Windows Assembly Critical

Job Preparation

- Ensure all the tools required as present in the workstation
- Ensure clean booth guidelines are followed

S.No	Description
1	Cleaning Alcohol
2	Go-NoGo Gauge (Center Piece)
3	Spacer
4	Lint Free Paper
5	Chesterton 785
6	Foam Swabs
7	Scissors
8	Nitrile Glove
9	Air Gun
10	Tooling Detector Side
11	Tooling Source Side
12	Piston

13	Enerpac Hydraulic Pump
14	Torque Wrench 10-100Nm
15	Hex Adaptor 6mm
16	Marker Pen
17	Torchlight
18	24mm Combination Spanner
19	½" Combination Spanner
20	Earmuffs
21	Studs and Nuts for tooling
22	Jack Stand
23	Peek Window Centralizer
24	6mm Ball Head Socket
25	6mm Allen Key Socket

Kyodo Class 100K Cleanbooth Guidelines

Before beginning assembly activites:

- ☑ Clean the workstation surface using a lint-free wipe and alcohol to ensure it is dust-free
- ☑ Make sure floor is mopped, swept and free of dust or particles
- ☑ Station the assembly trolley in the cleanbooth
- ☑ Check the calibration sticker to ensure it has not expired
- ☑ Power on the cleanbooth, lights and filter, at least 15 minutes prior to performing assembly

Additional operating guidelines:

- ☑ Cardboard boxes and other particle-producing materials are not permitted in the cleanbooth
- ☑ All paper used in the cleanbooth must be in a plastic cover or laminated
- ☑ Only lint-free wipes are permitted for use in the cleanbooth
- ☑ Remove venturi window covers just before assembly
- ☑ No entering or exiting the cleanbooth during assembly
- ☑ Maximum of 2 people in the cleanbooth during assembly
- ☑ Power down the cleanbooth at the end of the workday

Visual Inspection of Critical Components

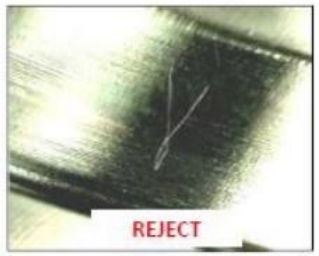
- Visually inspect the critical components for non conformances such as marks, chip offs, cracks or scratches.
- Verify the As-built list on MEPod, cross check SN with physical item.

S.NO	PN	DESCRIPTION
1	101662219	Monolithic Window (2”)
2	101662974	Monolithic Window (3”)
3	101663845	Monolithic Window (4”)
4	101666461	Monolithic Window (6”)
5	101346959	Back Flange (2”,3”,4”,6”)
6	102689842	Monolithic Window (8”)
7	102702003	Back Flange (8”)

Be cautious while handling Monolithic Window. Make sure to place it MW surface upwards. Handle using nitrile gloves

Venturi Rotation and Sealing Surface Visual Check

- Rotate the Venturi to the horizontal orientation.
- Visually inspect sealing surface for scratches. Clean with IPA, lint free papers and foam swabs



- Two personnel are required for trolley movement. Ensure wheels are locked after positioning the trolley
- Take care of pinch points while rotating venturi
- Ensure gear box safety knob is locked.
- Place Jackstand to support the weight of Venturi as an added safety feature to prevent gearbox failure

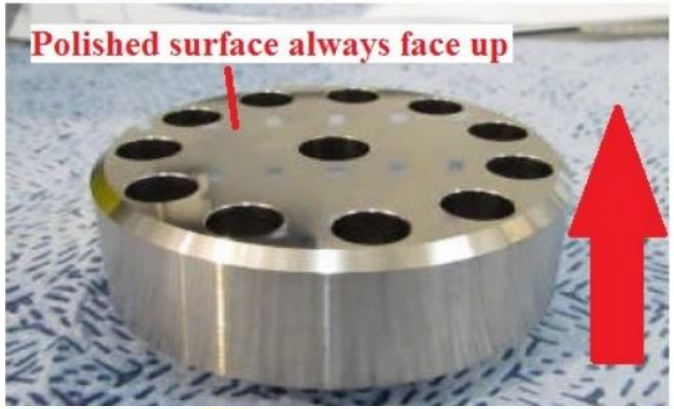
Monolithic Window and C-Ring Installation

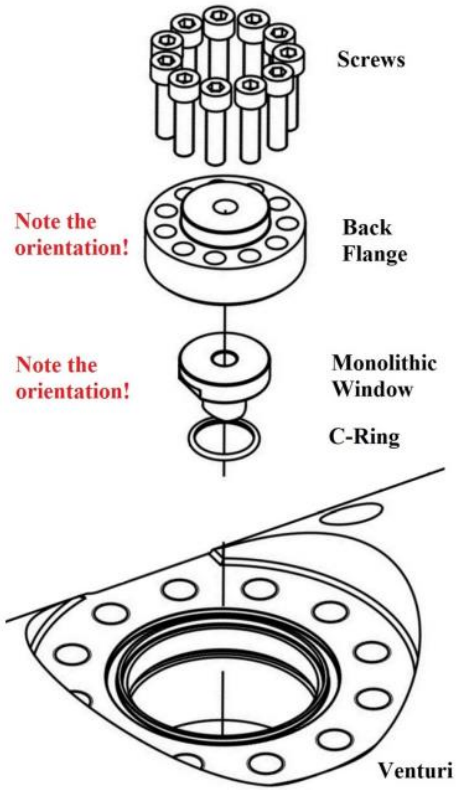
- Mount the C-Ring on the C-Ring groove.
- Assemble Monolithic Window onto the Venturi

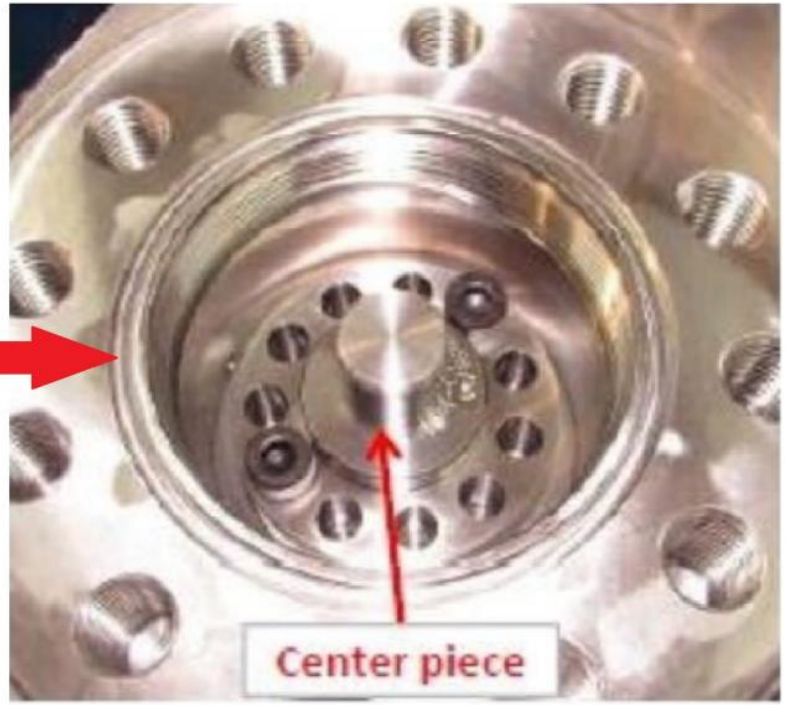
- The notch on the window needs to be well aligned with the notch in the venturi
- Ensure the window is centralized at its position i.e the window shall not have any direct contact with the Venturi surfaces

Back Flange Installation (Source Side)

- Clean using IPA, lint free paper and foam swabs
- Assemble the Back flange using the center piece appropriate for meter size.
- Apply Chesterton 785 on the ends of threads and install on the back flange



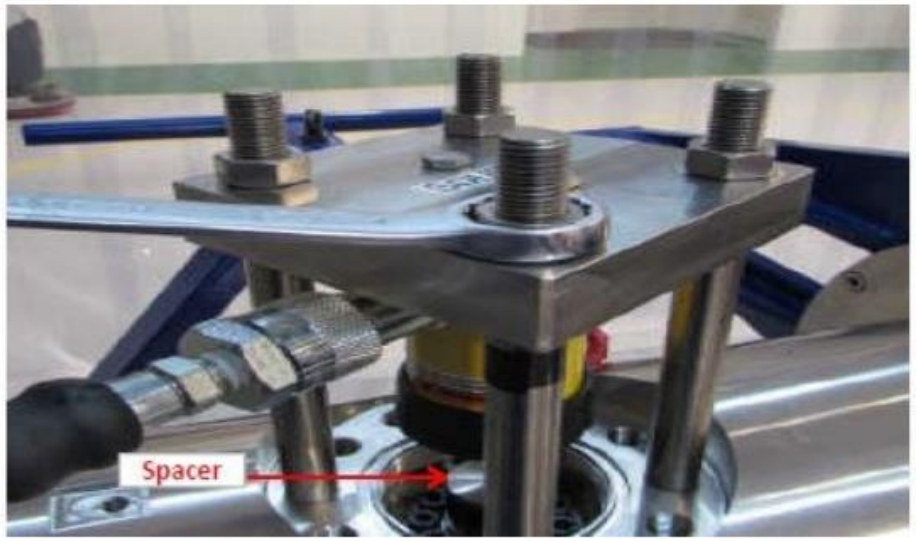




- Ensure the Back flange is centralized to the Monolithic Window using a center piece. The center piece must move up or down freely
- Ensure to keep the polished surface of the back flange free from scratches

Pressure Pump Jig Installation

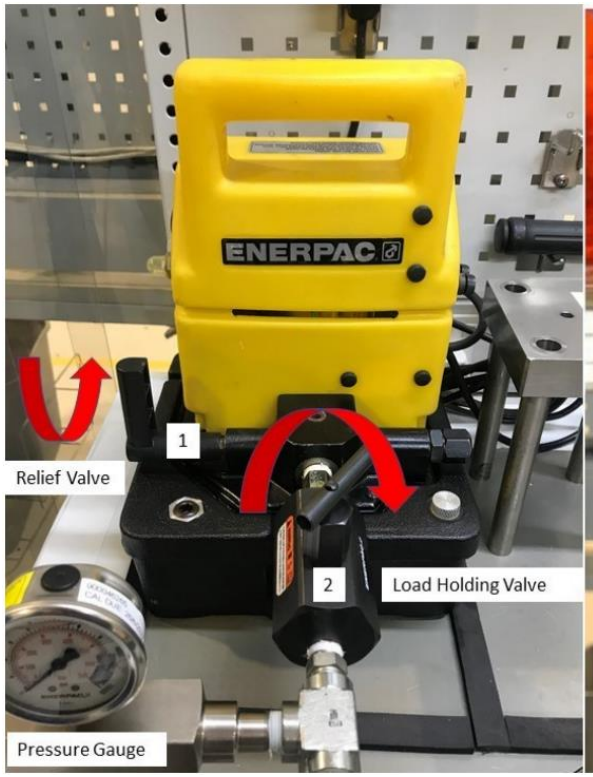
- Install the 4 tooling studs for hydraulic pressure pump piston
- Install the spacer and hydraulic tooling jig with piston

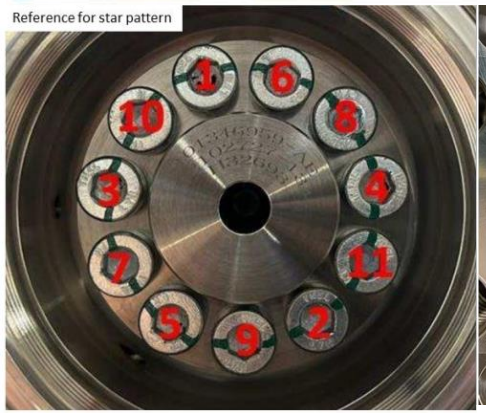


- For source side - choose the jig with label "101485101" or "Source Side".
- For detector side - choose the jig with label "101485102" or "Detector Side". This is because the jigs are different.

Pressure Application and Torquing

- Switch on the pressure pump and apply 200 bar pressure
- Torque the back flange screws in star manner to 17Nm
- Release Pressure, uninstall the jig, torque the back flange screws one more round to 17Nm





- Ensure pressure pump is holding the pressure at 200 bar before torquing.
- Ensure load holding valve is turned slowly to avoid pressure shock

Detector Side Window Assembly

- Repeat the same steps on Detector side
- Ensure to use the peak window centralizer while installing the back flange
- Use appropriate hydraulic tooling jig

- Ensure the Back flange is centralized to the Monolithic Window using a center piece. The center piece must move up or down freely
- Ensure to keep the polished surface of the back flange free from scratches

Venturi Rotation and 6S

- Rotate the Venturi back to vertical position. Lock the safety knob.
- Keep the tools and jackstand back in its home position
- Ensure the workcell is clean.