

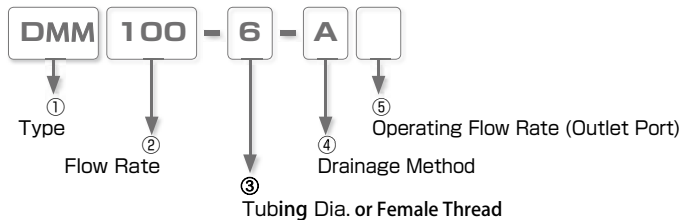


Hollow Fiber **Membrane Air Dryer** with Built-in Push-In Fitting
Fiber Dry Series

- *Hollow Fiber Membrane Filter Type Dryer which does require no power supply.*
- *Higher performance than a refrigeration air dryer.*
- *Moisture is removed through Hollow Fiber Membrane with no drain.*
- *No heat discharge nor vibration.*
- *Compact and lightweight body makes it portable and space saving.*
- *Easy to install.*
- *Purging air volume is adjustable.*
- *Push-In Fitting is equipped.*



Model Designation (Example)



① Type

Code	Type	Code	Type	Code	Type
FDT	Dryer and Filter Set	DMP	Dryer (Plastic Body)	DMM	Dryer (Metal Body)
DMB	Dryer (Union Straight)	DMF	Dryer (Flexible Type)	FFT	Filter

② Flow Rate

Code	040	100	301	500
Flow Rate SFCM (ℓ/min(ANR))	1.41 (40)	3.53 (100)	10.59 (300)	17.66 (500)

③ Tube Dia. / Female Taper Thread (DMM100 and 301 only)

Code	00	
Female thread	Rc1/4 for DMM100	Rc3/8 for DMM301

❖ In case **INCH** size tubing connection is needed;

Rc1/4 - specify PC1/4-02 (straight 1/4" O.D.), PC3/8-02 (straight 3/8" O.D.), PL1/4-02 (elbow 1/4" O.D.) or PL3/8-02 (elbow 3/8" O.D.)
 Rc3/8 - specify PC3/8-03 (straight 3/8" O.D.), PC1/2-03 (straight 1/2" O.D.), PL3/8-03 (elbow 3/8" O.D.) or PL1/2-03 (elbow 1/2" O.D.)

Code	4	6	8	10	12	16
Tube Dia.(mm)	ø4 (5/32"O.D.)	ø6	ø8 (5/16"O.D.)	ø10	ø12	ø16 (5/8" O.D.)

④ Drainage Method(* Filter drain is selectable for FDT and FFT only.)

No Code : Manual Drain (Push type)

A : Auto Drain (Automatic drain type)

(When internal pressure in the body is less than 0.05MPa, the auto drain function starts the operation)

⑤ Operating Flow Rate (Outlet) (* DMM040 only)

1 : 16 ℓ/min(ANR)

2 : 30 ℓ/min(ANR)

3 : 40 ℓ/min(ANR)

Specifications

Fluid Medium	Air
Operating Pressure Range	Inside of hollow fiber : 43 ~ 123psi (0.3 ~ 0.85MPa)
	Outside of hollow fiber : 0 ~ 7.25psi (0 ~ 0.05MPa)
Fluid Medium Temp.	32~104°F (0 ~ 40°C (No freezing))
Operating Temp. Range	32~140°F (0 ~ 60°C (No freezing))

* When fluid medium other than air is used, contact us for details before using.

Basic Performance (For 3.53SCFM (100ℓ/min(ANR)))

Inlet Port Air

Pressure	101psi (0.7MPa)
Air Flow Rate	4.41SCFM (125 ℓ/min(ANR))
Air Temp.	68°F (20°C)
Water Vapor Amount	Saturation
Purge Rate	20% (purging circuit : 3)

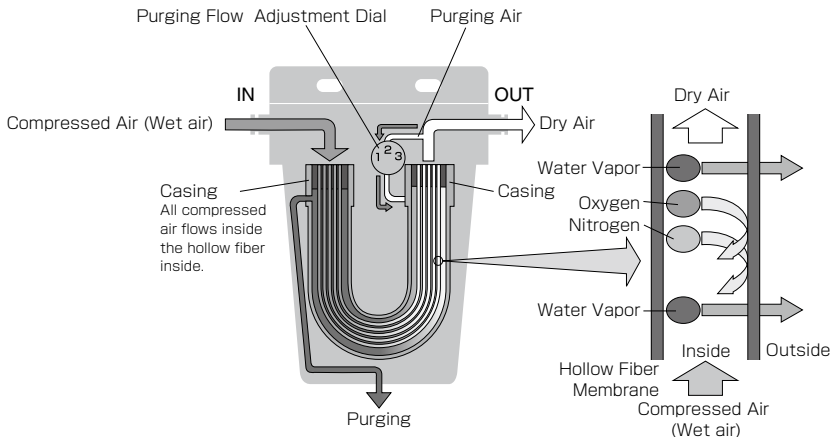


Outlet Port Air

Air Flow Rate	3.53SCFM (100 ℓ/min(ANR))
Achieved Dew Point	-13°F (-25°C) or less (Atmospheric pressure)

Mechanism of Dehumidification

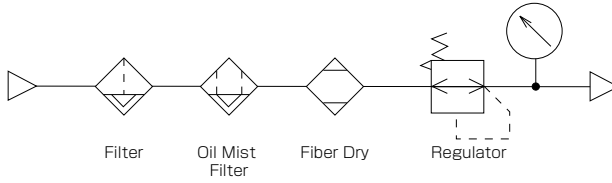
Only vapor in compressed air flows inside the hollow fiber films is discharged and purged to outside the system by the purging air (A part of dried air).



Membrane Dryer

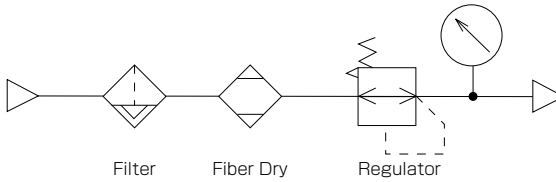
Piping Example

Pneumatic System with Oil Mist



* Place a Dry Unit with Mist Filter for a pneumatic system containing oil mist.

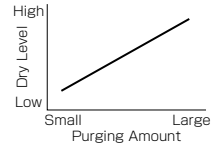
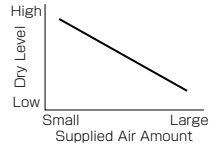
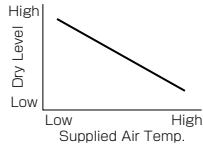
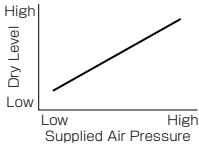
Pneumatic System without Oil Mist



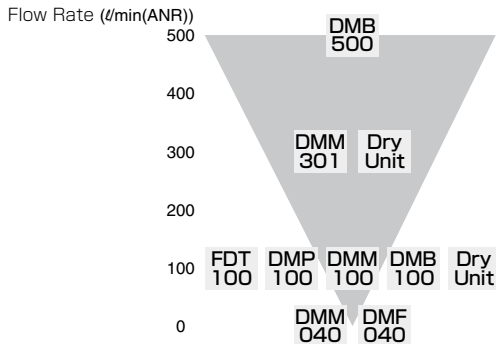
* Make sure to place a filter for a pneumatic system generating water drop.

Relation between Use Condition and Dry Level

Refer to the following chart when you select Fiber Dry Series.



Classification by Flow Rate



⚠ Detailed Safety Instructions

Before using PISCO products, be sure to read "Safety Instructions" and "Safety Instruction Manual" and "Common Safety Instructions for Fiber Dry Series and Dry Unit Series".

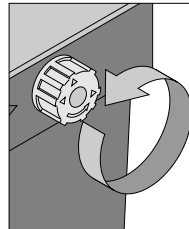
Caution

1. Be sure to turn Purging Flow Adjustment Dial to the correct direction as the marking on the body shows. Incorrect way can damage the product.

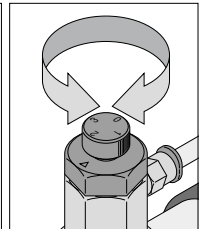
■ Adjustment Method of Purging Flow

Purging Flow Adjustment Dial

- When the amount of Purging Flow is large, turn the dial clockwise so that purging flow decreases. Turn the dial counterclockwise to increase the purging flow. But the temp. of dew point will be slightly up.
- Refer to Purging Flow Chart in order to select the best condition.
 - * Purging Adjustment is not available for DMM040.

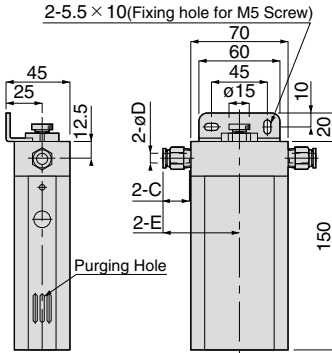


FDT and DMP (Plastic Body)



DMM (Metal Body)
DMB (Union Straight)
DMF (Flexible Type)

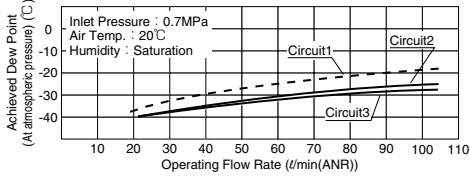
DMM 100 Metal Body Dryer



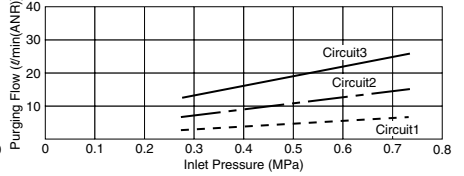
Unit : mm

Model Code	Tube O.D. φD	C	E	Weight (g)	CAD file name
DMM100-4	4	15	50	442	CRFD-006
DMM100-6	6	17	53.5	444	
DMM100-8	8	18.5	55.5	440	
DMM100-10	10	21	59	450	
DMM100-00	—	—	—	410	

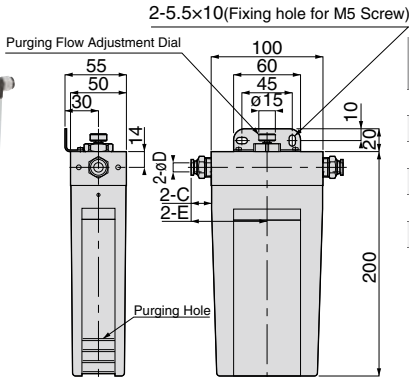
Dehumidifying Performance Chart (example)



Purging Flow Chart



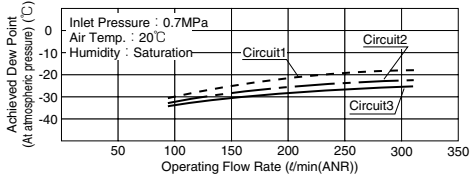
DMM 301 Resin Body Dryer



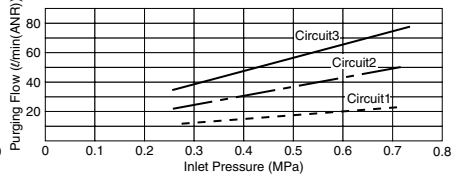
Unit : mm

Model Code	Tube O.D. φD	C	E	Weight (g)	CAD file name
DMM301-6	6	17	67	807	CRFD-007
DMM301-8	8	18	67.5	799	
DMM301-10	10	20	73	805	
DMM301-12	12	23.5	75.5	824	
DMM301-16	16	25	83	872	
DMM301-00	—	—	—	753	

Dehumidifying Performance Chart (example)



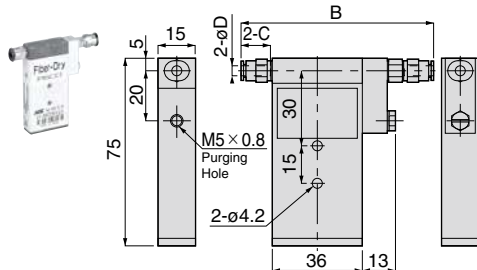
Purging Flow Chart





Resin Body Dryer

Unit : mm

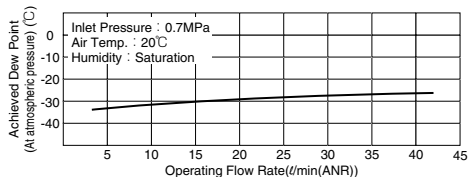


Model Code	Tube O.D. øD	B	C	Weight (g)	CAD file name
DMM040-4-□	4	77.5	11	65	CRFD-008
DMM040-6-□	6	80.5	11.5	68	

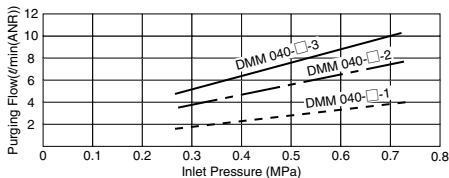
* Purging Flow Adjustment is not available for DMM040.
Refer to the following table to select the best item.

Code	Operating Flow Rate (Outlet Port)
1	16/min(ANR)
2	30/min(ANR)
3	40/min(ANR)

Dehumidifying Performance Chart (example)

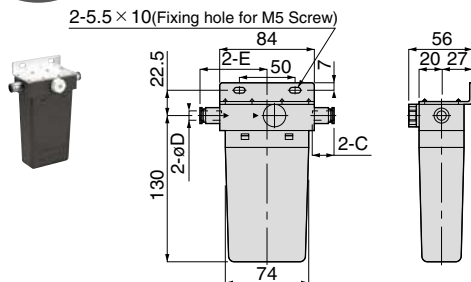


Purging Flow Chart



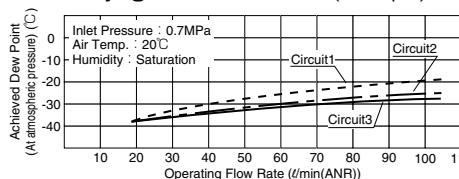
Resin Body Dryer

Unit : mm

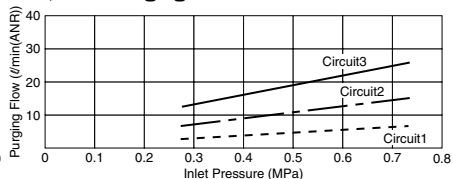


Model Code	Tube O.D. øD	C	E	Weight (g)	CAD file name
DMP100-4	4	11	48	327	CRFD-003
DMP100-6	6	12	51	327	
DMP100-8	8	18.5	59	340	
DMP100-10	10	21	64	359	

Dehumidifying Performance Chart(example)



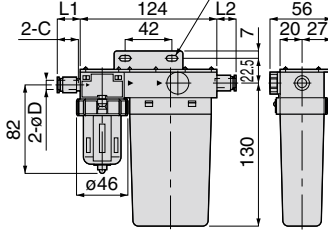
FDT, DMP Purging Flow Chart



FDT 100 DMP Dryer and Filter Set



2-5.5 × 10 (Fixing hole for M5 Screw)



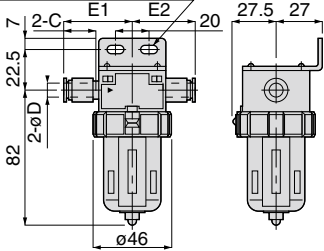
Unit : mm

Model Code	Tube O.D. φD	L1	L2	C	Weight (g)	CAD file name
FDT100-4	4	9.5	6	11	443	CRFD-001
FDT100-4-A					445	CRFD-002
FDT100-6	6	12.5	9	12	443	CRFD-001
FDT100-6-A					445	CRFD-002
FDT100-8	8	20.5	17	18.5	449	CRFD-001
FDT100-8-A					451	CRFD-002
FDT100-10	10	25.5	22	21	459	CRFD-001
FDT100-10-A					461	CRFD-002

FFT 100 Filter

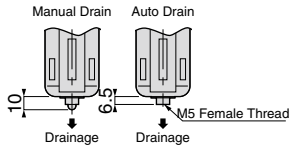


2-5.5 × 10 (Fixing hole for M5 Screw)

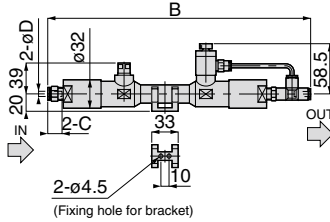


Unit : mm

Model Code	Tube O.D. φD	E1	E2	C	Weight (g)	CAD file name
FFT100-4	4	29.5	26	11	132	CRFD-004
FFT100-4-A					134	CRFD-005
FFT100-6	6	32.5	29	12	132	CRFD-004
FFT100-6-A					134	CRFD-005
FFT100-8	8	40.5	37	18.5	145	CRFD-004
FFT100-8-A					147	CRFD-005
FFT100-10	10	45.5	42	21	164	CRFD-004
FFT100-10-A					166	CRFD-005



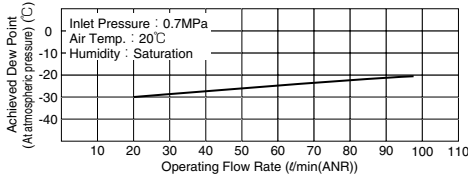
DMB 100 Union Straight Dryer



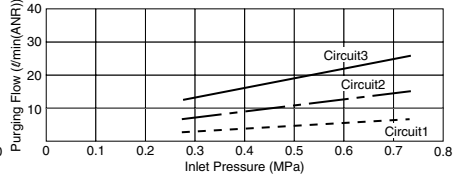
Unit : mm

Model Code	Tube O.D. øD	B	C	Weight (g)	CAD file name
DMB100-4	4	294	15	307	CRFD-009
DMB100-6	6	302	17	302	
DMB100-8	8	307	18	316	
DMB100-10	10	321	21	333	

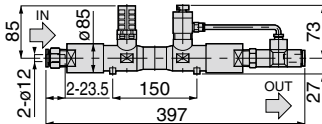
Dehumidifying Performance Chart (example)



Purging Flow Chart



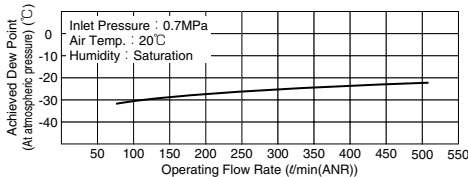
DMB 500 Union Straight Dryer



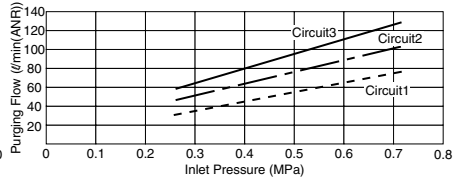
Unit : mm

Model Code	Weight (g)	CAD file name
DMB500-12	846	CRFD-010

Dehumidifying Performance Chart (example)

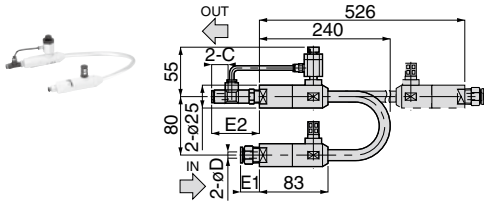


Purging Flow Chart



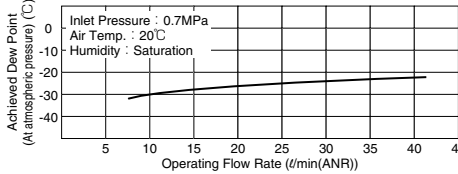
DMF Flexible Type Dryer

Unit : mm

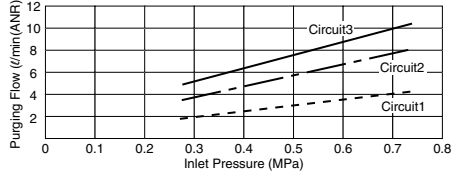


Model Code	Tube O.D. øD	C	E1	E2	Weight (g)	CAD file name
DMF040-4	4	15	15	37.5	213	CRFD-011
DMF040-6	6	17	18.5	43	208	
DMF040-8	8	18	20.5	47	222	

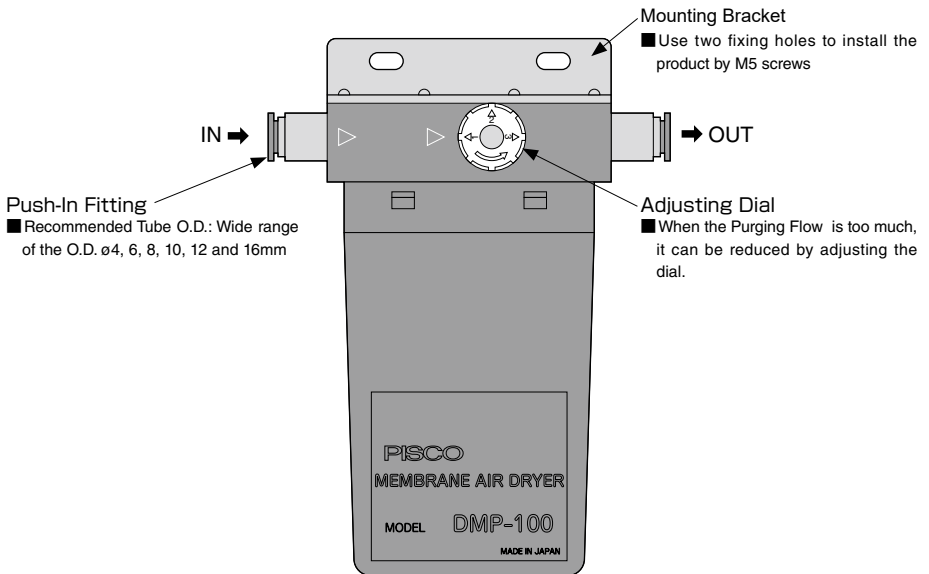
Dehumidifying Performance Chart (example)



Purging Flow Chart



Fiber Dry Series





Visit "Dryer Unit" for combination with
air filter, mist filter and regulator



Common Safety Instructions for Fiber Dry Series and Dry Unit Series

Before selecting or using PISCO products, read the following instructions. Read the detailed instructions for individual series.

Warning

1. When installing the dryer, provide adequate support and fix it securely. Looseness or dropping off of the dryer may cause injuries.
2. Do not use the dryer without the explosion-proof casing (bowl guard). If the bowl breaks, the pieces may fly apart to cause injuries.
3. Make sure to set the lock lever on the filter, mist filter and micromist filter to "lock" before using. Otherwise, there is a risk of Bowl Guard or Bowl coming off which may cause injuries.
4. When conducting the maintenance, checkup, or replacement of the product, make sure to turn off the power and shut off the air supply. Confirm the residual pressure in the piping becomes zero before maintenance or replacement of expendables.
5. Do not use the dryer in a fluid or atmosphere containing corrosive gas or organic solvent gas. Such a use may deteriorate the dryer body which causes leakage or damage.

Caution

1. Air Filter and Micromist Filter shall be installed downward in a vertical direction. Improper installation may cause faulty draining.
2. Drain in Air Filter, Mist Filter and Micromist Filter are discharged automatically at the air pressure less than 0.05MPa for the manual drain type and 0.15MPa for the auto drain type. When installing, consider the self-discharging of air and drain.
3. The dryer requires 10 to 20 minutes of initial drying operation (idling) before it reaches the designated performance.
4. When the manual drain type is selected, discharge drain before it reaches to the "MAX. DRAIN LEVEL" . Otherwise, it may become the cause which the drain flows into a secondary side.
5. Do not operate Fiber Dry with Purging Flow Adjustment Dial "Zero" . It may impair the dehumidification performance. Refer to the performance data in this catalog for the details of the dehumidification.
6. Check the IN side of air supply by the \triangleright mark. Wrong piping may impair the performance.
7. Do not apply back pressure to the purge hole. It may impair the performance.