

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

3210 LR

Size In.	Bend Degrees Available	CLR (Center Line Radius)	Tangents	Std Weight Lbs	Galvanized Steel			304SS (or 316SS)	
					22ga	20ga	18ga	22ga	20ga
8	15°	2.5	2.0	6.10	Std	Optional	Std		
9				7.60					
10				9.00					
11				10.50					
12				12.40	Std		Std		
13				14.26					
14				19.00					
15				21.25					
16				24.00					
17				27.50					
18				30.90	Std		Std		
20				35.97					
22	43.06								
24	55.50								



Construction:

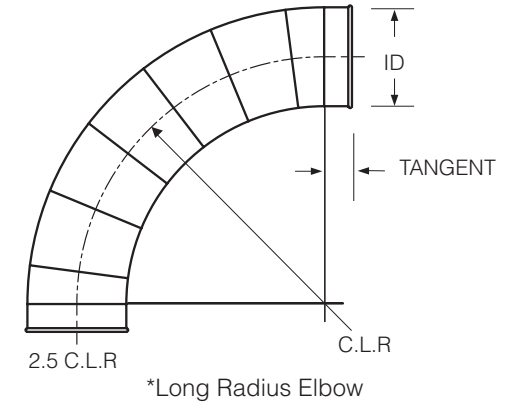
8" and larger elbows shown here are gored (segmented) construction with a lock form standing seam every 15°. These elbows are produced as follows:

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).

NOTE: Reference Nordfab's QF Machine Adapter Technical Data sheet for actual ID and OD dimensions.



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

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: bluing may occur at 800° F and above

Compliance / Rating of Product Components		
Product	Material	Compliance / Rating
QF Gored Elbows	Galvanized	ASTM A653 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
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