PUREBERG®

Compressed air Filter, Water Separator, Condensate Drain

Quality product
Excellent service

BERG®

High Efficiency Water Separators

PUREBERG® FWW

CONDENSATE SEPARATORS

Max. operating pressure 16 bar

Volume flow rate 72 to 2760 Nm3/h

Connections 3/8" bis 3"

Operating temp. range 1.5 bis 65°C

according to ISO 8573-1

Quality class-water 8

water removal Efficiency ≥ 98%

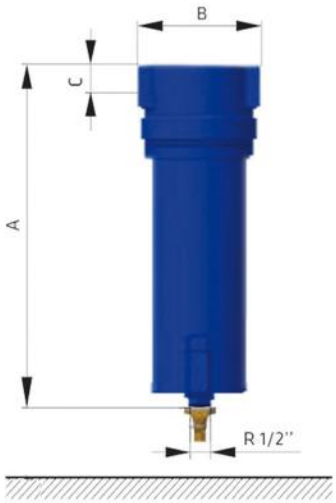
The perfect choice

- Process reliable in condensate separation
- 98% separation rate and performance
- Effective corrosion protection
- Flow-optimized construction
- Very low-pressure drop
- Optimum zero loss drainage

BM20

Outstanding water separating rates

PUREBERG® condensate separators have been developed for high-efficiency removal of bulk liquids from compressed air and vacuum systems up to 20 bar. Inside the housing, there is an insert with vanes that creates a controlled rotation of the air. As a result of centrifugal action liquids (water, oil) and large particles are forced to the housing wall, slowed down and accumulated at the bottom of separator housing as condensate. The turbulent free zone in the lower part of the filter housing prevents condensate from being picked up and "carried over" into the airstream.
To discharge condensate from the F-WW water separators it is essential to install automatic or electronic condensate drain.



Filter housing size	Pipe size	Max. oper, pressure	Flow rate At 7 bar(g), 20°c		Dimensions (mm)			Weight
	inch	bar	Nm3/h	scfm	A	B	C	Kg
F 01 WW	3/8	20	72	42	187	88	20	0.7
F 02 WW	1/2	20	96	56	256	88	20	0.8
F 03 WW	1/2	20	150	88	278	106	25	1.3
F 04 WW	3/4	20	216	127	278	106	25	1.3
F 05 WW	1	20	287	166	252	125	32	2.1
F 09 WW	1 1/2	20	510	300	450	125	32	3.2
F 15 WW	2	20	888	522	605	160	43	5.1
F 24 WW	2 1/2	20	1440	847	685	160	43	6.3
F 46 WW	3	20	2760	1624	800	240	60	12.9

Operating pressure - Correction factors																	
Operating pressure (bar)	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Correction factors	0.63	0.75	0.88	1.00	1.13	1.25	1.38	1.50	1.63	1.75	1.88	2.00	2.13	2.25	2.38	2.50	2.63

High-Efficiency Flange water Separators

PUREBERG® FF-WW

Flange CONDENSATE SEPARATORS

Max. operating pressure 16 bar

Volume flow rate 1760 to 12550 Nm3/h

Connections DN80 bis DN350

Material FF-WW series Galvanized carbon steel

according to ISO 8573-1

Quality class-water 8

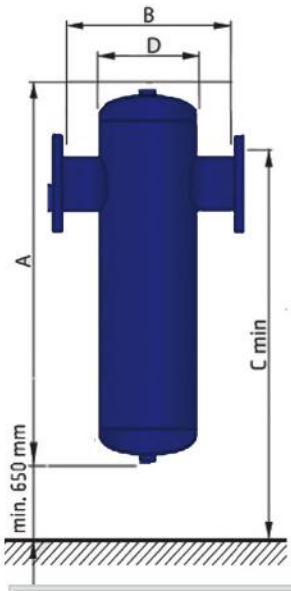
water removal Efficiency ≥ 95%

Outstanding flange water separating rates

PUREBERG® flange water separators have been developed for high-efficiency removal of bulk liquids and large impurities from compressed air systems. Inside the housing, there is an insert that creates a controlled rotation of the air. As a result of centrifugal action liquids (water, oil) and large particles are forced to the housing wall, slowed down and accumulated at the bottom of separator housing as condensate. The turbulent free zone in the lower part of the cyclone housing prevents condensate from being picked up and "carried over" into the airstream.

To discharge condensate it is essential to install automatic or electronic condensate drain.

BM20



Filter housing size	Pipe size	Max. oper, pressure	Flow rate At 7 bar(g), 20°c		Temperature oper. Range		Dimensions (mm)				Weight
	DN	bar	Nm3/h	scfm	°C	°F	A	B	C	D	Kg
FF 29 WW	80	16	1760	1024	1.5-65	35-149	720	400	165	219	33
FF 37 WW	100	16	2200	1307	1.5-65	35-149	890	460	236	244	45
FF 66 WW	125	16	3940	2331	1.5-65	35-149	980	550	250	273	58
FF 88 WW	150	16	5300	3108	1.5-65	35-149	1040	570	250	300	81
FF 97 WW	200	16	5820	3426	1.5-65	35-149	1110	690	256	350	107
FF 142 WW	250	16	8520	5015	1.5-65	35-149	1330	800	360	480	207

Operating pressure - Correction factors															
Operating pressure (bar)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Correction factors	0.4	0.50	0.6	0.8	0.9	1.00	1.1	1.3	1.4	1.50	1.6	1.8	1.9	2.00	2.1

High Efficiency Compressed Air Filteration

PUREBERG® F

ALUMINIUM COMPRESSED AIR FILTERS

Max. operating pressure 20 bar

Volume flow rate 96 to 2760 Nm3/h

Connections 1/2" bis 3"

Operating temp. range +2 bis 65°C

OPTIONAL CONDENSATE DRAINS BM20

Innovative features mean outstanding performance without compromise

PUREBERG® filter housings have been developed for high-efficiency removal of solid particles, water, oil aerosols, hydrocarbons, odour vapours from compressed air systems. To meet the required compressed air quality appropriate filter element (G, F, S, A) must be installed into the filter housing. Housing prevents condensate from being picked up and "carried over" into the airstream.
The BERG filter technology guarantees low operating costs, long service life,
outstanding process reliability, and safe filtration.

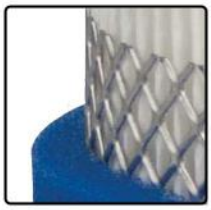
ISO 8573-1 Quality classification

Redual oil content					
0.005 mg/m³ Class 1				A	
0.01 mg/m³ Class 1				S	
0.1 mg/m³ Class 2			F		
1 mg/m³ Class 3		G			
5 mg/m³ Class 4					
	5µm Class 4	1µm Class 3	0.1µm Class 2	0.01µm Class 1	Particle filtration

Filteration grade
G = General Filter S = Super Fine Filter
F = Fine Filter A = Activated Carbon Filter

The perfect choice

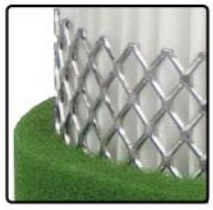
- Virtually abrasion-free
- Integrated particle removal
- Easily adapted checking system
- Simple cartridge replacement
- Flow optimized housing
- Comprehensive line



General Purpose Filter

1 µm

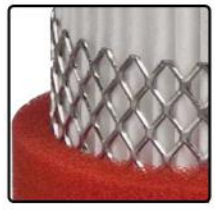
Acrylic fibers, cellulose



Fine Filter

0.1 µm

Borosilicate micro fibers



Super Fine Filter

0.01 µm

Borosilicate micro fibers

Activated carbon

0.005 mg/m3

Borosilicate micro fibers

PN 20

Filter housing size	Pipe size	Max. oper, pressure	Flow rate At 7 bar(g), 20°C		Dimensions (mm)				Weight	G General Filter	F Fine Filter	S Super fine Filter	A Activeted carbon Filter
	inch	bar	Nm3/h	scfm	A	B	C	D	Kg				
F 02 (type) W	1/2	20	96	56	256	89	20	80	0.8	02 G	02 F	02 S	02 S
F 03 (type) W	1/2	20	150	88	278	106	25	100	1.3	03 G	03 F	03 S	03 S
F 04 (type) W	3/4	20	216	127	278	106	25	100	1.3	04 G	04 F	04 S	04 S
F 05 (type) W	1	20	282	166	252	125	32	120	2.1	05 G	05 F	05 S	05 S
F 06 (type) W	1	20	360	212	352	125	32	140	2.4	06 G	06 F	06 S	06 S
F 07 (type) W	11/4	20	432	254	352	125	32	140	2.4	07 G	07 F	07 S	07 S
F 09 (type) W	11/2	20	510	300	450	125	32	160	3.2	09 G	09 F	09 S	09 S
F 13 (type) W	11/2	20	750	441	450	125	32	160	3.2	13 G	13 F	13 S	13 S
F 15 (type) W	2	20	888	522	605	160	43	180	5.1	15 G	15 F	15 S	15 S
F 20 (type) W	2	20	1176	692	605	160	43	180	5.1	20 G	20 F	20 S	20 S
F 24 (type) W	21/2	20	1440	847	685	160	43	200	6.3	24 G	24 F	24 S	24 S
F 33 (type) W	3	20	1968	1158	800	240	60	300	12.9	33 G	33 F	33 S	33 S
F 46 (type) W	3	20	2760	1624	800	240	60	300	12.9	46 G	46 F	46 S	46 S

	G General Filter	F Fine Filter	S Super fine Filter	A Activeted carbon
Quality class - particle (ISO8573-1)	3	2	1	1
Residual oil content (mg/m3)	<1	<0.1	<0.01	<0.005
Quality class - Oil (ISO8573-1)	3	2	1	0
Pressure drop - new element (mbar)	20	50	60	60
change filter cartridge at pressure drop (mbar)	350	350	350	6 months
Filter media	Acrylic fibers	Borosilicate micro fibers		Activate carbon

PN 20 Correction factors

Operating pressure - Correction factors																	
Operating pressure (bar)	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Correction factors	0.63	0.75	0.88	1.00	1.13	1.25	1.38	1.50	1.63	1.75	1.88	2.00	2.13	2.25	2.38	2.50	2.63

High Pressure Filters and Condensate Separators

DESCRIPTION FW HP50

condensate separators have been specifically developed for high-efficiency removal of bulk liquids from compressed air systems. This separator already liquefied water from mainstream and prevents the liquids and large particles from being airborne again. To discharge condensate from the F-WW HP50 condensate separator it is essential to install automatic or electronic condensate drain.

PUREBERG® F / FW HP50

CAST ALUMINIUM HIGH PRESSURE FILTERS AND CONDENSATE SEPRATORS

Max. operating pressure 50 bar

Volume flow rate 433 to 3013 Nm3/h

Connections 1/2" bis 2"

Operating temp. range 1.5 to 65°C

DESCRIPTION F HP50

PUREBERG® HP filter housings have been developed for high efficient removal of solid particles, water, oil aerosols, hydrocarbons and other vapours from compressed air systems. To meet the required compressed air quality appropriate filter element (G, F, S, A) must be installed into filter housing.

BM12 PN63

GREATER SAFETY AND RELIABILITY

- No corrosion, and no reduction in filter performance
- Easy element replacement even under spatially restricted conditions
- Housing o-ring provides radial sealing
- Additional safety against loosening of housing connection
- Continuous documentation for the traceability
- Maximum energy saving and reliability

WaterSeparator housing size.	Pipe size	Max. oper, pressure	Flow rate At 50 bar(g), 20°C		Temperature oper. Range		Dimensions (mm)				Weight
	inch	bar	Nm3/h	scfm	°C	°F	A	B	C	D	Kg
F01WWHP50	1/2	50	433	256	1.5-65	35-149	250	110	30	80	2.1
F02WWHP50	3/4	50	683	402	1.5-65	35-149	250	110	30	90	2.1
F03WWHP50	1	50	1244	732	1.5-65	35-149	250	110	30	140	2.1
F05WWHP50	1 1/2	50	1720	1012	1.5-65	35-149	535	160	45	260	9.5
F07WWHP50	1 1/2	50	2440	1433	1.5-65	35-149	535	160	45	360	9.5
F08WWHP50	2	50	3013	1775	1.5-65	35-149	715	160	45	540	12.2

Filter housing size	Pipe size	Max. oper, pressure	Flow rate At 50 bar(g), 20°C		Dimensions (mm)				F Fine Filter	S Super fine Filter	A Activeted carbon	Weight
	inch	bar	Nm3/h	scfm	A	B	C	D				Kg
F01(type)WHP50	1/2	50	433	256	250	110	30	80	01 FHP	01 SHP	01 AHP	2.1
F02(type)WHP50	3/4	50	683	402	250	110	30	90	02 FHP	02 SHP	02 AHP	2.1
F03(type)WHP50	1	50	1244	0	250	110	30	140	03 FHP	03 SHP	03 AHP	2.1
F05(type)WHP50	1 1/2	50	1720	1012	535	160	45	260	05 FHP	05 SHP	05 AHP	9.5
F07(type)WHP50	1 1/2	50	2440	1433	535	160	45	360	07 FHP	07 SHP	07 AHP	9.5
F08(type)WHP50	2	50	3013	1775	715	160	45	540	08 FHP	08 SHP	08 AHP	12.2

	F Fine Filter	S Super fine Filter	A Activeted carbon	W Water separator
Quality class - solids (ISO8573-1)	2	1	1	_
Residual oil content (mg/m3)	<0.1	<0.01	<0.005	_
Quality class - oil (ISO8573-1)	2	1	1	_
Quality class - water (ISO8573-1)	_	_	_	8
Pressure drop - new element (mbar)	50	80	60	40
change filter cartridge at pressure drop (mbar)	350	350	6 months	No Need

PN50 correction Factors

Operating pressure - Correction factors										
Operating pressure (bar)	17	18	19	20	25	30	35	40	45	50
Correction factors	0.44	0.46	0.48	0.50	0.61	0.70	0.78	0.86	0.93	1.00

The high-performance and more energy efficiency flange filter

PUREBERG® FF

WELDED CARBON STEEL COMPRESSED AIR FILTERS

Max. operating pressure 16 bar

Volume flow rate 3150 to 18850 Nm3/h

Connections DN100 bis DN250

Operating temp. range 1.5 bis 65°C

BM20

DESCRIPTION

PUREBERG® flange filter housings have been developed for high-efficiency removal of solid particles, water, oil aerosols, hydrocarbons and other vapours from large compressed air systems.

To meet the required compressed air quality appropriate filter element (G, F, S, A) must be installed into the filter housing.

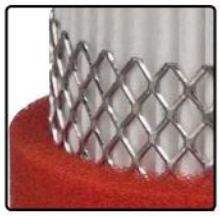
FILTER FLANGED PERFORMANCE

- The filter housing connections enabling easy installation in existing pipework's
- Differential manometer
- The flanged-filter housings receive full-bath galvanizing according to the high-temperature method
- Easy to maintain
- The large surface of the filter elements
- Easy Installation

Activated carbon

0.005 mg/m3

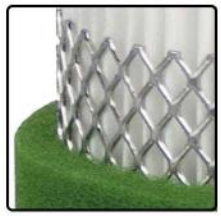
Borosilicate micro fibers



Super Fine Filter

0.01 µm

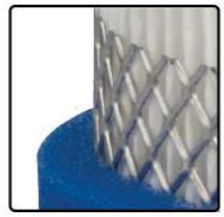
Borosilicate micro fibers



Fine Filter

0.1 µm

Borosilicate micro fibers

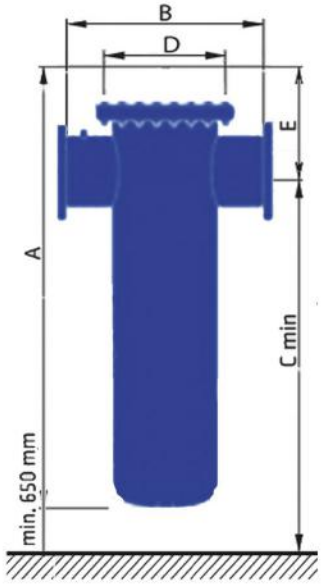


General Purpose Filter

1 µm

Acrylic fibers, cellulose

Filter housing size	Pipe size	Max. oper, pressure	Flow rate At 7 bar(g), 20°C		Dimensions (mm)					G General Filter	F Fine Filter	S Super fine Filter	A Activeted carbon	Weight
	DN	bar	Nm3/h	scfm	A	B	C	D	E					Kg
FF 53 (type) W	100	16	3150	1853	1340	560	1780	324	227	2x100 G	2x100 F	2x100 S	2x100 A	115
FF 78 (type) W	125	16	4700	2765	1340	560	1780	324	227	3x100 G	3x100 F	3x100 S	3x100 A	123
FF 105 (type) W	150	16	6300	3706	1425	620	1810	368	265	4x100 G	4x100 F	4x100 S	4x100 A	178
FF 157 (type) W	150	16	9400	5530	1480	680	2850	419	650	6x100 G	6x100 F	6x100 S	6x100 A	218
FF 209 (type) W	200	16	12550	7382	1835	792	510	508	-	8x100 G	8x100 F	8x100 S	8x100 A	320
FF 262 (type) W	200	16	15700	9235	1880	918	535	610	-	10x100 G	10x100 F	10x100 S	10x100 A	455
FF 314 (type) W	250	16	18850	11088	1950	955	555	610	-	12x100 G	12x100 F	12x100 S	12x100 A	500



	G General Filter	F Fine Filter	S Super fine Filter	A Activeted carbon
Quality class - particle (ISO8573-1)	3	2	1	1
Residual oil content (mg/m3)	<1	<0.1	<0.01	<0.005
Quality class - Oil (ISO8573-1)	3	2	1	0
Pressure drop - new element (mbar)	20	50	60	60
change filter cartridge at pressure drop (mbar)	350	350	350	6 months
Filter media	Acrylic fibers	Borosilicate micro fibers		Activate carbon

Operating pressure - Correction factors															
Operating pressure (bar)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Correction factors	0.4	0.50	0.6	0.8	0.9	1.00	1.1	1.3	1.4	1.50	1.6	1.8	1.9	2.00	2.1

ZERO LOSS ELECTRONIC CONDENSATE DRAIN

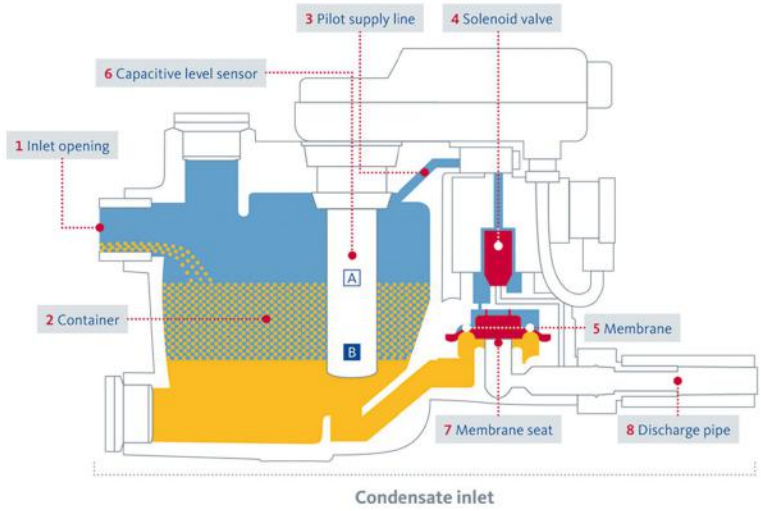
BEKOMAT®

The BEKOMAT® condensate drains in the copressed air system is an electronically level controlled manner. More than 3,000,000 installations worldwide make it the industry standard for reliable and cost-effective condensate drainage.

The comprehensive product portfolio offers the optimum device for every compressor type and performance, for every system pressure, and for all operatingconditions.Unnecessary costs and damage during the generation of compressed air can only be avoided in an efficient way with amount-adjusted condensate drainage.

Therefore, BEKOMAT® condensate drains operate with a capacitive sensor. The intelligent electronics prevent compressed-air losses and minimize the energy demand. As a result, the BEKOMAT® often pays itself off within half a year already, in contrast to devices with timed drain valves.

The devices of this new generation are made up of only two modules: a service unit comprising the corrosion-resistant aluminum housing together with all maintenance-relevant components, and an electronic control and sensor unit which is installed only once. Both modules are coupled via a practical snap connection.



The condensate trickles through the inlet opening (1) and collects in the container (2). Initially, the valve is closed, via the pilot supply line (3) and the solenoid valve (4), pressure differential above the membrane (5) is affected. The larger surface area above the membrane results in a high closing force. The membrane seat remains closed and leak-proof. When the container is filled with condensate, so that the capacitive level sensor (6) gets a signal at the maximum point, the solenoid valve switches over and the area above the membrane is vented. As a result of the decreasing pressure above the membrane, the membrane lifts off the membrane seat (7) and the overpressure in the housing forces the condensate into the discharge pipe (8).

Features and Advantages

- True zero air loss: maximum energy saving
- Highest reliability
- Lowest maintenance
- Sensor controlled
- Fully automatic
- Integrated alarm

Zero Air Loss Condensate Drain, BEKOMAT®!

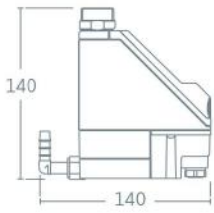
- Functions unaffected by dirt, resulting in reliable operation
- Is equipped with an alarm signal
- Has large cross-sections to prevent emulsification
- Operates in accordance with the actual condensate quantity
- Avoids the unnecessary loss of compressed air

Berg alternative maintenance Kit

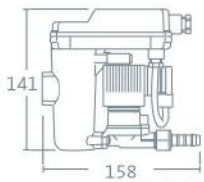
BEKOMATs needs to be serviced from time to time.

Our alternative maintenance kits make this an easy task.

Dimensions in mm



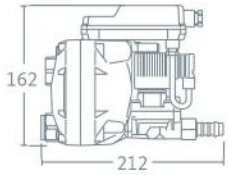
Dimensions in mm



146 (PN63)

Depth: 65

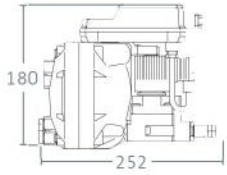
Dimensions in mm



Depth: 93

Depth: 197 (PN25 | 40 | 50)

Dimensions in mm

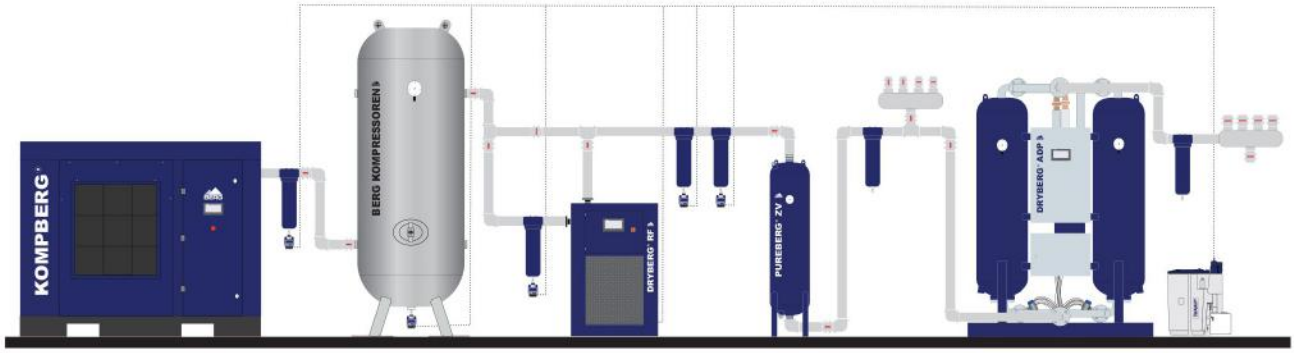


Depth: 120

Depth: 242 (PN25)

Type	Connection	Opration Pressure (bar g)		Max. Filter Performance	Max. RF Dryer Performance	Max. Compressor performance	Weight
	inch	min	max	m^3*min	m^3*min	m^3*min	Kg
BEKOMAT® 20	1 x G 1/2	0.8	16	50	10	5	0.7
BEKOMAT® 31	1 x G 1/2	0.8	16	30	6	3	0.8
BEKOMAT® 12	1 x G 1/2	0.8	16	80	16	8	0.8
BEKOMAT® 13	2 x G 1/2	0.8	16	350	70	35	2
BEKOMAT® 14	3 x G 3/4	0.8	16	1500	300	150	2.9

BERG Kompressoren GmbH
Compressed Air Technology | Air Separation



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