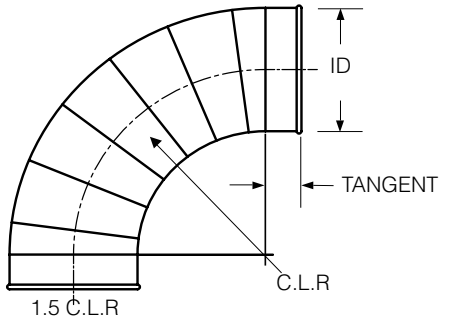
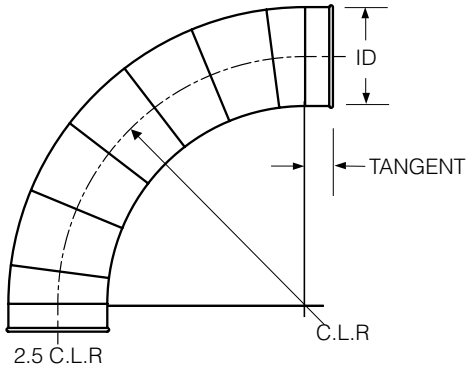
Gored Elbows, Angle Flanged, Sizes 8" - 40"
3211

TECHNICAL DATA

Size In.	Bend Degrees Available	CLR (Center Line Radius)	Tangents	Std Weight Lbs	Galvanized Steel 22ga	Galvanized Steel 20ga	Galvanized Steel 18ga	304SS (or 316SS) 22ga	304SS (or 316SS) 20ga	304SS (or 316SS) 18ga
8	30° 45° 60° 90°	1.5 *Long Radius Elbows are 2.5	2"	7.66	Std		Optional	Std		Optional
9				8.45						
10				15.47						
11				17.60						
12				19.33						
13				22.40		Std			Std	
14				25.39						
15				27.90						
16			4"	30.51						
17				32.30						
18				34.67						
20				41.99						
22				46.90						
24				70.96						
26				89.12			Std			Std
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:

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.

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.

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

TECHNICAL DATA

Temperature Rating of Product Components

° F	QF Gored Elbows		Sealants			
1100°	Galvanized Steel	**Optional** - 304SS			**Optional** - Red Devil HVAC/R High Temperature Silicone Sealant	**Optional** - Epoxy - 3M DP 125 Gray Sealant
500°						
400°						
390°						
250°			3M Scotch Seal Metal Sealant 2084	**Optional** - Rock River Silicone Sealant		
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:
- 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 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