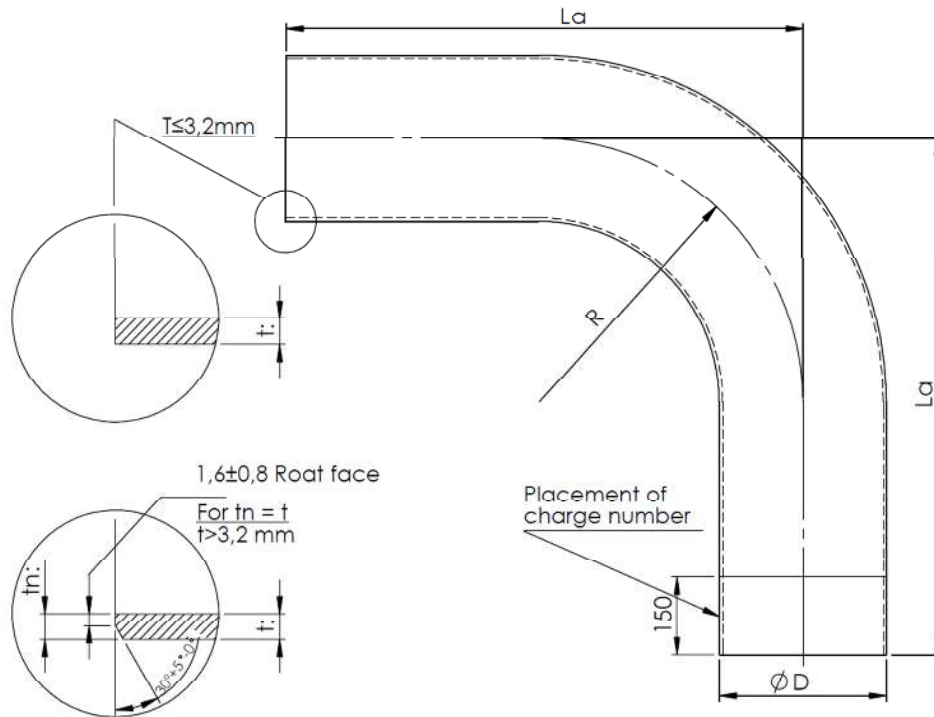


GMF STANDARD ELBOWS

Product: Elbow 90°
Description: Elbow bended 90°
Application: For district heating and industry
Dimensions:

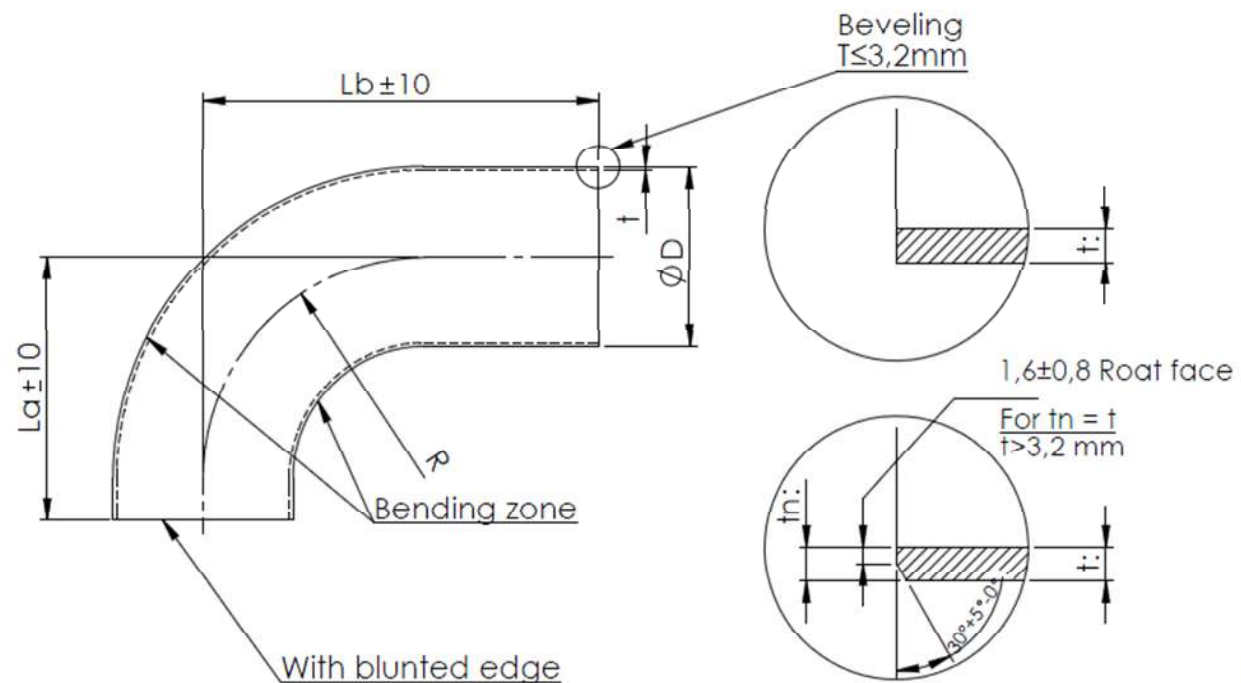


Elbow 90°:

$\varnothing D$	Starting material [t]	$t_n \pm 0,4$ [mm]	Min. wall thickness in bending zone [mm]	Bending radius [mm]	$L_a \pm 15$ [mm]
26,9	2,9	-	2,21	72	1000 x 1000
33,7	2,9	-	2,21	84	1000 x 1000
42,4	2,9	-	2,21	106	1000 x 1000
48,3	2,9	-	2,21	120	1000 x 1000
60,3	3,2	-	2,47	151	1000 x 1000
76,1	3,2	-	2,47	190	1000 x 1000
88,9	3,6	3,25	2,72	222	1000 x 1000
114,3	4,0	3,65	3,06	286	1000 x 1000
139,7	4,0	3,65	3,06	350	1000 x 1000
168,7	4,5	4,05	3,40	421	1000 x 1000
219,1	5,0	4,55	3,83	510	1000 x 1000
273,0	5,6	5,05	4,25	650	1300 x 1300
323,9	6,3	5,65	4,76	775	1500 x 1500
355,6	6,3	5,65	4,76	850	1600 x 1600
406,4	7,1	6,35	5,36	970	1600 x 1600
508,0	7,1	6,35	5,36	1245	1600 x 1600

GMF STANDARD STEEL BRANCH

Product: Steel branch 90°
Description: Steel branch bent 90°
Application: For district heating and industry
Dimensions: As table or according to customer specifications.

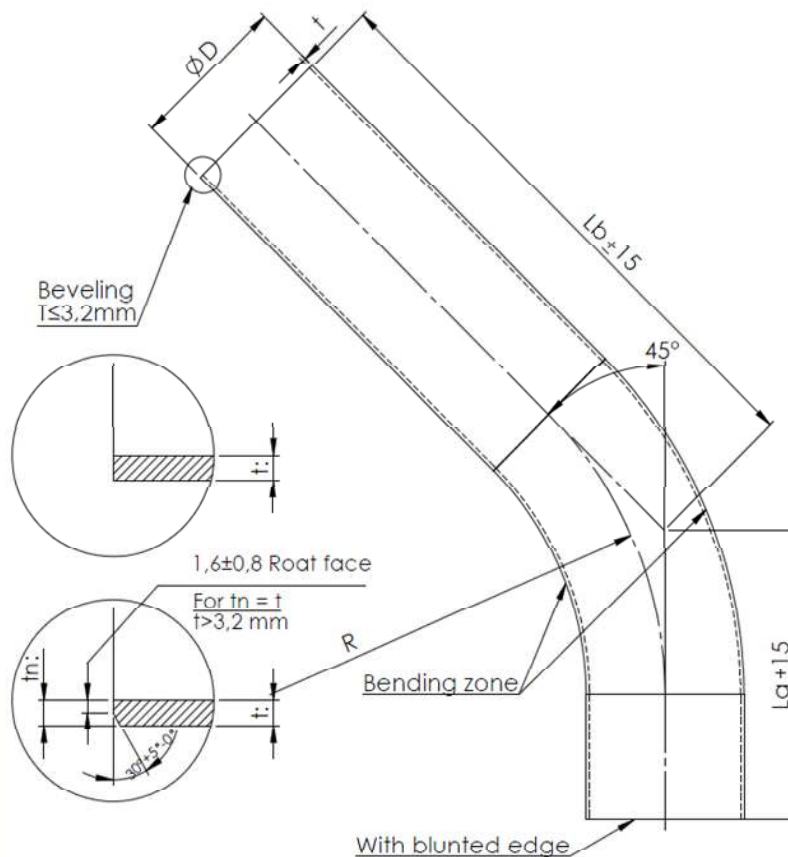


Steel branch 90°:

ØD	Wall thickness in starting material [t]	Min. wall thickness in bending zone	La	Lb	R	
26,9	2,9	2,21	400	600	72	2,5D
33,7	2,9	2,21	400	600	84	
42,4	2,9	2,21	400	600	106	
48,3	2,9	2,21	400	600	120	
60,3	3,2	2,47	400	600	151	
76,1	3,2	2,47	400	600	190	
88,9	3,6	2,72	400	650	222	
114,3	4,0	3,06	500	700	286	2D
139,7	4,0	3,06	500	700	279	
168,7	4,5	3,40	500	700	336	
219,1	5,0	3,83	550	800	440	

GMF STANDARD STEEL BRANCH 45°

Product: Steel branch 45°
Description: Steel branch bended 45°
Application: For district heating and industry
Dimensions: As table or according to customer specifications.



Steel branch 45°:

ØD	Wall thickness in starting material [t]	Min. wall thickness in bending zone	La	Lb	R
26,9	2,9	2,21	400	800	72
33,7	2,9	2,21	400	800	84
42,4	2,9	2,21	400	800	106
48,3	2,9	2,21	400	800	120
60,3	3,2	2,47	400	800	151
76,1	3,2	2,47	400	800	190
88,9	3,6	2,72	400	800	222
114,3	4,0	3,06	500	800	286
139,7	4,0	3,06	550	800	350
168,7	4,5	3,40	600	800	421
219,1	5,0	3,83	600	800	510

GMF STANDARD SHORT STEEL BEND

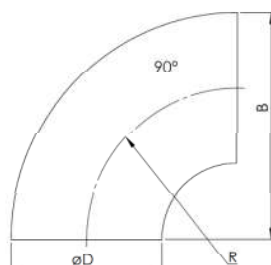
Product: Short steel bend

Description: Short steel bend 90° bend without straight ends for welding.

Steel quality: EN10217-1, EN10217-2 and EN10216-2

Application: For district heating and industry

Dimensions:



Model 1:

øD	Wall thickness in starting material	Radius mm	B mm ± 1 mm	Tolerance radius mm	Min. wall thickness in bending zone
26,9	2,9-3,2	200	214	± 2,5	2,21
33,7	2,9-3,2	200	217	± 2,5	2,21
42,4	2,9-3,2	200	221	± 2,5	2,21
48,3	2,9-3,2	200	224	± 2,5	2,21
60,3	3,2-3,6	240	270	± 3,0	2,47
76,1	3,2-3,6	240	278	± 3,0	2,47
88,9	3,6	240	285	± 3,0	2,72
114,3	4,0	286	327	± 3,0	3,06
139,7	4,0	350	350	± 3,0	3,06

Model 2:

øD	Wall thickness in starting material	Radius mm	B mm ± 1 mm	Tolerance radius mm	Min. wall thickness in bending zone
26,9	2,9-3,2	90	103	± 2,5	2,21
33,7	2,9-3,2	90	107	± 2,5	2,21
42,4	2,9-3,2	106	114	± 2,5	2,21
48,3	2,9-3,2	121	134	± 2,5	2,21
60,3	3,2-3,6	151	168	± 3,0	2,47
76,1	3,2-3,6	140	178	± 3,0	2,47
88,9	3,6	165	209	± 3,0	2,72
114,3	4,0	228	285	± 3,0	3,06

Model 3:

øD	Wall thickness in starting material	Radius mm	B mm ± 1 mm	Tolerance radius mm	Min. wall thickness in bending zone
26,9	2,9-3,2	140	153	± 2,5	2,21
33,7	2,9-3,2	140	157	± 2,5	2,21
42,4	2,9-3,2	160	181	± 2,5	2,21
48,3	2,9-3,2	160	184	± 2,5	2,21
60,3	3,2-3,6	160	190	± 3,0	2,47
114,3	4,0	340	362	± 3,0	3,06

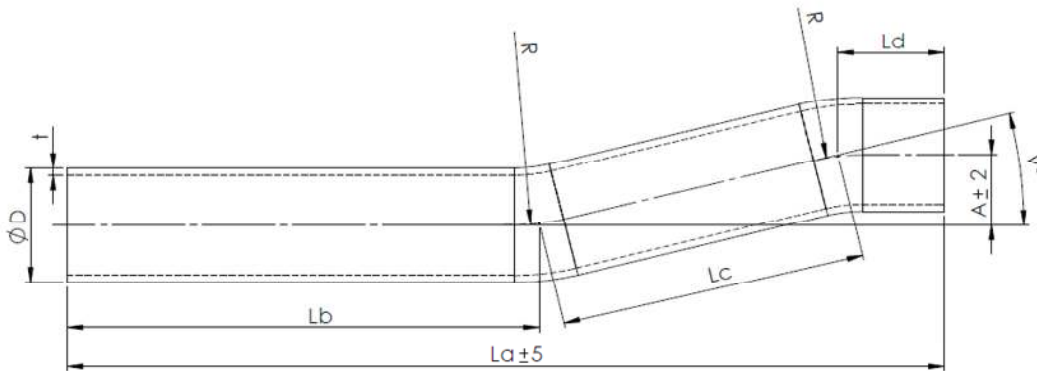
GMF STANDARD Z-ELBOWS WITH INDIVIDUAL MEASSURES

Product: Z-elbows

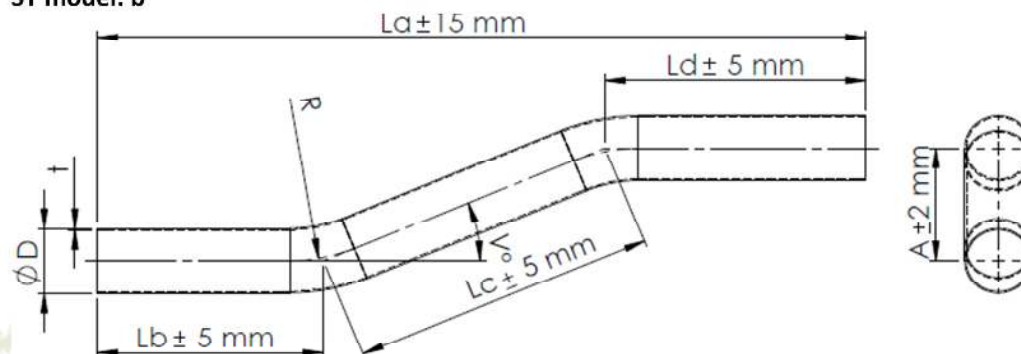
Application: For district heating and industry

Dimensions: $\varnothing 26,9 - 219,1$ mm
Wall thickness 1,5 – 12,5 mm
According to customer specifications.

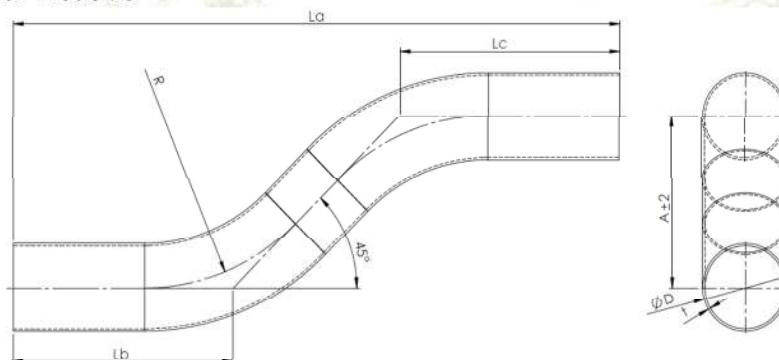
ST model: a



ST model: b



ST model: c



GMF STANDARD PRODUCT RANGE WITH INDIVIDUAL MEASSURES

Product:

Description:

Various usage

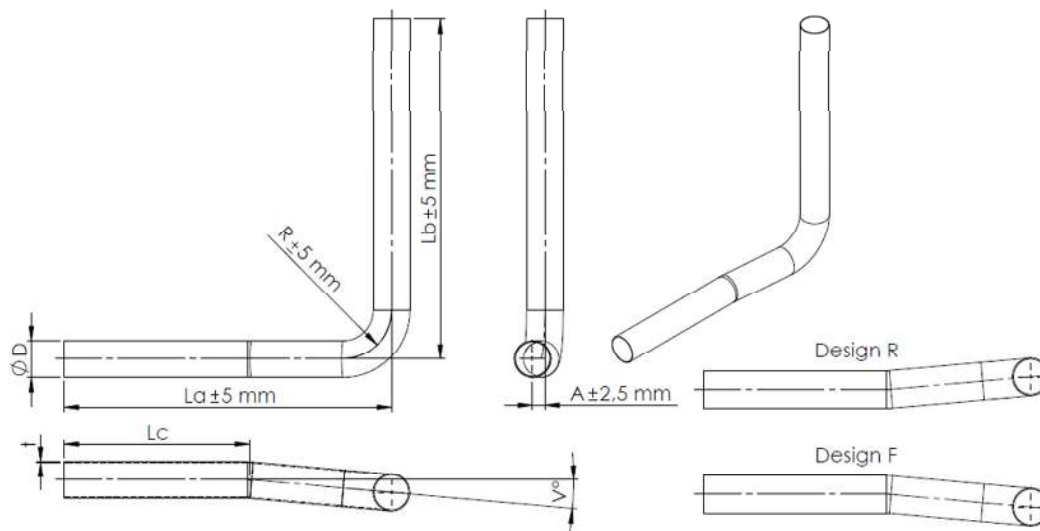
Dimensions

Ø26,9 – Ø219,1 mm

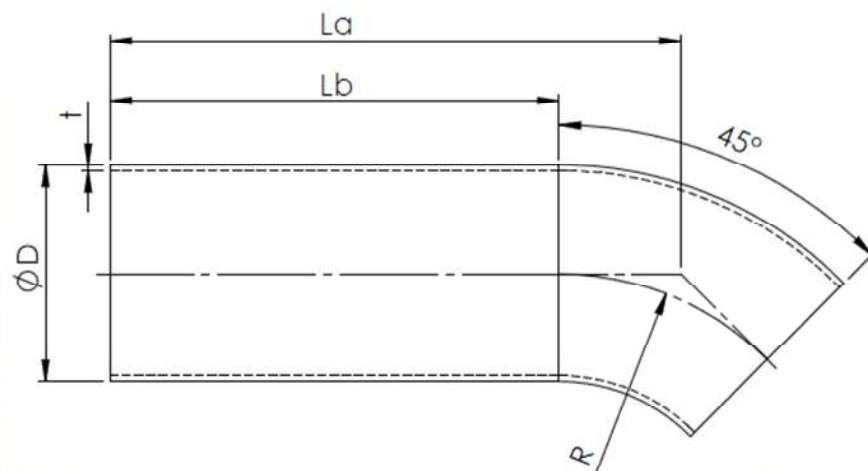
Wall thickness 1,5-12,5 mm

According to customer specifications.

ST model: d



ST model: e



ST model: f

