & RSH02

Belt tensioner for tensioning of round and V-belts

RSH01 450 mm (18") tensioning distance, suitable to >1m belt length.

RSH02 900 mm (35") tensioning distance, suitable to >2m belt length.

Description

Order No.



Description

RS02-Adapter plastic

RS02-Adapter Alu

Order No. FBWSORT9



FBWRSH01 FBWRSH02



Torque wrench

RS Torque wrench 7 / 4Nm

Description Torque wrench

Order No. FBWSW7X85



Protective cap for clamping lever RS02

For external thread of clamping lever on RS02 and RS02 CORDLESS

Description Protective can for clamping lever Order No.

MFKKB01



Battery for RS02 CORDLESS

Spare battery for friction welding machine RS02 CORDLESS 18V / 4Ah (72Wh)

Description **RS02 Battery**

Order No. FBWRS02AK18V



Charging unit for **RS02 CORDLESS**

Charging unit 4A / 230V for RS02 CORDLESS

Order No. Description LG4A Charging unit FBWRS02LG4A2



Spare parts & Accessories



EM01 Deburring knife set and spare blades

Knife for removing the welding bead from conveyor belts incl. various replacement blades



SH01 Spare blade

Spare blade for belt cutter SH01

DescriptionOrder No.Deburring knife SetFBWEM001Spare blades (10 pcs.)FBWEM001B12B 12 mm

Description SH01 spare blade Order No. MREKSH01



AS02

Scissors small with stop

90° cut for round belts up to \varnothing 12 mm.

Description AS02

Order No. FBWAS02



AS03

Scissors big with stop

For 90° cut and angle cut.

Description AS03

Order No. FBWAS03



AS04

Scissors big with angular stop (movable)

Scissors with movable angular stop For 45°, 60°, 75°, 90°, 105°, 120° and 135° cuts.

Description AS04

Order No. FBWAS04



SE02

Edge cutter with special blade

to remove the welding bead accurately.

Description SE02 Order No. FBWSE02



SZ01

Pliers for fitting connectors

Description SZ01

Order No. FBWSZ01



Ratched cutter

For cutting very hard plastics e.g. PP, Nylon (PA), TPX, TPEE

DescriptionMandrel Scissors

Order No. FBWRCM01





Paddle (MultiTC)

Spare paddle for welding tool "MultiTC"

Dimensions (HxWxD): 35 x 35 x 2 mm

DescriptionSpare paddle MultiTC incl. assembly paste

Order No.

FBWMTC1

Order No.

FBWTC72



Paddle (MultiTC)

Spare paddle for flat profiles for welding tool "MultiTC"

Dimensions (HxWxD): 25 x 70 x 2 mm

DescriptionSpare paddle MultiTC incl. assembly paste

Order No.

FBWMTC2



Paddle (SG02/03)

Spare paddle for welding tools "SG02/03"

Dimensions (HxWxD): 35 x 35 x 2 mm

DescriptionSpare paddle SG02/03 incl. assembly paste



Paddle (SG02/03)

Spare paddles for flat profiles for welding tools "SG02/03"

Dimensions (HxWxD): 22,5 x 75 x 2 mm

DescriptionSpare paddle SG02/03
incl. assembly paste

Order No.

FBWTC76



Paddle (EErgo 60)

Spare paddle for welding tool "EErgo 60"

Dimensions (HxWxD): 43 x 60 x 6 mm

DescriptionSpare paddle EErgo 60 incl. assembly paste **Order No. FBWEE002**



Paddle (EErgo 90)

Spare paddles for flat profiles for welding tools "EErgo 90"

Dimensions (HxWxD): 43 x 90 x 6 mm





Paddle EErgo Z

Spare paddle Z for paddle welding tool "EErgo"

Dimensions (BxTxH): approx. 100 x 65 x 6 mm

DescriptionSpare paddle EErgo Z
incl. assembly paste

Order No.

incl. assembly paste FBWEE024



EErgo protection kit

Combustion protection for stationary operation

Consisting of holder and metal housing

Description Order No. EErgo holder FBWEEZ001 EErgo metal housing FBWEEZ002



KS75

Bench vise with ball joint for paddle welding tools

Fix your welding tool to facilitate stationary joining of the belt profiles easier.

Description KS75 Order No. FBWKS75



Storage Stand

Storage stand with magnetic base for placing of EErgo welding tool

Note: EErgo not included in scope of delivery

DescriptionStorage stand with magnetic base

Order No.

FBWEEZ003



Carrying bags

"M": 28 x 29 x 5 mm "XL": 30 x 24 x 11 mm



Stripping hook for can cable

For processing the CRIMP connection; for pulling off the profile around the steel tension member

DescriptionCarrying bag "M"
Carrying bag "XL"

Order No. FCT000000002 FCT000000003 **Description** Stripping hook Order No. FBWAH01



Cable stripper cutter for can cable

90° cut for round belts with steel reinforcement up to \varnothing 12 mm.



Cutting adapter HS

For cutting the belts directly in the welding unit HS400/800

DescriptionCable stripper

Order No. FBWAW01 **Description** Cutting adapter

Order No. FBWHSSA01



Special heating paddle HS400S/800S

Special design for welding belt lengths from Lf = 500mm



FZ01 knurled nut

Plastic or metal replacement nut (M5)

Description HS400S Heating paddle HS800S Heating paddle Order No. FBWHS400S02 FBWHS800S02 **Description**FZ01 nut plastic
FZ01 nut metal

Order No. MDFZ01001 MDFZ01002



Hexagon socket spanner

For loosening the clamping jaws on the RSX01 Mandrel Welder. Plug-in dimension 7 mm

DescriptionHexagon socket spanner

Order No.

FBWSW7X125

Controllers for vulcanizing



Our PPuls Controllers are part of a vulcanizing and hotpress system, designed to replace standard large control cabinets.

The main function is to control the vulcanizing cycle with temperatures and cycle time.

The compact size of the controller along with the broad functionality of the unit makes the PPULS controller a good option when replacing controllers on just about any press.

PLEASE SEND TO: Fax: +49 7684 907 101 E-Mail: tech@behabelt.com **Element Extended** Extended 30A Relaisbox Operating voltage of the heating 115 V 208 V **(**1) **(**1) 230 V **(**1) D 400 V **(**1) **(**1) Ε 480 V F 600 V Different instructions: Power consumption per heating plate and per Phase $\leq 5 A$ Н $\leq 9A$ (2) ≤ 16A Internal interconnection of the heating single phase 3-phase star connection **(**4) K **(**3) **(**3) (center connection accessible) 3-phase star connection (center connection not accessible) 3-phase delta connection Mains connection "Schuko" (3-pole) **(**5) **(**5) **(**6) NEMA 5-15 (3-pole) CEE 16A (5-pole) Q CEE 32A (5-pole) NEMA L6-30 (3-pole) NEMA L15-30 (4-pole) Different instructions: Sensor Type Type-K thermocouple

(1) Only in combination with J

Type-J thermocouple

- (2) Only in combination with A or C
- (3) Only if the total current of all phases \leq 16A and A or C
- (4) Only if the total current of all phases \leq 5A and A or C
- (5) With adapter FBEC11 and only if the total current of all phases \leq 16A and C
- (6) Only in combination with A





JOINING TOOLS FOR MANDRELS IN HOSE MANUFACTURING

BEHA Mandrel Welders are specially developed for welding mandrels made of PP, nylon (PA), TPEE and TPX. They are characterised by fast and error-free operation as well as simple and ergonomic handling.

More informationen: www.mandrel-welder.com





RSX01

With the RSX01 Mandrel welder, mandrels can be welded quickly and precisely. The welding parameters are optimally matched to the common materials, so that a high repetition accuracy is guaranteed with the simplest operation. As the splice is made by means of frictional heat, no long heating times are necessary.

Features

- Very quick connection of the hose mandrel ends by friction welding
- No danger of burns or fire
- Process reliability due to optimised welding parameters and exchangeable clamping jaws
- Can be used as manual or stationary solution
- Perfect weld joints



EErgo Mandrel

Practical and handy hot paddle welder with predefined temperatures for splicing mandrels made of PP, nylon, TPEE and TPX. The heating time is only 5 minutes and remains constant even with a wide range of ambient temperatures.

Features

- Fiberglass-reinforced ergonomic housing
- Easy operation: 1 Button for PP, 1 Button for Nylon, TPEE and TPX
- Alignment of mandrel ends with a guide clamp
- Ergonomic, user-friendly Design



LubeSite® automatic refill lubricators

Light construction



LubeSite® Series 200

LubeSite® 202, 205 and 260 within the clear-sight cages are the standard lubricators for most bearing applications.

They only supply lube oil, when the bearing is moving and therefore protect the bearing from over and under lubrication.

Units are assembled with medium sized springs. Three additional light and heavy springs are each included in a box of ten. Model 260 is delivered in a single package with additional springs (light, heavy).

Area of operation: -25...+120° C

Heavy construction



LubeSite® Series 300

LubeSite® 302, 305 und 360 are designed for bearing housings which operate under static conditions, vibration and centrifugal forces. The strong metal castings compensate for the heavy loads.

The main application areas are eccentric presses, compactors, stone mills, construction machines, pumps, etc.

Units are delivered with medium sized springs. Three additional light and heavy springs each are included in a box of ten. Model 360 is delivered in a single package with additional springs (light, heavy).

Area of operation: -25...+120° C

For chemically aggressive media



LubeSite® Series 500

LubeSite® 502, 505 and 560 is resistant to aggressive chemical agents. The light metal cases are made of special nickel-chrome double platens. The seals are plated with chemical resistant VITON.

The 500 series is a tried and tested product for many years in the chemical, food and nuclear industry.

Units are constructed with medium springs. Three additional light and heavy springs each are included in a box of ten.

Model 560 is delivered in a single package with additional springs (light, heavy)

Area of operation: -25...+120° C

For high temperatures



LubeSite® 704

LubeSite® 704 is the only automatic lubricator on the market, that can be used in ambient and high temperature applications. The case is made of light metal, the body is made of borosilicate glass, the pressure spring is made of high quality steel and the sealing is made of temperature consistent VITON.

LubeSite® 704 is used with best results within roller mills, plants, dehumidifi ers, etc. Model 704 is delivered in a single package with one additional heavy spring.

Area of operation: -25...+230° C



possible applications

- Automotive industry
- Transport and aviation
- Car wash plant
- Fertiliser production
- Food industry
- Dairy production
- Printing plants
- Ceramic industry
- Paper manufactures
- Textile industry
- Wood industryTobacco production
- Beverage production
- Deverage production
- Mining industry
- Oil production

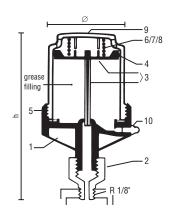








| | low | medium | strong | extra strong |
|---------------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Туре | Spring resilience N ten | sioned/unstressed | | |
| 202, 205, 260 | 26/13 N 30/15 N 84/42 N | 40/20 N 44/22 N 130/65 N | 54/27 N 72/36 N 140/70 N | 98/49 N 90/45 N 156/78 N |
| 302 305 360 | 26/13 N 30/15 N 84/42 N | 40/20 N 44/22 N 130/65 N | 54/27 N 72/36 N 140/70 N | 98/49 N 90/45 N 156/78 N |
| 302 305 360 | 26/13 N 30/15 N 84/42 N | 40/20 N 44/22 N 130/65 N | 54/27 N 72/36 N 140/70 N | 98/49 N 90/45 N 156/78 N |
| 704 | _ | 80/40 N | 158/79 N | _ |



1 Body 2 screwed plug
3 Plunger and rod
4 O-Ring 5 Plunger and rod
6 Low spring 7 Medium spring
8 Strong spring
9 Clear case 10 Grease fitting