OPERATOR'S MANUAL

SBV3-X-000

INCLUDING: OPERATION, INSTALLATION AND MAINTENANCE

RELEASED: 4-25-25
(REV: A)

SBV3-X-000
SNUFF BACK VALVE

READ THIS MANUAL CAREFULLY BEFORE INSTALLING, OPERATING OR SERVICING THIS EQUIPMENT.

It is the responsibility of the employer to place this information in the hands of the operator. Keep for future reference.

SERVICE KITS

- Always use genuine ARO replacement parts to maintain proper performance and maximize the life of your product.
- SBV3-L-KIT for valve repair.

MODEL DESCRIPTION CHART

SBV3 - X - 000

Snuff back valve

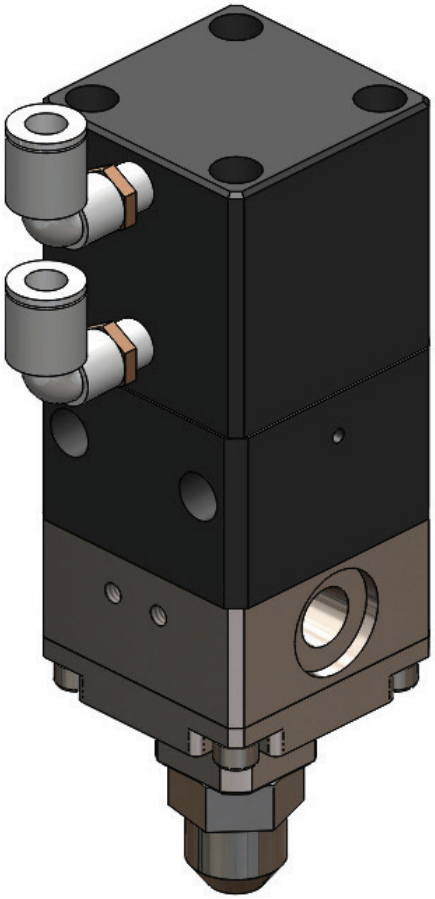
Valve Type

L: Standard valve, threaded inlet and outlet

L-M20-I: Integrated metering cylinder glue filling valve, threaded inlet, and flange outlet

L-M20-O: Integrated metering cylinder glue dispensing valve, flange inlet, threaded outlet

SBV3-X-000



GENERAL DESCRIPTION

This equipment is used for coating high viscosity fluids (and must be equipped with a one-way metering cylinder or other material conveying component before use). The device acts to cut off the passage of materials in the system, and can achieve precise material coating in conjunction with the other metering and material-conveying components.

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OPERATING AND SAFETY PRECAUTIONS

NOTICE **Use of replacement parts other than genuine ARO parts may result in safety hazards, reduced tool performance, increased repair costs, and will void all warranties.**

NOTICE **ARO makes no warranty nor accepts implied liability for damages resulting from incorrect use or application of this manual. Liability due to errors in the manual is limited to updating the manual. ARO reserves the right to change the information or procedures in this manual without notice.**

NOTICE **All programs and manuals are copyrighted. Reproduction without the permission of ARO is prohibited.**

NOTICE **Contact your nearest ARO dealer to obtain warranty coverage for your equipment.**

SAFETY INFORMATION

When installing, using, grounding, maintaining, and repairing the equipment, there will be some warning symbols, the specific meanings of which are shown in the following table:

WARNING	
	**Splash hazard** High-pressure fluid sprayed from the dispenser, hose leaks and broken parts can pierce the skin. If an accident occurs, seek hospital treatment immediately. • Never point the dispenser toward people or their body parts. • Do not put your hands near the nozzle. • Do not attempt to stop or redirect a leak with your hands, body, gloves, or rags. • Follow the Pressure Relief Procedure to relieve system pressure before stopping the equipment for cleaning, inspection, or maintenance
	**Danger of incorrect use** Incorrect use may result in death or serious injury. • Do not operate the device if fatigued, drinking alcohol, or under the influence of drugs • Do not exceed the Maximum pressure and temperature requirements set by the system • Use fluids and solvents that are compatible with components of the equipment. • Inspect the equipment daily and repair or replace worn or damaged parts with certified replacement parts as soon as possible. • Do not modify or replace the equipment yourself.
	**Burn hazard** During operation, the surface of the fluid may become very hot. To avoid burns, do not touch the equipment or the heated fluid until it has completely cooled down.

PRESSURE RELIEF PROCEDURE

WARNING	
 	**INJECTION HAZARD** System pressure needs to be relieved to avoid accidental startup. High-pressure fluids can splash onto the skin and cause various kinds injury. To avoid injury from fluid splashing and moving parts, be sure to release system pressure in the following situations: • When the manual specifically requires pressure relief. • When you stop working • When inspecting or maintaining any system component • When installing and cleaning the nozzle/glue extrusion nozzle

PARTS LIST

Consumable parts	Item No.	Part No.	Description	Quantity			Material
				SBV3-L-000	SBV3-L-M20-0-000	SBV3-L-M20-I-000	
	1	JV2-001	Cylinder Block	1	1	1	AL
	2	JV2-002	Cylinder head	1	1	1	AL
	3	SEM-195	Glue outlet	1	1	-	SS
	4	JV2-005	Pin	2	2	2	SS
	5	SEM-196	Flange inlet	-	1	-	SS
	6	JV2-008	O-Ring	1	1	1	R
	7	SEM-039	Spring pad	8	8	8	C
	8	JV2-013	Spring pad	4	4	4	C
	9	JV2-014	Hexagon socket screw	4	4	4	SS
	10	SEM-044	Hexagon socket screw	4	4	4	SS
	11	SEM-042	Hexagon socket screw	4	4	4	SS
	12	JV2-015	Connector	2	2	2	AS
	13	SEM-009	Bulk head	1	-	1	C
	14	SEM-079	Connector	1	1	-	AS
	15	SEM-197	O-Ring	2	1	1	R
	16	JV2-024	O-Ring	-	-	1	R
*	17	SBV3-L-KIT	Valve core	1	1	1	AS
	18	JV2-012	Glue inlet	1	-	1	SS
	19	SEM-198	Flange outlet	-	-	1	SS

MATERIAL CODE

[C]	= Carbon steel	[A]	= Polymer materials
[AL]	= Aluminum	[AS]	= Finished assembly parts
[R]	= Rubber		

- The parts marked with "*" in the above table are valve repair kits.

DISASSEMBLY OF THE VALVE

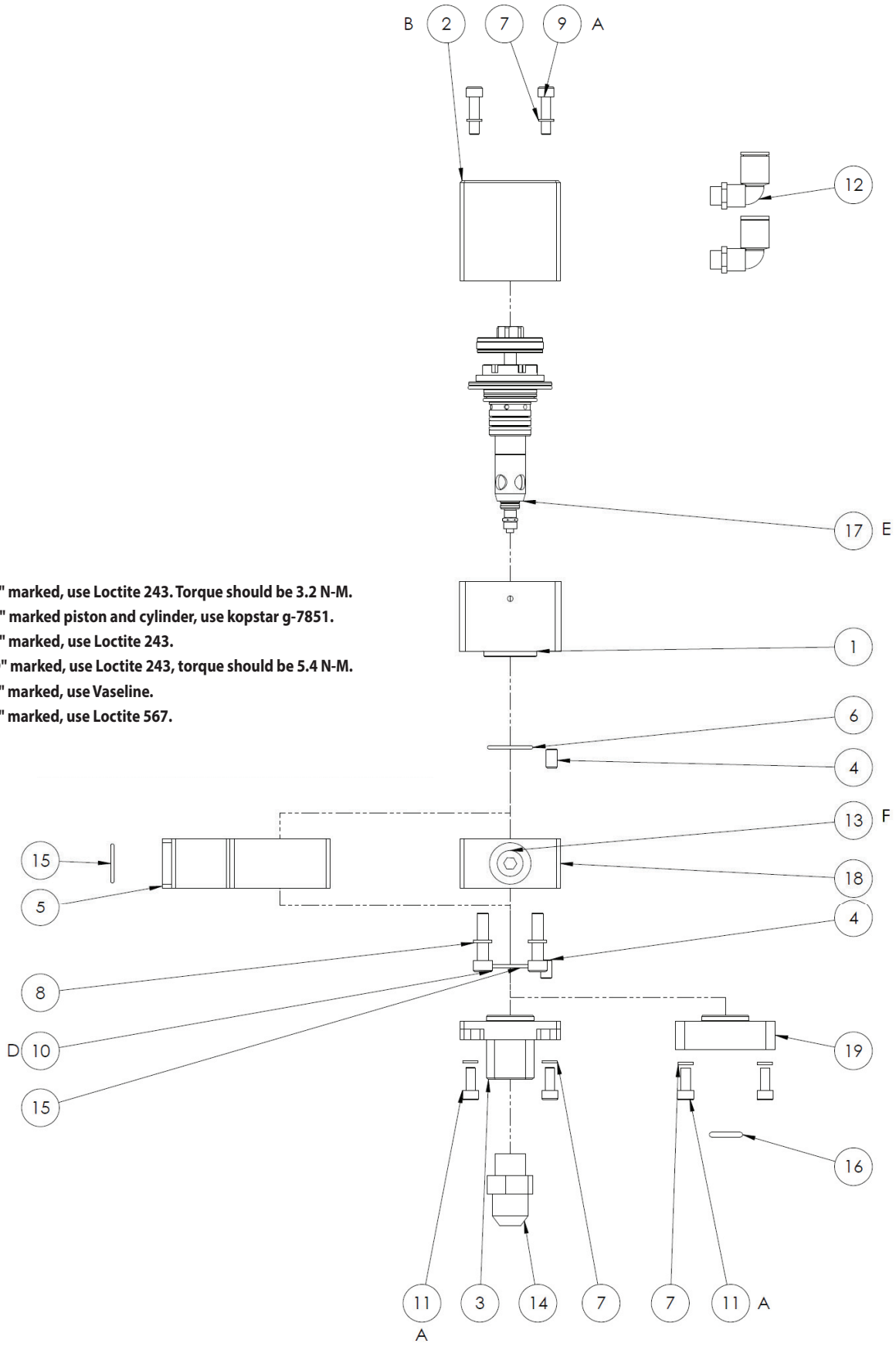
1. Use an Allen key to remove the four No. 9 hexagon socket screws and corresponding spring washers, and remove the No. 2 cylinder head.
2. Using a 12mm open-end wrench, remove the two No. 12 air connectors.
3. Pull out the No. 17 cartridge valve assembly. The valve core can be pulled out completely by lifting the piston. If you experience difficulty in pulling out the valve core when encountering single-component solidified material, you can insert a cylindrical rod with a diameter under 11 mm into the nozzle of the gun to push out the valve core. Or disassemble the whole unit and remove the valve core.
4. Remove the No. 14 connector (if necessary).
5. Use an Allen key to remove the No. 11 hexagon socket screws and the corresponding spring washer on the glue outlet.
6. As shown in Figure 1, remove the No. 3 glue outlet of the SBV3-L-000 and SBV3-L-M20-00O glue valves. When removing the No. 19 flange outlet of the SBV3-L-M20-I-000 valve, pay attention to the No. 16 O-ring (this O-ring is not included in the repair kit).
7. Remove the No. 15 O-ring and No. 4 pin.
8. Use an Allen key to remove the four No. 10 screws and corresponding spring washers.
9. In the case of SBV3-L-000 and SBV3-L-M20-I, remove the No. 18 glue inlet and remove the No. 13 bulkhead with an Allen key. In the case of SBV3-L-M20-O, remove the No. 5 glue inlet. Note that there is a No. 15 O-ring on the glue inlet (this O-ring is not included in the repair kit).
10. Remove No. 4 pin and No. 15 O-ring.

REASSEMBLY OF THE VALVE

1. Install the No. 17 cartridge valve assembly into the No. 1 part (note that you need to be careful not to drop the two O-rings during assembly. You can attach the O-rings to the parts with lubricant before assembly).
2. Place the No. 6 O-ring into the No. 1 O-ring groove and the No. 4 pin into the pin hole.
3. Use an Allen key to tighten the No. 10 screw and the corresponding spring washer to secure the No. 18 (for SBV3-L-000, SBV3-L-M20-I-000) or No. 5 (for SBV3-L-M20-O) glue inlet to part No. 1.
4. Install a No. 13 bulkhead into the threaded hole of a No. 18 part or place a No. 15 O-ring into the corresponding No. 5 O-ring groove.
5. Using an Allen key, secure the part from step 4 to part 1 with four No. 10 screws and corresponding spring washers.
6. Install the No. 15 O-ring and No. 4 pin on part No. 3 or No. 19.
7. Use the No. 11 screws and corresponding spring washers to install the No. 3 or No. 19 glue outlet parts onto part No. 18.
8. Install part No. 14 onto glue outlet No. 3. Or install the No. 16 O-ring onto part No. 19.
9. Use a 12mm open-end wrench to install the two No. 12 connectors onto the No. 2 cylinder head.
10. Use an Allen key to secure the No. 2 cylinder head to the No. 1 cylinder block with the No. 9 hexagon socket screws and corresponding spring washers.

PARTS LIST

For the torque, lubrication, and gluing requirements for the installation of all the parts, see the figure below:



NOTE:

1. All "A" marked, use Loctite 243. Torque should be 3.2 N-M.
2. All "B" marked piston and cylinder, use kopstar g-7851.
3. All "C" marked, use Loctite 243.
4. All "D" marked, use Loctite 243, torque should be 5.4 N-M.
5. All "E" marked, use Vaseline.
6. All "F" marked, use Loctite 567.

Figure 1

REPLACEMENT OF CARTRIDGE VALVE CORE

During normal use of a valve, the seals in the cartridge are often the first to fail. In order to facilitate users replacing seals and resuming their use as quickly as possible, the seals of the SBV3 series valves are designed with an integral plug-in structure. The replacement steps are as follows.

DISASSEMBLY OF THE CARTRIDGE VALVE CORE

1. Use an Allen key to remove the four screws on the cylinder head and take off the cylinder head.
2. Remove the cartridge valve.

VALVE RESTORATION

1. Insert the cartridge valve into the cylinder body. It should be noted that the No. 1 and No. 2 O-rings in the figure below cannot be allowed to fall off during installation (You can first install the No. 1 O-ring into the corresponding groove of the cylinder body, remove the No. 2 O-ring, install the cartridge valve core, and then install the No. 2 O-ring).
2. Install the piston seal ring from the repair kit on the piston and insert the piston into the cartridge valve core.
3. Install the spring and limit block, install the cylinder head on the cylinder body, and tighten the screws.

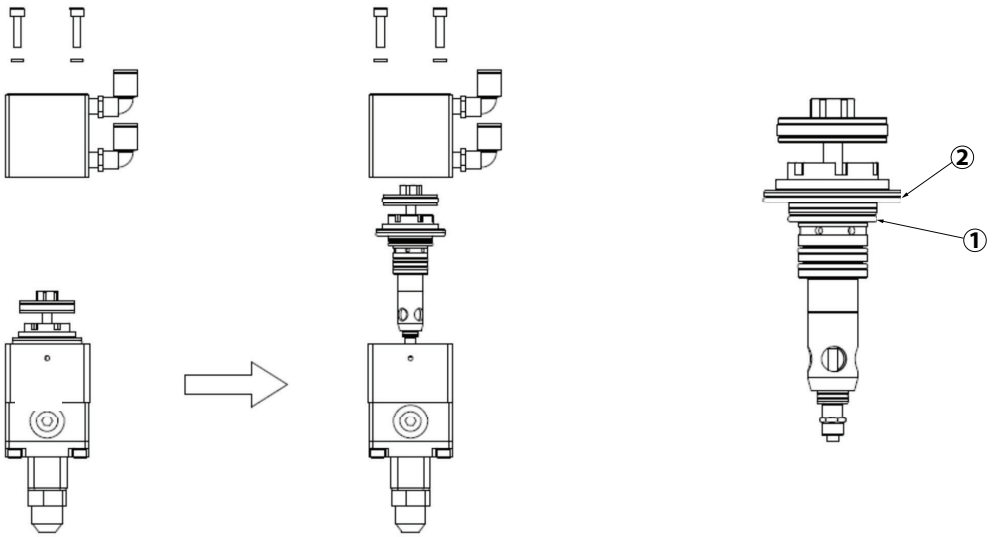


Figure 2

GLUE VALVE TROUBLESHOOTING

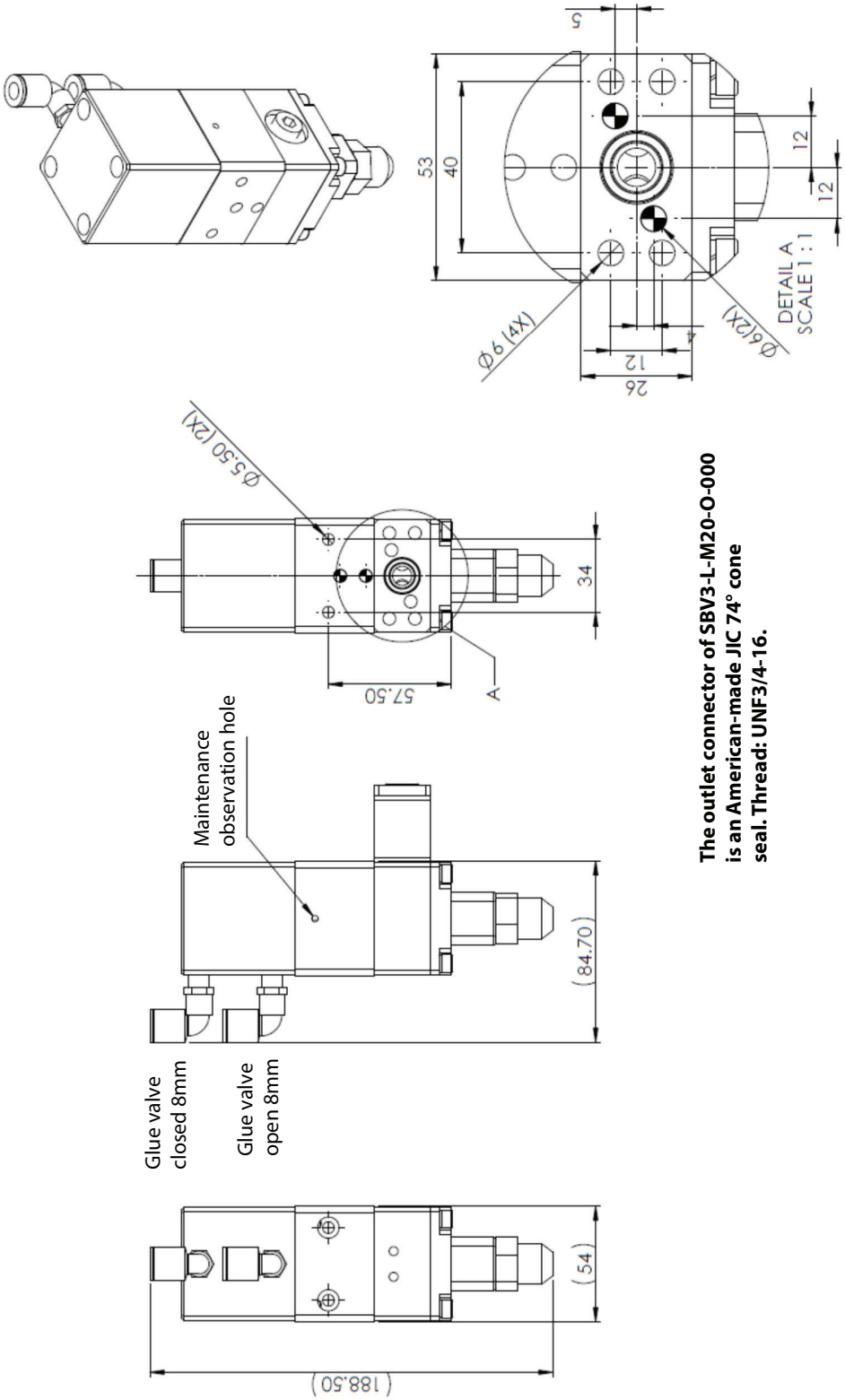
Fault manifestation 1: Material seeps out of the observation hole on the side of the valve.
- Solution: Replace the SBV3-L-KIT repair kit.

Fault manifestation 2: Material continues to flow out of the outlet after the valve has been shut off multiple times
- Solution 1: Check whether the control air pipe is inserted in the wrong direction and whether the control valve signal is correct.
- Solution 2: Check whether the air pressure in the control air pipe is too low. The recommended working pressure of the valve is 5-7 bar.
- Solution 3: If points 1 and 2 above have been checked and there are no problems, replace the SBV3-L-KIT maintenance kit.

Fault manifestation 3: There is a sound of air leakage when the solenoid valve controlling the glue valve is not working.
- Solution: Replace the SBV3-L-KIT repair kit.

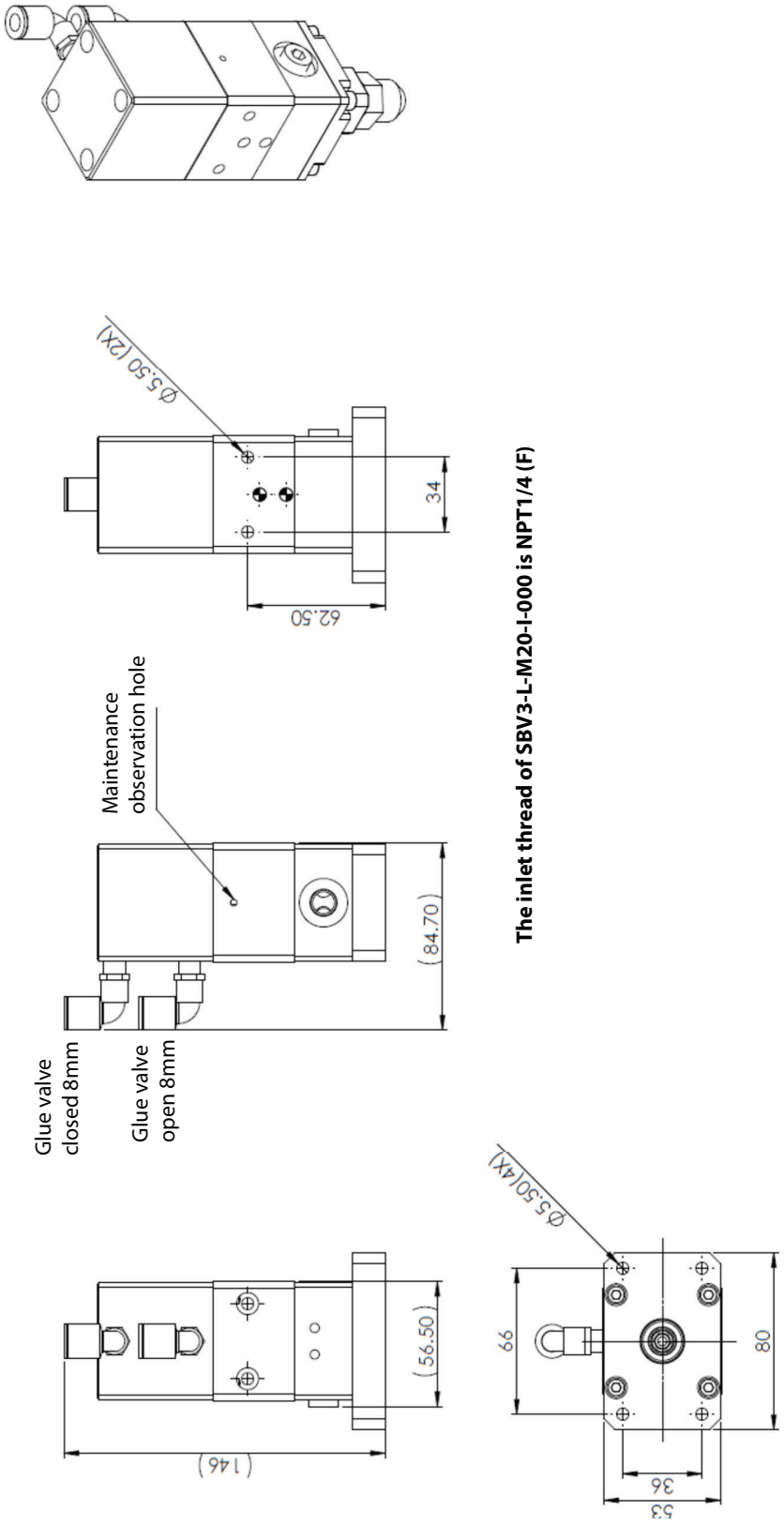
MAINTENANCE OF THE GLUE VALVE

In principle, the SBV3 valve does not require any maintenance during normal use.
Whenever the repair kit is replaced, it needs to be assembled according to the assembly requirements in the box in Figure 1.



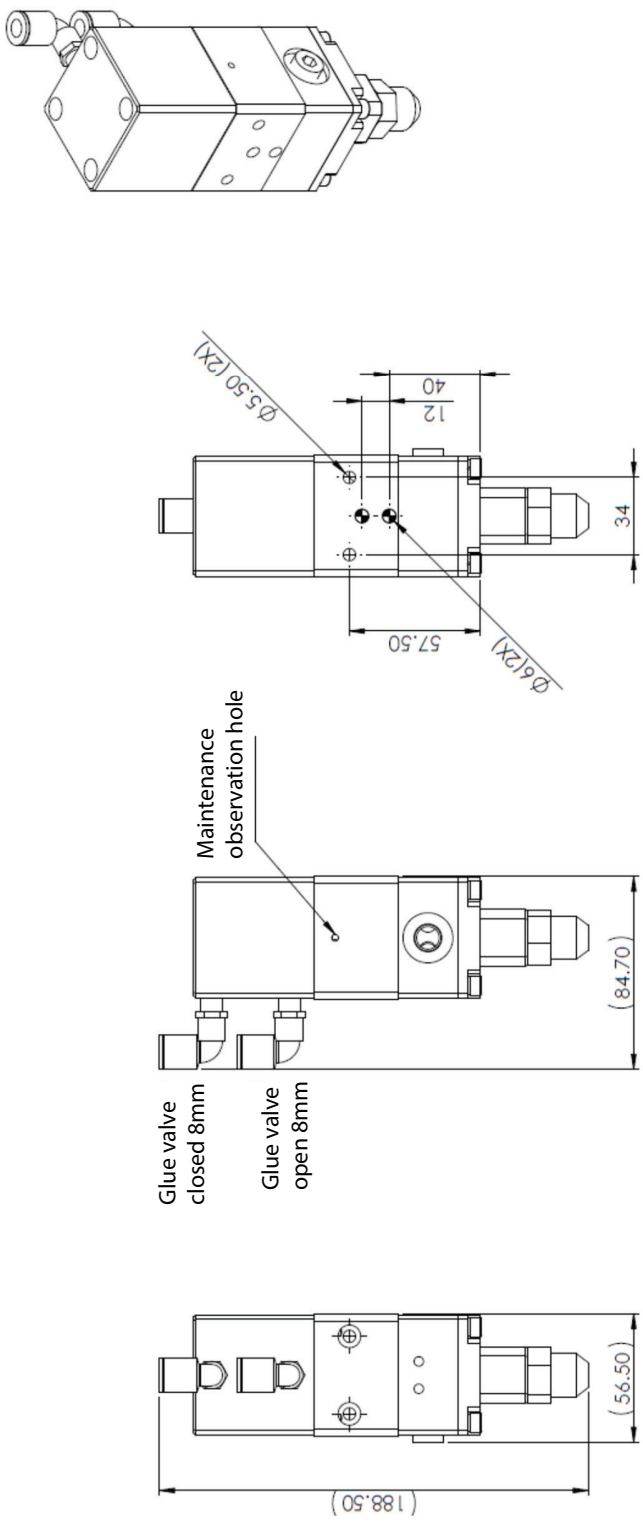
The outlet connector of SBV3-L-M20-O-000 is an American-made JIC 74° cone seal. Thread: UNF3/4-16.

Figure 3



The inlet thread of SBV3-L-M20-I-000 is NPT1/4 (F)

Figure 4



The glue inlet thread of SBV3-L-000 is NPT1/4 (F) and the outlet connector specification of SBV3-L-000 is an American-made JIC74° cone seal. Thread: UNF3/4-16

Figure 5