General Arc Stud Specifications

Headed Concrete Anchors

Concrete Anchors are designed for welding to flat surfaces, in the fillet of an angle, or to the heel of an angle. When ordering, please specify if studs will not be welded to a flat surface. All orders placed for weld studs include ferrules.

Length of concrete anchors are given before weld. Concrete Anchors with the diameter of 1/2" and below will be approximately 1/8" shorter after weld. 5/8" concrete anchors will be 3/16" shorter after weld (burn-off).

Concrete Anchors are made from low carbon steel (1010-1020) ASTM A29. Studs are also available in weldable stainless steel (except Type 303).

CA Studs	Type A	Type B
Tensile Strength	61,000 PSI	65,000 PSI
Tensile Strength	420 MPa	450 MPa
Yield Strength	49,000 PSI	51,000 PSI
Yield Strength	340 MPa	350 MPa
Elongation (% in 2 in.)	17% Min	20% Min
Reduction of Area	50% Min	50% Min

Shear Connectors (Including Thru-Deck)

Shear Connectors are designed to effectively tie the concreete to the steel beams and to resist shear loadings between the concrete slab and steel beam in composite construction. All orders for shear connectors include ferrules.

Length of shear connectors are given before weld. When welded to base material, studs will be approximately 3/16" shorter after weld. When studs are welded Thru-Deck, studs will be approximately 3/8" shorter after weld.

Shear connectors are made from low carbon steel (1010-1020) ASTM A29. Studs are also available in weldable stainless steel (except Type 303).

SC/DSC Studs	Type A	Type B
Tensile Strength	61,000 PSI	65,000 PSI
Tensile Strength	420 MPa	450 MPa
Yield Strength	49,000 PSI	51,000 PSI
Yield Strength	340 MPa	350 MPa
Elongation (% in 2 in.)	17% Min	20% Min
Reduction of Area	50% Min	50% Min

General Arc Stud Specifications

Deformed Bar Anchors

Deformed Bar Anchors are designed for weld and bearing plates in concrete connections.

Length is listed before weld. Stud diameters 1/2" and below will be approx. 1/8 shorter after welding. 5/8" will be approx. 3/16" shorter after welding.

Deformed Bar Anchors are made with low carbon steel (ASTM A496).

DBA Studs	Type C
Tensile Strength	80,000 PSI
Tensile Strength	552 MPa
Yield Strength (.5% offset)	70,000 PSI

1. Type A studs are general purpose of any type and size used for purposes other than shear transfer in composite beam design and construction.

2. Type B studs are studs that are heated, bent or of other configuration in 1/2" (12.7mm), 5/8" (15.9mm), 3/4" (19mm), 7/8" (22.2mm), and 1" (25.4mm) diameter, that are used as an essential component in composite beam design and construction.

3. Type C studs are cold-welded deformed bars manufactured in accordance with specification ASTM A496, having a nominal diameter equivalent to the diameter of a plain wire having the same weight per foot as the deformed wire. ASTM A496 specifies a maximum diameter of 0.628 (16mm) maximum. Any bar supplied above that diameter must have the same physical characteristics regarding deformations as required by ASTM A496.