Features of the UNA series

- Unaffected by back pressure and condensate temperature
- No loss of live steam due to continuous water seal at the seat
- No banking-up of condensate even with extreme load and pressure fluctuations
- Particularly well suited for heat exchangers controlled from the steam side
- Unaffected by dirt
- Automatic thermostatic air-venting (Duplex design)
- Ideal for discharging cold condensates, distillates and condensates derived from chemical products (Simplex design)
- Repairable in-line
- Thanks to the rolling ball valve only reduced operating forces and small control units are required (compact, lightweight design for large flowrates)
- Internals made from corrosion-resistant stainless steels
- UNA 14, 16, 45, 46, 38: Body can be easily repositioned to convert the flow direction from left to right or vice versa or to change to vertical flow.
- UNA 45, 46 DN 40-65 optionally available with MAX controller for very large flowrates (conversion standard -> MAX controller not possible).

Application

Condensate discharge without banking-up, even at varying operating conditions and back pressure. Automatic air-venting (Duplex design). Also for the discharge of cold condensates and distillates, and for draining gas and compressed air systems (Simplex design).

Pressure/Temperature Ratings and Designs

<table>
<thead>
<tr>
<th>Type</th>
<th>PN / Class</th>
<th>∆PMX</th>
<th>Material</th>
<th>Max. Pressure / Temp. Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>[bar]</td>
<td>EN, ASTM</td>
<td>p / T [bar/°C]</td>
</tr>
<tr>
<td>UNA 14</td>
<td>PN 25</td>
<td>13</td>
<td>5.3103</td>
<td>25.0 / 350</td>
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<tr>
<td>UNA 16</td>
<td>PN 40</td>
<td>22</td>
<td>1.0460 / 1.0619</td>
<td>40.0 / 400</td>
</tr>
<tr>
<td>UNA 45</td>
<td>PN 40 / CL300</td>
<td>32</td>
<td>1.0460 / 5.3103</td>
<td>40 / 350</td>
</tr>
<tr>
<td>UNA 46</td>
<td>PN 40 / CL300</td>
<td>32</td>
<td>1.0460 / 1.0619</td>
<td>40 / 450</td>
</tr>
<tr>
<td>UNA 27h</td>
<td>PN 63</td>
<td>45</td>
<td>1.5419</td>
<td>63.0 / 450</td>
</tr>
<tr>
<td>UNA 38</td>
<td>PN 100</td>
<td>80</td>
<td>1.5415 / 1.7357</td>
<td>100.0 / 530</td>
</tr>
<tr>
<td>UNA 38</td>
<td>High-temperature</td>
<td>PN 100</td>
<td>80</td>
<td>1.7335 / 1.7357</td>
</tr>
<tr>
<td>UNA 39</td>
<td>PN 160</td>
<td>140</td>
<td>1.7335</td>
<td>160.0 / 550</td>
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<tr>
<td>UNA-Special Type 62B</td>
<td>PN 16</td>
<td>16</td>
<td>1.0425</td>
<td>16.0 / 300</td>
</tr>
<tr>
<td>UNA-Special</td>
<td>PN 25</td>
<td>22</td>
<td>1.0619</td>
<td>25.0 / 400</td>
</tr>
<tr>
<td>UNA-Special</td>
<td>PN 25</td>
<td>22</td>
<td>1.0619</td>
<td>25.0 / 450</td>
</tr>
<tr>
<td>UNA-Special</td>
<td>PN 63</td>
<td>45</td>
<td>1.5419</td>
<td>63.0 / 300</td>
</tr>
<tr>
<td>UNA 16A</td>
<td>PN 40</td>
<td>22</td>
<td>1.4404 / 1.4408</td>
<td>40.0 / 450</td>
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<tr>
<td>UNA 46A</td>
<td>PN 40 / CL300</td>
<td>32</td>
<td>1.4404 / 1.4408</td>
<td>41.4 / 425</td>
</tr>
</tbody>
</table>

1) Limits for body/cover. Functional requirements may restrict the use to below the limits quoted.
2) For full details on limiting conditions depending on end connection and type of regulator see data sheet.
3) ASTM nearest equivalent is stated for guidance. Physical and chemical properties comply with EN.
4) These types/materials are only available for design h for installation in horizontal lines.
5) If the operating temperatures exceed 300 °C intercrystalline corrosion may occur. Do not subject the equipment to operating temperatures higher than 300 °C unless intercrystalline corrosion can be ruled out.
**Available Designs**

**Type** | **End connection options** | **Orifice (AO) for max. differential pressure** | **Control unit**
--- | --- | --- | ---
**UNA 14** | x\(^1\) | A0 4, 13 | Simplex
**UNA 16A** | x\(^1\) | A0 4, 13, 22 | Simplex
**UNA 45, UNA 46, UNA 46A** | x\(^1\) | A0 2, 4, 8, 13, 22, 32; 4 MAX\(^4\), 8 MAX\(^4\), 13 MAX\(^4\), 22 MAX\(^4\), 32 MAX\(^4\) | Simplex
**UNA 27h** | x | A0 16, 28, 45 | Simplex
**UNA 38** | x\(^1\) | A0 50, (64), 80, 80 MAX | Simplex
**UNA 39** | x | A0 80, 110, 140, 140 MAX | Simplex
**UNA-Special Type 62B, PN 16** | x | A0 2\(^4\), 3.5\(^4\), 5, 10, 16 | Simplex
**UNA-Special PN 25** | x | A0 2\(^4\), 3.5\(^4\), 5, 10, 16, 22 | Simplex
**UNA PN 25** | x | A0 2, 3.5, 5, 8, 12, 16, 22 | Simplex
**UNA-Special PN 63** | x | A0 16, 22, 32, 40, 45 | Simplex

\(^1\) Connection orientation can be changed on site, trap body for horizontal-right available

\(^3\) This design is not available for DN 80 mm

\(^3\) This design is not available for DN 65 mm

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**Optional Items for Ball-Float Traps**

**Item** | **Type**
--- | ---
Sightglass cover | UNA 45
Cover for installing electrodes | UNA 45
Float lifting lever with gasket | UNA 45, 46, 46 A, 27 h, 38
Vent valve with gasket (for Duplex design) | UNA 45, 46, 46 A, 27 h, 38
Inner bypass (adjustable) | UNA 45, 46, 46 A
Capacity Charts

The charts show the maximum hot condensate capacities for the range of float-controlled orifices (AO) and sizes available.

**UNA 14, UNA 16, UNA 16A**

**UNA 45, UNA 46, UNA 46A**

**UNA 27 h**

**UNA 45 MAX, UNA 46 MAX, UNA 46A MAX**
Capacity Charts

The charts show the maximum hot condensate capacities for the range of float-controlled orifices (AO) and sizes available.

**UNA 38**

**UNA 39**

*Traps with small end connection sizes do not reach the flowrates indicated in this chart.*
Capacity Charts

The charts show the maximum hot condensate capacities for the range of orifices (AO) and sizes available.

UNA-Special Type 62B, PN 16

Available orifices (AO)
1 DN 80 AO 16
2 DN 80 AO 10
3 DN 100 AO 16
4 DN 80 AO 5
5 DN 80 AO 3.5
6 DN 100 AO 5
7 DN 100 AO 3.5
8 DN 100 AO 2

UNA PN 25, DN 80 and 100

Available orifices (AO)
1 DN 80 AO 22
2 DN 80 AO 16
DN 100 AO 22
3 DN 80 AO 12
4 DN 100 AO 16
5 DN 80 AO 8
DN 100 AO 12
6 DN 80 AO 5
DN 100 AO 8
7 DN 80 AO 3.5
8 DN 100 AO 5
9 DN 80 AO 2
DN 100 AO 3.5
10 DN 100 AO 2
Capacity Charts

The charts show the maximum hot condensate capacities for the range of orifices (AO) and sizes available.

UNA-Special PN 25, DN 50 and 65

Available orifices (AO)

1. DN 50 AO 22
2. DN 50 AO 16
3. DN 65 AO 22
4. DN 50 AO 10
5. DN 65 AO 16
6. DN 65 AO 10
7. DN 50 AO 5
8. DN 65 AO 3.5
9. DN 65 AO 5
10. DN 65 AO 16

UNA-Special PN 63 (PN 40)

Available orifices (AO)

1. DN 65 AO 45
2. DN 65 AO 40
3. DN 80 AO 45
4. DN 65 AO 32
5. DN 80 AO 40
6. DN 100 AO 45
7. DN 65 AO 22
8. DN 100 AO 40
9. DN 80 AO 32
10. DN 100 AO 40
11. DN 80 AO 16
12. DN 100 AO 22