Series Variation

Medium / Large Filter

Note: This list is for selection guide. Refer to the page for selection, and select a model after checking installation and operating conditions.

Series		Medium (general purpose)			Medium (oil-free)			
		AF2-□P	AF2-□M	AF2-□X	AF4000P	AF4000S	AF4000M	AF4000X
					Stainless steel vessel			
Specs. Applicability Air Compressor kW (reference) / Processing flow rate m³/min		• Dust 1 μm	• Dust 0.01 μm • Oil content 0.01 mg/m³	• Oil content 0.003 mg/m³ • Deodorizing	• Dust 5 μm	• Dust 1 μm	• Dust 0.01 μm • Oil content 0.01 mg/m³	• Oil content 0.003 mg/m³ • Deodorizing
0.75	0.15							
1.5	0.22							
2.2	0.35							
3.7	0.5							
5.5	0.825							
7.5	1.0							
11	1.5							
15	3.7/4.95	●(4.95)	●(4.95)	●(4.95)				
22	3.7/4.95	●(4.95)	●(4.95)	●(4.95)	●(3.7)	●(3.7)	●(3.7)	●(3.7)
37	6.2/7.93	●(7.93)	●(7.93)	●(7.93)	●(6.2)	●(6.2)	●(6.2)	●(6.2)
55	10/11.3	●(11.3)	●(11.3)	●(11.3)	●(10)	●(10)	●(10)	●(10)
75	12.8/13	●(12.8)	●(12.8)	●(12.8)	●(13)	●(13)	●(13)	●(13)
95	16/18.8/19.8	●(19.8)	●(19.8)	●(19.8)		●(18.8)	●(18.8)	●(18.8)
120	24.1	●	●	●				
150	32							
200								
250	48							
300	64							
400	80							
480	96							
-	128							
710	160							
960	192							
1450	256							
Differential pressure gauge		● Standard Equipment	● Standard Equipment	–	● Option	● Option	● Option	● Option
Differential pressure alarm output		–	–	–	–	–	–	–
Automatic Condensate Drain		Float	Float	–	Float	Float	Float	–
Low pressure loss element		● Standard Equipment	● Standard Equipment	● Standard Equipment	● Standard Equipment	● Standard Equipment	● Standard Equipment	● Standard Equipment
Residual pressure exhaust valve		● Standard Equipment	● Standard Equipment	● Standard Equipment	● Included in auto-drain	● Included in auto-drain	● Included in auto-drain	–
Specified color paint		×	×	×	–	–	–	–
Companion flange included		×	×	×	–	–	–	–
Foundation bolts and nuts included		×	×	×	–	–	–	–
Foundation bolts and nuts included (SUS)		×	×	×	–	–	–	–
Outdoor specifications		×	×	×	–	–	–	–
IN-OUT Reverse Direction		–	–	–	–	–	–	–
Product Photo		×	×	×	–	–	–	–
Appearance								
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Note: Contact CKD for Special-order products, sales delivery dates, prices, etc.

Series		Large (regular)				Large (oil-free)			
		AF3000P	AF3000S	AF3000M	AF3000X	AF5000P	AF5000S	AF5000M	AF5000X
						Stainless steel vessel			
Specs. Applicability Air Compressor kW (reference) / Processing flow rate m³/min		• Dust 3 μm	• Dust 0.3 μm • Oil content 0.5 mg/m³	• Dust 0.01 μm • Oil content 0.01 mg/m³	• Oil content 0.03 mg/m³ • Deodorizing	• Dust 3 μm	• Dust 0.3 μm • Oil content 0.5 mg/m³	• Dust 0.01 μm • Oil content 0.01 mg/m³	• Oil content 0.003 mg/m³ • Deodorizing
0.75	0.15								
1.5	0.22								
2.2	0.35								
3.7	0.5								
5.5	0.825								
7.5	1.0								
11	1.5								
15	3.7/4.95								
22	3.7/4.95								
37	6.2/7.93								
55	10/11.3								
75	12.8/13								
95	16/17/18.8	●(16)	●(16)	●(16)	●(16)	●(16)	●(16)	●(16)	●(16)
120	24.1								
150	32	●	●	●	●	●	●	●	●
200									
250	48	●	●	●	●	●	●	●	●
300	64	●	●	●	●	●	●	●	●
400	80	●	●	●	●	●	●	●	●
480	96	●	●	●	●	●	●	●	●
-	128	●	●	●	●	●	●	●	●
710	160	●	●	●	●	●	●	●	●
960	192	●	●	●	●	●	●	●	●
1450	256	●	●	●	●	●	●	●	●
Differential pressure gauge		● Standard Equipment	● Standard Equipment	● Standard Equipment	–	● Standard Equipment	● Standard Equipment	● Standard Equipment	–
Differential pressure alarm output		▲ Special-order product	▲ Special-order product	▲ Special-order product	–	● Standard Equipment	● Standard Equipment	● Standard Equipment	–
Automatic Condensate Drain		Float	Float	Float	–	Electronic (with alarm output)	Electronic (with alarm output)	Float	–
Low pressure loss element		● Standard Equipment	● Standard Equipment	● Standard Equipment	● Standard Equipment	● Standard Equipment	● Standard Equipment	● Standard Equipment	● Standard Equipment
Residual pressure exhaust valve		● Included in auto-drain	● Included in auto-drain	● Included in auto-drain	×	● Included in auto-drain	● Included in auto-drain	● Included in auto-drain	● Standard Equipment
Specified color paint		▲ Special-order product	▲ Special-order product	▲ Special-order product	▲ Special-order product	–	–	–	–
Companion flange included		● Option	● Option	● Option	● Option	● Option	● Option	● Option	● Option
Foundation bolts and nuts included		● Option	● Option	● Option	● Option	● Option	● Option	● Option	● Option
Foundation bolts and nuts included (SUS)		● Option	● Option	● Option	● Option	● Option	● Option	● Option	● Option
Outdoor specifications		● Option	● Option	● Option	● Option	▲ Special-order product	▲ Special-order product	▲ Special-order product	▲ Special-order product
IN-OUT Reverse Direction		● Option	● Option	● Option	● Option	● Option	● Option	● Option	● Option
Product Photo		● Option	● Option	● Option	● Option	● Option	● Option	● Option	● Option
Appearance									
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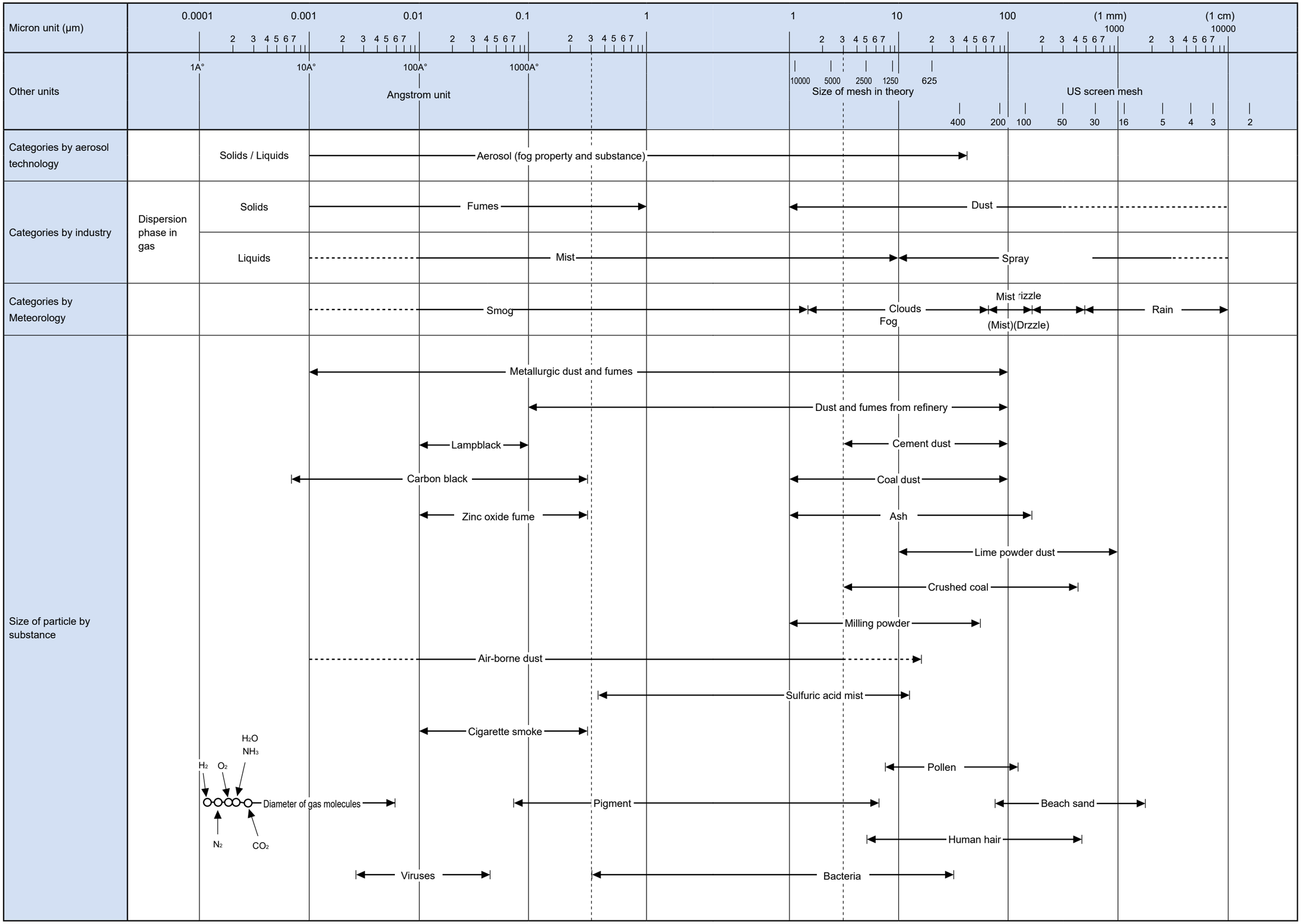
Guide to particle sizes



Air Filters
Guide to particle sizes
Main Line Components
Refrigeration Dryers
Desiccant Dryers
High Polymer Membrane Dryers
Main Line Filters
Drain discharger, etc.
Ending

Replacing the element

1 ⚠ Spent element must be disposed properly as industrial waste. The filter cannot be regenerated and reused. Also, if the filter contains toxic or harmful substances, dispose of substances based on local laws.

2 Replace the element based on the following replacement standards.

P-type: Replace when the differential pressure indicator in the filter body reaches the red zone or after one year of use, whichever comes first. If use is continued while the indicator is in the red zone, the filter element could be damaged by the pressure difference, Also, pressure required for device operation may not be attained.

S-type, M-type:

Replace when the differential pressure indicator in the filter body reaches the red zone or after one year of use, whichever comes first. If use is continued while the indicator is beyond the red zone, the filter element could be damaged by the pressure difference. Also, pressure required for device operation may not be attained. When using the filter to remove oil, if the indicator is in the red zone and it is still being used, the oil captured by the element will flow out into the air again, and be carried to the secondary side. This will inhibit oil removal.

X-type: Replace after the period stipulated for each model, or when the deodorizing effect is lost. The X-type filter adsorbs odorous molecules with adsorbent, so the service life cannot be detected by the element's pressure difference. Judge the status by odor or manage the service life based on usage time.

⚠ Valve operation at start and end of daily operations

If the large ball valve, etc., is opened when starting and ending operations, pay attention to the following and open the valve slowly.

- If the large bore size valve is opened suddenly, an excessive flow rate several-fold larger than set components specifications may flow and damage the internal structure.
- If the large bore size valve is opened suddenly to discharge any residual pressure from the air line at the end of daily operations, excessive amounts of flow may result as above and reverse flow could occur, damaging devices.
- Note that the differential pressure gage can be easily damaged by the increase of pressure loss due to an excessive flow rate (proportional to the square of the flow rate), and reverse pressure caused by reverse flow.

Recommended Replacement Models for Flange-Type Air Filters

As of November 2024

Production and sales of the "Old Products" listed in the table below have been discontinued.
Please select a replacement model from the "Current Products."

* This comparison table is for reference only. When selecting a replacement, consider the current operating pressure, inlet air temperature, ambient temperature, required dew point, etc., to ensure adequate performance.

Air Filter Model Number Comparison Table

Class Equivalent to 3 µm

Old Product		Current Product	
Flow rate (m³/min)	Model No.	Flow rate (m³/min)	Model No.
12	1113-16C-MD		
		16	AF3016P-50
20	1114-40C-MD		
		32	AF3032P-80
40	1123-48C-MD		
		48	AF3048P-100
60	1128-64C-MD		
		64	AF3064P-100
		80	AF3080P-150
		96	AF3096P-150
		128	AF3128P-150
		160	AF3160P-200
		192	AF3192P-200
		256	AF3256P-200

Class Equivalent to 0.3 µm

Old Product		Current Product	
Flow rate (m³/min)	Model No.	Flow rate (m³/min)	Model No.
7.2	1113-16C-MDY		
9.5	1151J-16C-MD		
		16	AF3016S-50
19	1152-24C-MD		
28.5	1152J-32C-MD		
		32	AF3032S-80
38	1153-32C-MD		
		48	AF3048S-100
57	1154-32C-MD		
		64	AF3064S-100
76	1155-48C-MD		
		80	AF3080S-150
95	1155J-48C-MD	96	AF3096S-150
114	1156-48C-MD		
		128	AF3128S-150
152	1157-48C-MD		
		160	AF3160S-200
190	1158-64C-MD	192	AF3192S-200
		256	AF3256S-200

Class equivalent to 0.01 µm

Old Product		Current Product	
Flow rate (m³/min)	Model No.	Flow rate (m³/min)	Model No.
11.9	1251J-16C-MD		
		16	AF3016M-50
23.8	1252-24C-MD		
		32	AF3032M-80
35.7	1252J-32C-MD		
47.6	1253-32C-MD	48	AF3048M-100
		64	AF3064M-100
71.4	1254-32C-MD		
		80	AF3080M-150
95.2	1255-48C-MD	96	AF3096M-150
119	1255J-48C-MD		
		128	AF3128M-150
142.8	1256-48C-MD		
		160	AF3160M-200
190.4	1257-48C-MD	192	AF3192M-200
238	1258-64C-MD		
		256	AF3256M-200

Class equivalent to deodorizing

Old Product		Current Product	
Flow rate (m³/min)	Model No.	Flow rate (m³/min)	Model No.
11.9	1251J-16C-MX		
		16	AF3016X-50
23.8	1252-24C-MX		
		32	AF3032X-80
35.7	1252J-32C-MX		
47.6	1253-32C-MX	48	AF3048X-100
		64	AF3064X-100
71.4	1254-32C-MX		
		80	AF3080X-150
95.2	1255-48C-MX	96	AF3096X-150
119	1255J-48C-MX		
		128	AF3128X-150
142.8	1256-48C-MX		
		160	AF3160X-200
190.4	1257-48C-MX	192	AF3192X-200
238	1258-64C-MX		
		256	AF3256X-200

indicates the general purpose type. Processing flow rates are approximate. (based on 0.7 MPa inlet pressure and 0.01 MPa pressure drop, but may vary slightly depending on the model).