

Wieland

Plumbing, Heating, ACR and
Medical Copper Tubes | 2016



The Wieland Group

The Wieland Group, with headquarters in Ulm, is one of the world's leading manufacturers of semi-finished and special products in copper and copper alloys, such as strip, sheet, tubes, rods, wires and sections. Special products include slide bearings, finned tubes and heat exchangers.

As an international company, Wieland has manufacturing companies, slitting centres and trading companies in many European countries as well as in the USA, in South Africa, Singapore, China and India. The global workforce of the Wieland Group is approx. 6,700 strong of which 4,300 are employed in Germany. The domestic plants (Wieland-Werke AG) are located in Ulm, Velbert-Langenberg, Villingen-Schwenningen and Vöhringen/Iller.

Wieland supplies customers in numerous markets with over 100 different copper alloys which are primarily used in the electrical and electronic industry. Other important sectors are the construction, automotive as well as the air conditioning and refrigeration industries. Wieland materials are used in a variety of everyday products such as contacts in electrical sockets, drinking water and heating pipes, door locks, slide bearings for engines, refrigeration units for cold stores and air conditioning units. Our materials also prove to be indispensable for high-tech applications in computer and telecommunications technologies.

Copper

Copper is the shining reddish metal known by the Romans as aes cyprium (ore from Cyprus). However, copper has been known long before the Romans gave it this name. As a natural resource it is valuable in every form, be it as a vital trace element in the human body or a mineral found in the Earth's crust.

Over the centuries, man has discovered the many advantages of copper and its alloys, notably its excellent forming properties, strength, thermal and electrical conductivity. Copper has proved itself to be one of the most important worked metals in modern times.

Copper is a unique material for ecologically sustainable developments and is 100 percent recyclable. More than half of today's raw copper is already produced by reusing returned material.



Ulm plant



Vöhringen plant – production location for copper plumbing tubes

Copper tubes

- are resistant to ageing and retain their properties e.g. pressure resistance and elasticity
- are gas- and diffusion-tight
- are subject to minimal thermal expansion
- exhibit good mechanical resistance
- are easy to install
- can be connected by a variety of techniques, which have proven over generations
- are not affected by temperature fluctuations
- are suitable for all domestic plumbing applications
- are readily available in all common sizes

The requirements to be satisfied by copper tubes for domestic plumbing systems are clearly specified in a single standard: EN 1057.

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SANCO plumbing tubes

Thanks to the patented production process, SANCO copper tubes are superior to the requirements defined in applicable standards and regulations.

The universal plumbing tube is subjected to continuous quality control and is constantly available in the full range of dimensions from 6 to 267 mm.

SANCO tubes are seamless drawn plumbing tubes consisting of pure deoxidised copper (Cu-DHP) of a quality standard that comfortably satisfies all contemporary requirements.



Applications

- Domestic hot and cold water supply
- Heating systems
- Gas services for heating/cooking
- Liquefied gas
- Oil services for heating
- Solar heat installations
- Industrial compressed air
- Sprinkler systems
- Fire-fighting water pipes

Product range

- EN 1057 from stock Ø 6 to 267
- ASTM B88 on demand ¼" to 11"
- Soft, half-hard and hard temper
- Straight length and soft coils
- Tube bundled and marked
- Wide range of certifications available, such as Kitemark, Afnor, KIWA, DVGW and many others

Technical properties

- The patented production process means that the specifications of SANCO tubes are far superior to the requirements defined in applicable standards and regulations.
- Universal use in a range of finely differentiated dimensions.
- Optimal availability and compatibility with a wide range of fittings.
- Maximum operating temperature: 250 °C (check maximum operating pressure if temperature exceeds 120 °C)
- Fire resistance: DIN 4102-A1 (non-flammable)

SANCO tubes offer all the benefits associated with copper tubes plus excellent safety.

SANCO is Europe's No. 1 copper plumbing tube today.

Coils

Dimensions/Delivery forms available ex stock. Further dimensions available e.g. ASTM ¼" to 7/8"



Dimension mm	Delivery form coils		Operating pressure (max.) bar	Nominal weight kg/m	Water content l/m	Tube length per litre m/l
	50 m	25 m				
6 x 1	•		229	0.140	0.013	79.58
8 x 1	•		163	0.196	0.028	35.37
10 x 1	•		127	0.252	0.050	19.89
12 x 1	•		104	0.308	0.079	12.73
15 x 1	•		82	0.391	0.133	7.53
18 x 1		•	67	0.475	0.201	4.97
22 x 1		•	54	0.587	0.314	3.18

Straight lengths

Selection of EN 1057

Dimensions ex stock, many further sizes available e.g. UK table X/Y, ASTM ¼" to 11"



Dimension mm	Tempers	Operating pressure (max.) bar	Nominal weight kg/m	Water content l/m	Tube length per litre m/l
6 x 1	h, hh	229	0.140	0.013	79.58
8 x 1	h, hh	163	0.196	0.028	35.37
10 x 1	h, hh	127	0.252	0.050	19.89
12 x 1	h, hh	104	0.308	0.079	12.73
14 x 1	h, hh	88	0.363	0.113	8.84
15 x 1	h, hh	82	0.391	0.133	7.53
15 x 1.5	h	127	0.566	0.113	8.84
16 x 1	h, hh	76	0.419	0.154	6.50
18 x 1	h, hh	67	0.475	0.201	4.97
18 x 1.5	h	104	0.692	0.177	5.66
22 x 1	h, hh	54	0.587	0.314	3.18
22 x 1.1	hh	60	0.643	0.308	3.25
22 x 1.5	h, hh	84	0.860	0.284	3.53
28 x 1	h, hh	42	0.756	0.531	1.88
28 x 1.2	hh	51	0.899	0.515	1.94
28 x 1.5	h, hh	65	1.110	0.491	2.04
35 x 1.0	h	34	0.951	0.855	1.17
35 x 1.2	h	41	1.134	0.835	1.20
35 x 1.5	h	51	1.410	0.804	1.24
42 x 1	h	28	1.146	1.257	0.80
42 x 1.2	h	34	1.369	1.232	0.81
42 x 1.5	h	42	1.700	1.195	0.84
54 x 1	h	22	1.482	2.124	0.47
54 x 1.2	h	26	1.772	2.091	0.48
54 x 1.5	h	33	2.202	2.043	0.49
54 x 2	h	44	2.910	1.963	0.51
64 x 2	h	37	3.467	2.827	0.35
76,1 x 2	h	31	4.144	4.083	0.24
88,9 x 2	h	26	4.855	5.661	0.18
108 x 2.5	h	27	7.374	8.332	0.12
133 x 3	h	26	10.904	12.668	0.08
159 x 3	h	22	13.085	18.385	0.05
219 x 3	h	16	18.118	35.633	0.03
267 x 3	h	13	22.144	53.502	0.02

* Calculated with 3.5 times safety coefficient on the basis of soft copper tubes with R_m 200 N/mm² at an operating temperature of 100 °C

hh = half-hard straight lengths R 250

h = hard drawn straight lengths R 290

Further dimensions available on request.

WICU – System solutions

The WICU system consists of Wieland copper tubes equipped with coating, thermal or noise insulation.

WICU tube

WICU tubes have a mill-applied protective coating. They are therefore suitable for concealed installation under plaster or in environments with an aggressive atmosphere, and for installation outdoors, either above or below ground.

Applications:

- Domestic hot and cold water supply
- Central heating systems
- Gas services for heating/cooking
- Liquefied gas
- Oil services for heating
- Rainwater
- Compressed air

Technical properties:

- The tubes conform to EN 1057 and are quality assured
- Protective coating conforms to EN 13349
- External protection: DIN 30672
- Fire resistance conforms to EN 13501-1-E
- Colour of coating: light grey
- Temperature range: up to 100 °C operating temperature



Dimension mm	Total outside diameter mm	Operating pressure (max.) bar	Nominal copper weight l/m	Water content m/l	Tube length per liter m/l	Coils		Straight lengths 5 m
						50 m	25 m	
6 x 1	10	229	0.140	0.013	79.58	•		
8 x 1	12	163	0.196	0.028	35.37	•		
10 x 1	14	127	0.252	0.050	19.89	•	•	
12 x 1	16	104	0.308	0.079	12.73	•	•	•
14 x 1	18	88	0.363	0.113	8.84	•	•	•
15 x 1	19	82	0.391	0.133	7.53	•	•	•
16 x 1	20	76	0.419	0.154	6.50	•	•	•
18 x 1	23	67	0.475	0.201	4.97	•	•	•
22 x 1	27	54	0.587	0.314	3.18		•	•
22 x 1.1	27	60	0.643	0.308	3.25		•	•
28 x 1	33	42	0.755	0.531	1.88			•
28 x 1.2	33	51	0.899	0.515	1.94			•
35 x 1.2	40	41	1.134	0.835	1.20			•
42 x 1.2	48	34	1.369	1.232	0.81			•
54 x 1.5	60	33	2.202	2.043	0.49			•

WICU Flex

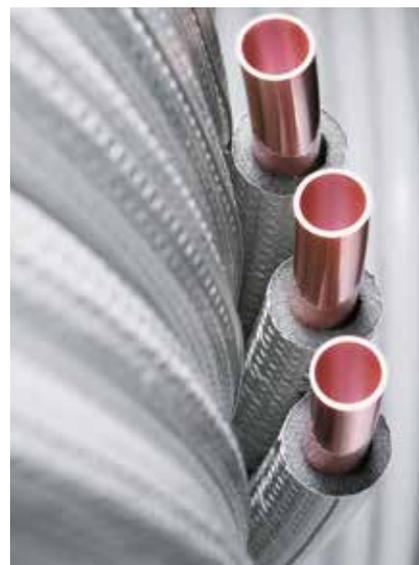
WICU Flex is a plumbing tube with a flexible coating for rapid installation. The coating consists of closed-cell PE foam covered by a structured protective film. WICU Flex is supplied in coils for rapid connection to manifolds, etc, and for underfloor installations.

Applications:

- Connecting tubes
- Domestic hot and cold water supply
- Central heating systems

Technical properties:

- The tubes conform to EN 1057 and are quality assured
- Insulation reduces the heat loss of the tube by up to 80 %
- Thermal conductivity of the insulation layer $\lambda = 0.040 \text{ W/mK}$ (40 °C)
- Fire resistance conforms to EN 13501-1-E
- Colour of coating: light grey



Dimension	Total outside diameter	Operating pressure (max.)	Nominal copper weight	Water content	Tube length per liter	Coils 50 m	Coils 25 m	Straight lengths 5 m
mm	mm	bar	l/m	m/l	m/l			
12 x 1	24	104	0.308	0.079	12.73	•	•	
14 x 1	26	88	0.363	0.113	8.84	•	•	
15 x 1	27	82	0.391	0.133	7.53	•	•	
16 x 1	28	76	0.419	0.154	6.50	•	•	
18 x 1	30	67	0.475	0.201	4.97	•	•	
22 x 1	34	54	0.587	0.314	3.18		•	

WICU Eco

WICU Eco are copper tubes that are heat-insulated with stable PUR foam and equipped with an outer protective sleeve. The particular advantage of WICU Eco is its extremely small external diameters while complying with the statutory provisions relating to required insulation layer thickness, for example, for hot-water pipes with circulation or radiator connection lines in outdoor components. Installation and insulation are done in parallel.

Applications:

- Domestic hot water supply
- Central heating systems

Technical properties:

- Tubes conform to EN 1057
- Temperature range: up to 150 °C operating temperature
- Colour of the coating: grey



100 % EnEV	Total outside diameter	Operating pressure (max.)	Water content	Tube length per liter	Straight lengths
mm	mm	bar	l/m	m/l	5 m
12 x 1	32	104	0.079	12.73	•
15 x 1	36	82	0.133	7.53	•
18 x 1	40	67	0.201	4.97	•
22 x 1	45	54	0.314	3.18	•
28 x 1.0	63	42	0.531	1.88	•
35 x 1.2	71	41	0.835	1.20	•
42 x 1.2	90	34	1.232	0.81	•
54 x 1.5	113	33	2.043	0.49	•

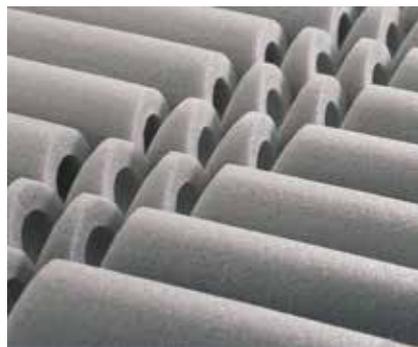
50 % EnEV	Total outside diameter	Operating pressure (max.)	Water content	Tube length per liter	Coils
mm	mm	bar	l/m	m/l	25 m
12 x 1	24	104	0.079	12.73	•
15 x 1	27	82	0.133	7.53	•
18 x 1	30	67	0.201	4.97	•

WICU Eco accessories

A complete range of accessories is available for insulating tube joints, consisting of parts used as insulation foam and as external protection foil.



External protection



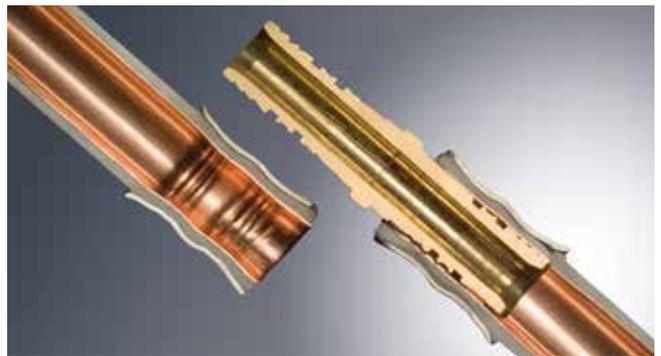
90° Insulation elbow

Dimension mm	Insulation			External protection		
	90°-Elbow	T-Section	Hose	90°-Elbow	T-Section	Hose
12 x 1.0	•	•	•	•	•	•
15 x 1.0	•	•	•	•	•	•
18 x 1.0	•	•	•	•	•	•
22 x 1.0	•	•	•	•	•	•
28 x 1.0	•	•	•	•	•	•
35 x 1.2	•		•	•		•
42 x 1.2	•		•	•		•
54 x 2.0	•		•	•		•

cuprotherm CTX

cuprotherm CTX tubes are copper tubes with a firmly adherent coating. Due to their structure they can be easily processed and are characterized by a flexibility hitherto unknown in metal tubes. Compared to classical copper tubes, the cuprotherm CTX tube is almost 50 % lighter in weight and, therefore, much easier to handle.

The tube is cut with CTX shears instead of a tube saw, deburred and calibrated in one operation. The flexible copper tube can be joined both with CTX and commercial press fittings approved by Wieland. The joining technology is based on metal fittings and a copper core tube.



Technical properties

Dimension		14 x 2	16 x 2	18 x 2	20 x 2	26 x 3
Outer diameter, coating	mm	14	16	18	20	26
Wall thickness, coating	mm	1.70	1.65	1.65	1.50	2.50
Wall thickness, copper tube	mm	0.30	0.35	0.35	0.50	0.50
Temper as per DIN EN 1057		R 220	R 220	R 220	R 220	R 220
Permissible operating pressure up to 100 °C	bar	33	32	28	34	28
Total weight	kg/m	0.147	0.189	0.215	0.311	0.451
Delivery format		in coils				
Coil length	m	100	100	100	50	50
Material, coating		PE-RT				
Thermal conductivity, coating / core tube	W/mK	0.35 / 365				
Coating color		white				
Fire resistance		EN 13501-1 E				
Max. operating temperature	°C	95	95	95	95	95

CTX crimp fittings

Fitting core

- Yellow brass/Si-bronze
- Dezincification resistant
- Suitable for drinking water supply

Crimping sleeve

- Stainless steel
- Tube viewer to control insert depth

Sealing elements

- Double placed
- EPDM, acc. to DVGW W270 and KTW



Range of applications

Sanitary applications

Drinking water hot/cold

Copper throughout: copper-alloy fittings, inter-floor distribution with flexible CTX tubes, basement distribution and risers with straight SANCO tubes – as optimal solution in one material.

Copper is very hygienic as it does not release any nutrients to microorganisms. Its high temperature resistance makes it the material of choice in drinking water installations up to the very last tap. The combination of these advantages effectively counteracts the growth of microorganisms, including Legionella.

cuprotherm CTX tubes are tasteless and odourless and pose no health hazard. The material that comes into contact with water is copper. It contains no softeners, colouring pigments, flame-retardant additives, other additives, stabilisers or modifiers.



Heating

Underfloor heating/cooling

Tubes embedded in screed must fulfill two main requirements: diffusion tightness and aging resistance. cuprotherm CTX tubes are permanently 100 % diffusion tight and have an unlimited service life: no fouling, no embrittlement; thanks to copper.

The complete cuprotherm system, including insulating plates, fasteners, manifolds and controllers, is available for underfloor heating and cooling and can be used for all applications, i.e. also for sprung floor heating systems, outdoor surface heating systems and concrete core cooling systems.

Heating/radiator connection

The adapter for copper tube to CTX enables installation of heating systems completely in copper, of traditional bright copper tubes such as SANCO or factory heat-insulated tubes in combination with flexible CTX tubes. This ensures long service life irrespective of the operating temperature.

The fact that temperature variations result in only a minor change in tube length simplifies professional planning and installation.

Other fields of application:

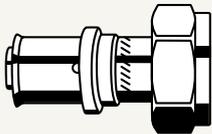
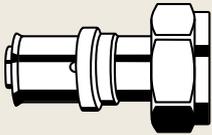
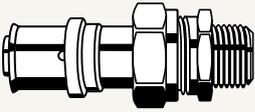
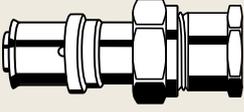
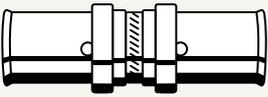
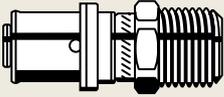
- Industrial compressed air
- Geothermal collectors (water/glycol)

The flexible system

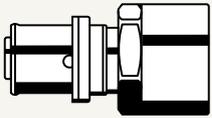
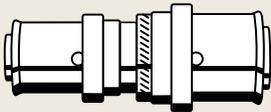
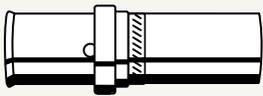
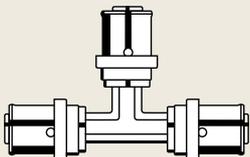
cuprotherm CTX tubes may be joined with both the CTX crimp fittings offered by Wieland and other crimp fittings available on the market and approved by Wieland (Type TH). This is beneficial as far as storage and availability are concerned. All fittings with the C² marking may also be used.



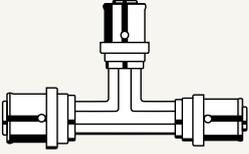
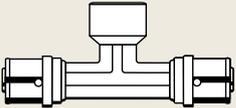
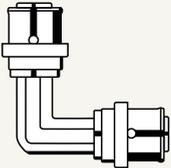
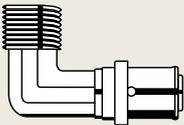
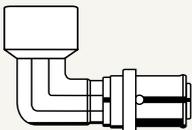
cuprotherm CTX – system accessories – joining

Accessories	Article	Minimum packaging unit
Crimp fittings	Article number/Dimensions in mm	
	CTX crimp union 3/4" eurocone Nickel-plated, with thread connection 3/4" female, eurocone 18 mm, for connection to manifolds. Brass body with crimp sleeve of stainless steel. (Alternative to CTX crimp union with eurocone)	Packed in PE bag
	652714340 14 x Rp 3/4"	10 pieces
	652716340 16 x Rp 3/4"	10 pieces
	652718340 18 x Rp 3/4"	10 pieces
	652720340 20 x Rp 3/4"	10 pieces
	CTX crimp union flat-sealing with freely rotating nut. Brass body with crimp sleeve of stainless steel.	Packed in PE bag
	653916120 16 x 2 - Rp 1/2"	10 pieces
	653918340 18 x 2 - Rp 3/4"	10 pieces
	653920340 20 x 2 - Rp 3/4"	10 pieces
	CTX crimp union, flat-sealing, with male threading with male thread connection 1", brass	Packed in PE bag
	651126100 26 x R 1"	5 pieces
	CTX crimp union, flat-sealing, with female threading with female thread connection 1", brass	Packed in PE bag
	651226100 26 x Rp 1"	5 pieces
	CTX coupling for joining of flexible copper tubes. Brass body with crimp sleeve of stainless steel.	Packed in PE bag
	650114000 14 x 2	10 pieces
	650116000 16 x 2	10 pieces
	650118000 18 x 2	10 pieces
	650120000 20 x 2	10 pieces
	650126000 26 x 3	5 pieces
	CTX male adapter nipple Adapter with male threading, for flexible copper tubes. Brass body with crimp sleeve of stainless steel.	Packed in PE bag
	650214120 14 x 2 - R 1/2"	10 pieces
	650216120 16 x 2 - R 1/2"	10 pieces
	650218120 18 x 2 - R 1/2"	10 pieces
	650220120 20 x 2 - R 1/2"	10 pieces
	650220340 20 x 2 - R 3/4"	10 pieces
	650226340 26 x 3 - R 3/4"	5 pieces
	650226100 26 x 3 - R 1"	5 pieces

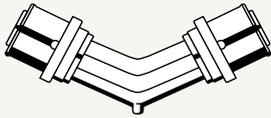
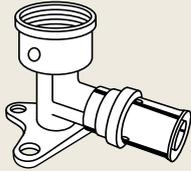
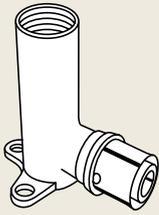
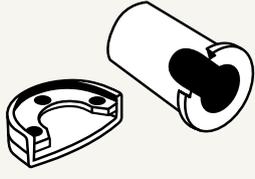
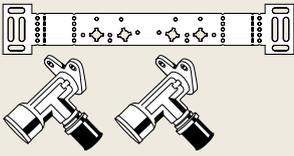
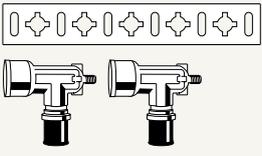
cuprotherm CTX – system accessories – joining

Accessories Crimp fittings	Article Article number/Dimensions in mm	Minimum packaging unit																																				
	<p>CTX female adapter Adapter with female threading, for flexible copper tubes. Brass body with crimp sleeve of stainless steel.</p> <table border="0"> <tr> <td>652214120</td> <td>14 x 2 - Rp 1/2"</td> </tr> <tr> <td>652216120</td> <td>16 x 2 - Rp 1/2"</td> </tr> <tr> <td>652218120</td> <td>18 x 2 - Rp 1/2"</td> </tr> <tr> <td>652220340</td> <td>20 x 2 - Rp 3/4"</td> </tr> <tr> <td>652226340</td> <td>26 x 3 - Rp 3/4"</td> </tr> <tr> <td>652226100</td> <td>26 x 3 - Rp 1"</td> </tr> </table>	652214120	14 x 2 - Rp 1/2"	652216120	16 x 2 - Rp 1/2"	652218120	18 x 2 - Rp 1/2"	652220340	20 x 2 - Rp 3/4"	652226340	26 x 3 - Rp 3/4"	652226100	26 x 3 - Rp 1"	<p>Packed in PE bag</p> <table border="0"> <tr> <td>10 pieces</td> </tr> <tr> <td>10 pieces</td> </tr> <tr> <td>10 pieces</td> </tr> <tr> <td>10 pieces</td> </tr> <tr> <td>5 pieces</td> </tr> <tr> <td>5 pieces</td> </tr> </table>	10 pieces	10 pieces	10 pieces	10 pieces	5 pieces	5 pieces																		
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	<p>CTX reducer for reducing flexible copper tubes. Brass body with crimp sleeve of stainless steel.</p> <table border="0"> <tr> <td>650316140</td> <td>16/14 x 2</td> </tr> <tr> <td>650318160</td> <td>18/16 x 2</td> </tr> <tr> <td>650320160</td> <td>20/16 x 2</td> </tr> <tr> <td>650326200</td> <td>26/20 x 2</td> </tr> </table>	650316140	16/14 x 2	650318160	18/16 x 2	650320160	20/16 x 2	650326200	26/20 x 2	<p>Packed in PE bag</p> <table border="0"> <tr> <td>10 pieces</td> </tr> <tr> <td>10 pieces</td> </tr> <tr> <td>10 pieces</td> </tr> <tr> <td>5 pieces</td> </tr> </table>	10 pieces	10 pieces	10 pieces	5 pieces																								
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	<p>CTX adapter for joining flexible copper tubes to copper plumbing tubes. Brass body with crimp sleeve of stainless steel.</p> <table border="0"> <tr> <td>650414120</td> <td>14 x 2 - Cu 12 mm</td> </tr> <tr> <td>650414140</td> <td>14 x 2 - Cu 14 mm</td> </tr> <tr> <td>650414150</td> <td>14 x 2 - Cu 15 mm</td> </tr> <tr> <td>650416140</td> <td>16 x 2 - Cu 14 mm</td> </tr> <tr> <td>650416150</td> <td>16 x 2 - Cu 15 mm</td> </tr> <tr> <td>650416160</td> <td>16 x 2 - Cu 16 mm</td> </tr> <tr> <td>650418150</td> <td>18 x 2 - Cu 15 mm</td> </tr> <tr> <td>650420150</td> <td>20 x 2 - Cu 15 mm</td> </tr> <tr> <td>650420160</td> <td>20 x 2 - Cu 16 mm</td> </tr> <tr> <td>650420180</td> <td>20 x 2 - Cu 18 mm</td> </tr> <tr> <td>650420220</td> <td>20 x 2 - Cu 22 mm</td> </tr> <tr> <td>650426220</td> <td>26 x 3 - Cu 22 mm</td> </tr> </table>	650414120	14 x 2 - Cu 12 mm	650414140	14 x 2 - Cu 14 mm	650414150	14 x 2 - Cu 15 mm	650416140	16 x 2 - Cu 14 mm	650416150	16 x 2 - Cu 15 mm	650416160	16 x 2 - Cu 16 mm	650418150	18 x 2 - Cu 15 mm	650420150	20 x 2 - Cu 15 mm	650420160	20 x 2 - Cu 16 mm	650420180	20 x 2 - Cu 18 mm	650420220	20 x 2 - Cu 22 mm	650426220	26 x 3 - Cu 22 mm	<p>Packed in PE bag</p> <table border="0"> <tr> <td>10 pieces</td> </tr> <tr> <td>5 pieces</td> </tr> </table>	10 pieces	5 pieces										
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	<p>CTX tee Branches identical, for flexible copper tubes. Brass body with crimp sleeve of stainless steel.</p> <table border="0"> <tr> <td>650514000</td> <td>14/14/14</td> </tr> <tr> <td>650516000</td> <td>16/16/16</td> </tr> <tr> <td>650518000</td> <td>18/18/18</td> </tr> <tr> <td>650520000</td> <td>20/20/20</td> </tr> <tr> <td>650526000</td> <td>26/26/26</td> </tr> </table>	650514000	14/14/14	650516000	16/16/16	650518000	18/18/18	650520000	20/20/20	650526000	26/26/26	<p>Packed in PE bag</p> <table border="0"> <tr> <td>10 pieces</td> </tr> <tr> <td>10 pieces</td> </tr> <tr> <td>10 pieces</td> </tr> <tr> <td>10 pieces</td> </tr> <tr> <td>5 pieces</td> </tr> </table>	10 pieces	10 pieces	10 pieces	10 pieces	5 pieces																					
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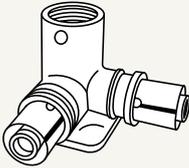
cuprotherm CTX – system accessories – joining

Accessories Crimp fittings	Article Article number/Dimensions in mm	Minimum packaging unit
	CTX reducing tee Branches reduced, for flexible copper tubes. Brass body with crimp sleeve of stainless steel.	Packed in PE bagl
	652120100 16/14/14	10 pieces
	652120200 16/14/16	10 pieces
	652120300 16/20/16	10 pieces
	652120700 18/16/18	10 pieces
	652120400 20/16/16	10 pieces
	652120500 20/16/20	10 pieces
	652120600 20/20/16	10 pieces
	652121000 26/16/26	5 pieces
	652120900 26/20/20	5 pieces
652120800 26/20/26	5 pieces	
	CTX tee with threading female middle branch with female threading, for flexible copper tubes. Brass body with crimp sleeve of stainless steel.	Packed in PE bag
	652340200 16 x Rp 1/2" x 16	10 pieces
	652340300 18 x Rp 1/2" x 18	10 pieces
	652350300 20 x Rp 1/2" x 20	10 pieces
	652350400 26 x Rp 1/2" x 26	5 pieces
	CTX elbow 90° for flexible copper tubes. Brass body with crimp sleeve of stainless steel.	Packed in PE bag
	650814000 14 x 2,0	10 pieces
	650816000 16 x 2,0	10 pieces
	650818000 18 x 2,0	10 pieces
	650820000 20 x 2,0	10 pieces
	650826000 26 x 3,0	5 pieces
	CTX adapter elbow 90° male with male threading. Brass body with crimp sleeve of stainless steel.	Packed in PE bag
	652514120 14 x R 1/2"	10 pieces
	652516120 16 x R 1/2"	10 pieces
	652518120 18 x R 1/2"	10 pieces
	652520120 20 x R 1/2"	10 pieces
	652520340 20 x R 3/4"	10 pieces
	CTX adapter elbow 90° female with female threading. Brass body with crimp sleeve of stainless steel.	Packed in PE bag
	652614120 14 x Rp 1/2"	10 pieces
	652616120 16 x Rp 1/2"	10 pieces
	652618120 18 x Rp 1/2"	10 pieces
	652620120 20 x Rp 1/2"	10 pieces
	652620340 20 x Rp 3/4"	10 pieces

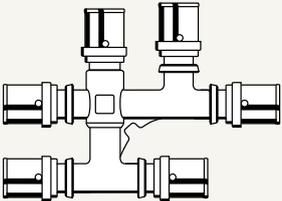
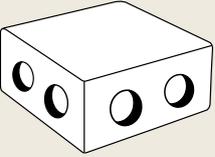
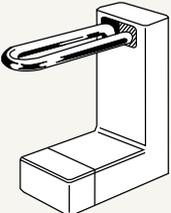
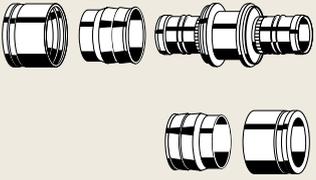
cuprotherm CTX – system accessories – joining

Accessories Crimp fittings	Article Article number/Dimensions in mm	Minimum packaging unit
	<p>CTX elbow 45° for flexible copper tubes. Brass body with crimp sleeve of stainless steel.</p> <p>651026000 26 x 3,0</p>	<p>Packed in PE bag</p> <p>5 pieces</p>
	<p>CTX back plate elbow, short Brass body with crimp sleeve of stainless steel.</p> <p>652814120 14 x Rp 1/2" 652816120 16 x Rp 1/2" 652818120 18 x Rp 1/2" 652820120 20 x Rp 1/2" 652820340 20 x Rp 3/4"</p>	<p>Packed in PE bag</p> <p>10 pieces 10 pieces 10 pieces 10 pieces 10 pieces</p>
	<p>CTX sound-insulating element, short for CTX back plate elbow, short 1/2" (for articles 652814120, 652816120, 652820120), for CTX back plate elbow, short 3/4" (for article 652820340).</p> <p>652900100 1/2" 652900200 3/4"</p>	<p>Packed in PE bag</p> <p>10 pieces 10 pieces</p>
	<p>CTX back plate elbow, long Brass body with crimp sleeve of stainless steel.</p> <p>653014120 14 x Rp 1/2" 653016120 16 x Rp 1/2" 653018120 18 x Rp 1/2" 653020120 20 x Rp 1/2"</p>	<p>Packed in PE bag</p> <p>10 pieces 10 pieces 10 pieces 10 pieces</p>
	<p>CTX sound-insulating element, long (for articles 653014120, 653016120, 653020120).</p> <p>653100100 1/2"</p>	<p>Packed in PE bag</p> <p>10 pieces</p>
	<p>CTX mounting rail, special Hole gauge 153/120 mm, unassembled in set without sound-insulating element.</p> <p>653200000 16 x Rp 1/2"</p>	<p>Packed in PE bag</p> <p>10 pieces</p>
	<p>CTX mounting set, light for wall slot/shaft mounting. Hole gauge 153/120 mm, unassembled in set without sound-insulating element.</p> <p>653316120 16 x Rp 1/2"</p>	<p>Packed in PE bag</p> <p>10 pieces</p>

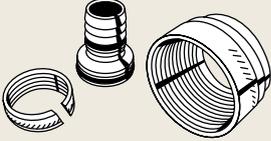
cuprotherm CTX – system accessories – joining

Accessories	Article	Minimum									
Crimp fittings	Article number/Dimensions in mm	packaging unit									
	<p>CTX back plate elbow, double, short Short version. Brass body with crimp sleeve of stainless steel</p>	Packed in PE bag 10 pieces 10 pieces									
	<table border="0"> <tr> <td>653416120</td> <td>16 x Rp ½" x 16</td> </tr> <tr> <td>653420120</td> <td>20 x Rp ½" x 20</td> </tr> </table>		653416120	16 x Rp ½" x 16	653420120	20 x Rp ½" x 20					
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653420120	20 x Rp ½" x 20										
	<p>CTX sound-insulating element, double for back plate elbow, short (for articles 653416120, 653420120).</p>	Packed in PE bag 10 pieces									
<table border="0"> <tr> <td>653500100</td> <td>½"</td> </tr> </table>	653500100		½"								
653500100	½"										
	<p>CTX connecting elbow for flush-mounted toilet tank Brass body with crimp sleeve of stainless steel.</p>	Packed in PE bag 10 pieces 10 pieces									
<table border="0"> <tr> <td>653614120</td> <td>14 x Rp ½"</td> </tr> <tr> <td>653616120</td> <td>16 x Rp ½"</td> </tr> </table>	653614120		14 x Rp ½"	653616120	16 x Rp ½"						
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	<p>CTX stop end fitting to close the flexible copper tubes. Brass body with crimp sleeve of stainless steel.</p>	Packed in PE bag 10 pieces 10 pieces 10 pieces 10 pieces 10 pieces									
<table border="0"> <tr> <td>650914000</td> <td>14 x 2</td> </tr> <tr> <td>650916000</td> <td>16 x 2</td> </tr> <tr> <td>650918000</td> <td>18 x 2</td> </tr> <tr> <td>650920000</td> <td>20 x 2</td> </tr> <tr> <td>650926000</td> <td>26 x 3</td> </tr> </table>	650914000		14 x 2	650916000	16 x 2	650918000	18 x 2	650920000	20 x 2	650926000	26 x 3
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	<p>CTX crimp sleeve of stainless steel with plastic cover.</p>										
<table border="0"> <tr> <td>653714100</td> <td>14</td> </tr> <tr> <td>653716000</td> <td>16</td> </tr> <tr> <td>653718000</td> <td>18</td> </tr> <tr> <td>653720000</td> <td>20</td> </tr> <tr> <td>653726000</td> <td>26</td> </tr> </table>	653714100	14	653716000	16	653718000	18	653720000	20	653726000	26	
653714100	14										
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	<p>CTX O-rings of EPDM.</p>										
<table border="0"> <tr> <td>653814000</td> <td>14 x 2</td> </tr> <tr> <td>653816000</td> <td>16 x 2</td> </tr> <tr> <td>653818000</td> <td>18 x 2</td> </tr> <tr> <td>653820000</td> <td>20 x 2</td> </tr> <tr> <td>653826000</td> <td>26 x 3</td> </tr> </table>	653814000	14 x 2	653816000	16 x 2	653818000	18 x 2	653820000	20 x 2	653826000	26 x 3	Packed in PE bag 10 pieces 10 pieces 10 pieces 10 pieces 10 pieces
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cuprotherm CTX – system accessories – joining

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	<p>CTX crossover tee with branches for crossover-free branching, for flexible copper tubes. Visible size 40 mm. Brass body with crimp sleeve of stainless steel.</p> <table border="0"> <tr> <td>650616000</td> <td>16/16/16</td> </tr> <tr> <td>650620100</td> <td>20/16/16</td> </tr> <tr> <td>650620200</td> <td>20/16/20</td> </tr> </table>	650616000	16/16/16	650620100	20/16/16	650620200	20/16/20	<p>Packed in PE bag</p> <table border="0"> <tr> <td>10 pieces</td> </tr> <tr> <td>10 pieces</td> </tr> <tr> <td>10 pieces</td> </tr> </table>	10 pieces	10 pieces	10 pieces			
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10 pieces														
	<p>CTX insulation box for crossover tee (for articles 650616000, 650620100, 650620200).</p> <p>650700100</p>	<p>1 piece loose</p>												
	<p>CTX radiator connection block with insulation box of EPS, for grouting in the wall (mounting depth 50 mm), with curved CTX tube 16 x 2 mm, for horizontal radiator connection.</p> <p>Dimensions: Height: 200 mm, Width: 105 mm Mounting depth: 50 mm (base 230 mm) Tube pitch: 215 mm Insulation under: 14 mm</p> <p>655800100</p>	<p>1 piece loose</p>												
	<p>CTX compression sleeve for metallic-sealing joints, 5-part, consisting of body, 2 locking and 2 pressure rings. Material: ECOBRASS.</p> <table border="0"> <tr> <td>654014200</td> <td>14 x 2</td> </tr> <tr> <td>654016200</td> <td>16 x 2</td> </tr> <tr> <td>654018200</td> <td>18 x 2</td> </tr> <tr> <td>654020200</td> <td>20 x 2</td> </tr> </table>	654014200	14 x 2	654016200	16 x 2	654018200	18 x 2	654020200	20 x 2	<p>Packed in PE bag</p> <table border="0"> <tr> <td>2 pieces</td> </tr> <tr> <td>2 pieces</td> </tr> <tr> <td>2 pieces</td> </tr> <tr> <td>2 pieces</td> </tr> </table>	2 pieces	2 pieces	2 pieces	2 pieces
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	<p>CTX compression nipple Compression sleeve fitting, metallic-sealing, 3-part, consisting of adapter nipple, locking and pressure ring. Material: ECOBRASS.</p> <table border="0"> <tr> <td>654114120</td> <td>14 x 2 - R ½"</td> </tr> <tr> <td>654116120</td> <td>16 x 2 - R ½"</td> </tr> <tr> <td>654118120</td> <td>18 x 2 - R ½"</td> </tr> <tr> <td>654120340</td> <td>20 x 2 - R ¾"</td> </tr> </table>	654114120	14 x 2 - R ½"	654116120	16 x 2 - R ½"	654118120	18 x 2 - R ½"	654120340	20 x 2 - R ¾"	<p>Packed in PE bag</p> <table border="0"> <tr> <td>2 pieces</td> </tr> <tr> <td>2 pieces</td> </tr> <tr> <td>2 pieces</td> </tr> <tr> <td>2 pieces</td> </tr> </table>	2 pieces	2 pieces	2 pieces	2 pieces
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cuprotherm CTX – system accessories – joining

Accessories Crimp fittings	Article Article number/Dimensions in mm	Minimum packaging unit												
	<p>CTX compression adapter Compression sleeve fitting with plain tube end, metallic-sealing, 3-part, consisting of adapter nipple, locking and pressure ring. Material: ECOBRASS.</p> <table border="0"> <tr> <td>654214120</td> <td>14 x 2 - Cu 12 mm</td> </tr> <tr> <td>654216150</td> <td>16 x 2 - Cu 15 mm</td> </tr> <tr> <td>654218150</td> <td>18 x 2 - Cu 15 mm</td> </tr> <tr> <td>654220180</td> <td>20 x 2 - Cu 18 mm</td> </tr> </table>	654214120	14 x 2 - Cu 12 mm	654216150	16 x 2 - Cu 15 mm	654218150	18 x 2 - Cu 15 mm	654220180	20 x 2 - Cu 18 mm	<p>Packed in PE bag</p> <table border="0"> <tr> <td>2 pieces</td> </tr> <tr> <td>2 pieces</td> </tr> <tr> <td>2 pieces</td> </tr> <tr> <td>2 pieces</td> </tr> </table>	2 pieces	2 pieces	2 pieces	2 pieces
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	<p>CTX union with eurocone Thread connection 3/4", female, brass, nickel-plated, for connection to the heating group manifold.</p> <table border="0"> <tr> <td>650014000</td> <td>14 x 2</td> </tr> <tr> <td>650016000</td> <td>16 x 2</td> </tr> <tr> <td>650018000</td> <td>18 x 2</td> </tr> <tr> <td>650020000</td> <td>20 x 2</td> </tr> </table>	650014000	14 x 2	650016000	16 x 2	650018000	18 x 2	650020000	20 x 2	<p>Packed in PE bag</p> <table border="0"> <tr> <td>10 pieces</td> </tr> <tr> <td>10 pieces</td> </tr> <tr> <td>10 pieces</td> </tr> <tr> <td>10 pieces</td> </tr> </table>	10 pieces	10 pieces	10 pieces	10 pieces
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cuprotherm – Underfloor heating system

cuprotherm is, for good reasons, Europe's most widely used copper underfloor heating system.

In addition to the core tube being absolutely impervious to the diffusion of gas and oxygen, the combination of unlimited ageing resistance and excellent mechanical strength provides a reliable long-term panel heating solution. The system is supplemented by a comprehensive range of accessories. Copper, as the material with the highest thermal conductivity, makes cuprotherm one of the most efficient underfloor heating systems available.

Applications:

- Underfloor heating and cooling (in and out of buildings)

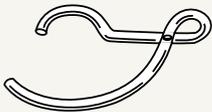
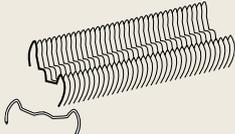
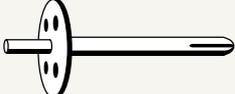
Accessories:

- Insulating plates
- Tube brackets
- Border insulation
- Manifolds (2–14 circuits, equipped with valves and flow meters)
- Manifold cabinets
- Fittings and union nuts
- Adhesive tape
- Screed additive
- Grid foil
- Room temperature control (wire-based, radio-based)
- Tools

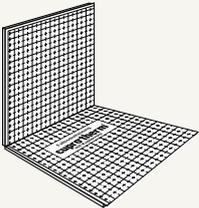
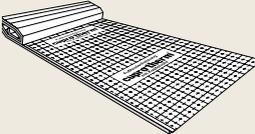
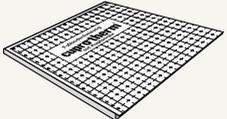
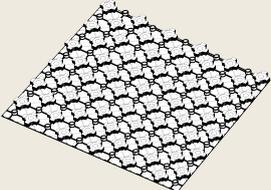
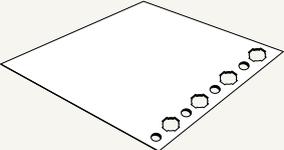
- System applications based on EN 1264
- More than 30 years experience
- More than 100.000 projects successfully completed
- Engineering service



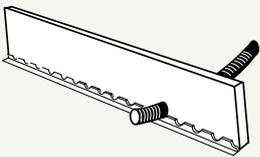
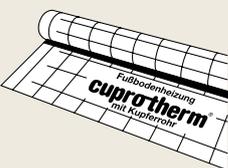
cuprotherm – system accessories – fixing

Accessories General	Article Article number/Dimensions in mm	Minimum packaging unit
	<p>cuprotherm bracket of steel wire, for fastening the CTX tubes on the cuprotherm system insulation by hand.</p> <p>625201900 Typ 14/16 for tube Ø to 16 mm 625202000 Typ 20 for tube Ø to 20 mm</p>	<p>Boxed</p> <p>500 pieces 500 pieces</p>
	<p>cuprotherm twin bracket of steel wire, for fastening the CTX tubes on the cuprotherm system insulation with a system tacker.</p> <p>625202200 For tube outside diameter 14 to 20 mm</p>	<p>Boxed</p> <p>1000 pieces</p>
	<p>cuprotherm adhesive tape white self-adhesive for masking joints.</p> <p>625401000 50 mm wide, length approx. 33 m</p>	<p>1 roll (33 m) loose</p>
	<p>cuprotherm foam pad tape for padding tube bends, self-adhesive</p> <p>625206000 4 x 30 mm</p>	<p>1 roll (33 m) loose</p>
	<p>cuprotherm plate anchor 110 Plastic anchor with spreader nail. For fastening the wall heating register. Requirement: approx. 3 pc./m²</p> <p>625407500 Dimensions: Plate ø 50 mm Total length 110 mm Fastening length 80 mm Bore diameter 10 mm</p>	<p>1 piece loose</p>

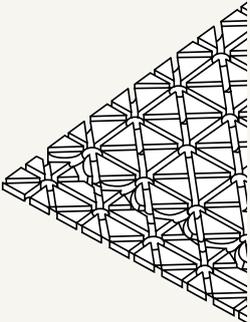
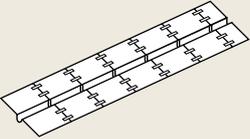
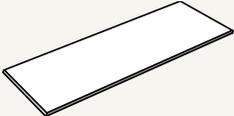
cuprotherm – system accessories – insulation

Accessories System insulation	Article Article number/Dimensions in mm	Minimum packaging unit
	<p>cuprotherm insulation board 30-2 EPS DES sg 30-2 mm, TCC 040, heat and impact sound insulation to DIN EN 13163 with plastic lining as protection cover to DIN 18560, equipped with 3 cm-wide overlap and adhesive strip on the top. Printed grid.</p> <p>625270100 2000 x 1000 x 30 $R_{\lambda} = 0,75 \text{ m}^2\text{K/W}$ Delivery size: folded to 1000 x 1000 x 30</p>	Packed in PE bag 5 x 2 m ² = 10 m ²
	<p>cuprotherm insulation coil 30-2 EPS DES sg 30-2 mm, TCC 040, heat and impact sound insulation to DIN EN 13163 with plastic lining as insulating layer cover to DIN 18560, equipped with 3 cm-wide overlap and adhesive strip on the top. Printed grid.</p> <p>625270400 5000 x 1000 x 30 $R_{\lambda} = 0,75 \text{ m}^2\text{K/W}$</p>	Packed in PE bag 2 rolls of 5 m ² each = 10 m ²
	<p>cuprotherm insulation board 50-2 EPS DES sg 50-2 mm, TCC 040, heat and impact sound insulation to DIN EN 13163 with plastic lining as insulating layer cover to DIN 18560, equipped with 3 cm-wide overlap and adhesive strip on the top. Printed grid.</p> <p>625270700 1000 x 1000 x 50 $R_{\lambda} = 1,25 \text{ m}^2\text{K/W}$</p>	Packed in PE bag 5 m ²
	<p>cuprotherm insulation plate PUR 30+3 made from PUR 30 mm, lined with aluminium on both sides, FCKW-free, TCC 025, with 3 mm PE foam layer</p> <p>625282600 1000 x 1000 x 33 $R_{\lambda} = 1,275 \text{ m}^2\text{K/W}$</p>	Shrink-wrapped 10 boards = 10 m ²
	<p>cuprotherm insulation plate 51+3 made from PUR 51 mm, lined with aluminium on both sides, FCKW-free, TCC 025, with 3 mm PE foam layer</p> <p>625282500 1000 x 1000 x 54 $R_{\lambda} = 2,110 \text{ m}^2\text{K/W}$</p>	Shrink-wrapped 10 boards = 10 m ²
	<p>cuprotherm knob panel „ekoBoden“ Tube pas distances 7.5 cm, made from stable polystyrene, designed for CTX tube dimension 14x2 mm. Suited for meandering and bifilar (snail) tube installation. Fire resistance class DIN 4102-B2. Colour: black</p> <p>625271000 1275 x 975 x 23 Incl. overlap Effective surface per panel: 1.08 m²</p>	1 box = 18 pieces = 19.44 m ²
	<p>cuprotherm flat panel „ekoBoden“ (for doors, manifolds) flat panel made from stable polystyrene, used in front of manifolds and for door areas. With blankings for fixing to the knob panel "ekoBoden" Fire resistance class DIN 4102-B2. Colour: black</p> <p>625271000 1200 x 575 x 1 Incl. overlap Effective surface per panel: 1.08 m²</p>	1 piece

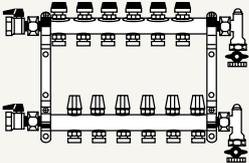
cuprotherm – system accessories – screed

Accessories Screed foil	Article Article number/Dimensions in mm	Minimum packaging unit
	<p>cuprotherm screed additive Estro-Standard for cement screeds to DIN 18560 Part 2 for floor heating systems with 65 mm screed thickness</p> <p>625280300 Consumption: 0.20 kg/m²</p>	<p>1 canister = 10 kg</p> <p>1 piece</p>
	<p>cuprotherm screed emulsion Estro-Special for cement screeds when reducing the screed cover from 45 mm to 30 mm.</p> <p>625280000 Consumption: 1.50 kg/m²</p>	<p>1 canister = 10 kg</p> <p>1 piece</p>
	<p>cuprotherm dilatation joint set to make dilatation joints, consisting of self-adhesive expansion joint section, with notches in a spacing of 50 mm for the protection tubes and expansion strips with centre web.</p> <p>625385200 PE foam 100/10 mm, length 2 m</p>	<p>25 sets of 2 m each in a box</p>
	<p>cuprotherm joint protection tube PE corrugated pipe, longitudinally slit, for the cuprotherm heating tubes.</p> <p>625385300 (Outside ø 14–18 mm), length 400 mm</p>	<p>Loose</p> <p>1 piece</p>
	<p>cuprotherm grid foil as insulating layer cover and installation aid with printed spacing grid (the PE foil is not needed when using the cuprotherm insulating boards).</p> <p>625201000 0.2 mm thick, 1100 mm wide</p>	<p>1 roll = 50 m</p>
	<p>cuprotherm perimeter strip of extruded polyethylene foam, gange 8 mm, height 180 mm with self-adhesive edge (renders tacking and nailing superfluous). With foam base 2 mm thick, 30 mm wide and welded-on foil overlap.</p> <p>625280800 8 x 180 625280901 8 x 100</p>	<p>In plastic bag</p> <p>4 rolls of 25 m each 4 rolls of 25 m each</p>

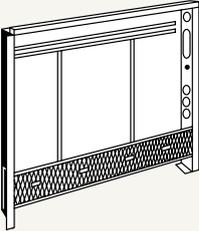
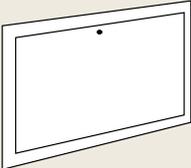
cuprotherm – system accessories – dry building

Accessories Dry-build	Article Article number/Dimensions in mm	Minimum packaging unit
	<p>cuprotherm-dryfloor insulation board Dry-build system board for installation spacing 12.5 cm and 25 cm. Consisting of polystyrene foam EPS 035 DEO dh to DIN EN 13163. Suitable for holding the heating tube cuprotherm CTX 14 x 2 mm. Suited for meandering and bifilar (snail) tube installation. Material class B1 to DIN 4102, thermal conductivity class TCC 035.</p> <p>625275100 1000 x 500 x 25 $R_{\lambda} = 0.56 \text{ m}^2\text{K/W}$</p>	<p>Packed in PE foil</p> <p>10 elements = 5 m²</p>
	<p>cuprotherm heat conducting fins WLL of galvanised steel plate for the cuprotherm dryfloor insulation board. Suitable for the heating tube cuprotherm CTX 14 x 2 mm. Separation of the fins is possible without tools up to 100 mm as a result of break-off points.</p> <p>625275300 750 x 122 x 0.4</p>	<p>1 box = 50 pieces</p>
	<p>cuprotherm heat conducting plate WLB as covering for the top and turning area of galvanised steel plate.</p> <p>625275400 490 x 122 x 0.4</p>	<p>1 piece</p>
	<p>cuprotherm PE foil, neutral as separating foil, 0.2 mm thick, between the dry-build element and the load distribution board.</p> <p>625275600 Width 1.0 m, length 25 m, folded 4 times</p>	<p>100 m²</p> <p>1 piece (roll)</p>

cuprotherm – system accessories – manifolds

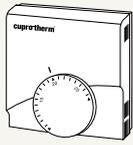
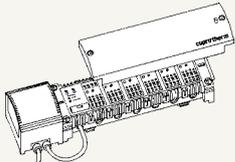
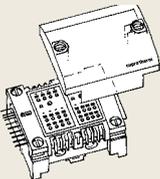
Accessories Manifolds	Article Article number/Dimensions in mm	Minimum packaging unit																																							
	<p>cuprotherm-manifold of high quality seamless drawn brass tubing for two-way connection, 1" flat sealing. Mounted on galvanized sound-insulated consoles acc. to DIN 4109. Manifold equipped with fill/drain cock valve ½" and vent valve, 2 ball valves 1" with union nut. Circuit ports equipped with lockable valves and flow controllers. Fixing set and self adhesive labels included. Manifold pressure tested and boxed.</p> <p>Dimensions: Height: 310 mm Gauge: 90 mm Width: see below total width, including ball valves and drain cock</p> <table border="0"> <tr> <td>625310200</td> <td>2 heating circuits</td> <td>Width 310</td> </tr> <tr> <td>625310300</td> <td>3 heating circuits</td> <td>Width 365</td> </tr> <tr> <td>625310400</td> <td>4 heating circuits</td> <td>Width 420</td> </tr> <tr> <td>625310500</td> <td>5 heating circuits</td> <td>Width 475</td> </tr> <tr> <td>625310600</td> <td>6 heating circuits</td> <td>Width 530</td> </tr> <tr> <td>625310700</td> <td>7 heating circuits</td> <td>Width 585</td> </tr> <tr> <td>625310800</td> <td>8 heating circuits</td> <td>Width 640</td> </tr> <tr> <td>625310900</td> <td>9 heating circuits</td> <td>Width 695</td> </tr> <tr> <td>625311000</td> <td>10 heating circuits</td> <td>Width 750</td> </tr> <tr> <td>625311100</td> <td>11 heating circuits</td> <td>Width 805</td> </tr> <tr> <td>625311200</td> <td>12 heating circuits</td> <td>Width 860</td> </tr> <tr> <td>625311300</td> <td>13 heating circuits</td> <td>Width 915</td> </tr> <tr> <td>625311400</td> <td>14 heating circuits</td> <td>Width 970</td> </tr> </table>	625310200	2 heating circuits	Width 310	625310300	3 heating circuits	Width 365	625310400	4 heating circuits	Width 420	625310500	5 heating circuits	Width 475	625310600	6 heating circuits	Width 530	625310700	7 heating circuits	Width 585	625310800	8 heating circuits	Width 640	625310900	9 heating circuits	Width 695	625311000	10 heating circuits	Width 750	625311100	11 heating circuits	Width 805	625311200	12 heating circuits	Width 860	625311300	13 heating circuits	Width 915	625311400	14 heating circuits	Width 970	<p>1 piece Boxed</p>
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	<p>cuprotherm flow thermometer for the supply pipe. As contact thermometer, spring-fixed. Measuring range 0–80 °C.</p> <p>625399800</p>	<p>Loose 1 piece</p>																																							
	<p>cuprotherm return thermometer for heating circuit port with eurocone R¾". Measuring range 0–50 °C.</p> <p>625398700</p>	<p>Loose 1 piece</p>																																							

cuprotherm – system accessories – manifolds

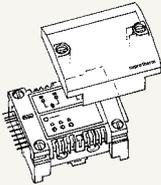
Accessories Manifold cabinets	Article Article number/Dimensions in mm	Minimum packaging unit
	<p>cuprotherm manifold cabinet 110 Basic cabinet for recessed and on-wall mounting of matt galvanised steel plate 1 mm. Universal holder for manifolds. Space for wiring center "Alpha-Basis" or wireless control receiver. Front side equipped with special screed screen (with grouting mesh for direct grouting). Height: 705–830 mm (adjustable), depth 110 mm</p> <p>625371100 Size 1, width 450 mm, possible heating circuits without heat meter: 2–4</p> <p>625371200 Size 2, width 680 mm, possible heating circuits without heat meter: 5–8, with* 2–5</p> <p>625371300 Size 3, width 830 mm, possible heating circuits without heat meter: 9–11, with* 6–8</p> <p>625371400 Size 4, width 1140 mm, possible heating circuits without heat meter: 12–14, with* 9–14</p>	<p>Boxed Size depending on the size of the cabine</p> <p>1 piece</p> <p>1 piece</p> <p>1 piece</p> <p>1 piece</p>
	<p>cuprotherm cabinet frame for recessed mounting Cabinet frame with door incl. turn-lock fastener. Matching the basic manifold cabinet of steel plate 1 mm, powder-coated, white, similar to RAL 9010, "new edge" design, depth adjustable to 70 mm, height 530 mm.</p> <p>625376100 Size 1, width (overall size) 525 mm</p> <p>625376200 Size 2, width (overall size) 755 mm</p> <p>625376300 Size 3, width (overall size) 905 mm</p> <p>625376400 Size 4, width (overall size) 1215 mm</p>	<p>Boxed Size depending on the size of the frame</p> <p>1 piece</p> <p>1 piece</p> <p>1 piece</p> <p>1 piece</p>
	<p>cuprotherm cabinet cover for on-wall mounting Matching the basic manifold cabinet of steel plate, powder-coated, white, similar to RAL 9010, height 670 mm, depth 130 mm.</p> <p>625378100 Size 1, width (overall size) 530 mm, plate thickness 1.0 mm</p> <p>625378200 Size 2, width (overall size) 760 mm, plate thickness 1.0 mm</p> <p>625378300 Size 3, width (overall size) 910 mm, plate thickness 1.5 mm</p> <p>625378400 Size 4, width (overall size) 1210 mm, plate thickness 1.5 mm</p>	<p>Boxed Size depending on the size of the frame</p> <p>1 piece</p> <p>1 piece</p> <p>1 piece</p> <p>1 piece</p>

* The information on the possible number of heating circuits with heat meter is given for vertical mounting. Contact Wieland for the sizes for horizontal mounting.

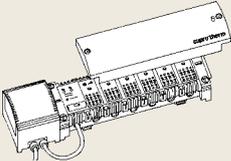
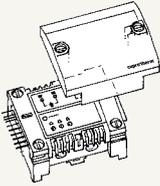
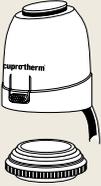
cuprotherm – system accessories – single room control

Accessories Controllers	Article Article number/Dimensions in mm	Minimum packaging unit
	<p>cuprotherm room thermostat 24 V, w Heating, 24 V, on-wall version, room temperature controller to control cuprotherm actuators. Control capacity: max. 5 actuators 24 V. Automatic lowering of temperature (4 K) by external switch signal. Operating voltage: 24 V Colour: white</p> <p>625397800 78 x 78 x 26 (L x B x H)</p>	<p>In folded box</p> <p>1 piece</p>
	<p>cuprotherm room thermostat H/C 24 V, w Heating/cooling, 24 V, on-wall version, room temperature controller to control cuprotherm actuators with input for auto-matic switching from heating to cooling mode and vice-versa incl. system base. Operating voltage: 24 V. Colour: white.</p> <p>625397900 93 x 80 x 34 (L x B x H)</p>	<p>In folded box</p> <p>1 piece</p>
	<p>cuprotherm-Alpha-Basis 24 V, w Wiring center for connection of 6 cuprotherm room thermostats 24 V and max. 14 cuprotherm actuators 24 V with system transformer 24 V. Connection: plug-in terminals Operating voltage: 24 V. Colour housing: silver-grey (RAL 7001) Colour housing cover: transparent</p> <p>625398100 305 x 75 x 70 (L x B x H)</p>	<p>In folded box</p> <p>1 piece</p>
	<p>cuprotherm extension module 24 V for Alpha-Basis wiring center. For connection of a further 2 cuprotherm room thermostats. Operating voltage: 24 V Colour: silver-grey (RAL 7001) Colour housing cover: transparent</p> <p>625398200 88 x 75 x 70 (L x B x H)</p>	<p>In folded box</p> <p>1 piece</p>

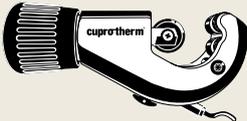
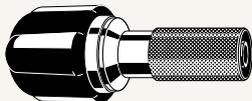
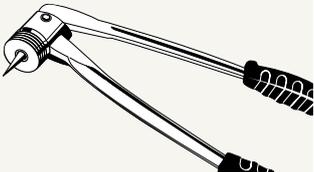
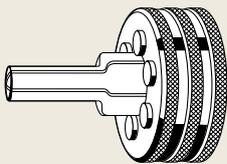
cuprotherm – system accessories – single room control

Accessories Controllers	Article Article number/Dimensions in mm	Minimum packaging unit
	<p>cuprotherm cooling module 24 V Extension module for Alpha-Basis, 24 V, w and also for wireless version. Switches all connected cuprotherm room thermostats, 24 V, to cooling mode automatically (input for change-over signal) or manually. Operating voltage: 24 V Colour housing: silver-grey (RAL 7001) Colour housing cover: transparent</p> <p>625398300 88 x 75 x 70 (L x B x H)</p>	<p>In folded box</p> <p>1 piece</p>
	<p>cuprotherm actuator 24 V FO with first-open function. For control of the cuprotherm control valves of the cuprotherm heating group manifold via a cuprotherm room thermostat. With protection against splash water. Function: normally closed Operating voltage: 24 V</p> <p>625397600</p>	<p>In folded box</p> <p>1 piece</p>
	<p>cuprotherm timer module Extension module for all Alpha-Basis units (for 230 V and 24 V). Plug-in 2-channel digital clock, 6 languages selectable, pre-programmed, 2 week programs, 42 memory slots, incl. mounting base. Colour housing: silver-grey (RAL 7001) Dimensions: 65 x 75 x 46 mm (L x W x H)</p> <p>625377400</p>	<p>In folded box</p> <p>1 piece</p>

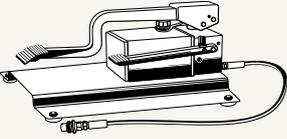
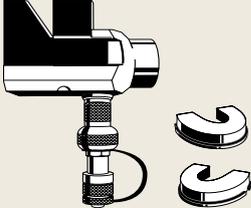
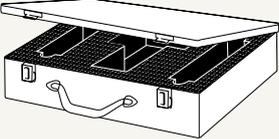
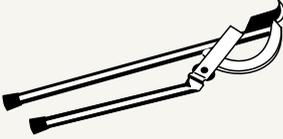
cuprotherm – system accessories – radio control

Accessories Wireless controllers	Article Article number/Dimensions in mm	Minimum packaging unit
	<p>cuprotherm wireless thermostat H/C 24 V Heating/Cooling, 24 V, on-wall version, room temperature controller for wireless transmission in combination with wireless base station H/C, 24 V, wireless and cuprotherm actuator, 24 V, incl. mounting base. Transmission frequency: 868 MHz Range: ~25 m indoors Battery: 2 x 1.5 V Mignon, alkali Operating voltage: 24 V Colour: white</p> <p>625396100 93 x 80 x 27 (L x B x H)</p>	<p>In folded box</p> <p>1 piece</p>
	<p>cuprotherm radio base station H/C 24 V, 868 MHz Wiring center for assignment of 6 cuprotherm wireless thermostats 24 V and max. 13 cuprotherm actuators 24 V with system transformer 24 V. Connection: plug-in terminals Operating voltage: 24 V Colour housing: silver-grey (RAL 7001) Colour housing cover: transparent</p> <p>625396200 305 x 75 x 70 (L x B x H)</p>	<p>In folded box</p> <p>1 piece</p>
	<p>cuprotherm cooling module 24 V Extension module for Alpha-Basis, 24 V, w and wireless base station, 24 V. Switches all connected cuprotherm room thermostats, 24 V, to cooling mode automatically (input for change-over signal) or manually. Operating voltage: 24 V Colour housing: silver-grey (RAL 7001) Colour housing cover: transparent</p> <p>625398300 88 x 75 x 70 (L x B x H)</p>	<p>In folded box</p> <p>1 piece</p>
	<p>cuprotherm actuator, 24 V FO with first-open function. For control of the cuprotherm control valves of the cuprotherm heating group manifold via a cuprotherm room thermostat. With protection against splash water. Function: normally closed Operating voltage: 24 V</p> <p>625397600</p>	<p>In folded box</p> <p>1 piece</p>
	<p>cuprotherm timer module Extension module for all Alpha-Basis units (for 230 V and 24 V). Plug-in 2-channel digital clock, 6 languages selectable, pre-programmed, 2 week programs, 42 memory slots, incl. mounting base. Colour housing: silver-grey (RAL 7001)</p> <p>625377400 65 x 75 x 46 (L x B x H)</p>	<p>In folded box</p> <p>1 piece</p>

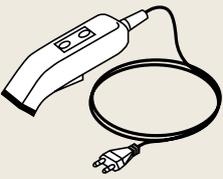
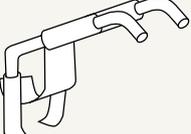
cuprotherm CTX – tools

Accessories Tools	Article Article number/Dimensions in mm	Minimum packaging unit
	<p>CTX cutter for cutting Calibrating and deburring CTX tubes for use of CTX crimp fittings.</p> <p>655100100 14/16/18/20 x 2</p>	Loose 1 piece
	<p>CTX tube cutter For cutting flexible copper tubes. With integrated deburrer and spare blade. Use, for example, in combination with CTX calibration and expanding pliers.</p> <p>655900100</p>	Packed in PE bag 1 piece
	<p>CTX click grip for tube calibration insert</p> <p>656000100</p>	Boxed 1 piece
	<p>CTX tube calibration insert Insert, for example, in combination with CTX click grip or cordless screwdriver. With steel protection cover, suitable for CTX crimp fittings.</p> <p>656014200 14 x 2 656016200 16 x 2 656018200 18 x 2 656020200 20 x 2 656026300 26 x 3</p>	Boxed 1 piece 1 piece 1 piece 1 piece 1 piece
	<p>CTX calibration and expanding pliers Use only suitable in combination with CTX calibration attachment. For all sizes.</p> <p>655700100 14 to 26 mm</p>	Loose 1 piece
	<p>CTX calibration attachment For simple and exact calibration of CTX tubes without the need for strength. Use only in combination with CTX calibration and expanding pliers or with suitable commercially available expanding pliers. For preparation of joints for CTX crimp fittings and CTX sliding sleeves.</p> <p>For tube dimensions 655714200 14 x 2 655716200 16 x 2 655718200 18 x 2 655720200 20 x 2 655726300 26 x 3</p>	Loose in PE bag 1 piece 1 piece 1 piece 1 piece 1 piece
	<p>CTX crimping tool contour: TH For joining CTX tubes with CTX crimp fittings.</p> <p>655414000 14 655416000 16 655418000 18 655420000 20 655426000 26</p>	Loose 1 piece 1 piece 1 piece 1 piece 1 piece

cuprotherm CTX – tools

Accessories Tools	Article Article number/Dimensions in mm	Minimum packaging unit										
	<p>CTX hydraulic pump Foot pump with 1.8 m hydraulic hose with screw connection for CTX compression tool ALP 26.</p> <p>655500100</p>	<p>Loose</p> <p>1 piece</p>										
	<p>CTX compression tool ALP 26 for joining CTX tubes with compression sleeves. For hydraulic drive with CTX hydraulic pump. Including sliding sleeve inserts for the dimensions 14/16/18 and 20 x 2. With screw connection for hydraulic hose.</p> <p>655500500</p>	<p>Set</p>										
	<p>CTX tool case for CTX compression tool with compartments for tool inserts.</p> <p>655500800</p>	<p>1 piece</p>										
	<p>CTX bending spring for bending CTX tubes.</p> <table border="0"> <tr> <td>655314000</td> <td>14</td> </tr> <tr> <td>655316000</td> <td>16</td> </tr> <tr> <td>655318000</td> <td>18</td> </tr> <tr> <td>655320000</td> <td>20</td> </tr> <tr> <td>655326000</td> <td>26</td> </tr> </table>	655314000	14	655316000	16	655318000	18	655320000	20	655326000	26	<p>Loose</p> <p>1 piece</p> <p>1 piece</p> <p>1 piece</p> <p>1 piece</p> <p>1 piece</p>
655314000	14											
655316000	16											
655318000	18											
655320000	20											
655326000	26											
	<p>cuprotherm bending pliers S for cuprotherm.plus 10 x 0,6 and 12 x 0,7 and CTX 14 x 2. M for cuprotherm.plus 14 x 0,8, cuprotherm 14 x 0.8 and CTX 16 x 2.</p> <table border="0"> <tr> <td>625412500</td> <td>S Tube outside Ø 14</td> </tr> <tr> <td>625429000</td> <td>M Tube outside Ø 16</td> </tr> </table>	625412500	S Tube outside Ø 14	625429000	M Tube outside Ø 16	<p>Loose</p> <p>1 piece</p> <p>1 piece</p>						
625412500	S Tube outside Ø 14											
625429000	M Tube outside Ø 16											

cuprotherm – tools

Accessories Tools	Article Article number/Dimensions in mm	Minimum packaging unit
	<p>cuprotherm tacker for easy fastening of cuprotherm double anchors, suitable for cuprotherm system insulation and commercially available insulation boards of EPS, PU, Styrodur, Foamglas, cork, autoclaved aerated concrete and wood soft fibre boards.</p> <p>625220700</p>	<p>Loose</p> <p>1 piece</p>
	<p>cuprotherm profile cutting tool 230 V for additional production of installation ducts in the area of manifolds. With special cutting element heated by an electric resistor. The installation ducts serve to hold the heating tube and heat conducting fins. Heating with the cutting tip 6–8 seconds. Power cable 2.0 m long with plug. Device with CE marking.</p> <p>625276000</p>	<p>Loose</p> <p>1 piece</p>
	<p>cuprotherm spare cutting element for profile cutting tool.</p> <p>625276100</p>	<p>Loose</p> <p>1 piece</p>



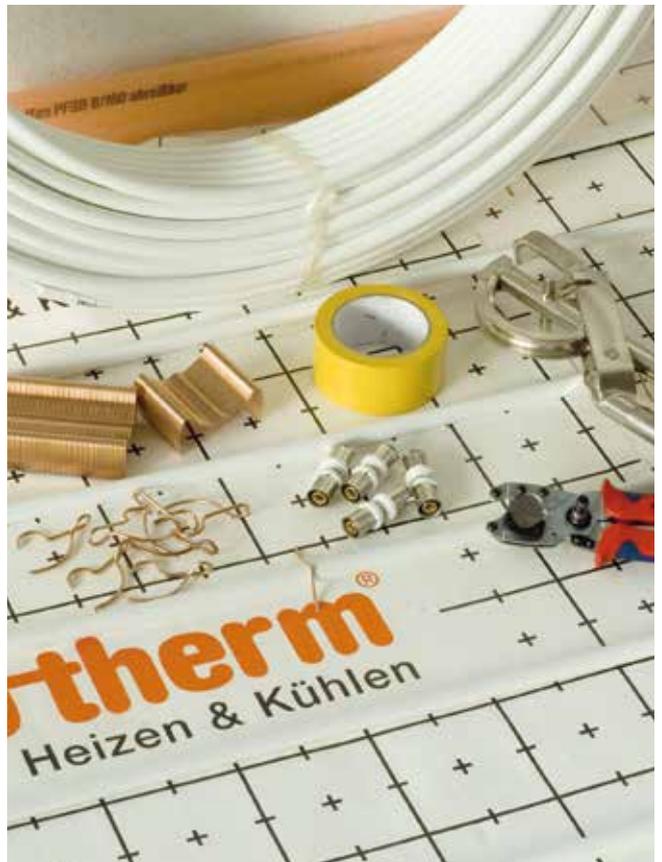
cuprotherm CTX – the flexible copper tube



Suitable for drinking water



Use in heating installations



For underfloor heating and cooling

Copper tube for medical gas supply

The seamless drawn cupromed copper tube is suitable for the transportation of technical gases and refrigerants as well as medical gases and for vacuum.

cupromed meets the requirements for air-conditioning and refrigeration tube according to EN 12735-1 as well as the requirements of EN ISO 7396-1 regarding tube for medical gas supply units. cupromed meets the requirements of the Pressure Equipment Directive 97/23C.

The cupromed copper tube has a clean and dry inner surface and exceeds the requirements according to EN 13348.

The ends of cupromed copper tubes are closed in order to ensure the cleanliness of the inner surface during storage and transportation.

Material: Cu-DHP (SF-Cu), Wieland-K20
 Design: EN 13348 and EN 12735-1
 Pressure Equipment Directive: compliant

The dimensions available from stock are shown in the following table. Other dimensions and tempers are available on request.

cupromed standard dimensions from stock			
Dimension mm	Weight nominal kg/m	Operating pressure* bar	Straight lengths m/cardboard box**
8 x 1	0.196	143	100
10 x 1	0.252	111	75
12 x 1	0.308	91	50
15 x 1	0.391	71	50
16 x 1	0.419	66	50
18 x 1	0.475	59	50
22 x 1	0.587	48	50
28 x 1	0.755	37	50
28 x 1.5	1.110	57	50
35 x 1.5	1.410	45	25
42 x 1.5	1.700	37	25
54 x 2	2.910	38	20
64 x 2	3.467	32	5
76.1 x 2	4.144	27	5
88.9 x 2	4.859	23	5
108 x 2.5	7.374	24	5

* maximum operating pressure with fourfold safety

** packing unit for dimensions up to 54 mm

cupromed copper tube in coils



Temper: soft R220
 Ends: closed with caps
 Packing: in foil
 Dimensions: on request

cupromed copper tube in straight lengths



Temper: hard as drawn R290 from stock
 Ends: closed with plastic plugs/caps
 Packing: in lengths of 5 m
 in cardboard boxes or upon agreement

cuprofrío copper tube for air conditioning and refrigeration

cuprofrío, the seamless drawn Wieland refrigeration tube is mainly used to transport technical gases and liquids in chillers, air-conditioning and refrigeration units as well as heat exchangers. An outstanding characteristic of cuprofrío is its clean and dry inner surface.

The tube ends are closed to maintain the defined condition of the inner surface also during storage and transportation.

cuprofrío tube meets the requirements of EN 12735-1 for copper tube used in air-conditioning and refrigeration. cuprofrío also meets the requirements of the Pressure Equipment Directive 97/23/EC.

Material: Cu-DHP (SF-Cu), Wieland-K20
 Design: EN 12735-1
 Pressure Equipment Directive: compliant
 Environmental declaration: according to ISO 14025

The dimensions available from stock are shown in the following table. **Other dimensions and tempers are available on request.**

cuprofrío standard dimensions from stock					
Dimension	Weight nominal	Operating pressure*	Coils	Straight lengths	
mm	kg/m	bar	m/cardboard box**	m/cardboard box**	
6 x 1	0.140	200	2 x 35	200	
8 x 1	0.196	143	2 x 35	100	
10 x 1	0.252	111	35	75	
12 x 1	0.308	91	35	50	
15 x 1	0.391	71	25	50	
16 x 1	0.419	66	25	50	
18 x 1	0.475	59	25	50	
22 x 1	0.587	48	25	50	
28 x 1	0.755	37	–	50	
28 x 1.5	1.110	57	–	25	
35 x 1.5	1.410	45	–	25	
42 x 1.5	1.700	37	–	25	
54 x 2	2.910	38	–	20	
64 x 2	3.467	32	–	5	
76.1 x 2	4.144	27	–	5	
88.9 x 2	4.859	23	–	5	
108 x 2.5	7.374	24	–	5	

* maximum operating pressure with fourfold safety
 ** packing unit for dimensions up to 54 mm

cuprofrío refrigeration tube in coils



Temper: soft R220
 from stock
 Ends: pressed
 Packing: in cardboard boxes

cuprofrío refrigeration tube in straight lengths



Temper: hard as drawn R290
 from stock
 Ends: closed with plastic plugs/caps
 Packing: in lengths of 5 m
 in cardboard boxes or upon agreement

**ASTM and inch dimensions
 according to BS
 available from ¼" to 11".**

Pre-insulated refrigeration tube

This tube consists of a seamless drawn Wieland cuprofrío refrigeration tube with a heat-insulating sheath. cuprofrío.plus is used for the transportation of technical gases and liquids such as the refrigerants R407C or R410A.

cuprofrío.plus is very easy to unwind and to bend. This is possible because a heat-insulating sheath is already applied during production.

The cuprofrío tube meets and exceeds the requirements of EN 12735-1 for copper tube for air conditioning and refrigeration. cuprofrío.plus meets the requirements of the Pressure Equipment Directive 97/23/EC.

The sheathing consists of an elastomer-modified thermoplastic specially developed for air conditioning and refrigeration. The highly tear-resistant material proves its worth on building sites, for example when tubes are being fed through wall apertures.

Additional advantages of this material are low thermal conductivity and extremely high water vapour diffusion resistance,

which, in combination with the insulating layer thickness, prevent the formation of condensation water on the tube surface. Together with modern refrigerants this ensures safe long-term operation.

An outstanding characteristic of cuprofrío.plus is its bright, clean and dry inner surface. The tube ends are closed in order to keep the surface clean from storage and transportation through to installation.

Material of core tube:	Cu-DHP, Wieland-K20, R220 soft
Tube design:	EN 12735-1
Pressure Equipment Directive:	compliant
Thermal insulation:	elastomer-modified polyethylene HFC/CFC-free
Operating temperature range:	max. 105 °C
Environmental declaration:	according to ISO 14025
Fire resistance:	EN 13501-1; C _L -s1-d0



The dimensions available from stock are shown in the table. Other dimensions and tempers are available on request.

cuprofrío.plus standard dimension from stock (metric)				
Dimension	Weight nominal	Operating pressure*	Coils	Insulating layer thickness
mm	kg/m	bar	m/coil	mm
6 x 1	0.140	200	25	9
10 x 1	0.252	111	25	9
12 x 1	0.308	91	25	9
16 x 1	0.419	66	25	9
18 x 1	0.475	59	25	9
22 x 1	0.587	48	25	9

* maximum operating pressure with fourfold safety

cuprofrío.plus standard dimension from stock (inch)				
Dimension	Weight nominal	Operating pressure*	Coils	Insulating layer thickness
mm	kg/m	bar	m/coil	mm
1/4" x 0.8	0.125	144	50	9
3/8" x 0.8	0.197	92	50	9
1/2" x 0.8	0.267	67	50	9
5/8" x 1	0.417	67	25	9
3/4" x 1	0.506	55	25	9
7/8" x 1.2	0.707	57	25	9

* maximum operating pressure with fourfold safety

The branded copper tube for geothermal energy

The seamless drawn cuprogeo tube is used for geothermal energy production. cuprogeo is designed for the use of refrigerants and gases for direct evaporation. The advantage of this application is that high performance can be achieved with suitable heat pumps.

In addition, cuprogeo can be used for the transportation of technical gases and liquids in chillers, air-conditioning and refrigeration units as well as heat exchangers if a solid outer sheathing is required.

An outstanding characteristic of cuprogeo is its clean and dry inner surface.

The tube ends are closed to maintain the defined condition of the inner surface during storage and transportation.

cuprogeo tube meets the requirements of EN 12735-1 for copper tube for use in air-conditioning and refrigeration and for transportation of technical gases. cuprogeo complies with the Pressure Equipment Directive 97/23/EC.

Material of core tube: pure copper Cu-DHP, Wieland-K20
 Thermal conductivity: $\lambda \geq 344$ W/mK
 Tube design: EN 12735-1
 Pressure Equipment
 Directive: compliant
 Temper: soft R220
 Ends: closed
 Sheathing: polyethylene
 Thermal conductivity: $\lambda = 0.35$ W/mK
 Packing: coils on pallet, pallet shrink-wrapped

Alternative dimensions and coil lengths are available on request.

cuprogeo					
Dimension	Weight nominal	Operating pressure*	Coil length	Outside diameter including sheathing	
mm	kg/m	bar	m		
10 x 0.7	0.182	75	upon agreement	12 mm	
10 x 1	0.252	111	upon agreement	12 mm	
12 x 0.7	0.221	61	upon agreement	14 mm	
12 x 1	0.309	91	upon agreement	14 mm	
16 x 1	0.419	66	upon agreement	18 mm	

* maximum operating pressure with fourfold safety



Use of cuprofrio, cupromed and cuprogeo tubes

Air conditioning and refrigeration	Symbol	Product
Refrigerants		cuprofrio cuprofrio.plus cuprogeo
Halogenated fluorochlorocarbon		
Halogenated fluorocarbon, e.g. R134a, R404A, 407C, 410A, R507		
Flammable refrigerants	C _n H _n	
Others		
Carbon dioxide*	CO ₂	currently not permitted!
Ammonia	NH ₃	
Industrial and laboratory gases***		
Noble gases		cuprofrio cupromed cuprogeo
Helium	He	
Neon	Ne	
Argon	Ar	
Krypton	Kr	
Xenon	Xe	
Radon	Rn	
Inert gases		cuprofrio cupromed cuprogeo
Nitrogen	N ₂	
Carbon dioxide*	CO ₂	
Sulphur hexafluoride	SF ₆	

* The gas must be absolutely dry, as is the case, for example, in compressed air cylinders.

** Formation of the highly explosive copper acetylide possible!

*** Applications for domestic fuel supply (natural gas, fuel oil, etc.) do not fall under the application "industrial and laboratory gases".

Industrial and laboratory gases***	Symbol	Product
Fuel gases		cuprofrio cupromed cuprogeo
Hydrogen	H ₂	
Methane	CH ₄	
Liquid gases	C _n H _n	
Coke oven gas		
Acetylene**	C ₂ H ₂	Copper not permitted!
Medical engineering		cupromed
Oxygen	O ₂	
Nitrogen	N ₂	
Carbon dioxide*	CO ₂	
Nitrous oxide	N ₂ O	
Argon	Ar	
Helium	He	
Xenon	Xe	
Compressed air for medical purposes		
Vacuum		

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

Application

High-pressure pipeline systems, particularly for CO₂ 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

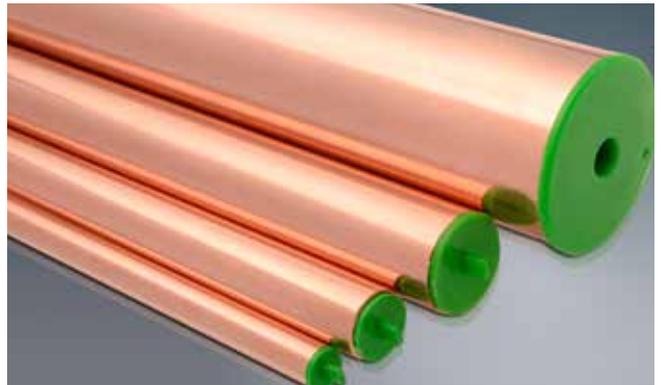
K65 tubes by Wieland and K65 fittings by IBP Conex | Bänninger fall under a joint system guarantee that includes CO₂ applications up to 120 bar for the items listed below.

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						
Dimension		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	3/8"	433009520	20	100	20	2000
12.70	1/2"	433012700	20	100	20	2000
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
53.97	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 percent 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

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

>B< K65 fittings for 120 bar

Type designation	Detailed designation	IBP item No.	Packaging unit	
			bag	cardboard box
tee	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
reducing nipple	K5130 1 5/8" x 1 5/8" x 1 5/8"	K5130013013013	1	20
	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

Reliability – Our claim

We practice exemplary quality management to ensure that we justify our partners' reliance on our performance.

Copper tubes from Wieland for domestic plumbing applications are produced in conformity with the specifications of EN 1057 and are made from the standard material Cu-DHP (deoxidised pure copper).

The manufacturing process is subject to numerous internal and external quality assurance measures and is certified to EN ISO 9001.

Continuous internal monitoring is ensured by our certified and accredited research laboratory. Numerous quality test certificates and product licences from all well-known test organisations underline the constant high quality level of Wieland branded copper tubes.



Compliance with quality requirements is made transparent to our partners by means of the appropriate symbols on the tubes.

By indicating the product name, we document our “better than regulations and standards” claim with regard to the reliability of our products and manufacture by means of specified methods. An example of the labelling of plumbing tubes is shown below:

SANCO	Product manufactured by a patented process
Wieland	Manufacturer is Wieland-Werke AG
DEUTSCHLAND	Manufactured in Germany
15 x 1	Dimensions: outside diameter x wall thickness
EN 1057	Conforms to EN 1057
HH	Temper R 250 half hard
2002	Year of manufacture
IV	Quarter in which manufactured
CE	Conforms to European Standards

Wieland-Werke AG

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This printed matter is not subject to revision. No claims can be derived from it unless there is evidence of intent or gross negligence. The product characteristics are not guaranteed and do not replace our experts' advice.

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