



# **Tubes**

FOR HEAT-  
EXCHANGERS AND  
CONDENSER TUBES

Walcownia Metali "DZIEDZICE" S.A.  
43-502 Czechowice - Dzierżycie  
ul. Hutnicza 13  
tel. +48 (32) 215 23 51



# TUBES FOR HEAT EXCHANGERS AND CONDENSER TUBES

## Grades, standards, dimensional ranges

| Standard                | Material symbol            | Designation<br>acc. to norm        | Temper                                   | Outside<br>diameter       | Wall<br>thickness      |
|-------------------------|----------------------------|------------------------------------|--|---------------------------|------------------------|
| PN-EN 12451             | CuZn20Al2As<br>CuZn28Sn1As | CW702R<br>CW706R                   | R340 R390<br>R320 R360                   | 8,00-22,00                | 0,75-0,99              |
| DIN 17660/1785          | CuZn20Al2<br>CuZn28Sn1     | 2.0460<br>2.0470                   | F34 F39<br>F32 F36                       | 8,00-35,00<br>11,00-45,00 | 1,00-1,49<br>1,50-2,00 |
| ASTM B111<br>ASME SB111 | CuZn20Al2<br>CuZn28Sn1     | C68700<br>C44300                   | O61                                      | 15,00-45,00               | 2,01-2,50              |
| GOST 15527-2004         | CuZn20Al2<br>CuZn28Sn1     | ŁAMsz 77-2-0,05<br>ŁOMsz 70-1-0,05 | soft, half-hard soft,<br>soft, half-hard | 25,00-45,00               | 2,51-3,00              |
| BS 2871-P3-72           | CuZn20Al2<br>CuZn28Sn1     | Cz 110<br>Cz 111                   | O, TA                                    |                           |                        |
| NF A 51-102             | CuZn20Al2<br>CuZn28Sn1     | CuZn20Al2<br>CuZn28Sn1             | annealed                                 |                           |                        |
| JIS H3300-86            | CuZn20Al2<br>CuZn28Sn1     | C 6870<br>C 4430                   | O  |                           |                        |

### Form:

Straight lengths acc. to customers requirements in following ranges:

- outsider diameter 8,0 - 15,0mm - 2000mm to 8000mm
- for other dimensions - 2000mm to 14000mm
- lenghts > 14000 mm upon agreement
- diameter 6,0mm < 8,0mm and wall 0,6 < 0,8mm upon agreement

Annealed-soft temper, annealing in oxidation atmosphere, external and internal surface slightly oxidized, Leakage tests conducted by Eddy Current test.

### Certificates, authorizations and guarantees:

The certificate entitles the production of pressure tubes for heat exchangers according to German law, the AD-2000, CERT Markblatt W0/TRD Germany / A certificate of recognition issued by PRS Poland / Authorization for manufacture pressure tubes to heat exchangers conferred by the UDT Poland / Certificate of conformity of the pressure tubes production for heat exchangers based on Directive No EU 97/23/EC / Certificate certifying the quality management system in accordance with the principles of the EN ISO 9001:2001 awarded by LRQA. The pipes are manufactured in accordance with the guidelines and principles laid down by the VGB Technical Association of high-power Power Plant Users EVw Germany.

The guarantee for corrosion resistance of tubes: 2.5 years for CuZn28Sn1 alloy according to the agreed guarantee sheet for condenser piping in power industry, 3 years for CuZn20Al2 alloy according to the agreed guarantee sheet for condenser piping in power industry.

### Packing:

Wooden cases.

### Application:

Condenser piping in power industry, heat exchangers and installations in power plants, heat exchangers and coolers used and coolers used In shipbuilding industry, working in sea water environment (CuZn20Al2).

