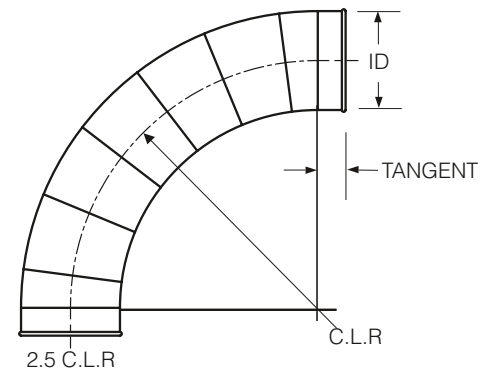
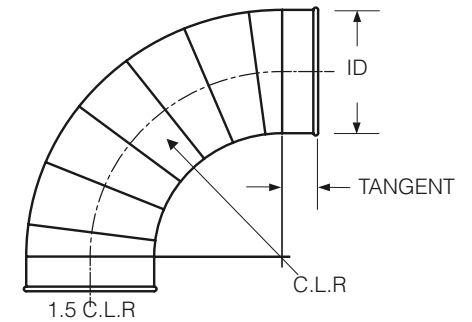


Gored Elbows, Angle Flanged, Sizes 8" - 40"

3211

Size In.	Bend Degrees Available	CLR (Center Line Radius)	Tangents	Std Weight Lbs	Galvanized Steel				304SS (or 316SS)		
					22ga	20ga	18ga	18ga	22ga	20ga	18ga
8	30°	1.5	2"	7.66	Std			Optional	Std		
9				8.45							
10				15.47							
11				17.60							
12				19.33							
13				22.40							
14				25.39	Std						
15				27.90							
16				30.51							
17				32.30							
18				34.67							
20				41.99							
22				46.90	Std	4"					
24				70.96							
26				89.12							
28				99.19							
30	110.26										
32	121.38										
34	133.52										
36	149.04										
38	162.31										
40	176.20										



*Long Radius Elbow

Construction:

8" and larger elbows shown here are gored (segmented) construction with a lock form standing seam every 15°. These elbows are produced as follows:

Ends: Standard QF end can be changed to Raw ID (RAWID), Raw OD (RAWOD), No Fitting (NF), Hose Adapter (RAWFLEX), Flat Flange (FFL), Angle Flange (ANGFL), or Van Stone (VANSTONE).

Degree of angle	Number of gores
15°	(2) 7.5° + (2) tangents
30°	(1) 15° + (2) 7.5° + (2) tangents
45°	(2) 15° + (2) 7.5° + (2) tangents
60°	(3) 15° + (2) 7.5° + (2) tangents
90°	(5) 15° + (2) 7.5° + (2) tangents

Seam: laser welded longitudinal seam on collar and gores on 1.5 CLR 22" and below. 24" dia. elbows and above have spot welded and caulked gores.

Gored Elbows, Angle Flanged, Sizes 8" - 40" 3211

Temperature Rating of Product Components						
° F	QF Gored Elbows		Sealants			
-60°	Galvanized Steel	Optional - 304SS	3M Scotch Seal Metal Sealant 2084	Optional - 3M Polyurethane Adhesive Sealant 540	Optional - Rock River Silicone Sealant	Optional - Red Devil HVAC/R High Temperature Silicone Sealant
-40°						
0°						
194°						
250°						
390°						
400°						
500°						
1100°						Optional - Epoxy - 3M DP 125 Gray Sealant

Additional Notes
At temperatures ranging between 390° F and 480° F, the zinc-iron alloy layers in galvanized steel will continue to provide a high level of protection from corrosion. However, there may be some peeling, changes in mechanical properties, and reduction in the corrosion protection. Recommended max. service temperature is 390° F.
Rock River Silicone Sealant and Red Devil HVAC/R High Temperature Silicone Sealant are not paintable
304SS: <ul style="list-style-type: none"> • 3" - caulking on collared seam only • bluing may occur at 800° F and above

Compliance / Rating of Product Components		
Product	Material	Compliance / Rating
QF Gored Elbows	Galvanized	ASTM A527 with a G-90 rating
	304SS	Finish meets ASTM A240
	316SS	Finish meets ASTM A240
3M Scotch Seal Metal Sealant 2084	Acetone blend	AAMA Specification 801.1
3M Polyurethane Sealant 540	Polyurethane	ASTM E 162, ASTM E 662, Bombardier SP 800-C
Rock River Sealant	100% Silicone	ASTM C920 Class 25, TT-S-00230C Class A and TT-S-001543A, FDA No 421 CFR 117.2600, conforms to FDA requirements
Red Devil HVAC/R High Temperature Sealant	Silicone	ASTM C920 Class 25, TT-S-00230C Class A and TT-S-001543A, CEBTP 432.6 140-2, Mil Spec 46106A, CGSB 19C9-9B, DIN 18540 Part 2, OREX 150031-2