

Series FP Avantgarde.Line | with forced convection and program functions

A BINDER material test chamber with mechanical convection of the FP series provides reliably short drying times and particularly fast heating – even for chambers under full loads.



FP 115 model

BENEFITS

- Uniform drying conditions thanks to APT.line™ technology
- Identical test conditions throughout the chamber interior independent of sample size and quantity
- Outstanding thermal insulation saves operation costs
- Advanced programming options

MAIN FEATURES

- Temperature range: +10 °C above ambient temperature up to +300 °C
- High temperature accuracy thanks to APT.line™ technology
- Adjustable fan speed
- Controller with interval and real-time programming
- Electromechanical control of the exhaust air flap
- 2 chrome-plated racks
- Units up to 115 liters are stackable
- Class 2 independent adjustable temperature safety device (DIN 12880) and class 3.1 independent temperature safety device (DIN 12880) with visual/acoustic alarm available for selection on the controller
- Ergonomic handle design
- Computer interface: Ethernet



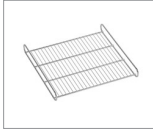



AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
FP 56	60	› go2binder.com/en-FP56
FP 115	116	› go2binder.com/en-FP115
FP 260	259	› go2binder.com/en-FP260
FP 720	741	› go2binder.com/en-FP720



Find all details online: go2binder.com/en-FP

OPTIONAL EQUIPMENT

Access port with silicone plug	For introducing external measuring instruments. Large selection of different diameters and positions (left, right, or top)	
Viewing window and interior lighting	Viewing window in the door with a triple-glazed insulating glass and interior lighting for easy visibility of the samples.	
Shelf racks	Perforated shelves or shelf racks, chrome-plated or made from stainless steel.	
HEPA air filter	Particle filter on fresh air supply for unit; filter classification H14 (acc. to EN 1822-1:2009, > 99.995% at 0.3 µm).	
Services	You can access our installation, maintenance, calibration, validation, or warranty services by taking out a Maintenance Service Agreement or by simply getting in touch when you need us. More information is available in the accessories and services chapter.	
BINDER INDIVIDUAL	Using a BINDER series production product as a basis, we develop individual solutions as a single unit or in small batches. All products are tested, certified, and supplied with a full functional guarantee and warranty. More information is available in the accessories and services chapter.	

► All extras online go2binder.com/en-options

TECHNICAL DATA

Description	FP 56	FP 115	FP 260	FP 720
Measures				
Interior volume [L]	60	116	259	741
Net weight of the unit (empty) [kg]	44	62	96	194
Permitted load [kg]	70	150	270	315
Load per rack [kg]	30	30	40	45
Wall clearance back [mm]	160	160	160	160
Wall clearance sidewise [mm]	100	100	100	100
Internal Dimensions				
Width [mm]	400	550	650	1000
Height [mm]	400	550	780	1300
Depth [mm]	342	383	512	574
Housing dimensions not incl. fittings and connections				
Width net [mm]	560	710	810	1160
Height net [mm]	622	732	962	1590
Depth net [mm]	596	636	786	816
Performance Data Temperature				
Temperature range +10 °C above ambient temperature to [°C]	300	300	300	–
Temperature range +12 °C above ambient temperature to [°C]	–	–	–	300
Temperature variation at 150 °C [± K]	1.4	1.4	1.7	2.4
Temperature fluctuation at 150 °C [± K]	0.4	0.3	0.4	0.6
Heating-up time to 150 °C [min]	15	19	19	25
Recovery time after 30 seconds door open at 150 °C [min]	4	5	6	6
Tabellen				
Air change (approx.) at 100 °C [x/h]	80	32	9	5
Electrical data				
Nominal power (version 120 V) [kW]	1.2	1.4	2.5	–
Nominal power (version 208 V) [kW]	–	–	–	4.5
Nominal power (version 230 V) [kW]	1.2	1.4	2.5	–
Nominal power (version 400 V) [kW]	–	–	–	4.5
Fixtures				
Number of shelves (std./max.)	2/5	2/5	2/8	2/16

ORDERING INFORMATION [Art. No.]

Further details: Go to www.binder-world.com > Search > Enter Article Number

Voltage	Option model	FP 56	FP 115	FP 260	FP 720
400 V 3~ 50/60 Hz	Standard	–	–	–	9010-0366
230 V 1~ 50/60 Hz	Standard	9010-0363	9010-0364	9010-0365	–
208 V 3~ 60 Hz	Standard	–	–	–	9010-0370
120 V 1~ 60 Hz	Standard	9010-0367	9010-0368	9010-0369	–

ORDERING INFORMATION OPTIONS

Designation	Description	FP 56	FP 115	FP 260	FP 720	Art. No.
Access port with silicone plug	left					
	10 mm	•	•	•	•	8012-2198
	30 mm	•	•	•	•	8012-2210
	50 mm	•	•	•	•	8012-2213
	100 mm	–	•	•	•	8012-2207
	right					
	10 mm	•	•	•	•	8012-2206
	30 mm	•	•	•	•	8012-2212
	50 mm	•	•	•	•	8012-2215
	100 mm	–	•	•	•	8012-2209
	top					
	10 mm	•	•	•	•	8012-2199
	30 mm	•	•	•	•	8012-2211
	50 mm	•	•	•	•	8012-2214
	100 mm	•	•	•	•	8012-2208
	Analog output 4-20 mA	for temperature values (output not adjustable)	•	•	•	•
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	•	•	•	•	8012-2231
Calibration certificate, temperature	for temperature, measurement in center of chamber at specified temperature	•	•	•	•	8012-2227
	temperature measurement incl. certificate and 27 measuring points at specified temperature	•	•	•	•	8012-2229
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	•	•	•	•	8012-2228
	temperature measurement incl. certificate, 9 measuring points at specified temperature	•	•	•	•	8012-2230
Door gasket	made of FKM, silicone-free	•	–	–	–	8012-2233
		–	•	–	–	8012-2234
		–	–	•	–	8012-2235
		–	–	–	•	8012-2236
Door lock	lockable door handle	•	•	•	–	8012-2237
		–	–	–	•	8012-2238
Gas-tight option model	Incl. additional measures for the greatest possible impermeability to gas; not in conjunction with access port or interior lighting option	•	–	–	–	8012-2216
		–	•	–	–	8012-2217
		–	–	•	–	8012-2218
		•	–	–	–	8012-2219
HEPA air filter	On fresh air supply for unit; filter classification H14 (acc. to. EN 1822-1:2009, > 99.995% at 0.3 µm); not in conjunction with reinforced heating output, reinforced fan	–	•	–	–	8012-2220
		–	–	•	–	8012-2221
		–	–	–	•	8012-2222
Inert gas connection	With gas inlet and outlet, Ø 10 mm, incl. additional measures for the greatest possible impermeability to gas; not in conjunction with access port or interior lighting option	•	–	–	–	8012-2195
		–	•	–	–	8012-2196
		–	–	•	–	8012-2197
Inner chamber, reinforced	max. total load 170 kg	–	•	–	–	8012-2224
	max. total load 300 kg	–	–	•	–	8012-2225
	max. total load 350 kg	–	–	–	•	8012-2226
	max. total load 85 kg	•	–	–	–	8012-2223
Measurement of air exchange rate	in accordance with ASTM D5374, definition and protocol according to ambient temperature	•	•	•	•	8012-2232

Designation	Description	FP 56	FP 115	FP 260	FP 720	Art. No.
Pt 100 temperature sensor	additional flexible Pt 100, interior, for displaying the temperature on the unit display	•	•	•	•	8012-2193

ORDERING INFORMATION ACCESSORIES

Designation	Description	FP 56	FP 115	FP 260	FP 720	Art. No.
APT-COM™ 4 BA-SIC-Edition	for simple logging and documentation requirements with up to 5 networked units. version 4, BASIC edition	•	•	•	•	9053-0039
APT-COM™ 4 GLP-Edition	for working under GLP-compliant conditions. Measured values are documented in a tamper-proof way in line with the requirements of FDA Regulation 21 CFR 11. version 4, GLP edition	•	•	•	•	9053-0042
APT-COM™ 4 PROFESSIONAL-Edition	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units. version 4, PROFESSIONAL edition	•	•	•	•	9053-0040
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	•	•	•	•	8012-2250
Qualification documents	IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature, CO ₂ , O ₂ , pressure, depending on unit					
	Digital in PDF format	•	•	•	•	7057-0001
	Hard copy inside folder	•	•	•	•	7007-0001
	IQ/OQ/PQ documents – supporting documents for validation performed by customers, according to customer requirements, PQ section added to qualification folder IQ/OQ; parameters: temperature, CO ₂ , O ₂ – or pressure, depending on unit					
	Digital in PDF format	•	•	•	•	7057-0005
	Hard copy inside folder	•	•	•	•	7007-0005
Rack		•	–	–	–	8012-2038
		–	•	–	–	8012-2040
	chrome plated	–	–	•	–	8012-2042
		–	–	–	•	8012-2044
		•	–	–	–	8012-2085
		–	•	–	–	8012-2168
	stainless steel	–	–	•	–	8012-2169
	–	–	–	•	8012-2170	
Rack accessories	fasteners (1 set of 4) for additional security of racks	•	•	•	•	8012-0531
Rack, heavy load	Stainless steel, max. load per rack 70 kg	–	–	•	–	8012-2184
		–	–	–	•	8012-2185
Rubber pads	set anti-slip feet	•	•	•	–	8012-2030
		•	–	–	–	8012-2175
Shelf, perforated	Stainless steel	–	•	–	–	8012-2176
		–	–	•	–	8012-2177
		–	–	–	•	8012-2178
Table on castors	stable cart, casters with locking brakes, dimensions: W 1,000 x D 800 x H 780 mm	•	•	–	–	9051-0018
	stable cart, casters with locking brakes, dimensions: W 1,300 x D 800 x H 780 mm	–	–	•	–	9051-0019