

Specification

Model	Element Number	Filter Part Number		
		MPF Element	MPH Element	MPC Element
MPF, MPH, MPC FILTER				
20	1	250024-423	250024-431	
35	1	250024-424	250024-432	
65	1	250024-425	250024-433	
125	1	250024-426	250024-434	
170	1	250024-427	250024-435	
250	1	250024-427	250024-435	
300	1	250024-427	250024-435	250024-448
420	1	250024-428	250024-436	250024-439
470	1	250024-428	250024-436	250024-439
700	1	250024-429	250024-437	250024-440
850	1	250030-644	250030-645	250024-646
910	1	250030-644	250030-645	250024-646
1315	1	250024-430	250024-438	250024-441
2120	3	250024-429	250024-437	250024-440
CPF, CPH, CPC FILTER				
1700	3	250024-429	250024-437	250024-440
2200	3	250024-429	250024-437	250024-440
2650	4	250024-429	250024-437	250024-440
3100	6	250024-429	250024-437	250024-440
4200	6	250024-429	250024-437	250024-440
7000	10	250024-429	250024-437	250024-440
11000	16	250024-429	250024-437	250024-440
16500	24	250024-429	250024-437	250024-440



SULLAIR WORLD HEADQUARTERS, 3700 East Michigan Boulevard, Michigan City, IN 46360



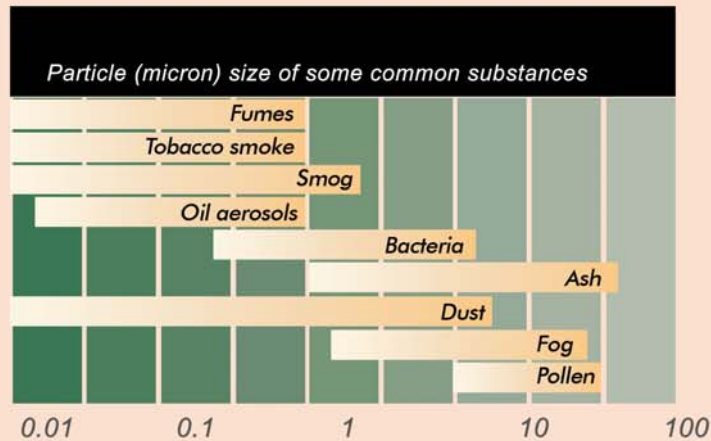
SULLAIR COMPRESSED AIR FILTERS



Particles in the air

- The earth's atmosphere is transparent, tasteless, and odorless, but it contains dust, pollen, water vapor, gaseous hydrocarbons and other pollutants.
- Over the clean mid-Pacific Ocean, there are approximately 26 million particles per cubic foot.
- In normal air, there are approximately 173 million particles per cubic foot.
- In dirty industrial air, there are nearly 9 billion particles per cubic foot.

A 1.0 micron particle is invisible without magnification. It takes 10 million particles 1.0 micron in diameter to cover a 1/8" dot. When you understand the minute size of microns, you can appreciate the complexity of submicron particulate removal.



If 0.01 micron is this big...
then 0.1 micron is this big...
and this are is part of a full 1.0 micron

- Inlet filters don't stop the pollutants, so they are passed into the compressor.
- Centrifugals, dry screw "oil-free" reciprocating compressors can condense gaseous hydrocarbons into hydrocarbon aerosols.
- Lubricated compressors add oil aerosols to the airstream.
- All compressors condense water vapor into liquid water and contribute wear particles to the airstream.
- These contaminants can damage your product and foul your air-using devices and systems.
- The extent of potential damage depends upon your application and compressed air piping arrangement.

Sullair Advanced Filter Housings

Choice of Drains

Manual or float drain standard, optional SCD Zero Air Loss drain available.
Easy connection with standard fittings via threaded drain port.



Compact and Lightweight

Advanced housing and element design have also provided a smaller, more compact and lightweight filter which is quick, easy and clean to maintain.



Fully Corrosion Protected

Alocrom and dry powder epoxy coated for full corrosion protection.

Left : No corrosion with Alocrom treatment/
Right : Rapid Corrosion of untreated aluminium



"Clean Change" Filter Elements

Element changes are now easy and do not require the user to touch the contaminated element during annual element change.

"Clean Change" Filter Elements

Space saving design minimizes service clearance and allows installation in confined spaces.



Incident Monitor

Used to indicate premature high differential pressure

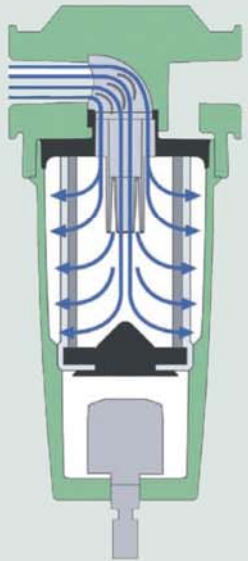


Fixing Clamp

Joins two filters and is a wall mounting bracket in one.



The World's Most Efficient Filter Element



Sullair's new range of compressed air filters have been designed from the outset to meet current and forthcoming requirements for compressed air quality. Using aerospace the housing and element, significantly reducing air turbulence and pressured losses. Providing an optimal flow path is key to reducing system operating costs.



Full Flow Inlet

Inlet conduit matches inlet diameter, reducing pressure drop and running costs



Even Flow Distribution

Air flow is distributed evenly throughout the filter element using a flow distributor.



Conical Air Diffuser

Air flow distribution is further improved by elimination of turbulence

The Filtration Process

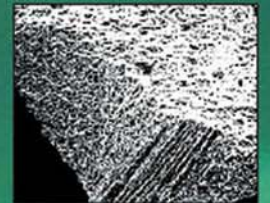
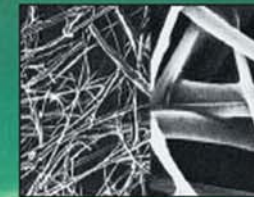
Deep Bed Pleating

For particle and aerosol removal, deep bed pleating provides 450% more filter media than an ordinary element, giving a larger filtration area, lower flow velocities, increased dirt holding capacity, lower running costs and a more compact filter element. Graded density further improves filter life and overall performances.



Oil Vapor Removal

While mechanical filtration is capable of removing extremely fine liquids and solid particles, it can not remove gaseous contaminants such as oil vapor or odors. To efficiently remove these vapors, Sullair SCC filters employ absorption techniques.



The Sullair solution

Compressed air filters:

- Compressed air filters are needed to remove atmospheric particulate, compressor wear particles, lubricant aerosols, odors and other submicron contaminants.
- Filtration equipment includes pre-filters, lubricant-removal filters and odor removal filters.
- The type, member and placement of filters depend on the application and the degree of contaminant removal required.

Sullair filters protect your plant equipment and processes, improve your product quality and reduce your energy costs. Sullair offers filters for general purpose compressed air and for high quality compressed air for instrumentation, food processing and pharmaceutical production. The filters are available from 0.35m³ to 440m³, 0.1Mpa to 2.0 Mpa, 1.67°C to 121°C, ISO8573 L quality classes



Aerospace Turning Vanes
Effectively direct air flow into the filter element.

Air Stabilizers
Smooth outlet air flow.

Special Filter Media
Oleophobic neofiber filter media actively repels oil and water to reduce pressure drop and keep running costs to a minimum.

High Efficiency Drainage Layer
Ensures coalesced liquids are removed quickly and efficiently.

No Wet Band Formation
Allows 40% more air flow through a smaller filter element.



Filter media actively repels oil and water.



Drainage Ribs
Filter housing and element integrate to provide capillary action which greatly improves liquid drainage. Interaction between housing and element also ensures maximum coalescing performance is achieved at all times.

Particulate pre-filters:

SCF, PF (SCR, PR reversed flow after-filters)
High-efficiency pre-filters (after-filters) remove particles to 1 micron, including coalesced liquid water and lubricants. Maximum remaining aerosol content after filtration is 0.5ppm@21°C

High efficiency filtration:

SCH, PH, SCHR
For maximum filtration, Sullair offers compressed air filters to remove particulate down to 0.01 micron, including water and oil aerosols, providing a maximum remaining oil aerosol content of 0.01ppm@21°C, when used with SCF and PF pre-filters.

Combination filters:

MPHC
This package combines high efficiency and odor-removal type filters in one housing.

Odor removal:

SCC, PC
Sullair filters use activated carbon to remove lubricant and hydrocarbon odors. After filtration, remaining vapor content is less than 0.003 ppm (excluding methane). This filter installation should always be preceded by high efficiency filter grades.

Air Quality Standards ISO 8573.1:2001 classes

Quality Class	Solid Particulate			Water		Oil
	Maximum number of particles per m ³			Vapour	Liquid	Total oil(aerosol, liquid and vapour)
	0,1-0,5 micron	0,5-1 micron	1-micron	Pressure Dewpoint	g/m ³	mg/m ³
0	As specified by the equipment user or supplier					
1	100	1	0	-70°C	-	0,01
2	100.000	1.000	10	-40°C	-	0,1
3	-	10.000	500	-20°C	-	1
4	-	-	1.000	+3°C	-	5

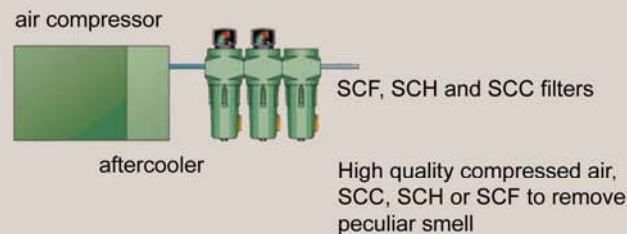
General purpose protection
Air quality to ISO 8573.1
Class 2 (dirt), 3 (oil)
Particles < 1micron
Oil content < 0.5 ppm



Oil-Free air
Air quality to ISO 8573.1
Class 1 (dirt), 1 (oil)
Particles < 0.01 micron
Oil content < 0.01 ppm

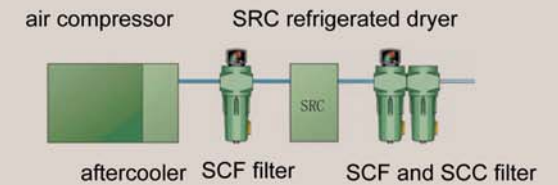


Critical applications
Air quality to ISO 8573.1
Class 1 (dirt), 1 (oil)
Particles < 0.01 micron
Oil content < 0.003 ppm

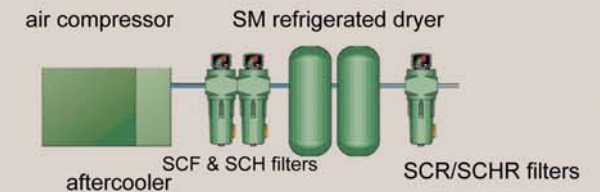


Quality Class	Solid Particulate			Water		Oil
	Maximum number of particles per m ³			Vapour	Liquid	Total oil(aerosol, liquid and vapour)
	0,1-0,5 micron	0,5-1 micron	1-micron	Pressure Dewpoint	g/m ³	mg/m ³
5	-	-	20.000	+7°C	-	-
6	-	-	-	+10°C	-	-
7	-	-	-	-	0,5	-
8	-	1	-	-	5	-
9	-	-	-	-	10	-

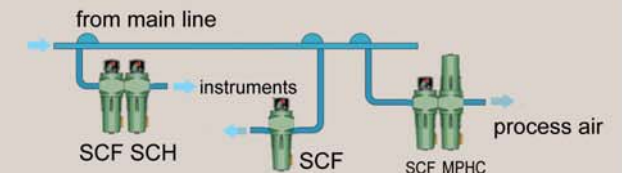
Low dew point
Air quality to ISO 8573.1
Class 1 (dirt), 4 (water), 1 (oil)
Pressure dew point + 37°F(+3°C)



Extremely low dew point
Air quality to ISO 8573.1
Class 1 (dirt), 2 (water), 1 (oil)
Clean, oil-free and odor-free
Pressure dew point -40°F(-40°C)



Point-of-use filtration
Where no mainline filters are
installed upstream



- SCF and SCH or MPHc combination for process air
- SCH for instrumentation
- SCF for hand tools and spray painting

An air quality guarantee that's as good as gold

Sullair assures that its System-compressor, dryer and filter, will meet specific performance levels throughout its operational life. We offer a one year test/review period, backed by a purchase refund guarantee, to verify the performance of the Sullair System.

The Sullair System

The Sullair System matches a Sullair compressor, a Sullair dryer and Sullair filters. Dry air is filtered to remove atmospheric particulate, aerosols and other pollutants to provide compressed air for general purpose to the most critical application.

Two levels of air quality

Sullair recognizes that the requirements for air quality vary according to each compressed air application. For this reason, we provide Systems that achieve two distinct levels of air quality.

Level 1

Consists of a Sullair compressor and Sullair filters. The compressed air from this system contains particulate no longer than 0,01 micron, including from coalesced liquid water and lubricants. Maximum remaining oil aerosol content is 0,01 parts per million by weight(ppm/w)@21°C, including oil vapor. The air from this Sullair system meets the most stringent ISO standard (ISO8573.1, class 1) for air quality.

Level 2

Offers the highest quality compressed air for critical applications. The air from this Sullair System exceeds the ISO standard (ISO8573.1, Class 1) for air quality with the use of the SCC filter. The Sullair system includes a Sullair compressor and Sullair SCF, SCH and SCC filters. The odor-free compressed air from this system contains articulates no larger than 0,01 micron. The remaining oil vapor content is less than 0,003 ppm.



Borosilicate Glass Microfibers

Microfibers

Oleophobic neofiber filter media actively repels oil and water to reduce pressure drop and keep running costs to minimum.

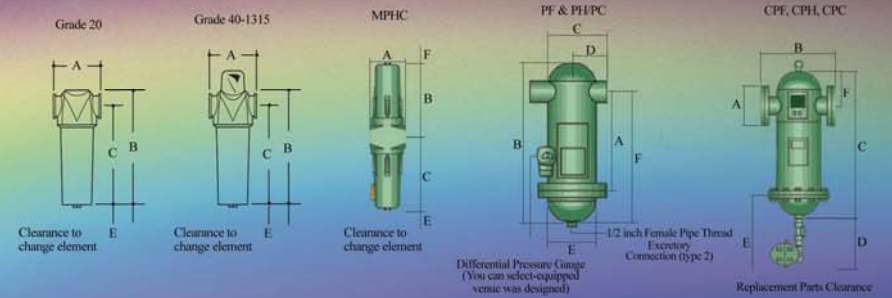
Select the System

Select the air quality level to meet your plant air or process requirements. You can be assured that the quality of air from the Sullair System you specify will remain consistent for the life of the equipment. Sullair guarantees it. And that's as good as gold. Sullair air quality guarantee.

These Systems are not intended to remove carbon monoxide, methyl isocyanate or other noxious, corrosive or toxic gases, vapors or fumes. The system does not provide breathing air.

Normal compressed air filters absorb both oil and water and operate under the condition of moisture or full absorption of the water, which will cause the compressed air impossible to pass through the normal filter cartridge. Because the airflow has to force the liquid to pass through the filtration media network, this increase the working pressure drop of the filter and the energy consumption will significantly rise accordingly. Different from the conventional filter, the filtration medium of the OIL-EVO filter doesn't absorb the liquid, which ensures the gaps can accommodate more dust. The water aerosol condenses on the sponge againsts the second carrying away and the flows into the filter cup and is drained off via the drain valve. The solid particles are caught in the gaps of the filtration medium and the pressure drop gradually increases till reaching certain number indicating the filter cartridge needs to be change to get a higher quality air.

Equipment package



Specification

Model	(NPT) Air in/Out	(7bar g) Capacity m ³ /min	Dimension(mm)						Weight(kg)
			A	B	C	D	E	F	
SCF, SCH, SCC, SCR, SCHR									
20	3/8"	0.6	76	181.5	153		100	0.6	
40	1/2"	1.2	98	236	201		100	1.1	
65	3/4"	1.8	98	236	201		100	1.1	
125	1"	3.6	129	275	232.5		100	2.2	
235	1-1/2"	6.7	129	364	322		100	2.7	
340	1-1/2"	9.6	170	433	383		100	5.1	
465	2"	13.3	170	524.5	474.5		100	7	
700	2"	19.8	170	525	475		100	7	
910	3"	25.8	205	642	582		100	11.1	
1315	3"	37.3	205	832	772		100	13.9	

CPF, CPH, CPC									
Model	(NPT) Air in/Out	(7bar g) Capacity m ³ /min	Dimension(mm)	Dimension(mm)	Dimension(mm)	Dimension(mm)	Dimension(mm)	Dimension(mm)	Weight(kg)
1700	DN100	48	100FLG	450	1140	170	650	201	94
2200	DN100	63	100FLG	450	1140	170	650	201	105
2650	DN100	75	100FLG	500	1220	170	650	230	135
3100	DN150	87	150FLG	580	1294	170	650	273	177
4200	DN150	117	150FLG	580	1294	170	650	273	210
7000	DN200	195	200FLG	750	1520	170	650	361	368
11000	DN250	312	250FLG	740	1684	170	800	410	507
16500	DN300	468	300FLG	1000	1777	170	850	485	675

Note: 1. SCF / SCH / CPF / CPH filter standard float type automatic drain valve, SCC/SCR/SCH1/CPC standard manual drain valve with Dong.
2. SCC / CPC does not configure the filter differential pressure indicator. SCF / SCH / SCR / SCHR standard differential pressure indicator.
CPF / CPH filter consists of matching customers.

MPHC Microfilter									
Model	(NPT) Air in/Out	(7bar g) Capacity m ³ /min	Dimension(mm)	Dimension(mm)	Dimension(mm)	Dimension(mm)	Dimension(mm)	Weight(kg)	
13	1/4"	0.36	76	133	133		70	70	1
27	3/8"	0.78	89	158	158		95	95	1.2
53	1/2"	1.5	89	194	194		130	95	1.4
84	3/4"	2.4	120	251	251		172	125	3.2
140	1"	3.9	120	251	351		272	125	3.7
180	1 1/4"	5.1	120	351	351		272	225	3.8

Specification

Model	(7bar g) Capacity @100psig	(NPT) Air in/Out	Dimension(in.)				Drain port (in.)
			A	B	C	D	
PF and PH / PC Welded Flange Filter							
PC-600	600	2" FLG	12	37-1/4	6	22	1/2
PC-1200	1200	3" FLG	15-3/8	43-3/4	8-1/4	26	1/2
PC-1600	1600	3" FLG	20	49-1/2	10-1/4	21	1/2
PC-2100	2100	4" FLG	20	49-1/2	10-1/4	21	1/2
PC-2750	2750	4" FLG	20	49-1/2	10-1/4	21	1/2
PC-4200	4200	6" FLG	22-3/4	50-1/2	12-3/4	21	1/2
PF-600	600	2" FLG	17-3/4	35	8-3/4	21	1/2
PF-1200	1200	3" FLG	17-3/4	37-1/2	9-1/2	21	1/2
PF-1600	1600	3" FLG	20	39-3/4	10-5/8	21	1/2
PF-2100	2100	4" FLG	20	39-3/4	10-5/8	21	1/2
PF-2750	2750	4" FLG	20	39-3/4	10-5/8	21	1/2
PF-4200	4200	6" FLG	24	45	13-1/4	21	1/2
PH-600	600	2" FLG	12	37-1/4	6	22	1/2
PH-1200	1200	3" FLG	15-3/8	43-3/4	8-1/4	26	1/2
PH-1600	1600	3" FLG	20	49-1/2	10-1/4	21	1/2
PH-2100	2100	4" FLG	20	49-1/2	10-1/4	21	1/2
PH-2750	2750	4" FLG	20	49-1/2	10-1/4	21	1/2
PH-4200	4200	6" FLG	22-3/4	50-1/2	12-3/4	21	1/2

Note: SCC / PC / CPC stage filter can not remove C0/C02 or other toxic gases or fumes.

	Grade SCF	Grade SCH	Grade SCC	Grade SCR	Grade SCHR	Grade CPF	Grade CPH	Grade CPC
Particle Removal Rating	1 μ	0.01 μ	N/A	1 μ	0.01 μ	1 μ	0.01 μ	N/A
Oil Content at 21°C	0.5ppm (0.6mg/m ³)	0.01ppm (0.01mg/m ³)	0.003ppm (0.003mg/m ³)	N/A	N/A	0.5ppm (0.6mg/m ³)	0.01ppm (0.01mg/m ³)	0.003ppm (0.003mg/m ³)
Max. Working Pressure	16 barg	16 barg	20 barg	20 barg	20 barg	14 barg	14 barg	14 barg
Max. Working Temperature	80°C	80°C	50°C	100°C	100°C	66°C	66°C	30°C
Min. Operating Temperature	1.5°C	1.5°C	1.5°C	1.5°C	1.5°C	1.5°C	1.5°C	1.5°C
Initial Pressure Drop	Less than 70 mbar	Less than 140 mbar	Less than 70 mbar	Less than 70 mbar	Less than 140 mbar	Less than 70 mbar	Less than 140 mbar	Less than 70 mbar
Remarks Description	Universal Pre-Filter	Efficient Oil Removal Filter	Odor, Oil Steam Air Filter	Universal Dust Filter	Efficient Dust Filter	Flange Pre-filter	Flange Efficiency Filter	Odor Filter Flange

Other work under the pressure of traffic, refer to the following correction parameters

Pressure	Bar	g	1	2	3	5	7	9	11	13	15	17	19
	psi	g	15	29	44	73	100	131	160	189	218	247	290
Correction Parameter			0.38	0.53	0.65	0.85	1	1.13	1.25	1.36	1.46	1.56	1.7

* Filters Actual Processing Volume = 7 barg under the nominal flow X correction factor