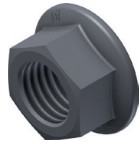


Fasteners

HDG ANTI VIBRATION

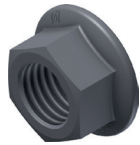
ØS HDG Anti
Vibration flange nuts



Type	Description	Finish	Spanner size (mm)	Recommended torque (Nm)	Maximum torque (Nm)	Comment
M6	Flange Nuts S-M NU-FL-M6	A4	10	8	10	A4 is used for M6
M10	Flange Nuts S-M NU-FL-M10	HDG	15	55	55	
M12	Flange Nuts S-M NU-FL-M12	HDG	18	95	95	

SS ANTI VIBRATION

ØS SS (A4) Anti
Vibration flange nuts



Type	Description	Finish	Spanner size (mm)	Recommended torque (Nm)	Maximum torque (Nm)	Comment
M6	Flange Nuts S-M NU-FL-M6	A4	10	8	10	
M8	Flange Nuts S-M NU-FL-M8	A4	13	20	23	
M10	Flange Nuts S-M NU-FL-M10	A4	15	40	45	
M12	Flange Nuts S-M NU-FL-M12	A4	18	80	85	

STANDARD

DIN 934 Standard nuts
ØS UNO Channel nuts



Type	Description	Finish	Spanner size (mm)	Max torque (Nm) DIN 934	Max torque (Nm) ØS UNO	Comment
M6	S-M NU-M6	A4/HDG	10	7	7	
M8	S-M NU-M8	A4/HDG	13	17	17	
M10	S-M NU-M10	A4/HDG	17	37	33	
M12	S-M NU-M12	A4/HDG	19	64	62	

WITH NYLON INSULATION

Nylon insulation for
galvanic barrier solutions



Type	Description	Material	Spanner size (mm)	Recommended torque (Nm)	Maximum torque (Nm)	Comment
M6	Insulation sleeve and washers	Nylon	-	6	7	Recommended torque for Nylon types in direct contact with A4 nut. See ØI-RD-PB-EN-0113
M8	Insulation sleeve and washers	Nylon	-	15	17	
M10	Insulation sleeve and washers	Nylon	-	30	33	
M12	Insulation sleeve and washers	Nylon	-	60	62	

NOTES FOR USE

Grade

The data shown is for Øglænd System bolt & nut fasteners only in A4-70 and Class 8.8 for SS/HDG respectively with corresponding material fastener parts where not specified.

Application & conditions

Our recommendation is based only on fastening Øglænd System products in corresponding material, without additional washers or additional lubricants.

Pre-tension

Bolted connections rely on the pre-tension or "stretch" of the bolt to maintain the clamping force between the parts when tightened. There are several factors which can reduce this pre-tension including but not limited to; embedment, thermal expansion and contraction, shock and vibration.

Anti Vibration

Øglænd System anti-vibration flange nuts prevent loosening from vibration when the clamping force is retained. Inspection and maintenance programs must be considered where other sources of loosening may be present, particularly when clamping non-metallic elements.

Fastening non-metallic materials

When fastening non-metallic materials such as composites or polymers with steel bolts, the hardness of the material being fastened may limit the pre-tension which can be achieved by tightening the bolt. Material creep and relaxation over time may also reduce the pre-tension further.

Depending on the material specification, it may be necessary to reduce the tightening torque from that shown in the table above to prevent damage to the base material. An additional level of protection to prevent loosening must also therefore be considered depending on the application together with consideration of a maintenance and inspection program.

Fasteners

M6 FRP BOLT

For use with FRP Cable Trays
(only with M6-FRP nut - not for use with metallic nuts)



Article no.	Description	Type	Material	Recommended torque (Nm)
75249	Hex Bolt S-M HE-E-M6 x 25	M6	FRP	2

M10 FRP BOLT

For use with FRP Cable Ladders



Article no.	Description	Type	Material	Recommended torque (Nm)
75253	Hex Bolt S-M HE-E-M10 x 40	M10	FRP	6

FRP STUD BOLT

For use with FRP Supports
(Note: SS bolts are recommended for use with FRP support as Best Practice)



Article no.	Description	Type	Material	Recommended torque (Nm)
71487	S-M HE-M10 x 30	M10	FRP	12
72374	S-M HE-M10 x 40	M10	FRP	12
71488	S-M HE-M10 x 50	M10	FRP	12
71489	S-M HE-M10 x 80	M10	FRP	12

FRP NUT

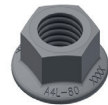
For use with FRP fasteners



Article no.	Description	Type	Material	Recommended torque (Nm)
73917	Flange Nut S-M NU-FL-E-M6	M6	FRP	2
71319	Flange Nut S-M NU-FL-E-M10	M10	FRP	12

ØS A4 NUT

Stiff* connections only with A4 bolts.



Article no.	Description	Type	Material	Recommended torque (Nm)
1371971	LN-AV-FL-M6 A4	M6	A4	10
1371973	LN-AV-FL-M10 A4	M10	A4	40

FRP UNO CHANNEL NUT

For use with FRP fasteners



Article no.	Description	Type	Material	Recommended torque (Nm)
71551	UNO-F NU-M10	M10	FRP	6
72026	UNO-F NU-M10 (with spring)	M10	FRP	6

FRP CH100S CHANNEL NUT

For use CH100S Channel
(must be lightly oiled during installation)



Article no.	Description	Type	Material	Recommended torque (Nm)
73913	NU-SL-M10-45 FRP	M10	FRP	12

Application

Our recommendation is based only on fastening Øglænd System products in corresponding material, without additional washers or additional lubricants unless otherwise specified.

Pre-tension

Bolted connections rely on the pre-tension or "stretch" of the bolt to maintain the clamping force between the parts when tightened. There are several factors which can reduce this pre-tension including but not limited to; embedment, thermal expansion and contraction, shock and vibration.

Conditions

The recommendations above are maximum values. Damage can occur with over tightening. Only manually operated hand tools are suitable for fastening FRP fasteners.

Combinations of examples above must use recommended torque for the part with the least tightening torque to avoid damaging the fastener.

*Connections where full / stiff contact is established, for example FRP to FRP support, FRP > Steel etc. Applications where non-stiff items, or where gaps shall be closed by the fastening tension may require less tightening to prevent damage.