CorrBox Solution

Equipped for the future

Application

Control

Quality assurance

Glue supply

Equipped for the future
Modern production on flexo folder gluers with the unique CorrBox Solution

Gluing, quality assurance and process control: innovative and uniquely integrated

Now and in future, we want to help you as our customer to take advantage of opportunities on the rapidly growing corrugated packaging market, so we have made mastering your challenges the goal of our product development activities. These are to establish a sustainable production process, automate the entire supply chain more extensively and meet the high demands of global brand-name manufacturers with regard to quality, production capacity, flexibility and reliability – despite cost pressure, unstable supply chains, and rapidly changing legal and regulatory requirements. In view of these challenges, our solution for the corrugated industry is not simply an improvement in existing equipment; it is something entirely new: The CorrBox Solution clearly stands out from the competition in many respects and offers you exclusive added value. With this modular solution from Baumer hhs, you can configure exactly the right system to meet your needs.

A revolution in adhesive monitoring

The new PGD 1000 sensor can monitor adhesives that contain no additives whatsoever and are suitable for use on any substrate – no matter what colour, printed or unprinted.

• Eliminates the need for fluorescing additives
• Monitors glue tracks on any substrate
• No special lighting required
• Glue tracks can be followed in real time on the screen of the Xtend³
• Edge detection for avoiding inside gluing

Flexibility in procuring adhesives

In view of current problems in adhesive procurement, one important goal of product development was to support the widest possible selection of usable adhesives. This has now been achieved with the CorrBox Solution in combination with the newly designed multi-application head (based on PX 1000 technology). Eliminating the need for fluorescing additives also considerably expands the range of potential adhesives.

• Newly designed electromagnetic power unit increases tolerance to viscosity fluctuations
• Closing force of the PX 1000 has been increased by 42 percent
• PX 1000 operates reliably even at the limits of the viscosity range
• Power unit has a service life of at least one billion operating cycles
• Reduced heating of the coil maximises availability

Precision application, excellent restart

The PX 1000 module on the multi-application head opens and closes considerably faster than all other comparable heads with electromagnetic drive, and it displays excellent start-up behaviour. This minimises contamination in and around the opening. With the head's high force, even adhesives that have thickened after long idle periods can be reliably dispensed. The nozzles on the multi-application head can be lowered into an optional water bath that effectively prevents them from drying out, even over extended periods.
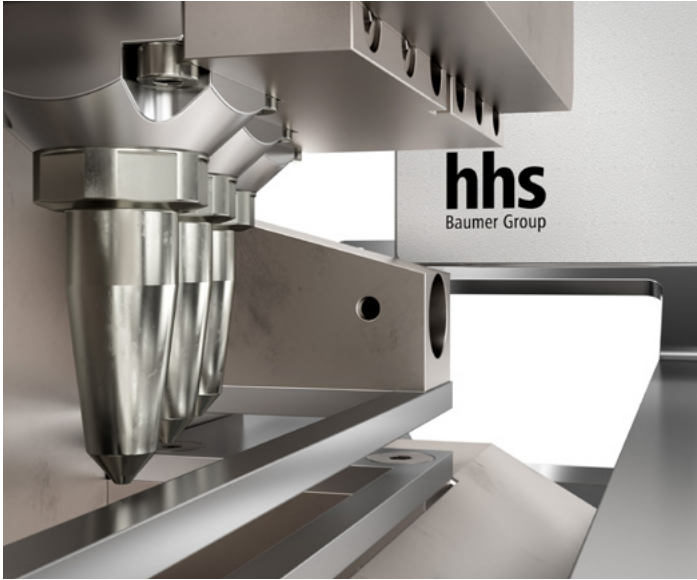
Modular design for flexible investment

The CorrBox Solution is a future-proof system that allows for subsequent innovation. It is based on the Xtend³ – optimised for this application – and is best-in-class when it comes to an open architecture for long-term upgradability. As a customer, you pay only for functions you need right now. If your business changes, you can upgrade the system to suit your needs. The entire system was designed for modularity: You can choose from different product models with or without a water bath, and from various control functions, monitoring equipment and modular software functions.

Xtend³ – Simplify your system for growth

The system is controlled by the proven Xtend³ controller with an easy-to-use touchscreen interface, which has been specially adapted to the requirements of the corrugated industry. Separate operating levels and a reduced number of parameter inputs are just two features that greatly simplify operation. Operators only have to learn a few commands in order to work independently of technical supervisors. In the Xtend³ software, parameter settings can be entered on different levels, and numerous parameters can be saved or predefined. Existing data from the machine controller or flexo folder gluer need not be entered twice. Our system is ready for the transfer of machine data for configuring parameters. That reduces setup time and avoids doing things twice.
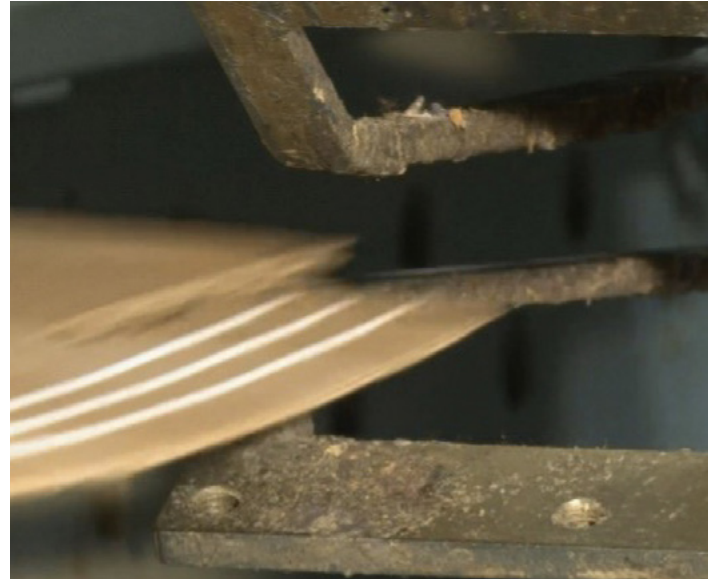
Dramatically reduce adhesive costs with no trade-offs

The explosion in prices has led to tremendous cost pressure in the industry. The PX 1000 application head can slash glue consumption by up to 60 percent while maintaining the same adhesive strength. It does this by dividing the continuous line of glue that would otherwise be applied into a series of short segments or "stitches". They are clean and precise at both ends, without any disruptive tailing whatsoever, thanks to the high switching speed. The high maximum operating frequency of the PX 1000 multi-application head makes it possible to reduce glue consumption across all speed ranges without negatively impacting the service life of the module's power unit. Less is more: Adhesive strength actually increases with the number of segments by up to 35 percent, as studies show. Using the optional Glue Save function, the desired reduction in glue consumption can easily be adapted to the requirements of a job right in the Xtend³ software interface.

Delivering perfect quality

Your customers can be sure that only flawless corrugated boxes leave your production facility. In addition to the innovative PGD 1000 for monitoring adhesive, the newly developed SCX 1000 SLOT sensor detects any and all irregularities in the die-cutting process. It reliably identifies even the smallest deviations, which can cause problems later on when the boxes are erected. The Bundle 24 system, integrated in the CorrBox Solution, reliably ejects bundles that include any defective corrugated boxes. End-to-end quality monitoring that puts your mind at ease!

# CorrBox Solution
Product overview

PX 1000 multi-application head

Technical data: PX 1000 MAH

Specification	Value	Unit
Number of modules	3	-
Operating pressure	1,0 – 50,0	bar
Adhesive viscosity, max. (Brookfield)	4.500	mPa·s
Possible nozzle diameters	0,4 / 0,6	mm
Coil resistance (6V coil)	1,8	Ω
Operating frequency, max.	750	Hz
Emission sound pressure level	< 70	dB(A)
Temperature range	15 - 45	°C
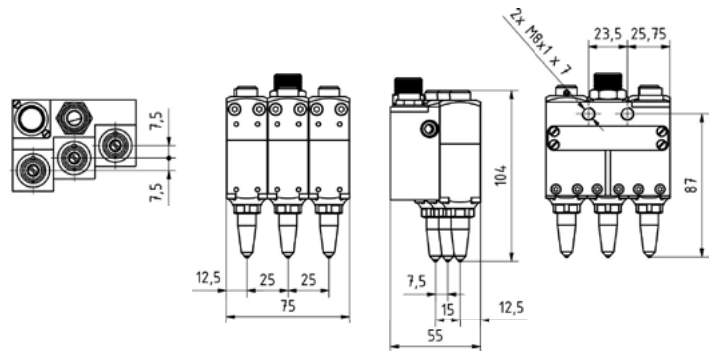
Xtend³
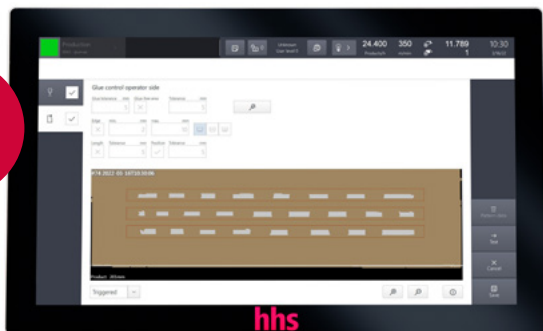
Technical data: Xtend³

Specification	Value	Unit
Voltage	24	V
Protection rating	42	IP
Temperature range	5-40	°C
Relative humidity, max.	70	%
Multitouch control panel	21,5	Zoll
Channels, max.	16	
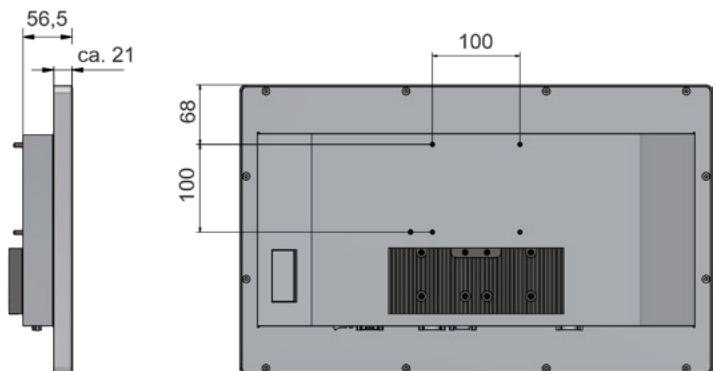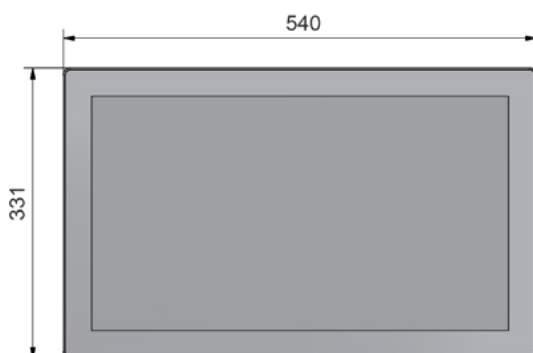
PGD 1000

Technical data: PGD 1000

Specification	Value	Unit
Operating voltage	24 ± 20 %	VDC
Measurement method	Infrared	-
Scanning frequency	10	kHz
Minimum detectable dot size	1x1	mm
Range, transverse to running direction	~55	mm
Measurement distance to product	25 ± 5	mm
Protection rating	IP 64	-
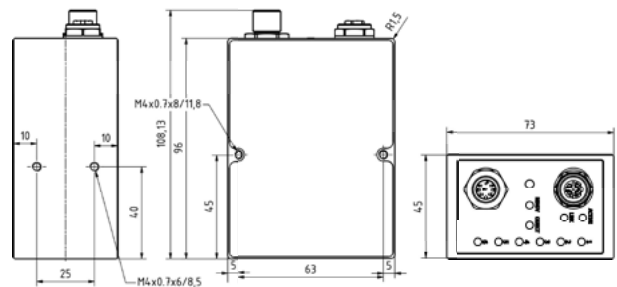
SCX 1000

Technical data: SCX 1000

Specification	Value	Unit
Length	73	mm
Width	45	mm
Height	96	mm
Operating voltage	24 ± 20%	VDC
Current consumption, max.	350	mA
Measurement distance to product	400 ± 25	mm
Protection rating	IP 64	—
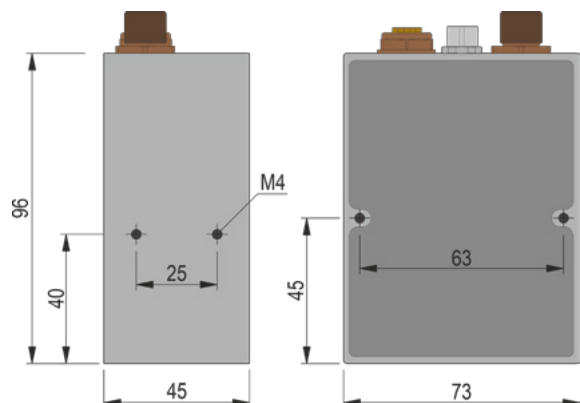
CorrBox Solution
Product overview

KPE-9

Glue supply

Technical data: KPE-9

Specification	Value	Unit
Regulated output pressure	35	bar
Theoretical max. achievable output pressure at an air inlet pressure of 6 bar	54	bar
Compressed air connection	6-8	bar
Pressure ratio	9:1	
Adhesive viscosity	10.000	mPaS
Delivery rate, max.	2,5	L/min
Connected load	12	W
Weight	32	kg
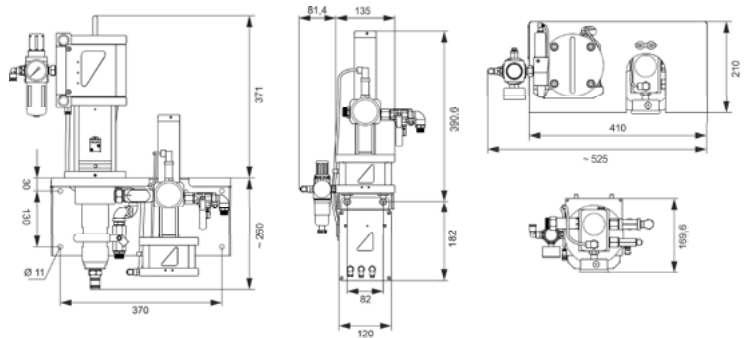
Blank guide without water bath
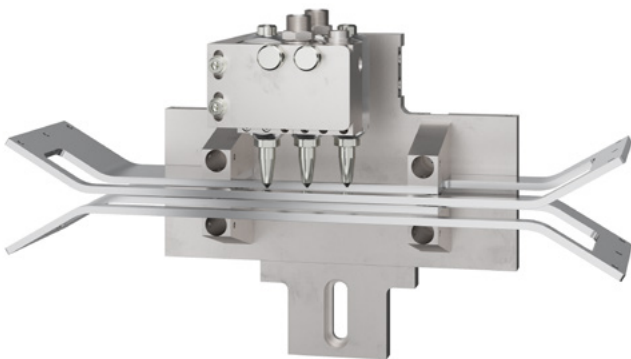
Dimensions of blank guide without water bath

Specification	Value	Unit
Length	148	mm
Width	405	mm
Height	263	mm
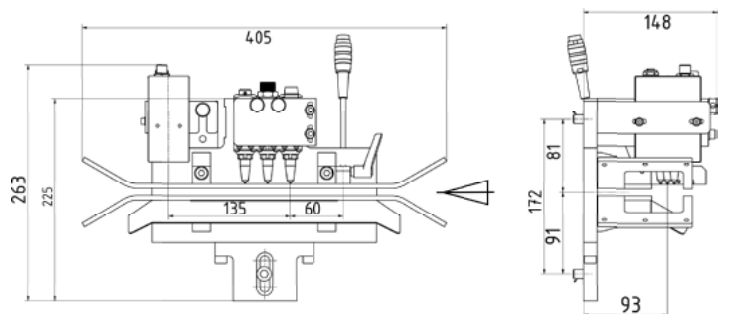
Blank guide with water bath
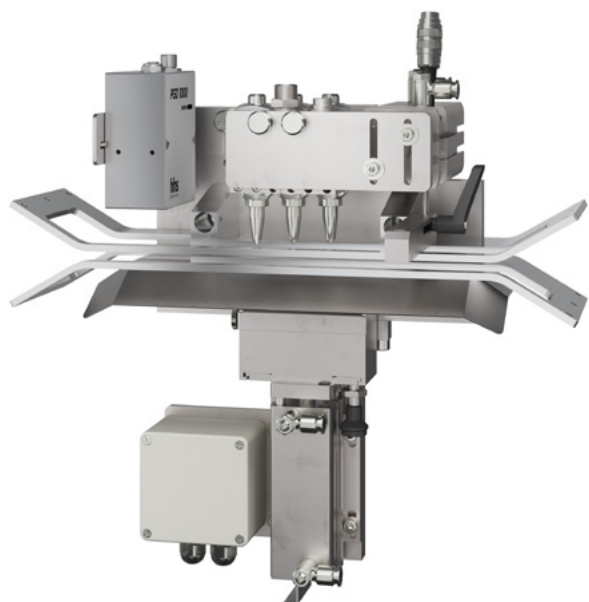
Dimensions of blank guide with water bath

Specification	Value	Unit
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Width	405	mm
Height	400	mm
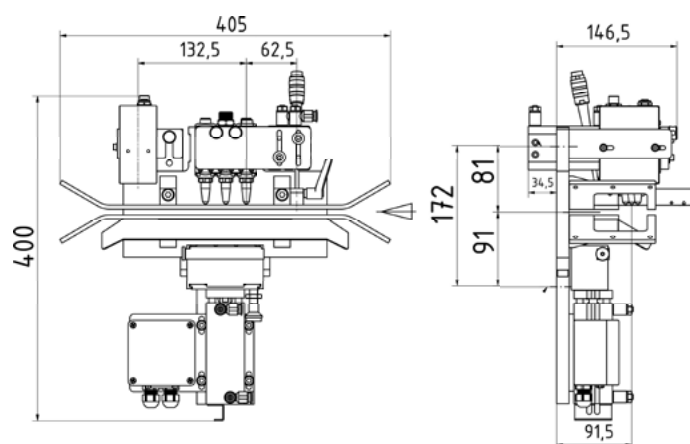
Inverto blank guide
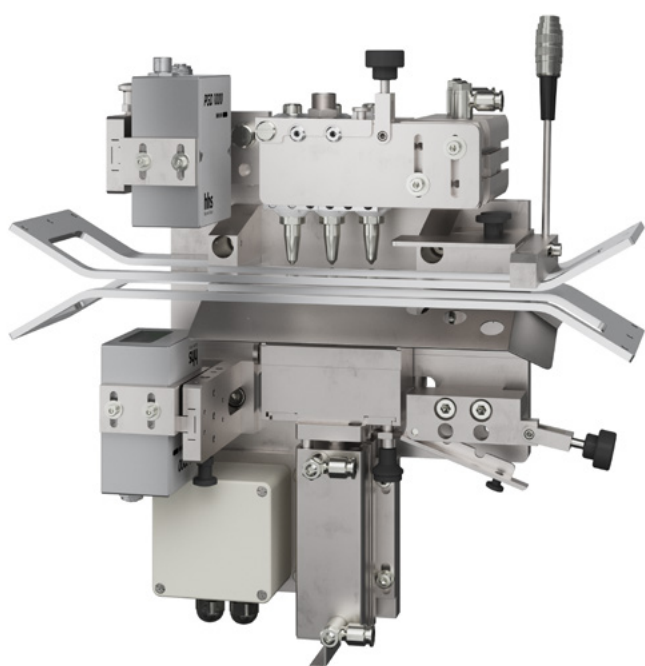
Dimensions of Inverto blank guide

Specification	Value	Unit
Length	144	mm
Width	405	mm
Height	405	mm
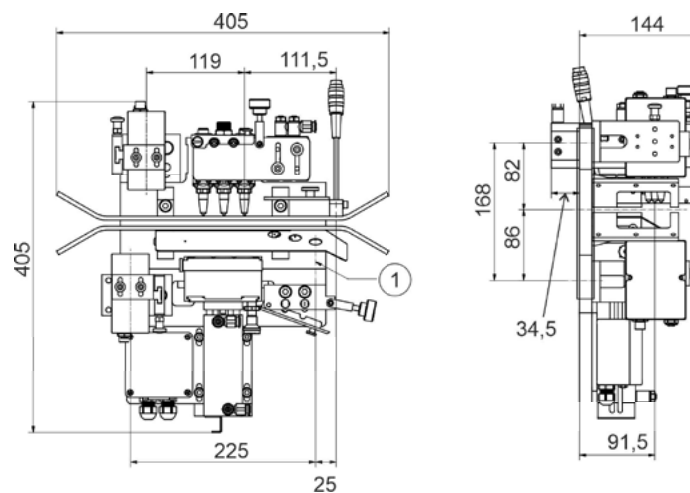
Baumer hhs –
Your competent partner

Baumer hhs, based in Krefeld, Germany, is your worldwide 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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