



Over 25 years  
of experience

# 3in1 Multi Dry Filter

Die cast aluminum

Product No : ①T-103A-1000/②T-105A-1000/③T-107A-1000  
④T-110A-1000/⑤T-120A-1000/⑥T-140A-1000

Energy-Saving 0.01 μm  
ISO-8573-1 HACCP

Stepwise filtration through three elements ensures reliability and safety for painting, machine tool and testing equipment.

## Internal Structure

Example  
: T-105A-1000

Solid particles: removes **0.01 μm** or more  
Oil mist: removes **99.99%**

Water droplet: **ZERO**

Significant reduction of CO<sub>2</sub> thanks to the ECO filter with low pressure loss.

**Best for painting, machine tool and testing equipment!**

## Stepwise filtration through three elements with different performances.

This filter incorporates three elements in one unit, separates oil/moisture, creates dry air and removes solid particles of 0.01μm or more. Stepwise filtration provide ultra-clean air. Thanks to equipped two pressure gauges, element replacement can be visually managed.  
\*T-103A-1000 is not supplied with pressure gauges.

## Supplies ultra-dry air based on the principle of tornado.

The second element, in which cylindrical special cotton scroll with about 13,000 holes is contained, produces tens of thousands of tornados. When the compressed air passes through those holes, vacuum state occurs same as in the actual tornados, water-drop can be evaporated by the difference of pressure between the external and internal sides, therefore the dry air can be produced. Since its outstanding function, the second element is called a dry filter.

## Energy Saving Filter

Compared with other oil mist filters, pressure loss is reduced by 30~50%.



**Only 20 seconds for filter element replacement.**

**Simple screw structure and tool-free** only T-103A T-105A T-107A T-110A

All filter elements can be easily removed for replacement. The body can be disassembled for easy disinfection because of the screw structure.

\*Make sure to securely tighten the element after replacement.



## Reliable operation and Built-in auto drain

Free electricity and energy saving! Drain (moisture, oil and harmful substances generated from compressed air) is automatically discharged. As internal pressure is used, malfunctions hardly occur.  
\*One year warranty period.



### [Oil Mist Element]

Removes oil mist and solid particles of 0.01μm or more by 7-layer element.  
**Replace every 6 to 10 months**

### [Second Element]

Removes moisture, oil and solid particles of 5μm or more.  
**Replace every 6 to 10 months**

### [First Element]

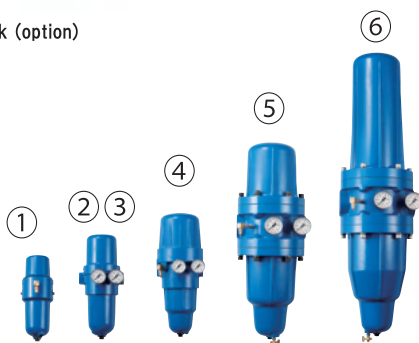
Separates moisture and oil contents through the mesh in the first element.  
**Wash or replace every 2 years**

Energy-Saving

### [Auto Drain]

Automatically discharges drain.  
\*One year warranty period.  
**Wash with water every 6 to 10 months.**

Drain cock (option)



**Easy installation**  
**Compact size**

Adoption of Rp straight screw makes it easy to install the filter on the piping.

Space-saving

**Use Application** •NC machine •3D measuring device •Air micrometer •Leak tester •Laser cutting machine •Air tool  
•Precise measuring instruments •Painting •Liquid crystal display manufacturing •Air blow •Papermaking  
•Semiconductor •Ionizer •Manufacture of electronics •Other applications that require ultra-clean air

## Specifications

●  $\ell/\text{min}(\text{ANR})$  is the volume in the atmospheric pressure condition.

Model	Working pressure (MPa)	Removal of solid particles( $\mu\text{m}$ )	Removal of oil content ( $\text{mg}/\text{m}^3$ )	Operating temperature range( $^{\circ}\text{C}$ )	Max.flow at the time of $\ell/\text{min}(\text{ANR})0.7\text{MPa}$ ●	Connection port (Rc)	Mass (kg)	Accessories
①T-103A-1000	0.3~0.97	0.01 ISO 8573-1 JIS B 8392-1 Particle : Class1	0.01 or less ISO 8573-1 JIS B 8392-1 Oil : Class1	5~60	300	1/4	1.3	Bracket Bracket bolt Push pin
②T-105A-1000					750	3/8	1.7	
③T-107A-1000					750	1/2	1.7	
④T-110A-1000					1,500	3/4	3.6	Push pin
⑤T-120A-1000					3,000	1	10.5	
⑥T-140A-1000					6,000	1-1/4	16.2	

## Replacement elements

Model	First element	Second element	Oil mist element	Second element Oil mist element
T-103A-1000	T-10309	T-10310	T-103E-1000	T-103FS
T-105A-1000 T-107A-1000	T-10509	T-10510	T-105E-1000	T-105FS
T-110A-1000	T-11009	T-11010	T-110E-1000	T-110FS
T-120A-1000	T-12009	T-12010	T-120E-1000	T-120FS
T-140A-1000	T-14009	T-14010	T-140E-1000	T-140FS

\*FS set (Second element and oil mist element) is also available



First element (stainless)

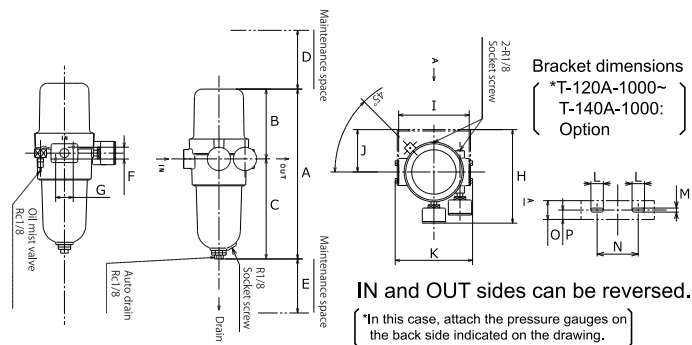
Second element plus Oil mist element (specialty cotton) (7-layer structure)

\*T-103A-1000 (plastic)

## Dimensions

Model	d(Rc)	(Unit:mm)															
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
T-103A-1000	1/4	239	88	151	90	75	-	-	134	80	75	94	10	5.6	50	30	15
T-105A-1000 T-107A-1000	3/8 1/2	293	120	173	110	70	20	30	159	120	72.3	132	22	7	70	32	16
T-110A-1000	3/4	368	160	208	120	85	35	35	190	137	90	153	18	7	80	50	25
T-120A-1000	1	578	244	334	180	130	49	-	255	200	133	220	30	9	125	80	40
T-140A-1000	1-1/4	822	440	382	380	175	57	-	272	215	145	237	30	11	140	90	45

\*These dimensions below are only for reference. If formal dimensions are necessary, contact us.

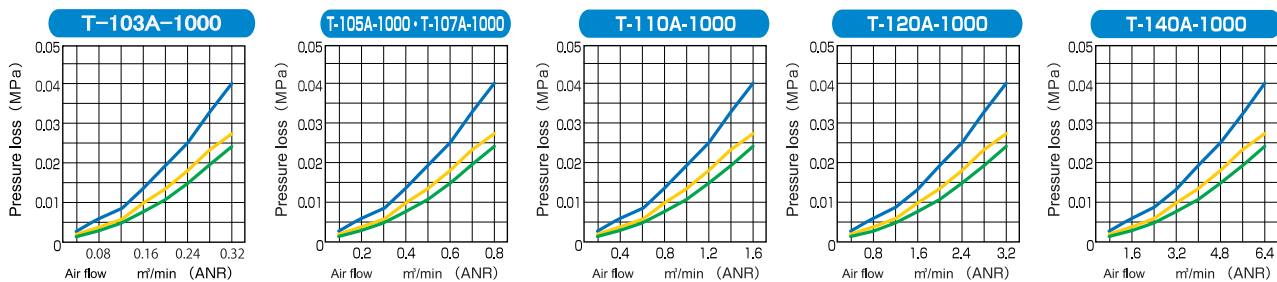


IN and OUT sides can be reversed.

(In this case, attach the pressure gauges on the back side indicated on the drawing.)

## Flow and Pressure Loss Characteristics

— 0.5MPa — 0.7MPa — 0.9MPa



## Maintenance

- Replace or wash the first element once every 2 years.
- Replace the second element and oil mist element in pairs and replace it every 6 to 10 months (approximately 1,000 hours). If the pressure difference on the pressure gauges occurs (10%), replacement of the elements is required.
- \*T-103A-1000 is not supplied with pressure gauges.
- Wash the auto drain with water every 6 to 10 months. \*1 year warranty period.

- Completely discharge drain especially in frosty temperatures to avoid freezing drain. Use the forced discharge "Drain Cock" (option).
- If the elements are used more than 6 months, it may lower air quality. Please consult us regarding element replacement.

\* Replace the oil mist valve with the manual oil mist valve in case of 24-hour operation.

## ⚠️ Precautions strictly to be observed.

- If it is in an oily condition, use a La-Man dry filter together and install the air filter on the air equipment side.
- Never give a shock to or drop the filter body.
- Use the air filter within the ranges of processing air capacity, working pressure, operating temperature displayed.
- 1-year of auto drain warranty period.
- Never remove the label films and pictured tag for maintenance on the body.

Please be sure to read the instruction manual before using this filter.

MAEDA SHELL SERVICE CO.,LTD. is an air consultant for compressed air. Please consult us regarding compressed air.

Distributor

<Manufacturer and Distributor>

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\*Some of the specifications, etc., may be subject to change without notice due to product improvements.