

## HDG ANTI VIBRATION

ØS HDG Anti  
Vibration flange nuts



Type	Description	Finish	Spanner size (mm)	Recommended torque (Nm)	Comment
M6	Flange Nuts S-M NU-FL-M6	A4L	10	8	A4L is used for M6
M10	Flange Nuts S-M NU-FL-M10	HDG	15	55	
M12	Flange Nuts S-M NU-FL-M12	HDG	18	95	

## SS ANTI VIBRATION

ØS SS (A4L) Anti  
Vibration flange nuts



Type	Description	Finish	Spanner size (mm)	Recommended torque (Nm)	Comment
M6	Flange Nuts S-M NU-FL-M6	A4L	10	8	
M8	Flange Nuts S-M NU-FL-M8	A4L	13	20	
M10	Flange Nuts S-M NU-FL-M10	A4L	15	40	Hilti AT compatible **
M12	Flange Nuts S-M NU-FL-M12	A4L	18	80	

\*\*Hilti AT compatible - see user guide ØI-RD-UG-EN-0431 for compatibility, applications, conditions and tools

## STANDARD HEX

ISO 4032 SS nuts  
DIN 934 HDG nuts  
ØS UNO Channel nuts  
(metallic)



Type	Description	Finish	Spanner size (mm)	Recommended torque (Nm)	Recommended torque (Nm) ØS UNO
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	16/17	37	33
M12	S-M NU-M12	A4/HDG	18/19	64	62

## NYLON+GF INSULATION

Nylon+GF insulation for  
galvanic barrier solutions



Type	Description	Material	Recommended torque (Nm)	Comment
M6	Insulation sleeve and washers	Nylon+GF	6	Recommended torque for Nylon +glass fill types in direct contact with A4 nut. See ØI-RD-PB-EN-0113
M8	Insulation sleeve and washers	Nylon+GF	15	
M10	Insulation sleeve and washers	Nylon+GF	30	
M12	Insulation sleeve and washers	Nylon+GF	60	

## NOTES FOR USE

### Grade

The data shown is for Øglænd System bolt & nut fasteners only in A4-70, A4-80 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. The recommendations are for stiff /full contact connections.

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.

### 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. [See FRP specific recommendations on page 2.](#)

## 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

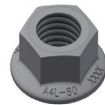
For use with FRP fasteners



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 FRP>FRP and FRP>Steel connections only with corresponding A4L bolts.



Article no.	Description	Type	Material	Recommended torque (Nm)
1371971	LN-AV-FL-M6 A4	M6	A4L	8
1371973	LN-AV-FL-M10 A4	M10	A4L	25

## STANDARD HEX

ISO 4032 SS nuts for use in FRP multi-purpose bracket adapters.



Article no.	Description	Type	Material	Recommended torque (Nm)
1371341	S-M NU-M10	M10	A4	25

## 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

### Application

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

### Conditions

The recommendations above are recommended 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.

All recommendations refer to 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.

When fastening adapters / accessories, the nut or bolt head shouldered on the channel should be rotated to be tightened, and the nut or bolt head shouldered on the accessory part held still.