

Stainless steel set screws

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It is not normal to use bolts (threaded for part of the shank) because they will not thread fully into a cast-in socket.

Setscrews are similar to bolts but are threaded for the full length of the shank. The relevant British Standard is BS EN ISO 3506-1: 1998 "Mechanical properties of corrosion-resistant stainless steel fasteners, Part 1. Bolts, screws and studs"

The designation of material consists of two blocks separated by a hyphen. The first block is a letter showing the type of steel (A = austenitic), and a digit showing the chemical composition. The second block is a value = 1/10th of the tensile strength.

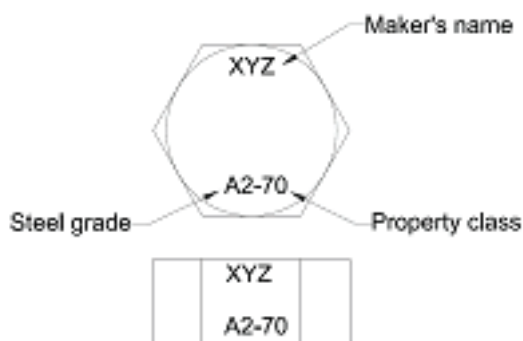
The two main classifications of stainlessness/strength are:

A2-70 indicates austenitic steel, cold worked minimum 700 N/mm² tensile strength

A4-80 indicates austenitic steel, high strength minimum 800 N/mm² tensile strength (but see below)

A2 is the general grade suitable for most precast work. It should not however be specified for use in areas with high chlorine content such as swimming pools or seawater. In these cases A4 should be specified.

Most designs call for a classification of A2-70, and this is the 'standard', with the higher grade being A4-70. Whilst A2-80 and A4-80 are theoretically possible, they would be 'special' and would not normally be specified.



Marking of setscrews should be on the head as shown.

Nominal length does not include the hexagonal head.

The normal thread is an ISO metric coarse thread.

When determining lengths of setscrews, a check should always be made that the embedment into a cast-in socket meets the minimum depth as below, after allowing for shims etc

Thread Diameter	12 mm	16 mm	20 mm	24 mm	30 mm
Min Embedment	14 mm	19 mm	24 mm	28 mm	35 mm