Installation & Maintenance Instructions

ASCO RedHat NEXT GENERATION

2–WAY–DIRECT ACTING SOLENOID VALVES
NORMALLY CLOSED OR NORMALLY OPEN
BRASS OR STAINLESS STEEL CONSTRUCTION
1/8″, 1/4″ OR 3/8″ NPT

SERIES
8262
8263

Form No.V7502

IMPORTANT: See separate solenoid installation and maintenance instructions for information on: Wiring, Solenoid Temperature, Causes of Improper Operation, and Coil or Solenoid Replacement.

DESCRIPTION

Series 8262 and 8263 valves are 2–way direct–acting general service solenoid valves. Valves bodies are of rugged brass or stainless steel. Series 8262 or 8263 valves may be provided with a general purpose/ watertight, open–frame or watertight/explosionproof solenoid.

OPERATION

Normally Open: Valve is open when solenoid is de–energized; closed when energized.

Normally Closed: Valve is closed when solenoid is de–energized; open when energized.

IMPORTANT: No minimum operating pressure required.

Manual Operation

Manual operator allows manual operation when desired or during an electrical power outage. Depending upon basic valve construction, two types of manual operators are available:

(1) 1/4 Turn Stem in Body (Suffix MS)

(2) Stem/Lever Type Manual Operator (Suffix MO)

To engage manual operator, turn stem/lever clockwise until it hits a stop. Valve will now be in the same position as when the solenoid is energized. To disengage manual operator, turn stem/lever counterclockwise until it hits a stop.

⚠ **CAUTION: For valve to operate electrically, manual operator stem/lever must be fully rotated counterclockwise.**

INSTALLATION

Check nameplate and solenoid marking for correct catalog number, pressure, voltage, frequency, and service. Never apply incompatible fluids or exceed pressure rating of the valve. Installation and valve maintenance to be performed by qualified personnel.

Future Service Considerations.

Provision should be made for performing seat leakage, external leakage, and operational tests on the valve with a nonhazardous,noncombustible fluid after disassembly and reassembly.

Temperature Limitations

See separate solenoid Installation and Maintenance Instructions for maximum ambient temperature

For valve fluid temperatures, refer to chart below. Check catalog number, suffix, and watt rating on nameplate to determine the maximum temperatures.

Construction	Wattage	Maximum Fluid Temp. °F
8262K200, K214, K134, K130, K260, K261	11 or 11.9	140
8262P200, P214, P134, P130, P260, P261	2	140
Suffix V–Normally Closed	2 or 11	250
All Others	2, 11 or 11.9	180

Positioning

This valve is designed to perform properly when mounted in any position. However, for optimum life and performance, the solenoid should be mounted vertically and upright to reduce the possibility of foreign matter accumulating in the solenoid base sub–assembly area. Valves with suffix "P" in the catalog number (example: 8262K202P) must be mounted with the solenoid vertical and upright.

Mounting

Refer to Figure 1 for mounting dimensions.

Piping

Connect piping or tubing to valve according to markings on valve body. Inlet port will either be marked "I" or "IN". Outlet port will be marked "2" or "OUT". Wipe the pipe threads clean of cutting oils. Apply pipe compound sparingly to male pipe threads only. If applied to valve threads, the compound may enter the valve and cause operational difficulty. Avoid pipe strain by properly supporting and aligning piping. When tightening the pipe, do not use valve or solenoid as a lever. Locate wrenches applied to valve body or piping as close as possible to connection point.

IMPORTANT: To protect the solenoid valve, install a strainer or filter, suitable for the service involved, in the inlet side as close to the valve as possible. Clean periodically depending on service conditions. See ASCO Series 8600, 8601 and 8602 for strainers.

MAINTENANCE

NOTE: It is not necessary to remove valve from the pipeline for repairs.

⚠ **WARNING: To prevent the possibility of death, serious injury or property damage, turn off electrical power, depressurize solenoid operator and/or valve, and vent fluid to a safe area before servicing.**

Cleaning

All solenoid valves should be cleaned periodically. The time between cleanings will vary depending on the medium and service conditions. In general, if the voltage to the coil is correct,sluggish valve operation, excessive noise or leakage will indicate that cleaning is required. In the extreme case, faulty valve operation will occur and the valve may fail to open or close. Clean strainer or filter when cleaning the valve.

Preventive Maintenance

Keep the medium flowing through the valve as free from dirt and foreign material as possible.

Periodic exercise of the valve should be considered if ambient or fluid conditions are such that corrosion, elastomer degradation, fluid contamination build up or other conditions that could impede solenoid valve shifting are possible. In many cases, solenoid valves are periodically exercised during normal system use or as part of routine maintenance or surveillance activities and no additional exercise is necessary. The actual frequency of exercise necessary will depend on specific operating conditions. A successful operating history is the best indication of a proper interval between exercise cycles.

Depending on the medium and service conditions, periodic inspection of internal valve parts for damage or excessive wear is recommended. Thoroughly clean all parts. If parts are worn or damaged, install a complete ASCO Rebuild Kit.

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Causes of Improper Operation

Incorrect Pressure: Check valve pressure. Pressure to valve must be within range specified on nameplate.

Excessive Leakage: Disassemble valve (see Maintenance) and clean all parts. If parts are worn or damaged, install a complete ASCO Rebuild Kit.

Faulty Control Circuit: Check the electrical system by energizing the solenoid. A metallic *click* signifies that the solenoid is operating. Absence of the *click* indicates loss of power supply. Check for loose or blown fuses, open−circuited or grounded solenoid, broken lead wires or splice connections.

Burned−Out Solenoid: Check for open−circuited solenoid. Replace if necessary. Check supply voltage; it must be the same as specified on nameplate/retainer and marked on the solenoid. Check ambient temperature and check that the core is not jammed.

Low Voltage: Check voltage across the solenoid leads. Voltage must be at least 85% of rated voltage.

Valve Disassembly (except 1/4″ Normally Open 8262)

1. Disassemble valve using exploded views for identification of parts.
2. Remove solenoid, see separate instructions.
3. Unscrew solenoid base sub−assembly. Remove core assembly, core spring, and solenoid base gasket from valve body. For normal maintenance on Series 8263 valves it is not necessary to remove valve seat. See Figure 2 for manual operator construction.
4. For 1/8″ normally open construction (Figure 3) remove end cap, end cap gasket, disc holder spring, and disc holder assembly.
5. All parts are now accessible to clean or replace. If parts are worn or damaged, install a complete ASCO Rebuild Kit.

Valve Reassembly

1. Use exploded views for identification, orientation and placement of parts.
2. Lubricate all gaskets with DOW CORNING® 111 Compound lubricant or an equivalent high−grade silicone grease.
3. For 1/8″normally open construction (Figure 3), install disc holder assembly, disc holder spring, end cap gasket and end cap. Torque end cap to 90 ± 10 in−lbs [10,2 ± 1,1 Nm].
4. For Series 8263 apply a small amount of LOCTITE® PST® pipe sealant to threads of valve seat (if removed). Follow manufacturers instructions for application of pipe sealant. Then install valve seat and torque to 75 ± 10 in−lbs [8,5 ± 1,1 Nm].
5. Replace solenoid base gasket, core assembly with core spring and solenoid base sub−assembly . Torque solenoid base sub−assembly to 175 ± 25 in−lbs [19,8 ± 2,8 Nm].
6. Install solenoid, see separate solenoid instructions. Then make electrical hookup to solenoid.
7. See **Additional Precautionary Instructions.**

Valve Disassembly (1/4″ Normally Open 8262) (See Fig. 3)

1. Disassemble valve in an orderly fashion using exploded views for identification of parts.
2. Remove solenoid, see separate instructions.
3. Unscrew solenoid base sub−assembly with bonnet washer attached.
4. Unscrew solenoid base sub−assembly with bonnet washer attached.
5. Remove core assembly, plugnut gasket, plugnut assembly, stem, disc, disc spring, solenoid base gasket and retainer.

NOTE: On valve catalog numbers with suffix "T" a Teflon* plugnut retainer gasket will be present under the retainer.

6. All parts are now accessible to clean or replace. If parts are worn or damaged, install a complete ASCO Rebuild Kit.

Valve Reassembly

1. Use exploded views for identification, orientation and placement of parts.
2. Lubricate all gaskets with DOW CORNING® 111 Compound lubricant or an equivalent high−grade silicone grease.
3. Replace disc spring, disc, stem, (plugnut retainer gasket on suffix "T" valve constructions only), retainer, solenoid base gasket, and plugnut assembly.
4. Install plugnut gasket, core (small end into solenoid base sub−assembly), and solenoid base sub−assembly with bonnet washer. Then torque solenoid base sub−assembly to 175±25 in−lbs [19,8±2,8 Nm].
5. Install solenoid and make electrical hookup, see separate instructions. Then make electrical hookup to solenoid..
6. See **Additional Precautionary Instructions.**

Disassembly and Reassembly of Stem /Lever Type Manual Operator (Refer to Figure 2)

Suffix MS Construction − Series 8262 Only

1. Unscrew solenoid base sub−assembly and core assembly with core spring from the body.
2. Remove the body gasket.
3. Remove the manual operator retainer from the body.
4. Remove the manual operator stem/o−ring assembly from the body.
5. All parts are now accessible for cleaning or replacement. Lubricate gaskets per ***Valve Reassembly*** step 2.
6. Reinstall the manual operator stem with o−ring in the body with flat portion facing up.
7. Reinstall the manual operator retainer in the body with the flat side down, engaging the groove in the manual operator stem.

IMPORTANT: Flat portion of stem must face upwards when reinstalled into body and retainer must be installed with flat side down to engage the groove in stem. See Figure 2.

8. Replace the body gasket, core assembly with the spring and the solenoid base sub−assembly. Torque solenoid base sub−assembly to 175 ± 25 in−lbs [19,8 ± 2,8 Nm].
9. Check manual operator for proper operation. Turn stem clockwise and counterclockwise; stem should turn freely without binding.

Suffix MO Construction − Series 8263 Only

1. Unscrew solenoid base sub−assembly from manual operator body.
2. Unscrew manual operator body from valve body. Then remove body gasket and stem retainer.
3. Slip stem/spacer sub−assembly with stem gasket from manual operator body. Remove core assembly with core spring from center of manual operator body.
4. All parts are now accessible for cleaning or replacement. Lubricate gaskets per ***Valve Reassembly*** step 2.
5. Position core assembly with core spring into base of manual operator body. Then install stem/spacer sub−assembly into manual operator body to engage with core assembly.
6. Reinstall stem retainer on body and stem/spacer sub−assembly.

IMPORTANT: The spacer on the stem/spacer sub−assembly must be *outside* the stem retainer. See Figure 2.

7. Replace body gasket and install manual operator assembly in valve body. Torque manual operator body to 175 ± 25 in−lbs [19,8 ± 2,8 Nm].
8. Replace solenoid base gasket and solenoid base sub−assembly. Torque solenoid base sub−assembly to 175 ± 25 in−lbs [19,8 ± 2,8 Nm].
9. Check manual operator for proper operation. Turn stem clockwise and counterclockwise; stem should turn freely without binding.

Additional Precautionary Instructions:

1. Before returning valve back to service, do the following.

⚠ WARNING: To prevent the possibility of death, serious injury or property damage, check valve for proper operation before returning to service. Also perform internal seat and external leakage tests with a nonhazardous, noncombustible fluid.

2. Restore line pressure and electrical power supply to valve.
3. After maintenance is completed, operate the valve a few times to be sure of proper operation. A metallic *click* signifies the solenoid is operating.

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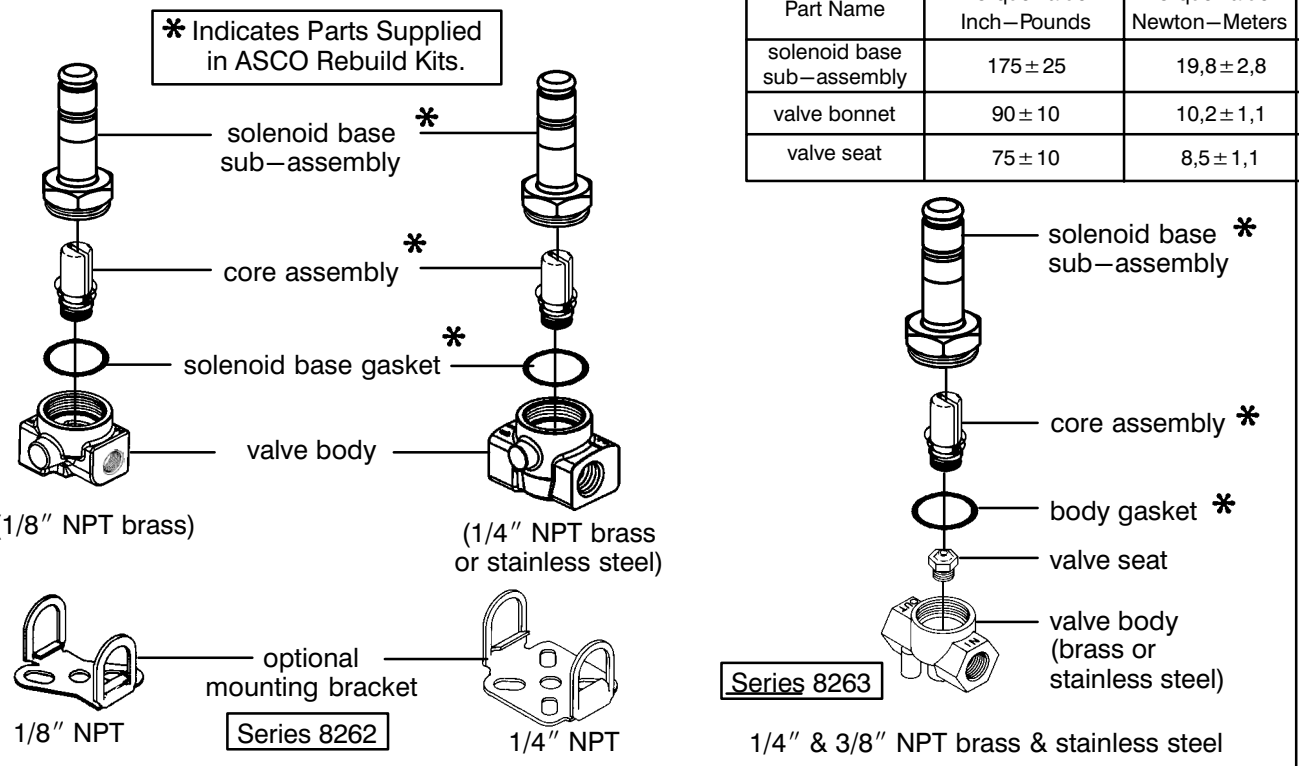
ORDERING INFORMATION FOR ASCO REBUILD KITS

Parts marked with an asterisk (*) in the exploded view are supplied in Rebuild Kits When Ordering Rebuild Kits for ASCO valves, order the Rebuild Kit number stamped on the valve nameplate. If the number of the kit is not visible, order by indicating the number of kits required, and the Catalog Number and Serial Number of the valve(s) for which they are intended.

Part Name	Torque value Inch−Pounds	Torque value Newton−Meters
solenoid base sub−assembly	175 ± 25	19,8 ± 2,8
valve bonnet	90 ± 10	10,2 ± 1,1
valve seat	75 ± 10	8,5 ± 1,1



Series 8262 and 8263, Normally Closed Construction

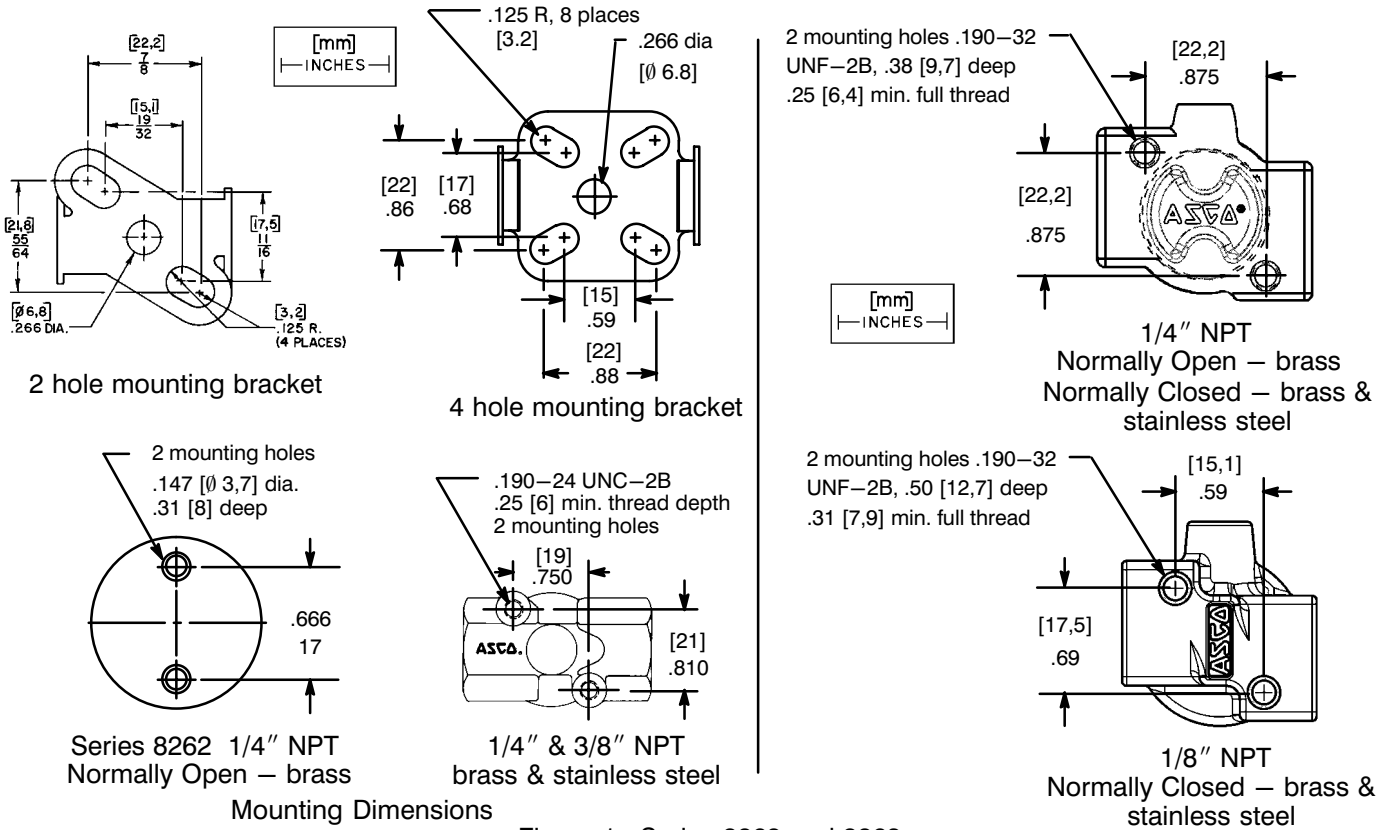


Figure 1. Series 8262 and 8263

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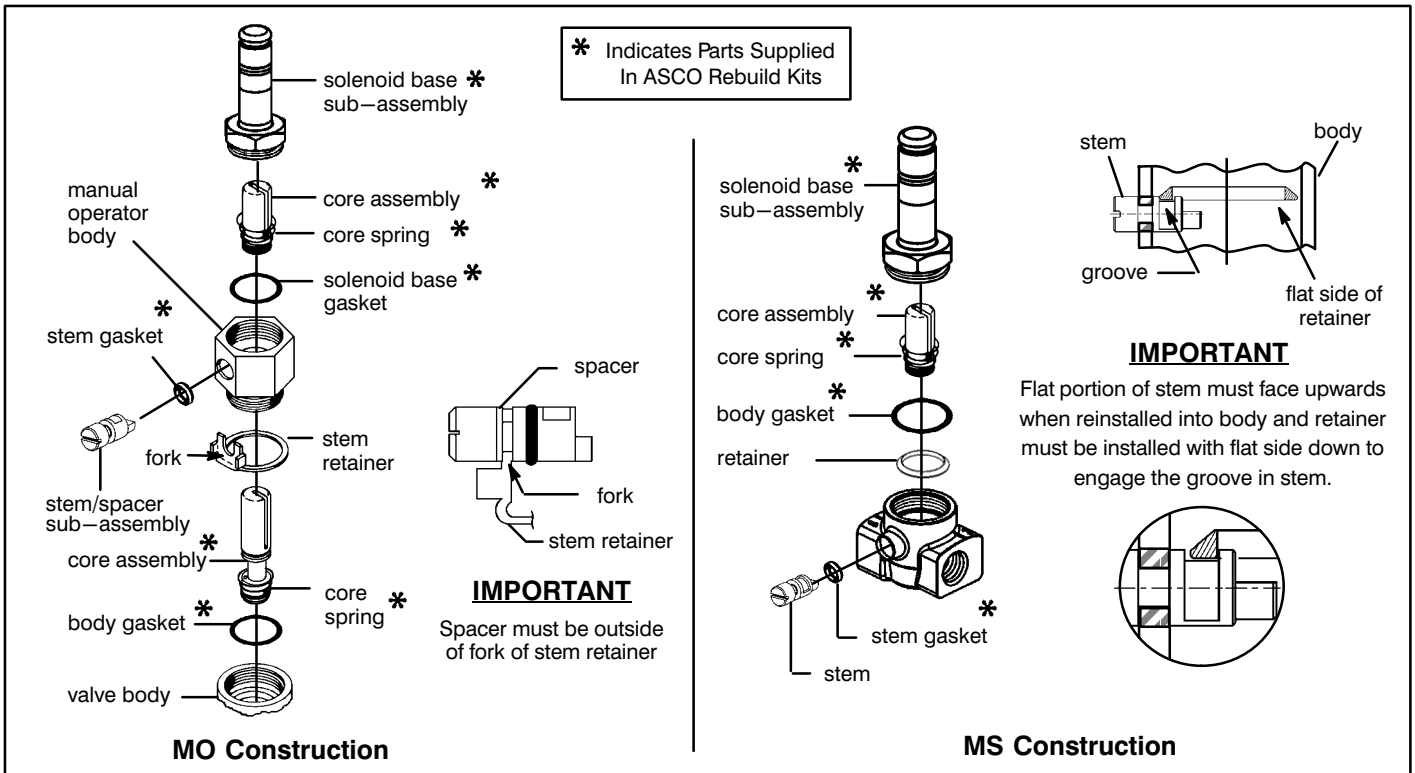

Figure 2. Stem/lever type manual operators

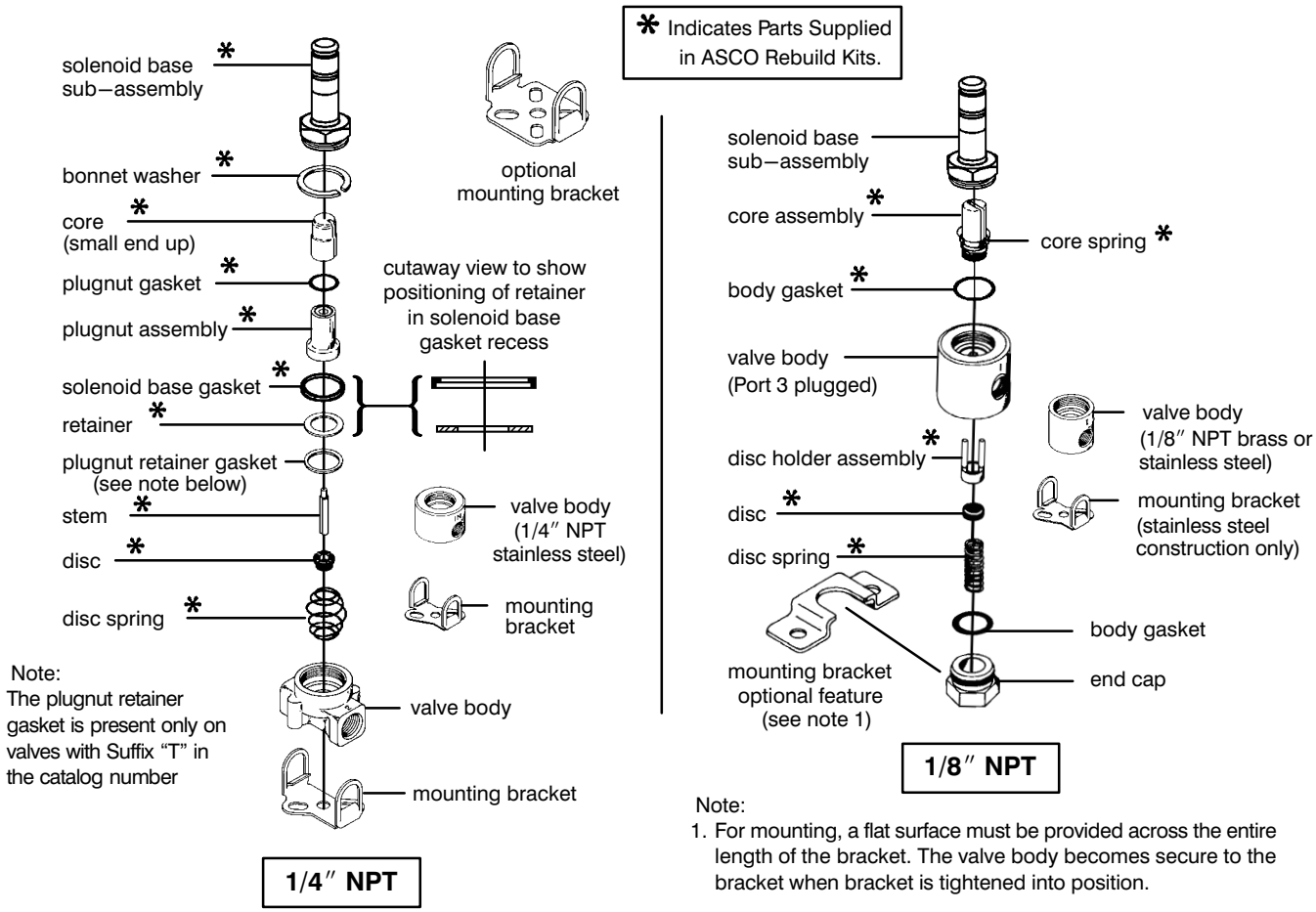

Figure 3. Series 8262 Normally Open Construction

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