



# **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  $CO_2$  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  $\rm CO_2$  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<sup>®</sup> tubes

Identification:	Wieland K65 120 bar
Dimensional tolerances:	EN 12735-1
Material:	Wieland K65
Temper:	R300 (with heat treatment) for diameters $\geq$ 15.87 mm
	R420 (drawn) for diameters < 15.87 mm
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 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	Packaging unit: bundle		Packaging unit: ballot				
mm	inch	material number	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			

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!

### K65<sup>®</sup> fittings

#### K65 fittings

Identification:>B< K65 120 bar</th>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.	Packagir bag	ng unit: 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"	K504006000000	5	100				
	K5040 i/a 7/8"	K504007000000	5	100				
	K5040 i/a 1 1/8"	K504009000000	5	100				
	K5040 i/a 1 3/8"	K5040110000000	1	30				
	K5040 i/a 1 5/8"	K504013000000	1	20				
	K5002 i/i 3/8"	K5002003000000	5	100				
bend 90°	K5002 i/i 1/2"	K5002004000000	5	100				
	K5002 i/i 5/8"	K5002005000000	5	100				
	K5002 i/i 3/4"	K5002006000000	5	100				
i/i	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				
	K5001 i/a 3/8"	K5001003000000	5	100				
	K5001 i/a 1/2"	K5001004000000	5	100				
	K5001 i/a 5/8"	K5001005000000	5	100				
bend 90°	K5001 i/a 3/4"	K5001006000000	5	100				
i/a	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				



#### Packaging unit: bag cardboar box Type designation Detailed IBP item No. designation K5243 1/2"a x 3/8" K5243004003000 5 100 K5243 1/2"a x 12 mm K5243004012000 100 5 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 K5243007003000 K5243 7/8"a x 3/8" 100 5 reducing K5243 7/8"a x 5/8" K5243007005000 5 100 nipple 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 60 1 K5243 1 3/8"a x 35 mm K5243011035000 60 1 K5243 1 5/8"a x 1 3/8" K5243013011000 1 30 K5243 1 5/8"a x 42 mm K5243013042000 1 30 K5270 3/8" K5270003000000 5 100 K5270 1/2" K5270004000000 5 100 K5270 5/8" K5270005000000 5 100 K5270 3/4" 100 K5270006000000 5 coupling 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 K5301 3/8" K5301003000000 5 100 K5301 1/2" K5301004000000 5 100 K5301 5/8" 5 100 K5301005000000 K5301 3/4" K5301006000000 5 100 cap K5301 7/8" K5301007000000 5 100 K5301 1 1/8" K5301009000000 100 5 K5301 1 3/8" K5301011000000 60 1 K5301 1 5/8" K5301013000000 30

>B< K65 fittings for 120 bar

## Conex | Bänninger

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