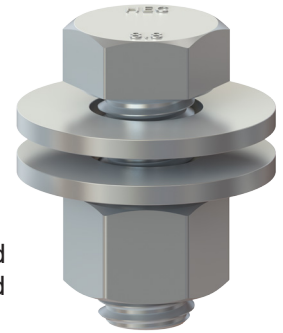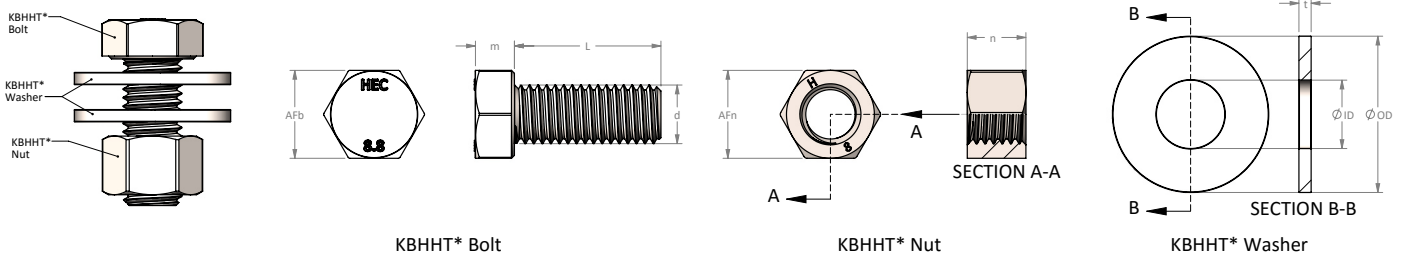**HOBSON**SPECS

Product Data Sheet
Hobson Hex 8.8 Purlin Bolt Assemblies

A Hobson Hex 8.8 purlin bolt assembly consists of a property class 8.8 bolt, a class 8 nut and two washers. They come in two types of coating, zinc plated (ZP) and hot dip galvanised (HDG).

In the absence of tightening torque information from specifying engineers or purlin suppliers, the indicative tightening torque shown below can be used as a guide to establish the suitable tightening torque.

KBHHT* Bolt

KBHHT* Nut

SECTION A-A

SECTION B-B

KBHHT* Washer

Part Number	Finish	Thread Size	Bolt			Nut		Washer			Indicative Tightening Torque[1]	Resulting Bolt Tension[2]
			Across Flats	Head Height	Bolt Length	Across Flats on Nut	Nut height	Outside Diameter	Inside Diameter	Washer Thickness		
			AF_b	m	L	AF_n	n	OD	ID	t	T	P
			(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(N-m)	(N)
KBHHTGCM120030	HDG	M12	18	7.5	30	18	12	32	14	2.0	73.0	24,450
KBHHTZCM120030	ZP	M12	18	7.5	30	18	12	32	14	2.0	64.0	24,450
KBHHTZCM160030	ZP	M16	24	10.0	30	24	16	34	18	2.5	160.0	45,500
KBHHTZCM160040	ZP	M16	24	10.0	40	24	16	34	18	2.5	160.0	45,500
KBHHTZCM160045	ZP	M16	24	10.0	45	24	16	34	18	2.5	160.0	45,500

Important Notes:

[1] Tightening torque T is calculated by using the basic formula, $T = P \cdot k \cdot D$, where P is the intended bolt tension assumed to be 50% percent of the bolt's proof load, k is the torque-friction factor and D is the thread diameter. The k value used for zinc plated and hot dip galvanised assemblies are 0.22 and 0.25 respectively. Note that the value of k can vary depending on thread conditions, thread/bearing surfaces lubrication and site conditions. All relevant bearing surfaces are assumed to be in full contact as shown in Fig. 1. The required bolt tension and torque should be validated/defined by the deciding engineer.

[2] Bolt tension is calculated at 50% percent of the bolt's proof load.

Installation Reminder:

Skewed bolt assembly orientation should be avoided. The base of the head and the base of the nut should be in full contact with the fastened component(s) as shown on Fig. 1.

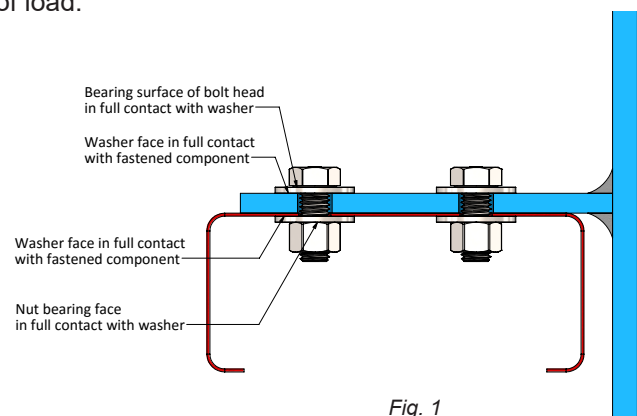Hole size and dimensions should be in accordance with AS4600 or as specified by the designing engineer.

Bearing surface of bolt head in full contact with washer

Washer face in full contact with fastened component

Washer face in full contact with fastened component

Nut bearing face in full contact with washer

Fig. 1