

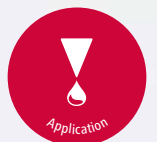
E-Commerce solution

hhs
Baumer Group

Precise - Efficient - Reliable
A complete system for all
requirements



Xmelt[®]



Application



Glue supply

Let's stick together

baumerhhs.com

A reliable system that meets the high demands on quality in the production of shipping boxes

E-commerce is growing worldwide. People increasingly are exploiting its advantages, ordering items from online shops and having their purchases delivered right to their door. The packaging industry has responded to this change in consumer behaviour. Customer-friendly packaging combined with the optimisation of the delivery and return chains have led to a significant further development of shipping packaging.

One main feature is the option of immediately returning a package to the sender. It requires a closing mechanism that functions without any additional components. The most user-friendly, economical and ecological solution is the closure with pressure-sensitive adhesive (PSA).

The application

In the production of shipping boxes, one or two strips of pressure-sensitive adhesive are applied to the closure flap and then covered with silicone paper. A tear strip can also be applied in addition to the adhesive. Once articles are packed inside, the silicone paper is peeled off the outer adhesive strip to seal the shipping box. If a customer wants to return items, the original box can be resealed using the second adhesive strip. The pressure-sensitive adhesive loses none of its functionality underneath the silicone strip.

The requirements

The gluing process has to meet strict requirements for this application. The adhesive layer has to be thick enough to smooth out any unevenness in the surface of the board or even out the corrugated structure. A perfect application has a closed, homogeneous application surface with a clean cut-off and should seal immediately without further pressing. This ensures perfectly sealed packaging and protects the transported goods from damage.

Baumer hhs provides perfectly coordinated components with its system. As a technology and competence leader with decades of experience in the development of application systems that are perfectly tailored to the respective requirements, your contact for this application.

- Precision application of multiple pressure-sensitive adhesive strips
- Tear strip can be integrated
- 250 m/min maximum production speed
- 100 kg/h melt rate (PSA)
- Application weight up to 500 gr/m²
- Application width: 12 - 25 mm
- Steady flow nozzle geometry
- For adhesives up to 15,000 mPa·s
- Hot melt unit with volumetric flow controller
- Anti-stick coating of the tank
- Everything you need from a single supplier

Compact hot melt unit with 100 kg/h melt rate for PSA

Perfect application



Machine integration

Xmelt XMG 100

The Xmelt XMG 100 hot melt unit is ideally suited to applications of this kind. The tank volume of 100 kg is very user-friendly and the unit achieves a high melt rate of more than 100 kg/h even when processing difficult adhesives and high speed. Depending on your needs, the hot melt unit can be equipped with one or two gear pumps to supply adhesive to one or two application heads. With its innovative volumetric flow controller, the XMG 100 applies consistent amounts of glue at all times, even when high output volumes and application speeds are involved. Thanks to the standard anti-stick coating of the tank, availability is increased as cleaning times are drastically reduced.

HM 500-C application head

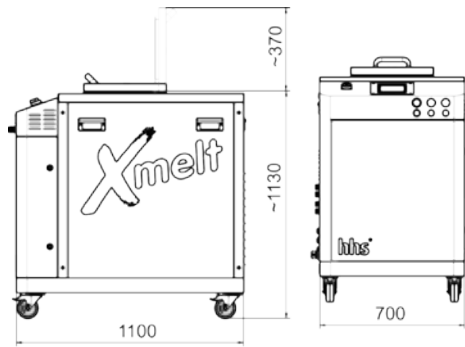
The HM 500-C application head was developed specifically for shipping box applications. With its variable application width from 12 mm to 25 mm, it covers the entire range. The coating nozzles are designed to apply two, closely-spaced lines of adhesive as required. Thanks to the steady-flow nozzle geometry, even maximum adhesive coating weights can be applied precise and efficient, and the clean cut-off delivers the results your customers want.

The HM 500-C application head ensures perfect gluing, clean cut-off and therefore maximum reliability in production, because it prevents glue from getting anywhere it doesn't belong and contaminating machine components.

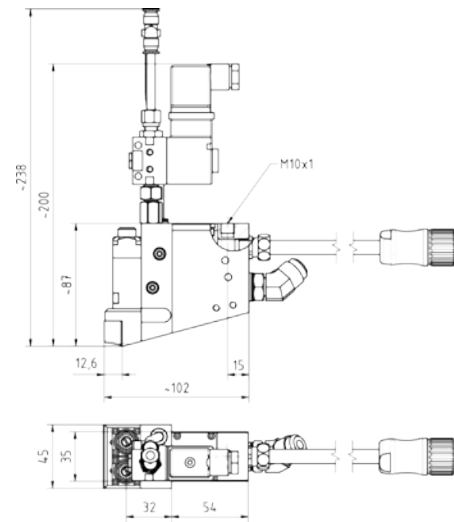
Blank guide

A durable blank guide designed specifically for this application head promotes uniform gluing right up to maximum speed and supports clean cut-off.





Dimension sheet in mm



Dimension sheet in mm

Dimensions Xmelt XMG 100

Data	Value	Unit
Length	~ 1100	mm
Width	~ 700	mm
Height	~ 1500	mm
Weight	~ 320	kg
Tank opening	330 x 330	mm

Technical Data

Data	Value	Unit
Temperature range	20 – 200	°C
Control accuracy	± 1	°C
Heating performance, maximum	2900	W
Protection class	IP 40	—
Tank capacity	100	kg
Melting capacity (adhesivedependent)	100	kg/h
Heating time	~ 30	min
Delivery rate per pump, maximum	60	kg/h
Viscosity, maximum (adhesivedependent)	80 000	mPa·s
Pump: Type	Gear pump	—
Pump: Size	23.6	cm ³ per rev.
Pump motor: Rotation speed, maximum	80	1/min
Pump motor: Rotation speed, minimum**	32	1/min
Material pressure, maximum	80	bar
Fill level monitoring	Capacitive sensors	—
Pressure reduction (material) via pneumatic return flow module	—	—
Pressure side filter	Filter cartridge	—
Emission sound pressure level	<70	dB(A)

Connection data

Data	Value	Unit
Power supply	3/N/PE	AC
	400 ± 10 %	V
	50 / 60	Hz
Performance XMG-100-1x2-FC, maximum	23.51	kW
Performance XMG-100-2x4-FC, maximum	26.46	kW
Power consumption XMG-100-1x2-FC, maximum	33.69	A
Power consumption XMG-100-2x4-FC, maximum	40,5	A

Dimensions HM 500-C

Data	Value	Unit
Length	~ 102	mm
Width	~ 45	mm
Height	~ 238	mm
Weight	~ 2.308	kg

Technical Data

Data	Value	Unit
Maximum viscosity	15 000	mPa·s
Maximum permissible adhesive pressure	80	bar
Maximum temperature	200	°C
Heating performance	160	W
Temperature monitoring	Pt100 temperature sensor	—
Hose connector	3/4-16	UNF
Holder connection thread	M10x1	—
Electrical connection	XM connector	—
Heating cartridge resistance (at 23 °C measured with AC)	330 ± 10 %	Ω
Heater operating voltage	230 V _{AC}	50 Hz
Solenoid valve operating voltage	24	V
Protective measure	Protective earthing	—
Shortest coating	30	mm
Shortest interruption	30	mm
Emission sound pressure level	75	dB(A)



Application example with two adhesives strips and a tear strip

Baumer hhs – Your competent partner

Baumer hhs, headquartered in Krefeld, Germany, is your world-wide partner for reliable and innovative glue application and quality assurance systems.

For us, quality and precision are basic principles of engineering and manufacturing, and professional services are an integral part of our products. We maintain a constructive and collaborative dialogue with our customers and suppliers, which forms the basis for solutions that optimally meet their individual needs.

Our trained sales staff and technicians support you with any issues you encounter in production. The Baumer hhs solution centre in Krefeld offers you assistance with new applications and in selecting the right adhesives.

We want our customers to be excited – with our premium products and our impeccable all-round service. But it's best to see our products for yourself! Just call or send us an e-mail.

We'd be happy to help you with your next project!



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