

# Technical Service Bulletin 103

## Vessel Shimming Procedures

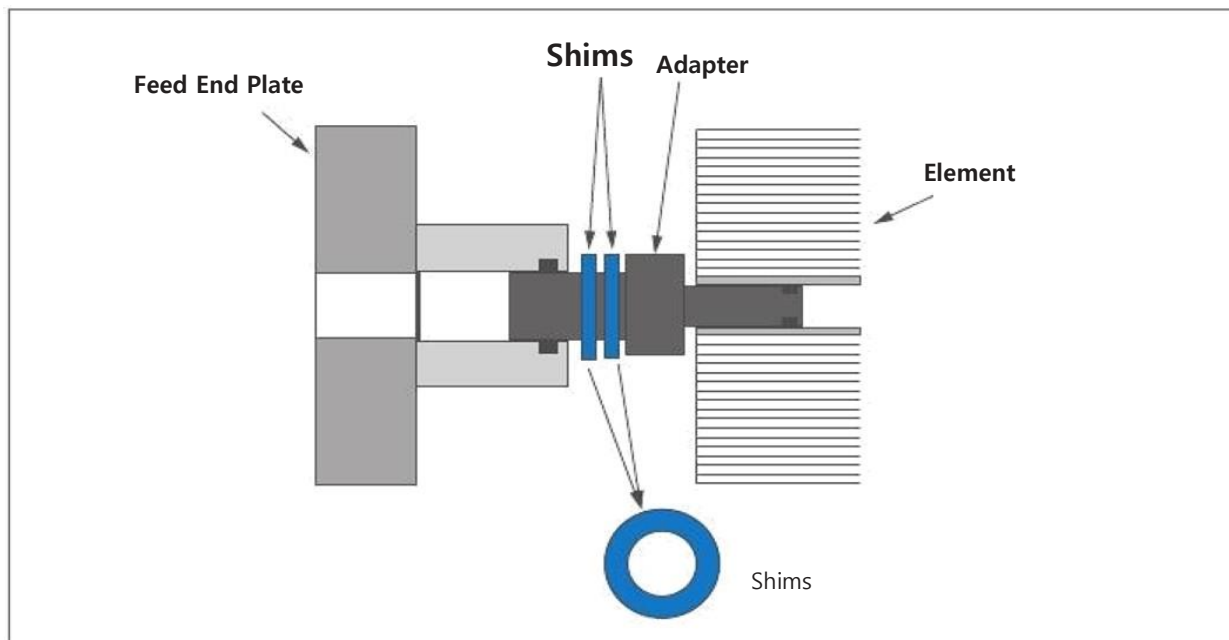
### Vessel Shimming

Because the face-to-face end plate dimensions may vary among pressure vessel manufacturers, LG Chem strongly recommends that the element stack within the pressure vessel be shimmed to remove any excess slack. This slack can result in interconnector uncoupling and excessive stack movement during shutdown and start-up.

To ensure the removal of excess slack from the element stack within each pressure vessel, LG Chem recommends the following method:

1. Install the REJECT-side end plate and thrust ring (if part of reject-side end-plate assembly), and push the element stack all the way toward the REJECT-end until the element stack is well seated against the REJECT-end end plate.
2. Prepare PVC spacers of varying thickness ranging from 3.17 to 9.52 mm (1/8 to 3/8 inches). These may be cut from a length of PVC pipe with a diameter that will fit over the feed-side adapter.
3. Install as many shims as necessary over the FEED-side inboard adapter until the end plate fits snugly against the shims while allowing the end plate to be installed. A gap of approximately 6.34 mm (1/4 inch) between the end plate and the shims is permissible and should not result in interconnector decoupling or other performance issues (Figure 103.1).
4. During the first month of system operation after startup, it is recommended to check the status of the membrane shimming and add shims if there is any space for shimming.

**Figure 103.1**



The information and data contained herein are deemed to be accurate and reliable and are offered in good faith, but without guarantee of performance. LG Chem assumes no liability for results obtained or damages incurred through the application of the information contained herein. Customer is responsible for determining whether the products and information presented are appropriate for the customer's use and for ensuring that customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Specifications subject to change without notice. NanoH2O is the Trademark of LG Chem. All rights reserved. © LG Chem, Ltd.

**Contact Us**

• America +1 424 218 4000 • Europe, Africa +39 366 57 55 474 • Middle East, Egypt +971 50 558 4168  
• Korea +82 2 3773 6619 • China +86 21 60872900 • India +91 9810013345 • South East Asia +82 2 3773 3013