PORTFOLIO





BUHNEN ADHESIVE SYSTEMS



Small and large hot glue guns, accessories and suitable adhesives.



Large selection of melters, accessories and adhesives.





Compatible spare parts for all well-known manufacturers.





Drum and bag melters, accessories and matching adhesives.





Competent advice and training.





Worldwide-One team for your project.

10 reasons for



One contact person for all adhesive-related questions

N BÜHNEN

N BÜHNEN

A good connection from the start





Heinrich Bühnen (1887 - 1953)

He founds the company in 1922. He develops BÜHNEN from a workshop to a manufacturing company. The company founder is described by his family as a tinkerer, but not a dreamer. He uses his inventive spirit on the basis of well-founded knowledge. During his time, the foundation stone for future connection technologies is laid.









Heinz Bühnen (1920 - 2009)

He takes over the business as managing director after the death of his father. With him, the BÜHNEN Group develops from a manufacturing company to a fixing specialist in many sectors. His family describes him as a pioneer and a doer with the courage to take risks. Driven by his commercial intuition, he was always on the lookout for innovations. In the 1970s, he lays the foundation for hot-melt adhesive technology.





Constanze Wriedt

After the death of Heinz Bühnen in 2009, the family shares in the holding company were initially taken over by his wife Ilse Bühnen, and then by her daughter Constanze Wriedt in 2011. With the children Nina and Jannes of Constanze and Christian Wriedt, the fourth generation stands for the continuity of the house of Bühnen.

Open for ideas and innovations - the Bühnen Group develops its perspectives for the entrepreneurial future.

Welcome!

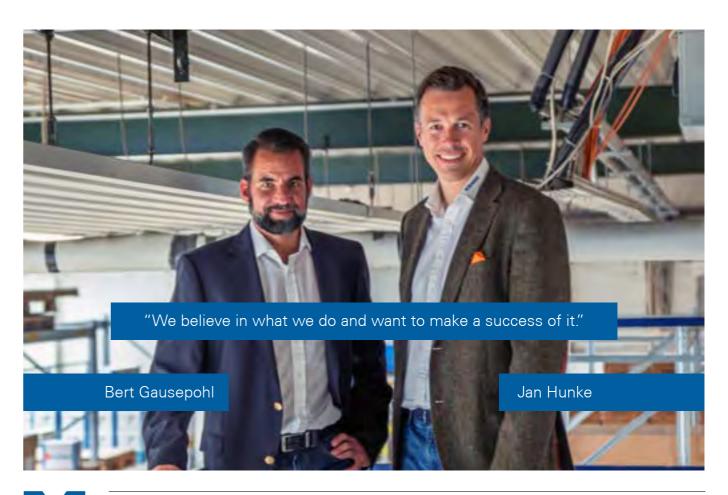
Today, BÜHNEN is a specialist in the niche – what does that mean for our customers?

BÜHNEN provides the solution for everyone who uses hot-melt adhesives in their manufacturing process, regardless of the industry in which the solution is needed. We supply you with the right system technology and the right accessories, as well as the right adhesive - so that you can carry out your bonding successfully and safely. BÜHNEN offers you the benefit of understanding your entire manufacturing process and using this knowledge to your advantage. The broad range of applications and industries in our portfolio is a plus that you will not find with other providers. We take a creative approach to working out the best possible solution for your application, and also offer the widest portfolio of adhesives and system technology. Our unique strength lies in the versatility and flexibility of our solutions.

> "Above all, you need enthusiasm for the end products and the associated processes." Only in this way can we develop, offer and advance solutions for our customers."

At first glance, gluing with hot-melt adhesive is a simple process. The hot-melt adhesive is melted in a device and applied in the liquid state. This is followed by the joining of the components to be bonded. The complicated thing about the mundane topic of gluing is keeping an eye on the entire process. In the end it is not only the many factors of the manufacturing process, but also the further transport and the final use of your product that have to be taken into account. BÜHNEN is the specialist to find the best solution for you. What do you want to achieve as our customer? When we know your goal, we ask the right questions and deliver the best possible result for safe and optimal bonding of your components. For us, the focus is not on our products, but on the best result for our customers.

Our goal is to find a solution for all challenges, to optimise the coordination of systems and adhesives for our customers, and to offer everything from a single source. BÜHNEN is a competent partner for all steps of gluing. If there are problems, you don't have to ask the plant engineer or adhesive manufacturer to find a solution. With BÜHNEN at your side, you have a contact who will help and support you.



PAGE 4 PAGE 5

N BÜHNEN

together to achieve our goal



Our laboratory

With BÜHNEN you have the right partner at your side in every respect. We don't just sell you adhesives – we are also process and application experts: also for your process.

Our application technology for hot-melt adhesives forms the interface between your requirements for the respective applications and the technical bases of hot-melt adhesives. We are on-site not only at your premises, but also in our own application laboratory.

The basis for this is, besides our employees, our unique adhesive database with technical data and relative comparisons of over 4,000 known hot-melt adhesives in every delivery form and on every chemical basis on a wide variety of substrates. For this purpose, detailed tests are carried out to characterise each hot-melt adhesive in order to understand and compare its properties and performance. This extensive and daily growing database allows us to select the best adhesive for your specific needs.

Each project is unique. We therefore offer tailor-made solutions to find and recommend the perfect combination of adhesive and appropriate application technology for your requirements.

Your advantage? Based on our knowledge and the adhesive databank, we perform application and practical tests on your behalf, which we carry out with our adhesives on your samples.

As a result, there is no interruption or downtime in your production, as we carry out these tests in advance. By the time the adhesive arrives at your facility, you can be very sure that it will work. This means that we avoid the effort and costs for you involved in testing new adhesives. Our testing options include ageing simulation through exposure to changing climates, or the determination of load limits and adhesive strengths using tensile shear tests. By means of these process simulations, we ensure that our products also meet the requirements in their application under real conditions.

Rely on our expertise and experience in the field of adhesives to optimise projects and meet your requirements. Our goal is to make your processes more efficient – both economically and ecologically: Test us!



Our service team

Maintenance

Unplanned failure of technology and even production (line) stops are unpleasant scenarios that can be prevented by regular maintenance.

This is carried out by specialists. The testing and optimisation of device-specific properties, as well as extensive cleaning, promote an increased service life of the high-quality BÜHNEN technology.

Repairs

We are happy to carry out repairs that are not economical or practical to perform on site in our own workshops in Bremen, Germany or in Wroclaw, Poland. We offer a qualified service to ensure the longevity of our own application technology. You can also use this service for the system technology of other manufacturers. Our competent service team is ready to help you resolve your concerns.



because bonding can be so easy.

Cost control

- √ There are no acquisition costs BÜHNEN provides you with the latest equipment technology for your production.
- ✓ A flat-rate maintenance fee for yearly maintenance of the system by BÜHNEN specialists is included.
- √ Transparency in the calculation model avoids hidden costs.
- ✓ With new systems you increase your process stability and reduce your overall costs.

At the end of the contract, you decide whether or not you wish to extend the contract. If you do not renew the contract, simply return the melter to us. If you extend your contract, you will once again benefit from the latest technology.

Simplicity

- ✓ easy4you can be flexibly designed exactly as your production environment requires.
- √ A once-yearly professional maintenance of your system is included. All you have to do is set the date we'll take care of the rest.
- ✓ Our service team is also available to you outside of the annual maintenance.

Avoid lengthy decision-making paths or approval processes for new investments - easy4you enables you to purchase new equipment technology at a price per kilo.

Increase in quality

- ✓ In our application technology laboratory, we examine your substrates and bonds once a year free of charge. You will, of course, receive a detailed laboratory report on the findings for your documentation.
- ✓ As part of the maintenance, we check the device parameters and optimise them if necessary to produce the best possible bond.
- \checkmark Reduce waste by achieving higher bonding quality a strong argument economically and ecologically.

Based on our industry-leading know-how of hot-melt adhesives and equipment technology, we recommend the best quality combination for your production process.

Concentrate on your core business - We'll take care of the bonding.

Process and occupational safety

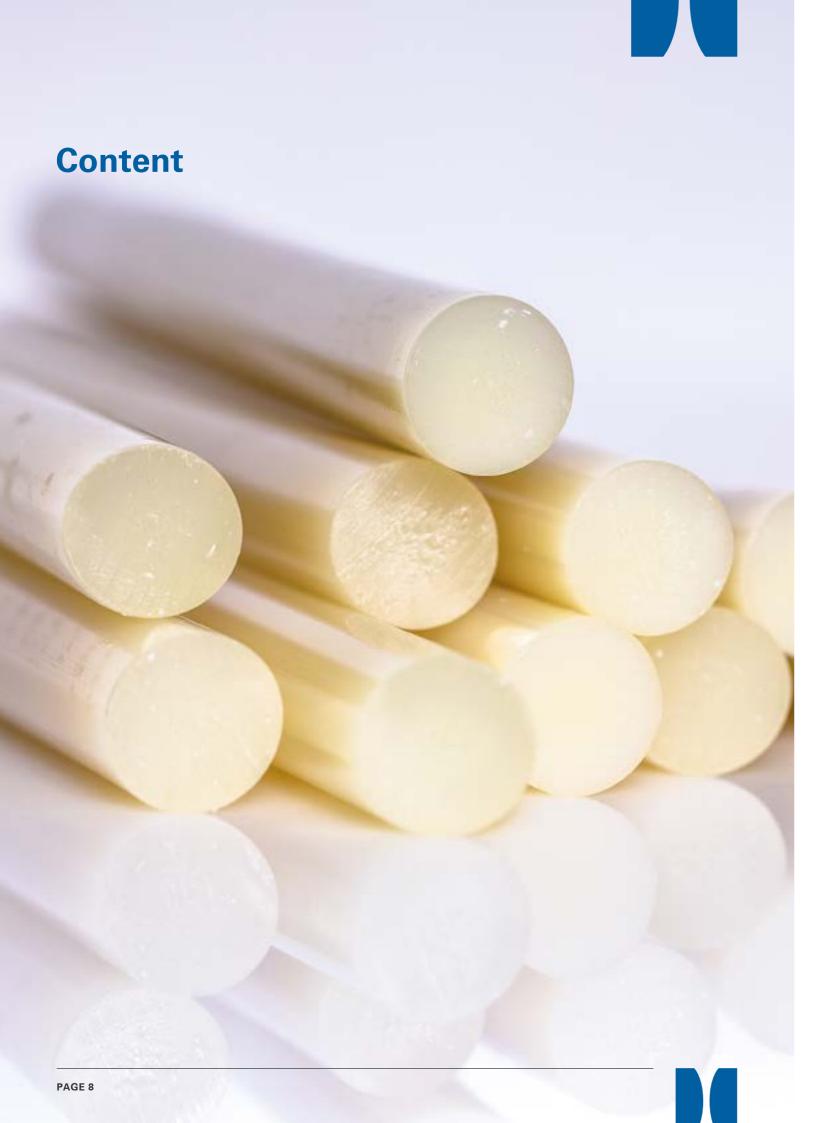
- √ We train your employees in the use of hot-melt adhesives and maintenance of the system at your site at the beginning of the contract period.
- √ Regular maintenance and the resulting excellent condition of the equipment make your employees' working environment safer.
- ✓ Optional automatic filling systems ensure a safe and clean working environment. The reliable supply of the system with adhesive ensures a continuous bonding process.

Efficiency and yield

- ✓ The latest equipment technology combined with coordinated adhesives minimises system downtime and thus increases effective production time. This not only saves costs; you can also generate more turnover with the same production environment.
- ✓ The easy4you-package offers you discounted wear and spare parts for maintenance. The contract also includes a discount for replacement parts if you wish to carry out any replacements in another system.

Bonding with BÜHNEN - simply convincing

PAGE 6 PAGE 7



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PO hot-melt adhesives PA hot-melt adhesives Pressure-sensitive adhesives	10 - 11
	. 12 - 13
Pressure-sensitive adhesives	. 14 - 15
	16 - 17
avenia hot-melt adhesives	. 18 - 19
Sustainable hot-melt adhesives.	. 20 - 21
Reactive hot-melt adhesives	. 22 - 23

Applications

Filter industry	4 - 25
Automotive industry	6 - 27
Packaging industry	8 - 29
Construction industry	0 - 31
Electronics industry	2 - 33
Foam	4 - 35
Floristry	6 - 37
Special applications	38

003 Mechanical hot-melt glue guns

HB 181, HB 181 LT	0
HB 191, HB 196	1
Accessories, Adhesive selection	2
HB 225, HB 250	4
HB 326	5
A CONTRACTOR OF THE CONTRACTOR	_

Pneumatic hot-melt glue guns

HB 720 Bead, HB 720 Spray	48
Adhesive selection, HB 710 HT	49
Accessories	50
HB 720 K Bead, HB 720 K Spray	52
Adhesive selection	53
Cartridge preheater, Console, work station	54
Accessories	55

HB 5010 melters

HB 5010 - Bead- and Spray version	. 58
Adhesive selection, Application areas	. 59
Accessories	. 60

Handguns for melters

Handgun HB 910 Bead and Spray	2
Handgun HB 950 Bead and Spray	3
A	

007 HB 6000 melters

HB 6000 connect	. 66
Adhesive selection	. 67
ine control	. 68
Granulate conveyor	. 69

008 Hot melt hoses

Hot melt hoses
Hose components / Construction / Accessories
KS hot melt hoses, HP hot melt hoses

HB 4000 melters

HB 4000 connect series for EVA, PO and pressure-sensitive
hot-melt adhesives
HB 4000 connect series for PA hot-melt adhesives 78 -
HB 4000 connect series for PUR and POR hot-melt adhesives 82 -

Application heads

Bead application heads	88 - 89
Surface application heads	90 - 91
Spray application heads	92 - 93

one4all

one4all Compatible spare parts	95
one4all Bead application heads	96 - 98
one4all Surface application heads	
one4all Spray application heads	100
one4all Module	101
one4all Hot melt hoses	102 - 103

Refurbished by BÜHNEN

High-quality hot-melt technology - Processed by professionals. . 104 - 105

EVA Hot-melt adhesives PAGE 10 // HOT-MELT ADHESIVES 001

Ethylene vinyl acetate (EVA)

Due to their attractive price-performance ratio, the hot-melt adhesives produced on the basis of ethylene vinyl acetate (EVA) are used for a large number of applications, for example in packaging, in the concrete industry, in floristry and in the DIY sector.

They are characterised in particular by short to medium open times and fast setting times. This type of hot-melt adhesive is often processed in the form of sticks with the help of mechanical hot glue guns.

The main area of application for sticks is in floristry and for simple manual assembly bonds.

EVA-based hot-melt adhesives in granulate form processed by melters have become an indispensable part of the production lines of large packaging systems. You can find more packaging adhesives under our avenia.

Advantages of EVA hot-melt adhesives

- › Attractive price-performance ratio
- > Short to medium open times and short setting times
- > Proven technology
- > Excellent adhesion, even on difficult surfaces
- > Very wide range of formulation options
- > Ideal for high throughputs
- > Frequent use in the food industry (FDA 175.105)

Our product selection (Other adhesives on request.)

A1325.1

Universal hot-melt adhesive for assembly bonding in industry and trade, as well as in the packaging industry and display production.

- > For display production
- › For painted surfaces
- > FDA Guideline 175.105

A2914

This adhesive is exceptionally suitable for sealing cardboard boxes on medium to high-speed packaging machines.

- › Medium open time
- > Very short setting time
- > FDA Guideline 175.105

A0158.1

Universal all-purpose hot-melt adhesive for industry and handcraft:

- › Colour: white
- All-rounder for assembly in industry, household and floristry
- Four delivery forms available: 11 & 18 mm stick, cartridge, granules

A0364.1

Hot-melt adhesive for assembly bonds with high requirements in terms of initial strength, cohesion build- up on difficult substrate surfaces in industry and as well as in the packaging industry.

- › Short setting time
- > For lacquered surfaces
- > FDA Guideline 175.105

Application areas









Packaging

Floristry

Filter industry

A1189

The hot-melt adhesive has its applications in industry, floristry, household and hobby.

- > Standard floristic glue
- > Wide open-time window
- Easy assembly bonding
- > Colour: white-transparent



A1289

The hot-melt adhesive has its applications in industry, floristry, household and hobby.

- > Universal for household, hobby and floristry
- › Medium setting time
- > Light to medium assembly bonding
- Available in three delivery forms



Low temperature A2738-300

- Low processing temperature for sensitive surfaces
- Ideal for floristry and light assembly applications
- > Processing temperature 120 180 °C
- > FDA guideline 175.105



A2075.1

The hot-melt adhesive is used in industry, floristry, household and hobby.

- › Universal for household, hobby and floristry
- › Water-clear and flexible
- › Light to medium assembly bonding
- Available in 200 & 300 mm lengths







Polyolefin (PO)

Compared to conventional EVA hot-melts, Polyolefin-based (PO) hot-melts offer a wider performance spectrum, for example higher heat resistance and an improved adhesion spectrum in the case of low-energy surfaces, such as PP.

Depending on the recipe, it is possible to vary between a very short and a much longer open time. The same applies to the formulation for the sprayability of the hot-melt adhesives.

These base polymers of the polyolefin hot-melts have a decisive impact on the properties, depending on the catalysis technology chosen.

Advantages of PO hot-melt adhesives

- > Very good value for money
- > From short through medium to long open times and short to medium setting times
- > Proven and at the same time innovative technology
- > Excellent adhesion, even on difficult surfaces
- Very wide range of applications

Application areas











Our product selection (Other adhesives on request.)

B1730

Suitable for interior applications in the automotive industry.

- › High thermal stability
- > High initial strength
- > Very wide adhesion spectrum

B1052.1

Foam bonding and suitcase upholstery.

- > Sprayable
- > Very long open time
- Foam bonding
- › Case manufacture

B0715

The all-rounder among PO hot-melts for industry and trade:

- › Universal: Suitable for bead and spray
- > Very wide adhesion spectrum high combinability
- > High cohesion internal strength with good thermal stability
- > Balanced application properties
- > Concrete industry









Filter industry

B0524

For assembly bonding and surface lamination in the industrial and craft sectors, especially in the concrete industry, as well as upholstery and foam lamination.

- > Concrete industry, especially recommended for the colder seasons
- > Inlays in suitcases
- Good cold flexibility



B1596

This adhesive is preferred in the mattress and upholstery industry.



› For large areas



B1063.1

This adhesive is characterised by the combination of its properties:

- > Universal: Suitable for bead and spray
- > Broad adhesion spectrum many materials can be combined
- > High cohesion high internal strength combined with a high heat resistance







Polyamides (PA)

Polyamides complete our range of hot-melt adhesives. The applications in which our adhesives are used could not be more different. For example, our adhesives are true specialists in the field of glazed or varnished concrete or slate roof tiles.

Then again, others are used in the low-pressure injection moulding of electrical components. They score here with excellent flexibility at low temperatures and good plasticizer resistance.

In the automotive sector, PA hot-melts are used in the foundry industry to manufacture cores using the Cold-Box or Hot-Box process.

This is where you benefit from the wide range of application technology products. You can obtain polyamide from us as granulate and to some extent also in stick form. You can obtain both forms of the required application technology from BÜHNEN. Benefit not only from our knowledge of polyamide hot-melt adhesives, but also from the technical advice regarding application technology.

Advantages of polyamides

- Very high thermal stability
- More than 50% produced from renewable raw materials
- To some extent resistant to oils and chemicals
- > To some extent with flame-retarding properties

Our product selection (Other adhesives on request.)

C1429.2

For use in the roof tile industry as spacer or scratch protection for concrete roof tiles with anti-soiling coating, glazing or varnish on the upper side of the tile.

- > Short open time
- > Very short setting time
- › High blocking resistance

C0874 / 0874S

Low pressure injection moulding of electrical components and plug forms. Securing of electrical components on printed circuit boards, as well as enamelled wires on spools. Also available in black.

- > Sticks and granules in two colours
- Good thermal stability and elasticity
- Good adhesion on soft PVC
- > Excellent cold stability (down to -30 °C)



Application areas







C1404

industry

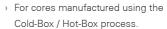
For use in the roof tile industry as spacer or scratch protection for clay roof tile surfaces that are glazed or varnished.



- > Short setting time
- High blocking resistance

C2417

Very suitable for core bonding in the foundry industry and is also used in wood processing. It has a high initial strength.



- > Especially for iron foundries
- > For core packages to be coated (aqueous)
- > Wide range open and short setting time









Pressure-sensitive adhesives

Hot-melt pressure-sensitive adhesives are adhesives on the basis of thermoplastic rubber. These are characterised by the fact that they do not set completely, but remain permanently tacky. For this reason, the designation "PSA – Pressure Sensitive Adhesive" was created for this group of adhesives.

There is a very wide range of formulation options that can be used to adjust the final properties of hot-melt pressure-sensitive adhesives. Such adjustable properties include surface tack, cohesion and adhesion etc. The contact pressure has a major influence on the resulting adhesive strength, in order to achieve sufficient wetting between the hot-melt adhesive and the substrate.

In many applications, bonding takes place in the cold state, for example, when closing packages or shipping bags (self-adhesive closures). On the other hand, there are industrial inline gluing processes whereby the substrates are joined with the still warm adhesive. One example of this is insulation board lamination in insulating materials. In addition, a distinction is made in the pressure-sensitive hot-melt adhesives between permanently adhesive and removable/repositionable types; these can often be found in magazines with free samples.

Advantages of pressure-sensitive adhesives

- > Very good adhesion to low-energy surfaces, such as PE
- > Broad formulation options
- > Elastic glue joint
- Good sprayability
- > Fast cohesion build-up
- > Permanent sticky

Our product selection (Other adhesives on request.)

D1544.1

Pressure-sensitive hot-melt adhesive for fixing and assembly in many branches of industry, for example bonding insulation material onto supporting materials, fixation of insulation materials and for upholstered furniture.

- Very good sprayability
- Universal for instant gluing / inline gluing processes
- › High oxidation stability
- > Low temperature

D1628.2

Hot-melt pressure-sensitive adhesive for the production of self-adhesive articles.

- > Fixing and assembly
- › High initial tack
- Manufacture of self-adhesive closures for online shipping boxes

D1586.1

Universally applicable pressure-sensitive hot-melt adhesive for fixing and assembly in many branches of industry, e.g. self-adhesive pre-coating of roof lining membranes.

- › Very good cohesion and adhesion
- > Very good absorption forces of restoring forces
- Self-adhesive finishing of roof lining membranes



Application areas









Packaging

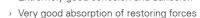
Self-adhesive closures

Construction industry

D1631.1

Universal hot-melt pressure-sensitive adhesive, suitable for industrial inline bonding processes, as well as for self-adhesive pre-coating of substrates.





> Suitable for self-adhesive closures



D1645

Pallet-securing and residue-free, removable bonded joints.



- > For easily removable bonds
- › Colour: white, clear

D1341

Pressure-sensitive hot-melt adhesive for inline bonding processes in the automotive industry, e.g. luggage compartment interior lining / lamination of needle felt on carrier materials.







001 HOT-MELT ADHESIVES // PAGE 17

avenia Hot-melt 001

avenia

Oxidation-stable hot-melt adhesives

The initiator for oxidation-stable hot-melt adhesives was the development of the catalysis technology based on Metallocene for PO-base polymers.

Oxidation-stable hot-melt adhesives have been offered under the name avenia for over 10 years. These types of adhesives are particularly suitable for packaging applications and, thanks to their oxidation stability, lead to an increased service life of the application technology.

BÜHNEN avenias offer a number of improved properties compared to conventional hot-melt adhesives. The thermal stability and the associated high process reliability in use are features to be emphasised.

Advantages when using avenia products:

- > Extremely high colour and viscosity stability in the melts leads to an increase in machinery efficiency
- › High process reliability due to the avoidance of unplanned downtimes
- › Reduction in reject costs
- Extension of maintenance intervals in the case of application technology
- › High heat resistance
- > User-friendly processing due to absence of smell

Our product selection (Other adhesives on request.)

avenia A3633

Versatile hot-melt adhesive for industrial applications in the packaging industry, particularly in the area of deepfreeze packaging.

- > Low odour
- › Short setting time
- > Very good tear-off properties
- > Well suited for frozen packaging

avenia A3922

Versatile hot-melt adhesive from the oxidationstable avenia series. It is especially made for the packaging industry, e.g. for industrial applications of cardboard, crates, trays or folding boxes.

- > Very fast absorption of high restoring forces
- > Low odour
- Very good oxidation stability

avenia B3706

The first avenia hot-melt adhesive for the concrete industry. It achieves the desired balancing act between bonding and removability on a completely new level in the manufacturing industry.

- > Very good oxidation stability in the melt
- > Residue-free removal from the pallet
- › Wide range of applications
- › Medium open and setting time

Application areas









Packaging

industry

Concrete

.

try

Display

avenia B3571

Versatile hot-melt adhesive for industrial applications, particularly suited for bonds in the packaging industry, including deep-freeze packaging, as well as display production.

- > For difficult surfaces
- > Low odour
- Medium setting time with very good oxidation stability



avenia B1472.1

Versatile hot-melt adhesive for industrial applications, particularly suitable for bonding in the packaging industry, including deep-freeze packaging and display production.

- > For difficult surfaces
- › Medium setting time
- > Very good oxidation stability



avenia B1577.2

Universally applicable hot-melt adhesive for industrial applications in the packaging industry, such as cardboard packaging, folding cartons and deep-freeze packaging.

- > Low odour
- > Short setting time
- › Very good stringing behaviour
- > Suitable for deep-freeze packaging
- Very good oxidation stability





Sustainable 001 hot-melt adhesives

Sustainable hot-melt adhesives

The sustainability trend on the packaging market is especially evident in the growing interest in natural, resource-saving materials which use biologically renewable raw materials that help reduce the CO₂ - balance. In addition to the well-known low-temperature hot-melt adhesives, the adhesive selection has been expanded to include bio- based hot-melt adhesives. The new nature adhesive series is DIN-certified and tested by external laboratories. The high proportion of renewable raw materials (up to 50%) makes these adhesives particularly environmentally friendly. Our sustainable nature hot-melt adhesives can be processed with the tried and tested application technology. Many of the BÜHNEN devices have the option of setting the processing temperature with an accuracy of one degree.

Low-temperature hot-melt adhesives

These adhesives can be applied at a temperature of around 120° to 140 °C, whereas conventional hot-melt adhesives require 160° to 175°C. Adhesives with lower application temperatures also reduce the risk of break through on thinner substrates. The low-temperature hot-melt adhesives are particularly suitable for the packaging of temperature-sensitive goods, e.g. chocolate. When less energy is required to heat pipes and tanks, CO, emissions decrease and our customers come one step closer to their sustainability goals.

Advantages of nature hot-melt adhesive

- DIN ISO 16620-2:2019 certified
- > Bio-based 20 50 %
- > Very high colour and viscosity stability in the melt leads to an increase in machine efficiency
- > User-friendly processing due to odourlessness

Advantages of low-temperature adhesives

- > Lower risk of burns during processing
- Use on temperature-sensitive materials / surfaces
- › Packaging of temperature-sensitive goods
- > Energy-saving and reduction of CO2 emissions

Our product selection (Other adhesives on request.)

avenia B3771 nature

White bio-based hot-melt adhesive for industrial applications in the packaging industry, e.g. coated cardboard and fast carton erectors.

- > Proportion of biogenic carbon: 41%
- > High absorption of restoring forces
- > Good adhesive spectrum
- > Excellent oxidation stability

avenia B3570 LT

Versatile hot-melt adhesive for industrial applications in the packaging industry, such as crates, trays, cardboard packaging and folding cartons.

- > Low processing temperature 120 140 °C
- > Low odour
- > Short setting time
- > Very good oxidation stability

avenia A3999 LT nature

Bio-based oxidation-stable hot-melt adhesive for lowtemperature applications in the packaging industry.

- > Proportion of biogenic carbon: 39.5 %
- > Low processing temperature saves energy
- > Good oxidation stability in the melt
- > For fast-running automatic systems
- > FDA Guideline 175.105

Application areas



A4158.1 nature

Light yellow, bio-based EVA hot-melt adhesive in stick format for industry and trade/handcraft.

- > Proportion of biogenic carbon: 33%
- All-rounder for assembly in industry, household and floristry
- > FDA Guideline 175.105



Pressure-sensitive adhesive D3043 LT

Universally applicable pressure-sensitive hot-melt adhesive for fixing and assembly in many branches of industry. Particularly well suited for applications in the low temperature range.

- Good adhesion for assembly applications
- > Good adhesion properties, e.g. PE film
- > Barely visible glue joint
- > For temperature-sensitive surfaces
- > Resource-saving









PAGE 20 // HOT-MELT ADHESIVES 001

Reactive hot-melt adhesives

001



Reactive hot-melt adhesives

Combining the advantages of two adhesive worlds: Polyurethane hot-melt adhesives combine the advantages of physically setting hot-melt adhesives with those of reactive one/two component adhesives. High processing speeds and high adhesive strength combined in one product allow high-strength, constructive connections to be achieved. They are always used when exceptionally high temperature resistance is to be achieved while, at the same time, being flexible at low temperatures and resistant to a wide range of chemicals. The bonds have a high resistance to aging for products with a long service life. Standard PUR hotmelts with an MDI content > 0.1% are subject to labelling.

You can process the adhesives manually in small cartridges or in automated processes with drums of up to 200 kg. Close advice and extensive support from our laboratory and technical team helps with choice of the right adhesive, substrate and process design. We would be glad to assist you if you have any questions regarding occupational safety when dealing with reactive hot-melt adhesives.

Advantages of reactive PUR / POR

- › High cohesion enables constructive bonds
- High temperature resistance in both cold and heat enables use in, for example, the automotive industry
- > Good weather resistance when used in the construction industry
- Resistance to plasticizers, oils and solvents enables bonding of soft
 PVC and demanding filter applications
- > High aging resistance of the bond
- > PUR have a very wide adhesion spectrum to many plastics, e.g. ABS
- POR offer a very good adhesion spectrum to low-energy surfaces, e.g. PP

Application areas







e F

Furniture

Construction

Our product selection (Other adhesives on request.)

E0931.3 - PUR

Structural bonds with high demands on strength and reaction to changes in temperature

- > Long open time
- > High cohesion

W. The

E3848 ME - PUR

Very good initial strength, very good adhesion on various substrates, and is suitable, for example, for assembly bonds in car interiors. Due to the free MDI content < 0.1% the product is exempt from labelling

- > MDI < 0.1 % = label-free
- Good sprayability
- Good initial strength

Chillips)

E3315 – PUR

Particularly suitable for surface lamination and light assembly bonds. Due to the reduced MDI content < 1%, the H351 labelling is no longer required.

- > Low MDI < 1 %
- › Good sprayability
- > FDA guidelines 175.105
- › Very long open time

B1452.1 - POR

For bonding low-energy surfaces with high demands on the cohesive behaviour.

- > Solvent-free
- › High heat resistance
- Good flexibility at low temperatures

616

E3379 - PUR

Particularly suitable for surface lamination and light assembly bonds.

- > Excellent solvent resistance
- > Very soft glue line
- > Long open time
- Good sprayability



E2456UVM

For assembly and constructional bonds that are exposed to high temperatures. Available in black and white.

- > Low processing viscosity
- . → UV marked
- › Fast cohesion build up
- › Good solvent resistance







Hot-melt adhesives and devices for the filter industry

002

There are many possible uses for hot-melt adhesives in the manufacture of filter media. They are used, amongst other things, as spacers in fluted filters or for bonding frames. Depending on the type of filter and production process, different BÜHNEN product solutions can be used here.



Pleating

The folded filters or pleated filters are made of different materials, such as fleece or paper, depending on the area of application and filter class. The hot-melt adhesive is used to fix the pleating. The dynamic pressure in front of the filter causes a force to act on the pleated filter lamellas; the stability of the hot-melt adhesive beads protects them from deformation that would otherwise reduce the effective filter surface. The dynamic pressure increases as the particle load in the filter increases.

The beads require a level of elasticity in order to withstand the deformation during installation. In later service life, thermal forces (heat/cold) act on the filter, whereby the geometry has also to be maintained. Hot-melt adhesive for filters must meet the optical and olfactory requirements; white adhesives, which have low emissions, are preferably used here.



Frame bonding

The frame gives the filter additional stability in order to withstand the dynamic pressure. There are many different designs for filters. The frames can be made of fleece, plastics, paper, cardboard or wood.

The types of application are accordingly different. The adhesive can be applied continuously as a surface and bonded or frames can be cast with filters. Depending on the type of frame bonding, there are different demands on the hot-melt adhesive, e.g. viscosity and setting behaviour.

Hot-melt adhesives for frames must meet the optical and olfactory requirements; white adhesives, which have low emissions, are preferred here



Our range of devices for the filter industry



Melters HB 6000 series



Application heads



Accessories



Hot melt hos



Hot-melt adhesives and devices 002 for the automotive industry

Reactive and non-reactive hot-melt adhesives are used widely and in increasing numbers in the automotive industry. Due to the freedom of design that gluing enables, the number of glued or laminated components in the car is growing. Even dents in the paintwork can be removed with the help of hot glue.

The demand for automation and process reliability lead to fully automatic application and bonding processes. Manual gluing processes can still be found in cable assembly and the removal of dents. We offer a wide range of suitable application technologies for both application techniques.



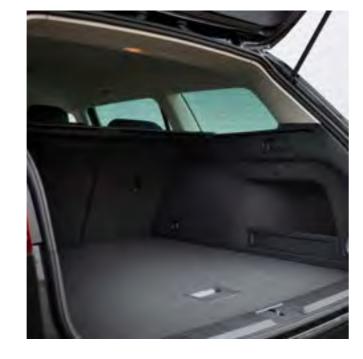
Interior lamination

The boot of an automobile offers various applications that lend themselves to bonding with reactive and non-reactive hot-melt adhesives the gluing of the carpet on the loading floor, lamination of the rear seats with needle felt and the lining of the side panels, for example. Depending on the requirements and process sequences, different types of adhesives are used: These range from pressure-sensitive hot-melts and polyolefins to reactive polyurethane hot-melt adhesives.

Increased demands in the area of VOC and fogging are leading to an increased use of PUR hot-melt adhesives. At the same time, emissionoptimised pressure-sensitive hot-melt adhesives will be launched on the market

The development of PUR products is increasingly moving towards adhesives with reduced labelling through to label-free adhesives.

In the case of pressure-sensitive hot-melt adhesives, inline laminating is preferred, within the open time of the hot-melt adhesive. In the case of PUR, a pre-coating with a reactivating step during lamination is generally used





Roof lining production

In addition to PU dispersion, reactive and non-reactive hot-melt adhesives are also used to laminate the textile-foam composite onto the carrier.

A series of assembly steps to optimise acoustics is carried out on the back of the carrier, which is not visible later. In addition to foams, many cables are positioned there, which are fixed using hot-melt adhesive. This method of fixing cables is also used on car seats, e.g. in seat heating.







Door sills

Illuminated door sills are becoming more and more popular and are being increasingly installed in car models. The environmental influences on this type of bonding have a stronger influence than with pure interior bonding. For this reason PUR hot-melt adhesives are the products of

The challenge of the material combination of different plastics e.g. ABS, PC, etc. with the metallic inserts can only be met with the properties of the PUR adhesives. The wide adhesion spectrum combined with the characteristics of bonding and sealing speaks in favour of these hot-melt





Decor, emblems, covers, clips

A large number of assembly bonds can also be resolved with PUR hotmelt adhesives.

Worth mentioning are:

- > Decors in the central console area
- > Emblems on car keys
- > Emblems on hubcaps
- > Fastening clips on all internal cladding and trim





Automotive foundry

Iron foundries primarily use polyamides for the bonding of core packages in the foundry industry. BÜHNEN has polyamides in its range that are ideally suited for core packs that are to be coated (aqueous/ethanolic), and subsequently dried in a drying tunnel. Polyofins or EVA adhesives are used in aluminium foundries. The demands on the adhesives used in sand blasting or in the bonding of core packages are very high.

The hot-melt adhesives require a wide open time frame with a short setting speed. The short setting speed, combined with a high initial strength, enables rapid further handling of the cores produced using the cold-box or hot-box process. Depending on the degree of automation, hot-melt glue guns or melting devices are used.



PAGE 26 // APPLICATION 002 002 APPLICATION // PAGE 27

Hot-melt adhesives and devices for the nackaging industry 102 for the packaging industry

Secure gluing plays an important role in the packaging industry. The selection of a suitable adhesive is linked to various prerequisites. Let us together determine the most suitable system for you, consisting of adhesive and application technology.



First of all, it is important to clarify for which use the packaging is intended. What are the environmental variables, such as temperature, humidity, etc., during both production and shipping?

The type of production is important when choosing the adhesive. For example, how high is the throughput in the system?

The material of the cardboard packaging / corrugated cardboard also plays a major role. High restoring forces in particular require good advice on the choice of hot-melt adhesive, so that there

are no nasty surprises.

Shipping packaging is also increasingly developing into an advertising medium and is often lacquered or shrink/film-wrapped. The smooth surfaces present an increased degree of difficulty for the adhesion of hot-melt adhesives, which must also be kept in mind.







Mailing boxes, envelopes and other packaging materials are equipped with a covered self-adhesive seal for later use and a tear strip for easy

The immediately-adhesive closure means that the goods can be packaged at the end customer's premises without the need of any additional packaging material. The cardboard packaging can be stored flat and is only erected shortly before use. As a rule, a pressure-sensitive hot-melt adhesive is applied to the packaging material over a surface area of up to 30 mm, in order to maintain the adhesive strength.

In the production of shipping boxes, envelopes and other packaging materials with adhesive seals, the most important things are that the

packaged goods are safely transported to the recipient even at changing temperatures, that the shipping packaging can be securely closed again if necessary, and that the adhesive is applied cleanly and economically.







Display bonding



The displays used for product presentation are usually relatively stiff. High restoring forces act at the folds, which the adhesive has to absorb in order to prevent the folds from cracking open. These forces act on many packaging materials, corrugated cardboard or carton.

If the hot glue is applied by hand, the open time of the adhesive must be matched to the length of the gluing process. After all dots, areas or lines have been applied, the hot-melt adhesive must still ensure good adhesion with rapid and high build-up of cohesion.



Our range of adhesives for the packaging industry

avenia

oxidation-stable hot-melt adhesives

- > Extremely high colour and viscosity stability in the melts leads to an increase in machinery efficiency.
- High process reliability due to the avoidance of unplanned downtimes.
- > Reduction in reject costs
- Extension of maintenance intervals in the case of application technology
- > High heat resistance
- > User-friendly processing due to absence of smell

EVA

hot-melt adhesives > Attractive price-performance ratio

- > Short to medium open times and short setting times
- > Proven technology
- > Excellent adhesion, even on difficult surfaces
- > Very wide range of formulation options
- > Ideal for high throughputs
- > Frequent use in the food industry (FDA 175.105)

Our range of equipment for the packaging industry



HB 6000 Melters



Application heads



Accessories



Hot melt hoses



PAGE 28 // APPLICATION 002 002 APPLICATION // PAGE 29

for the construction industry

The production process in the construction industry can be significantly optimised by the use of hot-melt adhesives. For example, the components for recesses in precast concrete parts (e.g. for sockets) can be quickly and easily fixed on the pallet and be removed again after completion of the concrete wall.

In terms of climate protection, insulation materials are becoming more and more important in new buildings and in the renovation of construction projects. Thermally insulated buildings are easy on the wallet and increase living comfort. The materials used are diverse and the production conditions on site are very different. Take advantage of our many years of experience in the construction industry and our wide range of hot-melt adhesives and application technology







Concrete industry

The use of hot-melt adhesives saves both time and money, thanks to an optimised production process: Damage to the formwork from screws, nails, welding or bolts is avoided, and the surface of the finished parts remains smooth. The hot-melt adhesive offers immediate and secure adhesion to the components to be bonded, regardless of whether they are made of metal, wood, foam or plastic.

If the adhesives have a sufficiently long open time, corrections can be made before the concrete is poured in, even after the first fixing. Due to the high adhesive strength, the bonded components remain firmly connected to the metal plate during the filling, shaking and demoulding of the concrete. All adhesives can be removed easily and without leaving any residue and without sanding or the use of solvents.

Depending on which release agent is used and how high the temperatures are in the production preparation, in the drying oven or during demoulding - the BÜHNEN hot-melt range offers the right solution for every challenge.







Insulating materials

Countless materials are employed in the construction industry: non-wovens, foils, foams and mineral wool are used to protect against cold, heat and water. In order for them to perform their function optimally, they have to be processed correctly. Hot-melt adhesives serve as assembly aids in production, are used for short-term fixation, or are long-term connectors. Every application and every material has its own challenges. These must be taken into account when choosing the right hot-melt

A selection of possible applications:

- > Lamination of roof underlays by means of a hot-melt adhesive based on thermoplastic rubber.
- > Equipping of the roof underlays with self-adhesive strips for easier handling. The hot-melt adhesive is equipped with a UV absorber.
- > Bonding of polystyrene to foil in the production of impact sound insulation and surface heating systems.





Roller shutter construction

Polystyrene and foam, which are glued with hot-melt adhesives, are used as insulating material in the roller shutter curtain. They are glued to a plastic or metal cover strip of the roller shutter box.

The hot glue used is exposed to strong temperature fluctuations over the course of the year. Our customers have had very good experience with polyolefin hot- melt adhesives. These have both high heat resistance and good flexibility at low temperatures.

The application of hot-melt adhesive is always tailored to the respective manufacturing conditions.

As the bonding of insulation materials in roller shutter boxes is primarily performed manually, the HB 910 has proven itself. Connected via a hotmelt hose with, for example, a type HB 5010 melter, the manual applicator forms a closed, reliable system.





Concrete/slate roof tiles

In the roofing tile industry, hot-melts are applied as spacers or scratch protection on concrete roof tiles with an anti-dirt coating or glaze on the

The adhesive provides reliable scratch protection during storage and transport, even in summer. There is no transfer of adhesive or shadow formation on the top of the slate roof tiles.

The application technology is adapted to the manufacturing process. A line control enables automated work. It controls the solenoid valves on the application heads independently. The control enables precise and exactly recurring hot-melt adhesive application and high process reliability

Our range of equipment for the construction industry







Accessories





HB 6000 Melters

Application heads

Hot melt hoses

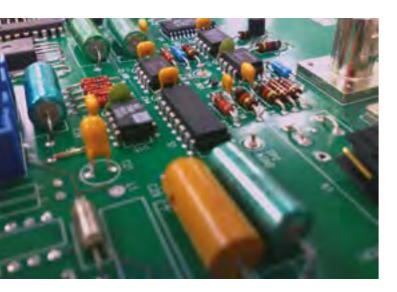
PAGE 30 // APPLICATION 002 002 APPLICATION // PAGE 31

Hot-melt adhesives for the electronics industry

002

Hot-melt adhesives offer a wide range of solutions for the electronics industry. Today's consumers demand smaller devices, more functionality, and superior reliability.

Our portfolio of advanced formulations includes a good range of products to create electrical connections, enable structural stability, protect components and dissipate heat – for reliable and high-performance electronics.

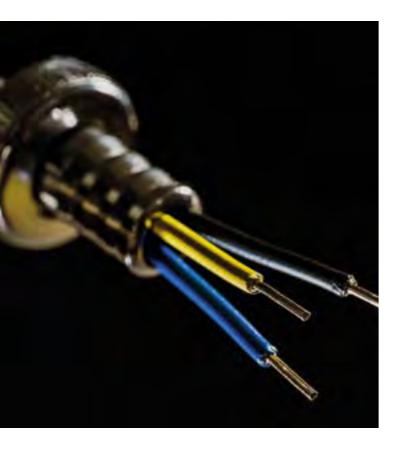


Sealing against moisture

Housings can be sealed against moisture and contamination with hot-melt adhesives. The housings are usually made of low- energy materials, such as PP.

Polyolefin can guarantee a material bond with PP. A durable, stable adhesion to the material / housing material is built up.

This composite covers the requirements for impermeability to liquids, e.g. water or disinfectants. A short circuit or corrosion of the electrical component is prevented.





Low- pressure injection moulding

Common hot-melt adhesives in low-pressure injection moulding are based on polyamide.

The polyamides are very special potting compounds. These combine material properties with adhesive properties. This means good adhesion to the cable materials, as well as to the usual solder resists on the circuit board. The material properties of the polyamides used meet the requirements in the terms of elasticity and the operating temperature range. To protect electronic components during the manufacture of plugs or caps, the hot-melt can be pressed into a tool or cavity using the low-pressure process with only approx. 2 – 50 bar.

With this process, components are extrusion-coated with hot-melt adhesive to give shape, and the wire or contact is sealed, insulated and mechanically protected. The simple and safe handling of the low-pressure "potting" machines through the regulated injection and cooling times (immediately ready for use) ensures a high level of reproducibility and productivity in the production area.

The main application here can be seen in the automotive sector, due to the high productivity / number of pieces.



PAGE 32 // APPLICATION 002

Hot-melt adhesives and devices for foam materials

002

Hot-melt adhesives can be used in a wide range of applications in the processing of foams. They are used, for example, for gluing foam inserts in suitcases or in mattress production. The BÜHNEN range of hot-melt adhesives also offers certified ECO Passport products.





Mattress manufacture

The manufacturers of pocket spring core mattresses traditionally opt for gluing with hot-melt adhesives.

In order to be able to follow the body movements during sleep, the system of steel springs can move independently of one another. The spring pockets are bonded to each other by means of a sideways bead application (2-3 beads next to each other).

A compromise is made in the selection of the adhesive: The hot-melt should be flexible in the solidified state in order to follow the movements, but also hard enough in itself so that the bond does not come off.

When selecting these properties, the Shore hardness of the adhesive is crucial – not too high, otherwise the hot-melt adhesive will be too brittle – but not too soft either.

Hot-melt adhesives are solvent-free. High-quality hot-melt adhesives do not contain any chemical double bonds that can react or cross-link. Without double bonds, the adhesives are UV light-stable and do not change colour when exposed to light. When gluing the spring core cover (fleece and foams), a visually perfect result is important so that the adhesive does not shimmer through with very light foams.

The average body temperature of a person is 37 °C. With the adhesives used, attention is paid to sufficient heat resistance. Fibrous and non-fibrous materials are used for the fabric cover of the pockets. In order to achieve a sufficient bond, the adhesive must be able to flow into the tissue of the fabric, as this creates mechanical anchoring. Hot-melt adhesives with a long open time and fast setting are ideal.

Another good combination of properties consists of high initial tack and rapid cohesion build-up. The mattresses can be lifted, transported and packed immediately after bonding. In this way the production process is efficient without waiting time.





Form inserts

Tool inserts, foam inserts, inserts for suitcases, but also padding for shipping packaging, are glued with hot-melt adhesives. The inserts can be prefabricated to fit perfectly so that the products to be transported are optimally protected or presented. The case inserts are, for example, foam inserts made of PE rigid foam and PU soft foam, as well as deepdrawn inserts. The different materials of the upholstery fabrics have an effect on the selection of the suitable hot-melt adhesives. The cushioning is often bonded manually: Some polyolefins from our range have proven their worth here with their long open time and soft glue joints.





Our range of equipment for foam materials









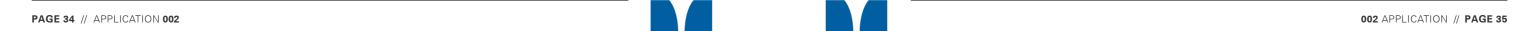


HB 6000 Melters

Application heads

Accessories

Hot melt hoses



Hot-melt adhesives and equipment for floristry

002

Mechanical hot-melt glue guns are the ideal tools for producing flower arrangements, wreaths, garlands and decorations...

Combined with appropriate adhesives, a little patience and natural materials, beautiful objects can be formed. A wide variety of materials can be incorporated, such as flowers, fabrics, wood, plastics, earthenware or metal.



Attractive prices

We offer our products at extremely competitive prices without compromising on quality.

Delivery capacity

The products for our floristry customers are available as standard in sufficient quantities from stock. Our dedicated team ensures your orders always reach you on time and in perfect condition.

Glue guns in your colours and with your logo

In addition to our standard products, we offer you the opportunity of obtaining branded glue guns. These personalised tools can carry your logo, thus helping to strengthen your brand.

We look forward to assisting you with all of your glue guns and hot-melt adhesive needs. Contact us today to learn more or to place an order with us. We look forward to working together with you!



Our range of guns for floristry





Individual solutions for mechanical engineering / OEM 002

Special applications often require complex coordination with the partners involved: In addition to the customer, this often includes mechanical engineers / OEMs. Both parties specify their requirements in product specifications / specification sheets, which must be taken into account when selecting the application technology and adhesives.

In order to meet the non-standard requirements, they often have to be simulated in the in-house laboratory. To achieve a good result in the interests of the customer, the entire expertise in application technology and adhesives is utilised. We are aware that every project in the area of special machine manufacturing is unique and brings with it individual challenges. As an experienced partner for hot-melt adhesives and application equipment, we specialise in developing tailor-made solutions that are designed precisely to the technical requirements of your machine projects.

Understanding of mechanical engineering

Our deep roots in the mechanical engineering industry and our own company history enable us to have a profound understanding of mechanical engineering. We use this knowledge to develop solutions tailored to your specific needs.





Mechanical engineering

Assembly bonding is often a special application. The application shown is the fully automated bonding of the seal into a canister lid. The planned timing, the process and the substrate were determined in discussions on site. The BÜHNEN in-house laboratory simulated the process and tested different adhesives. The specified materials placed high demands on the adhesives selected.

The interaction of advice, hot-melt know-how and the application used, enabled the requirements of the mechanical engineer, his customer and the process to be successfully implemented.



Application video



Personal contact

We know the importance of direct communication. That's why we offer you a contact person both on site and at our headquarters. Our team is always available to answer your questions and to develop the ideal solution for your requirements.

On-site service for your customers

Our qualified service team is available to you for commissioning and to your customer for subsequent maintenance and repairs of the machines. Whether on site or at our headquarters in Bremen – we are there for you and your customers to ensure that your machines run smoothly and efficiently. Contact us and test our performance – we look forward to hearing from you!



Mechanical hot-melt glue guns

003

Our hand guns are indispensable helpers for many areas of application: Whether in the automotive industry, the packaging industry, the woodworking industry, the toy industry, exhibition stand construction or shop fitting - the areas of application are almost unlimited - for perfect bonding of wood, plastics, rubber, fabrics, leather, paper, cardboard, earthenware or metal, for example. BÜHNEN has a range of different types of hot-melt adhesive that are precisely tailored to your particular applications.

HB 181 ————



HB 181 and HB 181 LT - the florist's favourites

Good craftsmanship needs good tools. The BÜHNEN HB 181 is the entry into professional gluing. The lightweight gun sits comfortably in the hand. The narrow design makes gluing with the device clear and secure

Advantages and equipment features

HB 181 and HB 181 LT

- Small and handy
- > Low actuating force
- > Universal stand, versatile storage options
- (Fixed nozzle (diameter 2.5 mm)
- Can be delivered in a box

Technical data

Dimensions 215 x 180 x 38 mm Weight.....0.27 kg Operating voltage 220-230 V, 50 Hz Power consumption. 80 W Working temperature. 190 °C

Hot-melt adhesive form.....Stick 200 mm / 300 mm length, Ø 12 mm Melting capacity 0.3 – 0.6 kg/h*

* Depending on temperature and adhesive viscosity











HB 181 LT -



Divergent Advantages and equipment features of the HB 181 LT

The Low Temperature (LT) version of the HB 181 heats a suitable hot-melt adhesive to 120 °C. This makes it possible to work with particularly heat-sensitive materials such as Styrofoam (EPS).

Advantages and equipment features HB 181 LT

"Low Temperature" (120 °C)

> Protects fingers and material

› Minimizes burns

> Low energy consumption

Technical data

Dimensions 215 x 180 x 38 mm Weight 0.27 kg

Operating voltage 220-230 V, 50 Hz

Power consumption. 80 W Working temperature. 120 °C

Hot-melt adhesive form. Sticks 200 mm / 300 mm length, Ø 12 mm Melting capacity 0.3 – 0.6 kg/h*







HB 191———



HB 191 - Everyday hero

The heroes of everyday life use the HB 191. The glue gun has a high melting rate of up to 0.7 kg per hour. The universal stand enables the setting of an individual storage position.

In addition, the device can be switched on and off without having to be disconnected from the mains. The rubberised handle sits comfortably in the hand. The amount of adhesive that is dispensed depends on the diameter of the nozzle. The installed 3.0 mm nozzle is exchangeable. Smaller and larger nozzle diameters are available on request.

Advantages and equipment features

- > Fatigue-free work thanks to the ergonomic handle
- > Small and handy
- > Low weight
- > High melting capacity
- > Nozzle exchangeable (standard diameter 3.0 mm)
- > Can be delivered in a box

Technical data

Dimensions	. 220 x 190 x 38 mm
Weight	. 0.27 kg
Operating voltage	. 220-230 V, 50 Hz
Power consumption	. 100 W
Working temperature	. 190 °C
Hot-melt adhesive form	. Sticks 200 mm / 300 mm length, Ø 12 mm
Melting capacity	. 0.4 – 0.7 kg/h*

^{*} Depending on temperature and adhesive viscosity







HB 196 -

wing.line®stick



HB 196 – For individualists

The smallest model of the wing.line® design series. Slim, black, blue and with a removable power plug. The device is able to process a stick without a power connection. Short - term applications outside or away from the work place are now possible. The stand foot (detachable) allows the gun to stand securely on the worktop. Without the stand foot, one can easily work in hard - to - reach places.

The illuminated on-off switch shows at a glance whether the device is switched on. 125 watts ensure that the operating temperature is quickly reached. The 3.0 mm nozzle installed can be exchanged if necessary. Smaller and larger nozzles are available on request.

Advantages and equipment features

- > Fatigue-free work thanks to long trigger
- > Removable plug for cordless work
- Very high melting capacity
- > Integrated on/off switch (illuminated))
- Nozzle exchangeable (standard diameter 3.0 mm)
- > Can be delivered in a carton or in a case

Weight.....0.41 kg Operating voltage 220-230 V, 50 Hz Power consumption. 125 W Working temperature. 200 °C Hot-melt adhesive form Sticks 200 mm / 300 mm length, Ø 12 mm







Melting capacity 0.5 - 0.8 kg/h*



Removable cable



PAGE 40 // MECHANICAL GLUE GUNS 003 003 MECHANICAL GLUE GUNS // PAGE 41

Mechanical hot-melt glue guns

003

Accessories



Cone nozzle, long bead application insulated Ø 1.5 mm Ø 2.5 mm Ø 3 mm L = 45 mm

Thread:

UNF 7/16"



Cone nozzle, short Minimal dot

application, fine bead application

Ø 3 mm

L = 38 mm

Thread:

UNF 7/16"



Fine parts nozzle

Minimal dot application, fine bead application Ø 1 mm L = 29 mm Thread: UNF 7/16"



Silicone underlay

Clean workplace
Dimensions:
500 x 600 x 2 mm
Colour: blue
No adherence of
hot-melt adhesive



Balancer

Secure positioning, easy handling at the workplace, loadable up to 2.0 kg



Protective gloves

Heat-resistant, safe handling of hot objects

Adhesive selection

Туре	Base	Form	Description
A0158.1	EVA	Sticks	All-rounder for assembly in industry, household and floristry
A0364.1	EVA	Sticks	For lacquered surfaces
A1189	EVA	Sticks	Household, floristry, hobby
A2075.1	EVA	Sticks	Floristry, "water-clear", flexible
A2738-300	EVA	Sticks	Low processing temperature for sensitive surfaces / 300 mm long

Base: EVA – ethylene vinyl acetate



Delivery form: 2 – Sticks 200 mm long, Ø 12 mm

Application areas



Packaging







Щ

Furniture industry



How does a hot glue gun work?



wing.line®stick

HB 250 wing.line®stick



HB 225 - For professionals

You can happily work all day with the HB 225. The slim device sits comfortably in the hand. The stick gun can be safely placed on the fixed stand. A new feature is the LED status display, which clearly signals that the working temperature has been reached. The adhesive is treated gently thanks to the possibility of setting the temperature to the exact degree. An exchangeable 3.00 mm nozzle is preassembled. If required, the BÜHNEN range offers a large selection of small or larger nozzles.

Advantages and equipment features

- > Intuitive LED status display
- › Detachable cable
- > Small, handy and light
- › Adjustable temperature
- High melting capacity
- > Nozzle exchangeable (Standard diameter 2.50 mm)

Dimensions 290 x 205 x 75 mm

› Available in a case

Technical data

Weight 0.465 kg (without cable)
Weight 0.735 kg (with cable)
Operating voltage 220-240 V, 50/60 Hz
Power consumption 200 W
Working temperature 140 - 230 °C
Hot-melt adhesive form Sticks 200 mm / 300 mm length, Ø 12 mm
Melting capacity up to 1.2 kg/h*

* Depending on temperature and adhesive viscosity











HB 250 - For intensive users

The HB 250 enables fatigue-free work thanks to significantly reduced trigger forces. A high melting capacity and an innovative trigger system set standards in this device class. The very precise, electronically-controlled temperature control integrated in the handle ensures process-reliable operation.

Alternatively, the device is available without a digital display with a fixed working temperature of 190 °C (HB 240).

Advantages and equipment features

- 30 % reduced trigger forces
- › Innovative trigger system
- > Precise, electronically-controlled temperature
- › Digital status display
- > Mechanical stroke limitation
- > High melting capacity
- › Nozzle exchangeable (Standard diameter 3.00 mm)
- › Available in a case

Technical data

Dimensions	. 260 x 215 x 85 mm
Weight	. 0.605 kg
Operating voltage	. 220-230 V, 50 Hz
Power consumption	. 400 W
Working temperature	. 140 - 230 °C
Hot-melt adhesive form	. Sticks 200 mm / 300 mm length, Ø 12 mm
Melting capacity	. 1.2 – 2.6 kg/h*











Product video HB 225

Product video HB 240

Digital status display on the HB 250 and HB 326









HB 326

wing.line®stick



HB 326 – The power pack

With the HB 326 you have a real power pack in your hand! 600 W bring the device quickly up to operating temperature. The HB 326 processes 18 mm sticks and is the largest of our mechanical hand guns. It has a large melting chamber, so that you can work for a longer period of time without refilling a stick.

There is a large selection of alternative nozzle sizes available for the HB 326.

Advantages and equipment features

- For 18 mm sticks
- › Very high melting capacity
- > Digital status display and setting
- 30 % reduced trigger forces
- › Mechanical stroke limitation
- › Nozzle exchangeable (Standard diameter 3.0 mm)

Technical data

Dimensions	.320 x 240 x 90 mm
Weight	. 1.05 kg with cable
Operating voltage	. 220-240 V, 50/60 Hz
Power consumption	. 600 W
Working temperature	. 40 - 230 °C
Hot-melt adhesive form	. Sticks 300 mm length, Ø 18 mm

Melting capacity 3.5 kg/h*

* Depending on temperature and adhesive viscosity





PAGE 44 // MECHANICAL GLUE GUNS 003

Mechanical glue guns

003

Accessories



Cone nozzle, long Bead application insulated Ø 1.5 mm Ø 2.5 mm Ø3 mm L = 45 mmThread:

UNF 7/16"



Cone nozzle, short Bead application insulated L = 38 mm Thread: UNF 7/16"



Nozzle HB 240 / 250 Bead application incl. teflon ring Ø 2.0 mm Ø 3.0 mm Ø 4.5 mm Thread: IG

UNF 9/16-18"



Adapter HB 240 / 250 nozzles Adapter UNF 9/16 to UNF 7/16



Silicone underlay Clean workplace Dimensions: 500 x 600 x 2 mm Colour: blue No adherence of hot-melt adhesive



Balancer Secure positioning, easy handling at the workplace, loadable up to 2.0 kg

Adhesive selection

Туре	Base	Form	Description
A1289	EVA	Sticks	Household, hobby, cardboard, packaging, available in Ø 12 mm / 18 mm
A0364.1	EVA	Sticks	High absorption of restoring forces, available in Ø 12 mm / 18 mm
A0158.1	EVA	Sticks	All-rounder for assembly in industry, household and floristry available in Ø 12 mm / 18 mm
C0874	PA	Sticks	Low pressure injection moulding of electrical components, available in Ø 12 mm

Base: EVA - Ethylene vinyl acetate, PA - Polyamide Delivery forms:

2 – Sticks 200 mm long, Ø 12 mm

3 – Sticks 300 mm long, Ø 18 mm



Application areas

















HB 240 / HB 250



Pneumatic glue guns

004

The application devices of the HB 720 series are optimised for high melting capacities. Three heating cartridges with a total output of 600 watts ensure that the tank, nozzle and cap are heated quickly and evenly. The shape, weight and ergonomics were developed for fatigue-free work. The devices have a new, patented and unique level control, which reliably indicates when to refill hot-melt adhesive.





HB 720 – Dot and bead application

The universal hand-held device for manual applications in a professional environment. It enables extreme productivity without the outlay for automation. Hot-melt adhesives in the form of granules, pillows or cartridges (43 mm) can be processed in the tank.

Advantages and equipment features HB 720 Bead

- > Process reliability through continuously adjustable temperature control +/- 1 °C
- > Integrated level control and thus extremely efficient operation
- One-hand bayonet lock for optimum ease of use
- > Ergonomically-shaped handle for fatigue-free work
- > Automatic temperature lowering for economical energy consumption and protection of the hot-melt adhesive
- > Temperature control with digital display integrated in the handle
- > Incl. conical nozzle standard Ø 1.5 mm

Technical data

Weight 1.35 kg Operating voltage 220-230 V, 50 Hz Power consumption. 600 W Working temperature. 40-210 °C Capacity.....200 ml

Melting capacity for cartridges 3.2 kg/h, for granules 1.3 kg/h*









* Depending on temperature and adhesive viscosity



HB 720 Spray

If materials have to be bonded together over a large area, the spray version is selected. With the spray version of the HB 720, different spray applications patterns can be realised. The spray pattern is changed by regulating the spray air. The device is particularly suitable for processing pressure-sensitive hot-melt adhesives.

Differing advantages and equipment features HB 720 Spray

- > Wafer-thin spray film and thus lower consumption of hot-melt adhesive
- > Process reliability through a consistent spray pattern
- > Inc. swirl nozzle with a standard diameter of Ø 1.5 mm
- › Large-area application
- > Suitable for bonding heat-sensitive materials
- > Conversion to a bead version is possible if required
- › Also ideal for securing pallets at changing workplaces

Technical data

Dimensions	. 280 x 270 x 107 mm
Weight	. 1.5 kg
Operating voltage	. 220-230 V, 50 Hz
Power consumption	. 600 W
Working temperature	. 40-210 °C
Capacity	. 200 ml
Melting capacity	for cartridges 3.2 kg/h, for granules 1.3 kg/h* $$







The HB 720 Bead and the HB 720 Spray are used successfully in the concrete industry, among others.

Adhesive selection

Type	Base	Form	Description
B3706	РО	Pillow	Very good oxidation stability, avenia, concrete industry.
B0715	PO	Cartridges Pillow, Granules	The all-rounder among the hot-melt adhesives for industry and handcraft, suitable for bead and spray, concrete industry.
B1063.1	PO	Granules Pillow	Universal: Suitable for bead and spray, insert systems for suitcase and general EPS bonds for the purpose of insulation, roller shutter construction, suitcase production.
D1544.1	PSA	Pillow	Pressure-sensitive hot-melt adhesive for fixing and assembly in many branches of industry, e.g. fixing insulation materials and for upholstered furniture.
C0874	PA	Granules	Low pressure injection moulding of electrical components, cable ducts and connector shapes. Securing of electrical components on circuit boards and enamelled wires on spools. Also available in black.

Base: PA - Polyamide, PO - Polyolefin, PSA - Pressure-sensitive

Delivery forms:

- 1 Cartridge (Diameter ca. 42 mm, 50 mm long)
- 2 Sticks (Diameter ca. 12 mm, 200 mm long)
- 4 Granules

HB 710 HT —



HB 710 HT - High temperature

In the high temperature version all plastic parts and seals are suitable for the processing of hot-melt adhesives with a temperature of up to 250 °C. This hand gun is particularly good for processing polyamide

Advantages and equipment features

- > Particularly robust/ temperature-resistant housing
- > Even broader processing spectrum for hot-melt adhesives
- › Process reliability through continuously adjustable temperature control +/- 1 °C
- One-hand bayonet lock for optimum ease of use
- > Ergonomically-shaped handle for fatigue-free work
- > Automatic temperature lowering for economical energy consumption and protection of the hot-melt adhesive
- > Temperature control with digital display integrated in the handle
- > Incl. cone nozzle standard Ø 1.5 mm

Technical data

Dimensions	.308 x 2/0 x 109 mm
Weight	. 1.4 kg
Operating voltag	. 220 - 230 V, 50 Hz
Power consumption	. 600 W
Working temperature	. 40 - 250 °C
Capacity	. 200 ml
Melting capacity	for cartridges 3.2 kg/h, for granules 1.3 kg/h*

^{*} Depending on temperature and adhesive viscosity







Application areas















Pneumatic glue guns

004

Accessories HB 720 Bead and HB 710 HT



Cone nozzle, Standard

Bead application Ø 0.8 mm Ø 1.0 mm Ø 1.5 mm Ø 2.0 mm Thread:

UNF 1/2"



Cone nozzle with capillary

Exact dot application Non-drip Ø 0.7 mm Thread: UNF 1/2"



Flat nozzle

Precise film application Film width: 10 mm Thread: UNF 1/2"



Wide slot nozzle

Film application Slot width: Film width: 16 or 30 mm 0.2 x 16 mm 0.2 x 30 mm Thread: UNF 1/2"

Accessories HB 720 Spray





Spray nozzle set Standard

Spray application air cap Set: Swirl nozzle Ø 1.5 mm Thread: M10 x 0,75



Bead application nozzle for spray devices

This nozzle enables a bead application with the HB 720 Spray. Direct mounting on the spray device. Ø 1.2 mm Thread:

M10 x 0.75



Bead nozzle adaptor

For the use of bead nozzles with an HB 720 Spray. Direct mounting on the spray device. Thread: M10 x 0.75 to UNF 1/2"



for spray devices



Air cap with adaptor for check valve

Incl. adaptor for check valve, steel ball, compression spring and O-ring Ø 2.0 mm



Pneumatic cartridge glue guns

004

This HB 720 variant enables reactive hot-melt adhesives such as polyurethanes (PUR) or polyolefins (POR) to be processed from aluminium cartridges. With this device it is possible to work horizontally or overhead. The devices are equipped with an innovative level control for information about the fill level in the cartridge. This effectively prevents glue from being wasted in partially empty cartridges. One of BÜHNEN'S contributions to sustainable bonding! For continuous processing of cartridges, we recommend our new cartridge preheater.

HB 720 K Bead wing HB 720 K Spray wing line®air HB 720 K Spray



HB 720 K - Dot and bead application

This model has an automatic temperature reduction function, which reduces the total energy consumption. The level indicator ensures that the entire adhesive is processed and that the cartridges are changed in good time but not too early. Suitable for all reactive hot-melt adhesives in 310 ml cartridges.

Advantages and equipment features HB 720 K Bead

- > Process reliability thanks to the microprocessor-controlled, stable temperature
- › Integrated level control and thus increased efficiency
- One-hand bayonet lock for optimum ease of use
- Minimal maintenance due to the PTFE-coated tank (reduces build-up)
- > Automatic temperature lowering for economical energy consumption and protection of the hot-melt adhesive
- > Temperature control with digital display integrated in the handle
- > Incl. conel nozzle standard Ø 3.0 mm

Technical data

Weight 1.75 kg Operating voltage 220-230 V, 50 Hz Power consumption. 600 W Working temperature. 40 - 210 °C

Melting capacity 0.7 – 1.2 kg/h* (without cartridge preheater)















Weight 1.9 kg

Power consumption. 600 W Working temperature. 4 0 - 210 °C

Capacity......310 ml



Melting capacity 0.7 – 1.2 kg/h* (without cartridge preheater)

The spray version of the HB 720 K is the perfect choice if a high level of

economy and efficiency is required with a PUR/POR application device.

version is selected. Different spray application patterns can be realised

If materials have to be bonded together over a large area, the spray

Differing advantages and equipment features HB 720 K Spray

> Extremely thin spray film and therefore lower hot-melt

› Process reliability owing to a reproducible spray pattern

› Suitable for bonding heat-sensitive materials

> Optimised ergonomics make handling easier

Operating voltage 220-230 V, 50 Hz

> Incl. swirl nozzle set with a standard diameter of Ø 1.5 mm

adhesive consumption

> Preheated spray air

› Large area application

Technical data





Microprocessor-controlled temperature setting

Adhesive selection

Туре	Base	Form	Description
E0931.3	PUR	Cartridge, Pull-ring can, Hobbock	Structural bonds with high demands on strength and temperature behaviour.
B1452.1	POR	Cartridge, Pull-ring can, Drum	For bonding low-energy surfaces with high demands on cohesion behaviour.
E3315	PUR	Cartridge, Cardboard Tube, Hobbock	Particularly suitable for surface lamination and light assembly bonds. Due to the reduced MDI content < 1%, the H351 label is no longer required.
F3490B	Detergent	Cartridge	Cleaning of melters when using reactive PUR hot-melt adhesives, blue

Base:

PUR - reactive polyurethane POR - reactive polyolefin Detergent - EVA copolymer

Delivery forms:

- 7 Cartridge (Diameter ca. 47 mm, 215 mm long)
- 9 Containers from 2 200 kg (Aluminium bag, bucket, pull-ring can, hobbock)

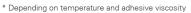


PTFE-coated tank reduces

Application areas









Innovative level control for information about the fill level in the cartridge.

Cartridge preheater for HB 720 series





K 725 - Cartridge preheater

The cartridge preheater is used to preheat 310 ml cartridges. It has two separately adjustable chambers, which are PTFE coated. The status displays indicate that the cartridges are ready for use. The heating-up time for cartridges is around 20 minutes (140 °C).

Advantages and equipment features

- > Infinitely adjustable temperature control +/- 1 °C
- > Separately switchable chambers, very fast heat-up time
- Adjustable temperature range 40 210 °C
- > Silicone-free
- > Status display offers security when bonding
- > Increases operational readiness in combination with HB 720 K Bead and Spray at 1.3 - 2 kg/h (melting capacity)
- > Reduces the waiting time before being ready for operation: Increasing efficiency and productivity.

Technical data

Weight.....2.5 kg Operating voltage 220-230V, 50 Hz Power consumption. 2 x 400W

Operating temperature 140 - 230 °C



Console ______wing.line®ar





Console with integrated pressure regulator

The console for the HB 720 series is a safe stand and storage option and ensures a tidy workplace. The mains plug of the HB 720 is connected directly to the console. The pressure regulator display is mounted on the console, where it is clearly visible. The air pressure can be precisely adjusted with the regulator for a constant application pattern

Work station — wing.line®air for HB 720 series





The station for hands-free operation

For stationary work with the HB 720 series. The hand-held devices are installed in the secure device stand. The mains plug of the HB 720 is connected directly to the workstation. The workstation includes a pressure regulator, trigger valve and foot valve. The spacer plate on the stand is adjustable to optimise the working area. Working with the foot switch enables you to work hands-free with the workpiece to be bonded. The display of the pressure regulator is mounted on the station and clearly visible. The air pressure can be set precisely with the regulator for a constant application pattern

Optionally, the group can be expanded to include a timer. This enables a reproducible application quality per actuation.

Pneumatic hot-melt glue guns

004

Accessories HB 720 K Bead



Nozzle block Standard

Bead application If necessary, the complete nozzle block on the HB 720 K can be replaced. A 3.0 mm cone nozzle is included in the kit.



cartridge. Thread:

UNF 7/16"

Nozzle set Cartridge nozzle, Bead application for high viscosity The nozzle set is adhesives screwed directly

onto the adhesive screwed directly onto the adhesive cartridge. Without ball



The nozzle set is



Nozzle set The nozzle set is screwed directly

onto the adhesive cartridge. Ø 1.5 mm Thread: UNF 1/2"



Sika nozzle mandrel The Sika

nozzle mandrel is part of the Sika nozzle block. With point. For SikaMelt® cartridges.



Sika nozzle block complete

Bead application The Sika nozzle block is screwed directly onto the HB 720 K. For SikaMelt® cartridges. Ø 3.0 mm

Accessories HB 720 K Spray



Nozzle block, Standard

Spray application. If necessary, the complete nozzle block on the HB 720 K can be replaced. A 37° swirl nozzle is included in the kit.



Spray nozzle set, Standard

Spray application. Set: swirl nozzle and air cap Ø 1,5 mm Thread: M10 x 0.75



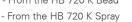
Cartridge tongs

aluminium cartridges: - From the cartridge preheater



Safe removal of hot







General accessories HB 720 series



Protective gloves Heat-resistant Safety when

handling hot

adhesive: Particularly cut and puncture resistant



Quiet-running compressor

For working with pneumatic handguns.



Silicone underlay

Due to the non-stick properties of the silicone the hot-melt adhesive can be easily removed. Dimensions: 500 x 600 x 2 mm



Balancer

Spring-loaded suspension for glue guns up to 2 kg. Easier and faster handling



Time control

Foot switch with adjustable timer





HB 5010 melters

005



Gear pumps melters

005

HB 5010 - Bead and Spray version



Switch on Get started!

The HB 5010 is the entry-level model for melters. Combined with the HB 910 hand gun, it is particularly suitable for manual applications. The robust system can be ordered as a bead or spray version.

The advantages

The simple menu navigation of the control system is designed to be user-friendly, so that the device can also be operated intuitively by unskilled personnel. A password protection can also be activated if

The extremely robust plastic housing has a dirt-resistant coating. The modular construction of the system increases the ease of maintenance and guarantees good accessibility of the parts in the event of servicing. A filter change is possible without the need for disassembly.

A conveyor system with a gear pump ensures a constant volume per unit of time. Due to its simple construction, the pump is robust and inexpensive. The construction of the pump also enables the processing of polyamides up to 210 °C.

A special feature of this system is the radio communication of the trigger signal from the hand gun to the receiver integrated in the system. There is therefore no need for an expensive special hose.

Up to 2 hot melt hoses can be connected. In combination with application heads, it is possible to automate simple tasks. All common hot-melt adhesives can be processed without problem in bead, dot and/or spray application.







Technical data

Dimensions	. 720 x 360 x 360 mm
Weight	. 35 kg
Operating voltage	. 220-230 V, 50 Hz
Marking toppoparatura	40 210 °C

Working temperature. 40 - 210 °C

Temperature sensor. PT100, alternatively Ni120 for hose and hand-held device

Hose connection ... 2

Melting capacity ... 4.5 kg/h*

Heating-up ... app.30 minutes

Pump system ... gear pump

Pump output ... 26 kg/h*

Usable tank volume ... 4.5 litres

ot-melt adhesives EVA, PA, PO and pressure-sensitive

adhesive

Advantages and equipment features

- > Intuitive user handling
- > Integrated week clock
- > Easy-to-clean, stable plastic housing
- > Connection for up to 2 hoses
- › Coated aluminium tank
- > 4.5-liter capacity
- > Fast heating in less than 30 minutes
- High melting capacity of 4.5 kg/h
- > Service-friendly, modular structure
- › Integrated filter
- › Maximum cleaning comfort

Adhesive selection

Тур	Base	Form	Description
B3706	PO	Pillow	Very good oxidation stability, avenia, concrete industry.
B0715	PO	Cartridge Pillow, Granules	The all-rounder among PO hot melts for industry and handcraft, suitable for bead and spray, concrete industry.
B1063.1	PO	Granules Pillow	Universal: Suitable for bead and spray, insertion systems for cases and general EPS bonding for the purpose of insulation, roller shutter construction, case production.
D1544.1	PSA	Pillow	Pressure-sensitive hot-melt adhesive for fixing and assembly in many branches of industry, e.g. fixing insulation on carrier materials, fixing insulation materials and for upholstered furniture.
C0874	PA	Granules	Low-pressure injection moulding of electrical components, cable ducts and connector shapes. Securing of electrical components on circuit boards and enamelled wires on spools. Also available in black.

Base: PA - Polyamide, P - Polyolefin, PSA - Pressure-sensitive adhesive

Delivery forms:

- 1 Cartridge (diameter ca. 42 mm, 50 mm long)
- 2 Sticks (diameter ca. 12 mm, 200 mm long)
- 4 Granules
- 6 Pillow

Application areas









Display

Automotiv

Textile industr





Construction industry

Easy-to-clean, stable plastic housing

Easily understandable display



Flexible connection of up to 2 hoses





^{*} Depending on temperature and adhesive viscosity

Melters

Accessories for the HB 5010



Transport trolleys for melters

It is used for the safe transport of the systems - with practical handles for pushing and easy- running wheels. All wheels can be locked. The table can be loaded up to a maximum of 500 kg.



Container for granulate adhesives

Rollable container for dry and clean storage for approx. 75 kg granulate.



Mount with motor switch

When the hand gun is hung on the mount, it interrupts the power supply to the pump motor. This interrupts the delivery of the hotmelt adhesive when the work is paused. The interruption protects the hot-melt adhesive as well as the device technology.



Maintenance package

One sack (25kg) B41577.2 "cleaning adhesive" One 0.7kg bottle F93492-01 3 cleaning spatulas



Low-noise compressor

For working with pneumatic devices.



Spray air attachment kit without solenoid valve

The spray air attachment kit is used for spray applications when working manually with handguns, or automatic application by means of a spray application head.



005

Holder for hand-held devices

A holder as an optional accessory for our melters. Enables the practical hanging of the hand gun directly on the device.





Adapter for Nordson hoses

This adapter enables heated hoses from Nordson to be operated on the HB 5010. Note: Before using the adapter with a Nordson hose, the Ni120 version must be selected in the operating programme!



Heat-resistant protective gloves

Safe handling of hot glue: particularly cut and puncture resistant



Hand guns for melters

006

HB 910 Bead and Spray

The 360° swivel joint of the HB 910 hand gun enables trouble-free work. The gun follows every movement without twisting the hose. The slim handle ensures good working comfort even for smaller hands. All parts in contact with the adhesive are in the isolated area and the risk of injury is low. The non-slip handle lies comfortably in the hand and stays cold.

The advantages

- > Low weight
- 360° mobility
- > Incl. radio switch for starting the pump motor of the HB 5010
- › No annoying cables whilst working
- A clear view of the work area due to the hose guide
- > Stable and protected hose connection to the hand- held device
- > Standard temperature sensor PT100,
- › Ni120 or FeCuNi temperature sensors available
- > Spray version: clean nozzle due to built-in air valve
- > Adjustable spray application: pressure regulator on the spray air attachment kit
- Different nozzle diameters with 3/8" thread available















Technical data	HB 910 Handgun Bead	HB 910 Handgun Spray
Weight	. 0.76 kg	. 0.87 kg
Operating voltage	. 230 V AC / 50-60 Hz	. 230 V AC / 50-60 Hz
Heating capacity	. 120 W	. 120 W
Max. operating temperature	. 210 °C, optional 250 °C	. 210 °C
Temperature sensor	.PT100, Ni120, FeCuNi	. PT100, Ni120, FeCuNi
Hot melt hose	. 1.2 - 6 m* HP series	. 1.2 - 6 m* HP series
* Other lenghts on request		

For our range of devices







HB 4000 connect

HB 950 Bead and Spray

Protects muscles and tendons

the HB 950 is ideal. By hanging the hand gun on a balancer, work can be carried out in a manner that is gentle on muscles and tendons. The safety and protection of the user is ensured by the insulation of the handle, which also does not The advantages carry any adhesive.

- > Extremely easy to guide thanks to the suspension
- > Easy to operate pneumatic trigger
- One-hand operation (no need to hold or guide the hose)
- > Suitable for all hot-melt adhesives and all types of application (bead, spray application)
- > High flexibility: modules and nozzles can be exchanged
- > Optionally available: mobile table and suspension system
- > Production reliability: less staff absenteeism due to tendon disorders
- > No risk of burns, as the handle is made of special plastic
- > The handgun cannot fall down



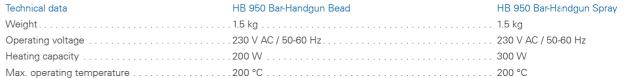


If the hot-melt adhesive is applied from above, working with

The advantages

- > Suspension protects the hose





Suitable for

adhesives

High flexibility:

Module and hoses

can be exchanged

many hot-melt

Suspension system prevents falling

No risk of burns

thanks to safe one-hand operation

Temperature sensor. PT100, Ni120, FeCuNi PT100, Ni120, FeCuNi

No tracking of the hose required

For our range of devices







HB 4000 connect

PAGE 62 // HAND GUNS 006 006 HAND GUNS // PAGE 63

^{*} Other lengths on request

Handguns for melters

Accessories HB 950 Bead, HB 910 Bead and Spray



Long nozzle, steel Bead application

screwable, steel Ø 0.6 mm

Ø 0.8 mm Ø 1.0 mm

Ø 1.2 mm Ø 1.5 mm Ø 2.0 mm

Ø 3.0 mm Thread: UNF 3/8"

Long cone nozzle copper

Bead application Length 57 mm Thread: UNF 3/8"

> Ø 0.8 mm Ø 1.0 mm Ø 1.5 mm

Ø 2.0 mm Thread: UNF 3/8"



Spray nozzle set 3/8"

Spray application set: Swirl nozzle, air cap and union nut



Wide spray nozzle set 3/8"

Spray application set: swirl nozzle Ø 1.0 mm Ø 2.0 mm Thread: UNF 3/8"



Accessories HB 900 series



Silicone underlay Clean workplace and no adhesive

buildup 500 x 600 x 2 mm Colour: Blue



Protective gloves Heat-resistant

Safety when handling hot obiects



Swivel arm with balancer

Safe positioning Easier handling at the workplace Loadable up to 4 kg



Hot melt hose HP series for HB 910

Bead and spray version. Standard lengths: 1.2 m to 6.0 m Further lengths on

request

Hot melt hose KS

series for HB 950

Bead and spray version Standard lengths: 1.2 m to 6.0 m Further lengths on request

006

Accessories HB 950 Spray



Spray nozzle MS Spray application

in the version with 7 drill holes 60° spray angle Ø 0.2 mm Ø 0.25 mm Ø 0.3 mm

> Ø 0.35 mm Ø 0.4 mm Ø 0.45 mm Ø 0.5 mm Ø 0.55 mm

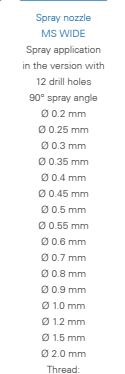
Ø 0.6 mm Ø 0.7 mm Ø 0.8 mm Ø 0.9 mm

Ø 1.2 mm Ø 1.5 mm Ø 2.0 mm

Ø 1.0 mm

Thread: UNF 1/2" x 20





UNF 1/2" x 20



Piston pumps melters

007

HB 6000 connect -

It's all a matter of setting: Maximum compatibility.

The equipment of the HB 6000 connect offers a wide range of options for integration into existing production lines. Thanks to the clear touch-screen, the technology of the system is easy to operate. The latest generation is prepared for the 4.0 industry: MODBUS,RTU, PROFIBUS, PROFINET and ETHERNET-IP are optionally available for communication.

The advantages

The HB 6000 connect is systematically geared towards efficiency. Compared to other systems, this generation impresses with an energy saving of 60 %. This is achieved by means of the well thought-out insulation of all heated components and the processed Cool-Touch casing.

Safety and ease of maintenance were the top priorities in the development. All assemblies can be accessed in just a few simple steps. The removable side panels simplify service and installation work. The large tank lid can be opened completely and makes refilling and cleaning of the system easier.

The 6000 series heats the adhesive gently and sequentially. This improves the quality of the adhesive application and increases the service life of the system. The structure of the tank ensures that the temperature is uniform. There are no overheated areas in the tank where the adhesive can burn. This protects the adhesive and reduces production downtime due to clogged nozzles.

The HB 6000 connect are compatible with accessories from other manufacturers. Hot melt hoses and application heads from Nordson and Robatech can be easily connected.

A wide range of accessories can be found in the BÜHNEN programme. The system can be expanded with, for example, a granulate conveyor, line control or level control.

Brand new! The HB 6000 connect can now be ordered with a flow meter. The system is a precise solution for monitoring adhesive consumption, which uses piston strokes as a reference. Among other things, the total consumption, the consumption per product and the number of articles processed are recorded.











Technical data

Dimensions	. 588 x 341x 481 mm*
Weight	. 90 kg*
Operating voltage	. 400 V
Working temperature	. 0 - 230 °C
Temperature constancy	. +/- 0.5 °K
Temperature sensors	. PT100, Ni120 and NTC
Hose connections	.2/6
Over-temperature protection .	. Yes, limited to 260 °C
Melting capacity	. 9 - 30 kg/h**
Pump system	. Piston pump
Pump output	29.3 - 66 kg/h
Usable tank volume	. 5, 10, 20, 37 litres

* Varies depending on the model. Information is based on model HB6350 connect.

Hot-melt adhesive EVA, PO and thermoplastic rubbers

Noise emission 60 dBA



Adhesive selection

Туре	Base	Form	Description
B0715	PO	Cartridge, Pillow, Granules	The all-rounder among hot-melt adhesives for industry and hand- craft, suitable for bead and spray, concrete industry
B1063.1	PO	Granules, Pillow	Universal: Suitable for bead and spray, insert systems for cases and general EPS bonding for the purpose of insulation, roller shutter construction, case construction
B3771	PO	Granules	White bio-based hot-melt adhesive for industrial applications in the packaging industry, e.g. coated cardboard and fast carton erectors
D1544.1	PSA	Pillow	Pressure-sensitive hot-melt adhesive for fixing and assembly in many branches of industry, e.g. fixing insulating materials and for upholstered furniture

Base: PO - Polyolefin, PSA - Pressure-sensitive hot-melt adhesive

Delivery forms:

- 1 Cartridge
- 4 Granules
- 6 Pillow

Advantages and equipment features

- › Reduction in energy costs through highly efficient insulation
- $\,\,$ More protection against burns thanks to the cool-touch housing
- > Easy integration into the production systems
- Communication protocols for the industry can be called up via Modbus, RTU, Profibus, Profinet and Ethernet-IP
- Flexibility in programming thanks to 6 calendars / 6 time windows for ON / OFF / Standby
- > Compatible with Nordson and Robatech
- › Easy-to-learn operation
- > Complete stand-alone melter
- > Connection of up to 6 heating hoses possible
- The delivery rate of the piston pump can be individually regulated
- > Extensive standard equipment
- > Can be expanded with a flow meter, line control or granulate conveyor

Application areas





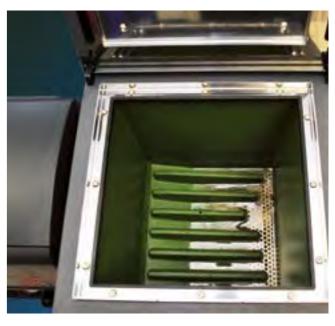




struction

II BUSINESS medier 15

Full access to the assemblies /components for maintenance work



Effortless cleaning g thanks to PTFE coating



Easy to program user- interface with 7" touchscreen

007 HB 6000 MELTERS 007

^{**} Depending on temperature and adhesive viscosity

Linear path control for melters

007





Rear view with 4 channels

Linear path control

The linear path control enables automated work. It controls the solenoid valves on the application heads independently. The control enables precise and exactly recurring hot-melt adhesive application. This application is carried out by calling up recipes or programme variants. The recipes make changing the products to be bonded on the production line much faster. When changing a cardboard box in a packaging line, for example, it is not necessary to laboriously change the settings on the application heads. Up to 100 recipes can be programmed.

The linear path control is operated via a 7" touchscreen and is intuitive. The control is compatible with BÜHNEN HB 4000, HB 5010 and HB 6000 series melters and application heads. The adhesive is applied either time-controlled or distance-controlled.

The linear path control can save up to 30% hot-melt adhesive. Instead of a single hot-melt adhesive bead, several adhesive beads or dots can be applied in quick succession.



Advantages and equipment features

- > Precise and exactly recurring hot-melt adhesive application
- > Intuitive operation via 7" touchscreen
- High compatibility with all BÜHNEN application systems (melters and application heads)
- > Programming of up to 100 recipes / patterns
- Time or distance-controlled adhesive application(rotary pulse encoder is also required)
- > Easy integration into existing systems
- Up to 30% savings in hot-melt adhesive with dot application
- Simple plug connection from the line control directly to the application head
- Own circuit a direct connection to the parent machine or the melter is not required
- > Six inputs for reflex light scanners (depending on the model)
- Six outputs for activation channels of the solenoid valve (depending on the model)
- > Rotary pulse encoder input
- Two analogue 0-10 V outputs for regulating the pump pressure of the melter

Technical data

Granulate conveyor for melters







Automatic adhesive filling by the granulate conveyor

Manual refilling of the hot-melt adhesive is no longer necessary when using a granulate conveyor. The fill level of the tank in the melter is continuously checked. Process reliability is increased with the use of the granulate conveyor, as unplanned production interruptions due to an empty tank are avoided. It is filled with fresh adhesive as required. This reduces temperature fluctuations in the melt and prevents cracking in the device. With the automatic filling process, the risk of accidents for personnel is significantly reduced. Maintenance costs caused by soiling of the system, triggered by overfilling or granules falling beside the tank are reduced to almost nil.

An alarm system warns of malfunctions, for example before the tank has been completely emptied or if the tank is incorrectly filled. A built-in filter prevents the release of dust particles from the granulate. The granulate stock is stored in a container; the container is connected to the melter by means of a suction pipe. Flowable adhesive in the form of granules or pillows up to 10 mm in size is suitable for processing. Refilling the container is child's play thanks to the large hinged lid. The vibration system of the suction plate prevents the stored adhesive from compressing.

Advantages and equipment features

- > Saves personnel costs in operating time
- > Helps to reduce temperature fluctuations in the melt
- › High compatibility with all BÜHNEN melters
- > Reduces adhesive cracking
- > Prevents downtimes caused by an empty tank
- > Integration in existing systems possible
- > Reduces the risk of injury to personnel through burns
- › Alarm system with optical and acoustic signals
- > Closed system prevents the adhesive from becoming dirty

Technical data

Option: Container for granules with a capacity of 75 kg granulate *depending on the shape, size and weight of the adhesives

PAGE 68 // HB 6000 MELTERS 007

Hot melt hoses for melters

800

Hot melt hoses from BÜHNEN are manufactured using high-quality materials and thus set standards for a long service life and high operational reliability with precise temperature control. By heating the hot-melt adhesive in the hose, a constant temperature is guaranteed and precise processing is ensured.

Flexible lengths

BÜHNEN hoses always fit! Every hot-melt adhesive application system requires the right hoses in different lengths and nominal widths (= diameter of the hose inner core).

In addition, the hoses are available in versions with different temperature sensors (PT100, Ni120, FeCuNi, NTC), as well as in various connector variants and a wide variety of screw connections.

BÜHNEN hoses are not only suitable for BÜHNEN application systems. We also supply compatible hoses for Nordson, Meltex, Robatech and ITW Dynatec systems.

Standard lengths:

1.2 m, 1.5 m, 1.8 m, 2.4 m, 2.5 m, 3 m, 3.6 m, 4 m, 4.2 m, 4.5 m, 4.8 m, 5 m, 6 m

Other lengths available on request.

Standard nominal widths:









6 NW08

Other diameters available on request.



Construction

In order to withstand high temperatures, we use a PTFE inner hose for our hot melt hoses. This is sheathed in a VA protective braid, so that it can withstand correspondingly high pressures.

The next step is to wind the heating cables and the temperature sensor. Further protection is provided by insulation made of heat-resistant felt tape. The control lines follow and then further insulation made of felt tape. A corrugated thermoplastic elastomer (TPE) hose serves to protect the thermal insulation. The assembly of the hot melt hoses is completed with high-quality end caps, resilient plug connections and electrical connections.

Areas of application

The hot melt hoses serve as a heated and flexible transport route for hot-melt adhesives from a melter to the application head or to the hand gun. They are also used where moving system parts are connected and the heated hot-melt adhesive is to be fed in using a robot or manual hand movement.



BÜHNEN hoses components / construction / accessories



More protection

Do you have special requirements for the protection of the heated hoses due to your environmental conditions? Then BÜHNEN is exactly the right place for you!

Individuality

Hoses can be matched to the various types of hot-melt adhesive.

High temperature

For processing hot-melt adhesives up to 250 °C (e.g. PA)

PUR Version

Ideal for processing PUR hot-melt adhesives: As an individual part, the inner core can be replaced by you if necessary.



Standard

Thermoplastic Elastomer (TPE) for NW06 and NW08.



Splash water protection

A special (IP65 standardised) protection, for use e.g. in the beverage industry.



Braid sheathing

Polyamide braid and heatresistant silicone foam as from NW10.



VA sheathing

For particularly extreme loads on the outer jacket.

PAGE 70 // HEATABLE HOSES 008

Hot melt hoses for melters

800

The KS hot melt hoses serve as a heated and flexible transport path for hot-melt adhesives from a melter to an application head (bead or spray). The HP hot melt hoses serve as a heated and flexible transport path for hot-melt adhesives from a melter to a hand gun).



KS hot melt hoses for application heads

Advantages and equipment features

- Supply voltage:
 230 V AC / 50-60 Hz, special voltage available on request
- > Power consumption per meter: Depends on length and diameter
- > Temperator sensor: PT100, Ni120, NTC, FeCuNi or on request
- Operating temperature: 200 °C standard, 250 °C high temperature
- Nominal size of the inner core (DN):
 DN 6, 8, 10, 12, 16, 20, 25 or on request
- > Length: 1.2 m to 6 m or on request
- External protective braid:Corrugated hose, polyamide braid or metal braid
- Thermal insulation: Heat-resistant, close-cell silicone foam hose or felt (depending on temperature)
- › Pressure hose: PTFE core with protective metal braiding
- Operating pressure: 80 240 bar depending on the nominal size of the inner core and the pressure class (T1, T2 or T3)
- > Connection fittings: Different UNF threads depending on the nominal size or customer- specific fittings
- > Bending radius: 75 250 mm depending on the nominal size
- Integrated spray air line:
 Available as an option for spray application heads
- Heat ing hose end caps:
 Silicone rubber cap or hard cap with cable strain relief
- Electrical plug connections and head connections:
 14-pin circular plug and socket,
 12-pin plug and socket (Nordson compatible), all Harting plugs and sockets available on request

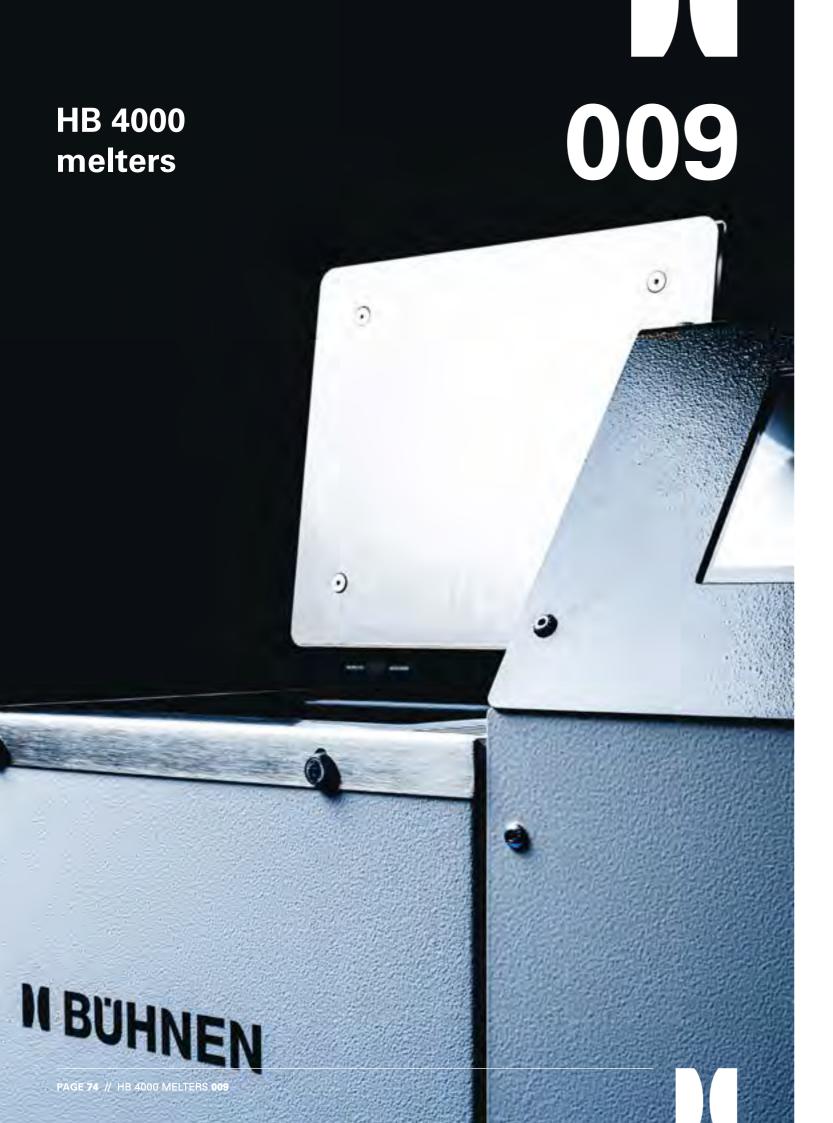


HP hot melt hoses for hand guns

Advantages and features

- Supply voltage:230 V AC / 50-60 Hz, special voltage available on request
- › Power consumption per meter: Depends on length and diameter
- Temperature sensor: PT100, Ni120, NTC, FeCuNi or on request
- Operating temperature: 200 °C standard, 250 °C high temperature
- > Nominal size of the inner core (DN): DN 6, 8 or 10
- > Length: 1.2 m to 6.0 m or on request
- › External protective braid: Corrugated hose or polyamide braid
- Thermal insulation: Heat-resistant, close-cell silicone foam hose or felt (depending on temperature)
- › Pressure hose: PTFE core with protective metal braiding
- Operating pressure: 175 240 bar depending on the nominal size of the inner core (only pressure class T1) when using a BÜHNEN handgunmax. 40 bar permitted
- > Connection fittings: UNF 9/16"18" thread
- › Bending radius: 75 120 mm depending on the nominal size
- > Integrated spray air line: Available when used with a spray hand gun
- Heat ing hose end caps: Silicone rubber cap or hard cap with cable strain relief
- Electrical plug connections and head connections:
 14-pin circular plug and socket,
 12-pin plug and socket (Nordson compatible), all Harting plugs and sockets available on request





Gear pump melters

009

HB 4000 connect series for EVA, PO ——and pressure-sensitive hot-melt adhesives

HB 4000 connect - Precise connections, intelligently controlled

This series thinks ahead and supports your manufacturing process with intelligent software solutions and high-quality technical features.

The advantages

Easy to use - 7" monitor and Ethernet

The system can be controlled via the easy-to-use menu. From here, you have access to all settings. A LAN cable can be connected via the Ethernet. This enables convenient remote access if the installation is built into a system.

Automatic speed control according to quantity specification (q/m - q/sec - q/m2)

The dosing meter function gives you control of the adhesive application right down to the last gram. Does your production have precise specifications? You can set the amount of adhesive and the device records the adhesive values. This documentation can be used to support your quality assurance.

Secure setting – User setting with rights management

You can use rights management to protect your settings from manipulation. There are three operating levels available that can be assigned depending on the qualification level of the operators.

Even application- Standard pressure sensor at no extra charge

The built-in pressure sensor ensures that the adhesive is applied evenly and reproducibly. The by-pass is no longer required in this generation of devices. This technical solution means that there are fewer replacement parts costs.

Always ready to go - Weekly timer and standby function

The systems are ready to go before the team is. You can programme the heating-up times so that the system is ready to start production without waiting time at the beginning of the shift. Programming is possible to cover days or weeks.

By means of the standby function, the system switches to a lower temperature. This protects the adhesive and reduces electricity costs. Have you forgotten to turn off the system at the end of the day? The HB 4000 connect can turn itself off.

Perfectly set - Recording of adhesive settings and recipe management

When the adhesive data is stored, the system makes a product change possible in production in a matter of seconds. Set-up times for programming the temperature setting are omitted.

This means you reduce production waste and minimise the risks from faulty operation.

Simply flexible - Different pump sizes available

Three pump sizes are available. You can change the delivery rate according to your needs. The pumps are also interchangeable in the case that the conditions in your production change. This saves money, and the modular principle is designed to be sustainable.

Remembering made easy - Maintenance and service

The software reminds you to clean and change the filter on time. Of course, the system also has an operating hours counter and an error indicator that you can read.

This must not be missing:

Of course, the melters can also be configured for spraying use. Does your adhesive have a high processing temperature?

Ask us about a high-temperature version of the desired system (up to

Is the programming too complicated for you?

We will be happy to set up the individual data for you before delivery. For this we require an adhesive sample and the relevant data sheet from you



Maintenance-friendly design with good accessibility to all components.



HB 4100 connect

Weight50 kg

Operating voltage 3 x16A / N / PE 400 V, 50 - 60 Hz Working temperature 0 - 190 °C, HT: 0 - 230 °C

Temperature sensor. PT100, NTC und Ni120

Hose connection 2

Over-temperature protection . . Yes, limited to 260 °C

Melting capacity 5 kg/h* Pumping system 1 gear pump Usable tank volume 9 litres Standard-Förderleistung 10 kg/h



HB 4450 connect

Weight95 kg

Operating voltage 3 x 32A / N / PE 400 V, 50 - 60 Hz Working temperature0 - 190 °C, HT: 0 - 230 °C

Temperature sensor. PT100, NTC und Ni120

Hose connection 2 oder 4

Over-temperature protection . . Yes, limited to 260 °C

Melting capacity25 kg/h* Pumping system 1 - 2 gear pumps

Usable tank volume 47 litres Standard-Förderleistung 40 kg/h

PAGE 76 // HB 4000 MELTERS 009



HB 4200 connect

Weight65 kg

Operating voltage 3 x16A / N / PE 400 V, 50 - 60 Hz

Working temperature0 - 190 °C, HT: 0 - 230 °C Temperature sensor. PT100, NTC und Ni120

Hose connection 2 oder 4

Over-temperature protection . . Yes, limited to 260 °C

Melting capacity 10 kg/h*

Pumping system 1 - 2 gear pumps Usable tank volume 18 litres

Standard-Förderleistung 20 kg/h

^{*} Depending on temperature and adhesive viscosity



Maintenance-friendly access to the control cabinet.

Application areas











industry



HB 4650 connect

Operating voltage 3x32A / N / PE 400 V, 50 - 60 Hz Working temperature0 - 190 °C, HT: 0 - 230 °C

Temperature sensor. PT100, NTC und Ni120

Hose connection 2 oder 4

Over-temperature protection . . Yes, limited to 260 °C

Melting capacity40 kg/h* Pumping system 1 - 2 gear pumps

Usable tank volume 74 litres Standard-Förderleistung 40 kg/h



HB 4800 connect

Operating voltage 3 x 32A / N / PE 400 V, 50 - 60 Hz

Working temperature0 - 190 °C, HT: 0 - 230 °C Temperature sensor. PT100, NTC und Ni120

Hose connection 2 oder 4

Over-temperature protection . . Yes, limited to 260 °C

Melting capacity60 kg/h*

Pumping system 1 - 2 gear pumps

Usable tank volume 86 litres Standard-Förderleistung 80 kg/h



HB 4110 connect

Weight200 kg

Operating voltage 3x32A / N / PE 400 V, 50 - 60 Hz Working temperature $\,\ldots\,$ 0 - 190 °C, HT: 0 - 230 °C

Temperature sensor. PT100, NTC und Ni120 Hose connection 2 oder 4

Over-temperature protection . . Yes, limited to 260 °C

Melting capacity70 kg/h* Pumping system 1 - 2 gear pumps Usable tank volume 115 litres

Standard-Förderleistung 80 kg/h



HB 4130 connect

Operating voltage 3 x 32A / N / PE 400 V, 50 - 60 Hz Working temperature 0 - 190 °C, HT: 0 - 230 °C

Temperature sensor. PT100, NTC und Ni120

Hose connection 2 oder 4

Over-temperature protection . . Yes, limited to 260 °C

Melting capacity80 kg/h* Pumping system 1 - 2 gear pumps

Usable tank volume 130 litres Standard-Förderleistung 80 kg/h



^{*} Depending on temperature and adhesive viscosity



Gear pump melters

009

HB 4000 connect series - for PA hot-melt adhesives

HB 4000 connect – version for polyamide hot-melt adhesives

The melters have a progressive melting tank. This enables a gentle melting of PA hot-melt adhesives in the form of granules, pillows or blocks up to 230 °C. By using two different tank materials with different thermal conductivities, the hot-melt adhesive is protected from thermal stress. In addition, this has the effect that the adhesive is pre-dried in the upper tank area, as polyamides are hygroscopic and can absorb moisture.

The advantages

Easy to use - 7" monitor and Ethernet

The system can be controlled via the easy-to-use menu. From here, you have access to all settings. A LAN cable can be connected via the Ethernet. This enables convenient remote access if the installation is built into a system.

Automatic speed control according to quantity specification (g/m - g/sec - g/m2)

The dosing meter function gives you control of the adhesive application right down to the last gram. Does your production have precise speci-fications? You can set the amount of adhesive and the device records the adhesive values. This documentation can be used to support your quality assurance.

Secure setting – User setting with rights management

You can use rights management to protect your settings from manip-ulation. There are three operating levels available that can be assigned depending on the qualification level of the operators.

Even application- Standard pressure sensor at no extra charge

The built-in pressure sensor ensures that the adhesive is applied evenly and reproducibly. The by-pass is no longer required in this generation of devices. This technical solution means that there are fewer replacement parts costs.

Always ready to go – Weekly timer and standby function

The systems are ready to go before the team is. You can programme the heating-up times so that the system is ready to start production without waiting time at the beginning of the shift. Programming is possi-ble to cover days or weeks.

By means of the standby function, the system switches to a lower tem-perature. This protects the adhesive and reduces electricity costs. Have you forgotten to turn off the system at the end of the day? The HB 4000 connect can turn itself off.

Perfectly set – Recording of adhesive settings and recipe management

When the adhesive data is stored, the system makes a product change possible in production in a matter of seconds. Set-up times for pro-gramming the temperature setting are omitted. This means you reduce production waste and minimise the risks from faulty operation.

Simply flexible - Different pump sizes available

Three pump sizes are available. You can change the delivery rate accord-ing to your needs. The pumps are also interchangeable in the case that the conditions in your production change. This saves money, and the modular principle is designed to be sustainable.

Remembering made easy - Maintenance and service

The software reminds you to clean and change the filter on time. Of course, the system also has an operating hours counter and an error indicator that you can read.

This must not be missing:

Of course, the melters can also be configured for spraying use.

Is the programming too complicated for you?

We will be happy to set up the individual data for you before delivery. For this we require an adhesive sample and the relevant data sheet from you



Maintenance-friendly design with good accessibility to all components.



Technical data HB 4070 connect

Weight.....50 kg Operating voltage 3x 16A / N / PE 400 V, 50 - 60 Hz Working temperature. 0 - 200 °C, HT: 0 - 230 °C

Temperature sensor. PT100, NTC and Ni120 Hose connections 1 - 2

Over-temperature protection . . Yes, limited to 260 °C

Melting capacity 3 kg/h* Pump system. 1 gear pump Usable tank volume......7 litres

^{*} Depending on temperature and adhesive viscosity



Technical data HB 4150 connect

Weight.....60 kg

Operating voltage 3x 16A / N / PE 400 V, 50 - 60 Hz Working temperature. 0 - 200 °C, HT: 0 - 230 °C

Temperature sensor. PT100, NTC and Ni120

Hose connections 1 - 2

Over-temperature protection . Yes, limited to 260 °C

Melting capacity 4 kg/h*

Pump system. 1 gear pumps Usable tank volume......15 litres

Application areas



industry









Adhesive selection

Туре	Base	Form	Description
C0874 C0874S	PA	Stick, Granulate	Low pressure injection moulding of electrical components, cable ducts and connector shapes. Securing of electrical components on circuit boards, as well as enameled wires on spools/coils. Also available in black.
C1404	PA	Granulate	For the roof tile industry as spacer or scratch protection for roof tile surfaces that are glazed or varnished.
C1429.2	PA	Granulate	For the roof tile industry as spacers or scratch protection for roof tiles with anti-dirt coating, varnish or glaze on the top surface of the roof tile.
C2417	PA	Granulate	Very suitable for bonding of core packages in the foundry industry, but also when used in wood processing. Has a high initial strength.

Base: PA - Polyamide

Delivery forms:

2 - Stick

4 - Granulate



Technical data HB 4250

Dimensions 800 x 445 x 770 mm

Weight 80 kg

Operating voltage 3x 16 A / N / PE 400 V, 50 - 60 Hz Working temperature.....0 - 200 °C, HT: 0 - 230 C Temperature sensor. PT100, NTC and Ni120

Hose connections 1 - 4

Over-temperature protection . . Yes, limited to 260 °C

Melting capacity 12 kg/h*

Pump system. 1 - 2 gear pumps Usable tank volume 25 litres

* Depending on temperature and adhesive viscosity



PAGE 80 // HB 4000 MELTERS 009 009 HB 4000 MELTERS // PAGE 81

^{*} Depending on temperature and adhesive viscosity

Gear pumps Melters

009

HB 4000 connect - Process reactive hot-melt adhesives safely

All HB 4000 connects designed for processing PUR / POR adhesives have a closable airtight tank. This means that the reactive hot-melt adhesives do not absorb moisture prematurely. The melting tank and lid have a non-stick coating. The filter block is made of high-strength aluminium and the large-volume tank filter ensures a long service life.

The advantages

Easy to use - 7" monitor and Ethernet

The system can be controlled via the easy-to-use menu. From here, you have access to all settings. A LAN cable can be connected via the Ethernet. This enables convenient remote access if the installation is built into a system.

Automatic speed control according to quantity specification (a/m - a/sec - a/m2)

The dosing meter function gives you control of the adhesive application right down to the last gram. Does your production have precise specifications? You can set the amount of adhesive and the device records the adhesive values. This documentation can be used to support your quality assurance.

Secure setting – User setting with rights management

You can use rights management to protect your settings from manipulation. There are three operating levels available that can be assigned depending on the qualification level of the operators.

Even application- Standard pressure sensor at no extra charge

The built-in pressure sensor ensures that the adhesive is applied evenly and reproducibly. The by-pass is no longer required in this generation of devices. This technical solution means that there are fewer replacement parts costs.

Always ready to go - Weekly timer and standby function

The systems are ready to go before the team is. You can programme the heating-up times so that the system is ready to start production without waiting time at the beginning of the shift. Programming is possible to cover days or weeks.

By means of the standby function, the system switches to a lower

tem-perature. This protects the adhesive and reduces electricity costs. Have you forgotten to turn off the system at the end of the day? The HB 4000 connect can turn itself off.

Perfectly set - Recording of adhesive settings and recipe management

When the adhesive data is stored, the system makes a product change possible in production in a matter of seconds. Set-up times for programming the temperature setting are omitted. This means you reduce production waste and minimise the risks from faulty operation.

Simply flexible - Different pump sizes available

Three pump sizes are available. You can change the delivery rate according to your needs. The pumps are also interchangeable in the case that the conditions in your production change. This saves money, and the modular principle is designed to be sustainable.

Remembering made easy - Maintenance and service

The software reminds you to clean and change the filter on time. Of courese, the system also has an operating hours counter and an error indicator that you can read.

This must not be missing:

Of course, the melters can also be configured for spraying use.

Is the programming too complicated for you?

We will be happy to set up the individual data for you before delivery. For this we require an adhesive sample and the relevant data sheet from you.



HB 4000 connect - Tank device with compressed-air dryer

The HB 4006 connect and HB 4022 connect melt PUR and POR hot-melt adhesives directly in the tank without any outer packaging. The reactive adhesives are protected from moisture by an integrated compressed-air dryer.

These devices score points with their price-performance ratio, tank capacity and melting performance. The melting tank has no buffer area and the adhesive is therefore completely melted.

For these devices, please note the information in the operating manual regarding the required rinsing cycles during production breaks.

HB 4000 Bag melter connect

The bag melter is a maintenance-friendly, adhesive-saving melting device. The melting material is processed directly from the bag. This minimises contamination of the device.

The bag melter works with a buffer volume for uninterrupted operation. This means that work can continue during the refilling process without production downtime.

When required, the adhesive block is pressed through a melting grid by a piston and flows into a reservoir. Once this is full, the melting grid is automatically switched off. Due to the demand-based melting, the adhesive in the reservoir has a constant viscosity. This achieves continuous production quality.

No residue remains in the adhesive bag. The entire contents of the bag are melted. The pressed packaging has only a very low waste volume.

HB 4000 Drum melter connect

When processing large quantities of hot-melt adhesive, the drum has proven to be the ideal delivery form. The drum melters from the HB 4000 connect series are designed so that only the contact surface of the adhesive is melted. The thermal load is thus reduced to a minimum.

Depending on the required melting capacity and the thermal conductivity of the melt, three different melting plates are available. Different geometries of the melting plates enable melting capacities of 5 - 200 kg/h. The melting plates have a long-lasting endless sealing ring, which is used in smooth-walled drums. If you would like to use corrugated drums, please contact us. The drum is ventilated automatically by means of a button. The three-phase motors guarantee continuous application of the melt. The systems can process all standard container sizes from 20 kg to 200 kg, depending on the model.

Tandem drum melter

For applications with very high continuous demand, tandem drum melters can be used. The switch from an empty to a full drum occurs automatically via a distribution block. A further option is to fill the hotmelt adhesives from a drum into a buffer device

Advantages and features

- > Very low residual quantity in the drum
- > Two-handed operation for raising and lowering the drum
- Clean change in a short time: The change drawer supplied as standard prevents the hot adhesive from dripping when changing the drum
- > Easily replaceable surface heating in the melting plate
- > Easy cleaning of the melting plate







melting performance:

HB 4020 FS connect - approx. 12 kg/h*

- 7 11B 4020 1 3 CONNECT approx. 12 kg/
- HB 4200 FS connect approx. 100 kg/h*
 The combination of the melting capacity and low residual quantity makes this plate the BÜHNEN standard.

Optionally available:



Smooth melting plate

With a smooth surface for a low melting performance:

- HB 4020 FS connect approx. 5 kg/h*
- HB 4200 FS connect approx. 25 kg/h*
 The smooth melting plate enables the drum to be almost completely emptied.



Melting plate 40 mm

Surface with 40 mm melting ribs for a very high melting performance:

- HB 4020 FS connect approx. 20 kg/h*
- HB 4200 FS connect approx. 150 200 kg/h*
 The melting surface, which has been increased by 60%, enables a very high melting performance.

PAGE 82 // HB 4000 MELTERS 009



Technical data HB 4020 BS connect, bag melter

Dimensions	990 x 490 x 1520 mm
Weight	80 kg
Operating voltage	3 / N / PE 400 V, 50 - 60 Hz
Working temperature	0 - 190 °C
Temperature sensors	PT100, NTC and Ni120
Hose connections	2 or 4
Over-temperature protection	Yes, limited to 260 °C
Melting capacity	up to 4 kg/h*
Pump system	1 gear pump
Tank diameter	Ø 130 mm
Usable tank volume	2 litres
Containers	2 kg aluminium bag, pull-ring ca
Schmelzklebstoffe	PUR, POR

^{*} Depending on temperature and adhesive viscosity



Technical data HB 4180 BS connect, bag melter

Dimensions
Weight 250 kg
Operating voltage 3 / N / PE 400 V, 50 - 60 Hz
Working temperature 0 - 190 °C
Temperature sensors PT100, NTC and Ni120
Hose connections 2 or 4
Over-temperature protection Yes, limited to 260 °C
Melting capacity up to 30 kg/h*
Pump system 1 - 2 gear pumps
Tank diameter
Usable tank volume 18 litres
Containers
Schmelzklebstoffe PUR, POR

^{*} Depending on temperature and adhesive viscosity



Technical data HB 4006 connect, tank melter

Dimensions	974 x 400 x 1355 mm
Weight	90 kg
Operating voltage	3x 16A / N / PE 400 V, 50 - 60 Hz
Working temperature	0 - 190 °C
Temperature sensors	PT100, NTC and Ni120
Hose connections	2 or 4
Over-temperature protection	Yes, limited to 260 °C
Melting capacity	2,5 kg/h*
Pump system	1 - 2 gear pumps
Tank diameter	Ø 159 x 255 mm
Usable tank volume	6 litres
Containers	2 kg aluminium bag, pull-ring car
Schmelzklebstoffe	PUR, POR

^{*} Depending on temperature and adhesive viscosity



Do you need training on how to safely handle reactive hot-melt adhesives? We are happy to help. Please contact us.

Application areas













Technical data HB 4020 FS connect, drum melter

,,	
Dimensions 1005 x 675 x 165	0 mm
Weight 240 kg	
Operating voltage 3 / N / PE 400 V,	50 - 60 Hz
Working temperature 0 - 190 °C	
Temperature sensors PT100, NTC and	Ni120
Hose connections 2 or 4	
Over-temperature protection Yes, limited to 26	30 °C
Melting capacity 5 - 25 kg/h*	
Pump system 1 gear pump	
Tank diameter Ø 280 mm	
Usable tank volume 20 litres	
Containers 18 kg hobbock, 2	0-litre drum
Schmelzklebstoffe PUR, POR, PSA	

^{*} Depending on temperature and adhesive viscosity



lechnical data HB 4200 FS conn	ect, drum melter
Dimensions	. 1445 x 600 x 2450 mm
Weight	. 580 kg
Operating voltage	. 3 / N / PE 400 V, 50 - 60 Hz
Working temperature	. 0 - 190 °C
Temperature sensors	. PT100, NTC and Ni120
Hose connections	. 2 or 4
Over-temperature protection .	. Yes, limited to 260 °C
Melting capacity	. 5 - 200 kg/h*
Pump system	. 1 - 2 gear pumps
Tank diameter	. Ø 570 mm
Usable tank volume	. 200 litres
Containers	. 200 litre drum
Schmelzklebstoffe	. PUR, POR, PSA

^{*} Depending on temperature and adhesive viscosity



Toohnical data HB 4022 connect tank molton

lechnical data HB 4022 connect,	tank melter
Dimensions	974 x 400 x 1355 mm
Weight	130 kg
Operating voltage	3x 16A / N / PE 400 V, 50 - 60 Hz
Working temperature	0 - 190 °C
Temperature sensors	PT100, NTC and Ni120
Hose connections	2 or 4
Over-temperature protection	Yes, limited to 260 °C
Melting capacity	15 kg/h*
Pump system	1 - 2 gear pumps
Tank diameter	Ø 288 x 415 mm
Usable tank volume	22 litres
Containers	2 kg aluminium bag, 18 kg hobbock
Schmelzklebstoffe	PUR, POR

^{*} Depending on temperature and adhesive viscosity

Adhesive selection

Туре	Basis	Form	Description
E0931.3	PUR	Cartridge, hobbock, pull-ring can	Structural bonding with high requirements for strength and temperature behaviour.
B1452.1	POR	Cartridge, drum, pull- ring can	For bonding low-energy surfaces with high demands on the cohesive behaviour.
E2456UVM	PUR	cardboard tube, hob- bock	For assembly and construction bonding exposed to high temperatures. Available in black and white.
E3315	PUR	Cartridge, hobbock,	Especially suitable for surface lamination and light assembly bonding. Due to the reduced MDI content < 1%, H351 labelling is no longer required
F3490B	Deter- gent	Cartridge	Cleaning of melting devices when using reactive PUR hot-melt adhesives, blue
Rasis: PLIR -	- reactive	nolyurethane	/ POR – reactive polyolefin

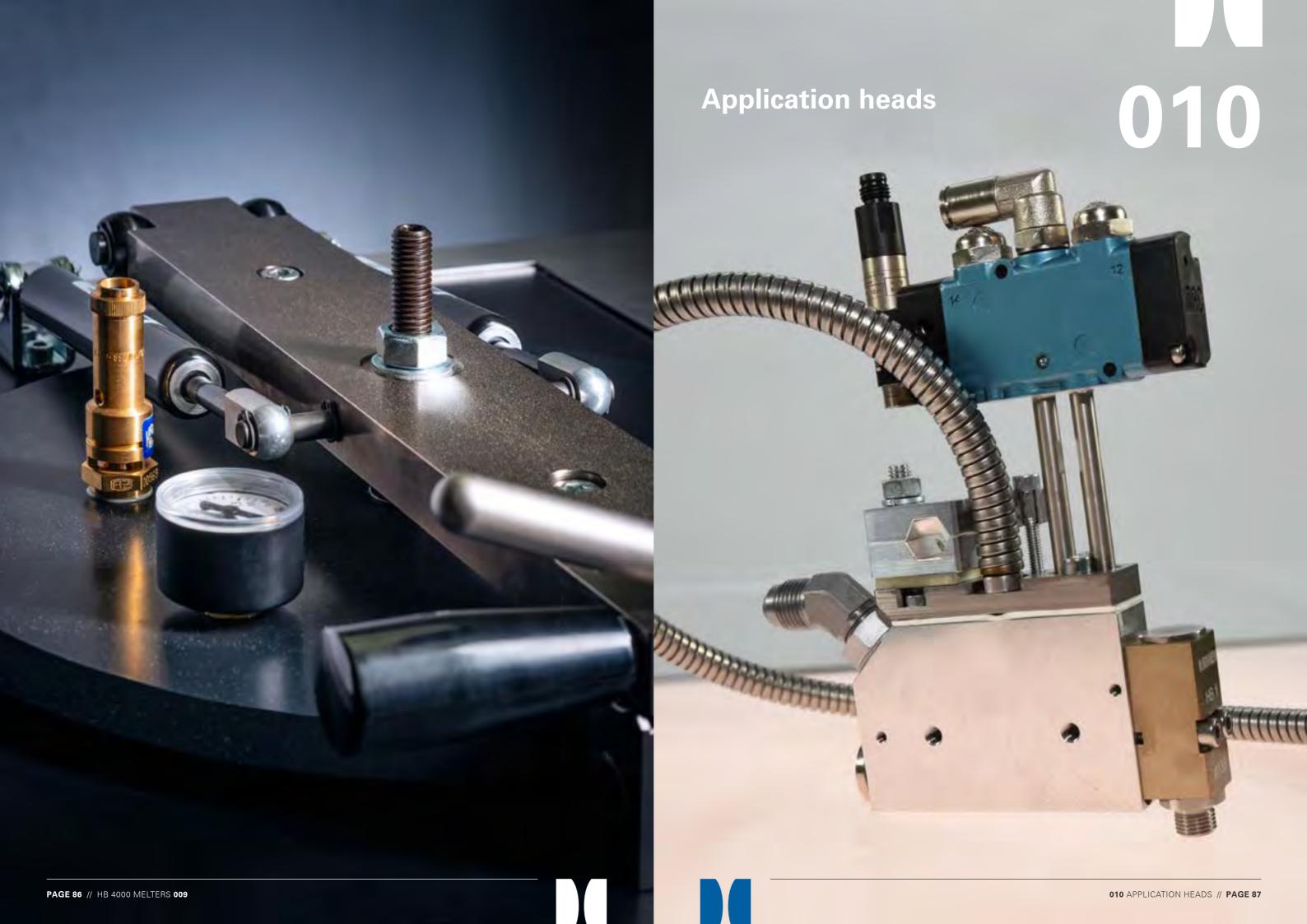
Basis: PUR - reactive polyurethane / POR - reactive polyolefin Detergent – EVA copolymer

Delivery forms:

7 – Cartridge (diameter approx. 47 mm, 215 mm long)

9 – Containers from 2 - 200 kg (aluminium bag, bucket, pull-ring can,

PAGE 84 // HB 4000 MELTERS 009 009 HB 4000 MELTERS // PAGE 85



Bead application head

010

Application heads are used in automated processes. They are then part of a production line and driven, for instance, by a linear path control. The desired application pattern determines the system and thus also the application head used. Application heads are usually permanently installed and the workpiece is passed under them. Depending on their arrangement, linear beads or dots are applied. According to requirements, one or more application heads are installed in the system. The hot-melt adhesive can be applied from above, horizontally or, in special cases, upside-down.

one@all

HB 11

HB 11 Micro application head- Fast cycle times, little space required

With its narrow module, the HR 11 is used for particularly fast cycle times. The HB 11 is compatible with Nordson and Robatech. The application head is delivered without a nozzle.

Advantages and equipment features

- > Incl. 24 V solenoid valve
- > Incl. Module HB 1 with UNF 3/8" thread for use with standard nozzles
- > Compact structural width for tight places: only 18 mm
- > PT100, Ni120 or NTC
- › Air-opening / air-closing
- Head holder for 11 15 mm round
- With integrated filter (100 mesh)
- Hose connection SA 8
- > Optional: Inline filter, M8 plug for solenoid valve, insulation

Technical data

Heating capacity 160 W Temperature range max. 195 °C Max. pressure 80 bar Nozzle threadUNF 3/8 Number of modules1









HB 20

HB 20 Application head with insulation

The HB 20 is excellent for the application of highly viscous hot-melt adhesives. The fine adjustment of the needle stroke enables the application quantity to be precisely dosed. The application head is delivered without a nozzle.



- > Incl. solenoid valve plug for HB 6000 and HB 5010
- > Incl. 1 module with UNF 3/8" thread or use with standard nozzles
- > Incl. energy-saving insulation
- Air-opening / spring-closing
- Head holder for 7 12 mm round bars
- Hose connection SA 8
- Optional: Inline filter, cable harness for HB 4000, 230 V version

Technical data

Dimensions 210 x 50 x 80 mm Heating capacity 150 W Temperature range max. 200 °C Max. pressure 100 bar

Number of modules1







DK 1/30 HT ———



DK 1/30 HT - High temperature

Due to the use of high-quality seals, temperatures of up to 250 °C are possible. The DK 1/30 HT is often used to process polyamide hot-melt adhesives. Its modular structure makes it easy to maintain. The application head is delivered without a nozzle.

Advantages and equipment features

- High temperature version up to 250 °C
- > Incl. solenoid valve and solenoid valve attachment kit
- > Incl. 1 module with UNF 3/8" thread for the use of standard nozzles
- › Air-opening / air-closing
- Head holder for 10 mm round bar
- › Needle stroke adjustment
- Airtech 230 V
- > Hose connection SA 8
- > Optional: Airtech 24 V

Technical data

Dimensions 102 x 46 x 137 mm Heating capacity 200 W Temperature range 50 - 250 °C Max. pressure 120 bar Nozzle thread......UNF 3/8' Number of modules. 1







Accessories







Brass nozzle MS-VA

The standard nozzle MS-VA is made of brass with an inserted stainless steel capillary. Bead application Dot application Ø 0.3 mm Ø 0.4 mm

Ø 0.6 mm Ø 0.8 mm Ø 1.0 mm

Ø 1.2 mm Ø 1.5 mm Ø 2.0 mm

Ø 2.5 mm Thread: UNF 3/8'

Long nozzle, steel Bead application

Dot application Ø 0.6 mm Ø 0.8 mm Ø 1.0 mm Ø 1.2 mm Ø 1.5 mm Ø 2.0 mm Ø 3.0 mm

Thread: UNF 3/8"

nozzle VA-LL

Without inserted capillary, good adhesive flow, precise application Bead application Dot application Ø 0.2 mm Ø 0.25 mm Ø 0.3 mm Ø 0.35 mm Ø 0.4 mm Ø 0.45 mm Ø 0.5 mm Ø 0.55 mm Ø 0.6 mm Ø 0.7 mm Ø 0.8 mm

Ø 0.9 mm Ø 1.0 mm











Nozzle cleaning needles (Pack of 6)

Fach set contains six nozzle cleaning needles. The needles within the set are all of the same size

Heated Hoses KS Bead

Hot melt hose for spray application heads in combination with melters

Pattern control system

The pattern control system enables automated operation. It autonomously controls the solenoid valves on the application heads

Application areas



















Surface application heads

010

Surface application heads are a special form of bead application head. Instead of a nozzle, an adhesive distributor is flange-mounted, which applies the adhesive over the entire surface in very thin layers of a certain width. While bead or spray application heads are always at a certain distance from the workpiece, a surface application head is in contact with the substrate. As the substrate rubs against the application head, the lip is not made of brass or aluminium but of steel. This application is mainly used in the packaging industry for the production of enveloped with self-sealing closures.

HB 20 BS -

HB 20 BS - Application width up to 20 mm

The HB 20 BS surface application head is equipped with a wide-slot module, which enables a maximum application width of 20 mm. Alternatively, a module with an application width of maximum 30 mm can be selected. The surface application head is supplied without a spacer plate.

Advantages and equipment features

- > Incl. solenoid valve connector for HB 6000 and HB 5010
- > Incl. 1 wide-slot module
- > PT100 or Ni120
- Air opening / Spring closing
- Head holder for 7 12 mm round bar
- Hose connection SA 8
- › Optional: Inline filter

Technical data

Heating capacity 180 W Temperature range max. 200 °C Max. pressure 100 bar Application width......15 - 20 mm Number of modules. 1









HB 45 BS

HB 45 BS - Application width up to 35 mm

The HB 45 BS is used to apply an adhesive film up to 35 mm wide. The mouthpiece is adapted to the feeding of cardboard. Due to the special contour on the mouthpiece, the head is less prone to failure and has less wear. The control element has a larger needle hole of 3mm, which enables an increased output rate. The surface application head is supplied without a spacer plate.



Advantages and equipment features

- > Including 1 module
- > Layer thickness from 0.1 to 2 mm
- Max. application width from 10 mm to 35 mm
- > Standard PT100 (others available on request)
- › Air opening / Air closing for excellent tear-off behaviour
- Head holder for 12 mm round bar
- Hose connection SA 8
- Optional: Inline filter, Ni120 / NTC version

Technical data

239 x 63 x 93 mm
200 W
max. 50 - 200 °C
100 bar
10 - 35 mm
1









FLK 2/60 -

FLK 2/60 – Application width up to 60 mm

The high-temperature application head with two modules. The maximum application width of the adhesive is 60 mm. The adhesive is delivered via a hot melt hose and distributed to two modules via drill-holes. The surface application head is supplied including a spacer plate.

Advantages and equipment features

- Maximum application width 60 mm
- > Incl. two modules and 24 V solenoid valve
- > Incl. spacer plate with 0.5 mm laver thickness
- > PT100
- › Air opening / Air closing
- Head holder for 10 mm round bar
- > Upper/Head valve Airtech 230 V
-) Incl. filter 315 μ

Technical data

Heating capacity 175 W Temperature range50 - 250 °C

Max. pressure 120 bar Application width60 mm Number of modules. 2









Application areas













Accessories



(others on request)

Spacer plates HB 20 BS

Application width





Spacer plates (others on request) Spacer plates HB 30 BS Application width Layer thickness 0.5 mm Layer thickness 0.5 mm



Spacer plates HB 45 BS Application width Layer thickness 0.5 mm



Spray application heads

010

If workpieces need to be bonded together over a large area, spray applications are used. The requirements of the application determine the type of application head used. Cycle times are longer than with bead application heads. The build-up of the spray pattern requires a certain amount of time. The achievable spray width always depends on the hot-melt adhesive used. A thin thread of adhesive is deflected to the side by an air vortex, carried along and applied in a circular form to the workpiece. In this way, a flat application pattern is achieved. The spray application enables a low adhesive consumption, as the entire surface is not wetted, but only spirals are applied.

HB 30

HB 30 Spray - Spray application up to 50 mm

The HB 30 Spray is used if spray widths of up to 50 mm are required. The application head has passive air preheating, which prevents excessive cooling of the adhesive. The application head is delivered without a nozzle.

Advantages and equipment features

- > Incl. Solenoid valve plug for HB 6000 and HB 5010
- > Incl. 1 module with UNF 1/2" thread
- > PT100
- > Air-opening / spring-closing
- > Integrated filter
- Head holder for 12 mm round bar
- > Hose connection SA 8
- Optional: 230 V version, cable harness for HB 4000

Technical data

Dimensions 269 x 44 x 85 mm Temperature range max. 200 °C Max. pressure 100 bar Number of modules. 1





PAGE 92 // APPLICATION HEADS 010

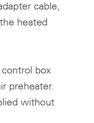


Spray application head

Spray application head with integrated air preheater - Spray application up to 300 mm

The spray application head has a control module for spray nozzles. The spray width is 10 - 300 mm. The head contains an integrated filter. A heating circuit is always required to control the integrated air preheater, as well as an adapter cable, depending on the length of the heated

Alternatively, a temperature control box can be used to control the air preheater. The application head is supplied without



Advantages and equipment features

- > Incl. 1 module B600 with union nut to secure the nozzle
- MAC 24 V solenoid valve
- > PT100
- > Air-opening / spring-closing
- Integrated filter
- Head holder for 12 mm round bar
- Hose connection SA 8
- Optional: temperature control box, adapter cable

Technical data

Dimensions
Heating capacity 480 W
Temperature range 190 °C
Max. pressure 100 bar
Nozzle threadUNF 3/8"
Number of modules 1









Spray application head

Accessories



Ø 2.0 mm

Thread:

UNF 1/2" x 20



Spray nozzle MS Spray nozzle MS WIDE Spray application In the version with Spray application 7 boreholes In the version with 60° spraying angle Ø 0.2 mm 90° spraying angle Ø 0.2 mm Ø 0.25 mm Ø 0.3 mm Ø 0.25 mm Ø 0.35 mm Ø 0.3 mm Ø 0.4 mm Ø 0.35 mm Ø 0.4 mm Ø 0.45 mm Ø 0.5 mm Ø 0.45 mm Ø 0.55 mm Ø 0.5 mm Ø 0.6 mm Ø 0.55 mm Ø 0.7 mm Ø 0.6 mm Ø 0.8 mm Ø 0.7 mm Ø 0.9 mm Ø 0.8 mm Ø 1.0 mm Ø 0.9 mm Ø 1.2 mm Ø 1.0 mm Ø 1.5 mm Ø 1.2 mm



Spray nozzle clockwise rotation Nozzle cap without thread, for module Ø 0.7 mm Ø 1.0 mm without thread



Pattern control system The pattern control system enables automated operation. It autonomously controls the solenoid valves on

the application heads.



Heated Hoses Adapter cable for tem KS Spray perature control box Hot melt hose for spray application heads in combination with





Application areas







Ø 1.5 mm

Ø 2.0 mm

Thread:

UNF 1/2" x 20





Textile industry











industry









011

Compatible spare parts

With the one4all products you get 100 % compatible spare parts for the manufacturers Nordson, Robatech, HHS, ITW Dynatec and Meltex. The products offered are not original goods from the manufacturer. The high-quality products are manufactured in Europe.

In our compatible range you will find various application heads, modules, pumps, hot melt hoses, nozzles, filters, sleeves, solenoid valves, and much more. The number of available products is extremely large. We will be happy to make you an individual offer.

Maintenance / Service of third-party systems

We offer a qualified customer service to ensure the longevity of our own application technology and products. You can also make use of this service for system technology from other manufacturers. A competent customer service team is ready to solve your concerns. Regular maintenance prevents unplanned downtime and avoids production stops. Our technicians check and optimise device-specific features. The technology is also cleaned during this operation.





Solenoid valves

The solenoid valves can convert the electrical signal from a controller and release, block or vent compressed air. They are available in different wattage versions, as well as in structural modifications.



In-line filters, sieves and head filters

The one4all In-line filters protect the application head and the nozzle from contamination. They are mounted between the application head and the hot melt hose. Replacement sieves and head filters are available as accessories.



Nozzles and spacer plates

The one4all nozzles (bead and spray) and the spacer plates are ideally matched to your application and ensure a controlled flow of hotmelt adhesive.



Heating cartridges and sensors

The heating cartridges ensure rapid and even heating. Temperature sensors are resistance thermometers for measuring the temperature.



Tank filters and sieves

The one4all tank filter filters dirt out of the tank before it can get into the hot melt hose.



Adapter and hose connections

The adapters are used to connect the melter and hot melt hose or to connect the application head and hose.



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Bead application heads

011

With the one4all application heads you get 100 % compatible products for the manufacturers Nordson, Robatech, HHS, ITW Dynatec and Meltex. The products offered are not original goods from the manufacturer. These high-quality products are manufactured in Europe. The application heads are used in automated processes. They are then part of a production line and are controlled by, for example, a linear path control. The desired application pattern determines the system and thus also the application head. Application heads are usually permanently installed and the workpiece is passed under them. Depending on their arrangement, linear beads or dots are applied. One or more application heads are installed in the system, according to requirements. The hot-melt adhesives can be applied from above, horizontally or, in special cases, upside-down.

HB 11

HB 11 Micro application head – fast cycle times and little space required

The HB 11 with its narrow module is used for particularly fast cycle times. The HB 11 is compatible with Nordson and Robatech. The application head is supplied without a nozzle.

Advantages and equipment features

- › Incl. 24 v solenoid valve
- Incl. HB 1 module (with UNF 3/8" thread for the use of standard models)
- Compact width for cramped space: Only 18 mm
- > PT100. Ni120 or NTC
- Air opening/Air closing
- Head holder for 11 15 round iron
- With integrated filter (100 mesh)
- Hose connection SA 8
- > Optional: Inline filter, M8 connector for solenoid valve, insulation

Technical data









B401/44 -

401/44 Application head

The B401/44 application head is 44 mm wide and has a B400 module. This is air opening and spring closing. It is controlled by a solenoid valve, which, like the matching nozzles, is available separately. The B401/44 model can be used for dot and bead application.



- Compatible with Nordson,
 Robatech, Meltex or HHS
- › Suitable for BÜHNEN melters
- › For dot and bead application
- Overall width 44 mm
- > PT100, Ni120, FeCuNi or NTC
- Air opening/Spring closing
- › Incl. B400 module
- › Solenoid valve and nozzle available separately

Technical data

Dimensions
Heating capacity 180
Working temperature 200 °C
Max. adhesive pressure 100 bar
Nozzle thread UNF 3/8"
Number of modules 1









B401/28-F



B401/28-F, bead or surface application

The B401/28-F application head has a B400 module only 28 mm wide. The module is air opening and spring closing. It is controlled via a solenoid valve. Solenoid, nozzles and spacer plates are available separately. The head can be used for dot and bead application. A version of the application head is available with a BS 20 surface application module.

Available in the B401/28-F version with an integrated filter. The head has a rear hose connection as standard. A version with a hose connection from above is available as an option.

Advantages and equipment features

- › Compatible with Nordson, Robatech or Meltex
- > Suitable for BÜHNEN melters
- › Incl. B400 module
- > PT100, Ni120, FeCuNi or NTC
- › Air opening/Spring closing
- > For dot and bead application with 3/8" UNF thread
- > For surface application incl. BS20 surface module
- > Optional: Version with hose connection from above

Technical data







B402-84V



Swivel application head B402-84V, Bead

The use of swivel heads is particularly recommended for small series production. The production line can be adapted to new conditions with a minimum of effort. The rotation of the modules allows bead spacing of a few millimetres to several centimetres.

The swivel application head has rotating mounted B400 modules, so that the nozzle tip spacing can be individually adjusted. These enable an adjustable bead spacing of 14 - 60 mm (depending on the distance to the substrate).

The modules are air-opening and spring-closing. The two modules can be controlled individually by means of separate solenoid valves. Solenoid valves and nozzles are available separately.

B402-84V can be used for spot and bead application

Advantages and equipment features

- > Compatible with Nordson or Robatech
- > Suitable for BÜHNEN melters
- > For dot and bead application
- › Variable setting of the modules (swivelling)
- Overall width 84 mm
- › Incl. two B400 modules
- › Control via two solenoid valves
- > Solenoid valves and nozzles available separately

Technical data









PAGE 96 // ONE4ALL 011

B404/90-22-22-22(x4) Accessories



The application head B404/90-22-22-22 has four B400 modules. These enable four beads of hot-melt adhesive to be applied at the same time. The modules are air opening and spring closing. Control is by means of one or four solenoid valves. The distance between the modules is 22 mm from nozzle tip to nozzle tip.

Advantages and equipment features

- > Compatible with Nordson
- > Suitable for BÜHNEN
- > Including solenoid valves and solenoid valve mounting kits
- > Incl. four modules (with thread UNF 3/8" for use with standard nozzles)
- > PT100 or Ni120
- > Air opening / spring closing
- > Optional: additional application heads with different overall widths and module spacing

Technical data

Heating capacity 400 W Working temperature. up to 200 °C Max. adhesive pressure 80 bar Nozzle thread......UNF 3/8' Number of modules. 4















Brass nozzle MS-VA Standard nozzle with

an inserted stainless steel capillary Bead application Dot application Ø 0.3 mm Ø 0.4 mm Ø 0.6 mm

> Ø 0.8 mm Ø 1.0 mm Ø 12 mm Ø 1.5 mm

Ø 2.5 mm Thread: UNF 3/8'

Collar nozzle VA

The collar nozzle is made of stainless steel and reduced stringing during application. Bead application

> Ø 0.4 mm Ø 0.5 mm Ø 0.6 mm Ø 0 7 mm Ø 0 8 mm Thread: UNF 3/8"

Dot application

Stainless steel nozzle VA- I Ι

Without inserted capillary, good adhesive flow, precise application

> Ø 0.2 mm Ø 0.25 mm Ø 0.3 mm Ø 0.35 mm Ø 0.4 mm Ø 0.45 mm Ø 0.5 mm Ø 0.55 mm Ø 0.6 mm Ø 0.7 mm Ø 0 8 mm Ø 0.9 mm

Ø 1.0 mm Thread: UNF 3/8"



Nozzle-cleaning





needles (6-pack) A set contains six nozzle - cleaning needles. All needles within a set are of the same size



Hot melt hose for bead application heads in combination with

Hot melt hose



Linear path control

The linear path control enables automated work. It autonomously controls the solenoid valves on the application heads

Application areas











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Surface application heads

With surface application heads, the hot-melt adhesive is applied in a thin layer and in certain widths over the entire surface. A surface application head always has direct contact to the substrate, both intermittent and continuous application is possible. Different application widths and thicknesses can be achieved by using different spacer plates. The surface application heads are compatible with Nordson, Robatech and ITW-Dynatec. The products offered are not original goods from the manufacturer. The high-quality products are manufactured in Europe.

B45-70

With the B45-70 surface application head, an adhesive film of up to 68 mm wide is applied. It comes in the version NKT0407 with one B45 module or as NKT0619 with two B45 modules. The scope of delivery includes the required number of solenoid valves and accessories. The solenoid valve coil must be activated externally. The surface application head is supplied without a spacer plate. You would like to use the application head, but require a different application width? Feel free to contact us for an independent consultation.



- > Compatible with Nordson
- > Including 1 2 control parts (modules)
- Air opening / air closing for excellent tear-off behaviour
- > Including solenoid valve/s

Technical data

Heating capacity 200 W Working temperature. max. 50 - 200 °C Max. adhesive pressure 100 bar Application width up to 68 mm No. of modules 1 - 2









Spacer plates

Spacer plate HB 45 BS Application width 35 mm Layer thickness 0.5 mm

B401/44-BS20

With the B401/44-BS20, a narrower adhesive film of up to 20 mm is applied. The one4all surface application head convinces with its good price-performance ratio. It is equipped with a BS20 module. This is air opening and spring closing. The surface application head is supplied without a solenoid valve and spacer plate. The head can be ordered in different versions, compatible with Nordson and Robatech. The BS20 surface modules with a slot nozzle are available separately on request.



Divergent advantages and features

- > Compatible with Nordson and Robatech
- > Good price-performance ratio
- > Including one BS20 module
- > Air opening / spring closing

Technical data

Dimensions 171 x 44 x 67 mm Heating capacity 180 Working temperature. 200 °C Max. adhesive pressure 100 bar Application width 20 mm Number of modules.....1















(more on request) Spacer plate HB 20 BS



Spacer plate HB 30 BS Application width 20 mm Application width 30 mm Layer thickness 0.5 mm Layer thickness 0.5 mm

PAGE 98 // ONE4ALL 011 011 ONE4ALL // PAGE 99

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Spray application heads

If workpieces have to be bonded together over a large area, this is where spray application heads come into use. The requirements of the application determine the type of application head used. The cycle times are longer than with bead application heads. The build-up of the spray pattern requires a certain amount of time. The achievable spray width always depends on the hot-melt adhesive used. A thin thread of adhesive is deflected to the side by an air vortex, carried along and applied in a circular movement to the workpiece. In this way, a flat application pattern is achieved. The spray application enables a low adhesive consumption, as the entire surface is not wetted, but only spirals applied.

B301-F-TL — B34S

Due to its good price-performance ratio, the spray application head B301-F-TL is the standard head for spray applications in the one-4all range. Two 180 W heating cartridges are used in the application head, which enable rapid heating to the operating temperature. The ready-to-operate application head must be permanently installed on the head holder. Any possible holding rod must have the same diameter as the clamp bore of the bracket (Ø 12 mm).



The hot-melt adhesives are melted in the melter and conveyed to the application head via a heated hose. The application head contains the B200 module (compatible with Nordson H200) and a T-piece for connecting the spray air. The spray pattern can be individually set by turning the screw on

the spray air throttle valve. The solenoid valve and matching nozzles are available separately. They can be ordered in different versions compatible with Nordson or Robatech

Advantages and equipment features

- > Compatible with Nordon and Robatech
- > For spray application
- > With integrated filter

Technical data

Heating capacity 360 W Working temperature.....200 °C Max. adhesive pressure 100 bar Application width 10 - 40 mm Nozzle threads......Spray Note.....Nozzle separate

The B34S spray application head in the compact design is used for the dosed application of hot-melt adhesives. The robust head is equipped with a 0.6 mm spray nozzle as standard. Application takes place as a continuous spray application or as an intermittent adhesive application. The spray head must be screwed tightly to the head holder. Natural vibrations occur when the apparatus is used intermittently, so care must be taken to ensure that the application head is installed firmly and solidly



The one4all B34S is available with PT100 or Ni120 temperature sensors, optionally also with PT100 in a 230 V version. Other nozzle diameters are available on request.

Advantages and equipment features

- > Compatible with Nordson and Meltex EP34S
-) Incl. air nozzle and union nut

Heating capacity 200 W Working temperature. 50 - 195 °C Max. adhesive pressure 100 bar Application width 10 - 30 mm Nozzle threads Spin-spray

Note..... for small spray widths







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Modules



With the one4all modules you get 100 % compatible products for the manufacturers Nordson, Robatech, HHS, ITW Dynatec and Meltex. The products offered are not original goods from the manufacturer. The high-quality good are manufactured in Europe. The modules are screwed in front of the base body of the application head and are responsible for controlling the flow of hot-melt adhesive. Inside is a piston with a nozzle needle that can open or close the flow of hot-melt adhesive. A distinction is made between air opening/spring closing and air opening/air closing. With the first type, the module is opened by compressed air and closes automatically by a pressure spring after the compressed air is switched off. In the second type, the compressed air is switched over to close.

B400

one4all Module B400

The B400 module has short control air passages. These bring about a fast opening and very precise closing of the piston with the nozzle needle for a clean application of the adhesive. It is a standard module for spot and bead application

Advantages and equipment features

- > Compatible with Nordson H200 / H400 /Nordson Solid Blue S series
- > Compatible with Robatech AX100 series
- > Compatible with ITW Dynatec
- › Air opening /spring closing
- Optional: High-temperature version, Zero Cavity, with fine adjustment

B400-LL-

one4all Module B400-LL

It is suitable for fast switching cycles with a constant application. Tight tolerance with a matched needle and nozzle assembly eliminates nozzle clogging and results in clean adhesive application. The module is suitable for dot and bead application.

Advantages and equipment features

- > Compatible with Nordson H440 /Nordson Solid Blue A series
- > Compatible with Robatech
- Air opening/air closing
- > Optional: High-temperature version, Zero Cavity

B200

Spray Module B200

body of the application head and are responsible for regulating the flow of hot-melt adhesive. Inside there is a piston with a nozzle needle that can open or close the flow of adhesive. In the case of the B200, the module is opened by compressed air and the pressure spring closes automatically after the compressed air is switched off.

The spray modules are screwed in front of the base

The modules of the B200 series enable a controlled, area-wide and fairly sharp-edged application, as the adhesive emerging from the nozzle is set into a spiral movement by targeted turbulence with compressed air

Advantages and equipment features

- > Compatible with Nordson H200
- > Standards spray module
- > Incl. 2 cylinder screws (M5)

B34S

Spray Module B34S

The B34S module is used for spray application. It comes with a 0.6 mm material nozzle, including the matching air nozzle (NKT0499) and union nut (NKT0500).

The desired spray pattern can be set by finely adjusting the needle by turning the knurled nut.

Advantages and features

- > Compatible with Nordson and Meltex EP34S
- > Incl air nozzle and union nut





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Hot melt hoses

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With the one4all hot melt hoses you get 100 % compatible products for the manufacturers Nordson, Robatech, HHS, ITW Dynatec and Meltex. The products offered are not original goods from the manufacturer. The high-quality products are manufactured in Europe. The hot melt hoses serve as a heated and flexible transport route for hot-melt adhesives, from a melter to the application head. They are also used where moving system parts are connected and the heated hot-melt adhesive is to be fed in by robot or manual movements.



NS30 for bead application heads

Hot melt hoses for bead application heads in combination with melters.

Standard: Ni120 sensor, nominal width NW08, outer cap diameter 40 mm, High-Flex version

Optional: Spray version, replaceable inner core (recommended for use with PUR or POR), VA sheathing (for extreme loads on the outer sheath), outer sheath in signal colour (orange)

Advantages and equipment features

- Compatible with Nordson 2300 / 300 / ProBlue series
- › High-Flex version
- > Up to 200 °C in the standard version
- > Lengths 0.6 m 10.0 m

Technical data

Lengths 0.6 – 10.0 m
Supply voltageV
Temperature sensorNi120
Operating temperature up to 210 °C



NS30-SW, splash-proof for bead application heads

Hot melt hoses for bead application heads in combination with melters. Only for application heads that also have splash water protection. The hoses are available in different lengths and nominal widths (= diameter of the inner hose core). If you cannot find the length you require here, please contact us. The NS30 hoses have splash water protection IP65.

Standard: Ni120 sensor, nominal width NW08, outer cap diameter 40 mm, High-Flex version

Optional: Spray version, replaceable inner core (recommended for use with PUR or POR), VA sheathing (for extreme loads on the outer sheath), outer sheath in signal colour (orange)

Advantages and equipment features

- Compatible with Nordson 2300 / 300 / ProBlue series
- > Splash water protection IP65
- Up to 200 °C in the standard version
- › Lengths 0.6 m 4.8 m

Technical data

Lengths	0.6 – 4.8 m
Supply voltage	230 V
Temperature sensor	Ni120
Operating temperature	up to 210 °C



M

Hot melt hoses for bead application heads in combination with melters.

The hoses are available in different lengths and nominal widths (= diameter of the inner hose core). If you cannot find the length you require here, please contact us.

Standard: PT100 or FeCuNi sensor, nominal widths NW08 and NW13, High-Flex version

Optional: Spray version

Advantages and equipment features

- > Compatible with Nordson and Meltex
- › High-Flex version
- > Up to 210 °C in the standard version
- > Lengths 1.8 m 6.0 m

Technical data

Lengths
Supply voltage 230 V
Temperature sensor PT100 / FeCuNi
Operating temperature up to 210 °C



FB for hand guns, bead/spray

Hot melt hoses for the BÜHNEN B 910 hand gun (in Ni120 / NTC version) in combination with third-party melters.

The FB hotmelt hoses serve as a heated and flexible transport route for hot-melt adhesives from the melter of different manufacturer to a BÜHNEN HB 910 bead or spray hand gun.

Depending on the manufacturer, the HB 910 must have a Ni120 / NTC temperature sensor.

The hoses are available in different lengths and nominal widths (= diameter of the inner hose core). If you cannot find the length you require here, please contact us.

Standard: Ni120 sensor, nominal width NW08, inMini version with TPE corrugated protective hose.

Optional: For Robatech available with NTC sensor

Advantages and equipment features

- Compatible with Nordson 2300 / 300 /DuraBlue series
- > Compatible with Robatech
- Bead and Spray available
- > Lengths 2.4 m 7.0 m

Technical data

Longtio
Supply voltage 230 V
Temperature sensorNi120
Operating temperature up to 200 $^{\circ}\text{C}$

2.1 - 70 m



В

Hot melt hoses for bead application heads in combination with melters. The hoses are available in different lengths and nominal widths (= diameter of the inner hose core). If you cannot find the length you require here, please contact us.

Standard: NTC sensor, nominal width NW08, High-Flex version, Harting connector (rectangular) HTS 8-pin

Optional: Spray version, replaceable inner core (recommended for use with PUR or POR), VA sheathing (for extreme loads on the outer sheath), outer sheath in signal colour (orange), splash water protection IP65

Advantages and equipment features

- Compatible with Robatech Concept series
- › High Flex version
- Up to 210 °C in the standard version
- > Lengths 0.6 m 8.0 m

Technical data

Lengths 0,6 - 8,0 m
Supply voltage 230 V
Temperature sensor Ni120
Operating temperature up to 210 °C



ITW

Hot melt hoses for bead application heads in combination with melters. The hoses are available in different lengths and nominal widths (= diameter of the inner hose core). If you cannot find the length you require here, please contact us.

Standard: PT100 sensor, nominal widths NW06- Euchner version and NW08 - Amphenol version, High-Flex version

Optional: Spray version

Advantages and equipment features

- > Compatible with ITW-Dynatec
- › High-Flex version
- > With Euchner or Amphenol connection
- Up to 210 °C in the standard version
- > Lengths 1.2 m 4.8 m

Technical data



PAGE 102 // ONE4ALL 011



Refurbished by BÜHNEN

012

High-quality hot-melt technology Processed by professionals

Refurbished by BÜHNEN products have been overhauled, cleaned and checked by the service department. The important point is that these are used items that have found their way back to us for various reasons: e.g. returns, demonstration models with little uptime, or loaner units.

Refurbished products are attractively priced. They may not correspond to the very latest state-of-the-art, but they score with great advantages in terms of climate and environmental protection by saving valuable resources. Our refurbished products show character through small scratches, but they have a functional guarantee. Any questions? Our service department is at your side with advice and active support at all times.



Application devices

The used melters are overhauled by our service department. The refurbished application devices are checked, defective parts replaced and cleaned.



Application heads

In our shop you will find refurbished application heads of different designs, in bead, surface or spray versions, both for our BÜHNEN melters as well as in the one4all version.



Hoses

The used hoses (bead and spray) are suitable for manual application as well as for automatic use. The heatable hoses have been checked by our service department.



Accessories

Small devices, spare parts and useful additions to our melting devices and application technology.





The one-stop solution for hot-melt adhesive bonding

- Only one contact partner for all adhesive enquiries
- High level of advisory skills to ensure reliable bonding processes
- Wide offer of hot-melt adhesives for almost any application

- Extensive range of matching application equipment and accessories
- Close to customers all over Europe
- Extensive customer services
- Rapid delivery, even of small quantities

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Use mobile phone camera and save contact details directly.

www.buehnen.de/en

