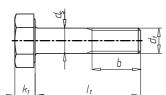


HEXAGONAL BOLT FOR HIGH-STRENGTH FITTINGS









Norms	EN 14399-4
Material	Steel
Property class	10.9
Surface	Hot-dip galvanised
k-class	K1
Head details	With large under head surface and large under head radius
Area of application	Steel construction
Suitable for	High-strength friction connections in steel structures
Regulated area	hEN 14399-1
Construction product	Yes
Declaration of performance (EU-CPR)	Yes
RoHS-compliant	Yes

Notice

The design of steel structures with high-tensile pre-stressed fittings is regulated in standards DIN EN 1090-2 and DIN EN 1993-1-8/NA. "Only use complete sets (screws, nuts and washers) from one manufacturer." (Extract from DIN EN 1993-1-8/NA:2010-12).

Storage and transport:

The screws, nuts and washers are supplied in a hot-dip galvanised design with nut lubricated under process conditions. The female thread of the nut is not hot-dip galvanised and is only protected from corrosion by the applied lubrication. Improper storage or transport conditions may cause corrosion of the female thread or a change in the condition of the factory-supplied lubrication, thus changing the relationship between tightening torque and pre-tension force.

DIN EN 14399-4 steel 10.9, hot-dip galvanised (TZN)

High-strength preloadable fittings for bolted connections in metal constructions

- HV system
- K-class K1
- Strength class 10.9
- Hot-dip galvanised steel

High-tensile prestressed bolts with large width across flats:

Large under-head surface

- Low surface pressure
- Low setting

Large under-head radius

- Low notching effect
- Better long-term vibration resistance

Defined friction properties

Enables planned preloading

Lot marking on the product

• No need to request acceptance test certificate 3.1. (see tab. 1 DIN EN 1090-2:2011-10)

CE mark

Controlled construction product

Thread type x nominal diameter (d ₁)	Length (I ₁)	Head height (k ₁)	External drive (s ₁)	Shaft diam- eter (d _s)	Thread length (metric thread) (b)	Pitch	Min./max. pack thickness	Min./max. grip length	Art. No.	P. Qty.
M12	30 mm	8 mm	WS22	12 mm	23 mm	1.75 mm	5-10 mm	11-16 mm	0079 412 30	1/100
M12	35 mm	8 mm	WS22	12 mm	23 mm	1.75 mm	10-15 mm	16-21 mm	0079 412 35	1/100
M12	40 mm	8 mm	WS22	12 mm	23 mm	1.75 mm	15-20 mm	21-26 mm	0079 412 40	1/100
M12	45 mm	8 mm	WS22	12 mm	23 mm	1.75 mm	20-25 mm	26-31 mm	0079 412 45	1/100
M12	50 mm	8 mm	WS22	12 mm	23 mm	1.75 mm	25-30 mm	31-36 mm	0079 412 50	1/100
M12	55 mm	8 mm	WS22	12 mm	23 mm	1.75 mm	30-35 mm	36-41 mm	0079 412 55	1/100
M12	60 mm	8 mm	WS22	12 mm	23 mm	1.75 mm	35-40 mm	41-46 mm	0079 412 60	1/100
M12	65 mm	8 mm	WS22	12 mm	23 mm	1.75 mm	40-45 mm	46-51 mm	0079 412 65	1/50
M12	70 mm	8 mm	WS22	12 mm	23 mm	1.75 mm	45-50 mm	51-56 mm	0079 412 70	1/50
M12	75 mm	8 mm	WS22	12 mm	23 mm	1.75 mm	50-55 mm	56-61 mm	0079 412 75	1/50
M12	80 mm	8 mm	WS22	12 mm	23 mm	1.75 mm	55-60 mm	61-66 mm	0079 412 80	1/50