

Operating and Maintenance Instructions for  
**Pipe Repair Clamp Made of Stainless Steel,  
Single- or Multi-Band**  
Item No. 110-00, 120-00, 110-00G, 120-00G



## 1. Intended Use / Product Description:

**Medium:** Water / Gas / municipal wastewater

**Max. operating temperature:** Water: 0° - 40° C  
Gas: -10° - 50° C

**Max. operating pressure: Single-band repair clamp**

|                                                     |                |        |
|-----------------------------------------------------|----------------|--------|
| max. operating pressure (potable water/wastewater): | d 54 - d 190:  | 16 bar |
|                                                     | d 190 - d 430: | 10 bar |
| max. operating pressure (gas):                      | d 54 - d 430:  | 5 bar  |

**Double-band repair clamp**

|                                                     |                |        |
|-----------------------------------------------------|----------------|--------|
| max. operating pressure (potable water/wastewater): | d 87 - d 186:  | 16 bar |
|                                                     | d 208 - d 430: | 10 bar |
|                                                     | d 425 - d 471: | 6 bar  |
| max. operating pressure (gas):                      | d 87 - d 471:  | 5 bar  |

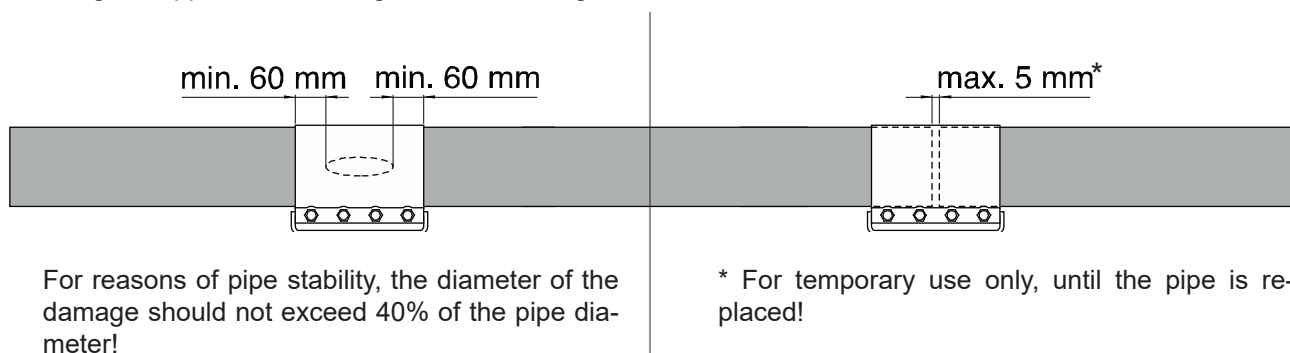
**Material:** Clamp: stainless steel  
Bolts/nuts: stainless steel, molybdenum-coated  
Gaskets: EPDM in accordance with UBA-KTW-BWGL for water or NBR for gas, respectively

Pipe repair clamps made of stainless steel, single- or multi-band, with a self-centring closure system, are used to repair damaged potable water, wastewater and gas pipelines made of cast iron, steel, PVC and AC pipes. The bolts welded to the tensioning bridge allow easy assembly with the help of the mounting bracket. To make assembly easier, the centre threaded bolt is extended from d 75 mm upward. The nuts can be screwed on quickly and easily from the supplied nut dispenser.



**CAUTION:** Repair clamps cannot be used to produce thrust-restrained or tension-restrained connections!

The range of application with regard to the damaged area must be observed.

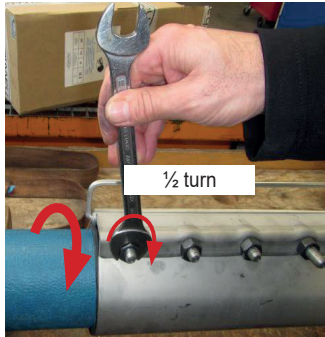
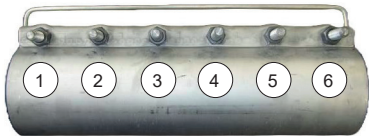


During laying, installation and maintenance, the applicable standards and codes of practice, accident prevention regulations and the regulations of the relevant trade associations must be observed and complied with. Laying, installation and maintenance may only be carried out by suitably qualified personnel.

## 2. Assembly:



Open-end wrench SW 19 (for repair clamps up to d 132, depending on version)  
Open-end wrench SW 24 (for repair clamps from d 114, depending on version)  
Torque wrench

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Clean the pipe surface</b></p> <ul style="list-style-type: none"> <li>• The pipe surface must be clean and smooth.</li> <li>• Prevent water from escaping at the leak point.</li> <li>• Only fit repair clamps over pipe coatings if it is ensured that the coating is tight. Otherwise, remove the coating.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                          |
| <p><b>Fit the repair clamp</b></p> <ul style="list-style-type: none"> <li>• Pull the nut dispenser off the bolts and open the repair clamp so that it can be placed around the pipe.</li> <li>• Do not use lubricant, soap solution or similar.</li> <li>• When fitting, make sure that the overlap plate rests flush against the entire pipe circumference.</li> <li>• Guide the bolts through the corresponding holes.</li> <li>• During assembly, align the repair clamp by turning it slightly in the direction of the arrow, so that the overlap plate and the gasket remain seated cleanly against the pipe.</li> </ul>                                                                                                                                                                                                                                                                                              |                                                                                                          |
| <p><b>Fit and tighten the nuts</b></p> <ul style="list-style-type: none"> <li>• First secure the centre threaded bolt (extended from d 75) with the nut dispenser.</li> <li>• Remove the nut dispenser by bending it slightly to the side and screw the nuts onto all threaded bolts (only one nut per threaded bolt!). Greasing the nuts is not required, as they are molybdenum-coated at the factory.</li> <li>• Using an open-end wrench (SW 19 or SW 24), tighten the nuts in the specified sequence, alternately and evenly, each time by a maximum of half a turn, until all nuts are hand-tight. While doing so, align the repair clamp by turning it slightly in the direction of the arrow.</li> <li>• Then tighten all nuts step by step in the specified sequence, evenly, using a torque wrench, up to the specified tightening torque.</li> <li>• Repeat the process after a short settling time.</li> </ul> |  <p>Sequence:</p>  |
| <p><b>Bolt tightening torques</b></p> <p>Single-band repair clamp:</p> <ul style="list-style-type: none"> <li>• d 54 – d 130 = max. 60 Nm</li> <li>• d 131 – d 430 = max. 90 Nm</li> </ul> <p>Double-band repair clamp:</p> <ul style="list-style-type: none"> <li>• d 87 – d 132 = max. 60 Nm</li> <li>• d 133 – d 471 = max. 90 Nm</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                        |



**CAUTION:**

- When used in aggressive soils, we additionally recommend applying a corrosion protection tape around the clamp.
- In the event of a complete pipe break, it must be ensured that the pipe is free of tension.

**3. Maintenance:**

Hawle repair clamps are maintenance-free.

**4. Commissioning and pressure-testing:**

After successful assembly, a pressure test must be carried out in the open pipe trench, observing the maximum operating pressures in accordance with the DVGW code of practice.

**If you have any further questions or require additional information, please contact:**

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