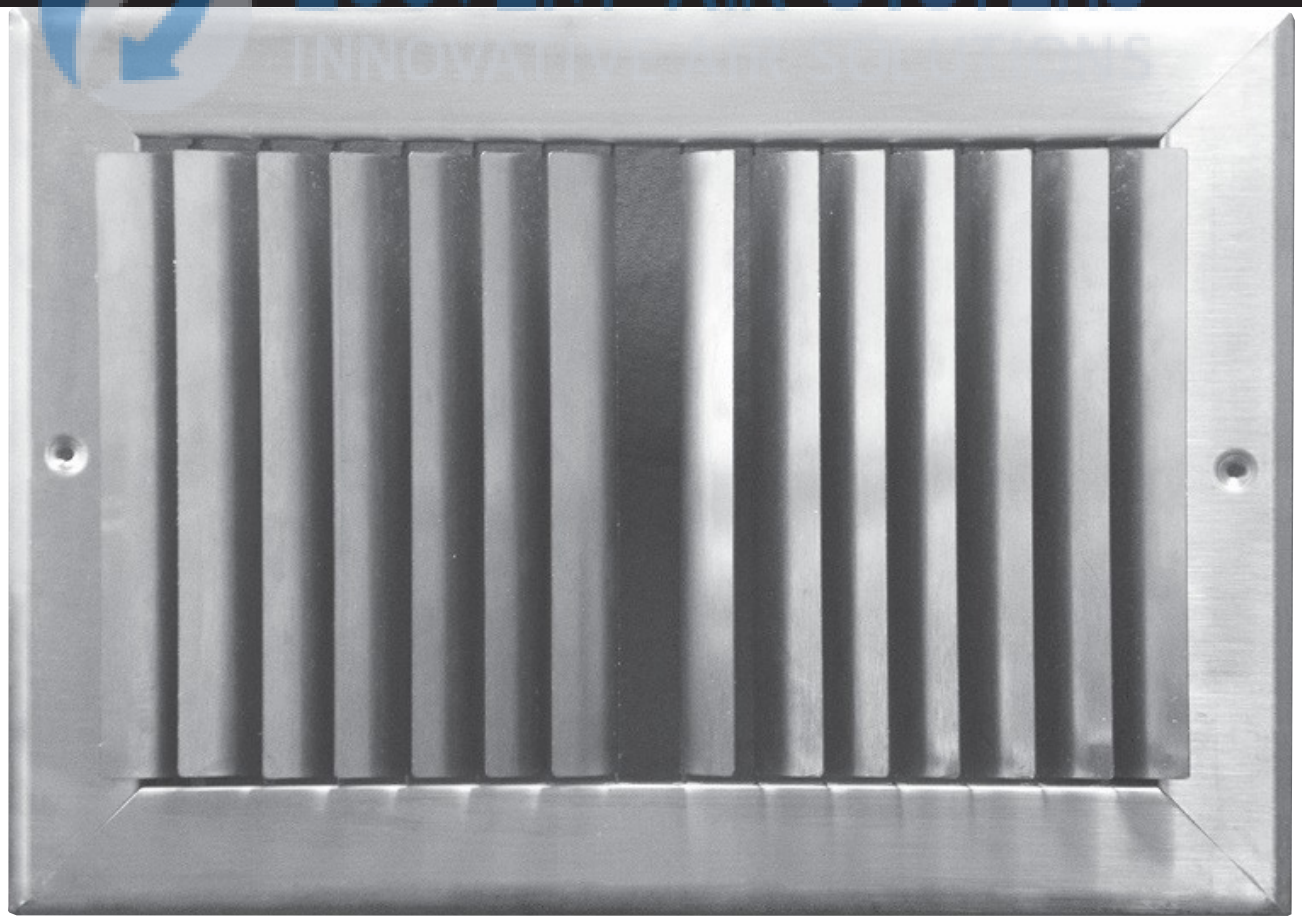
Steel Return Grill



Introduction: Stainless Steel

Stainless steel is an alloy, or blend of selective metal ingredients, primarily iron, chromium and nickel. Sometimes small amounts of other metals are added to give some further special performance characteristics. The result is not one, but a family of iron-based alloys made up of over fifty different possible compositions. Each composition has specific properties: toughness, corrosion resistance and cleanability. Krueger offers the following two grades of stainless steel.

GRADE 304 PROPERTIES

Grade 304 is the most versatile and most widely used stainless steel. Grade 304 is the standard “18/8” or 18 percent chromium and 8 percent nickel austenitic alloy producing a highly corrosion resistant non-magnetic material. 304 Stainless steel has excellent forming and welding characteristics and is available in a wide range of products, forms and finishes.

GRADE 304 CORROSION RESISTANCE

Grade 304 has excellent corrosion resistance in a wide range of atmospheric environments and resists most oxidizing acids and salt sprays. Grade 304 is considered resistant to potable water with approximately 200 mg/L (0.0267 oz/gal) chlorides at ambient temperatures, reducing to about 150 mg/L (0.0200 oz/gal) at 60°C (140°F).

GRADE 316 PROPERTIES

Grade 316 is the standard molybdenum-bearing grade, second in importance to 304 amongst the austenitic stainless steels. It has excellent forming and welding characteristics. It is readily brake or roll formed into a variety of parts for applications in the industrial, architectural, and transportation fields. Grade 316 also has outstanding welding characteristics. Post-weld annealing is not required when welding thin sections.

GRADE 316 CORROSION RESISTANCE

The molybdenum gives 316 better overall corrosion resistant properties than Grade 304, particularly higher resistance to pitting and crevice corrosion in potable water with up to about 1000 mg/L (0.1335 oz/gal) chlorides at ambient temperatures, reducing to about 500 mg/L (0.0668 oz/gal) at 60°C. 316 is usually regarded as the standard “marine grade stainless steel”.

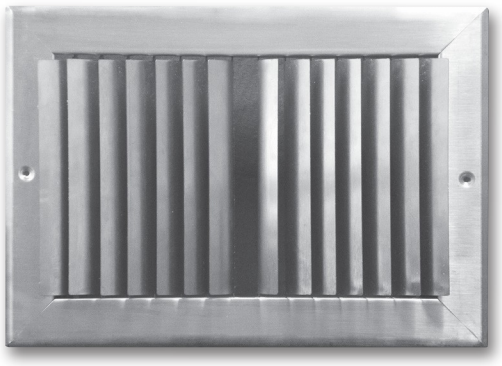
TYPICAL COMPOSITIONAL RANGES FOR GRADE 304

Metals	Minimum	Maximum
C	-	0.08
Mn	-	2.00
Si	-	0.75
P	-	0.045
Si	-	0.030
Cr	18.00	20.00
Mo	-	-
Ni	8.00	10.50
N	-	0.10

TYPICAL COMPOSITIONAL RANGES FOR GRADE 316

Metals	Minimum	Maximum
C	-	0.08
Mn	-	2.00
Si	-	0.75
P	-	0.045
Si	-	0.030
Cr	16.00	18.00
Mo	2.00	3.00
Ni	10.00	14.00
N	-	0.10

9180 | Curved Blade Grille



9180

Introduction: 9180

The 9180 series curved blade grille features individually, hand adjustable blades and multiple discharge configurations. Blade settings can be adjusted to increase or decrease the throw characteristics by controlling the discharge area. These grilles are an excellent choice for residential and commercial buildings where different throw characteristics are needed for the same sized grille.

MODEL
9180 - Curved Blade Supply Grille

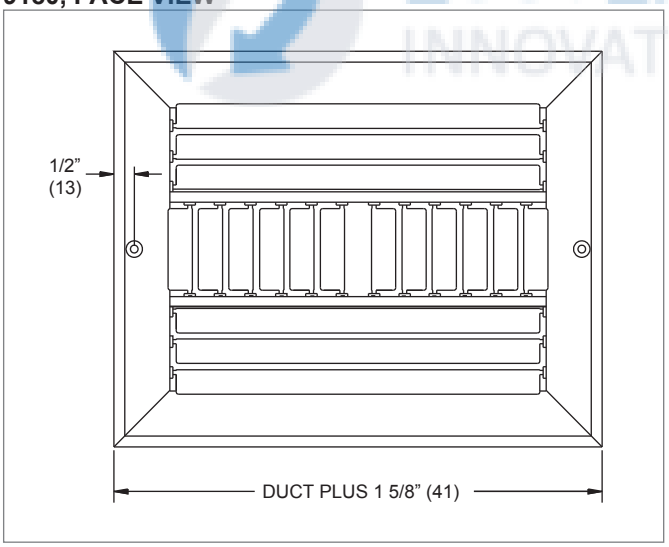
FEATURES
- 304 Stainless steel construction (316 optional).
- 1, 2, 3, and 4-way deflection.
- Adjustable blades.
- Countersunk screw holes in mounting frame.

ACCESSORIES
- Stainless steel OBD welded to unit, adjustable from face of grille (model 9OBD).
- Plaster frame (model 98PF).
- Square to round adapter (model 9SRA).

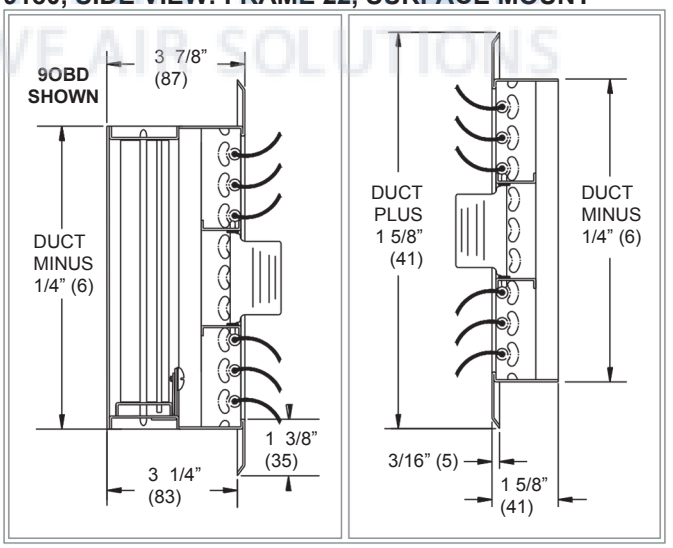
FINISH
- Standard finish is #3 Satin Polish or #44 British White.

9180 Dimensional Information

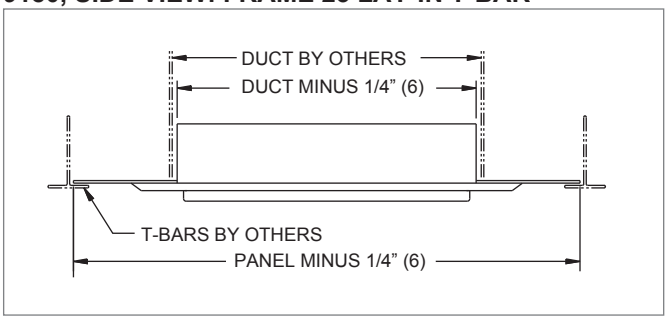
9180, FACE VIEW



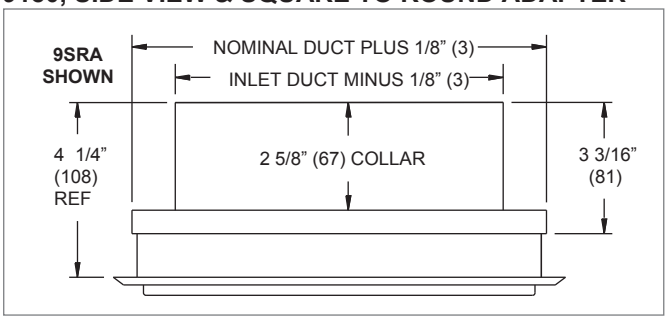
9180, SIDE VIEW: FRAME 22, SURFACE MOUNT



9180, SIDE VIEW: FRAME 23 LAY-IN T-BAR



9180, SIDE VIEW & SQUARE TO ROUND ADAPTER



NOTE: Dimensions in parentheses are mm.

9180 Suggested Specification & Configuration

1. SERIES: (XXXX)
9180 - Curved Blade Supply Grille

2. PATTERN: (XX)
01 - 1-Way
02 - 2-Way
03 - 3-Way
04 - 4-Way

3. WIDTH: (XX)
4” - 48” in 2” Increments

4. HEIGHT: (XX)
4” - 48” in 2” Increments

5. MATERIAL: (XXX)
304 - Stainless Steel Grade 304 316 - Stainless Steel Grade 316

6. FRAME STYLE: (XXX)
F22 - Surface Mount F23 - Lay-in T-Bar

7. PANEL: (XX)x(XX)
None
24”x24” *
24”x48” *

8. FASTENING METHOD: (XX)
00 - No Screw Holes
01 - Countersunk Screw Holes **

9. DAMPER: (XX)
00 - No Damper
01 - Stainless Steel OBD †

10. ACCESSORIES: (XX) (XX)
00 - No Accessories
01 - Plaster Frame
02 - Square to Round Adapter ‡

11.FINISH: (XX)
90 - #3 Satin Polish 44 - British White

** Only available with Frame 23.*
*** Unit shipped with #6x1 1/4” stainless steel sheet metal screws. † Damper is welded to unit.*
‡ Square to Round Adapter is not available with OBD.

9180
The supply grille shall be a Krueger model 9180. This grille must have curved deflectors made of 20 gage 304 stainless steel that are individually adjustable from the face allowing the volume and discharge angle of air to be adjusted. The grille shall be built in 1, 2, 3 and 4-way blow patterns. The frame of the grille must be constructed of 20 gage 304 stainless steel with countersunk screw holes (#6x1 1/4” stainless sheet metal screws provided by manufacturer). This frame must also produce a border of 1-3/8” around all sides of the grille with mitered corners. Optional 304 stainless steel damper available made of 20 gage stainless steel welded to the supply grille and operable from the face.

Optional 316 stainless steel construction available.

FINISH
The finish shall be #3 Satin Polish, obtained by finishing with a 100-grit abrasive, or #44 British White.

SAMPLE CONFIGURATION: 9180 - 04 - 20x20 - 304 - F22 - NONE - 01 - 00 - 00 - 90