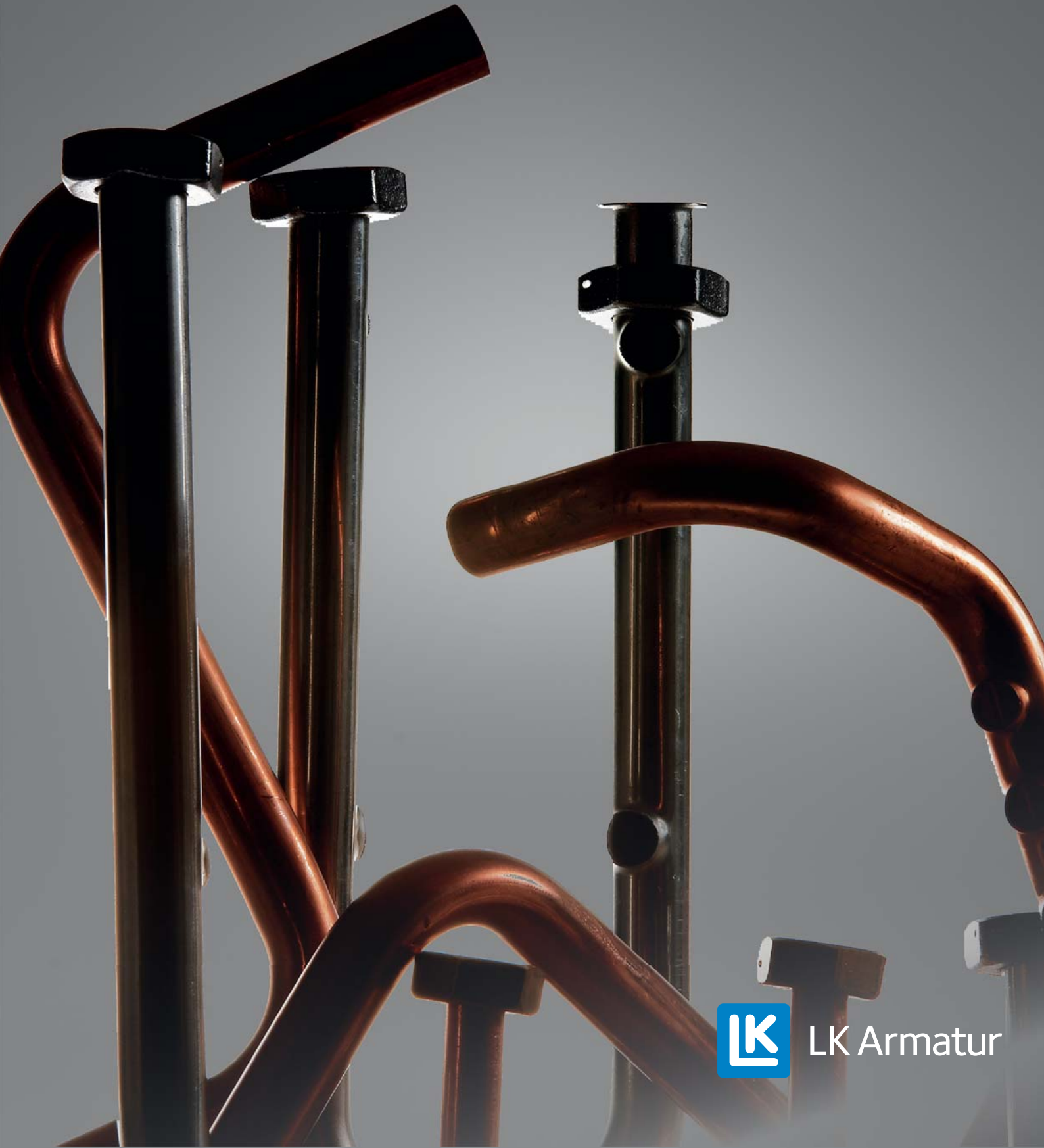




Prefab



LK Armatur

General Information

TECHNICAL DATA

Pipe designs	Thin-wall copper and stainless steel pipes
Dimensions	6 – 42 mm

Prefabricated unions for appliances in heating and tap water systems, hospital appliances, dishwashers etc.

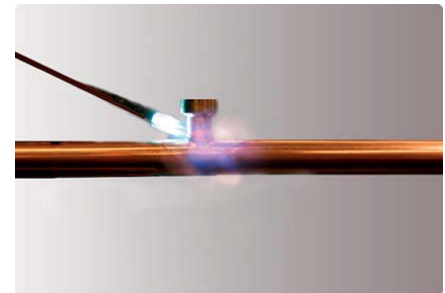
In our prefabrication department, we process pipes and assemble components into complete units.

On the component side, we provide in-house manufacture of valves for heating and tap water systems as well as products purchased from leading European manufacturers.

The unions are produced according to customer's drawings.

Design principles conform with the following information about

- Joining
- Pipe bending
- Collaring
- Flanging

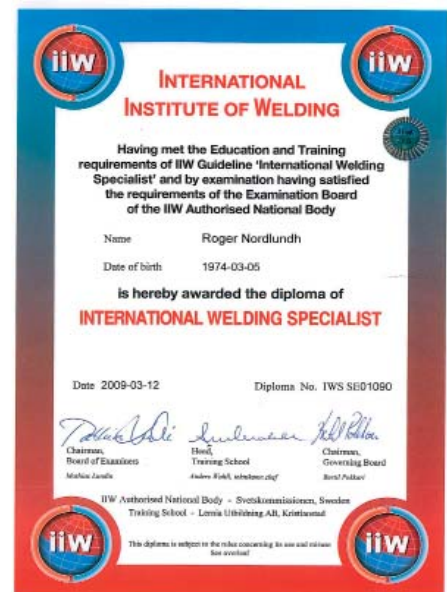


Joining

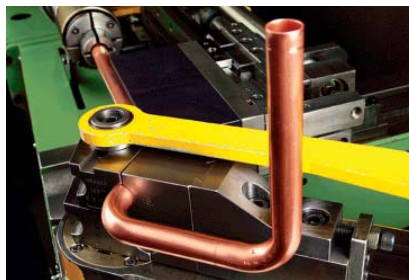
Soldering / Welding

TECHNICAL DATA

Soldering	Complying with SS-EN 12799 and SS-EN 12797 standards. Soldering workers SS-EN 13133 certified. IWS certified Welding specialist.
Manual welding	Complying with EN ISO 5817 standard. Welders EN 287-1 certified.
Orbital welding	Complying with SS-EN 288-5 standard. Welders EN 1418 certified.



Pipe Bending



TECHNICAL DATA

Max. working temp	120 °C
Max. working pressure	1.6 MPa
Dimensions copper pipes	6, 8, 10, 12, 15, 18, 22, 28, 35 and 42 mm
Dimensions thin-wall steel pipes	6, 8, 10, 12, 15, 18, 22, 28 and 35 mm
Max. pipe length before first bend	1995 mm

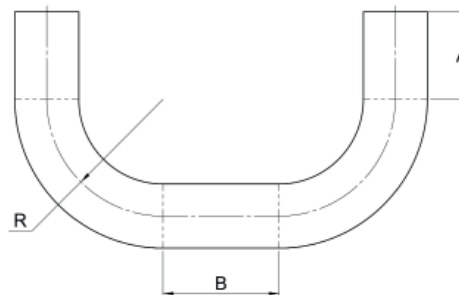
Customized manufacture of bent pipe designs.

Dimension A on the principle drawing refers to the shortest shank length, which is 20 mm for soldering and 30 mm for compression unions, plus the bending radius.

A 40 mm shank length should be aimed at in order to eliminate subsequent trimming.

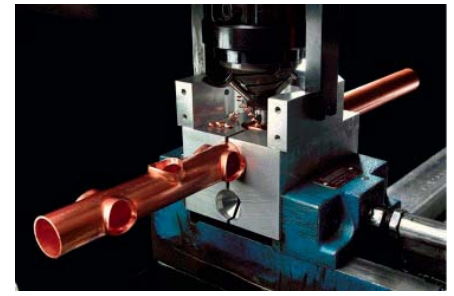
Dimension B refers to the minimum dimension between two bends.

Bending radius for each dimension		Dimension B
6 mm	R16	40 mm
8 mm	R24	40 mm
10 mm	R30	40 mm
12 mm	R21,6	40 mm
15 mm	R30 / R22,5	30/40 mm
18 mm	R27	30/40 mm
22 mm	R40 / R33	40 mm
28 mm	R55	40 mm
35 mm	R52,5 / R70	80/60 mm
42 mm	R60	60 mm



Cooling pipes			
1/4"	Ø 6,35 x 0,85	R15	40 mm
3/8"	Ø 9,52 x 0,85	R25	40 mm
1/2"	Ø 12,7 x 0,85	R25	40 mm
5/8"	Ø 15,88 x 0,85	R32	40 mm
3/4"	Ø 19,1 x 1,07	R40	40 mm
7/8"	Ø 22,23 x 1,15	R45	40 mm

Collaring - Copper pipes



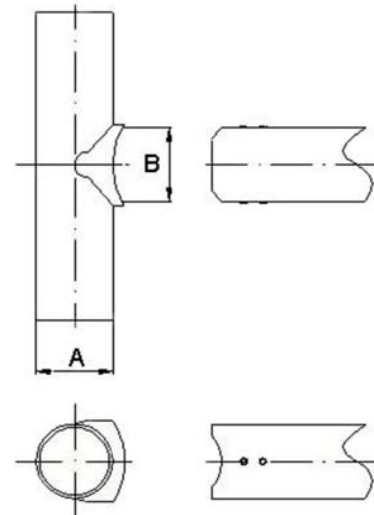
TECHNICAL DATA

Max. working temp	120°C
Max. working pressure	1.6 MPa
Dimensions	12, 15, 18, 22, 28, 35 and 42 mm

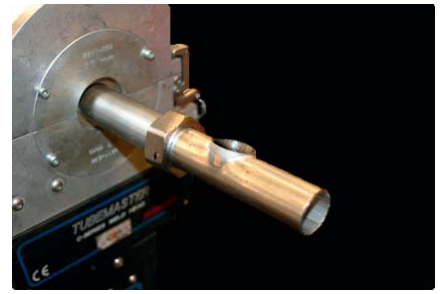
Customized manufacture of pipe designs with collared T-junctions, which means that the number of soldered joints can be reduced. A radius is cut out of the joining pipe to avoid disturbing the flow in the junction (Notching).

DESIGN PRINCIPLES FOR COPPER PIPES

Collaring Diameter Internal Ø (B)	6	8	10	12	15	18	22	28	35	42
Pipe Dimensions (A) Ø	12	0,8	1,0	1,0	1,0					
	15	0,8	1,0	1,0	1,0	1,2				
	18	0,8	1,0	1,0	1,0	1,2	1,2			
	22	0,8	1,0	1,2	1,2	1,5	1,5	1,5		
	28	0,8	1,0	1,2	1,2	1,5	1,5	2,0	1,5	
	35	0,8	1,0	1,2	1,2	1,5	1,5	2,0	2,0	1,5
	42	0,8	1,0	1,2	1,2	1,5	1,5	2,0	2,0	2,0
	Wall Thickness (mm)									



Collaring - Stainless Steel Pipes



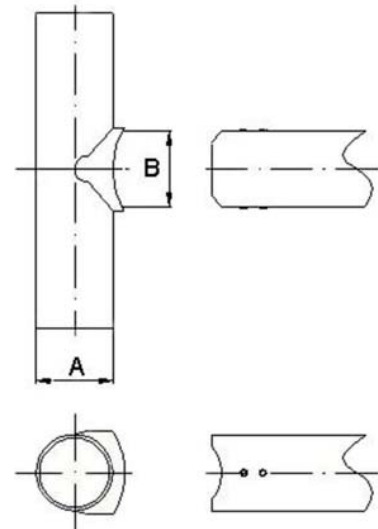
TECHNICAL DATA

Max. working temp	120°C
Max. working pressure	1.6 MPa
Dimensions	12, 15, 18, 22, 28, 35 and 42 mm

Customized manufacture of pipe designs with collared T-junctions, which means that the number of welded joints can be reduced. If pipes are planed, orbital or butt welding can be done.

DESIGN PRINCIPLES FOR STEEL PIPES

Collaring Diameter Internal Ø (B)	10	12	15	18	22	28	35	42	
Pipe Dimensions (A) Ø	12	1,0	1,0						
	15	1,0	1,0	1,0					
	18	1,0	1,2	1,2	1,0				
	22	1,0	1,2	1,2	1,2	1,2			
	28	1,0	1,0	1,0	1,0	1,0	1,0		
	35	1,0	1,0	1,0	1,0	1,4	1,2	1,2	
	42	1,0	1,2	1,2	1,2	1,4	1,4	1,4	1,2
		Wall Thickness (mm)							



Flanging



TECHNICAL DATA

Max. working temp	120 °C
Max. working pressure	1.6 MPa
Dimensions	As per the tables below

Customized manufacture of pipe designs in copper and stainless steel with flanging.

DESIGN PRINCIPLES

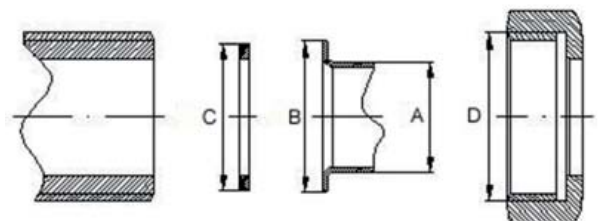
* A reinforced gasket is needed.

Sketch 1, Flange Joint

A= Pipe Diameter mm	B= Flange Collar mm	C= Gasket mm	D= Nut Dimension
12x1	18	19x13x2	G15
15x1	18	19x13x2	G15
15x1	24	24x17x2	G20
18x1	24	24x17x2	G20
18x1	28	30x21x2	G25
22x1,5	24	24x17x2*	G20
22x1	30	30x21x2	G25
22x1,5	30	30x21x2	G25
22x1	35	38x30x2	G32
22x1,5	35	38x30x2	G32
28x1	38	38x30x2	G32
28x1,5	30	30x24x2 *	G25
28x1,2	38	38x27x2	G32
28x1,5	38	38x27x2	G32
28x1,2	43	44x32x2	G40
28x1,5	43	44x32x2	G40
35x1	43,5	44x32x2	G40
35x1,5	39	39x30x2 *	G32
35x1,5	43	44x32x2	G40
42x1,5	55	55x42x2	G50
42x2	45	45x38x2 *	G40
42x2	55	55x42x2	G50

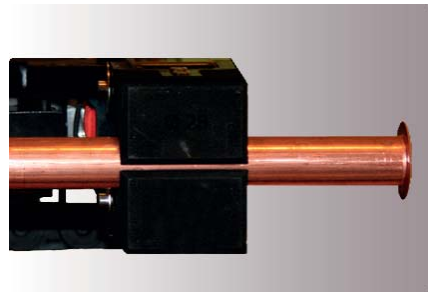


Sketch 1. Flange joint

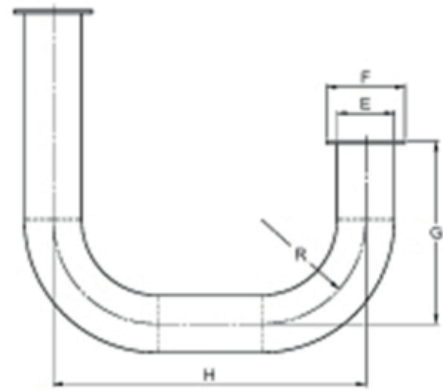


Sketch 2, Min. Dimensions

E= Pipe Diameter mm	F= Flange Diameter mm	G= Min. Shank Length	R= Radius
Ø12	1/2"	48	21,6
Ø15	1/2"	50	22,5
Ø15	3/4"	71	30
Ø18	3/4"	53	27
Ø18	1"	53	27
Ø22	3/4"	56	33
Ø22	3/4"	63	40
Ø22	1"	56	33
Ø22	1"	63	40
Ø22	1 1/4"	56	33
Ø22	1 1/4"	63	40
Ø28	1"	96	55
Ø28	1 1/4"	96	55
Ø28	1 1/2"	96	55
Ø35	1 1/2"	93	52,5



Sketch 2. Min. Dimensions



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