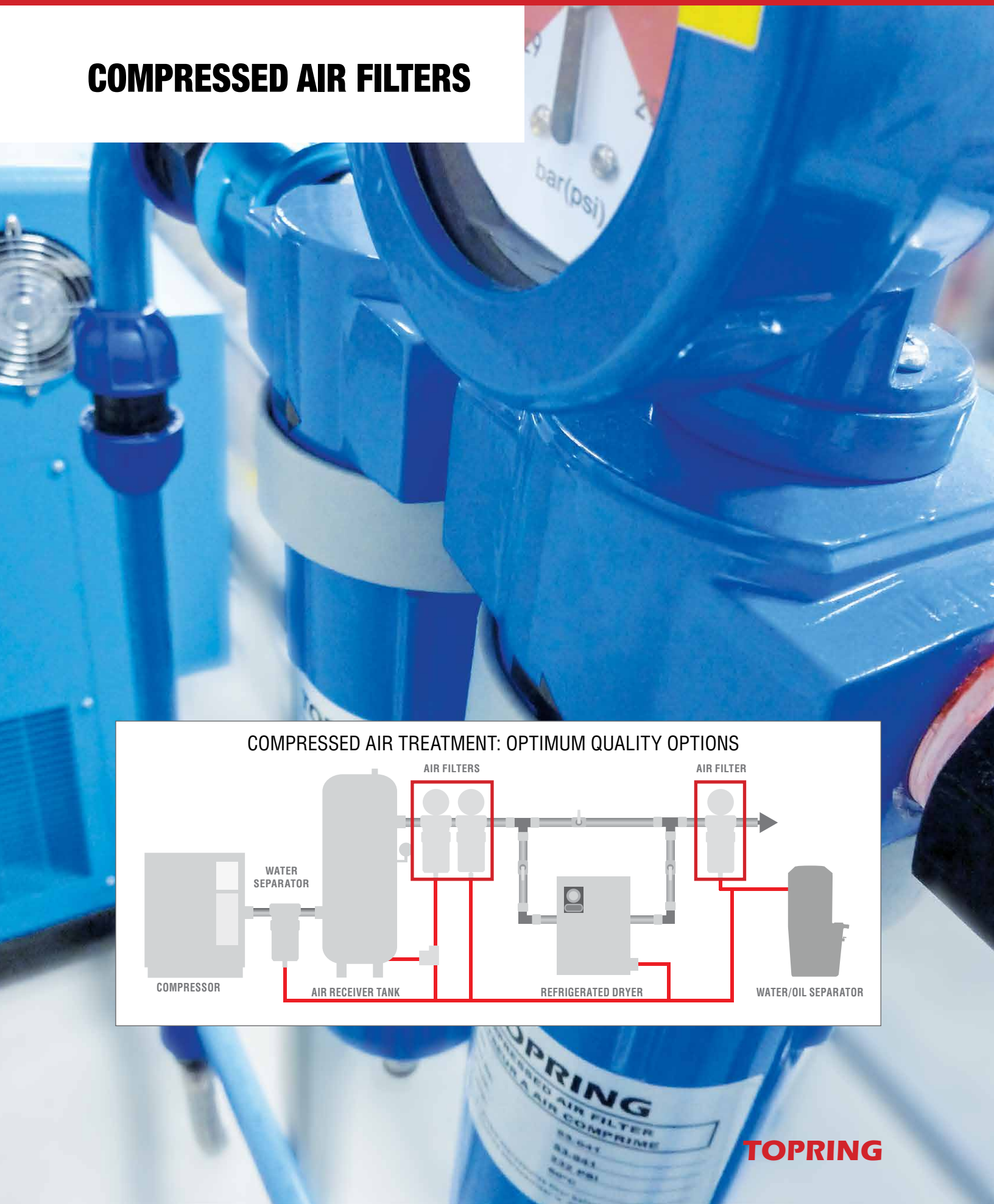
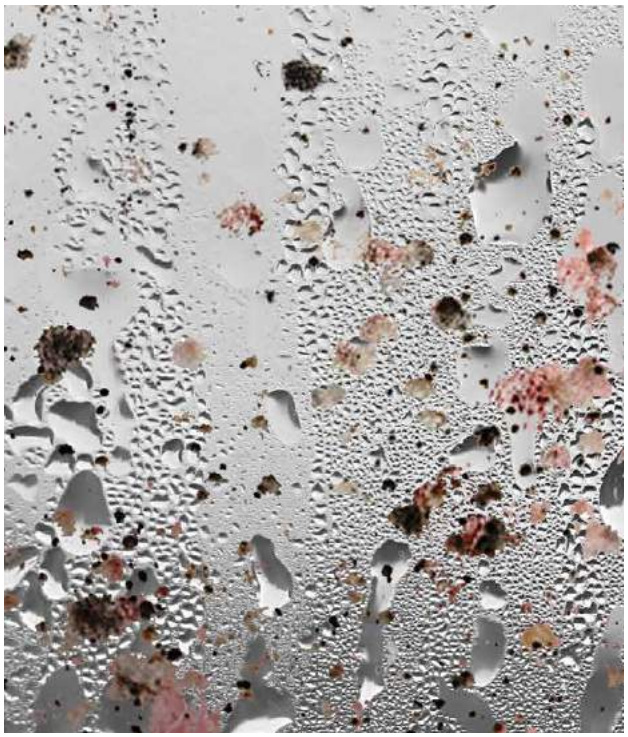
COMPRESSED AIR FILTERS



COMPRESSED AIR TREATMENT: OPTIMUM QUALITY OPTIONS

COMPRESSED AIR TREATMENT: A NECESSITY



Compressed air contains millions of contaminated particles.
These particles can be harmful to any compressed air system, especially at high concentrations and at high speeds. With untreated ambiant air being the most widely used raw material used by compressors, compressed air often contains water vapor and different contaminants, althought measured in microns these can damage any compressed air system.

Proper filtration of a compressed air system allows the removal of particules, contaminants and water vapors. A necessary operation in order to ensure the elimination of downstream corrosion, reduce wear and tear and increase the service life of pneumatic tools as well as the entire network. Many compressed air systems and tools require high-quality air to ensure good performance and extend their service life.

Most of the contaminants introduced into the compressed air system come from the atmospheric air sucked into the network.
The most common contaminant is water which accounts for 99.9% of the total liquid contaminants found in a compressed air system. A proper filtration system eliminates contaminants including particules, oil, water aerosols).This is a key element for an efficient operation. Regardless of the type of compressor installed, the same level of filtration is required.

10 major contaminants found in a compressed air system



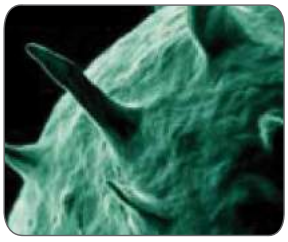
Atmospheric dirts
Rust
Pipe scale



Water vapors
Condensed water
Water aerosols



Liquid oils
Oil aerosols
Oil vapors



Micro-organisms

Most of the contaminants introduced into the compressed air system come from the atmospheric air sucked into the network.
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Regardless of the type of compressor installed, the same level of filtration is required.

AIRFLO
COMPRESSED AIR FILTERS

COMPRESSED AIR QUALITY AND FILTRATION SPECIFICATIONS

The quality of the compressed air required in a system is based on each application's requirements (volume of contaminants permitted for each cubic foot of compressed air).

The range of air treatment products offered by **TOPRING** allows users to ensure the air quality required for each application keeping operating costs to a minimum and protecting the investment.



Level 1
Compressed air without specification

ISO 8573.1
Class 5.6.5



Level 2
General shop air: air tools (sand blasting, grinding)

ISO 8573.1
Class 3.6.4



Level 3
Air instrument, spray painting, powder coating, packing machines

ISO 8573.1
Class 1.5.3.



Level 4
Food industry pharmaceutical and chemical industries, laboratories

ISO 8573.1
Class 1.4.1



Level 5
Food industry (breweries, dairies), pharmaceutical and chemical industries, laboratories

ISO 8573.1
Class 1.1.1

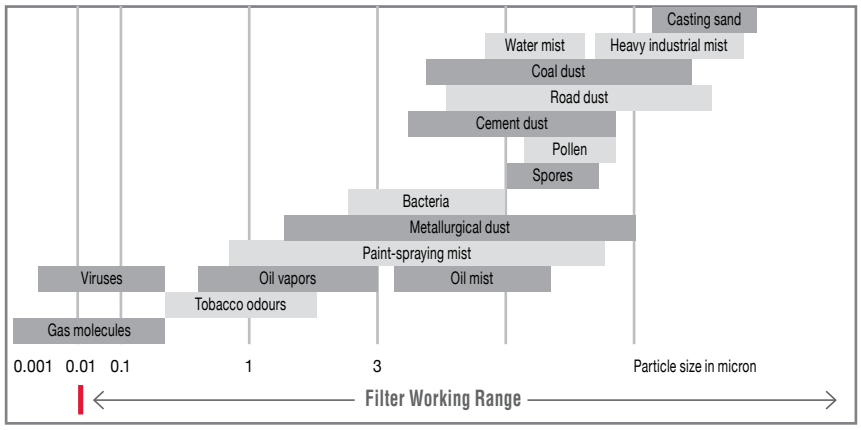


Air treatment products such as compressed air filters and water separators installed at the compressor outlet maximize the quality of the compressed air.

This helps prevent accumulation of impurities, water and oil at the point of application.

The ISO 8573.1 international standard for compressed air quality provides a simple system of classification for the main three contaminants found in compressed air: dirt, water and oil.

NATURE AND EXTENT OF AIR IMPURITIES



Class ISO 8573.1 (2010)	Solid particles				Water		Oil
	Maximum no. of particles per m³			Concentration	Vapor	Liquid	Total Oil(1)
	0.1 - 0.5 micron	0.5 – 1 micron	1 -5 micron	mg/m³	Pressure dew point	g/m³	mg/m³
0	As specified by the equipment user or supplier						
1	≤ 20 000	≤ 400	≤ 10	-	≤ -94°F	-	≤ 0.01
2	≤ 400 000	≤ 6 000	≤ 100	-	≤ -40°F	-	≤ 0.1
3	-	≤ 90 000	≤ 1 000	-	≤ -4°F	-	≤ 1
4	-	-	≤ 10 000	-	≤ 37°F	-	≤ 5
5	-	-	≤ 100 000	-	≤ 45°F	-	-
6	-	-	-	≤ 5	≤ 50°F	-	-
7	-	-	-	5 - 10	-	≤ 0.5	-
8	-	-	-	-	-	0.5 - 10	-
9	-	-	-	-	-	5 - 10	-

(1) All forms of oil including liquids, aerosols and vapor

AIRFLO
COMPRESSED AIR FILTERS

TOPRING offers a complete range of filters and filter elements to meet the different levels of air purity required for different applications. Regardless of the quality of compressed air required, **TOPRING AIRFLO** filters remove solid particles, oil and water vapors ensuring a high efficiency system for clean and virtually oil-free compressed air.

Features and benefits

- Four different grades of filtration available
- Epoxy powder coated (interior and exterior) for added durability and corrosion resistance
- Chromatised protective layer between paint and aluminium for better paint adhesion and better protection against corrosion and harsh substances
- Tie-rod insert allows easy installation and secures elements in the housing
- Differential pressure indicator included with the 1/2 to 3 NPT models
- Automatic drain included

Material

Housing: Aluminium

Specifications

Maximum Working Pressure: 232 PSI
Working Temperature: 1 to 60 °C



53.611



53.641

FILTRATION GRADES

Grade M3

- For coarse pre-filtration
- Particle removal down to 3 micron

Grade M1

- For general filtration
- Particle removal down to 1 micron
- Maximum residual oil content (aerosol): 0.1 mg/m^3 at 20 °C

Grade M01

- For high performance filtration
- Particle removal down to 0.01 micron
- Maximum residual oil content (aerosol): 0.01 mg/m^3 at 20 °C

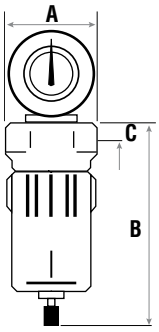
Grade AC

- Activated carbon filter for odour removed (applicable for oil lubricated compressors)
- For removal of oil content down to 0.003 mg/m^3 at 20 °C in conjunction with filter grade M01

AIRFLO
COMPRESSED AIR FILTERS

Port (F) NPT	Airflow SCFM	Filtration				Dimensions (mm)		
		M3	M1	M01	AC	A	B	C
1/4	29	53.613	53.611	53.612	53.614	86	224	64
3/8	41	53.623	53.621	53.622	53.624	86	224	64
1/2	47	53.633	53.631	53.632	53.634	86	224	84
3/4	70	53.643	53.641	53.642	53.644	86	305	115
1	116	53.663	53.661	53.662	53.664	130	312	115
1-1/2	318	53.673	53.671	53.672	53.674	130	523	115
1-1/2	470	53.683	53.681	53.682	53.684	130	784	156
2	616	53.703	53.701	53.702	53.704	163	831	156
2-1/2	923	53.713	53.711	53.712	53.714	163	1082	156
3	1324	53.723	53.721	53.722	53.724	251	1054	181

Note : Models with 1/2 to 3 (F) NPT port, with pressure indicator and with canadian registration number (CRN)

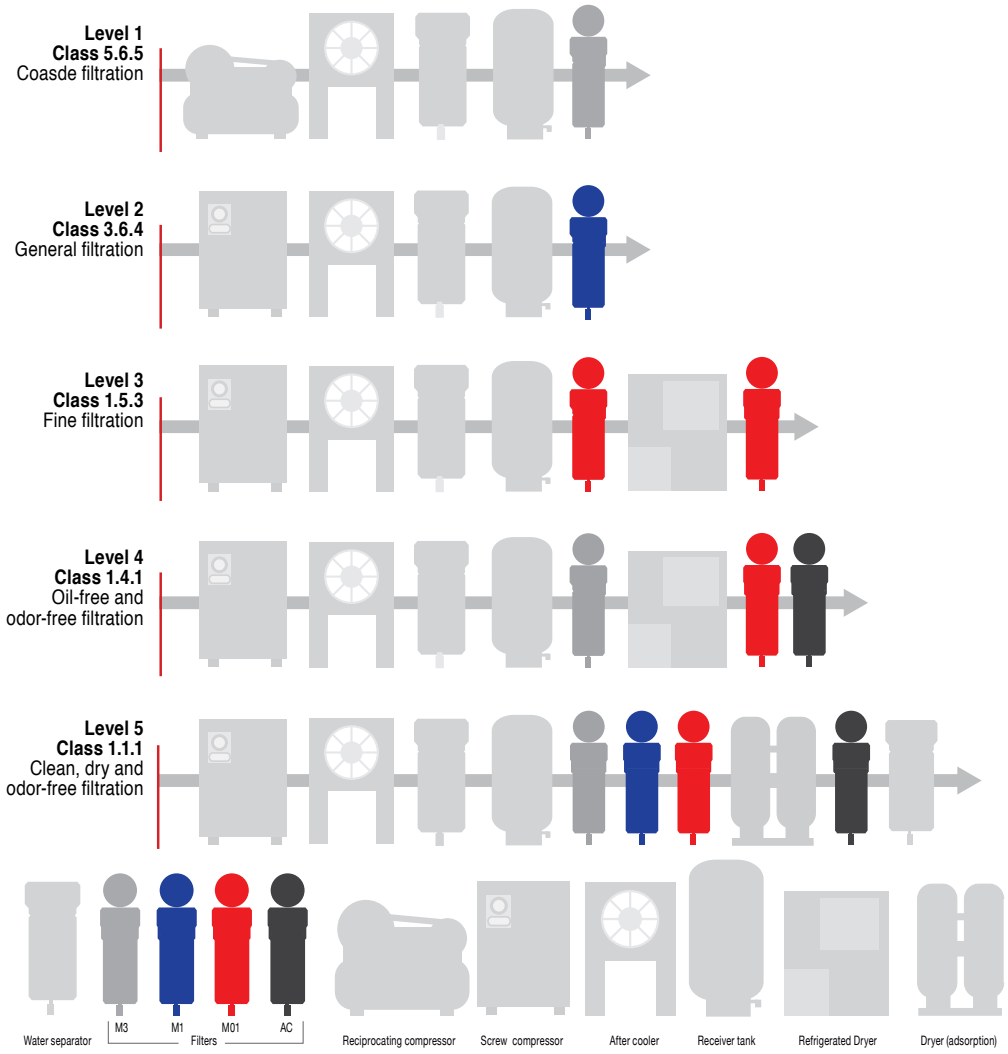




53.611 53.641

TYPICAL FILTRATION CONFIGURATION FOR DIFFERENT APPLICATIONS

Specified air quality (purity) in accordance with ISO 8573.1, standard for compressed air quality.
Refrigerated dryer air treatment at 3 °C.



AIRFLO
FILTER ELEMENTS

Features and benefits

- More effective filtration area
- Higher capacity for holding dirt
- Minimizes pressure drops
- Allows a higher airflow



FILTRATION	M3	M1	M01	AC
Description	General protection	Oil removal	Dust filtration	Oil vapor and odor removal
Particle (µm)	3	1	0.01	--
Oil (mg/m³) at 20 °C	---	0.1	0.01	0.003

REPLACEMENT FILTER ELEMENTS

Port (F) NPT	Airflow SCFM	FILTRATION			
		M3	M1	M01	AC
1/4	29	53.813	53.811	53.812	53.814
3/8	41	53.823	53.821	53.822	53.824
1/2	47	53.833	53.831	53.832	53.834
3/4	70	53.843	53.841	53.842	53.844
1	116	53.863	53.861	53.862	53.864
1-1/2	318	53.873	53.871	53.872	53.874
1-1/2	470	53.883	53.881	53.882	53.884
2	616	53.903	53.901	53.902	53.904
2-1/2	923	53.913	53.911	53.912	53.910
3	1324	53.923	53.921	53.922	53.924

The pleated filter offers 3 to 5 times more filtration surface area when compared to a non pleated filters.

1. Stainless steel sleeve for stronger support
2. Hydrophobic foam socks for better drainage and coalescing effect
3. Robust and non-corrosive aluminium end caps
4. Color coded standard element for easy identification



AIRFLO
FILTER ACCESSORIES

DIFFERENTIAL PRESSURE INDICATOR

Used to indicate premature high differential pressure. Indicator can be retrofitted to existing housings without depressurizing the system



Product No
53.920

MAINTENANCE KIT



Product No
53.929

SWIVEL FITTINGS

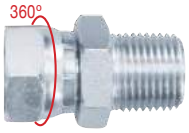
Allows quick and simple connection of multiple filter housings. Made in steel.

SWIVEL FITTING KIT



Product No	Thread (M) NPT
41.704	1/2
41.705	3/4
41.706	1
41.707	1-1/2
41.708	2
41.709	2-1/2

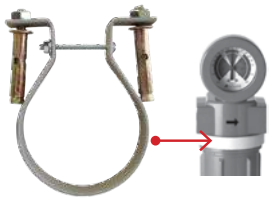
SWIVEL FITTING



Product No	Thread (F/M) NPT
41.772	1/4
41.773	3/8

FILTER MOUNTING BRACKET

Mounting bracket provides additional support to filter



Product No	For model
53.900	53.611 to 53.644
53.905	53.661 to 53.684

ADAPTOR FOR AIRFLO AUTOMATIC DRAIN

For the connection to an external drain to replace the internal drain



Product No
53.933

INTERNAL AUTOMATIC DRAIN



Product No	For model
53.930	53.611 to 53.684

EXTERNAL AUTOMATIC DRAIN



Product No	For models
53.935	53.701 to 53.724

OPTIONAL: EXTERNAL CONDENSATE DRAINS



59.345 MAXDRAIN
Automatic drain

59.465 MAXDRAIN
Mechanical automatic drain

53.935 AIRFLO
External drain

59.250 TOPDRAIN
Zero air loss automatic drain



TOPDRY
COMPRESSED AIR FILTERS

COMPRESSED AIR QUALITY AND FILTRATION SPECIFICATIONS

The quality of the compressed air required in a system is based on the type of application (volume of contaminants permitted for each cubic foot of compressed air).

TOPRING offers a complete range of air treatment products allowing users to achieve the air quality required for each application keeping operating costs to a minimum and protecting the investment.



Level 1
Compressed air without specification

ISO 8573.1
Class 3.6.5



Level 2
General shop air: air tools (sand blasting, grinding)

ISO 8573.1
Class 2.4.4



Level 3
Air instrument, spray painting, powder coating, packing machines

ISO 8573.1
Class 1.4.2



Level 4
Food industry pharmaceutical and chemical industries, laboratories

ISO 8573.1
Class 1.4.1



Level 5
Food industry (breweries, dairies), pharmaceutical and chemical industries, laboratories

ISO 8573.1
Class 1.1.1



Air treatment products such as filters and water separators installed at the compressor outlet maximize the quality of the compressed air.

This prevents the accumulation of impurities, water and oil at the point of application.

The ISO 8573.1 international standard for compressed air quality provides a simple classification method for the three main contaminants found in compressed air: dirt, water and oil.

TOPDRY
COMPRESSED AIR FILTERS

CRN CANADIAN REGISTRATION NUMBER

TOPRING offers a complete range of filters and filter elements for higher filtration performance. Oils, water vapors and solid particles must be properly removed from the air of the compressed air system. Clean, dry, oil-free compressed air is essential to optimize compressor filtration, reduce pressure losses, increase efficiency levels and reduce energy costs.

Features and benefits

- Four grades of filtration available
- Reliable and efficient removal of liquid and solid contaminants
- Large condensate reservoir for bulk oil collection
- Advanced airflow design for optimum performance and reducing pressure drops
- External and internal powder coated surface for enhanced abrasion and corrosion resistance
- Compact, modular design for quick and easy installation
- No tie-rod insert minimizing maintenance needs
- Automatic drain with manual override for testing and depressurization



Applications

Food and beverage, chemical, laboratory, medical and natural gas applications

Suitable for use with all compressor oils including mineral and synthetic oil

Material

Housing: Aluminum die cast

Specifications

Maximum Working Pressure: 232 PSI
Working Temperature:
M5/M1/M01: 1 to 100 °C • AC: 1 to 25 °C

FILTRATION GRADES

Grade M5

- General purpose dust filtration
- Dry particle removal down to 5 microns

Grade M1

- High efficiency general purpose protection
- Particle removal down to 1 micron, including water and oil aerosols
- Maximum remaining oil aerosol down to 0.1 mg/m^3 to 20 °C

Grade M01

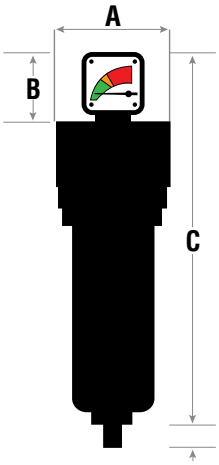
- High efficiency oil removal filtration
- Particle removal down to 0.01 micron, including water and oil aerosols
- Maximum remaining oil aerosol down to 0.01mg/m^3 to 20 °C

Grade AC

- Activated carbon for oil vapor and odour removal
- Maximum remaining oil vapor down to 0.003mg/m3 to 20 °C in conjunction with filter grade M01

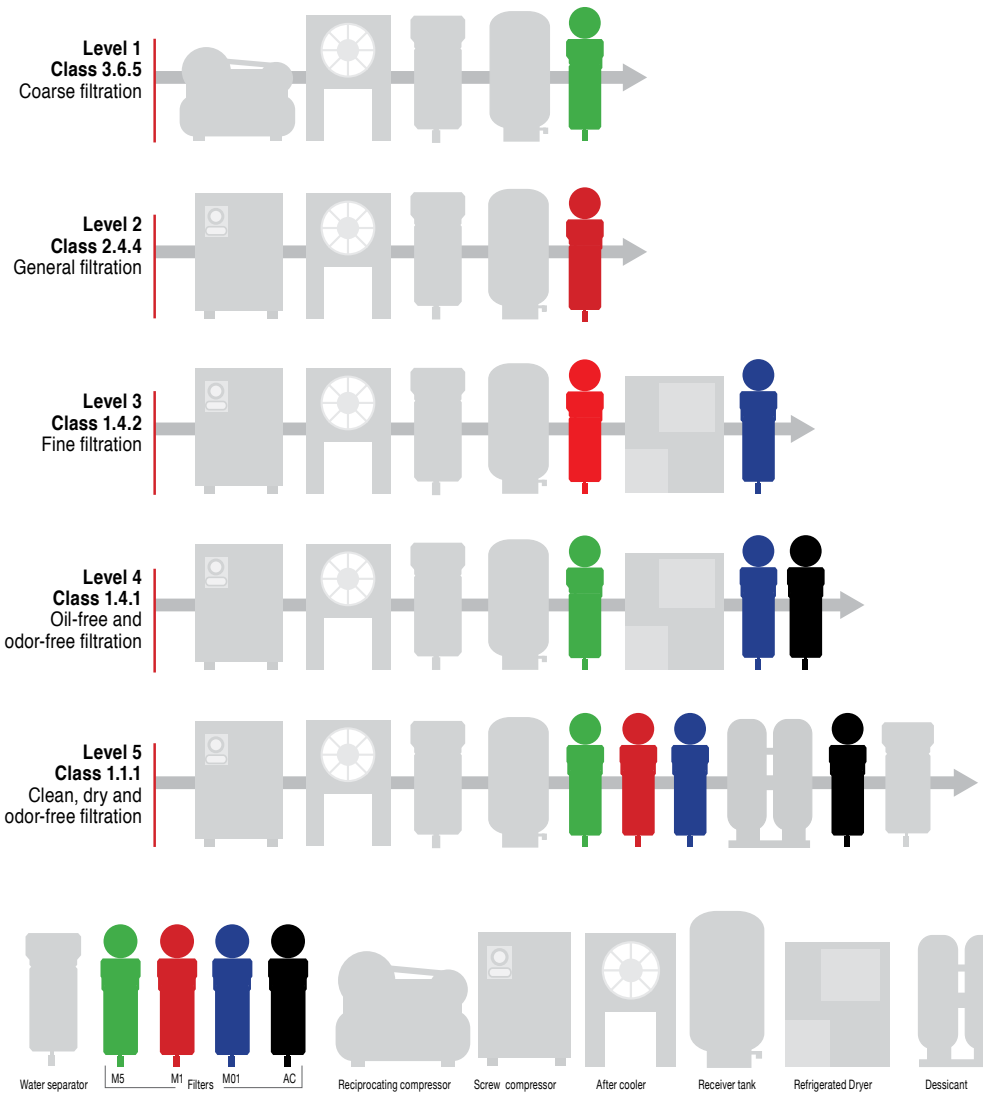
TOPDRY
COMPRESSED AIR FILTERS

Port (F) NPT	Airflow SCFM	Filtration				Dimensions (mm)		
		M5	M1	M01	AC	A	B	C
1/4	15	53.203	53.201	53.202	53.204	50	18	151
1/2	30	53.208	53.206	53.207	53.209	70	25	191
1/2	50	53.213	53.211	53.212	53.214	70	25	231
1/2	70	53.218	53.216	53.217	53.219	100	35	276
3/4	85	53.223	53.221	53.222	53.224	100	35	276
1	90	-	53.225	-	-	100	35	276
1	135	53.228	53.226	53.227	53.229	100	35	398
1	175	53.233	53.231	53.232	53.234	100	35	398
1-1/2	290	53.238	53.236	53.237	53.239	121	42	460
1-1/2	325	53.243	53.241	53.242	53.244	121	42	460
2	450	53.248	53.246	53.247	53.249	146	52	482
2-1/2	850	53.253	53.251	53.252	53.254	210	66	595





TYPICAL FILTRATION CONFIGURATION FOR DIFFERENT APPLICATIONS



TOPDRY
FILTER ELEMENTS



Features and benefits

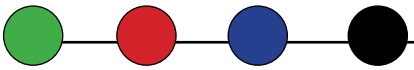
- Color coded for easy and accurate identification of filtration level
- Easily accessible for parts replacement
- Deep filter. media provides low differential pressure for better energy efficiency and extended service life
- Ultrasonic welded seam increases strenght and durability
- Stainless steel support increases rigidity and corrosion resistance

Applications

Suitable for use with all compressor oils including mineral and synthetic oil

Materials

M5/M1/M01: Borosilicate glass microfiber
AC: Activated carbon



FILTRATION	M5	M1	M01	AC
Description	Dust filtration	General protection	Oil removal and dust filtration	Oil vapor and odor removal
Particle (µm)	5	1	0.01	-
Oil (mg/m³) at 20 °C	5	0.1	0.01	0.003

Filtration level identification simplified with the color association



REPLACEMENT FILTER ELEMENTS

Port (F) NPT	Airflow SCFM	FILTRATION			
		M5	M1	M01	AC
1/4	15	53.503	53.501	53.502	53.504
1/2	30	53.508	53.506	53.507	53.509
1/2	50	53.513	53.511	53.512	53.514
3/4	90	53.518	53.516	53.517	53.519
1	90	53.518	53.516	53.517	53.519
1	135	53.523	53.521	53.522	53.524
1	175	53.528	53.526	53.527	53.529
1-1/2	325	53.533	53.531	53.532	53.534
2	450	53.538	53.536	53.537	53.539
2-1/2	1000	53.543	53.541	53.542	53.544

TOPDRY
FILTER ACCESSORIES

WALL MOUNTING BRACKET



No Product	For filter model
53.950	53.201 to 53.204
53.951	53.206 to 53.214
53.952	53.216 to 53.234
53.953	53.236 to 53.244
53.954	53.246 to 53.249
53.955	53.251 to 53.254

FIXING BRACKET



No Product	For filter model
53.960	53.201 to 53.204
53.961	53.206 to 53.214
53.962	53.216 to 53.234
53.963	53.236 to 53.244
53.964	53.246 to 53.249
53.965	53.251 to 53.254

OPTIONAL:
EXTERNAL CONDENSATE DRAINS



59.345
MAXDRAIN
Automatic drain



59.465
MAXDRAIN
Mechanical automatic drain



53.935
AIRFLO
External drain



59.250
TOPDRAIN
Zero air loss automatic drain

