



**Strojírenský zkušební ústav, s.p.**  
**(Engineering Test Institute, Public Enterprise), Authorized Body 202**  
**Hudcova 424/56b, Brno, Czech Republic**  
Authorization Decision 4/2017 of 16 January 2017

# PRODUCT CERTIFICATE

**No. 202/C5/2019/B-00851-19**

In compliance with the provisions of Section 5 (2) of Government Regulation 163/2002 Coll., laying down technical requirements for selected construction products, as amended by Government Regulation 312/2005 Coll. and Government Regulation 215/2016 Coll., the Authorized Body hereby confirms that for the following construction products

Pliable stainless steel tubes for water

Type designation: WR04, WR16, WR316Ti

Versions: see Page 2

Manufacturer: AZ - Pokorný, s.r.o.  
Čermákovice 20  
Čermákovice  
671 73  
CZECH REPUBLIC

Company ID No.: 25300849

it has reviewed the background materials submitted by the Manufacturer, carried out the initial product type test on sample, the initial audit at the manufacturing plant and has assessed the factory production control system and ascertained that the said products meet the requirements related to essential requirements of the abovementioned Government Regulation laid down in technical regulations and in Construction Technical Certificate 202-STO-B-00467-19 of 2019-02-25 issued by Authorized Body 202 and valid until 2020-03-31, and that the factory production control system is consistent with the relevant technical documentation and ensures that the products placed on the market meet the requirements laid down by the aforesaid technical regulations and Construction Technical Certificate and are consistent with the technical documentation pursuant to Section 4 (3) of the abovementioned Government Regulation.

An integral part of this Certificate is Final Report 30-14204/1/MZ of 2018-02-28, which contains the conclusions drawn from the ascertainment, the verifications, test results and essential description of the certified product, necessary for its identification.

This Certificate was first issued on 2019-03-13 and will remain valid as long as the requirements that are laid down by the technical regulations and Construction Technical Certificate, to which reference is made, or the production conditions at the manufacturing plant or the factory production control system remain substantially unchanged, unless this Certificate is amended or cancelled by the Authorized Body.

At least once every 12 months, the Authorized Body performs surveillance of proper operation of the factory production control system at the Manufacturer's premises pursuant to Section 5 (4) of the abovementioned Government Regulation, takes samples of the products at the manufacturing plant, tests these samples and assesses whether the characteristics of the products comply with the technical regulations and Construction Technical Certificate. The Authorized Body shall issue a report on evaluation of the surveillance and pass it to the Manufacturer.

Brno, 2019-03-13



Ing. Aleš Onderek  
Deputy Director

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Basic technical data and version specifications:

| Type designation:                          | WR04                                                                                                                                                                                                                                                                                                                                                                                                 | WR16                                                                                                                                                                                   | WR316Ti                                |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Bellows material:                          | Stainless steel<br>AISI 304L (1.4306)                                                                                                                                                                                                                                                                                                                                                                | Stainless steel<br>AISI 316L (1.4404)                                                                                                                                                  | Stainless steel<br>AISI 316Ti (1.4571) |
| Nominal size:                              | DN 8, 12, 16, 18, 20, 23, 25, 32, 40, 50                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                        |                                        |
| Design pressure:                           | PN 16 (DN 8 up to DN 25)<br>PN 5 (DN 32 up to DN 50)                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                        |                                        |
| Bellows construction:                      | Type 3 acc. to ČSN EN ISO 10380:2013 Art. 4.1                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                        |                                        |
| Bellows wall thickness:                    | (0.26 ±0.02) mm for DN 8<br>(0.30 ±0.02) mm for DN 12 to DN 25<br>(0.35 ±0.02) mm for N 32 and DN 40<br>(0.40 ±0.02) mm for DN 50                                                                                                                                                                                                                                                                    |                                                                                                                                                                                        |                                        |
| Operating temperature:                     | From –40 °C to +200 °C – pressed end pieces, compression ring and end fittings as per EN 15266<br>From –20 °C to +250 °C – brazed end fittings<br>From –40 °C to +350 °C – welded-on end fittings made of steel<br>From –20 °C to +100 °C – O-rings, EPDM (black)<br>Max. +100 °C – Coated tube or poly-propylene protective sleeve<br>Max. +200 °C – Flat gasket, Klingersil C-4400 or REINZ-AFM 34 |                                                                                                                                                                                        |                                        |
| Connection:                                | Cap nut – thread acc. to ČSN EN ISO 228-1<br>Bolt – thread acc. to ČSN EN ISO 228-1<br>Connection of end fittings acc. to DIN 3384 Table 2, Nos. 1 to 20; or according to customer requirements, in which case the customers shall be responsible for suitability of design and correct connection of end fittings to distribution system.                                                           |                                                                                                                                                                                        |                                        |
| Connection materials and other components: |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                        |                                        |
| Cap nut:                                   | Brass CW614N* (CuZn39Pb3), CW617N* (CuZn40Pb2), AISI 304* (1.4301)                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                        |                                        |
| Bolt:                                      | Brass CW614N* (CuZn39Pb3), CW617N* (CuZn40Pb2)                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                        |                                        |
| Reduction and nipples:                     | Brass CW614N* (CuZn39Pb3)<br>Brass CW617N* (CuZn40Pb2)<br>Bronze CC491K* (CuSn5Zn5Pb)                                                                                                                                                                                                                                                                                                                | * When used for water meant for human consumption (potable water) the end fittings must be in accordance with Ministry of Health Decree 409/2005 Coll. (i.e. max. 2.2% Pb and 0.1% As) |                                        |
|                                            | Bronze CC492K (CuSn7Zn2Pb3)                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                        |                                        |
| Coating:                                   | Granulate of softened PVC, thickness: 0.5–1.0 mm<br>(Coating material is consistent with ČSN EN ISO 10380:2013 Art. 4.13)                                                                                                                                                                                                                                                                            |                                                                                                                                                                                        |                                        |
| Flat gasket:                               | Klingersil C-4400 (green)<br>REINZ-AFM 34: EPDM Perox. vulc. 70 Sh (black)                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                        |                                        |
| O-ring:                                    | EPDM (black)                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                        |                                        |

**Operating media:**

|              |                                                                                                                                                                  |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Water :      | Water meant for human consumption – potable water<br>(Pursuant to Ministry of Health Decree 409/2005 Coll.) except for brazed end fittings                       |
| Other media: | Water not meant for human consumption<br>Liquids for cooling and heating systems<br>Pressure air<br>Steam<br>Other media upon consultation with the Manufacturer |

**Maximum operating pressures (PN) for individual media and types of end fittings:**

| Nominal size      | Type of end fitting | O-ring | Pressed | Welded | Brazed |
|-------------------|---------------------|--------|---------|--------|--------|
| DN 8 up to DN 25  | Potable water       | 10 bar | 10 bar  | 10 bar | ---    |
|                   | Other media         | 16 bar | 16 bar  | 16 bar | 16 bar |
| DN 32             | Potable water       | 5 bar  | 10 bar  | 5 bar  | ---    |
|                   | Other media         |        |         |        | 5 bar  |
| DN 40 up to DN 50 | Potable water       | ---    | 10 bar  | 5 bar  | ---    |
|                   | Other media         |        |         |        | 5 bar  |

