

1617 - WELDED STUD SHEAR CONNECTORS

SECTION 1617

WELDED STUD SHEAR CONNECTORS

1617.1 DESCRIPTION

This specification governs welded stud shear connector intended for shear load resistance applications.

1617.2 REQUIREMENTS

a. General. Weld and test these studs in accordance with the procedures and AWS (ANSI/AASHTO) D1.5. The welding process is stud arc welding (SW), although other procedures in accordance with AWS D1.5 may be utilized when specified. The studs may be applied either at a fabrication facility or at the construction site. The design and dimensions of the studs are as specified in the Contract Documents.

b. Material Specifications. The flux requirements for studs applied by the SW process are governed by AWS D1.5. Use steel for the studs that complies with ASTM A 108, Grade Designation 1010 through 1020 (AISI/SAE), and AWS D1.5. The cold finished steel or the finished studs, at the stud manufacturer's option, must comply with the mechanical property requirements of AWS D1.5, Type B.

1617.3 TEST METHODS

Conduct all tests required by the applicable ASTM and AWS specifications of **subsection 1617.2**.

1617.4 PREQUALIFICATION

A manufacturer's studs, flux, and welding process are to be qualified as a system according to AWS D1.5. Submit this qualification test data to the Bureau Chief of Construction and Materials. The data will be reviewed and the manufacturer notified of the results. Those systems that comply with this specification will be included on a list of qualified systems maintained by the Bureau of Construction and Materials.

1617.5 BASIS OF ACCEPTANCE

Prequalification as required by **subsection 1617.4**.

Submit for approval a Type A certification (certified mill test report), as specified in **DIVISION 2600**.

The final disposition of the installed studs provided through this specification will be completed at the point of installation as the result of inspection and testing by KDOT personnel for the quality of workmanship, the delivery condition, proper installation, compliance with dimensional requirements.