

Ingersoll-Rand®

Compressed Air Filters



Why Filter Compressed Air?

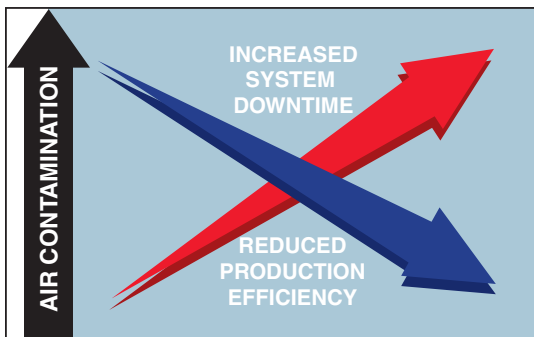
Contamination Reduces Efficiency

The air we breathe contains contamination in the form of water vapour and airborne particles.

During the compression process an air compressor concentrates these contaminants and depending on the design and age will even add to the contamination in the form of oil carry over.

Modern air compressors generally have built in aftercoolers that reduce the discharge temperature of the compressed air and with the help of water separators, remove the bulk of liquid water.

In some applications this may be sufficient, but the remaining dirt and moisture content suspended in aerosol form, can, if not removed, damage the compressed air system and cause product spoilage.



The result - higher overall cost of operation from:

- Increased system downtime
- Reduced production efficiency

These problems can be avoided with the correct selection and application of compressed air filters and dryers from Ingersoll-Rand.

The Air Solutions Group at Ingersoll-Rand has the widest selection of products and application knowledge to protect your investment and your compressed air system.

- Filters
- Condensate management
- Cooling systems
- Refrigeration dryers
- Desiccant dryers
- Piping systems

Benefits

- ✓ Proven to exceed ISO air quality
- ✓ Quickest, simplest maintenance of any filter design
- ✓ Built in safety protection
- ✓ Lowest pressure drop available
- ✓ Corrosion resistant alocrom treatment
- ✓ 10 year housing guarantee

Quality Matters

Ingersoll-Rand ThermoStar Refrigeration Dryers are available in over 20 model sizes to suit all applications. When installed with compressed air filters they will provide clean compressed air to the classes as prescribed in ISO 8573.1.

ISO 8573.1 Quality Classes

QUALITY CLASS	DIRT Particle size in Micron	WATER Pressure Dewpoint °C (ppm. vol.) at 7 bar g	OIL (Including vapour) mg/m ³
1	0.1	-70 (0.3)	0.01
2	1	-40 (16)	0.1
3	5	-20 (128)	1.0
4	15	+3 (940)	5
5	40	+7 (1240)	25
6	-	+10 (1500)	-

IR Ingersoll-Rand® Filters - The 'Class' Solution



A Perfect Seal Every Time
Moulded seal cannot be lost or mis-aligned.

Full Flow Inlet
Gives maximum capacity and lowest pressure drop.



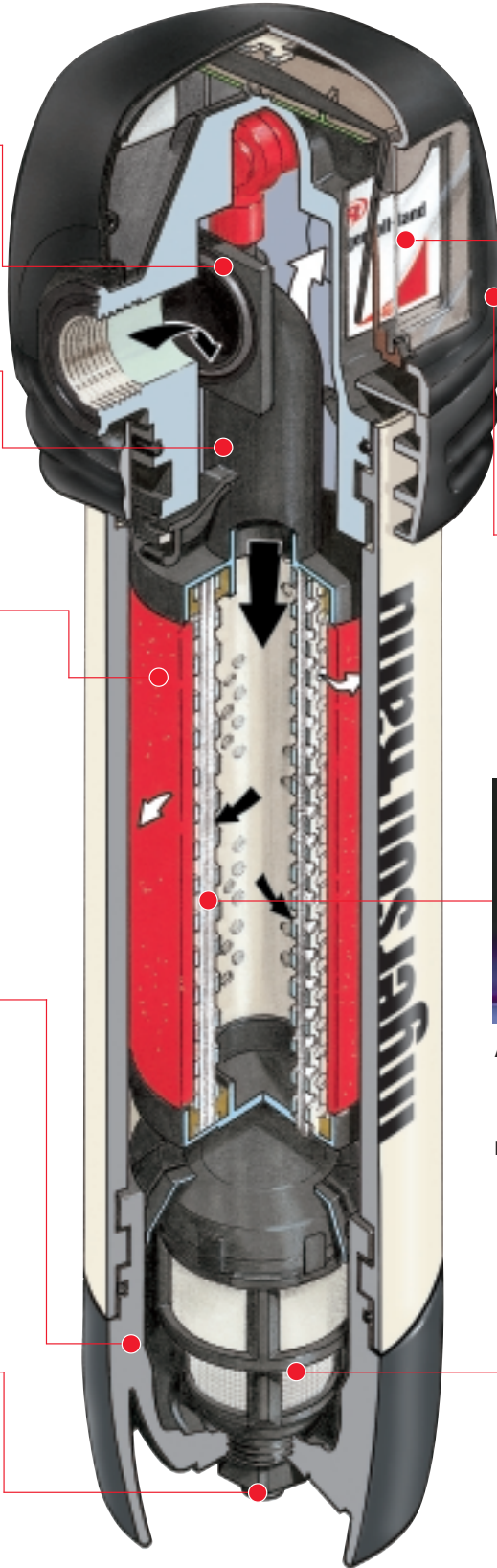
Unique Filter Element
Is available in four filtration grades.



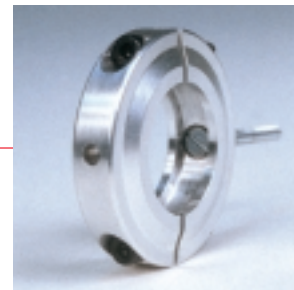
Rapid Maintenance
Lift and twist design is quick and easy.



Built in Safety
Simply push for autodrain check and bowl depressurisation.



Differential Pressure Indicator
Gives a reminder of filter element life from both sides.



Fixing Clamp
Joins two filters and is a wall mounting bracket in one!



A. Ingersoll-Rand Oleophobic filter media actively repels oil and water to reduce pressure drop and running costs to an absolute minimum.
B. Typical filter media soaks up oil and water increasing pressure drop, reducing efficiency and giving higher running costs.



Self Cleaning Drain Screen
Reduces maintenance and increases reliability.

Technical Specifications

Filter Grade GP, HE AC, DP	Pipe Size NPT	Flow Rates @ 100 psi g (7 bar g)		Dimensions (inches)				Weight lbs.
		cfm	m ³ /min	A	B	C	D	
(Grade) 19	1/4	19	0.53	3.5	2.0	9.8	4.0	2.2
(Grade) 40	3/8	40	1.12	3.5	2.0	10.4	4.0	2.8
(Grade) 64	1/2	64	1.80	3.5	2.0	11.3	4.0	2.4
(Grade) 123	3/4	123	3.45	5.1	2.6	13.8	5.5	5.0
(Grade) 216	1	216	6.05	5.1	2.6	17.5	5.5	5.7
(Grade) 275	1 1/4	275	7.70	5.1	2.6	19.8	5.5	6.3
(Grade) 350	1 1/2	350	9.80	6.3	3.5	22.8	6.9	10
(Grade) 481	1 1/2	481	13.46	6.3	3.5	27	6.9	14.5
(Grade) 563	2	563	15.76	6.3	3.5	29.5	6.9	15.8
(Grade) 706	2	706	19.76	6.3	3.5	34	6.9	17.4
(Grade) 850	2 1/2	850	23.80	8.2	4.0	37	9.8	31.3
(Grade) 1100	3	1100	30.80	8.2	4.0	40.8	9.8	33.5
(Grade) 1380	3	1380	38.63	8.2	4.0	43.7	9.8	36
150 lbs. Flg.								
*(Grade) 2100	4	2100	60.0	17.7	7.9	44.8	25.5	210
(Grade) 2750	4	2750	78.0	19.6	9.0	48	25.5	298
(Grade) 4100	6	4100	117	22.8	10.7	50.9	25.5	390
(Grade) 7000	8	7000	195	29.5	14.2	59.8	25.5	812
(Grade) 11000	10	11000	312	29.1	16	66.2	31.5	1135
(Grade) 17000	12	17000	468	39.3	19	70	33.4	1506

Grade GP - General Purpose Protection

Particle removal down to 1 micron including coalesced liquid water and oil, providing a maximum remaining oil aerosol content of 0.5 mg/m³ @ 21°C.

Grade HE - High Efficiency Oil Removal Filtration

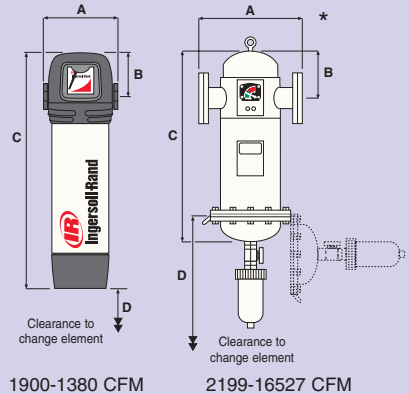
Particle removal down to 0.01 micron including water and oil aerosols, providing a maximum remaining oil aerosol content of 0.01 mg/m³ @ 21°C. (Precede with Grade GP filter).

Grade AC - Activated Carbon Filtration

Oil vapour and hydrocarbon odour removal, giving a maximum remaining oil content of <0.003 mg/m³ (<0.003 ppm) (excluding methane) @ 21°C. (Precede Grade AC with Grade HE filter).

Grade DP - General Purpose Dust Filtration

Dust particle removal down to 1 micron.



Operating Limitations

Maximum operating pressure 232 psi g (16 bar)

Maximum recommended operating temperature 150°F (66°C)
(Grade GP/HE/DP)

Maximum recommended operating temperature 86°F (30°C)

Minimum recommended operating temperature 34°F (1.0°C)

1900-1380 CFM

2199-16527 CFM

150# FLG. 175 PSI

For flowrates at other pressures, apply the factor shown:

Line	psi g	15	29	44	73	100	131	160	189	218	232
Pressure	bar g	1	2	3	5	7	9	11	13	15	16
Correction Factor		0.38	0.53	0.65	0.85	1.0	1.13	1.25	1.36	1.46	1.51

Ingersoll-Rand air compressors are not designed, intended or approved for breathing air. Compressed air should not be used for breathing air applications unless treated in accordance with all applicable codes and regulations.

Nothing contained in this brochure is intended to extend any warranty or representation, expressed or implied, regarding the products described herein. Any such warranties or other terms and conditions of sale shall be in accordance with Ingersoll-Rand's standard terms and conditions of sale for such products which are available upon request.

Product improvement is a continuing goal at Ingersoll-Rand. Designs and specifications are subject to change without notice or obligation.



Ingersoll-Rand Company

Air Solutions Group
800-D Beaty Street
P.O. Box 1840
Davidson, NC 28036