

Quick-Fitting Type Hollow Fiber Air Dryer

Fiber Dry

Features

- This hollow fiber film type air drier does not require electric power.
- Simply connect in the piping like a filter, then the Fiber Dry will perform better than a freeze-drier to provide dried air.
- This drier produces no drainage because the removed moisture is discharged as vapor.
- The Fiber Dry can adjust the purging air rate. This will change the dew point accordingly.
- These completely resin driers with a built-in tube fitting are lightweight and compact. (DMP, FDT, FFT)

Specification

Fluid admitted	Air	
Service pressure range	0~150psi	0 ~ 0.9MPa
Input air temperature	32~104°F	0 ~ 40°C(No freezing)
Service temperature range	32~140°F	0 ~ 60°C(No freezing)

*Consult PISCO for use of fluid other than air.

Base performance

Example:DMP 100

■ Inlet air

Pressure	100psi	0.7MPa
Air flow rate	4.40SCFM	125Nℓ /min
Air temperature	68°F	20°C
Vapor content	Saturation	
Purge rate	20%(purge circuit:3)	

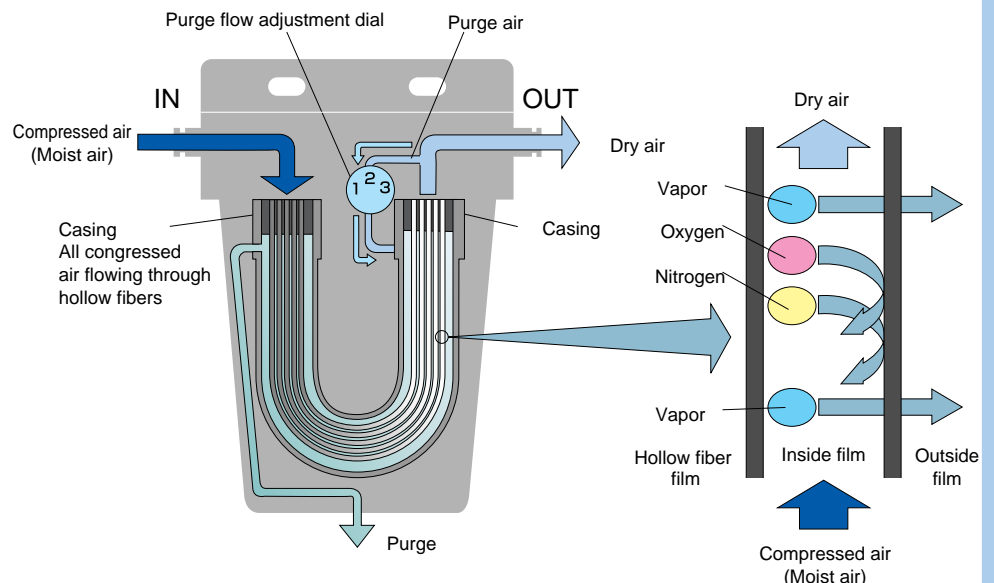


■ Output air

Air flow rate	3.52SCFM	100Nℓ /min
Achieved dew point	-13°F(-25°C) or below(Under atmospheric pressure)	

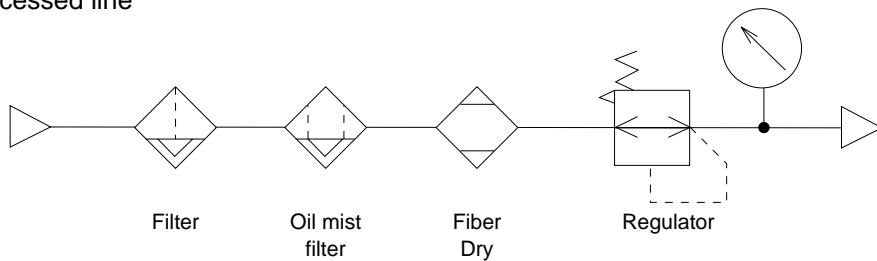
Principle of Dehumidification

- Only vapor in compressed air passing through the hollow fiber films is discharged and purged outside the system by the purging air (part of dried air).



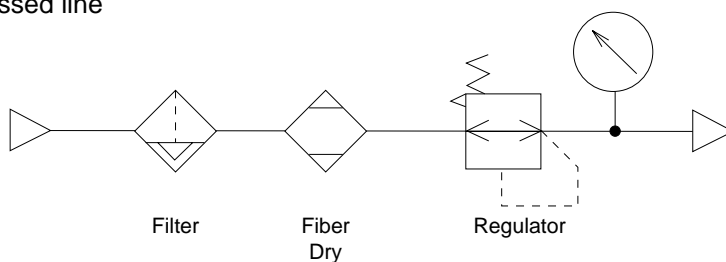
Basic piping

● Oil mist unprocessed line



*Use a Dry Unit for an oil mist unprocessed line.

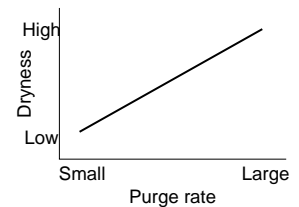
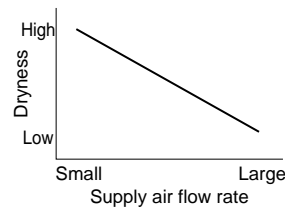
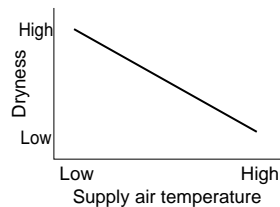
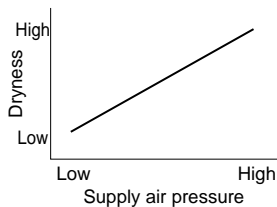
● Oil mist processed line



*Be sure to install a filter on lines with waterdrops.

Relation between Dryness and Operating Conditions

Make the most efficient use of Fiber Dry in consideration of the data given below:



⚠ Warning Usage notes

- Follow the basic piping shown above to ensure stable performance and long life of Fiber Dry.
- Before piping, remove chips and other foreign matter from inside the pipes.
- Make sure to use a Dry Unit type Fiber Dry (or install a filter) when the Fiber Dry is to be used right next to the compressor.
- Do not use Fiber Dry in an environment containing any corrosive or organic solvent gas or liquid.
- Keep Fiber Dry free from excessive pressure, temperature or shock.
- Take care not to allow dust, waterdrops, rust or other foreign matter to enter inside.
- Fiber Dry is designed for indoor use. Therefore do not use it where it can be exposed to direct sunshine, rain or water.
- Never disassemble the body of Fiber Dry.
- Before starting operation, perform 10 to 20 minutes of initial drying operation (idling).

Adjustment of purge flow rate

Purge flow adjustment dial



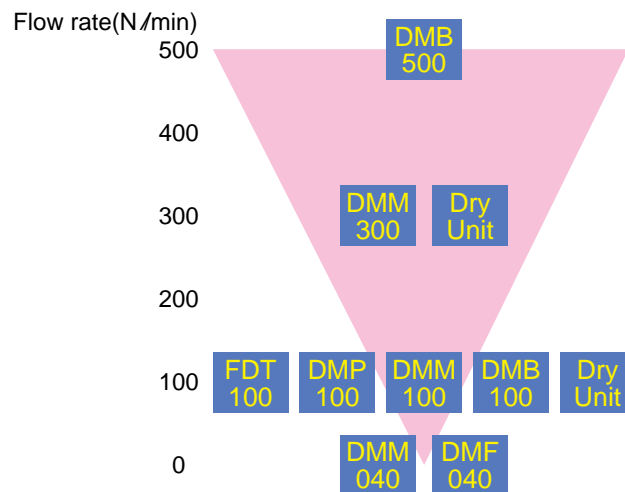
FDT,DMP



DMM,DMB,DMF
Dry unit

- The purging flow rate, when deemed excessive, can be reduced. This, however, will result in a slight rise in dew point.
- Therefore select an optimal condition by consulting the applicable purge flow rate curve.
- *DMM040 has no adjusting function.

List of Models by Flow Rates



Model Designation (Example)

FDT
(1)

100
(2)

6
(3)

A
(4)

(1) Type

FDT : Dry unit
DMP : Dryer alone (Resin body type)
DMM : Dryer alone (Metalic body type)
DMB : Dryer alone (Union type)
DMF : Dryer alone (Flexible type)
FFT : Filter alone

(2) Flow rate

Code	040	100	300	500
Flow rate	1.41SCFM(40Nℓ/min)	3.52SCFM(100Nℓ/min)	10.6SCFM(300Nℓ/min)	17.6SCFM(500Nℓ/min)

(3) Tube dia

Code	4	6	8	10	12	16
Size(mm)	φ4	φ6	φ8	φ10	φ12	φ16

(4) Filter exhaust type (Enter only for FDT and FFT)

A : Automatic exhaust
No code : Push type

*With DMM-040, (4) represents performance.
Code : 1, 2, 3

⚠ Detailed safety Instruction

Before using the PISCO device, be sure to read the "Safety Instructions", "Common Safety Instructions for Products Listed in This Manual" on pages 23~24 and "Common Safety Instructions for Controllers" on page 255.

⚠ Caution

1. Be sure to turn the purge adjusting dial on the Fiber Dry (DMP,FDT) in the direction of the arrow. Damage may result from reverse turn.