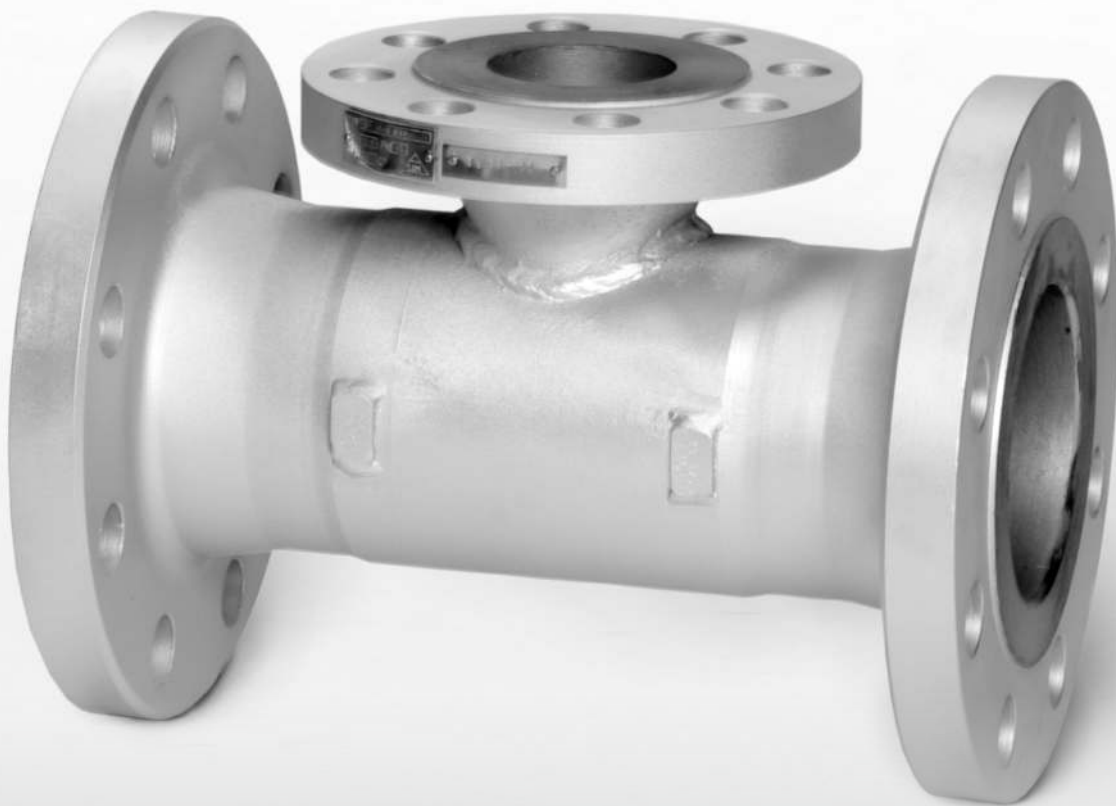




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DESUPERHEATER **CHP**





CHP

Desuperheater

**DN 100 and higher
PN 16 to 400**

Description

CHP is a body that is put directly into the steam pipeline and subsequently serves for connection with injection head VH, VHP or VHF (further VHx). According to dimensions of the pipeline and necessary intensity of cooling, the body can be equipped with more inlets for connection of VHx.

CHP is supplied with flanges or with weld ends with connection flange 2 for connection of VHx (max. temperature 350°C) or DN 80 (flange 1 DN 150 and higher) and dimensions according to customers requirements.

Application

CHP serves as an in-between link into the steam pipeline into which it is possible to install injection head VHx. It is designed especially for industrial applications such as low-pressure steam production in heating or the steam production for technological processes.

Process media

Application of CHP for other process media than water, water vapour, should be selected in respect to the kind of process medium that is in touch with the material of CHP and should be consulted with the producer.

Installation

It is necessary to keep free space above connection flange (flange 2) for possible installation of injection head VHx. CHP can be piped horizontally, vertically or inclined.

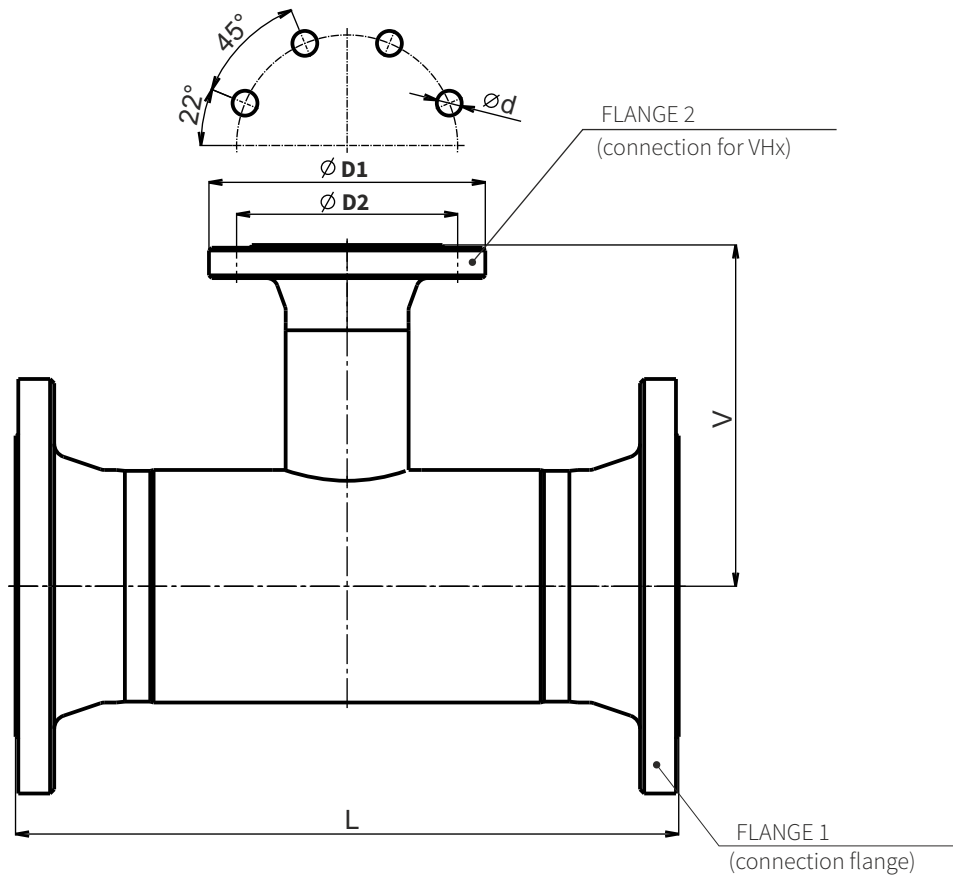
| Technical data | | | | | | | | | |
|--|---|--|--------------|--------------------------------|--------------|---|--------------|---------------------------------------|--------------|
| Series | CHP | | | | | | | | |
| Execution | Flanged or weld ends | | | | | | | | |
| Nominal diameter range | Flange 1: DN 100 and higher; flange 2: DN 50 and DN 80 | | | | | | | | |
| Nominal pressure PN | PN 16 to 400 | | | | | | | | |
| Body material (flanges / weld ends) | <table border="1"> <tr> <td>Cast steel 1.0425 (P265GH) / 1.0426 (P280GH)</td> <td>20 to 480 °C</td> </tr> <tr> <td>Alloy steel 1.7335 (13CrMo4-5)</td> <td>20 to 550 °C</td> </tr> <tr> <td>Alloy steel 1.7380 (10CrMo9-10) / 1.7383 (11CrMo9-10)</td> <td>20 to 600 °C</td> </tr> <tr> <td>Stainless steel 1.4922 (X20CrMoV11-1)</td> <td>20 to 600 °C</td> </tr> </table> | Cast steel 1.0425 (P265GH) / 1.0426 (P280GH) | 20 to 480 °C | Alloy steel 1.7335 (13CrMo4-5) | 20 to 550 °C | Alloy steel 1.7380 (10CrMo9-10) / 1.7383 (11CrMo9-10) | 20 to 600 °C | Stainless steel 1.4922 (X20CrMoV11-1) | 20 to 600 °C |
| Cast steel 1.0425 (P265GH) / 1.0426 (P280GH) | 20 to 480 °C | | | | | | | | |
| Alloy steel 1.7335 (13CrMo4-5) | 20 to 550 °C | | | | | | | | |
| Alloy steel 1.7380 (10CrMo9-10) / 1.7383 (11CrMo9-10) | 20 to 600 °C | | | | | | | | |
| Stainless steel 1.4922 (X20CrMoV11-1) | 20 to 600 °C | | | | | | | | |
| Connection dimensions (flange 1 / weld ends) | Acc. to ČSN EN 1092-1 (7/2013) / ČSN EN 12627 (8/2000) *) | | | | | | | | |
| Connection flange 2 dimensions | Acc. to ČSN EN 1092-1 (7/2013) | | | | | | | | |

*) Dimensions and type of connection (flange / weld connection) acc. to customer requirements. It shall be specified in order.

| Connection dimensions | | | | | | | | | | | | | | | | |
|-----------------------|-----------------|-------|----------------------|----------------------|---------|----------------------|----------------------|---------|----------------------|----------------------|---------|----------------------|----------------------|---------|-----|-----|
| Flange 1 | | | Flange 2 | | | | | | | | | | | | V | L |
| PN | DN | DN | PN 100, 160 | | | PN 250 | | | PN 320 | | | PN 400 | | | | |
| | | | D ₁ mm | D ₂ mm | d mm | D ₁ mm | D ₂ mm | d mm | D ₁ mm | D ₂ mm | d mm | D ₁ mm | D ₂ mm | d mm | mm | mm |
| 16 to 400 | min. 100 **) | 50 | 195 | 145 | 26 | 200 | 150 | 26 | 210 | 160 | 26 | 235 | 180 | 30 | **) | **) |
| | | 80 *) | 230 | 180 | 26 | 250 | 200 | 30 | 275 | 220 | 30 | 305 | 240 | 33 | | |

*) Execution with connection flange 2 DN 80 only with flange 1 DN 150 and higher

***) Dimensions and type of connection (flange / weld connection) acc. to customer requirements. It shall be specified in order



| Valve complete specification No. for ordering CHP | | | | | | | |
|---|------------------------------|---------------|---|-----|---|---|------------|
| 1. Series | Steam cooling unit | XXX | X | XXX | / | XXX - XXX | X |
| 2. No. of inlets | Acc. to intensity of cooling | CHP | X | | | | |
| 3. Nominal diameter | Flange 1 - steam pipeline | | | XXX | | | |
| | Flange 2 - connection VHx | | | | | DN 50 (t _{max} = 350 °C) DN 80 (flange 1 DN 150 and more) | 050 080 |
| 4. Nominal pressure | PN | | | | | | XXX |
| 5. Body material | Cast steel 1.0425 / 1.0426 | (20 to 480°C) | | | | | 1 |
| | Alloy steel 1.7335 | (20 to 550°C) | | | | | 2 |
| | Alloy steel 1.7380 / 1.7383 | (20 to 600°C) | | | | | 6 |
| | Stainless steel 1.4922 | (20 to 600°C) | | | | | 7 |
| | Other material | | | | | | 9 |

Order example: Steam cooling unit, steam pipeline flange DN 150, PN 40, connection flange DN 80, PN 100, body material 1.0425 is marked as follows: **CHP1 150/080-040 1**

| Max. permissible operating pressures [MPa] | | | | | | | | | | | | | |
|---|------------|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Material | PN | Temperature [°C] | | | | | | | | | | | |
| | | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 480 | 500 | 550 | 600 |
| Cast steel 1.0425 / 1.0426 | 16 | 1.5 | 1.42 | 1.34 | 1.23 | 1.11 | 1.04 | 0.96 | 0.59 | 0.36 | --- | --- | --- |
| | 25 | 2.34 | 2.22 | 2.10 | 1.92 | 1.74 | 1.62 | 1.50 | 0.92 | 0.56 | --- | --- | --- |
| | 40 | 3.74 | 3.55 | 3.36 | 3.07 | 2.78 | 2.59 | 2.40 | 1.47 | 0.90 | --- | --- | --- |
| | 63 | 5.90 | 5.59 | 5.29 | 4.84 | 4.38 | 4.08 | 3.78 | 2.32 | 1.41 | --- | --- | --- |
| | 100 | 9.36 | 8.88 | 8.40 | 7.68 | 6.96 | 6.48 | 6.00 | 3.68 | 2.24 | --- | --- | --- |
| | 160 | 14.9 | 14.2 | 13.4 | 12.2 | 11.1 | 10.3 | 9.60 | 5.89 | 3.59 | --- | --- | --- |
| | 250 | 23.4 | 22.2 | 21.0 | 19.2 | 17.4 | 16.2 | 15.0 | 9.20 | 5.60 | --- | --- | --- |
| | 320 | 29.9 | 28.4 | 26.8 | 24.5 | 22.2 | 20.7 | 19.2 | 11.7 | 7.17 | --- | --- | --- |
| | 400 | 37.4 | 35.5 | 33.6 | 30.7 | 27.8 | 25.9 | 24.0 | 14.7 | 8.96 | --- | --- | --- |
| Alloy steel 1.7335 | 16 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.49 | 1.37 | 1.26 | | 1.0 | 0.47 | --- |
| | 25 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.33 | 2.13 | 1.97 | | 1.56 | 0.73 | --- |
| | 40 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.73 | 3.41 | 3.15 | | 2.5 | 1.17 | --- |
| | 63 | 6.3 | 6.3 | 6.3 | 6.3 | 6.3 | 5.87 | 5.38 | 4.97 | | 3.93 | 1.85 | --- |
| | 100 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 9.31 | 8.53 | 7.89 | | 6.24 | 2.93 | --- |
| | 160 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 14.9 | 13.6 | 12.6 | | 9.99 | 4.70 | --- |
| | 250 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 23.2 | 21.3 | 19.7 | | 15.6 | 7.34 | --- |
| | 320 | 32.0 | 32.0 | 32.0 | 32.0 | 32.0 | 29.8 | 27.3 | 25.2 | | 19.9 | 9.39 | --- |
| | 400 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 37.2 | 34.1 | 31.5 | | 24.9 | 11.7 | --- |
| Alloy steel 1.7380 / 1.7383 | 16 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.5 | 1.37 | 1.26 | | 1.05 | 0.56 | 0.24 |
| | 25 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.35 | 2.13 | 1.97 | | 1.65 | 0.88 | 0.37 |
| | 40 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.75 | 3.41 | 3.15 | | 2.63 | 1.41 | 0.6 |
| | 63 | 6.3 | 6.3 | 6.3 | 6.3 | 6.3 | 5.91 | 5.38 | 4.97 | | 4.15 | 2.22 | 0.94 |
| | 100 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 9.38 | 8.53 | 7.89 | | 6.58 | 3.52 | 1.49 |
| | 160 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 15.0 | 13.6 | 12.6 | | 10.5 | 5.63 | 2.39 |
| | 250 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 23.4 | 21.3 | 19.7 | | 16.4 | 8.80 | 3.73 |
| | 320 | 32.0 | 32.0 | 32.0 | 32.0 | 32.0 | 30.0 | 27.3 | 25.2 | | 21.0 | 11.2 | 4.78 |
| | 400 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 37.5 | 34.1 | 31.5 | | 26.3 | 14.0 | 5.98 |
| Stainless steel 1.4922 | 16 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.5 | 1.37 | 1.26 | | 1.05 | 0.9 | 0.42 |
| | 25 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.35 | 2.13 | 1.97 | | 1.65 | 1.46 | 0.65 |
| | 40 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.75 | 3.41 | 3.15 | | 2.63 | 2.33 | 1.05 |
| | 63 | 6.3 | 6.3 | 6.3 | 6.3 | 6.3 | 5.91 | 5.38 | 4.97 | | 4.15 | 3.67 | 1.65 |
| | 100 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 9.38 | 8.53 | 7.89 | | 6.58 | 5.82 | 2.61 |
| | 160 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 15.0 | 13.6 | 12.6 | | 10.5 | 9.32 | 4.18 |
| | 250 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 23.4 | 21.3 | 19.7 | | 16.4 | 14.5 | 6.54 |
| | 320 | 32.0 | 32.0 | 32.0 | 32.0 | 32.0 | 30.0 | 27.3 | 25.2 | | 21.0 | 18.6 | 8.37 |
| | 400 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 37.5 | 34.1 | 31.5 | | 26.3 | 23.3 | 10.4 |



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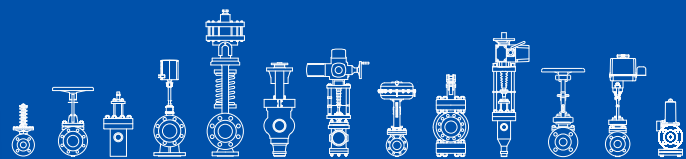
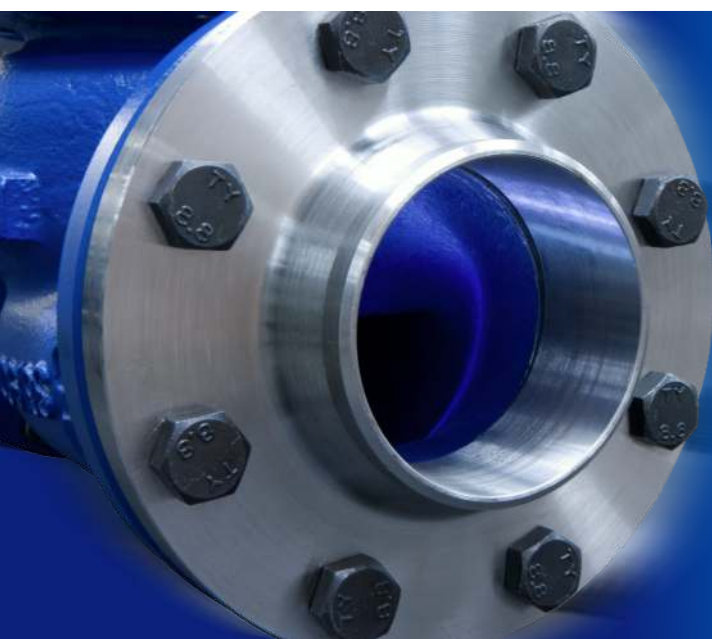
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