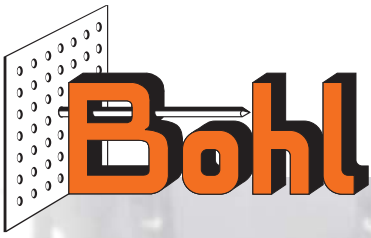




**Fixing systems**





## With us, insulation work becomes enjoyable

For almost three decades, we have been a leading enterprise in innovative systems for technical insulation fixing and in accessories for air-conditioning and ventilation technology.

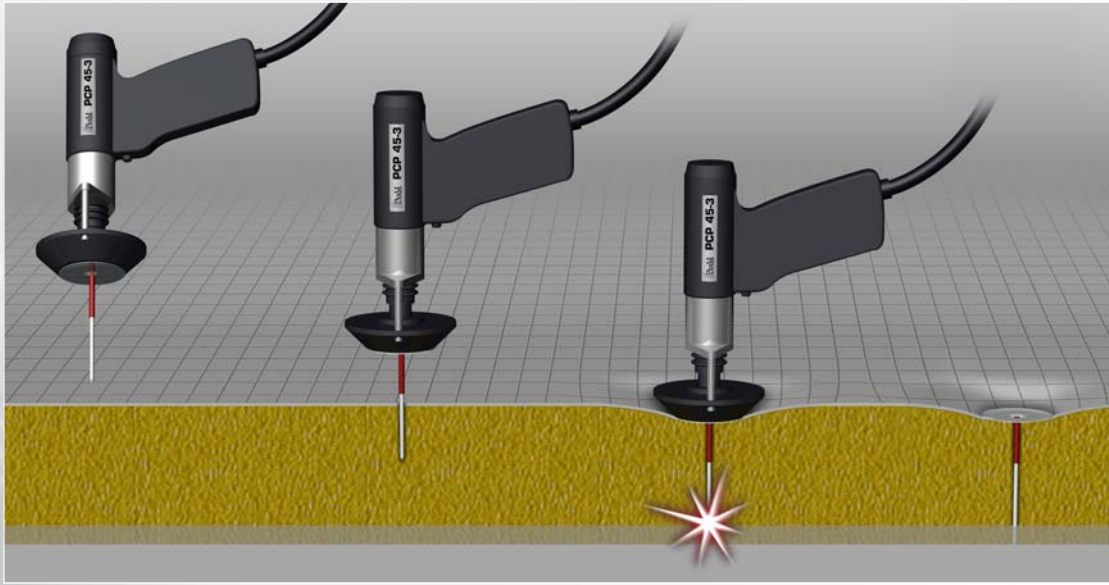
Close cooperation with our business partners makes it possible for us to offer a service that is flexible and that can respond to meet any requirement.

Our products and services orientate themselves to the increasing demands of the market and are continuously brought up to the most up-to-date technical standards.

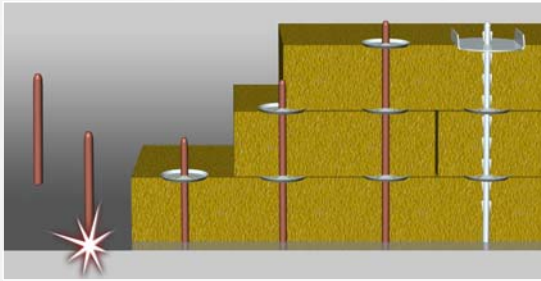
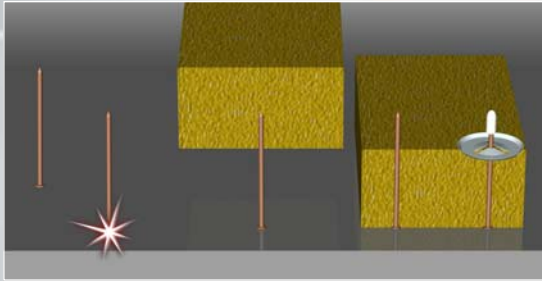
It is not only the high quality standard of our products, but also, in particular, our knowledgeable support which is based on a long experience that represents a genuine competitive advantage for our customers.

With this brochure, we want to provide you with an initial overview of our delivery program of fixing systems.

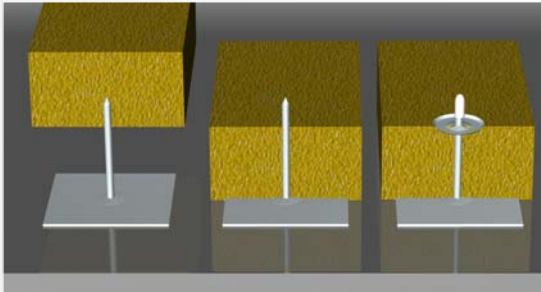
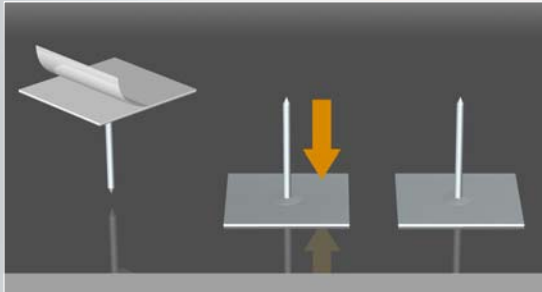




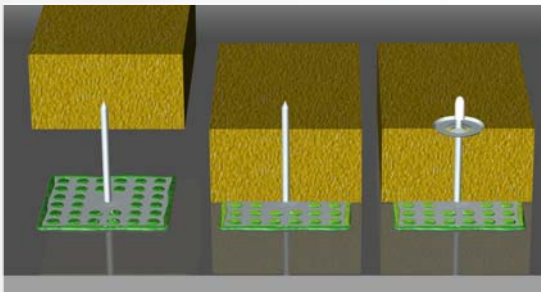
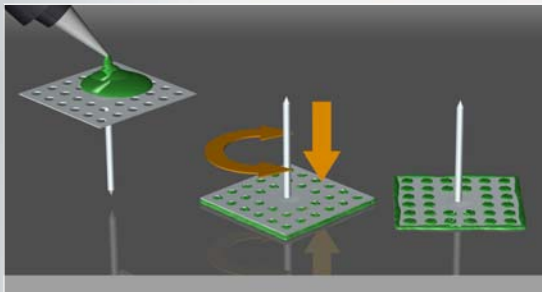
Fixing with Clip-Pin welding pins



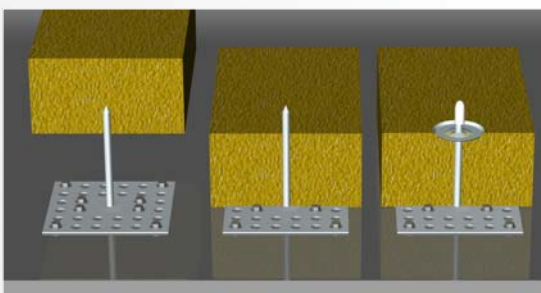
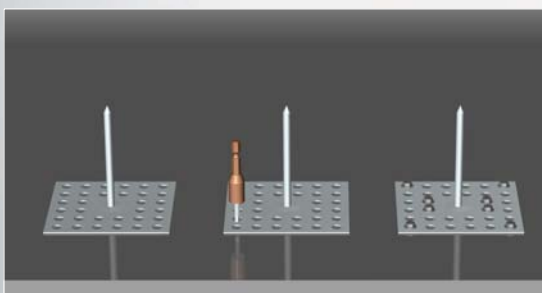
Fixing with welding pins



Self-adhesive fixing with CLAVU-fix



Adhesive fixing with CLAVU-por



Screw or rivet fixing with CLAVU-por

# Stud welders

## BOHL GS 35

The easy-to-use entry model is designed exclusively for the fixing of insulation welding pins. Both the conventional welding pins (CLAVU-hot) as well as the combined Clip-Pin pins can be used. The LED indicators enables a problem-free monitoring of the functions.

Working range	: CLAVU-hot Ø 2–3 mm Clip-Pin Ø 2–2,7 mm
Installation speed	: 6–10 pins / min
Power source	: Capacitor 33.000 µF
Mains supply	: 230 V 50/60 Hz 10 AT switchable to 115 V
Dimensions	: 190x240x350 mm
Weight	: 13 kg (stable steel housing)



## BOHL GS 45-3

Our tried and tested, highly efficient welding equipment is the result of constant ongoing research and development. Simply changing the welding guns enables this machine to be used for the widest range of applications. Depending on the selection of different components, all standard welding elements can be set using the capacitor discharge procedure. A digital display and the integrated microprocessor control system guarantees easy handling and control of all functions.

Working range	: Clip-Pin Ø 2–2,7mm CLAVU-hot with ignition tip or cone head Ø 2,0-3,0 mm Threaded studs/sleeves Foamglass pins
Installation speed	: 15–20 pins / min 6–12 studs / min
Power source	: Capacitor 66.000 µF
Mains supply	: 230 V 50/60 Hz 10 AT, switchable to 115 V
Dimensions	: 180x250x420 mm
Weight	: 17 kg (stable steel housing)



## BOHL GH 95

Handy and highly efficient drawn-arc welding equipment for special insulation work applications heat power stations, industrial plants, shipyards, etc. The equipment only requires a mains voltage of 230 V and is, due to its robust design, also suitable for application on construction sites. A digital display and the integrated microprocessor control system guarantees easy handling and control of all functions.

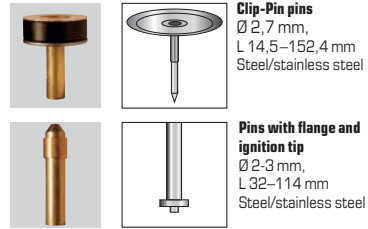
Welding process	: Drawn-arc
Power source	: Capacitor (electrolyte)
Capacity	: 99.000 µF
Welding time	: 10 ms
Welding range	: Ø 3-6 mm
Installation speed	: depending on application up 20 studs/ min
Mains supply	: 230 V, 50/60 Hz, 10/16 AT switchable to 115 V
Weight	: 24 kg (stable steel housing)





## PCP 35

Welding gun for use with insulation welding pins (CLAVU-hot / Clip-Pin). The changeover is accomplished easily by changing the chucks. The sound absorbing tube which is removable by hand also serves as a spark protection and blank holder for the Clip-Pins.



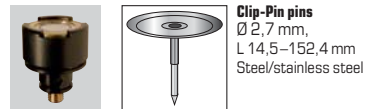
**Clip-Pin pins**  
 Ø 2,7 mm,  
 L 14,5–152,4 mm  
 Steel/stainless steel

**Pins with flange and ignition tip**  
 Ø 2-3 mm,  
 L 32–114 mm  
 Steel/stainless steel



## PCP 45-3

Special welding gun for use with Clip-Pin insulation welding pins. A special microswitch triggers the welding operation and guarantees a consistent welding quality. It has an integrated spring pressure adjustment system for insulation with high bulk density (e.g. DUCTROCK).

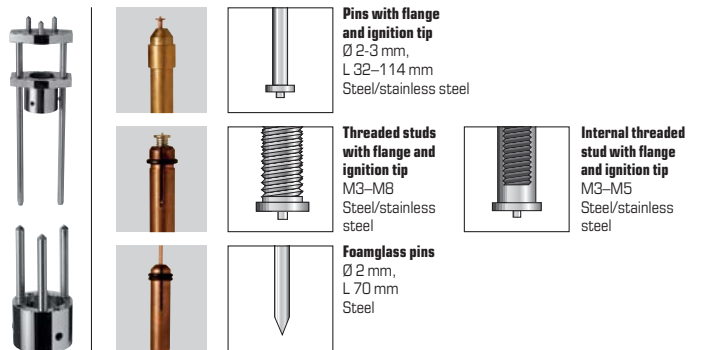


**Clip-Pin pins**  
 Ø 2,7 mm,  
 L 14,5–152,4 mm  
 Steel/stainless steel



## PMK 20

Special welding gun for use with welding studs with flange and ignition tip as well as CLAVU-hot insulation welding studs. By employing a special chuck, welding pins can also be used for fixing "Foamglass" plates.



**Pins with flange and ignition tip**  
 Ø 2-3 mm,  
 L 32–114 mm  
 Steel/stainless steel

**Threaded studs with flange and ignition tip**  
 M3-M8  
 Steel/stainless steel

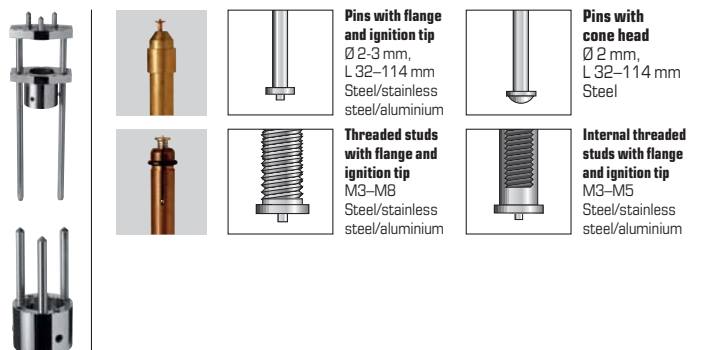
**Foamglass pins**  
 Ø 2 mm,  
 L 70 mm  
 Steel

**Internal threaded stud with flange and ignition tip**  
 M3-M5  
 Steel/stainless steel



## PMH 08

Special welding gun with lifting magnet for the gap welding procedure. The gun is also suitable for use with welding pins and studs made of aluminium as well as cone head pins made of steel. Optimal lift-off and spring tension adjustment with the calibrated locking system.



**Pins with flange and ignition tip**  
 Ø 2-3 mm,  
 L 32–114 mm  
 Steel/stainless steel/aluminium

**Threaded studs with flange and ignition tip**  
 M3-M8  
 Steel/stainless steel/aluminium

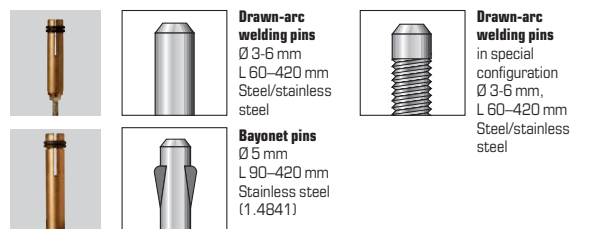
**Pins with cone head**  
 Ø 2 mm,  
 L 32–114 mm  
 Steel

**Internal threaded studs with flange and ignition tip**  
 M3-M5  
 Steel/stainless steel/aluminium



## PMH 95

Special welding gun with drawn-arc system. With this welding gun, the most specialised welding elements can be employed depending on the use of the corresponding chucks. By using a special stand, welding pins up to a length of 420 mm can be fixed.



**Drawn-arc welding pins**  
 Ø 3-6 mm  
 L 60–420 mm  
 Steel/stainless steel

**Bayonet pins**  
 Ø 5 mm  
 L 90–420 mm  
 Stainless steel  
 (1.4841)

**Drawn-arc welding pins**  
 in special configuration  
 Ø 3-6 mm,  
 L 60–420 mm  
 Steel/stainless steel

# Fixing elements

## Clip-Pin insulation welding pins

The combination of welding pin and safety disc enables the fixing of insulation on sheet metal in a single process.

Thanks to the shank insulation, insulation with aluminium lamination or wire gauze can easily be fixed.



Configuration	: Insulation pin and safety clip combined
Pin	: Ø 2,7 mm insulated Ø 2,7 mm uninsulated
Material	: Copper-plated steel Stainless steel
Clip	: Ø 30 mm Zinc-plated steel
Lengths	: 14,5–152,4 mm

## CLAVU-hot welding pins

CLAVU-hot welding pins are particularly used during pre-assembly or in case of special requirements (e.g. additional wire mesh sleeve) and are available in the widest range of materials.



Configuration	: Flange and ignition tip Cone/hemisphere head
Material	: Steel, stainless steel, aluminium
Pin	: Ø 2,0 und 3,0 mm
Lengths	: 32–114 mm

## Drawn-arc welding pins

Drawn-arc welding pins are used in case of special requirements, especially for heat and fire-resistant insulation. Thanks to the lengths of up to 420 mm, the pins are also suitable for multi-layer, splice-staggered applications.



Configuration	: Reduced point studs available in numerous options (with thread, bayonet, etc) Cone/hemisphere head
Material	: Steel, stainless steel, 16Mo3, etc
Pin	: Ø 3,0–6,0 mm
Lengths	: 65–420 mm

## Safety discs

Safety discs are required with all fixing pins (e.g. CLAVU-hot / CLAVU-fix CLAVU-por as well as drawn-arc welding pins) and ensure a secure hold of the insulation.



Configuration	: Standard zinc-plated/stainless steel Ø 30 mm / 38 mm Self-locking
	: Clamping plates stainless steel 80 x 80 mm
	: Twist-on clips stainless steel 30 x 40 mm 45 x 60 mm

## Further welding elements

Through the use of threaded studs and internal threaded sleeves during demanding assembly and insulation work, enormous savings in time and cost can be realised, by eliminating work processes such as drilling, stamping, thread-cutting and riveting.



Configuration	: Threaded studs Ø M3–M8 Internal threaded sleeves Ø Internal M3–M5
Material	: Zinc-plated steel Stainless steel Aluminium

## Protective caps

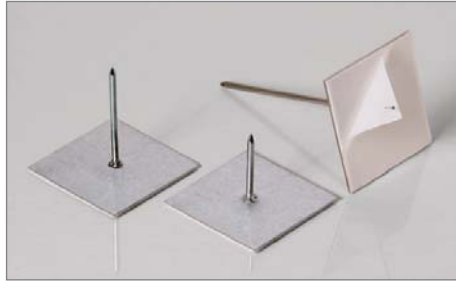
Protective caps and cap clips are put on with the fixing pins (e.g. CLAVU-hot/CLAVU-fix/CLAVU-por) for aesthetic reasons and reduce the risk of injury due to the projecting nail tips.



Configuration	: Protective caps PVC Transparent and white Cap clips Stainless steel/spring steel Aluminium / stainless steel
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## CLAVU-fix self-adhesive pins

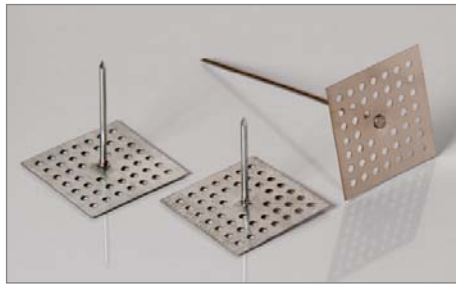
CLAVU-fix self-adhesive pins enable a quick and uncomplicated fixing of insulation on smooth and clean surfaces. The high grade adhesive on the base, ensures that these pins provide a secure fixing for the insulation.



Configuration	: Fixing pin with self-adhesive base plate and safety disc
Base plate	: Hot-dip galvanised steel plate, stainless steel
Pin	: Ø 2,7 mm Steel, stainless steel, aluminium
Lengths	: 25 mm–203 mm
Safety clip	: Ø 30 mm / 38 mm Zinc-plated steel / stainless steel

## CLAVU-por fixing pins with perforated base plate

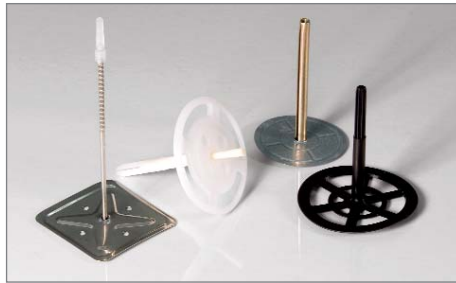
CLAVU-por fixing pins enable a quick and uncomplicated fixing of insulants on smooth, rough and uneven surfaces (e.g. concrete, masonry, metal). The fixing is made by means of CLAVU-dis special adhesive or with screws or rivets.



Configuration	: Fixing pin with perforated base plate and safety disc
Base plate	: Hot-dip galvanized steel plate / stainless steel
Pin	: Ø 2,7 Steel, stainless steel, aluminium
Lengths	: 25 mm–203 mm
Safety clip	: Ø 30 mm / 38 mm Zinc-plated steel / stainless steel
Adhesive	: Cartridge 310 ml

## Fixings for insulation materials

Insulation fixings made of plastics, steel or stainless steel are used for fixing insulation boards in the wall area to concrete, bricks and other high or medium density building materials.



Configuration	: Plastic fixings with or without expansion nail Metal combi-holder comprised of preinstalled screw nail, cover plate and plastic fixing
Lengths	: For insulation thicknesses of 20–180 mm
Drill hole	: Ø 6, 8, 10 mm

## Accessories for insulation

Special stamped, bent and moulded parts offer optimal, individual and practical solutions for the various requirements of the insulation industry.



Configuration	: Toggle catches in different materials, forms and sizes Self-drilling, self-tapping screws with hexagonal head or square socket recess Matting hooks zinc-plated and stainless steel
---------------	---

## Identification according to DIN

A clear identification of the pipelines according to the fluid conveyed is necessary in interest of safety, correct repair and effective fire-fighting. It should point out dangers in order to avoid accidents and damage to health.



Configuration (tapes)	: Identification tapes according to DIN 2403
Material	: Tissue tape
Dimensions	: 90 mm x 25 m / roll
Configuration (labels)	: Identification labels according to DIN 1946 / DIN 2403
Material	: PVC films
Dimensions	: Different standard sizes
Colour	: By the material types according to RAL

## Insulant manufacture

The mineral fibre insulants have many uses for different applications in thermal, acoustic and fire protection insulation. All products are specially made to individual requirements.



Configuration	: Cut pieces, special forms and stamped parts made to specification
Coating	: Fleece, glass filament fabrics, foils One- or double-sided as well as selfadhesive
Bulk density	: According to specification
Insulation thickness	: 15–100 mm



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