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INSTRUCTIONS FOR SAFE HANDLING

Name: **TAPPING BRIDGES TYPE 610 and TYPE 611**
Maximum operating pressure: PN 16 bar,
Medium: water (neutral liquids),
Maximum medium temperature: 50°C.

1. PRODUCT INSTALLATION - GENERAL

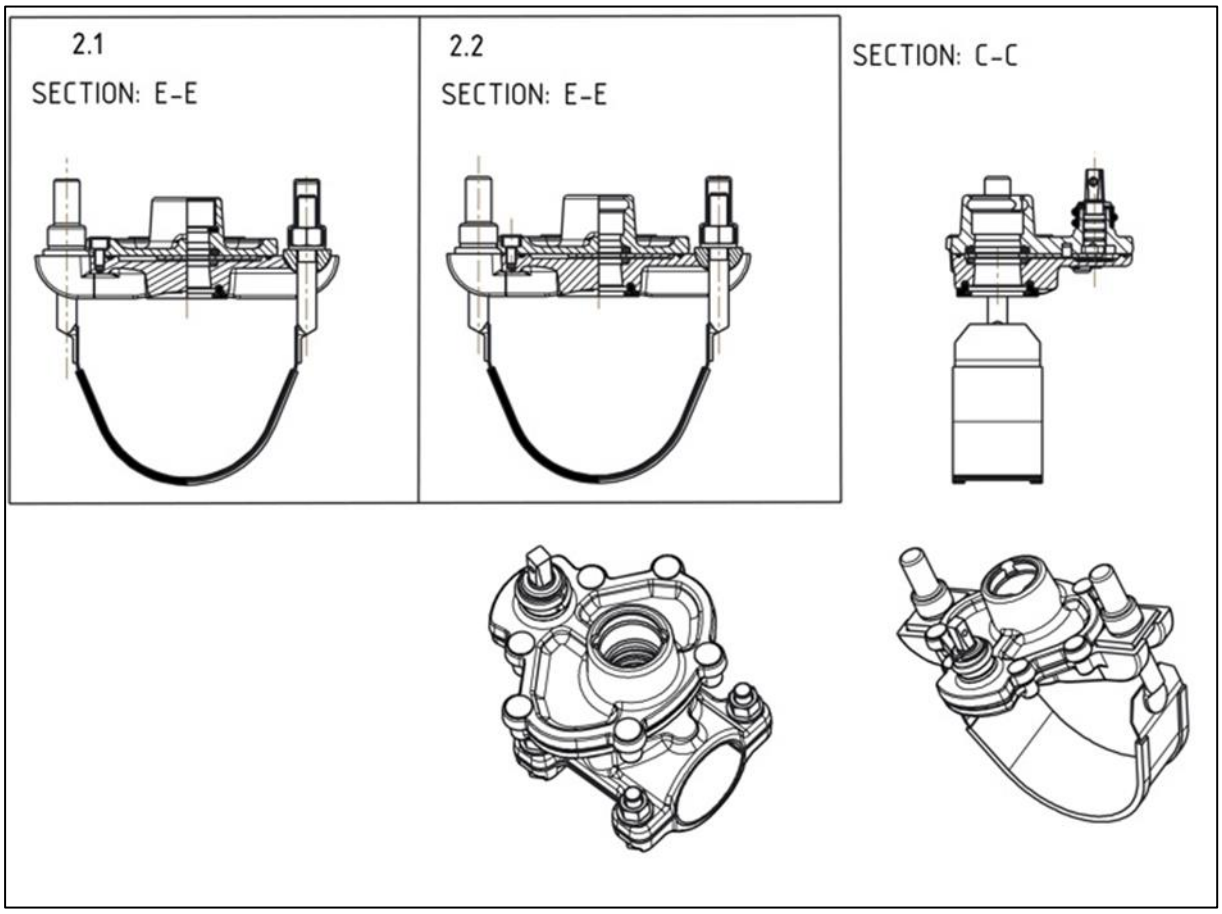
Correct installation of the drilling saddle is a condition for trouble-free operation. The assembly procedure must be carried out according to the manufacturer's instructions. The pipeline may be under pressure during installation.
The universal drilling saddle type 610 is suitable for installation on steel, asbestos-cement and cast-iron pipes. The upper part of the drilling saddle is the same for all pipe dimensions - only the straps change depending on the diameter of the pipe.
Drilling saddle type 611 is suitable for installation on PE and PVC pipes.
Only original gaskets can be used for sealing between the pipeline and the drilling saddle.

2. INSTALLATION OF THE PRODUCT ON THE PIPELINE

<table>
<tr><td>UNIVERSAL DRILLING SADDLE Art. 610</td><td>DRILLING SADDLE FOR PE/PVC PIPES Art. 611</td></tr>
<tr><td colspan="2">At the installation site we provide enough space for smooth installation. We remove the material - soil around the pipe (also under the pipe) and clean the pipeline.</td></tr>
<tr><td>Insert the seal into the seat of the body (lower part). Carefully place the saddle on the pipeline at the desired installation location. We must make sure that the seal lies in the seat of the body of drilling saddle. Strap of appropriate dimensions is formed around the pipe - pipeline in such way that a semi-circular shape is obtained. Place strap around the pipe under the drilling saddle and attach it to the drilling saddle body. In doing so, make sure that the strap holder sits nicely in the fork of the body. We check again that the drilling saddle lies in a horizontal position.
Evenly tighten the nuts on both sides of the strap. The nuts should be tightened with a torque of 50 - 70 Nm. The max. tightening torque is 80 Nm.</td><td>Unscrew the bolts on the drilling saddle and place the drilling saddle onto the pipe. Re-screw the bolts with torque 60 Nm.</td></tr>
<tr><td colspan="2">Drilling of pipe is done with a special drilling device for drilling under pressure. Standard version with 1 ½ BSP thread (2.1) (Picture 2) is connected to the thread. Version with bayonet connection (2.2) (Picture 2) needs adapter with protective rubber safety pins (Picture 1).</td></tr>
</table>

Picture 1

Picture 2



3. MAINTENANCE AND REPAIRS

Maintenance of drilling saddle is not needed. Repairs are not foreseen.

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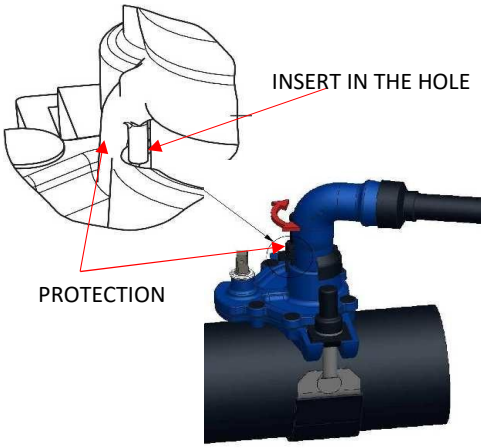
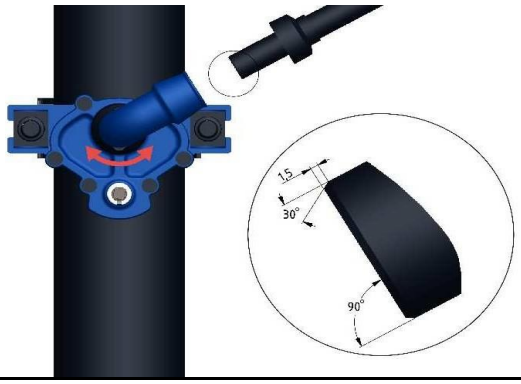
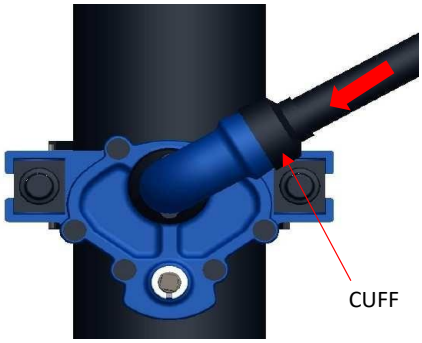
4a. INSTRUCTIONS FOR ASSEMBLING CK ELBOW ON DRILLING SADDLE AND INSTALLATION OF PIPE IN SEVEN STEPS

<table>
<tr>
<td>STEP 0: - CK ELBOW
  </td>
<td>STEP 1: REMOVE THE PROTECTIVE COVER
  </td>
<td>STEP 2: APPLY ASSEMBLY LUBRICANT TO THE SEALS BY HAND OR BRUSH
  </td>
</tr>
<tr>
<td>STEP 3: INSERT THE ELBOW INTO THE DRILLING SADDLE
  </td>
<td>STEP 4: TWIST THE ELBOW
 
</td>
<td>STEP 5: ATTACH THE PROTECTION
 
</td>
</tr>
<tr>
<td>STEP 6: DIRECT THE ELBOW IN THE DIRECTION OF THE OUTLET PIPE, PREPARE THE OUTLET PIPE (RECTANGULARITY AND CHAMFERING)
 
</td>
<td>STEP 7: INSERT THE OUTLET PIPE AND INSTALL THE CUFF
 
</td>
</tr>
</table>

4b. INSTRUCTIONS FOR ASSEMBLING OF THREADED ELBOW ON DRILLING SADDLE

Choose the proper elbow and push it to the end into the threaded hole. Screw the nut of the elbow with torque 40 Nm and thus assure the necessary tightness. Max. screwing torque is 50 Nm.
Connection of PE pipe is done in following steps:

- unscrew the nut on the elbow (ca 2-3 turns) and fully push the PE pipe through it;
- manually screw the nut in such way that removal of pipe from the elbow is prevented.

5. PLACEMENT OF EXTENSION SPINDLE

Place the clutch of the telescopic installation spindle onto the shaft of the drilling saddle. By rotating clockwise screw the metal nut of the extension spindle onto the thread of the drilling saddle. Approximately set the desired height of the extension spindle.

6. FILLING UP

The main pipe and the complete drilling saddle with elbow should be filled up with loose material. Filled material should be hardened in several layers so that the material does not settle at a later stage and as a result forces act on the pipes and elbows.