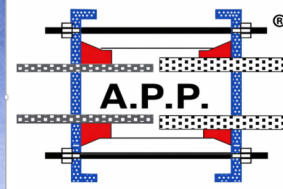


# APP-FL

## Flanged Outlet Clamp



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## INSTALLATION INSTRUCTIONS

This instruction has been prepared for the correct and safe installation of flanged outlet clamps used for repairing leaks, cracks, and damages in potable water, wastewater, and industrial pipelines, while simultaneously enabling branch connections or valve installation via an integrated flange outlet.

### 1. Pre-Installation Preparation

- **Correct Size Selection:** Before installation, measure the pipe outer diameter (O.D.) using a caliper or circumference tape. Ensure that the clamp size indicated on the label is suitable for the pipe diameter. Also verify that the selected flanged outlet size matches the intended equipment connection.
- **Surface Cleaning:** Clean mud, rust, loose coating, and deposits from the pipe surface using a wire brush. A smooth and clean surface is critical for proper sealing performance.

### 2. Installation Steps

#### 2.1 Lubrication

- Apply soapy water or a suitable lubricant to the pipe surface and gasket.
- This allows the gasket to slide properly and prevents folding during tightening.
- Warning: Do not use petroleum-based oils or grease, as these may damage the gasket material.

#### 2.2 Clamp Positioning

- **Preparation of the Clamp:**  
Loosen the nuts completely and open the clamp.  
Wrap the clamp around the damaged section of the pipe.
- **Centering:**  
Ensure that the damaged area is centered within the clamp body.  
The clamp length should extend at least 50–100 mm beyond the damaged area on both sides.

#### 2.3 Closing and Initial Tightening

- Bring the clamp lugs (ears) together.
- Ensure that the tapered gasket lip sits properly without folding.
- Insert the bolts into their slots and hand-tighten the nuts until snug.

#### 2.4 Tightening Sequence

- Tighten the bolts gradually in a crosswise pattern, starting from the center and moving outward.
- This ensures even compression of the gasket and proper sealing.

### 3. Equipment Installation (Flanged Connection)

- Once the clamp is fully secured to the pipe, connect the valve, air valve, flow meter, or other equipment to the flanged outlet.
- Place a suitable flange gasket between the mating flanges.
- Tighten flange bolts in a crosswise (star) pattern to ensure uniform load distribution.

### 4. Final Check and Commissioning

- **Waiting Period:** After installation, wait approximately 15–20 minutes and recheck the tightening torque. The rubber gasket may settle and slightly reduce bolt tension.
- **Pressure Test:** Gradually pressurize the pipeline and check for leaks. If leakage occurs, do not overtighten the bolts—slightly loosen the clamp and reposition it before retightening.

### 5. Important Notes

- **Axial Movement:** Standard repair clamps are not designed to withstand axial loads (pull-out resistance). If there is a risk of pipe movement, appropriate anchoring must be provided.
- **Load Transfer:** Heavy valves or equipment connected to the outlet may create bending moments on the clamp. In such cases, additional support (concrete or steel support) must be installed beneath the equipment.
- **Sharp Edges:** Use protective gloves during installation to prevent injury from metal edges of the clamp.