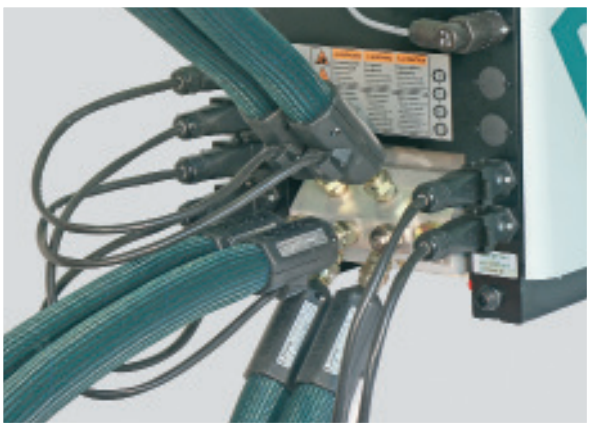


# RO

**Robatech**  
Glueing Technology

## Concept A-series Adhesive Melters »The Allrounders«

The Concept units melt and feed thermoplastic adhesives for the most varied applications. The modular appliances are characterized by their convenient operation and outstanding reliability.



## Wide application range

The adhesive melters of the Concept A series are available with different tank sizes and piston and gear pumps. They offer numerous combination possibilities to meet a multitude of requirements. Their modular structure makes them highly suitable for a great variety of applications in the packaging industry and many other industries.

- Five tank sizes from 5 to 30 litres
- With piston pumps and gear pumps
- Connections for up to 8 heated hoses and 8 application heads

## Simple installation

The Concept melters enable simple mounting with optimal accessibility as well as a perfect hose layout for any type of installation.



Up to 8 hoses for positioning in any direction

- No operating elements on the side
- Optimal accessibility for filling, tank lid can be turned by 180°
- Suitable hose positioning for all directions – shorter glue hoses
- External mounting of the console

## Signals for safety, convenience

Various system interfaces and potential free I/O signals are available for integration in and communication with the machine or a higher-ranking system control.

## Precise adhesive application

The accurate temperature feedback control, the precisely working feed pumps, the multi-stage adhesive filter system, the evenly heated material hoses and the fast-reacting application heads result in a perfect and reliable adhesive application without stringing and drooling.

- Accurate temperature feedback control
- Electronic, double-acting piston pump switching-over without loss
- Electronic gear pump with DC motor and digital speed feedback
- Small, fast-acting and reliable adhesive applicator heads
- Integrated pattern control for precise glue application, accuracy 0.1 mm

## Short heating times and high melting capacity

The cast aluminium tank of special shape combined with optimal positioning of the heating elements guarantees a very short heating time and a high melting capacity at the lowest possible energy consumption.



Tank with capacitive fill level sensor

## Fill-level supervision

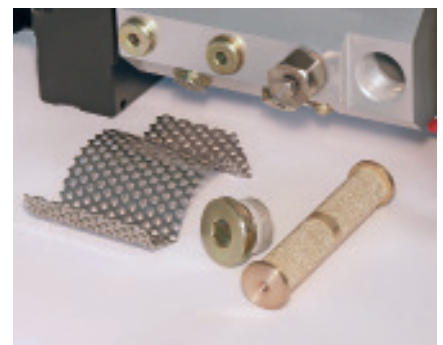
This supervision, based on a capacitive sensor, checks the adhesive level in the tank, so that production stops due to an empty or overfilled tank are avoided.

## Straightforward operation



Operating field with schematic presentation

The operating field with the schematic presentation of the unit and the language-independent indication of the operation status by means of LEDs and codes guarantee a user-friendly, convenient operation.

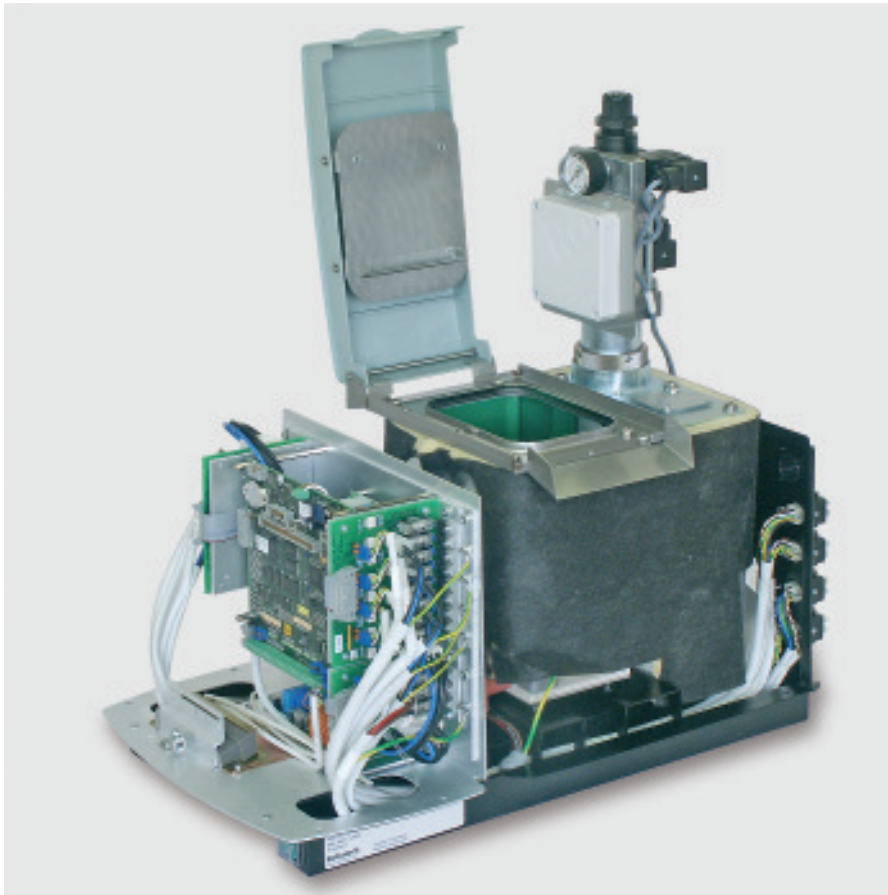


Pump suction filter and fine filter at outlet

## No nozzle obstructions

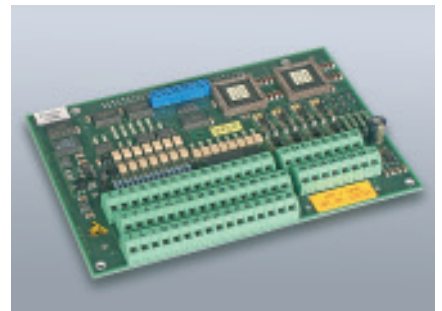
The individual temperature feedback control of tank, hoses and heads in combination with the automatic temperature reduction in case of a longer standstill prevent burning of the adhesive and contamination of the system. The three-stage filter system in tank, pump outlet and applicator head stops possible contaminants and prevents the nozzles from becoming blocked.

## Concept A5 melter with piston pump KPC12



## Pattern control ICS-IK

The integrated pattern control «ICS-IK4x» enables the precise activation of up to eight applicator heads to produce different programmable adhesive patterns. The extra board features the connections for the heads, the photocells, an encoder and a proportional valve. Depending on the extension level it is possible to individually activate up to 2, 4, 6 or 8 applicator head valves. A subsequent extension is possible at any time.

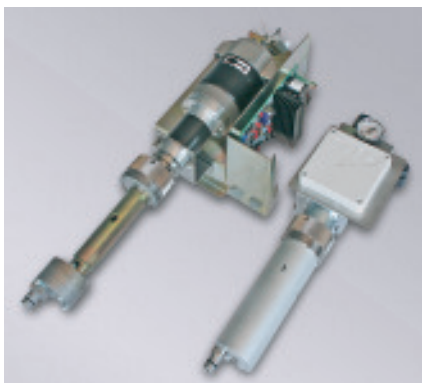


Pattern control board ICS-IK 42...48

## Pumps to suit the purpose

In the interest of a high productivity and flexibility Robatech offers piston pumps and gear pumps with different performance characteristics.

- Piston pumps for intermittent adhesive application
- Gear pumps for continuous adhesive application and precise dosing



Gear pump and piston pump

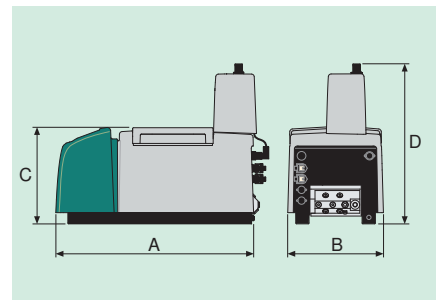
## Glue pressure release

The pressure release feature permits to automatically release the entire hotmelt pressure in case of an interruption of the air supply caused by an emergency stop etc.



Glue distributor with optional pressure release

## Dimensions



Concept	A5	A8	A12	A18	A30
A Length	556	696	694	824	824
B Width	338	338	402	402	586
C Height tank	340	340	340	340	340
D Height unit	566	566	566	566	566

all dimensions in [mm]



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## Technical data

Basic unit	Concept A5	Concept A8	Concept A12	Concept A18	Concept A30
Tank content	5 litres (305 in <sup>3</sup> )	8 litres (488 in <sup>3</sup> )	12 litres (732 in <sup>3</sup> )	18 litres (1098 in <sup>3</sup> )	30 litres (1931 in <sup>3</sup> )
Tank opening	150 x 110 mm	135 x 223 mm	220 x 219 mm	210 x 349 mm	339 x 384 mm
Melting rate per hour (approx.)	5 kg (11 lb)	8 kg (17.6 lb)	12 kg (26.5 lb)	18 kg (39.7 lb)	30 kg (66.2 lb)
Number of feed pumps	1	1	1 or 2	1	1 or 2
Piston pump types	KPC 12 (standard), KPC 16 or KPC 5				
Gear pump types	ZPC 20, ZPC 5 or ZPC 0.3				
Heated hoses / Applicator heads	max. 6 each	max. 8 each	max. 8 each	max. 8 each	max. 8 each
Working temperature	20...210°C (68...410°F), tolerance ± 0.5°C				
Operating voltages	230 Volt AC, 1LNPE, max. 32A or 400 Volt AC, 3LNPE, max. 16A or 200...240 Volt AC, 1ØPE, max. 32A or 200...240 Volt AC, 3ØPE, max. 32A				
Power consumption basic unit	1,800 Watt	3,000 Watt	3,000 Watt	4,500 Watt	6,000 Watt
Ambient temperature	0...45°C (32...113°F)				
Weight (with KPC12)	34 kg (75 lb)	44 kg (97 lb)	54 kg (119 lb)	60 kg (132 lb)	130 kg (287 lb)
Safety	Temperature protection, emergency stop input, program flow monitoring, pressure release tap				
Interfaces	7 outputs and 12 inputs, freely configurable signal assignment				
Options	Fill level sensor, pressure release, pattern control, granule feeder, Profibus interface etc.				

Piston pumps	KPC 5	KPC 12 (standard)	KPC 16
Pumping rate per hour	5...50 kg (11...110 lb)	5...50 kg (11...110 lb)	16...160 kg (35...352 lb)
Feed pressure	max. 30 bar (435 psi)	max. 72 bar (1,044 psi)	max. 96 bar (1,392 psi)
Adhesive viscosity (approx. value)	100...20,000 mPas		
Air supply	6 bar (87 psi), not oiled, cleaned 6 bar, switched via emergency stop of the machine		
Air consumption	max. 11.4 l/min	max. 27.5 l/min	max. 111.0 l/min

Gear pumps	ZPC 0.3	ZPC 5	ZPC 20
Pumping rate per hour	0.12...1.2 kg (0.26...2.6 lb)	0.5...5 kg (1.1...11 lb)	2...20 kg (4.4...44 lb)
Feed pressure	max. 80 bar (1,160 psi)		
Adhesive viscosity (approx. value)	100...50,000 mPas		

## Supplementary brochures on the Concept appliances:

- ICS electronics
- Concept B-series
- Heated hoses
- Profibus interface
- Pattern controls
- Jetting heads AX/SX
- Spray heads
- Coating heads
- Hand applicators
- Glue detection

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# RO

## SX-1 Diamond Fully insulated hotmelt head

**Robatech**  
Gluing Technology

The world's first fully insulated applicator head for hotmelt. No cooling-down of the adhesive from the melting device right to the nozzle in the interest of a constant and precise glue application. Up to 40% lower energy consumption than with conventional applicator heads.



# RO

**Robatech**  
Gluing Technology

The SX-Diamond applicator head is the world's first fully insulated applicator head for hot-melts. The heat-resistant insulation offers tangible advantages:

### Optimal temperature control

The hotmelt doesn't cool down anywhere on its way from the melting device to the nozzle. This means that the adhesive's optimal viscosity stays constant from melting right to the application and the material retains its best processing and adhesion properties.

### Protection from air currents

The air currents which often arise in rapidly working equipment don't cool the insulated applicator head any more. Thanks to its ideal viscosity the adhesive can be applied with maximum precision.

### Energy saving

The heat-resistant insulation reduces the power consumption. Compared with conventional applicator heads up to 40% energy can be saved with the new SX-Diamond head. The head is heated more quickly and is ready for operation again in a minimum of time after an intentional temperature reduction.

### Less heat radiation

Much less heat is radiated to the environment thanks to the efficient insulation. Both the operators and the products to be glued are effectively protected in this way.

### Further novelties

The pneumatic valve developed especially for SX hotmelt applications now switches over yet more precisely and has become more durable. More than 50 million precise switching operations can be achieved with the new SX-Diamond applicator head.



Nozzle protected from damage and air currents



Integrated glue filter for retrofitting

### Advantages

- Constant temperature control and no viscosity fluctuations
- Reduced energy consumption
- Improved protection of persons
- Short switch-over times
- Excellent tear-off behaviour
- Small installation dimensions
- No blocked nozzles thanks to filter



Slim head SX-1S

### Technical data

Operating temperature	200° C (392° F) maximum
Hydraulic pressure	100 bar (1,450 psi) maximum
Hotmelt viscosity	100...20,000 mPas
Temperature control	NTC sensor, control accuracy $\pm 0.5^{\circ}$ C
Response time	2.5...5.0 msec
Operating speed	120 cycles maximum per second
Life cycle	> 50 million cycles
Operating voltage	200...240 Volt AC, 50/60 Hz
Air pressure	5...6 bar
Fastening	12 mm clamping unit or M5 thread
Sound pressure level	60...65 dB(A)

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