Method 1 - Using a strap wrench

1. The diaphragm valve components are:
   - Housing nut
   - Inner housing with spindle assembly
   - Valve body
   - Compressor
   - Diaphragm
   - Friction lock

2. Place the valve body.

3. Attach the friction lock. The color of the friction lock indicates the material of the diaphragm:
   - Black => EPDM
   - Blue => NBR
   - Red => FPM
   - White => PTFE/EPDM
   - Green => PTFE/FPM

4. Check if the spindle assembly sits proper in the inner housing. Attach the compressor. If it is poised proper, there is no need to press it in.

5. Screw in the diaphragm handtight clockwise into the inner housing and then turn it back min 90°. Turn the spindle into open position while holding the diaphragm in place. The diaphragm tabs must be positioned between the guiding bars of the inner housing.

6. Put inner housing into body. The inner housing must fall into place. If you need to push the housing in, there is a misalignment.

7. Check whether the assembly looks like the picture above.

8. Hand tighten the housing nut as far as you can.

9. Use a strap wrench...

10. ...to tighten the housing nut, till...

11. ...a uniform all-around gap of 0.5 to 1 mm between valve body and bonnet is achieved and the half round position indicator aligns with the friction lock.

12. Attach the handwheel to the spindle. Don't apply force, just turn it slightly until it falls onto the spindle. There should be a "klick". For final testing, open the valve completely and see whether the housing nut is still tight.
Method 2 - Diaphragm Mounting with Pretensioning the Inner Housing

1. The diaphragm valve components are:
   - Housing nut
   - Inner housing with spindle assembly
   - Valve body
   - Compressor
   - Diaphragm
   - Friction lock

2. Place the valve body.

3. Attach the friction lock. The color of the friction lock indicates the material of the diaphragm:
   - Black → EPDM
   - Blue → NBR
   - Red → FPM
   - White → PTFE/EPDM
   - Green → PTFE/FPM

4. Check if the spindle assembly sits proper in the inner housing. Attach the compressor. If it is poised proper, there is no need to press it in.

5. Screw in the diaphragm handtight clockwise into the inner housing and then turn it back min 90°. Turn the spindle into open position while holding the diaphragm in place. The diaphragm tabs must be positioned between the guiding bars of the inner housing.

6. Put inner housing into body. The inner housing must fall into place. If you need to push the housing in, there is a misalignment.

7. Check whether the assembly looks like the picture above.

8. Attach a piece of pipe to the inner housing. The length of this pipe must be longer than the spindle. Hand tighten the housing nut.

9. Use a C-clamp to pretension the inner housing. Tighten the housing nut to the dedicated position.

10. The half-round position indicator should align with the friction lock.

11. Remove the C-Clamp and the pipe.

12. Attach the handwheel to the spindle. Don’t apply pressure, just turn it slightly until it falls onto the spindle. There should be a “klick”. For final testing, open the valve completely and see whether the housing nut is still tight.