BAN SEOK®
BAN SEOK PRECISION IND., CO., LTD.

EQUIPMENT
User Manual

BV-T900/Twin liquid type dispensing valve

Contents

1. Safety

⚠ Before installation and using our dispensing valve BV-T900, please be carefully aware of this user manual

1.1 For your safety

- ✓ If the fluid splashes up to your eyes or skin, it can cause a serious injury.
- ✓ Handle with extreme care not to be in contact with liquid in case of nozzle exchange or cleaning.
- ✓ Make sure that pressure must be released before the nozzle is removed when you exchange a nozzle.

1.2 Valve Overuse Hazard

- ✓ If a valve is damaged due to over-pressure, unauthorized alteration of parts, and overuse, it may cause a danger by exploding or leaking (explosion or leakage may occur).
- ✓ Do not make any kind of unauthorized alterations. We are not responsible for any repairs, after-sales service caused by them.
- ✓ This valve operates delivery air pressure under 7kgf/cm^2. Do not exceed this operation pressure.
- ✓ The fluid pressure must not exceed 60kgf/cm^2. Or it can cause serious damages and disorder.

1.3 Others

- ✓ High pressure material can be leaked if a hose is damaged or worn.
- ✓ Check a hose for any worn-downs, damages, or swollen before use.
- ✓ Please change a hose immediately if any malfunction is found.
- ✓ Prevent leakage from loosened joints by tightening before use.

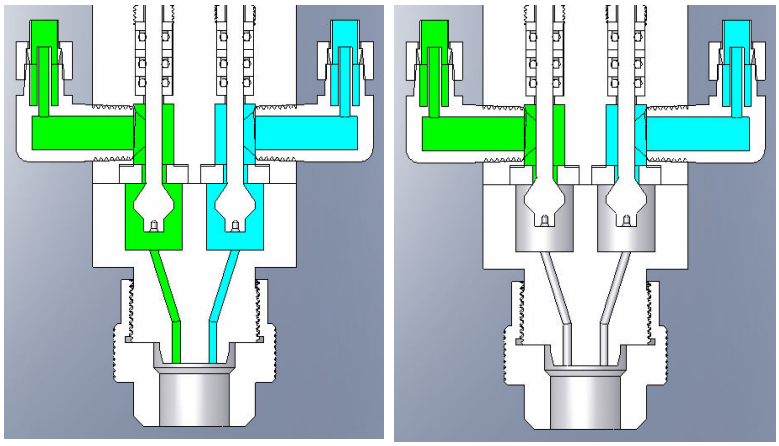
2. Specification

Method of Operation	Suck-back
Material of wetting part	A6061
Volume	8ℓ/min
Type of Operation	A,B
Liquid Input	PT 1/4”
Applied Materials	Two element epoxy, Silicone, Urethane, Hard lock Two element acrylic resin Middle & high Viscous Materails
Maximum fluid pressure	60 kg/cm^2
Output variation	± 2.0 %

3. Principle

The valve open air pressure forces the internal piston to move down, and the sealing head to open and permit fluid flow. When the valve close air pressure forces the internal piston to move up, and the sealing head closes, stopping the fluid flow and pulling back a slight amount of fluid.

The amount of fluid dispensed will depend on the time the valve is open, the viscosity of the fluid, the air pressure in the fluid reservoir and the dispensing tip size.



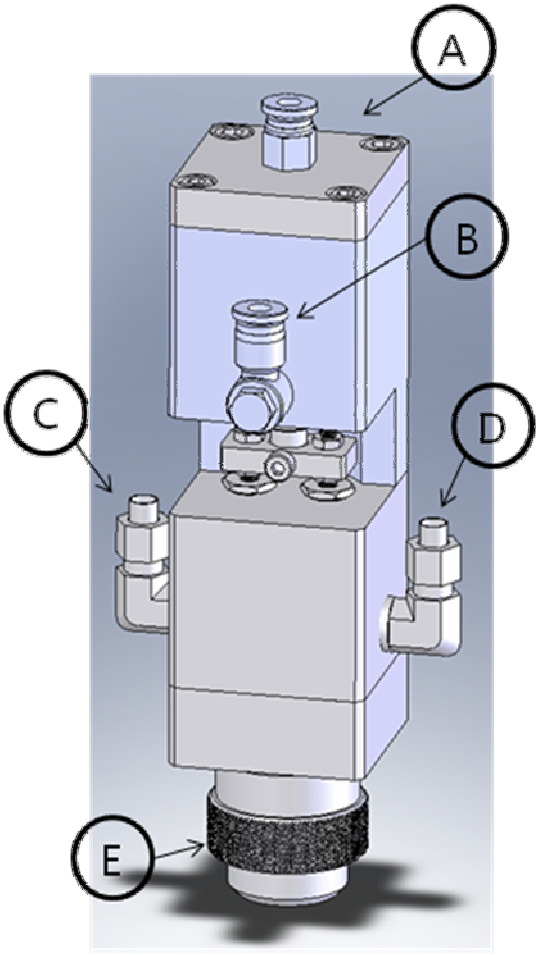
Valve open Valve close

Flow rate is a function of reservoir pressure, tip size and fluid viscosity.

The inner diameters and port sizes of the fluid chamber will be decided according to the ratio of resin and hardener.

4. Installation & Operation

4.1 Connecting Lines

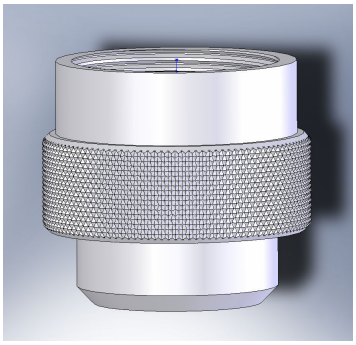


1) Connecting Air-pressure lines
   - Straightly insert the tube into the air fitting until it gets installed inside
   - Valve open line(A) is connected to the “open” port on the TAD-200V(controller).
   - Valve close line(B) is connected to the “air out” port on the TAD-200V(controller).
   - Pull the tube gently in order to make sure that it is safe.

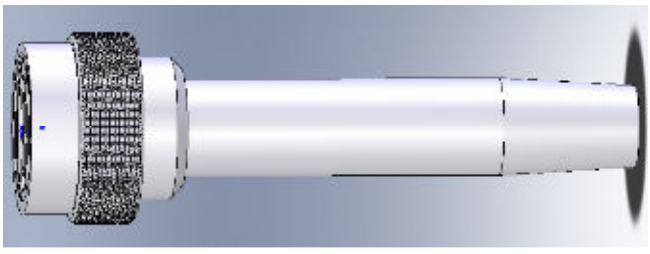
2) Connecting Fluid Line
   - The inlets of resin(C) and hardener(D) fits in PT 1/4” line incase of the ratio 1:1.

3) Connecting Mixer
   - Insert an appropriate mixer in (E), and tighten the nozzle cap.
   - You can use the SMS series mixer made by Banseok.
   - Due to length of mixer, you can choose the nozzle cap(E). we provide two types of nozzle cap. The one is short and the other is long.

4) Caution



Short type



Long type

- When you cut the tube, make the severed side a right angled out and the use of a tube-cutter is recommended.
- Install the fluid line in oblique with the air line in order to minimize the intervention.

4.2 Operation

1) Preparing to use
   - Open the resin and the hardener line and valve open air line(A) of the valve.
   - Keep dispensing until the consistent drippings in order to eleminates the air in the valve.
   - And then stop dispensing.
2) Control of the dispensing volume
   - Adjust the pressure of fluid inlet.

5. Maintenance & Cleaning

5.1 Storing after use

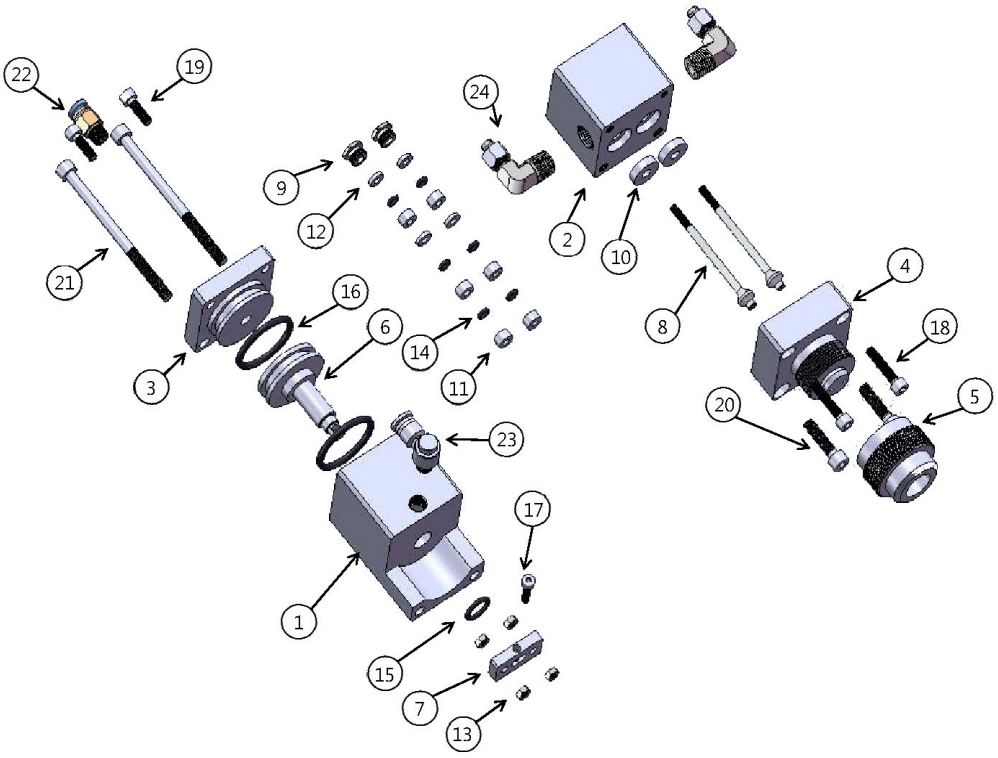
- To avoid the nozzle tip contact air, put an end-cap on the nozzle or keep a nozzle in the grease.
- Perform the cleaning process(see Chapter 5.4).

5.2 Check items while operating

- Make sure that air supply is in good condition.
- Check other connecting appliances that are properly turned off.
- Be sure that end of nozzle is not clogged with hardened fluid.

5.3 Exploded view

- The user’s arbitrary disassembly is not recommended.



1	Housing 1	A6061	13	M4 Nut	BS
2	Housing 2	A6061	14	Oring_P4	Viton
3	End cap	A6061	15	Oring_P12	Viton
4	Nozzle	A6061	16	Oring_P32	Viton
5	Nozzle cap	A6061	17	Wrench bolt	M4x16L
6	Cylinder rod	SUS303	18	Wrench bolt	M5x25L
7	Rod bkt	SUS303	19	Wrench bolt	M5x16L
8	Stop pin	SUS303	20	Wrench bolt	M6x25L
9	Joint nut	BS	21	Wrench bolt	M6x90L
10	Valve seat	Teflon	22	Air fitting	Φ6x1/8”
11	Oring housing	Teflon	23	Air fitting	Φ6x1/8”
12	Plate seal	Teflon	24	Fluid fitting	Φ6x1/4”

5.4 Cleaning

- Stop providing liquid and release pressure in the fluid chamber.

- Connect the cleaning line to fluid inlet port and add pressure.
- According to chapter 4.2, dispense cleaning liquid instead of fluid.

5.5 List of spare parts

No.	Name	No.	Name
8	Stop pin	14	Oring_P4
10	Valve seat	15	Oring_P12
11	O-ring housing	16	Oring_P32
12	Plate seal		Static Mixer

6. Trouble shooting

Item	Cause	Treatment
No dispensing	Stop pin(8) does not work.	Supply the air into valve on/off line.
	The fluid is cured.	Clean the valve.(see chapter 5.4)
	The fluid does not supply.	Pressure the fluid reservoir.
		Supply the fluid.
	The controller is turned off.	Turn on the controller.
Fluid leakage from nozzle(4)	The nozzle(4) is unfasten.	Clean the valve.(see chapter 5.4) And then replace valve seat(10), fasten the nozzle(4).
	The lifetime of valve seat(10) is end.	
Fluid leakage from Joint nut(9)	The joint nut(9) is unfasten.	Clean the valve.(see chapter 5.4) And then replace o-ring housing(11), o-ring(14) and plate seal(12), fasten the joint nut(9).
	The lifetime of o-ring housing(11), o-ring(14) and plate seal(12) is end.	
	The stop pin(8) is worn out.	Replace the stop pin(8).

7. Outside view