

Serial No.	H-V015E-1
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Stop valve

"Globe Valves"

User's Manual

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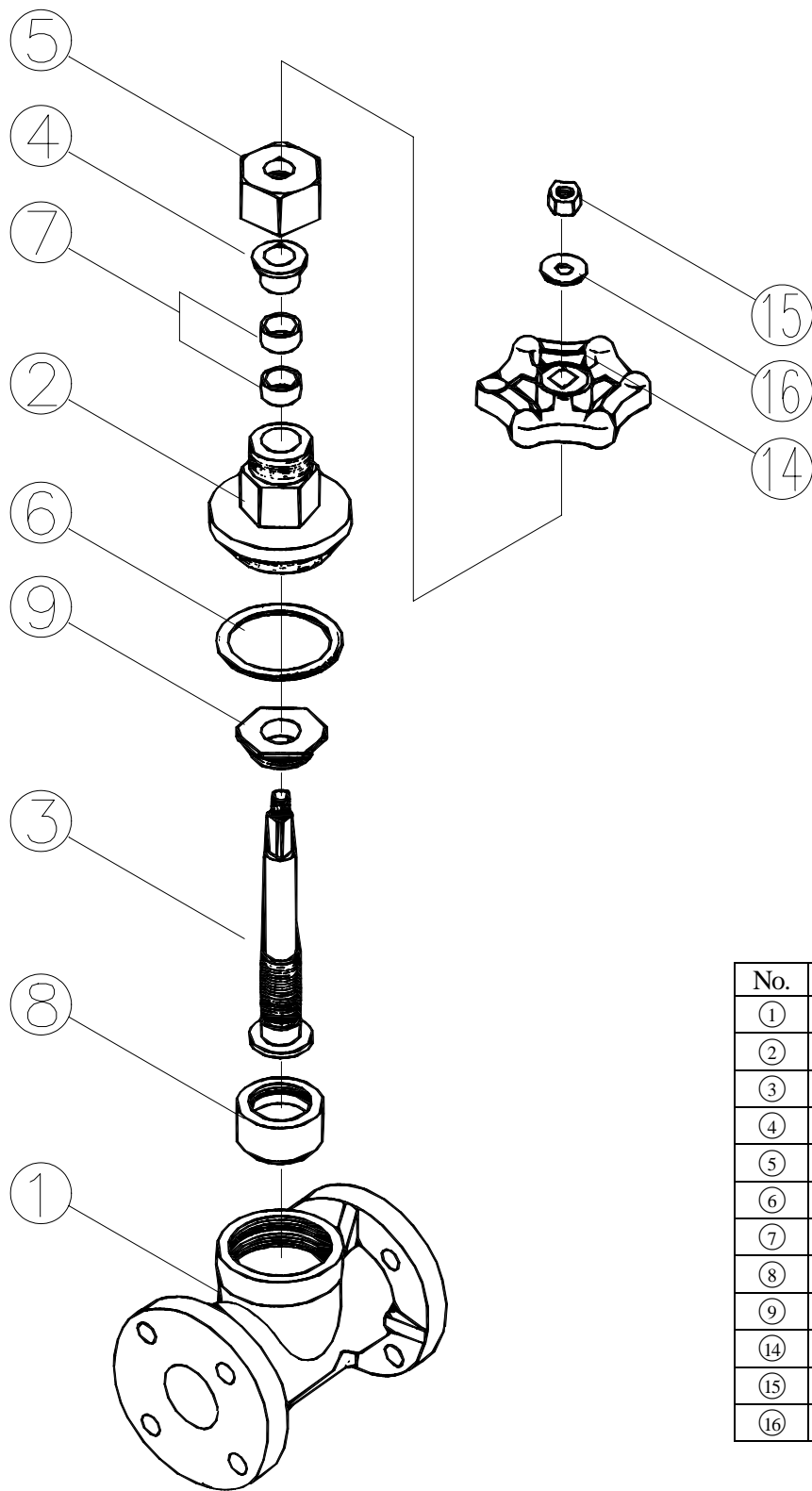
(1) General operating instruction

- Operate the valve within the pressure Vs temperature range.
(The valve can be damaged by operating beyond the allowable range.)
- Select a valve material that is compatible with the media, refer to “CHEMICAL RESISTANCE ON ASAHI AV VALVE”.
(Some chemicals may damage incompatible valve materials.)
- Do not use the valve to fluid containing slurry. (The valve will not operate properly.)
- Do not use the valve on condition that fluid has crystallized.
(The valve will not operate properly.)
- Do not step on the valve or apply excessive weight on valve. (It can be damaged.)
- Do not exert excessive force in closing the valve.
- Make sure to consult a waste treatment dealer to dispose of the valves.
(Poisonous gas is generated when the valve is burned improperly.)
- Allow sufficient space for maintenance and inspection.
- Keep the valve away from excessive heat or fire. (It can be deformed, or destroyed.)
- The valve is not designed to bear any kind of external load. Never stand on or place anything heavy on the valve at anytime.

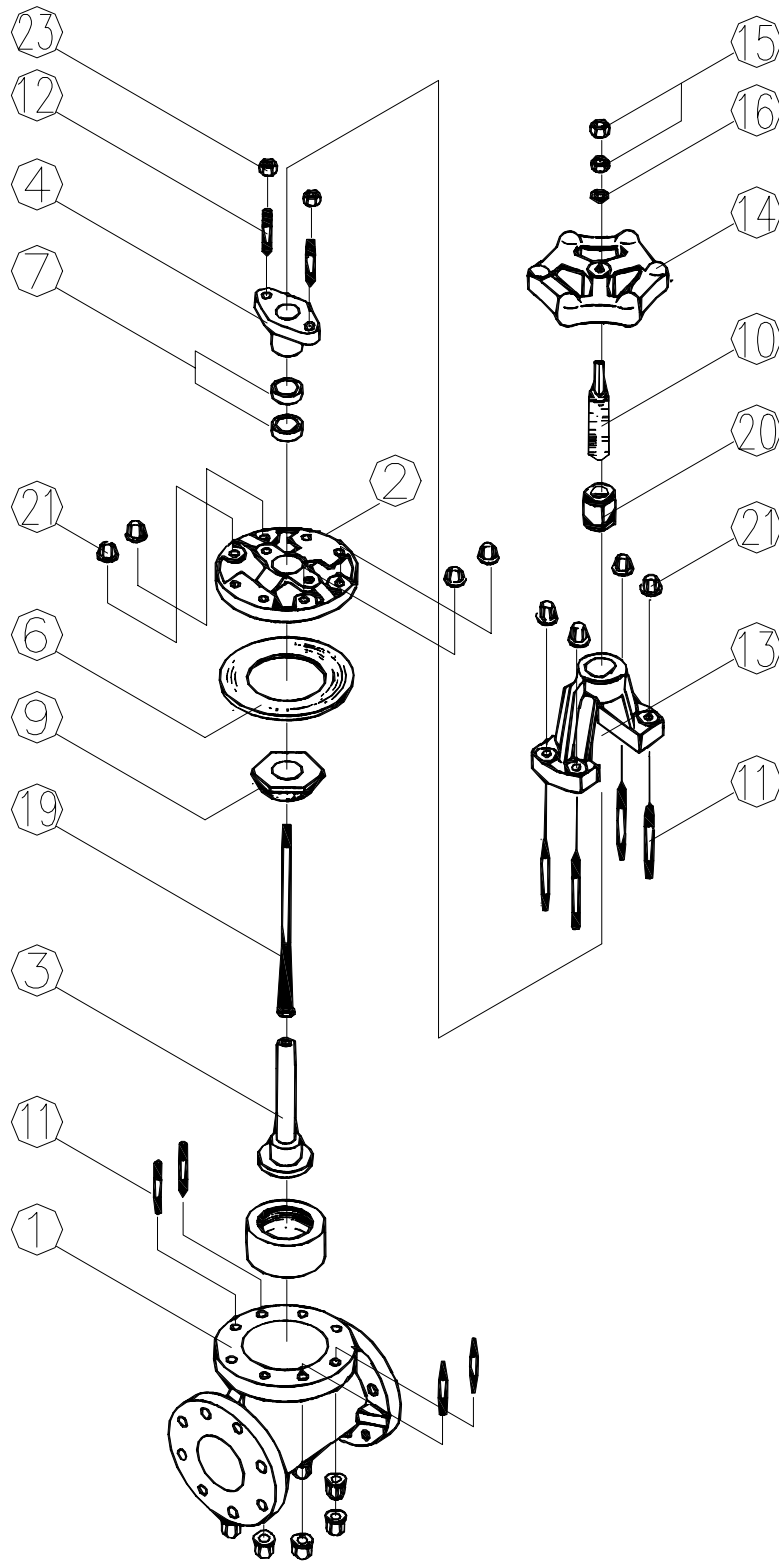
(2) General instructions for transportation, unpacking and storage

- Keep the valve packed in the carton or box as delivered until installation.
- Keep the valve away from any coal tar, creosote (antiseptic for wood), termite insecticide, vermicides, and paint. (This could cause swelling damage the valve.)
- Do not impact or drop the valve. (It can be damaged.)
- Avoid scratching the valve with any sharp object.

(3) Name of parts

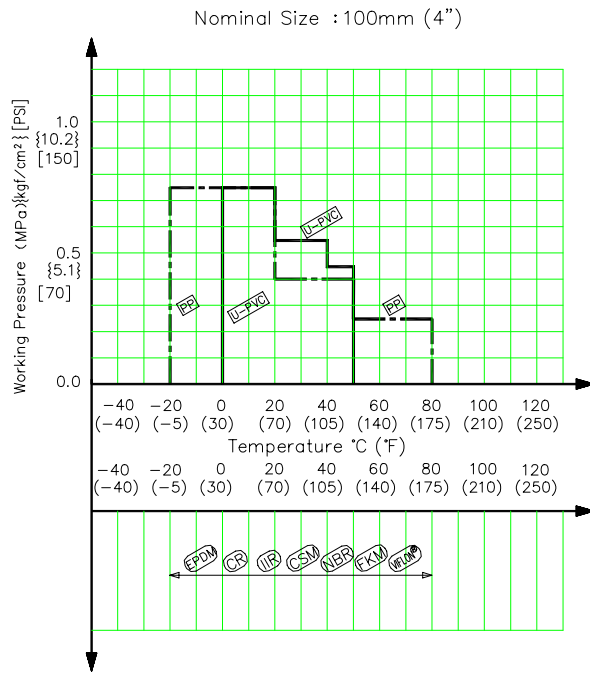
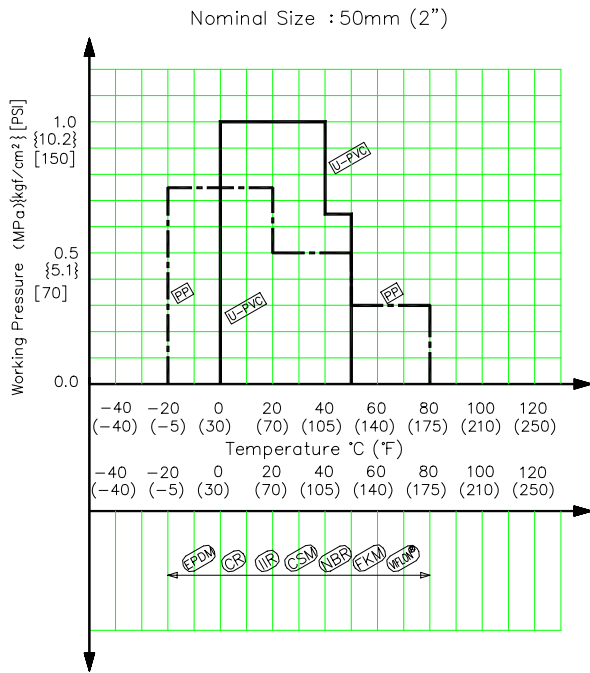
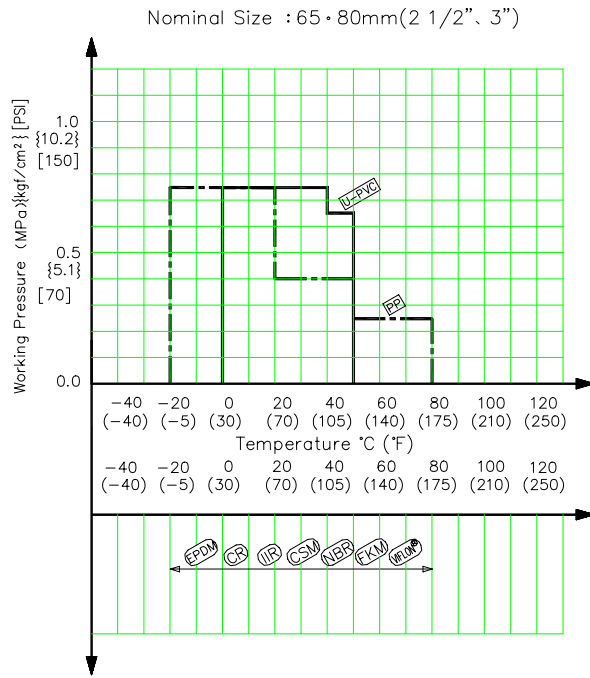
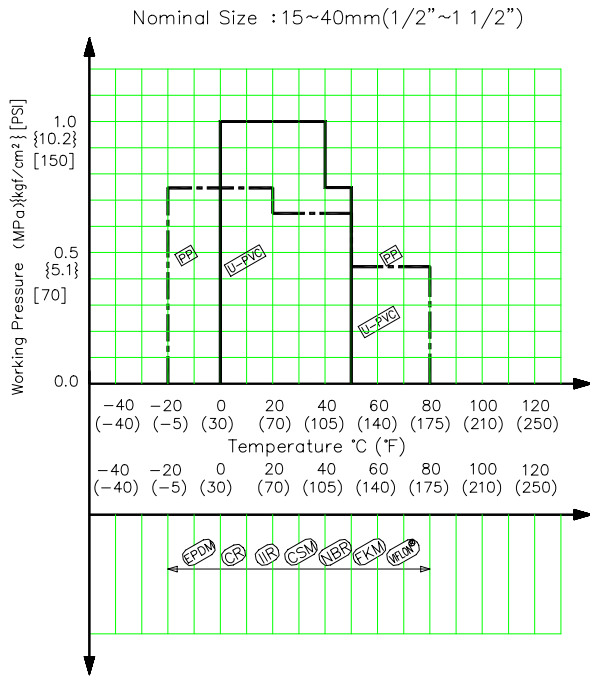


No.	Parts of name
①	Body
②	Bonnet
③	Stem
④	Grand
⑤	Grand nut
⑥	Sheet gasket
⑦	Grand packing
⑧	Disc
⑨	Stem holder
⑭	Hand wheel
⑮	Nut(A)
⑯	Washer



No.	Parts of name
①	Body
②	Bonnet
③	Stem
④	Grand
⑥	Sheet gasket
⑦	Grand packing
⑧	Disc
⑨	Stem holder
⑩	Stem with trapezoid screw
⑪	Bolt • nut
⑫	Stud bolt • nut
⑬	Support of stem
⑭	Hand wheel
⑮	Nut(A)
⑯	Washer
⑰	Inserted metal
⑲	Lock nut

(4) Comparison between operating temperature and pressure



Caution

Do not operate valve beyond the range of working temperature and pressure.
(The valve can be damaged.)

(5) Installation procedure

Flanged type

Necessary items

- Torque wrench
 - AV gasket
 - Spanner wrench
 - Bolt, Nut, Washer (For many flanges specification)
- (When a non-AV gasket is used, a different tightening torque instruction should be followed.)

Procedure

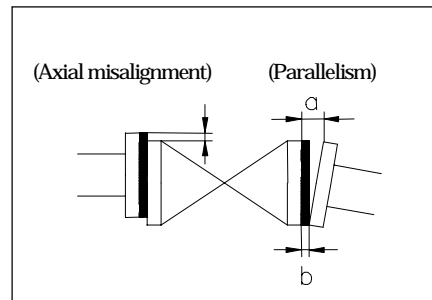
- 1) Set the AV gasket between the flanges.
- 2) Insert washers and bolts from the pipe side, insert washers and nuts from the valve side, then temporarily tighten them by hand.

 **Caution**

The parallelism and axial misalignment of the flange surface should be under the values shown in the following table to prevent damage the valve.
 (A failure to observe them can cause destruction due to stress application to the pipe)

Unit : mm (inch)

Nom. Size	Axial misalignment	Parallelism (a-b)
15-32mm (1/2"-1 1/4")	1.0 (0.04)	0.5 (0.02)
40, 80mm (1 1/2", 3")	1.0 (0.04)	0.8 (0.04)
100mm (4")	1.0 (0.04)	1.0 (0.04)



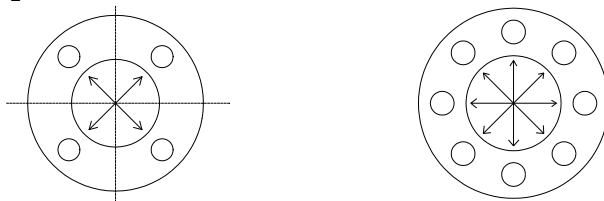
- 3) Using a torque wrench, tighten the bolts and nuts gradually to the specified torque in a diagonal manner. (Refer to fig.1.)

Recommended torque value

Unit: N-m {kgf-cm} [lb-inch]

Nom. Size	15-20mm (1/2"-3/4")	25-40mm (1"-1 1/2")	50, 65mm (2", 2 1/2")	80, 100mm (3", 4")
Torque value	17.5{179}[155]	20.0{204}[177]	22.5{230}[200]	30.0{306}[266]

Fig. 1



 **Caution**

Avoid excessive tightening. (The valve can be damaged.)

Threaded type

Necessary items

- Sealing tape (A non-sealing tape can cause leakage.)
- Strap wrench (Do not use Pipe wrench.)
- Spanner wrench



Caution

Make sure that the threaded connections are plastic x plastic.
(Metallic thread might damage the body cap.)

Procedure

- 1) Wind a sealing tape around the external thread of joint, leaving the end (about 3mm) free.
- 2) Tighten the external thread of the joint and the body ① lightly by hand.
- 3) Using a strap wrench, screw it in by turning 90° -180° carefully without damaging it.



Caution

Avoid excessive tightening. (The valve can be damaged.)

Socket type (Material : PVC,C-PVC)

Necessary items

- Adhesive for hard vinyl chloride pipes
- Strap wrench



Caution

Do not install a socket type valve where the atmospheric temperature is 5°C or lower.
(The valve can be damaged.)

Procedure

- 1) Clean the body ① by wiping with the waste cloth.
- 2) Apply adhesive evenly to the body ① and the pipe spigot.



Caution

Do not apply more adhesives than necessary.
(The valve can be damaged due to solvent cracking.)

Adhesive quantity (guideline)

Nom. Size	15mm (1/2")	20mm (3/4")	25mm (1")	32mm (1 1/4")	40mm (1 1/2")	50mm (2")	65mm (2 1/2")	80mm (3")	100mm (4")
Quantity(g)	1.0	1.3	2.0	2.4	3.5	4.8	6.9	9.0	13.0

- 3) After applying adhesive, insert the pipe quickly to the body ① and leave it alone for at least 60 seconds.
- 4) Wipe away overflowing adhesive.



Caution

Avoid excessive tightening. (The valve can be damaged.)

(6) Operating Procedure

- Open and close the valve by rotating the hand wheel.
- The top of the travel stop will be flush with the top of the hand wheel when the valve is fully closed.



Caution

The valve is designed only for manual operation.
(The use of assist device may damage the valve.)

(7) Disassembly and assembly procedure for parts replacement

Necessary items

- Torque wrench
- Protective gloves
- Spanner wrench
- Goggles



Caution

Wear protective gloves and goggles because some fluid is left in the body.
(You can be injured by working without them.)

<Disassembly>

- 1) Drain fluid completely from the pipeline.
- 2) Turn handle of valve clockwise until it stops. (Do not force it.)

<Nominal size : 15-50mm(1/2"-2")>

- 3) Loosen the bonnet (2) and release the body (1).
- 4) Release the nut (A) (15) and remove the handle wheel (14).
- 5) Loosen the gland nut (5) and remove the grand packing (7).
- 6) Loosen the stem (3) and remove from the bonnet (2).

<Nominal size : 65-100mm(2 1/2"-4")>

- 3) Loosen the bolt·nut (11) and remove the bonnet (2) from the body (1).
- 4) Remove the nut (A) (15), then put up the hand wheel (14).
- 5) Remove the stem with the trapezoid screw (10) from the support of stem (13).
- 6) Loosen the stud bolt·nut (12), then remove the grand packing (7).
- 7) Loosen the stem (3) and remove from the bonnet (2).

<Assembly>

- 1) The produce of assembly is the almost reverse of its disassembly.
- 2) After assembly, make sure that the valve can be fully opened and closed smoothly.

(8) Inspection items

○ Inspect the follow items ;

(1)	Existence of scratches, cracks, deformation, and discoloring.
(2)	Existence of leakage from the valve to the outside.
(3)	Existence of leakage when the valve is opened fully at right or left.

(9) Troubleshooting

Problem	Cause	Treatment
Fluid is leaking past the fully closed position.	Solid particles have lodged in the valve.	Clear the solid particles from the valve.
	The seat and disc are scratched.	Replace the seat and disk with new one.
The handle spins freely.	The stem is broken.	Disassemble bonnet and replace the stem.
	The stem holder is broken.	Disassemble bonnet and replace the stem.
Valve leaks between body and bonnet.	Bonnet bolts have loosened.	Re-tighten bolts & nuts.
	Media has crystallized	Disassemble and clean on a regular basis.

(10) Handling of residual and waste materials**Caution**

In discarding remaining or waste materials, be sure to ask a waste service company.
(Poisonous gas is generated.)

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