

K65[®]



The tube system for
high-pressure applications



K65[®]

The tube system for high-pressure applications

In refrigeration, and in particular in the area of supermarket refrigeration systems, more and more ecology-oriented plant concepts are being implemented. The modern, environment-friendly refrigerant CO₂ that is used here leads to high operating pressures. For these applications the new K65 tube system is available. Tubes and fittings are made of the high-strength copper alloy Wieland K65 which has already been used with success in electrical engineering and the automotive industry. K65 allows economical installation of refrigeration systems with operating pressures up to 120 bar.

Application

High-pressure pipeline systems, particularly for CO₂ as a refrigerant. Further media can be used in consultation with the manufacturer.

Proven joining technology: soldering instead of welding!

K65 has good processing properties which are similar to those of copper. K65 tubes may be hard-soldered to K65 fittings. K65 fittings are manufactured by IBP Conex | Bänninger.

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 in Tables 1 and 2.

Easy to identify – even after installation

K65 tubes and fittings are marked appropriately, so that the system components can be clearly identified at all times. In addition, the material is slightly magnetic and can easily be distinguished from copper by means of a neodymium magnet – a helpful, practical advantage.

Economical

The main advantage is the mechanical strength of K65. Because of the high strength of the material, the K65 product series for 120 bar can be made with comparatively thin walls. The light weight of pipelines made of K65 means not only a significant saving in material, but also easier handling, for example when mounting the tubes on ceilings.





K65® tubes

Identification:	Wieland K65 120 bar
Dimensional tolerances:	EN 12735-1
Material:	Wieland K65
Temper:	R300 (with heat treatment)
Maximum operating pressure:	120 bar (respective dimensions see Table)
Certification:	according to VdTÜV material data sheet 567
Tube ends:	closed
Packing:	in bundles

According to the requirements of the AD 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						
Outside diameter		Wieland material number	Packaging unit: bundle		Packaging unit: ballot	
mm	inch		Number of tubes per 5 m	Metres per bundle	Bundles per ballot	Metres per ballot
15.87	5/8"	433015870	10	50	20	1000
19.05	3/4"	433019060	10	50	20	1000
22.23	7/8"	433022230	10	50	10	500
28.57	1 1/8"	433028570	5	25	20	500
34.92	1 3/8"	433034920	5	25	10	250
41.27	1 5/8"	433041270	3	15	10	150

Further dimensions for industrial applications, and also for other pressures, are available according to customer specifications. Please contact us. Changes in surface colour are possible with this material. However, these changes are purely optical and will not affect the technical performance.

K65® fittings

K65 fittings

Identification: >B< K65 120 bar

Maximum operating pressure: 120 bar



The following dimensions are available from stock:

>B< K65 fittings for 120 bar				
Type designation	Detailed designation	IBP item No.	Packaging unit: bag	Packaging unit: cardboard box
>B< K65 90° bend	K5002 i/i 5/8"	K5002005000000	5	100
	K5002 i/i 3/4"	K5002006000000	5	100
	K5002 i/i 7/8"	K5002007000000	5	100
	K5002 i/i 1 1/8"	K5002009000000	5	100
>B< K65 tee	K5130 5/8" x 5/8" x 5/8"	K5130005005005	5	100
	K5130 3/4" x 3/4" x 3/4"	K5130006006006	5	100
	K5130 7/8" x 7/8" x 7/8"	K5130007007007	5	100
	K5130 1 1/8" x 1 1/8" x 1 1/8"	K5130009009009	5	100
>B< K65 reducing nipple	K5243 3/4"a x 5/8"	K5243006005000	5	100
	K5243 7/8"a x 3/4"	K5243007006000	5	100
	K5243 1 1/8"a x 7/8"	K5243009007000	5	100
>B< K65 coupling	K5270 5/8"	K5270005000000	5	100
	K5270 3/4"	K5270006000000	5	100
	K5270 7/8"	K5270007000000	5	100
	K5270 1 1/8"	K5270009000000	5	100
>B< K65 cap	K5301 5/8"	K5301005000000	5	100
	K5301 3/4"	K5301006000000	5	100
	K5301 7/8"	K5301007000000	5	100
	K5301 1 1/8"	K5301009000000	5	100

Further dimensions on request; please contact us.

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 hard solder with a minimum silver content of 2 % may currently be used. The use of phosphorus hard solders is under examination. The safety precautions for high-pressure systems, particularly for pressure testing and commissioning have to be observed.

Conex | Bänninger

100+ DOING MORE - Since 1909

Conex Universal Limited

Whitehall Road
Tipton, West Midlands
DY4 7JU
UK

Registered in England no. 07563347

This brochure is for your general information only and is not subject to revision. No claims can be derived from it unless there is evidence of intent or gross negligence. The data given are no warranty that the product is of a specified quality and they cannot replace expert advice or the customer's own tests.

Wieland

Wieland-Werke AG

Graf-Arco-Str. 36, 89079 Ulm, Germany
Phone +49 (0)731 944-0,
Fax +49 (0)731 944-2772,
info@wieland.de, www.wielandthermalsolutions.com