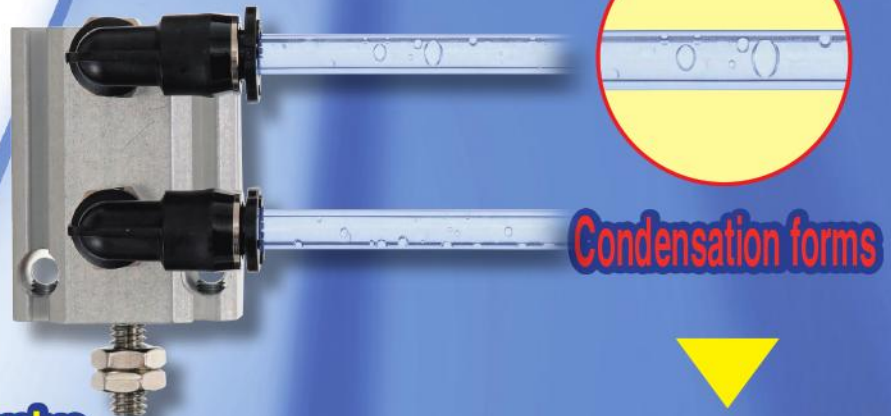




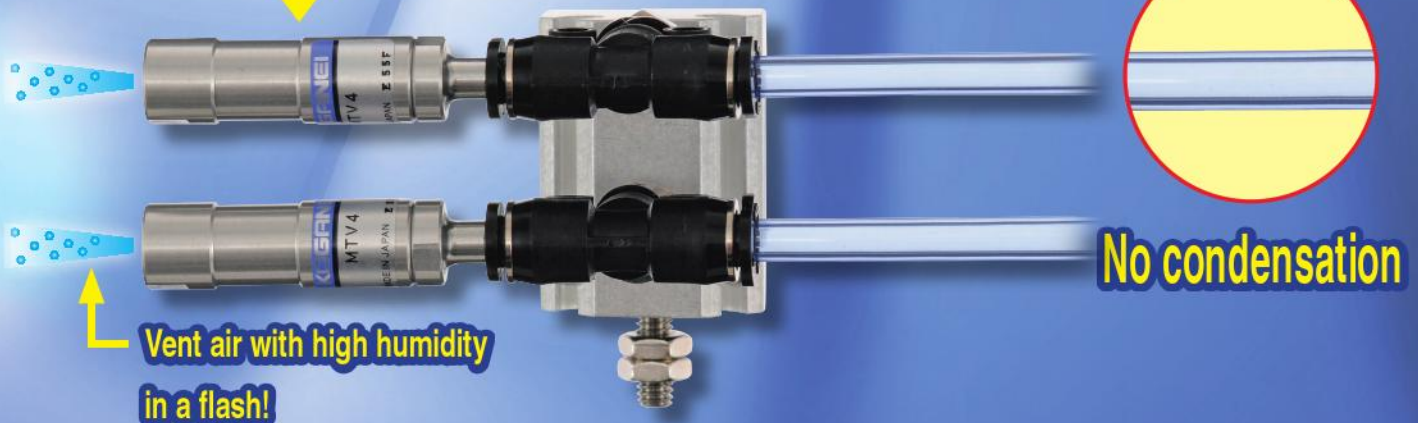
Water Removal Valves

MTV Series

Our answer to counteracting condensation *Troubled by condensation from small cylinders?*



Mounting the water removal valve



Water Removal Valves

MTV Series



Our answer to counteracting condensation!

Prevent condensation from developing inside the piping to pneumatic grippers and small cylinders!

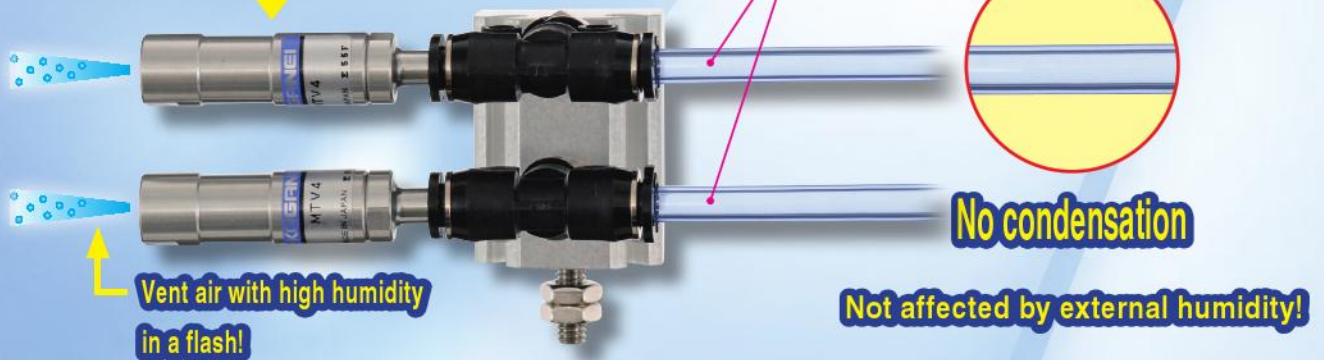
Condensation may develop when small-volume actuators are connected to long piping (large volume).



Simply connect it in the pipes! Easy mounting!

Mounting the water removal valve

Possible to use highly flexible tubes!



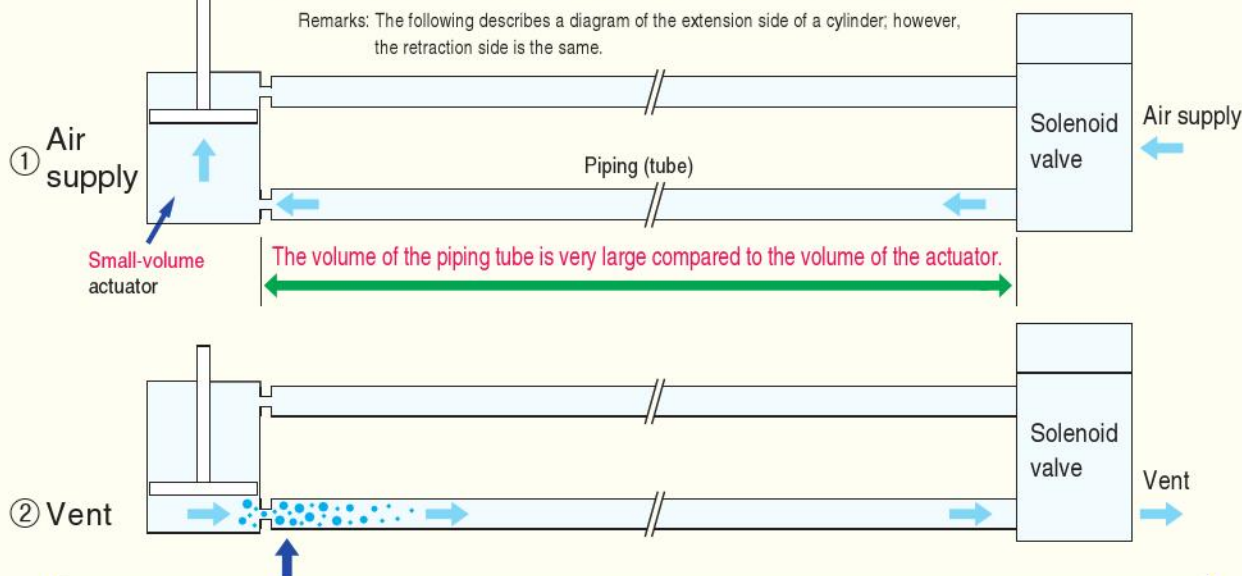
User reviews!

Company A: Every morning we drained all of the piping for our pneumatic grippers. Ever since we installed the water removal valves, our drainage work has vanished! **Company B:** Installing the water removal valves got rid of the water that nothing we tried before could.

Example of piping



The mechanism that generates mist (moisture)



- During exhaust, the temperature in the piping tube decreases instantaneously due to adiabatic expansion.
 - Mist occurs when the temperature falls below that of the atmospheric dew point.
 - Because the volume inside the tube is large, mist cannot drain completely during exhaust (it remains inside the tube).
- Each time, moisture in new compressed air accumulates from the ① air supply > ② exhaust process, and then the moisture becomes liquid (condensation).

Principles of water removal valve operation

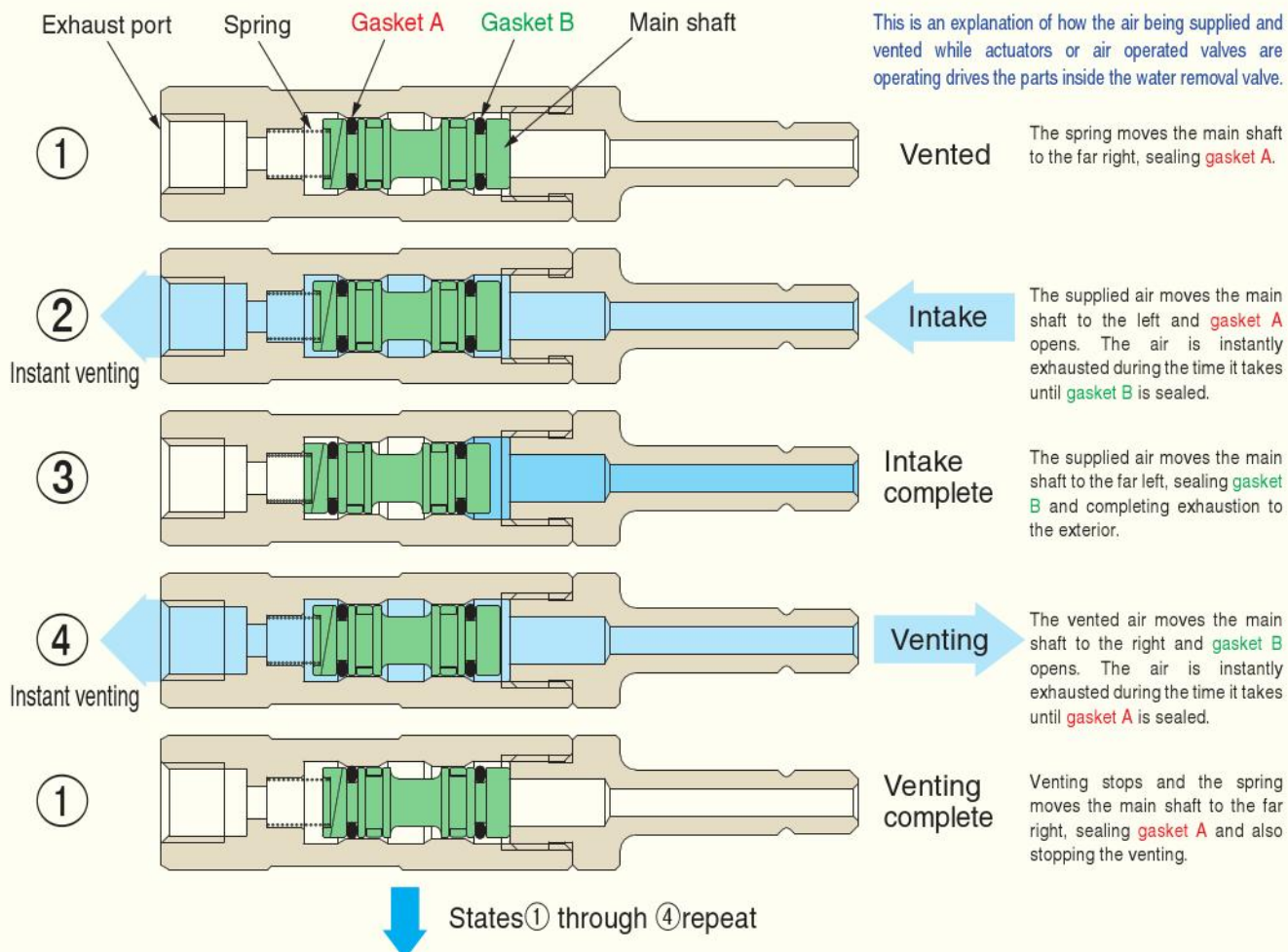
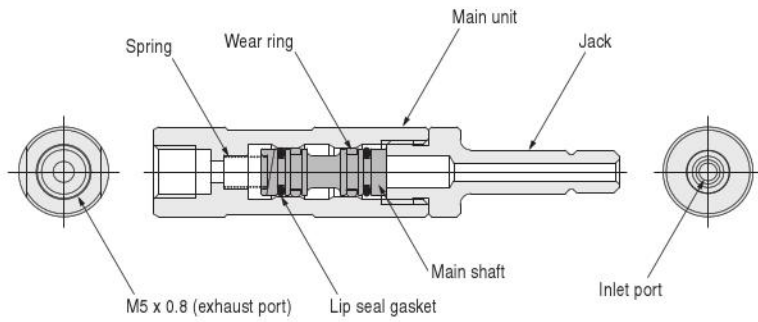


Diagram of construction



Materials used in major parts

Name	Materials
Main unit	Aluminum alloy (anodized)
Main shaft	Aluminum alloy (anodized)
Jack	Aluminum alloy (anodized)
Wear ring	Plastic (polyacetal)
Lip seal gasket	Synthetic rubber (HNBR)
Spring	Stainless steel

Specifications

Item	Model	MTV4
Mounting method		Mini type quick fitting, $\phi 4$ [0.157 in] direct insert
Medium		Air
Operating pressure range	MPa [psi]	0.2 to 0.7 [29 to 102]
Proof pressure	MPa [psi]	1.05 [152]
Operating temperature range	$^{\circ}\text{C}$ [$^{\circ}\text{F}$]	0 to 60 [32 to 140]
Lubrication		Not required
Connection port		$\phi 4$ [0.157 in] (for mini type quick fitting)
Weight	g [oz]	4.5 [0.16]

Note 1: Use the $\phi 4$ [0.157 in] mini type quick fitting to connect the inlet port (jack).
 Note 2: Use when the exhaust port is open to the atmosphere.

Order codes

MTV4 — [] — []

Water removal valves (Contains 1)

Cylinder-side connection
 Blank: No fitting
 T4 : UT4M with fitting^{Note}
 T6 : UTD6-4M with fitting^{Note}
 Y4 : UY4M with fitting^{Note}
 Note: The fitting is shipped attached.

Exhaust-side connection
 Blank: No fitting
 TS : TS4-M5M with fitting^{Note}
 TL : TL4-M5M with fitting^{Note}
 Note: The fitting is shipped attached.

With UT4M fitting With UTD6-4M fitting With UY4M fitting With TS4-M5M fitting With TL4-M5M fitting

MTV4S

Contains 10 water removal valves (MTV4)

Note: Fitting options cannot be selected.



Safety precautions (water removal valve)

- WARNING**
- Use Koganei $\phi 4$ [0.157 in] mini type quick fitting to connect the inlet port (jack). Using ones other than these is very dangerous as there is a risk that it may come off.
 - After mounting, check to make sure that the water removal valve cannot be pulled off.

M E M O

A series of horizontal dashed lines for writing.

Limited Warranty

KOGANEI CORP. warrants its products to be free from defects in material and workmanship subject to the following provisions.

Warranty Period The warranty period is 180 days from the date of delivery.

Koganei Responsibility If a defect in material or workmanship is found during the warranty period, KOGANEI CORP. will replace any part proved defective under normal use free of charge and will provide the service necessary to replace such a part.

Limitations

- This warranty is in lieu of all other warranties, expressed or implied, and is limited to the original cost of the product and shall not include any transportation fee, the cost of installation or any liability for direct, indirect or consequential damage or delay resulting from the defects.

- KOGANEI CORP. shall in no way be liable or responsible for injuries or damage to persons or property arising out of the use or operation of the manufacturer's product.

- This warranty shall be void if the engineered safety devices are removed, made inoperative or not periodically checked for proper functioning.

- Any operation beyond the rated capacity, any improper use or application, or any improper installation of the product, or any substitution upon it with parts not furnished or approved by KOGANEI CORP., shall void this warranty.

- This warranty covers only such items supplied by KOGANEI CORP. The products of other manufacturers are covered only by such warranties made by those original manufacturers, even though such items may have been included as the components.

The specifications are subject to change without notice.

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