



Stud Shank Diameter	Head Diameter	Shank Area	Rail Width	Rail Depth
3/8	1.19	0.11	1.00	3/16
1/2	1.58	0.20	1.25	1/4
5/8	1.98	0.31	1.75	5/16
3/4	2.37	0.44	2.00	3/8

## Material Specifications

**Nelson® PSR Studs** (Minimum Values)  
 (per AWS D1.1, ASTM A108 Grades 1010-1020)

Yield Strength	51,000 psi (350 MPa)
Tensile Strength	65,000 psi (450 MPa)
Elongation	20% in 2 inches (51 mm)
Reduction of Area	50%

**Rail** (Minimum Values)  
 (per AWS D1.1, ASTM A108 Grades 1010-1020)

Yield Strength	44,000 psi (300 MPa)
Tensile Strength	65,000 psi (450 MPa)
Elongation	20% in 8 inches (203 mm)
Reduction of Area	50%

## Installation of Shear Rail

- Maintain a minimum of 2" clear cover to slab edge
- Align end of rail with finished face of column
- Place shear rail perpendicular to each column face
- Equally space required number of assemblies on each column face
- Insert shaft of chair through punched hole in shear rail
- Nail shear rails to formwork to prevent movement during concrete placement