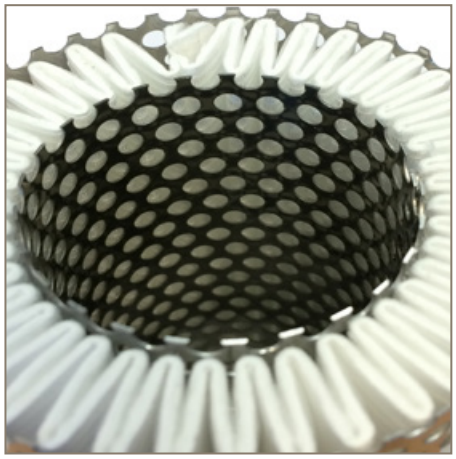
G50 Series
50 bar Compressed Air Filters

Grade ZP General Purpose & Grade XP High Efficiency Coalescing & Dry Particulate Filters

Grade A Oil Vapour Reduction Filter (¼" - 2")



High Pressure Compressed Air Filters

Compressed air contains 10 contaminants (eminating from 4 sources) which must be treated and reduced to acceptable levels for the compressed air system to operate safely, efficiently and cost effectively.

Most industrial compressed air applications operate at pressures around 7, 10 or 13 bar g and purification equipment is typically designed around these operating pressures. There are however, applications that require higher operating pressures (which also leads to increased concentration of many contaminants).

Parker G50 Series Intermediate Pressure Filters

The Parker GH50 Series Intermediate Pressure filter range is available in multiple filtration grades to cover all filtration requirements, including general purpose and high efficiency coalescing grades, general purpose and an oil vapour reduction grade.

Advantages

- Meets the requirements for delivered air quality shown in all editions of ISO8573-1, the international standard for compressed air quality
- Pleated filter element – Coalescing & Dry Particulate filter media is constructed to reduce air flow velocity and pressure loss whilst providing increased dirt holding capacity, and improved filtration efficiency
- Filter element is secured by tie-rod to ensure element is held in place, even with pressure pulsations commonly experienced with piston compressors

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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
ZP	Coalescing & Dry Particulate	Down to 1 micron	0.5 mg/m³ 0.5 ppm(w)	99.925%	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%	12 months or 6000 hours	ZP
A	Oil Vapour Reduction	N/A	0.003 mg/m³ 0.003 ppm(w)	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	Min Operating Pressure		Max Operating Pressure		Min Operating Temperature		Max Operating Temperature*	
		bar g	psi g	bar g	psi g	ºC	ºF	ºC	ºF
ZP/XP	G2/50 - G14/50	20	290	50	725	2	35	80	176
A	G2/50 - G14/50	20	290	50	725	2	35	50	122

*Note: recommended max. operating temperature for activated carbon filter is +40°C.

Flow Rates

Model	Pipe Size	l/s	m³/min	m³/hr	cfm	Replacement Element	No.
G2/50 Grade	¼"	20.8	1.3	75	44	1030 Grade	1
G3/50 Grade	¼"	34.7	2.1	125	74	1050 Grade	1
G5/50 Grade	⅜"	48.6	2.9	175	103	1070 Grade	1
G7/50 Grade	½"	69.4	4.2	250	147	1140 Grade	1
G9/50 Grade	¾"	125.0	7.5	450	265	2010 Grade	1
G11/50 Grade	1"	208.3	12.5	750	441	2020 Grade	1
G12/50 Grade	1 ½"	326.4	19.6	1175	692	2030 Grade	1
G13/50 Grade	1 ½"	486.1	29.2	1750	1030	2050 Grade	1
G14/50 Grade	2"	722.2	43.3	2600	1530	3050 Grade	1

Stated flows are for operation at 50 bar (g) (725 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	G2/50XP

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 38 bar, use 35 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

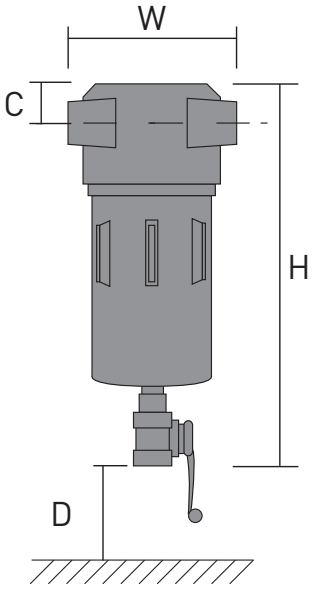
Minimum Inlet Pressure	bar g	20	25	30	35	40	45	50
	psi g	290	362	435	508	580	652	725
Correction Factor		2.43	1.96	1.65	1.41	1.24	1.10	1.00

Filtration Tested In Accordance With

Filtration Grade	ZP	XP	A
Filter Type	Coalescing & Dry Particulate	Coalescing & Dry Particulate	Oil Vapour Reduction
Test Methods Used	Not Applicable	Not Applicable	Not Applicable
Inlet Challenge Concentration	Not Applicable	Not Applicable	Not Applicable

Weight & Dimensions

Model	H		W		D		C		Weight	
	mm	ins	mm	ins	mm	ins	mm	ins	kg	lbs
G2/50	200	7.9	61	2.4	14	0.6	60	2.4	0,8	1.7
G3/50	245	9.6	87	3.4	21	0.8	75	3.0	1,2	2.7
G5/50	245	9.6	87	3.4	21	0.8	90	3.5	1,2	2.7
G7/50	315	12.4	87	3.4	21	0.8	160	6.3	1,4	3.1
G9/50	350	13.8	130	5.1	43	1.7	135	5.3	4,1	9.1
G11/50	450	17.7	130	5.1	43	1.7	235	9.3	4,9	10.9
G12/50	525	20.7	130	5.1	43	1.7	335	13.2	5,0	11.1
G13/50	755	29.7	130	5.1	43	1.7	525	20.7	6,6	14.6
G14/50	735	28.9	164	6.5	48	1.9	520	20.5	8,9	19.7



Quality Assurance / IP Rating / Pressure Vessel Approvals

Development / Manufacture	ISO 9001 / ISO 14001
Ingress Protection Rating	Not Applicable
EU	Pressure vessel approved for fluid group 2 in accordance with the Pressure Equipment Directive 2014/68/EU
USA	-
For use with Compressed Air Only	

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US Product Information Centre
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