JV2-X-000
TIP SEAL DISPENSING 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.
JV2-S-KIT1 Repair kit for valve seal
JV2-S-KIT2 Repair kit for valve mechanism

MODEL DESCRIPTION CHART

JV2 - X - 000

Tip Seal Dispensing Valve

Valve Type
S: Standard valve, threaded inlet and outlet

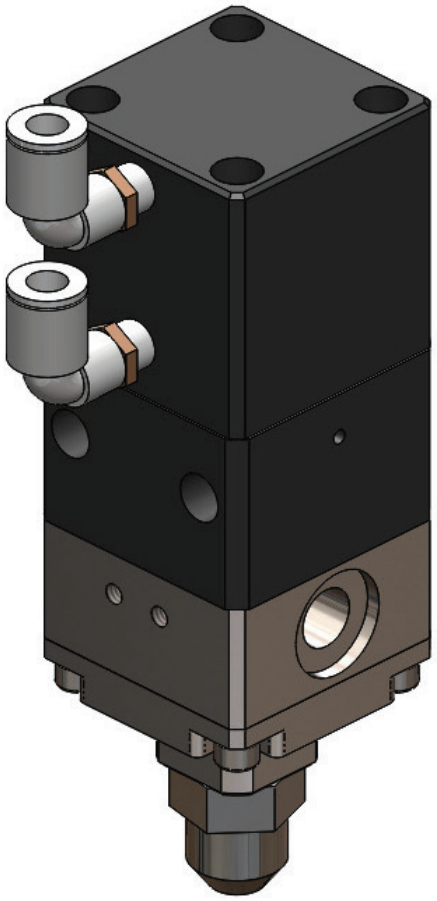
S-M20-I: Integrated metering cylinder glue filling valve, threaded inlet, and flange outlet

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

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.

JV2-X-000



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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
				JV2-S-000	JV2-S-M20-O-000	JV2-S-M20-I-000	
	1	JV2-001	Cylinder Block	1	1	1	AL
	2	JV2-002	Cylinder head	1	1	1	AL
	3	JV2-003	Glue outlet	1	1	0	SS
**	4	JV2-004	Piston	1	1	1	SS
	5	JV2-005	Pin	2	2	2	C
**	6	JV2-006	Valve seat ring	1	1	1	SS
*	7	JV2-007	O-Ring	1	1	1	R
*	8	JV2-008	O-Ring	1	1	1	R
*	9	JV2-022	O-Ring	1	1	1	R
*	10	JV2-009	O-Ring	1	1	1	R
**	11	JV2-010	Thin straight ejector rod	1	1	1	SS
*	12	JV2-011	Cartridge valve assembly	1	1	1	AS
	13	JV2-012	Glue inlet	1	0	1	SS
	14	SEM-039	Spring pad	8	8	8	C
	15	JV2-013	Spring pad	4	4	4	C
	16	JV2-014	Hexagon socket screw	4	4	4	SS
	17	SEM-044	Hexagon socket screw	4	4	4	SS
	18	SEM-042	Hexagon socket screw	4	4	4	SS
	19	JV2-015	Connector	2	2	2	AS
	20	SEM-009	Bulkhead	1	1	1	C
	21	JV2-016	Set screw	1	1	1	SS
**	22	JV2-017	Spring	1	1	1	C
	23	JV2-018	Cylinder travel stop	1	1	1	SS
*	24	JV2-019	O-Ring	1	1	1	R
*	25	JV2-020	Cylinder sealing ring	1	1	1	A
	26	SEM-079	Connector	1	1	0	C
	28	JV2-021	Flange outlet	0	0	1	SS
	29	JV2-022	O-Ring	0	1	0	R
	30	JV2-023	Flange inlet	0	1	0	SS
	31	JV2-024	O-Ring	0	0	1	R

MATERIAL CODE

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

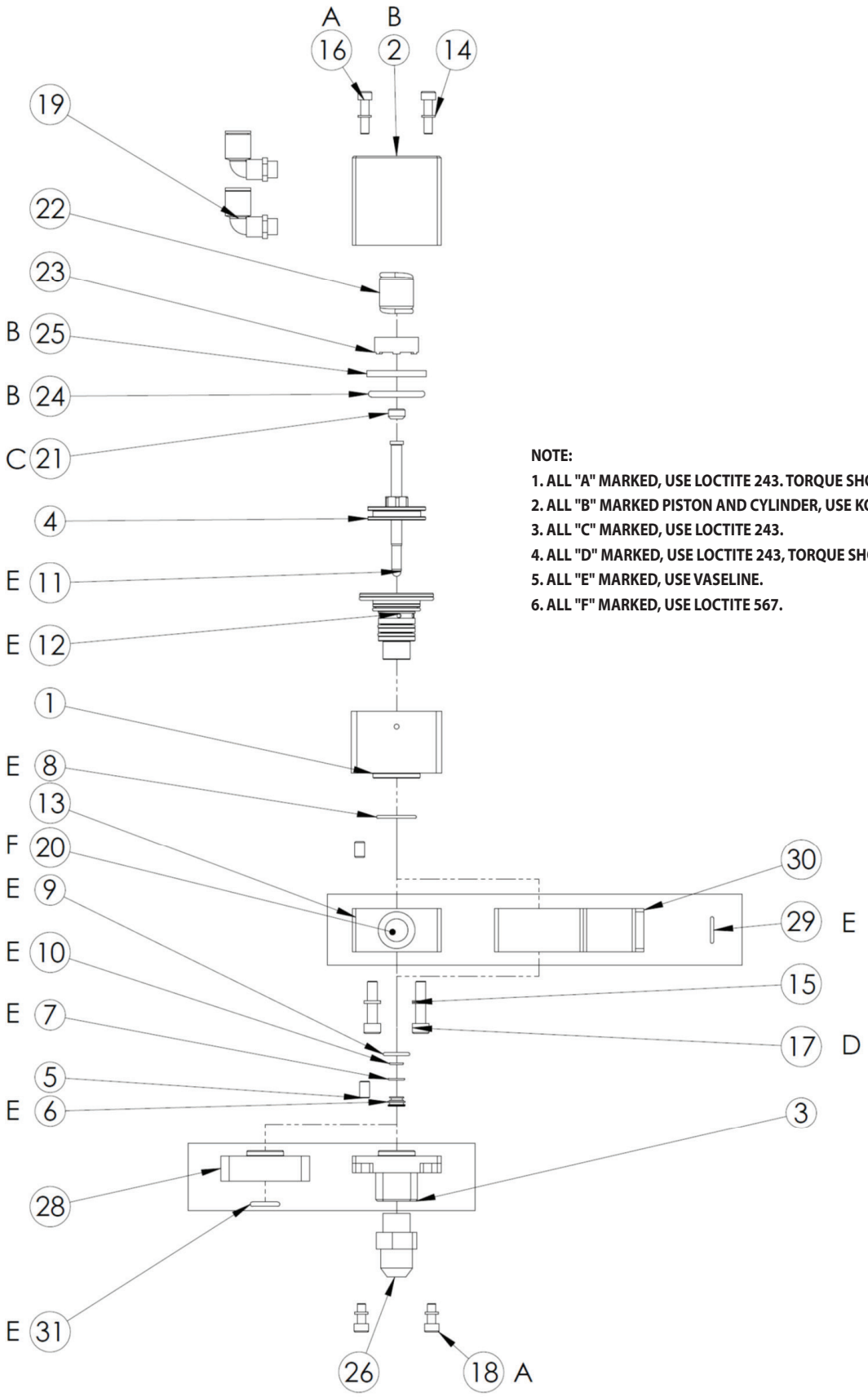
- The parts marked with "*" in the above table belong to the valve seal repair kit JV2-S-KIT1.
- The parts marked with "**" in the above table belong to the valve mechanism repair kit JV2-S- KIT2

DISASSEMBLY OF THE VALVE

1. Use an Allen key to remove the four No. 16 hexagon socket screws, the corresponding spring washers, and the cylinder head.
2. Remove the two No. 19 air pipe connectors using a 12 mm open-end wrench.
3. Remove parts 22 and 23.
4. Pull out the No. 4 piston (which may bring out the No. 12 cartridge valve assembly) and remove the No. 24 and No. 25 seal rings in succession.
5. Remove the No. 21 set screw using an Allen key.
6. Pull the No. 11 valve stem out of the piston.
7. Remove the No. 12 Cartridge Valve Assembly. The assembly is divided into two parts, the upper part can be easily removed, and the lower part can be removed by using an O-ring hook tool to hook the inner hole step and remove it, if it is difficult to remove.
8. Remove the No. 26 connector (if necessary).
9. Use an Allen key to remove the No. 18 hexagon socket screws and the corresponding spring washer.
10. As shown in Figure 2, remove the No. 3 glue outlet of the JV2-S-000 and JV2-S-M20-O glue valves. When removing the No. 28 flange outlet of the JV2-S-M20-I-000 valve, pay attention to the No. 31 O-ring (this O-ring is not included in the repair kit).
11. Remove valve seat ring No. 6, remove O-rings No. 7 and No. 10, remove O-ring No. 9 and pin No. 5.
12. Remove the four No. 17 screws and corresponding spring washers using an Allen key.
13. In the case of JV2-S-000 and JV2-S-M20-I, remove the No. 13 glue inlet and remove the No. 20 bulkhead using an Allen key. In the case of JV2-S-M20-O, remove the No. 30 glue inlet and note that there is a No. 29 O-ring on the glue inlet (this O-ring is not included in the repair kit).
14. Remove the pin and No. 8 O-ring.

REASSEMBLY OF THE VALVE

1. Install the No. 12 cartridge valve assembly on 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. 8 O-ring into the No. 1 O-ring groove and the pin into the pin hole.
3. Use an Allen key to tighten the No. 17 screw and the corresponding spring washer to secure the No. 13 (for JV2-S-000, JV2-S-M20-I-000) or No. 30 (for JV2-S-M20-O) glue inlet to part No. 1.
4. Install a No. 20 bulkhead into the threaded hole of a No. 13 part or place a No. 29 O-ring into the corresponding No. 30 O-ring groove.
5. Install the No. 7 and No. 10 O-rings onto the No. 6 valve seat ring.
6. Install the No. 6 value seat ring and No. 9 O-ring on the No. 3 or No. 28 outlet.
7. Using an Allen key, secure the part from step 6 to part No. 13 or 30 with four No. 18 screws and the corresponding spring washers.
8. Install part No. 26 onto part No. 3.
9. Install parts No. 24 and No. 25 onto piston No. 4 in sequence.
10. Insert the No. 11 valve stem into the piston.
11. Install the No. 21 set screw into the piston.
12. Press the installed piston into the assembled No. 12 cartridge valve assembly.
13. Place parts 22 and 23 onto the piston. Note the orientation of part 23.
14. Install the two No. 19 connectors onto the No. 2 cylinder head using a 12 mm open-end wrench.
15. Use an Allen key to secure the No. 2 cylinder head to the No. 1 cylinder block with the No. 16 hexagon socket screws and the corresponding spring washers.



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 JV2 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, spring, and cylinder travel stop.
2. Remove the two seals from the piston.
3. 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.

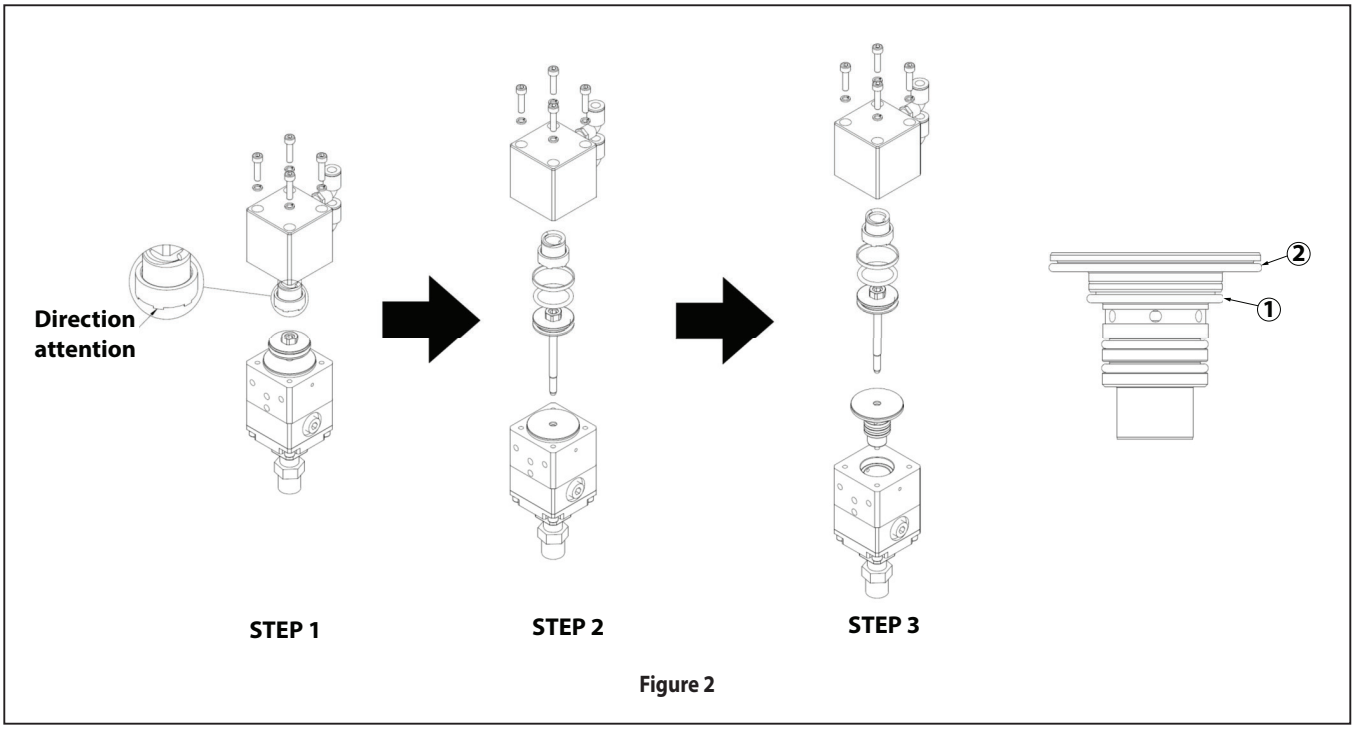


Figure 2

GLUE VALVE TROUBLESHOOTING

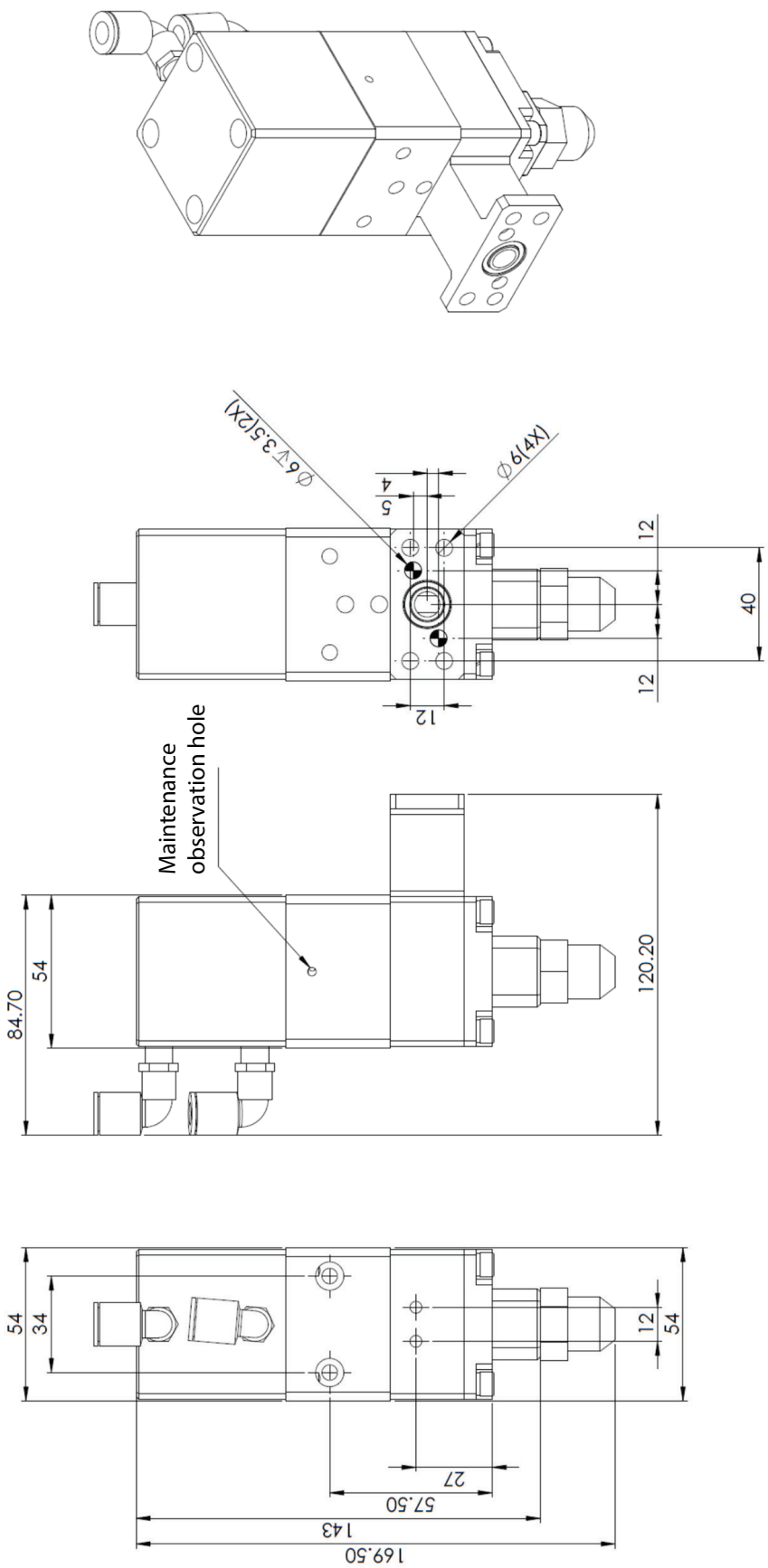
Fault manifestation 1: Material seeps out of the observation hole on the side of the valve.
- Solution: Replace the JV2-S-KIT1 repair kit.

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 JV2-S-KIT2 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 JV2-S-KIT1 repair kit.

MAINTENANCE OF THE GLUE VALVE

In principle, the JV2 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 inlet thread of JV2-S-000 and JV2-S-M20-I-000 is NPT1/4 (F)**
- **The outlet connector specification for JV2-S-000 and JV2-S-M20-O-000 is an American-made JIC74° cone seal. Thread: UNF3/4-16°.**

Figure 3

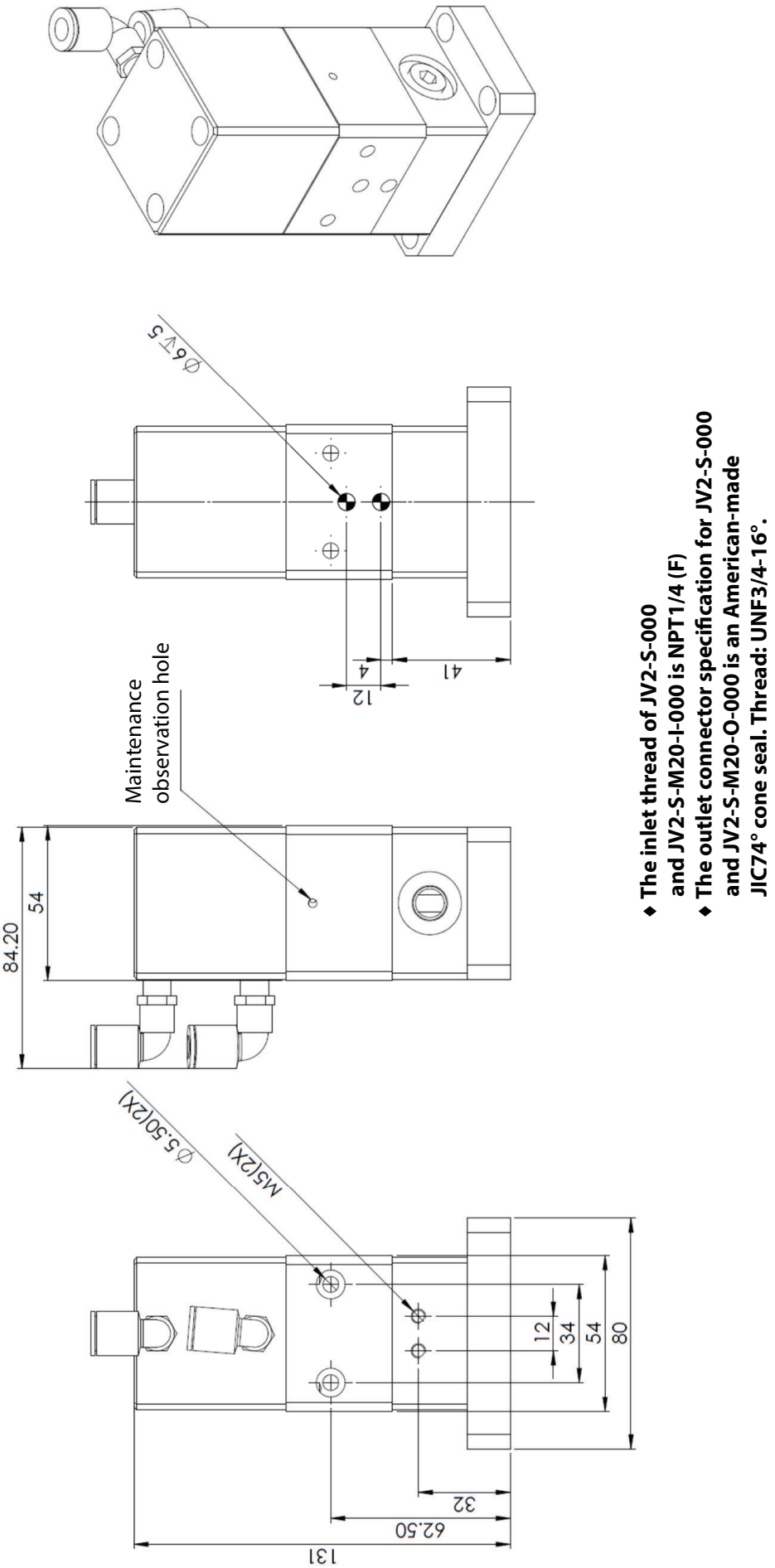


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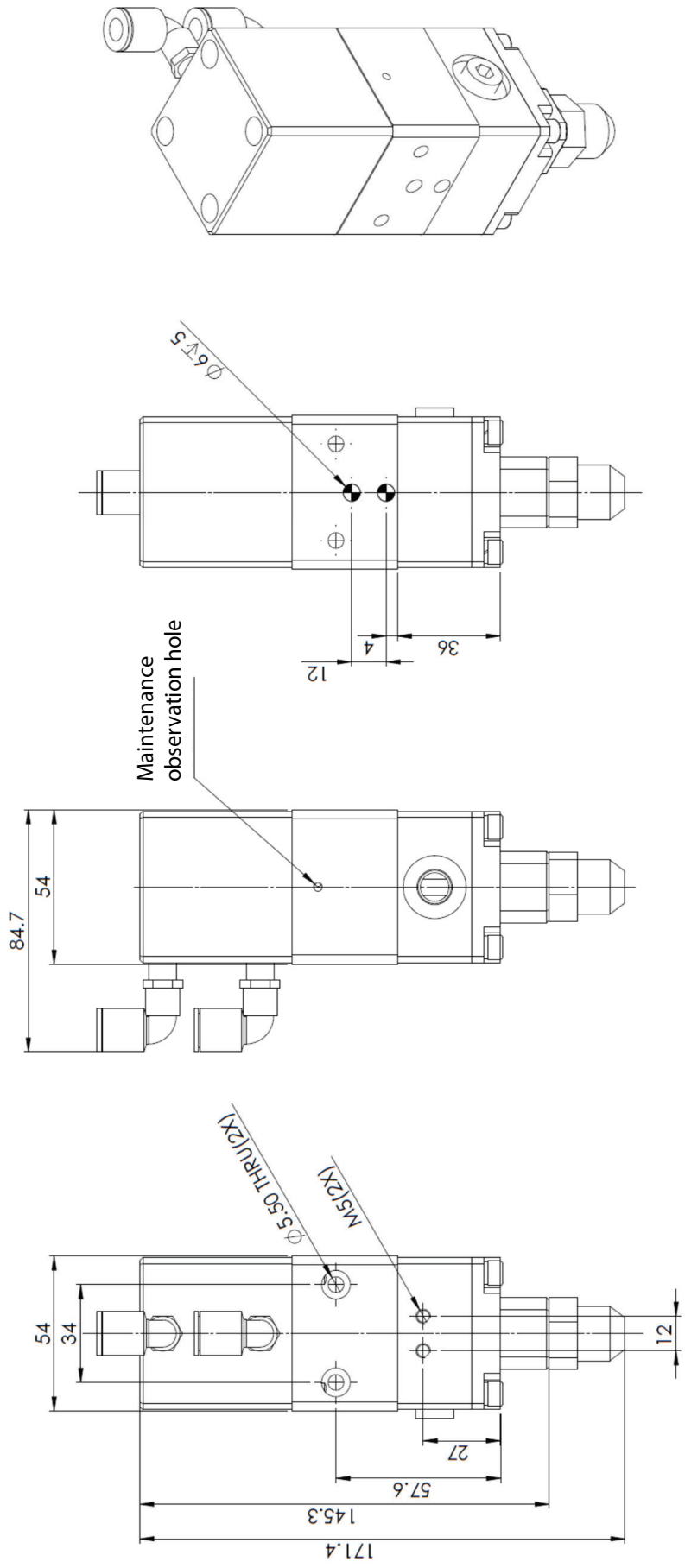
Figure 4



- **The inlet thread of JV2-S-000 and JV2-S-M20-I-000 is NPT1/4 (F)**
- **The outlet connector specification for JV2-S-000 and JV2-S-M20-O-000 is an American-made JIC74° cone seal. Thread: UNF3/4-16°.**

Figure 5