



DESIGNATOR	ANSI SIZE	D	M	S
FBX16b	$\frac{5}{8}$ -11 [M16x2]	$1\frac{10}{16}$ [16]	$4\frac{3}{64}$ [17.1]	$1\frac{1}{64}$ [27.0]
FBX20b	$\frac{3}{4}$ -10 [M20x2.5]	$1\frac{12}{16}$ [20]	$5\frac{2}{64}$ [20.7]	$1\frac{22}{64}$ [34.0]
FBX22b	$\frac{7}{8}$ -9 [M22x2.5]	$1\frac{14}{16}$ [22]	$6\frac{0}{64}$ [23.6]	$1\frac{27}{64}$ [36.0]
FBX24b	1-8 [M24x3]	$1\frac{15}{16}$ [24]	$6\frac{1}{64}$ [24.2]	$1\frac{39}{64}$ [41.0]
FBX27b	$1\frac{1}{8}$ -7 [M27x3]	$1\frac{1}{6}$ [27]	$1\frac{6}{64}$ [27.6]	$1\frac{52}{64}$ [46.0]
FBX30b	$1\frac{1}{4}$ -7 [M30x3.5]	$1\frac{3}{16}$ [30]	$1\frac{13}{64}$ [30.7]	$1\frac{62}{64}$ [50.0]
FBX36b	$1\frac{3}{8}$ -6 [M36x4]	$1\frac{6}{16}$ [36]	$1\frac{28}{64}$ [36.6]	$2\frac{23}{64}$ [60.0]



STRUCTURAL HEX BOLT & NUT

FBX16b-36b

SHEET NO.

DATE:

1 OF 2

2006

INTENDED USE

High-strength heavy hex structural bolts shall conform to the requirements of AASHTO M164M (ASTM A325M) and shall be manufactured according to the geometric specifications included in ANSI B18.2.3.7M. Threads shall conform to ANSI B1.13M for Class 6g. Material for zinc-coated bolts shall conform to AASHTO M164M (ASTM A325M) for Type 1 bolts (800 MPa tensile strength and 660 MPa yield strength) and shall bear the head identification marking "8S" and "A-325M." Material for corrosion resistant bolts shall conform to AASHTO M164M (ASTM A325M) Type 3 bolts and shall bear the head identification marks "8S3", "A 325M", and a symbol identifying the manufacturer.

Heavy hex nuts shall be manufactured according to AASHTO M291M (ASTM A563M) using the geometry of ANSI B18.2.4.6M. Threads shall conform to ANSI B1.13M for class 6H threads. Zinc-coated nuts shall conform to AASHTO M291M (ASTM A563M) for Class 10s nuts and shall bear the identification mark "10Sn, and the manufacturer's identification symbol. Corrosion resistant nuts shall comply to AASHTO M291M (ASTM A563M) for Class 8S3 nuts and shall bear the identification mark "8S3" and the manufacturer's identification symbol.

Zinc-coated bolts and nuts shall be treated according to either AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50, Type 1.

Designator	Stress Area of Threaded Bolt Shank (mm ²)	Minimum Bolt Strength (kN)
FBX16b	157.0	130.0
FBX20b	245.0	203.0
FBX22b	303.0	251.0
FBX24b	353.0	293.0
FBX27b	459.0	381.0
FBX30b	561.0	466.0
FBX36b	817.0	678.0

Dimensional tolerances not shown or implied are intended to be those consistent with the proper functioning of the part, including its appearance and accepted manufacturing practices.

INTENDED USE

These bolts and nuts are used in various sign systems.

HIGH-STRENGTH STRUCTURAL HEX BOLT & NUT

FBX16b-36b

SHEET NO.

DATE

2 of 2