



## YF Series High Efficiency Energy Saving Compressed Air Filters

Air flow rate 1.0m<sup>3</sup>/min-48.0m<sup>3</sup>/min



## YF Series Compressed Air Filter

This series is recommended for the industries in automation, cosmetics, blow molding, spraying etc.



### Coalescing Filters

Coalescing Filters are probably the most important items of purification requirements in a compressed air system, which are designed not only to filter oil vapor and water, but also to filter solid particulates to an acceptable level as small as 0.01micron in size. Usually, in the installation system, the first filter's purpose is to pre-filter, protect the high efficiency filters from bulk contamination so as to provide high quality compressed air. If the air filters worked under damp or full of water adsorption condition, it would prevent the compressed air from getting through the filter element, and the air flow would force the liquid to get through from the pores of the element media, thus increase working pressure drop and reduce filtration performance.

### Activated Carbon Filters

Oil vapor can easily get through the coalescing filters in a state of gaseous, so the adsorptive filter must provide large activated carbon adsorption bed. Because the damp air will reduce the adsorptive ability of the activated carbon, the adsorptive filter usually installed after the adsorptive dryer, in order to guarantee effective removal of oil vapor and peculiar odor. it's not used to remove the liquid oil or aerosols, thus poor maintenance and lack of pre-filter will accelerate its invalidation.

### Product Features

- The filter housing is aluminum alloy die-casted, with tight and strong structure to ensure the safe use.
- All the housing painted before cleaning, degreasing and special anti-corrosion treatment, which enhanced its durability and be applicable to ocean platform operation.
- Unique filter element design, the adoption of imported materials, the filtering performance up to 99%, Element cover with different colors represent different filtration accuracy.
- The filter housings service life is 15 years, and filter element can be used for 6000 to 8000 hours under working condition from temperature 1. 5 to 80°C, the max. pressure is 1. 6Mpa.
- The housing can bear pressure 3.2Mpa for 96hours, and the maximum burst pressure is 10.5Mpa.
- Parallel connection of the housing can save installation and maintenance space.

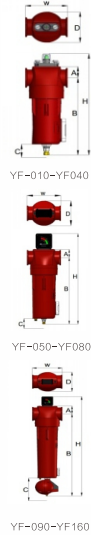
**National High-Tech Enterprise**  
Since 1998, Professional manufacturer of compressed air separation, filtration and purification equipment



## Technical Specification

The flow rate below is the treatment capacity of compressed air under rated working pressure 7bar g(100psi g). For the application in other working pressure, please refer to the correction factors.

Model	Pipe size	Flow rates			QTY. (pcs)	Dimension(mm)					
		L/S	m <sup>3</sup> /min	cfm		Width	Diameter	Height	A	B	C(Reserved space for replacement)
YF-010	Rc1/2"	16.7	1.0	35.3	1	96	79	261	29	198	118
YF-020	Rc3/4"	25.0	1.5	53.0	1	96	79	261	29	198	118
YF-030	Rc3/4"	30.0	1.8	63.6	1	96	79	295	29	233	153
YF-040	Rc1"	33.3	2.0	71.0	1	96	79	295	29	233	153
YF-050	Rc3/4"	46.7	2.8	99.0	1	138	111	403	37	296	208
YF-060	Rc1"	60.0	3.6	127.0	1	138	111	403	37	296	208
YF-070	Rc1"	83.3	5.0	177.0	1	138	111	503	37	396	303
YF-080	Rc1-1/2"	125.0	7.5	265.0	1	138	111	503	37	396	303
YF-090	Rc2"	166.7	10.0	353.1	1	174	142	736	58	607	469
YF-100	Rc2-1/2"	216.7	13.0	459.0	1	174	142	736	58	607	469
YF-110	Rc2"	283.3	17.0	600.0	1	174	142	1016	58	887	794
YF-120	Rc2-1/2"	316.7	19.0	671.0	1	174	142	1016	58	887	794
YF-130	Rc3"	416.7	25.0	883.0	1	220	184	793	74	649	514
YF-140	Rc4"	466.7	28.0	989.0	1	220	184	793	74	649	514
YF-150	Rc3"	683.3	41.0	1448.0	1	220	184	1050	74	906	764
YF-160	Rc4"	800.0	48.0	1695.0	1	220	184	1050	74	906	764



**Technical requirements** Maximum operating pressure:16barg Maximum operating temperature:80°C Minimum operating temperature:1.5°C

Pressure	Barg	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Psig	15	29	44	59	73	87	100	116	131	145	160	174	189	203	218	232
Correction factor		0.38	0.53	0.65	0.76	0.85	0.93	1	1.07	1.13	1.19	1.23	1.31	1.36	1.41	1.46	1.51

## Product details

The A grade raw materials are used to ensure the product toughness, strength and stability.

Sophisticated thread processing technology assist user save time and labor costs in installation and maintenance.

The international leading anti-corrosion technology greatly enhanced the housing corrosion resistance, enlarged application field and avoid the secondary pollution comes from itself.

The Differential Pressure Gauge or Indicator can measure the pressure difference and indicate premature blockage of the filter element.

Sight glass is made of unique materials, checks the blockage condition of the drainer.

The arrow marks make the operator understand the air flow direction clearly.

## YF series filter element filtration grade and performance

PF	AO	AA	AX	ACS	AR	AAR
As a primary filter, particles whose diameter more than 5µm can be removed, the maximum residual oil content is negligible.	High efficiency general protection, dust particles, water mist and oil mist whose diameter more than 1µm can be removed, the residual content of oil mist does not exceed 0.6 mg/ m <sup>3</sup> (21°C), 1ppm(w).	High efficiency oil removal filtration, dust particles, water mist and oil mist whose diameter more than 0.01µm can be removed, the residual content of oil mist does not exceed 0.01 mg/m <sup>3</sup> (21°C), 0.01ppm(w).	Ultra-efficient filtration, dust particles, water mist and oil mist whose diameter more than 0.01µm can be removed, the residual content of oil mist does not exceed 0.001 mg/m <sup>3</sup> (21°C), 0.001ppm(w).	Dust particles whose diameter more than 0.01µm, oil vapor and odor can be removed, the maximum residual content of oil vapor does not exceed 0.003mg/m <sup>3</sup> (21°C), 0.003ppm(w).	Dust particles whose diameter more than 1µm can be removed.	Dust particles whose diameter more than 0.01µm can be removed.

## International test and measurement standard ISO 12500

ISO 12500 has made clear a general test and definition method for the compressed air filter manufacturers. The main performance parameters are the air inlet oil content and the particle size distribution of the solid particles. ISO 12500-1 specifies the test requirements for the filtration performance of oil aerosol in the coalescing filter. ISO 12500-2 specifies the test requirements of adsorption filters for the removal performance of steam adsorption. ISO 12500-3 specifies the requirements for removal of particulate matter from solid pollutants.

Products are tested with the international advanced testing equipment based on standard ISO12500 which is equivalent to the standard ISO8573.

Filtration Grade	PF	AO	AA	AX	ACS	AR	AAR
Size of solid particles (ISO12500-3)	5µm	1µm	0.01µm	0.01µm	-	1µm	0.01µm
Filtration performance of solid particles(ISO12500-3)	-	99.999+%	99.999+%	99.999+%	99.999+%	99.999+%	99.999+%
Filtration performance of oil (ISO12500-1)	50%	80+%	99.9+%	99.99+%	-	-	-
Residual oil content(ISO12500-1)	5mg/m <sup>3</sup>	2.0mg/m <sup>3</sup>	< 0.01mg/m <sup>3</sup>	< 0.001 mg/m <sup>3</sup>	< 0.004 mg/m <sup>3</sup>	-	-

## It is very important to change the filter element often and choose original accessories

Please replace the filter elements with YUKA original products to ensure purified, dry and stable air. The element is constantly impacted by oil, acidic condensate and high velocity dust particulates during the whole operation process, it also has to filter and keep protecting your compressed air system. It will weaken the filter media and reduce the filtering performance if it passed the replacement period. Technically, these hidden and serious reductions cannot easily be detected by the differential pressure indicating instruments. To replace the filter element every year is very essential. Failed to replace them in time will lead to low product performance and air quality, as well as high production cost.

