zakład automatyki przemysłowej

CATALOG

ISO 9001

Edition 03.2024

Zakład Automatyki Przemysłowej Sp. z o.o. – ul. Wodna 7, 63-400 Ostrów Wielkopolski
tel. 728 548 519, e-mail: zap@zap.net.pl

Zakład Automatyki Przemysłowej is a dynamically developing company that products measurement orifices, measuring chambers and other elements of pipelines and industrial installations. Experienced employees and constantly expanded machinery guarantee the execution of customer orders at the highest level. Designers with many years of experience in designing pressure elements and qualified machine operators are a guaranteed mix for success.

We produce the following products:

- measuring set of orifice plate with flange tappings acc ISO 5167 with weld neck flanges acc ASME B16.36;
- measuring set of orifice plate with corner tappings acc ISO 5167 in carrier rings with weld neck flanges acc EN 1092-1;
- measuring set of monolithic orifice with corner tappings acc ISO 5167 with weld neck flanges acc EN 1092-1;
- measuring section with orifice plate with flange tappings acc ISO 5167 with weld neck flanges acc ASME B16.36;
- measuring unit with ISA 1932 nozzle with corner tappings acc ISO 5167;
- assembly set of orifice gas meter acc ZN-G-4009;
- Venturi nozzle acc ISO 5167;
- classical Venturi tube acc ISO 5167;
- measuring chamber for building of the radar probe;
- air collectors;
- pressure taps;
- temperature sensor covers;
- steam condensation vessels;
- flushing rings;
- weld neck flanges aa EN 1092-1 and ASME B16.5;
- flat blanking flanges;
- fasteners.

The scope of services we provide includes:

- calculations of measurement orifices in the TNflow program according to ISO 5167;
- strength calculations of pressure elements according to EN 13480-3 and EN 13445-3;
- design and production of pressure equipment in accordance with PED 2014/68/EU;;
- hydraulic pressure tests of products and non-destructive tests of welds;
- certification of pressure equipment at the Office of Technical Inspection (UDT);
- verification of used pressure devices in terms of their further usefulness;
- refabrication and assembly of manufactured devices.

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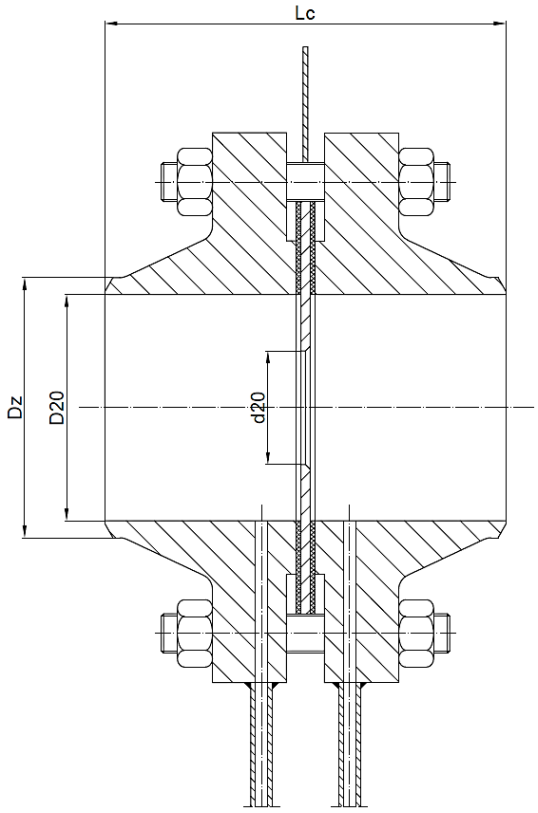
KOCK – Measuring set of orifice plate with flange tappings acc ISO 5167 with weld neck flanges acc ASME B16.36

KOCK–01–NPS–class-medium-remarks

Pipe material:
- 01 – P265GH
- 04 – P355NH
- 08 – X6CrNiTi18-10/1.4541
- 09 – X2CrNiMo17-12-2/1.4404

NPS–class:
- Nominal diameter NPS:
NPS1”…..NPS12”
- Pressure class:
class300…..class1500

Medium:
- W – water
- P – steam
- C – liquid/oil
- G – gas/air



Remarks:
1. Order example: KOCK-04(P355NH)-NPS6”-class300-C(liquid)-ϕ168,3x10,97
2. Please provide the following data to calculate the orifice bore diameter:
   - operation temperature and maximum temperature (obligatory);
   - operation pressure and maximum pressure (obligatory);
   - maximum flow rate and nominal flow rate (obligatory);
   - exact dimensions of the pipeline (obligatory outside diameter x wall thickness);
   - maximum allowable value of differential pressure (optional);
   - for medium other than water, steam or air, please provide density at working conditions and dynamic viscosity (for liquid and gas), isentropic exponent and compressibility factor (for gas).
3. Measuring sets are equipped with one-way shut-off valves as standard. In the case of steam, an additional element of equipment is also a steam-water condensation vessels.
4. At the customer's request, it is possible to make a set without connectors, only 1/2NPT impulse holes will be made in the flanges.

Last update of the catalog card: 01-03-2024

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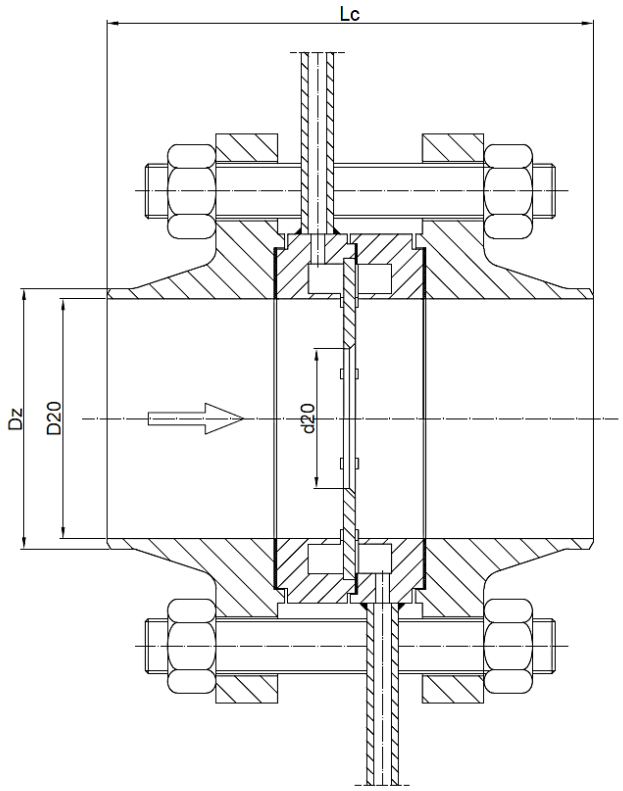
KOCS – Measuring set of orifice plate with corner tappings acc ISO 5167 in carrier rings with weld neck flanges acc EN 1092-1

KOCS–01–DN–PN-medium-remarks

Pipe material:
- 01 – P265GH
- 02 – 16Mo3
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541

DN-PN:
- Nominal diameter DN: DN50…..DN300
- Nominal pressure PN: PN6…..PN100

Medium:
- W – water
- P – steam
- C – liquid/oil
- G – gas/air



Remarks:
1. Order example: KOCS-03(13CrMo4-5)-DN100-PN63-P(steam)-ϕ114,3x4,5
2. Please provide the following data to calculate the orifice bore diameter:
   - operation temperature and maximum temperature (obligatory);
   - operation pressure and maximum pressure (obligatory);
   - maximum flow rate and nominal flow rate (obligatory);
   - exact dimensions of the pipeline (obligatory outside diameter x wall thickness);
   - maximum allowable value of differential pressure (optional);
   - for medium other than water, steam or air, please provide density at working conditions and dynamic viscosity (for liquid and gas), isentropic exponent and compressibility factor (for gas).
3. Measuring sets are equipped with one-way shut-off valves as standard. In the case of steam, an additional element of equipment is also a steam-water condensation vessels.

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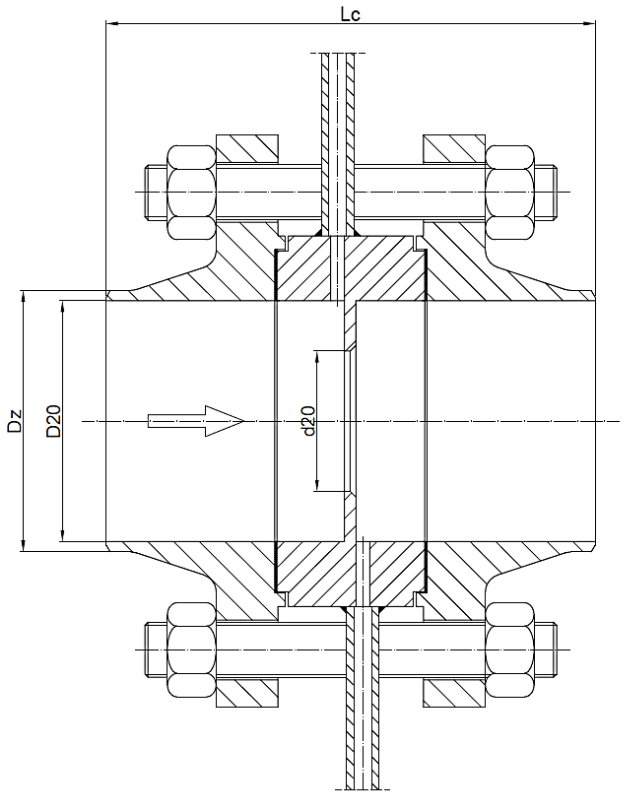
KOCP – Measuring set of monolithic orifice with corner tappings acc ISO 5167 with weld neck flanges acc EN 1092-1

KOCP–01–DN–PN-medium-remarks

Pipe material:
- 01 – P265GH
- 02 – 16Mo3
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541

DN-PN:
- Nominal diameter DN: DN100…..DN400
- Nominal pressure PN: PN25…..PN250

Medium:
- W – water
- P – steam
- C – liquid/oil
- G – gas/air



Remarks:
1. Order example: KOCP-03(13CrMo4-5)-DN200-PN160-P(steam)-ϕ219,1x16
2. Please provide the following data to calculate the orifice bore diameter:
   - operation temperature and maximum temperature (obligatory);
   - operation pressure and maximum pressure (obligatory);
   - maximum flow rate and nominal flow rate (obligatory);
   - exact dimensions of the pipeline (obligatory outside diameter x wall thickness);
   - maximum allowable value of differential pressure (optional);
   - for medium other than water, steam or air, please provide density at working conditions and dynamic viscosity (for liquid and gas), isentropic exponent and compressibility factor (for gas).
3. Measuring sets are equipped with one-way shut-off valves as standard. In the case of steam, an additional element of equipment is also a steam-water condensation vessels.

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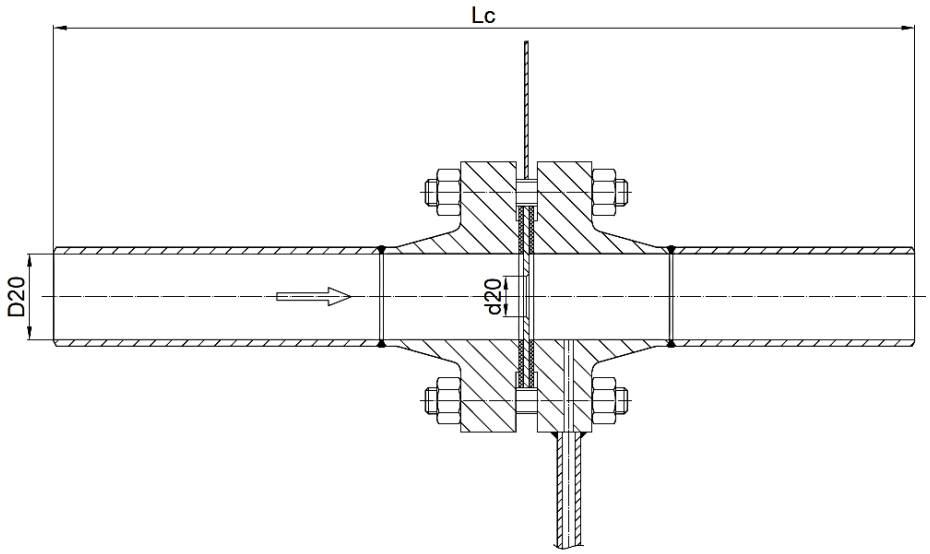
OPKS – Measuring section with orifice plate with flange tappings acc ISO 5167 for welding

OPKS–01–NPS– class-medium-remarks

Pipe material:
- 01 – P265GH
- 02 – 16Mo3
- 03 – 13CrMo4-5
- 04 – P355NH
- 08 – X6CrNiTi18-10/1.4541

NPS–class:
- Nominal diameter NPS:
NPS1”, NPS1¼”, NPS1½”, NPS2”
- Pressure class:
class300…..class1500

Medium:
- W – water
- P – steam
- C – liquid/oil
- G – gas/air



Remarks:
1. Order example: OPKS-01(P265GH)-NPS2”-class300-C(liquid)-60,3x3,2
2. Please provide the following data to calculate the orifice bore diameter:
   - operation temperature and maximum temperature (obligatory);
   - operation pressure and maximum pressure (obligatory);
   - maximum flow rate and nominal flow rate (obligatory);
   - exact dimensions of the pipeline (obligatory outside diameter x wall thickness);
   - maximum allowable value of differential pressure (optional);
   - for medium other than water, steam or air, please provide density at working conditions and dynamic viscosity (for liquid and gas), isentropic exponent and compressibility factor (for gas).
3. Measuring sections are equipped with one-way shut-off valves as standard. In the case of steam, an additional element of equipment is also a steam-water condensation vessels.
4. At the customer's request, it is possible to make a set without connectors, only 1/2NPT impulse holes will be made in the flanges.

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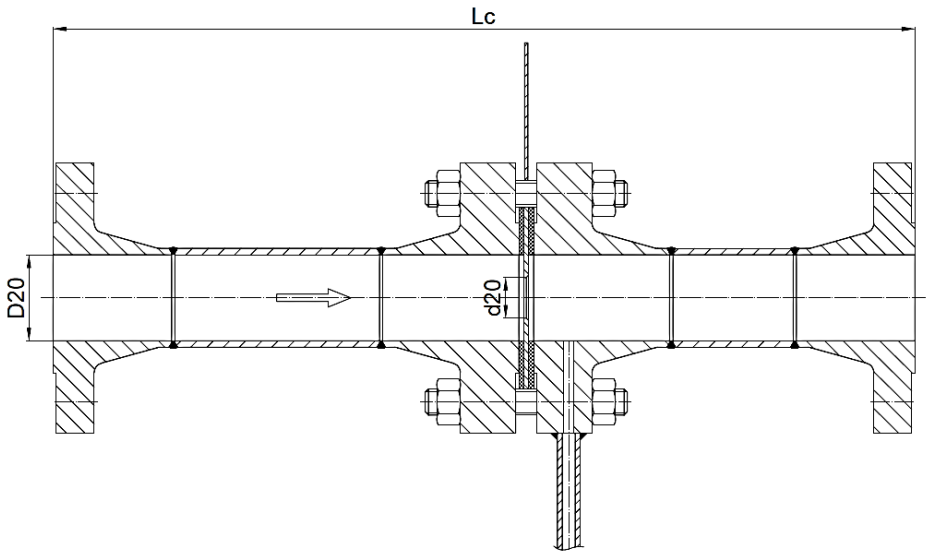
OPKK – Measuring section with orifice plate with flange tappings acc ISO 5167 with weld neck flanges acc ASME B16.36

OPKK–01–NPS– class-medium-remarks

Pipe material:
- 01 – P265GH
- 02 – 16Mo3
- 03 – 13CrMo4-5
- 04 – P355NH
- 08 – X6CrNiTi18-10/1.4541

NPS–class:
- Nominal diameter NPS: NPS1”, NPS1¼”, NPS1½”, NPS2”
- Pressure class: class300…..class1500

Medium:
- W – water
- P – steam
- C – liquid/oil
- G – gas/air



Remarks:
1. Order example: OPKK-01(P265GH)-NPS2”-class300-C(liquid)-60,3x3,2
2. Please provide the following data to calculate the orifice bore diameter:
   - operation temperature and maximum temperature (obligatory);
   - operation pressure and maximum pressure (obligatory);
   - maximum flow rate and nominal flow rate (obligatory);
   - exact dimensions of the pipeline (obligatory outside diameter x wall thickness);
   - maximum allowable value of differential pressure (optional);
   - for medium other than water, steam or air, please provide density at working conditions and dynamic viscosity (for liquid and gas), isentropic exponent and compressibility factor (for gas).
3. Measuring sections are equipped with one-way shut-off valves as standard. In the case of steam, an additional element of equipment is also a steam-water condensation vessels.
4. At the customer's request, it is possible to make a set without connectors, only 1/2NPT impulse holes will be made in the flanges.

Last update of the catalog card: 01-03-2024

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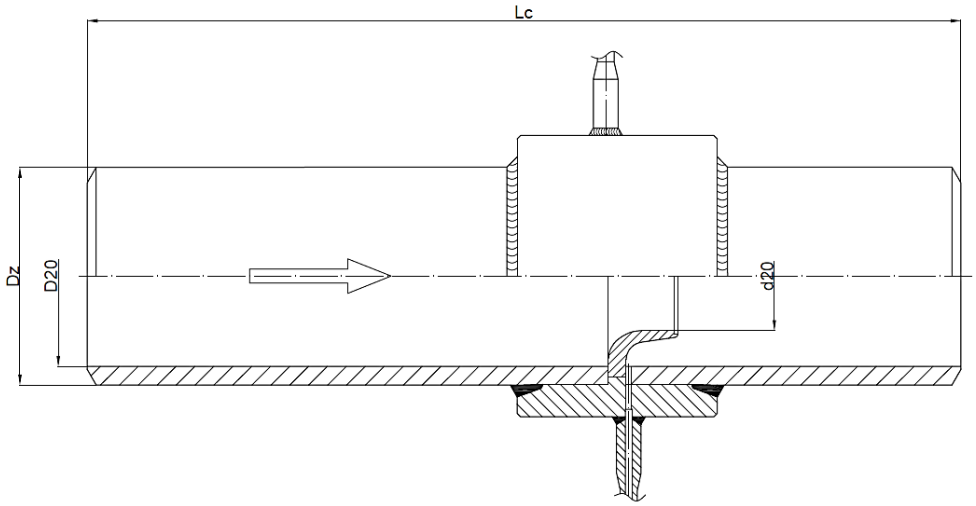
DOCP – Measuring unit with ISA 1932 nozzle with corner tappings acc ISO 5167

DOCP–01–DN(pipeline dimensions)-medium-remarks

Pipe material:
- 01 – P265GH
- 02 – 16Mo3
- 03 – 13CrMo4-5
- 05 – 10CrMo9-10
- 06 – 14MoV6-3
- 07 – X10CrMoVNb9-1

DN(pipeline dimensions):
- Nominal diameter DN: DN50….DN350
- outside diameter x wall thickness

Medium:
- W – water
- P – steam



Remarks:
1. Order example: DOCP-02(16Mo3)-DN250(fi273x16)-P(steam)- horizontal
2. Please provide the following data to calculate the nozzle bore diameter:
   - operation temperature and maximum temperature (obligatory);
   - operation pressure and maximum pressure (obligatory);
   - maximum flow rate and nominal flow rate (obligatory);
   - exact dimensions of the pipeline (obligatory outside diameter x wall thickness);
   - maximum allowable value of differential pressure (optional);
   - for medium other than water, steam or air, please provide density at working conditions and dynamic viscosity (for liquid and gas), isentropic exponent and compressibility factor (for gas);
   - for steam, specify the flow direction (horizontal/vertical from bottom to top/vertical from top to bottom).
3. Measuring units are equipped with one-way shut-off valves as standard. In the case of steam, an additional element of equipment is also a steam-water condensation vessels.

Last update of the catalog card: 19-01-2023

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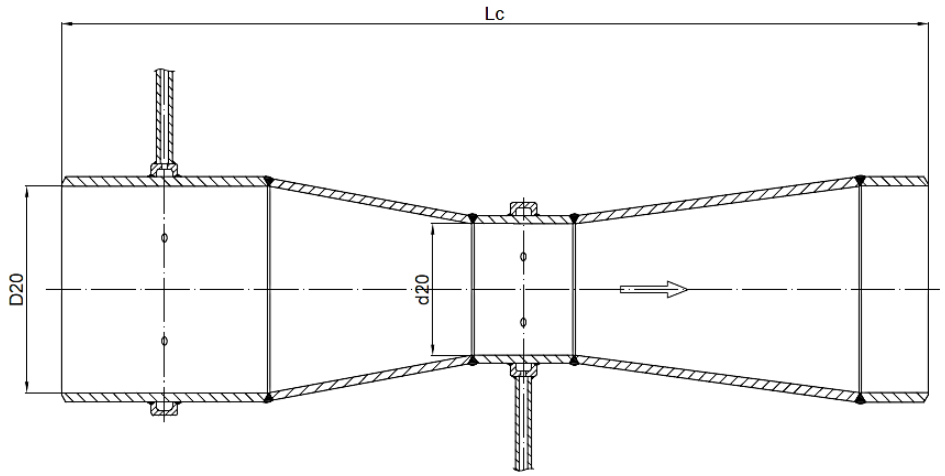
KZVS – Classical Venturi tube acc ISO 5167 for welding

KZVS–01–DN/NPS–PN/class-medium-remarks

Pipe material:
- 01 – P265GH
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541
- 09 – X2CrNiMo17-12-2/1.4404

DN/NPS–PN/class:
- Nominal diameter DN (acc EN 1092-1) or NPS (acc ASME B16.5): DN80 (NPS3”)….DN300 (NPS12”)
- Nominal pressure PN (acc EN 1092-1) or pressure class (acc ASME B16.5)

Medium:
- W – water
- P – steam
- C – liquid/oil
- G – gas/air



Remarks:
1. Order example: KZVS-09(X2CrNiMo17-12-2)-DN150-PN63-W(water)- ϕ168,3x6,3
2. Please provide the following data to calculate the Venturi tube bore diameter:
   - operation temperature and maximum temperature (obligatory);
   - operation pressure and maximum pressure (obligatory);
   - maximum flow rate and nominal flow rate (obligatory);
   - exact dimensions of the pipeline (obligatory outside diameter x wall thickness);
   - maximum allowable value of differential pressure (optional);
   - for medium other than water, steam or air, please provide density at working conditions and dynamic viscosity (for liquid and gas), isentropic exponent and compressibility factor (for gas).
3. Measuring sets are equipped with one-way shut-off valves as standard. In the case of steam, an additional element of equipment is also a steam-water condensation vessels.

Last update of the catalog card: 01-03-2024

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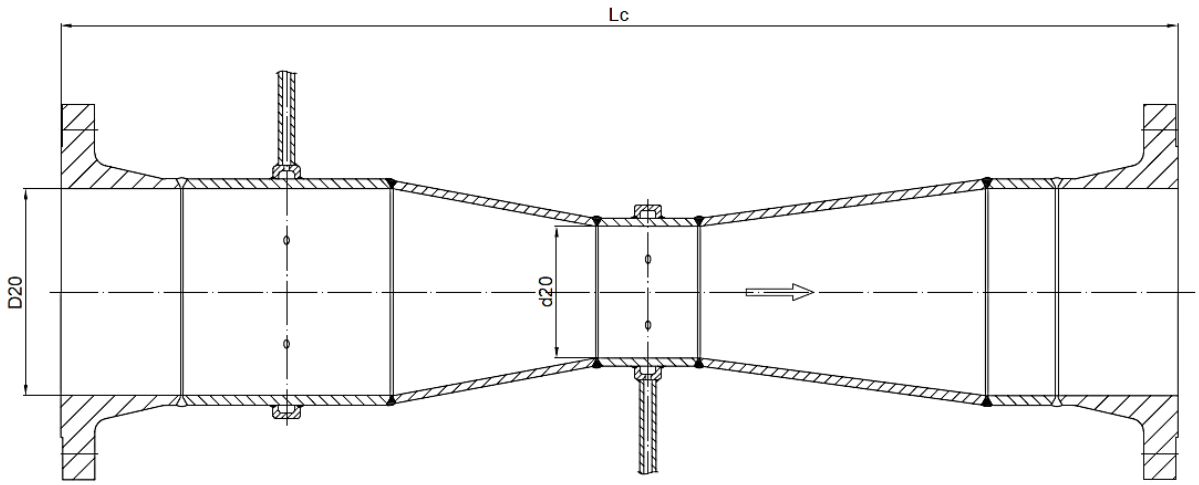
KZVK – Classical Venturi tube acc ISO 5167 with weld neck flanges

KZVK–01–DN/NPS–PN/class-medium-remarks

Pipe material:
- 01 – P265GH
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541
- 09 – X2CrNiMo17-12-2/1.4404

DN/NPS–PN/class:
- Nominal diameter DN (acc EN 1092-1) or NPS (acc ASME B16.5): DN80 (NPS3”)….DN300 (NPS12”)
- Nominal pressure PN (acc EN 1092-1) or pressure class (acc ASME B16.5)

Medium:
- W – water
- P – steam
- C – liquid/oil
- G – gas/air



Remarks:
1. Order example: KZVK-09(X2CrNiMo17-12-2)-DN150-PN63-W(water)- ϕ168,3x6,3
2. Please provide the following data to calculate the Venturi tube bore diameter:
   - operation temperature and maximum temperature (obligatory);
   - operation pressure and maximum pressure (obligatory);
   - maximum flow rate and nominal flow rate (obligatory);
   - exact dimensions of the pipeline (obligatory outside diameter x wall thickness);
   - maximum allowable value of differential pressure (optional);
   - for medium other than water, steam or air, please provide density at working conditions and dynamic viscosity (for liquid and gas), isentropic exponent and compressibility factor (for gas).
3. Measuring sets are equipped with one-way shut-off valves as standard. In the case of steam, an additional element of equipment is also a steam-water condensation vessels.

Last update of the catalog card: 01-03-2024

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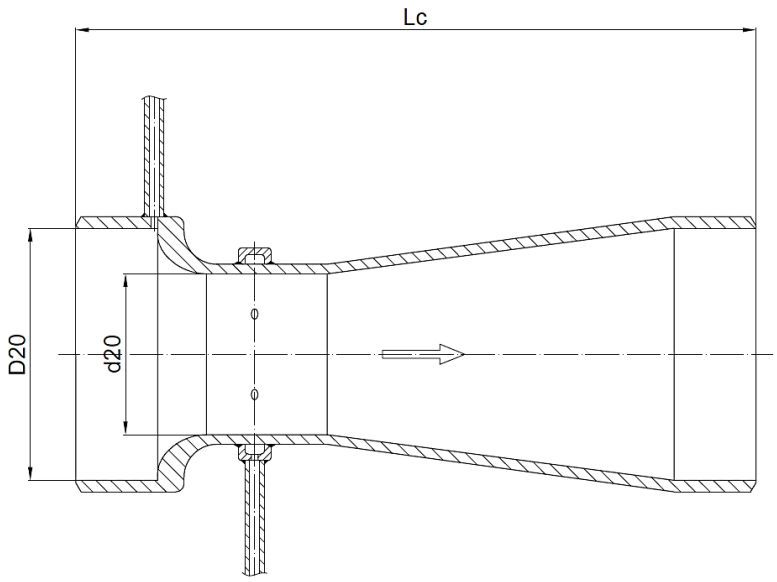
DVS –Venturi nozzle acc ISO 5167 for welding

DVS–01–DN/NPS–PN/class-medium-remarks

Pipe material:
- 01 – P265GH
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541
- 09 – X2CrNiMo17-12-2/1.4404

DN/NPS–PN/class:
- Nominal diameter DN (acc EN 1092-1) or NPS (acc ASME B16.5): DN80 (NPS3”)….DN200 (NPS8”)
- Nominal pressure PN (acc EN 1092-1) or pressure class (acc ASME B16.5)

Medium:
- W – water
- P – steam
- C – liquid/oil
- G – gas/air



Remarks:
1. Order example: DVS-09(X2CrNiMo17-12-2)-DN150-PN63-W(water)- ϕ168,3x6,3
2. Please provide the following data to calculate the Venturi nozzle bore diameter:
   - operation temperature and maximum temperature (obligatory);
   - operation pressure and maximum pressure (obligatory);
   - maximum flow rate and nominal flow rate (obligatory);
   - exact dimensions of the pipeline (obligatory outside diameter x wall thickness);
   - maximum allowable value of differential pressure (optional);
   - for medium other than water, steam or air, please provide density at working conditions and dynamic viscosity (for liquid and gas), isentropic exponent and compressibility factor (for gas).
3. Measuring sets are equipped with one-way shut-off valves as standard. In the case of steam, an additional element of equipment is also a steam-water condensation vessels.

Last update of the catalog card: 01-03-2024

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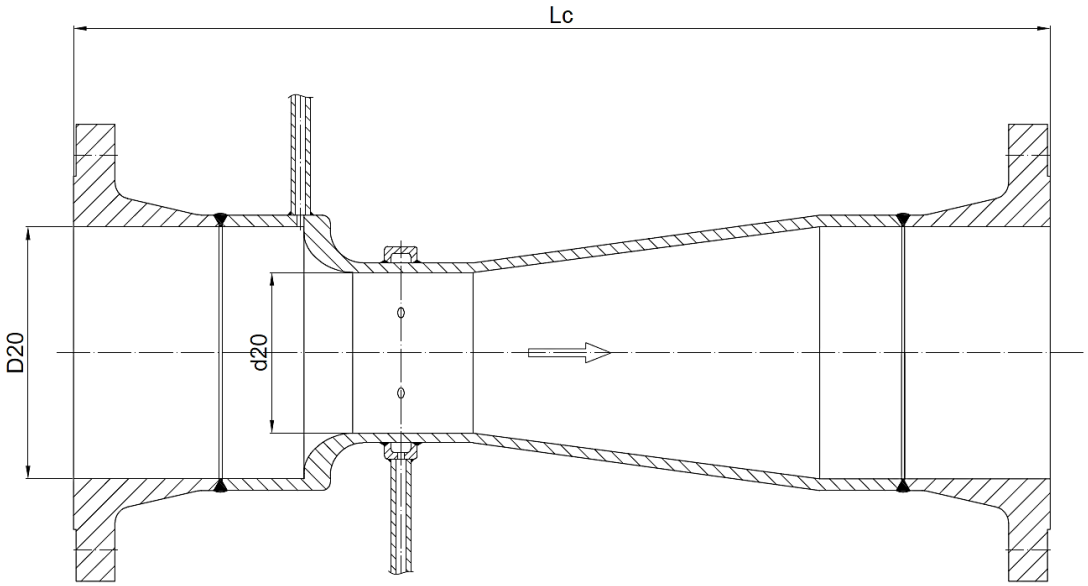
DVK – Venturi nozzle acc ISO 5167 with weld neck flanges

DVK–01–DN/NPS–PN/class-medium-remarks

Pipe material:
- 01 – P265GH
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541
- 09 – X2CrNiMo17-12-2/1.4404

DN/NPS–PN/class:
- Nominal diameter DN (acc EN 1092-1) or NPS (acc ASME B16.5): DN80 (NPS3”)….DN200 (NPS8”)
- Nominal pressure PN (acc EN 1092-1) or pressure class (acc ASME B16.5)

Medium:
- W – water
- P – steam
- C – liquid/oil
- G – gas/air



Remarks:
1. Order example: DVK-09(X2CrNiMo17-12-2)-DN150-PN63-W(water)- ϕ168,3x6,3
2. Please provide the following data to calculate the Venturi nozzle bore diameter:
   - operation temperature and maximum temperature (obligatory);
   - operation pressure and maximum pressure (obligatory);
   - maximum flow rate and nominal flow rate (obligatory);
   - exact dimensions of the pipeline (obligatory outside diameter x wall thickness);
   - maximum allowable value of differential pressure (optional);
   - for medium other than water, steam or air, please provide density at working conditions and dynamic viscosity (for liquid and gas), isentropic exponent and compressibility factor (for gas).
3. Measuring sets are equipped with one-way shut-off valves as standard. In the case of steam, an additional element of equipment is also a steam-water condensation vessels.

Last update of the catalog card: 01-03-2024

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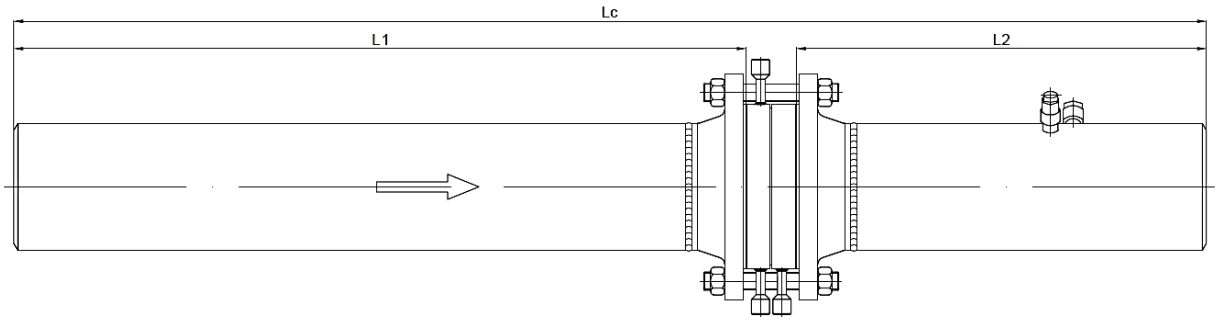
ZGKS – Assembly set of orifice gas meter welded version S-S acc ZN-G-4009

ZGKS–04–DN–PN-remarks

Pipe material:
- 04 – P355NH

DN-PN:
- Nominal diameter DN:
DN50…..DN300
- Nominal pressure PN:
PN10…..PN110

Remarks:
- pipeline dimensions



Remarks:

1. Order example: ZGKS-04(P355NH)-DN150-PN25-ϕ168,3x5,6
   - Please provide the following data to calculate the orifice bore diameter:
   - operation temperature and maximum temperature (obligatory);
   - operation pressure and maximum pressure (obligatory);
   - maximum flow rate and nominal flow rate (obligatory);
   - exact dimensions of the pipeline (obligatory outside diameter x wall thickness);
   - maximum allowable value of differential pressure (optional);
   - exact chemical composition of the gas or density at working conditions and dynamic viscosity, isentropic exponent and compressibility factor.

Last update of the catalog card: 27-06-2023

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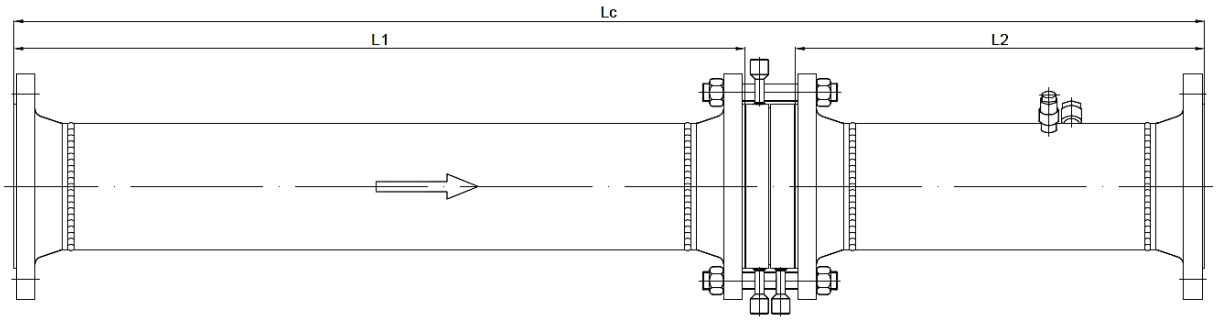
ZGKK – Assembly set of orifice gas meter flange version K-K acc ZN-G-4009

ZGKK–04–DN–PN-remarks

Pipe material:
- 04 – P355NH

DN-PN:
- Nominal diameter DN:
DN50…..DN300
- Nominal pressure PN:
PN10…..PN110

Remarks:
- pipeline dimensions



Remarks:

1. Order example: ZGKK-04(P355NH)-DN150-PN25-ϕ168,3x5,6
2. Please provide the following data to calculate the orifice bore diameter:
   - operation temperature and maximum temperature (obligatory);
   - operation pressure and maximum pressure (obligatory);
   - maximum flow rate and nominal flow rate (obligatory);
   - exact dimensions of the pipeline (obligatory outside diameter x wall thickness);
   - maximum allowable value of differential pressure (optional);
   - exact chemical composition of the gas or density at working conditions and dynamic viscosity, isentropic exponent and compressibility factor.

Last update of the catalog card: 27-06-2023

Zakład Automatyki Przemysłowej Sp. z o.o. – ul. Wodna 7, 63-400 Ostrów Wielkopolski
tel. 728 548 519, e-mail: zap@zap.net.pl

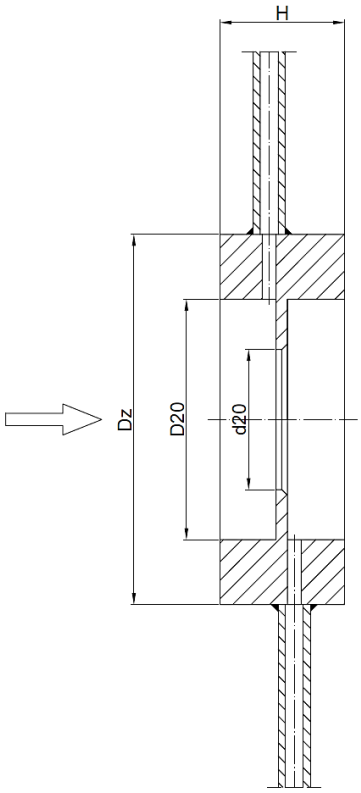
KMOP – Monolithic orifice with corner tappings acc ISO 5167

KMOP–01–DN–PN-medium

Orifice material:
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541
- 09 – X2CrNiMo17-12-2/1.4404

DN-PN:
- Nominal diameter DN:
DN100…..DN400
- Nominal pressure PN:
PN25…..PN250

Medium:
- W – water
- P – steam
- C – liquid/oil
- G – gas/air



Remarks:
1. Order example: KMOP-08(X6CrNiTi18-10)-DN200-PN160-C(liquid)
2. Please provide the following data to calculate the orifice bore diameter:
   - operation temperature and maximum temperature (obligatory);
   - operation pressure and maximum pressure (obligatory);
   - maximum flow rate and nominal flow rate (obligatory);
   - exact dimensions of the pipeline (obligatory outside diameter x wall thickness);
   - maximum allowable value of differential pressure (optional);
   - for medium other than water, steam or air, please provide density at working conditions and dynamic viscosity (for liquid and gas), isentropic exponent and compressibility factor (for gas).
3. Monolithic orifice is equipped with one-way shut-off valves as standard. In the case of steam, an additional element of equipment is also a steam-water condensation vessels.
4. Monolithic orifice is made of rolled bar:
   - 13CrMo4-5 – rolled bar acc PN-EN 10273+PED
   - X6CrNiTi18-10 i X2CrNiMo17-12-2 – rolled bar acc PN-EN 10272+PED

Last update of the catalog card: 01-03-2024

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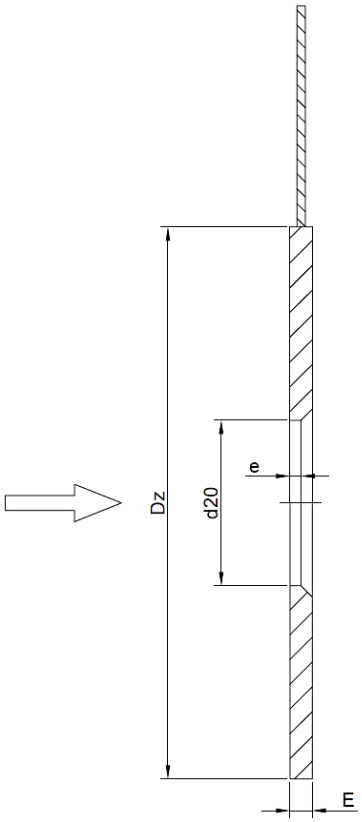
WKP – Orifice plate

WKP–01–NPS–class-medium

Orifice material:
- 08 – X6CrNiTi18-10/1.4541
- 09 – X2CrNiMo17-12-2/1.4404

NPS–class:
- Nominal diameter NPS: NPS1”…..NPS12”
- Pressure class: class300…..class2500

Medium:
- W – water
- P – steam
- C – liquid/oil
- G – gas/air



Remarks:
1. Order example: WKP-09(X2CrNiMo17-12-2)-NPS3”-class600-C(ciecz)
2. Please provide the following data to calculate the orifice bore diameter:
   - operation temperature and maximum temperature (obligatory);
   - operation pressure and maximum pressure (obligatory);
   - maximum flow rate and nominal flow rate (obligatory);
   - exact dimensions of the pipeline (obligatory outside diameter x wall thickness);
   - maximum allowable value of differential pressure (optional);
   - for medium other than water, steam or air, please provide density at working conditions and dynamic viscosity (for liquid and gas), isentropic exponent and compressibility factor (for gas).

Last update of the catalog card: 01-03-2024

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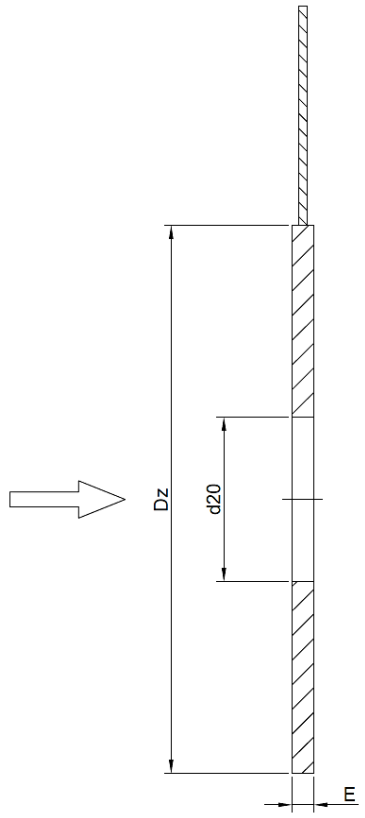
KOG – Restricted orifice

KOG–01–NPS–class-medium

Orifice material:
- 08 – X6CrNiTi18-10/1.4541
- 09 – X2CrNiMo17-12-2/1.4404

NPS–class:
- Nominal diameter DN (acc EN 1092-1) lub NPS (acc ASME B16.5): DN25 (NPS1”)….DN300 (NPS12”)
- Nominal pressure PN (acc EN 1092-1) or pressure class (acc ASME B16.5)

Medium:
- W – water
- P – steam
- C – liquid/oil
- G – gas/air



Remarks:
1. Order example: KOG-09(X2CrNiMo17-12-2)-DN40-PN10-W(water)
2. W celu wykonania obliczeń otworu kryzy ograniczającej prosimy o podanie następujących danych:
   - operation temperature and maximum temperature (obligatory);
   - operation pressure and maximum pressure (obligatory);
   - maximum flow rate and nominal flow rate (obligatory);
   - internal diameter of the pipeline (obligatory);
   - value of permanent pressure loss (obligatory);
   - for medium other than water, steam or air, please provide density at working conditions and dynamic viscosity (for liquid and gas), isentropic exponent and compressibility factor (for gas).

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KPOM – Measuring chamber for building of the radar probe

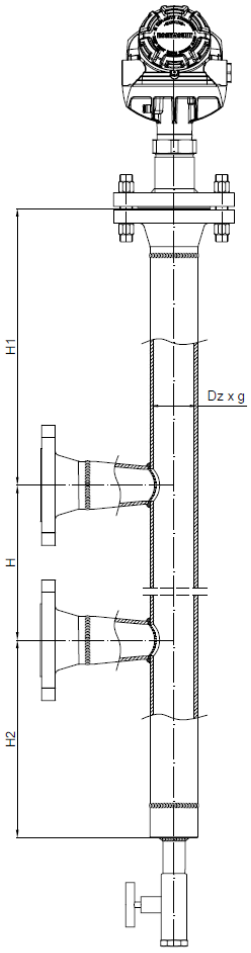
KPOM–01–flange-dimensions+connection

Pipe material:
- 01 – P265GH
- 02 – 16Mo3
- 03 – 13CrMo4-5
- 09 – X2CrNiMo17-12-2/1.4404

Upper flange:
- Nominal diameter DN (acc EN 1092-1) or NPS (acc ASME B16.5): DN50 (2”), DN80 (3”), DN100 (4”)
- Nominal pressure PN (acc EN 1092-1) or pressure class (acc ASME B16.5)

Dimensions:
- H1 – distance from the flange to the upper connector
- H2 – distance from the bottom connector to the end
- H – distance between connectors

Connections:
- number of connections
- diameter and nominal pressure of the connections



Remarks:
1. Order example: KPOM-01(P265GH)-3”class300-H1=200/H2=250/H=800-2”class300
2. Measuring chambers can be supplied with level probe radars assembled, after a pressure test.
3. Measuring chambers are equipped as standard with drain valves mounted at the bottom of the chamber. Possible installation of additional valves in places indicated by the customer.
4. At the customer's request, it is possible to make the measuring chamber from a material other than that specified in the catalog card.

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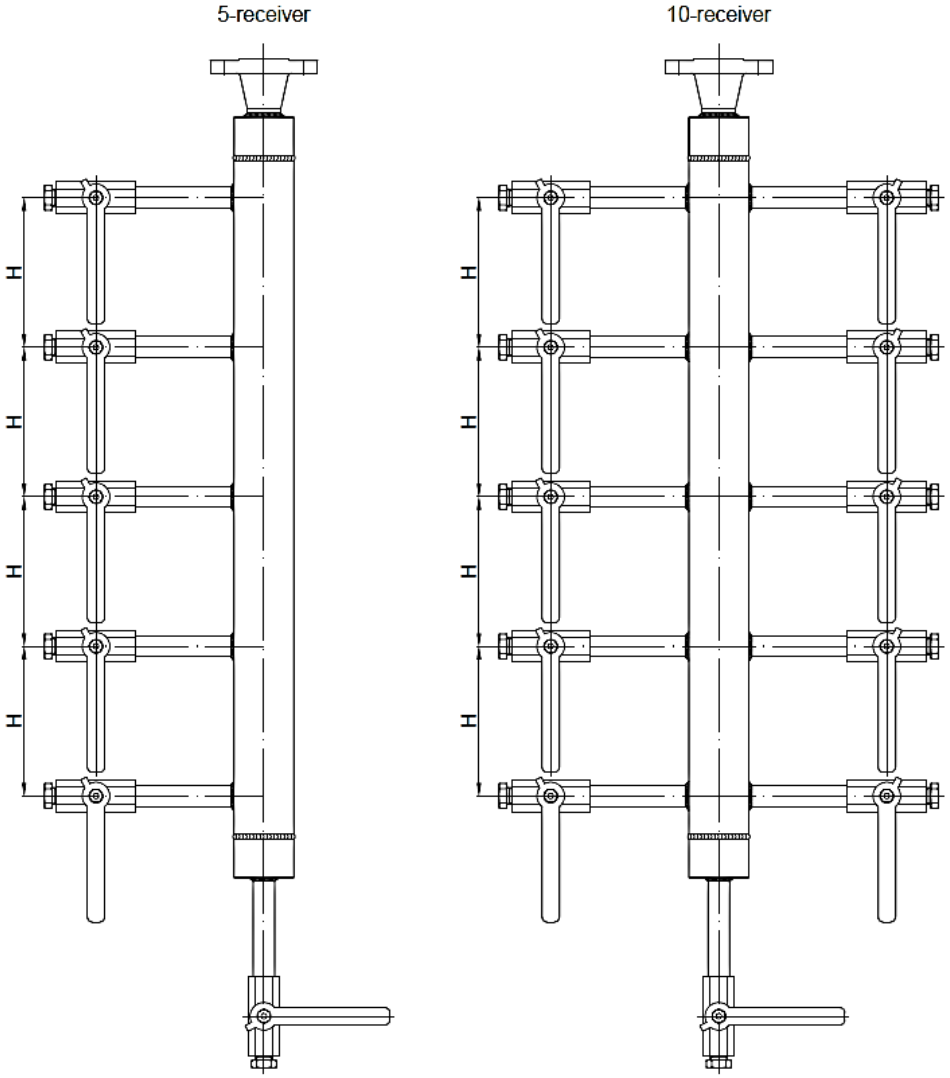
KOL – Air collector

KOL–01–01–01

Material:
- 01 – P265GH
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541
- 09 – X2CrNiMo17-12-2/1.4404

Type of collector:
- 01 – 5-receiver
- 02 – 10-receiver

Ball valve:
- 01 – 1/2NPT
- 02 – 1/4NPT



Remarks:
1. Order example: KOL-01(P265GH)-01(5-odbiorowy)-01(1/2NPT).
2. At the customer's request, it is possible to make the measuring chamber from a material other than that specified in the catalog card.

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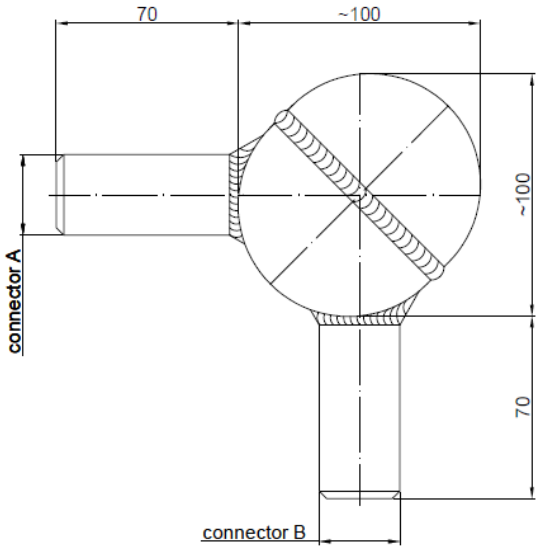
NKPW–01 – Steam condensation vessel type 01 – PN250 (capacity 200ml)

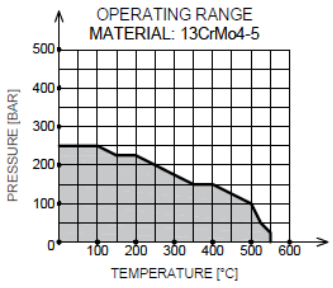
NKPW–01–03–01–01

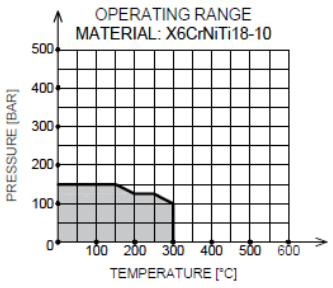
Material:
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541

Inlet connector A:
- 01 – ϕ31,8x5,6 (DN20)
- 02 – ϕ31,8x8,8 (DN15)
- 03 – ϕ24x7,1 (DN10)
- 04 – ϕ21,3x2,9 (DN15)
- 05 – ϕ16x3,2 (DN10)
- 06 – ϕ14x2,9 (DN8)
- SP – special equipment

Outlet connector B:
- 01 – ϕ31,8x5,6 (DN20)
- 02 – ϕ31,8x8,8 (DN15)
- 03 – ϕ24x7,1 (DN10)
- 04 – ϕ21,3x2,9 (DN15)
- 05 – ϕ16x3,2 (DN10)
- 06 – ϕ14x2,9 (DN8)
- SP – special equipment







Remarks:
1. Order example: NKPW-01-03(13CrMo4-5)-03(ϕ24x7,1)-03(ϕ24x7,1)
2. If the specified range of work is exceeded, please contact us for individual strength calculations.

Last update of the catalog card: 01-03-2024

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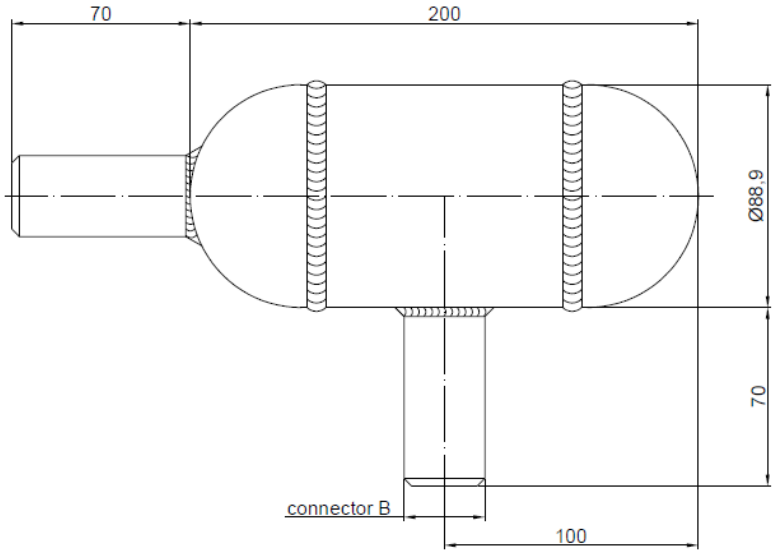
NKPW–02 – Steam condensation vessel type 02 – PN250 (capacity 570ml)

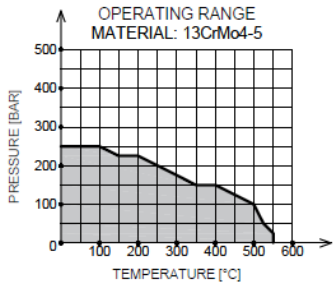
NKPW–02–03–01–01

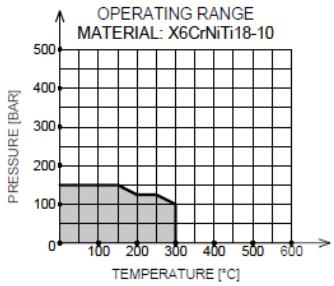
Material:
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541

Inlet connector A:
- 01 – ϕ31,8x5,6 (DN20)
- 02 – ϕ31,8x8,8 (DN15)
- 03 – ϕ24x7,1 (DN10)
- 04 – ϕ21,3x2,9 (DN15)
- 05 – ϕ16x3,2 (DN10)
- 06 – ϕ14x2,9 (DN8)
- SP – special equipment

Outlet connector B:
- 01 – ϕ31,8x5,6 (DN20)
- 02 – ϕ31,8x8,8 (DN15)
- 03 – ϕ24x7,1 (DN10)
- 04 – ϕ21,3x2,9 (DN15)
- 05 – ϕ16x3,2 (DN10)
- 06 – ϕ14x2,9 (DN8)
- SP – special equipment







Remarks:
1. Order example: NKPW-02-03(13CrMo4-5)-03(ϕ24x7,1)-03(ϕ24x7,1)
2. If the specified range of work is exceeded, please contact us for individual strength calculations.

Last update of the catalog card: 01-03-2024

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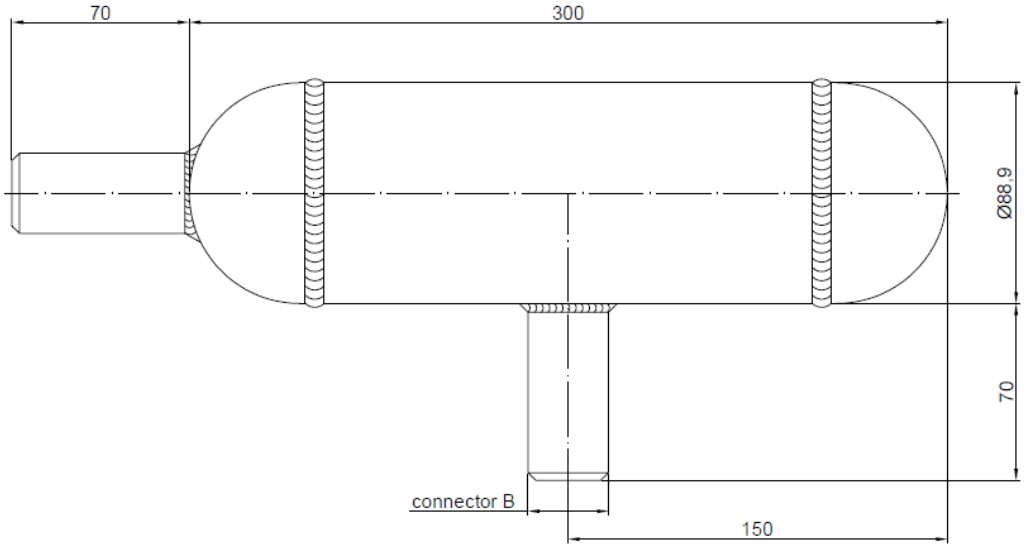
NKPW–03 – Steam condensation vessel type 03 – PN250 (capacity 970ml)

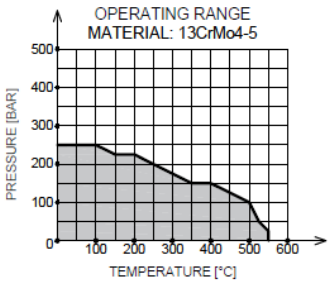
NKPW–03–03–01–01

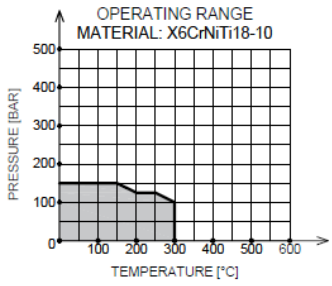
Material:
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541

Inlet connector A:
- 01 – ϕ31,8x5,6 (DN20)
- 02 – ϕ31,8x8,8 (DN15)
- 03 – ϕ24x7,1 (DN10)
- 04 – ϕ21,3x2,9 (DN15)
- 05 – ϕ16x3,2 (DN10)
- 06 – ϕ14x2,9 (DN8)
- SP – special equipment

Outlet connector B:
- 01 – ϕ31,8x5,6 (DN20)
- 02 – ϕ31,8x8,8 (DN15)
- 03 – ϕ24x7,1 (DN10)
- 04 – ϕ21,3x2,9 (DN15)
- 05 – ϕ16x3,2 (DN10)
- 06 – ϕ14x2,9 (DN8)
- SP – special equipment







Remarks:
1. Order example: NKPW-03-03(13CrMo4-5)-03(ϕ24x7,1)-03(ϕ24x7,1)
2. If the specified range of work is exceeded, please contact us for individual strength calculations.

Last update of the catalog card: 01-03-2024

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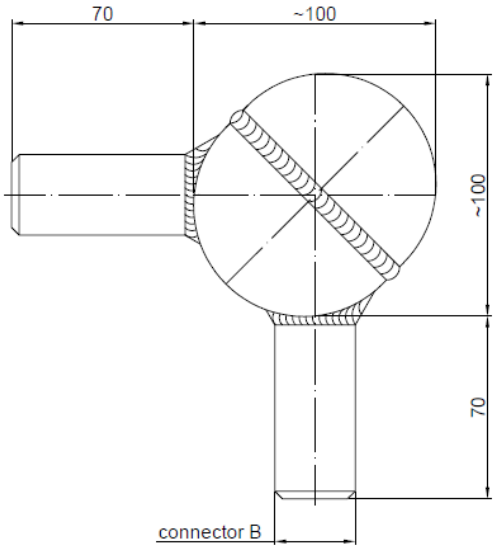
NKPW–04 – Steam condensation vessel type 04 – PN400 (capacity 140ml)

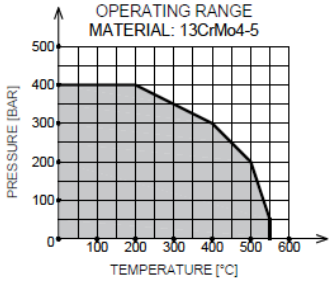
NKPW–04–03–01–01

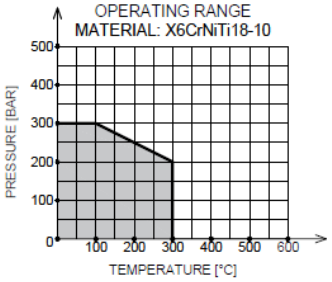
Material:
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541

Inlet connector A:
- 01 – ϕ31,8x5,6 (DN20)
- 02 – ϕ31,8x8,8 (DN15)
- 03 – ϕ24x7,1 (DN10)
- SP – special equipment

Outlet connector B:
- 01 – ϕ31,8x5,6 (DN20)
- 02 – ϕ31,8x8,8 (DN15)
- 03 – ϕ24x7,1 (DN10)
- SP – special equipment







Remarks:
1. Order example: NKPW-04-03(13CrMo4-5)-03(ϕ24x7,1)-03(ϕ24x7,1)
2. If the specified range of work is exceeded, please contact us for individual strength calculations.

Last update of the catalog card: 01-03-2024

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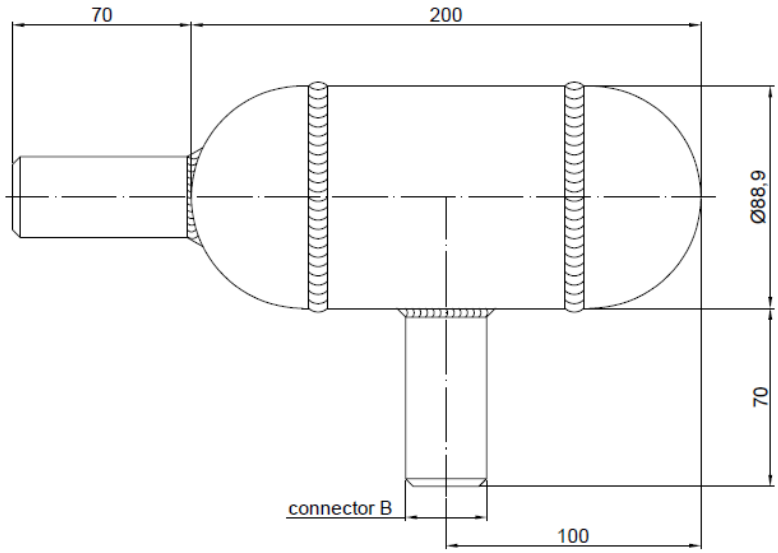
NKPW–05 – Steam condensation vessel type 05 – PN400 (capacity 440ml)

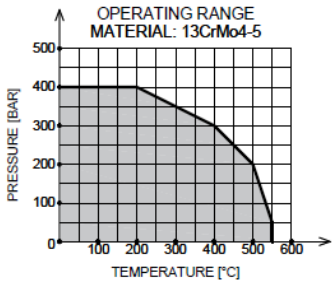
NKPW–05–03–01–01

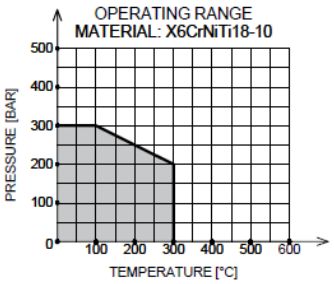
Material:
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541

Inlet connector A:
- 01 – ϕ31,8x5,6 (DN20)
- 02 – ϕ31,8x8,8 (DN15)
- 03 – ϕ24x7,1 (DN10)
- SP – special equipment

Outlet connector B:
- 01 – ϕ31,8x5,6 (DN20)
- 02 – ϕ31,8x8,8 (DN15)
- 03 – ϕ24x7,1 (DN10)
- SP – special equipment







Remarks:
1. Order example: NKPW-05-03(13CrMo4-5)-03(ϕ24x7,1)-03(ϕ24x7,1)
2. If the specified range of work is exceeded, please contact us for individual strength calculations.

Last update of the catalog card: 01-03-2024

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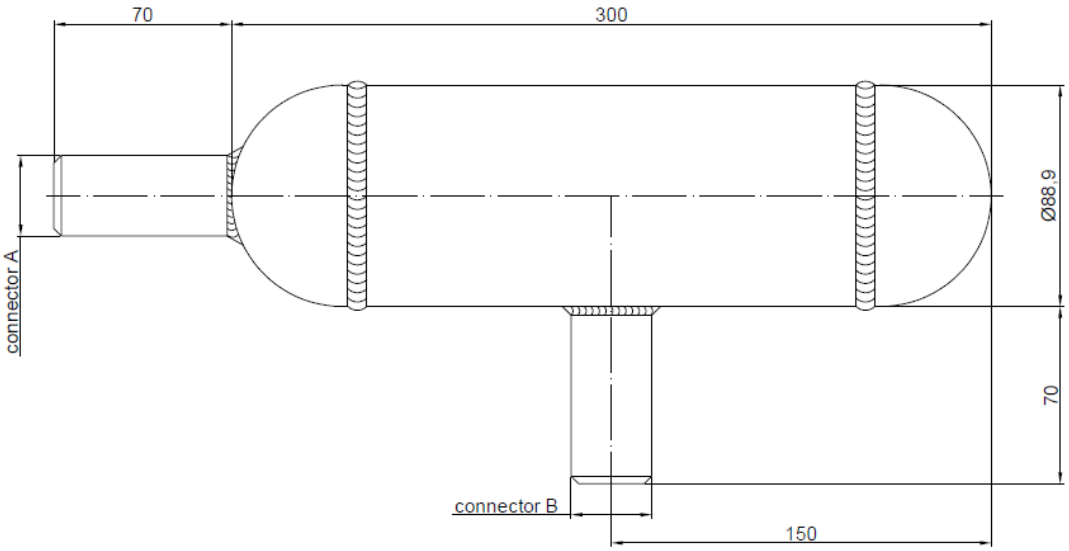
NKPW–06 – Steam condensation vessel type 06 – PN400 (capacity 760ml)

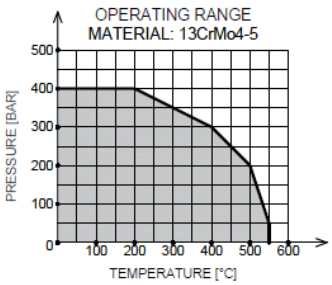
NKPW–06–03–01–01

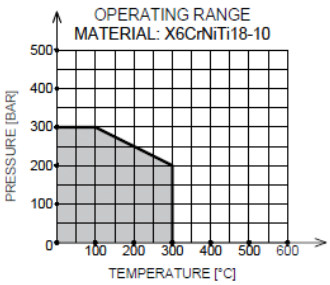
Material:
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541

Inlet connector A:
- 01 – ϕ31,8x5,6 (DN20)
- 02 – ϕ31,8x8,8 (DN15)
- 03 – ϕ24x7,1 (DN10)
- SP – special equipment

Outlet connector B:
- 01 – ϕ31,8x5,6 (DN20)
- 02 – ϕ31,8x8,8 (DN15)
- 03 – ϕ24x7,1 (DN10)
- SP – special equipment







Remarks:
1. Order example: NKPW-06-03(13CrMo4-5)-03(ϕ24x7,1)-03(ϕ24x7,1)
2. If the specified range of work is exceeded, please contact us for individual strength calculations.

Last update of the catalog card: 01-03-2024

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KPC–01 – Pressure tap type 01 – PN500

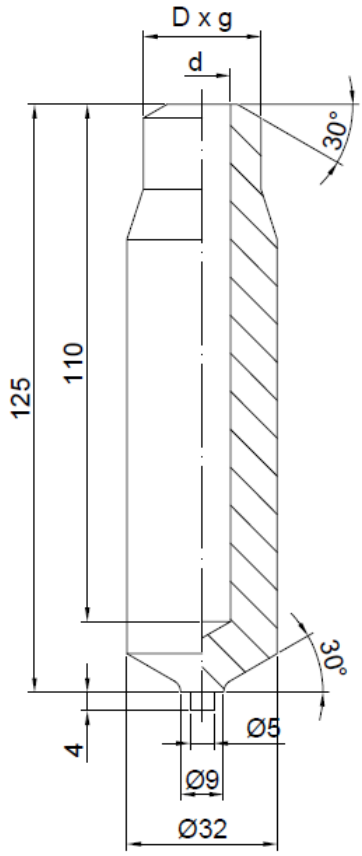
KPC–01–01–01–01

Material:
- 01 – P265GH
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541

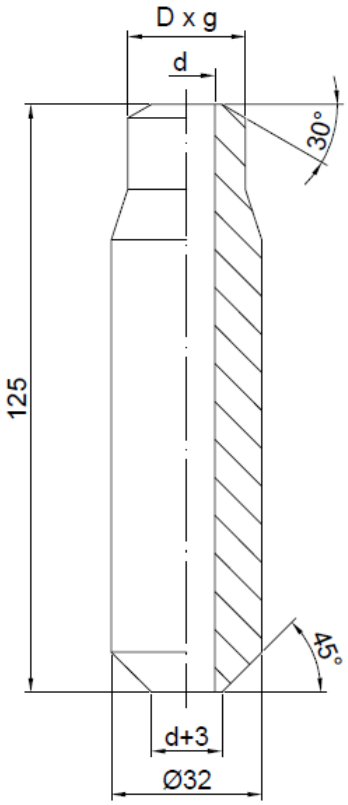
Dimensions D x g:
- 01 – ϕ25x5 (DN15)
- 02 – ϕ24x7,1 (DN10)
- 03 – ϕ24x8 (DN8)
- SP – special equipment

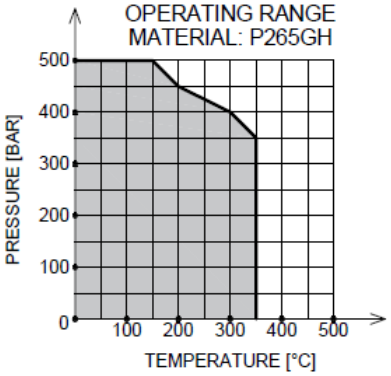
Connector type:
- 01 – blind connector
- 02 – open connector

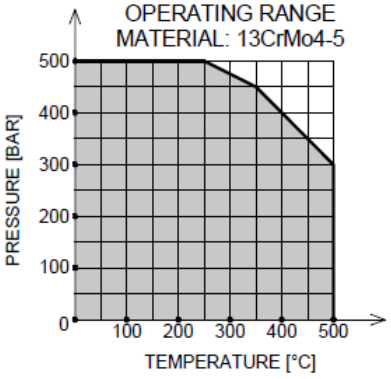
blind connector

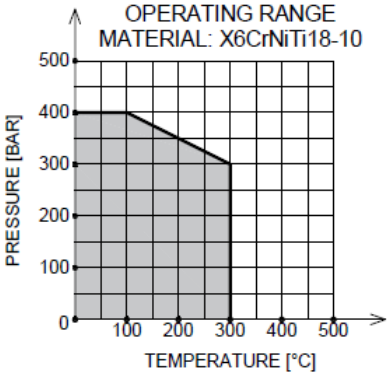


open connector









Remarks:
1. Connector is made of rolled bar:
   - P265GH i 13CrMo4-5 – rolled bar acc PN-EN 10273+PED
   - X6CrNiTi18-10 – rolled bar acc PN-EN 10272+PED
2. If the specified range of work is exceeded, please contact us for individual strength calculations.

Last update of the catalog card: 01-03-2024

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tel. 728 548 519, e-mail: zap@zap.net.pl

KPC–02 – Pressure tap type 02 – PN250

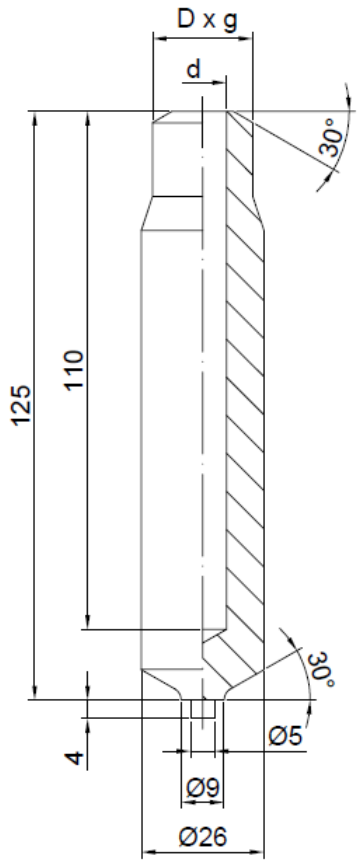
KPC–02–01–01–01

Material:
- 01 – P265GH
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541

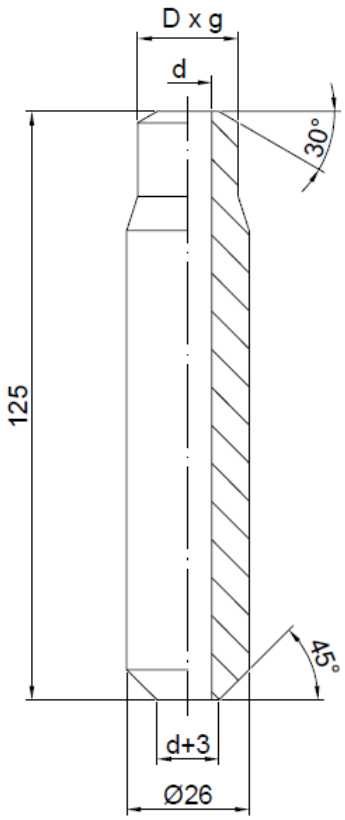
Dimensions D x g:
- 01 – ϕ21,3x3,2 (DN15)
- 02 – ϕ21,3x5,6 (DN10)
- 03 – ϕ18x4 (DN10)
- 04 – ϕ18x5(DN8)
- 05 – ϕ16x4 (DN8)
- SP – special equipment

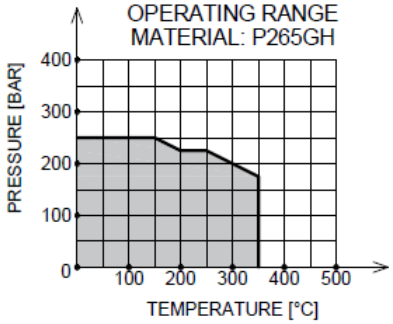
Connector type:
- 01 – blind connector
- 02 – open connector

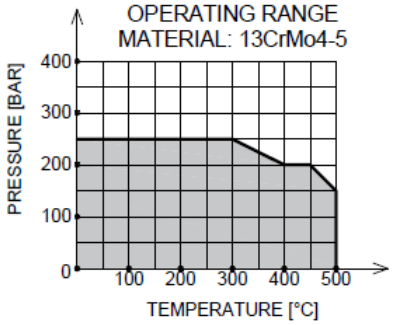
blind connector

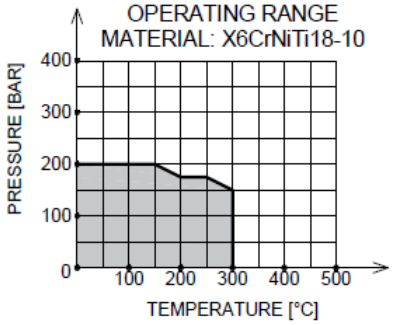


open connector









Remarks:
1. Connector is made of rolled bar:
   - P265GH i 13CrMo4-5 – rolled bar acc PN-EN 10273+PED
   - X6CrNiTi18-10 – rolled bar acc PN-EN 10272+PED
2. If the specified range of work is exceeded, please contact us for individual strength calculations.

Last update of the catalog card: 01-03-2024

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tel. 728 548 519, e-mail: zap@zap.net.pl

KPC–03 – Pressure tap type 03 – PN250

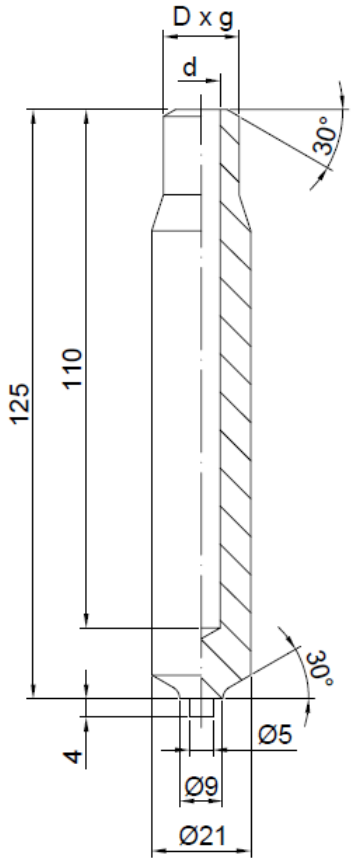
KPC–03–01–01–01

Material:
- 01 – P265GH
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541

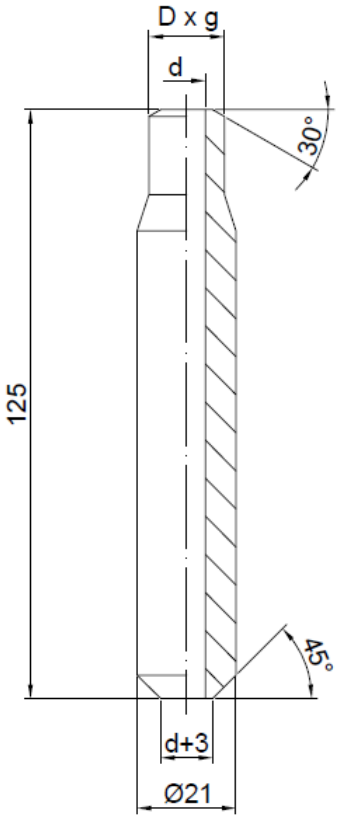
Dimensions D x g:
- 01 – ϕ16x3,2 (DN10)
- 02 – ϕ16x4 (DN8)
- 03 – ϕ14x2,9 (DN8)
- SP – special equipment

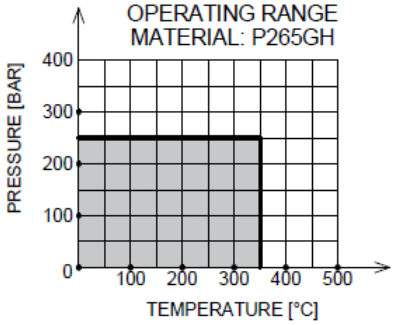
Connector type:
- 01 – blind connector
- 02 – open connector

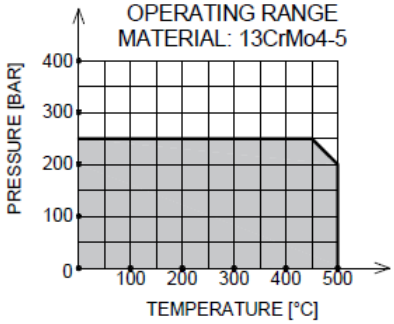
blind connector

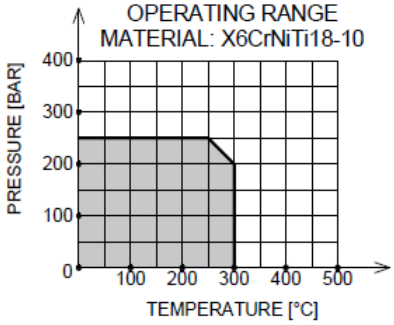


open connector









Remarks:
1. Connector is made of rolled bar:
   - P265GH i 13CrMo4-5 – rolled bar acc PN-EN 10273+PED
   - X6CrNiTi18-10 – rolled bar acc PN-EN 10272+PED
2. If the specified range of work is exceeded, please contact us for individual strength calculations.

Last update of the catalog card: 01-03-2024

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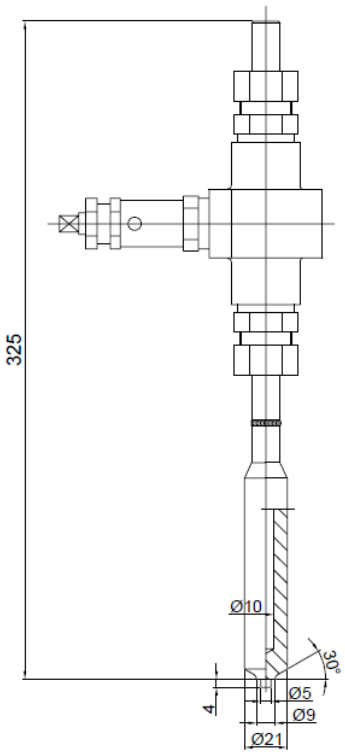
ZPC–01 – Pressure tap set type 01 – PN250

ZPC–01–01–01

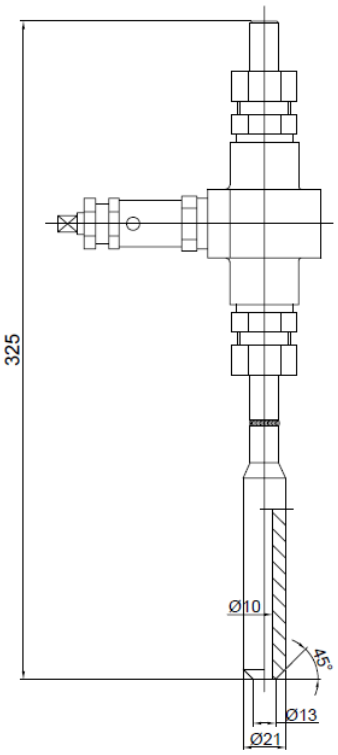
Shut-off valve:
- 01 – MES-12-00-0-0-1 (13CrMo4-5)
- 02 – MES-12-01-0-0-1 (X6CrNiTi18-10)

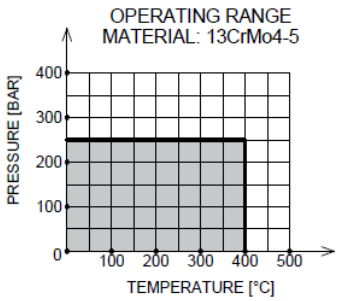
Connector type:
- 01 – KPC-03-__-03-01 (blind connector)
- 02 – KPC-03-__-03-02 (open connector)

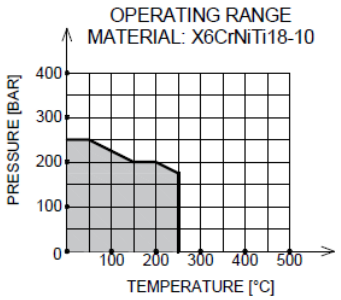
blind connector



open connector







Remarks:
1. Connector is made of rolled bar:
   - 13CrMo4-5 – rolled bar acc PN-EN 10273+PED
   - X6CrNiTi18-10 – rolled bar acc PN-EN 10272+PED
2. If the specified range of work is exceeded, please contact us for individual strength calculations.

Last update of the catalog card: 04-07-2023

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tel. 728 548 519, e-mail: zap@zap.net.pl

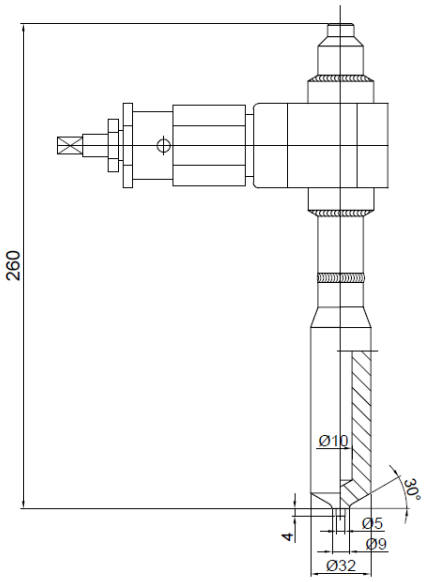
ZPC–02 – Pressure tap set type 02 – PN400

ZPC–02–01–01

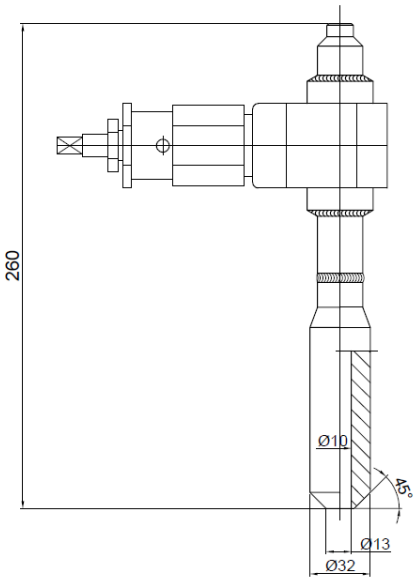
Shut-off valve:
- 01 – MES-17-00-0-0-6 (13CrMo4-5)
- 02 – MES-17-00-0-0-8 (13CrMo4-5)
- 03 – MES-17-01-0-0-6 (X6CrNiTi18-10)
- 04 – MES-17-01-0-0-8 (X6CrNiTi18-10)

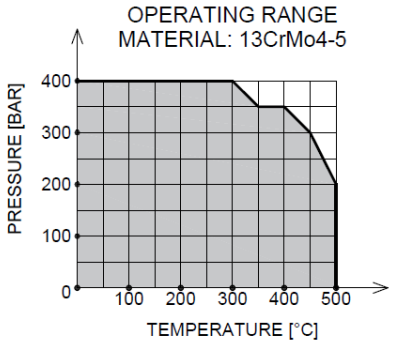
Connector type:
- 01 – KPC-01-__-02-01 (blind connector)
- 02 – KPC-01-__-02-02 (open connector)

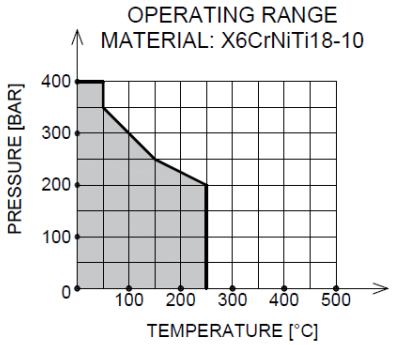
blind connector



open connector







Uwagi:
1. Connector is made of rolled bar:
   - 13CrMo4-5 – rolled bar acc PN-EN 10273+PED
   - X6CrNiTi18-10 – rolled bar acc PN-EN 10272+PED
2. Ends of shut-off valves:
   - MES-17-__-0-0-6 – inlet ϕ24, outlet ϕ24
   - MES-17-__-0-0-8 – inlet ϕ24, outlet ϕ14
3. If the specified range of work is exceeded, please contact us for individual strength calculations.

Last update of the catalog card: 04-07-2023

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tel. 728 548 519, e-mail: zap@zap.net.pl

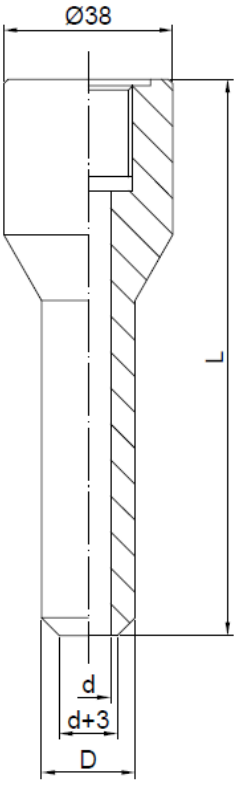
OCT–01 – Temperature sensor cover type 01 – connector PN250

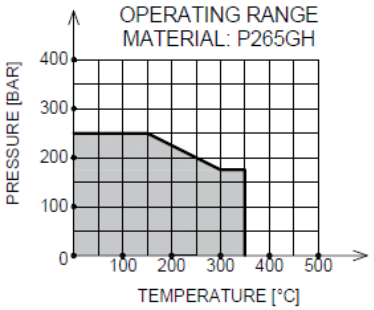
OCT–01–01–01–01

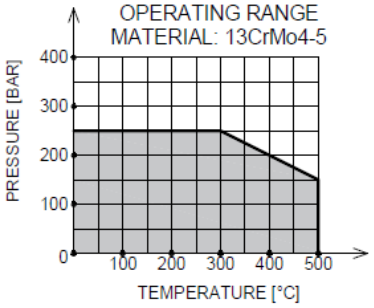
Material:
- 01 – P265GH
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541

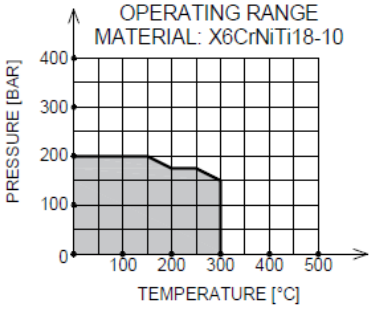
Dimensions M / D / d:
- 01 – M20x1,5 / ϕ25 / ϕ18
- 02 – M20x1,5 / ϕ23 / ϕ14
- 03 – M20x1,5 / ϕ21 / ϕ10
- 04 – M27x2 / ϕ23 / ϕ14
- 05 – G1/2” / ϕ23 / ϕ14
- 06 – G1/2” / ϕ21 / ϕ10
- SP – special equipment

Length L:
- 01 – 150mm
- 02 – 125mm
- 03 – 100mm
- SP – special equipment









Remarks:
1. Connector is made of rolled bar:
   - P265GH i 13CrMo4-5 – rolled bar acc PN-EN 10273+PED
   - X6CrNiTi18-10 – rolled bar acc PN-EN 10272+PED
2. If the specified range of work is exceeded, please contact us for individual strength calculations.

Last update of the catalog card: 01-03-2024

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tel. 728 548 519, e-mail: zap@zap.net.pl

OCT–02 – Temperature sensor cover type 02 – connector PN500

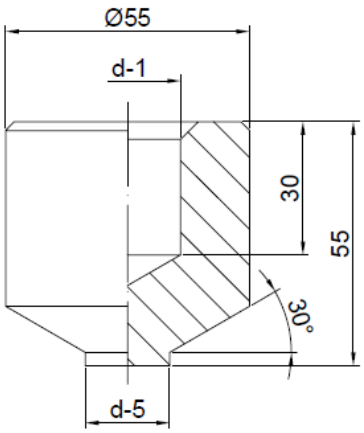
OCT–02–01–01–01

Material:
- 01 – P265GH
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541

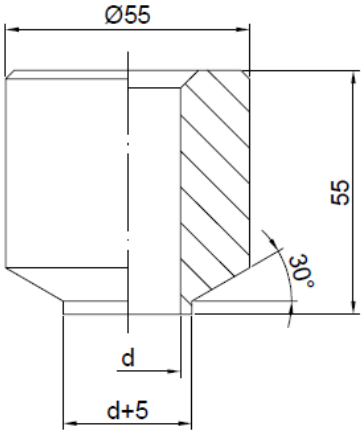
Dimension d:
- 01 – ϕ25
- 02 – ϕ18
- SP – special equipment

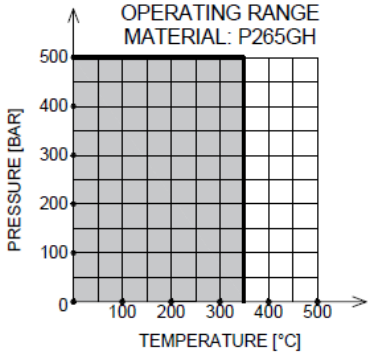
Connector type:
- 01 – blind connector
- 02 – open connector

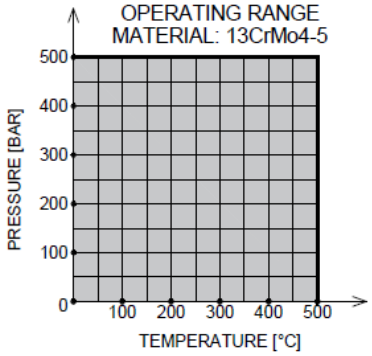
blind connector

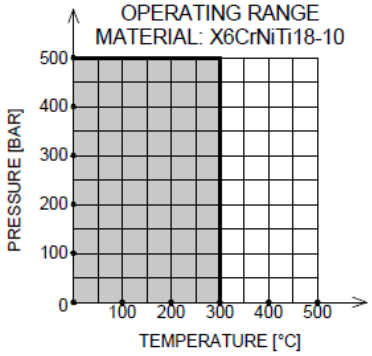


open connector









Remarks:
1. Connector is made of rolled bar:
   - P265GH i 13CrMo4-5 – rolled bar acc PN-EN 10273+PED
   - X6CrNiTi18-10 – rolled bar acc PN-EN 10272+PED
2. If the specified range of work is exceeded, please contact us for individual strength calculations.

Last update of the catalog card: 01-03-2024

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tel. 728 548 519, e-mail: zap@zap.net.pl

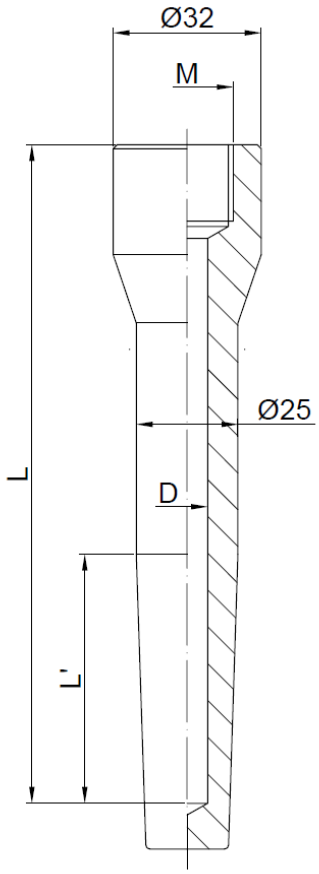
OCT–03 – Temperature sensor cover type 03

OCT–03–03–01–01

Material:
- 01 – P265GH
- 03 – 13CrMo4-5
- 05 – 10CrMo9-10

Dimensions M / D:
- 01 – M20x1,5 / 10mm
- 02 – M20x1,5 / 13mm
- 03 – 1/2NPT / 10mm
- 04 – 1/2NPT / 13mm
- 05 – G1/2” / 10mm
- 06 – G1/2” / 13mm
- SP – special equipment

Length L / L’:
- 01 – 100mm / 40mm
- 02 – 150mm / 70mm
- 03 – 200mm / 70mm
- 04 – 250mm / 70mm
- 05 – 300mm / 100mm
- SP – special equipment



Remarks:
1. Connector is made of rolled bar acc PN-EN 10273+PED.
2. When placing an order, please specify the values of maximum pressure and maximum temperature to perform individual strength calculations.

Last update of the catalog card: 01-03-2024

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tel. 728 548 519, e-mail: zap@zap.net.pl

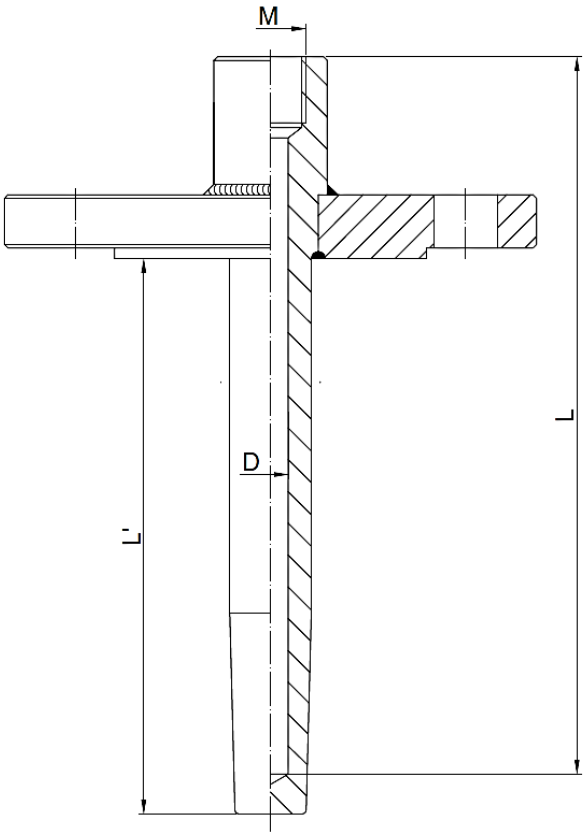
OCT–04 – Temperature sensor cover type 04 with flange acc EN 1092-1

OCT–04–03–01–01-DN-PN

Material:
- 01 – P265GH
- 03 – 13CrMo4-5
- 05 – 10CrMo9-10

Dimensions M / D:
- 01 – M20x1,5 / 10mm
- 02 – M20x1,5 / 13mm
- 03 – 1/2NPT / 10mm
- 04 – 1/2NPT / 13mm
- 05 – G1/2” / 10mm
- 06 – G1/2” / 13mm
- SP – special equipment

Length L / L’:
- 01 – 100mm / 40mm
- 02 – 150mm / 90mm
- 03 – 200mm / 140mm
- 04 – 250mm / 190mm
- 05 – 300mm / 240mm
- SP – special equipment



Remarks:
1. Connector is made of rolled bar acc PN-EN 10273+PED.
2. When placing an order, please specify the nominal diameter DN and nominal pressure PN of the flange as well as the values of maximum pressure and maximum temperature to perform individual strength calculations.

Last update of the catalog card: 01-03-2024

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tel. 728 548 519, e-mail: zap@zap.net.pl

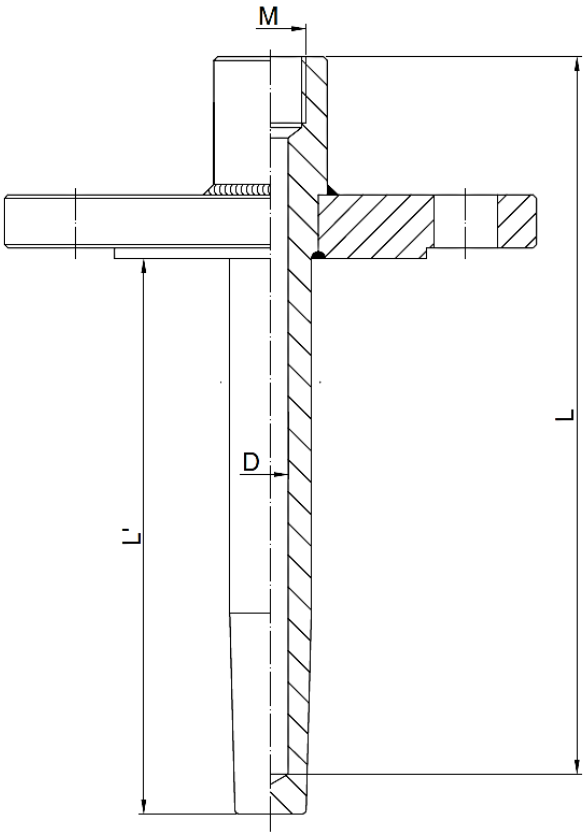
OCT–05 – Temperature sensor cover type 05 with flange acc ASME B16.5

OCT–05–03–01–01-NPS-class

Material:
- 01 – P265GH
- 03 – 13CrMo4-5
- 05 – 10CrMo9-10

Dimensions M / D:
- 01 – M20x1,5 / 10mm
- 02 – M20x1,5 / 13mm
- 03 – 1/2NPT / 10mm
- 04 – 1/2NPT / 13mm
- 05 – G1/2” / 10mm
- 06 – G1/2” / 13mm
- SP – special equipment

Length L / L’:
- 01 – 100mm / 40mm
- 02 – 150mm / 90mm
- 03 – 200mm / 140mm
- 04 – 250mm / 190mm
- 05 – 300mm / 240mm
- SP – special equipment



Remarks:
1. Connector is made of rolled bar acc PN-EN 10273+PED.
2. When placing an order, please specify the nominal diameter NPS and flange pressure class as well as the values of maximum pressure and maximum temperature to perform individual strength calculations.

Last update of the catalog card: 01-03-2024

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tel. 728 548 519, e-mail: zap@zap.net.pl

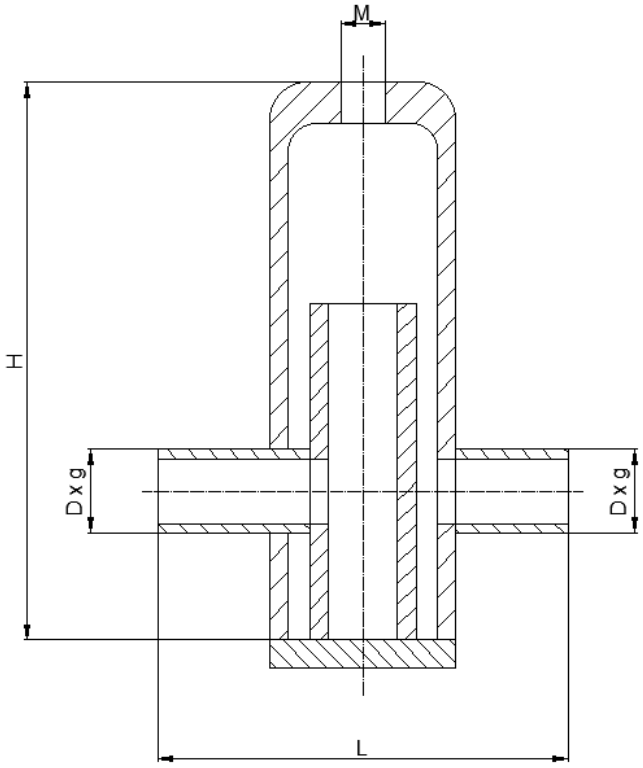
OCT–06 – Temperature sensor cover type 06 – thermometric pocket

OCT–06–02–Dxg-M-H-L

Material:
- 01 – P265GH
- 02 – 16Mo3
- 03 – 13CrMo4-5
- 09 – X2CrNiMo17-12-2/1.4404

Dimensions Dxg:
- outside diameter D
- wall thickness g

Dimensions M-H-L
- thread type M
- pocket height H
- construction length L



Remarks:
1. Order example: OCT-06-02(16Mo3)-ϕ33,7x3,2-M20x1,5-H=240-L=210
2. Thermometric pocket is made of pipes acc PN-EN 10216 and rolled bar acc PN-EN 10273+PED.
3. When placing an order, please specify the values of maximum pressure and maximum temperature to perform individual strength calculations.

Last update of the catalog card: 02-04-2024

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tel. 728 548 519, e-mail: zap@zap.net.pl

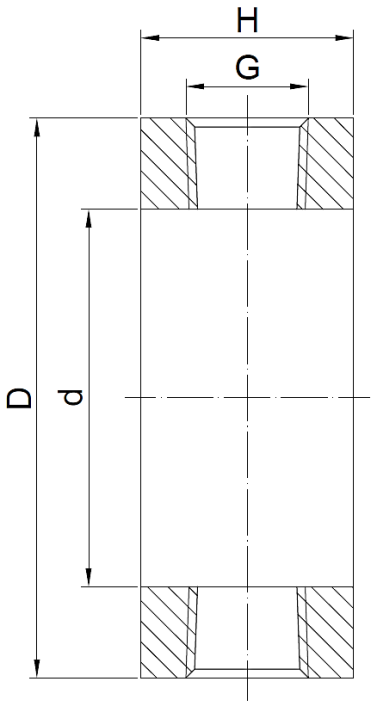
PIE–01 – Flushing ring for flanges EN 1092-1

PIE–01-08–DN–PN-thread-remarks

Ring material:
- 08 – X6CrNiTi18-10/1.4541
- 09 – X2CrNiMo17-12-2/1.4404

DN-PN:
- Nominal diameter DN: DN50, DN80, DN100, DN125
- Nominal pressure PN: PN16…..PN100

Thread:
- 01 – 1/2NPT
- 02 – 1/4NPT
- 03 – 1/8NPT
- 04 – G1/2”
- 05 – G1/4”
- 06 – G1/8”



DN PN	D	d	H
DN50 PN16…PN100	102	62	30
DN80 PN16…PN100	138	92	30
DN100 PN16…PN100	162	92	30
DN125 PN16…PN100	188	126	30

Remarks:
1. Order example: PIE-01-09(X2CrNiMo17-12-2)-DN80-PN25-01(1/2NPT)-2 connectors with valves.
2. Rings are made of rolled bar PN-EN 10272+PED
3. Flushing rings can be supplied in the following versions:
   - flushing ring with two threaded holes (delivery with blanking plugs possible);
   - flushing ring with one or two connectors (specify the type of thread or welding ends);
   - flushing ring with one or two connectors with shut-off valves (specify valve type).

Last update of the catalog card: 01-03-2024

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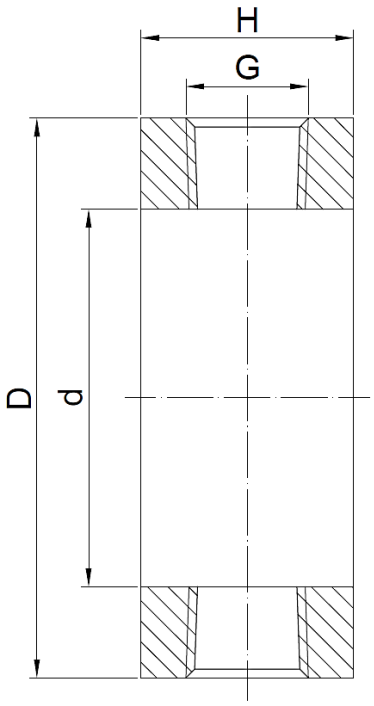
PIE–02 – Flushing ring for flanges ASME B16.5

PIE–02-08– NPS–class -thread-remarks

Ring material:
- 08 – X6CrNiTi18-10/1.4541
- 09 – X2CrNiMo17-12-2/1.4404

NPS–class:
- Thread NPS: NPS2”, NPS3”, NPS4”, NPS5”
- Pressure class: class150…..class600

Thread:
- 01 – 1/2NPT
- 02 – 1/4NPT
- 03 – 1/8NPT
- 04 – G1/2”
- 05 – G1/4”
- 06 – G1/8”



NPS class	D	d	H
NPS2” class150…class600	92	62	30
NPS3” class150…class600	127	92	30
NPS4” class150…class600	157	92	30
NPS5” class150…class600	185,5	126	30

Remarks:
1. Order example: PIE-02-09(X2CrNiMo17-12-2)-NPS2”-class150-01(1/2NPT)-2 connectors with valves.
2. Rings are made of rolled bar acc PN-EN 10272+PED
3. Flushing rings can be supplied in the following versions:
   - flushing ring with two threaded holes (delivery with blanking plugs possible);
   - flushing ring with one or two connectors (specify the type of thread or welding ends);
   - flushing ring with one or two connectors with shut-off valves (specify valve type).

Last update of the catalog card: 01-03-2024

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ZOKU–01 – Blind cap for flanges acc EN 1092-1

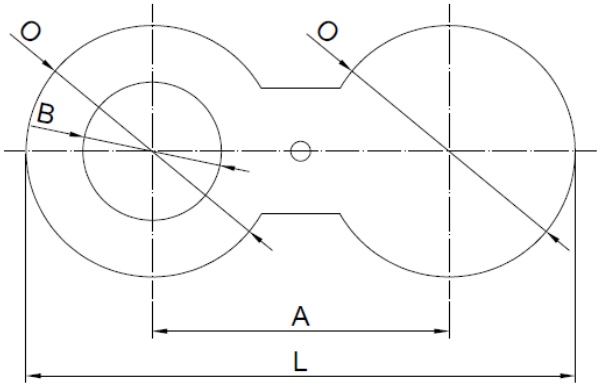
ZOKU–01-01– DN – PN –01

Cap material:
- 01 – P265GH
- 02 – 16Mo3
- 03 – 13CrMo4-5
- 04 – P355NH
- 09 – X2CrNiMo17-12-2/1.4404

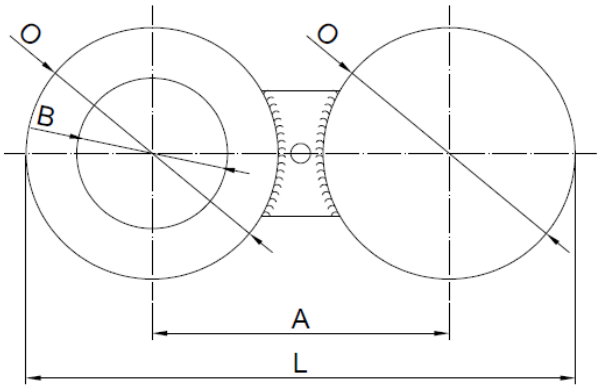
DN–PN:
- Nominal diameter DN:
DN25…..DN300
- Nominal pressure PN:
PN16…..PN160

Type of cap:
- 01 – uniform
- 02 – welded

uniform blind cap



welded blind cap



Remarks:
1. Order example: ZOKU-02-04(P355NH)-DN80-PN40-01(uniform).
2. Blind caps are made of rolled plate:
   - P265GH, 16Mo3, 13CrMo4-5 – rolled plate acc PN-EN 10028-2;
   - P355NH – rolled plate acc PN-EN 10028-3;
   - X2CrNiMo17-12-2 – rolled plate acc PN-EN 10028-7.
3. Blind cap can be supplied in the following versions:
   - a uniform cap cut from a piece of metal plate of the same thickness (used for a maximum diameter of DN100);
   - welded cap with a connection of smaller thickness.

Last update of the catalog card: 01-03-2024

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ZOKU–02 Blind cap for flanges acc ASME B16.48

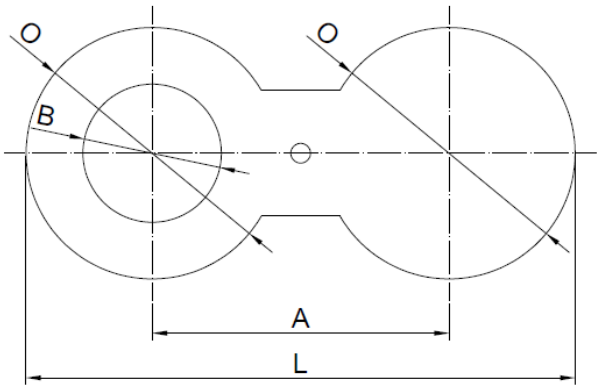
ZOKU–02-01– NPS–class –01

Cap material:
- 01 – P265GH
- 02 – 16Mo3
- 03 – 13CrMo4-5
- 04 – P355NH
- 09 – X2CrNiMo17-12-2/1.4404

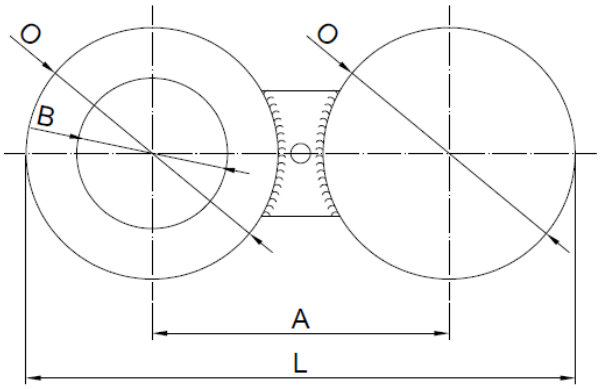
NPS–class:
- Nominal diameter NPS:
NPS1/2”….. NPS12”
- Pressure class:
class150…..class900

Type of cap:
- 01 – uniform
- 02 – welded

uniform blind cap



welded blind cap



Remarks:
1. Order example: ZOKU-02-04(P355NH)-NPS4”-class300-01(uniform).
2. Blind caps are made of rolled plate:
   - P265GH, 16Mo3, 13CrMo4-5 – rolled plate acc PN-EN 10028-2;
   - P355NH – rolled plate acc PN-EN 10028-3;
   - X2CrNiMo17-12-2 – rolled plate acc PN-EN 10028-7.
3. Blind cap can be supplied in the following versions:
   - a uniform cap cut from a piece of metal plate of the same thickness (used for a maximum diameter of DN100);
   - welded cap with a connection of smaller thickness.

Last update of the catalog card: 01-03-2024

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KPZ–01 – Flat blanking flange acc EN 1092-1

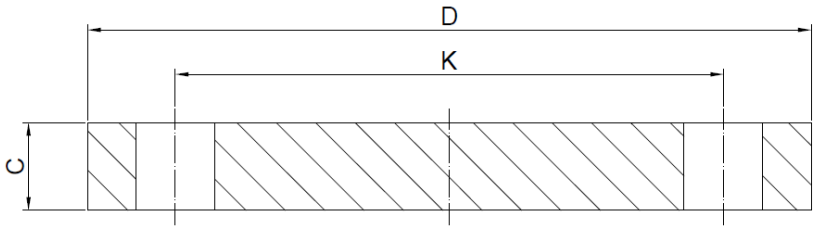
KPZ-01–01–DN–PN–B

Flange material:
- 01 – P265GH
- 02 – 16Mo3
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541
- 09 – X2CrNiMo17-12-2/1.4404

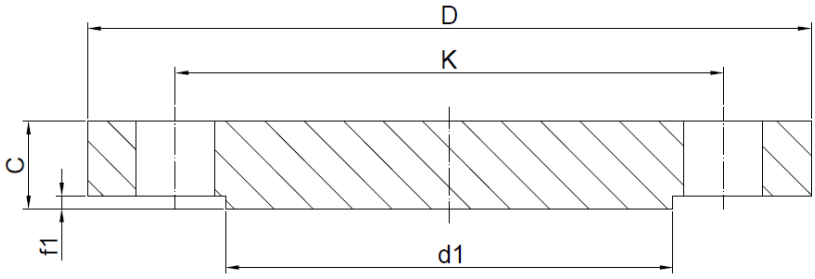
DN-PN:
- nominal diameter DN
- nominal pressure PN

Sealing face:
- A – flat face
- B – raised face

flat face A



raised face B



Remarks:
1. Order example: KPZ-01-01(P245GH)-DN80-PN25-B.
2. Flanges are made of rolled bar:
   - P265GH, 16Mo3 i 13CrMo4-5 – rolled bar acc PN-EN 10273+PED
   - X6CrNiTi18-10 i X2CrNiMo17-12-2 – rolled bar acc PN-EN 10272+PED
3. It is possible to make a flange made of forged material at the customer's request.
4. Bolt holes made acc EN 1092-1.

Last update of the catalog card: 01-03-2024

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KPZ–02 – Flat blanking flange acc ASME B16.5

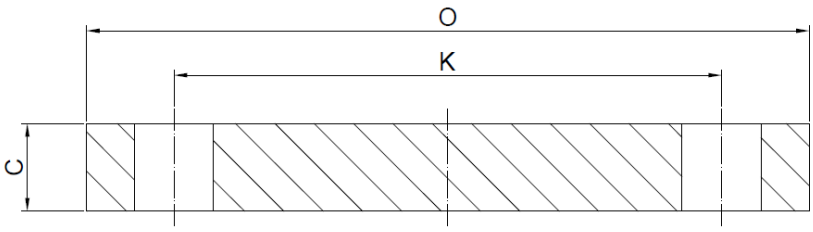
KPZ–02-08– NPS–class–RF

Flange material:
- 01 – P265GH
- 02 – 16Mo3
- 03 – 13CrMo4-5
- 08 – X6CrNiTi18-10/1.4541
- 09 – X2CrNiMo17-12-2/1.4404

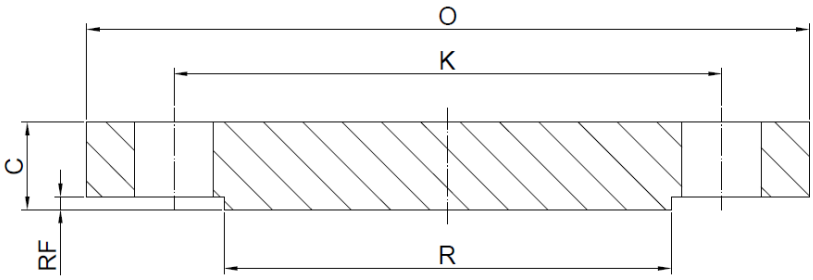
NPS–class:
- nominal diameter NPS
- pressure class

Sealing face:
- FF – flat face
- RF – raised face

flat face FF



raised face RF



Remarks:
1. Order example: KPZ-01-01(P245GH)-NPS4”-class300-RF.
2. Flanges are made of rolled bar:
   - P265GH, 16Mo3 i 13CrMo4-5 – rolled bar acc PN-EN 10273+PED
   - X6CrNiTi18-10 i X2CrNiMo17-12-2 – rolled bar acc PN-EN 10272+PED
3. It is possible to make a flange made of forged material at the customer's request.
4. Bolt holes made acc ASME B16.5.

Last update of the catalog card: 01-03-2024