HYBROCO SALES INC

Arc Stud Specifications

SHEAR CONNECTOR STUDS (3/4" AND LARGER)

Designed to effectively tie concrete to the steel beams and to resist shear loadings between the concrete slab and the steel beam in composite construction.
Studs will be approximately 3/16" shorter after weld; thru-deck will be approximately 3/8" shorter after weld.
Please specify ferrule type if required when ordering.

MATERIAL: Low carbon steel, ASTM A29/A108, 1010-1020. Also available in stainless steel-Type 302 is most common.

Mechanical Property Requirements		
	Type A	Type B
Tensile Strength	61,000 min psi	65,000 min psi
Yield Strength	49,000 min psi	51,000 min psi
0.2% offset	340 MPa	350 MPa
Elongation		
% in 2"	17% min.	20% min.
% in 5x diameter	14% min.	15% min.
Reduction of area	50% min.	50% min.

HEADED ANCHOR STUDS (UP TO 5/8")

Designed for welding in the fillet or to the heel of angles. Stud diameter 1/2" or less will be approximately 1/8" shorter after weld; 5/8" or larger will be approximately 3/16" shorter after weld.
Please specify ferrule type if required when ordering.

MATERIAL: Low carbon steel, ASTM A29/A108, 1010-1020. Also available in stainless steel-Type 302 is most common.

Mechanical Property Requirements		
	Type A	Type B
Tensile Strength	61,000 min psi	65,000 min psi
Yield Strength	49,000 min psi	51,000 min psi
0.2% offset	340 MPa	350 MPa
Elongation		
% in 2"	17% min.	20% min.
% in 5x diameter	14% min.	15% min.
Reduction of area	50% min.	50% min.

DEFORMED BAR

Stud diameter 1/2" or less will be approximately 1/8" shorter after weld; 5/8" or larger will be approximately 3/16" shorter after weld.

Please specify ferrule type if required when ordering.

MATERIAL: Low carbon steel ASTM A496/A1064

Mechanical Property Requirements	
	Type C
Tensile Strength	80,000 min. psi. 552 MPa
Yield Strength	
0.2% offset	N/A
0.5% offset	70,000 min psi 485 MPa

- **Type A studs are general purpose of any type and size used for purposes other than shear transfer in composite beam design and construction.**
- **Type B studs are headed, bent or of other configuration in 1/2"(12mm), 5/8"(16mm), 3/4"(20mm), 7/8"(22mm) and 1"(25mm) diameters that are used as an essential component in composite beam design and construction.**
- **Type C studs are cold-worked deformed steel bars manufactured in accordance with ASTM A496 specifications 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). Any bar supplied above that diameter must have the same physical characteristics regarding deformations as required by ASTM A496.**