

than double the area of a 1/2-in. diameter stud. Since stud shear

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Headed Stud Anchor Diameter for Composite Beams

What should be taken into account for selecting headed stud anchor diameter for composite steel beams? Are there any limitations on using 3/4-in.- or 1/2-in.-diameter studs welded through metal deck to create composite action?

There are some considerations in selecting headed stud anchor (stud) diameter and a few limitations that are independent of diameter.

Size selection: Per the AISC [Specification for Structural Steel Buildings](#) (a free download at www.aisc.org/specifications) Section I3.2c (1)(2), studs shall be 3/4-in. or less in diameter. Also, per Section I8.1, the diameter of the stud shall not be greater than 2.5 times the thickness of the beam flange unless the stud is welded directly over the beam web. Per Section A3.6, headed studs shall con-

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Tributary Length for Prying Action