BK 212

Installation Instructions 810609-00
Steam Trap BK 212
Fig. 1

1. Max. capacity of hot condensate at factory setting and steam-tight shut-off

2. Max. capacity of cold condensate

Differential pressure $\Delta PMX$ (assuming discharge to atmospheric pressure)
**Dimensions**

---

**Fig. 1**

Butt-weld ends according to DIN 3239-1-R6
edge form 22 to DIN 2559

<table>
<thead>
<tr>
<th>DN</th>
<th>$d_1$</th>
<th>$d_2$</th>
<th>for pipe</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>15</td>
<td>22</td>
<td>21.3 x 3.2</td>
</tr>
<tr>
<td>20</td>
<td>19</td>
<td>28</td>
<td>26.9 x 4.0</td>
</tr>
<tr>
<td>25</td>
<td>24</td>
<td>35</td>
<td>33.7 x 5.0</td>
</tr>
</tbody>
</table>

**Fig. 2**

**Fig. 3**

Butt-weld ends according to DIN 3239-2-R8
edge form 22 to DIN 2559

<table>
<thead>
<tr>
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<td>34</td>
<td>33.7 x 8.0</td>
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<tr>
<td>25</td>
<td>25</td>
<td>49</td>
<td>48.3 x 12.5</td>
</tr>
</tbody>
</table>
Parts Drawings

Fig. 4
Key

A Cover
B Strainer
C Gasket
D Regulator
E Body
F Cap nut
G Cover bolt
## Contents

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</thead>
<tbody>
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<td>7</td>
</tr>
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</table>

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</tr>
<tr>
<td>Technical data</td>
<td>9-10</td>
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</tbody>
</table>

### Installation

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Important Notes

Safety Note

Use steam trap BK 212 only for the discharge of steam condensate. The steam trap may only be installed by qualified staff. Qualified staff are those persons who – through adequate training in engineering, the use and application of equipment in accordance with regulations concerning steam systems, and first aid & accident prevention – have achieved a recognised level of competence appropriate to the installation and commissioning of this device.

Danger

The steam trap is under pressure when the system is operating. When loosening flanged connections or plugs hot water or steam may escape. This presents the risk of severe scalds to the whole body. Before carrying out installation and maintenance work it is therefore essential to isolate and depressurize the trap.

The trap becomes hot during operation. This presents the risk of severe burns to hands and arms. Before carrying out any installation or maintenance work make sure that the trap is cold.

Sharp edges on internals present a danger of cuts to hands. Always wear industrial gloves when replacing the regulator.
Explanatory Notes

Scope of Supply

BK 212
1 Steam trap type BK 212
1 Installation manual

Description

Thermostatic/thermodynamic steam trap with corrosion-resistant regulator unaffected by waterhammer. The trap features:

- Integral strainer
- Non-return valve action
- Asbestos-free cover gasket (graphite/1.4541)
- Installation in any position

Function

The BK 212 is a thermostatic/thermodynamic steam trap with corrosion-resistant Duo S. S. regulator unaffected by waterhammer. The trap opens and closes irrespectively of the temperature and pressure prevailing inside the trap. The BK 212 vents air automatically at start-up and during continuous operation.
## Technical Data

### Pressure/Temperature Rating for standard equipment

<table>
<thead>
<tr>
<th>PMA (allowable pressure) [bar]</th>
<th>TMA (admissible temperature) in [°C] for butt-weld ends to DIN 3239</th>
<th>Form 1 – R6 DN [mm] (in)</th>
<th>Form 2 – R8 DN [mm] (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>15 (½&quot;)</td>
<td>20* (¾&quot;)</td>
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<tr>
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<td>150</td>
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<tr>
<td>180</td>
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<td>511</td>
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<td>211</td>
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<td>500</td>
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<td>476</td>
<td>487</td>
</tr>
<tr>
<td>300</td>
<td></td>
<td>467</td>
<td>481</td>
</tr>
</tbody>
</table>

**∆PMX** (max. differential pressure) 250 bar (3625 psi) *(inlet pressure minus outlet pressure)*

### Pressure/Temperature Rating for special design (with special bolts and nuts)

<table>
<thead>
<tr>
<th>PMA (allowable pressure) [bar]</th>
<th>TMA (admissible temperature) in [°C] for butt-weld ends to DIN 3239</th>
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<th>Form 2 – R8 DN [mm] (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>15 (½&quot;)</td>
<td>20* (¾&quot;)</td>
</tr>
<tr>
<td>67</td>
<td></td>
<td>580</td>
<td>580</td>
</tr>
<tr>
<td>78</td>
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</tr>
<tr>
<td>275</td>
<td></td>
<td>476</td>
<td>487</td>
</tr>
<tr>
<td>300</td>
<td></td>
<td>467</td>
<td>481</td>
</tr>
</tbody>
</table>

*) DN 20 not covered by DIN standards.
Attention

- Only qualified welders certified e.g. according to DIN EN 287 may weld the steam trap into pressurized lines.
- Do not insulate the steam trap.

**Installation**

**BK 212**

1. The steam trap BK 212 can be installed in any position. In the case of a horizontal installation, make sure that the cover is at the top.
2. Take care of flow direction. The flow arrow is on the trap body.
3. Consider space required for opening trap. When the trap is installed a minimum space of **150 mm** is required for removing the cover.
4. Remove plastic plugs. They are **only** used as transit protection.
5. Clean socket-weld ends.
6. Arc-weld trap **only** manually (welding process 111 in accordance with DIN EN 24063).

**Attention**

- Only qualified welders certified e.g. according to DIN EN 287 may weld the steam trap into pressurized lines.
- Do **not** insulate the steam trap.

**Heat Treatment of Welds**

After the steam trap has been welded into the pipeline the welds require special heat treatment (we recommend resistance annealing according to DIN EN 100529). Remove the regulator before carrying out the heat treatment (see **Maintenance**). Annealing must be restricted to the region of the welds.
Installation – continued –

Regulator

The regulator is set at our factory to close steam-tight and open as soon as condensate is formed.

Tools

- Spanners A.F. 24 mm

Maintenance

The BK 212 does not require any special maintenance. However, if used in new installations which have not been rinsed it may be necessary to check and clean the trap.

Replacing Regulator

1. Remove cover A from body E, Fig. 4
2. Undo regulator D using a spanner.
3. Unscrew regulator D and take off strainer B.
4. Clean body, regulator, cover and strainer.
5. Clean gasket seating surfaces and insert new gasket C.
6. Clean sealing surfaces of regulator D and body E.
7. Replace strainer B.
8. Screw in regulator D and tighten with a torque of 100 Nm.
9. Apply heat-resistant lubricant to threads of cover bolts B (use for instance MOLYKOTE HSC®)
10. Replace cover A. Insert bolts E and tighten cap nuts F at room temperature in diagonally opposite pairs with a torque of 225 Nm.

Tools

- Spanner A.F. 24 mm
- Torque spanner 20–120 Nm to DIN ISO 6789

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## Spare Parts

![Diagram of a valve system with labeled parts D, B, and C.]

### Fig. 5

#### Spare Parts List

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Designation</th>
<th>Ref. no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D 2</td>
<td>Regulator, complete, including cover gasket (item 4.2)</td>
<td>371862</td>
</tr>
<tr>
<td>C 4.1</td>
<td>Gasket (graphite/1.7335)</td>
<td>374009</td>
</tr>
<tr>
<td>B 4.2</td>
<td>Strainer</td>
<td>096345</td>
</tr>
</tbody>
</table>
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