

# Coating heads

## Technical data



### ETV

<b>Types*</b>	<b>ETV UZ, ETV GZ</b>
<b>Application range</b>	wrap-around labeling onto glass, sheet metal, plastic containers, etc.
<b>Application</b>	intermittent coating application onto magazine labels (end gluing)
<b>Jetting element</b>	AX 100 with ball nozzle
<b>Adhesive types</b>	hotmelts (EVA, PE)
<b>Adhesive viscosity</b>	800...2'500 mPas (low viscous)
<b>Adhesive pressure</b>	78 bar
<b>Transport speed</b>	max. 40'000 bottles / h
<b>Working temperature</b>	20...185 °C (68...365 °F) ± 0.5 °C
<b>Temperature sensor</b>	NTC, precision ± 0.5 °C
<b>Air pressure</b>	5.5 bar
<b>Air supply</b>	1/8" internal thread 8 mm plug connection
<b>Adhesive connection</b>	G 1/4" internal thread
<b>Operating voltage</b>	230 V
<b>Heating output</b>	500 W
<b>Coating width</b>	20...140 mm (opening from bottom to top in 2 mm-steps)
<b>Bracket</b>	suspension bolts with M8-internal thread
<b>Protection class (EN)</b>	IP 54 (option: IP 65)
<b>Weight</b>	
head	6.5 kg
bracket	15 kg

\* Rolling direction of the roundabout (UZ=clockwise, GZ=counter clockwise)

### FKC

Types	FKC 1	FKC 2	FKC AX	FKC pneumatic
<b>Jetting element</b>			AX	
<b>Coating width</b>	150...700 mm (100 mm-steps)	700...2100 mm (100 mm-steps)	arbitrary (50 mm-steps)	500, 1600 mm
<b>Heating capacity</b>	0.5...2.0 kW	1.5...6.0 kW	1.5...6.0 kW	3,5 kW, 12 kW
<b>Heating zones</b>	1-5	5-12	5-12	4, 12
<b>Suspension</b>	distance bolt with M8-thread	wave pin Ø 45 mm frontal	wave pin Ø 30 mm frontal	customizing
<b>Supplies</b>	integrated filter (option)	separate filter and isolation (option)	separate filter and isolation	pneumatic clamping jig
<b>Application</b>	continuous coating application			
<b>Function</b>	wide slot nozzle with central supply and across channel distribution			
<b>Adhesive types</b>	hotmelts			
<b>Adhesive viscosity</b>	50...250'000 mPas (low to high viscous)			
<b>Mask thickness</b>	0.1...0.5 mm			
<b>Temperature range</b>	20...200 °C (68...392 °F)			
<b>Temperature sensor</b>	electronically, precision ± 0.5 °C			

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FKM	
Types	FKM 04, FKM 08 FKM 12, FKM 16 FKM 104, FKM 108
Application	pattern coating
Jetting element	AX 100 (single control)
Distance (jetting elements)	22 mm (side elements: 17 mm)
Construction	modular
Adhesive types	hotmelts
Adhesive viscosity	50...50'000 mPas (low to medium viscous)
Application width	17...518 mm (in 22 mm-steps)
Mask thickness	0.1...0.3 mm
Operating pressure	max. 100 bar
Temperature range	20...230 °C
Temperature sensor	NTC, precision ± 0.5 °C
Heating output	modul FKM 04 with 250 W, modul FKM 08 with 500 W
Bracket	timber with M6-thread

FKS			
Types	FKS 15 FKS 15 FKS 15 F	FKS 16...190 FKS 16 FKS 24 L, FKS 24 R FKS 50, FKS 50 EL FKS 70, FKS 90 FKS 150 F/EL FKS 190 F	FKS 200...700 FKS 200 F, FKS 250 F/EL FKS 300 F, FKS 400 F FKS 500 F, FKS 700 F
Speciality	integrated jetting element in coating nozzle		heating part (steel)
Application range	material with slick surface (paper, plastic film, textiles, etc.)		
Application	intermittent coating		
Jetting element	AX 100 with ball valve, fine tuning (option)		
Adhesive types	hotmelts (EVA, PSA, PUR)		
Adhesive viscosity	100...20'000 mPas		
Application width	depending on coating head (mask)		
Application weight	20...200g/m <sup>2</sup>		
Switch frequency	5'000 cycles / min (pulse 2ms)		
Transport speed	max. 300 m/min		
Working temperature	20...210 °C		
Operating voltage	230 V		
Air pressure	5...6 bar (prepared and not oiled)		
Heating output	200...4'500 W		
Bracket	adjustable suspension		

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### FKS-IT

Types	<b>FKS-IT 42, 50, 80, 100, 150, 208, 440</b>
Application range	mouth-flap glueing, application on sanitary towels and slip inserts, on siliconized papers and films, gumming of envelopes, further applications in the mailing and packaging industries
Application	intermittent coating
Construction	modular (heating part and jetting elements) heating part with temperature control, filter, adhesive supply and air supply
Jetting element	FKS-IT (with and without fine tuning)
Switch frequency	up to 5'000 cycles / min (pulse 2ms)
Application width	2...500 mm
Application weight	20...500 g/m <sup>2</sup>
Transport speed	max. 300 m/min
Adhesive types	hotmelts (EVA, PSA, PUR)
Adhesive viscosity	100...50'000 mPas (low to medium viscous)
Operating pressure	max. 100 bar
Temperature range	20...210 °C
Temperature sensor	NTC, precision ± 0.5 °C
Operating voltage	230 V
Air pressure	5...6 bar (prepared and not oiled)
Bracket	suspension bolts with M8-thread

### FKSX

Types	<b>FKSX 15, FKSX 50</b>
Application	intermittent with exact tear-off continuous coating at average speeds
Application range	mouth-flap glueing, application on sanitary towels and slip inserts, glue application on siliconized papers and films, gumming of envelopes, further applications in the mailing and packaging industries
Application width	<b>FKSX 15:</b> max. 15 mm, <b>FKSX 50:</b> max. 50 mm
Application weight	10...200g / m <sup>2</sup>
Construction	modular (heating part and jetting elements) heating part with temperature control, filter, adhesive supply and air supply
Jetting element	SX
Switching frequency	up to 5'000 cycles / min (pulse 2 ms)
Transport speed	max. 220 m / min
Adhesive types	low viscous and re-moistenable hotmelts (EVA, PSA, PUR)
Adhesive viscosity	100...20'000 mPas
Working temperature	20...210 °C
Operating voltage	230 V
Air pressure	5...6 bar
Bracket	stepless and clearance-free adjustment in 2 axes, adjustable angle of inclination within a range of +/-3°

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FKV																					
<b>Types</b>	<b>FKV 200, 350, 520, 820</b> <b>FKV 1100, 1400, 1700, 2000, 2300, 2600</b>																				
<b>Application</b>	continuous coating, for closed or permeable (breathing) coating																				
<b>Application range</b>	lamination and profile wrapping in the wood-working industry, coating and laminating systems for textiles, hygiene products, fabrics and cellular materials																				
<b>Adhesive types</b>	hotmelts (EVA, APAO, PO, PSA, PUR)																				
<b>Adhesive viscosity *</b>	200...100'000 mPas																				
<b>Adhesive pressure</b>	max. 70 bar																				
<b>Transport speed*</b>	2...500 m/min																				
<b>Application weight *</b>	1...1000 g/m <sup>2</sup>																				
<b>Application tolerance **</b>	coating weight < 40 g/m <sup>2</sup> : tolerance ± 2 g/m <sup>2</sup> coating weight > 40 g/m <sup>2</sup> : tolerance ± 5 %)																				
<b>Application widths</b> (stepless adjustable)	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;"><b>FKV 200:</b> 5 ... 200 mm</td> <td style="width: 50%;"><b>FKV 1400:</b> 200 ...1400 mm</td> </tr> <tr> <td><b>FKV 350:</b> 20 ... 350 mm</td> <td><b>FKV 1700:</b> 600 ...1700 mm</td> </tr> <tr> <td><b>FKV 520:</b> 20 ... 520 mm</td> <td><b>FKV 2000:</b> 800 ...2000 mm</td> </tr> <tr> <td><b>FKV 820:</b> 100 ... 820 mm</td> <td><b>FKV 2300:</b> 1100 ...2300 mm</td> </tr> <tr> <td><b>FKV 1100:</b> 100 ... 1100 mm</td> <td><b>FKV 2600:</b> 1400 ...2600 mm</td> </tr> </table>	<b>FKV 200:</b> 5 ... 200 mm	<b>FKV 1400:</b> 200 ...1400 mm	<b>FKV 350:</b> 20 ... 350 mm	<b>FKV 1700:</b> 600 ...1700 mm	<b>FKV 520:</b> 20 ... 520 mm	<b>FKV 2000:</b> 800 ...2000 mm	<b>FKV 820:</b> 100 ... 820 mm	<b>FKV 2300:</b> 1100 ...2300 mm	<b>FKV 1100:</b> 100 ... 1100 mm	<b>FKV 2600:</b> 1400 ...2600 mm										
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<b>Heated hose connection</b> (inlet valve with filter)	<b>FKV 200...1400:</b> 1 × G 1/2" <b>FKV 1700...2600:</b> 2 × G 1/2"																				
<b>Temperature range</b>	20...230 °C (68...446 °F)																				
<b>Temperature sensor</b>	NTC-sensor, precision ± 0.5 °C																				
<b>Operating voltage</b>	230 V																				
<b>Heating power</b> (HZ = heating zone)	<table style="width: 100%; border: none;"> <tr> <td style="width: 80%;"><b>FKV 200</b> (2 HZ): 1 HZ 900W + 1 filter 200W</td> <td style="width: 20%; text-align: right;">= 1100W</td> </tr> <tr> <td><b>FKV 350</b> (3 HZ): 2 HZ 600W + 1 filter 200W</td> <td style="text-align: right;">= 1400W</td> </tr> <tr> <td><b>FKV 520</b> (3 HZ): 2 HZ 900W + 1 filter 200W</td> <td style="text-align: right;">= 2000W</td> </tr> <tr> <td><b>FKV 820</b> (5 HZ): 2 HZ 500W + 2 HZ 700W + 1 filter 200W</td> <td style="text-align: right;">= 2600W</td> </tr> <tr> <td><b>FKV 1100</b> (7 HZ): 4 HZ 625W + 2 HZ 375W + 1 filter 700W</td> <td style="text-align: right;">= 3950W</td> </tr> <tr> <td><b>FKV 1400</b> (7 HZ): 4 HZ 625W + 2 HZ 750W + 1 filter 700W</td> <td style="text-align: right;">= 4700W</td> </tr> <tr> <td><b>FKV 1700</b> (10 HZ): 6 HZ 625W + 2 HZ 500W + 2 filters 700W</td> <td style="text-align: right;">= 6150W</td> </tr> <tr> <td><b>FKV 2000</b> (10 HZ): 6 HZ 625W + 2 HZ 875W + 2 filters 700W</td> <td style="text-align: right;">= 6900W</td> </tr> <tr> <td><b>FKV 2300</b> (12 HZ): 8 HZ 625W + 2 HZ 625W + 2 filters 700W</td> <td style="text-align: right;">= 7650W</td> </tr> <tr> <td><b>FKV 2600</b> (13 HZ): 8 HZ 625W + 1 HZ 500W + 2 HZ 750W + 2 filters 700W</td> <td style="text-align: right;">= 8400W</td> </tr> </table>	<b>FKV 200</b> (2 HZ): 1 HZ 900W + 1 filter 200W	= 1100W	<b>FKV 350</b> (3 HZ): 2 HZ 600W + 1 filter 200W	= 1400W	<b>FKV 520</b> (3 HZ): 2 HZ 900W + 1 filter 200W	= 2000W	<b>FKV 820</b> (5 HZ): 2 HZ 500W + 2 HZ 700W + 1 filter 200W	= 2600W	<b>FKV 1100</b> (7 HZ): 4 HZ 625W + 2 HZ 375W + 1 filter 700W	= 3950W	<b>FKV 1400</b> (7 HZ): 4 HZ 625W + 2 HZ 750W + 1 filter 700W	= 4700W	<b>FKV 1700</b> (10 HZ): 6 HZ 625W + 2 HZ 500W + 2 filters 700W	= 6150W	<b>FKV 2000</b> (10 HZ): 6 HZ 625W + 2 HZ 875W + 2 filters 700W	= 6900W	<b>FKV 2300</b> (12 HZ): 8 HZ 625W + 2 HZ 625W + 2 filters 700W	= 7650W	<b>FKV 2600</b> (13 HZ): 8 HZ 625W + 1 HZ 500W + 2 HZ 750W + 2 filters 700W	= 8400W
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<b>Bracket</b>	complete brackets and stands																				

\* The application depends on transport speed, coating weight, adhesive viscosity.

\*\* Free effluence and newton fluid. The coating tolerance also depends on quality and precision of the parent machine (substrat tension, bracket, etc.)

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FKW		
<b>Types</b>	<b>FKW 350, 520, 720, 1100, 1400, 1700, 2000, 2300, 2600</b>	
<b>Application</b>	continuous coating	
<b>Application range</b>	profile wrapping and panel lamination in the wood-working industry	
<b>Adhesive types</b>	hotmelts (EVA, PO, PUR)	
<b>Adhesive viscosity</b>	500...100'000 mPas	
<b>Adhesive pressure</b>	max. 70 bar	
<b>Transport speed</b>	5...100 m/min	
<b>Application weight</b>	20...500 g/m <sup>2</sup>	
	<b>with 1 inlet valve »1F«</b>	<b>with 2 inlet valves »2F«</b>
<b>Application widths</b> (continuously adjustable)	<b>FKW 350:</b> 20...350 mm <b>FKW 520:</b> 50...520 mm <b>FKW 720:</b> 100...720 mm <b>FKW 1100:</b> 100...1100 mm <b>FKW 1400:</b> 300...1400 mm	<b>FKW 1700:</b> 800...1700 mm <b>FKW 2000:</b> 800...2000 mm <b>FKW 2300:</b> 1000...2300 mm <b>FKW 2600:</b> 1400...2600 mm
<b>Application tolerance</b>	<b>FKW 350...1100:</b> $< 40 \text{ g/m}^2 \pm 4 \text{ g/m}^2, > 40 \text{ g/m}^2 \pm 10\%$ <b>FKW 1400:</b> $< 40 \text{ g/m}^2 \pm 6 \text{ g/m}^2, > 40 \text{ g/m}^2 \pm 15\%$	<b>FKW 1700...2600:</b> $< 40 \text{ g/m}^2 \pm 4 \text{ g/m}^2, > 40 \text{ g/m}^2 \pm 10\%$
<b>Hose connection</b>	1 × G 1/2"	2 × G 1/2"
<b>Temperature range</b>	standard: up to 190 °C high temperature version HT: up to 230 °C	
<b>Temperature sensor</b>	NTC-sensor, precision ± 0.5 °C	
<b>Operating voltage</b>	230 V	
<b>Heating capacity</b> (HZ = heating zone)	<b>FKW 350:</b> 2 HZ à 800W + 1 filter 200W = 1800 W <b>FKW 520:</b> 2 HZ à 800W + 1 HZ à 500W + 1 filter 200W = 2300 W <b>FKW 720:</b> 2 HZ à 800W + 2 HZ à 500W + 1 filter 200W = 2800 W <b>FKW 1100:</b> 2 HZ à 900W + 3 HZ à 500W + 1 filter 700W = 4000 W <b>FKW 1400:</b> 2 HZ à 800W + 4 HZ à 500W + 1 HZ 400W + 1 filter 700W = 4700 W <b>FKW 1700:</b> 2 HZ à 800W + 6 HZ à 500W + 1 filter 700W = 5300 W <b>FKW 1700:</b> 2 HZ à 800W + 6 HZ à 500W + 2 filters à 700W = 6000 W <b>FKW 2000:</b> 2 HZ à 900W + 6 HZ à 600W + 2 filters à 700W = 6800 W <b>FKW 2300:</b> 2 HZ à 800W + 9 HZ à 500W + 2 filters à 700W = 7500 W <b>FKW 2600:</b> by request	
<b>Bracket</b>	complete brackets and stands	

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FKW	
Types	FKW 40 FKW 60
Application	continuous coating
Application range	edge banding machines
Adhesive types	hotmelts (EVA, PO, PUR)
Viscosity range	5'000...100'000 mPas
Application width	FKW 40: 0...40 mm (depending on mask) FKW 60: 8...60 mm (continuously adjustable)
Adhesive pressure	max. 100 bar
Pressure range	1...100 bar
Slot width	0.5...0.8 mm
Temperature range	standard: 20...200°C (68...392°F) high temperature version HT: 20...230°C (68...446°F)
Temperature sensor	electronically, precision ± 0.5°C
Operation voltage	230 V
Heating output	250 W
Bracket	Bracket with contact rocker. Contact force and position can be adjusted. Change over to suit machines in right-hand and left-hand execution.

FKWX	
Application	continuous coating
Application range	gel-application
Application width	max. 248 mm (depending on mask)
Gel-viscosity	ca. 100'000 mPas
Operating pressure	max. 30 bar
Temperature range	20...95 °C
Operating voltage	230 V
Heating output	3 heating zones (total 2100 W)