

# Technical Service Bulletin 114

## Brine seal Replacement

All LG Chem NanoH2OTM RO elements are shipped with brine seals installed. If for some reason the brine seal is missing or damaged, installation of a new brine seal will be required. Brine seals, which prevent feed water from bypassing the RO element, need to be properly oriented in relation to the direction of feed flow. The standard brine seal installed on all LG Chem NanoH2OTM RO elements is the U-Cup shaped style. Also available on a special order basis is the bi-directional seal which allows installation of the elements from either end of the pressure vessel. Instructions for installation of each type of brine seal are provided below.

### U-Cup Style Brine Seal

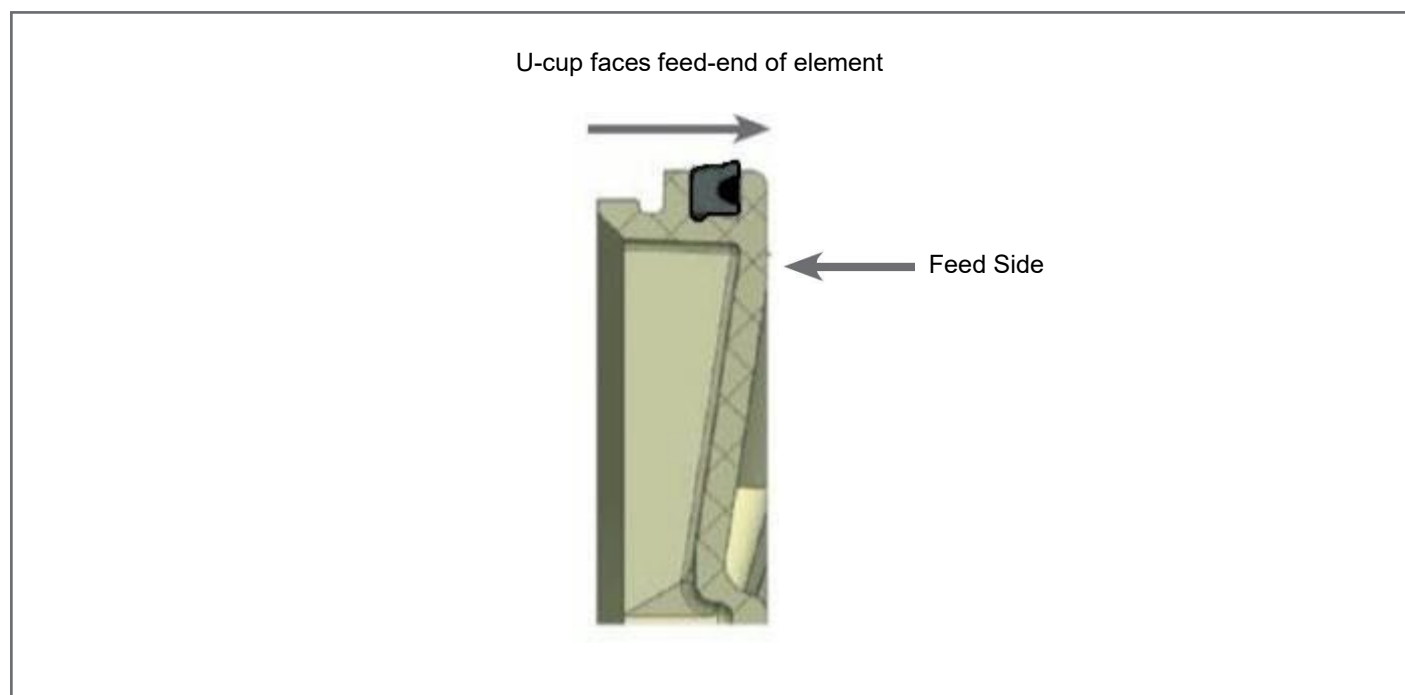
Install brine seal with the U-cup facing the feed end of the element as shown in Figure 114.1. Feed water flow will cause the seal to expand and seal against the inside diameter of the pressure vessel. For loading, lubricate the seal with either glycerin or silicone lubricant and load only in the direction of flow.

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#### CAUTION

*DO NOT use oil, grease, petroleum jelly or other petroleum-based compounds to lubricate O-rings or brine seals. (See TB-102 Element Loading Guidelines).*

**Figure 114.1 Orientation of U-cup seal**



# LG Water Solutions

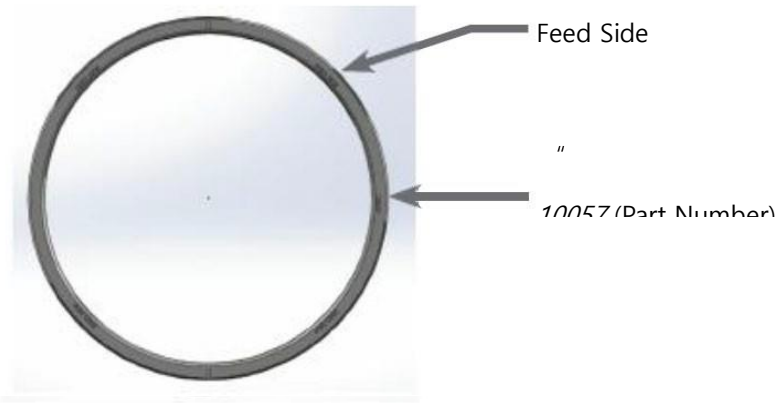
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### Brine Seal Replacement

#### Bi-Directional Style Brine Seal

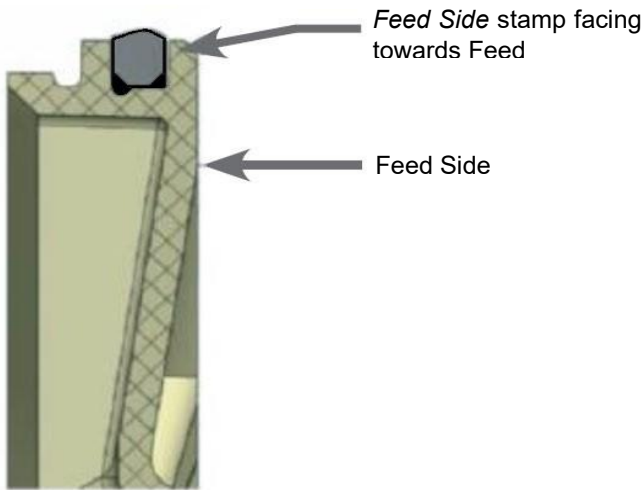
Bi-directional brine seals are stamped on one side with the part number and the words “Feed Side”. See Figure 114.2 below.

Figure 114.2 Bi-directional Brine Seal Stamping



Install bi-directional brine seal with the side stamped “feed side” facing the feed end of the element as shown in Figure 114.3. The bi-directional seal prevents bypass flow by squeezing against the inside diameter of the pressure vessel. The element can be loaded in either end of the pressure vessel however; extra lubrication may be required for installation in multi element pressure vessels.

Figure 114.3 Orientation of Bi-directional Seal



**Notes:**

Bi-directional seals can only be used on elements that were made AFTER 2013. In this case, the nine-digit serial number will start with “14” or higher.

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