

TA-3C/3C-N

JWWA approval (TA-3C-N)

■ Applications

Building equipment Industrial equipment Building complex JWWA

■ Features

1. No leakage from the valve due to synthetic rubber used for valve seat.
2. Nylon 11 is coated inside and outside of the body.



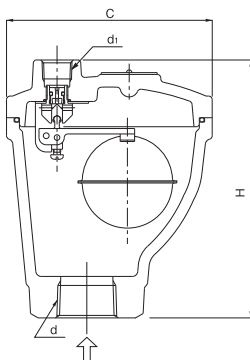
■ Specifications

Model	TA-3C	TA-3C-N
Application	Cold and hot water, Oil (specific gravity 0.8 or more)	Cold and hot water
Working pressure	0.01-1.0 MPa	
Maximum temperature	60°C	
Material	Body, cover	Ductile cast iron (FCD450)
	Valve	Brass
	Valve seat	Brass (equipped with NBR disc) Brass (equipped with FKM Disc)
	Float	Stainless steel
Connection	JIS Rc screwed	

- Maximum temperature 90°C when intermittent usage. (TA-3C)
- Keep warm when temperature difference between atmosphere is 40°C or more. (TA-3C, TA-3C-N)
- Coating: Use Nylon11 (white) for inside and outside of the body and cover. (TA-3C, TA-3C-N)

■ Dimensions (mm) and Weights (kg)

Nominal size	d	d ₁	H	C	Weight
15A	Rc 1/2	Rc 3/8	139	114	2.85
20A	Rc 3/4	Rc 3/8	139	114	2.85
25A	Rc 1	Rc 3/8	143	114	3.00
32A	Rc 1-1/4	Rc 3/8	143	114	3.00



■ Please refer to P.14-14 for discharge capacity.

Features of Nylon 11 used for TA-2C·3C·3C-N

- Water absorption is low, and wear resistance is excellent.
- Seawater resistance and critical atmosphere resistance are very good.
- Outdoor weather resistance is outstanding.
- Heat resistance and hot water resistance are fine.
- Nylon 11 is applicable to food-related equipment because it is nontoxic (it is accepted by FDA).
- Chemical resistance is great.
- Electric insulation and sound damping performance are superb.

Characteristics comparison of powder coating film

Characteristics	Coating	Nylon 11	Epoxy	Acrylic	Polyester	Polyethylene	PVC (Polyvinyl chloride)
Specific gravity		1.04-1.1	1.3-1.6	1.3-1.6	1.3-1.6	1.0	1.3
Hardness (Pencil hardness)		F	2H	H	H	HB	B
Maximum working temperature (°C)		100-130	100-150	100-120	100-170	70-80	70-80
Wear resistance		○	○	△	△	△	△
Impact resistance		○	○	△	△	△	△
Adhesion		○	○	○	○	△	△
Low-temperature characteristics		○-50°C	○	○	○	○	×
Weather resistance		○	×	○	○	△	○
Alkali resistance		○	○	○	△	○	○
Acid resistance		△	○	○	○	○	○
Solvent resistance		○	○	×	○	△	×
Salt water resistance		○	○	△	○	○	○

[Meanings of symbols] ○: Excellent ○: Good △: Care required in use ×: Unacceptable

* Note that the table above shows the features of Nylon 11 and does not describe the working conditions of TA-2C, 3C.

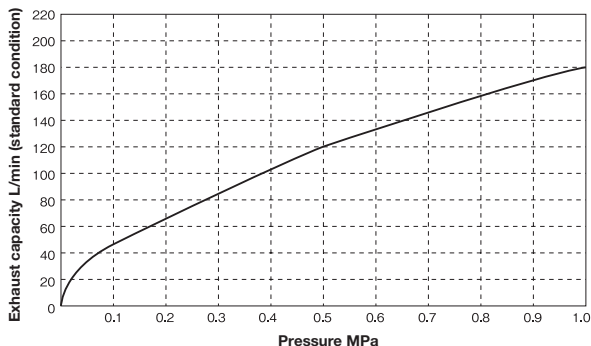
Characteristics of Nylon 11

Item	Measured value
Melting point	184-186°C
Specific gravity (20°C)	1.04
Coefficient of friction	0.18
* Tensile strength <ASTM D 638>	40-48 MPa
* Elongation (within Elastic limit) <ASTM D 638>	18-34%
Hardness <shore D, Film thickness 5 mm, 20°C>	75
* Impact resistance test <50 cm height falling of hemispherical weight (φ 25 mm x 2 kg)>	No peeling
* Bending test <JIS K 5400(180° twist around φ 10 mm rod)>	No crack and peeling
* Wear resistance test <Wear amount after 1000 revolutions of Taber tester (CS-17 grinding wheel, 1 kg load)>	5-8 mg
* Erichsen test <JIS Z 2247 B>	10 mm, No crack
Thermal conductivity (Under the condition of 50-170°C)	2.94×10^{-4} J/g/°C
Coefficient of linear expansion (under the condition of -20-100°C)	15×10^{-5}
Specific heat	2.1 J/g/°C
Volume resistivity <ASTM D 257 (20°C, 65%RH, 500 V)>	3.5×10^{14} Ω/cm ² /cm
Salt spray test <ASTM B 117>	No particular for 2000 hours
*Water absorption	Under the conditions of 20°C, 100%RH immersed in boiling water, 100°C 1.6-1.9% 2.4-3%
*Immersion test	5% NaCl 70°C x 3 days 1.8 volume %, 2.6 weight % 10% NaOH 70°C x 3 days 4.1 volume %, 4.9 weight % Gasoline Room temp. x 30 days 1.5 volume %, 1.7 weight % Insulating oil Room temp. x 30 days 2.5 volume %, 1.9 weight %

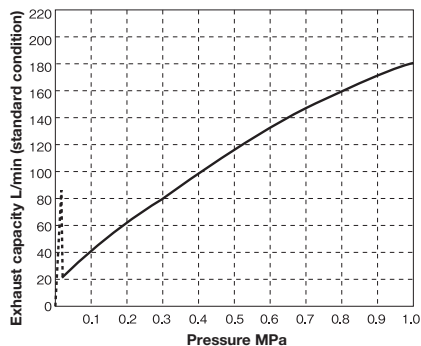
<Attention> The asterisk (*) mark indicates a measured value obtained from a test piece coated on a film thickness of 300μm by fluidization dip coating. And inside <> indicates test method.

■ Exhaust Capacity Chart

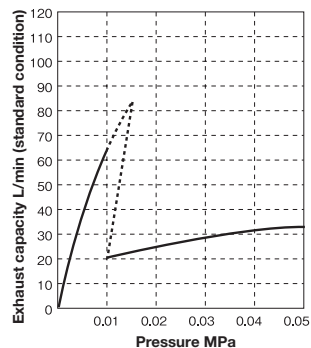
·TA-3-3C-6



·TA-2-2C-5-5F



Quick Exhaust Mechanism Operation Area



■ Precautions for Installation

- Remove foreign matter and scales from the lines before connecting the product, and install the valve vertically at the place where air easily accumulates.
- Install a stop valve (cock or gate valve) at air vent valve inlet in order to do maintenance and inspection.
- Leakage may occur by foreign matter and scales inside the pipe. Please install pipe to the exhaust hole as shown in the diagram, and make the outlet end prevent from back-flow to the drain.
- When leakage occur by foreign matter and scales, close the stop valve, remove the valve seat from exhaust hole and clean up the valve.

