

K65[®]

THE TUBE SYSTEM FOR
HIGH-PRESSURE APPLICATIONS



SIMPLE.
NATURAL.
COOL.

K65[®]-System

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K65[®]

THE TUBE SYSTEM FOR HIGH-PRESSURE APPLICATIONS

The K65 tube system has been developed in response to the use of CO₂ R744 as an environmentally friendly refrigerant in the commercial field, especially that of supermarket refrigeration systems. The use of CO₂ as a refrigerant led to high operating pressures, and therefore variations in the gauge of tube being specified. K65 simplifies the selection process, as the Wieland K65 alloy provides the mechanical strength high enough to withstand the huge pressure ratings required. K65 has already been used with success in electrical engineering and the automotive industry, and is a safe and economical installation in refrigeration systems with operating pressures of up to 120 bar (1740 psi).

Applications

High-pressure pipe systems, particularly when CO₂ is used as a refrigerant. K65 can be used in other fluids applications in consultation with the manufacturer.

Proven joining technique

K65 has excellent processing properties that are similar to those of copper. Wieland K65 tubes can be brazed to Conex Bänninger K65 fittings without any need for expensive or special equipment.

Safety ensured by two well-known manufacturers

K65 tubes by Wieland and K65 fittings by IBP Conex | Bänninger fall under a joint system guarantee that includes CO₂ applications up to 120 bar for the items listed below.

Easy to identify – even after installation

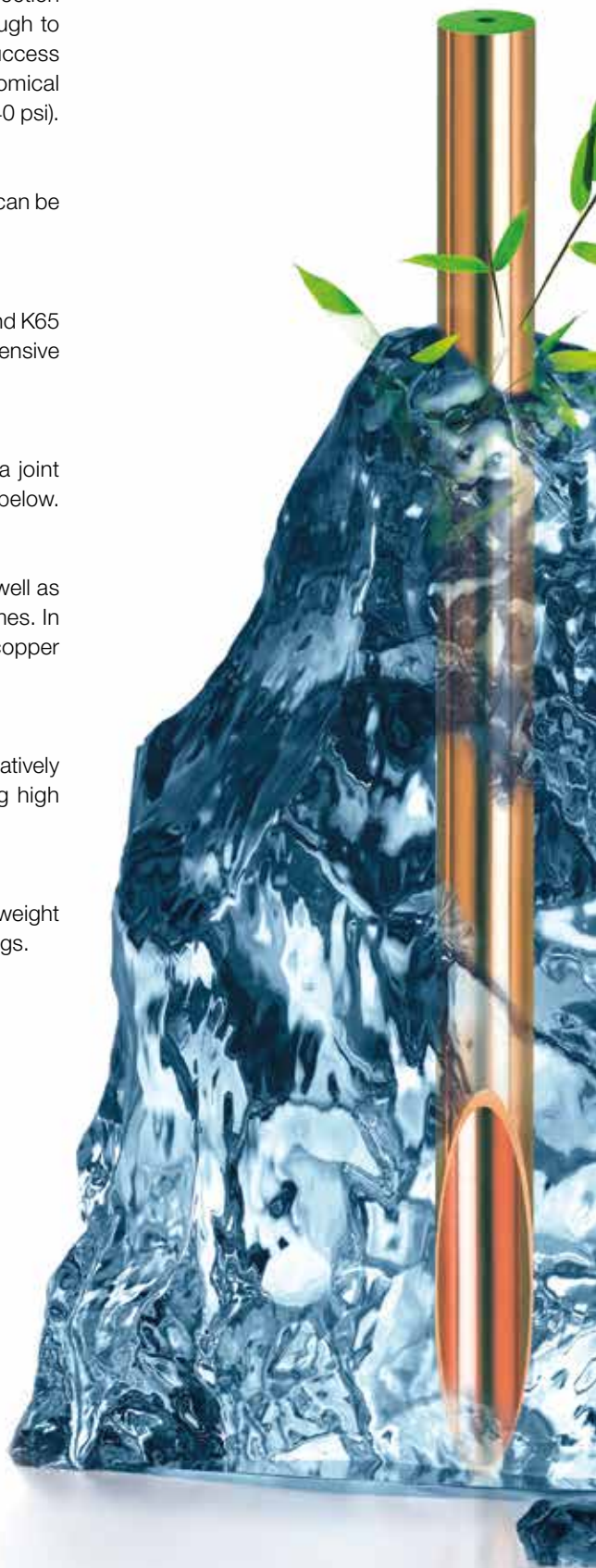
All K65 system components are marked with the manufacturers own mark, as well as the K65 mark and 120 bar pressure rating making them easy to identify at all times. In addition, the material is slightly magnetic and can be easily distinguished from copper by means of a strong magnet – a helpful and practical advantage.

Economical

Having such a high mechanical strength, the K65 tube can be made with comparatively thin walls allowing for an economical utilization of material, while still meeting high technical demands.

Lighter for easy handling

The thinner walls of the tubes not only saves on material, but results in a lighter weight product that is easier to handle, for example, when mounting the pipes on ceilings.



K65® TUBES

Identification:	Wieland K65 120 bar
Dimensional tolerances:	EN 12735-1
Material:	Wieland K65
Temper:	R300 (with heat treatment) for diameters ≥ 15.87 mm R420 (drawn) for diameters < 15.87 mm
Maximum operating pressure:	120 bar (respective dimensions see Table) at an operating temperature of 150 °C
Certification:	according to VdTÜV material data sheet 567 UL 207-Certification on request
Tube ends:	closed
Packing:	in bundles

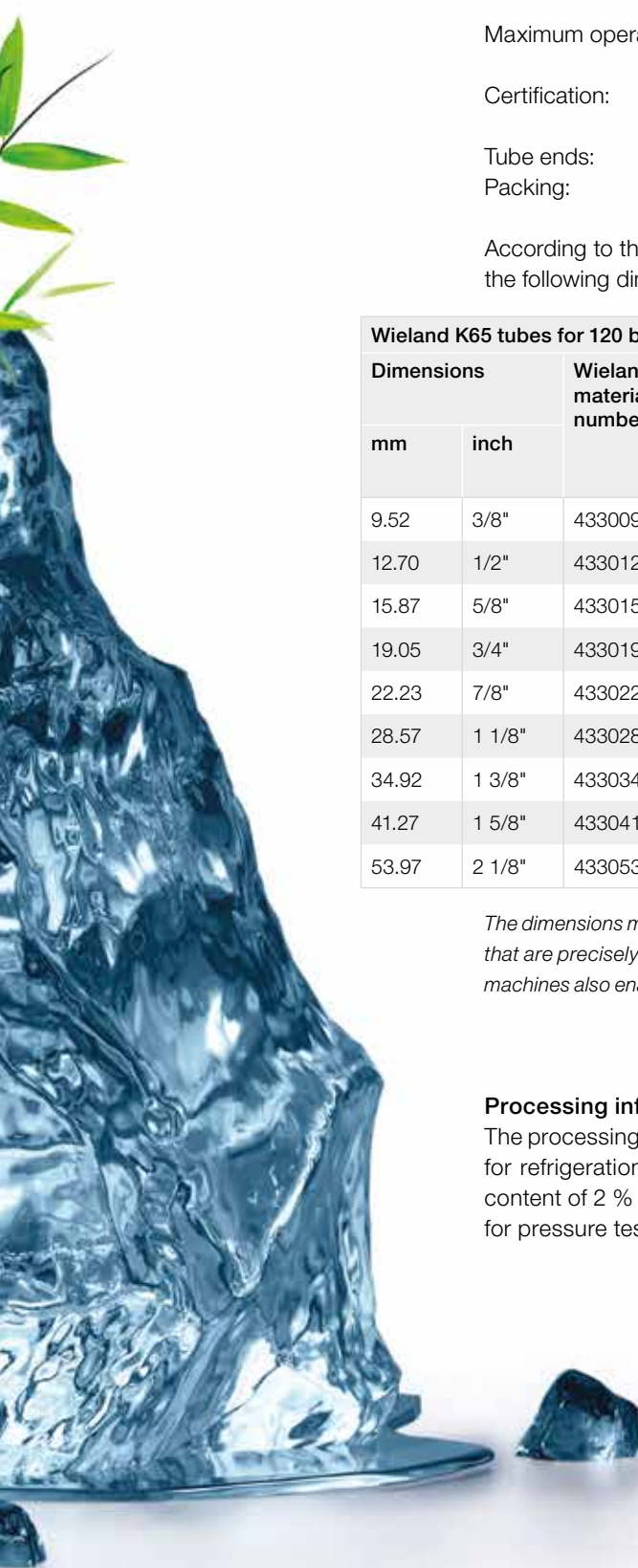
According to the requirements of the AD2000 Rules and the VdTÜV material data sheet 567, the following dimensions are available ex stock for operating pressures up to 120 bar:

Wieland K65 tubes for 120 bar							
Dimensions		Wieland material number	Packaging unit: bundle		Packaging unit: ballot		Minimum bending radius
mm	inch		Number of tubes per 5 m	Metres per bundle	Bundles per ballot	Metres per ballot	
9.52	3/8"	433009520	20	100	20	2000	43
12.70	1/2"	433012700	20	100	20	2000	52
15.87	5/8"	433015870	10	50	20	1000	63
19.05	3/4"	433019060	10	50	20	1000	75
22.23	7/8"	433022230	10	50	10	500	98
28.57	1 1/8"	433028570	5	25	20	500	115
34.92	1 3/8"	433034920	3	15	10	150	not defined
41.27	1 5/8"	433041270	3	15	10	150	not defined
53.97	2 1/8"	433053970	1	5	10	50	not defined

The dimensions mentioned here can be cold bent with suitable bending equipment and bending segments that are precisely tailored to the outside diameter. Hot bending is not recommended. Industrial bending machines also enable tighter bending radii. Bending of hairpins is possible on suitable bending equipment.

Processing information

The processing instructions for the installation of copper tubes according to EN 378 common for refrigeration are to be followed. Any type of silver braze solder with a minimum silver content of 2 % may be used. The safety precautions for high-pressure systems, particularly for pressure testing and commissioning have to be observed!



K65®

K65® FITTINGS

K65 fittings

Identification: >B< K65 120 bar
Maximum operating pressure: 120 bar

The following K65-fitting designs are available:

K65 Street Elbow 90° IA



K65 Elbow 90°



K65 Street Elbow 45° IA



K65 Elbow 45°



K65 Tee (reduced)



K65 Reduced coupler



K65 Fitting Reducer



K65 Fitting Reducer to metric Ø



K65 Coupler



K65 End Cap



For details of the entire range of K65-fitting dimensions, please go to www.k65-system.com under "Range of fittings".

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