parker.com/gsfe

PRODUCT CATALOGUE

Compressed Air and Gas Treatment

GSFE Division

Parker

Gas Separation and Filtration Division EMEA

Parker Gas Separation and Filtration EMEA offer a range of filtration and separation solutions that are designed to meet the needs of global customers through a dedicated focus on key market sectors.

Operating from manufacturing sites in the UK, Italy, the Netherlands and the Czech Republic, the division designs, develops, manufactures and markets compressed air/gas filters and dryers, process chillers and coolers, condensate management products, breathing air purifiers, nitrogen, hydrogen and zero air on-site gas generators for many diverse markets, industries and applications where compressed air and gas purity, product quality, technological excellence and global customer support are paramount.

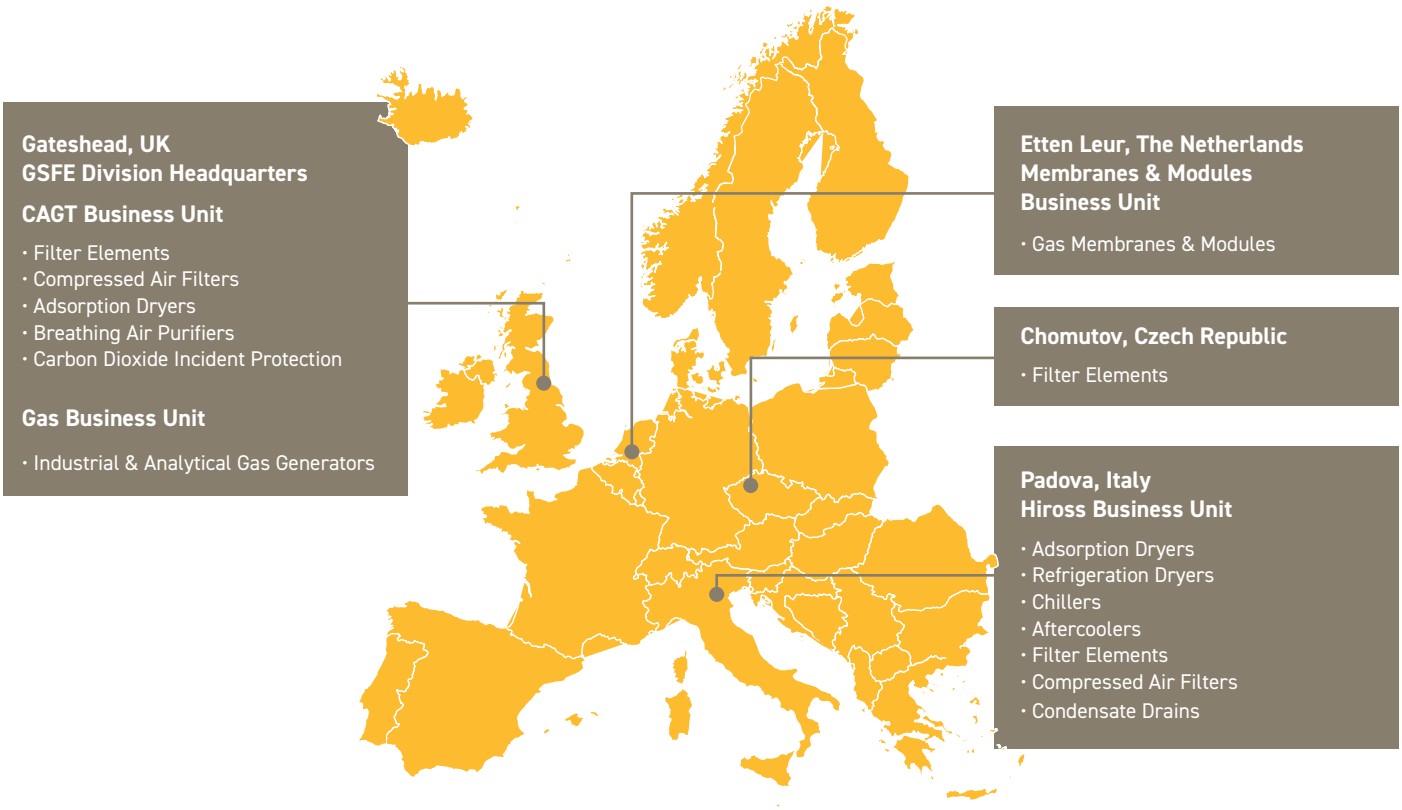
Parker Gas Separation and Filtration EMEA products and systems deliver a unique combination of innovation and excellence in the most demanding applications, helping engineers to maximise the productivity and profitability of their manufacturing and process operations and with a focus on delivering real and lasting value to every customer.

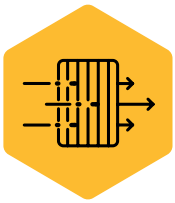
For over 50 years, Parker GSFE have remained instrumental in the development of both the international standards for compressed air and filter testing, and continue to work closely on new standards with governing bodies such as the British Compressed Air Society (BCAS), the International Standards Organisation (ISO), PNEUROP, and the USA Compressed Air and Gas Institute (CAGI).

Parker GSFE's goal is to dominate our chosen markets, aiming to be the number one choice supplier of compressed air / gas treatment products and on-site gas generators.

Achieving this, by recruiting the best teams, and by passionately developing our people, technology and products to help us exceed our customers' expectations, bringing new products, services and solutions to the market. We believe in, and strive to maintain, close relationships with our customers, making us their global partner of choice for compressed air and gas treatment products and services.

GSFE Compressed Air and Gas Treatment Manufacturing Locations





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Specifying air quality (purity) in accordance with ISO8573-1:2010, the international standard for compressed air quality

ISO8573-1 is the primary document used from the ISO8573 series as it is this document which specifies the amount of contamination allowed in each cubic metre of compressed air.

ISO8573-1 lists the main contaminants as solid particulate, water and oil. The purity levels for each contaminant are shown separately in tabular form, however for ease of use, here all three contaminants are combined into one easy to use table.

ISO8573-1: 2010 CLASS	Solid Particulate				Water		Oil
	Maximum number of particulates per m³			Mass Concentration mg/m³	Vapour Pressure Dewpoint	Liquid g/m³	Total Oil (aerosol, liquid and vapour)
	0.1 - 0.5 micron	0.5 - 1 micron	1 - 5 micron				mg/m³
0	As specified by the equipment user or supplier and more stringent than Class 1						
1	⩽ 20,000	⩽ 400	⩽ 10	-	⩽ -70°C	-	0.01
2	⩽ 400,000	⩽ 6,000	⩽ 100	-	⩽ -40°C	-	0.1
3	-	⩽ 90,000	⩽ 1,000	-	⩽ -20°C	-	1
4	-	-	⩽ 10,000	-	⩽ +3°C	-	5
5	-	-	⩽ 100,000	-	⩽ +7°C	-	-
6	-	-	-	⩽ 5	⩽ +10°C	-	-
7	-	-	-	5-10	-	⩽ 0.5	-
8	-	-	-	-	-	0.5-5	-
9	-	-	-	-	-	5-10	-
X	-	-	-	> 10	-	> 10	> 10

Specifying air purity in accordance with ISO8573-1:2010

When specifying the purity of air required, the standard must always be referenced, followed by the purity class selected for each contaminant (a different purity class can be selected for each contaminant if required).

An example of how to write an air quality specification is shown below:

ISO8573-1:2010 Class 1:2:1

ISO8573-1:2010 refers to the standard document and its revision, the three digits refer to the purity classifications selected for solid particulate, water and total oil. Selecting an air purity class of 1:2:1 would specify the following air quality when operating at the standard's reference conditions:

Class 1 Particulate
In each cubic metre of compressed air, the particulate count should not exceed 20,000 particles in the 0.1 - 0.5 micron size range, 400 particles in the 0.5 - 1 micron size range and 10 particles in the 1 - 5 micron size range.

Class 2 Water
A pressure dewpoint (PDP) of -40°C or better is required and no liquid water is allowed.

Class 1 Oil
In each cubic metre of compressed air, not more than 0.01mg of oil is allowed. This is a total level for liquid oil, oil aerosol and oil vapour.

ISO8573-1:2010 Class 0

- Class 0 does not mean zero contamination
- Class 0 does not mean oil-free compressed air
- A Class 0 compressor does not guarantee oil-free compressed air
- Class 0 does not solely refer to oil contamination
- A Class 0 specification must be 'cleaner' than the Class 1 specification for the contaminant chosen
- The contamination levels stated for a Class 0 specification must also be within the measurement capabilities of the test equipment and test methods shown in ISO8573 Pt 2 to Pt 9
- The Class 0 specification must clearly state which contaminant the Class 0 claim refers to i.e. "Solid Particulate", "Water" or "Total Oil (aerosol, liquid & vapour)"
- Class 0 requires the user or the equipment supplier to show a contamination level as part of a written specification
- **Example of a correctly written Class 0 specification** "When preceded by OIL-X Grade AO General Purpose & Grade AA High Efficiency Coalescing Filters, OIL-X OVR Grade Adsorption Filters provide a delivered air quality in accordance with ISO8573-1:2010 Class 0 (⩽0.003 mg/m³) for total oil (oil aerosol & oil vapour)"
- The agreed Class 0 specification must be written on all documentation to be in accordance with the standard
- Stating Class 0 without an accompanying contaminant specification is meaningless and not in accordance with the standard

Selecting Parker purification equipment to comply with ISO8573-1:2010 air quality standard

Simple guidelines for the selection of purification equipment

1. Purification equipment is installed to provide air quality, therefore you must first of all identify the quality of compressed air required for the compressed air leaving the compressor room and for each point of use on the compressed air system.

2. The air quality required at each point of use may differ dependent upon the application.

3. Using the quality classifications shown in ISO8573-1 will allow easy selection of purification equipment.

4. ISO8573-1:2010 is the latest edition of the standard, however some facilities may still be operating on older revisions.

5. Specifying air quality as ISO8573-1, ISO8573-1:1991 or ISO8573-1:2001 refers to the previous editions of the standard and may result in a different quality of delivered compressed air.

6. Ensure any ISO8573-1 air purity classifications are written in full and include the revision year to allow for correct product selection.

7. Remember - Oil-free compressor installations require the same filtration considerations as oil lubricated compressor installations.

ISO8573-1: 2010 CLASS	Solid Particulate		Water	Oil
	Wet Particulate	Dry Particulate	Vapour	Total Oil (aerosol, liquid and vapour)
0	-	-	-	OIL-X Grade AO + AA + OVR
1	OIL-X Grade AO + AA	OIL-X Grade AO (M) + AA (M)	Dryer sized for -70°C PDP	OIL-X Grade AO + AA + OVR OIL-X Grade AO + AA +ACS
2	OIL-X Grade AO	OIL-X Grade AO (M)	Dryer sized for -40°C PDP	OIL-X Grade AO + AA
3	OIL-X Grade AO	OIL-X Grade AO (M)	Dryer sized for -20°C PDP	OIL-X Grade AO
4	OIL-X Grade AO	OIL-X Grade AO (M)	Dryer sized for +3°C PDP	OIL-X Grade AO
5	OIL-X Grade AO	OIL-X Grade AO (M)	Dryer sized for +7°C PDP	-
6	-	-	Dryer sized for +10°C PDP	-

For further information relating to ISO Compressed Air Quality Standards please refer to our white paper 'Introduction to ISO Compressed Air Quality Standards'. Available at parker.com/gsfe

Selecting the right purification products for your compressed air system

To achieve the degree of air quality specified by ISO8573-1, a careful approach to system design, commissioning and operation must be adopted.

Parker recommends that compressed air is treated:

- **Prior to entry into the distribution system**
- **At critical usage points and applications**

This ensures that contamination already in the distribution system is removed.

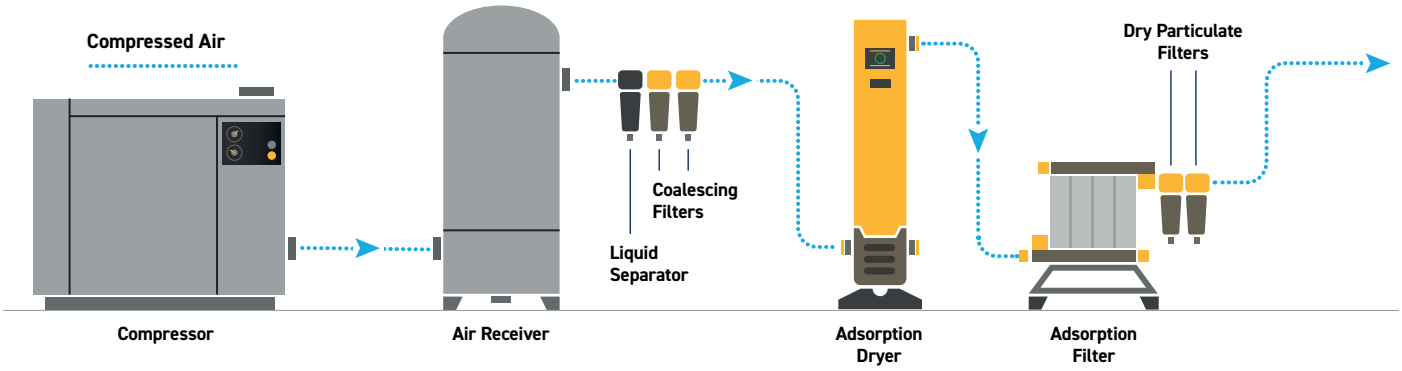
Purification equipment should be installed where the air is at the lowest possible temperature (i.e. downstream of after-coolers and air receivers). Point-of-use purification equipment should be installed as close as possible to the application.

In order to correctly size purification equipment, there are a number of primary operating parameters that must be obtained from the user's site. These are:

- **The MAXIMUM compressed air flow rate into the filters/dryer**
- **The MINIMUM operating pressure into the filters/dryer**
- **The MAXIMUM operating temperature into the filters/dryer**
- **The MAXIMUM ambient air temperature where the equipment is to be installed**
- **The required dewpoint (dryers)**

Individually, each of the primary operating parameters can influence product sizing however collectively they can have a major impact on product sizing and performance.

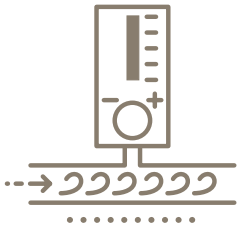
Typical Compressed Air Treatment System



With the primary operating parameters, basic product selections can be made, however additional information may also be required to finalise product selection. Secondary parameters include:

- **Minimum operating temperature**
- **Preferred pipe connections**
- **Available electrical supply (voltage/phase/frequency)**
- **Customers preference regarding drains, controllers or other options**

Why is MAXIMUM Flow Rate Important?



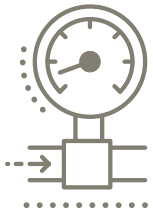
Filtration: As compressed air flow rates increase, contamination levels increase and a larger filtration surface area is required to ensure adequate filtration performance, low pressure drop and 12 month lifetime of filter elements.

Dryers: As compressed air flow rates increase, the amount of water vapour the dryer must remove also increases.

Adsorption dryers must be sized on the highest flow rate to ensure the desiccant bed is large enough to provide the correct contact time and dewpoint.

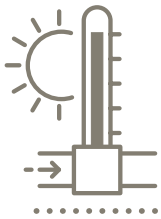
Refrigeration dryers must be sized to ensure the heat exchanger is large enough and has enough cooling capacity.

Why is MINIMUM Inlet Pressure Important?



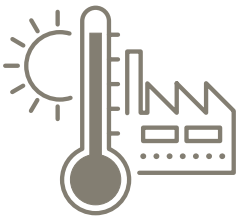
Dryers: As pressure decreases, the volume of compressed air increases, as does the water vapour content, therefore the amount of water vapour the dryer must remove also increases. Dryers must be sized for minimum inlet pressure to account for the increased amount of water vapour present.

Why is MAXIMUM Inlet Temperature Important?



Dryers: As the temperature of the compressed air increases, so does the water vapour content, therefore the amount of water vapour the dryer must remove also increases. Dryers must be sized for maximum inlet temperature to account for the increased amount of water vapour present.

Why is MAXIMUM Ambient Temperature Important?

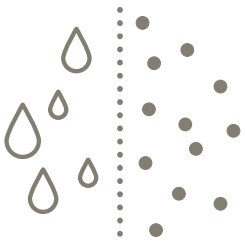


Refrigeration & Tandem Technology Dryers: Air cooled refrigeration & Tandem Technology dryers use ambient air for heat exchange.

The lower the ambient air temperature, the better the heat exchange process

Poor ventilation and / or high ambient air temperatures will result in loss of dewpoint.

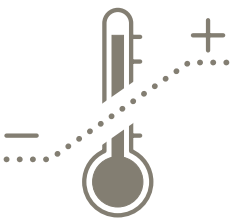
Why Correct a Dryer for Dewpoint?



Adsorption Dryers: Dewpoint is derived from contact time between the air and the desiccant material, lower dewpoints typically require the dryer to be de-rated to provide more contact time.

Refrigeration Dryers: The size of the heat exchangers affects the cooling capacity, too little cooling capacity results in poor dewpoint.

Frequently Asked Questions: High/Low Temperatures



High Temperatures
Maximum temperature (inlet & ambient) for dryers is 50°C or 122°F. For temperatures above this it is more cost effective to install an after-cooler than oversize a dryer. Also as a dryer increases in size, so does the volume of purge required to regenerate the dryer. Fitting an after-cooler is also more cost effective in terms of energy consumption.

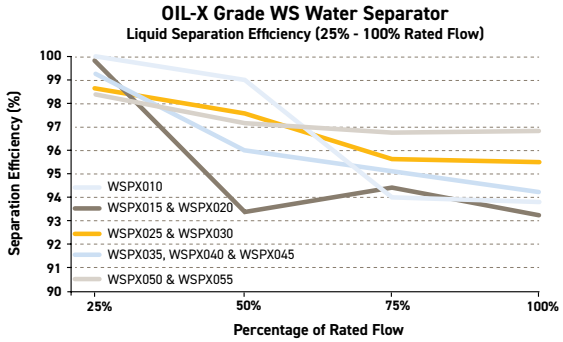
Low Temperatures
Freezing water causes damage to a dryer therefore as the temperature approaches freezing, the dryer and ancillaries need protection. Sub-zero temperatures also affect the function of seals and electronics.

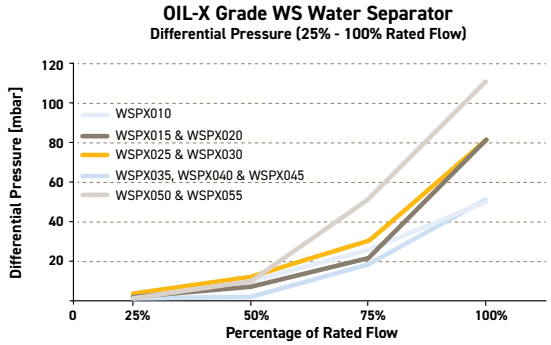
- **Always keep purification equipment under shelter and out of cold wind / direct air blasts**
- **Trace heat & insulate anywhere where moisture is present i.e. Inlet filtration/ drain lines/Inlet valves/columns/exhaust valves**

OIL-X Liquid Separators

Separation Performance

Filtration Grade	Filter Type	Particle Reduction (inc water & oil aerosols)	Maximum Remaining Oil Content at 21°C (70°F)	Liquid Separation Efficiency	Change Element Every	Precede with Filtration Grade
WS	Liquid	Not Applicable	Not Applicable	>93%	Not Applicable	Not Applicable





Technical Data

Filtration Grade	Water Separator Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature	
		bar g	psi g	bar g	psi g	°C	°F	°C	°F
WS	PX010A - P055 (Float Drain)	1.5	22	16	232	2	35	65	149

Flow Rates

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure.

Model	Pipe Size	L/S	m³/min	m³/hr	cfm	Initial Saturated Differential Pressure							
						100% Flow		75% Flow		50% Flow		25% Flow	
						mbar	psi	mbar	psi	mbar	psi	mbar	psi
WSPX010A G FX	¼"	10	0.6	36	21	53	0.8	29	0.4	14	0.2	4	0.1
WSPX010B G FX	⅜"	10	0.6	36	21	51	0.7	27	0.4	12	0.2	2	0.0
WSPX010C G FX	½"	10	0.6	36	21	48	0.7	25	0.4	10	0.1	0	0.0
WSPX015B G FX	⅜"	40	2.4	144	85	64	0.9	25	0.4	12	0.2	6	0.1
WSPX015C G FX	½"	40	2.4	144	85	55	0.8	22	0.3	10	0.1	4	0.1
WSPX020D G FX	¾"	40	2.4	144	85	42	0.6	22	0.3	7	0.1	2	0.0
WSPX025D G FX	¾"	110	6.6	396	233	98	1.4	55	0.8	23	0.3	4	0.1
WSPX025E G FX	1"	110	6.6	396	233	95	1.4	52	0.8	20	0.3	1	0.0
WSPX030G G FX	1½"	110	6.6	396	233	82	1.2	30	0.4	13	0.2	4	0.1
WSPX035G G FX	1½"	350	21	1260	742	57	0.8	24	0.3	5	0.1	5	0.1
WSPX040H G FX	2"	350	21	1260	742	52	0.8	19	0.3	0	0.0	0	0.0
WSPX045I G FX	2½"	350	21	1260	742	55	0.8	22	0.3	3	0.0	1	0.0
WSPX050I G FX	2½"	800	48	2880	1695	116	1.7	57	0.8	16	0.2	5	0.1
WSPX055J G FX	3"	800	48	2880	1695	111	1.6	52	0.8	11	0.2	0	0.0

Select **G** for BSPP Threads/Select **N** for NPT Threads

When selecting a coalescing filter for pressures above 16 bar g (232 psi g), use manual drain version and fit an external automatic drain.

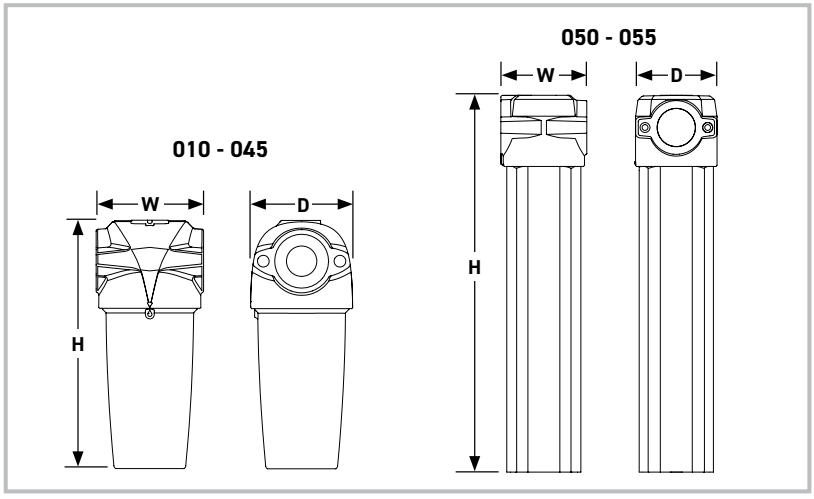
Product Selection & Correction Factors

To correctly select a separator model, the flow rate of the separator must be adjusted for the minimum operating (inlet) pressure at the point of installation.

1. Obtain the minimum operating (inlet) pressure and maximum compressed air flow rate at the inlet of the separator.
2. Select the correction factor for minimum inlet pressure from the CFMIP table (always round down e.g. for 5.3 bar, use 5 bar correction factor).
3. Calculate the minimum filtration capacity. Minimum Filtration Capacity = Compressed Air Flow Rate x CFP.
4. Using the minimum filtration capacity, select a filter model from the flow rate tables above (filter selected must have a flow rate equal to or greater than the minimum filtration capacity).

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	psi g	15	29	44	58	73	87	100	116	131	145	160	174	189	203	218	232
Correction Factor		4.00	2.63	2.00	1.59	1.33	1.14	1.00	0.94	0.89	0.85	0.82	0.79	0.76	0.73	0.71	0.68



Weights & Dimensions

WSPX Model	Height (H)		Width (W)		Depth (D)		Weight	
	mm	ins	mm	ins	mm	ins	kg	lbs
010	180	7.09	76	2.99	65	2. 56	0.81	1.78
015/020	238	9.37	89	3.50	84	3.31	1.41	3.10
025	277	10.91	120	4.72	115	4.53	2.66	5.86
030	277	10.91	120	4.72	115	4.53	2.66	5.86
035/040/ 045	440	17.32	164	6.46	157	6.18	6.87	15.14
050	614	24.17	192	7.56	183	7.20	8.47	18.66
055	515	20.28	192	7.56	183	7.20	8.47	18.66

Parker Catalogue Numbers (BSPP Models)

WSPX Model	Water Separator
010A	WSPX010AGFX
010B	WSPX010BGFX
010C	WSPX010CGFX
015C	WSPX015CGFX
020D	WSPX020DGFX
025D	WSPX025DGFX
025E	WSPX025EGFX
030G	WSPX030GGFX
035G	WSPX035GGFX
040H	WSPX040HGFX
045I	WSPX045IGFX
050I	WSPX050IGFX
055J	WSPX055JGFX

STH & SFH Liquid Separators

Technical Data

Filtration Grade	Water Separator Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature	
		bar g	psi g	bar g	psi g	°C	°F	°C	°F
STH-N	STH001N - STH046N	1	15	16	232	1	33	65	149
SFH-N	SFH029N - SFH550N	1	15	16	232	2	35	60	140
STHA-C	STH003A-C - STH013A-C	1	15	16	232	-20	-4	65	149

Flow Rates

Model	Pipe Size		L/S	m³/min	m³/hr	cfm
	Inlet	Outlet				
Threaded - Die Cast Aluminium						
STH001	⅜"	⅜"	15	0.9	54	1907
STH002	½"	½"	35	2.1	126	4450
STH003	¾"	¾"	50	3	180	6357
STH006	1"	1"	92	5.5	330	11654
STH009	1¼"	1¼"	150	9	540	19070
STH013	1½"	1½"	208	12.5	750	26486
STH021	2"	2"	350	21	1260	44496
STH040	2½"	2½"	667	40	2400	84755
STH046	3"	3"	767	46	2760	97468
Stainless Steel						
STH003A-C	Clamp ISO1127-1 DN25		50	3	180	6357
STH013A-C	Clamp ISO1127-1 DN40		208	12.5	750	26486
Flanged - Fabricated Carbon Steel						
SFH029	DN80	DN80	490	29.4	1764	1038
SFH030	DN100	DN80	500	30.0	1800	1059
SFH037	DN100	DN100	610	36.6	2196	1293
SFH038	DN125	DN100	633	38.0	2280	1342
SFH066	DN125	DN125	1093	65.6	3936	2317
SFH067	DN150	DN125	1117	67.0	4020	2366
SFH088	DN150	DN150	1473	88.4	5304	3122
SFH089	DN200	DN150	1483	89.0	5340	3143
SFH097	DN200	DN200	1618	97.1	5826	3429
SFH142	DN250	DN200	2365	141.9	8514	5011
SFH180	DN300	DN200	2992	179.5	10770	6339
SFH209	DN350	DN200	3485	209.1	12546	7385
SFH280	DN350	DN200	4667	280	16800	9888
SFH390	DN450	DN250	6500	390	23400	13773
SFH450	DN500	DN300	7500	450	27000	15892
SFH550	DN600	DN300	9167	550	33000	19423

Coding Example

STH013N

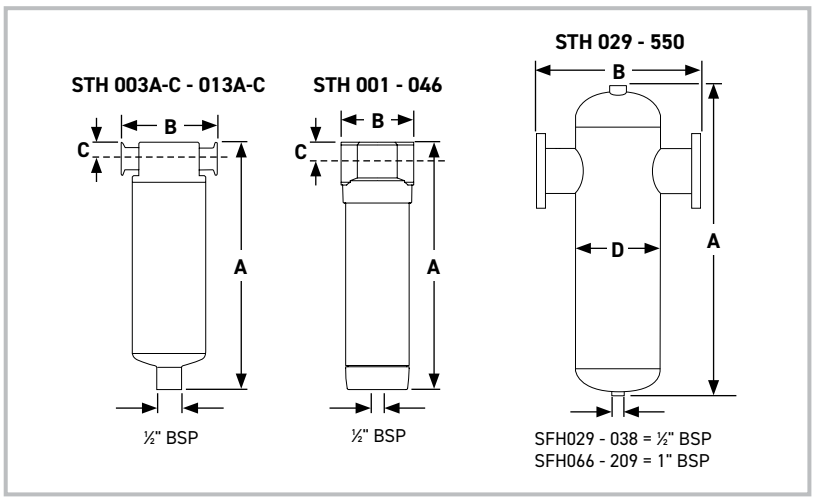
Coding Example

STH003A-C

Coding Example

SFH067N

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.



Weights & Dimensions

Model	Dimensions								Weight	
	A		B		C		D		kg	lbs
	mm	ins	mm	ins	mm	ins	mm	ins		
Threaded - Die Cast Aluminium										
STH001N	267	10.5	89	3.5	24	0.9	-	-	1.1	2.42
STH002N	267	10.5	89	3.5	24	0.9	-	-	1.1	2.42
STH003N	267	10.5	89	3.5	24	0.9	-	-	1.1	2.42
STH006N	367	14.4	109	4.3	34	1.3	-	-	2.2	4.84
STH009N	367	14.4	109	4.3	34	1.3	-	-	2.2	4.84
STH013N	367	14.4	109	4.3	34	1.3	-	-	2.2	4.84
STH021N	550	21.6	150	4.9	41	1.6	-	-	4.3	9.47
STH040N	733	28.8	188	7.4	56	2.2	-	-	12.5	27.55
STH046N	733	28.8	188	7.4	56	2.2	-	-	12.5	27.55
Clamp Connection - Stainless Steel										
STH003A-C	149	5.9	470	18.5	26	1.0	-	-	5.3	11.7
STH013A-C	185	7.3	467	18.4	32	1.3	-	-	8.2	18.0
Flanged - Fabricated Carbon Steel										
SFH029	720	28.3	400	15.7	-	-	193.7	7.6	28	62
SFH030	720	28.3	400	15.7	-	-	193.7	7.6	29	64
SFH037	880	34.6	460	18.1	-	-	244.5	9.6	48	106
SFH038	880	34.6	460	18.1	-	-	244.5	9.6	49	108
SFH066	980	38.6	550	21.7	-	-	273	10.7	55	121
SFH067	980	38.6	550	21.7	-	-	273	10.7	56	123
SFH088	1060	41.7	570	22.4	-	-	323.9	12.7	82	180
SFH089	1060	41.7	570	22.4	-	-	323.9	12.7	85	187
SFH097	1160	45.7	660	26.0	-	-	323.9	12.7	126	277
SFH142	1255	49.4	680	26.8	-	-	406	15.9	148	326
SFH180	1455	57.3	750	29.5	-	-	470	18.5	160	352
SFH209	1655	65.2	830	32.7	-	-	519	20.4	205	451
SFH280	1745	68.7	1000	39.3	-	-	630	24.8	240	529
SFH390	2154	84.8	1200	47.2	-	-	720	28.3	400	882
SFH450	2355	92.7	1933	76.1	-	-	850	33.4	600	1323
SFH550	2835	111.6	2088	82.2	-	-	1000	39.3	840	1852

Grade AO General Purpose Coalescing Filter

Filtration Performance

Filtration Grade	Filter Type	Particle Reduction (inc water & oil aerosols)	Max. Remaining Oil Content at 21°C (70°F)	Filtration Efficiency	Change Element Every	Precede with Filtration Grade
AO	Coalescing	Down to 1 micron	0.5 mg/m³ 0.5 ppm(w)	99.925%	12 months	WS (for bulk liquid)

Technical Data

Filtration Grade	Filter Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature	
		bar g	psi g	bar g	psi g	°C	°F	°C	°F
AO	PX010 - PX055 (Float Drain)	1.5	22	16	232	2	35	65	149
AO	PX010 - PX055 (Manual Drain)	1	15	20	290	2	35	80	176

Flow Rates

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure.

Model	Pipe Size	L/S	m³/min	m³/hr	cfm	Replacement Element	No.	Initial Saturated Differential Pressure							
								100% Flow		75% Flow		50% Flow		25% Flow	
								mbar	psi	mbar	psi	mbar	psi	mbar	psi
AOPX010A G FX	¼"	10	0.6	36	21	P010AO	1	123	1.8	84	1.2	53	0.8	27	0.4
AOPX010B G FX	⅜"	10	0.6	36	21	P010AO	1	124	1.8	85	1.2	55	0.8	30	0.4
AOPX010C G FX	½"	10	0.6	36	21	P010AO	1	121	1.8	82	1.2	44	0.6	15	0.2
AOPX015B G FX	⅜"	20	1.2	72	42	P015AO	1	122	1.8	84	1.2	46	0.7	20	0.3
AOPX015C G FX	½"	20	1.2	72	42	P015AO	1	91	1.3	53	0.8	31	0.4	13	0.2
AOPX020C G FX	½"	30	1.8	108	64	P020AO	1	124	1.8	82	1.2	45	0.7	20	0.3
AOPX020D G FX	¾"	30	1.8	108	64	P020AO	1	113	1.6	72	1.0	34	0.5	10	0.1
AOPX025D G FX	¾"	60	3.6	216	127	P025AO	1	125	1.8	80	1.2	43	0.6	21	0.3
AOPX025E G FX	1"	60	3.6	216	127	P025AO	1	80	1.2	50	0.7	27	0.4	11	0.2
AOPX030E G FX	1"	110	6.6	396	233	P030AO	1	125	1.8	80	1.2	42	0.6	30	0.4
AOPX030G G FX	1½"	110	6.6	396	233	P030AO	1	90	1.3	49	0.7	27	0.4	9	0.1
AOPX035G G FX	1½"	160	9.6	576	339	P035AO	1	81	1.2	44	0.6	18	0.3	5	0.1
AOPX040H G FX	2"	220	13.2	792	466	P040AO	1	113	1.6	69	1.0	40	0.6	20	0.3
AOPX045H G FX	2"	330	19.8	1188	699	P045AO	1	123	1.8	81	1.2	44	0.6	21	0.3
AOPX045I G FX	2½"	330	19.8	1188	699	P045AO	1	95	1.4	64	0.9	35	0.5	15	0.2
AOPX050I G FX	2½"	430	25.9	1548	911	P050AO	1	116	1.7	75	1.1	42	0.6	17	0.2
AOPX055I G FX	2½"	620	37.3	2232	1314	P055AO	1	123	1.8	81	1.2	45	0.7	24	0.3
AOPX055J G FX	3"	620	37.3	2232	1314	P055AO	1	112	1.6	55	0.8	32	0.5	17	0.2

Select G for BSPP Threads/Select N for NPT Threads

When selecting a coalescing filter for pressures above 16 bar g (232 psi g), use manual drain version and fit an external automatic drain.

Product Selection & Correction Factors

To correctly select a filter model, the flow rate of the filter must be adjusted for the minimum operating (inlet) pressure at the point of installation.

1. Obtain the minimum operating (inlet) pressure and maximum compressed air flow rate at the inlet of the filter.
2. Select the correction factor for minimum inlet pressure from the CFMIP table (always round down e.g. for 5.3 bar, use 5 bar correction factor).
3. Calculate the minimum filtration capacity. Minimum Filtration Capacity = Compressed Air Flow Rate x CFMIP.
4. Using the minimum filtration capacity, select a filter model from the flow rate tables above (filter selected must have a flow rate equal to or greater than the minimum filtration capacity).

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	psi g	15	29	44	58	73	87	100	116	131	145	160	174	189	203	218	232	248	263	277	290
Correction Factor		2.65	1.87	1.53	1.32	1.18	1.08	1.00	0.94	0.88	0.84	0.80	0.76	0.73	0.71	0.68	0.66	0.64	0.62	0.61	0.59

Grade AA High Efficiency Coalescing Filter

Filtration Performance

Filtration Grade	Filter Type	Particle Reduction (inc water & oil aerosols)	Max Remaining Oil Content at 21°C (70°F)	Filtration Efficiency	Change Element Every	Precede with Filtration Grade
AA	Coalescing	Down to 0.01 micron	0.01 mg/m³ 0.01 ppm(w)	99.9999%	12 months	AO

Technical Data

Filtration Grade	Filter Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature	
		bar g	psi g	bar g	psi g	°C	°F	°C	°F
AA	PX010 - PX055 (Float Drain)	1.5	22	16	232	2	35	65	149
AA	PX010 - PX055 (Manual Drain)	1	15	20	290	2	35	80	176

Flow Rates

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure.

Model	Pipe Size	L/S	m³/min	m³/hr	cfm	Replacement Element	No.	Initial Saturated Differential Pressure							
								100% Flow		75% Flow		50% Flow		25% Flow	
								mbar	psi	mbar	psi	mbar	psi	mbar	psi
AAPX010A G FX	¼"	10	0.6	36	21	P010AA	1	117	1.7	83	1.2	50	0.7	25	0.4
AAPX010B G FX	⅜"	10	0.6	36	21	P010AA	1	121	1.8	85	1.2	52	0.8	27	0.4
AAPX010C G FX	½"	10	0.6	36	21	P010AA	1	111	1.6	75	1.1	41	0.6	20	0.3
AAPX015B G FX	⅜"	20	1.2	72	42	P015AA	1	115	1.7	79	1.1	44	0.6	24	0.3
AAPX015C G FX	½"	20	1.2	72	42	P015AA	1	80	1.2	51	0.7	27	0.4	12	0.2
AAPX020C G FX	½"	30	1.8	108	64	P020AA	1	122	1.8	80	1.2	41	0.6	18	0.3
AAPX020D G FX	¾"	30	1.8	108	64	P020AA	1	100	1.5	60	0.9	37	0.5	24	0.3
AAPX025D G FX	¾"	60	3.6	216	127	P025AA	1	86	1.2	57	0.8	33	0.5	10	0.1
AAPX025E G FX	1"	60	3.6	216	127	P025AA	1	66	1.0	45	0.7	25	0.4	10	0.1
AAPX030E G FX	1"	110	6.6	396	233	P030AA	1	122	1.8	82	1.2	42	0.6	11	0.2
AAPX030G G FX	1½"	110	6.6	396	233	P030AA	1	104	1.5	55	0.8	30	0.4	10	0.1
AAPX035G G FX	1½"	160	9.6	576	339	P035AA	1	75	1.1	45	0.7	20	0.3	5	0.1
AAPX040H G FX	2"	220	13.2	792	466	P040AA	1	90	1.3	60	0.9	40	0.6	20	0.3
AAPX045H G FX	2"	330	19.8	1188	699	P045AA	1	108	1.6	71	1.0	35	0.5	12	0.2
AAPX045I G FX	2½"	330	19.8	1188	699	P045AA	1	108	1.6	70	1.0	32	0.5	15	0.2
AAPX050I G FX	2½"	430	25.9	1548	911	P050AA	1	90	1.3	66	1.0	43	0.6	18	0.3
AAPX055I G FX	2½"	620	37.3	2232	1314	P055AA	1	119	1.7	78	1.1	44	0.6	21	0.3
AAPX055J G FX	3"	620	37.3	2232	1314	P055AA	1	104	1.5	52	0.8	25	0.4	17	0.2

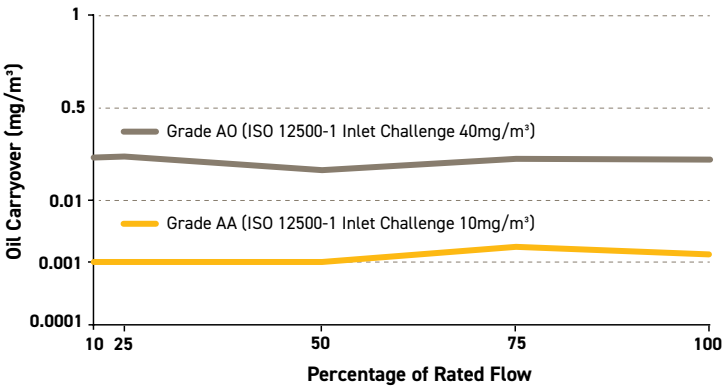
Select **G** for BSPP Threads/Select **N** for NPT Threads

When selecting a coalescing filter for pressures above 16 bar g (232 psi g), use manual drain version and fit an external automatic drain.

Filtration Tested In Accordance With

Filtration Grade	AO with float drain	AA with float drain
Filter Type	Coalescing	Coalescing
Test Methods Used	ISO 8573-2:2018 ISO 8573-4: 2019 ISO 12500-1:2007	ISO 8573-2:2018 ISO 8573-4: 2019 ISO 12500-1:2007
ISO12500-1 Inlet Challenge Concentration	40 mg of oil aerosol per cubic metre of compressed air	10 mg of oil aerosol per cubic metre of compressed air

OIL-X Grade AO & AA Oil Carryover versus Flow



Grade AO General Purpose Dry Particulate Filter

Filtration Performance

Filtration Grade	Filter Type	Particle Reduction (inc water & oil aerosols)	Max. Remaining Oil Content at 21°C (70°F)	Filtration Efficiency	Change Element Every	Precede with Filtration Grade
AO	Dry Particulate	Down to 1 micron	Not Applicable	99.925%	12 months	Not Applicable

Technical Data

Filtration Grade	Filter Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature	
		bar g	psi g	bar g	psi g	°C	°F	°C	°F
AO	PX010 - PX055 (Float Drain)	1.5	22	16	232	2	35	65	149
AO	PX010 - PX055 (Manual Drain)	1	15	20	290	2	35	80	176

Flow Rates

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure.

Model	Pipe Size	L/S	m³/min	m³/hr	cfm	Replacement Element	No.	Initial Dry Differential Pressure							
								100% Flow		75% Flow		50% Flow		25% Flow	
								mbar	psi	mbar	psi	mbar	psi	mbar	psi
AOPX010A G MX	¼"	10	0.6	36	21	P010AO	1	61	0.9	40	0.6	20	0.3	9	0.1
AOPX010B G MX	⅜"	10	0.6	36	21	P010AO	1	63	0.9	43	0.6	22	0.3	11	0.2
AOPX010C G MX	½"	10	0.6	36	21	P010AO	1	58	0.8	35	0.5	20	0.3	11	0.2
AOPX015B G MX	⅜"	20	1.2	72	42	P015AO	1	60	0.9	38	0.6	23	0.3	12	0.2
AOPX015C G MX	½"	20	1.2	72	42	P015AO	1	27	0.4	15	0.2	10	0.1	5	0.1
AOPX020C G MX	½"	30	1.8	108	64	P020AO	1	58	0.8	35	0.5	15	0.2	8	0.1
AOPX020D G MX	¾"	30	1.8	108	64	P020AO	1	38	0.6	20	0.3	10	0.1	5	0.1
AOPX025D G MX	¾"	60	3.6	216	127	P025AO	1	54	0.8	39	0.6	21	0.3	8	0.1
AOPX025E G MX	1"	60	3.6	216	127	P025AO	1	22	0.3	15	0.2	9	0.1	5	0.1
AOPX030E G MX	1"	110	6.6	396	233	P030AO	1	56	0.8	38	0.6	20	0.3	7	0.1
AOPX030G G MX	1½"	110	6.6	396	233	P030AO	1	42	0.6	26	0.4	12	0.2	6	0.1
AOPX035G G MX	1½"	160	9.6	576	339	P035AO	1	19	0.3	9	0.1	5	0.1	2	0.0
AOPX040H G MX	2"	220	13.2	792	466	P040AO	1	31	0.4	19	0.3	16	0.2	7	0.1
AOPX045H G MX	2"	330	19.8	1188	699	P045AO	1	51	0.7	36	0.5	18	0.3	8	0.1
AOPX045I G MX	2½"	330	19.8	1188	699	P045AO	1	40	0.6	27	0.4	12	0.2	6	0.1
AOPX050I G MX	2½"	430	25.9	1548	911	P050AO	1	36	0.5	23	0.3	16	0.2	7	0.1
AOPX055I G MX	2½"	620	37.3	2232	1314	P055AO	1	38	0.6	25	0.4	17	0.2	10	0.1
AOPX055J G MX	3"	620	37.3	2232	1314	P055AO	1	51	0.7	32	0.5	17	0.2	8	0.1

Select G for BSPP Threads/Select N for NPT Threads

When selecting a coalescing filter for pressures above 16 bar g (232 psi g), use manual drain version and fit an external automatic drain.

Product Selection & Correction Factors

To correctly select a filter model, the flow rate of the filter must be adjusted for the minimum operating (inlet) pressure at the point of installation.

1. Obtain the minimum operating (inlet) pressure and maximum compressed air flow rate at the inlet of the filter.
2. Select the correction factor for minimum inlet pressure from the CFMIP table (always round down e.g. for 5.3 bar, use 5 bar correction factor).
3. Calculate the minimum filtration capacity. Minimum Filtration Capacity = Compressed Air Flow Rate x CFMIP.
4. Using the minimum filtration capacity, select a filter model from the flow rate tables above (filter selected must have a flow rate equal to or greater than the minimum filtration capacity).

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure																					
	bar g	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	psi g	15	29	44	58	73	87	100	116	131	145	160	174	189	203	218	232	248	263	277	290
Correction Factor		2.65	1.87	1.53	1.32	1.18	1.08	1.00	0.94	0.88	0.84	0.80	0.76	0.73	0.71	0.68	0.66	0.64	0.62	0.61	0.59

Grade AA High Efficiency Dry Particulate Filter

Filtration Performance

Filtration Grade	Filter Type	Particle Reduction (inc water & oil aerosols)	Max. Remaining Oil Content at 21°C (70°F)	Filtration Efficiency	Change Element Every	Precede with Filtration Grade
AA	Not Applicable	Down to 0.01 micron	Not Applicable	99.9999%	12 months	AO Dry Particulate

Technical Data

Filtration Grade	Filter Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature	
		bar g	psi g	bar g	psi g	°C	°F	°C	°F
AA	PX010 - PX055 (Float Drain)	1.5	22	16	232	2	35	65	149
AA	PX010 - PX055 (Manual Drain)	1	15	20	290	2	35	80	176

Flow Rates

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure.

Model	Pipe Size	L/S	m³/min	m³/hr	cfm	Replacement Element	No.	Initial Dry Differential Pressure							
								100% Flow		75% Flow		50% Flow		25% Flow	
								mbar	psi	mbar	psi	mbar	psi	mbar	psi
AAPX010A G MX	¼"	10	0.6	36	21	P010AA	1	64	0.9	36	0.5	21	0.3	10	0.1
AAPX010B G MX	⅜"	10	0.6	36	21	P010AA	1	65	0.9	38	0.6	22	0.3	11	0.2
AAPX010C G MX	½"	10	0.6	36	21	P010AA	1	63	0.9	39	0.6	20	0.3	10	0.1
AAPX015B G MX	⅜"	20	1.2	72	42	P015AA	1	66	1.0	41	0.6	21	0.3	12	0.2
AAPX015C G MX	½"	20	1.2	72	42	P015AA	1	22	0.3	51	0.7	27	0.4	11	0.2
AAPX020C G MX	½"	30	1.8	108	64	P020AA	1	64	0.9	41	0.6	18	0.3	8	0.1
AAPX020D G MX	¾"	30	1.8	108	64	P020AA	1	42	0.6	22	0.3	10	0.1	5	0.1
AAPX025D G MX	¾"	60	3.6	216	127	P025AA	1	27	0.4	19	0.3	10	0.1	4	0.1
AAPX025E G MX	1"	60	3.6	216	127	P025AA	1	29	0.4	19	0.3	10	0.1	5	0.1
AAPX030E G MX	1"	110	6.6	396	233	P030AA	1	62	0.9	49	0.7	25	0.4	8	0.1
AAPX030G G MX	1½"	110	6.6	396	233	P030AA	1	45	0.7	27	0.4	13	0.2	5	0.1
AAPX035G G MX	1½"	160	9.6	576	339	P035AA	1	22	0.3	10	0.1	5	0.1	2	0.0
AAPX040H G MX	2"	220	13.2	792	466	P040AA	1	36	0.5	24	0.3	15	0.2	8	0.1
AAPX045H G MX	2"	330	19.8	1188	699	P045AA	1	47	0.7	25	0.4	18	0.3	15	0.2
AAPX045I G MX	2½"	330	19.8	1188	699	P045AA	1	47	0.7	30	0.4	17	0.2	8	0.1
AAPX050I G MX	2½"	430	25.9	1548	911	P050AA	1	40	0.6	27	0.4	16	0.2	8	0.1
AAPX055I G MX	2½"	620	37.3	2232	1314	P055AA	1	45	0.7	27	0.4	17	0.2	10	0.1
AAPX055J G MX	3"	620	37.3	2232	1314	P055AA	1	54	0.8	35	0.5	17	0.2	9	0.1

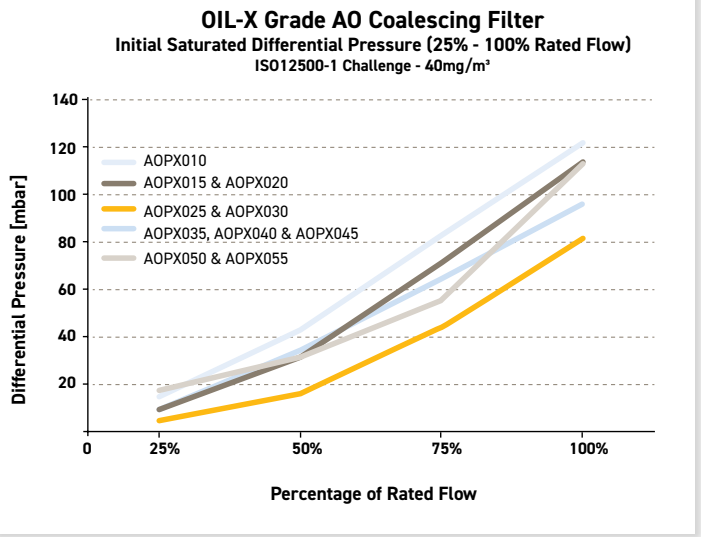
Select G for BSPP Threads/Select N for NPT Threads

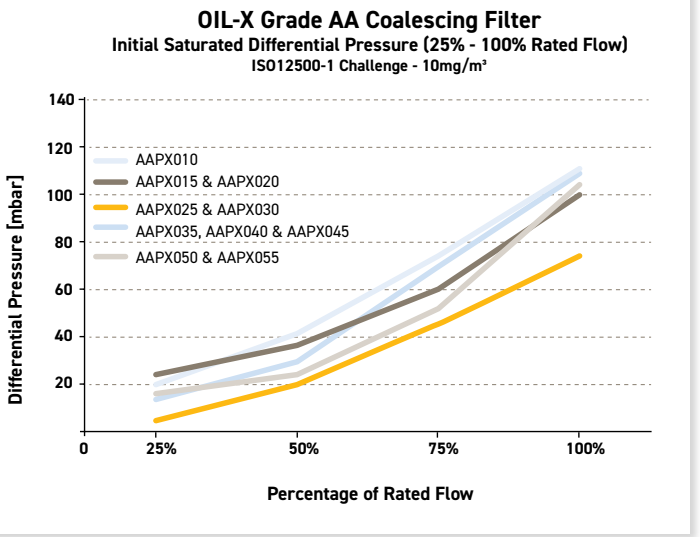
When selecting a coalescing filter for pressures above 16 bar g (232 psi g), use manual drain version and fit an external automatic drain.

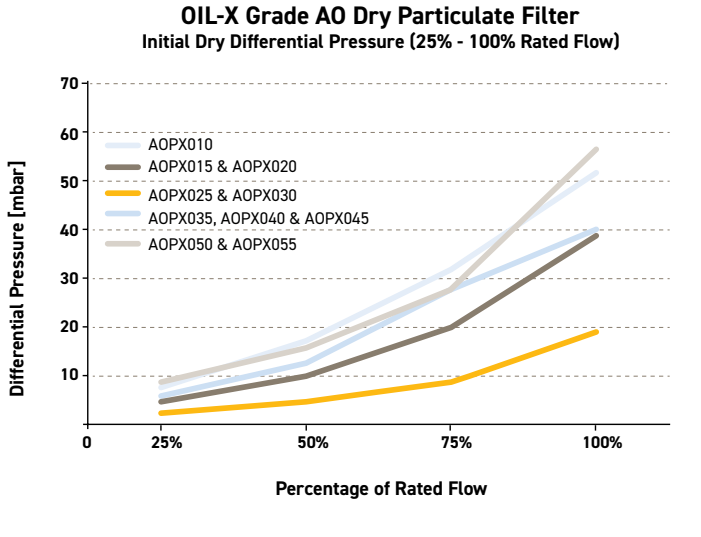
Multi-box Replacement Filter Elements

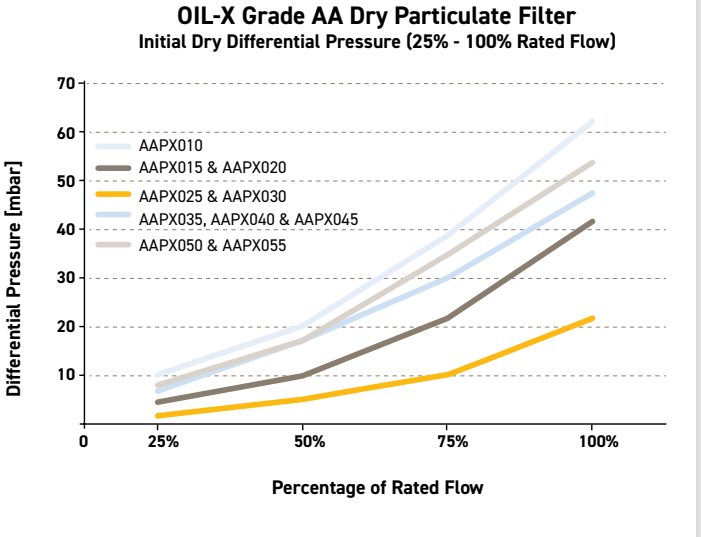
OIL-X Housing	Multi-Box Part Number		Box Quantity
	Grade AO	Grade AO	
PX010 & P010	P010AOX25	P010AAX25	25
PX015 & P015	P015AOX25	P015AAX25	25
PX020 & P020	P020AOX25	P020AAX25	25
PX025 & P025	P025AOX12	P025AAX12	12
PX030 & P030	P030AOX12	P030AAX12	12
PX035 & P035	P035AOX15	P035AAX15	15
PX040 & P040	P040AOX15	P040AAX15	15
PX045 & P045	P045AOX15	P045AAX15	15

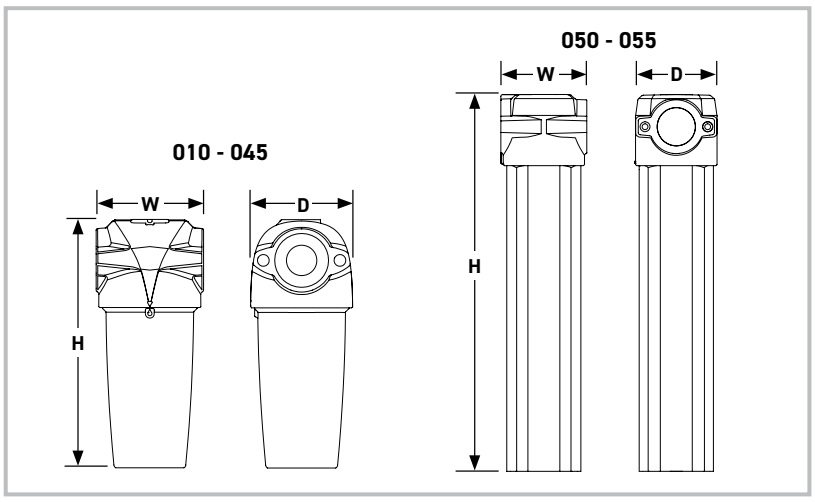
OIL-X Grades AO & AA - Differential Pressure Curves











Weight & Dimensions

Model	Height (H)		Width (W)		Depth (D)		Weight	
	mm	ins	mm	ins	mm	ins	kg	lbs
PX010	180	7.09	76	2.99	65	2. 56	0.81	1.78
PX015	238	9.37	89	3.50	84	3.31	1.41	3.10
PX020	238	9.37	89	3.50	84	3.31	1.41	3.10
PX025	277	10.91	120	4.72	115	4.53	2.66	5.86
PX030	367	14.45	120	4.72	115	4.53	3.01	6.63
PX035	440	17.32	164	6.46	157	6.18	6.87	15.14
PX040	532	20.94	164	6.46	157	6.18	7.18	15.82
PX045	532	20.94	164	6.46	157	6.18	7.18	15.82
PX050	654	25.75	192	7.56	183	7.20	10.18	22.43
PX055	844	33.23	192	7.56	183	7.20	15.78	34.78

Parker Catalogue Numbers (BSPP Models)

Model	General Purpose Coalescing Filters	General Purpose Dry Particulate Filters	High Efficiency Coalescing Filters	High Efficiency Dry Particulate Filters
PX010A	AOPX010AGFX	AOPX010AGMX	AAPX010AGFX	AAPX010AGMX
PX010B	AOPX010BGFX	AOPX010BGMX	AAPX010BGFX	AAPX010BGMX
PX010C	AOPX010CGFX	AOPX010CGMX	AAPX010CGFX	AAPX010CGMX
PX015C	AOPX015CGFX	AOPX015CGMX	AAPX015CGFX	AAPX015CGMX
PX020C	AOPX020CGFX	AOPX020CGMX	AAPX020CGFX	AAPX020CGMX
PX020D	AOPX020DGFX	AOPX020DGMX	AAPX020DGFX	AAPX020DGMX
PX025D	AOPX025DGFX	AOPX025DGMX	AAPX025DGFX	AAPX025DGMX
PX025E	AOPX025EGFX	AOPX025EGMX	AAPX025EGFX	AAPX025EGMX
PX030G	AOPX030GGFX	AOPX030GGMX	AAPX030GGFX	AAPX030GGMX
PX035G	AOPX035GGFX	AOPX035GGMX	AAPX035GGFX	AAPX035GGMX
PX040H	AOPX040HGFX	AOPX040HGMX	AAPX040HGFX	AAPX040HGMX
PX045I	AOPX045IGFX	AOPX045IGMX	AAPX045IGFX	AAPX045IGMX
PX050I	AOPX050IGFX	AOPX050IGMX	AAPX050IGFX	AAPX050IGMX
PX055I	AOPX055IGFX	AOPX055IGMX	AAPX055IGFX	AAPX055IGMX
PX055J	AOPX055JGFX	AOPX055JGMX	AAPX055JGFX	AAPX055JGMX

OIL-X Coalescing/Dry Particulate/ Oil Vapour Reduction Filters (Carbon Steel)

Filtration Performance

Filtration Grade	Filter Type	Particle Reduction (inc water & oil aerosols)	Maximum Remaining Oil Content at 21°C (70°F)	Filtration Efficiency	Initial Dry Differential Pressure	Initial Saturated Differential Pressure	Change Element Every	Precede with Filtration Grade
AO	Coalescing & Dry Particulate	Down to 1 micron	0.5 mg/m³ 0.5 ppm(w)	99.925%	<70 mbar (1 psi)	<125 mbar (1.8 psi)	12 months	WS (for bulk liquid)
AA	Coalescing & Dry Particulate	Down to 0.01 micron	0.01 mg/m³ 0.01 ppm(w)	99.9999%	<70 mbar (1 psi)	<125 mbar (1.8 psi)	12 months	AO
ACS	Oil Vapour Reduction	N/A	0.003 mg/m³ 0.003 ppm(w)	N/A	<140 mbar (2 psi)	N/A	When oil vapour is detected	AO+AA

Important Note:

Using the same filter housings as their coalescing and dry particulate counterparts in the OIL-X range, Grade ACS filter elements differ in that they utilise a deep wrapped bed of carbon cloth to adsorb oil vapour.

It is important to note, in-line adsorption filter elements have a different life span compared to coalescing and dry particulate filters and require more frequent element changes. Should a 12 month service period be required, Parker OIL-X Grade OVR oil vapour reduction filters are recommended.

Technical Data

Filtration Grade	Filter Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature	
		bar g	psi g	bar g	psi g	°C	°F	°C	°F
AO/AA	065 - 095 (Electronic Drain)	1	15	16	232	2	35	60	140
	065 - 095 (Manual Drain)	1	15	16	232	2	35	100	212
ACS	065 - 095 (Manual Drain)	1	15	16	232	2	35	50	122

Flow Rates

Model	Pipe Size	L/S	m³/min	m³/hr	cfm	Replacement Element	No.
Grade 065ND ☐ X	DN80	620	37.2	2232	1312	200 Grade	1
Grade 070OD ☐ X	DN100	1240	74.4	4464	2625	200 Grade	2
Grade 075PD ☐ X	DN150	1860	111.6	6696	3938	200 Grade	3
Grade 080PD ☐ X	DN150	2480	148.8	8928	5251	200 Grade	4
Grade 085QD ☐ X	DN200	3720	223.2	13392	7877	200 Grade	6
Grade 090RD ☐ X	DN250	6200	372	22320	13129	200 Grade	10
Grade 095SD ☐ X	DN300	8680	520.8	31248	18380	200 Grade	14

☐ = Replace with drain type - E (electronic) or M (manual)

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure.
For flows at other pressures, apply the correction factors shown below.

Filter Coding Example

Grade	Model	Pipe Size	Thread	Drain Option	Incident Monitor Option
AO AA ACS	3 digit code denotes filter housing size	Letter denotes pipe size	D = Din Flange	E = Electronic M = Manual	I = Indicator X = None
Example code					
AO	**090**	**P**	**D**	**E**	**X**

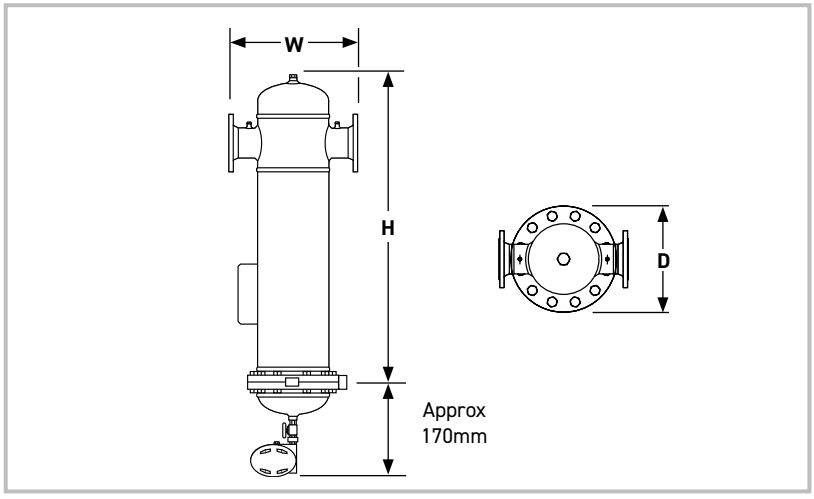
Product Selection & Correction Factors

To correctly select a filter model, the flow rate of the filter must be adjusted for the minimum operating (inlet) pressure at the point of installation.

1. Obtain the minimum operating (inlet) pressure and maximum compressed air flow rate at the inlet of the filter.
2. Select the correction factor for minimum inlet pressure from the CFMIP table (always round down e.g. for 5.3 bar, use 5 bar correction factor).
3. Calculate the minimum filtration capacity. Minimum Filtration Capacity = Compressed Air Flow Rate x CFMIP.
4. Using the minimum filtration capacity, select a filter model from the flow rate tables above (filter selected must have a flow rate equal to or greater than the minimum filtration capacity).

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure																	
	bar g	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	psi g	15	29	44	58	73	87	100	116	131	145	160	174	189	203	218	232
Correction Factor		2.65	1.87	1.53	1.32	1.18	1.08	1.00	0.94	0.88	0.84	0.80	0.76	0.73	0.71	0.68	0.66



Weight & Dimensions

Model	Height (H)		Width (W)		Depth (D)		Weight	
	mm	ins	mm	ins	mm	ins	kg	lbs
065ND	1065	42	440	17.3	340	13.4	70	154
070OD	1152	45.4	500	19.7	405	16	97	214
075PD	1256	49.5	600	23.6	520	20.5	148	326
080PD	1332	52.4	650	25.6	580	22.8	187	412
085QD	1415	55.7	750	29.5	640	25.2	240	529
090RD	1603	63.1	1000	39.4	840	33	470	1036
095SD	1706	67.2	1050	41.3	910	35.8	580	1279

Parker Catalogue Numbers (No DPI)

Model	General Purpose Coalescing Filters	General Purpose Dry Particulate Filters	High Efficiency Coalescing Filters	High Efficiency Dry Particulate Filters	Oil Vapour Reduction Filters
065N	AO065NDEX	AO065NDMX	AA065NDEX	AA065NDMX	ACS065NDMX
070O	AO070ODEX	AO070ODMX	AA070ODEX	AA070ODMX	ACS070ODMX
075P	AO075PDEX	AO075PDMX	AA075PDEX	AA075PDMX	ACS075PDMX
080P	AO080PDEX	AO080PDMX	AA080PDEX	AA080PDMX	ACS080PDMX
085Q	AO085QDEX	AO085QDMX	AA085QDEX	AA085QDMX	ACS085QDMX
090P	AO090RDEX	AO090RDMX	AA090RDEX	AA090RDMX	ACS090RDMX
095S	AO095SDEX	AO095SDMX	AA095SDEX	AA095SDMX	ACS095SDMX

Parker Catalogue Numbers (With DPI)

Model	General Purpose Coalescing Filters	General Purpose Dry Particulate Filters	High Efficiency Coalescing Filters	High Efficiency Dry Particulate Filters
065N	AO065NDEI	AO065NDMI	AA065NDEI	AA065NDMI
070O	AO070ODEI	AO070ODMI	AA070ODEI	AA070ODMI
075P	AO075PDEI	AO075PDMI	AA075PDEI	AA075PDMI
080P	AO080PDEI	AO080PDMI	AA080PDEI	AA080PDMI
085Q	AO085QDEI	AO085QDMI	AA085QDEI	AA085QDMI
090P	AO090RDEI	AO090RDMI	AA090RDEI	AA090RDMI
095S	AO095SDEI	AO095SDMI	AA095SDEI	AA095SDMI

OIL-X Point Of Use Oil Vapour Reduction Filters

Filtration Performance

Filtration Grade	Filter Type	Particle Reduction (inc. water & oil aerosols)	Max. Remaining Oil Content at 21°C (70°F)	Filtration Efficiency	Change Element Every	Precede with Filtration Grade
ACS	Oil Vapour Reduction	N/A	0.003 mg/m³ 0.003 ppm(w)	N/A	When oil vapour is detected	AO + AA

Technical Data

Filtration Grade	Filter Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature	
		bar g	psi g	bar g	psi g	°C	°F	°C	°F
ACS	PX010 - PX055 (Manual Drain)	1	15	20	290	2	35	50	122

Flow Rates

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure.

Model	Pipe Size	L/S	m³/min	m³/hr	cfm	Replacement Element	No.	Initial Dry Differential Pressure							
								100% Flow		75% Flow		50% Flow		25% Flow	
								mbar	psi	mbar	psi	mbar	psi	mbar	psi
ACSPX010A G MX	¼"	10	0.6	36	21	P010ACS	1	61	0.9	35	0.5	15	0.2	9	0.1
ACSPX010B G MX	⅜"	10	0.6	36	21	P010ACS	1	53	0.8	32	0.5	19	0.3	8	0.1
ACSPX010C G MX	½"	10	0.6	36	21	P010ACS	1	55	0.8	31	0.4	18	0.3	7	0.1
ACSPX015B G MX	⅜"	20	1.2	72	42	P015ACS	1	65	0.9	33	0.5	13	0.2	5	0.1
ACSPX015C G MX	½"	20	1.2	72	42	P015ACS	1	46	0.7	37	0.5	20	0.3	9	0.1
ACSPX020C G MX	½"	30	1.8	108	64	P020ACS	1	77	1.1	35	0.5	15	0.2	7	0.1
ACSPX020D G MX	¾"	30	1.8	108	64	P020ACS	1	79	1.1	37	0.5	17	0.2	8	0.1
ACSPX025D G MX	¾"	60	3.6	216	127	P025ACS	1	66	1.0	34	0.5	14	0.2	4	0.1
ACSPX025E G MX	1"	60	3.6	216	127	P025ACS	1	46	0.7	24	0.3	13	0.2	4	0.1
ACSPX030E G MX	1"	110	6.6	396	233	P030ACS	1	57	0.8	27	0.4	16	0.2	8	0.1
ACSPX030G G MX	1½"	110	6.6	396	233	P030ACS	1	65	0.9	35	0.5	15	0.2	5	0.1
ACSPX035G G MX	1½"	160	9.6	576	339	P035ACS	1	26	0.4	12	0.2	8	0.1	4	0.1
ACSPX040H G MX	2"	220	13.2	792	466	P040ACS	1	36	0.5	23	0.3	13	0.2	4	0.1
ACSPX045H G MX	2"	330	19.8	1188	699	P045ACS	1	49	0.7	34	0.5	17	0.2	6	0.1
ACSPX045I G MX	2½"	330	19.8	1188	699	P045ACS	1	68	1.0	40	0.6	20	0.3	6	0.1
ACSPX050I G MX	2½"	430	25.9	1548	911	P050ACS	1	50	0.7	30	0.4	15	0.2	5	0.1
ACSPX055I G MX	2½"	620	37.3	2232	1314	P055ACS	1	61	0.9	36	0.5	16	0.2	12	0.2
ACSPX055J G MX	3"	620	37.3	2232	1314	P055ACS	1	50	0.7	35	0.5	17	0.2	5	0.1

Select G for BSPP Threads/Select N for NPT Threads

When selecting a coalescing filter for pressures above 16 bar g (232 psi g), use manual drain version and fit an external automatic drain.

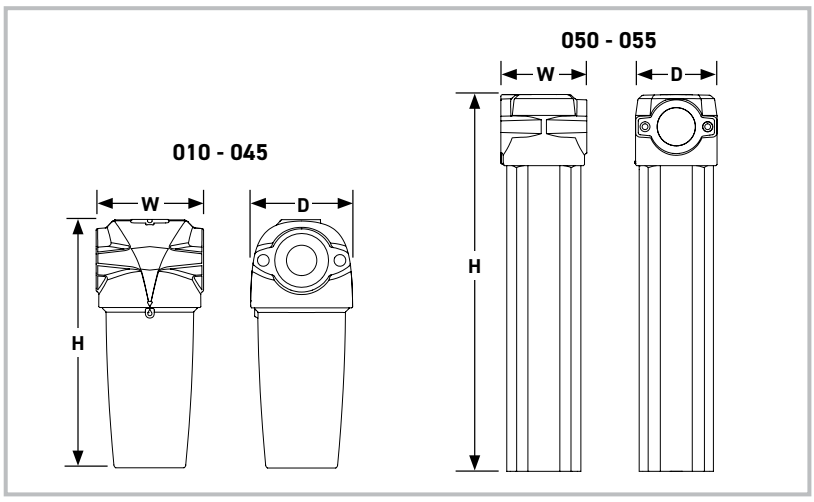
Product Selection & Correction Factors

To correctly select a filter model, the flow rate of the filter must be adjusted for the minimum operating (inlet) pressure at the point of installation.

1. Obtain the minimum operating (inlet) pressure and maximum compressed air flow rate at the inlet of the filter.
2. Select the correction factor for minimum inlet pressure from the CFMIP table (always round down e.g. for 5.3 bar, use 5 bar correction factor).
3. Calculate the minimum filtration capacity. Minimum Filtration Capacity = Compressed Air Flow Rate x CFMIP.
4. Using the minimum filtration capacity, select a filter model from the flow rate tables above (filter selected must have a flow rate equal to or greater than the minimum filtration capacity).

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	psi g	15	29	44	58	73	87	100	116	131	145	160	174	189	203	218	232	248	263	277	290
Correction Factor		2.65	1.87	1.53	1.32	1.18	1.08	1.00	0.94	0.88	0.84	0.80	0.76	0.73	0.71	0.68	0.66	0.64	0.62	0.61	0.59



Weights & Dimensions

Model	Height (H)		Width (W)		Depth (D)		Weight	
	mm	ins	mm	ins	mm	ins	kg	lbs
PX010	180	7.09	76	2.99	65	2.56	0.81	1.78
PX015	238	9.37	89	3.50	84	3.31	1.41	3.10
PX020	238	9.37	89	3.50	84	3.31	1.41	3.10
PX025	277	10.91	120	4.72	115	4.53	2.66	5.86
PX030	367	14.45	120	4.72	115	4.53	3.01	6.63
PX035	440	17.32	164	6.46	157	6.18	6.87	15.14
PX040	532	20.94	164	6.46	157	6.18	7.18	15.82
PX045	532	20.94	164	6.46	157	6.18	7.18	15.82
PX050	654	25.75	192	7.56	183	7.20	10.18	22.43
PX055	844	33.23	192	7.56	183	7.20	15.78	34.78

Parker Catalogue Numbers (BSPP Models)

Model	Oil Vapour Reduction Filters
PX010A	ACSPX010AGMX
PX010B	ACSPX010BGMX
PX010C	ACSPX010CGMX
PX015C	ACSPX015CGMX
PX020C	ACSPX020CGMX
PX020D	ACSPX020DGMX
PX025D	ACSPX025DGMX
PX025E	ACSPX025EGMX
PX030G	ACSPX030GGMX
PX035G	ACSPX035GGMX
PX040H	ACSPX040HGMX
PX045I	ACSPX045IGMX
PX050I	ACSPX050IGMX
PX055I	ACSPX055IGMX
PX055J	ACSPX055JGMX

Multi-box Replacement Filter Elements

OIL-X Housing	Multi-Box Part Number	Box Quantity
PX010 & P010	P010ACSX25	25
PX015 & P015	P015ACSX25	25
PX020 & P020	P020ACSX25	25
PX025 & P025	P025ACSX12	12
PX030 & P030	P030ACSX12	12
PX035 & P035	P035ACSX15	15
PX040 & P040	P040ACSX15	15
PX045 & P045	P045ACSX15	15

OIL-X OVR Plant Scale Oil Vapour Reduction

Filtration Performance

Filtration Grade	Filter Type	Particle Reduction (inc Water & Oil Aerosols)	Maximum Remaining Oil Content*	Filtration Efficiency	Initial Dry Differential Pressure	Initial Saturated Differential Pressure	Adsorbent Life	Precede with Grade
OVR	Oil Vapour Reduction	N/A	⩽0.003 mg/m³ ⩽0.003 ppm (w)	N/A	<350 mbar <5 psi	N/A	*12 months	AO + AA

*At system operating temperature and when corrected to match systems conditions.

Technical Data

Filtration Grade	Filter Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature	
		bar g	psi g	bar g	psi g	°C	°F	°C	°F
OVR	P300H - P550I	1	15	16	232	2	35	50	122

Flow Rates

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure.

Model	Pipe Size	L/s	m³/min	m³/hr	cfm	Replacement Cartridge	No.
OVRP300H G XX	2	80	4.8	289	170	P300OVR	1
OVRP350H G XX	2	163	9.8	586	345	P350OVR	1
OVRP400I G XX	2½"	326	19.6	1172	690	P400OVR	1
OVRP450I G XX	2½"	488	29.4	1758	1035	P450OVR	1
OVRP500I G XX	2½"	651	39.2	2345	1380	P500OVR	1
OVRP550I G XX	2½"	814	48.9	2931	1725	P550OVR	1
2 x OVRP550I G XX	2½"	1629	97.9	5862	3451	P550OVR	2
3 x OVRP550I G XX	2½"	2443	146.8	8793	5176	P550OVR	3
4 x OVRP550I G XX	2½"	3257	195.8	11724	6901	P550OVR	4
5 x OVRP550I G XX	2½"	4071	244.7	14656	8626	P550OVR	5

Differential Pressure (OVR Only)							
100% Flow		75% Flow		50% Flow		25% Flow	
mbar	psi	mbar	psi	mbar	psi	mbar	psi
350	5.1	198	2.9	46	0.7	11	0.2
350	5.1	198	2.9	46	0.7	11	0.2
350	5.1	198	2.9	46	0.7	11	0.2
350	5.1	198	2.9	46	0.7	11	0.2
350	5.1	198	2.9	46	0.7	11	0.2

Select **G** for BSPP Threads/Select **N** for NPT Threads

1 System Information Required for OVR Sizing & Selection

- Minimum pressure at the inlet of the OVR
- Compressor type (oil lubricated or oil free)
- Maximum inlet temperature at the inlet of the OVR (highest summer inlet temp)
- Maximum compressed air flow rate
- Dewpoint of the compressed air (i.e. is the proposed location of the unit before or after a compressed air dryer)
- Oil vapour concentration expected at the inlet of the OVR (default is 0.05 mg/m³)

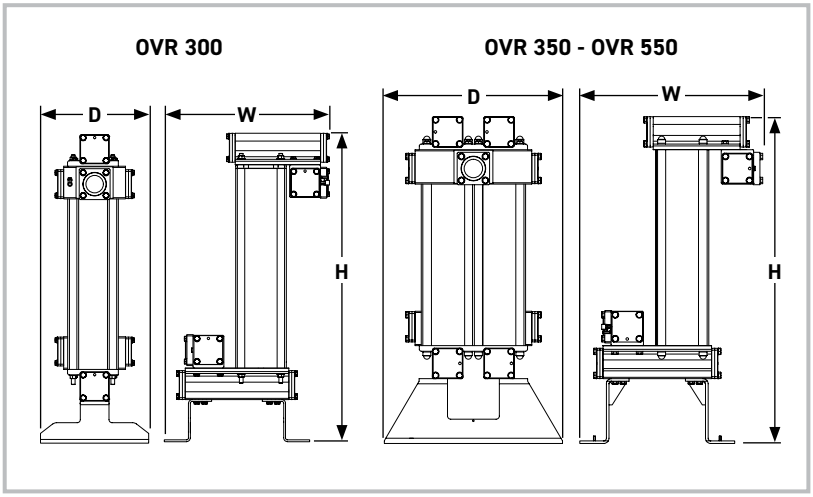
2 Select correction factors

- For minimum inlet pressure, select a correction factor from the CFIP table that corresponds to the minimum inlet pressure of the compressed air system, remembering to always round down e.g. for 5.3 bar g use the 5 bar g correction factor.
- For maximum inlet temperature there are two tables, one for use with an oil lubricated compressor, the other for oil free compressor. Select a correction factor from the CFIT table for the relevant compressor type, remembering to always round up e.g. for 37°C use the 40°C correction factor.
- For pressure dewpoint, select a correction factor from the CFID table.
- For oil vapour concentration, select a correction factor from the CFIV table, remembering to always round up e.g. for 3.25g/m³ use the correction factor for 4mg/m³.

3 Calculate minimum filtration capacity

Minimum filtration Capacity = Compressed Air Flow x CFIT x CFMIP x CFID x CFIV

- Using the minimum filtration capacity, select an OVR model from the flow rate tables.
- The OVR model selected must have a flow rate equal to or greater than the minimum filtration capacity.
- If the minimum filtration capacity exceeds the maximum values of the models shown within the tables, please contact Parker for advice regarding larger multi-banked units.



Correction Factors Inlet Temperature (CFIT)

Oil Lubricated Compressors		
°C	°F	Correction Factor
25	77	1.00
30	86	1.00
35	95	1.00
40	104	1.25
45	113	1.55
50	122	1.90

Correction Factors Inlet Temperature (CFIT)

Oil-free Compressors		
°C	°F	Correction Factor
25	77	1.00
30	86	1.00
35	95	1.00
40	104	1.02
45	113	1.04
50	122	1.05

Correction Factor Minimum Inlet Pressure (CFMIP)

Minimum Inlet Pressure	bar g	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	psi g	44	58	73	87	100	116	131	145	160	174	189	203	218	232
Correction Factor		2.00	1.60	1.33	1.14	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Correction Factor - Dewpoint (CFID)

Installation	Correction Factor
After Dryer	1.00
Before Dryer	4.00

Correction Factor Inlet Vapour Content (CFIV)

Inlet Vapour Concentration mg/m³	0.05	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	2.0	3.0	4.0	5.0
Correction Factor	1	2	4	6	8	10	12	14	16	18	20	40	60	80	100

Weight & Dimensions

Models	Height (H)		Width (W)		Depth (D)		Weight	
	mm	ins	mm	ins	mm	ins	kg	lbs
OVRP300	998	39.3	534	21.0	350	13.8	38	84
OVRP350	1062	41.8	538	21.2	550	21.7	67	147
OVRP400	1062	41.8	682	26.9	550	21.7	93	205
OVRP450	1062	41.8	836	32.9	550	21.7	121	267
OVRP500	1062	41.8	1005	39.6	550	21.7	144	318
OVRP550	1062	41.8	1174	46.2	550	21.7	171	377

Parker Catalogue Numbers

Model	Plant Scale Oil Vapour Reduction (BSPP)	Plant Scale Oil Vapour Reduction (NPT)
OVRP300	OVRP300HGXX	OVRP300HNXX
OVRP350	OVRP350HGXX	OVRP350HNXX
OVRP400	OVRP400HGXX	OVRP400HNXX
OVRP450	OVRP450IGXX	OVRP450INXX
OVRP500	OVRP500IGXX	OVRP500INXX
OVRP550	OVRP550IGXX	OVRP550INXX

OIL-X Combination Filters

Filtration Performance

Filtration Grade	Filter Type	Particle Reduction (inc water & oil aerosols)	Maximum Remaining Oil Content at 21°C (70°F)	Filtration Efficiency	Initial Dry Differential Pressure	Initial Saturated Differential Pressure	Change Element Every	Precede with Filtration Grade
AC	High Efficiency Coalescing & Oil Vapour Reduction	Down to 0.01 micron	**Aerosols** 0.01 mg/m³ 0.01 ppm(w) **Vapour** 0.003 mg/m³ 0.003 ppm(w)	N/A	<618 mbar (9 psi)	<773 mbar (11 psi)	**Coalescing Element** 12 Months **Oil Vapour Reduction Element** When oil vapour is detected	AO

Technical Data

Filtration Grade	Filter Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature	
		bar g	psi g	bar g	psi g	°C	°F	°C	°F
AC	010 - 030 (Float Drain)	1	15	16	232	2	35	30	86
AC	010 - 030 (Manual Drain)	1	15	20	290	2	35	30	86

Flow Rates

Model	Pipe Size	L/S	m³/min	m³/hr	cfm	Replacement Elements	
AC010AGFX	¼"	6	0.4	22	13	010AA	010AC
AC010BGFX	⅜"	6	0.4	22	13	010AA	010AC
AC010CGFX	½"	6	0.4	22	13	010AA	010AC
AC015BGFX	⅜"	13	0.8	46	27	015AA	015AC
AC015CGFX	½"	13	0.8	46	27	015AA	015AC
AC020CGFX	½"	25	1.5	90	53	020AA	020AC
AC020DGFX	¾"	25	1.5	90	53	020AA	020AC
AC020EGFX	1"	25	1.5	90	53	020AA	020AC
AC025DGFX	¾"	40	2.4	143	84	025AA	025DAC
AC025EGFX	1"	65	3.9	231	136	025AA	025EAC
AC030EGFX	1"	85	5.1	305	180	030AA	030AC
AC030FGFX	1¼"	85	5.1	305	180	030AA	030AC
AC030FGFX	1½"	85	5.1	305	180	030AA	030AC

Filter Coding Example

Grade	Model	Pipe Size	Thread	Drain Option	Incident Monitor
AC	3 digit code denotes filter housing size	Letter denotes pipe size	G = BSPP	F = Float M = Manual	X = None
Example code					
AC	010	A	G	F	X

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

Product Selection & Correction Factors

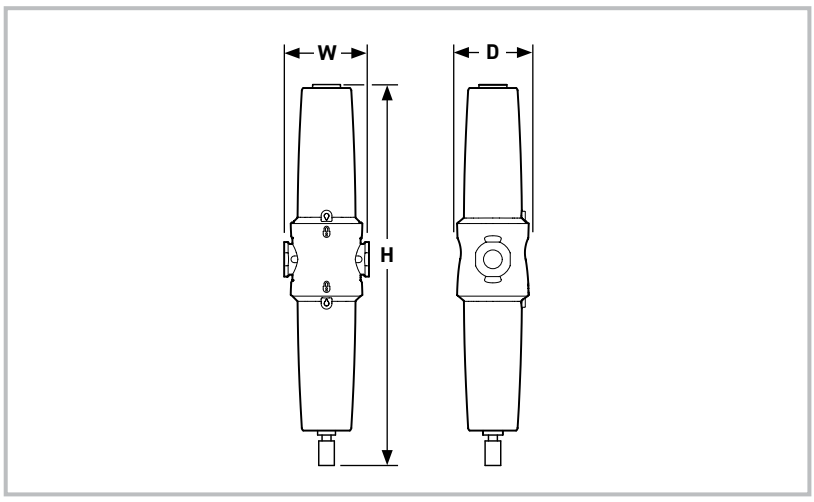
To correctly select a filter model, the flow rate of the filter must be adjusted for the minimum operating (inlet) pressure at the point of installation.

1. Obtain the minimum operating (inlet) pressure and maximum compressed air flow rate at the inlet of the filter.
2. Select the correction factor for minimum inlet pressure from the CFMIP table (always round down e.g. for 5.3 bar, use 5 bar correction factor)
3. Calculate the minimum filtration capacity. Minimum Filtration Capacity = Compressed Air Flow Rate x CFMIP
4. Using the minimum filtration capacity, select a filter model from the flow rate tables above (filter selected must have a flow rate equal to or greater than the minimum filtration capacity).

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	psi g	15	29	44	58	73	87	100	116	131	145	160	174	189	203	218	232	248	263	277	290
Correction Factor		2.65	1.87	1.53	1.32	1.18	1.08	1.00	0.94	0.88	0.84	0.80	0.76	0.73	0.71	0.68	0.66	0.64	0.62	0.61	0.59

When ordering a filter for pressures above 16 bar g (232 psi g), use a manual drain. Replace F with M in product code. e.g. AC015BGFX becomes AC015BGMX.



Weight & Dimensions

Model	Height (H)		Width (W)		Depth (D)		Weight	
	mm	ins	mm	ins	mm	ins	kg	lbs
AC010A	311	12.3	76	3.0	65	2.6	0.8	1.8
AC010B	311	12.3	76	3.0	65	2.6	0.8	1.8
AC010C	311	12.3	76	3.0	65	2.6	0.8	1.8
AC015B	474	18.7	97	3.8	84	3.3	1.6	3.5
AC015C	474	18.7	97	3.8	84	3.3	1.6	3.5
AC020C	474	18.7	97	3.8	84	3.3	1.4	3.2
AC020D	474	18.7	97	3.8	84	3.3	1.4	3.2
AC020E	474	18.7	97	3.8	84	3.3	1.4	3.2
AC025D	554	21.8	129	5.1	115	4.5	3.5	7.8
AC025E	554	21.8	129	5.1	115	4.5	3.4	7.6
AC030E	733	28.9	129	5.1	115	4.5	4.1	9.0
AC030F	733	28.9	129	5.1	115	4.5	4.1	9.0
AC030G	733	28.9	129	5.1	115	4.5	4.1	9.0

Parker Catalogue Numbers

Model	Double Stage Oil Vapour Reduction Filers
AC010A	AC010AGFX
AC010B	AC010BGFX
AC010C	AC010CGFX
AC015B	AC015BGFX
AC015C	AC015CGFX
AC020C	AC020CGFX
AC020D	AC020DGFX
AC020E	AC020EGFX
AC025D	AC025DGFX
AC025E	AC025EGFX
AC030E	AC030EGFX
AC030F	AC030FGFX
AC030G	AC030GGFX

0003G Micro Filters

Filtration Performance

Filtration Grade	Filter Type	Particle Reduction (inc. water & oil aerosols)	Maximum Remaining Oil Content at 21°C (70°F)	Filtration Efficiency	Initial Dry Differential Pressure	Initial Saturated Differential Pressure	Change Element Every	Precede with Filtration Grade
AO	Coalescing & Dry Particulate	Down to 1 micron	0.5 mg/m³ 0.5 ppm(w)	99.925%	<70 mbar (<1 psi)	<140 mbar (<2 psi)	12 months	-
AA	Coalescing & Dry Particulate	Down to 0.01 micron	0.01 mg/m³ 0.01 ppm(w)	99.9999%	<140 mbar (<1.5 psi)	<200 mbar (<3 psi)	12 months	AO

Important Note:
Using the same filter housings as their coalescing and dry particulate counterparts, Grade ACS filter elements differ in that they utilise a wrapped bed of carbon cloth to adsorb oil vapour. It is important to note, in-line adsorption filter elements have a different life span compared to coalescing and dry particulate filters and require more frequent element changes.

Technical Data

Filtration Grade	Filter Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature	
		bar g	psi g	bar g	psi g	°C	°F	°C	°F
AO/AA	0003G	1	14.5	10	145	2	35	50	122

Flow Rates

Model	Pipe Size	L/S	m³/min	m³/hr	cfm	Replacement Element	No.
AO-0003G	8mm Push In	3	0.18	11	6	K003AO	1
AA-0003G	8mm Push In	3	0.18	11	6	K003AA	1

All models include a manual/constant bleed drain.

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

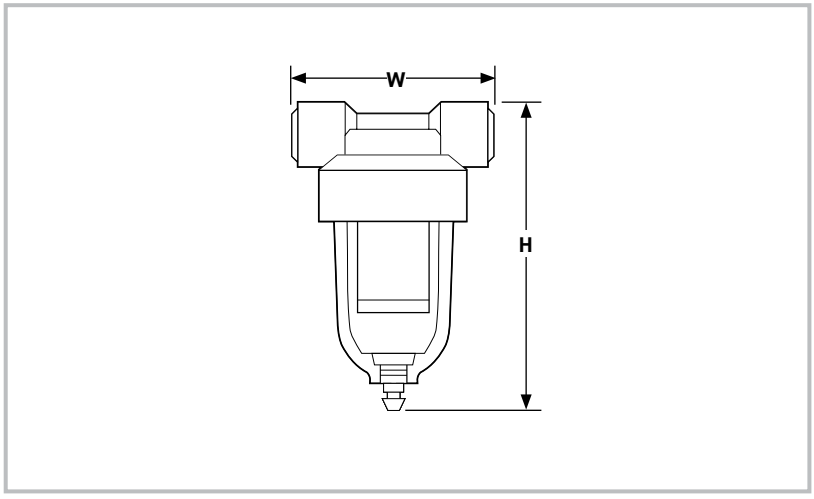
Product Selection & Correction Factors

To correctly select a filter model, the flow rate of the filter must be adjusted for the minimum operating (inlet) pressure at the point of installation.

1. Obtain the minimum operating (inlet) pressure and maximum compressed air flow rate at the inlet of the filter.
2. Select the correction factor for minimum inlet pressure from the CFMIP table (always round down e.g. for 5.3 bar, use 5 bar correction factor).
3. Calculate the minimum filtration capacity. Minimum Filtration Capacity = Compressed Air Flow Rate x CFP.
4. Using the minimum filtration capacity, select a filter model from the flow rate tables above (filter selected must have a flow rate equal to or greater than the minimum filtration capacity).

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure											
	bar g	1	2	3	4	5	6	7	8	9	10
	psi g	15	29	44	58	73	87	100	116	131	145
Correction Factor		2.65	1.87	1.53	1.32	1.18	1.08	1.00	0.94	0.88	0.84



Weight & Dimensions

Model	Height (H)		Width (W)		Depth (D)		Weight	
	mm	ins	mm	ins	mm	ins	kg	lbs
0003G	89	3.5	58	2.3	56	2.2	0.1	0.2

Parker Catalogue Numbers

Model	General Purpose Coalescing Filters	General Purpose Dry Particulate Filters
0003G	AO-0003G	AA-0003G

OIL-X Filter Accessories

Filter Wall Mount Brackets
(for single filters)

Part Number	Filter Model / Number of
MBK1-1	010 x 1
MBK2-1	015-020 x 1
MBK3-1	025-030 x 1
MBK4-1	035-045 x 1
MBK5-1	050-055 x 1

Filter Wall Mount Brackets
(for 2 or 3 in series)

Part Number	Filter Model / Number of
MBK1-2	010 x 2 and x 3
MBK2-2	015-020 x 2 and x 3
MBK3-2	025 - 030 x 2 and x 3
MBK4-2	035 - 045 x 2 and x 3
MBK5-2	050 - 055 x 2 and x 3

Tie Rods
(for 2 or 3 in series)

Part Number	Filter Model / Number of
TRK1-2	010 x 2 and x 3
TRK3-2	015 to 020 x 2 and x 3
TRK2-2	025 to 030 x 2 and x 3
TRK4-2	035 to 045 x 2 and x 3
TRK5-2	050 to 055 x 2 and x 3

Automatic Float and Manual Drains

Part Number	Description
M12.FD.0001	Float Auto 010 to 055
EM1	Manual Drain 010 to 055 (Maximum Operating Pressure 20 bar g)
HDF120A	Float Auto 060
605006470	Manual Drain 060

Zero Loss ED Electronic Drains

Part Number	Filter Model
ED3002-G230	010 to 030
ED3004-G230	035 to 055
ED3007-G230	60
MK-G15-G10I	ED3002 Mounting kit G½
MK-G25-G15	ED3004-3100 Mounting kit G½

Blanking Plate Kit
OIL-X 010 - 055 (AO, AA, ACS)

Part Number	601181213
Contents Blanking Plate (x1) M5 x 16mm bolts (x4) M5 Washer (x4) O-Ring (x2) Direction of Flow Label (x1) ⅛" Blanking Plug (x2)	

Differential Pressure Gauge

Part Number	DPGK.010-055
For Filter Models 010 to 055	
OIL-X Size 2 filter fitted with DPGK.010-055	

Unless stated otherwise all differential pressure gauges and condensate drains have a maximum operating pressure of 16 bar g.

K-MT Small Flow Heatless Adsorption Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO8573-1:2010 Classification (Option 1)	Dewpoint (Option 2)		ISO8573-1:2010 Classification (Option 2)
	°C	°F		°C	°F		°C	°F	
K-MT 1 - 4	-40	-40	Class 2:2:2	-70	-100	Class 2:1:2	-25	-13	Class 2:3:2

ISO8573-1 Classifications when used with Parker OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
K-MT 1 - 4	4	58	16	232	5	41	50	122	50	122	230V 1ph 50/60Hz	115V 1ph 50/60Hz or 24V DC	BSPP	65-86

Flow Rates

Model	Pipe Size	Inlet Flow Rate			
		L/s	m^3/min	m^3/hr	cfm
K-MT 1	¼"	2	0.13	8	5
K-MT 2	¼"	4	0.25	15	9
K-MT 3	¼"	7	0.42	25	15
K-MT 4	¼"	10	0.58	35	21

Inlet flow rate relating to 1 bar(a) and 20°C; relating to the suction performance of the compressor, compression at 7 bar(g) and 35°C dryer inlet temperature, at 25°C ambient temperature, 60% relative humidity.

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

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

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		0.94	0.95	1.00	1.15	1.22	1.28

CFAT - Correction Factor Maximum Ambient Temperature

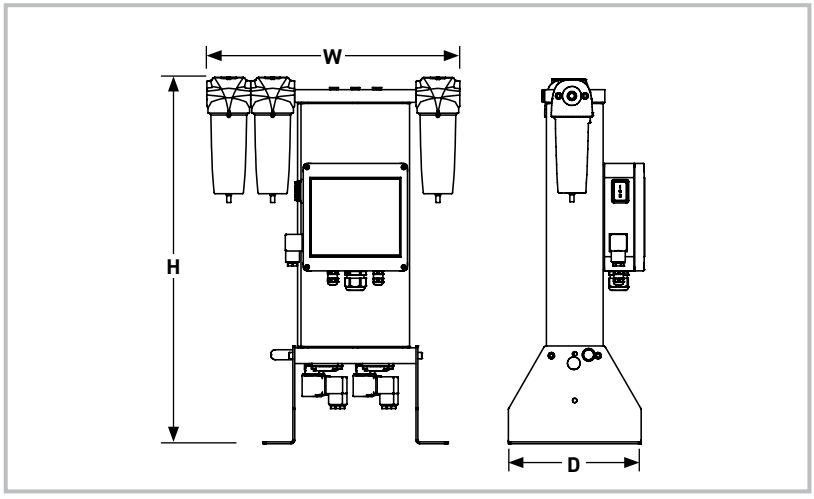
Maximum Ambient Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.00	1.00	1.00

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		1.60	1.33	1.12	1.00	0.88	0.79	0.76	0.74	0.67	0.62	0.59	0.56	0.53

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-25	-40	-70
	°F	-13	-40	-100
Correction Factor		1.00	1.00	2.00



Weights & Dimensions

Model	Dimensions						Weight*	
	Height (H)		Width (W)*		Depth (D)			
	mm	ins	mm	ins	mm	ins	kg	lbs
K-MT 1	403	16	345 (421)*	14 (17)*	210	8	11.5 (12.3)*	25 (27)*
K-MT 2	578	23	345 (421)*	14 (17)*	210	8	15.5 (16.3)*	34 (36)*
K-MT 3	828	33	345 (421)*	14 (17)*	210	8	20.0 (20.8)*	44 (46)*
K-MT 4	1078	42	345 (421)*	14 (17)*	210	8	25.0 (25.8)*	55 (57)*

*Changes to width and weight January 1st 2025, additional OIL-X filtration stage supplied on dryer inlet.

Included & Optional Filtration

Model	Dryer Inlet		Dryer Outlet	
	General Purpose Pre-filter*	High Efficiency Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter (Option)
K-MT 1	AOPX010A*	AAPX010A	AOPX010A	AAPX010A
K-MT 2	AOPX010A*	AAPX010A	AOPX010A	AAPX010A
K-MT 3	AOPX010A*	AAPX010A	AOPX010A	AAPX010A
K-MT 4	AOPX010A*	AAPX010A	AOPX010A	AAPX010A

*Additional OIL-X filtration stage supplied on dryer inlet from January 1st 2025.

Parker Catalogue Numbers 230V/1ph/50Hz-60Hz

Model	No Dewpoint Sensor	With Dewpoint Sensor	No Dewpoint Sensor*	With Dewpoint Sensor*
K-MT 1	K1/16D3-G230M	K1/16D3-G230MT	K1/16D4-G230M*	K1/16D4-G230MT*
K-MT 2	K2/16D3-G230M	K2/16D3-G230MT	K2/16D4-G230M*	K2/16D4-G230MT*
K-MT 3	K3/16D3-G230M	K3/16D3-G230MT	K3/16D4-G230M*	K3/16D4-G230MT*
K-MT 4	K4/16D3-G230M	K4/16D3-G230MT	K4/16D4-G230M*	K4/16D4-G230MT*

*New part numbers January 1st 2025, additional OIL-X filtration stage supplied on dryer inlet.

KA-MT Small Flow Heatless Adsorption Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO8573-1:2010 Classification (Option 1)	Dewpoint (Option 2)		ISO8573-1:2010 Classification (Option 2)
	°C	°F		°C	°F		°C	°F	
KA-MT 1 - 4	-40	-40	Class 2:2:1	-70	-100	Class 2:1:1	-25	-13	Class 2:3:1

ISO8573-1 Classifications when used with Parker OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
KA-MT 1 - 4	4	58	16	232	5	41	50	122	50	122	230V 1ph 50/60Hz	115V 1ph 50/60Hz or 24V DC	BSPP	65-86

Flow Rates

Model	Pipe Size	Inlet Flow Rate			
		L/s	m^3/min	m^3/hr	cfm
KA-MT 1	¼"	2	0.13	8	5
KA-MT 2	¼"	4	0.25	15	9
KA-MT 3	¼"	7	0.42	25	15
KA-MT 4	¼"	10	0.58	35	21

Inlet flow rate relating to 1 bar(a) and 20°C; relating to the suction performance of the compressor, compression at 7 bar(g) and 35°C dryer inlet temperature, at 25 °C ambient temperature, 60% relative humidity.

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

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

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		0.94	0.95	1.00	1.15	1.22	1.28

CFAT - Correction Factor Maximum Ambient Temperature

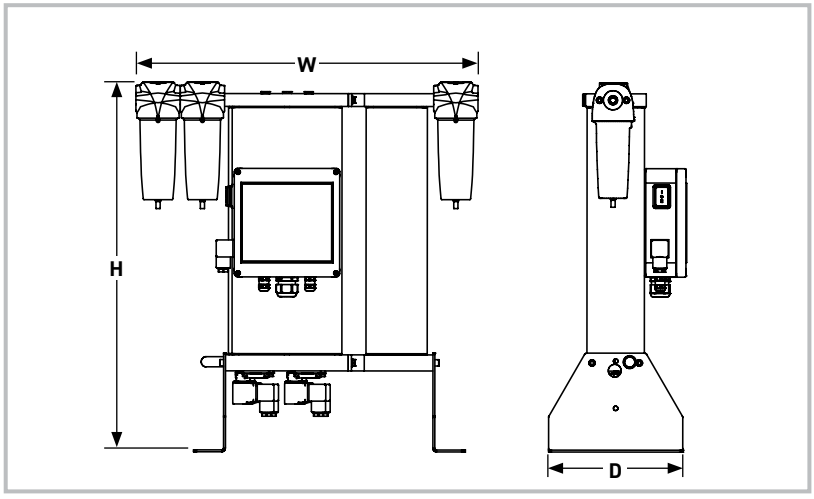
Maximum Ambient Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.00	1.00	1.00

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		1.60	1.33	1.12	1.00	0.88	0.79	0.76	0.74	0.67	0.62	0.59	0.56	0.53

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-25	-40	-70
	°F	-13	-40	-100
Correction Factor		1.00	1.00	2.00



Weights & Dimensions

Model	Dimensions						Weight	
	Height (H)		Width (W)		Depth (D)			
	mm	ins	mm	ins	mm	ins	kg	lbs
KA-MT 1	403	16	486 (562)*	19 (22)*	210	8	15 (16)*	33 (35)*
KA-MT 2	578	23	486 (562)*	19 (22)*	210	8	20 (23)*	44 (46)*
KA-MT 3	828	33	486 (562)*	19 (22)*	210	8	28 (31)*	62 (64)*
KA-MT 4	1078	42	486 (562)*	19 (22)*	210	8	35 (36)*	77 (79)*

*Changes to width and weight January 1st 2025, additional OIL-X filtration stage supplied on dryer inlet.

Included & Optional Filtration

Model	Dryer Inlet		Dryer Outlet		
	General Purpose Pre-filter	High Efficiency Coalescing Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter (Option)
KA-MT 1	AOPX010A*	AAPX010A	Included	AOPX010A	AAPX010A
KA-MT 2	AOPX010A*	AAPX010A	Included	AOPX010A	AAPX010A
KA-MT 3	AOPX010A*	AAPX010A	Included	AOPX010A	AAPX010A
KA-MT 4	AOPX010A*	AAPX010A	Included	AOPX010A	AAPX010A

*Additional OIL-X filtration stage supplied on dryer inlet from January 1st 2025.

Parker Catalogue Numbers 230V/1ph/50Hz-60Hz

Model	No Dewpoint Sensor	With Dewpoint Sensor	No Dewpoint Sensor*	With Dewpoint Sensor*
KA-MT 1	K1/16DA3-G230M	K1/16DA3-G230MT	K1/16DA4-G230M*	K1/16DA4-G230MT*
KA-MT 2	K2/16DA3-G230M	K2/16DA3-G230MT	K2/16DA4-G230M*	K2/16DA4-G230MT*
KA-MT 3	K3/16DA3-G230M	K3/16DA3-G230MT	K3/16DA4-G230M*	K3/16DA4-G230MT*
KA-MT 4	K4/16DA3-G230M	K4/16DA3-G230MT	K4/16DA4-G230M*	K4/16DA4-G230MT*

*New part numbers January 1st 2025, additional OIL-X filtration stage supplied on dryer inlet.

CDAS HL Medium Flow Heatless Adsorption Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO8573-1:2010 Classification (Option 1)	Dewpoint (Option 2)		ISO8573-1:2010 Classification (Option 2)
	°C	°F		°C	°F		°C	°F	
CDAS HL 050 - 085	-40	-40	Class 2:2:2	-70	-100	Class 2:1:2	-20	-4	Class 2:3:2

ISO8573-1 Classifications when used with OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
CDAS HL 050 - 085	4	58	16	232	5	41	50	122	55	131	100-240V +/-10% 1ph 50/60Hz	24V DC	BSPP or NPT	<75

Flow Rates

Model	Pipe Size	Inlet Flow Rate			
		L/s	m³/min	m³/hr	cfm
CDAS HL 050	½"	15	0.92	55	32
CDAS HL 055	½"	19	1.17	70	41
CDAS HL 060	½"	25	1.50	90	53
CDAS HL 065	½"	31	1.84	110	65
CDAS HL 070	¾"	42	2.51	150	88
CDAS HL 075	1"	51	3.09	185	109
CDAS HL 080	1"	61	3.67	220	129
CDAS HL 085	1½"	83	5.01	300	177

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

Minimum Drying Capacity = System Flow x CFMIT x CFMAT x CFMIP x CFOD

CFMIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.04	1.14	1.37

CFMAT - Correction Factor Maximum Ambient Temperature

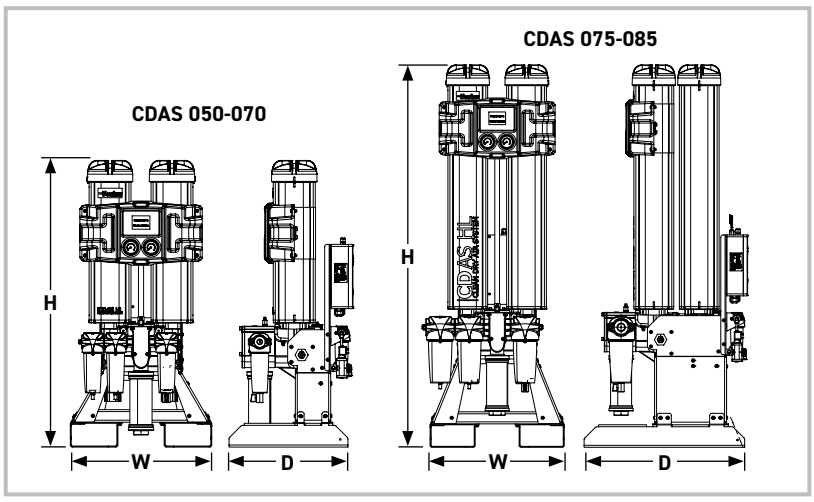
Maximum Ambient Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.00	1.00	1.00

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		1.60	1.33	1.14	1.00	0.89	0.80	0.73	0.67	0.62	0.57	0.53	0.50	0.47

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-20	-40	-70
	°F	-4	-40	-100
Correction Factor		0.91	1.00	2.00



Weights & Dimensions

Model	Dimensions						Weight	
	Height (H)		Width (W)		Depth (D)			
	mm	ins	mm	ins	mm	ins	kg	lbs
CDAS HL 050	1133	45	559	22	490	19	76	168
CDAS HL 055	1313	52	559	22	490	19	84	185
CDAS HL 060	1510	59	559	22	490	19	93	205
CDAS HL 065	1660	65	559	22	490	19	100	220
CDAS HL 070	2020	80	559	22	490	19	120	265
CDAS HL 075	1595	63	559	22	682	27	165	364
CDAS HL 080	1745	69	559	22	682	27	180	397
CDAS HL 085	2105	83	559	22	682	27	210	463

Included Filtration

Model	Pipe Size BSPP or NPT	Dryer Inlet		Dryer Outlet		
		General Purpose Pre-filter	High Efficiency Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
CDAS HL 050	½"	AOPX015C	AAPX015C	-	AOPX015C	-
CDAS HL 055	½"	AOPX015C	AAPX015C	-	AOPX015C	-
CDAS HL 060	½"	AOPX020C	AAPX020C	-	AOPX020C	-
CDAS HL 065	½"	AOPX020C	AAPX020C	-	AOPX020C	-
CDAS HL 070	¾"	AOPX025D	AAPX025D	-	AOPX025D	-
CDAS HL 075	1"	AOPX025E	AAPX025E	-	AOPX025E	-
CDAS HL 080	1"	AOPX025E	AAPX025E	-	AOPX025E	-
CDAS HL 085	1½"	AOPX030G	AAPX030G	-	AOPX030G	-

Parker Catalogue Numbers

Model	-20°C PDP / -40°C PDP BSPP	-70°C PDP BSPP	-20°C PDP / -40°C PDP NPT	-70°C PDP NPT
CDAS HL 50	CDASHL050-40G16AE	CDASHL050-70G16AE	CDASHL050-40N16AE	CDASHL050-70N16AE
CDAS HL 55	CDASHL055-40G16AE	CDASHL055-70G16AE	CDASHL055-40N16AE	CDASHL055-70N16AE
CDAS HL 60	CDASHL060-40G16AE	CDASHL060-70G16AE	CDASHL060-40N16AE	CDASHL060-70N16AE
CDAS HL 65	CDASHL065-40G16AE	CDASHL065-70G16AE	CDASHL065-40N16AE	CDASHL065-70N16AE
CDAS HL 70	CDASHL070-40G16AE	CDASHL070-70G16AE	CDASHL070-40N16AE	CDASHL070-70N16AE
CDAS HL 75	CDASHL075-40G16AE	CDASHL075-70G16AE	CDASHL075-40N16AE	CDASHL075-70N16AE
CDAS HL 80	CDASHL080-40G16AE	CDASHL080-70G16AE	CDASHL080-40N16AE	CDASHL080-70N16AE
CDAS HL 85	CDASHL085-40G16AE	CDASHL085-70G16AE	CDASHL085-40N16AE	CDASHL085-70N16AE

CDAS HL Large Flow Heatless Adsorption Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO 8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO 8573-1:2010 Classification (Option 1)	Dewpoint (Option 2)		ISO 8573-1:2010 Classification (Option 2)
	°C	°F		°C	°F		°C	°F	
CDAS HL 100 - CDAS HL 170	-40	-40	Class 2:2:2	-70	-100	Class 2:1:2	-20	-4	Class 2:3:2

ISO 8573-1 Classifications when used with Parker OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
CDAS HL 100 - CDAS HL 170	5	73	13	190	5	41	50	122	55	131	100-240V +/-10% 1ph 50/60Hz	-	BSPP	<75

Flow Rates

Model	Pipe Size	Inlet Flow Rate			
		L/s	m^3/min	m^3/hr	cfm
CDAS HL 100	2"	113	6.81	408	240
CDAS HL 110	2"	170	10.22	612	360
CDAS HL 120	2½"	213	12.75	765	450
CDAS HL 130	2½"	283	17	1020	600
CDAS HL 140	2½"	354	21	1275	750
CDAS HL 150	2½"	425	26	1530	900
CDAS HL 160	3"	496	30	1785	1050
CDAS HL 170	3"	567	34	2040	1200
2 x CDAS HL 140	2½"	708	43	2550	1500
2 x CDAS HL 150	2½"	850	51	3060	1800
2 x CDAS HL 160	3"	992	60	3570	2100
2 x CDAS HL 170	3"	1133	68	4080	2400
3 x CDAS HL 150	2½"	1275	77	4590	2700
3 x CDAS HL 160	3"	1488	89	5355	3150
3 x CDAS HL 170	3"	1700	102	6120	3600

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

Product Selection and Correction Factors

For correct operation, compressed air dryers must be sized for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

CFMIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.04	1.14	1.37

To select a dryer, first calculate the Minimum Drying Capacity (MDC) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

Minimum Drying Capacity (MDC) =

Max System Flow x CFMIT x CFMAT x CFMIP x CFOD

CFMAT - 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

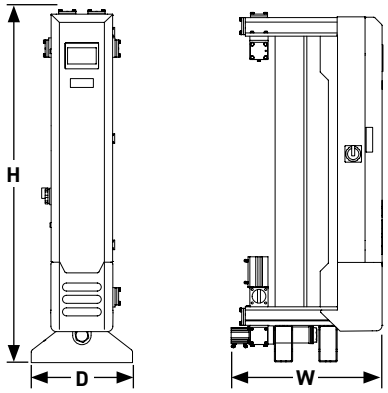
CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	4	5	6	7	8	9	10	11	12	13
	psi g	58	73	87	100	116	131	145	160	174	189
Correction Factor		1.60	1.33	1.14	1.00	0.89	0.80	0.73	0.67	0.62	0.57

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-20	-40	-70
	°F	-4	-40	-100
Correction Factor		0.91	1.00	1.43

CDAS HL100-170
(Dryer Only)



OIL-X
Pre and Post
Filtration
Included

Weights & Dimensions (Dryer Only)

Model	Pipe Size	Dimensions						Weight	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
CDAS HL 100	2"	1672	65.8	816	32.1	550	21.7	217	478
CDAS HL 110	2"	1672	65.8	987	38.9	550	21.7	277	611
CDAS HL 120	2½"	1917	75.5	987	38.9	550	21.7	372	820
CDAS HL 130	2½"	1917	75.5	1156	45.5	550	21.7	464	1023
CDAS HL 140	2½"	1917	75.5	1325	52.2	550	21.7	555	1224
CDAS HL 150	2½"	1917	75.5	1494	58.8	550	21.7	646	1424
CDAS HL 160	3"	1917	75.5	1663	65.5	550	21.7	739	1629
CDAS HL 170	3"	1917	75.5	1832	72.1	550	21.7	830	1830

Included Filtration

Model	Pipe Size BSPP	Dryer Inlet		Dryer Outlet		
		General Purpose Pre-filter	High Efficiency Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
CDAS HL 100	2"	AOPX040HGFX	AAPX040HGFX	-	AOPX040HGMX	-
CDAS HL 110	2"	AOPX040HGFX	AAPX040HGFX	-	AOPX040HGMX	-
CDAS HL 120	2½"	AOPX045IGFX	AAPX045IGFX	-	AOPX045IGMX	-
CDAS HL 130	2½"	AOPX045IGFX	AAPX045IGFX	-	AOPX045IGMX	-
CDAS HL 140	2½"	AOPX050IGFX	AAPX050IGFX	-	AOPX050IGMX	-
CDAS HL 150	2½"	AOPX050IGFX	AAPX050IGFX	-	AOPX050IGMX	-
CDAS HL 160	3"	AOPX055JGFX	AAPX055JGFX	-	AOPX055JGMX	-
CDAS HL 170	3"	AOPX055JGFX	AAPX055JGFX	-	AOPX055JGMX	-

Parker Catalogue Numbers

Model	-20°C PDP / -40°C PDP	-70°C PDP
CDAS HL 100	CDASHL100-40G13BC	CDASHL100-70G13BC
CDAS HL 110	CDASHL110-40G13BC	CDASHL110-70G13BC
CDAS HL 120	CDASHL120-40G13BC	CDASHL120-70G13BC
CDAS HL 130	CDASHL130-40G13BC	CDASHL130-70G13BC
CDAS HL 140	CDASHL140-40G13BC	CDASHL140-70G13BC
CDAS HL 150	CDASHL150-40G13BC	CDASHL150-70G13BC
CDAS HL 160	CDASHL160-40G13BC	CDASHL160-70G13BC
CDAS HL 170	CDASHL170-40G13BC	CDASHL170-70G13BC

CDAS LE Large Flow Low Energy Heatless Adsorption Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO 8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO 8573-1:2010 Classification (Option 1)	Dewpoint (Option 2)		ISO 8573-1:2010 Classification (Option 2)
	°C	°F		°C	°F		°C	°F	
CDAS LE 100 - CDAS LE 170	-40	-40	Class 2:2:2	-70	-100	Class 2:1:2	-20	-4	Class 2:3:2

ISO 8573-1 Classifications when used with Parker OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
CDAS LE 100 - CDAS LE 170	5	73	13	190	5	41	50	122	55	131	400V +/-10% 3ph 50Hz	460V +/-10% 3ph 60Hz	BSPP	<75

Flow Rates

Model	Pipe Size	Inlet Flow Rate			
		L/s	m³/min	m³/hr	cfm
CDAS LE 100	2"	113	6.81	408	240
CDAS LE 110	2"	170	10.22	612	360
CDAS LE 120	2½"	213	12.75	765	450
CDAS LE 130	2½"	283	17	1020	600
CDAS LE 140	2½"	354	21	1275	750
CDAS LE 150	2½"	425	26	1530	900
CDAS LE 160	3"	496	30	1785	1050
CDAS LE 170	3"	567	34	2040	1200
2 x CDAS LE 140	2½"	708	43	2550	1500
2 x CDAS LE 150	2½"	850	51	3060	1800
2 x CDAS LE 160	3"	992	60	3570	2100
2 x CDAS LE 170	3"	1133	68	4080	2400
3 x CDAS LE 150	2½"	1275	77	4590	2700
3 x CDAS LE 160	3"	1488	89	5355	3150
3 x CDAS LE 170	3"	1700	102	6120	3600

Vacuum Pump Part Number and kW

Vacuum Pump 50Hz/60Hz	kW @ 50Hz	kW @ 60Hz
HLVAP-OL-02-100	3	3.6
HLVAP-OL-02-110	3	3.6
HLVAP-OL-02-120	4	4.8
HLVAP-OL-02-130	5.5	6.6
HLVAP-OL-02-140	5.5	6.6
HLVAP-OL-02-150	7	8.4
HLVAP-OL-02-160	8.5	10.2
HLVAP-OL-02-170	9.5	11.4

Dryer and vacuum pump to be ordered separately.

HLVAP-OL-02-100 to HLVAP-OL-02-140 = Single Pump
HLVAP-OL-02-150 to HLVAP-OL-02-170 = Duplex Pump
(Duplex = 2 x pumps supplied on frame)
Multi-bank dryer installations require multiples vacuum pumps.
For example, 3 x CDAS LE 170 requires 3 x HLVAP-OL-02-170 pumps or alternatively consider connection to a centralised vacuum system.

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

Product Selection and Correction Factors

For correct operation, compressed air dryers must be sized for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

CFMIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.04	1.14	1.37

To select a dryer, first calculate the Minimum Drying Capacity (MDC) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

Minimum Drying Capacity (MDC) =

Max System Flow x CFMIT x CFMAT x CFMIP x CFOD

CFMAT - 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

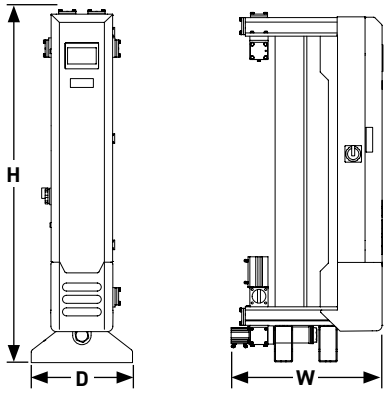
Minimum Inlet Pressure	bar g	4	5	6	7	8	9	10	11	12	13
	psi g	58	73	87	100	116	131	145	160	174	189
Correction Factor		1.60	1.33	1.14	1.00	0.89	0.80	0.73	0.67	0.62	0.57

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-20	-40	-70
	°F	-4	-40	-100
Correction Factor		0.91	1.00	1.43

CDAS LE 100-170
(Dryer Only)

For **HLVAP-OL-02** vaccum pump weights & dimensions, see page 53.



Weights & Dimensions (Dryer Only)

Model	Pipe Size	Dimensions						Weight	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
CDAS LE 100	2"	1672	65.8	816	32.1	550	21.7	217	478
CDAS LE 110	2"	1672	65.8	987	38.9	550	21.7	277	611
CDAS LE 120	2½"	1917	75.5	987	38.9	550	21.7	372	820
CDAS LE 130	2½"	1917	75.5	1156	45.5	550	21.7	464	1023
CDAS LE 140	2½"	1917	75.5	1325	52.2	550	21.7	555	1224
CDAS LE 150	2½"	1917	75.5	1494	58.8	550	21.7	646	1424
CDAS LE 160	3"	1917	75.5	1663	65.5	550	21.7	739	1629
CDAS LE 170	3"	1917	75.5	1832	72.1	550	21.7	830	1830

Included Filtration

Model	Pipe Size BSPP	Dryer Inlet		Dryer Outlet		
		General Purpose Pre-filter	High Efficiency Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
CDAS LE 100	2"	AOPX040HGFX	AAPX040HGFX	-	AOPX040HGMX	-
CDAS LE 110	2"	AOPX040HGFX	AAPX040HGFX	-	AOPX040HGMX	-
CDAS LE 120	2½"	AOPX045IGFX	AAPX045IGFX	-	AOPX045IGMX	-
CDAS LE 130	2½"	AOPX045IGFX	AAPX045IGFX	-	AOPX045IGMX	-
CDAS LE 140	2½"	AOPX050IGFX	AAPX050IGFX	-	AOPX050IGMX	-
CDAS LE 150	2½"	AOPX050IGFX	AAPX050IGFX	-	AOPX050IGMX	-
CDAS LE 160	3"	AOPX055JGFX	AAPX055JGFX	-	AOPX055JGMX	-
CDAS LE 170	3"	AOPX055JGFX	AAPX055JGFX	-	AOPX055JGMX	-

Parker Catalogue Numbers

Model	-20°C PDP / -40°C PDP	-70°C PDP
CDAS LE 100	CDASLE100-40G13BC	CDASLE100-70G13BC
CDAS LE 110	CDASLE110-40G13BC	CDASLE110-70G13BC
CDAS LE 120	CDASLE120-40G13BC	CDASLE120-70G13BC
CDAS LE 130	CDASLE130-40G13BC	CDASLE130-70G13BC
CDAS LE 140	CDASLE140-40G13BC	CDASLE140-70G13BC
CDAS LE 150	CDASLE150-40G13BC	CDASLE150-70G13BC
CDAS LE 160	CDASLE160-40G13BC	CDASLE160-70G13BC
CDAS LE 170	CDASLE170-40G13BC	CDASLE170-70G13BC

OFAS HL Medium Flow Heatless Adsorption Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO8573-1:2010 Classification (Option 1)	Dewpoint (Option 2)		ISO8573-1:2010 Classification (Option 2)
	°C	°F		°C	°F		°C	°F	
OFAS HL 050 - 085	-40	-40	Class 2.2.0	-70	-100	Class 2.1.0	-20	-4	Class 2.3.0

ISO8573-1 Classifications when used with OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
OFAS HL 050 - 085	4	58	16	232	5	41	50	122	55	131	100-240V +/-10% 1ph 50/60Hz	24V DC	BSPP or NPT	<75

Flow Rates

Model	Pipe Size	Inlet Flow Rate			
		L/s	m^3/min	m^3/hr	cfm
OFAS HL 050	½"	15	0.92	55	32
OFAS HL 055	½"	19	1.17	70	41
OFAS HL 060	½"	25	1.50	90	53
OFAS HL 065	½"	31	1.84	110	65
OFAS HL 070	¾"	42	2.51	150	88
OFAS HL 075	1"	51	3.09	185	109
OFAS HL 080	1"	61	3.67	220	129
OFAS HL 085	1½"	83	5.01	300	177

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

Minimum Drying Capacity = System Flow x CFMIT x CFMAT x CFMIP x CFOD

CFMIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.04	1.14	1.37

CFMAT - Correction Factor Maximum Ambient Temperature

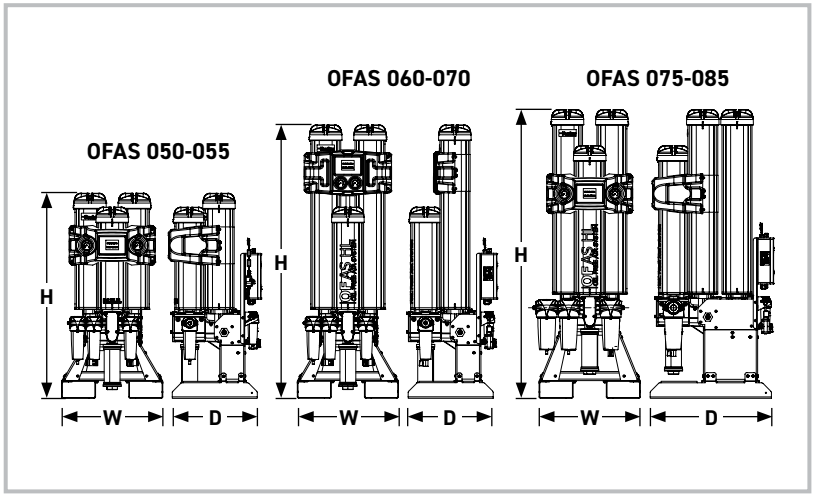
Maximum Ambient Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.00	1.00	1.00

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		1.60	1.33	1.14	1.00	0.89	0.80	0.73	0.67	0.62	0.57	0.53	0.50	0.47

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-20	-40	-70
	°F	-4	-40	-100
Correction Factor		0.91	1.00	2.00



Weights & Dimensions

Model	Dimensions						Weight	
	Height (H)		Width (W)		Depth (D)			
	mm	ins	mm	ins	mm	ins	kg	lbs
OFAS HL 050	1133	45	559	22	512	20.2	90	198
OFAS HL 055	1313	52	559	22	512	20.2	97	214
OFAS HL 060	1510	59	559	22	496	19.5	106	234
OFAS HL 065	1660	65	559	22	496	19.5	112	247
OFAS HL 070	2020	80	559	22	496	19.5	132	291
OFAS HL 075	1595	63	559	22	682	27	184	406
OFAS HL 080	1745	69	559	22	682	27	196	432
OFAS HL 085	2105	83	559	22	682	27	232	511

Included Filtration

Model	Pipe Size BSPP or NPT	Dryer Inlet		Dryer Outlet		
		General Purpose Pre-filter	High Efficiency Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
OFAS HL 050	½"	AOPX015C	AAPX015C	Included	AOPX015C	-
OFAS HL 055	½"	AOPX015C	AAPX015C	Included	AOPX015C	-
OFAS HL 060	½"	AOPX020C	AAPX020C	Included	AOPX020C	-
OFAS HL 065	½"	AOPX020C	AAPX020C	Included	AOPX020C	-
OFAS HL 070	¾"	AOPX025D	AAPX025D	Included	AOPX025D	-
OFAS HL 075	1"	AOPX025E	AAPX025E	Included	AOPX025E	-
OFAS HL 080	1"	AOPX025E	AAPX025E	Included	AOPX025E	-
OFAS HL 085	1½"	AOPX030G	AAPX030G	Included	AOPX030G	-

Parker Catalogue Numbers

Model	-20°C PDP / -40°C PDP BSPP	-70°C PDP BSPP	-20°C PDP / -40°C PDP NPT	-70°C PDP NPT
OFAS HL 50	OFASHL050-40G16AE	OFASHL050-70G16AE	OFASHL050-40N16AE	OFASHL050-70N16AE
OFAS HL 55	OFASHL055-40G16AE	OFASHL055-70G16AE	OFASHL055-40N16AE	OFASHL055-70N16AE
OFAS HL 60	OFASHL060-40G16AE	OFASHL060-70G16AE	OFASHL060-40N16AE	OFASHL060-70N16AE
OFAS HL 65	OFASHL065-40G16AE	OFASHL065-70G16AE	OFASHL065-40N16AE	OFASHL065-70N16AE
OFAS HL 70	OFASHL070-40G16AE	OFASHL070-70G16AE	OFASHL070-40N16AE	OFASHL070-70N16AE
OFAS HL 75	OFASHL075-40G16AE	OFASHL075-70G16AE	OFASHL075-40N16AE	OFASHL075-70N16AE
OFAS HL 80	OFASHL080-40G16AE	OFASHL080-70G16AE	OFASHL080-40N16AE	OFASHL080-70N16AE
OFAS HL 85	OFASHL085-40G16AE	OFASHL085-70G16AE	OFASHL085-40N16AE	OFASHL085-70N16AE

OFAS HL Large Flow Heatless Adsorption Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO 8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO 8573-1:2010 Classification (Option 1)	Dewpoint (Option 2)		ISO 8573-1:2010 Classification (Option 2)
	°C	°F		°C	°F		°C	°F	
OFAS HL 100 - OFAS HL 170	-40	-40	Class 2:2:0	-70	-100	Class 2:1:0	-20	-4	Class 2:3:0

ISO 8573-1 Classifications when used with Parker OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
OFAS HL 100 - OFAS HL 170	5	73	13	190	5	41	50	122	55	131	100-240V +/-10% 1ph 50/60Hz	-	BSPP	<75

Flow Rates

Model	Pipe Size	Inlet Flow Rate			
		L/s	m³/min	m³/hr	cfm
OFAS HL 100	2"	113	6.81	408	240
OFAS HL 110	2"	170	10.22	612	360
OFAS HL 120	2½"	213	12.75	765	450
OFAS HL 130	2½"	283	17	1020	600
OFAS HL 140	2½"	354	21	1275	750
OFAS HL 150	2½"	425	26	1530	900
OFAS HL 160	3"	496	30	1785	1050
OFAS HL 170	3"	567	34	2040	1200
2 x OFAS HL 140	2½"	708	43	2550	1500
2 x OFAS HL 150	2½"	850	51	3060	1800
2 x OFAS HL 160	3"	992	60	3570	2100
2 x OFAS HL 170	3"	1133	68	4080	2400
3 x OFAS HL 150	2½"	1275	77	4590	2700
3 x OFAS HL 160	3"	1488	89	5355	3150
3 x OFAS HL 170	3"	1700	102	6120	3600

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

Product Selection and Correction Factors

For correct operation, compressed air dryers must be sized for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

CFMIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.04	1.14	1.37

To select a dryer, first calculate the Minimum Drying Capacity (MDC) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

Minimum Drying Capacity (MDC) =

Max System Flow x CFMIT x CFMAT x CFMIP x CFOD

CFMAT - Correction Factor Maximum Ambient Temperature

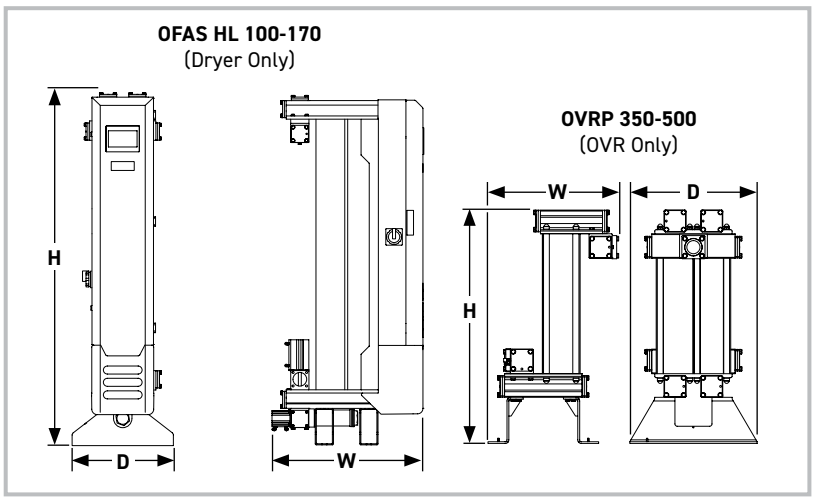
Maximum Ambient Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.00	1.00	1.00

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	4	5	6	7	8	9	10	11	12	13
	psi g	58	73	87	100	116	131	145	160	174	189
Correction Factor		1.60	1.33	1.14	1.00	0.89	0.80	0.73	0.67	0.62	0.57

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-20	-40	-70
	°F	-4	-40	-100
Correction Factor		0.91	1.00	1.43



Weights & Dimensions

Model	Pipe Size	Dimensions (Dryer Only)						Weight (Dryer Only)	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
OFAS HL 100	2"	1672	65.8	816	32.1	550	21.7	217	478
OFAS HL 110	2"	1672	65.8	987	38.9	550	21.7	277	611
OFAS HL 120	2½"	1917	75.5	987	38.9	550	21.7	372	820
OFAS HL 130	2½"	1917	75.5	1156	45.5	550	21.7	464	1023
OFAS HL 140	2½"	1917	75.5	1325	52.2	550	21.7	555	1224
OFAS HL 150	2½"	1917	75.5	1494	58.8	550	21.7	646	1424
OFAS HL 160	3"	1917	75.5	1663	65.5	550	21.7	739	1629
OFAS HL 170	3"	1917	75.5	1832	72.1	550	21.7	830	1830

Model	Pipe Size	Dimensions (OVR Only)						Weight (OVR Only)	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
OVRP350H	2"	1062	41.8	538	21.2	550	21.7	67	147
OVRP400H	2"	1062	41.8	682	26.9	550	21.7	93	205
OVRP400I	2½"	1062	41.8	682	26.9	550	21.7	93	205
OVRP450I	2½"	1062	41.8	836	32.9	550	21.7	121	267
OVRP500J	3"	1062	41.8	1005	39.6	550	21.7	144	318

Included Filtration

Model	Pipe Size BSPP	Dryer Inlet		Dryer Outlet		
		General Purpose Pre-filter	High Efficiency Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
OFAS HL 100	2"	AOPX040HGFX	AAPX040HGFX	OVRP350HGXX	AOPX040HGMX	-
OFAS HL 110	2"	AOPX040HGFX	AAPX040HGFX	OVRP400HGXX	AOPX040HGMX	-
OFAS HL 120	2½"	AOPX045IGFX	AAPX045IGFX	OVRP400IGXX	AOPX045IGMX	-
OFAS HL 130	2½"	AOPX045IGFX	AAPX045IGFX	OVRP400IGXX	AOPX045IGMX	-
OFAS HL 140	2½"	AOPX050IGFX	AAPX050IGFX	OVRP450IGXX	AOPX050IGMX	-
OFAS HL 150	2½"	AOPX050IGFX	AAPX050IGFX	OVRP450IGXX	AOPX050IGMX	-
OFAS HL 160	3"	AOPX055JGFX	AAPX055JGFX	OVRP500JGXX	AOPX055JGMX	-
OFAS HL 170	3"	AOPX055JGFX	AAPX055JGFX	OVRP500JGXX	AOPX055JGMX	-

Parker Catalogue Numbers

Model	-20°C PDP / -40°C PDP	-70°C PDP
OFAS HL 100	OFASHL100-40G13BC	OFASHL100-70G13BC
OFAS HL 110	OFASHL110-40G13BC	OFASHL110-70G13BC
OFAS HL 120	OFASHL120-40G13BC	OFASHL120-70G13BC
OFAS HL 130	OFASHL130-40G13BC	OFASHL130-70G13BC
OFAS HL 140	OFASHL140-40G13BC	OFASHL140-70G13BC
OFAS HL 150	OFASHL150-40G13BC	OFASHL150-70G13BC
OFAS HL 160	OFASHL160-40G13BC	OFASHL160-70G13BC
OFAS HL 170	OFASHL170-40G13BC	OFASHL170-70G13BC

OFAS LE Large Low Energy Flow Heatless Adsorption Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO 8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO 8573-1:2010 Classification (Option 1)	Dewpoint (Option 2)		ISO 8573-1:2010 Classification (Option 2)
	°C	°F		°C	°F		°C	°F	
OFAS LE 100 - OFAS LE 170	-40	-40	Class 2:2:0	-70	-100	Class 2:1:0	-20	-4	Class 2:3:0

ISO 8573-1 Classifications when used with Parker OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
OFAS LE 100 - OFAS LE 170	5	73	13	190	5	41	50	122	55	131	400V +/-10% 3ph 50Hz	460V +/-10% 3ph 60Hz	BSPP	<75

Flow Rates

Model	Pipe Size	Inlet Flow Rate			
		L/s	m³/min	m³/hr	cfm
OFAS LE 100	2"	113	6.81	408	240
OFAS LE 110	2"	170	10.22	612	360
OFAS LE 120	2½"	213	12.75	765	450
OFAS LE 130	2½"	283	17	1020	600
OFAS LE 140	2½"	354	21	1275	750
OFAS LE 150	2½"	425	26	1530	900
OFAS LE 160	3"	496	30	1785	1050
OFAS LE 170	3"	567	34	2040	1200
2 x OFAS LE 140	2½"	708	43	2550	1500
2 x OFAS LE 150	2½"	850	51	3060	1800
2 x OFAS LE 160	3"	992	60	3570	2100
2 x OFAS LE 170	3"	1133	68	4080	2400
3 x OFAS LE 150	2½"	1275	77	4590	2700
3 x OFAS LE 160	3"	1488	89	5355	3150
3 x OFAS LE 170	3"	1700	102	6120	3600

Vacuum Pump Part Number and kW

Vacuum Pump 50Hz/60Hz	kW @ 50Hz	kW @ 60Hz
HLVAP-OL-02-100	3	3.6
HLVAP-OL-02-110	3	3.6
HLVAP-OL-02-120	4	4.8
HLVAP-OL-02-130	5.5	6.6
HLVAP-OL-02-140	5.5	6.6
HLVAP-OL-02-150	7	8.4
HLVAP-OL-02-160	8.5	10.2
HLVAP-OL-02-170	9.5	11.4

Dryer and vacuum pump to be ordered separately.

HLVAP-OL-02-100 to HLVAP-OL-02-140 = Single Pump
HLVAP-OL-02-150 to HLVAP-OL-02-170 = Duplex Pump
(Duplex = 2 x pumps supplied on frame)
Multi-bank dryer installations require multiples vacuum pumps.
For example, 3 x OFAS LE 170 requires 3 x HLVAP-OL-02-170 pumps or alternatively consider connection to a centralised vacuum system.

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

CFMIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.04	1.14	1.37

CFMAT - 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

To select a dryer, first calculate the Minimum Drying Capacity (MDC) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

Minimum Drying Capacity (MDC) =

Max System Flow x CFMIT x CFMAT x CFMIP x CFOD

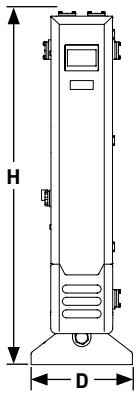
CFMIP - Correction Factor Minimum Inlet Pressure

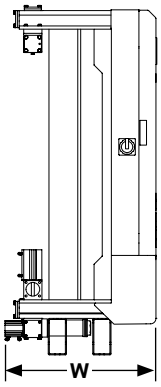
Minimum Inlet Pressure	bar g	4	5	6	7	8	9	10	11	12	13
	psi g	58	73	87	100	116	131	145	160	174	189
Correction Factor		1.60	1.33	1.14	1.00	0.89	0.80	0.73	0.67	0.62	0.57

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-20	-40	-70
	°F	-4	-40	-100
Correction Factor		0.91	1.00	1.43

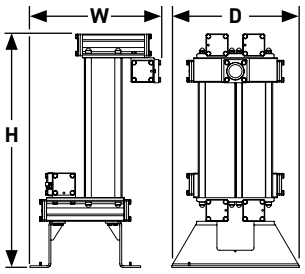
OFAS LE 100-170
(Dryer Only)





For **HLVAP-0L-02** vaccum pump weights & dimensions, see page 53.

OVRP 350-500
(OVR Only)



Weights & Dimensions

Model	Pipe Size	Dimensions (Dryer Only)						Weight (Dryer Only)	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
OFAS LE 100	2"	1672	65.8	816	32.1	550	21.7	217	478
OFAS LE 110	2"	1672	65.8	987	38.9	550	21.7	277	611
OFAS LE 120	2½"	1917	75.5	987	38.9	550	21.7	372	820
OFAS LE 130	2½"	1917	75.5	1156	45.5	550	21.7	464	1023
OFAS LE 140	2½"	1917	75.5	1325	52.2	550	21.7	555	1224
OFAS LE 150	2½"	1917	75.5	1494	58.8	550	21.7	646	1424
OFAS LE 160	3"	1917	75.5	1663	65.5	550	21.7	739	1629
OFAS LE 170	3"	1917	75.5	1832	72.1	550	21.7	830	1830

Model	Pipe Size	Dimensions (OVR Only)						Weight (OVR Only)	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
OVRP350H	2"	1062	41.8	538	21.2	550	21.7	67	147
OVRP400H	2"	1062	41.8	682	26.9	550	21.7	93	205
OVRP400I	2½"	1062	41.8	682	26.9	550	21.7	93	205
OVRP450I	2½"	1062	41.8	836	32.9	550	21.7	121	267
OVRP500J	3"	1062	41.8	1005	39.6	550	21.7	144	318

Included Filtration

Model	Pipe Size BSPP	Dryer Inlet		Dryer Outlet		
		General Purpose Pre-filter	High Efficiency Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
OFAS LE 100	2"	AOPX040HGFX	AAPX040HGFX	OVRP350HGXX	AOPX040HGMX	-
OFAS LE 110	2"	AOPX040HGFX	AAPX040HGFX	OVRP400HGXX	AOPX040HGMX	-
OFAS LE 120	2½"	AOPX045IGFX	AAPX045IGFX	OVRP400IGXX	AOPX045IGMX	-
OFAS LE 130	2½"	AOPX045IGFX	AAPX045IGFX	OVRP400IGXX	AOPX045IGMX	-
OFAS LE 140	2½"	AOPX050IGFX	AAPX050IGFX	OVRP450IGXX	AOPX050IGMX	-
OFAS LE 150	2½"	AOPX050IGFX	AAPX050IGFX	OVRP450IGXX	AOPX050IGMX	-
OFAS LE 160	3"	AOPX055JGFX	AAPX055JGFX	OVRP500JGXX	AOPX055JGMX	-
OFAS LE 170	3"	AOPX055JGFX	AAPX055JGFX	OVRP500JGXX	AOPX055JGMX	-

Parker Catalogue Numbers

Model	-20°C PDP / -40°C PDP	-70°C PDP
OFAS LE 100	OFASLE100-40G13BC	OFASLE100-70G13BC
OFAS LE 110	OFASLE110-40G13BC	OFASLE110-70G13BC
OFAS LE 120	OFASLE120-40G13BC	OFASLE120-70G13BC
OFAS LE 130	OFASLE130-40G13BC	OFASLE130-70G13BC
OFAS LE 140	OFASLE140-40G13BC	OFASLE140-70G13BC
OFAS LE 150	OFASLE150-40G13BC	OFASLE150-70G13BC
OFAS LE 160	OFASLE160-40G13BC	OFASLE160-70G13BC
OFAS LE 170	OFASLE170-40G13BC	OFASLE170-70G13BC

FBP Medium Flow Heatless Adsorption Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO8573-1:2010 Classification (Option 1)
	°C	°F		°C	°F	
FBP HL 050 - 085	-40	-40	Class 1.2.0	-70	-100	Class 1.1.0

ISO8573-1 Classifications when used with OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
FBP HL 050 - 085	4	58	16	232	5	41	50	122	55	131	100-240V +/-10% 1ph 50/60Hz	24V DC	BSPP or NPT	<75

Flow Rates

Model	Pipe Size	Inlet Flow Rate			
		L/s	m^3/min	m^3/hr	cfm
FBP HL 050	½"	15	0.92	55	32
FBP HL 055	½"	19	1.17	70	41
FBP HL 060	½"	25	1.50	90	53
FBP HL 065	½"	31	1.84	110	65
FBP HL 070	¾"	42	2.51	150	88
FBP HL 075	1"	51	3.09	185	109
FBP HL 080	1"	61	3.67	220	129
FBP HL 085	1½"	83	5.01	300	177

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

Minimum Drying Capacity = System Flow x CFMIT x CFMAT x CFMIP x CFOD

CFMIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.04	1.14	1.37

CFMAT - 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

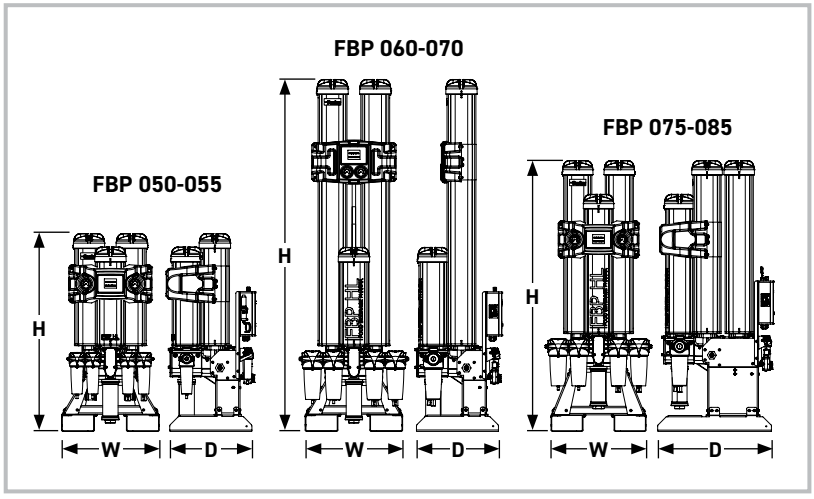
CFMIP - Correction Factor Minimum Inlet Pressure

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		1.60	1.33	1.14	1.00	0.89	0.80	0.73	0.67	0.62	0.57	0.53	0.50	0.47

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-40	-70
	°F	-40	-100
Correction Factor		1.00	2.00

Important Note: -20°C outlet dewpoint not available for FBP products as this dewpoint does not inhibit the growth of microorganisms.



Weights & Dimensions

Model	Dimensions						Weight	
	Height (H)		Width (W)		Depth (D)			
	mm	ins	mm	ins	mm	ins	kg	lbs
FBP HL 050	1133	45	559	22	512	20.2	91	201
FBP HL 055	1313	52	559	22	512	20.2	98	216
FBP HL 060	1510	59	559	22	496	19.5	108	238
FBP HL 065	1660	65	559	22	496	19.5	114	251
FBP HL 070	2020	80	630	24.8	496	19.5	136	300
FBP HL 075	1595	63	630	24.8	682	27	184	406
FBP HL 080	1745	69	630	24.8	682	27	196	432
FBP HL 085	2105	83	630	24.8	682	27	232	511

Included Filtration

Model	Pipe Size BSPP or NPT	Dryer Inlet		Dryer Outlet		
		General Purpose Pre-filter	High Efficiency Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
FBP HL 050	½"	AOPX015C	AAPX015C	Included	AOPX015C	AAPX015C
FBP HL 055	½"	AOPX015C	AAPX015C	Included	AOPX015C	AAPX015C
FBP HL 060	½"	AOPX020C	AAPX020C	Included	AOPX020C	AAPX020C
FBP HL 065	½"	AOPX020C	AAPX020C	Included	AOPX020C	AAPX020C
FBP HL 070	¾"	AOPX025D	AAPX025D	Included	AOPX025D	AAPX025D
FBP HL 075	1"	AOPX025E	AAPX025E	Included	AOPX025E	AAPX025E
FBP HL 080	1"	AOPX025E	AAPX025E	Included	AOPX025E	AAPX025E
FBP HL 085	1½"	AOPX030G	AAPX030G	Included	AOPX030G	AAPX030G

Parker Catalogue Numbers

Model	-20°C PDP / -40°C PDP BSPP	-70°C PDP BSPP
FBP HL 050	FBPHL050-40G16AE	FBPHL050-70G16AE
FBP HL 055	FBPHL055-40G16AE	FBPHL055-70G16AE
FBP HL 060	FBPHL060-40G16AE	FBPHL060-70G16AE
FBP HL 065	FBPHL065-40G16AE	FBPHL065-70G16AE
FBP HL 070	FBPHL070-40G16AE	FBPHL070-70G16AE
FBP HL 075	FBPHL075-40G16AE	FBPHL075-70G16AE
FBP HL 080	FBPHL080-40G16AE	FBPHL080-70G16AE
FBP HL 085	FBPHL085-40G16AE	FBPHL085-70G16AE

FBP HL Large Flow Heatless Adsorption Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO 8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO 8573-1:2010 Classification (Option 1)
	°C	°F		°C	°F	
FBP HL 100 - FPH HL 170	-40	-40	Class 1:2:0	-70	-100	Class 1:1:0

ISO 8573-1 Classifications when used with Parker OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
FBP HL 100 - FBP HL 170	5	73	13	190	5	41	50	122	55	131	100-240V +/-10% 1ph 50/60Hz	-	BSPP	<75

Flow Rates

Model	Pipe Size	Inlet Flow Rate			
		L/s	m^3/min	m^3/hr	cfm
FBP HL 100	2"	113	6.81	408	240
FBP HL 110	2"	170	10.22	612	360
FBP HL 120	2½"	213	12.75	765	450
FBP HL 130	2½"	283	17	1020	600
FBP HL 140	2½"	354	21	1275	750
FBP HL 150	2½"	425	26	1530	900
FBP HL 160	3"	496	30	1785	1050
FBP HL 170	3"	567	34	2040	1200
2 x FBP HL 140	2½"	708	43	2550	1500
2 x FBP HL 150	2½"	850	51	3060	1800
2 x FBP HL 160	3"	992	60	3570	2100
2 x FBP HL 170	3"	1133	68	4080	2400
3 x FBP HL 150	2½"	1275	77	4590	2700
3 x FBP HL 160	3"	1488	89	5355	3150
3 x FBP HL 170	3"	1700	102	6120	3600

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

Product Selection and Correction Factors

For correct operation, compressed air dryers must be sized for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

CFMIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.04	1.14	1.37

To select a dryer, first calculate the Minimum Drying Capacity (MDC) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

Minimum Drying Capacity (MDC) =

Max System Flow x CFMIT x CFMAT x CFMIP x CFOD

CFMAT - 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

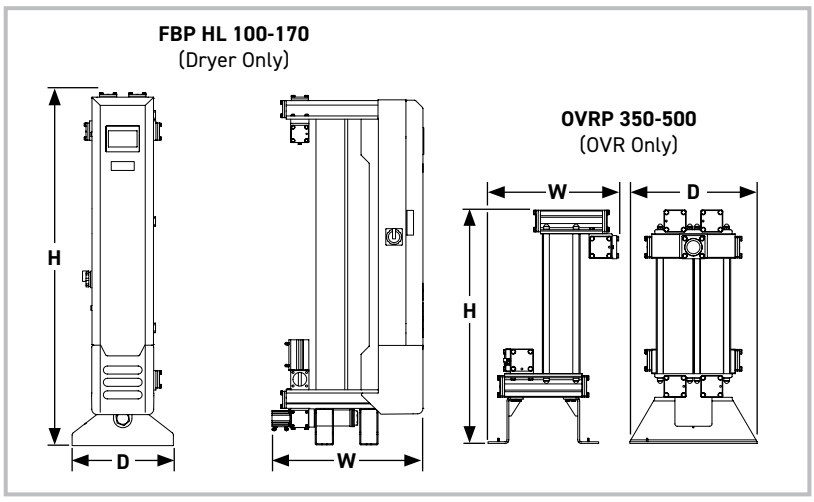
CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	4	5	6	7	8	9	10	11	12	13
	psi g	58	73	87	100	116	131	145	160	174	189
Correction Factor		1.60	1.33	1.14	1.00	0.89	0.80	0.73	0.67	0.62	0.57

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-40	-70
	°F	-40	-100
Correction Factor		1.00	2.00

Important Note: -20°C outlet dewpoint not available for FBP products as this dewpoint does not inhibit the growth of microorganisms.



Weights & Dimensions

Model	Pipe Size	Dimensions (Dryer Only)						Weight (Dryer Only)	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
FBP HL 100	2"	1672	65.8	816	32.1	550	21.7	217	478
FBP HL 110	2"	1672	65.8	987	38.9	550	21.7	277	611
FBP HL 120	2½"	1917	75.5	987	38.9	550	21.7	372	820
FBP HL 130	2½"	1917	75.5	1156	45.5	550	21.7	464	1023
FBP HL 140	2½"	1917	75.5	1325	52.2	550	21.7	555	1224
FBP HL 150	2½"	1917	75.5	1494	58.8	550	21.7	646	1424
FBP HL 160	3"	1917	75.5	1663	65.5	550	21.7	739	1629
FBP HL 170	3"	1917	75.5	1832	72.1	550	21.7	830	1830

Model	Pipe Size	Dimensions (OVR Only)						Weight (OVR Only)	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
OVRP350H	2"	1062	41.8	538	21.2	550	21.7	67	147
OVRP400H	2"	1062	41.8	682	26.9	550	21.7	93	205
OVRP400I	2½"	1062	41.8	682	26.9	550	21.7	93	205
OVRP450I	2½"	1062	41.8	836	32.9	550	21.7	121	267
OVRP500J	3"	1062	41.8	1005	39.6	550	21.7	144	318

Included Filtration

Model	Pipe Size BSPP	Dryer Inlet		Dryer Outlet		
		General Purpose Pre-filter	High Efficiency Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
FBP HL 100	2"	AOPX040HGFX	AAPX040HGFX	OVRP350HGXX	AOPX040HGMX	AAPX040HGMX
FBP HL 110	2"	AOPX040HGFX	AAPX040HGFX	OVRP400HGXX	AOPX040HGMX	AAPX040HGMX
FBP HL 120	2½"	AOPX045IGFX	AAPX045IGFX	OVRP400IGXX	AOPX045IGMX	AAPX045IGMX
FBP HL 130	2½"	AOPX045IGFX	AAPX045IGFX	OVRP400IGXX	AOPX045IGMX	AAPX045IGMX
FBP HL 140	2½"	AOPX050IGFX	AAPX050IGFX	OVRP450IGXX	AOPX050IGMX	AAPX050IGMX
FBP HL 150	2½"	AOPX050IGFX	AAPX050IGFX	OVRP450IGXX	AOPX050IGMX	AAPX050IGMX
FBP HL 160	3"	AOPX055JGFX	AAPX055JGFX	OVRP500JGXX	AOPX055JGMX	AAPX055JGMX
FBP HL 170	3"	AOPX055JGFX	AAPX055JGFX	OVRP500JGXX	AOPX055JGMX	AAPX055JGMX

Parker Catalogue Numbers

Model	-20°C PDP / -40°C PDP	-70°C PDP
FBP HL 100	FBPHL100-40G13BC	FBPHL100-70G13BC
FBP HL 110	FBPHL110-40G13BC	FBPHL110-70G13BC
FBP HL 120	FBPHL120-40G13BC	FBPHL120-70G13BC
FBP HL 130	FBPHL130-40G13BC	FBPHL130-70G13BC
FBP HL 140	FBPHL140-40G13BC	FBPHL140-70G13BC
FBP HL 150	FBPHL150-40G13BC	FBPHL150-70G13BC
FBP HL 160	FBPHL160-40G13BC	FBPHL160-70G13BC
FBP HL 170	FBPHL170-40G13BC	FBPHL170-70G13BC

FBP LE Large Flow Heatless Adsorption Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO 8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO 8573-1:2010 Classification (Option 1)
	°C	°F		°C	°F	
FBP LE 100 - FPH LE 170	-40	-40	Class 1:2:0	-70	-100	Class 1:1:0

ISO 8573-1 Classifications when used with Parker OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
FBP LE 100 - FBP LE 170	5	73	13	190	5	41	50	122	55	131	400V +/-10% 3ph 50Hz	460V +/-10% 3ph 60Hz	BSPP	<75

Flow Rates

Model	Pipe Size	Inlet Flow Rate			
		L/s	m³/min	m³/hr	cfm
FBP LE 100	2"	113	6.81	408	240
FBP LE 110	2"	170	10.22	612	360
FBP LE 120	2½"	213	12.75	765	450
FBP LE 130	2½"	283	17	1020	600
FBP LE 140	2½"	354	21	1275	750
FBP LE 150	2½"	425	26	1530	900
FBP LE 160	3"	496	30	1785	1050
FBP LE 170	3"	567	34	2040	1200
2 x FBP LE 140	2½"	708	43	2550	1500
2 x FBP LE 150	2½"	850	51	3060	1800
2 x FBP LE 160	3"	992	60	3570	2100
2 x FBP LE 170	3"	1133	68	4080	2400
3 x FBP LE 150	2½"	1275	77	4590	2700
3 x FBP LE 160	3"	1488	89	5355	3150
3 x FBP LE 170	3"	1700	102	6120	3600

Vacuum Pump Part Number and kW

Vacuum Pump 50Hz/60Hz	kW @ 50Hz	kW @ 60Hz
HLVAP-OL-02-100	3	3.6
HLVAP-OL-02-110	3	3.6
HLVAP-OL-02-120	4	4.8
HLVAP-OL-02-130	5.5	6.6
HLVAP-OL-02-140	5.5	6.6
HLVAP-OL-02-150	7	8.4
HLVAP-OL-02-160	8.5	10.2
HLVAP-OL-02-170	9.5	11.4

Dryer and vacuum pump to be ordered separately.

HLVAP-OL-02-100 to HLVAP-OL-02-140 = Single Pump
HLVAP-OL-02-150 to HLVAP-OL-02-170 = Duplex Pump
(Duplex = 2 x pumps supplied on frame)
Multi-bank dryer installations require multiple vacuum pumps.
For example, 3 x FBP LE 170 requires 3 x HLVAP-OL-02-170 pumps or alternatively consider connection to a centralised vacuum system.

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

Product Selection and Correction Factors

For correct operation, compressed air dryers must be sized for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

CFMIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.04	1.14	1.37

CFMAT - 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

To select a dryer, first calculate the Minimum Drying Capacity (MDC) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

Minimum Drying Capacity (MDC) =

Max System Flow x CFMIT x CFMAT x CFMIP x CFOD

CFMIP - Correction Factor Minimum Inlet Pressure

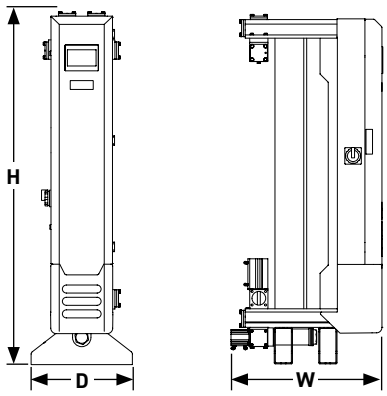
Minimum Inlet Pressure	bar g	4	5	6	7	8	9	10	11	12	13
	psi g	58	73	87	100	116	131	145	160	174	189
Correction Factor		1.60	1.33	1.14	1.00	0.89	0.80	0.73	0.67	0.62	0.57

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-40	-70
	°F	-40	-100
Correction Factor		1.00	2.00

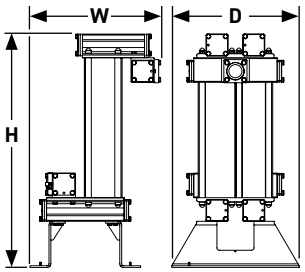
Important Note: -20°C outlet dewpoint not available for FBP products as this dewpoint does not inhibit the growth of microorganisms.

FBP LE 100-170
(Dryer Only)



For **HLVAP-0L-02** vaccum pump weights & dimensions, see page 53.

OVRP 350-500
(OVR Only)



Weights & Dimensions

Model	Pipe Size	Dimensions (Dryer Only)						Weight (Dryer Only)	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
FBP LE 100	2"	1672	65.8	816	32.1	550	21.7	217	478
FBP LE 110	2"	1672	65.8	987	38.9	550	21.7	277	611
FBP LE 120	2½"	1917	75.5	987	38.9	550	21.7	372	820
FBP LE 130	2½"	1917	75.5	1156	45.5	550	21.7	464	1023
FBP LE 140	2½"	1917	75.5	1325	52.2	550	21.7	555	1224
FBP LE 150	2½"	1917	75.5	1494	58.8	550	21.7	646	1424
FBP LE 160	3"	1917	75.5	1663	65.5	550	21.7	739	1629
FBP LE 170	3"	1917	75.5	1832	72.1	550	21.7	830	1830

Model	Pipe Size	Dimensions (OVR Only)						Weight (OVR Only)	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
OVRP350H	2"	1062	41.8	538	21.2	550	21.7	67	147
OVRP400H	2"	1062	41.8	682	26.9	550	21.7	93	205
OVRP400I	2½"	1062	41.8	682	26.9	550	21.7	93	205
OVRP450I	2½"	1062	41.8	836	32.9	550	21.7	121	267
OVRP500J	3"	1062	41.8	1005	39.6	550	21.7	144	318

Included Filtration

Model	Pipe Size BSPP	Dryer Inlet		Dryer Outlet		
		General Purpose Pre-filter	High Efficiency Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
FBP LE 100	2"	AOPX040HGFX	AAPX040HGFX	OVRP350HGXX	AOPX040HGMX	AAPX040HGMX
FBP LE 110	2"	AOPX040HGFX	AAPX040HGFX	OVRP400HGXX	AOPX040HGMX	AAPX040HGMX
FBP LE 120	2½"	AOPX045IGFX	AAPX045IGFX	OVRP400IGXX	AOPX045IGMX	AAPX045IGMX
FBP LE 130	2½"	AOPX045IGFX	AAPX045IGFX	OVRP400IGXX	AOPX045IGMX	AAPX045IGMX
FBP LE 140	2½"	AOPX050IGFX	AAPX050IGFX	OVRP450IGXX	AOPX050IGMX	AAPX050IGMX
FBP LE 150	2½"	AOPX050IGFX	AAPX050IGFX	OVRP450IGXX	AOPX050IGMX	AAPX050IGMX
FBP LE 160	3"	AOPX055JGFX	AAPX055JGFX	OVRP500JGXX	AOPX055JGMX	AAPX055JGMX
FBP LE 170	3"	AOPX055JGFX	AAPX055JGFX	OVRP500JGXX	AOPX055JGMX	AAPX055JGMX

Parker Catalogue Numbers

Model	-20°C PDP / -40°C PDP	-70°C PDP
FBP LE 100	FBPHL100-40G13BC	FBPHL100-70G13BC
FBP LE 110	FBPHL110-40G13BC	FBPHL110-70G13BC
FBP LE 120	FBPHL120-40G13BC	FBPHL120-70G13BC
FBP LE 130	FBPHL130-40G13BC	FBPHL130-70G13BC
FBP LE 140	FBPHL140-40G13BC	FBPHL140-70G13BC
FBP LE 150	FBPHL150-40G13BC	FBPHL150-70G13BC
FBP LE 160	FBPHL160-40G13BC	FBPHL160-70G13BC
FBP LE 170	FBPHL170-40G13BC	FBPHL170-70G13BC

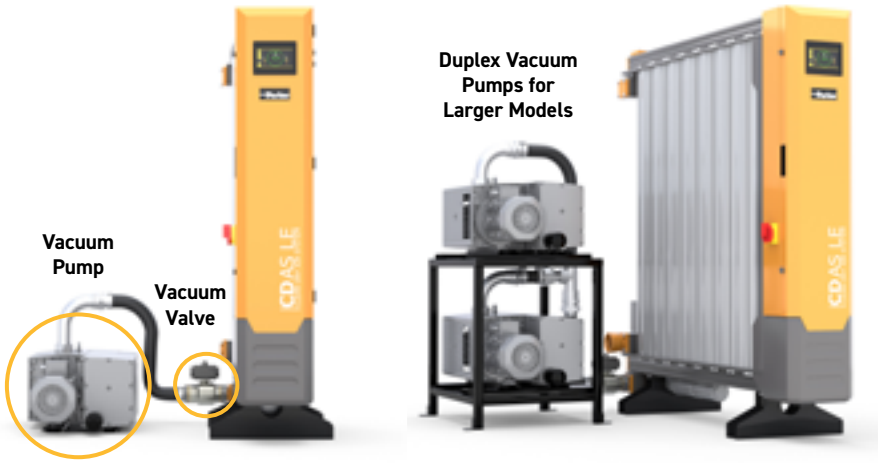
HVLAP-OL-02 Vacuum Pumps

Suitable for CDAS/OFAS/FBP LE 100-170 and MXLE 102C-108

The purge air requirement for the heatless vacuum assisted dryer is reduced from around 20% to 3% of the dryer's literature reference conditions.

The energy reductions from reducing the purge air offset the energy required to operate the vacuum pump and still provide significant energy savings overall.

The heatless vacuum assisted dryer operates almost identically to the standard heatless dryer, however its design includes two additional components, the **vacuum valve** and the **vacuum pump.**



CDAS/OFAS/FBP LE Flow Rates

Model	Pipe Size	Inlet Flow Rate			
		L/s	m³/min	m³/hr	cfm
CDAS/OFAS/FBP LE 100	2"	113	6.81	408	240
CDAS/OFAS/FBP LE 110	2"	170	10.22	612	360
CDAS/OFAS/FBP LE 120	2½"	213	12.75	765	450
CDAS/OFAS/FBP LE 130	2½"	283	17	1020	600
CDAS/OFAS/FBP LE 140	2½"	354	21	1275	750
CDAS/OFAS/FBP LE 150	2½"	425	26	1530	900
CDAS/OFAS/FBP LE 160	3"	496	30	1785	1050
CDAS/OFAS/FBP LE 170	3"	567	34	2040	1200
2 x CDAS/OFAS/FBP LE 140	2½"	708	43	2550	1500
2 x CDAS/OFAS/FBP LE 150	2½"	850	51	3060	1800
2 x CDAS/OFAS/FBP LE 160	3"	992	60	3570	2100
2 x CDAS/OFAS/FBP LE 170	3"	1133	68	4080	2400
3 x CDAS/OFAS/FBP LE 150	2½"	1275	77	4590	2700
3 x CDAS/OFAS/FBP LE 160	3"	1488	89	5355	3150
3 x CDAS/OFAS/FBP LE 170	3"	1700	102	6120	3600

Vacuum Pump Part Number and kW

Vacuum Pump 50Hz/60Hz	kW @ 50Hz	kW @ 60Hz
HLVAP-OL-02-100	3	3.6
HLVAP-OL-02-110	3	3.6
HLVAP-OL-02-120	4	4.8
HLVAP-OL-02-130	5.5	6.6
HLVAP-OL-02-140	5.5	6.6
HLVAP-OL-02-150	7	8.4
HLVAP-OL-02-160	8.5	10.2
HLVAP-OL-02-170	9.5	11.4

All HLVAP-OL-02 parts are supplied as vacuum pump(s), vacuum valve, 3m vacuum hose and fittings.

Dryer and vacuum pump to be ordered separately.

HLVAP-OL-02-100 to HLVAP-OL-02-140 = Single Pump
HLVAP-OL-02-150 to HLVAP-OL-02-170 = Duplex Pump
(Duplex = 2 x pumps supplied on frame).

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure.

HLVAP-OL-02 pumps are suitable for both the new CDAS/OFAS/FBP LE 100-170 dryer ranges and existing MXLE 102C-108 dryers.

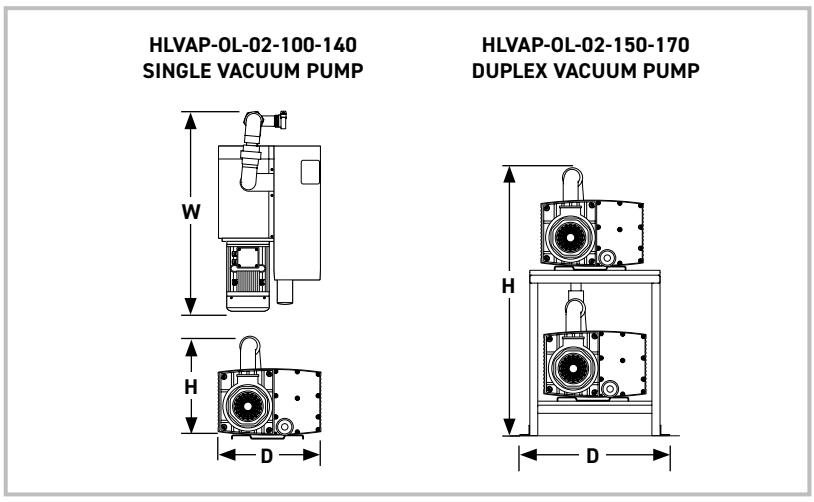
HLVAP-OL-02 pumps are identical in physical size and performance to the previous HLVAP-OL-01 models. The 02 variants differ in that they are supplied with a PT1000 Temperature Sensor for connection to the CDAS OFAS LE/FBP LE dryer controller.

The addition of the PT1000 temperature sensor allows rapid startup of the new CDAS/OFAS/FBP LE 100-170 dryer ranges, should a “brown out” (intermittent power loss) condition occur (connection cable supplied as standard with the new dryer models).

PT1000 sensor cannot be connected directly to an existing MXLE dryer controller (this does not affect dryer/pump operation).

MXLE Vacuum Pump Cross Reference - Previous Pumps to Current Pumps

Model	Previous MXLE Pump Models			Current Pump Models
	Single Frequency 50Hz	Single Frequency 60Hz	Frequency 50Hz / 60Hz	Dual Frequency 50Hz / 60Hz
MXLE102C	MXLEP2C-OL	MXLEP2C-OL-60	HLVAP-OL-01-100	HLVAP-OL-02-100
MXLE103C	MXLEP3C-OL	MXLEP3C-OL-60	HLVAP-OL-01-110	HLVAP-OL-02-110
MXLE103	MXLEP3-OL	MXLEP3-OL-60	HLVAP-OL-01-120	HLVAP-OL-02-120
MXLE104	MXLEP4-OL	MXLEP4-OL-60	HLVAP-OL-01-130	HLVAP-OL-02-130
MXLE105	MXLEP5-OL	MXLEP5-OL-60	HLVAP-OL-01-140	HLVAP-OL-02-140
MXLE106	MXLEP6-OL	MXLEP6-OL-60	HLVAP-OL-01-150	HLVAP-OL-02-150
MXLE107	MXLEP7-OL	MXLEP7-OL-60	HLVAP-OL-01-160	HLVAP-OL-02-160
MXLE108	MXLEP8-OL	MXLEP8-OL-60	HLVAP-OL-01-170	HLVAP-OL-02-170



Weights & Dimensions

Vacuum Pump Model	Vacuum Pump Dimensions							
	Height (H)		Width (W)		Depth (D)		Weight	
	mm	ins	mm	ins	mm	ins	kg	lbs
HLVAP-OL-02-100	400	15.75	933	36.73	523	20.59	89	196
HLVAP-OL-02-110	400	15.75	933	36.73	523	20.59	89	196
HLVAP-OL-02-120	400	15.75	933	36.73	523	20.59	194	428
HLVAP-OL-02-130	400	15.75	933	36.73	523	20.59	184	406
HLVAP-OL-02-140	400	15.75	933	36.73	523	20.59	184	406
HLVAP-OL-02-150	1304	51.34	1100	43.31	560	22.05	420	926
HLVAP-OL-02-160	1304	51.34	1100	43.31	560	22.05	390	860
HLVAP-OL-02-170	1304	51.34	1100	43.31	560	22.05	390	860

Vacuum Pump Service Kits

Vacuum Pump Model	Service Interval	Kit Type/Description	Part Number
HLVAP-OL-02-100	6 months	Full oil change.	M06.HLVAP-OL-01-100
	12 months	Full oil change and maintenance kit.	M12.HLVAP-OL-01-100
HLVAP-OL-02-110	6 months	Full oil change.	M06.HLVAP-OL-01-110
	12 months	Full oil change and maintenance kit.	M12.HLVAP-OL-01-110
HLVAP-OL-02-120	6 months	Full oil change.	M06.HLVAP-OL-01-120
	12 months	Full oil change and maintenance kit.	M12.HLVAP-OL-01-120
HLVAP-OL-02-130	6 months	Full oil change.	M06.HLVAP-OL-01-130
	12 months	Full oil change and maintenance kit.	M12.HLVAP-OL-01-130
HLVAP-OL-02-140	6 months	Full oil change.	M06.HLVAP-OL-01-140
	12 months	Full oil change and maintenance kit.	M12.HLVAP-OL-01-140
HLVAP-OL-02-150	6 months	Full oil change.	M06.HLVAP-OL-01-150
	12 months	Full oil change and maintenance kit.	M12.HLVAP-OL-01-150
HLVAP-OL-02-160	6 months	Full oil change.	M06.HLVAP-OL-01-160
	12 months	Full oil change and maintenance kit.	M12.HLVAP-OL-01-160
HLVAP-OL-02-170	6 months	Full oil change.	M06.HLVAP-OL-01-170
	12 months	Full oil change and maintenance kit.	M12.HLVAP-OL-01-170

CDAS HL ATEX Medium Flow Heatless Adsorption Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (Standard)
	°C	°F	
CDAS HL ATEX	-40	-40	Class 2:2:2

ISO8573-1 Classifications when used with OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F			dB(A)
CDAS HL ATEX	4	58	16	232	5	41	50	122	55	131	Not Applicable - Fully Pneumatic Operation	BSPP or NPT	<75

Flow Rates

Model	Pipe Size	Inlet Flow Rate			
		L/s	m³/min	m³/hr	cfm
CDAS HL 050 ATEX	½"	15	0.92	55	32
CDAS HL 055 ATEX	½"	19	1.17	70	41
CDAS HL 060 ATEX	½"	25	1.50	90	53
CDAS HL 065 ATEX	½"	31	1.84	110	65
CDAS HL 070 ATEX	¾"	42	2.51	150	88
CDAS HL 075 ATEX	1"	51	3.09	185	109
CDAS HL 080 ATEX	1"	61	3.67	220	129
CDAS HL 085 ATEX	1½"	83	5.01	300	177

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

Minimum Drying Capacity = System Flow x CFMIT x CFMAT x CFMIP x CFOD

CFMIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.04	1.14	1.37

CFMAT - Correction Factor Maximum Ambient Temperature

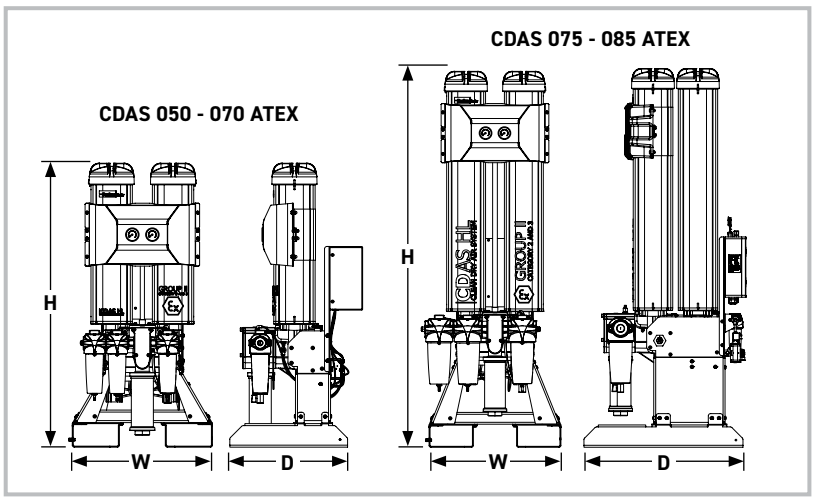
Maximum Ambient Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.00	1.00	1.00

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		1.60	1.33	1.14	1.00	0.89	0.80	0.73	0.67	0.62	0.57	0.53	0.50	0.47

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-20	-40	-70
	°F	-4	-40	-100
Correction Factor		0.91	1.00	2.00



Weights & Dimensions

Model	Dimensions						Weight	
	Height (H)		Width (W)		Depth (D)			
	mm	ins	mm	ins	mm	ins	kg	lbs
CDAS HL 050 ATEX	1133	45	559	22	490	19	76	168
CDAS HL 055 ATEX	1313	52	559	22	490	19	84	185
CDAS HL 060 ATEX	1510	59	559	22	490	19	93	205
CDAS HL 065 ATEX	1660	65	559	22	490	19	100	220
CDAS HL 070 ATEX	2020	80	559	22	490	19	120	265
CDAS HL 075 ATEX	1595	63	559	22	682	27	165	364
CDAS HL 080 ATEX	1745	69	559	22	682	27	180	397
CDAS HL 085 ATEX	2105	83	559	22	682	27	210	463

Included Filtration

Model	Pipe Size BSPP or NPT	Dryer Inlet		Dryer Outlet		
		General Purpose Pre-filter	High Efficiency Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
CDAS HL 050 ATEX	½"	AOPX015C	AAPX015C	-	AOPX015C	-
CDAS HL 055 ATEX	½"	AOPX015C	AAPX015C	-	AOPX015C	-
CDAS HL 060 ATEX	½"	AOPX020C	AAPX020C	-	AOPX020C	-
CDAS HL 065 ATEX	½"	AOPX020C	AAPX020C	-	AOPX020C	-
CDAS HL 070 ATEX	¾"	AOPX025D	AAPX025D	-	AOPX025D	-
CDAS HL 075 ATEX	1"	AOPX025E	AAPX025E	-	AOPX025E	-
CDAS HL 080 ATEX	1"	AOPX025E	AAPX025E	-	AOPX025E	-
CDAS HL 085 ATEX	1½"	AOPX030G	AAPX030G	-	AOPX030G	-

Parker Catalogue Numbers

Model	-20°C PDP / -40°C PDP BSPP	-70°C PDP BSPP
CDAS HL 050 ATEX	CDASHL050-40G16PP	CDASHL050-70G16PP
CDAS HL 055 ATEX	CDASHL055-40G16PP	CDASHL055-70G16PP
CDAS HL 060 ATEX	CDASHL060-40G16PP	CDASHL060-70G16PP
CDAS HL 065 ATEX	CDASHL065-40G16PP	CDASHL065-70G16PP
CDAS HL 070 ATEX	CDASHL070-40G16PP	CDASHL070-70G16PP
CDAS HL 075 ATEX	CDASHL075-40G16PP	CDASHL075-70G16PP
CDAS HL 080 ATEX	CDASHL080-40G16PP	CDASHL080-70G16PP
CDAS HL 085 ATEX	CDASHL085-40G16PP	CDASHL085-70G16PP

MX ATEX Pneumatic Heatless Adsorption Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO8573-1:2010 Classification (Option 1)	Dewpoint (Option 2)		ISO8573-1:2010 Classification (Option 2)
	°C	°F		°C	°F		°C	°F	
MXP DS	-40	-40	Class 2:2:2	-70	-100	Class 2:1:2	-20	-4	Class 2:3:2

ISO8573-1 Classifications when used with OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
MXP102CDS - MXP108DS	4	58	13	190	5	41	50	122	55	131	Not Applicable - Fully Pneumatic Operation		BSPP	<75

Flow Rates

Model	Pipe Size	Inlet Flow Rate			
		L/s	m³/min	m³/hr	cfm
MXP102C	2"	113	6.81	408	240
MXP103C	2"	170	10.22	612	360
MXP103	2"	213	12.75	765	450
MXP104	2½"	283	17	1020	600
MXP105	2½"	354	21	1275	750
MXP106	2½"	425	26	1530	900
MXP107	2½"	496	30	1785	1050
MXP108	2½"	567	34	2040	1200

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

Minimum Drying Capacity = System Flow x CFMIT x CFMAT x CFMIP x CFOD

CFMIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.04	1.14	1.37

CFMAT - Correction Factor Maximum Ambient Temperature

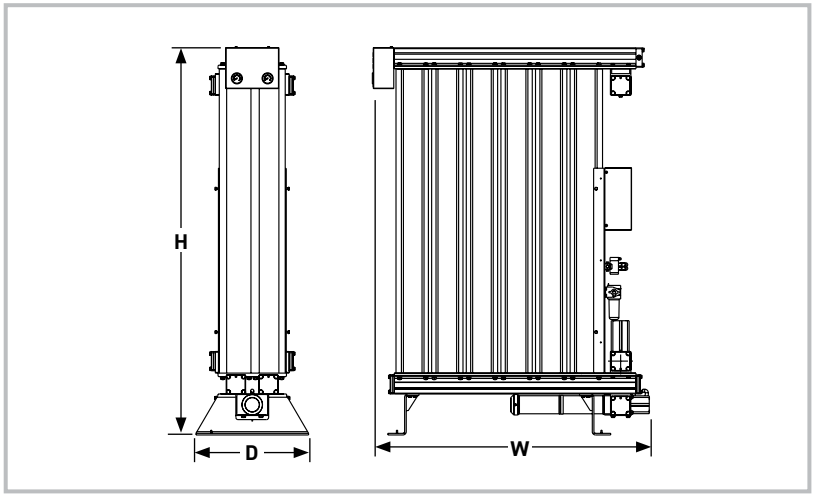
Maximum Ambient Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.00	1.00	1.00

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	4	5	6	7	8	9	10	11	12	13
	psi g	58	73	87	100	116	131	145	160	174	189
Correction Factor		1.60	1.33	1.14	1.00	0.89	0.80	0.73	0.67	0.62	0.57

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-20	-40	-70
	°F	-4	-40	-100
Correction Factor		0.91	1.00	1.43



Weights & Dimensions

Model	Dimensions						Weight	
	Height (H)		Width (W)		Depth (D)			
	mm	ins	mm	ins	mm	ins	kg	lbs
MXP102C	1647	64.8	687	27.0	550	21.7	235	518
MXP103C	1647	64.8	856	33.7	550	21.7	316	696
MXP103	1892	74.5	856	33.7	550	21.7	355	782
MXP104	1892	74.5	1025	40.3	550	21.7	450	992
MXP105	1892	74.5	1194	47.0	550	21.7	543	1197
MXP106	1892	74.5	1363	53.6	550	21.7	637	1404
MXP107	1892	74.5	1532	60.3	550	21.7	731	1611
MXP108	1892	74.5	1701	67.0	550	21.7	825	1818

Recommended Filtration

Model	Pipe Size BSPP	Dryer Inlet		Dryer Outlet		
		General Purpose Pre-filter	High Efficiency Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
MXP102C	2"	AOPX040H	AAPX040H	-	AOPX040H	-
MXP103C	2"	AOPX040H	AAPX040H	-	AOPX040H	-
MXP103	2"	AOPX040H	AAPX040H	-	AOPX040H	-
MXP104	2½"	AOPX045I	AAPX045I	-	AOPX045I	-
MXP105	2½"	AOPX050I	AAPX050I	-	AOPX050I	-
MXP106	2½"	AOPX050I	AAPX050I	-	AOPX050I	-
MXP107	2½"	AOPX055I	AAPX055I	-	AOPX055I	-
MXP108	2½"	AOPX055I	AAPX055I	-	AOPX055I	-

Parker Catalogue Numbers

Model	-20°C PDP / -40°C PDP	-70°C PDP
MXP102C	MXP102C-40-ATEX	MXP102C-70-ATEX
MXP103C	MXP103C-40-ATEX	MXP103C-70-ATEX
MXP103	MXP103-40-ATEX	MXP103-70-ATEX
MXP104	MXP104-40-ATEX	MXP104-70-ATEX
MXP105	MXP105-40-ATEX	MXP105-70-ATEX
MXP106	MXP106-40-ATEX	MXP106-70-ATEX
MXP107	MXP107-40-ATEX	MXP107-70-ATEX
MXP108	MXP108-40-ATEX	MXP108-70-ATEX

Dryer catalogue number does not include filtration - Please order filters separately

Important Notes Regarding Ordering MXP Dryers

Please note that when ordering MXP heatless dryers, the following items must also be ordered separately.

- MXP Dryer
- Inlet/Outlet Flange kit (BSPP or NPT)
- Pre/post Filtration (Grades AO/AA - AO)
- FCD (Flow Control Device) - only required for multi-bank installations
- QRV - Part Number 608203833 for operation 9 bar (g)

Multi-banking

A unique advantage of modular aluminium dryers is the ability to access the full cross sectional area of the drying columns and fill the desiccant material with a snowstorm filler, a device which provides maximum packing density of the desiccant material. Snowstorm filling the desiccant material provides a low and equal resistance to the air flow which allows multiple drying chambers to be used without preferential flow and provides a consistent outlet dewpoint with less desiccant and in a smaller, more compact and lightweight dryer.

Another advantage of snowstorm filling is that it also allows multiple dryer banks to be used without preferential flow because each individual dryer will have an equal pressure drop. This is a feature unique to modular dryers and is known as multi-banking.

Multi-bank CDAS LE 170 Installation

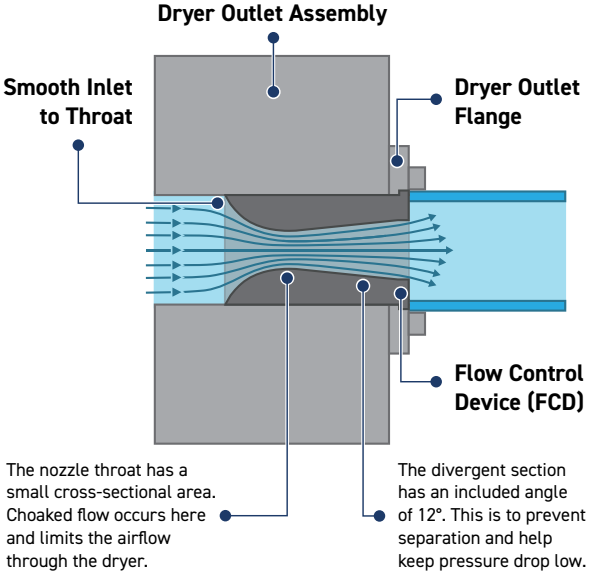
Flow Control Device (FCD)

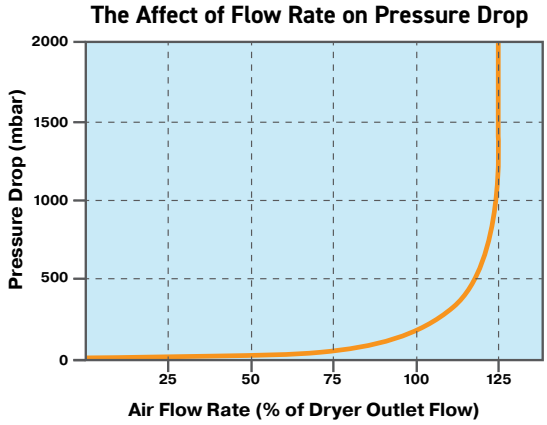
Compressed air will flow down a uniform pipe at a constant velocity. For a fixed compressed air flow rate, reducing the diameter of the pipe will increase the speed of the compressed air. Changing pipe diameter can therefore be used as a means to control compressed air flow rate, which is the purpose of an FCD (Flow Control Device).

If the pipe diameter is reduced far enough, the air velocity will increase until it reaches its maximum, the speed of sound (hence the FCDs common name of 'Sonic Nozzle').

Although not needed for every application, FCDs can be used to prevent significant overflow of a desiccant dryer and help maintain a constant outlet dewpoint. They are also commonly used on multi-bank installations (two or more modular aluminium dryers connected in parallel) to prevent preferential flow if piping is unbalanced.

FCDs are installed in the outlet of a dryer and are sized so the maximum flow rate of the device is above the outlet flow rate of the dryer.





Below 100% of the dryers outlet capacity, they have minimal impact on differential pressure (dP) or flow.

Above 100% of the dryer's rated outlet capacity, an increasingly higher differential pressure will be generated by the FCD.

This will allow a small dryer overflow to occur satisfying temporary system demand, however if demand were to increase, the line pressure downstream of the FCD will start to fall indicating to the user the dryer is being overflowed.

All precautions should be taken from the initial sizing of the dryer to the installation and operation to ensure the dryer is not overflowed.

It is recommended that FCDs are fitted to the outlet of each modular dryer when installed in a multi-bank configuration.

CDAS HL/OFAS HL/FBP HL & CDAS LE/OFAS LE/FBP LE dryers utilise the same FCDs but have different outlet flow rates.

FCD max flow rate is therefore equivalent to approximately 105% of the outlet flow rate for a CDAS LE/OFAS LE/FBP LE dryer and 125% of the outlet flow rate for a CDAS HL/OFAS HL/FBP HL dryer.

Benefits of Fitting a Flow Control Device (FCD)

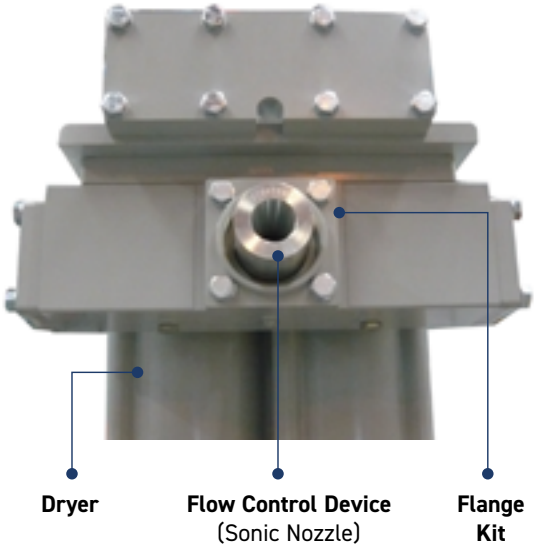
- Prevents preferential or significant overflow of the dryer
- Helps to maintain a constant outlet pressure dewpoint
- Indicates by high pressure drop when system demand exceeds rated capacity

FCD Flange Kits

For CDAS/OFAS/FBP HL & LE Dryers (Models 100 -170)

When more than one dryer is installed (multi-bank installation), a Flow Control Device (FCD) is also required. The FCD will fit inside the outlet flange. Please order the appropriate outlet FCD Outlet Flange from the list below and FCD from the tables on the following pages.

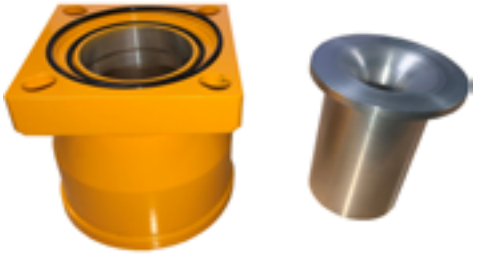
FCD Flange Kit	Description	Quantity In Kit	To Suit CDAS/OFAS/FBP HL & LE Models
608730410	2" BSPP FCD Outlet Flange	1	**100/110**
608730411	2" NPT FCD Outlet Flange	1	
608730412	2½" BSPP FCD Outlet Flange	1	**120/130/140/150**
608730413	2½" NPT FCD Outlet Flange	1	
608730414	3" BSPP FCD Outlet Flange	1	**160/170**
608730415	3" NPT FCD Outlet Flange	1	



Flange Kit Examples

Note: FCD not included in flange kit and must be ordered separately.

2" & 2½" FCD Flanges



3" FCD Flange with FCD
(FCD not included)

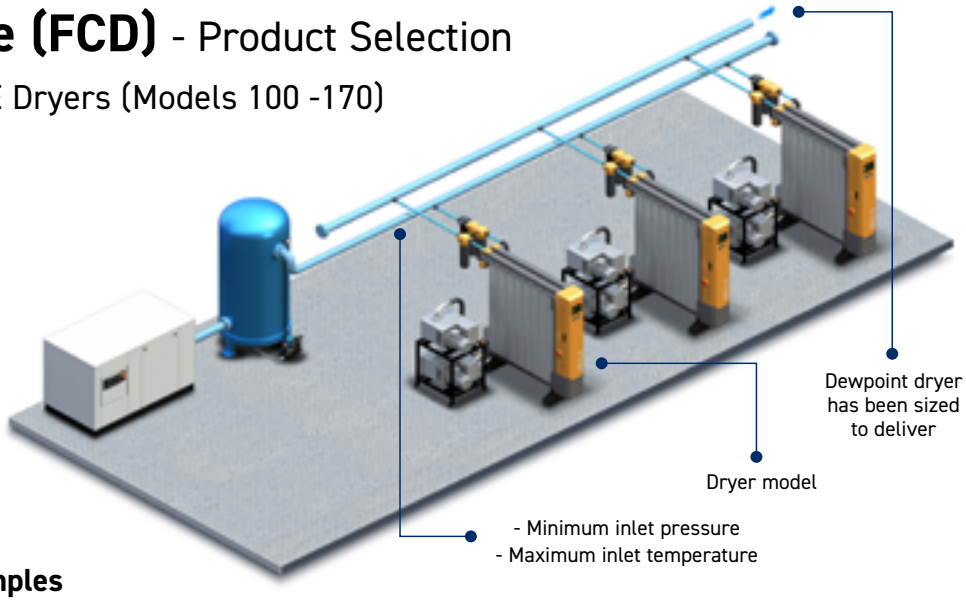
3" FCD Flange with FCD Fitted
(FCD not included)

Flow Control Device (FCD) - Product Selection

For CDAS/OFAS/FBP HL & LE Dryers (Models 100 -170)

To size FCDs correctly, the following information is required:

- Dryer model
- Dewpoint dryer has been sized to deliver
- Minimum inlet pressure
- Maximum inlet temperature



Flow Control Device Sizing Examples

Example 1 – CDAS HL
The customer orders **2 x CDAS HL 170** dryers with BSPP connections. The site parameters are an inlet temperature of 35°C, inlet pressure of 7 bar g, and a pressure dewpoint of -40°C. The FCD required for each dryer is **608620053**, and the correct flange kit required for each dryer is **608730414**.

Example 2 – CDAS LE (Above)
The customer orders **3 x CDAS LE 170** dryers. The site parameters are a maximum inlet temperature of 40°C, minimum inlet pressure of 9 bar g, and a pressure dewpoint of -70°C. The FCD required for each dryer is **608620044**, and the correct flange kit required for each dryer is **608730414**.

Flow Control Device (FCD) Product Selection

For CDAS HL/ OFAS HL/FBP HL Heatless and CDAS LE/OFAS LE/FBP LE Heatless Low Energy Dryers (Models 100 to 170)

35°C Inlet Temperature -20°C PDP								
Pressure	**CDAS/OFAS/ FBP 100**	**CDAS/OFAS/ FBP 110**	**CDAS/OFAS/ FBP 120**	**CDAS/OFAS/ FBP 130**	**CDAS/OFAS/ FBP 140**	**CDAS/OFAS/ FBP 150**	**CDAS/OFAS/ FBP 160**	**CDAS/ OFAS/FBP 170**
4 bar	608620009	608620014	608620017	608620021	608620043	608620046	608620049	608620052
5 bar	608620010	608620015	608620018	608620022	608620044	608620048	608620051	608620054
6 bar	608620011	608620015	608620018	608620023	608620045	608620048	608620052	608620055
7 bar	608620011	608620016	608620019	608620023	608620045	608620049	608620052	608620056
8 bar	608620011	608620016	608620019	608620024	608620046	608620050	608620053	608620056
9 bar	608620011	608620016	608620020	608620024	608620046	608620050	608620053	608620057
10 bar	608620012	608620017	608620020	608620024	608620047	608620050	608620054	608620057
11 bar	608620012	608620017	608620020	608620025	608620047	608620051	608620054	608620057
12 bar	608620012	608620017	608620020	608620025	608620047	608620051	608620054	Contact Parker
13 bar	608620012	608620017	608620020	608620025	608620047	608620051	608620054	Contact Parker

35°C Inlet Temperature -40°C PDP								
Pressure	**CDAS/OFAS/ FBP 100**	**CDAS/OFAS/ FBP 110**	**CDAS/OFAS/ FBP 120**	**CDAS/OFAS/ FBP 130**	**CDAS/OFAS/ FBP 140**	**CDAS/OFAS/ FBP 150**	**CDAS/OFAS/ FBP 160**	**CDAS/OFAS/ FBP 170**
4 bar	608620008	608620012	608620015	608620019	608620040	608620044	608620047	608620049
5 bar	608620009	608620013	608620016	608620020	608620042	608620045	608620048	608620051
6 bar	608620009	608620014	608620017	608620021	608620043	608620046	608620049	608620052
7 bar	608620010	608620014	608620017	608620022	608620043	608620047	608620050	608620053
8 bar	608620010	608620015	608620018	608620022	608620044	608620047	608620050	608620053
9 bar	608620010	608620015	608620018	608620022	608620044	608620048	608620051	608620054
10 bar	608620010	608620015	608620018	608620023	608620044	608620048	608620051	608620054
11 bar	608620011	608620015	608620018	608620023	608620045	608620048	608620052	608620055
12 bar	608620011	608620015	608620019	608620023	608620045	608620049	608620052	608620055
13 bar	608620011	608620016	608620019	608620023	608620045	608620049	608620052	608620055

35°C Inlet Temperature -70°C PDP								
Pressure	**CDAS/OFAS/ FBP 100**	**CDAS/OFAS/ FBP 110**	**CDAS/OFAS/ FBP 120**	**CDAS/OFAS/ FBP 130**	**CDAS/OFAS/ FBP 140**	**CDAS/OFAS/ FBP 150**	**CDAS/OFAS/ FBP 160**	**CDAS/OFAS/ FBP 170**
4 bar	608620008	608620012	608620015	608620019	608620040	608620044	608620047	608620049
5 bar	608620009	608620013	608620016	608620020	608620042	608620045	608620048	608620051
6 bar	608620009	608620014	608620017	608620021	608620043	608620046	608620049	608620052
7 bar	608620010	608620014	608620017	608620022	608620043	608620047	608620050	608620053
8 bar	608620010	608620015	608620018	608620022	608620044	608620047	608620050	608620053
9 bar	608620010	608620015	608620018	608620022	608620044	608620048	608620051	608620054
10 bar	608620010	608620015	608620018	608620023	608620044	608620048	608620051	608620054
11 bar	608620011	608620015	608620018	608620023	608620045	608620048	608620052	608620055
12 bar	608620011	608620015	608620019	608620023	608620045	608620049	608620052	608620055
13 bar	608620011	608620016	608620019	608620023	608620045	608620049	608620052	608620055

40°C Inlet Temperature -20°C PDP								
Pressure	**CDAS/OFAS/ FBP 100**	**CDAS/OFAS/ FBP 110**	**CDAS/OFAS/ FBP 120**	**CDAS/OFAS/ FBP 130**	**CDAS/OFAS/ FBP 140**	**CDAS/OFAS/ FBP 150**	**CDAS/OFAS/ FBP 160**	**CDAS/OFAS/ FBP 170**
4 bar	608620009	608620014	608620016	608620021	608620042	608620046	608620049	608620051
5 bar	608620010	608620014	608620017	608620022	608620043	608620047	608620050	608620053
6 bar	608620010	608620015	608620018	6086200 22	608620044	608620048	608620051	608620054
7 bar	608620011	608620015	608620018	608620023	608620045	608620048	608620052	608620055
8 bar	608620011	608620016	608620019	608620023	608620045	608620049	608620052	608620055
9 bar	608620011	608620016	608620019	608620024	608620046	608620049	608620053	608620056
10 bar	608620011	608620016	608620019	608620024	608620046	608620050	608620053	608620056
11 bar	608620011	608620016	608620020	608620024	608620046	608620050	608620053	608620057
12 bar	608620012	608620017	608620020	608620024	608620047	608620050	608620054	608620057
13 bar	608620011	608620017	608620020	608620025	608620047	608620050	608620054	608620057

40°C Inlet Temperature -40°C PDP								
Pressure	**CDAS/OFAS/ FBP 100**	**CDAS/OFAS/ FBP 110**	**CDAS/OFAS/ FBP 120**	**CDAS/OFAS/ FBP 130**	**CDAS/OFAS/ FBP 140**	**CDAS/OFAS/ FBP 150**	**CDAS/OFAS/ FBP 160**	**CDAS/OFAS/ FBP 170**
4 bar	608620008	608620012	608620015	608620018	608620040	608620043	608620046	608620048
5 bar	608620009	608620013	608620016	608620020	608620042	608620044	608620047	608620050
6 bar	608620009	608620013	608620016	608620020	608620043	608620045	608620048	608620051
7 bar	608620009	608620014	608620017	608620021	608620043	608620046	608620049	608620052
8 bar	608620010	608620014	608620017	608620021	608620044	608620047	608620050	608620053
9 bar	608620010	608620015	608620017	608620022	608620044	608620047	608620050	608620053
10 bar	608620010	608620015	608620018	608620022	608620044	608620047	608620051	608620054
11 bar	608620010	608620015	608620018	608620022	608620045	608620048	608620051	608620054
12 bar	608620010	608620015	608620018	608620023	608620045	608620048	608620051	608620054
13 bar	608620010	608620015	608620018	608620023	608620045	608620048	608620051	608620054

40°C Inlet Temperature -70°C PDP								
Pressure	**CDAS/OFAS/ FBP 100**	**CDAS/OFAS/ FBP 110**	**CDAS/OFAS/ FBP 120**	**CDAS/OFAS/ FBP 130**	**CDAS/OFAS/ FBP 140**	**CDAS/OFAS/ FBP 150**	**CDAS/OFAS/ FBP 160**	**CDAS/OFAS/ FBP 170**
4 bar	608620003	608620006	608620008	608620011	608620032	608620034	608620036	608620038
5 bar	608620004	608620007	608620009	608620013	608620033	608620036	608620038	608620040
6 bar	608620005	608620008	608620010	608620014	608620034	608620037	608620039	608620042
7 bar	608620005	608620009	608620011	608620014	608620035	608620038	608620040	608620043
8 bar	608620006	608620009	608620012	608620015	608620036	608620039	608620041	608620043
9 bar	608620006	608620010	608620012	608620015	608620036	608620039	608620042	608620044
10 bar	608620006	608620010	608620012	608620016	608620037	608620040	608620042	608620045
11 bar	608620006	608620010	608620012	608620016	608620037	608620040	608620043	608620045
12 bar	608620006	608620010	608620013	608620016	608620037	608620040	608620043	608620045
13 bar	608620007	608620010	608620013	608620016	608620038	608620041	608620043	608620046

Flow Control Device (FCD) Product Selection

For CDAS HL/OFAS HL/FBP HL Heatless and CDAS LE/OFAS LE/FBP LE Heatless Low Energy Dryers (Models 100 to 170)

45°C Inlet Temperature -20°C PDP								
Pressure	**CDAS/OFAS/ FBP 100**	**CDAS/OFAS/ FBP 110**	**CDAS/OFAS/ FBP 120**	**CDAS/OFAS/ FBP 130**	**CDAS/OFAS/ FBP 140**	**CDAS/OFAS/ FBP 150**	**CDAS/OFAS/ FBP 160**	**CDAS/OFAS/ FBP 170**
4 bar	608620008	608620012	608620015	608620019	608620040	608620043	608620046	608620049
5 bar	608620009	608620013	608620016	608620020	608620041	608620044	608620047	608620050
6 bar	608620009	608620014	608620016	608620021	608620042	608620045	608620049	608620051
7 bar	608620009	608620014	608620017	608620021	608620043	608620046	608620049	608620052
8 bar	608620010	608620014	608620017	608620022	608620043	608620047	608620050	608620053
9 bar	608620010	608620015	608620018	608620022	608620044	608620047	608620050	608620053
10 bar	608620010	608620015	608620018	608620022	608620044	608620048	608620051	608620054
11 bar	608620010	608620015	608620018	608620022	608620044	608620048	608620051	608620054
12 bar	608620010	608620015	608620018	608620023	608620045	608620048	608620051	608620054
13 bar	608620011	608620015	608620018	608620023	608620045	608620048	608620051	608620054

45°C Inlet Temperature -40°C PDP								
Pressure	**CDAS/OFAS/ FBP 100**	**CDAS/OFAS/ FBP 110**	**CDAS/OFAS/ FBP 120**	**CDAS/OFAS/ FBP 130**	**CDAS/OFAS/ FBP 140**	**CDAS/OFAS/ FBP 150**	**CDAS/OFAS/ FBP 160**	**CDAS/OFAS/ FBP 170**
4 bar	608620007	608620010	608620013	608620016	608620038	608620041	608620043	608620046
5 bar	608620007	608620011	608620014	608620018	608620039	608620042	608620045	608620047
6 bar	608620008	608620012	608620015	608620019	608620040	608620043	608620046	608620049
7 bar	608620008	608620013	608620015	608620019	608620041	608620044	608620047	608620050
8 bar	608620009	608620013	608620016	608620020	608620041	608620045	608620047	608620050
9 bar	608620009	608620013	608620016	608620020	608620042	608620045	608620048	608620051
10 bar	608620009	608620013	608620016	608620020	608620042	608620045	608620048	608620051
11 bar	608620009	608620014	608620016	608620021	608620042	608620046	608620049	608620052
12 bar	608620009	608620014	608620017	608620021	608620042	608620046	608620049	608620052
13 bar	608620009	608620014	608620017	608620021	608620043	608620046	608620049	608620052

45°C Inlet Temperature -70°C PDP								
Pressure	**CDAS/OFAS/ FBP 100**	**CDAS/OFAS/ FBP 110**	**CDAS/OFAS/ FBP 120**	**CDAS/OFAS/ FBP 130**	**CDAS/OFAS/ FBP 140**	**CDAS/OFAS/ FBP 150**	**CDAS/OFAS/ FBP 160**	**CDAS/OFAS/ FBP 170**
4 bar	608620002	608620005	608620007	608620009	608620029	608620032	608620033	608620035
5 bar	608620003	608620006	608620008	608620011	608620031	608620034	608620036	608620038
6 bar	608620004	608620007	608620009	608620012	608620033	608620035	608620037	608620039
7 bar	608620004	608620008	608620010	608620013	608620034	608620036	608620038	608620040
8 bar	608620005	608620008	608620010	608620013	608620034	608620037	608620039	608620041
9 bar	608620005	608620008	608620011	608620014	608620035	608620037	608620040	608620042
10 bar	608620005	608620009	608620011	608620014	608620035	608620038	608620040	608620042
11 bar	608620005	608620009	608620011	608620015	608620036	608620038	608620041	608620043
12 bar	608620006	608620009	608620011	608620015	608620036	608620039	608620041	608620043
13 bar	608620006	608620009	608620012	608620015	608620036	608620039	608620041	608620044

50°C Inlet Temperature -20°C PDP								
Pressure	**CDAS/OFAS/ FBP 100**	**CDAS/OFAS/ FBP 110**	**CDAS/OFAS/ FBP 120**	**CDAS/OFAS/ FBP 130**	**CDAS/OFAS/ FBP 140**	**CDAS/OFAS/ FBP 150**	**CDAS/OFAS/ FBP 160**	**CDAS/OFAS/ FBP 170**
4 bar	608620005	608620009	608620011	608620015	608620036	608620038	608620041	608620043
5 bar	608620006	608620010	608620012	608620026	608620037	608620040	608620043	608620045
6 bar	608620007	608620011	608620013	608620017	608620038	608620041	608620044	608620046
7 bar	608620007	608620011	608620014	608620018	608620039	608620042	608620045	608620047
8 bar	608620008	608620012	608620014	608620018	608620040	608620043	608620045	608620048
9 bar	608620008	608620012	608620015	608620019	608620040	608620043	608620046	608620049
10 bar	608620008	608620012	608620015	608620019	608620040	608620043	608620046	608620049
11 bar	608620008	608620012	608620015	608620019	608620041	608620044	608620047	608620049
12 bar	608620008	608620013	608620015	608620019	608620041	608620044	608620047	608620050
13 bar	608620008	608620013	608620016	608620020	608620041	608620044	608620047	608620050

50°C Inlet Temperature -40°C PDP								
Pressure	**CDAS/OFAS/ FBP 100**	**CDAS/OFAS/ FBP 110**	**CDAS/OFAS/ FBP 120**	**CDAS/OFAS/ FBP 130**	**CDAS/OFAS/ FBP 140**	**CDAS/OFAS/ FBP 150**	**CDAS/OFAS/ FBP 160**	**CDAS/OFAS/ FBP 170**
4 bar	608620004	608620007	608620010	608620013	608620033	608620036	608620038	608620040
5 bar	608620005	608620009	608620011	608620014	608620035	608620038	608620040	608620042
6 bar	608620006	608620009	608620012	608620015	608620036	608620039	608620041	608620044
7 bar	608620006	608620010	608620012	608620016	608620037	608620040	608620042	608620045
8 bar	608620007	608620010	608620013	608620016	608620038	608620040	608620043	608620046
9 bar	608620007	608620011	608620013	608620017	608620038	608620041	608620044	608620046
10 bar	608620007	608620011	608620013	608620017	608620038	608620041	608620044	608620047
11 bar	608620007	608620011	608620014	608620017	608620039	608620042	608620044	608620047
12 bar	608620007	608620011	608620014	608620018	608620039	608620042	608620045	608620047
13 bar	608620007	608620012	608620014	608620018	608620039	608620042	608620045	608620048

50°C Inlet Temperature -70°C PDP								
Pressure	**CDAS/OFAS/ FBP 100**	**CDAS/OFAS/ FBP 110**	**CDAS/OFAS/ FBP 120**	**CDAS/OFAS/ FBP 130**	**CDAS/OFAS/ FBP 140**	**CDAS/OFAS/ FBP 150**	**CDAS/OFAS/ FBP 160**	**CDAS/OFAS/ FBP 170**
4 bar	608620001	608620002	608620003	608620005	608620028	608620027	608620028	608620030
5 bar	608620001	608620003	608620005	608620007	608620028	608620029	608620031	608620033
6 bar	608620002	608620004	608620006	608620009	608620029	608620031	608620033	608620035
7 bar	608620002	608620005	608620007	608620010	608620030	608620032	608620034	608620036
8 bar	608620003	608620006	608620008	608620010	608620031	608620033	608620035	608620037
9 bar	608620003	608620006	608620008	608620011	608620031	608620034	608620036	608620038
10 bar	608620003	608620006	608620008	608620011	608620032	608620034	608620036	608620038
11 bar	608620004	608620007	608620009	608620012	608620032	608620035	608620037	608620039
12 bar	608620004	608620007	608620009	608620012	608620033	608620035	608620037	608620039
13 bar	608620004	608620007	608620009	608620012	608620033	608620035	608620038	608620040

K-MT Medium Flow Heatless Adsorption Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO8573-1:2010 Classification (Option 1)	Dewpoint (Option 2)		ISO8573-1:2010 Classification (Option 2)
	°C	°F		°C	°F		°C	°F	
K-MT 10 - 95	-40	-40	Class 2:2:2	-70	-100	Class 2:1:2	-25	-13	Class 2:3:2

ISO8573-1 Classifications when used with Parker OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
K-MT 10 - 95	4	58	16	232	5	41	50	122	50	122	230V 1ph 50/60Hz	115V 1ph 50/60Hz or 24V DC	BSPP	65-86

Flow Rates

Model	Pipe Size	Inlet Flow Rate			
		L/s	m^3/min	m^3/h	cfm
K-MT 10	1"	30	1.8	105	62
K-MT 15	1"	40	2.4	145	85
K-MT 20	1"	56	3.3	200	118
K-MT 25	1½"	70	4.3	255	150
K-MT 35	1½"	97	5.8	350	206
K-MT 45	1½"	117	7	420	247
K-MT 60	2"	172	10.3	620	365
K-MT 75	2"	208	12.5	750	441
K-MT 95	2½"	261	15.7	940	553

Inlet flow rate relating to 1 bar(a) and 20°C; relating to the suction performance of the compressor, compression at 7 bar(g) and 35°C dryer inlet temperature, at 25°C ambient temperature, 60 % relative humidity.

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

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

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		0.94	0.95	1.00	1.15	1.22	1.28

CFAT - Correction Factor Maximum Ambient Temperature

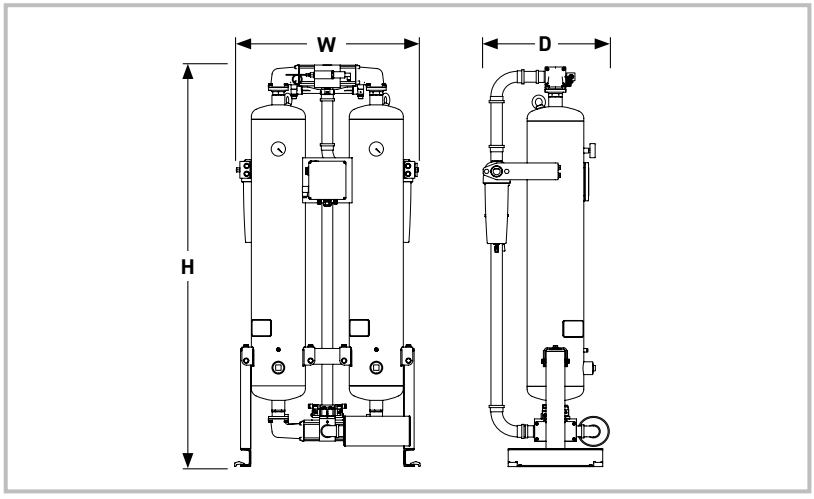
Maximum Ambient Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.00	1.00	1.00

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		1.60	1.33	1.12	1.00	0.88	0.79	0.76	0.74	0.67	0.62	0.59	0.56	0.53

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-25	-40	-70
	°F	-13	-40	-100
Correction Factor		1.00	1.00	2.00



Weights & Dimensions

Model	Dimensions						Weight	
	Height (H)		Width (W)		Depth (D)			
	mm	ins	mm	ins	mm	ins	kg	lbs
K-MT 10	1411	56	814 (934)*	32 (37)*	466	18	120 (123)*	264 (300)*
K-MT 15	1740	69	814 (934)*	32 (37)*	466	18	138 (141)*	304 (310)*
K-MT 20	1515	60	645 (765)*	25 (30)*	466	18	143 (146)*	315 (321)*
K-MT 25	1735	68	645 (765)*	25 (30)*	506	20	173 (176)*	381 (388)*
K-MT 35	1783	70	778 (898)*	31 (36)*	534	21	210 (213)*	463 (470)*
K-MT 45	1808	71	807 (873)*	32 (38.5)*	555	22	249 (256)*	549 (564)*
K-MT 60	1847	73	857 (1021)*	34 (40.5)*	607	24	277 (284)*	610 (626)*
K-MT 75	1980	78	952 (1116)*	37 (43.5)*	628	25	408 (415)*	899 (915)*
K-MT 95	2001	79	998 (2160)*	39 (45.5)*	658	26	510 (517)*	1125 (1141)*

*Changes to width and weight January 1st 2025, additional OIL-X filtration stage supplied on dryer inlet.

Included Filtration

Model	Dryer Inlet		Dryer Outlet		
	General Purpose Pre-filter*	High Efficiency Filter	General Purpose Dry Particulate Filter	Oil Vapour Reduction Filter (Option)	High Efficiency Dry Particulate Filter (Option)
K-MT 10	AOPX025E*	AAPX025E	AOPX025E	ACSPX025E	AAPX025E
K-MT 15	AOPX025E*	AAPX025E	AOPX025E	ACSPX025E	AAPX025E
K-MT 20	AOPX025E*	AAPX025E	AOPX025E	ACSPX025E	AAPX025E
K-MT 25	AOPX030G*	AAPX030G	AOPX030G	ACSPX030G	AAPX030G
K-MT 35	AOPX030G*	AAPX030G	AOPX030G	ACSPX030G	AAPX030G
K-MT 45	AOPX035G*	AAPX035G	AOPX035G	ACSPX035G	AAPX035G
K-MT 60	AOPX040H*	AAPX040H	AOPX040H	ACSPX040H	AAPX040H
K-MT 75	AOPX040H*	AAPX040H	AOPX040H	ACSPX040H	AAPX040H
K-MT 95	AOPX045I*	AAPX045I	AOPX045I	ACSPX045I	AAPX045I

Included in standard scope of supply:
Prefilters (AO* and AA) including float drain.

Afterfilter (AO) including manual drain.

Optional (Delivered separately): Oil vapour reduction filter (ACS).

High efficiency dry particulate filter (AA) including manual drain.

*Additional OIL-X filtration stage supplied on dryer inlet from January 1st 2025.

Parker Catalogue Numbers 230V/1ph/50Hz-60Hz

Model	No Dewpoint Sensor	With Dewpoint Sensor	No Dewpoint Sensor*	With Dewpoint Sensor*
K-MT 10	K10/16D3-G230M	K10/16D3-G230MT	K10/16D4-G230M*	K10/16D4-G230MT*
K-MT 15	K15/16D3-G230M	K15/16D3-G230MT	K15/16D4-G230M*	K15/16D4-G230MT*
K-MT 20	K20/16D3-G230M	K20/16D3-G230MT	K20/16D4-G230M*	K20/16D4-G230MT*
K-MT 25	K25/16D3-G230M	K25/16D3-G230MT	K25/16D4-G230M*	K25/16D4-G230MT*
K-MT 35	K35/16D3-G230M	K35/16D3-G230MT	K35/16D4-G230M*	K35/16D4-G230MT*
K-MT 45	K45/16D3-G230M	K45/16D3-G230MT	K45/16D4-G230M*	K45/16D4-G230MT*
K-MT 60	K60/16D3-G230M	K60/16D3-G230MT	K60/16D4-G230M*	K60/16D4-G230MT*
K-MT 75	K75/16D3-G230M	K75/16D3-G230MT	K75/16D4-G230M*	K75/16D4-G230MT*
K-MT 95	K95/16D3-G230M	K95/16D3-G230MT	K95/16D4-G230M*	K95/16D4-G230MT*

*New part numbers January 1st 2025, additional OIL-X filtration stage supplied on dryer inlet.

KA-MT Medium Flow Heatless Adsorption Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO8573-1:2010 Classification (Option 1)	Dewpoint (Option 2)		ISO8573-1:2010 Classification (Option 2)
	°C	°F		°C	°F		°C	°F	
KA-MT 10 - 95	-40	-40	Class 2:2:1	-70	-100	Class 2:2:1	-25	-13	Class 2.3.1

ISO8573-1 Classifications when used with Parker OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
KA-MT 10 - 95	4	58	16	232	5	41	50	122	50	122	230V 1ph 50/60Hz	115V 1ph 50/60Hz or 24V DC	BSPP	65-86

Flow Rates

Model	Pipe Size	Inlet Flow Rate			
		L/s	m^3/min	m^3/h	cfm
KA-MT 10	1"	30	1.8	105	62
KA-MT 15	1"	40	2.4	145	85
KA-MT 20	1"	56	3.3	200	118
KA-MT 25	1½"	70	4.3	255	150
KA-MT 35	1½"	97	5.8	350	206
KA-MT 45	1½"	117	7	420	247
KA-MT 60	2"	172	10.3	620	365
KA-MT 75	2"	208	12.5	750	441
KA-MT 95	2½"	261	15.7	940	553

Inlet flow rate relating to 1 bar(a) and 20°C; relating to the suction performance of the compressor, compression at 7 bar(g) and 35°C dryer inlet temperature, at 25°C ambient temperature, 60 % relative humidity.

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

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

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		0.94	0.95	1.00	1.15	1.22	1.28

CFAT - Correction Factor Maximum Ambient Temperature

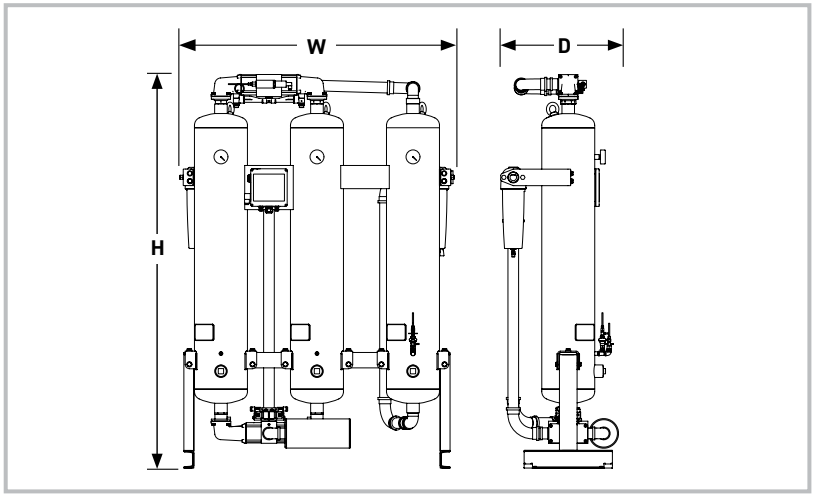
Maximum Ambient Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.00	1.00	1.00

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		1.60	1.33	1.12	1.00	0.88	0.79	0.76	0.74	0.67	0.62	0.59	0.56	0.53

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-25	-40	-70
	°F	-13	-40	-100
Correction Factor		1.00	1.00	2.00



Weights & Dimensions

Model	Dimensions						Weight	
	Height (H)		Width (W)		Depth (D)			
	mm	ins	mm	ins	mm	ins	kg	lbs
KA-MT 10	1411	56	1118 (1238)*	44 (49)*	466	18	161 (164)*	355 (361)*
KA-MT 15	1739	68	1118 (1238)*	44 (49)*	466	18	193 (196)*	425 (431)*
KA-MT 20	1515	60	949 (1069)*	37 (42)*	466	18	193 (196)*	425 (431)*
KA-MT 25	1735	68	926 (946)*	36 (41)*	506	20	234 (237)*	516 (522.5)*
KA-MT 35	1783	70	1213 (1333)*	47 (52)*	534	21	283 (286)*	624 (630.5)*
KA-MT 45	1808	71	1245 (1409)*	49 (55.5)*	555	22	334 (341)*	736 (751)*
KA-MT 60	1859	73	1292 (1456)*	51 (57.5)*	607	24	428 (435)*	944 (960)*
KA-MT 75	1980	78	1447 (1611)*	57 (63.5)*	628	25	555 (562)*	1224 (1240)*
KA-MT 95	2001	79	1493 (1657)*	59 (65.5)*	658	26	698 (705)*	1539 (1555)*

*Changes to width and weight January 1st 2025, additional OIL-X filtration stage supplied on dryer inlet.

Included Filtration

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

Included in standard scope of supply: Prefilters (AO* and AA) including float drain.

Afterfilter (AO) including manual drain.

Optional (Delivered separately): High efficiency dry particulate filter (AA) including manual drain.

*Additional OIL-X filtration stage supplied on dryer inlet from January 1st 2025.

Parker Catalogue Numbers 230V/1ph/50Hz-60Hz

Model	No Dewpoint Sensor	With Dewpoint Sensor	No Dewpoint Sensor*	With Dewpoint Sensor*
KA-MT 10	K10/16DA3-G230M	K10/16DA3-G230MT	K10/16DA4-G230M*	K10/16DA4-G230MT*
KA-MT 15	K15/16DA3-G230M	K15/16DA3-G230MT	K15/16DA4-G230M*	K15/16DA4-G230MT*
KA-MT 20	K20/16DA3-G230M	K20/16DA3-G230MT	K20/16DA4-G230M*	K20/16DA4-G230MT*
KA-MT 25	K25/16DA3-G230M	K25/16DA3-G230MT	K25/16DA4-G230M*	K25/16DA4-G230MT*
KA-MT 35	K35/16DA3-G230M	K35/16DA3-G230MT	K35/16DA4-G230M*	K35/16DA4-G230MT*
KA-MT 45	K45/16DA3-G230M	K45/16DA3-G230MT	K45/16DA4-G230M*	K45/16DA4-G230MT*
KA-MT 60	K60/16DA3-G230M	K60/16DA3-G230MT	K60/16DA4-G230M*	K60/16DA4-G230MT*
KA-MT 75	K75/16DA3-G230M	K75/16DA3-G230MT	K75/16DA4-G230M*	K75/16DA4-G230MT*
KA-MT 95	K95/16DA3-G230M	K95/16DA3-G230MT	K95/16DA4-G230M*	K95/16DA4-G230MT*

*New part numbers January 1st 2025, additional OIL-X filtration stage supplied on dryer inlet.

KE-MT Large Flow Heatless Adsorption Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO8573-1:2010 Classification (Option 1)	Dewpoint (Option 2)		ISO8573-1:2010 Classification (Option 2)
	°C	°F		°C	°F		°C	°F	
KE-MT 120 - 600	-40	-40	Class 2:2:2	-70	-100	Class 2:1:2	-20	-4	Class 2:3:2

ISO8573-1 Classifications when used with Parker OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
KE-MT 120 - 600	4	58	10*	145	5	41	50	122	50	122	230V 1ph 50Hz/60Hz	115V 1ph 50/60Hz	Flange	<120

*Higher operating pressures on request.

Flow Rates

Model	Pipe Size	Inlet Flow Rate			
		L/s	m³/min	m³/hr	cfm
KE-MT 120	DN 50	333	20	1200	706
KE-MT 150	DN 65	430	26	1550	912
KE-MT 200	DN 65	556	33	2000	1177
KE-MT 250	DN 80	695	42	2500	1472
KE-MT 300	DN 80	833	50	3000	1766
KE-MT 380	DN 100	1056	63	3800	2237
KE-MT 500	DN 100	1347	81	4850	2855
KE-MT 600	DN 125	1695	102	6100	3590

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

Dryers for smaller flows are available on request.

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

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

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		0.94	0.95	1.00	1.15	1.22	1.28

CFAT - Correction Factor Maximum Ambient Temperature

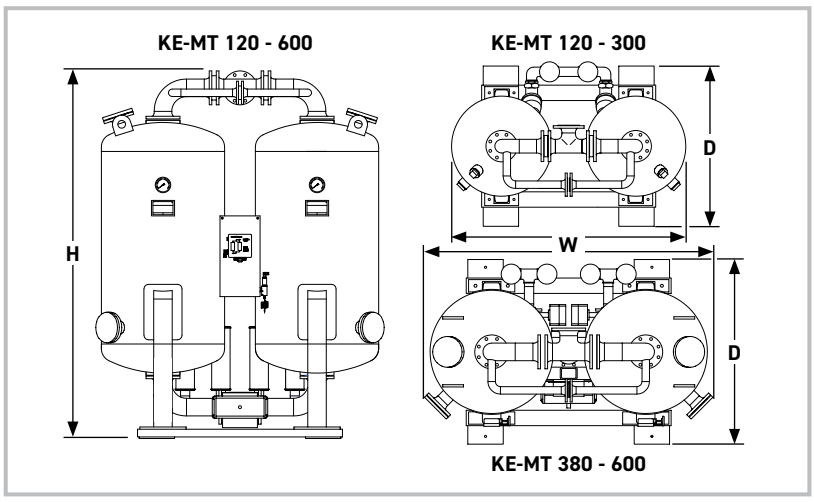
Maximum Ambient Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.00	1.00	1.00

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	4	5	6	7	8	9	10
	psi g	58	73	87	100	116	131	145
Correction Factor		1.60	1.33	1.12	1.00	0.88	0.79	0.76

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-25	-40	-70
	°F	-13	-40	-100
Correction Factor		1.00	1.00	2.00



Weights & Dimensions

Model	Pipe Size BSPP or NPT	Dimensions						Weight	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
KE-MT 120	DN 50	2080	82	1060	42	840	33	640	1411
KE-MT 150	DN 65	2120	83	1270	50	900	35	830	1830
KE-MT 200	DN 65	2160	85	1350	53	990	39	955	2106
KE-MT 250	DN 80	2210	87	1530	60	1040	41	1075	2370
KE-MT 300	DN 80	2255	88	1600	62	1100	43	1500	3307
KE-MT 380	DN 100	2385	93	1875	73	1200	47	1990	4388
KE-MT 500	DN 100	2660	104	1925	76	1250	49	2410	5314
KE-MT 600	DN 125	2816	111	2155	85	1304	51	2700	5953

Recommended Filtration

Model	Dryer Inlet		Dryer Outlet		
	General Purpose Prefilter Mandatory*	High Efficiency Filter Mandatory*	General Purpose Dry Particulate Filter Mandatory*	Oil Vapour Reduction Filter Optional	High Efficiency Dry Particulate Filter Optional
KE-MT 120	AOPX050I	AAPX050I	AOPX050I	ACSPX050I	AAPX050I
KE-MT 150	AOPX050I	AAPX050I	AOPX050I	ACSPX050I	AAPX050I
KE-MT 200	AOPX055I	AAPX055I	AOPX055I	ACSPX055I	AAPX055I
KE-MT 250	AO070DEX	AA070DEX	AO070DMX	ACS070DMX	AA070DMX
KE-MT 300	AO070DEX	AA070DEX	AO070DMX	ACS070DMX	AA070DMX
KE-MT 380	AO070O	AA070O	AO070O	ACS070O	AA070O
KE-MT 500	AO075O	AA075P	AO075O	ACS075O	AA075O
KE-MT 600	AO075O	AA075P	AO075O	ACS075O	AA075O

*Pre-filters (AO and AA) and after filter (AO) are mandatory but not included in scope of supply and must be ordered separately.
The filtration is mandatory to maintain trouble-free dryer operation.

Parker Catalogue Numbers

Model	No Dewpoint Control	With Dewpoint Control
KE-MT 120	K120/10D1-F230M	K120/10D1-F230MT
KE-MT 150	K150/10D1-F230M	K150/10D1-F230MT
KE-MT 200	K200/10D1-F230M	K200/10D1-F230MT
KE-MT 250	K250/10D1-F230M	K250/10D1-F230MT
KE-MT 300	K300/10D1-F230M	K300/10D1-F230MT
KE-MT 380	K380/10D1-F230M	K380/10D1-F230MT
KE-MT 500	K500/10D1-F230M	K500/10D1-F230MT
KE-MT 600	K600/10D1-F230M	K600/10D1-F230MT

WVM Large Flow Vacuum Low Energy Adsorption Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO8573-1:2010 Classification (Option 1)	Dewpoint (Option 2)		ISO8573-1:2010 Classification (Option 2)
	°C	°F		°C	°F		°C	°F	
WVM	-40	-40	Class 2:2:2	-70	-100	Class 2:1:2	-20	-4	Class 2:3:2

ISO8573-1 Classifications when used with OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure*		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Connection	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
WVM	4	58	11	145	5	41	40	104	40	104	400V 3ph 50Hz	On request	Flanged	80-85

*For higher operating pressure please contact Parker GSFE Division.

Flow Rates

Model	Pipe Size	Inlet Flow Rate				Average Power kW
		L/s	m^3/min	m^3/hr	cfm	
WVM 45	DN 50	125	7.5	450	265	3.6
WVM 60	DN 50	169	10.2	610	359	5.3
WVM 80	DN 50	222	13.4	800	471	6.8
WVM 125	DN 80	325	19.5	1170	689	9.5
WVM 155	DN 80	408	24.5	1470	865	12.8
WVM 210	DN 80	569	34.2	2050	1207	16.8
WVM 310	DN 100	847	50.9	3050	1795	25.4
WVM 370	DN 100	1028	61.8	3700	2178	30.8
WVM 520	DN 150	1403	84.3	5050	2972	41.8
WVM 615	DN 150	1681	101.0	6050	3561	52.6
WVM 750	DN 150	2028	121.9	7300	4297	59.5

Inlet flow rate relating to 1 bar(a) and 20°C; relating to the suction performance of the compressor, compression at 7 bar(g) and 35°C dryer inlet temperature, at 25°C ambient temperature, 60% relative humidity.

Dryers for higher flows are available on request.

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum inlet temperature, maximum ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

Minimum Drying Capacity = System Flow x CFMIT x CFMAT x CFMIP x CFOD

CFMIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35	40
	°F	77	86	95	104
Correction Factor		0.80	0.91	1.00	1.80

CFAT - Correction Factor Maximum Ambient Temperature

Maximum Ambient Temperature	°C	20	25	30	35	40
	°F	68	77	86	95	104
Correction Factor		1.00	1.00	1.00	1.00	1.00

25% rel. hum. at 40°C; 37% rel. hum. at 35°C; 50% rel. hum. at 30°C; 70% rel. hum. at 25°C; 90% rel. hum. at 20°C.

For higher ambient temperature and/or higher relative humidity please contact Parker GSFE Division.

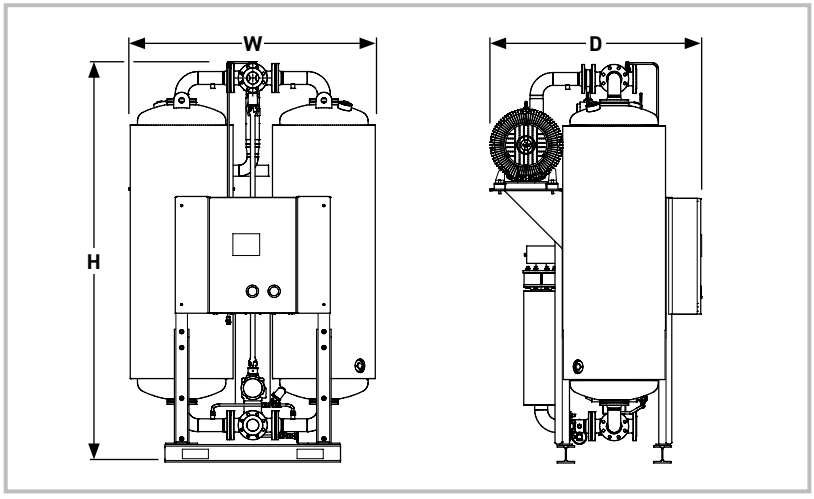
CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	4	5	6	7	8	9	10	11
	psi g	58	73	87	100	116	131	145	160
Correction Factor		2.00	1.39	1.18	1.00	0.99	0.87	0.79	0.56

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-20	-25	-40	-70
	°F	-4	-13	-40	-100
Correction Factor		0.95	0.95	1.00	*

*Selection for Dewpoint -70°C - Please contact Parker GSFE Division.



Weights & Dimensions

Model	Dimensions (Dryer Only)						Weight (Dryer Only)	
	Height (H)		Width (W)		Depth (D)			
	mm	ins	mm	ins	mm	ins	kg	lbs
WVM 45	2029	80	1222	48	1219	48	770	1698
WVM 60	2029	80	1222	48	1219	48	800	1764
WVM 80	2379	94	1222	48	1219	48	900	1985
WVM 125	2151	85	1692	67	1412	56	1350	2977
WVM 155	2301	91	1692	67	1412	56	1460	3219
WVM 210	2751	108	1692	67	1462	58	1870	4123
WVM 310	2692	106	2115	83	1702	67	2610	5755
WVM 370	2992	118	2115	83	1702	67	2900	6395
WVM 520	3210	126	2582	102	1910	75	4275	9426
WVM 615	3460	136	2582	102	1910	75	4735	10441
WVM 750	3450	137	2782	110	2010	79	5380	11863

Required Filtration

Model	Dryer Connection	Dryer Inlet	Dryer Outlet
		High Efficiency Filter	General Purpose Dry Particulate Filter
WVM 45	DN 50	AAPX035G	AOPX035G
WVM 60	DN 50	AAPX040H	AOPX040H
WVM 80	DN 50	AAPX045I	AOPX045I
WVM 125	DN 80	AA065N	AO065N
WVM 155	DN 80	AA065N	AO065N
WVM 210	DN 80	AA065N	AO065N
WVM 310	DN 100	AA070O	AO070O
WVM 370	DN 100	AA070O	AO070O
WVM 520	DN 150	AA075P	AO075P
WVM 615	DN 150	AA075P	AO075P
WVM 750	DN 150	AA080P	AO080P

Parker Catalogue Numbers

Model	Standard
WVM 45	W45/11VM5-F400CT
WVM 60	W60/11VM5-F400CT
WVM 80	W80/11VM5-F400CT
WVM 125	W125/11VM5-F400CT
WVM 155	W155/11VM5-F400CT
WVM 210	W210/11VM5-F400CT
WVM 310	W310/11VM5-F400CT
WVM 370	W370/11VM5-F400CT
WVM 520	W520/11VM5-F400CT
WVM 615	W615/11VM5-F400CT
WVM 750	W750/11VM5-F400CT

ATT+ Green Hybrid Low Energy Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO8573-1:2010 Classification (Option 1)	Dewpoint (Option 2)		ISO8573-1:2010 Classification (Option 2)
	°C	°F		°C	°F		°C	°F	
ATT+	-40	-40	Class 2:2:2	-70	-100	Class 2:1:2	-20	-4	Class 2:3:2

ISO8573-1 Classifications when used with OIL-X pre/post filtration.

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
ATT+ 060/090	2	29	12	174	5	41	65	149	50	122	230V 1ph 50Hz	N/A	BSPP	<75
ATT+ 140	2	29	12	174	5	41	65	149	50	122	400V 3ph 50Hz	N/A	BSPP	<75
ATT+ 260/340	4	58	12	174	5	41	65	149	50	122	400V 3ph 50Hz	N/A	BSPP	<75

Flow Rates

Dryer Models	Pipe Size	Inlet Flow Rate				Average Power kW
		L/s	m³/min	m³/hr	cfm	
ATT+ 060	1½"	100	6	360	212	1.9
ATT+ 090	1½"	150	9	540	318	2.3
ATT+ 140	2"	233	14	840	494	2.6
ATT+ 260	2½"	433	26	1560	918	4.2
ATT+ 340	2½"	567	34	2040	1200	5.6

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

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

CFIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35	40	45	50	55	60	65
	°F	77	86	95	104	113	122	131	140	149
Correction Factor ATT+		0.82	0.82	1.00	1.23	1.45	1.82	2.44	2.63	2.94

CFAT - Correction Factor Maximum Ambient Temperature

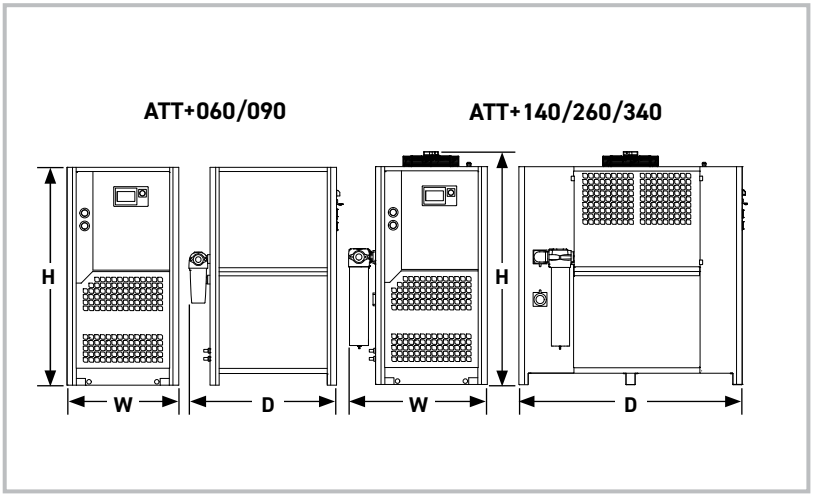
Maximum Ambient Temperature	°C	20	25	30	35	40	45	50
	°F	68	77	86	95	104	113	122
Correction Factor ATT+ 060/090		0.93	1.00	1.06	1.14	1.23	1.33	1.47
Correction Factor ATT+ 140/260/340		0.94	1.00	1.05	1.11	1.20	1.30	1.39

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 ATT+		1.61	1.33	1.15	1.00	0.96	0.93	0.91	0.88	0.87	N/A	N/A	N/A	N/A

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-20	-40	-70
	°F	-4	-40	-100
Correction Factor		1	1	1



Controller Main Functions

Hybrid Dryer	Controller Function												
	Touchscreen	Visual Fault Indication	Service Indicator	EST - Energy Saving Technology	Visual Operation Status (Strip LED)	Power On Indication	Dewpoint Display	Alarm History	0-10V / 4-20mA Dewpoint Re-transmission	Data Log/ Retrieve*	Local Web Server	Modbus Protocol**	IOT Ready
ATT+	7"	•	•	•	•	•	•	•	•	•	•	•	•

*USB **RTU RS485 TCP/IP RJ45

Weights & Dimensions

Model	Dimensions (with Filters)						Weight (with Filters)	
	Height (H)		Width (W)		Depth (D)			
	mm	ins	mm	ins	mm	ins	kg	lbs
ATT+ 060	1900	74.8	973	38.3	1312	51.7	380	838
ATT+ 090	1900	74.8	973	38.3	1312	51.7	420	926
ATT+ 140	2030	79.9	1180	46.5	1974	77.7	650	1433
ATT+ 260	2030	79.9	1205	47.4	1974	77.7	920	2028
ATT+ 340	2030	79.9	1205	47.4	1974	77.7	960	2116

Included Filtration

Model	Pipe Size BSPP	Dryer Inlet		Dryer Outlet		
		General Purpose Pre-filter	High Efficiency Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
ATT+ 060	1½"	AOPX030G	AAPX030G	-	AOPX030G	-
ATT+ 090	1½"	AOPX035G	AAPX035G	-	AOPX035G	-
ATT+140	2"	AOPX045I	AAPX045I	-	AOPX045I	-
ATT+ 260	2½"	AOPX055J	AAPX055J	-	AOPX055J	-
ATT+ 340	2½"	AOPX055J	AAPX055J	-	AOPX055J	-

Parker Catalogue Numbers

Model	Standard	With Bypass	With Bypass & Temperature Probe	With Temperature Probe
ATT+ 060	ATT060+A23015012EITS	ATT060+A23015012EITSTB	ATT060+A23015012EITSTBTP	ATT060+A23015012EITSTP
ATT+ 090	ATT090+A23015012EITS	ATT090+A23015012EITSTB	ATT090+A23015012EITSTBTP	ATT090+A23015012EITSTP
ATT+ 140	ATT140+A40035012EITS	ATT140+A40035012EITSTB	ATT140+A40035012EITSTBTP	ATT140+A40035012EITSTP
ATT+ 260	ATT260+A40035012EITS	ATT260+A40035012EITSTB	ATT260+A40035012EITSTBTP	ATT260+A40035012EITSTP
ATT+ 340	ATT340+A40035012EITS	ATT340+A40035012EITSTB	ATT340+A40035012EITSTBTP	ATT340+A40035012EITSTP

SPS Direct Expansion Refrigeration Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		Dewpoint (Option 1)		Dewpoint (Option 2)	
	°C	°F	°C	°F	°C	°F
SPS	+3	+37	+7	+45	+10	+50

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximm Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
SPS 004-062	2	29	16	232	5	41	65	149	50	122	230V 1ph 50Hz / 60Hz	N/A	BSPP	<75
SPS 080-100			14	203										

Flow Rates

Model	Pipe Size	Inlet Flow Rate 50 Hz				50Hz kW	Inlet Flow Rate 60Hz				60Hz kW
		L/s	m³/min	m³/hr	cfm		L/s	m³/min	m³/hr	cfm	
SPS 004	½"	7	0.4	24	14	0.13	8	0.47	28	16	0.16
SPS 007	½"	12	0.7	42	25	0.14	13	0.78	47	28	0.17
SPS 009	½"	15	0.9	54	32	0.15	17	1.00	60	35	0.19
SPS 014	¾"	23	1.4	84	49	0.15	27	1.60	96	57	0.18
SPS 018	¾"	30	1.8	108	64	0.16	34	2.07	124	73	0.20
SPS 026	1"	43	2.6	156	92	0.29	49	2.93	176	104	0.36
SPS 032	1"	53	3.2	192	113	0.30	61	3.63	218	128	0.37
SPS 040	1"	67	4.0	240	141	0.31	76	4.53	272	160	0.38
SPS 052	1½"	87	5.2	312	184	0.46	100	6.02	361	212	0.56
SPS 062	1½"	103	6.2	372	219	0.57	119	7.15	429	253	0.69
SPS 080	1½"	133	8.0	480	282	0.73	154	9.25	555	327	0.90
SPS 100	1½"	167	10.0	600	353	0.74	191	11.48	689	406	0.91

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure, 25°C cooling air temperature, 35°C air inlet temperature and +3°C pressure dewpoint. All models supplied with low GWP refrigerant R513A.

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

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

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

CFIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35	40	45	50	55	60	65
	°F	77	86	95	104	113	122	131	140	149
Correction Factor	50Hz	0.65	0.83	1.00	1.30	1.61	2.00	2.33	2.38	2.50
	60Hz	0.66	0.85	1.00	1.32	1.61	2.04	2.56	2.63	2.78

CFAT - Correction Factor Maximum Ambient Temperature

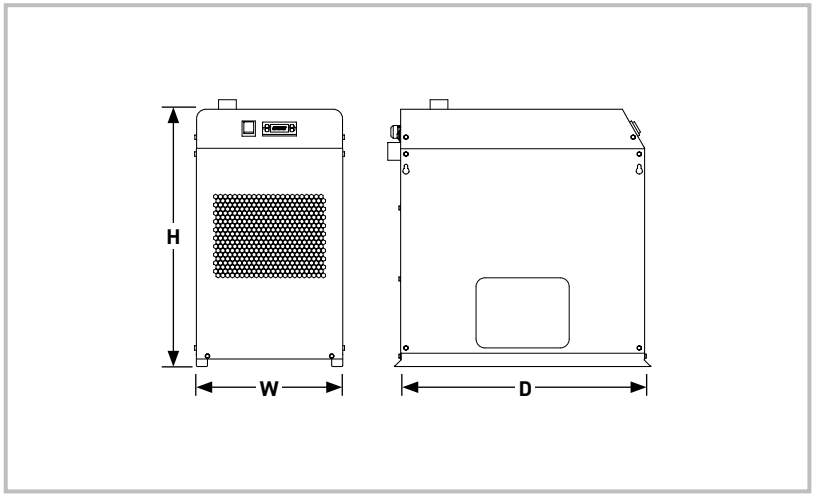
Maximum Ambient Temperature	°C	20	25	30	35	40	45	50
	°F	68	77	86	95	104	113	122
Correction Factor	50Hz	0.93	1.00	1.02	1.09	1.15	1.22	1.28
	60Hz	0.96	1.00	1.06	1.11	1.18	1.25	1.33

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	psi g	44	58	73	87	100	116	131	145	160	174	189	203	218	232
Correction Factor	50Hz	1.35	1.23	1.11	1.06	1.00	0.93	0.85	0.83	0.81	0.79	0.77	0.75	0.73	0.71
	60Hz	1.45	1.23	1.11	1.06	1.00	0.93	0.85	0.83	0.81	0.79	0.77	0.75	0.73	0.71

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	+3	+5	+7
	°F	+37	+41	+45
Correction Factor	50Hz	1.00	0.78	0.70
	60Hz	1.00	0.79	0.72



Weights & Dimensions

Model	Dimensions						Weight	
	Height (H)		Width (W)		Depth (D)			
	mm	ins	mm	ins	mm	ins	kg	lbs
SPS 004	520	20.5	300	11.8	400	15.7	24	53
SPS 007	520	20.5	300	11.8	400	15.7	24	53
SPS 009	520	20.5	300	11.8	400	15.7	25	55
SPS 014	580	22.8	330	13.0	550	21.7	35	77
SPS 018	580	25.6	330	13.0	550	21.7	36	79
SPS 026	650	25.6	400	15.7	630	24.8	46	101
SPS 032	650	25.6	400	15.7	630	24.8	46	101
SPS 040	650	25.6	400	15.7	630	24.8	47	104
SPS 052	650	25.6	400	15.7	630	24.8	53	117
SPS 062	650	25.6	400	15.7	630	24.8	55	121
SPS 080	840	33.1	450	17.7	780	30.7	80	176
SPS 100	840	33.1	450	17.7	780	30.7	80	176

Recommended Filtration

Dryer Inlet	Dryer Outlet
General Purpose Pre-Filter	High Efficiency Post Filter
AOPX010C	AAPX010C
AOPX015C	AAPX015C
AOPX015C	AAPX015C
AOPX020D	AAPX020D
AOPX020D	AAPX020D
AOPX025E	AAPX025E
AOPX025E	AAPX025E
AOPX025E	AAPX025E
AOPX030G	AAPX030G
AOPX030G	AAPX030G
AOPX035G	AAPX035G
AOPX035G	AAPX035G

Parker Catalogue Numbers

Model	With Timed Drain	With Electronic Drain	With Electronic Drain & Energy Saving	With External Float Drain
SPS 004	SPS004-A2301DF16TIS	SPS004-A2301DF16EXS	-	SPS004-A2301DF16FHS
SPS 007	SPS007-A2301DF16TIS	SPS007-A2301DF16EXS	-	SPS007-A2301DF16FHS
SPS 009	SPS009-A2301DF16TIS	SPS009-A2301DF16EXS	-	SPS009-A2301DF16FHS
SPS 014	SPS014-A2301DF16TIS	SPS014-A2301DF16EXS	-	SPS014-A2301DF16FHS
SPS 018	SPS018-A2301DF16TIS	SPS018-A2301DF16EXS	-	SPS018-A2301DF16FHS
SPS 026	SPS026-A2301DF16TIS	SPS026-A2301DF16EXS	SPS026-A2301DF16EXSES	SPS026-A2301DF16FHS
SPS 032	SPS032-A2301DF16TIS	SPS032-A2301DF16EXS	SPS032-A2301DF16EXSES	SPS032-A2301DF16FHS
SPS 040	SPS040-A2301DF16TIS	SPS040-A2301DF16EXS	SPS040-A2301DF16EXSES	SPS040-A2301DF16FHS
SPS 052	SPS052-A2301DF16TIS	SPS052-A2301DF16EXS	SPS052-A2301DF16EXSES	SPS052-A2301DF16FHS
SPS 062	SPS062-A2301DF16TIS	SPS062-A2301DF16EXS	SPS062-A2301DF16EXSES	SPS062-A2301DF16FHS
SPS 080	SPS080-A2301DF14TIS	SPS080-A2301DF14EXS	SPS080-A2301DF14EXSES	SPS080-A2301DF14FHS
SPS 100	SPS100-A2301DF14TIS	SPS100-A2301DF14EXS	SPS100-A2301DF14EXSES	SPS100-A2301DF14FHS

PSE Direct Expansion Refrigeration Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		Dewpoint (Option 1)		Dewpoint (Option 2)	
	°C	°F	°C	°F	°C	°F
PSE	+3	+37	+7	+45	+10	+50

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
PSE 120 - 1800	2	29	14	203	5	41	65	149	50	122	400V 3ph 50Hz / 460V 3ph 60Hz	N/A	BSPP & DIN Flange	<75

Flow Rates

Model	Pipe Size	Inlet Flow Rate at 50Hz				Absorbed Power at 50Hz kW	Inlet Flow Rate at 60Hz				Absorbed Power at 60Hz kW
		L/s	m³/min	m³/hr	cfm		L/s	m³/min	m³/hr	cfm	
PSE 120	2"	200	12	720	424	1.32	215	13	773	455	1.7
PSE 140	2"	233	14	840	494	1.32	252	15	907	534	1.7
PSE 180	2"	300	18	1080	636	1.51	323	19	1163	685	1.9
PSE 220	2½"	367	22	1320	777	1.79	399	24	1435	845	2.2
PSE 260	2½"	433	26	1560	918	2.05	474	28	1708	1005	2.5
PSE 300	2½"	500	30	1800	1059	2.62	539	32	1941	1142	3.3
PSE 350	2½"	583	35	2100	1236	3.22	624	37	2247	1323	4.0
PSE 460	DN100	767	46	2760	1625	3.22	835	50	3005	1769	3.9
PSE 520	DN100	867	52	3120	1836	4.55	941	56	3386	1993	5.6
PSE 630	DN100	1050	63	3780	2225	4.55	1172	70	4219	2483	5.6
PSE 750	DN150	1250	75	4500	2649	6.52	1381	83	4970	2925	8.0
PSE 900	DN150	1500	90	5400	3178	9.05	1655	99	5957	3506	11.0
PSE 1200	DN150	2000	120	7200	4238	9.05	2210	133	7956	4683	11.0
PSE 1500	DN200	2500	150	9000	5297	11.17	2760	166	9935	5848	13.6
PSE 1800	DN200	3000	180	10800	6357	13.12	3281	197	11812	6952	16.4

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure, 25°C cooling air temperature, 35°C air inlet temperature and +3°C pressure dewpoint. All models supplied with low GWP refrigerant R513A.

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

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

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

CFIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	30	35	40	45	50	55	60	65
	°F	86	95	104	113	122	131	140	149
Correction Factor - 50Hz & 60Hz		0.81	1.00	1.23	1.49	1.82	2.44	2.63	2.94

CFAT - Correction Factor Maximum Ambient Temperature

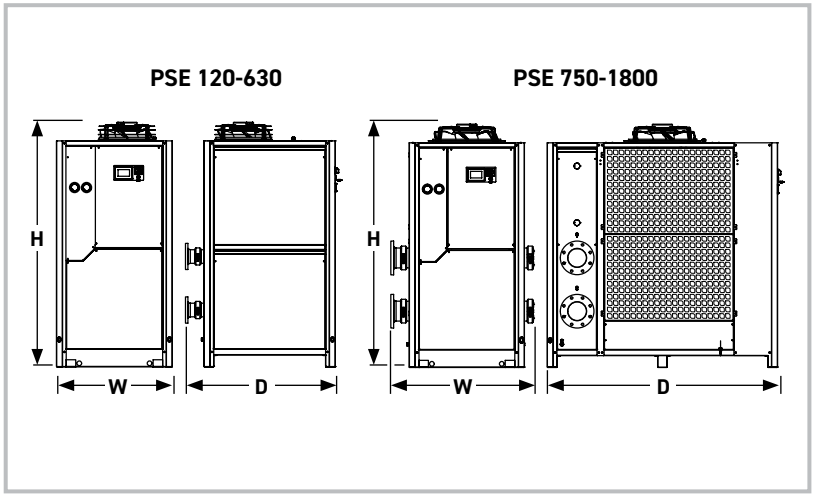
Maximum Ambient Temperature	°C	20	25	30	35	40	45	50
	°F	68	77	86	95	104	113	122
Correction Factor - 50Hz & 60Hz		0.97	1.00	1.04	1.08	1.14	1.22	1.39

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	3	4	5	6	7	8	9	10	11	12	13	14
	psi g	44	58	73	87	100	116	131	145	160	174	189	203
Correction Factor - 50Hz & 60Hz		1.45	1.25	1.14	1.04	1.00	0.96	0.93	0.91	0.88	0.87	0.85	0.85

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	+3	+5	+7	+10
	°F	+37	+41	+45	+50
Correction Factor - 50Hz & 60Hz		1.00	0.90	0.81	0.69



Weights & Dimensions

Model	Dimensions						Weight	
	Height (H)		Width (W)		Depth (D)			
	mm	ins	mm	ins	mm	ins	kg	lbs
PSE 120	1365	53.7	703	27.7	1150	45.3	205	452
PSE 140	1365	53.7	703	27.7	1150	45.3	205	452
PSE 180	1365	53.7	703	27.7	1150	45.3	210	463
PSE 220	1410	55.5	703	27.7	1151	45.3	260	573
PSE 260	1410	55.5	703	27.7	1151	45.3	262	578
PSE 300	1410	55.5	703	27.7	1151	45.3	264	582
PSE 350	1410	55.5	703	27.7	1151	45.3	270	595
PSE 460	2055	80.9	973	38.3	1287	50.7	380	838
PSE 520	2055	80.9	973	38.3	1287	50.7	380	838
PSE 630	2055	80.9	973	38.3	1287	50.7	420	926
PSE 750	2055	80.9	1205	47.4	1974	77.7	730	1609
PSE 900	2055	80.9	1205	47.4	1974	77.7	770	1698
PSE 1200	2055	80.9	1205	47.4	1974	77.7	850	1874
PSE 1500	2040	80.3	1517	59.7	2529	99.6	1070	2359
PSE 1800	2040	80.3	1517	59.7	2529	99.6	1210	2668

Recommended Filtration

Dryer Inlet	Dryer Outlet
General Purpose Pre-Filter	High Efficiency Post Filter
AOPX040H	AAPX040H
AOPX040H	AAPX040H
AOPX045I	AAPX045I
AOPX050I	AAPX050I
AOPX055I	AAPX055I
AOPX055I	AAPX055I
AOPX055I	AAPX055I
AO070O	AO070O
AO070O	AA070O
AO070O	AA070O
AO075P	AA075P
AO075P	AA075P
AO080P	AA080P
AO085Q	AA085Q
AO085Q	AA085Q

Parker Catalogue Numbers

Model	Air Cooled	Water Cooled
PSE 120	PSE120-A4X03DF14EI	-
PSE 140	PSE140-A4X03DF14EI	-
PSE 180	PSE180-A4X03DF14EI	-
PSE 220	PSE220-A4X03DF14EITS	PSE220-S4X03DF14EITS
PSE 260	PSE260-A4X03DF14EITS	PSE260-S4X03DF14EITS
PSE 300	PSE300-A4X03DF14EITS	PSE300-S4X03DF14EITS
PSE 350	PSE350-A4X03DF14EITS	PSE350-S4X03DF14EITS
PSE 460	PSE460-A4X03DF14EITS	PSE460-S4X03DF14EITS
PSE 520	PSE520-A4X03DF14EITS	PSE520-S4X03DF14EITS
PSE 630	PSE630-A4X03DF14EITS	PSE630-S4X03DF14EITS
PSE 750	PSE750-A4X03DF14EITS	PSE750-S4X03DF14EITS
PSE 900	PSE900-A4X03DF14EITS	PSE900-S4X03DF14EITS
PSE 1200	PSE1200-A4X03DF14EITS	PSE1200-S4X03DF14EITS
PSE 1500	PSE1500-A4X03DF14EITS	PSE1500-S4X03DF14EITS
PSE 1800	PSE1800-A4X03DF14EITS	PSE1800-S4X03DF14EITS

GH - 350 Bar Compressed Air Filters

Filtration Performance

Filtration Grade	Filter Type	Particle Reduction (inc. water & oil aerosols)	Maximum Remaining Oil Content at 21°C (70°F)	Filtration Efficiency	Initial Dry Differential Pressure	Initial Saturated Differential Pressure	Change Element Every	Precede with Filtration Grade
V	Dry Particulate	Down to 3 micron	N/A	>90%	<300 mbar (<4.35 psi)	<350 mbar (<5 psi)	12 months or 6000 hours	N/A
ZP	Coalescing & Dry Particulate	Down to 1 micron	0.5 mg/m³ 0.5 ppm(w)	99.925%	<300 mbar (<4.35 psi)	<370 mbar (<5.4 psi)	12 months or 6000 hours	N/A
XP	Coalescing & Dry Particulate	Down to 0.01 micron	0.01 mg/m³ 0.01 ppm(w)	99.9999%	<300 mbar (<4.35 psi)	<400 mbar (<5.8 psi)	12 months or 6000 hours	ZP
A	Oil Vapour Reduction	N/A	0.003 mg/m³ 0.003 ppm(w)	N/A	<300 mbar (<4.35 psi)	N/A	When oil vapour is detected	ZP+XP

Important Note:

Using the same filter housings as their coalescing and dry particulate counterparts, Grade A filter elements differ in that they utilise a bed of activated carbon to adsorb oil vapour. It is important to note, in-line adsorption filter elements have a different life span compared to coalescing and dry particulate filters and require more frequent element changes.

Technical Data

Filtration Grade	Filter Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature	
		bar g	psi g	bar g	psi g	°C	°F	°C	°F
V/ZP/XP	GH3/350 - GH13/350	50	725	350	5076	2	35	80	176
A	GH3/350 - GH13/350	50	725	350	5076	2	35	50	122

Flow Rates

Model	Pipe Size	L/S	m³/min	m³/hr	cfm	Replacement Element	No.
GH3/350 Grade	½"	101	6.1	365	215	1050 **Grade**	1
GH5/350 Grade	½"	139	8.4	501	295	1070 **Grade**	1
GH7/350 Grade	½"	215	12.9	776	457	1140 **Grade**	1
GH9/350 Grade	½"	287	17.3	1035	609	2010 **Grade**	1
GH11/350 Grade	1"	514	30.9	1852	1090	2020 **Grade**	1
GH12/350 Grade	1½"	782	46.9	2816	1657	2030 **Grade**	1
GH13/350 Grade	1½"	1184	71.0	4261	2508	2050 **Grade**	1

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

Filter Coding Example

Grade	Model
XP	GH3/350XP

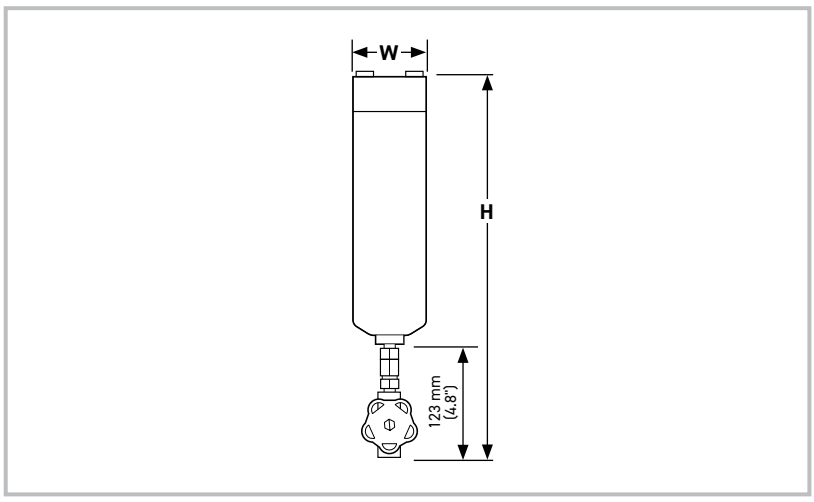
Product Selection & Correction Factors

To correctly select a filter model, the flow rate of the filter must be adjusted for the minimum operating (inlet) pressure at the point of installation.

1. Obtain the minimum operating (inlet) pressure and maximum compressed air flow rate at the inlet of the filter.
2. Select the correction factor for minimum inlet pressure from the CFMIP table (always round down e.g. for 155 bar, use 150 bar correction factor)
3. Calculate the minimum filtration capacity. Minimum Filtration Capacity = Compressed Air Flow Rate x CFMIP
4. Using the minimum filtration capacity, select a filter model from the flow rate tables above (filter selected must have a flow rate equal to or greater than the minimum filtration capacity).

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	50	60	70	80	90	100	125	150	175	200	225	250	275	300	325	350
	psi g	725	870	1015	1160	1305	1450	1813	2175	2538	2901	3263	3626	3989	4351	4714	5076
Correction Factor		2.65	2.42	2.24	2.09	1.97	1.87	1.67	1.53	1.41	1.32	1.25	1.18	1.13	1.08	1.04	1.00



Weights & Dimensions

Model	Height (H)		Width (W)		Depth (D)		Weight	
	mm	ins	mm	ins	mm	ins	kg	lbs
GH3/350	355	14.0	80	3.1	80	3.1	2.8	6.2
GH5/350	355	14.0	80	3.1	80	3.1	2.8	6.2
GH7/350	420	16.5	80	3.1	80	3.1	3.4	7.5
GH9/350	455	17.9	116	4.6	116	4.6	18.2	40.1
GH11/350	540	21.3	116	4.6	116	4.6	21.9	48.3
GH12/350	655	25.8	125	4.9	125	4.9	28.3	62.4
GH13/350	910	35.8	125	4.9	125	4.9	39.2	86.4

Parker Catalogue Numbers

Model	3 Micron Pre-Filters	General Purpose Filters	High Efficiency Filters	Oil Vapour Reduction Filters
GH3/350	GH3/350V	GH3/350ZP	GH3/350XP	GH3/350A
GH5/350	GH5/350V	GH5/350ZP	GH5/350XP	GH5/350A
GH7/350	GH7/350V	GH7/350ZP	GH7/350XP	GH7/350A
GH9/350	GH9/350V	GH9/350ZP	GH9/350XP	GH9/350A
GH11/350	GH11/350V	GH11/350ZP	GH11/350XP	GH11/350A
GH12/350	GH12/350V	GH12/350ZP	GH12/350XP	GH12/350A
GH13/350	GH13/350V	GH13/350ZP	GH13/350XP	GH13/350A

HDK-MT - 350 Bar Compressed Air Dryers

Dryer Performance

Dryer Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (Standard)	Dewpoint (Option 1)		ISO8573-1:2010 Classification (Option 1)
	°C	°F		°C	°F	
HDK-MT 15 - 70	-40	-40	Class 2.2.2	-20	-4	Class 2.3.2

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F				dB(A)
HDK-MT 15 - 70	100	1450	350	5076	5	41	55	131	50	122	230V 1ph 50/60Hz	115V 1ph 50/60Hz	BSPP	95-115

Flow Rates

Model	Pipe Size BSPP	Inlet Flow Rate			
		L/s	m^3/min	m^3/hr	cfm
HDK-MT 15/350	G½	56	3.3	200	118
HDK-MT 20/350	G½	83	5.0	300	177
HDK-MT 25/350	G½	111	6.7	400	235
HDK-MT 30/350	G½	139	8.4	500	294
HDK-MT 40/350	G¾	217	13	780	459
HDK-MT 50/350	G¾	261	16	940	553
HDK-MT 70/350	G¾	328	20	1180	695

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

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

CFMIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	30	35	40	45	50	55
	°F	86	95	104	113	122	131
Correction Factor		1.00	1.00	1.32	1.68	2.15	2.8

CFMAT - Correction Factor Maximum Ambient Temperature

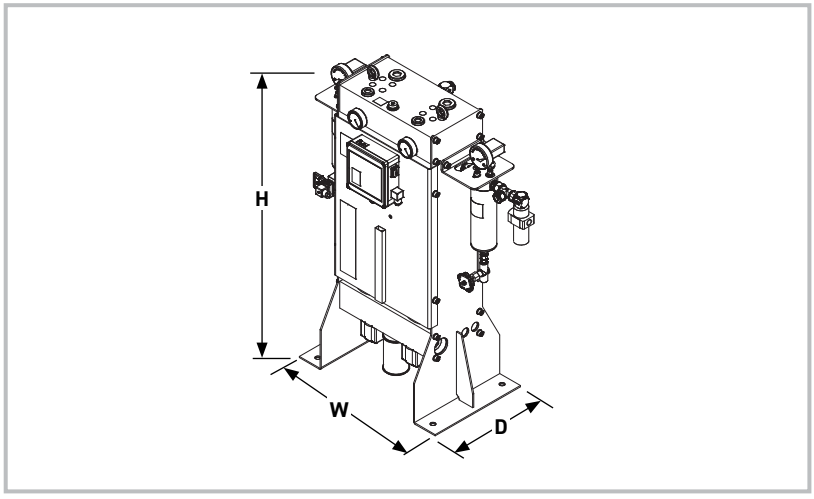
Maximum Ambient Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.00	1.00	1.00

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	100	150	200	250	300	350
	psi g	1450	2175	2900	3625	4351	5076
Correction Factor		3.57	2.33	1.75	1.41	1.16	1.00

CFOD - Correction Factor Outlet Dewpoint

Outlet Dewpoint	°C	-20	-40	-70
	°F	-4	-40	-100
Correction Factor		1.00	1.00	N/A



Weights & Dimensions

Model	Pipe Size BSPP	Dimensions						Weight	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
HDK-MT 15/350	G½	1050	41.3	700	27.6	370	14.6	190	86
HDK-MT 20/350	G½	1250	49.2	700	27.6	370	14.6	220	100
HDK-MT 25/350	G½	1450	57.1	700	27.6	370	14.6	250	114
HDK-MT 30/350	G½	1650	65.0	700	27.6	370	14.6	280	127
HDK-MT 40/350	G¾	1650	65.0	770	30.3	370	14.6	310	141
HDK-MT 50/350	G¾	1850	72.8	770	30.3	450	17.7	340	155
HDK-MT 70/350	G¾	2075	81.7	770	30.3	450	17.7	380	173

Required Filtration

Model	Pipe Size BSPP	Dryer Inlet
		General Purpose Pre-filter
HDK-MT 15/350	G½	GH7/350ZP
HDK-MT 20/350	G½	GH7/350ZP
HDK-MT 25/350	G½	GH7/350ZP
HDK-MT 30/350	G½	GH7/350ZP
HDK-MT 40/350	G¾	GH9/350ZP
HDK-MT 50/350	G¾	GH9/350ZP
HDK-MT 70/350	G¾	GH9/350ZP

Included Filtration

Dryer Inlet	Dryer Outlet		
High Efficiency Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
GH7/350XP	-	GH7/350ZP/VV	-
GH7/350XP	-	GH7/350ZP/VV	-
GH7/350XP	-	GH7/350ZP/VV	-
GH7/350XP	-	GH7/350ZP/VV	-
GH9/350XP	-	GH9/350ZP/VV	-
GH9/350XP	-	GH9/350ZP/VV	-
GH9/350XP	-	GH9/350ZP/VV	-

BSP-MT 1 - 4 Breathable Compressed Air Purifier

Performance

Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (Standard)
	°C	°F	
BSP-MT 1 - 4	-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
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F					dB(A)
BSP-MT 1 - 4	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 1	G¼	4	0.22	13	8
BSP-MT 2	G¼	7	0.40	24	14
BSP-MT 3	G¼	11	0.67	40	24
BSP-MT 4	G¼	16	0.94	56	33

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, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

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

CFIT - Correction Factor Maximum Inlet Temperature

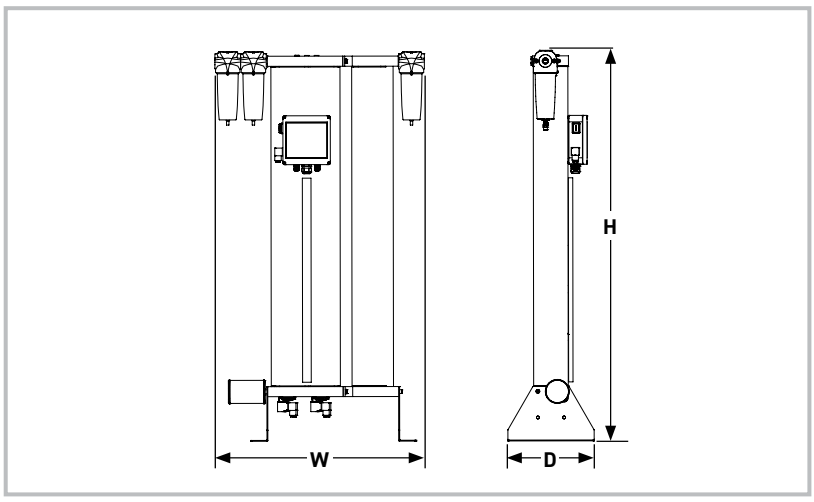
Maximum Inlet Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		0.95	0.97	1.00	1.20	1.30	1.35

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



Weights & Dimensions

Model	Pipe Size	Dimensions						Weight	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
BSP-MT 1	G¼	403	16	575	22.68	216	8.5	16.5	36.4
BSP-MT 2	G¼	578	23	575	22.6	216	8.5	21.5	47.4
BSP-MT 3	G¼	828	33	575	22.6	216	8.5	29.0	63.9
BSP-MT 4	G¼	1078	42	575	22.6	216	8.5	36.0	79.4

Included Filtration

Models	Dryer Inlet		Dryer Outlet
	General Purpose Pre-filter	High Efficiency Filter	General Purpose Dry Particulate Filter
BSP-MT 1-4	•	•	•

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/m³ (⩽0.5 ppm(w))	⩽0.01 mg/m³ (⩽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%

Parker Catalogue Numbers

Model	No Dewpoint Control	With Dewpoint Control
BSP-MT1	K1/16BP3-G230M	K1/16BP3-G230MT
BSP-MT2	K2/16BP3-G230M	K2/16BP3-G230MT
BSP-MT3	K3/16BP3-G230M	K3/16BP3-G230MT
BSP-MT4	K4/16BP3-G230M	K4/16BP3-G230MT

BAS HL 050 – 085 Breathable Compressed Air Purifier

Performance

Dryer Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (Standard)
	°C	°F	
BAS HL	-40	-40	Class 1.2.0

Technical Data

Dryer Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Electrical Supply (Optional)	Electrical Supply (Optional)*	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F					dB(A)
BAS HL 050 - 085	4	58	16	232	5	41	35	95	55	131	85 - 265V 1ph 50/60Hz	24V DC	N/A	BSPP or NPT	<75

* Available for BAS HL 050 Only.

Flow Rates

Model	Pipe Size BSPP or NPT	Inlet Flow Rate			
		L/s	m³/min	m³/hr	cfm
BAS HL 050	½"	15	0.92	55	32
BAS HL 055	½"	19	1.17	70	41
BAS HL 060	½"	25	1.50	90	53
BAS HL 065	½"	31	1.84	110	65
BAS HL 070	¾"	42	2.51	150	88
BAS HL 075	1"	51	3.09	185	109
BAS HL 080	1"	61	3.67	220	129
BAS HL 085	1½"	83	5.01	300	177

Stated flows are for operation at 7 bar (g) (102 psi g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures, apply the correction factors shown below.

Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MTC (Minimum Treatment Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MTC.

Minimum Treatment Capacity = System Flow x CFIT x CFAT x CFMIP x CFOD

CFIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35
	°F	77	86	95
Correction Factor		1.00	1.00	1.00

CFAT - Correction Factor Maximum Ambient Temperature

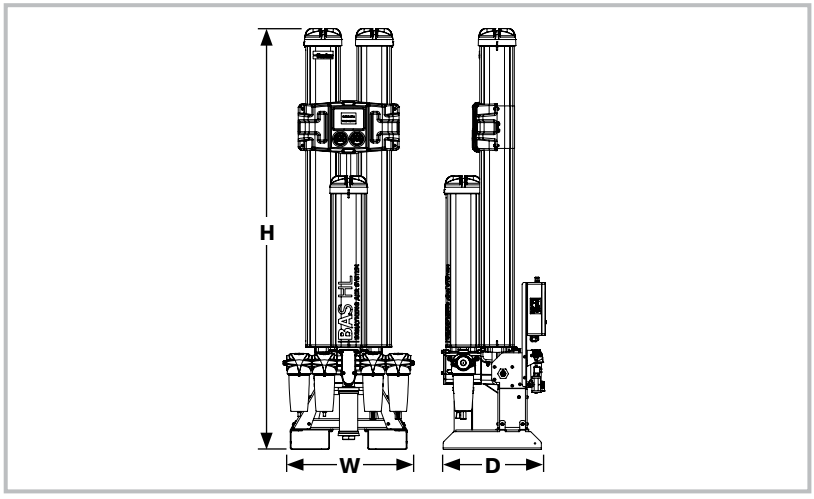
Maximum Ambient Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
Correction Factor		1.00	1.00	1.00	1.00	1.00	1.00

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		1.60	1.33	1.14	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

CFOD - Correction Factor Dewpoint

Maximum Inlet Temperature	°C	-40
	°F	-40
Correction Factor		1.00



Weights & Dimensions

Model	Pipe Size BSPP or NPT	Dimensions						Weight	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
BAS HL 050	½"	1133	45	559	22	512	20.2	92	203
BAS HL 055	½"	1313	52	559	22	512	20.2	99	218
BAS HL 060	½"	1510	59	559	22	496	19.5	109	240
BAS HL 065	½"	1660	65	559	22	496	19.5	115	254
BAS HL 070	¾"	2020	80	630	24.8	496	19.5	138	304
BAS HL 075	1"	1595	63	630	24.8	682	27	196	432
BAS HL 080	1"	1745	69	630	24.8	682	27	220	485
BAS HL 085	1½"	2105	83	630	24.8	682	27	255	562

Included Filtration

Model	Dryer Inlet		Dryer Outlet		
	General Purpose Coalescing Filter	High Efficiency Coalescing Filter	Oil Vapour Reduction Filter & Catalyst Stage	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
BAS HL 050 - BAS HL 085	•	•	•	•	•

Filtration Performance

	General Purpose Coalescing Filter	High Efficiency Coalescing Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
Filtration Grade	Grade AO	Grade AA	OVR	Grade AO	Grade AA
Filtration Type	Coalescing	Coalescing	Adsorption	Dry Particulate	Coalescing
Particle Reduction (inc water & oil aerosols)	Down to 1 micron	Down to 0.01 micron	N/A	Down to 1 micron	Down to 0.01 micron
Maximum Remaining Oil Aerosol Content at 21°C	⩽0.5 mg/m³ (⩽0.5 ppm(w))	⩽0.01 mg/m³ (⩽0.01 ppm(w))	N/A	N/A	N/A
Maximum Remaining Oil Vapour Content at System Temperature	N/A	N/A	⩽0.003 mg/m³ (⩽0.003 ppm(w))	N/A	N/A
Filtration Efficiency	99.925%	99.9999%	N/A	99.925%	99.9999%

Parker Catalogue Numbers

Model	BSP	NPT	BSP/Pneumatic
BAS HL 050	BASHL050-40G16AE	BASHL050-40N16AE	BASHL050-40G16PP
BAS HL 055	BASHL055-40G16AE	BASHL055-40N16AE	-
BAS HL 060	BASHL060-40G16AE	BASHL060-40N16AE	-
BAS HL 065	BASHL065-40G16AE	BASHL065-40N16AE	-
BAS HL 070	BASHL070-40G16AE	BASHL070-40N16AE	-
BAS HL 075	BASHL075-40G16AE	BASHL075-40N16AE	-
BAS HL 080	BASHL080-40G16AE	BASHL080-40N16AE	-
BAS HL 085	BASHL085-40G16AE	BASHL085-40N16AE	-

BAM 10 - 70 Breathable Compressed Air Purifier

Dryer Performance

Models	Dewpoint (Standard)		ISO8573-1:2010 Classification (Standard)
	°C	°F	
BAM	-40	-40	Class 1.2.1

Technical Data

Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Maximum Ambient Temperature		Electrical Supply (Standard)	Thread Type	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F			dB(A)
BAM 10 - 70	4	58	13	190	5	41	35	95	55	131	85 - 265V 1ph 50/60Hz	BSPP or NPT	<75

Flow Rates

Model	Pipe Size	Inlet Flow Rate				Regeneration Air Requirement			
		L/s	m³/min	m³/hr	cfm	L/s	m³/min	m³/hr	cfm
BAM10	G2	113	6.81	408	240	22.6	1.36	82	48
BAM20	G2	170	10.22	612	360	34.0	2.04	122	72
BAM30	G2	213	12.78	795	450	42.6	2.60	159	90
BAM40	G2	283	17	1020	600	56.6	3.40	204	120
BAM50	G2½	354	21	1275	750	70.8	4.20	255	150
BAM70	G2½	496	30	1785	1050	99.2	6.00	357	210

Stated flows are for operation at 7 bar (g) (102 psi g) 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 using 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.

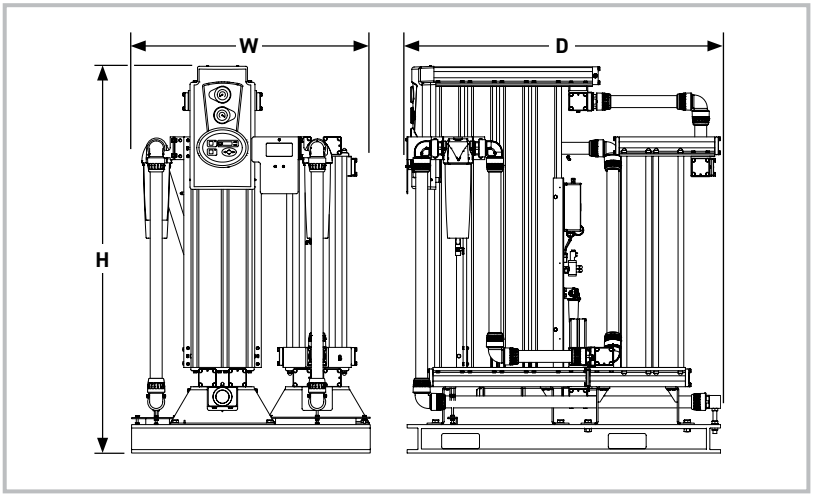
Minimum Purification Capacity = System Flow x CFMIT x CFMIP

CFIT - Correction Factor Maximum Inlet Temperature

Maximum Inlet Temperature	°C	25	30	35
	°F	77	86	95
Correction Factor		1.00	1.20	1.00

CFMIP - Correction Factor Minimum Inlet Pressure

Minimum Inlet Pressure	bar g	4	5	6	7	8	9	10	11	12	13
	psi g	58	73	87	100	116	131	145	160	174	189
Correction Factor		1.60	1.33	1.14	1.00	0.89	0.80	0.73	0.67	0.62	0.57



Weights & Dimensions

Model	Pipe Size BSPP	Dimensions						Weight	
		Height (H)		Width (W)		Depth (D)			
		mm	ins	mm	ins	mm	ins	kg	lbs
BAM10	2"	1797	70.7	1260	49.6	1655	65.2	600	1322
BAM20	2"	1797	70.7	1260	49.6	1655	65.2	700	1543
BAM30	2"	2042	80.4	1260	49.6	1655	65.2	800	1763
BAM40	2½"	2042	80.4	1260	49.6	1655	65.2	900	1984
BAM50	2½"	2042	80.4	1260	49.6	1950	76.8	1100	2425
BAM70	2½"	2042	80.4	1260	49.6	1950	76.8	1400	3086

Included Filtration

Models	Pipe Size BSPP or NPT	Dryer Inlet		Dryer Outlet		
		General Purpose Coalescing Filter	High Efficiency Coalescing Filter	Oil Vapour Reduction Filter & Catalyst Stage	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
BAM10 - BAM70	2"	•	•	•	•	•

Filtration Performance

	General Purpose Coalescing Filter	High Efficiency Coalescing Filter	Oil Vapour Reduction Filter	General Purpose Dry Particulate Filter	High Efficiency Dry Particulate Filter
Filtration Grade	Grade AO	Grade AA	OVR	Grade AO	Grade AA
Filtration Type	Coalescing	Coalescing	Adsorption	Dry Particulate	Coalescing
Particle Reduction (inc water & oil aerosols)	Down to 1 micron	Down to 0.01 micron	N/A	Down to 1 micron	Down to 0.01 micron
Maximum Remaining Oil Aerosol Content at 21°C	⩽0.5 mg/m³ (⩽0.5 ppm(w))	⩽0.01 mg/m³ (⩽0.01 ppm(w))	N/A	N/A	N/A
Maximum Remaining Oil Vapour Content at System Temperature	N/A	N/A	⩽0.003 mg/m³ (⩽0.003 ppm(w))	N/A	N/A
Filtration Efficiency	99.925%	99.9999%	N/A	99.925%	99.9999%

Parker Catalogue Numbers

Model	Standard
BAM10	BAM10
BAM20	BAM20
BAM30	BAM30
BAM40	BAM40
BAM50	BAM50
BAM60	BAM60
BAM70	BAM70

ES2000 Series Oil/Water Separators

Product Selection

Correct selection is critical for the operation of oil/water separators. Increased condensate flow through an oil/water separator reduces settlement time in the main tank, increases oil carryover to the carbon stage & reduces contact time with the carbon. The overall effect of incorrect sizing is poor outlet water quality, reduced carbon filter life and the potential for overflowing.

Capacities shown in this catalogue assume installation in two of the world's major climatic conditions. Should the oil/water separator be installed in conditions other than those shown, please contact your local Parker outlet or approved distributor/ agent for correct sizing.

Oil Types

To simplify the selection, lubricant classifications have been split into three bands depending upon their ability to separate within a static type oil/water separator.

Band A: Turbine Oil
Additive Free Oil

Band B: Mineral
Poly alpha olefins (PAO)
Trimethylolpropane Ester (TMP)
Pentaerythrityl Ester (PE)

Band C: Diesters
Triesters
Polyoxyalkylene glycol (PAG)

Inseparable using static separation techniques:
Automatic transmission fluid (ATF)

Drain Types

The condensate should be removed from the compressed air system using a drainage method that does not cause emulsification of the condensate and is appropriate for the unit. Usual methods include :

- **Level Operated Electronic Drain**
- **Float Drain**
- **Timed Solenoid Drain***

Parker recommends the use of the ED3000 Series range of condensate drains. Manual and Thermodynamic Disc trap drains must not be used with the ES2000 Series oil/water separators.

*If the use of timed solenoid drains is unavoidable, steps must be taken to reduce the air loss as this has an emulsifying effect on the condensate.

Refrigeration Dryers

A refrigeration dryer installed in a compressed air system can significantly increase the condensate produced. The oil/ water separator must be sized appropriately to treat the extra condensate produced. Flow capacities within this literature are shown both with and without a refrigeration dryer installed.

Important Note:

Additives blended into the lubricants to prevent bacterial growth, rusting, corrosion, and to promote emulsification, such as detergents etc., can have an impact on the separating process. Static oil/water separators are unable to separate stable emulsions or oils that are miscible in water. Additionally, these units will not totally separate lubricants containing: Emulsifying Agents; Glycol additives; or Polyglycol based coolants.

Climate Condition 1 - Outlet quality: <20mg/l oil in water

System Conditions

Ambient Temperature at Compressor Inlet:	25°C (77°F)	**Relative Humidity:**	65%	**Refrigeration Dryer Dewpoint If Fitted:**	3°C (37°F)
Compressor Discharge Temperature:	35°C (95°F)	**System Pressure:**	7 bar g (102 psi g)	**Minimum System Temperature If Refrigeration Dryer Is Not Fitted:**	30°C (86°F)
		Outlet quality:	<20mg/l oil in water		

No Refrigeration Dryer Installed in System		Oil Type											
		Band A Turbine, Additive Free				Band B Mineral, PAO, TMP, PE				Band C Diesters, Triesters, PAG			
Compressor Type	**Model**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**
Rotary Screw, Vane	ES2100	36.9	2.2	133	78	30.8	1.9	111	66	25.6	1.5	92	54
	ES2150	58.6	3.5	211	124	50.0	3	180	106	40.6	2.4	146	86
	ES2200	90.3	5.4	325	191	76.7	4.6	276	163	62.5	3.7	225	132
	ES2300	126.7	7.6	456	268	106.4	6.4	383	225	87.5	5.3	315	185
	ES2400	253.4	15.2	912	537	212.8	12.8	766	451	175.0	10.5	630	371
	ES2500	501.4	30.1	1805	1062	425.0	25.5	1530	900	346.4	20.8	1247	734
	ES2600	997.6	59.9	3591	2114	849.2	51	3057	1800	689.5	41.4	2482	1461

Refrigeration Dryer Installed in System		Oil Type											
		Band A Turbine, Additive Free				Band B Mineral, PAO, TMP, PE				Band C Diesters, Triesters, PAG			
Compressor Type	**Model**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**
Rotary Screw, Vane	ES2100	27.8	1.7	100	59	23.3	1.4	84	49	19.2	1.2	69	41
	ES2150	43.9	2.6	158	93	37.5	2.3	135	80	30.6	1.8	110	65
	ES2200	67.8	4.1	244	144	57.8	3.5	208	122	46.9	2.8	169	99
	ES2300	95.3	5.7	343	202	80.0	4.8	288	169	65.8	3.9	237	139
	ES2400	190.3	11.4	685	403	159.7	9.6	575	339	131.7	7.9	474	279
	ES2500	377.0	22.6	1357	798	319.2	19.2	1149	677	260.6	15.6	938	552
	ES2600	749.8	45	2699	1589	638.4	38.3	2298	1352	518.1	31.1	1865	1098

Climate Condition 2 - Outlet quality: <20mg/l oil in water

System Conditions

Ambient Temperature at Compressor Inlet:	35°C (95°F)	**Relative Humidity:**	85%	**Refrigeration Dryer Dewpoint If Fitted:**	3°C (37°F)
Compressor Discharge Temperature:	45°C (113°F)	**System Pressure:**	7 bar g (102 psi g)	**Minimum System Temperature If Refrigeration Dryer Is Not Fitted:**	40°C (104°F)
		Outlet quality:	<20mg/l oil in water		

No Refrigeration Dryer Installed in System		Oil Type											
		Band A Turbine, Additive Free				Band B Mineral, PAO, TMP, PE				Band C Diesters, Triesters, PAG			
Compressor Type	**Model**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**
Rotary Screw, Vane	ES2100	13.9	0.8	50	30	11.7	0.7	42	25	9.7	0.6	35	21
	ES2150	22.2	1.3	80	47	18.9	1.1	68	40	15.6	0.9	56	33
	ES2200	34.2	2.1	123	73	29.2	1.7	105	62	23.6	1.4	85	50
	ES2300	48.1	2.9	173	102	40.3	2.4	145	85	33.1	2	119	70
	ES2400	96.1	5.8	346	204	80.6	4.8	290	171	66.4	4	239	141
	ES2500	190.0	11.4	684	403	161.1	9.7	580	341	131.4	7.9	473	278
	ES2600	378.4	22.7	1362	801	322.0	19.3	1159	682	261.4	15.7	941	554

Refrigeration Dryer Installed in System		Oil Type											
		Band A Turbine, Additive Free				Band B Mineral, PAO, TMP, PE				Band C Diesters, Triesters, PAG			
Compressor Type	**Model**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**
Rotary Screw, Vane	ES2100	11.4	0.7	41	24	9.4	0.6	34	20	7.8	0.5	28	17
	ES2150	17.8	1.1	64	38	15.3	0.9	55	32	12.5	0.7	45	26
	ES2200	27.5	1.7	99	59	23.6	1.4	85	50	19.2	1.1	69	40
	ES2300	38.9	2.3	140	82	32.5	2	117	69	26.7	1.6	96	57
	ES2400	77.5	4.7	279	164	65.0	3.9	234	138	53.6	3.2	193	114
	ES2500	153.3	9.2	552	325	130.0	7.8	468	275	106.1	6.4	382	225
	ES2600	305.3	18.3	1099	647	260.0	15.6	936	551	210.9	12.7	759	447

For systems using 1 or 2 stage piston/reciprocating compressors multiply compressor flow by 1.4 and select a separator from screw compressor flow rates shown, ensuring due consideration is given to oil type. For sizing at conditions other than those shown, please contact Parker for correct product selection.

Climate Condition 1 - Outlet quality: <10mg/l oil in water

System Conditions

Ambient Temperature at Compressor Inlet:	25°C (77°F)	**Relative Humidity:**	65%	**Refrigeration Dryer Dewpoint If Fitted:**	3°C (37°F)
Compressor Discharge Temperature:	35°C (95°F)	**System Pressure:**	7 bar g (102 psi g)	**Minimum System Temperature If Refrigeration Dryer Is Not Fitted:**	30°C (86°F)
		Outlet quality:	<10mg/l oil in water		

No Refrigeration Dryer Installed in System		Oil Type											
		Band A Turbine, Additive Free				Band B Mineral, PAO, TMP, PE				Band C Diesters, Triesters, PAG			
Compressor Type	**Model**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**
Rotary Screw, Vane	**ES2100**	20.6	1.2	74	43	17.2	1	62	36	14.2	0.9	51	30
	ES2150	32.5	2	117	69	27.8	1.7	100	59	22.5	1.4	81	48
	ES2200	50.3	3	181	106	42.5	2.6	153	90	34.7	2.1	125	73
	ES2300	70.3	4.2	253	149	59.2	3.5	213	125	48.6	2.9	175	103
	ES2400	140.8	8.4	507	298	118.1	7.1	425	250	97.2	5.8	350	206
	ES2500	278.6	16.7	1003	590	236.1	14.2	850	500	192.5	11.6	693	408
	ES2600	554.2	33.3	1995	1174	472.0	28.3	1699	1000	383.1	23	1379	812

Refrigeration Dryer Installed in System		Oil Type											
		Band A Turbine, Additive Free				Band B Mineral, PAO, TMP, PE				Band C Diesters, Triesters, PAG			
Compressor Type	**Model**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**
Rotary Screw, Vane	**ES2100**	15.6	0.9	56	33	13.1	0.8	47	27	10.6	0.6	38	23
	ES2150	24.4	1.5	88	52	20.8	1.3	75	44	16.9	1	61	36
	ES2200	37.8	2.3	136	80	31.9	1.9	115	68	26.1	1.6	94	55
	ES2300	52.8	3.2	190	112	44.4	2.7	160	94	36.7	2.2	132	77
	ES2400	105.8	6.3	381	224	88.9	5.3	320	188	73.1	4.4	263	155
	ES2500	209.5	12.6	754	444	177.5	10.6	639	376	144.7	8.7	521	307
	ES2600	416.4	25	1499	883	354.8	21.3	1277	751	287.8	17.3	1036	610

Climate Condition 2 - Outlet quality: <10mg/l oil in water

System Conditions

Ambient Temperature at Compressor Inlet:	25°C (77°F)	**Relative Humidity:**	85%	**Refrigeration Dryer Dewpoint If Fitted:**	3°C (37°F)
Compressor Discharge Temperature:	40°C (104°F)	**System Pressure:**	7 bar g (102 psi g)	**Minimum System Temperature If Refrigeration Dryer Is Not Fitted:**	30°C (86°F)
		Outlet quality:	<10mg/l oil in water		

No Refrigeration Dryer Installed in System		Oil Type											
		Band A Turbine, Additive Free				Band B Mineral, PAO, TMP, PE				Band C Diesters, Triesters, PAG			
Compressor Type	**Model**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**
Rotary Screw, Vane	**ES2100**	7.8	0.5	28	16	6.4	0.4	23	14	5.3	0.3	19	11
	ES2150	12.2	0.7	44	26	10.6	0.6	38	22	8.6	0.5	31	18
	ES2200	18.9	1.1	68	40	16.1	1	58	34	13.1	0.8	47	28
	ES2300	26.7	1.6	96	57	22.5	1.3	81	47	18.3	1.1	66	39
	ES2400	53.3	3.2	192	113	44.7	2.7	161	95	36.9	2.2	133	78
	ES2500	105.6	6.3	380	224	89.5	5.4	322	190	73.1	4.4	263	155
	ES2600	210.0	12.6	756	445	178.9	10.7	644	379	145.3	8.7	523	308

Refrigeration Dryer Installed in System		Oil Type											
		Band A Turbine, Additive Free				Band B Mineral, PAO, TMP, PE				Band C Diesters, Triesters, PAG			
Compressor Type	**Model**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**
Rotary Screw, Vane	**ES2100**	6.4	0.4	23	13	5.3	0.3	19	11	4.4	0.3	16	9
	ES2150	10.0	0.6	36	21	8.6	0.5	31	18	6.9	0.4	25	15
	ES2200	15.3	0.9	55	33	13.1	0.8	47	28	10.6	0.6	38	22
	ES2300	21.7	1.3	78	46	18.1	1.1	65	38	15.0	0.9	54	32
	ES2400	43.1	2.6	155	91	36.1	2.2	130	77	29.7	1.8	107	63
	ES2500	85.3	5.1	307	181	72.2	4.3	260	153	58.9	3.5	212	125
	ES2600	169.7	10.2	611	359	144.5	8.7	520	306	117.2	7	422	248

For systems using 1 or 2 stage piston/reciprocating compressors multiply compressor flow by 1.4 and select a separator from screw compressor flow rates shown, ensuring due consideration is given to oil type. For sizing at conditions other than those shown, please contact Parker for correct product selection.

Climate Condition 1 - Outlet quality: <5mg/l oil in water

System Conditions

Ambient Temperature at Compressor Inlet:	25°C (77°F)	**Relative Humidity:**	65%	**Refrigeration Dryer Dewpoint If Fitted:**	3°C (37°F)
Compressor Discharge Temperature:	35°C (95°F)	**System Pressure:**	7 bar g (102 psi g)	**Minimum System Temperature If Refrigeration Dryer Is Not Fitted:**	30°C (86°F)
		Outlet quality:	<5mg/l oil in water		

No Refrigeration Dryer Installed in System		Oil Type											
		Band A Turbine, Additive Free				Band B Mineral, PAO, TMP, PE				Band C Diesters, Triesters, PAG			
Compressor Type	**Model**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**
Rotary Screw, Vane	**ES2100**	10.3	0.6	37	22	8.6	0.5	31	18	7.2	0.4	26	15
	ES2150	16.4	1	59	34	13.9	0.8	50	29	11.4	0.7	41	24
	ES2200	25.0	1.5	90	53	21.4	1.3	77	45	17.2	1	62	37
	ES2300	35.3	2.1	127	75	29.4	1.8	106	63	24.4	1.5	88	52
	ES2400	70.3	4.2	253	149	59.2	3.5	213	125	48.6	2.9	175	103
	ES2500	139.2	8.4	501	295	118.1	7.1	425	250	96.4	5.8	347	204
	ES2600	277.2	16.6	998	587	235.9	14.2	849	500	191.4	11.5	689	406

Refrigeration Dryer Installed in System		Oil Type											
		Band A Turbine, Additive Free				Band B Mineral, PAO, TMP, PE				Band C Diesters, Triesters, PAG			
Compressor Type	**Model**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**
Rotary Screw, Vane	**ES2100**	7.8	0.5	28	16	6.4	0.4	23	14	5.3	0.3	19	11
	ES2150	12.2	0.7	44	26	10.6	0.6	38	22	8.6	0.5	31	18
	ES2200	18.9	1.1	68	40	16.1	1	58	34	13.1	0.8	47	28
	ES2300	26.4	1.6	95	56	22.2	1.3	80	47	18.3	1.1	66	39
	ES2400	52.8	3.2	190	112	44.4	2.7	160	94	36.7	2.2	132	77
	ES2500	104.7	6.3	377	222	88.6	5.3	319	188	72.2	4.3	260	153
	ES2600	208.4	12.5	750	441	177.2	10.6	638	376	143.9	8.6	518	305

Climate Condition 2 - Outlet quality: <5mg/l oil in water

System Conditions

Ambient Temperature at Compressor Inlet:	35°C (95°F)	**Relative Humidity:**	85%	**Refrigeration Dryer Dewpoint If Fitted:**	3°C (37°F)
Compressor Discharge Temperature:	45°C (113°F)	**System Pressure:**	7 bar g (102 psi g)	**Minimum System Temperature If Refrigeration Dryer Is Not Fitted:**	40°C (104°F)
		Outlet quality:	<5mg/l oil in water		

No Refrigeration Dryer Installed in System		Oil Type											
		Band A Turbine, Additive Free				Band B Mineral, PAO, TMP, PE				Band C Diesters, Triesters, PAG			
Compressor Type	**Model**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**
Rotary Screw, Vane	**ES2100**	3.9	0.2	14	8	3.3	0.2	12	7	2.8	0.2	10	6
	ES2150	6.1	0.4	22	13	5.3	0.3	19	11	4.2	0.3	15	9
	ES2200	9.4	0.6	34	20	8.1	0.5	29	17	6.7	0.4	24	14
	ES2300	13.3	0.8	48	28	11.1	0.7	40	24	9.2	0.6	33	20
	ES2400	26.7	1.6	96	57	22.5	1.3	81	47	18.3	1.1	66	39
	ES2500	52.8	3.2	190	112	44.7	2.7	161	95	36.4	2.2	131	77
	ES2600	105.0	6.3	378	223	89.5	5.4	322	190	72.5	4.4	261	154

Refrigeration Dryer Installed in System		Oil Type											
		Band A Turbine, Additive Free				Band B Mineral, PAO, TMP, PE				Band C Diesters, Triesters, PAG			
Compressor Type	**Model**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**	**L/s**	**m³/min**	**m³/hr**	**cfm**
Rotary Screw, Vane	**ES2100**	3.1	0.2	11	7	2.5	0.2	9	6	2.2	0.1	8	5
	ES2150	5.0	0.3	18	11	4.2	0.3	15	9	3.3	0.2	12	7
	ES2200	7.8	0.5	28	16	6.4	0.4	23	14	5.3	0.3	19	11
	ES2300	10.8	0.6	39	23	9.2	0.5	33	19	7.5	0.4	27	16
	ES2400	21.7	1.3	78	46	18.1	1.1	65	38	15.0	0.9	54	32
	ES2500	42.5	2.6	153	90	36.1	2.2	130	77	29.4	1.8	106	62
	ES2600	84.7	5.1	305	180	72.2	4.3	260	153	58.6	3.5	211	124

For systems using 1 or 2 stage piston/reciprocating compressors multiply compressor flow by 1.4 and select a separator from screw compressor flow rates shown, ensuring due consideration is given to oil type. For sizing at conditions other than those shown, please contact Parker for correct product selection.

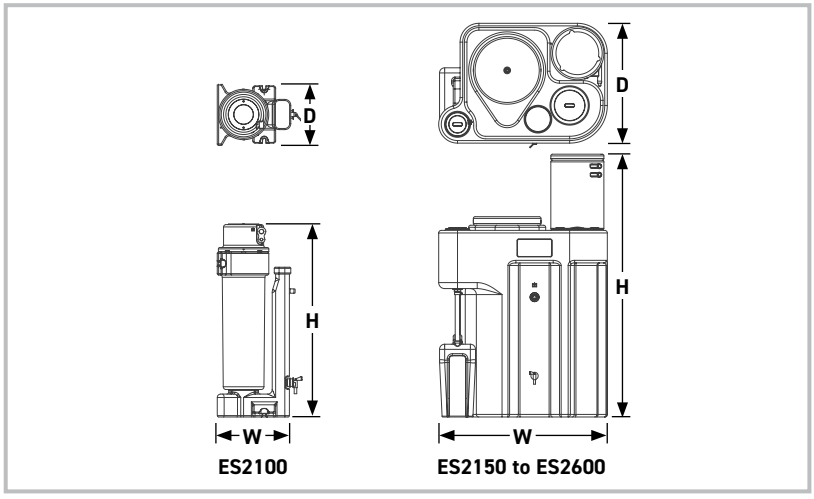
ES2000 Series Oil/Water Separators

Performance

Models	Separator Type	Residual Oil in Water Content (Outlet)	Service Period
ES2100 - ES2600	Static	Each separator model is sizeable to deliver a residual oil in water level of: <20mg/L <10mg/L <5mg/L	When oil in water levels exceed allowed levels

Technical Data

Model		ES2100	ES2150	ES2200	ES2300	ES2400	ES2500	ES2600
Inlet Connections		1 x ½" 1 x ¼"	1 x ½" 1 x ¼"	1 x ½" 1 x ¼"	1 x ½" 3 x ¼"	1 x ½" 3 x ¼"	1 x ½" 3 x ¼"	1 x ½" 3 x ¼"
Outlet Hose Connections		19mm (¾")	25mm (1")	19mm (¾")	25mm (1")	25mm (1")	25mm (1")	25mm (1")
Settlement Tank Capacity		N/A	60 litres	75 litres	125 litres	185 litres	355 litres	485 litres
		N/A	16 US G	20 US G	33 US G	49 US G	94 US G	128 US G
Maximum Pressure		16 bar g (232 psi g)						
Minimum/ Maximum Temperature	**°C**	5 to 35	5 to 35	5 to 35	5 to 35	5 to 35	5 to 35	5 to 35
	°F	41 to 95	41 to 95	41 to 95	41 to 95	41 to 95	41 to 95	41 to 95
Material (Recyclable)		Polyethylene						



Weight & Dimensions

Model	Height (H)		Width (W)		Depth (D)		Weight			
							Empty		Full	
	mm	ins	mm	ins	mm	ins	kg	lbs	kg	lbs
ES2100	842	33.1	250	9.8	315	12.4	6	13	24.5	154
ES2150	810	31.9	350	13.8	430	16.9	10	22	78.5	173
ES2200	805	31.7	350	13.8	450	17.7	12	26	93.5	206
ES2300	1195	47.0	500	19.7	800	31.5	27	59	159	350
ES2400	1195	47.0	650	26.6	800	31.5	36	79	217	477
ES2500	1535	60.4	700	27.6	985	38.8	70	154	400	880
ES2600	1535	60.4	1000	39.4	1010	39.8	97	214	550	1210

Parker Catalogue Numbers

Model	Part Number
ES2100	ES2100-TI
ES2150	ES2150-TI
ES2200	ES2200-TI
ES2300	ES2300-TI
ES2400	ES2400-TI
ES2500	ES2500-TI
ES2600	ES2600-TI

Maintenance Kits

Model	Quantity Required	Part Number
ES2100-TI	1	ESMK1
ES2150-TI	1	ESMK1
ES2200-TI	1	ESMK1
ES2300-TI	1	ESMK2
ES2400-TI	2	ESMK2
ES2500-TI	1	ESMK3
ES2600-TI	2	ESMK3

Service Kits - Vent Filter

Model	Part Number
ES2100-TI	ESVF1
ES2150-TI	ESVF1
ES2200-TI	ESVF1
ES2300-TI	ESVF2
ES2400-TI	ESVF2
ES2500-TI	ESVF2
ES2600-TI	ESVF2

HDF, ED and CDV Condensate Drains

Technical Data

Drain Type	Drain Models	Minimum Operating Pressure		Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature	
		bar g	psi g	bar g	psi g	˚C	˚F	˚C	˚F
External Float	HDF120 - 220	1	15	16	232	2	35	60	140
Electronic Level Sensing	ED3002 - 3100	1	15	16	232	2	35	60	140
HP Electronic Level Sensing	ED4100	16	232	50	725	2	35	50	122
Time Controlled	CDV120	1	15	24	348	2	35	50	122
HP Time Controlled	CDV120HP	16	232	50	725	2	35	50	122

Flow Rates - Zero Air Loss External Float Drains

Model	Pipe Size		Compressed Air Flow Rate				Electrical Supply
	Inlet	Outlet	L/S	m³/min	m³/hr	cfm	
HDF120-A	½"	½"	1500	90	5400	3178	-
HDF180-A	1"	½"	1667	100	6000	3532	-
HDF220-A	1"	½"	4167	251	15000	8829	-
External float drain (with built-in air vent)							
HDF120	½"	½"	1500	90	5400	3178	-
HDF180	1"	½"	1667	100	6000	3532	-
HDF220	1"	½"	4167	251	15000	8829	-
External float drain (without air vent)							
HDF220BE	1"	½"	1806	109	6500	3826	-
External float drains BioEnergy							

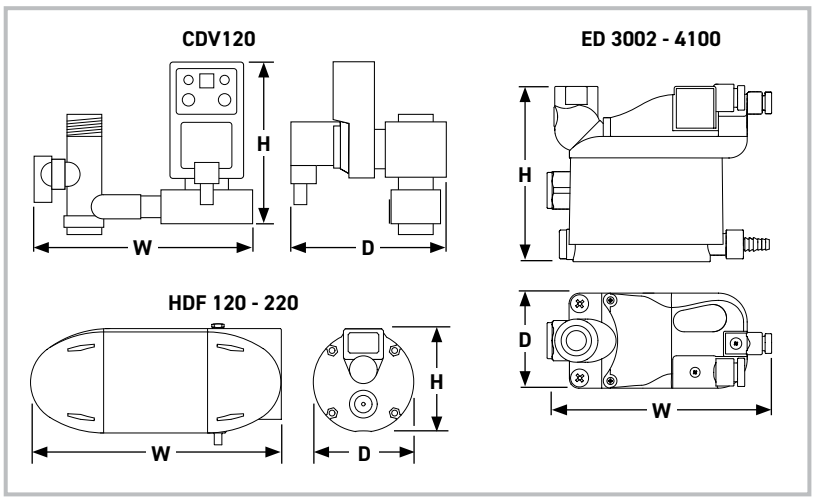
Flow Rates - Zero Air Loss Electronic Level Sensing Drains

Model	Pipe Size		Compressed Air Flow Rate (Aftercooler / Air Receiver)				Compressed Air Flow Rate (Refrigeration Dryer)				Compressed Air Flow Rate (Filter)				Electrical Supply
	Inlet	Outlet	L/S	m³/min	m³/hr	cfm	L/S	m³/min	m³/hr	cfm	L/S	m³/min	m³/hr	cfm	
ED3002-G230	1 x G½	G⅜	-	-	-	-	-	-	-	-	200	12	720	424	230/1/50-60
ED3004-G230	1 x G½	G⅜	67	4	240	141	133	8	480	283	667	40	2400	1413	230/1/50-60
ED3007-G230	2 x G½	G⅜	117	7	420	247	233	14	840	494	1167	70	4200	2472	230/1/50-60
ED3030-G230	2 x G½	G⅜	500	30	1800	1059	1000	60	3600	2119	5000	301	18000	10595	230/1/50-60
ED3100-G230	2 x G½	G⅜	1667	100	6000	3532	3334	200	12000	7063	16668	1002	60000	35316	230/1/50-60
230V/1PH/50-60Hz - 16 bar g (232 psi g)															
ED3007-G24D	2 x G½	G⅜	117	7	420	247	233	14	840	494	1167	70	4200	2472	24V DC
ED3030-G24D	2 x G½	G⅜	500	30	1800	1059	1000	60	3600	2119	5000	301	18000	10595	24V DC
ED3100-G24D	2 x G½	G⅜	1667	100	6000	3532	3334	200	12000	7063	16668	1002	60000	35316	24V DC
24V DC - 16 bar g (232 psi g)															
ED4100/50-G230	G½	G¼	1667	100	6000	3532	3334	200	12000	7063	16668	1002	60000	35316	230/1/50-60
230V/1PH/50-60Hz - 50 bar g (725 psi g)															
ED4100/50-G24D	G½	G¼	1667	100	6000	3532	3334	200	12000	7063	16668	1002	60000	35316	24V DC
24V DC - 50 bar g (725 psi g)															

Stated flows are for operation at max operating pressure shown above, ambient air 25°C (77°F) / 60% RH, compressor discharge temperature 35°C (95°F), refrigeration dryer pressure dewpoint +3°C, with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. Refrigeration dryer and filter flow rates assume adequate condensate drainage upstream.

Flow Rates - Time Controlled Drains

Model	Pipe Size		Compressed Air Flow Rate				Electrical Supply
	Inlet	Outlet	L/S	m³/min	m³/hr	cfm	
CDV120230	½"	⅜"	2500	150	9000	5297	230/1/50-60
CDV120115	½"	⅜"	2500	150	9000	5297	115/1/50-60
CDV120230HP	½"	⅜"	2500	150	9000	5297	230/1/50-60
CDV12024	½"	⅜"	2500	150	9000	5297	24V DC



Weight & Dimensions

Model	Height (H)		Width (W)		Depth (D)		Weight	
	mm	ins	mm	ins	mm	ins	kg	lbs
HDF120	111	4.4	156	6.1	108	4.3	0.9	2.0
HDF180	111	4.4	156	6.1	108	4.3	0.9	2.0
HDF220	111	4.4	266	10.5	108	4.3	1.9	4.2
HDF220BE	111	4.4	266	10.5	108	4.3	1.9	4.2
ED3002	146	5.7	110	4.3	67	2.6	0.5	1.1
ED3004	139	5.5	101	4.0	67	2.6	0.6	1.3
ED3007	164	6.5	122	4.8	67	2.6	1	2.2
ED3030	164	6.5	137	5.4	67	2.6	1	2.2
ED3100	164	6.5	197	7.8	67	2.6	2	4.4
ED4100	115	4.5	178	7.0	87	3.4	1.9	4.2
CDV120	110	4.3	90	3.5	90	3.5	0.7	1.5

Parker Catalogue Numbers (HDF Drains)

Model	BSPP / 16 bar g	BSPP / 16 bar g + Vent	NPT / 16 bar g + Vent
HDF120	HDF120	HDF120A	HDF120NPTA
HDF180	HDF180	HDF180A	HDF180NPTA
HDF220	HDF220	HDF220A	HDF220NPTA

Parker Catalogue Numbers (ED Drains)

Model	230V, 50-60 Hz / 16 bar g	24V DC / 16 bar g
ED3002	ED3002-G230	-
ED3004	ED3004-G230	-
ED3007	ED3007-G230	ED3007-G24D
ED3030	ED3030-G230	ED3030-G24D
ED3100	ED3100-G230	ED3100-G24D

Parker Catalogue Numbers (CDV Drains)

Model	230V, 50-60 Hz / 16 bar g	115V, 50-60 Hz / 16 bar g	230V, 50-60 Hz / 50 bar g	24V DC 50 bar g
CDV120	CDV120230	CDV120115	CDV120230HP	CDV12024

PCO2 Carbon Dioxide Quality Incident Protection Systems

From production plant to fountain / post mix and beer dispense, guaranteed CO_2 purity is assured.

The PCO2 Carbon Dioxide Quality Incident Protection System from Parker offers a comprehensive solution to preserve and guarantee the quality of gaseous carbon dioxide used in the sparkling beverage industry.

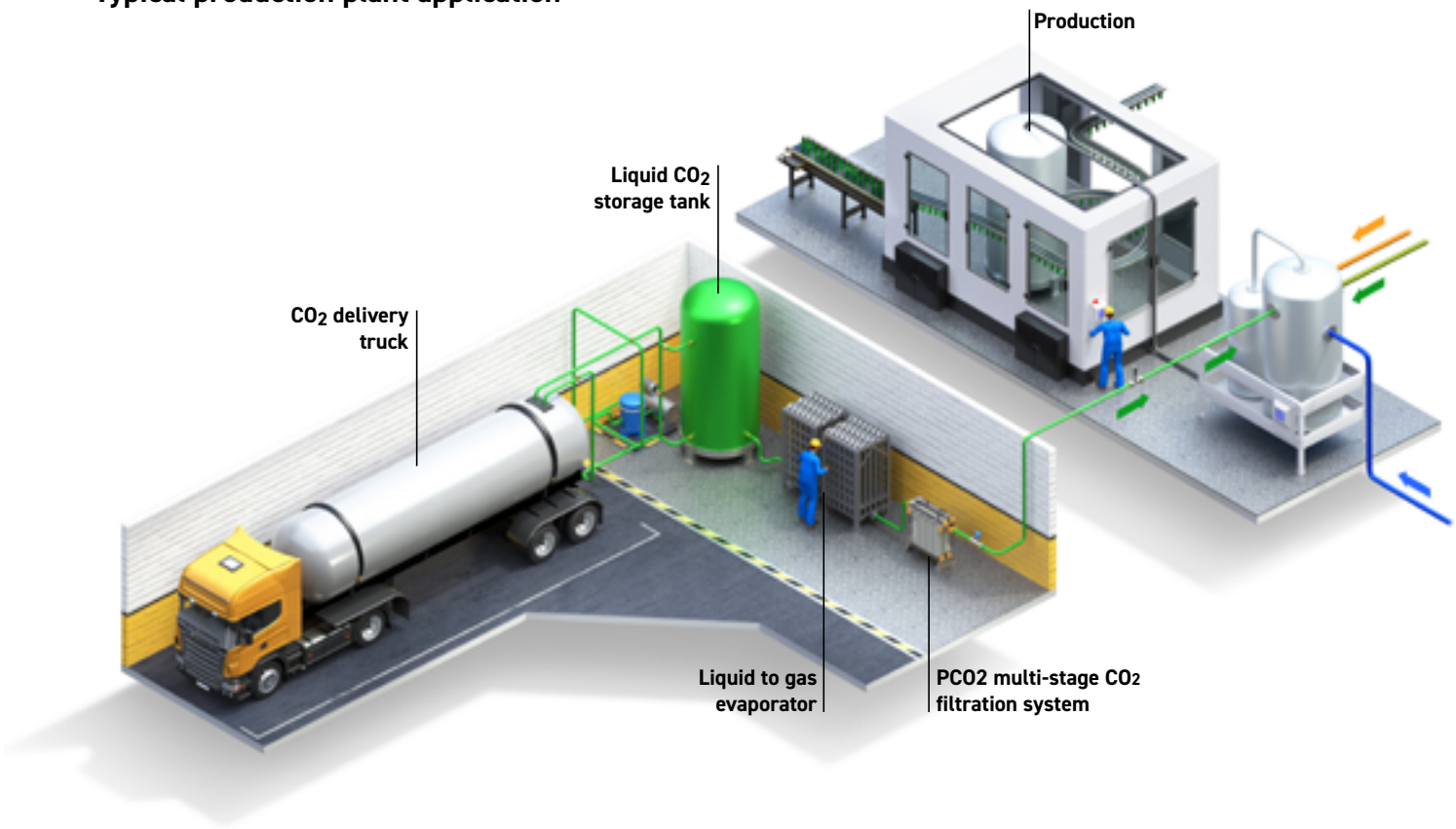
Using multi-layer gas adsorbent technology, the PCO2 range includes models for plant scale protection, as well as smaller variants for fountain / post mix and beer dispense applications respectively.

Operating as a vapour absorber to remove a wide range of potentially harmful carbon dioxide impurities, the system guarantees the gas quality to remain within industry and company guidelines, therefore preventing detrimental consequences to the finished beverage and to the producers reputation.

PCO2 quality incident production systems for production plant

The system for the production plant environment offers in-line quality incident protection against peak levels of trace impurities which may be present in beverage-grade carbon dioxide.

Typical production plant application



ISBT Quality Guidelines for Carbon Dioxide

The International Society of Beverage Technologists (ISBT) is the only organisation whose sole interest is the technical and scientific aspects of soft drinks and beverages.

The ISBT is a highly respected body which is dedicated to the promotion, development and dissemination of knowledge relating to the art and science of beverage technology.

The quality guidelines and analytical procedure bibliography has been developed by the ISBT to provide guidance for manufacturers of carbonated beverages and suppliers of carbon dioxide to the carbonated beverage industries about key characteristics for the quality and purity of carbon dioxide when used as a direct food additive in beverages.

The following table lists the voluntary quality standards taken from the document with relation to CO_2 quality.

Voluntary quality standards as listed in the ISBT Quality Guidelines

Parameter	Guideline	Rationale†
Purity:	99.9 % v/v min.	Process
Moisture:	20 ppm v/v max.	Process
Oxygen:	30 ppm v/v max.	Sensory
Carbon Monoxide:	10 ppm v/v max.	Process
Ammonia	2.5 ppm v/v max.	Process
Nitric Oxide / Nitrogen Dioxide:	2.5 ppm v/v max. (each)	Regulatory
Non-volatile Residue:	10 ppm w/w max.	Sensory
Non-volatile Organic Residue:	5 ppm w/w max.	Sensory
Phosphine:	To pass test (0.3 ppm v/v max.)	Regulatory
Total Volatile Hydrocarbons: (as Methane)	50 ppm v/v max. including 20 ppm v/v max. as total non-methane hydrocarbons	Sensory
Acetaldehyde:	0.2 ppm v/v max.	Sensory
Aromatic Hydrocarbon Content:	20 ppb v/v max.	Regulatory
Total Sulphur Content* (as S): (*Total sulphur-containing impurities excluding sulphur dioxide)	0.1 ppm v/v max.	Sensory
Sulphur Dioxide	1 ppm v/v max.	Sensory
Odour of Solid CO_2 (snow):	No foreign odour	Sensory
Appearance in water:	No colour or turbidity	Sensory
Odour and taste in water:	No foreign odour or taste	Sensory

Source: ISBT CO_2 quality & analytical procedure bibliography, 2019.

†Rationale definitions:

Sensory: Any attribute that negatively impacts the taste, appearance or odour of beverage.

Process: Any attribute that defines a key parameter in a controlled process and an important consideration in the beverage industry.

Regulatory: Any attribute whose limit is set by governing regulatory agencies.

PCO2 Carbon Dioxide Quality Incident Protection Systems

For the sparkling beverage industry

Technical Data

Model	Port Size*	Flow Rate		Quantity Required	Maximum Operating Pressure		Minimum Operating Temperature		Maximum Operating Temperature		Inlet CO_2 Quality†
		Kg/h	Lb/h		bar g	psi g	ºC	ºF	ºC	ºF	
PCO2-400	1"	181	400	1	20.7	300	-20	-4	40	104	ISBT Beverage Grade CO_2
PCO2-800	1½"	363	800	1	24.1	350	-20	-4	40	104	
PCO2-1600	1½"	726	1600	1	24.1	350	-20	-4	40	104	
PCO2-2400	1½"	1089	2400	1	24.1	350	-20	-4	40	104	
PCO2-3200	1½"	1451	3200	1	24.1	350	-20	-4	40	104	
PCO2-4000	1½"	1814	4000	1	24.1	350	-20	-4	40	104	
PCO2-4800	1½"	2177	4800	1	24.1	350	-20	-4	40	104	
PCO2-3200 Duplex**	1½"	2903	6400	2	24.1	350	-20	-4	40	104	
PCO2-4000 Duplex**	1½"	3628	8000	2	24.1	350	-20	-4	40	104	
PCO2-4800 Duplex**	1½"	4354	9600	2	24.1	350	-20	-4	40	104	

*All systems are supplied as NPT with stainless steel adapters 'NPT to BSP' as standard.

**Duplex systems are installed in parallel to double the flow.

†PCO2 CO_2 Systems are for gaseous CO_2 only.

All systems are rated at a maximum operating pressure of 24.1 bar g / 350 psi g. PCO2-400 is rated at 20.7 Bar g / 300 psi g.

Correction Factors

Inlet Pressure	bar g	3	4	5	6	7	8	9	10	11	12	13
	psi g	44	58	73	87	102	116	130	145	160	174	189
Correction factor		0.19	0.23	0.28	0.33	0.38	0.42	0.47	0.52	0.57	0.61	0.66

Inlet Pressure	bar g	14	15	16	17	18	19	20	21	22	23	24
	psi g	203	218	232	247	261	275	290	304	319	333	348
Correction factor		0.71	0.76	0.80	0.85	0.90	0.95	1	1	1	1	1

Operation

Stage 1
0.01 micron particle filtration
Removal of non-volatile organic residue (NVOR) and other contaminants down to 0.01 ppm

Stage 2
Removal of water vapour and partial removal of hydrocarbons

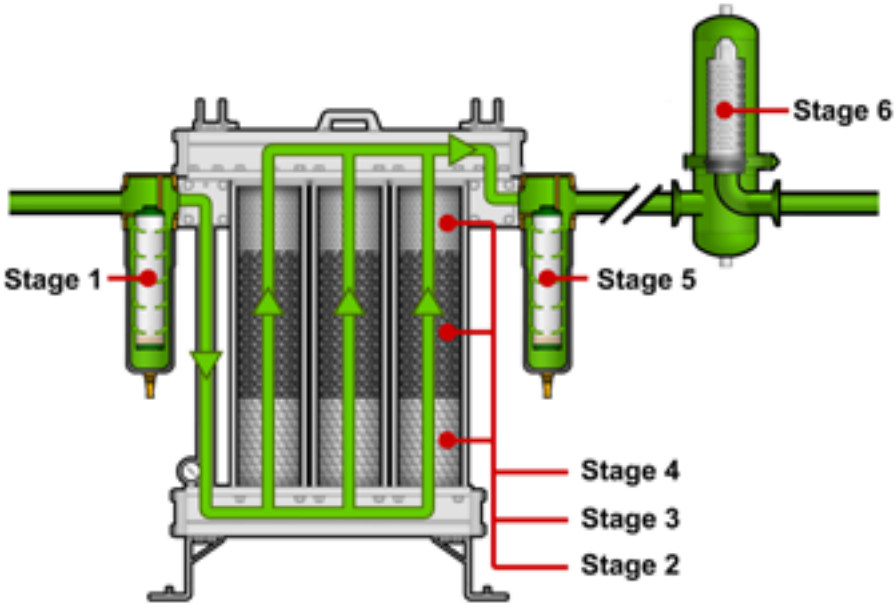
Stage 3
Primary removal of aromatic hydrocarbons (Benzene, Toluene etc and Acetaldehyde)

Stage 4
Removal of sulphur compounds (COS, H2S, DMS etc)

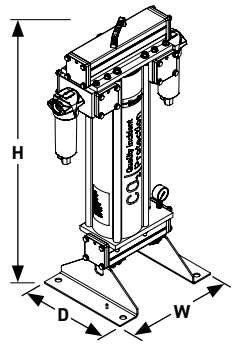
Stage 5
0.01 micron particle filtration

Stage 6*
Point of use VBACE sterile gas membrane. Hi Flow Tetpor II

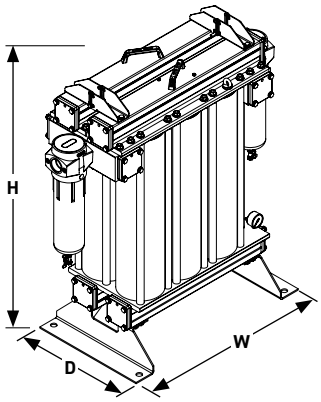
* Optional - Sterilizing Grade: consult Parker for operational use



PCO2-400



PCO2-800 to PCO2-4800



Weights & Dimensions

Model	Height (H)		Width (W)		Depth (D)		Clearance*		Weight	
	mm	ins	mm	ins	mm	ins	mm	ins	kg	lbs
PCO2-400	1035	40.8	564	22.2	350	13.7	680	27	75	165
PCO2-800	1060.7	41.8	632	24.9	450	17.7	680	27	84	185
PCO2-1600	1060.7	41.8	801	31.5	450	17.7	680	27	128	282
PCO2-2400	1060.7	41.8	970	39.4	450	17.7	680	27	172	379
PCO2-3200	1060.7	41.8	1139	44.8	450	17.7	680	27	217	478
PCO2-4000	1060.7	41.8	1308	51.5	450	17.7	680	27	260	573
PCO2-4800	1060.7	41.8	1477	58.1	450	17.7	680	27	304	670

*Clearance required for the removal and servicing of cartridges.

Preventative Maintenance Kits - Required Every 8000 Hrs (12 months)

Model	Part Number	Contents	Order Quantity
PCO2-400	MK-PCO2-400	1 x Desiccant Cartridge, 2 x Outlet Block O-Rings, 2 x P020-AA Filter Elements, 2 x IP50-AA Filter Elements, 2 x Filter Bowl O-Rings	1
PCO2-800	MK-PCO2-800	2 x Desiccant Cartridges, 2 x Outlet Block O-Rings, 2 x P035AA Filter Elements, 2 x IP50-AA Filter Elements, 2 x Filter Bowl O-Rings	1
PCO2-1600	MK-PCO2-1600	4 x Desiccant Cartridges, 2 x Outlet Block O-Rings, 2 x P035AA Filter Elements, 2 x IP50-AA Filter Elements, 2 x Filter Bowl O-Rings	1
PCO2-2400	MK-PCO2-2400	6 x Desiccant Cartridges, 2 x Outlet Block O-Rings, 2 x P035AA Filter Elements, 2 x IP50-AA Filter Elements, 2 x Filter Bowl O-Rings	1
PCO2-3200	MK-PCO2-3200	8 x Desiccant Cartridges, 2 x Outlet Block O-Rings, 2 x P035AA Filter Elements, 2 x IP50-AA Filter Elements, 2 x Filter Bowl O-Rings	1
PCO2-4000	MK-PCO2-4000	10 x Desiccant Cartridges, 2 x Outlet Block O-Rings, 2 x P035AA Filter Elements, 2 x IP50-AA Filter Elements, 2 x Filter Bowl O-Rings	1
PCO2-4800	MK-PCO2-4800	12 x Desiccant Cartridges, 2 x Outlet Block O-Rings, 2 x P035AA Filter Elements, 2 x IP50-AA Filter Elements, 2 x Filter Bowl O-Rings	1
PCO2-3200 (Duplex)	MK-PCO2-6400	16 x Desiccant Cartridges, 4 x Outlet Block O-Rings, 4 x P035AA Filter Elements, 4 x IP50-AA Filter Elements, 4 x Filter Bowl O-Rings	1
PCO2-4000 (Duplex)	MK-PCO2-8000	20 x Desiccant Cartridges, 4 x Outlet Block O-Rings, 4 x P035AA Filter Elements, 4 x IP50-AA Filter Elements, 4 x Filter Bowl O-Rings	1
PCO2-4800 (Duplex)	MK-PCO2-9600	24 x Desiccant Cartridges, 4 x Outlet Block O-Rings, 4 x P035AA Filter Elements, 4 x IP50-AA Filter Elements, 4 x Filter Bowl O-Rings	1

With OIL-X filter elements
(PCO2-400 Models only)

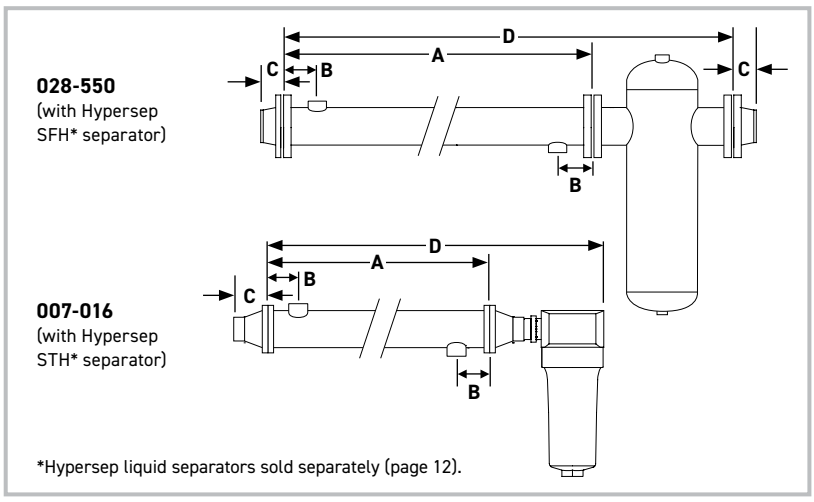
With OIL-X and OIL-X IP50 filter elements
(PCO2-80 0 to PCO2-4800 Models)

Hypercool Water Cooled Aftercoolers

Technical Data - Hypercool Water Cooled

Model	Air Flow	Maximum Pressure		Nominal Water Consumption	Cooler Connections	
	m³/min	bar g	psi g	m³/h	Air	Water
Fixed Tube-Bundle Version						
WFN050	50	12	174	10	DN125	1¼"
WFN090	90	12	174	11	DN200	1¼"
	Other Models Available On Request.					
Removable Tube-Bundle						
WRN007	7	16	232	1.5	DN 50	½"
WRN016	16	16	232	3.5	DN 80	¾"
WRN028	28	12	174	4	DN 100	1"
WRN050	50	12	174	10	DN 125	1¼"
WRN090	90	12	174	11	DN 200	1¼"
WRN130	130	10	145	13	DN 250	1½"
WRN170	170	10	145	17.5	DN 300	2"
WRN250	250	10	145	19	DN 350	DN 65
WRN350	350	10	145	37	DN 450	DN 80
WRN450	450	10	145	46	DN 500	DN 100
WRN550	550	10	145	50	DN 600	DN 100

Performances refer to clean cooler conditions with air at FAD 20°C/1 bar A, and at the following working conditions:
air suction 25°C/60% RH, 7 bar g working pressure, 120°C compressed air inlet temperature, 20°C cooling water inlet temperature, may differ from those indicated above. Maximum air inlet temperature: 200°C (for higher temperature and other gases contact Parker Sales Companies).



*Hypersep liquid separators sold separately (page 12).

Weights & Dimensions

Model	A		B		C		D		Weight		Matching Hypersep* Separator
	mm	ins	mm	ins	mm	ins	mm	ins	kg	lbs	
Fixed Tube-Bundle Version											
WFN050	1300	51.2	100	3.9	58	2.3	1963	77.3	71	156	SFH066N
WFN090	1300	51.2	100	3.9	65	2.6	1990	78.3	121	266	SFH086N
Removable Tube-Bundle											
WRN007	1050	41.3	72	2.8	77	3.0	1257	49.5	20	44	STH013N
WRN016	1300	51.2	122	4.8	92	3.6	1563	61.5	37	81	STH021N
WRN028	1300	51.2	122	4.8	55	2.2	1703	67.0	54	119	SFH030N
WRN050	1300	51.2	123	4.8	58	2.3	1853	73.0	71	156	SFH066N
WRN090	1300	51.2	117	4.6	65	2.6	1873	73.7	161	354	SFH089N
WRN130	1300	51.2	116	4.6	71	2.8	1983	78.1	194	427	SFH142N
WRN170	1300	51.2	116	4.6	71	2.8	2053	80.8	244	537	SFH180N
WRN250	1500	59.1	196.5	7.7	71	2.8	2503	98.5	351	772	SFH280N
WRN350	1500	59.1	148.5	5.8	75	3.0	2703	106.4	400	880	SFH390N
WRN450	1500	59.1	199.5	7.9	78	3.1	3436	135.3	609	1340	SFH450N
WRN550	1500	59.6	200	7.9	83	3.3	3606	142.0	931	2048	SFH550N

*Hypersep liquid separators sold separately (page 12).

Hyperchill Plus-E Industrial Water Chiller (50Hz)

Technical Data

Model ICEP-E		003E	005E	008E	011E	015E	022E	027E	034E	041E	055E	065E	080E	100E	120E
Cooling capacity[1]	kW	2,9	4,9	7,8	11,1	15,0	21,9	26,6	33,1	40,2	56,3	65	78,3	103,7	120,6
Total absorbed power[1]	kW	1,2	1,6	1,6	2,3	3,6	5,0	5,7	6,7	8,3	12,8	15,3	18,5	24,2	29,8
EER[1]		2,38	3,16	4,79	4,78	4,10	4,40	4,64	4,95	4,82	4,55	4,25	4,25	4,10	4,04
SEPR HT[2]		NA	5,00	5,34	5,40	5,01	5,50	5,20	5,60	5,33	5,06	5,10	5,20	5,10	5,02
Power Supply	V/ph/Hz	230/1/50		400/3/50											
Protection index		IP33		IP54											
Refrigerant		R513A													

Compressor

Type		piston		hermetic scroll											
Compressors / circuit		1/1									2/1		2/2		
Max.abs.power (1 compressor)	kW	1,1	1,5	2,5	3,5	5,4	6,5	8,7	10,8	11,3	10,8	11,3	13,1	17,9	22,1

Axial fans

Quantity	no.	1					2						3		
Max.abs.power (1 fan)	kW	0,34	0,34	0,23	0,23	0,46	0,46	0,46	0,77	0,77	0,77	0,77	0,77	0,77	0,77
Air flow	m³/h	1258	1258	3325	3325	5028	7823	10865	17337	17057	17057	17110	26832	26082	26082

Pump P30

Max.abs.power	kW	0,4	0,4	0,9	0,9	1,0	1,3	1,3	2,2	2,2	2,2	2,2	3,3	3,3	3,3
Water flow (nom./ max)[1]	m³/h	0,5/ 1,9	0,8/ 1,9	1,3/ 4,5	1,9/ 4,5	2,6/ 5,4	3,8/ 9,6	4,6/ 9,6	5,7/ 18	6,9/ 18	9,7/ 18	11,2/ 18	13,6/ 31,2	17,8/ 31,2	20,7/ 31,2
Head pressure (nom./max)[1]	m H_2O	30/ 5	24/ 5	32/ 21,5	28,6/ 21,5	29/ 23	28/ 17,1	26,9/ 17,1	30/ 23,1	28,5/ 23,1	27,6/ 23,1	27/ 23,1	27,9/ 19	26,7/ 19	25,7/ 19

Weights and Dimensions

Width	mm	755	755	756	756	756	756	756	856	856	856	856	1050	1050	1050
Depth	mm	535	535	806	806	806	1206	1206	1956	1956	1956	1956	2500	2500	2500
Height	mm	801	801	1430	1430	1430	1430	1430	1680	1680	1680	1680	2012	2012	2012
Connections in/out	in	¾"	¾"	¾"	¾"	¾"	1"	1"	1½"	1½"	1½"	1½"	2"	2"	2"
Tank capacity	l	15	22,5	65	65	65	100	100	200	200	200	200	400	400	400
Weight (axial)[3]	kg	80	91	165	175	180	235	250	485	510	580	595	875	1010	1030

Noise level

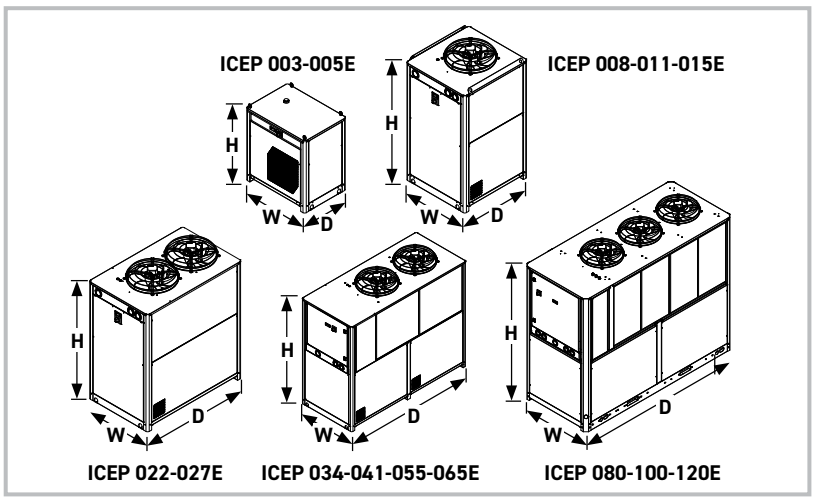
Sound pressure (axial)[4]	dB(A)	52	52	50	50	51	52	52	53	54	55	55	58	59	59

1) At water in/out temperature 20/15°C, glycol 0%, either 25°C ambient temperature (air-cooled models).

2) Value calculated in accordance with the European regulation (EU) 2016/2281 with regards to Ecodesign requirements for high temperature process chillers.

3) Includes refrigerant charge and pallet (version without options and accessories).

4) Sound pressure: average value obtained in free field on a reflective surface at a distance of 10 m from the condensate side of the machine and at a height of 1.6 m from the unit support base. Values with tolerance ± 2 dB. The sound levels refer to operation of the unit under full load in nominal conditions.



Part Number Breakdown/Product Key

Product Code	Model	Eco Friendly Design	-	Fluid to be Cooled	Condenser Section	Power Supply	Pumps	Water Tank	Control Water Temp.	Low Ambient	Low Water	Antifreeze	Fill Kit Mounted	Options
ICEP	003	E	-	W	A	S	P1	T	C	FS	LW	A	0	P
	005				W	T	P3	0	0	L1	00	0	1	C
	008				T		P5			L2			2	1
	011				B		00			00			3	T
	015				C		D3							
	022						D5							
	027													
	034													
	041													
	055													
	065													
	080													
	100													
	120													

- ICEP = Hyperchill Plus
- W = Water
- A = Air Axial
- W = Water
- T = Tropicalised
- B = BioEnergy & Aggressive Ambients
- C = High Head Pressure Fans
- S = 230V/ 1Ph/50Hz
- T = 400V/ 3Ph/50Hz
- P1 = Single Pump 1.5 bar
- P3 = Single Pump 3 bar
- P5 = Single Pump 5 bar
- 00 = No Pump
- D3 = Dual Pump 3 bar
- D5 = Dual Pump 5 bar
- T = With Tank
- 0 = Without Tank
- C = Close Control +/- 0.5°C
- 0 = Without Close Control
- FS = Fan Speed Control (Low Ambient -10°C)
- L1 = Low Ambient -10°C (Fan Step Control)
- L2 = Low Ambient -20°C
- 00 = No Low Ambient
- LW = Low Water
- 00 = NoLow Water
- A = With Antifreeze
- 0 = Without Antifreeze
- 0 = Without Fill Kit
- 1 = Ambient Manual Fill Kit
- 2 = Ambient Automatic Fill Kit
- 3 = Pressurised Fill Kit
- P = Harting Plug For Signals
- C = Control Panel Cover
- 1 = Manual External Bypass
- T = Modbus TCP/IP
- No Character = No Options Selected

Hyperchill Plus-E Industrial Water Chiller (50Hz)

Versions

	ICEP003E	ICEP005E	ICEP008E	ICEP011E	ICEP015E	ICEP022E	ICEP027E	ICEP034E	ICEP041E	ICEP055E	ICEP065E	ICEP080E	ICEP100E	ICEP120E
Open Circuit	•	•	available with ambient manual fill kit fitted											
Closed Circuit		•	•	•	•	•	•	•	•	•	•	•	•	•
Air Cooled with Axial Fans	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Air Cooled with High Head Pressure Fan For Air Channeling								•	•	•	•	•	•	•
Water Cooled						•	•	•	•	•	•	•	•	•

Standard Part Numbers - Air Cooled with Axial Fans

Hyperchill Plus-E Air Cooled with axial fans (non ferrous open hydraulic circuit with tank and 3 bar pump)	
ICEP003E	ICEP003E-WASP3T0000001
ICEP005E	ICEP005E-WASP3T0000001
Hyperchill Plus-E Air Cooled with axial fans (non ferrous pressurized closed hydraulic circuit with tank and 3 bar pump)	
ICEP005E	ICEP005E-WASP3T0000000
ICEP008E	ICEP008E-WATP3T0000000
ICEP011E	ICEP011E-WATP3T0000000
ICEP015E	ICEP015E-WATP3T0000000
ICEP022E	ICEP022E-WATP3T0L10000
ICEP027E	ICEP027E-WATP3T0L10000
ICEP034E	ICEP034E-WATP3T0L10000
ICEP041E	ICEP041E-WATP3T0L10000
ICEP055E	ICEP055E-WATP3T0L10000
ICEP065E	ICEP065E-WATP3T0L10000
ICEP080E	ICEP080E-WATP3T0L10000
ICEP100E	ICEP100E-WATP3T0L10000
ICEP120E	ICEP120E-WATP3T0L10000

Hyperchill Plus-E Industrial Water Chiller (50Hz)

Options and Standard Features - Air Cooled with Axial Fans

✓ = Option ● = Standard Feature

	ICEP-003E	ICEP-005E	ICEP-008E	ICEP-011E	ICEP-015E	ICEP-022E	ICEP-027E	ICEP-034E	ICEP-041E	ICEP-055E	ICEP-065E	ICEP-080E	ICEP-100E	ICEP-120E
Differential Pressure Switch	●	●	●	●	●	●	●	●	●	●	●	●	●	●
MODBUS RTU	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Eyebolts	●	●	●	●	●									
Non ferrous hydraulic circuit with water tank and 3 bar pump	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Differential dynamic set point			●	●	●	●	●	●	●	●	●	●	●	●
Low Ambient -10°C with fan step control						●	●	●	●	●	●	●	●	●
Low ambient -10°C with fan speed control			✓	✓	✓									
Low ambient -20°C with fan speed control, crankcase heater and electrical panel heater			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
No Tank	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
No Tank & No Pump	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
No Pump	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
P50 (5 bar pump)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
P15 (1,5 bar pump)			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Dual pump P30 (3 bar pump)								✓	✓	✓	✓	✓	✓	✓
Dual pump P50 (5 bar pump)												on request		
Harting Plug for signals	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Close Control (+/- 0,5°C)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	on request		
Low Water -10°C			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Antifreeze Heating			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BioEnergy & Aggressive ambient protection			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Tropicalization (ambient temperature >48°C)				on request										

Hyperchill Plus-E Industrial Water Chiller (50Hz)

Standard Part Numbers - Air Cooled with High Head Pressure Fan For Air Channeling

Hyperchill Plus-E Air Cooled with high head pressure fans for air channeling (non ferrous pressurized closed hydraulic circuit with tank and 3 bar pump)	
ICEP022E	N/A
ICEP027E	N/A
ICEP034E	ICEP034E-WCTP3T0L10000
ICEP041E	ICEP041E-WCTP3T0L10000
ICEP055E	ICEP055E-WCTP3T0L10000
ICEP065E	ICEP065E-WCTP3T0L10000
ICEP080E	ICEP080E-WCTP3T0L10000
ICEP100E	ICEP100E-WCTP3T0L10000
ICEP120E	ICEP120E-WCTP3T0L10000

Standard Part Numbers - Water Cooled

Hyperchill Plus-E Water Cooled (non ferrous pressurized closed hydraulic circuit with tank and 3 bar pump)	
ICEP022E	ICEP022E-WWTP3T0L10000
ICEP027E	ICEP027E-WWTP3T0L10000
ICEP034E	ICEP034E-WWTP3T0L10000
ICEP041E	ICEP041E-WWTP3T0L10000
ICEP055E	ICEP055E-WWTP3T0L10000
ICEP065E	ICEP065E-WWTP3T0L10000
ICEP080E	ICEP080E-WWTP3T0L10000
ICEP100E	ICEP100E-WWTP3T0L10000
ICEP120E	ICEP120E-WWTP3T0L10000

Options & Standard Features - Air Cooled with High Head Pressure Fan For Air Channeling

	ICEP034E	ICEP041E	ICEP055E	ICEP065E	ICEP080E	ICEP100E	ICEP120E
Differential Pressure Switch	●	●	●	●	●	●	●
MODBUS	●	●	●	●	●	●	●
Non ferrous Hydraulic circuit with water tank and 3 bar pump	●	●	●	●	●	●	●
Low Ambient -10°C	●	●	●	●	●	●	●
Differential Dynamic Set Point	●	●	●	●	●	●	●
No Tank	✓	✓	✓	✓	✓	✓	✓
No Tank and No Pump	✓	✓	✓	✓	✓	✓	✓
No Pump	✓	✓	✓	✓	✓	✓	✓
P50 (5 bar pump)	✓	✓	✓	✓	✓	✓	✓
P15 (1,5 bar pump)	✓	✓	✓	✓	✓	✓	✓
Dual pump P30 (3 bar pump)	✓	✓	✓	✓	✓	✓	✓
Dual pump P50 (5 bar pump)					✓	✓	✓
Harting Plug for Signals	✓	✓	✓	✓			
Close Control (+/- 0,5°C)	✓	✓	✓	✓	on request		
Low Water -10°C	✓	✓	✓	✓	✓	✓	✓
Anti-Freeze Heating	✓	✓	✓	✓	✓	✓	✓

Options & Standard Features - Water Cooled

	ICEP022E	ICEP027E	ICEP034E	ICEP041E	ICEP055E	ICEP065E	ICEP080E	ICEP100E	ICEP120E
Differential Pressure Switch	●	●	●	●	●	●	●	●	●
MODBUS	●	●	●	●	●	●	●	●	●
Non ferrous Hydraulic circuit with water tank and 3 bar pump	●	●	●	●	●	●	●	●	●
Low Ambient -10°C	●	●	●	●	●	●	●	●	●
Differential Dynamic Set Point	●	●	●	●	●	●	●	●	●
No Tank	✓	✓	✓	✓	✓	✓	✓	✓	✓
No Tank and No Pump	✓	✓	✓	✓	✓	✓	✓	✓	✓
No Pump	✓	✓	✓	✓	✓	✓	✓	✓	✓
P50 (5 bar pump)	✓	✓	✓	✓	✓	✓	✓	✓	✓
P15 (1,5 bar pump)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Dual pump P30 (3 bar pump)			✓	✓	✓	✓	✓	✓	✓
Dual pump P50 (5 bar pump)							✓	✓	✓
Harting Plug for Signals	✓	✓	✓	✓	✓	✓			
Close Control (+/- 0,5°C)	✓	✓	✓	✓	✓	✓	on request		
Low Water -10°C	✓	✓	✓	✓	✓	✓	✓	✓	✓
Anti-Freeze Heating	✓	✓	✓	✓	✓	✓	✓	✓	✓

✓ = Option ● = Standard Feature

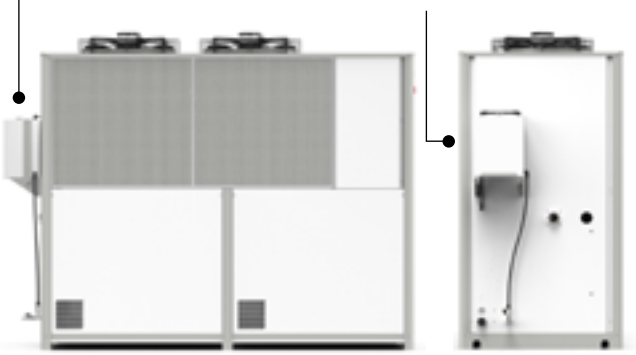
Hyperchill Plus-E - Kits and Accessories

Available Kits & Accessories

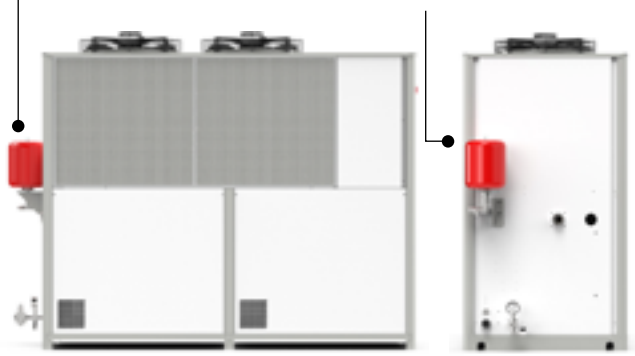
	ICEP003E	ICEP005E	ICEP008E - ICEP015E	ICEP022E-ICEP027E	ICEP034E-ICEP065E	ICEP080E - ICEP080E - ICEP120E
Fill kit - ambient manual* ** Non-ferrous ambient manual kit for water filling in any installation.			398H785314E	398H785314E	398H785314E	398H785314E
Fill kit - ambient automatic* ** Non-ferrous ambient automatic kit for water filling in any installation.			398H785316E	398H785316E	398H785316E	398H785316E
Fill kit - pressurised automatic* ** Non-ferrous pressurized, automatic kit, with expansion tank. For water filling in any installation.		398H785312E	398H785304E	398H785304E	398H785304E	398H785325E
Remote control - base Base version for remote ON/OFF and general alarm monitoring.	398H785010E	398H785010E	398H785010E	398H785010E	398H785010E	398H785010E
Remote control - advanced Advanced version for complete remote unit monitoring, with master/slave function included.	398H785322E	398H785322E	398H785322E	398H785322E	398H785322E	398H785322E
MODBUS TCP/IP* **	398H785272E	398H785272E	398H785272E	398H785272E	398H785272E	398H785272E
Wheels	398H785301E	398H785301E	398H785301E			
Control panel cover* **			398H785303E	398H785303E	398H785303E	398H785323E
Manual external bypass* ** Non-ferrous, externally adjustable allowing the correct flow through the system to be set.	398H785305E	398H785305E	398H785305E	398H785306E	398H785317E	398H785324E

*** From model ICEP008E to model ICEP120E: ambient manual and automatic fill kit, pressurised automatic fill kit, control panel cover, manual external by-pass and Modbus TCP/IP can be supplied already installed or loose.

Fill Kit - Ambient



Fill Kit - Pressurised



Hyperchill Plus Industrial Water Chiller (60Hz UL*)

*ICEP002: UL Compliant/ICEP003-024: UL Listed

Part Number Breakdown/Product Key

Product Code	Model	-	Fluid to be Cooled	Condenser Section	Power Supply	Pumps	Water Tank	Control Water Temperature	Low Ambient	Low Water	Antifreeze	Fill Kit Mounted	Options
ICEP	002	-	W	A	F	P1	T	C	FS	00	0	0	P
	003			W	G	P3	0	0	L1	LW		1	D
	005			B		P5			L2			2	C
	007					00			00			3	1
	010												
	014												
	020												
	024												

ICEP = Hyperchill Plus

W = Water

A = Air Axial
W = Water
B = Air Axial Bioenergy

F = 230V/1Ph/60Hz
G = 460V/3Ph/60Hz

P1 = Single Pump 1.5 bar
P3 = Single Pump 3 bar
P5 = Single Pump 5 bar
00 = No Pump

T = With Tank
0 = Without Tank

C = Close Control +/- 0.5°C
0 = Without Close Control

FS = Fan Speed Control (Low Ambient -10°C)
L1 = Low Ambient -10°C (Fan Step Control)
L2 = Low Ambient -20°C
00 = No Low Ambient

00 = No Low Water
LW = Low Water

0 = Without Antifreeze

0 = Without Fill Kit
1 = Ambient Manual Fill Kit
2 = Ambient Automatic Fill Kit
3 = Pressurised Fill Kit

P = Harting Plug For Signals
D = Differential Dynamic Set Point
C = Control Panel Cover
1 = Manual External Bypass
No Character = No Options Selected

Versions

	ICEP002-W	ICEP003-W	ICEP005-W	ICEP007-W	ICEP010-W	ICEP014-W	ICEP020-W	ICEP024-W
Open Circuit	•	•	•	available with ambient manual fill kit fitted				
Closed Circuit			•	•	•	•	•	•
Water Cooled						•	•	•

Hyperchill Plus Industrial Water Chiller (60Hz UL*)

Standard Part Numbers - Air Cooled with Axial Fans

Hyperchill Plus Air Cooled with axial fans (non ferrous open hydraulic circuit with tank and 3 bar pump)	
ICEP002-W	ICEP002-WAFP3T0000001
ICEP003-W	ICEP003-WAFP3T0000001
ICEP005-W	ICEP005-WAFP3T0000001
Hyperchill Plus Air Cooled with axial fans (non ferrous pressurized closed hydraulic circuit with tank and 3 bar pump)	
ICEP005-W	ICEP005-WAFP3T0000000
ICEP007-W	ICEP007-WAGP3T0000000
ICEP010-W	ICEP010-WAGP3T0000000
ICEP014-W	ICEP014-WAGP3T0000000
ICEP020-W	ICEP020-WAGP3T0L10000
ICEP024-W	ICEP024-WAGP3T0L10000

Options & Standard Features - Air Cooled with Axial Fans

	ICEP002-W	ICEP003-W	ICEP005-W	ICEP007-W	ICEP010-W	ICEP014-W	ICEP020-W	ICEP024-W
Differential pressure switch	standard	standard	standard	standard	standard	standard	standard	standard
MODBUS RTU				standard	standard	standard	standard	standard
Eyebolts	standard	standard	standard	standard	standard	standard		
Non ferrous hydraulic circuit with water tank and 3 bar pump	standard	standard	standard	standard	standard	standard	standard	standard
Low ambient -10°C with fan step control							standard	standard
No tank	•	•	•	•	•	•	•	•
No tank & no pump	•	•	•	•	•	•	•	•
No pump	•	•	•	•	•	•	•	•
P50 (5 bar pump)		•	•	•	•	•	•	•
P15 (1.5 bar pump)				•	•	•	•	•
Harting plug for signals	•	•	•	•	•	•	•	•
Close control (+/- 0.5°C)		•	•	•	•	•	•	•
Low water -10°C				•	•	•	•	•
Low ambient -10°C with fan speed control				•	•	•	•	•
Low ambient -20°C with fan speed control, crankcase heater and electrical panel heater				•	•	•	•	•
BioEnergy & aggressive ambients protection				•	•	•	•	•
Differential dynamic set point				•	•	•	•	•

Available Kits & Accessories

	ICEP002-W	ICEP003-W	ICEP005-W	ICEP007 - ICEP014	ICEP020 - ICEP030	ICEP040 - ICEP060
Fill kit - ambient manual* **				398H785314	398H785314	398H785314
Fill kit - ambient automatic* **				398H785316	398H785316	398H785316
Fill kit - pressurised automatic with expansion tank* **			398H785312	398H785304	398H785304	398H785304
Remote control - base	398H785009	398H785009	398H785009	398H785010	398H785010	398H785010
Remote control - advanced				398H785307	398H785307	398H785307
Wheels	398H785302	398H785301	398H785301	398H785301		
Control panel cover* **				398H785303	398H785303	398H785303
Manual external bypass* **		398H785305	398H785305	398H785305	398H785306	398H785317

*** From model ICEP007: ambient manual and automatic fill kit, pressurised automatic fill kit, control panel cover, manual external bypass can be supplied already installed or loose.

Hyperchill Industrial Process Chiller

Technical Data

Model ICE		150	183	230	310	360
Cooling capacity[1]	kW	149.2	182.3	228	309	360
Compressor abs. power[1]	kW	30.8	40.1	51.4	65	82
SEPR HT[3]		5.35	5.04	5.02	5.51	5.73
Power supply	V/ph/Hz	400/3/50 no neutral				
Protection index		54				
Refrigerant		R407C				

Compressors

Type		Hermetic scroll				
Compressors/circuits		4/2				
Max abs. power - 1 comp.	kW	11.1	13.7	16.8	23.3	28.7

Axial Fans

Quantity	n°	2		3	4	
Max abs. Power - 1 fan	kW	2	2	2	2	2
Air flow	m³/h	47000	46000	66000	88000	88000

Water Cooled Version

Condenser water flow	m³/h	19.2	31.0	33.0	N.A.	
Condensers connections	in	1¼"	1¼"	1½"		

Pump P30

Max abs.power	kW	4.5	4.5	4.5	8.4	8.4
Water flow (nom/max)[1]	m³/h	25/50	30/50	39/50	53/90	62/90
Head pressure (nom/min)[1]	m H2O	34/20	32/20	26/20	26/19	23/19

Weight & Dimensions

Width	mm	1287	1287	1287	1500	1500
Depth	mm	3000	3000	3260	4200	4200
Height	mm	2298	2298	2298	2240	2240
Connections in/out	in	2½"	2½"	2½"	4"	4"
Tank capacity	l	1000	1000	1000	400	400
Weight (axial)	kg	1500	1800	2100	2900	3100
Weight (centrif.)	kg	1700	2000	2300	N.A.	
Weight (water cooled)	kg	1500	1800	2100		

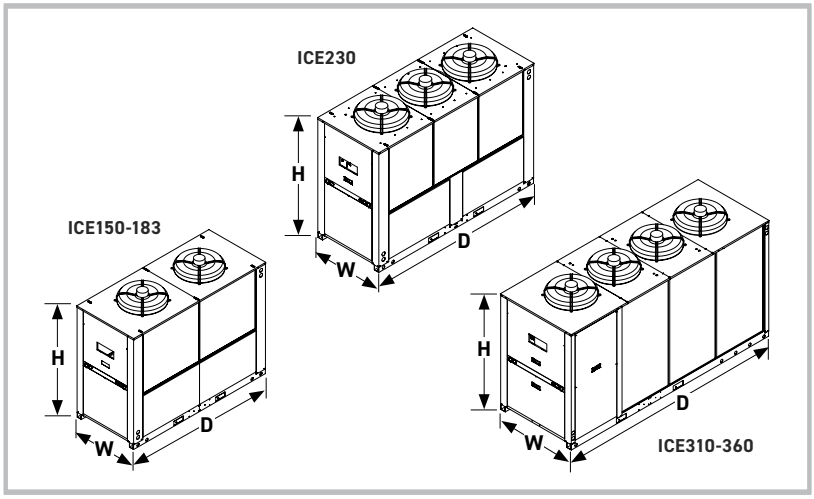
Noise Level

Sound pressure (axial)[2]	dB(A)	62	62	64	65	65

1) At water in/out temperature = 20/15°C, glycol 0%, either 25°C ambient temperature (air-cooled models) or 25°C condenser water inlet temperature with 35°C condensing temperature water-cooled models).

2) Referred to axial fan version in free field conditions at a distance of 10m from until, measured on condenser side, 1 m from ground.

3) Value calculated in accordance with the European regulation (EU) 2016/2281 with regards to Ecodesign requirements for high temperature process chillers.



Correction Factors

A)	**Ambient Temperature (Air Cooled Models)**	°C	5	10	15	20	25	30	35	40	45
	Correction Factor (f1)		1.05	1.05	1.05	1.05	1	0.95	0.89	0.83	0.77
B)	**Water Outlet Temperature**	°C	5	10		15		20		25	
	Correction Factor (f2)		0.72	0.86		1		1		1	
C)	**Glycol**	%	0	10		20		30		40	50
	Correction Factor (f3)		1	0.99		0.98		0.97		0.96	0.94
D)	**Condenser Water Inlet Temperature (Water Cooled Models)**	°C	20	25		30		35		40	
	Correction Factor (f4)		1.05	1		0.95		0.9		0.85	

To obtain the required cooling capacity multiply the value at nominal conditions by the above correction factors (i.e. cooling capacity = Pxf1xf2xf3xf4, where P is the cooling capacity at conditions (1)). Hyperchill, in its standard configuration, can operate up to ambient temperatures of max 45°C and min. 5°C and water temperatures of max 30°C inlet and min. 0°C outlet. The above correction factors are approximative: for a precise selection always refer to the software selection programme.

Hyperchill Industrial Process Chiller (50Hz)

Part Number Breakdown/Product Key

Product Code	Model	Condenser Section	Power Supply	Pumps	Hydraulic Circuit	Control Water Temperature	Low Ambient	Low Water	Antifreeze
ICE	150	A	400350	1P15	FF	0	L1	LW	A
	183	W		1P30	NF		L2	00	0
	230	B		2P30	F0		00		
	310			1P50					
	360			0000					

- ICE = Hyperchill
- A = Air Axial
- W = Water
- B = BioEnergy & Aggressive Ambients
- 400350 = 400V/3Ph/50Hz
- 1P15 = Single Pump 1.5 bar
- 1P30 = Single Pump 3 bar
- 2P30 = Dual Pump 3 bar
- P5 = Single Pump 5 bar
- 0000 = No Pump
- FF = With Tank
- NF = Non Ferrous
- 0 = Without Tank
- 0 = Without Close Control
- L1 = Low Ambient -10°C (Fan Step Control)
- L2 = Low Ambient -20°C
- 00 = No Low Ambient
- LW = Low Water
- 00 = No Low Water
- A = With Antifreeze
- 0 = Without Antifreeze

Versions

	ICE150	ICE183	ICE230	ICE310	ICE360
Air Cooled with Axial Fans	•	•	•	•	•
Water Cooled	•	•	•		

Hyperchill Industrial Process Chiller (50Hz)

Standard Part Numbers - Air Cooled with Axial Fans

Hyperchill Air Cooled with Axial Fans	
ICE150	ICE150A4003501P30FF000000
ICE183	ICE183A4003501P30FF000000
ICE230	ICE230A4003501P30FF000000
ICE310	ICE310A4003501P30F00LA000
ICE360	ICE360A4003501P30F00LA000

Options & Standard Features - Air Cooled with Axial Fans

	ICE150	ICE183	ICE230	ICE310	ICE360
Water tank	standard	standard	standard	•	•
Without tank				standard	standard
P30 (3 bar pump)	standard	standard	standard	•	•
No pump	•	•	•	standard	standard
P50 (5 bar pump)	•	•	•	•	•
P15 (1.5 bar pump)	•	•	•	on request	on request
Dual pump P30 (3 bar pump)	•	•	•	•	•
Low water -10°C	•	•	•	on request	on request
Low ambient -10°C with fan step control	•	•	•	standard	standard
Low ambient -20°C with fan speed control, crankcase heater and electrical panel heater	•	•	•	on request	on request
Antifreeze heating	•	•	•	on request	on request
BioEnergy & aggressive ambients protection	•	•	•	•	•
Non ferrous hydraulic circuit	•	•	•		
MODBUS RTU	on request	on request	on request	on request	on request

Hyperchill Industrial Process Chiller (50Hz)

Standard Part Numbers - Water Cooled

Hyperchill Water Cooled	
ICE150	ICE150W4003501P30FF000000
ICE183	ICE183W4003501P30FF000000
ICE230	ICE230W4003501P30FF000000

Options & Standard Features - Water Cooled

	ICE150	ICE183	ICE230
Water tank	standard	standard	standard
P30 (3 bar pump)	standard	standard	standard
No pump	•	•	•
P50 (5 bar pump)	•	•	•
P15 (1.5 bar pump)	•	•	•
Dual pump P30 (3 bar pump)	•	•	•
Low water -10°C	•	•	•
Antifreeze heating	•	•	•
Non ferrous hydraulic circuit	•	•	•

Hyperchill Available Kits & Accessories

	PCW080 - PCW330	ICE150 - ICE230 PCW420 - PCW650	ICE310	ICE360
Fill kit - ambient manual	398H785054	398H785053		
Fill kit - ambient automatic	398H785051	398H785052		
Fill kit - pressurised automatic with expansion tank	398H785055	398H785055		
Remote control - base	398H785010	398H785010	398H785010	398H785010
Remote control - advanced	398H785283	398H785283	398H785283	398H785283
Control panel cover	398H785089	398H785089	398H785089	398H785089
Manual external bypass	on request	on request		

Hyperchill Industrial Water Chiller (60Hz UL)

Part Number Breakdown/Product Key

Product Code	Model	Condenser Section	Power Supply	Pumps	Hydraulic Circuit	Control Water Temperature	Low Ambient	Low Water	Options
PCW	080	A	460360	1P30	FF	C	LA	LW	0
	110	B		1P50	NF	0	L2	00	M
	130			0000			00		
	160								
	210								
	260								
	330								
	420								
	510								
	650								

- PCW = Hyperchill 60Hz
- A = Air Axial
- B = BioEnergy & Aggressive Ambients
- 460360 = 460V/3Ph/60Hz
- 1P30 = Single Pump 3 bar
- P5 = Single Pump 5 bar
- 0000 = No Pump
- FF = With Tank
- NF = Non Ferrous
- C = Close Control +/- 0.5°C
- Standard Control
- LA = Low Ambient -10°C (Fan Step Control)
- L2 = Low Ambient -20°C
- 00 = No Low Ambient
- LW = Low Water
- 00 = No Low Water
- 0 = No options
- M = Modbus

Standard Part Numbers - Air Cooled with Axial Fans

Hyperchill Air Cooled with axial fans	
PCW080	PCW080A4603601P30FF000000
PCW110	PCW110A4603601P30FF000000
PCW130	PCW130A4603601P30FF000000
PCW160	PCW160A4603601P30FF000000
PCW210	PCW210A4603601P30FF000000
PCW260	PCW260A4603601P30FF000000
PCW330	PCW330A4603601P30FF000000
PCW420	PCW420A4603601P30FF000000
PCW510	PCW510A4603601P30FF000000
PCW650	PCW650A4603601P30FF000000

Options & Standard Features - Air Cooled with Axial Fans

	PCW080	PCW110	PCW130	PCW160	PCW210	PCW260	PCW330	PCW420	PCW510	PCW650
Water tank	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard
P30 (3 bar pump)	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard
No pump	•	•	•	•	•	•	•	•	•	•
P50 (5 bar pump)	•	•	•	•	•	•	•	•	•	•
Close control (+/- 0.5°C)	•	•	•	•	•	•	•			
Low water -10°C	•	•	•	•	•	•	•	•	•	•
Low ambient -10°C with fan step control	•	•	•	•	•	•	•	•	•	•
Low ambient -20°C with fan speed control, cranckase heater and electrical panel heater	•	•	•	•	•	•	•	•	•	•
BioEnergy & aggressive ambients protection	•	•	•	•	•	•	•	•	•	•
Non ferrous hydraulic circuit	•	•	•	•	•	•	•	•	•	•
MODBUS RTU	•	•	•	•	•	•	•	•	•	•

Industrial Nitrogen Gas Applications

There are thousands of applications for industrial gases. Nitrogen is generally used for three main functions:

- It prevents microbial growth or acts as a filler gas in food applications
- It prevents slow oxidization of products such as chemicals and metals during processing or heating
- It prevents rapid oxidization of products that are flammable or explosive

Pharmaceutical

Whether in primary or secondary pharmaceutical product manufacture or as a centralised QA laboratory supply; within research establishments or universities and colleges, Parker can offer a solution to suit the critical demands of this industry sector.

For blanketing of pharmaceutical product ingredients and pressure transfer within reactor vessels, to micronising powders to prevent oxidisation or explosion, Parker nitrogen generators can cut costs, reduce risk and improve productivity.

Centralised laboratory systems remove the need to have high pressure cylinders within the working environment and the possibility of running out of gas during a QA analysis procedure. Parker nitrogen gas generators are typically used for analytical equipment such as LC/MS, GC, reaction blanketing within fume cupboards, solvent evaporation, ICP, ELSD, NMR and circular dichroism.

Food and Beverage

Most food products start to deteriorate from the moment they are harvested or prepared for packaging, being under attack from a multitude of spoilage mechanisms. By flushing, storing and/or packing with nitrogen, oxygen that many of these micro-organisms need in order to survive and multiply, is removed and the spoilage process is significantly reduced.

Prepared salads and vegetables, fresh chilled ready meals, meat, poultry, fish, dairy produce (including cheese), breads, coffee as well as snack foods such as potato chips and nuts can all benefit from 'modified atmosphere packaging' (or MAP as it is often referred to). By using nitrogen gas from a Parker generator, the product shelf life is increased and the appearance and quite often taste, is also improved.

Nitrogen is also used for 'controlled atmosphere storage' of fresh fruits and vegetables, sparging and blanketing food oils as well as bulk powders, cereals and liquid ingredients.

Alcoholic and non-alcoholic drinks and ingredients can suffer similar spoilage mechanisms to food, however one of the most significant threats to product quality is oxidisation which adversely affects product taste. Beer and wine can absorb unwanted dissolved oxygen throughout the production process. Oxygen can also reduce the effectiveness of natural or added vitamin C which maybe used in fruit juices.

Nitrogen gas generators provide an ideal cost effective solution for all of the processes involved in beverage production.

Lasers

Laser Cutting
By far the largest use of nitrogen gas within this industry sector is for laser cutting. Nitrogen gas is used as an 'assist gas' to prevent oxidisation or discolouration and to blow away the molten material from the cut edge.

It is also used in certain types of laser cutting machine as a 'purge gas' to ensure the laser beam guide path from the resonator (where the beam is generated), to the cutting head, is free of contamination that could otherwise affect the power or alter the shape of the beam.

Laser Sintering
Laser sintering or rapid prototyping uses a laser to form a solid 3D structure within a plastic powder material. Complex shapes and patterns can be constructed and modelled with ease. Nitrogen is used to blanket and prevent oxidisation of the powder material while it melts and solidifies to shape under the heat generated by the laser beam.

Laser Ablation
Nitrogen is used to expel fumes and blanket delicate electronic circuits where a laser beam is used to erode pathways on micro printed circuit boards.

Laser Eye Surgery
Nitrogen is used as a beam purge and pneumatics gas on Eximer laser machines which are used in the corrective treatment of eyesight defects.

Heat Treatment

Nitrogen gas is commonly used to exclude oxygen from heat treatment furnaces and ovens. Parker can supply nitrogen gas generation systems to replace expensive bulk vessel liquid supplies for many heat treatment processes.

Typical applications include:

- Belt furnaces
- Batch furnaces
- Vacuum ovens
- Brazing
- Carburising
- Tempering
- Annealing
- Gas quenching
- Neutral hardening
- Normalising
- Sintering

Fire Prevention and Archive Protection

From the preservation of treasures for the generations after us, to preventing essential data destruction due to fire, Parker nitrogen generators provide a unique solution.

Oxygen depleted air can be pumped into buildings that house treasures and archives or computer stored data to help prevent total loss caused by fire. Museum pieces, paintings, artefacts, furniture and valuable fabrics can all be protected.

In general, only a modest reduction in normal ambient oxygen levels is enough to prevent fire. At 16% oxygen content, archives are protected whilst intermittent human exposure to these levels will have no adverse effects.

What Nitrogen Quality Do I Need?

Traditional gas companies generally provide gas that is of high purity regardless of whether the application or process needs it. This is as a result of the ASU manufacturing process. Typically cylinder and liquid nitrogen has a maximum remaining oxygen content of between 5ppm to 20ppm v/v.

The majority of applications do not need such high purity gas and the benefit of using a higher oxygen content Parker generated gas is that less energy is used to produce it, so the unit gas cost will be more competitive.

For example using nitrogen with a maximum remaining oxygen content of 5% uses 5 times less energy to generate than with a maximum remaining oxygen content of 10ppm.

Providing customers with ultra-high purity nitrogen in all instances is an unnecessary waste of money and energy.

What do we mean by 'purity'?

By purity Parker means the maximum remaining oxygen content in the output nitrogen gas. Parker nitrogen technology when combined with Parker compressed air pre-treatment, guarantees the nitrogen gas to be commercially sterile, oil-free, dry and particulate free. (Within the specifications defined in the product information data contained in this catalogue.)

The maximum remaining oxygen content required will vary with every application.
Maximum cost and energy savings = maximum oxygen level permissible

High Purity
10 ppm to 1000ppm (99.999% to 99.9%)

Laser cutting
50ppm to 500ppm

Heat treatment
10ppm to 1000ppm

Electronics soldering
50ppm to 500ppm

Pharmaceutical
10ppm to 5000ppm

Mid Purity
0.1% to 1% (99.9% to 99%)

Food MAP
0.1% to 1%

Food processing
0.1% to 1%

Beer dispense
0.5%

Wine blanketing
0.5%

Oil sparging
0.5%

Brazing
0.5%

Injection molding
0.5% to 1%

Wire annealing
0.5%

Aluminium sparging
0.5%

Low Purity
1% to 5% (99% to 95%)

Fire prevention
5%

Explosion prevention
2% to 5%

Pressure testing
5%

Gas seal blanketing
5%

Chemical blanketing
1% to 5%

Pigging
5%

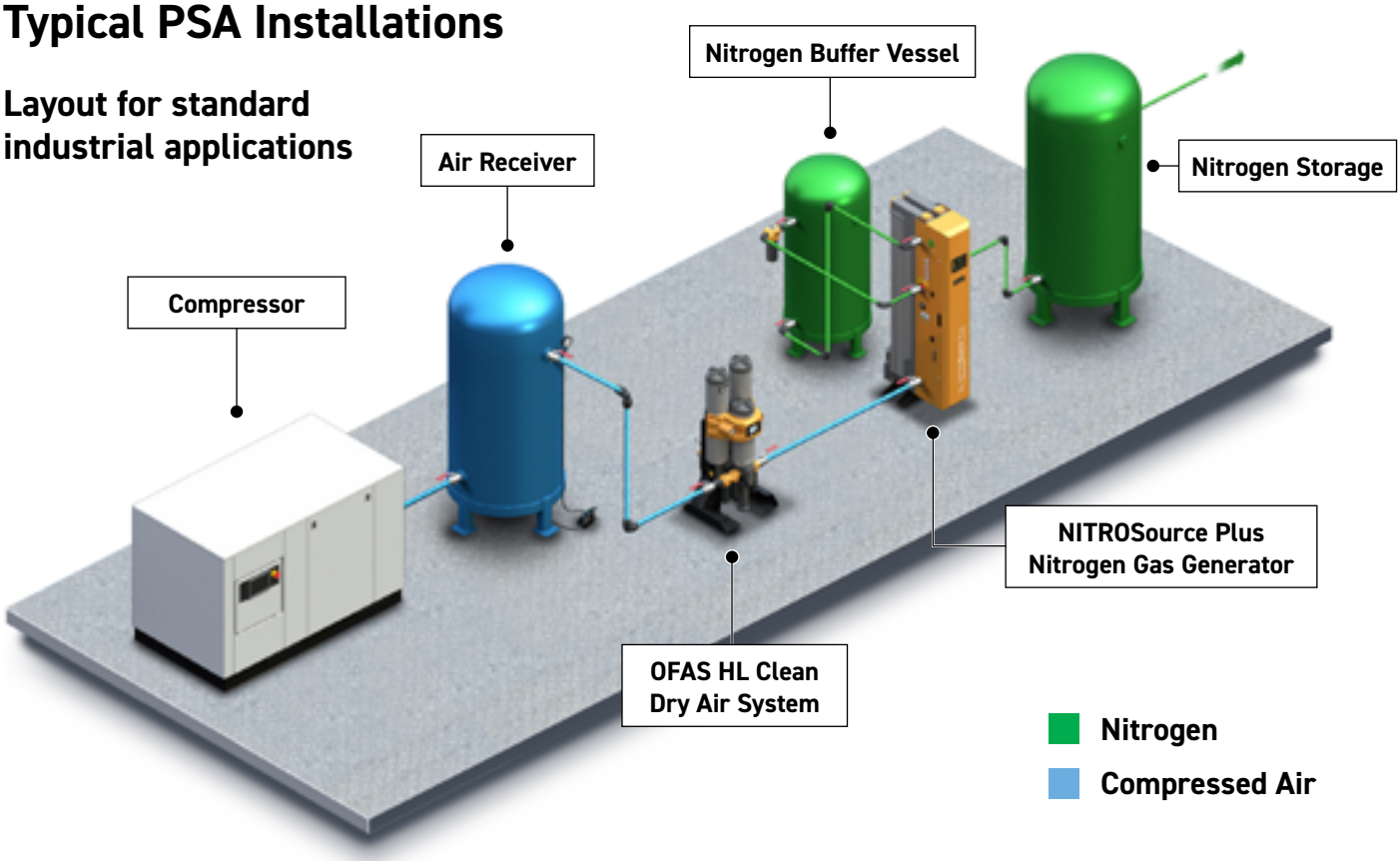
Autoclaves
5%

Laser sintering
2%

Dry boxes
2%

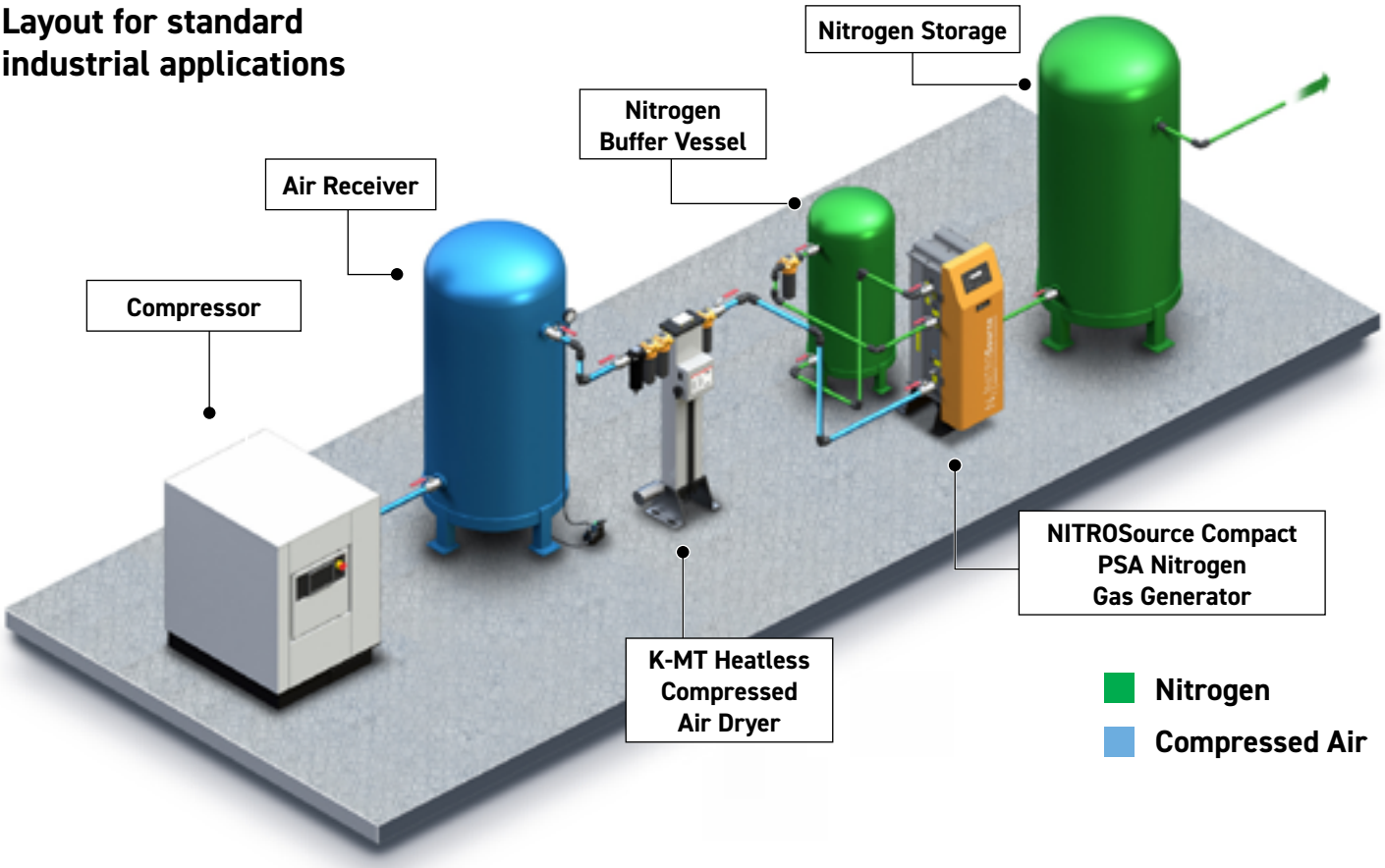
Typical PSA Installations

Layout for standard industrial applications

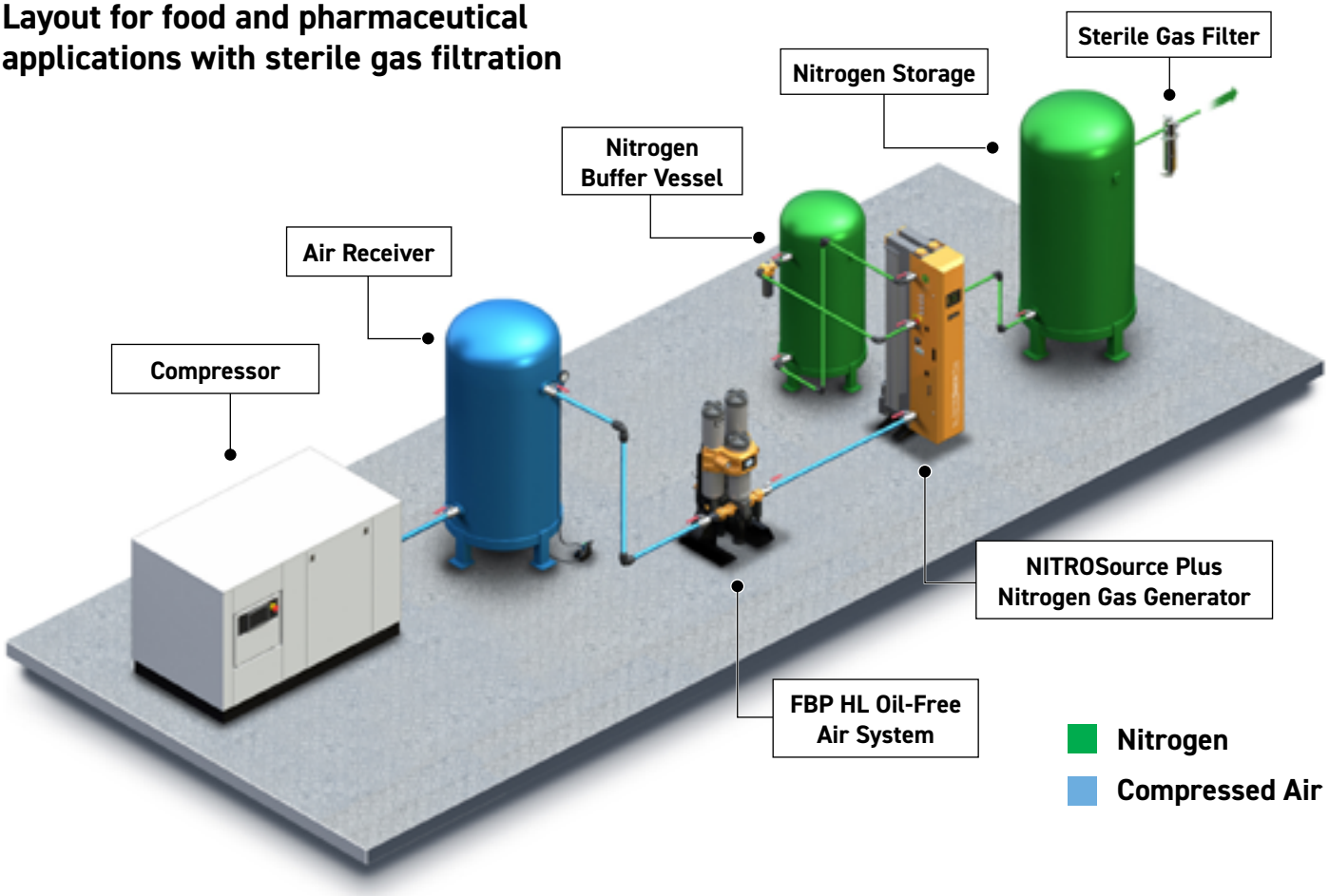


Nitrogen Gas Generation - Typical PSA Installations

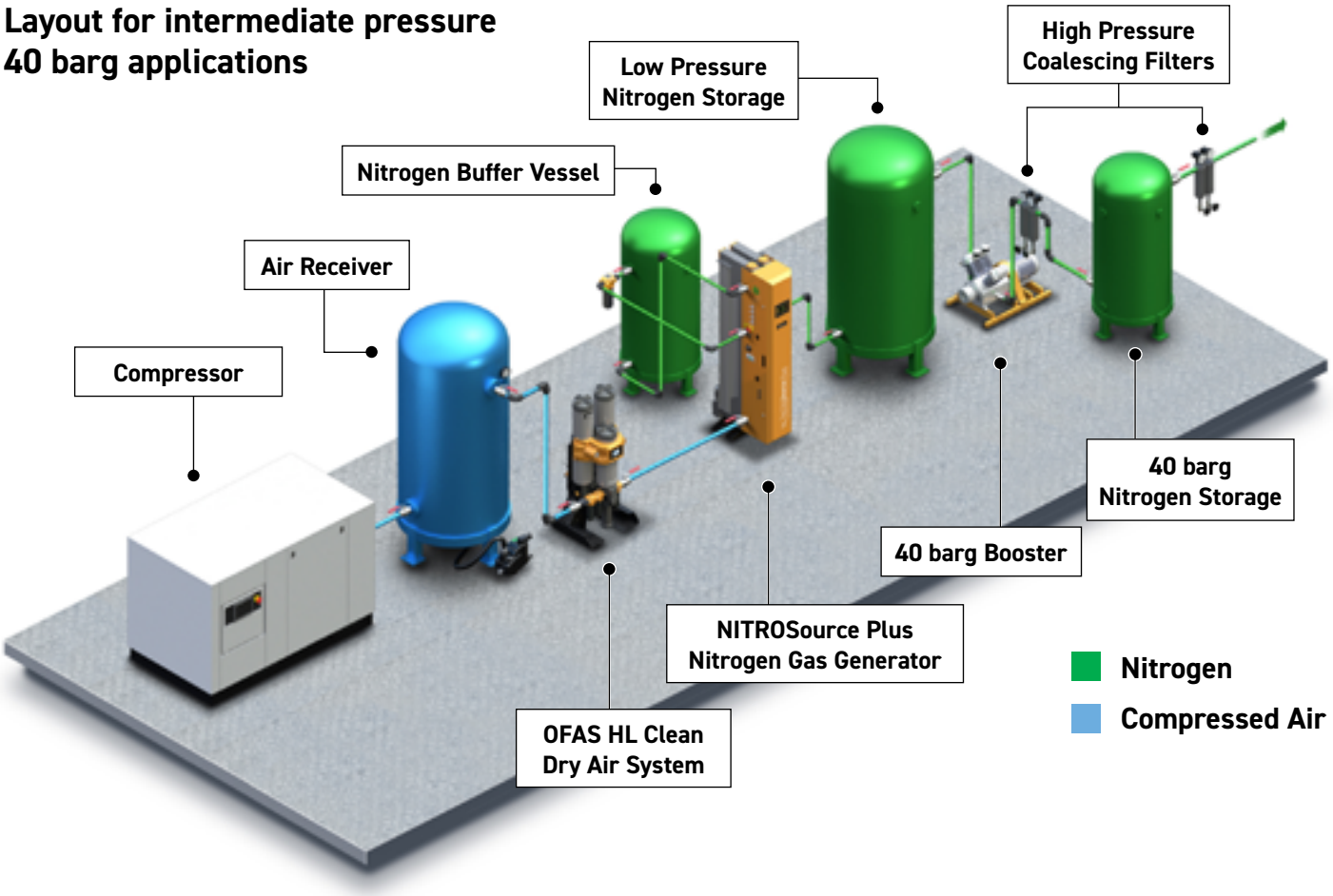
Layout for standard industrial applications



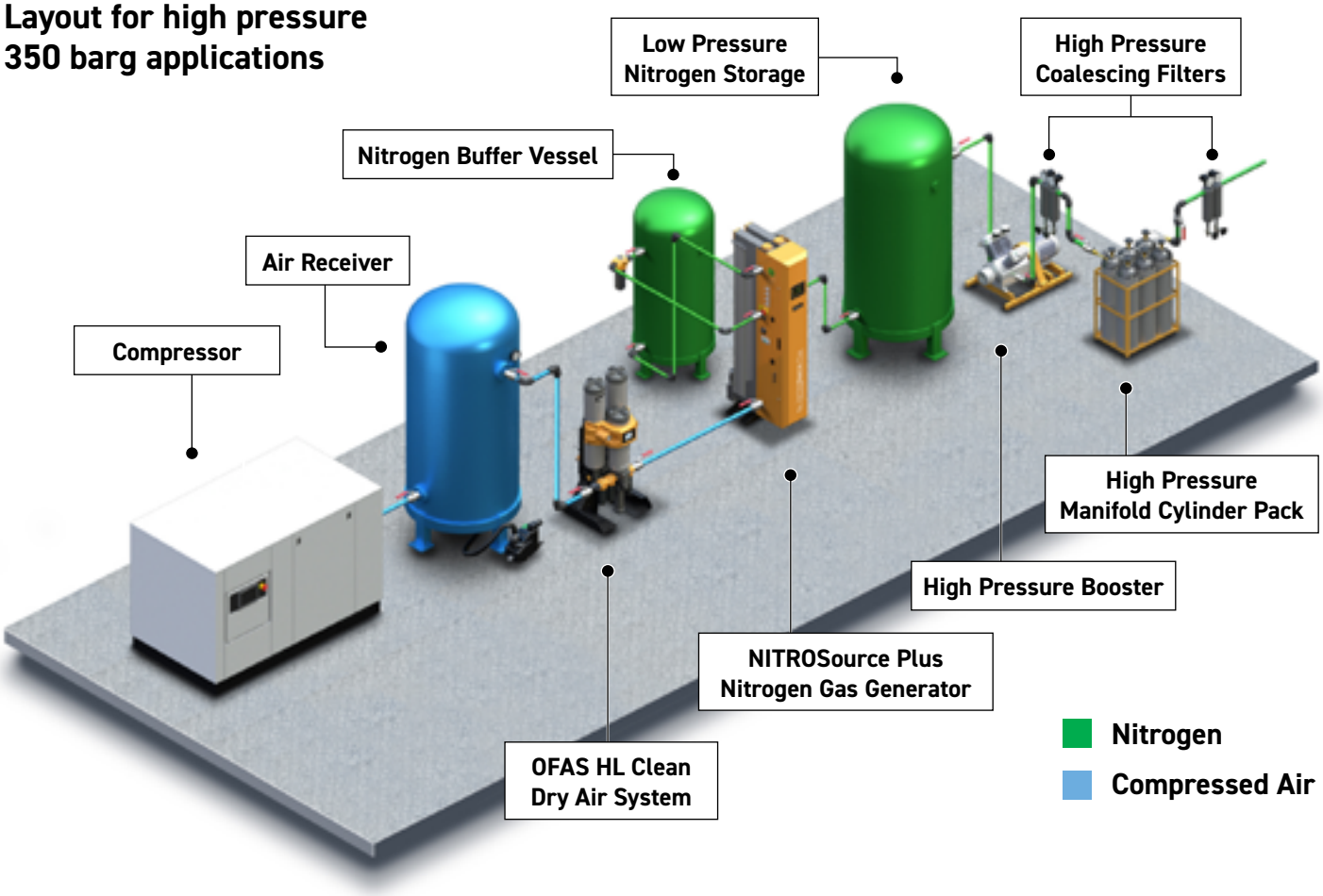
Layout for food and pharmaceutical applications with sterile gas filtration



Layout for intermediate pressure 40 barg applications



Layout for high pressure 350 barg applications

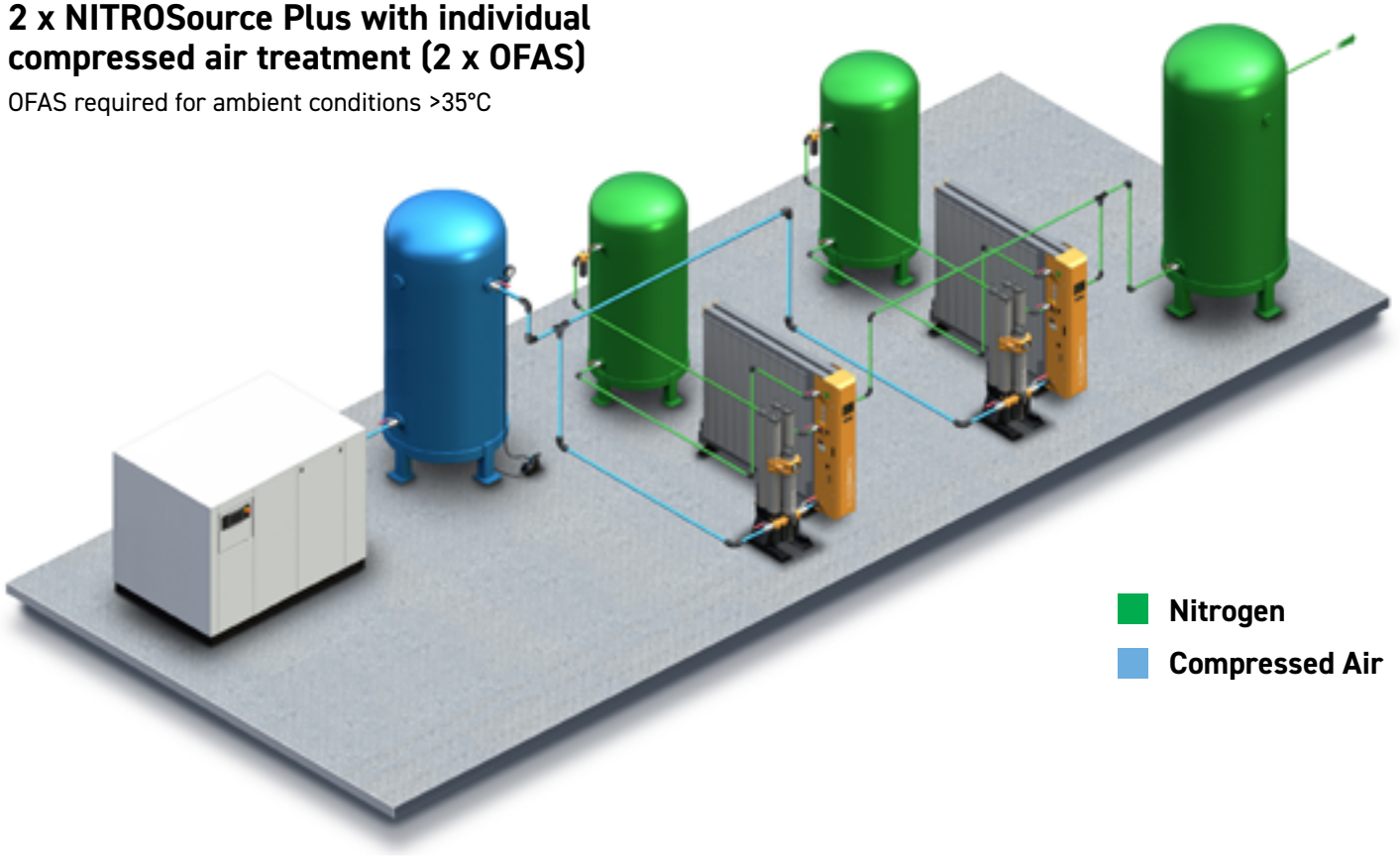


Nitrogen Gas Generation - Typical Multi-bank Installations

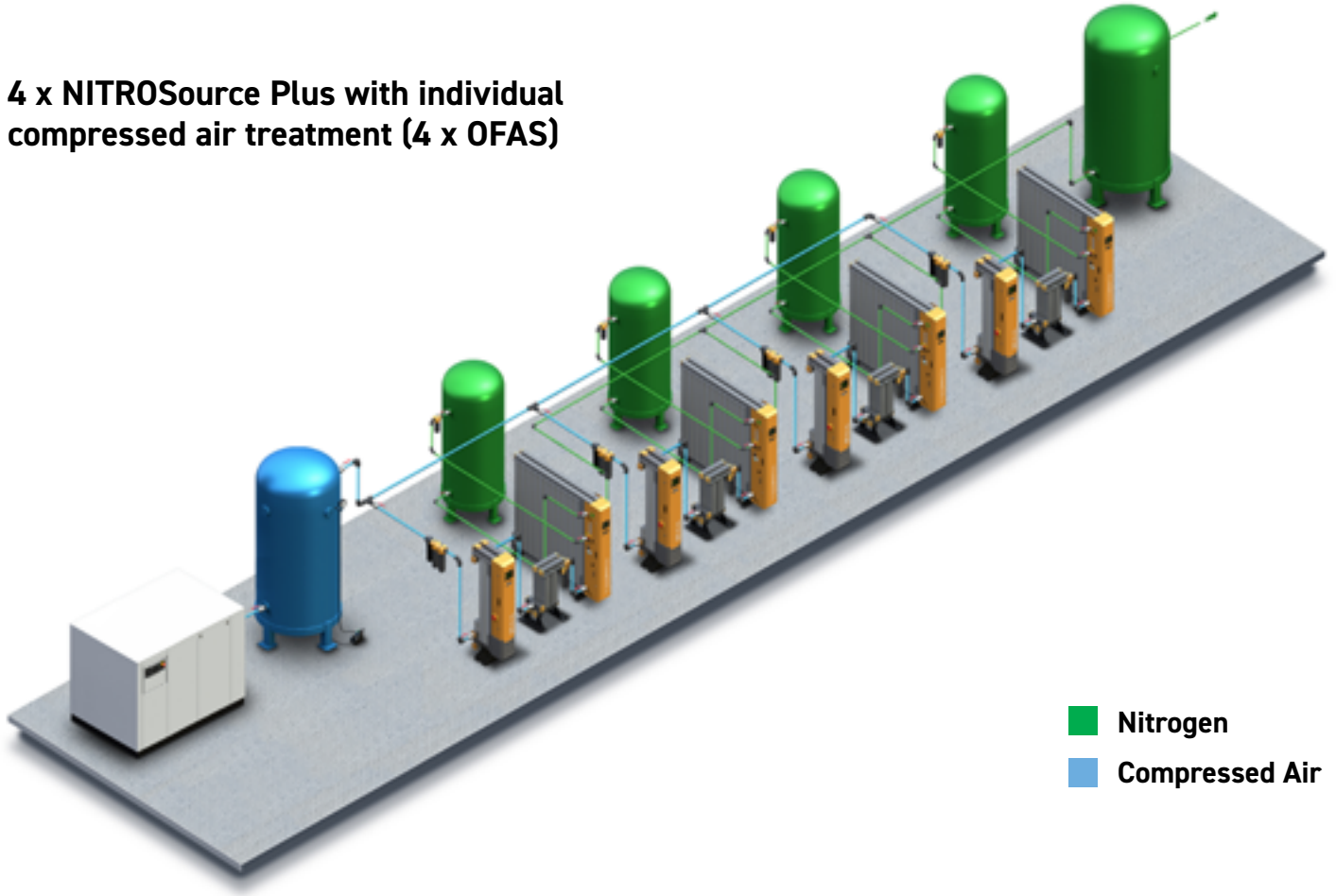
Unlike traditional designs, NITROSource Plus models can be multi-banked to provide extra nitrogen capacity should demand increase in the future. There is no need to replace the generator with a larger unit, additional capacity can be covered by simply adding extra bank(s).

2 x NITROSource Plus with individual compressed air treatment (2 x OFAS)

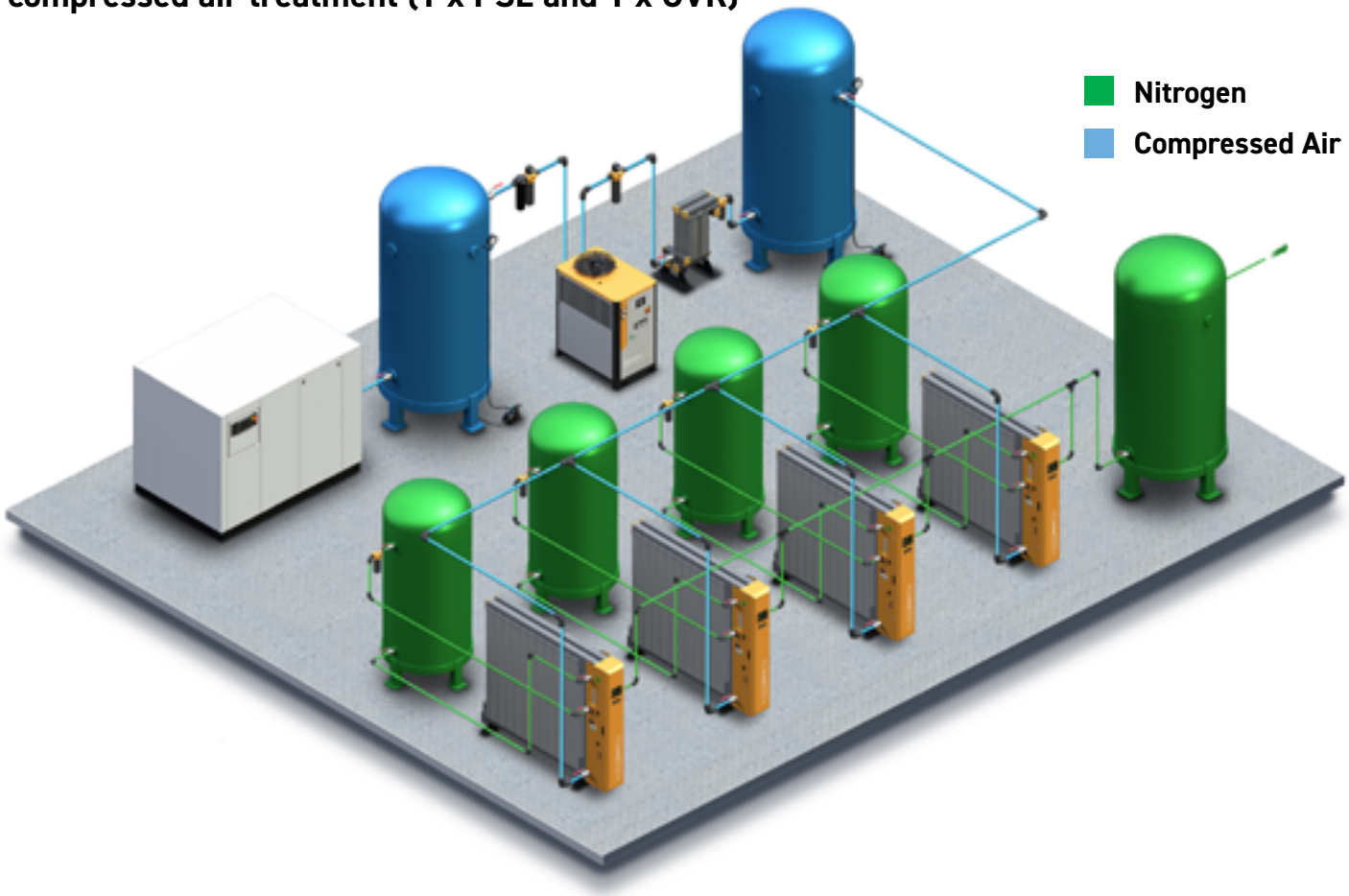
OFAS required for ambient conditions >35°C



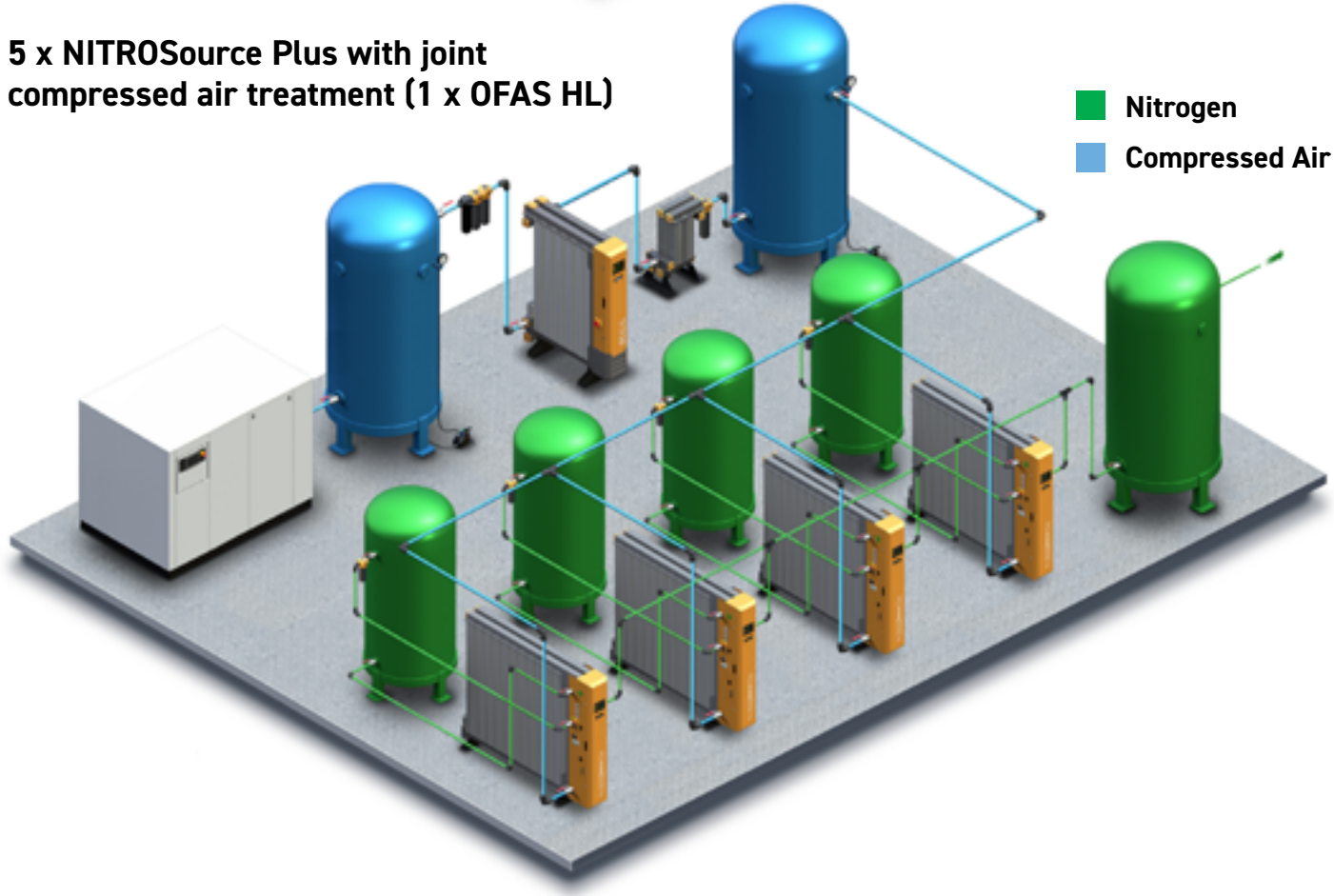
4 x NITROSource Plus with individual compressed air treatment (4 x OFAS)



4 x NITROSource Plus with joint compressed air treatment (1 x PSE and 1 x OVR)



5 x NITROSource Plus with joint compressed air treatment (1 x OFAS HL)



NITROSource Plus PSA Nitrogen Gas Generator

Please contact Parker for full NITROSource Plus performance data.

Nitrogen Outlet Flow Rates

Model	Purity (Remaining Oxygen Content) vs Nitrogen Outlet Flow (m³/hr)*										
	5ppm	10ppm	50ppm	100ppm	250ppm	500ppm	0.1%	0.5%	1.0%	2.0%	3.0%
NSP-020	7.0	8.0	10.1	11.4	13.4	15.1	17.0	23.2	27.3	32.8	37.5
NSP-030	9.4	10.8	14.6	16.6	19.7	23.1	25.8	34.7	40.9	48.7	55.1
NSP-040	12.5	14.4	19.4	22.1	26.2	30.8	34.4	46.3	54.6	64.9	73.4
NSP-050	15.6	18.0	24.3	27.7	32.8	38.5	43.0	57.9	68.2	81.1	91.8
NSP-060	18.8	21.5	28.6	32.5	38.9	44.3	50.0	68.1	80.2	95.4	110.1
NSP-070	21.9	25.1	33.3	38.0	45.4	51.7	58.3	79.4	93.6	111.3	128.5
NSP-080	25.0	28.7	38.1	43.4	51.9	59.1	66.7	90.8	106.9	127.2	146.8
NSP-090	28.1	32.3	42.8	48.8	58.4	66.4	75.0	102.1	120.3	143.1	165.2
NSP-100	34.3	39.1	52.0	56.8	66.1	74.1	83.8	114.8	134.7	164.5	178.7
NSP-110	37.7	43.0	57.2	62.5	72.7	81.5	92.2	126.3	148.2	180.9	196.2
NSP-120	41.2	46.9	62.4	68.2	79.3	88.9	100.6	137.8	161.6	197.3	-

Performance data is based on 7.0 bar(g) (101.5 psi(g)) inlet and 20°C (68°F) ambient temperature.
*m³ reference to standard conditions, 20°C, 1013 mbar(a) and 0% relative water vapour pressure.

Part Number Breakdown / Product Key

Product Code		Model		Purity	Oxygen Analyser Technology	Energy Saving Technology[1]	Nitrogen Outlet Flow Range[2]	Dew point Monitoring				
N S P	-	020	-	U	E	N	H	N	-	0	0	A
		030		H	Z	Y	L	I				
		040		L				O				
		050						B				
		060										
		070										
		080										
		090										
		100										
		110										
		120										

NSP = NITROSource Plus

U = 5ppm / 10ppm / 50ppm
H = 100ppm / 250ppm / 500ppm / 0.1%
L = 0.5% / 1.0% / 2.0% / 3.0%

E = Electrochemical
Z = Zirconia

N = Not Fitted
Y = Fitted

H = High
L = Low

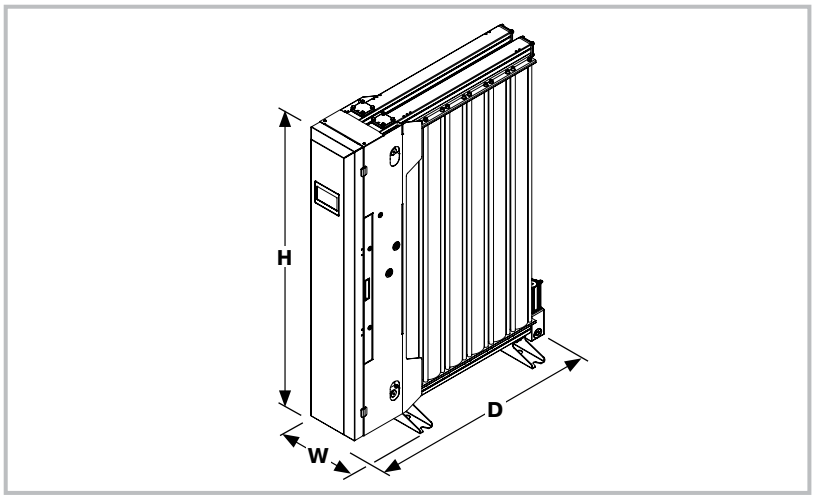
N = Not Fitted
I = Inlet PDP Monitoring
O = Outlet PDP Monitoring
B = Both Inlet & Outlet Monitoring

[1] Energy Saving Technology not available on 50ppm, 10ppm or 5ppm generators.
[2] See 'Mass Flow Controller Flow Breaks' chart for sizing information.

Mass Flow Controller Flow Breaks

Outlet Pressure	bar(g)	5	6	7	8	9	10	11	12	13
	psi(g)	72.5	87	101.5	116	130.5	145	159.5	174	188.5
High Flow	m³/hr*	190.0	205.0	219.0	232.0	245.0	257.0	268.0	279.0	290.0
Low Flow		61.0	66.0	70.0	74.0	78.0	82.0	86.0	89.0	93.0

*m³ reference to standard conditions, 20°C, 1013 mbar(a) and 0% relative water vapour pressure.



Weights & Dimensions

Model	Height (H)		Width (W)		Depth (D)		Weight	
	mm	ins	mm	ins	mm	ins	kg	lbs
NSP-020	2063	81.22	550	21.65	883	34.7	335	739
NSP-030	2063	81.22	550	21.65	1052	41.4	429	946
NSP-040	2063	81.22	550	21.65	1221	48.1	522	1151
NSP-050	2063	81.22	550	21.65	1390	54.7	615	1356
NSP-060	2063	81.22	550	21.65	1559	61.3	710	1565
NSP-070	2063	81.22	550	21.65	1728	68.0	805	1775
NSP-080	2063	81.22	550	21.65	1897	74.6	897	1978
NSP-090	2063	81.22	550	21.65	2028	79.8	988	2178
NSP-100	2063	81.22	550	21.65	2194	86.3	1104	2434
NSP-110	2063	81.22	550	21.65	2360	92.9	1197	2639
NSP-120	2063	81.22	550	21.65	2526	99.4	1292	2848

Pipe Connections & Buffer Vessel Sizes

Compressed Air Inlet	To Buffer Vessel	From Buffer Vessel	Nitrogen Outlet	Minimum Capacity*	
				Litres	Gallons
1" BSPP	1" BSPP	1" BSPP	1" BSPP	270	71
1" BSPP	1" BSPP	1" BSPP	1" BSPP	500	132
1" BSPP	1" BSPP	1" BSPP	1" BSPP	500	132
1" BSPP	1" BSPP	1" BSPP	1" BSPP	1000	264
1" BSPP	1" BSPP	1" BSPP	1" BSPP	1000	264
1" BSPP	1" BSPP	1" BSPP	1" BSPP	1000	264
1" BSPP	1" BSPP	1" BSPP	1" BSPP	1500	396
1" BSPP	1" BSPP	1" BSPP	1" BSPP	1500	396
1½" BSPP	1½" BSPP	1" BSPP	1" BSPP	1500	396
1½" BSPP	1½" BSPP	1" BSPP	1" BSPP	1500	396
1½" BSPP	1½" BSPP	1" BSPP	1" BSPP	2000	528

***Important Note:** Recommended minimum buffer vessel size to guarantee maximum outlet pressure. Utilisation of smaller buffer vessels may result in lower outlet pressures and fluctuations in purity.

Operation Parameters

Minimum Inlet Air Quality	Operating Pressure		Design Pressure	Operating Temperature		Recommended Operating Temperature	Supply Voltage	Power Consumption	IP Rating	Noise
	Minimum	Maximum		Minimum	Maximum					
ISO 8573-1: 2010 Class 2.4.1	5.0 barg 72.5 psig	13.0 barg 188.5 psig	15.0 barg 217.5 psig	5.0˚C 41.0˚F	50.0˚C 122.0˚F	20.0˚C 68.0˚F	100-240V AC (±10%) 50/60Hz	100W	IP32 NEMA 2	<80 dB (A)

Preventative Maintenance Kits

Service Interval	Model	Part Number	Contents
12 Months	NSP-020 to 120	M12.PDP.0001	Inlet or Outlet Dewpoint Sensor Replacement
	NSP-020 to 090	M12.EXH.0001	Silencer Element & Filter Element Replacement
		M12.EXH.EST.0001	Silencer Element, Filter Element & EST Filter Replacement
	NSP-100 to 120	M12.EXH.0002	Silencer Element & Filter Element Replacement
		M12.EXH.EST.0002	Silencer Element, Filter Element & EST Filter Replacement
24 Months	NSP-020 to 120	M24.EPPM.0001	Electrochemical PPM Cell Replacement
60 Months	NSP-020 to 120	M60.ZPPM.0001	Mini-Zirconia PPM Oxygen Analyser Replacement
		M60.ZPCT.0001	Mini-Zirconia Percentage Oxygen Analyser Replacement
	NSP-020 to 090	M60.VOH.0001	Pilot & Control Valve Overhaul
		M60.VOH.EST.0001	Pilot, Control and EST Valve Overhaul
	NSP-100 to 120	M60.VOH.0002	Pilot & Control Valve Overhaul
		M60.VOH.EST.0002	Pilot, Control and EST Valve Overhaul

NITROSource Compact PSA Nitrogen Gas Generator

Please contact Parker for full NITROSource Compact performance data.

Nitrogen Outlet Flow Rates

	Purity (Remaining Oxygen Content) vs Nitrogen Outlet Flow (m^3/hr)*												
Model	**Units**	**10ppm**	**50ppm**	**100ppm**	**250ppm**	**500ppm**	**0.1%**	**0.5%**	**1%**	**2%**	**3%**	**4%**	**5%**
N2C-2	m^3/hr	0.81	1.24	1.54	1.77	2.09	2.48	3.69	4.39	6.11	7.73	9.13	10.29
N2C-4	m^3/hr	1.73	2.38	2.94	3.52	4.21	4.96	7.58	9.12	12.95	15.89	18.38	20.57
N2C-6	m^3/hr	2.41	3.91	4.46	5.66	6.50	7.59	11.06	13.32	18.64	22.68	26.06	29.04
N2C-8	m^3/hr	3.38	5.01	5.89	7.35	8.68	10.24	14.86	18.01	24.02	29.33	33.93	37.81

Performance data is based on 7.0 bar(g) (101.5 psi(g)) inlet and 20°C (68°F) ambient temperature.
*m^3 reference to standard conditions, 20°C, 1013 mbar(a) and 0% relative water vapour pressure.

Part Number Breakdown / Product Key

Product Code		Model	Technology	Flow Control	O_2 Purity	Maximum Design Pressure	Outlet Version
N S C	**-**	**2**	**N**	**C**	**A**	**L**	**N**
		4			**B**		**A**
		6					
		8					

NSC = NITROSource Compact

N = Non Equalising

C = Constant

A = High Purity (ppm)

B = Low Purity (%)

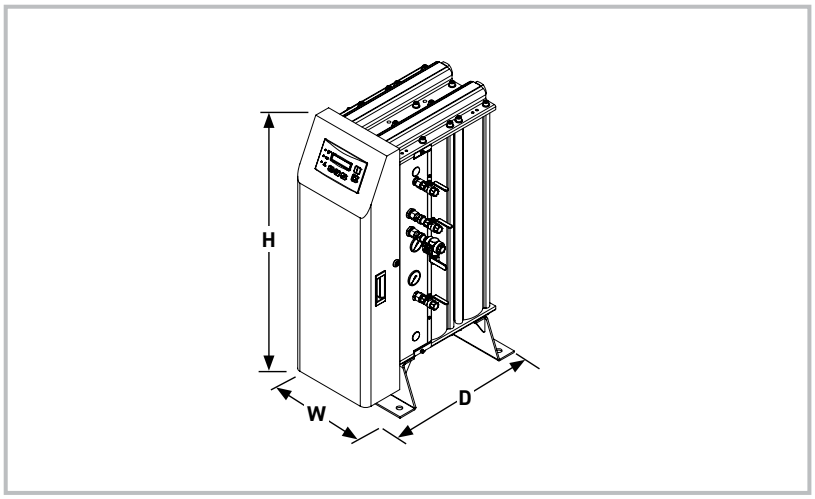
L = Low Pressure (6 - 10 bar g)

N = No Analyser

A = Analyser

Buffer Vessel Sizes

Flow Rate (m^3/hr)	Buffer Vessel Size - Litres
0 - 3	50
3.1 - 7.5	150
7.6 - 12.3	250
12.3 - 24	500
24.1 - 45	750



Weights & Dimensions

Model	Height (H)		Width (W)		Depth (D)		Weight	
	mm	ins	mm	ins	mm	ins	kg	lbs
N2C-2	1034	41	450	18	471	19	98	216
N2C-4	1034	41	450	18	640	26	145	320
N2C-6	1034	41	450	18	809	33	196	432
N2C-8	1034	41	450	18	977	38	249	549

Pipe Connections Sizes

Compressed Air Inlet	To Buffer Vessel	From Buffer Vessel	Nitrogen Outlet
1" BSPP	1" BSPP	½" BSPP	½" BSPP
1" BSPP	1" BSPP	½" BSPP	½" BSPP
1" BSPP	1" BSPP	½" BSPP	½" BSPP
1" BSPP	1" BSPP	½" BSPP	½" BSPP

***Important Note:** Recommended minimum buffer vessel size to guarantee maximum outlet pressure. Utilisation of smaller buffer vessels may result in lower outlet pressures and fluctuations in purity.

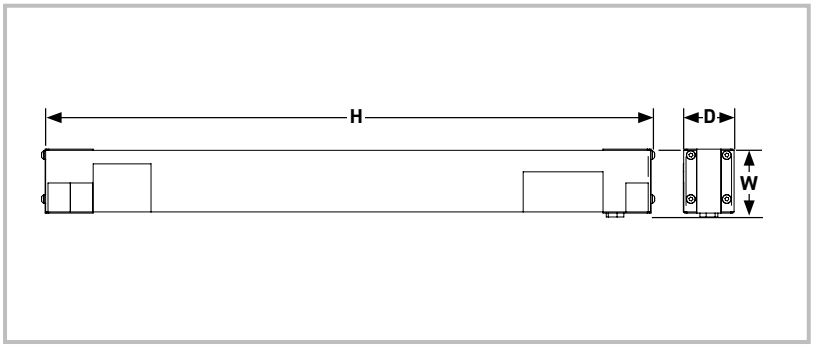
Operation Parameters

Minimum Inlet Air Quality	Operating Pressure		Design Pressure	Operating Temperature		Recommended Operating Temperature	Supply Voltage	Power Consumption	IP Rating	Noise
	Minimum	Maximum		Minimum	Maximum					
ISO 8573-1: 2010 Class 2.4.1	6.0 barg 87 psig	10.0 barg 145 psig	10.0 barg 145 psig	5.0˚C 41.0˚F	50.0˚C 122.0˚F	20.0˚C 68.0˚F	100-240V AC (±10%) 50/60Hz	55W approx.	IP20 NEMA 1	<80 dB (A)

Preventative Maintenance Kits

Service Interval	Model	Part Number	Contents
12 Months	All	M12.N2C.0001	MIST-X 150 Silencer, P010AO Element.
24 Months	All ppm Models	M24.PPM.0002	0_2 Cell PPM
	All % Models	M24.PCT.0002	0_2 Cell %
	All Models with Analyser	M24.N2C.0001	Air Inlet Valves (x2), Exhaust Valves (x2), Outlet Valves (x2).
	All Models without Analyser	M24.N2C.0002	Air Inlet Valves (x2), Exhaust Valves (x2), Outlet Valve.

SmartFluxx SA604 - Part Number: 159.005273



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %	Typical Nitrogen[1] flow rate in m³/hr[2] (SCFM)					
	99.5	99.0	98.0	97.0	96.0	95.0
4 bar g (58 psi g)	0.20 (0.12)	0.32 (0.19)	0.50 (0.29)	0.73 (0.43)	0.84 (0.49)	1.04 (0.61)
5 bar g (72.5 psi g)	0.28 (0.16)	0.46 (0.27)	0.73 (0.43)	0.92 (0.54)	1.17 (0.69)	1.54 (0.91)
6 bar g (87 psi g)	0.44 (0.21)	0.60 (0.35)	0.92 (0.54)	1.20 (0.71)	1.53 (0.9)	1.75 (1.03)
7 bar g (101.5 psi g)	0.44 (0.26)	0.71 (0.42)	1.16 (0.68)	1.49 (0.88)	1.90 (1.12)	2.10 (1.24)
8 bar g (116 psi g)	0.54 (0.32)	0.85 (0.5)	1.31 (0.77)	1.75 (0.77)	2.17 (1.28)	2.60 (1.53)
9 bar g (130.5 psi g)	0.59 (0.35)	0.97 (0.57)	1.54 (0.91)	2.08 (1.22)	2.50 (1.47)	3.00 (1.77)
10 bar g (145 psi g)	0.67 (0.39)	1.11 (0.65)	1.78 (1.05)	2.29 (1.35)	2.80 (1.65)	3.40 (2)
11 bar g (159.5 psi g)	0.73 (0.43)	1.25 (0.74)	1.95 (1.15)	2.57 (1.51)	3.20 (1.88)	3.90 (2.3)
12 bar g (174 psi g)	0.79 (0.46)	1.39 (0.82)	2.17 (1.28)	2.80 (1.65)	3.40 (2)	4.20 (2.47)
13 bar g (188.5 psi g)	0.89 (0.52)	1.49 (0.88)	2.40 (1.41)	3.10 (1.82)	3.80 (2.24)	4.80 (2.83)

Purity %	Typical Feed-air consumption at nitrogen flow rate in m³/hr[2] (SCFM)					
	99.5	99.0	98.0	97.0	96.0	95.0
4 bar g (58 psi g)	1.9 (1.1)	1.8 (1.1)	1.9 (1.1)	2.3 (1.4)	2.3 (1.4)	2.5 (1.5)
5 bar g (72.5 psi g)	2.2 (1.3)	2.3 (1.4)	2.6 (1.5)	2.7 (1.6)	3.0 (1.8)	3.6 (2.1)
6 bar g (87 psi g)	2.5 (1.5)	2.8 (1.6)	3.2 (1.9)	3.4 (2)	3.9 (2.3)	4.0 (2.4)
7 bar g (101.5 psi g)	3.0 (1.8)	3.3 (1.9)	3.9 (2.3)	4.2 (2.5)	4.8 (2.8)	4.7 (2.8)
8 bar g (116 psi g)	3.5 (2.1)	3.8 (2.2)	4.4 (2.6)	4.9 (2.9)	5.4 (3.2)	5.8 (3.4)
9 bar g (130.5 psi g)	3.7 (2.2)	4.3 (2.5)	5.1 (3)	5.8 (3.4)	6.3 (3.7)	6.7 (3.9)
10 bar g (145 psi g)	4.1 (2.4)	4.8 (2.8)	5.9 (3.5)	6.3 (3.7)	7.0 (4.1)	7.5 (4.4)
11 bar g (159.5 psi g)	4.4 (2.6)	5.3 (3.1)	6.3 (3.7)	7.1 (4.2)	7.9 (4.6)	8.5 (5)
12 bar g (174 psi g)	4.6 (2.7)	5.9 (3.5)	7.0 (4.1)	7.7 (4.5)	8.4 (4.9)	9.3 (5.5)
13 bar g (188.5 psi g)	5.5 (3.2)	6.4 (3.8)	7.9 (4.6)	8.7 (5.1)	9.5 (5.6)	10.7 (6.3)

Maximum pressure drop <0.1 bar.
Values between brackets are indicative imperial values.

[1] The above data represents the typical performance of a single membrane module. Actual performance can vary depending on factors such as feed air pressure and temperature. Please contact your Parker go to person for actual performance information to meet your application's requirements.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

For higher purities please contact Parker.

Ambient Conditions

Ambient temperature	+2°C to +50°C (+36°F to 122°F)
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g (190 psi g)
Min. / Max. operating temperature	+2°C to +50°C (+36°F to 122°F)
Maximum oil vapour content	<0.01 mg/m³ (<0.01 ppm (w))
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed-air temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

Material

Housing	Steel
Tube	Aluminum
Coating (housing)	ESPC to RAL 7039 (Quartz Grey)
Coating (tube)	none

Services on Request

3D model CAD STEP file

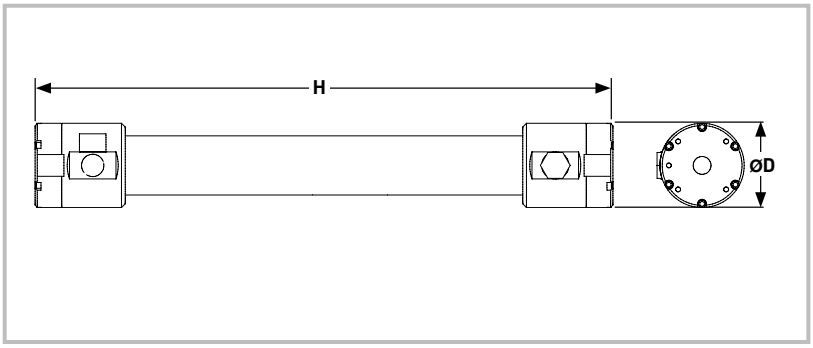
Weight, Dimensions and Connections

Dimensions H x W x D	758 x 80 x 63 mm (29.84" x 3.15" x 2.48")
Weight	3.2 kg (7.05 lb)
Connection feed-air	G⅜ female to ISO 228
Connection nitrogen enriched air	G⅜ female to ISO 228
Connection oxygen enriched air at atmospheric pressure	G⅜ female to ISO 228
Dimensional drawing	Refer to K3.1.344

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

SmartFluxx SA708 - Part Number: 159.005619



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %	Typical Nitrogen[1] flow rate in m³/hr[2] (SCFM)							
	99.5	99	98	97	96	95	93	90
4 bar g (58 psi g)	0.90 (0,53)	1.44 (0,85)	2.20 (1,3)	2.91 (1,71)	3.63 (2,14)	4.36 (2,57)		
5 bar g (72.5 psi g)	1.3 (0,77)	2.06 (1,21)	3.09 (1,82)	4.05 (2,38)	5.10 (3)	6.15 (3,62)		
6 bar g (87 psi g)	1.71 (1)	2.67 (1,57)	3.99 (2,35)	5.18 (3,05)	6.56 (3,86)	7.94 (4,67)	11.3 (6,62)	18.2 (10,7)
7 bar g (101.5 psi g)	2.11 (1,24)	3.27 (1,93)	4.90 (2,89)	6.46 (3,8)	8.12 (4,78)	9.78 (5,76)	13.8 (8,1)	22.1 (13)
8 bar g (116 psi g)	2.50 (1,47)	3.87 (2,28)	5.82 (3,42)	7.73 (4,55)	9.67 (5,69)	11.6 (6,84)	16.4 (9,63)	26.6 (15,7)
9 bar g (130.5 psi g)	2.81 (1,66)	4.46 (2,62)	6.77 (3,98)	9.03 (5,32)	11.27 (6,63)	13.5 (7,95)	19.0 (11,2)	30.8 (18,1)
10 bar g (145 psi g)	3.12 (1,84)	4.94 (2,91)	7.64 (4,5)	10.3 (6,08)	12.9 (7,57)	15.4 (9,06)	21.7 (12,8)	35.6 (21)
11 bar g (159.5 psi g)	3.41 (2)	5.46 (3,21)	8.49 (5)	11.5 (6,78)	14.5 (8,51)	17.3 (10,2)		
12 bar g (174 psi g)	3.68 (2,16)	5.96 (3,51)	9.32 (5,49)	12.5 (7,38)	15.9 (9,35)	19.1 (11,2)		
13 bar g (188.5 psi g)	3.93 (2,32)	6.45 (3,8)	10.1 (5,92)	13.6 (7,98)	17.1 (10,1)	20.9 (12,3)		

Purity %	Typical Feed-air consumption at nitrogen flow rate in m³/hr[2] (SCFM)							
	99.5	99	98	97	96	95	93	90
4 bar g (58 psi g)	7.5 (4,4)	8.6 (5,1)	9.0 (5,3)	9.5 (5,6)	10.4 (6,1)	11.2 (6,6)		
5 bar g (72.5 psi g)	10.1 (6)	11.5 (6,7)	11.7 (6,9)	12.6 (7,4)	14.0 (8,2)	15.2 (8,9)		
6 bar g (87 psi g)	12.3 (7,2)	13.8 (8,1)	14.2 (8,4)	15.3 (9)	17.1 (10,1)	18.8 (11,1)	22.6 (13,3)	29.9 (17,6)
7 bar g (101.5 psi g)	14.7 (8,6)	16.2 (9,6)	17.1 (10)	18.7 (11)	20.8 (12,2)	22.7 (13,4)	27.1 (16)	36.0 (21,2)
8 bar g (116 psi g)	16.5 (9,7)	18.5 (10,9)	19.7 (11,6)	21.9 (12,9)	24.4 (14,4)	26.5 (15,6)	31.8 (18,7)	42.8 (25,2)
9 bar g (130.5 psi g)	18.5 (10,9)	21.1 (12,4)	22.7 (13,4)	25.6 (15,1)	28.3 (16,7)	30.6 (18)	36.8 (21,6)	49.4 (29,1)
10 bar g (145 psi g)	20.4 (12)	23.2 (13,7)	25.5 (15)	29.2 (17,2)	32.1 (18,9)	34.8 (20,5)	42.0 (24,7)	57.2 (33,7)
11 bar g (159.5 psi g)	22.1 (13)	25.5 (15)	28.3 (16,6)	32.4 (19,1)	36.1 (21,2)	39.0 (23)		
12 bar g (174 psi g)	24.1 (14,2)	27.9 (16,4)	31.3 (18,4)	35.5 (20,9)	39.8 (23,4)	43.3 (25,5)		
13 bar g (188.5 psi g)	25.9 (15,3)	30.9 (18,2)	34.3 (20,2)	38.8 (22,8)	43.2 (25,5)	47.8 (28,1)		

Maximum pressure drop at Purity <0.2 bar.
Values between brackets are indicative of imperial values.

[1] The above data represents the typical performance of a single membrane module. Actual performance can vary depending on factors such as feed air pressure and temperature. Please contact your Parker go to person for actual performance information to meet your application's requirements.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

For purities >99.5% please contact Parker.

Ambient Conditions

Ambient temperature	+2°C to +50°C (+36°F to 122°F)
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g (190 psi g)
Min. / Max. operating temperature	+2°C / +50°C (+36°F to 122°F)
Maximum oil vapour content	<0.01 mg/m³ (<0.01 ppm (w))
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed-air temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

Mechanical Design Housing

Design pressure	15 bar g[4] (217 psi g)[4]
Design temperature	65°C[4] (149°F)[4]

[4] Membrane ambient and operating conditions are lower

Material

Housing	Aluminum
Coating	ESPC to RAL 7039 (Quartz Grey) Dry Film Thickness: 60 micron

Services on Request

3D model CAD STEP file

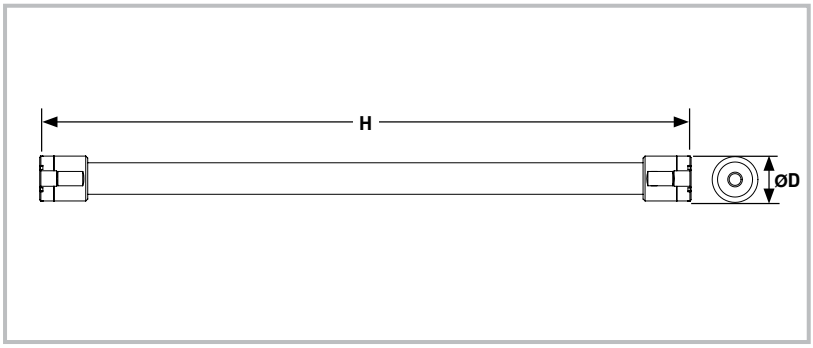
Weight, Dimensions and Connections

Dimensions H x Ø D	782 x 114 mm (30.79" x 4.49")
Weight	5.5 kg (12.1 lb)
Connection feed-air	G¾ female to ISO 228
Connection nitrogen enriched air	G¾ female to ISO 228
Connection oxygen enriched air at atmospheric pressure enriched air	G1 female to ISO 228
Dimensional drawing	Refer to K3.1.383

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

SmartFluxx SA1508 - Part Number: 159.005246



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %	Typical Nitrogen[1] flow rate in m³/hr[2] (SCFM)					
	99.5	99.0	98.0	97.0	96.0	95.0
4 bar g (58 psi g)	2.8 (1.6)	4.0 (2.4)	5.7 (3.4)	7.1 (4.2)	9.5 (5.6)	10.9 (6.4)
5 bar g (72.5 psi g)	3.7 (2.2)	5.3 (3.1)	7.9 (4.6)	10.2 (6)	12.8 (7.5)	15.2 (8.9)
6 bar g (87 psi g)	4.7 (2.8)	7.0 (4.1)	10.2 (6)	13.0 (7.7)	15.7 (9.2)	20.5 (12.1)
7 bar g (101.5 psi g)	6.1 (3.6)	8.5 (5)	12.3 (7.2)	16.5 (9.7)	19.5 (11.5)	24.3 (14.3)
8 bar g (116 psi g)	6.9 (4.1)	9.7 (5.7)	14.3 (8.4)	19.2 (11.3)	23.3 (13.7)	28.1 (16.5)
9 bar g (130.5 psi g)	7.8 (4.6)	11.1 (6.5)	17.0 (10)	21.2 (12.4)	27.0 (15.9)	32.2 (19)
10 bar g (145 psi g)	8.6 (5.1)	12.6 (7.4)	18.5 (10.9)	23.3 (13.7)	30.2 (17.8)	37.4 (22)
11 bar g (159.5 psi g)	9.6 (5.7)	14.2 (8.4)	20.7 (12.2)	25.4 (14.9)	33.0 (19.4)	41.0 (24.1)
12 bar g (174 psi g)	10.5 (6.2)	15.2 (8.9)	22.9 (13.5)	28.5 (16.7)	36.6 (21.5)	45.6 (26.8)
13 bar g (188.5 psi g)	11.3 (6.7)	16.3 (9.6)	24.9 (14.7)	31.6 (18.5)	39.5 (23.2)	48.8 (28.7)

Purity %	Typical Feed-air consumption at nitrogen flow rate in m³/hr[2] (SCFM)					
	99.5	99.0	98.0	97.0	96.0	95.0
4 bar g (58 psi g)	21 (12)	21 (12)	22 (13)	22 (13)	26 (15)	27 (16)
5 bar g (72.5 psi g)	24 (14)	26 (15)	29 (17)	31 (18)	34 (20)	36 (21)
6 bar g (87 psi g)	29 (17)	33 (19)	36 (21)	38 (22)	41 (24)	48 (28)
7 bar g (101.5 psi g)	36 (21)	38 (22)	41 (24)	48 (28)	50 (29)	56 (33)
8 bar g (116 psi g)	38 (22)	42 (25)	47 (28)	56 (33)	58 (34)	63 (37)
9 bar g (130.5 psi g)	44 (26)	48 (28)	55 (32)	62 (36)	67 (39)	72 (42)
10 bar g (145 psi g)	50 (29)	56 (33)	61 (36)	68 (40)	75 (44)	84 (49)
11 bar g (159.5 psi g)	51 (30)	60 (35)	66 (39)	74 (44)	80 (47)	91 (54)
12 bar g (174 psi g)	57 (34)	65 (38)	76 (45)	83 (49)	92 (54)	103 (61)
13 bar g (188.5 psi)	66 (39)	72 (42)	85 (50)	92 (54)	101 (59)	113 (67)

Maximum pressure drop at Purity < 0.2 bar.
Values between brackets are indicative of imperial values.

[1] The above data represents the typical performance of a single membrane module. Actual performance can vary depending on factors such as feed air pressure and temperature. Please contact your Parker go to person for actual performance information to meet your application's requirements.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

For purities >99.5% please contact Parker.

Mechanical Design Housing

Design pressure	15 bar g[4] (217 psi g)[4]
Design temperature	65°C[4] (149°F)[4]

[4] Membrane ambient and operating conditions are lower.

Ambient Conditions

Ambient temperature	+2°C to +50°C (+36°F to 122°F)
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Material

Housing	Aluminum
Coating	ESPC to RAL 7039 (Quartz Grey) Dry Film Thickness: 60 micron

Feed-air Conditions

Maximum operating pressure	13.0 bar g (190 psi g)
Min. / Max. operating temperature	+2°C / +50°C (+36°F to 122°F)
Maximum oil vapour content	<0.01 mg/m³ (<0.01 ppm (w))
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Services on Request

Material certificates EN10204-3.1 on housing material (for Stainless Steel only)
3D model CAD STEP file

Flow Rate Corrections

Nitrogen flow rate at feed-air temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

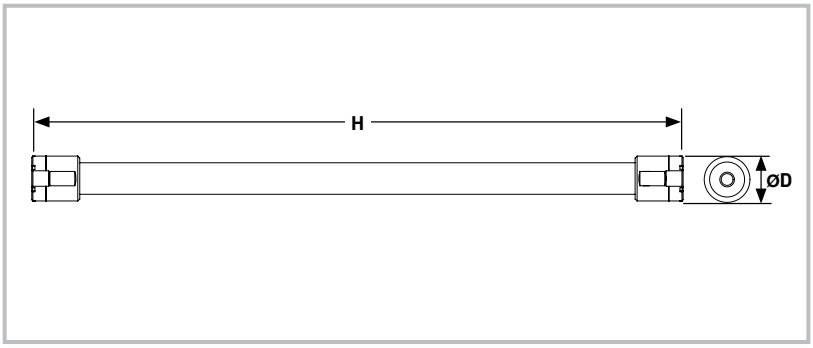
Weight, Dimensions and Connections

Dimensions H x Ø D	1655 x 114 mm (65.12" x 4.49")
Weight	6.8 kg (15 lb)
Connection feed-air	G¾ female to ISO 228
Connection nitrogen enriched air	G¾ female to ISO 228
Connection oxygen enriched air at atmospheric pressure	G1 female to ISO 228
Dimensional drawing	Refer to K3.1.330

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

SmartFluxx SA1508SS - Part Number: 159.005248



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %	Typical Nitrogen[1] flow rate in m³/hr[2] (SCFM)					
	99.5	99.0	98.0	97.0	96.0	95.0
4 bar g (58 psi g)	2.8 (1.6)	4.0 (2.4)	5.7 (3.4)	7.1 (4.2)	9.5 (5.6)	10.9 (6.4)
5 bar g (72.5 psi g)	3.7 (2.2)	5.3 (3.1)	7.9 (4.6)	10.2 (6)	12.8 (7.5)	15.2 (8.9)
6 bar g (87 psi g)	4.7 (2.8)	7.0 (4.1)	10.2 (6)	13.0 (7.7)	15.7 (9.2)	20.5 (12.1)
7 bar g (101.5 psi g)	6.1 (3.6)	8.5 (5)	12.3 (7.2)	16.5 (9.7)	19.5 (11.5)	24.3 (14.3)
8 bar g (116 psi g)	6.9 (4.1)	9.7 (5.7)	14.3 (8.4)	19.2 (11.3)	23.3 (13.7)	28.1 (16.5)
9 bar g (130.5 psi g)	7.8 (4.6)	11.1 (6.5)	17.0 (10)	21.2 (12.4)	27.0 (15.9)	32.2 (19)
10 bar g (145 psi g)	8.6 (5.1)	12.6 (7.4)	18.5 (10.9)	23.3 (13.7)	30.2 (17.8)	37.4 (22)
11 bar g (159.5 psi g)	9.6 (5.7)	14.2 (8.4)	20.7 (12.2)	25.4 (14.9)	33.0 (19.4)	41.0 (24.1)
12 bar g (174 psi g)	10.5 (6.2)	15.2 (8.9)	22.9 (13.5)	28.5 (16.7)	36.6 (21.5)	45.6 (26.8)
13 bar g (188.5 psi g)	11.3 (6.7)	16.3 (9.6)	24.9 (14.7)	31.6 (18.5)	39.5 (23.2)	48.8 (28.7)

Purity %	Typical Feed-air consumption at nitrogen flow rate in m³/hr[2] (SCFM)					
	99.5	99.0	98.0	97.0	96.0	95.0
4 bar g (58 psi g)	21 (12)	21 (12)	22 (13)	22 (13)	26 (15)	27 (16)
5 bar g (72.5 psi g)	24 (14)	26 (15)	29 (17)	31 (18)	34 (20)	36 (21)
6 bar g (87 psi g)	29 (17)	33 (19)	36 (21)	38 (22)	41 (24)	48 (28)
7 bar g (101.5 psi g)	36 (21(	38 (22)	41 (24)	48 (28)	50 (29)	56 (33)
8 bar g (116 psi g)	38 (22)	42 (25)	47 (28	56 (33)	58 (34)	63 (37)
9 bar g (130.5 psi g)	44 (26)	48 (28)	55 (32)	62 (36)	67 (39)	72 (42)
10 bar g (145 psi g)	50 (29)	56 (33)	61 (36)	68 (40)	75 (75)	84 (44)
11 bar g (159.5 psi g)	51 (30)	60 (35)	66 (39)	74 (44)	80 (47)	91 (54)
12 bar g (174 psi g)	57 (34)	65 (38)	76 (45)	83 (49)	92 (54)	103 (61)
13 bar g (188.5 psi g)	66 (39)	72 (42)	85 (50)	92 (54)	101 (59)	113 (67)

Maximum pressure drop at Purity < 0.2 bar.
Values between brackets are indicative of imperial values.

[1] The above data represents the typical performance of a single membrane module. Actual performance can vary depending on factors such as feed air pressure and temperature. Please contact your Parker go to person for actual performance information to meet your application's requirements.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

For purities >99.5% please contact Parker.

Ambient Conditions

Ambient temperature	+2°C to +50°C (+36°F to 122°F)
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g (190 psi g)
Min. / Max. operating temperature	+2°C to +50°C (+36°F to 122°F)
Maximum oil vapour content	<0.01 mg/m³ (<0.01 ppm (w))
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed-air temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

Mechanical Design Housing

Design pressure	15 bar g[4] (217 psi g)[4]
Design temperature	65°C[4] (149°F)[4]

[4] Membrane operating limits are lower

Material

Housing	Stainless Steel
Coating	None

Services on Request

Material certificates EN10204-3.1 on housing material (for Stainless Steel only)
3D model CAD STEP file

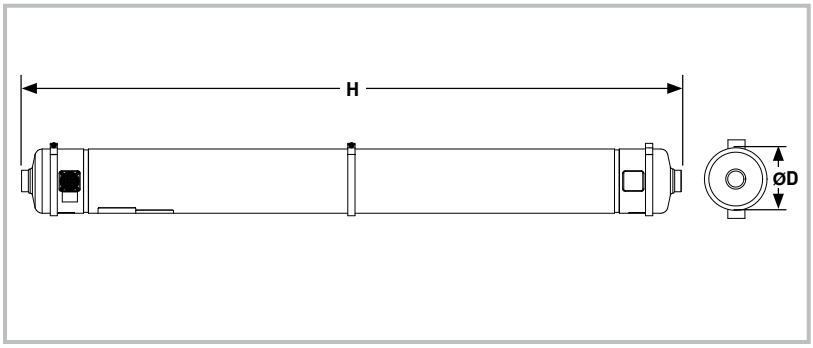
Weight, Dimensions and Connections

Dimensions H x Ø D	1654 x 114 mm (65.12" x 4.49")
Weight	18 kg (40 lb)
Connection feed-air	G¾ female to ISO 228
Connection nitrogen enriched air	G¾ female to ISO 228
Connection oxygen enriched air at atmospheric pressure	G1 female to ISO 228
Dimensional drawing	Refer to K3.1.330

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

SmartFluxx SA15015 - Part Number: 159.005974



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %	Typical[1] Nitrogen flow rate in m³/hr [2] (SCFM)				
	99	98	97	96	95
4 bar g (58 psi g)	21.8 (12.8)	29.6 (17.4)	37.4 (22.0)	48.4 (28.5)	59.5 (35.0)
5 bar g (73 psi g)	29.5 (17.3)	42.5 (25.0)	55.5 (32.7)	69.4 (40.8)	83.2 (49.0)
6 bar g (87 psi g)	36.8 (21.7)	54.6 (32.1)	72.3 (42.6)	89.1 (52.5)	105.9 (62.4)
7 bar g (102 psi g)	43.9 (25.8)	65.8 (38.8)	87.8 (51.7)	107.8 (63.4)	127.7 (75.2)
8 bar g (116 psi g)	50.7 (29.8)	76.3 (44.9)	102.0 (60.0)	125.3 (73.7)	148.6 (87.5)
9 bar g (130 psi g)	57.2 (33.6)	86.0 (50.6)	114.8 (67.6)	141.6 (83.4)	168.5 (99.2)
10 bar g (145 psi g)	63.3 (37.3)	94.8 (55.8)	126.4 (74.4)	156.9 (92.3)	187.4 (110.3)
11 bar g (160 psi g)	69.2 (40.7)	102.9 (60.6)	136.6 (80.4)	171.0 (100.6)	205.4 (120.9)
12 bar g (174 psi g)	74.8 (44.0)	110.1 (64.8)	145.5 (85.6)	183.9 (108.3)	222.4 (130.9)
13 bar g (189 psi g)	80.1 (47.1)	116.6 (68.6)	153.1 (90.1)	195.8 (115.2)	238.5 (140.3)

Purity %	Typical Feed-air consumption at nitrogen flow rate in m³/hr [2] (SCFM)				
	99	98	97	96	95
4 bar g (58 psi g)	116 (68)	116 (69)	120 (71)	141 (83)	155 (91)
5 bar g (73 psi g)	152 (90)	164 (96)	176 (104)	198 (116)	211 (124)
6 bar g (87 psi g)	186 (109)	206 (121)	226 (133)	249 (147)	262 (154)
7 bar g (102 psi g)	216 (127)	244 (143)	270 (159)	296 (174)	299 (176)
8 bar g (116 psi g)	244 (144)	278 (163)	309 (182)	338 (199)	347 (204)
9 bar g (130 psi g)	271 (159)	308 (181)	342 (201)	376 (221)	392 (231)
10 bar g (145 psi g)	298 (175)	334 (197)	371 (218)	410 (241)	431 (254)
11 bar g (160 psi g)	325 (191)	360 (212)	396 (233)	445 (262)	472 (278)
12 bar g (174 psi g)	352 (207)	386 (227)	422 (248)	478 (281)	511 (301)
13 bar g (189 psi g)	376 (222)	408 (240)	444 (261)	509 (300)	548 (323)

Maximum pressure drop at Purity: ≤ 0.2 bar.
Values between brackets are indicative imperial values.

[1] The above data represents the typical performance of a single membrane module. Actual performance can vary depending on factors such as feed air condition and is depending on temperature see flow rate correction below.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

[3] Performance certificates available up to 11 barg.

Ambient Conditions

Ambient temperature	+2°C to +60°C (+36°F to 140°F)
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Material

Housing	Aluminum
Coating	Sulfuric Acid Anodizing [MIL-A-8625F, Type II]

Operating Conditions Feed-air

Maximum operating pressure	13 bar g (190 psi g)
Min. / Max. operating temperature	+2°C / +60°C (+36°F to 140°F)
Maximum oil vapour content	<0.01 mg/m³ (<0.01 ppm (w))
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Services Available on Request

Material certificates EN10204-2.2 on request
3D model CAD STEP file

Flow Rate Corrections

Nitrogen flow rate at feed-air temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

Weight, Dimensions and Connections

Dimensions H x Ø D	1750 x 256/198 mm (68.9" x 10.1/7.8")
Weight	22.2 kg (48.9 lb)
Connection feed-air	G1½ female to ISO 228
Connection nitrogen enriched air	G1½ female to ISO 228
Connection oxygen enriched air at atmospheric pressure	Dual Hose Connection 1¾" (Adapter OD = 45mm)
Dimensional drawing	Refer to K3.1.415

Mechanical Design Housing

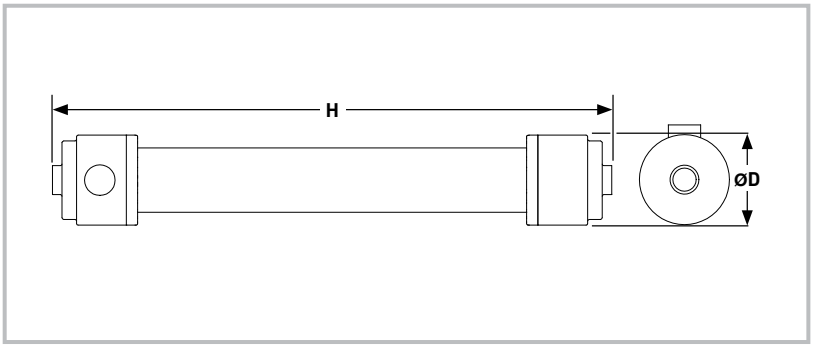
Design pressure	15 bar g (217 psi g)[4]
Design temperature	65°C (149°F)[4]

[4] Membrane operating limits are lower.

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

SmartFluxx SA15020 - Part Number: 159.005271



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %	Typical Nitrogen[1] flow rate in m³/hr[2] (SCFM)					
	99.5	99.0	98.0	97.0	96.0	95.0
4 bar g (58 psi g)	17 (10)	25 (15)	36 (21)	47 (28)	57 (34)	70 (41)
5 bar g (72.5 psi g)	23 (14)	33 (19)	49 (29)	66 (39)	82 (48)	93 (55)
6 bar g (87 psi g)	29 (17)	43 (25)	63 (37)	83 (49)	102 (60)	120 (71)
7 bar g (101.5 psi g)	37 (22)	53 (31)	78 (46)	100 (59)	125 (74)	154 (91)
8 bar g (116 psi g)	44 (26)	62 (36)	90 (53)	117 (69)	144 (85)	178 (105)
9 bar g (130.5 psi g)	49 (29)	72 (42)	103 (61)	133 (78)	165 (97)	216 (127)

Purity %	Typical Feed-air consumption at nitrogen flow rate in m³/hr[2] (SCFM)					
	99.5	99.0	98.0	97.0	96.0	95.0
4 bar g (58 psi g)	127 (75)	126 (74)	135 (79)	145 (85)	155 (91)	169 (99)
5 bar g (72.5 psi g)	144 (85)	155 (91)	171 (101)	194 (114)	216 (127)	218 (128)
6 bar g (87 psi g)	170 (100)	191 (112)	214 (126)	239 (141)	261 (154)	276 (162)
7 bar g (101.5 psi g)	202 (119)	223 (131)	258 (152)	281 (165)	315 (185)	348 (205)
8 bar g (116 psi g)	232 (137)	255 (150)	293 (172)	323 (190)	361 (212)	399 (235)
9 bar g (130.5 psi g)	264 (155)	298 (175)	335 (197)	369 (217)	413 (243)	485 (285)

Maximum pressure drop at Purity: ≤0.2 bar.
Values between brackets are indicative imperial values.

[1] The above data represents the typical performance of a single membrane module. Actual performance can vary depending on factors such as feed air pressure and temperature. Please contact your Parker go to person for actual performance information to meet your application's requirements.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

For higher purities please contact Parker.

Ambient Conditions

Ambient temperature	+2°C to +50°C (+36°F to 122°F)
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Operating Conditions Feed-air

Maximum operating pressure	9.0 bar g (130.5 psi g)
Min. / Max. operating temperature	+2°C to +50°C (+36°F to 122°F)
Maximum oil vapour content	<0.01 mg/m³ (<0.01 ppm (w))
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed-air temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

Mechanical Design Housing

Design pressure	14 bar g[4] (203 psi g)[4]
Design temperature	65°C[4] (149°F)[4]

[4] Membrane operating limits are lower.

Material

Housing	Aluminum
Coating	ESPC to RAL 7039 (Quartz Grey) Dry Film Thickness: 60 micron

Services Available on Request

3D model CAD STEP file

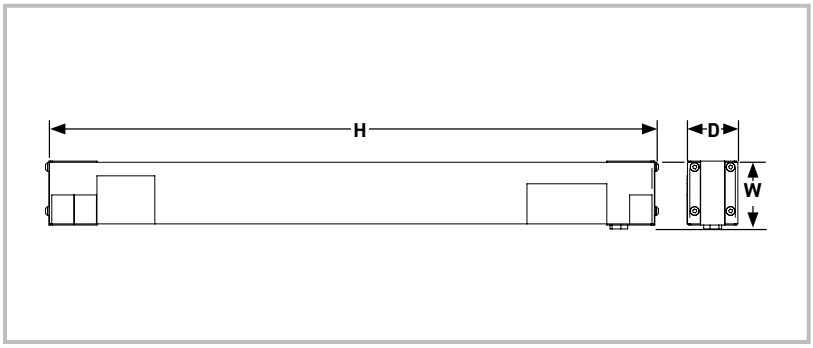
Weight, Dimensions and Connections

Dimensions H x Ø D	1740 x 280 mm (68.50" x 11.02")
Weight	46 kg (102 lb)
Connection feed-air	G2½ female to ISO 228
Connection nitrogen enriched air	G2½ female to ISO 228
Connection oxygen enriched air at atmospheric pressure	100mm (3.94") OD
Dimensional drawing	Refer to K3.1.339

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx ST304 - Part Number: 159.003420



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %[1]	Typical[1] Nitrogen flow rate in m³/hr[2]				
	99	98	97	96	95
4 bar g	0.15	0.27	0.39	0.50	0.62
5 bar g	0.19	0.34	0.48	0.62	0.78
6 bar g	0.25	0.45	0.62	0.80	0.98
7 bar g	0.29	0.52	0.73	0.93	1.14
8 bar g	0.33	0.60	0.83	1.06	1.31
9 bar g	0.39	0.70	0.95	1.23	1.52
10 bar g	0.41	0.75	1.04	1.33	1.64
11 bar g	0.43	0.82	1.15	1.48	1.83
12 bar g	0.45	0.89	1.25	1.63	2.02

Purity %	Typical Feed-air consumption at nitrogen flow rate in m³/hr[2]				
	99	98	97	96	95
4 bar g	1.16	1.29	1.43	1.54	1.69
5 bar g	1.44	1.61	1.78	1.92	2.11
6 bar g	1.73	1.98	2.18	2.39	2.65
7 bar g	2.02	2.31	2.55	2.79	3.09
8 bar g	2.31	2.64	2.91	3.19	3.53
9 bar g	2.70	3.06	3.33	3.69	4.10
10 bar g	2.89	3.30	3.64	3.99	4.42
11 bar g	3.45	3.85	4.24	4.58	4.94
12 bar g	3.60	4.17	4.63	5.04	5.46

Maximum pressure drop < 0.3 bar.
Maximum nitrogen flow rate = minimum flow rate +30%.

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9%), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +45°C*
Ambient pressure	atmospheric
Air quality	clean air without contaminants

*Maximum inlet temperature, 35°C when operating at 13 bar g.

Feed-air Conditions

Maximum operating pressure	13 bar g**
Min. / Max. operating temperature	+2°C / +45°C*
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

*Maximum inlet temperature, 35°C when operating at 13 bar g.
**Maximum inlet pressure, 10 bar g when operating at 45°C.

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

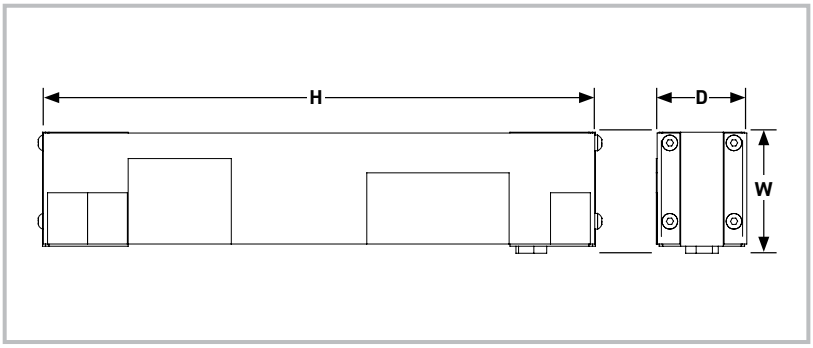
Weight, Dimensions and Connections

Dimensions H x W x D	386 x 80 x 63 mm
Weight	2.3 kg
Connection inlet / outlet	G⅜ female
Vent	G⅜ female
Dimensional drawing	Refer to K3.1.348

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx DT304 - Part Number: 159.003471



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %[1]	Typical[1] Nitrogen flow rate in m³/hr[2]					
	99.5	99	98	97	96	95
4 bar g	0.29	0.47	0.75	1.00	1.26	1.55
5 bar g	0.36	0.59	0.94	1.25	1.57	1.94
6 bar g	0.47	0.75	1.19	1.61	2.00	2.43
7 bar g	0.55	0.88	1.39	1.87	2.33	2.84
8 bar g	0.62	1.00	1.59	2.14	2.67	3.24
9 bar g	0.71	1.14	1.79	2.44	3.03	3.68
10 bar g	0.78	1.25	1.99	2.68	3.33	4.05
11 bar g	0.83	1.35	2.14	2.89	3.63	4.44
12 bar g	0.89	1.46	2.30	3.11	3.94	4.83

Purity %	Typical Feed-air consumption at nitrogen flow rate in m³/hr[2]					
	99.5	99	98	97	96	95
4 bar g	2.56	2.78	3.16	3.41	3.77	4.03
5 bar g	3.20	3.47	3.95	4.26	4.72	5.04
6 bar g	3.93	4.29	4.89	5.30	5.80	6.32
7 bar g	4.58	5.00	5.70	6.18	6.76	7.37
8 bar g	5.24	5.72	6.52	7.06	7.73	8.43
9 bar g	5.93	6.53	7.33	8.05	8.78	9.57
10 bar g	6.55	7.14	8.15	8.83	9.66	10.5
11 bar g	7.50	8.13	9.22	10.1	10.9	11.5
12 bar g	7.99	8.73	9.89	10.9	11.8	12.5

Maximum pressure drop < 0.8 bar.
Maximum nitrogen flow rate = minimum flow rate +10%.

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9%), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +45°C*
Ambient pressure	atmospheric
Air quality	clean air without contaminants

*Maximum inlet temperature, 35°C when operating at 13 bar g.

Feed-air Conditions

Maximum operating pressure	13 bar g**
Min. / Max. operating temperature	+2°C / +45°C*
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

*Maximum inlet temperature, 35°C when operating at 13 bar g.
**Maximum inlet pressure, 10 bar g when operating at 45°C.

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

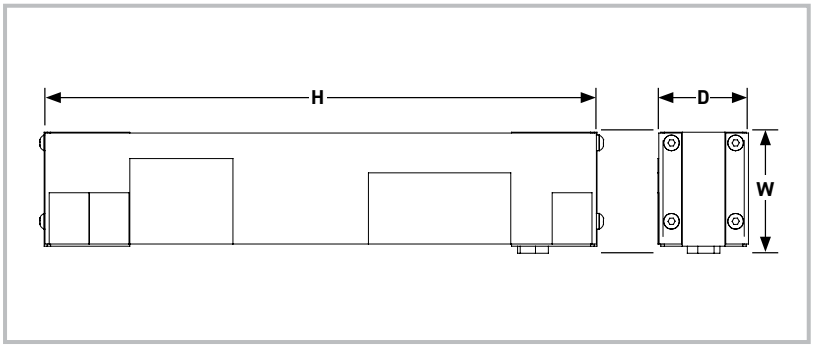
Weight, Dimensions and Connections

Dimensions H x W x D	386 x 145 x 63 mm
Weight	4.0 kg
Connection inlet / outlet	G⅜ female
Vent	G⅜ female
Dimensional drawing	Refer to K3.1.349

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx TT304 - Part Number: 159.003474



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %[1]	Minimum nitrogen flow rate in m³/hr [2]					
	99.5	99	98	97	96	95
4 bar g	0.50	0.74	1.13	1.49	1.79	2.28
5 bar g	0.62	0.93	1.41	1.86	2.24	2.85
6 bar g	0.77	1.17	1.78	2.36	2.93	3.55
7 bar g	0.90	1.37	2.08	2.75	3.41	4.14
8 bar g	1.03	1.57	2.37	3.14	3.90	4.73
9 bar g	1.16	1.73	2.66	3.54	4.45	5.39
10 bar g	1.28	1.96	2.97	3.93	4.88	5.92
11 bar g	1.36	2.07	3.19	4.25	5.32	6.48
12 bar g	1.43	2.18	3.41	4.57	5.77	7.05

Purity %	Feed-air consumption at minimum nitrogen flow rate in m³/hr [2]					
	99.5	99	98	97	96	95
4 bar g	3.82	4.17	4.63	5.06	5.37	5.92
5 bar g	4.78	5.21	5.79	6.33	6.71	7.40
6 bar g	5.93	6.46	7.12	7.78	8.48	9.23
7 bar g	6.92	7.53	8.30	9.07	9.90	10.8
8 bar g	7.91	8.61	9.49	10.4	11.3	12.3
9 bar g	9.01	9.71	10.9	11.7	12.9	14.0
10 bar g	10.0	11.0	12.2	13.0	14.1	15.4
11 bar g	11.6	12.4	13.7	14.9	16.0	17.5
12 bar g	12.2	13.1	14.7	16.0	17.3	19.0

Maximum pressure drop < 0.8 bar.
Maximum nitrogen flow rate = minimum flow rate +10%.

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9%), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m^3/hr refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +45°C*
Ambient pressure	atmospheric
Air quality	clean air without contaminants

*Maximum inlet temperature, 35°C when operating at 13 bar g.

Feed-air Conditions

Maximum operating pressure	13 bar g**
Min. / Max. operating temperature	+2°C / +45°C*
Maximum oil vapour content	<0.01 mg/m^3
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

*Maximum inlet temperature, 35°C when operating at 13 bar g.
**Maximum inlet pressure, 10 bar g when operating at 45°C.

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

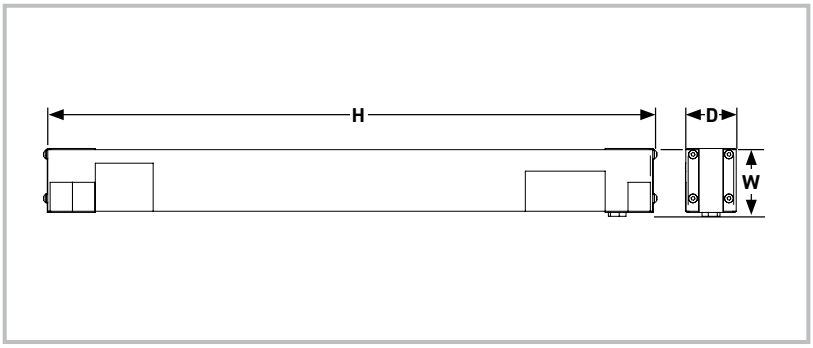
Weight, Dimensions and Connections

Dimensions H x W x D	388 x 200 x 63 mm
Weight	5.7 kg
Connection inlet / outlet	G⅜ female
Vent	G⅜ female
Dimensional drawing	Refer to K3.1.352

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx ST504 - Part Number: 159.005534



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %[1]	Minimum nitrogen flow rate in m³/hr [2]				
	99	98	97	96	95
4 bar g	0.20	0.33	0.47	0.61	0.75
5 bar g	0.27	0.46	0.65	0.84	1.03
6 bar g	0.36	0.60	0.83	1.07	1.31
7 bar g	0.41	0.71	1.01	1.29	1.57
8 bar g	0.48	0.83	1.18	1.52	1.86
9 bar g	0.55	0.95	1.35	1.75	2.14
10 bar g	0.62	1.07	1.52	1.96	2.39
11 bar g	0.68	1.19	1.69	2.17	2.65
12 bar g	0.75	1.30	1.86	2.38	2.90
13 bar g	0.81	1.42	2.04	2.59	3.15

Purity %[1]	Feed-air consumption at minimum nitrogen flow rate in m³/hr [2]				
	99	98	97	96	95
4 bar g	1.57	1.70	1.84	2.01	2.17
5 bar g	1.94	2.12	2.37	2.63	2.82
6 bar g	2.38	2.56	3.00	3.31	3.53
7 bar g	2.78	3.06	3.54	3.81	4.17
8 bar g	3.24	3.55	4.13	4.45	4.91
9 bar g	3.73	4.06	4.72	5.12	5.66
10 bar g	4.23	4.60	5.33	5.77	6.35
11 bar g	4.78	5.19	5.97	6.46	7.06
12 bar g	5.39	5.83	6.64	7.21	7.78
13 bar g	6.07	6.55	7.36	8.03	8.53

Maximum pressure drop < 0.3 bar.
Maximum nitrogen flow rate = minimum flow rate +30%.

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9%), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +45°C*
Ambient pressure	atmospheric
Air quality	clean air without contaminants

*Maximum inlet temperature, 35°C when operating at 13 bar g.

Material

Housing	Steel
Tube	Aluminum
Coating (housing)	ESPC to RAL 7035 (Light Grey)
Coating (tube)	None

Feed-air Conditions

Maximum operating pressure	13 bar g**
Min. / Max. operating temperature	+2°C to +45°C*
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

*Maximum inlet temperature, 35°C when operating at 13 bar g.
**Maximum inlet pressure, 10 bar g when operating at 45°C.

Services Available on Request

3D model CAD STEP file
Test Report

Flow Rate Corrections

Nitrogen flow rate at feed-air temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

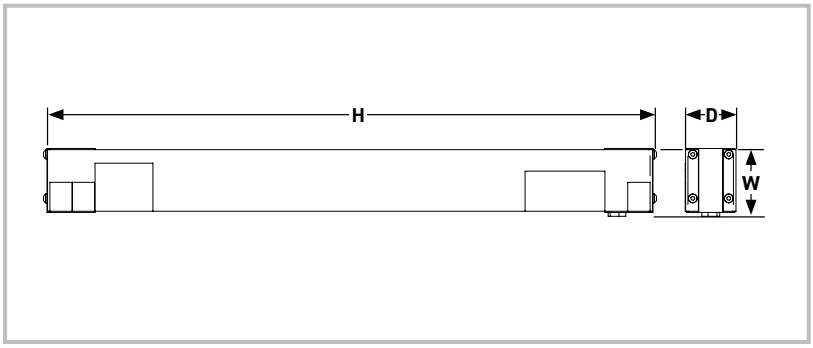
Weight, Dimensions and Connections

Dimensions H x W x D	520 x 80 x 63 mm
Weight	2.6 kg
Connection feed-air	G⅜ female to ISO 228
Connection nitrogen enriched air	G⅜ female to ISO 228
Connection oxygen enriched air at atmospheric pressure	G⅜ female to ISO 228
Dimensional drawing	Refer to K3.1.380

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx ST604 - Part Number: 159.003468



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %[1]	Minimum nitrogen flow rate in m³/hr [2]				
	99	98	97	96	95
4 bar g	0.39	0.65	0.88	1.11	1.40
5 bar g	0.48	0.81	1.10	1.39	1.74
6 bar g	0.61	1.05	1.42	1.80	2.19
7 bar g	0.72	1.22	1.66	2.10	2.56
8 bar g	0.82	1.39	1.90	2.40	2.92
9 bar g	0.93	1.61	2.19	2.77	3.39
10 bar g	1.02	1.74	2.37	3.00	3.65
11 bar g	1.12	1.91	2.62	3.33	4.07
12 bar g	1.22	2.09	2.87	3.66	4.48

Purity %	Feed-air consumption at minimum nitrogen flow rate in m³/hr [2]				
	99	98	97	96	95
4 bar g	2.47	2.80	3.09	3.34	3.63
5 bar g	3.08	3.50	3.86	4.17	4.53
6 bar g	3.81	4.39	4.83	5.21	5.70
7 bar g	4.44	5.12	5.64	6.08	6.65
8 bar g	5.08	5.86	6.44	6.95	7.60
9 bar g	5.86	6.74	7.46	8.04	8.82
10 bar g	6.45	7.32	8.06	8.69	9.50
11 bar g	7.41	8.42	9.16	9.98	10.6
12 bar g	8.05	9.18	10.0	11.0	11.7

Maximum pressure drop < 0.3 bar.
Maximum nitrogen flow rate = minimum flow rate +30%.

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9%), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +45°C*
Ambient pressure	atmospheric
Air quality	clean air without contaminants

*Maximum inlet temperature, 35°C when operating at 13 bar g.

Feed-air Conditions

Maximum operating pressure	13 bar g**
Min. / Max. operating temperature	+2°C / +45°C*
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

*Maximum inlet temperature, 35°C when operating at 13 bar g.
**Maximum inlet pressure, 10 bar g when operating at 45°C.

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

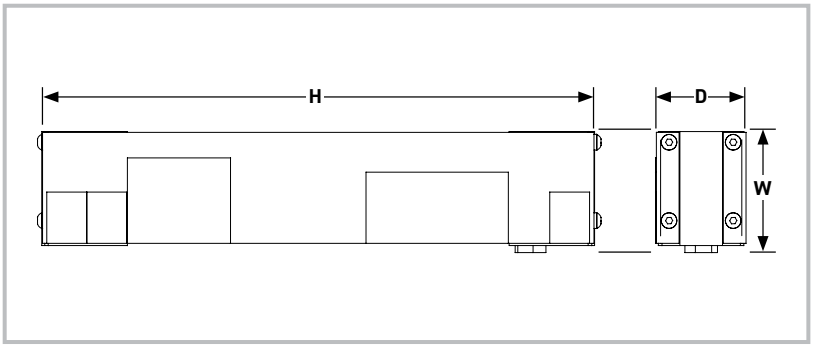
Weight, Dimensions and Connections

Dimensions H x W x D	757 x 80 x 63 mm
Weight	3.2 kg
Connection inlet / outlet	G⅜ female
Vent	G⅜ female
Dimensional drawing	Refer to K3.1.344

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx DT604 - Part Number: 159.003472



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %[1]	Minimum nitrogen flow rate in m³/hr [2]					
	99.5	99	98	97	96	95
4 bar g	1.05	1.55	2.32	3.06	3.75	4.49
5 bar g	1.32	1.94	2.90	3.83	4.69	5.62
6 bar g	1.62	2.41	3.64	4.82	6.02	7.20
7 bar g	1.89	2.81	4.25	5.62	7.02	8.40
8 bar g	2.16	3.22	4.85	6.42	8.02	9.60
9 bar g	2.41	3.60	5.54	7.23	8.97	11.1
10 bar g	2.71	4.02	6.07	8.03	10.0	12.0
11 bar g	2.89	4.31	6.62	8.80	10.9	13.2
12 bar g	3.07	4.60	7.17	9.58	11.8	14.3

Purity %	Feed-air consumption at minimum nitrogen flow rate in m³/hr [2]					
	99.5	99	98	97	96	95
4 bar g	8.21	8.68	9.51	10.4	11.2	12.1
5 bar g	10.3	10.8	11.9	13.0	14.1	15.2
6 bar g	12.5	13.5	14.9	16.4	17.4	18.7
7 bar g	14.6	15.8	17.4	19.1	20.4	21.8
8 bar g	16.7	18.0	19.9	21.8	23.3	25.0
9 bar g	19.3	20.5	22.7	24.6	26.9	28.8
10 bar g	21.6	22.9	24.9	27.3	30.1	31.2
11 bar g	24.6	26.3	28.5	30.8	33.8	35.6
12 bar g	26.1	28.1	30.8	33.5	36.5	38.7

Maximum pressure drop < 0.8 bar.
Maximum nitrogen flow rate = minimum flow rate +10%.

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9%), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +45°C*
Ambient pressure	atmospheric
Air quality	clean air without contaminants

*Maximum inlet temperature, 35°C when operating at 13 bar g.

Feed-air Conditions

Maximum operating pressure	13 bar g**
Min. / Max. operating temperature	+2°C / +45°C*
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

*Maximum inlet temperature, 35°C when operating at 13 bar g.
**Maximum inlet pressure, 10 bar g when operating at 45°C.

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

Material

Housing	Aluminum

Services on Request

Material certificates EN10204-3.1 on housing material (for Stainless Steel only)
3D model CAD STEP file

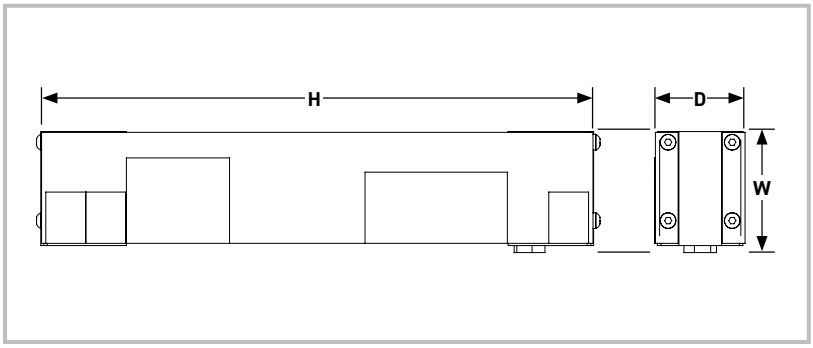
Weight, Dimensions and Connections

Dimensions H x W x D	758 x 145 x 63 mm
Weight	6.0 kg
Connection inlet / outlet	G⅜ female
Vent	G⅜ female
Dimensional drawing	Refer to K3.1.350

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx TT604 - Part Number: 159.003475



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %[1]	Minimum nitrogen flow rate in m³/hr [2]					
	99.5	99	98	97	96	95
4 bar g	1.05	1.55	2.32	3.06	3.75	4.49
5 bar g	1.32	1.94	2.90	3.83	4.69	5.62
6 bar g	1.62	2.41	3.64	4.82	6.02	7.20
7 bar g	1.89	2.81	4.25	5.62	7.02	8.40
8 bar g	2.16	3.22	4.85	6.42	8.02	9.60
9 bar g	2.41	3.60	5.54	7.23	8.97	11.1
10 bar g	2.71	4.02	6.07	8.03	10.0	12.0
11 bar g	2.89	4.31	6.62	8.80	10.9	13.2
12 bar g	3.07	4.60	7.17	9.58	11.8	14.3

Purity %	Feed-air consumption at minimum nitrogen flow rate in m³/hr [2]					
	99.5	99	98	97	96	95
4 bar g	8.21	8.68	9.51	10.4	11.2	12.1
5 bar g	10.3	10.8	11.9	13.0	14.1	15.2
6 bar g	12.5	13.5	14.9	16.4	17.4	18.7
7 bar g	14.6	15.8	17.4	19.1	20.4	21.8
8 bar g	16.7	18.0	19.9	21.8	23.3	25.0
9 bar g	19.3	20.5	22.7	24.6	26.9	28.8
10 bar g	21.6	22.9	24.9	27.3	30.1	31.2
11 bar g	24.6	26.3	28.5	30.8	33.8	35.6
12 bar g	26.1	28.1	30.8	33.5	36.5	38.7

Maximum pressure drop < 0.8 bar.
Maximum nitrogen flow rate = minimum flow rate +10%.

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9%), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +45°C*
Ambient pressure	atmospheric
Air quality	clean air without contaminants

*Maximum inlet temperature, 35°C when operating at 13 bar g.

Feed-air Conditions

Maximum operating pressure	13 bar g**
Min. / Max. operating temperature	+2°C / +45°C*
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

*Maximum inlet temperature, 35°C when operating at 13 bar g.
**Maximum inlet pressure, 10 bar g when operating at 45°C.

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

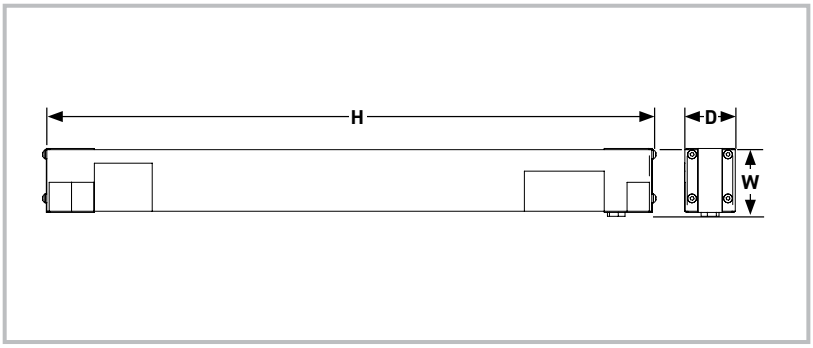
Weight, Dimensions and Connections

Dimensions H x W x D	758 x 200 x 63 mm
Weight	8.3 kg
Connection inlet / outlet	G⅜ female
Vent	G⅜ female
Dimensional drawing	Refer to K3.1.353

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx ST606 - Part Number: 159.003265



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %[1]	Minimum nitrogen flow rate in m³/hr [2]				
	99	98	97	96	95
4 bar g	0.77	1.25	1.71	2.13	2.63
5 bar g	0.96	1.56	2.14	2.66	3.28
6 bar g	1.20	1.98	2.70	3.41	4.19
7 bar g	1.40	2.31	3.15	3.98	4.89
8 bar g	1.60	2.64	3.60	4.55	5.59
9 bar g	1.80	3.00	4.08	5.17	6.41
10 bar g	2.00	3.30	4.49	5.69	6.99
11 bar g	2.10	3.56	4.87	6.18	7.61
12 bar g	2.20	3.82	5.24	6.68	8.23

Purity %	Feed-air consumption at minimum nitrogen flow rate in m³/hr [2]				
	99	98	97	96	95
4 bar g	4.85	5.37	5.99	6.39	6.83
5 bar g	6.07	6.72	7.49	7.99	8.54
6 bar g	7.45	8.52	9.44	10.24	10.9
7 bar g	8.69	9.94	11.0	11.9	12.7
8 bar g	9.93	11.4	12.6	13.6	14.5
9 bar g	11.3	12.9	14.3	15.5	16.7
10 bar g	12.6	14.2	15.7	17.1	18.2
11 bar g	14.5	16.0	17.5	19.2	20.5
12 bar g	15.2	17.2	18.9	20.7	22.2

Maximum pressure drop < 0.3 bar.
Maximum nitrogen flow rate = minimum flow rate +30%.

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9%), CO_2 (0.03 %), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Material

Connection block	Aluminium
Tube	PVC

Feed-air Conditions

Maximum operating pressure	13.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Services on Request

3D model CAD STEP file

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

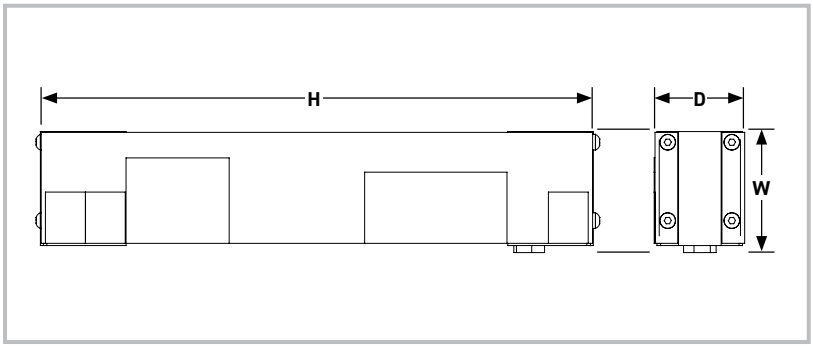
Weight, Dimensions and Connections

Dimensions H x W x D	751 x 110 x 84 mm
Weight	6.4 kg
Connection inlet / outlet	G½ female
Vent	G½ female
Dimensional drawing	Refer to K3.1.345

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx TT606 - Part Number: 159.003476



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %[1]	Minimum nitrogen flow rate in m³/hr [2]					
	99.5	99	98	97	96	95
4 bar g	1.90	2.74	4.12	5.40	6.70	8.07
5 bar g	2.38	3.42	5.15	6.75	8.38	10.1
6 bar g	2.93	4.34	6.53	8.64	10.6	12.8
7 bar g	3.42	5.06	7.62	10.1	12.4	15.0
8 bar g	3.91	5.78	8.71	11.5	14.2	17.1
9 bar g	4.48	6.63	10.1	13.3	16.4	19.5
10 bar g	4.89	7.23	10.9	14.4	17.7	21.4
11 bar g	5.27	7.88	12.0	15.8	19.7	23.8
12 bar g	5.65	8.54	13.1	17.2	21.6	26.2

Purity %	Feed-air consumption at minimum nitrogen flow rate in m³/hr [2]					
	99.5	99	98	97	96	95
4 bar g	15.0	15.9	17.7	18.9	20.1	21.8
5 bar g	18.8	19.9	22.1	23.6	25.1	27.2
6 bar g	22.9	24.7	26.8	29.4	31.9	33.4
7 bar g	26.7	28.8	31.2	34.3	37.3	39.0
8 bar g	30.5	33.0	35.7	39.2	42.6	44.5
9 bar g	35.0	37.8	41.2	45.1	49.3	52.6
10 bar g	38.2	41.2	44.6	49.0	53.2	57.8
11 bar g	44.8	47.3	51.6	55.4	61.0	64.3
12 bar g	48.0	51.2	56.5	60.3	66.9	70.7

Maximum pressure drop < 0.8 bar.
Maximum nitrogen flow rate = minimum flow rate +10%.

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9 %), Argon (0.9%), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Material

Connection block	Aluminum
Tube	PVC

Feed-air Conditions

Maximum operating pressure	13.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Services on Request

3D model CAD STEP file

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

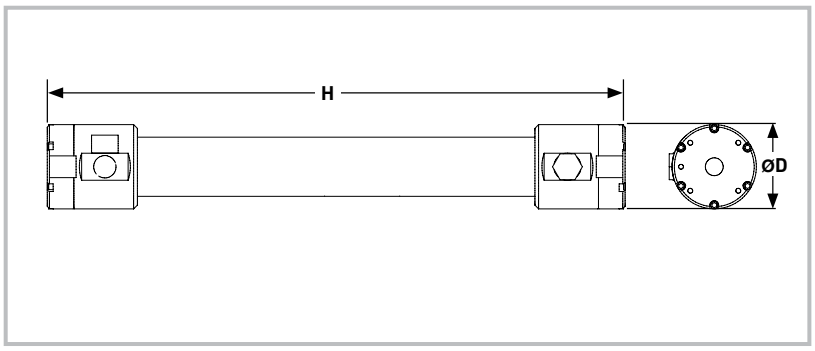
Weight, Dimensions and Connections

Dimensions H x W x D	751 x 270 x 83 mm
Weight	15 kg
Connection inlet / outlet	G½ female
Vent	G½ female
Dimensional drawing	Refer to K3.1.354

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx ST608 - Part Number: 159.003309



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %[1]	Minimum nitrogen flow rate in m³/hr [2]				
	99	98	97	96	95
4 bar g	1.34	2.25	3.07	3.87	4.82
5 bar g	1.67	2.81	3.84	4.84	6.02
6 bar g	2.14	3.72	4.99	6.48	7.91
7 bar g	2.49	4.34	5.82	7.56	9.23
8 bar g	2.85	4.96	6.65	8.65	10.6
9 bar g	3.36	5.81	7.85	10.0	12.2
10 bar g	3.56	6.21	8.32	10.8	13.2
11 bar g	4.01	6.96	9.46	12.2	14.9
12 bar g	4.46	7.71	10.6	13.5	16.6

Purity %	Feed-air consumption at minimum nitrogen flow rate in m³/hr [2]				
	99	98	97	96	95
4 bar g	9.08	10.1	11.1	12.0	13.0
5 bar g	11.4	12.7	13.8	15.0	16.3
6 bar g	14.1	16.0	17.5	19.5	20.6
7 bar g	16.5	18.7	20.4	22.7	24.0
8 bar g	18.8	21.3	23.3	25.9	27.4
9 bar g	21.8	25.0	27.5	30.0	31.8
10 bar g	23.2	26.7	29.1	32.4	34.3
11 bar g	27.7	31.3	34.1	36.5	40.2
12 bar g	30.8	34.7	38.2	40.6	44.9

Maximum pressure drop < 0.3 bar.
Maximum nitrogen flow rate = minimum flow rate +30%.

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9 %), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

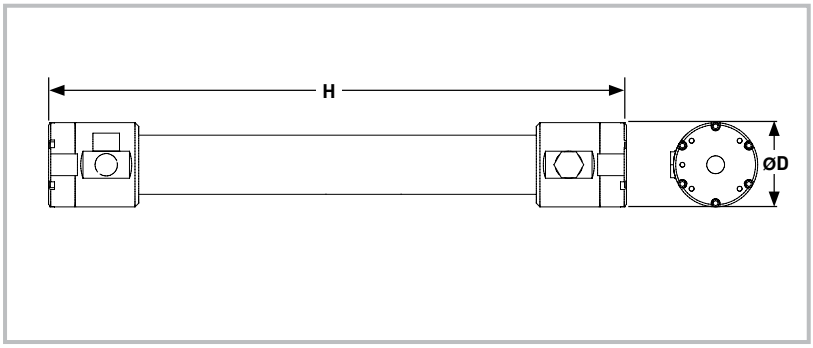
Weight, Dimensions and Connections

Dimensions H x Ø D	736 x 114 mm
Weight	5.3 kg
Connection inlet / outlet	G¾ female
Vent	G1 female
Dimensional drawing	Refer to K3.1.346

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx ST6010 - Part Number: 159.003470



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %[1]	Minimum nitrogen flow rate in m³/hr [2]				
	99	98	97	96	95
4 bar g	2.21	3.61	4.92	6.28	7.76
5 bar g	2.76	4.52	6.15	7.85	9.70
6 bar g	3.39	5.92	8.02	10.2	12.8
7 bar g	3.96	6.90	9.35	12.0	14.9
8 bar g	4.52	7.89	10.7	13.7	17.1
9 bar g	5.39	9.01	12.3	15.7	19.2
10 bar g	5.66	9.86	13.4	17.1	21.3
11 bar g	6.24	10.8	14.8	18.9	23.6
12 bar g	6.83	11.7	16.2	20.8	25.8

Purity %	Feed-air consumption at minimum nitrogen flow rate in m³/hr [2]				
	99	98	97	96	95
4 bar g	14.4	16.3	17.7	19.5	21.0
5 bar g	17.9	20.3	22.1	24.3	26.2
6 bar g	22.4	25.4	28.1	30.7	33.3
7 bar g	26 .1	29.7	32.7	35.9	38.8
8 bar g	29.9	33.9	37.4	41.0	44.4
9 bar g	35.1	39.6	43.0	47.0	51.9
10 bar g	36.8	43.4	46.8	51.2	57.6
11 bar g	43.7	49.7	54.7	58.7	63.6
12 bar g	47.8	54.0	60.0	64.5	69.6

Maximum pressure drop < 0.3 bar.
Maximum nitrogen flow rate = minimum flow rate +30%.

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9%), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Mechanical Design Housing

Design pressure	15 bar g
Design temperature	50°C

Membrane operating limits are lower.

Feed-air Conditions

Maximum operating pressure	13.0 bar g [3]
Min. / Max. operating temperature	+2°C / +50°C [3]
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

[3] combination of high operating pressure and high operating temperature can reduce the life time expectancy of the membrane module.

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

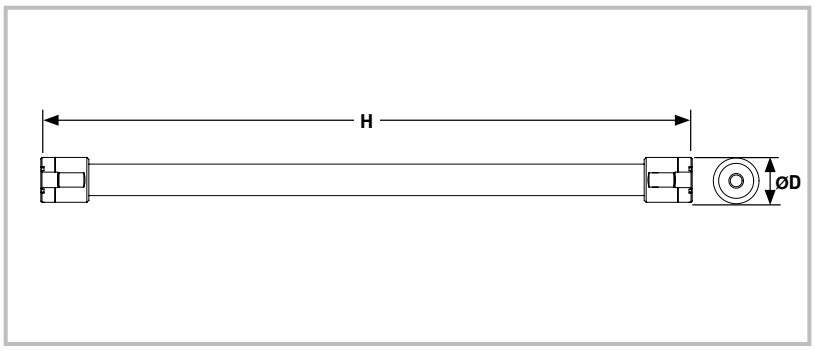
Weight, Dimensions and Connections

Dimensions H x Ø D	736 x 139 mm
Weight	8.1 kg
Connection inlet / outlet	G1 female
Vent	G1 female
Dimensional drawing	Refer to K3.1.347

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx ST1506 - Part Number: 159.003126



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %[1]	Minimum nitrogen flow rate in m³/hr [2]					
	99.5	99	98	97	96	95
4 bar g	1.06	1.45	2.29	3.17	4.05	5.02
5 bar g	1.56	2.15	3.38	4.68	5.98	7.41
6 bar g	2.04	2.81	4.42	6.12	7.82	9.69
7 bar g	2.40	3.30	5.20	7.20	9.20	11.4
8 bar g	2.88	3.96	6.24	8.64	11.0	13.7
9 bar g	3.36	4.62	7.28	10.1	12.9	16.0
10 bar g	3.84	5.28	8.32	11.5	14.7	18.2
11 bar g	4.32	5.94	9.36	13.0	16.6	20.5
12 bar g	4.80	6.60	10.4	14.4	18.4	22.8
13 bar g	5.04	6.93	10.9	15.1	19.3	23.9

Purity %	Feed-air consumption at minimum nitrogen flow rate in m³/hr [2]					
	99.5	99	98	97	96	95
4 bar g	8.98	9.15	9.84	11.1	12.1	13.0
5 bar g	13.3	13.5	14.5	16.4	17.9	19.3
6 bar g	17.3	17.7	19.0	21.4	23.5	25.2
7 bar g	20.4	20.8	22.4	25.2	27.6	29.6
8 bar g	24.5	24.9	26.8	30.2	33.1	35.6
9 bar g	28.6	29.1	31.3	35.3	38.6	41.5
10 bar g	32.6	33.3	35.8	40.3	44.2	47.4
11 bar g	36.7	37.4	40.2	45.4	49.7	53.4
12 bar g	40.8	41.6	44.7	50.4	55.2	59.3
13 bar g	42.8	43.7	47.0	52.9	58.0	62.2

Maximum pressure drop < 0.3 bar.
Maximum nitrogen flow rate = minimum flow rate +30%.

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9 %), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

Mechanical Design Housing

Design pressure	15 bar g
Design temperature	65°C

Membrane operating limits are lower.

Material

Housing	Aluminum

Services on Request

Material certificates EN10204-3.1 on housing material (for Stainless Steel only)
3D model CAD STEP file

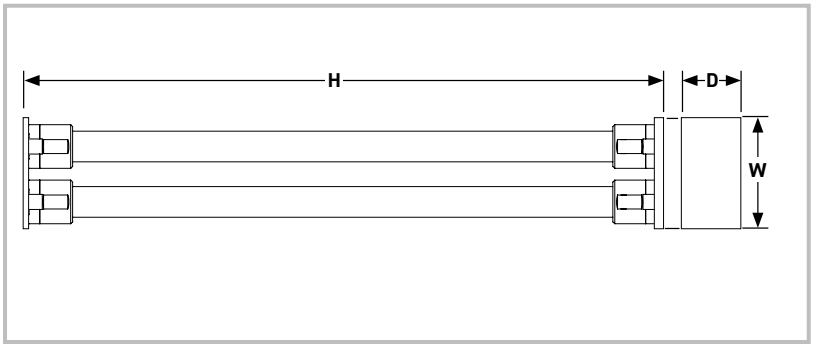
Weight, Dimensions and Connections

Dimensions H x Ø D	1655 x 100 mm
Weight	5.7 kg
Connection inlet / outlet	G¾ female
Vent	G1 female
Dimensional drawing	Refer to K3.1.334

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx DT1506-8 - Part Numbers: 159.003226 (8 bar) & 159.003233 (13 bar)



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %[1]	Minimum nitrogen flow rate in m³/hr [2]					
	99.5	99	98	97	96	95
4 bar g	2.31	3.63	6.25	8.58	10.9	13.2
5 bar g	3.41	5.36	9.23	12.7	16.1	19.5
6 bar g	4.46	7.01	12.1	16.6	21.0	25.5
7 bar g	5.25	8.25	14.2	19.5	24.7	30.0
8 bar g	6.30	9.90	17.0	23.4	29.6	36.0
9 bar g	7.35	11.6	19.9	27.3	34.6	42.0
10 bar g	8.40	13.2	22.7	31.2	39.5	48.0
11 bar g	9.45	14.9	25.6	35.1	44.5	54.0
12 bar g	10.5	16.5	28.4	39.0	49.4	60.0
13 bar g	11.0	17.3	29.8	41.0	51.9	63.0

Purity %	Feed-air consumption at minimum nitrogen flow rate in m³/hr[2]					
	99.5	99	98	97	96	95
4 bar g	19.6	22.9	26.9	30.0	32.6	34.3
5 bar g	29.0	33.8	39.7	44.4	48.2	50.7
6 bar g	37.9	44.2	51.9	58.0	63.0	66.3
7 bar g	44.6	52.0	61.1	68.3	74.1	78.0
8 bar g	53.6	62.4	73.3	81.9	88.9	93.6
9 bar g	62.5	72.8	85.5	95.6	104	109
10 bar g	71.4	83.2	97.7	109	119	125
11 bar g	80.3	93.6	110	123	133	140
12 bar g	89.3	104	122	137	148	156
13 bar g	93.7	109	128	143	156	164

Maximum pressure drop < 0.8 bar.
Maximum nitrogen flow rate = minimum flow rate +10%.

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9%), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

Mechanical Design Housing

Design pressure	13 bar g
Design temperature	50°C

Membrane operating limits are lower.

Material

Housing	Aluminum

Services on Request

Material certificates EN10204-3.1 on housing material (for Stainless Steel only)
3D model CAD STEP file

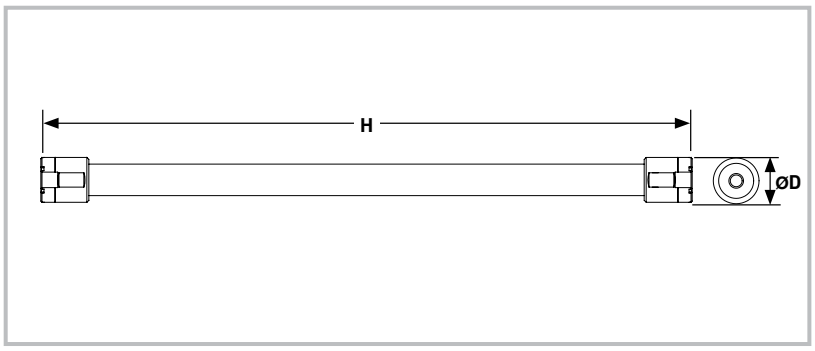
Weight, Dimensions and Connections

Model	4 - 8 bar g	9 - 13 bar g
Dimensions H x W x D (mm)	1705 x 296 x 208	1732 x 296 x 208
Weight	15 kg	15 kg
Connection inlet / outlet	G¾ female	G¾ female
Vent	G1 female	2 x G1 female
Dimensional drawing	Refer to K3.1.356	Refer to K3.1.357

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx ST1508 - Part Number: 159.003102



Purity %[1]	Minimum nitrogen flow rate in m³/hr [2]					
	99.5	99	98	97	96	95
4 bar g	2.07	2.95	4.84	6.60	8.8	11.0
5 bar g	3.06	4.36	7.15	9.75	13.0	16.3
6 bar g	4.00	5.70	9.35	12.8	17.0	21.3
7 bar g	4.70	6.70	11.0	15.0	20.0	25.0
8 bar g	5.17	7.37	12.1	16.5	22.0	27.5
9 bar g	6.11	8.71	14.3	19.5	26.0	32.5
10 bar g	6.58	9.38	15.4	21.0	28.0	35.0
11 bar g	7.52	10.7	17.6	24.0	32.0	40.0
12 bar g	7.99	11.4	18.7	25.5	34.0	42.5
13 bar g	8.46	12.1	19.8	27.0	36.0	45.0

Purity %	Feed-air consumption at minimum nitrogen flow rate in m³/hr [2]					
	99.5	99	98	97	96	95
4 bar g	17.6	18.6	20.8	23.1	26.4	28.6
5 bar g	26.0	27.4	30.7	34.1	39.0	42.3
6 bar g	34.0	35.9	40.2	44.6	51.0	55.3
7 bar g	40.0	42.2	47.3	52.5	60.0	65.0
8 bar g	43.9	46.4	52.0	57.8	66.0	71.5
9 bar g	51.9	54.9	61.5	68.3	78.0	84.5
10 bar g	55.9	59.1	66.2	73.5	84.0	91.0
11 bar g	63.9	67.5	75.7	84.0	96.0	104
12 bar g	67.9	71.8	80.4	89.3	102.0	111
13 bar g	71.9	76.0	85.1	94.5	108.0	117

Maximum pressure drop < 0.3 bar.
Maximum nitrogen flow rate = minimum flow rate +30%

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9%), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

Mechanical Design Housing

Design pressure	15 bar g
Design temperature	65°C

Membrane operating limits are lower.

Material

Housing	Aluminum

Services on Request

Material certificates EN10204-3.1 on housing material (for Stainless Steel only)
3D model CAD STEP file

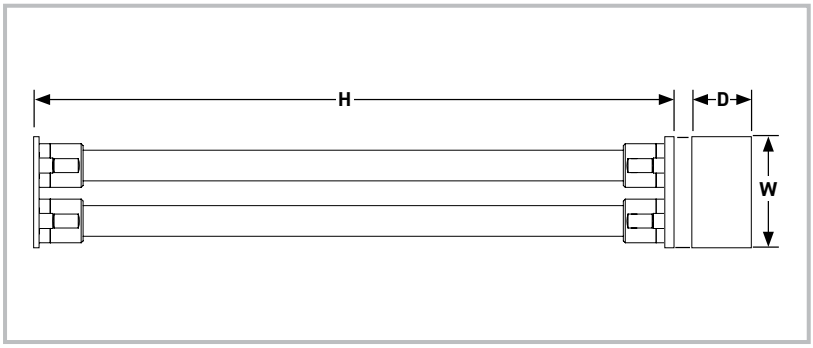
Weight, Dimensions and Connections

Dimensions H x Ø D	1655 x 114 mm
Weight	6.8 kg
Connection inlet / outlet	G¾ female
Vent	G1 female
Dimensional drawing	Refer to K3.1.330

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx DT1508 - Part Numbers: 159.003114 (8 bar) & 159.003234 (13 bar)



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Nitrogen Purity %	Minimum nitrogen[1] flow rate in m³/hr [2] (SCFM)[2]					
	99.5	99	98	97	96	95
4 bar g (58 psi g)	3.08 (1.81)	4.84 (2.85)	8.36 (4.92)	11.4 (6.71)	14.5 (8.53)	17.6 (10.4)
5 bar g (72.5 psi g)	4.55 (2.68)	7.15 (4.21)	12.4 (7.3)	16.9 (9.95)	21.5 (12.7)	26.0 (15.3)
6 bar g (87 psi g)	5.95 (3.5)	9.35 (5.5)	16.2 (9.53)	22.1 (13)	28.1 (16.5)	34.0 (20)
7 bar g (101.5 psi g)	7.00 (4.12)	11.0 (6.47)	19.0 (11.2)	26.0 (15.3)	33.0 (19.4)	40.0 (23.5)
8 bar g (116 psi g)	8.40 (4.94)	13.2 (7.77)	22.8 (13.4)	31.2 (18.4)	39.6 (23.3)	48.0 (28.3)
9 bar g (130.5 psi g)	9.80 (5.77)	15.4 (9.06)	26.6 (15.7)	36.4 (21.4)	46.2 (27.2)	56.0 (33)
10 bar g (145 psi g)	11.2 (6.59)	17.6 (10.4)	30.4 (17.9)	41.6 (24.5)	52.8 (31.1)	64.0 (37.7)
11 bar g (159.5 psi g)	12.6 (7.42)	19.8 (11.7)	34.2 (20.1)	46.8 (27.5)	59.4 (35)	72.0 (42.4)
12 bar g (174 psi g)	14.0 (8.24)	22.0 (12.9)	38.0 (22.4)	52.0 (30.6)	66.0 (38.8)	80.0 (47.1)
13 bar g (188.5 psi g)	14.7 (8.65)	23.1 (13.6)	39.9 (23.5)	54.6 (32.1)	69.3 (40.8)	84.0 (49.4)

Nitrogen Purity %	Feed-air consumption at minimum nitrogen flow rate in m³/hr [2] (SCFM)[2]					
	99.5	99	98	97	96	95
4 bar g (58 psi g)	26.2 (15.4)	30.5 (18)	35.9 (21.1)	40.0 (23.5)	43.6 (25.7)	45.8 (27)
5 bar g (72.5 psi g)	38.7 (22.8)	45.0 (26.5)	53.1 (31.3)	59.2 (34.8)	64.4 (37.9)	67.6 (39.8)
6 bar g (87 psi g)	50.6 (29.8)	58.9 (34.7)	69.4 (40.8)	77.4 (45.6)	84.2 (49.6)	88.4 (52)
7 bar g (101.5 psi g)	59.5 (35)	69.3 (40.8)	81.7 (48.1)	91.0 (53.6)	99.0 (58.3)	104 (61.2)
8 bar g (116 psi g)	71.4 (42)	83.2 (49)	98.0 (57.7)	109 (64.2)	119 (70)	125 (73.6)
9 bar g (130.5 psi g)	83.3 (49)	97.0 (57.1)	114 (67.1)	127 (74.7)	139 (81.8)	146 (85.9)
10 bar g (145 psi g)	95.2 (56)	111 (65.3)	131 (77.1)	146 (85.9)	158 (93)	166 (97.7)
11 bar g (159.5 psi g)	107 (63)	125 (73.6)	147 (86.5)	164 (96.5)	178 (105)	187 (110)
12 bar g (174 psi g)	119 (70)	139 (81.8)	163 (95.9)	182 (107)	198 (117)	208 (122)
13 bar g (188.5 psi g)	125 (73.6)	146 (85.9)	172 (101)	191 (112)	208 (122)	218 (128)

Maximum pressure drop < 0.8 bar (12 psi).
Maximum nitrogen flow rate = minimum flow rate +10%.
Values between brackets are indicative imperial values.

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9%), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m³/hr (CFM) refers to conditions at 1013 mbar(a) (14.7 psi a) and 20°C (68°F).

Ambient Conditions

Ambient temperature	+2°C to +50°C (+36°F to +122°F)
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g (189 psi g)
Min. / Max. operating temperature	+2°C to +50°C (+36°F to +122°F)
Maximum oil vapour content	<0.01 mg/m³ (<0.01 ppm (w))
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C (68°F)	See page 156
Feed-air consumption at feed-air temperatures other than 20°C (68°F)	See page 156

Mechanical Design Housing

Design pressure	13 bar g (189 psi g)
Design temperature	50°C (122°F)

Material

Housing	Aluminum

Services on Request

Material certificates EN10204-3.1 on housing material (for Stainless Steel only)
3D model CAD STEP file

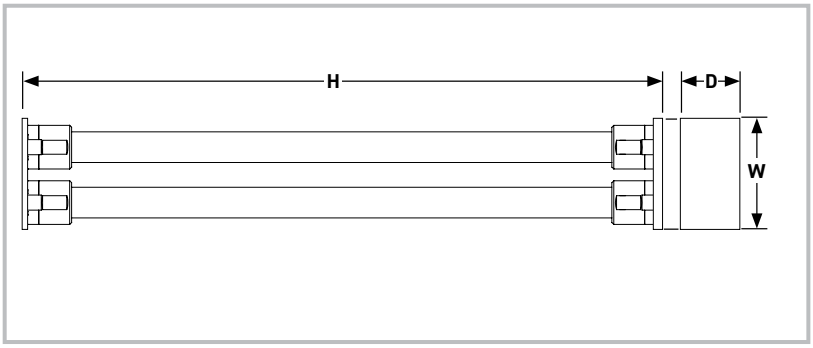
Weight, Dimensions and Connections

Model	4 - 8 bar g (58 - 116 psi g)	9 - 13 bar g (117 - 190 psi g)
Dimensions H x W x D	1705 x 296 x 201 mm	1705 x 296 x 145 mm
Weight	16 kg (35.3 lb)	16 kg (35.3 lb)
Connection inlet / outlet	G¾ female to ISO 228	G¾ female to ISO 228
Vent	G1 female to ISO 228	2 x G1 female to ISO 228
Dimensional drawing	Refer to K3.1.335	Refer to K3.1.336

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx DT1508SS - Part Number: 159.003115



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %[1]	Minimum nitrogen flow rate in m³/hr [2]					
	99.5	99	98	97	96	95
4 bar g	3.08	4.84	8.36	11.4	14.5	17.6
5 bar g	4.55	7.15	12.4	16.9	21.5	26.0
6 bar g	5.95	9.35	16.2	22.1	28.1	34.0
7 bar g	7.00	11.0	19.0	26.0	33.0	40.0
8 bar g	8.40	13.2	22.8	31.2	39.6	48.0
9 bar g	9.80	15.4	26.6	36.4	46.2	56.0
10 bar g	11.2	17.6	30.4	41.6	52.8	64.0
11 bar g	12.6	19.8	34.2	46.8	59.4	72.0
12 bar g	14.0	22.0	38.0	52.0	66.0	80.0
13 bar g	14.7	23.1	39.9	54.6	69.3	84.0

Purity %	Feed-air consumption at minimum nitrogen flow rate in m³/hr[2]					
	99.5	99	98	97	96	95
4 bar g	26.2	30.5	35.9	40.0	43.6	45.8
5 bar g	38.7	45.0	53.1	59.2	64.4	67.6
6 bar g	50.6	58.9	69.4	77.4	84.2	88.4
7 bar g	59.5	69.3	81.7	91.0	99.0	104
8 bar g	71.4	83.2	98.0	109	119	125
9 bar g	83.3	97.0	114	127	139	146
10 bar g	95.2	111	131	146	158	166
11 bar g	107	125	147	164	178	187
12 bar g	119	139	163	182	198	208
13 bar g	125	146	172	191	208	218

Maximum pressure drop < 0.8 bar.
Maximum nitrogen flow rate = minimum flow rate +10%

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9%), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	13.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

Mechanical Design Housing

Design pressure	15 bar g
Design temperature	65°C

Membrane operating limits are lower.

Material

Housing	Stainless Steel

Services on Request

Material certificates EN10204-3.1 on housing material (for Stainless Steel only)
3D model CAD STEP file

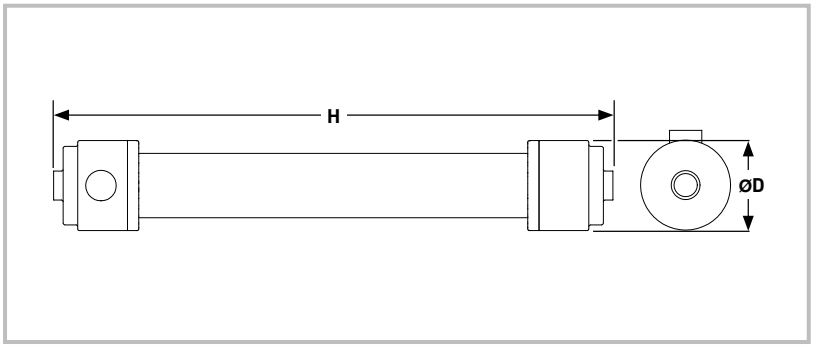
Weight, Dimensions and Connections

Model	
Dimensions H x W x D (mm)	1734 x 296 x 145
Weight	39 kg
Connection inlet / outlet	G¾ female
Vent	2 x G1 female
Dimensional drawing	Refer to K3.1.362

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx ST15020-1 - Part Number: 159.003846



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %[1]	Typical nitrogen flow rate in m³/hr[2]				
	99	98	97	96	95
4 bar g	24.0	39.0	53.0	71.0	89.0
5 bar g	35.0	58.0	78.0	105	131
6 bar g	46.0	75.0	103	137	171
7 bar g	54.0	89.0	121	161	201
8 bar g	59.0	97.0	133	177	221

Purity %	Feed-air consumption at typical nitrogen flow rate in m³/hr[2]				
	99	98	97	96	95
4 bar g	161	175	191	220	239
5 bar g	238	259	283	324	353
6 bar g	289	324	359	411	445
7 bar g	340	381	423	483	523
8 bar g	374	419	465	531	576

Maximum pressure drop < 0.3 bar.

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9%), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

Above tables reflect nominal flow rates. The nitrogen output of each individual module can vary +/- 15%. For selection purposes, calculation should be done based on nominal conditions without taking the variation into account. When ordering modules, it is necessary that the total modules needed for each individual project are clearly mentioned per order line on the order intake form. Parker will assure that the total output flow rate (sum of the individual selected membranes flow rates) will be minimum the total nominal flow rate. The compressor selection can be done on the total calculated nominal flow rate without taking any variation into account.

Example:
A project requires 1515 Nm³/hr nitrogen at 8 bar g inlet pressure, 95% purity and 20°C inlet temperature. You will need 7 modules. Parker will ensure a minimum total product flow of 1515 Nm³/hr. However, individual module performance can still vary +/-15%. The compressor should be selected on a total air consumption of 7 x 576 = 4032 Nm³/hr.

Ambient Conditions

Ambient tempera ture	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Feed-air Conditions

Maximum operating pressure	9.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

Mechanical Design Housing

Design pressure	14 bar g
Design temperature	65°C

Membrane operating limits are lower.

Material

Housing	Aluminum

Services on Request

3D model CAD STEP file

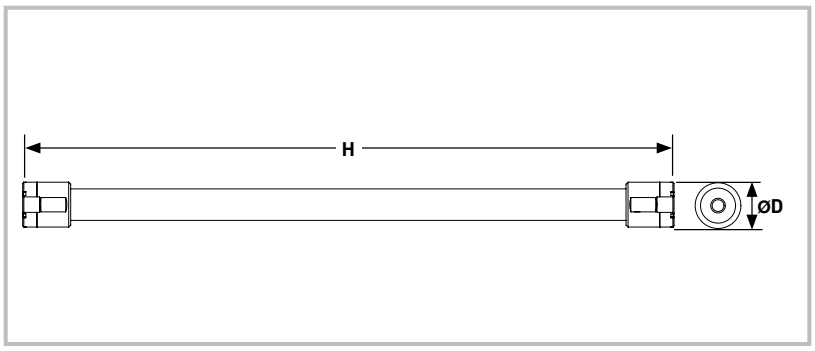
Weight, Dimensions and Connections

Dimensions H x Ø D	1740 x 280 mm
Weight	46 kg
Connection inlet / outlet	G2½ female
Vent	100 mm OD
Dimensional drawing	K3.1.339*

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

HiFluxx ST1508SS - Part Number: 159.003229



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %[1]	Minimum nitrogen flow rate in m³/hr[2]					
	99.5	99	98	97	96	95
4 bar g	2.07	2.95	4.84	6.60	8.8	11.0
5 bar g	3.06	4.36	7.15	9.75	13.0	16.3
6 bar g	4.00	5.70	9.35	12.8	17.0	21.3
7 bar g	4.70	6.70	11.0	15.0	20.0	25.0
8 bar g	5.17	7.37	12.1	16.5	22.0	27.5
9 bar g	6.11	8.71	14.3	19.5	26.0	32.5
10 bar g	6.58	9.38	15.4	21.0	28.0	35.0
11 bar g	7.52	10.7	17.6	24.0	32.0	40.0
12 bar g	7.99	11.4	18.7	25.5	34.0	42.5
13 bar g	8.46	12.1	19.8	27.0	36.0	45.0

Purity %	Feed-air consumption at minimum nitrogen flow rate in m³/hr[2]					
	99.5	99	98	97	96	95
4 bar g	17.6	18.6	20.8	23.1	26.4	28.6
5 bar g	26.0	27.4	30.7	34.1	39.0	42.3
6 bar g	34.0	35.9	40.2	44.6	51.0	55.3
7 bar g	40.0	42.2	47.3	52.5	60.0	65.0
8 bar g	43.9	46.4	52.0	57.8	66.0	71.5
9 bar g	51.9	54.9	61.5	68.3	78.0	84.5
10 bar g	55.9	59.1	66.2	73.5	84.0	91.0
11 bar g	63.9	67.5	75.7	84.0	96.0	104
12 bar g	67.9	71.8	80.4	89.3	102.0	111
13 bar g	71.9	76.0	85.1	94.5	108.0	117

Maximum pressure drop < 0.3 bar.
Maximum nitrogen flow rate = minimum flow rate +30%.

[1] Parker membranes separate oxygen from pressurised air. The composition of the product is determined by measuring the residual oxygen content. The nitrogen content is calculated by subtracting the residual oxygen content from 100%. Air is composed of nitrogen (78.1%), oxygen (20.9%), Argon (0.9%), CO_2 (0.03%), and some trace inert gases. Therefore it should be born in mind that the value that is normally called the nitrogen content actually is the inert gas content.

[2] m³/hr refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Mechanical Design Housing

Design pressure	15 bar g
Design temperature	65°C

Membrane operating limits are lower.

Feed-air Conditions

Maximum operating pressure	13.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Material

Housing	Stainless Steel

Services on Request

Material certificates EN10204-3.1 on housing material (for Stainless Steel only)
3D model CAD STEP file

Flow Rate Corrections

Nitrogen flow rate at feed temperatures other than 20°C	See page 156
Feed-air consumption at feed-air temperatures other than 20°C	See page 156

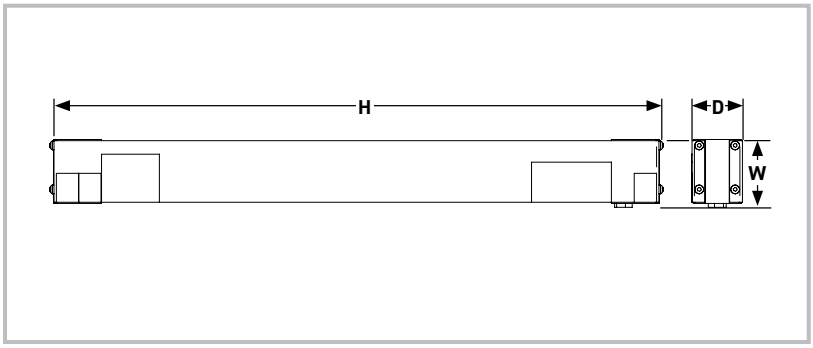
Weight, Dimensions and Connections

Dimensions H x Ø D	1654 x 114 mm
Weight	18 kg
Connection inlet / outlet	G¾ female
Vent	G1 female
Dimensional drawing	Refer to K3.1.358

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

EnOxy 304 - Part Number: 159.003655



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Purity %	Minimum enriched oxygen flow rate in l/min [1]						
	28	30	32	34	36	38	40
4 bar g	16.9	17.3	17.7	18.1	18.4	18.8	-
5 bar g	21.5	22	22.5	23.0	23.5	24.0	24.5
6 bar g	26.3	26.9	27.5	28.1	28.7	29.3	29.9
7 bar g	31.1	31.9	32.6	33.3	34.0	34.7	35.4
8 bar g	36.1	37.0	37.8	38.6	39.4	40.2	41.1
9 bar g	41.3	42.2	43.1	44.1	45.0	45.9	46.9
10 bar g	46.5	47.5	48.6	49.7	50.7	51.8	52.8
11 bar g	51.9	53	54.2	55.4	56.6	57.8	58.9
12 bar g	57.3	58.6	59.9	61.3	62.6	63.9	65.2

Purity %	Feed-air consumption at minimum enriched oxygen flow rate in l/min [1]						
	28	30	32	34	36	38	40
4 bar g	24.5	28.4	33.4	41.3	54.2	77.1	-
5 bar g	31.2	35.5	41.1	49.5	61.7	80.6	139
6 bar g	38.1	43.3	50.2	58.1	72.8	92.2	138
7 bar g	45.1	51.2	59.5	68.8	83.1	104	149
8 bar g	52.4	59.4	69.0	79.9	96.5	120	166
9 bar g	59.8	67.8	78.8	91.2	111	137	187
10 bar g	67.4	76.6	88.8	103	125	158	219
11 bar g	75.7	85.7	99.6	116	143	182	261
12 bar g	83.7	95.0	110	129	160	208	310

Enriched oxygen flow exits at atmospheric pressure.
Maximum pressure drop over nitrogen enriched flow < 0.3 bar.
Maximum enriched oxygen flow rate = minimum flow rate +30%.

[1] l/min refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +45°C*
Ambient pressure	atmospheric
Air quality	clean air without contaminants

*Maximum inlet temperature, 35°C when operating at 13 bar g.

Material

Housing	Steel
Tube	Aluminium
Coating (housing)	ESPC to Ral 7035 (Light Grey)
Coating (tube)	None

Feed-air Conditions

Maximum operating pressure	13 bar g**
Min. / Max. operating temperature	+2°C / +45°C*
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

*Maximum inlet temperature, 35°C when operating at 13 bar g.
**Maximum inlet pressure, 10 bar g when operating at 45°C.

Weight, Dimensions and Connections

Dimensions H x W x D	386 x 80 x 63 mm
Weight	2.3 kg
Connection feed-air	G⅜ female to ISO 228
Connection nitrogen enriched air	G⅜ female to ISO 228
Connection oxygen enriched air at atmospheric pressure	G⅜ female to ISO 228
Dimensional drawing	Refer to K3.1.348

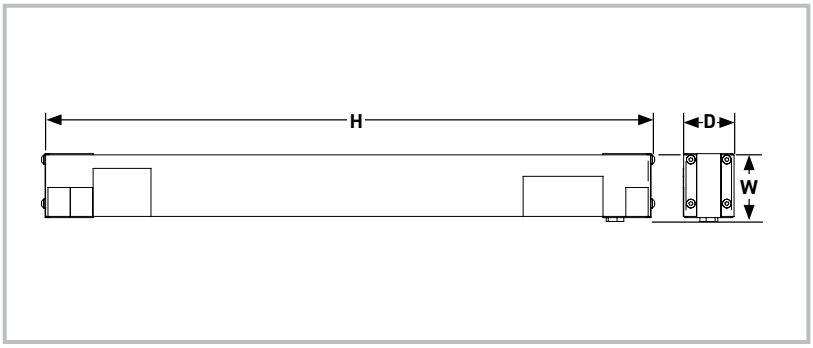
Flow Rate Corrections

Oxygen flow rate at feed temperatures other than 20°C	See page 157
Feed-air consumption at feed-air temperatures other than 20°C	See page 157

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

EnOxy 604 - Part Number: 159.003656



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Oxygen purity %	Minimum enriched oxygen flow rate in l/min [1]						
	28	30	32	34	36	38	40
4 bar g	35.7	36.6	37.4	38.2	39.0	39.8	-
5 bar g	45.5	46.6	47.6	48.6	49.7	50.7	51.7
6 bar g	55.6	56.8	58.1	59.3	60.6	61.9	63.1
7 bar g	65.9	67.4	68.9	70.4	71.8	73.3	74.8
8 bar g	76.4	78.1	79.9	81.6	83.4	85.1	86.8
9 bar g	87.2	89.2	91.2	93.2	95.2	97.2	99.1
10 bar g	98.3	101	103	105	107	109	112
11 bar g	110	112	115	117	120	122	125
12 bar g	121	124	127	130	132	135	138

Oxygen purity %	Feed-air consumption at minimum enriched oxygen flow rate in l/min[1]						
	28	30	32	34	36	38	40
4 bar g	49.3	57.2	67.3	83.2	109	155	-
5 bar g	62.8	71.6	82.8	99.7	124	162	279
6 bar g	76.7	87.1	101	117	147	186	278
7 bar g	90.9	103	120	139	167	209	299
8 bar g	105	120	139	161	194	243	334
9 bar g	120	136	159	184	223	277	377
10 bar g	136	154	179	208	252	318	441
11 bar g	152	172	201	233	287	366	525
12 bar g	169	191	222	259	321	419	624

Enriched oxygen flow exits at atmospheric pressure.
Maximum pressure drop over nitrogen enriched flow < 0.3 bar.
Maximum enriched oxygen flow rate = minimum flow rate +30%.

[1] l/min refers to conditions at 1013mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Material

Housing	Steel
Tube	Aluminium
Coating (housing)	ESPC to Ral 7035 (Light Grey)
Coating (tube)	None

Feed-air Conditions

Maximum operating pressure	13.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Weight, Dimensions and Connections

Dimensions H x W x D	757 x 80 x 63 mm
Weight	3.2 kg
Connection feed-air	G³/₈ female to ISO 228
Connection nitrogen enriched air	G³/₈ female to ISO 228
Connection oxygen enriched air at atmospheric pressure	G³/₈ female to ISO 228
Dimensional drawing	Refer to K3.1.344

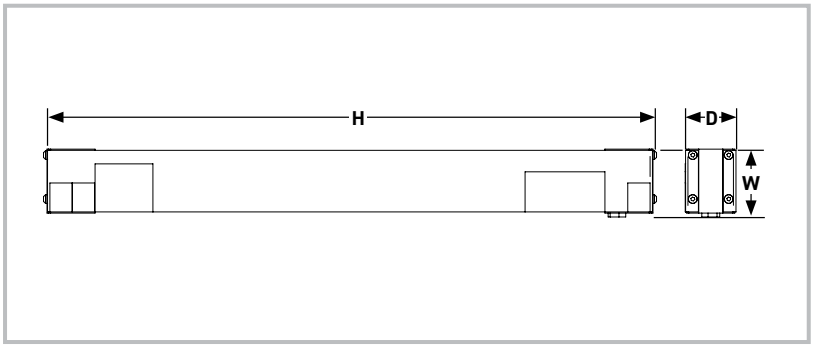
Flow Rate Corrections

Oxygen flow rate at feed temperatures other than 20°C	See page 157
Feed-air consumption at feed-air temperatures other than 20°C	See page 157

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

EnOxy 606 - Part Number: 159.003657



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Oxygen purity %	Minimum enriched oxygen flow rate in l/min [1]						
	28	30	32	34	36	38	40
4 bar g	69.2	70.8	72.3	74.0	75.5	77.2	-
5 bar g	88.2	90.2	92.2	94.2	96.2	98.2	100
6 bar g	108	110	113	115	118	120	122
7 bar g	128	131	133	136	139	142	145
8 bar g	148	151	155	158	162	165	168
9 bar g	168	173	177	180	185	188	192
10 bar g	190	195	198	203	208	212	217
11 bar g	212	217	222	227	232	237	242
12 bar g	235	240	245	252	257	262	267

Oxygen purity %	Feed-air consumption at minimum enriched oxygen flow rate in l/min [1]						
	28	30	32	34	36	38	40
4 bar g	95.6	111	130	161	212	301	-
5 bar g	122	139	160	193	241	314	541
6 bar g	149	169	196	227	284	360	538
7 bar g	176	200	232	269	324	405	580
8 bar g	204	232	269	312	376	470	648
9 bar g	233	264	307	356	431	536	730
10 bar g	263	299	347	403	488	615	855
11 bar g	295	334	389	452	556	710	1018
12 bar g	327	371	430	502	623	811	1208

Enriched oxygen flow exits at atmospheric pressure.
Maximum pressure drop over nitrogen enriched flow < 0.3 bar.
Maximum enriched oxygen flow rate = minimum flow rate +30%.

[1] l/min refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Material

Housing	Steel
Tube	PVC
Coating (housing)	ESPC to RAL 7035 (Light Grey)
Coating Tube	None

Feed-air Conditions

Maximum operating pressure	13.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Weight, Dimensions and Connections

Dimensions H x W x D	751 x 110 x 84 mm
Weight	6.4 kg
Connection feed-air	G½ female to ISO 228
Connection nitrogen enriched air	G½ female to ISO 228
Connection oxygen enriched air at atmospheric pressure	G½ female to ISO 228
Dimensional drawing	Refer to K3.1.345

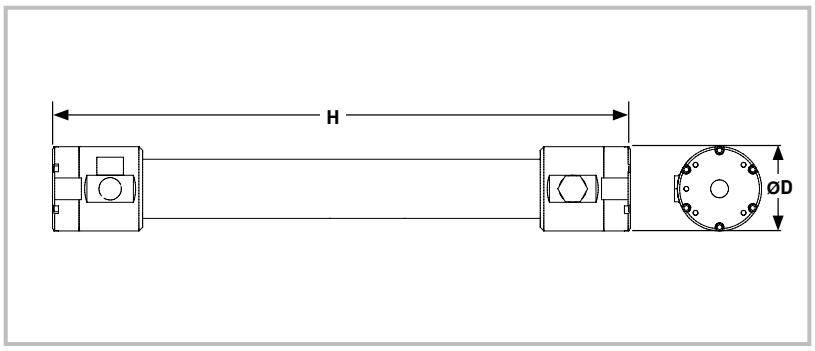
Flow Rate Corrections

Oxygen flow rate at feed temperatures other than 20°C	See page 157
Feed-air consumption at feed-air temperatures other than 20°C	See page 157

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

EnOxy 608 - Part Number: 159.003477



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Oxygen purity %	Minimum enriched oxygen flow rate in l/min [1]						
	28	30	32	34	36	38	40
4 bar g	128	131	134	137	140	143	-
5 bar g	163	167	170	174	178	181	185
6 bar g	199	203	207	212	216	221	225
7 bar g	235	240	246	251	256	261	267
8 bar g	273	279	285	291	297	303	309
9 bar g	311	318	325	332	339	346	353
10 bar g	351	358	366	374	382	390	397
11 bar g	391	400	408	417	426	435	443
12 bar g	432	442	452	461	471	481	490

Oxygen purity %	Feed-air consumption at minimum enriched oxygen flow rate in l/min [1]						
	28	30	32	34	36	38	40
4 bar g	177	206	242	299	392	557	-
5 bar g	225	256	296	357	444	580	998
6 bar g	274	311	361	417	523	662	991
7 bar g	324	368	427	494	597	745	1066
8 bar g	376	426	495	573	692	864	1190
9 bar g	429	487	565	654	793	985	1340
10 bar g	484	550	637	741	897	1130	1569
11 bar g	543	615	715	830	1022	1304	1869
12 bar g	601	682	791	923	1145	1490	2219

Enriched oxygen flow exits at atmospheric pressure.
Maximum pressure drop over nitrogen enriched flow < 0.3 bar.
Maximum enriched oxygen flow rate = minimum flow rate +30%.

[1] l/min refers to conditions at 1013mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Material

Housing	Aluminum

Feed-air Conditions

Maximum operating pressure	13.0 bar g
Min. / Max. operating temperature	+2°C / +50°C
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

Weight, Dimensions and Connections

Dimensions H x ø D	736 x 114 mm
Weight	5.3 kg
Connection feed-air	G¾ female to ISO 228
Connection nitrogen enriched air	G¾ female to ISO 228
Connection oxygen enriched air at atmospheric pressure	G1 female to ISO 228
Dimensional drawing	Refer to K3.1.346

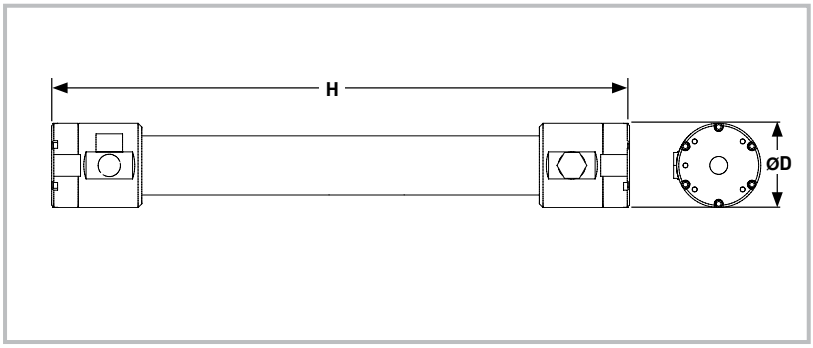
Flow Rate Corrections

Oxygen flow rate at feed temperatures other than 20°C	See page 157
Feed-air consumption at feed-air temperatures other than 20°C	See page 157

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

EnOxy 6010 - Part Number: 159.003478



Performance data

Performance data is based on 20°C feed-air temperature and 1013 mbar ambient pressure

Oxygen purity %	Minimum enriched oxygen flow rate in l/min [1]						
	28	30	32	34	36	38	40
4 bar g	250	256	262	268	274	280	-
5 bar g	318	325	333	341	348	356	364
6 bar g	387	396	406	415	425	434	443
7 bar g	458	470	481	492	503	514	525
8 bar g	532	545	558	571	584	596	609
9 bar g	607	622	637	652	666	681	696
10 bar g	685	701	718	735	751	768	784
11 bar g	764	783	801	820	838	857	875
12 bar g	846	866	887	907	928	948	969

Oxygen purity %	Feed-air consumption at minimum enriched oxygen flow rate in l/min [1]						
	28	30	32	34	36	38	40
4 bar g	345	401	472	585	768	1093	-
5 bar g	438	500	579	698	871	1139	1964
6 bar g	534	608	706	818	1027	1302	1950
7 bar g	633	718	836	969	1172	1465	2101
8 bar g	734	833	970	1124	1360	1700	2346
9 bar g	838	952	1108	1284	1559	1941	2644
10 bar g	945	1076	1249	1455	1765	2227	3097
11 bar g	1062	1204	1402	1632	2012	2571	3691
12 bar g	1176	1336	1552	1814	2254	2939	4385

Enriched oxygen flow exits at atmospheric pressure.
Maximum pressure drop over nitrogen enriched flow < 0.3 bar.
Maximum enriched oxygen flow rate = minimum flow rate +30%.

[1] l/min refers to conditions at 1013 mbar(a) and 20°C.

Ambient Conditions

Ambient temperature	+2°C to +50°C
Ambient pressure	atmospheric
Air quality	clean air without contaminants

Material

Housing	Aluminum

Feed-air Conditions

Maximum operating pressure	13.0 bar g [2]
Min. / Max. operating temperature	+2°C / +50°C [2]
Maximum oil vapour content	<0.01 mg/m³
Particles	filtered at 0.01 µm cut off
Relative humidity	<100% (non condensing)

[2] combination of high operating pressure and high operating temperature can reduce the life time expectancy of the membrane module.

Weight, Dimensions and Connections

Dimensions H x ø D	736 x 139 mm
Weight	8.1 kg
Connection feed-air	G1 female to ISO 228
Connection nitrogen enriched air	G 1 female to ISO 228
Connection oxygen enriched air at atmospheric pressure	G1 female to ISO 228
Dimensional drawing	Refer to K3.1.347

Flow Rate Corrections

Oxygen flow rate at feed temperatures other than 20°C	See page 157
Feed-air consumption at feed-air temperatures other than 20°C	See page 157

Note

Parker membrane systems produce both nitrogen and oxygen enriched air. Nitrogen enriched air can cause suffocation and oxygen enriched air causes increased fire hazards. The oxygen enriched air is available at ambient pressure and pressure build-up of enriched oxygen at the outlet must be prevented, otherwise a serious (reversible) decrease in performance will result. The nitrogen enriched air produced should be treated as pressurised air.

Required Filtration for Parker Membrane Modules

To ensure a long life for Parker membranes modules, feed-air needs to comply with the following specifications:

Particles: Filtered at 0.01 µm cut off
ISO8573-1:2010 Solid Particulate Class 1

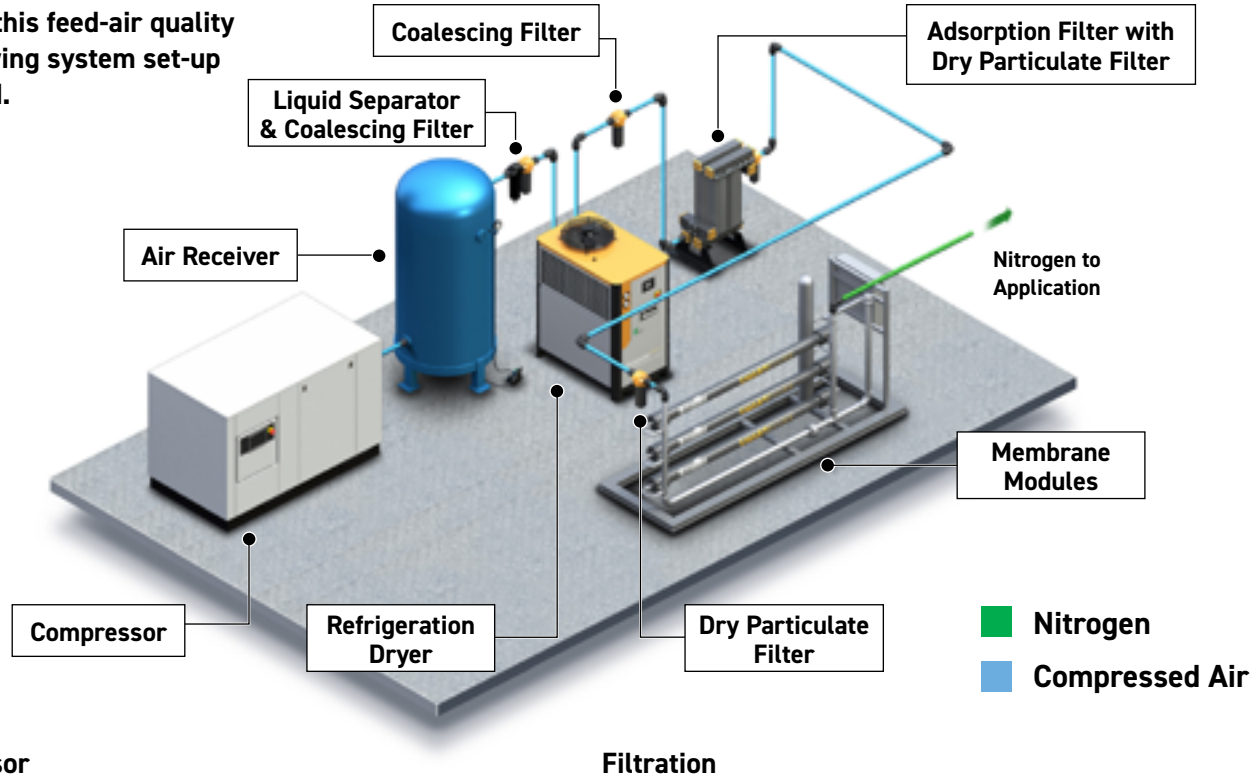
Residual oil content: <0.01 mg/m³
ISO8573-1:2010 Oil Class 1

Relative humidity: <100% (non-condensing)

Air quality: Clean air treated by an active carbon bed type absorber to remove solvents, hydrocarbons, ozone etc.

Generally to ISO8573.1:2010 class 1.4.1. If ambient temperature is below 8°C then a desiccant dryer is recommended.

To reach this feed-air quality the following system set-up is advised.



Compressor

Due to varying nitrogen or oxygen enriched-air demands, the feed-air requirements will also vary. Parker advises to use a variable speed screw compressor to get the highest efficiency and best working conditions for the compressor. At pressures of 7 to 8 barg, standard industrial screw compressors have their highest efficiency which is also the most optimal pressure with the lowest energy use for the Parker membranes modules.

Air receiver

In case a variable speed screw compressor is used, it is not necessary to use an air receiver. When a non-variable speed compressor is used with an air receiver, the receiver must be of such a size that the compressor will not switch on and off at a high frequency as this will cause increased oil carryover.

Water separator

A water separator is recommended when it is unsure whether liquid water can be carried over. The downstream coalescing filters are not designed to remove bulk water. In case that pipework between air receiver - dryer is short and pipework is indoors a water separator can be void.

Refrigerant dryer

A refrigerant dryer is sufficient to lower the dew point to an acceptable level. When a nitrogen or oxygen enriched-air system is located in an environment where the temperature cannot drop below 8°C a refrigerant dryer that creates a dew point of 3°C is sufficient. Should the feed-air temperature drop below 8°C, another drying method is required, for example an adsorption dryer. The refrigerant dryer should be sized correctly and should be equipped with sufficient condensate removal.

Filtration

To filter the feed-air to the specified quality the following filters are needed:

Coarse coalescing filter
A coarse coalescing filter for 1 micron particles.

This filter is normally located before the refrigerant dryer or the fine coalescing filter.

Fine coalescing filter
A fine coalescing filter for 0.01 micron particles. This filter is normally located after the refrigerant dryer or the coarse coalescing filter.

Adsorption filter, bed-type
An adsorption filter (activated carbon absorber), bed-type filled with carbon granulates.

Adsorption filters with an active carbon element are not sufficient for the protection of nitrogen membrane modules.

Dry particlulate filter
Because a carbon bed can cause dust, particulate filtration is needed. Dependent of the dust carry-over of the bed, one fine filter, or coarse and fine filter are needed, whichever is appropriate to meet the requirements.

General
All filters should be sized correctly for the application. Maintenance and filter element change must be carried out following the applicable instructions and in line with the application.

Depending on the system requirements Parker has a wide range of compressed air pre-filtration products to select from.

Membrane Temperature Correction Factors

Temperature has influence on the performance of the Parker membranes. As the temperature changes so does the membrane performance. As a consequence the capacity and feed-air factor differ from the ones at nominal temperature (20°C).

Below are correction factor tables for temperatures differing from 20°C for the HiFluxx/Smartfluxx and Enoxy membrane modules.

HiFluxx

Table 1

Temperature	Nitrogen flow rate correction factor for HiFluxx at various product concentrations[1]					
	99.5%	99%	98%	97%	96%	95%
5°C (41°F)	0.9	0.9	0.9	0.9	0.9	0.9
10°C (50°F)	0.9	0.9	0.9	0.9	0.9	0.9
30°C (86°F)	1.0	1.0	1.0	1.0	1.0	1.0
40°C (104°F)	0.6	0.8	1.0	1.0	1.1	1.1
50°C (122°F)	0.6	0.8	1.0	1.1	1.1	1.2

Table 2

Temperature	Feed-Air consumption correction factor for HiFluxx at various product concentrations[1]					
	99.5%	99%	98%	97%	96%	95%
5°C (41°F)	0.8	0.8	0.8	0.8	0.8	0.8
10°C (50°F)	0.9	0.9	0.9	0.9	0.9	0.9
30°C (86°F)	1.1	1.1	1.1	1.1	1.1	1.1
40°C (104°F)	1.2	1.2	1.2	1.2	1.2	1.2
50°C (122°F)	1.3	1.3	1.3	1.3	1.3	1.3

Example

Sizing conditions	
Inlet pressure	7 barg
Nitrogen purity	97%
Feed-air temperature	50°C
N2 correction factor	1.1 (table 1)
Feed-air correction factor	1.3 (table 2)
Module	HiFluxx ST1508
N2 flow rate HiFluxx ST1508	15 m^3/hr (at 20°C)
Feed-air consumption HiFluxx ST1508	52.5 m^3/hr (at 20°C)

[1] These numbers are indicative and may vary by +/- 0.1.

Corrected Nitrogen Flow Calculation at 50°C and 97%
Corrected nitrogen flow: 15 m^3/hr x 1.1 = 16.5 m^3/hr

Corrected Feed-Air Calculation at 50°C and 97%
Corrected feed-air flow: 52.5 m^3/hr x 1.3 = 68.3 m^3/hr

SmartFluxx

Table 1

Temperature	Nitrogen flow rate correction factor for SmartFluxx (SA) at various product concentrations[1]					
	99.5%	99%	98%	97%	96%	95%
5°C (41°F)	-	-	0.90	0.90	0.90	0.90
10°C (50°F)	-	-	0.95	0.95	0.95	0.95
20°C (68°F)	1.00	1.00	1.00	1.00	1.00	1.00
30°C (86°F)	1.00	1.03	1.05	1.05	1.05	1.05
40°C (104°F)	1.00	1.05	1.10	1.10	1.10	1.10
50°C (122°F)	1.00	1.05	1.10	1.10	1.15	1.15
60°C (140°F)	1.10	1.15	1.20	1.20	1.25	1.20

Table 2

Temperature	Feed-Air consumption correction factor for SmartFluxx (SA) at various product concentrations[1]					
	99.5%	99%	98%	97%	96%	95%
5°C (41°F)	-	-	0.90	0.90	0.90	0.90
10°C (50°F)	-	-	0.95	0.95	0.95	0.95
20°C (68°F)	1.00	1.00	1.00	1.00	1.00	1.00
30°C (86°F)	1.10	1.10	1.10	1.10	1.10	1.10
40°C (104°F)	1.25	1.20	1.15	1.15	1.10	1.10
50°C (122°F)	1.35	1.30	1.25	1.20	1.15	1.15
60°C (140°F)	1.60	1.60	1.55	1.55	1.50	1.50

Example

Sizing conditions	
Inlet pressure	7 barg
Nitrogen purity	95%
Feed-air temperature	30°C
N2 correction factor	1.05 (table 1)
Feed-air correction factor	1.10 (table 2)
Module	SmartFluxx SA1508
N2 flow rate Smartfluxx SA1508	24.3 m^3/hr (at 20°C)
Feed-air consumption Smartfluxx SA1508	56 m^3/hr (at 20°C)

[1] These numbers are indicative and may vary by +/- 0.1.

Corrected Nitrogen Flow Calculation at 30°C and 95%
Corrected nitrogen flow: 24.3 m^3/hr x 1.05 = 25.5 m^3/hr

Corrected Feed-Air Calculation at 30°C and 95%
Corrected feed-air flow: 56 m^3/hr x 1.10 = 61.6 m^3/hr

EnOxy

Table 1

Temperature	Oxygen flow rate correction factor for EnOxy at various product concentrations[1)]						
	28%	30%	32%	34%	36%	38%	40%
5°C (41°F)	0.76	0.76	0.76	0.76	0.76	0.76	0.76
10°C (50°F)	0.84	0.84	0.84	0.84	0.84	0.84	0.84
15°C (59°F)	0.91	0.91	0.91	0.91	0.91	0.91	0.91
25°C (77°F)	1.09	1.09	1.09	1.09	1.09	1.09	1.09
30°C (86°F)	1.19	1.19	1.19	1.19	1.19	1.19	1.19
35°C (95°F)	1.30	1.30	1.30	1.30	1.30	1.30	1.30
40°C (104°F)	1.42	1.42	1.42	1.42	1.42	1.42	*
45°C (113°F)	1.54	1.54	1.54	1.54	1.54	1.54	*
50°C (122°F)	1.68	1.68	1.68	1.68	1.68	*	*

[1)] These numbers are indicative.

*) No enriched oxygen can be generated at this temperature/oxygen % combination.

Table 2

Temperature	Feed-Air consumption correction factor for EnOxy at various product concentrations[1)]						
	28%	30%	32%	34%	36%	38%	40%
5°C (41°F)	0.70	0.70	0.70	0.70	0.70	0.70	0.70
10°C (50°F)	0.79	0.79	0.79	0.79	0.79	0.79	0.79
15°C (59°F)	0.89	0.89	0.89	0.89	0.89	0.89	0.89
25°C (77°F)	1.12	1.12	1.12	1.12	1.12	1.12	1.12
30°C (86°F)	1.25	1.25	1.25	1.25	1.25	1.25	1.25
35°C (95°F)	1.38	1.38	1.38	1.38	1.38	1.38	1.38
40°C (104°F)	1.53	1.53	1.53	1.53	1.53	1.53	*
45°C (113°F)	1.68	1.68	1.6 8	1.68	1.68	1.68	*
50°C (122°F)	1.83	1.83	1.83	1.83	1.83	*	*

Example

Sizing conditions	
Inlet pressure	7 barg
Oxygen purity	34%
Feed-air temperature	30°C
O2 correction factor	1.19 (table 1)
Feed-air correction factor	1.25 (table 2)
Module	EnOxy 608
O2 flow rate EnOxy608	251 l/hr (at 20°C)
Feed-air consumption EnOxy608	494 l/hr (at 20°C)

Corrected Oxygen Flow Calculation at 30°C and 34%
Corrected oxygen flow: 251 l/hr x 1.19 = 298.7 l/hr

Corrected Feed-Air Calculation at 30°C and 34%
Corrected feed-air flow: 494 l/hr x 1.25 = 617.5 l /hr

Biogas Treatment Systems

Parker Biogas Solutions, your ‘single source’ for advanced technologies and systems that deliver first class quality with global support and availability - all backed by the guarantees of the industry leader.

Raw Biogas Treatment

Biogas, originating from biomass, sewage plants and landfill sites is gaining increasing worldwide importance as a recognised renewable energy source. Biogas production can and will contribute in a significant way to future energy supplies replacing more and more existing fossil fuel sources such as coal, oil and natural gas.

Generally, biogas is saturated with water vapor and contains other impurities which, when used as fuel, must be removed to prevent corrosion and damage to equipment and systems and improve cogeneration unit efficiency.

The selection of effective biogas treatment equipment is therefore particularly important, both in optimising the cogeneration of electrical and thermal energy, making the most of the available renewable energy, and reducing energy consumption and operating costs to a minimum.

Biogas Filtration

Biogas produced in anaerobic digesters and landfills contains foams, small solid particles in suspension, greases, particulates and other contaminants which must be removed from the gas by filtration prior to any downstream equipment or pipework. Failure to remove these impurities may lead to a malfunction of devices and processes downstream.

The stainless steel Hyperfilter BioEnergy FFB has been specifically designed to prevent these undesired effects, available in a range of sizes matched to the needs of biogas applications:

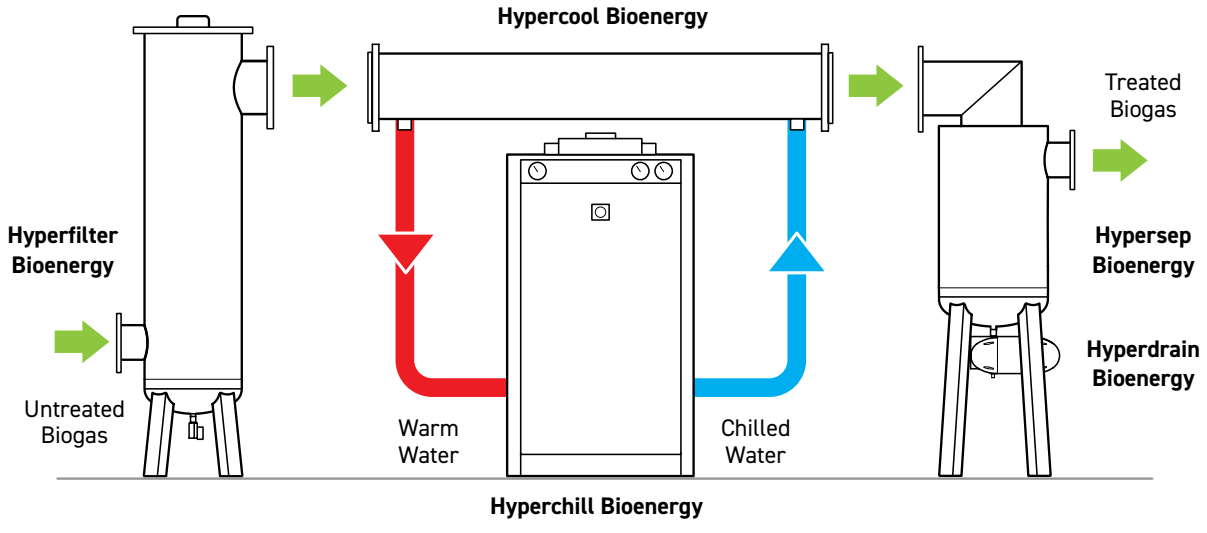
Biogas Dehumidification Key Components

Biogas is usually saturated with water vapour and contains contaminants that need to be removed or reduced including hydrogen sulphide, carbon dioxide, chlorides, fluorides, siloxanes and aromatic compounds. Most of these elements are water-soluble; so by achieving efficient dehumidification it is possible to significantly reduce the water vapour content in the biogas and partially or completely remove some of these impurities.

Parker’s solution is to dry the gas, firstly by cooling to around 5°C using a water-cooled heat exchanger working with a water chiller and secondly, by removing the condensed water with a cyclonic water separator.

A Hyperchill BioEnergy water chiller, Hypercool BioEnergy stainless steel heat exchanger and Hypersep BioEnergy centrifugal separator are the key components of a biogas treatment system. They have been specifically designed for biogas applications and provide safe and reliable operation in the harsh environments typically found at anaerobic digester and landfill biogas production sites.

Biogas Treatment System



Standard Products

Hyperchill BioEnergy (ICEP-E and ICE Series)

- Chiller Output 8 – 360 kW
- Special coating for corrosive environment
- Pump & tank installed in casing
- Microprocessor controlled
- Ambient range -20°C to +48°C (up to ICEP120E, +45°C from ICE150)
- Compliant scroll refrigerant compressor
- IP54 protection as standard

Please visit page 102 for Hyperchill BioEnergy.

Hypercool BioEnergy (WFB Series)

- High cooling efficiency with low pressure drop design
- Material: Parts in contact with biogas are AISI304 or AISI316L, parts not in contact with biogas are AISI304
- Maximum working pressure: 0.5 barg

Hypersep BioEnergy (CSB Series)

- Cyclonic separator optimized for biogas applications
- High separation efficiency with very low pressure drop
- Material: Parts in contact with biogas are AISI304 or AISI316L
- Maximum working pressure: 0.5 barg

Optional Additions

The standard Parker Biogas Dehumidification Systems can be extended to include additional components such as a particulate filter, condensate drain and/or energy-saving, 'Gas2Gas' recuperator.

Hyperfilter BioEnergy (FFB)

- Particle removal: 5 or 20 µm
- Filtration efficiency 99.999%
- Differential pressure 2 mbar
- Material: AISI304 or AISI316L, with additional pickling and passivation treatment
- Maximum working pressure: 0.5 barg

Gas2Gas Recuperator BioEnergy (RBB)

- Free-cools incoming biogas to reduce chiller cooling load
- Free-heats outgoing biogas to reduce relative humidity thus eliminating the need for auxiliary heating
- High thermal transfer efficiency with very low pressure drop
- Material: AISI304 or AISI316L, with additional pickling and passivation treatment

Hyperdrain BioEnergy (HDF220BE)

- Designed to work with dirty condensate and for low pressure operation
- No electrical wiring
- No gas loss
- Parts in contact with condensate are stainless steel and reinforced polyamide, body treated with special Hiroshield treatment for optimal operation in harsh environments

BioEnergy Products

Hyperfilter BioEnergy

Performance Data

Model	Gas Flow*				Connections		Filter Elements
	L/S	m³/min	m³/h	cfm	In	Out	Quantity
FFB105	29	1.8	105	62	DN50	DN80	1
FFB265	74	4.4	265	156	DN80	DN125	1
FFB720	200	12.0	720	424	DN125	DN200	1
FFB1110	308	18.5	1110	653	DN200	DN300	1
FFB3180	695	41.7	2500	1472	DN300	DN450	1

*Nominal working conditions: gas inlet temperature 40°C (104°F), atmospheric pressure, 60% CH_4 , 40% CO_2, pressure drop 3 mbar.

FFB Filters can work at higher gas flow rates with an increase in pressure drop (refer to Parker).

Weights & Dimensions

Model	Dimensions								Weight	
	A		B		C		D			
	mm	ins	mm	ins	mm	ins	mm	ins	kg	lbs
FFB105	440	17.3	1454	57.2	1330	52.4	420	16.5	32	70
FFB265	440	17.3	1424	56.1	1300	51.2	390	15.4	35	77
FFB720	625	24.6	1838	72.4	1595	62.8	545	21.5	99	218
FFB1110	633	24.9	1883	74.1	1650	65.0	600	23.6	108	238
FFB3180	1000	39.4	2208	86.9	1805	71.1	696	27.4	255	561

Hypercool BioEnergy

Performance Data

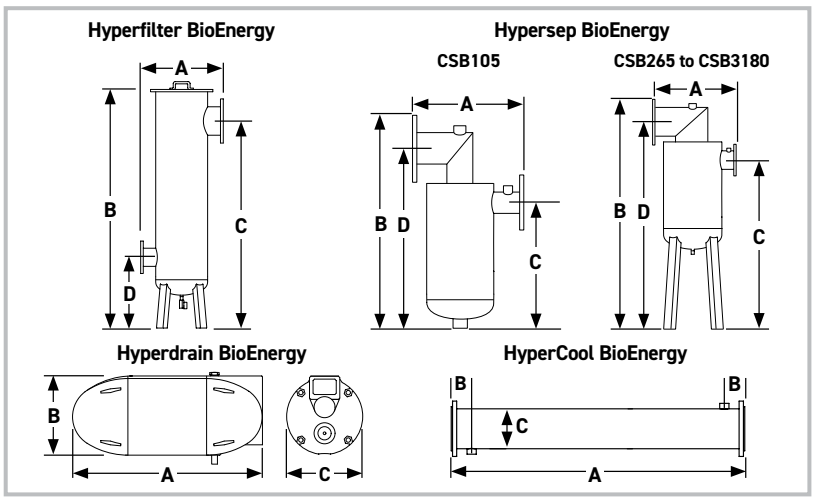
Model	Gas Flow				Connections	
	L/s	m³/min	m³/h	cfm	Gas	Water
WFB60	17	1	60	35	DN80	¾"
WFB105	29	1.8	105	62	DN80	¾"
WFB165	46	2.8	165	97	DN125	1"
WFB265	74	4.4	265	156	DN125	1"
WFB240	67	4	240	141	DN125	1"
WFB360	100	6	360	212	DN200	1¼"
WFB510	142	8.5	510	300	DN200	1¼"
WFB720	200	12	720	424	DN200	1¼"
WFB1110	308	18.5	1110	653	DN300	2"
WFB1620	450	27	1620	954	DN300	2"
WFB2380	661	39.7	2380	1401	DN450	2½"
WFB3180	883	53	3180	1872	DN450	2½"

Performances refer to models operating with gas flow rate at FAD 20°C (68°F) / 1 barA.

Nominal working conditions: gas inlet conditions 40°C (104°F) saturated 60% CH_4 , 40% CO_2, water inlet temperature 1°C (34°F), gas outlet temperature 8°C (46°F) for models WFB60, WFB105, WFB165, WFB265, 4°C (39°F) for all other models. pressure drop 1.2 kPa with separator.

Weights & Dimensions

Model	Dimensions						Weight	
	A		B		C			
	mm	ins	mm	ins	mm	ins	kg	lbs
WFB60	1490	58.7	65.5	2.6	89	3.5	16	35
WFB105	1490	58.7	65.5	2.6	89	3.5	19	42
WFB165	1490	58.7	100.5	4.0	140	5.5	30	66
WFB265	1490	58.7	100.5	4.0	140	5.5	38	84
WFB240	1990	78.3	100.5	4.0	140	5.5	48	106
WFB360	1990	78.3	120.5	4.7	219	8.6	85	187
WFB510	1990	78.3	120.5	4.7	219	8.6	102	224
WFB720	1990	78.3	120.5	4.7	219	8.6	124	273
WFB1110	1990	78.3	144.5	5.7	324	12.8	196	431
WFB1620	1990	78.3	144.5	5.7	324	12.8	252	554
WFB2380	1990	78.3	179.5	7.1	457	18.0	405	891
WFB3180	1990	78.3	179.5	7.1	457	18.0	490	1078



Hypersep BioEnergy

Performance Data

Model	Gas Flow				Connections	
	L/s	m³/h	m³/min	cfm	In	Out
CSB105	29	105	1.8	62	DN80	DN50
CSB265	74	265	4.4	156	DN125	DN80
CSB720	200	720	12.0	424	DN200	DN125
CSB1620	450	1620	27.0	954	DN300	DN200
CSB3180	883	3180	53.0	1872	DN450	DN300

Weights & Dimensions

Model	Dimensions								Weight	
	A		B		C		D			
	mm	ins	mm	ins	mm	ins	mm	ins	kg	lbs
CSB105	365.5	14.4	635.5	25.0	375.8	14.8	535.5	21.1	14	31
CSB265	460	18.1	1425	56.1	1038	40.9	1300	51.2	30	66
CSB720	570	22.4	1765	69.5	1293	50.9	1595	62.8	54	119
CSB1620	638	25.1	1747.5	68.8	1156	45.5	1525	60.0	88	194
CSB3180	833	32.8	2113	83.2	1264	49.8	1805	71.1	153	337

Hyperdrain BioEnergy

Performance Data

Model	Materials of Construction			Gas Flow				Connections		Maximum Pressure	
	Housing	Float	Lever	L/s	m³/h	m³/min	cfm	in	out	bar g	psi g
HDF220BE	Aluminium	Polyamide/ Stainless Steel	Polyamide/ Stainless Steel	2	6.5	108	4	1"	½"	1	14.5

Weights & Dimensions

Model	Dimensions						Weight	
	A		B		C			
	mm	ins	mm	ins	mm	ins	kg	lbs
HDF220BE	266	10.5	111	4.4	108	4.3	1.9	4

Replacement Filter Elements and Maintenance Kits For Legacy Parker domnick hunter Products

OIL-X EVOLUTION Elements

Filter Model	Replacement Element
AO005	P005AO
AO010	P010AO
AO015	P015AO
AO020	P020AO
AO025	P025AO
AO030	P030AO
AO035	035AO
AO040	040AO
AO045	045AO
AO050	050AO
AO055	055AO
AO060	P060AO requires 3 per filter
AA005	P005AA
AA010	P010AA
AA015	P015AA
AA020	P020AA
AA025	P025AA
AA030	P030AA
AA035	035AA
AA040	040AA
AA045	045AA
AA050	050AA
AA055	055AA
AA060	P060AA requires 3 per filter
ACS005	P005ACS
ACS010	P010ACS
ACS015	P015ACS
ACS020	P020ACS
ACS025	P025ACS
ACS030	P030ACS
ACS035	035ACS
ACS040	040ACS
ACS045	045ACS
ACS050	050ACS
ACS055	055ACS
ACS060	P060ACS requires 3 per filter

OIL-X EVOLUTION Combination Elements

Filter Model	Replacement Elements
AC010	P010AA
	010AC
AC015	P015AA
	015AC
AC020	P020AA
	020AC
AC025D	P025AA
	025DAC
AC025E	P025AA
	025EAC
AC030	P030AA
	030AC

OIL-X EVOLUTION OVR Maintenance Kits

Model	Maintenance Kit	No. Required
OVR100E	100OVR	1
OVR150H	100OVR	2
OVR200H	100OVR	4
OVR250J	100OVR	6

OIL-Xplus Combination Elements

Filter Model	Replacement Elements
AC-0006G	K009AA
	K006AC
AC-0013G	K017AA
	K013AC
AC-0025G	K030AA
	K025AC
AC-0040G	K058AA
	K040AC
AC-0065G	K145AA
	K065AC
AC-0085G	K145AA
	K085AC

OIL-Xplus Advantage Elements

Filter Model	Replacement Element
AO-0003G	K003AO
AO-0009G	K009AO
AO-0017G	K017AO
AO-0030G	K030AO
AO-0058G	K058AO
AO-0080G	K145AO
AO-0125G	K145AO
AO-0145G	K145AO
AO-0205G	K220AO
AO-0220G	K220AO
AO-0330G	K330AO
AO-0405G	K430AO
AO-0430G	K430AO
AO-0620G	K620AO
AO-1000G	K330AO requires 3 per filter
AA-0003G	K003AA
AA-0009G	K009AA
AA-0017G	K017AA
AA-0030G	K030AA
AA-0058G	K058AA
AA-0080G	K145AA
AA-0125G	K145AA
AA-0145G	K145AA
AA-0205G	K220AA
AA-0220G	K220AA
AA-0330G	K330AA
AA-0405G	K430AA
AA-0430G	K430AA
AA-0620G	K620AA
AA-1000G	K330AA requires 3 per filter
ACS-0009G	K009ACS
ACS-0017G	K017ACS
ACS-0030G	K030ACS
ACS-0058G	K058ACS
ACS-0080G	K145ACS
ACS-0125G	K145ACS
ACS-0145G	K145ACS
ACS-0205G	K220ACS
ACS-0220G	K220ACS
ACS-0330G	K330ACS
ACS-0405G	K430ACS
ACS-0430G	K430ACS
ACS-0620G	K620ACS
ACS-1000G	K330ACS requires 3 per filter

OIL-X/OIL-X EVOLUTION Multi-box Elements

Model / Housing	Part Number	Box Quantity
AO010	P010AOX25	25
AA010	P010AAX25	25
ACS010	P010ACSX25	25
AO015	P015AOX25	25
AA015	P015AAX25	25
ACS015	P015ACSX25	25
AO020	P020AOX25	25
AA020	P020AAX25	25
ACS020	P020ACSX25	25
AO25	P025AOX12	12
AA025	P025AAX12	12
ACS025	P025ACSX12	12
AO030	P030AOX12	12
AA030	P030AAX12	12
ACS030	P030ACSX12	12

SE and ES Oil / Water Separator Maintenance Kits

Model	Quantity Required	Part Number
SE2010	1	ESMK1
SE2015	1	ESMK1
SE2030/SE2030P	2	ESMK1
ES36	1	ESMK1
ES90	1	ESMK1
ES125	1	ESMK2
ES250	2	ESMK2
ES500	1	ESMK3
ES1000	2	ESMK3

PCO2 MKI Maintenance Kits

Product Type	Model	Filter Type	Maintenance Kit
Maxi PCO2	PCO2-1- 20 (300)	OIL-Xplus	MAKPCO2-1-20
Maxi PCO2	PCO2-2-20 (300)	OIL-Xplus	MAKPC02-2-20
Maxi PCO2	PCO2-3-20 (300)	OIL-Xplus	MAKPC02-3-20
Maxi PCO2	MPlus 4000 20 (300)	OIL-Xplus	MAK-MPLUS4000-20
Maxi PCO2	MPlus 6000 20 (300)	OIL-Xplus	MAK-MPLUS6000-20
Maxi PCO2	MPlus 8000 20 (300)	OIL-Xplus	MAK-MPLUS8000-20
Maxi PCO2	MPlus 10000 20 (300)	OIL-Xplus	MAK-MPLUS10000-20
Mplus PCO2	PCO2-0-20 (300)	OIL-X EVOLUTION	MAKEPC02-0-20
Mplus PCO2	PCO2-1-20 (300)	OIL-X EVOLUTION	MAKEPC02-1-20
Mplus PCO2	PCO2-2-20 (300)	OIL-X EVOLUTION	MAKEPC02-2-20
Mplus PCO2	PCO2-3-20 (300)	OIL-X EVOLUTION	MAKEPC02-3-20
Mplus PCO2	MPlus 4000 20 (300)	OIL-X EVOLUTION	MAKE-MPLUS4000-20
Mplus PCO2	MPlus 6000 20 (300)	OIL-X EVOLUTION	MAKE-MPLUS6000-20
Mplus PCO2	MPlus 8000 20 (300)	OIL-X EVOLUTION	MAKE-MPLUS8000-20
Mplus PCO2	MPlus 10000 20 (300)	OIL-X EVOLUTION	MAKE-MPLUS10000-20
Maxi PCO2	PCO2-0-24 (350)	OIL-Xplus	MAKPCO2-0-24
Maxi PCO2	PCO2-1-24 (350)	OIL-Xplus	MAKPCO2-1-24
Maxi PCO2	PCO2-2-24 (350)	OIL-Xplus	MAKPC02-2-24
Maxi PCO2	PCO2-3-24 (350)	OIL-Xplus	MAKPC02-3-24
Maxi PCO2	MPlus 4000 24 (350)	OIL-Xplus	MAK-MPLUS4000-24
Maxi PCO2	MPlus 6000 24 (350)	OIL-Xplus	MAK-MPLUS6000-24
Maxi PCO2	MPlus 8000 24 (350)	OIL-Xplus	MAK-MPLUS8000-24
Maxi PCO2	MPlus 10000 24 (350)	OIL-Xplus	MAK-MPLUS10000-20

Replacement Filter Elements
For Legacy Parker Zander Products

G Elements

Filter Model	Replacement Element
GH2A	1030A
GH2V	1030ZP
GH2XP	1030XP
G2ZP	1030ZP
G3A	1050A
G3V	1050ZP
G3XP	1050XP
G3ZP	1050ZP
G5A	1070A
G5V	1070ZP
G5XP	1070XP
G5ZP	1070ZP
G7A	1140A
G7V	1140ZP
G7XP	1140XP
G7ZP	1140ZP
G9A	2010A
G9V	2010ZP
G9XP	2010XP
G9ZP	2010ZP
G11A	2020A
G11V	2020ZP
G11XP	2020XP
G11ZP	2020ZP
G12A	2030A
G12V	2030ZP
G12XP	2030XP
G12ZP	2030ZP
G13A	2050A
G13V	2050ZP
G13XP	2050XP
G13ZP	2050ZP
G14A	3050A
G14V	3050ZP
G14XP	3050XP
G14ZP	3050ZP
G17A	3075A
G17V	3075ZP
G17XP	3075XP
G17ZP	3075ZP
G18A	5060A
G18V	5060ZP
G18XP	5060XP
G18ZP	5060ZP
G19A	5075A
G19V	5075ZP
G19XP	5075XP
G19ZP	5075ZP

GL and GL Plus Elements

Filter Model	Replacement Element
GL2A / GL2AP	CP1008A
GL2VL	CP1008ZL
GL2ZL / GL2ZLP	CP1008ZL
GL2XL / GL2XLP	CP1008XL
GL3A / GL3AP	CP2010A
GL3VL	CP2010ZL
GL3ZL / GL3ZLP	CP2010ZL
GL3XL / GL3XLP	CP2010XL
GL7A / GL7AP	CP2020A
GL7VL	CP2020ZL
GL7ZL / GL7ZLP	CP2020ZL
GL7XL / GL7XLP	CP2020XL
GL9A / GL9AP	CP3025A
GL9VL	CP3025ZL
GL9ZL / GL9ZLP	CP3025ZL
GL9XL / GL9XLP	CP3025XL
GL11A / GL11AP	CP3040A
GL11VL	CP3040ZL
GL11ZL / GL11ZLP	CP3040ZL
GL11XL / GL11XLP	CP3040XL
GL12A / GL12AP	P035ACS
GL12VL	P035AO
GL12ZL / GL12ZLP	P035AO
GL12XL / GL12XLP	P035AA
GL13A / GL13AP	P040ACS
GL13VL	P040AO
GL13ZL / GL13ZLP	P040AO
GL13XL / GL13XLP	P040AA
GL14A / GL14AP	P045ACS
GL14VL	P045AO
GL14ZL / GL14ZLP	P045AO
GL14XL / GL14XLP	P045AA
GL17A / GL17AP	P050ACS
GL17VL	P050AO
GL17ZL / GL17ZLP	P050AO
GL17XL / GL17XLP	P050AA
GL19A / GL19AP	P055ACS
GL19VL	P055AO
GL19ZL / GL19ZLP	P055AO
GL19XL / GL19XLP	P055AA

LV Series Paint Compatible

Filter Model	Part Number
G2A/LV	1030A/LV
G2XPH/LV	1030XP/LV
G2ZPH/LV	1030ZP/LV
G3A/LV	1050A/LV
G3XPDH/LV	1050XP/LV
G3ZPDH/LV	1050ZP/LV
G5A/LV	1070A/LV
G5XPDH/LV	1070XP/LV
G5ZPDH/LV	1070ZP/LV
G7A/LV	1140A/LV
G7XPDH/LV	1140XP/LV
G7ZPDH/LV	1140ZP/LV
G9A/LV	2010A/LV
G9XPDH/LV	2010XP/LV
G9ZPDH/LV	2010ZP/LV

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 Catalogue CATPRODUCTSGSFE2024-01-EN