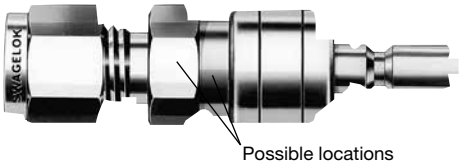
QC Series Quick-Connects
Service Instructions

Double-End Shutoff (DESO) Stem

New-design stems are marked “Swagelok” in one of the two locations shown. Old-design stems are not marked.



These instructions detail rebuilding the DESO valve stem and replacing the DESO O-ring.

Kit Contents

Rebuild Kit

- Valve stem (with O-ring)
- Spring
- Retainer

Seal Kit

- DESO O-ring

Tool Requirements

For DESO Stem

- Locking pliers or bench vise
- Small flat-blade screwdriver
- Torque wrench capable of measuring up to 20 in.·lb (2.3 N·m) of torque

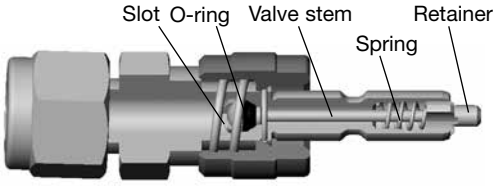
Warning

⚠ **Before servicing any installed quick-connect, you must:**

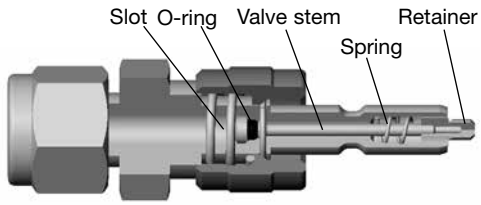
- **depressurize the system**
- **cycle the quick-connect**
- **purge the quick-connect.**

⚠ **Use the correct DESO kit for the design (old or new) being rebuilt. Rebuild kits are not interchangeable. Leakage or blockage may occur.**

Cutaway View of the DESO Stem



Old Design



New Design

Rebuilding the DESO Stem

Refer to the Cutaway View while following the instructions.

Disassembly

1. Grip the end of the retainer with locking pliers or bench vise and hold firmly.
2. Insert a screwdriver into the slot in the opposite end of the valve stem and turn *counterclockwise* to remove the valve stem. Discard the valve stem and O-ring.
3. Remove the retainer and the spring. Discard both components.

Reassembly

1. Ensure the O-ring is installed on the new valve stem.
2. Place the new valve stem into the DESO stem. Hold the valve stem in place with a screwdriver inserted into the slot in the end of the valve stem.
3. Install the new spring into the opposite end of the DESO stem.
4. Thread the new retainer onto the valve stem.
5. Hold the retainer with locking pliers and tighten to the torque value listed below.

Quick-Connect Size	Torque Value, in.·lb (N·m)	
	Brass	Stainless Steel
3/8 in.	3.75 (0.42)	10.9 (1.2)
1/2 in.	4.50 (0.51)	15.7 (1.8)

6. Test the DESO stem for proper operation and leak-tight performance.

Replacing the DESO Stem O-Ring

Refer to the Cutaway View while following the instructions.

Disassembly

1. Follow steps 1 through 3 of the Disassembly section for the DESO stem. Do ***not*** discard the retainer, spring, and valve stem.
2. Remove the O-ring from the valve stem with a small pick and discard the O-ring.

Reassembly

1. Lubricate the new O-ring with an appropriate lubricant.
2. Install the O-ring into the groove on the valve stem.
3. Follow steps 2 through 6 of the Reassembly section for the DESO stem.

QC Series Quick-Connects

Body

Old Design **New Design**

These instructions detail rebuilding the QC series body.

Kit Contents

- Stem seal O-ring
- Insert O-rings: (2) in old design kits, (1) in new design kits
- Valve spring
- Body valve (with O-ring)

Tool Requirements

- Wrench
- Bench vise
- Torque wrench capable of measuring up to 400 in.·lb (45.2 N·m) of torque

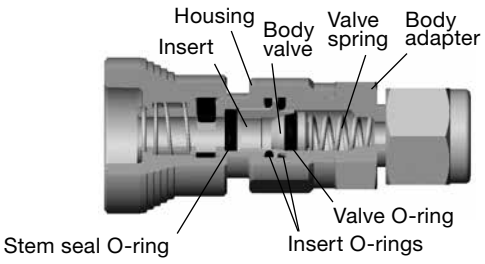
Warning

⚠ **Before servicing any installed quick-connect, you must:**

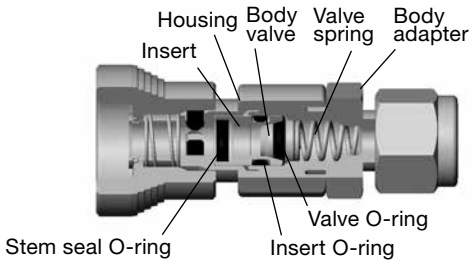
- **depressurize system**
- **cycle the quick-connect**
- **purge the quick-connect.**

⚠ **Use the correct kit for the design (old or new) being rebuilt. Rebuild kits are not interchangeable. Leakage or blockage may occur.**

Cutaway View of the Body



Old Design



New Design

Rebuilding the Body

Refer to the Cutaway View while following the instructions.

Disassembly

1. Grip the body adapter in bench vise.
2. Unscrew the housing from the body adapter.
3. Remove the valve spring, body valve, insert, and stem seal O-ring. Discard the valve spring, body valve**,** and stem seal O-ring.
4. Remove the O-ring(s) (two for old design, one for new design) from the insert with a small pick and discard.

Reassembly

1. Install the new insert O-ring(s) onto the insert.
2. For old design assemblies, install the new stem seal O-ring into the housing. For new design assemblies, install the new stem seal O-ring into the insert.
3. Place the insert, flared end up, into the housing.
4. Place the new body valve into the housing in the proper orientation. See tables below.
5. Place the new valve spring onto the body valve.
6. Thread the housing onto the body adapter and tighten to the torque value shown in the tables below using wrenches placed in the locations shown to stabilize the housing and body.

Old Design **New Design**

Old Design Kits

Quick-Connect Size	Body Valve Orientation	Torque Value, in.·lb (N·m)	
		Brass	Stainless Steel
1/4 in.	Flat side down	90 (10.2)	275 (31.1)
3/8 in.	Cone side down	200 (22.6)	400 (45.2)
1/2 in.	Flat side down		

New Design Kits

Quick-Connect Size	Body Valve Orientation	Torque Value, in.·lb (N·m)	
		Brass	Stainless Steel
1/4 in.	Flat side down	150 ± 10 (16.9 ± 1.1)	
3/8 in.	Cone side down		
1/2 in.	Flat side down		

7. Test the body for proper operation and leak-tight performance.

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