

INSTALLATION INSTRUCTIONS

This instruction has been prepared for the safe and leak-tight installation of wide-tolerance end caps used to seal the ends of pipelines made of different materials (Ductile iron, Cast iron, Steel, PVC, PE, GRP, AC, etc.).

1. Pre-Installation Preparation

- **Product Check:** Verify the label information on the adaptor (DN size and tolerance range) and ensure it is suitable for the outer diameter of the pipe.
- **Pipe Cutting:** Cut the pipe perpendicular (approx. 90°) to the pipe axis. Uneven cuts may prevent proper seating of the sealing gasket.
- **Surface Cleaning:** Clean rust, dirt, scale, and old coatings from the pipe end using a wire brush. The surface in contact with the sealing gasket must be smooth and clean.
- **Chamfering (If Required):** Apply an external chamfer of approximately 30° to the pipe end if necessary. This prevents damage to the gasket during insertion.

2. Positioning and Marking

- **Insertion Depth Marking:** Measure the adaptor body length and mark a reference line on the pipe equal to the full adaptor length.

3. Installation Steps

- **Lubrication:** Apply a silicone-based lubricant suitable for potable water to the gasket and pipe end. (Do not use oil-based lubricants as they may damage the gasket.)
- **Placement:** Slide the adaptor loosely onto the pipe and position it up to the marked reference line.
- **Gap Control:** Ensure a gap of at least 5–10 mm between the pipe end and the blind flange to allow for thermal expansion and settlement.

4. Tightening Procedure (Critical Step)

- **Cross Tightening:** Tighten the bolts in a diagonal (crosswise) sequence (e.g., 12–6 o'clock, 3–9 o'clock). This ensures even load distribution on the gasket.
- **Gradual Tightening:** First hand-tighten all bolts, then tighten gradually in multiple passes using a wrench.

5. Final Check and Testing

- **Visual Inspection:** Ensure that the gap between the pressure flange and the adaptor body is uniform around the entire circumference.
- **Pressure Test:** Perform a low-pressure leak test before commissioning the pipeline. If leakage is detected, recheck and retighten the bolts.

6. Thrust Block (Anchorage) Requirement

- If the end cap is not a pull-out resistant (restrained) type, internal pressure may cause displacement.
- A concrete thrust block must be installed behind the end cap to prevent movement.



SAFETY NOTES

- Wear protective gloves and safety footwear during installation.
- For large-diameter adaptors, use pipe supports or blocking elements to prevent excessive load on the adaptor.
- Ensure that the protective coating of bolts (galvanized, Dacromet, etc.) is not damaged to maintain corrosion resistance.