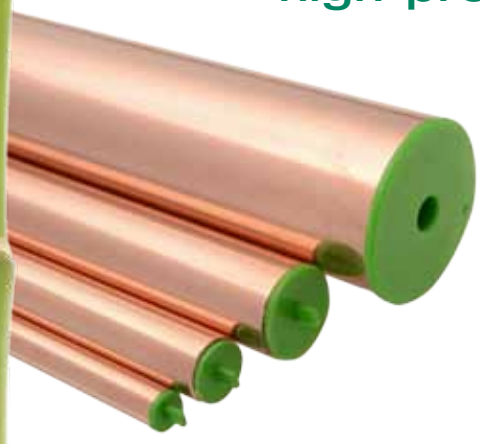
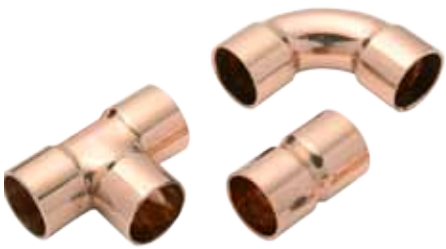
K65®

The tube system for high-pressure applications





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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 CO_2 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 makes save and economical installation of refrigeration systems with operating pressures up to 120 bar possible.

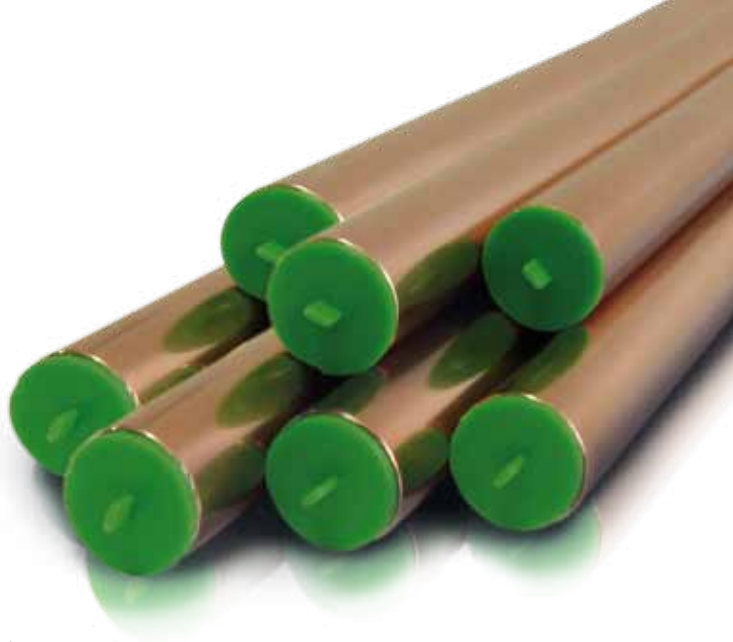
Application
High-pressure pipeline systems, particularly for CO_2 as a refrigerant. Further media can be used in consultation with the manufacturer.

Proven joining technology: brazing instead of welding!
K65 has excellent processing properties which are similar to those of copper. K65 tubes can be brazed 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 CO_2 applications up to 120 bar for the items listed below.

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) 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
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**	
mm	**inch**		**Number of tubes per 5 m**	**Metres per bundle**	**Bundles per ballot**	**Metres per ballot**
9.52 x 0.65	3/8"	433009520	20	100	20	2000
12.70 x 0.85	1/2"	433012700	20	100	20	2000
15.87 x 1.05	5/8"	433015870	10	50	20	1000
19.05 x 1.30	3/4"	433019060	10	50	20	1000
22.23 x 1.50	7/8"	433022230	10	50	10	500
28.57 x 1.90	1 1/8"	433028570	5	25	20	500
34.92 x 2.30	1 3/8"	433034920	5	25	10	250
41.27 x 2.70	1 5/8"	433041270	3	15	10	150
53.97 x 3.55	2 1/8"	433053970	1	5	10	50

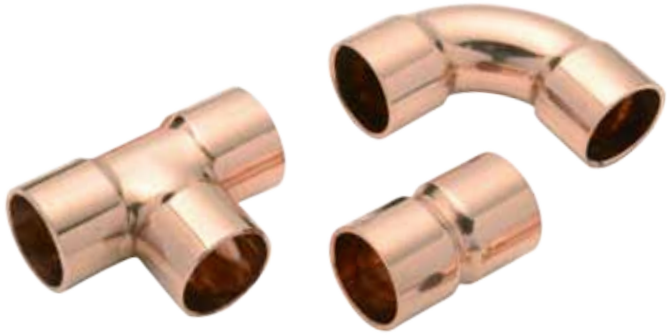
Further dimensions for industrial applications, and also for other pressures, are available according to customer specifications. Please contact us. Changes in surface colour are possible with this material. However, these changes are purely optical and will not affect the technical performance.

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!

Further information regarding processing is available from our "K65 processing information" brochure or visit www.k65-system.com

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**	**cardboard box**
bend 45° i/i	K5041 i/i 3/4"	K5041006000000	5	100
	K5041 i/i 7/8"	K5041007000000	5	100
	K5041 i/i 1 1/8"	K5041009000000	5	100
	K5041 i/i 1 3/8"	K5041011000000	1	30
	K5041 i/i 1 5/8"	K5041013000000	1	20
bend 45° i/a	K5040 i/a 3/4"	K5040060000000	5	100
	K5040 i/a 7/8"	K5040070000000	5	100
	K5040 i/a 1 1/8"	K5040090000000	5	100
	K5040 i/a 1 3/8"	K5040110000000	1	30
	K5040 i/a 1 5/8"	K5040130000000	1	20
bend 90° i/i	K5002 i/i 3/8"	K5002003000000	5	100
	K5002 i/i 1/2"	K5002004000000	5	100
	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
	K5002 i/i 1 3/8"	K5002011000000	1	60
	K5002 i/i 1 5/8"	K5002013000000	1	20
bend 90° i/a	K5001 i/a 3/8"	K5001003000000	5	100
	K5001 i/a 1/2"	K5001004000000	5	100
	K5001 i/a 5/8"	K5001005000000	5	100
	K5001 i/a 3/4"	K5001006000000	5	100
	K5001 i/a 7/8"	K5001007000000	5	100
	K5001 i/a 1 1/8"	K5001009000000	5	100
	K5001 i/a 1 3/8"	K5001011000000	1	30
	K5001 i/a 1 5/8"	K5001013000000	1	20
tee	K5130 3/8" x 3/8" x 3/8"	K5130003003003	5	100
	K5130 1/2" x 3/8" x 3/8"	K5130004003003	5	100
	K5130 1/2" x 1/2" x 3/8"	K5130004004003	5	100
	K5130 1/2" x 1/2" x 1/2"	K5130004004004	5	100
	K5130 5/8" x 1/2" x 1/2"	K5130005004004	5	100
	K5130 5/8" x 5/8" x 3/8"	K5130005005003	5	100
	K5130 5/8" x 5/8" x 1/2"	K5130005005004	5	100
	K5130 5/8" x 5/8" x 5/8"	K5130005005005	5	100
	K5130 3/4" x 3/4" x 5/8"	K5130006006005	5	100
	K5130 3/4" x 3/4" x 3/4"	K5130006006006	5	100
	K5130 7/8" x 7/8" x 3/4"	K5130007007006	5	100
	K5130 7/8" x 7/8" x 7/8"	K5130007007007	5	100
	K5130 1 1/8" x 7/8" x 1/2"	K5130009007004	5	100
	K5130 1 1/8" x 1 1/8" x 7/8"	K5130009009007	5	100
	K5130 1 1/8" x 1 1/8" x 1 1/8"	K5130009009009	5	100
	K5130 1 3/8" x 1 3/8" x 7/8"	K5130011011007	1	30
	K5130 1 3/8" x 1 3/8" x 1 3/8"	K5130011011011	1	30
	K5130 1 5/8" x 1 5/8" x 1 5/8"	K5130013013013	1	20

>B< K65 fittings for 120 bar				
Type designation	**Detailed designation**	**IBP item No.**	**Packaging unit: bag**	**cardboard box**
reducing nipple	K5243 1/2"a x 3/8"	K5243004003000	5	100
	K5243 1/2"a x 12 mm	K5243004012000	5	100
	K5243 5/8"a x 3/8"	K5243005003000	5	100
	K5243 5/8"a x 1/2"	K5243005004000	5	100
	K5243 5/8"a x 15 mm	K5243005015000	5	100
	K5243 3/4"a x 3/8"	K5243006003000	5	100
	K5243 3/4"a x 1/2"	K5243006004000	5	100
	K5243 3/4"a x 5/8"	K5243006005000	5	100
	K5243 3/4"a x 18 mm	K5243006018000	5	100
	K5243 7/8"a x 3/8"	K5243007003000	5	100
	K5243 7/8"a x 5/8"	K5243007005000	5	100
	K5243 7/8"a x 3/4"	K5243007006000	5	100
	K5243 7/8"a x 22 mm	K5243007022000	5	100
	K5243 1 1/8"a x 5/8"	K5243009005000	5	100
	K5243 1 1/8"a x 3/4"	K5243009006000	5	100
	K5243 1 1/8"a x 7/8"	K5243009007000	5	100
	K5243 1 1/8"a x 28 mm	K5243009028000	5	100
	K5243 1 3/8"a x 1 1/8"	K5243011009000	1	60
	K5243 1 3/8"a x 35 mm	K5243011035000	1	60
	K5243 1 5/8"a x 1 3/8"	K5243013011000	1	30
	K5243 1 5/8"a x 42 mm	K5243013042000	1	30
coupling	K5270 3/8"	K5270003000000	5	100
	K5270 1/2"	K5270004000000	5	100
	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
	K5270 1 3/8"	K5270011000000	1	60
	K5270 1 5/8"	K5270013000000	1	30
cap	K5301 3/8"	K5301003000000	5	100
	K5301 1/2"	K5301004000000	5	100
	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
	K5301 1 3/8"	K5301011000000	1	60
	K5301 1 5/8"	K5301013000000	1	30

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