

TAV-4



JWWA approval

■Features

1. Under the standards of the Nagoya City Waterworks & Sewerage Bureau and of the Urban Renaissance Agency (equal to Swedish standard), one product of 20A is appropriate for water supply vertical pipe of 50A. Under the standard of the Bureau of Waterworks, Tokyo Metropolitan Government, one product of 25A is appropriate for water supply vertical pipe of 75A.
2. The product exhausts air accumulated in the piping smoothly.
3. The product complies with the cold resistance performance standard.
4. The product exhausts air from water supply vertical pipe when the pipe is filled with water to reduce air blowout from faucet, etc.
5. Pipe end core can be connected to the pipe connection port, and the product can turn by 360 degrees. So, the guide pipe connection port can face any necessary direction.

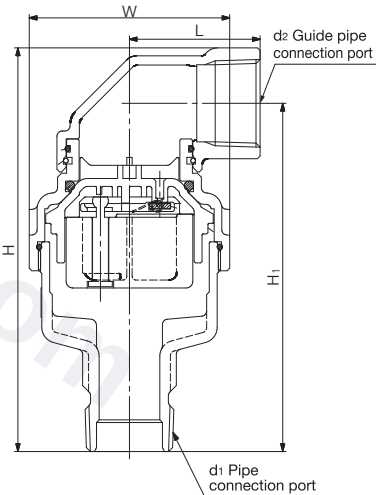


■Specification

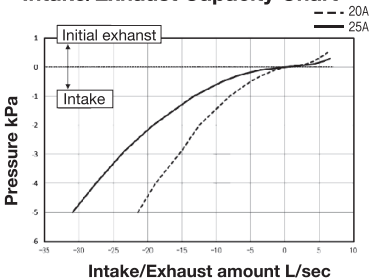
Application		City water
Working pressure		0.05-1.0 MPa
Intake air quantity (under the pressure of -2.9 kPa)		20A: 15.1 L/sec 25A: 23.4 L/sec (when the pressure is -2.9 kPa)
Working temperature		0-40°C (no freeze condition)
Material	Body	Cast bronze (NPb-treated)
	Float	Synthetic resin
	Exhaust packing	Synthetic rubber

■Dimensions (mm) and Weights (kg)

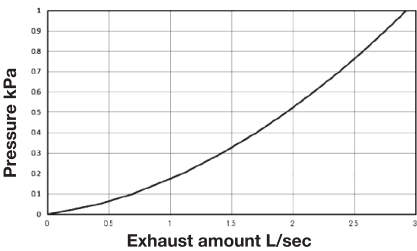
Nominal size	d ₁	d ₂	H	H _i	W	L	Weight
20A	Rc 3/4	Rc 1	151	130	φ76	49.5	1.2
25A	Rc 1	Rc 1	153	132	φ76	49.5	1.2



■Intake/Exhaust Capacity Chart



■Exhaust Capacity Chart



■ Selection

There are some standards of the intake air quantity required for negative pressure destruction per nominal size of the water supply vertical pipes. Intake/exhaust valves need to be installed according to these standards.

· Intake air capacity required per nominal sizes of vertical pipes and selection of TAV-4.

Nominal size of the vertical pipe	Reference value of air intake quantity of Nagoya City Waterworks & Sewerage Bureau, and of the Urban Renaissance Agency (Swedish intake air performance standard).		Standard of Bureau of Waterworks Tokyo Metropolitan Government		Selection of TAV-4
	L/sec	L/min	L/sec	L/min	
20A	1.5	90	1.5	90	1 piece of TAV-4 20A [Intake air quantity of TAV-4 20A: 15.1 L/sec (906 L/min)]
25A	2.5	150	2.5	150	
32A	4.0	240	3.5	210	
40A	7.0	420	5.5	330	
50A	14.0	840	9.0	540	
75A	-	-	15.5	930	1 piece of TAV-4 25A [Intake capacity of TAV-4 25A: 23.4 L/sec (1404 L/min)]
	33.4	2004	-	-	
100A	-	-	25.0	1500	
150A	-	-	56.7	3400	2 pieces or more

* Air intake quantity is the value at -2.9 kPa.

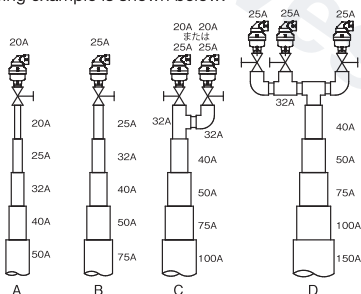
* The intake air quantity required may differ according to piping configuration or water service business units. Please contact the water service business unit of each area for details.

* When using the products in combination of 2 pieces or more, make sure that the combination satisfies the air intake quantity required.

■ Piping Example

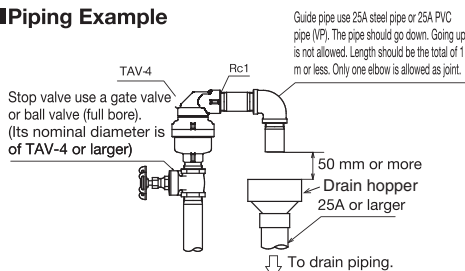
Install the product of more than sufficient air intake quantity according to the result of the above selection.

The piping example is shown below.



- Piping A requires one product of TAV-4 20A since the vertical pipes consist of 20A to 50A.
- Piping B requires one product of TAV-4 25A since the vertical pipe is 75A.
- Piping C and D are examples that require 2 products or more. Keep pipe branch portions from interfering with air flow.

■ Piping Example



* Standards for installation may differ according to water service business units. Please contact the water service business unit of each area for details.

■ Precautions for Installation

- Do not give the product any shock impact. Handle with care.
- Do not expose the product to direct sunlight or rain when keeping it in another place.
- Avoid installing in places where there is a risk of snowfall, etc.
- Snowfall may damaged the product.
- When installing the product, secure enough space for maintenance, inspection, and repair.
- Install the product at a place of 300mm or higher above the overflow line of water supply equipment water container.
- Do not use the product for any purposes other than the intended use.
- Do not use the product for any fluid other than city water. Use the product within the range of working pressure or maximum allowable working temperature.
- Do not connect an earth to the product. It may cause corrosion.
- Before connecting the product to piping, remove foreign substances and wash thoroughly so that oil such as cutting oil, solvent, and chemicals do not remain.
- Insufficient cleaning of the inside of the piping may cause problems with the product and cause water leakage.
- When connecting the product to the piping, be careful to apply seal material properly to avoid it get inside the piping.
- Sealing material inside the piping may hamper the proper operation of the product.
- Do not disassemble the product.
- Disassembling may prevent the product from functioning correctly.
- Be sure to install the guide pipe to the guide pipe connection port of the product and lead the pipe to a drain hopper (drain ditch).
 - Keep a clearance of 50 mm or more between the end of the guide pipe and the overflow line of the hopper.
- Be sure to install the guide pipe which is 25A or larger to the drain piping.
- Be sure to make the guide pipe go down from the product. Going up is not allowed.
- Be sure to be pipe size is 25A or larger both the guide pipe and the drain pipe which is blow the hopper.
 - If the guide pipe is too small, Intake air capacity will be smaller than specification.
- Avoid applying excessive load to the product when installing. Failure to follow this instruction may cause leakage from the connected part or failure of the product.
- Be sure to connect to the pipe.
 - Fluid may leak from connection area due to vibration.
- Install the product vertically (within 5° from the vertical) in a location where air tends to accumulate.
 - If the inclination is large, it may cause malfunction or water leakage.
- Prevent the fluid from freezing.
 - If there is a risk of freezing, take appropriate measures such as insulation, heating pipe, and draining water.
- Be careful not to get oil, solvents, or chemicals on it.
- If the fluid or environment contains components that adversely affect internal parts, the deterioration of rubber parts will be accelerated, causing external leaks and functional failures.
- For maintenance and inspection, be sure to install stop valve (gate valve, full-bore ball valve, cock, ect.) with a nominal diameter than the product. Do not use globe valve.
- Take care not to crush or block up the guide pipe.
 - Product functionality may be impaired.
- Do not apply excessive transverse load to the product, nor prop or hang heavy goods on the product.
 - Product functionality may be impaired.
- Install a stop valve on the inlet side of the product.
 - If the leakage occurs due to clogging with duct, ect., immediately close the water stop valve.
- Avoid placing of the air intake guide pipe in a location where dust or other foreign matter may be inhaled.
 - Product functionality may be impaired.
- When the product, apply the tool on four grippers located right above the setting screw and tighten the connection.
 - Applying the tool at the point other than the four grippers will not work.
 - Product may be damaged.

