

Mist Separator

AFM20-A to AFM40-A

Micro Mist Separator

AFD20-A to AFD40-A

- Series AFM Nominal filtration rating: 0.3 μm
- Series AFD Nominal filtration rating: 0.01 μm

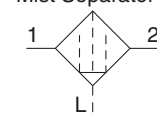
How to Order

AFM **30** - **03** **BD** - **A**

AFD **30** - **03** **BD** - **A**

① ② ③ ④ ⑤

JIS Symbol

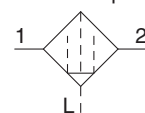


AFM20-A



AFM40-A

Micro Mist Separator



AFD20-A



AFD40-A

- Option/Semi-standard: Select one each for a to f.
- Option/Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order.
Example) AFM30-03BD-CR-A

		Symbol	Description	1				
				Body size				
				20	30	40		
2	Thread type	Nil	Rc	●	●	●		
		N ^{Note 1)}	NPT	●	●	●		
		F ^{Note 2)}	G	●	●	●		
+								
3	Port size	01	1/8	●	—	—		
		02	1/4	●	●	●		
		03	3/8	—	●	●		
		04	1/2	—	—	●		
		06	3/4	—	—	●		
+								
4	Option	a	Mounting	Nil	Without mounting option	●	●	●
				B ^{Note 3)}	With bracket	●	●	●
		b	Float type auto drain	Nil	Without auto drain	●	●	●
				C ^{Note 4)}	N.C. (Normal close) Drain port is closed when pressure is not applied.	●	●	●
D ^{Note 5)}	N.O. (Normal open) Drain port is open when pressure is not applied.			—	●	●		
+								
5	Semi-standard	c	Bowl ^{Note 6)}	Nil	Polycarbonate bowl	●	●	●
				C	With bowl guard	●	— ^{Note 7)}	— ^{Note 7)}
		d	Drain port	Nil	With drain cock	●	●	●
				J ^{Note 8)}	Drain guide 1/8	●	—	—
					Drain guide 1/4	—	●	●
				W	Drain cock with barb fitting (for ø6 x ø4 nylon tube)	—	●	●
		e	Flow direction	Nil	Flow direction: Left to right	●	●	●
				R	Flow direction: Right to left	●	●	●
		+						
		f	Pressure unit	Nil	Name plate and caution plate for bowl in imperial units: MPa	●	●	●
Z ^{Note 9)}	Name plate and caution plate for bowl in imperial units: psi, °F			○ ^{Note 10)}	○ ^{Note 10)}	○ ^{Note 10)}		

Note 1) Drain guide is NPT1/8 (applicable to the AFM20-A, AFD20-A) and NPT1/4 (applicable to the AFM30-A/40-A, AFD30-A/40-A).

The auto drain port comes with ø3/8" One-touch fitting (applicable to the AFM30-A/40-A, AFD30-A/40-A).

Note 2) Drain guide is G1/8 (applicable to the AFM20-A, AFD20-A) and G1/4 (applicable to the AFM30-A/40-A, AFD30-A/40-A).

Note 3) A bracket is not assembled and supplied loose at the time of shipment. Including 2 mounting screws

Note 4) When pressure is not applied, condensate which does not start the auto drain mechanism will be left in the bowl. Releasing the residual condensate before ending operations for the day is recommended.

Note 5) If the compressor is small (0.75 kW, discharge flow is less than 100 L/min[ANR]), air leakage from the drain cock may occur during start of operations. N.C. type is recommended.

Note 6) Refer to Chemical data on page 40 for chemical resistance of the bowl.

Note 7) Standard material (polycarbonate)

Note 8) Without a valve function.

Note 9) For thread type: NPT. This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.)

Note 10) ○: For thread type: NPT only

Mist Separator *Series AFM20-A to AFM40-A*

Micro Mist Separator *Series AFD20-A to AFD40-A*

Standard Specifications

Model		AFM20-A AFD20-A	AFM30-A AFD30-A	AFM40-A AFD40-A	AFM40-06-A AFD40-06-A
Port size		1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2	3/4
Fluid		Air			
Ambient and fluid temperature		– 5 to 60°C (with no freezing)			
Proof pressure		1.5 MPa			
Maximum operating pressure		1.0 MPa			
Minimum operating pressure		0.05 MPa			
Nominal filtration rating	AFM20-A to AFM40-06-A	0.3 μm (99.9% filtered particle size)			
	AFD20-A to AFD40-06-A	0.01 μm (99.9% filtered particle size)			
Outlet side oil mist concentration	AFM20-A to AFM40-06-A	MAX 1.0 mg/m ³ (ANR) (≈0.8 ppm) ^{Note 2) Note 3)}			
	AFD20-A to AFD40-06-A	MAX 0.1 mg/m ³ (ANR) (Before saturated with oil 0.01 mg/m ³ (ANR) or less ≈ 0.008 ppm) ^{Note 2) Note 3)}			
Rated flow (L/min (ANR)) ^{Note 1)}	AFM20-A to AFM40-06-A	200	450	1100	
	AFD20-A to AFD40-06-A	120	240	600	
Drain capacity (cm ³)		8	25	45	
Bowl material		Polycarbonate			
Bowl guard		Semi-standard (Steel)	Standard (Polycarbonate)		
Weight (kg)		0.09	0.19	0.38	0.43

Note 1) Conditions: Inlet pressure: 0.7 MPa; The rated flow varies depending on the inlet pressure. Keep the air flow within the rated flow to prevent an outflow of lubricant to the outlet side.

Note 2) When the compressor oil mist discharge concentration is 30 mg/m³ (ANR).

Note 3) Bowl O-ring and other O-rings are slightly lubricated.

Options/Part No.

Optional specifications		Model			
		AFM20-A AFD20-A	AFM30-A AFD30-A	AFM40-A AFD40-A	AFM40-06-A AFD40-06-A
Bracket assembly ^{Note 1)}		AF22P-050AS	AF32P-050AS	AF42P-050AS	AF42P-070AS
Float type auto drain ^{Note 2) Note 3)}	N. C.	AD27-A	AD37-A	AD47-A	
	N. O.	—	AD38-A	AD48-A	

Semi-standard/Bowl Assembly Part No.

Semi-standard specifications						Model			
Bowl material	Note 2) Note 3) Float type auto drain		Note 3) With drain guide	With barb fitting	With bowl guard	AFM20-A AFD20-A	AFM30-A AFD30-A	AFM40-A AFD40-A	AFM40-06-A AFD40-06-A
	N. C.	N. O.							
Polycarbonate	—	—	—	—	●	C2SF-C-A	—	—	—
	●	—	—	—	●	AD27-C-A	—	—	—
	—	—	●	—	—	C2SF-J-A	C3SF-J-A	C4SF-J-A	—
	—	—	—	●	—	—	C3SF-W-A	C4SF-W-A	—
	—	—	●	—	●	C2SF-CJ-A	—	—	—

Note 1) Assembly of a bracket and 2 mounting screws.

Note 2) Minimum operating pressure: N.O. type—0.1 MPa; N.C. type—0.1 MPa (AD27-A) and 0.15 MPa (AD37-A/47-A),
Please consult with SMC separately for psi and °F unit display specifications.

Note 3) Please consult with SMC for details on drain piping to fit NPT or G port sizes.

Note 4) The bowl assembly includes the bowl O-ring.

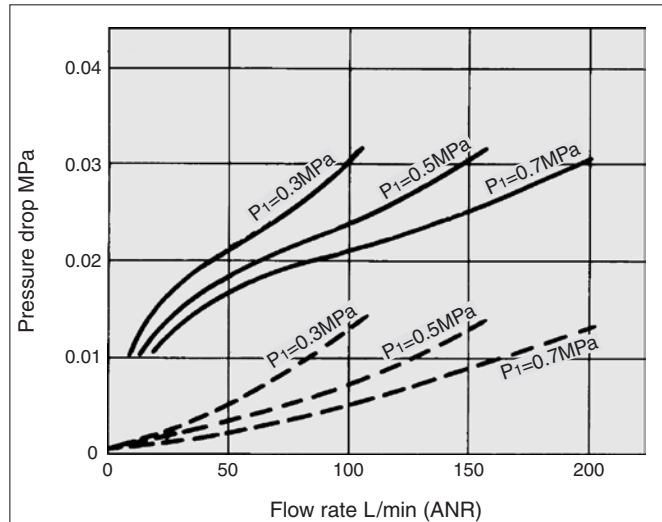
Series AFM20-A to AFM40-A

Series AFD20-A to AFD40-A

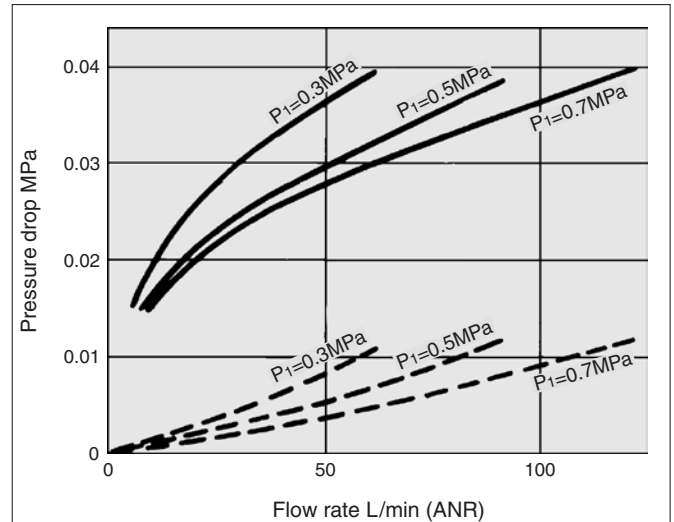
Flow Characteristics (Representative values)

— When saturated with oil
 - - - Initial state

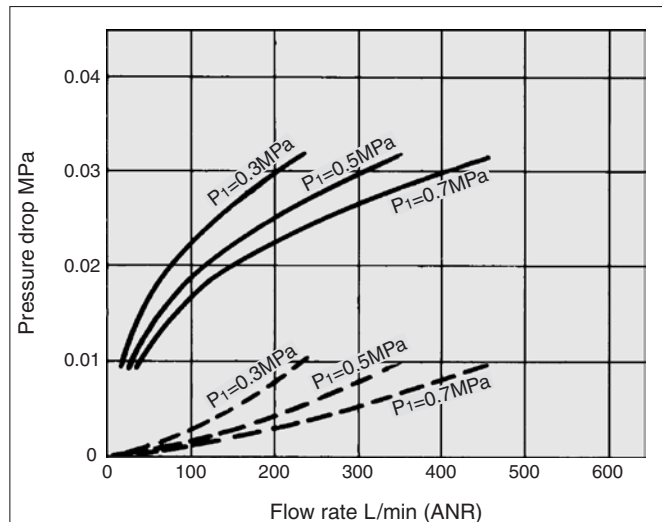
AFM20-A



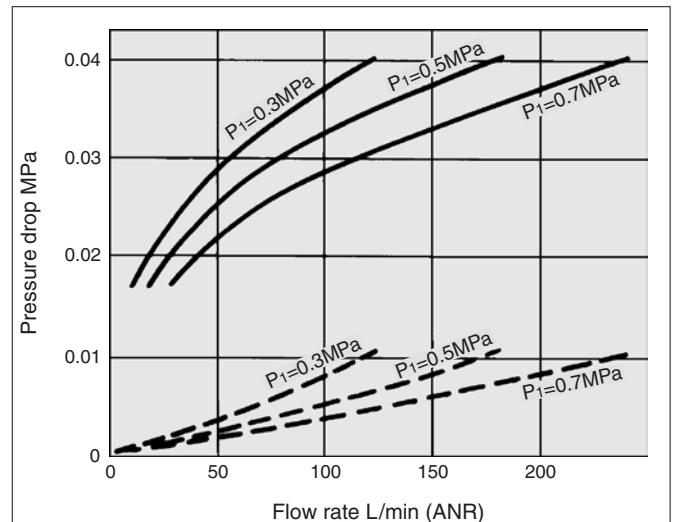
AFD20-A



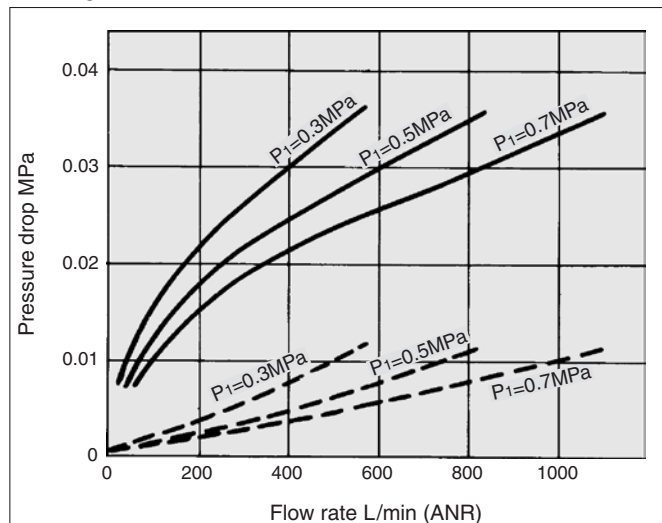
AFM30-A



AFD30-A



AFM40-A



AFD40-A

