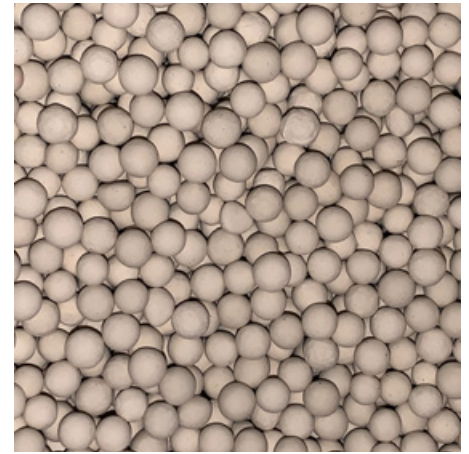


Breathing Star

BSP-MT 10 - BSP-MT 95



Breathable Compressed Air

BSP-MT10-95 breathing air purifiers are designed to treat compressed air reliably and efficiently and deliver breathable quality compressed air that meets or exceeds the air purity requirements shown in European Pharmacopia and other global breathing air specifications.

BSP-MT Operation

Compressed air entering the breathing air purifier is first passed through a pair of coalescing filters (1 x general purpose filter and 1 x high efficiency filter in series) for the reduction of particulates, water aerosols and oil aerosols.

The air then enters a heatless adsorption dryer where water vapour and Carbon Dioxide (CO₂) are reduced.

Next the air enters the activated carbon and catalyst stage for treatment of oil vapour, odours and conversion of Carbon Monoxide (CO) into Carbon Dioxide (CO₂).

Finally the air exits through a dry particulate filter.



Advantages

- Parker BSP-MT breathing air purifiers provide breathable quality compressed air to meet or exceed European & global breathing air standards

Limits for breathing air

	Europe		USA	Australia	BSP-MT Breathing Air Purifier Outlet
	EN12021	European Pharmacopia	ANSI/CGA	AS1715	
Carbon Monoxide (CO)	<5 ppm	<5 ppm	<10 ppm	<10 ppm	<5 ppm
Carbon Dioxide (CO ₂)	< 500 ppm	< 500 ppm	< 1000 ppm	< 800 ppm	< 500 ppm
Humidity (H ₂ O)	< 5°C	< 67 ppm	< 10°F	< 100 mg/m ³	< 67 ppm
Oxygen (O ₂)	21% (+/-1%)	20.4% - 21.4%	21.5%	-	No change from inlet
Oil	< 0.5 mg/m ³	< 0.1 mg/m ³	< 0.5 mg/m ³	< 1.0 mg/m ³	< 0.1 mg/m ³
Odours / Taste	Odourless / Tasteless	Odourless / Tasteless	Odourless / Tasteless	Odourless / Tasteless	Odourless / Tasteless
Sulphur Dioxide (SO ₂)	-	< 1 ppm	-	-	< 1 ppm
Nitrous Gases (NO/NO ₂)	-	< 2 ppm	-	-	< 2 ppm



Dry Performance

Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (Standard)
	°C	°F	
BSP-MT 10-95	-40	-40	Class 2.2.1

Technical Data

Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Option)	Electrical Supply (Option)	Thread Type	Noise Level dB(A)
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F					
BSP-MT 10-95	4	58	16	232	5	41	50	122	50	122	230V / 1ph / 50~60Hz	115V / 1ph / 50~60Hz	24V DC	BSPP	<75

Flow Rates

Model	Pipe Size	Flow Rate			
		L/s	m³/min	m³/hr	cfm
BSP-MT 10	G1	44	2.64	158	93
BSP-MT 15	G1	58	3.51	210	124
BSP-MT 20	G1	76	4.58	274	161
BSP-MT 25	G1½	103	6.20	371	218
BSP-MT 35	G1½	134	8.08	484	285
BSP-MT 45	G1½	164	9.84	589	347
BSP-MT 60	G2	233	14.01	839	494
BSP-MT 75	G2	314	18.85	1129	665
BSP-MT 95	G2½	381	22.90	1371	807

Stated flows are for operation at 13 bar (g) (189 psi g), 35°C (95°F) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure.

For flows at other conditions, apply the correction factors shown below.

Product Selection & Correction Factors

For correct operation, breathing air purifiers must be sized for the maximum (summer) inlet temperature, minimum inlet pressure and maximum flow rate of the installation.

To select a breathing air purifier, first calculate the MPC (Minimum Purification Capacity) using the formula below then select a breathing air purifier from the flow rate table above with a flow rate equal to or above the MPC.

Minimum Drying Capacity = System Flow x CFIT x CFAT x CFMIP

CFIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		0.95	0.97	1.00	1.20	1.30	1.35

CFAT - Correction Factor Maximum Ambient Temperature

Maximum Ambient Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.00	1.00	1.00

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	4	5	6	7	8	9	10	11	12	13	14	15	16
	psi g	58	73	87	100	116	131	145	160	174	189	203	218	232
Correction Factor		2.60	2.24	1.93	1.68	1.46	1.37	1.32	1.29	1.18	1.00	0.95	0.82	0.77

Controller Functions

Dryer Models	Controller Function							
	Power On Indication	Visual Fault Indication	Dewpoint Display	DDS - Energy Saving Technology	Filter Service Indicator	Dryer Service Indicator	Fault Relay: Power Loss Dewpoint Alarm Sensor Failure	4-20mA Dewpoint Re-transmission
BSP-MT 10 - 95	•					•		
Optional Dewpoint Sensor	•		•	•		•	•	Optional

Included Filtration

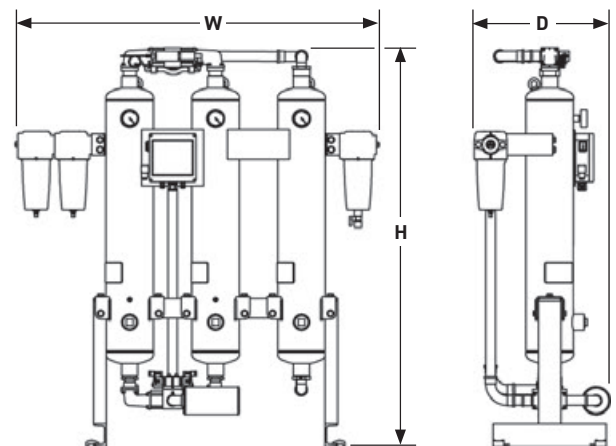
Model	Dryer Inlet		Dryer Outlet	
	High Efficiency Filter 1	High Efficiency Filter 2	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter (Option)
BSP-MT 10	AOPX025E	AAPX025E	AOPX025E	AAPX025E
BSP-MT 15	AOPX025E	AAPX025E	AOPX025E	AAPX025E
BSP-MT 20	AOPX025E	AAPX025E	AOPX025E	AAPX025E
BSP-MT 25	AOPX030G	AAPX030G	AOPX030G	AAPX030G
BSP-MT 35	AOPX030G	AAPX030G	AOPX030G	AAPX030G
BSP-MT 45	AOPX035G	AAPX035G	AOPX035G	AAPX035G
BSP-MT 60	AOPX040H	AAPX040H	AOPX040H	AAPX040H
BSP-MT 75	AOPX040H	AAPX040H	AOPX040H	AAPX040H
BSP-MT 95	AOPX045I	AAPX045I	AOPX045I	AAPX045I

Filtration Performance

Filtration Performance	General Purpose Pre-filter	High Efficiency Filter	General Purpose Dry Particulate Filter
Filtration Grade	AO	AA	AO
Filtration Type	Coalescing	Coalescing	Dry Particulate
Particle Reduction (inc water & oil aerosols)	Down to 1 micron	Down to 0.01 micron	Down to 1 micron
Maximum Remaining Oil Aerosol Content at 21°C	≤0.5 mg/m ³ (≤0.5 ppm(w))	≤0.01 mg/m ³ (≤0.01 ppm(w))	N/A
Maximum Remaining Oil Vapour Content at System Temperature	N/A	N/A	N/A
Filtration Efficiency	99.925%	99.9999%	99.925%

Weights & Dimensions

Model	Pipe Size	Dimensions						Weight	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
BSP-MT 10	G1	1420	55.9	1300	51.2	490	19.3	164	361.6
BSP-MT 15	G1	1750	68.9	1300	51.2	490	19.3	197	434.4
BSP-MT 20	G1	1530	60.2	1100	43.3	490	19.3	196	432.2
BSP-MT 25	G1½	1760	69.3	1100	43.3	530	20.9	237	522.6
BSP-MT 35	G1½	1810	71.3	1390	54.7	585	23	286	630.6
BSP-MT 45	G1½	1820	71.7	1455	57.3	605	23.8	341	751.9
BSP-MT 60	G2	1870	73.6	1515	59.6	635	25	435	959.2
BSP-MT 75	G2	2000	78.7	1665	65.6	635	25	562	1239.2
BSP-MT 95	G2½	2020	79.5	1715	67.5	670	26.4	705	1554.5



Quality Assurance / IP Rating / Pressure Vessel Approvals

Development / Manufacture	ISO 9001 / ISO 14001
Ingress Protection Rating	IP65 Indoor Use Only
EU	Pressure vessel approved for fluid group 2 in accordance with the Pressure Equipment Directive 2014/68/EU
USA	Approval to ASME VIII Div. 1 not required
AUS	Approval to AS1210 not required
RUSSIA	TR (formerly GOST-R)
For use with Compressed Air Only	

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US Product Information Centre

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