

QF Elbows, Long Radius, Sizes 8" - 24"

3210 LR

Size In.	ID In.	Bend Degrees Available	CLR (Center Line Radius)	Tangents	Std Weight Lbs	Galvanized Steel			304SS (or 316SS)		
						22ga	20ga	18ga	22ga	20ga	
8	7.88	15°	2.5	2.25	6.10	Std			Std		
9	8.88				7.60						
10	9.89				9.00						
11	10.86				10.50						
12	11.97				12.40						
13	12.97	30°			14.26		Std		Optional		Std
14	13.96	45°			19.00						
15	14.97	60°			21.25						
16	15.94	90°			24.00						
17	16.97	27.50									
18	17.96	30.90									
20	19.96	35.97									
22	21.97	43.06									
24	23.94	55.50									



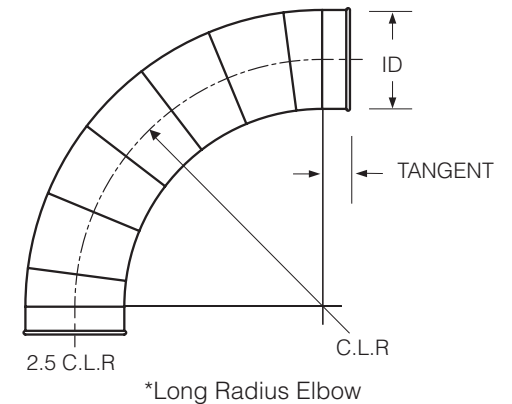
Construction:

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

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 have spot welded and caulked gores.

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).



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TECHNICAL DATA

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

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: • 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