Altech

Product data sheet

80-BAR COPPER COOLING TUBES

Copper Cooling Tubes

Altech 80-bar tubes are made of DHP copper (CW024A, UNS 12200) in accordance with EN 12735-1 to comply with the requirements for the installation of CO^2 systems for cooling and other high-pressure applications. They are also approved in accordance with European Pressure Equipment Directive PED 2014/68/EU. Altech 80-bar tubes are installed in the same way as traditional cooling tubes, i.e. with silver solder, bending with traditional tools and joining with standardised copper couplings designed for high pressure or with copper alloy CuFe2P, e.g. K65.

Product properties

- Adapted to fulfil the requirements for subcritical CO^2 systems
- Suitable for cooling installations with an operating pressure of up to 80 bar
- Outstanding cold working properties
- Smooth interior surface for improved flow velocity
- Clean interior with closed ends
- Stable mechanical properties over a wide temperature range
- Outstanding brazing properties
- Compatible with standardized high-pressure copper couplings

Material

DHP Cu (deoxidised high phosphorus) copper, min. 99.9% and P = 0.015–0.040%

Specifications

Dimensional tolerances: EN 12735-1
Internal cleanliness: EN 12735-1
Delivery form: straight lengths with end caps
Marking (example): EN 12735-1 9.525X0.80 ALTECH 80 bar R290 7/20

The tubes are fabricated in accordance with EN 12735-1 and internal product specifications and are approved in accordance with Pressure Equipment Directive PED 2014/68/EU.

Art. No	Outside diameter (mm | in)		Material thickness (mm)	Max. operating pressure (bar)	Hardness	Length (m)
K5188040	9,53	3/8"	0,80	103	R290	5
K5188047	12,7	1/2"	0,90	86	R290	5
K5188041	15,88	5/8"	1,05	80	R290	5
K5188042	19,05	3/4"	1,30	80	R290	5
K5188043	22,22	7/8"	1,50	80	R290	5
K5188044	28,58	1 1/8"	1,90	80	R290	5
K5188045	34,92	1 3/8"	2,30	80	R290	5
K5188046	41,28	1 5/8"	2,70	80	R290	5

Maximum operating pressure calculated per EN 14276:2020 in compliance with European Pressure Equipment Directive PED 2014/68/EU. Heat treatment R200. A safety factor of 3.0 is applied. A negative tolerance for wall thickness is accounted for. No further processing is accounted for. For temperatures up to 100 °C.

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