SÜTHER & SCHÖN GMBH

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User information for eye nuts acc. DIN 582:2018-04

Before usage, eye nuts have to be checked for accurate assembling and visible damaging (e.g. corrosion, deformation).

Eye nuts with deformations may not be used and screwed again.

Subsequent color coding of eye nuts (especially in red) should be avoided in order to avoid confusion with high-strength anchors.

Eye nuts acc. to DIN 582 can be used without loss of viability in a temperature range from -20°C to +200°C.

With the use of screws care must be taken to a sufficiently large bolt head bearing surface.

In the tensile test in accordance with DIN EN ISO 898-2, the minimum breaking forces per eye bolt specified in Table 1 apply to ring nuts made of steel and stainless steel. They must not be added for multi-leg load bearing applications.*

table 1: Minimum breaking forces

Mindestbruchkräfte in Kilonewton

Gewinde, D_1	M6	M8	M10	M12	M14	M16	M18	M20	M22
Mindestbruchkraft im Axialzug	4,4	8,2	13,5	20,0	28,8	41,2	50,0	70,6	82,4
Mindestbruchkraft im Querzug 90°	2,2	4,1	6,8	10,0	14,4	20,6	25,0	35,3	41,2

Gewinde, D_1	M24	M27	M30	M33	M36	M39	M42	M45	M48
Mindestbruchkraft im Axialzug	106	124	189	189	271	271	371	371	507
Mindestbruchkraft im Querzug 90°	53,0	61,8	94,2	94,2	136	136	186	186	254

Gewinde, D_1	M52	M56	M60	M64	M72 × 6	M80 × 6	M100 × 6
Mindestbruchkraft im Axialzug	507	677	677	942	1 177	1 648	2 354
Mindestbruchkraft im Querzug 90°	254	339	339	471	589	824	1 177

In relation to the minimum breaking load in table 1, ring nuts have the load capacity per ring nut as shown in Table 2. They must not be added together for multi-leg load bearing applications.*

The load carrying capacity data in the following table only apply if:
a) the ring nut is completely screwed on.
b) the ring nut fits flat and over the entire surface of the bearing surface.
c) the length of the counter thread is sufficient.
d) the strength of the element with the counter thread (screw) is sufficient.

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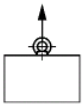
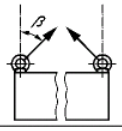
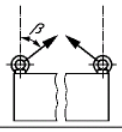
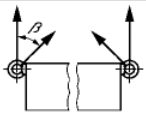
table 2: maximum capacity load

Tragfähigkeiten in Kilogramm

Gewinde, D_1		M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27
Tragfähigkeit axial (*WLL*) je Ringschraube		75	140	230	340	490	700	850	1 200	1 400	1 800	2 100
Tragfähigkeit je Ringschraube $0° < \beta \leq 45°$		55	100	170	240	350	500	600	860	1 000	1 290	1 500
Tragfähigkeit je Ringschraube $\beta > 45°$ bis $60°$		38	70	115	170	245	350	425	600	700	900	1 050
Tragfähigkeit seitlich eingeschraubt je Ringschraube $0° \leq \beta \leq 45°$												

Tragfähigkeiten in Kilogramm

Gewinde, D_1	M30	M33	M36	M39	M42	M45	M48	M52	M56	M60	M64	M72 × 6	M80 × 6	M100 × 6
Tragfähigkeit axial (*WLL*) je Ringschraube	3 200	3 200	4 600	4 600	6 300	6 300	8 600	8 600	11 500	11 500	16 000	20 000	28 000	40 000
Tragfähigkeit je Ringschraube $0° < \beta \leq 45°$	2 300	2 300	3 300	3 300	4 500	4 500	6 100	6 100	8 200	8 200	11 000	14 000	20 000	29 000
Tragfähigkeit je Ringschraube $\beta > 45°$ bis $60°$	1 600	1 600	2 300	2 300	3 150	3 150	4 300	4 300	5 750	5 750	8 000	10 000	14 000	20 000
Tragfähigkeit seitlich eingeschraubt je Ringschraube $0° \leq \beta \leq 45°$														

The load carrying capacity indicated in the second line of table 2 applies up to a tilt angle of max. 45°, the load carrying capacity indicated in the third line applies up to a tilt angle of max. 45° in all directions in relation to the ring plane in the case of laterally screwed-in ring nuts.

Any lateral loading of eye nuts should be avoided (see figure 1).

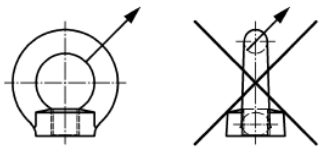


figure 1: Illustration of lateral loading (to be avoided)

If a specific position in relation to an axis, edge or the like is prescribed for screwed-on ring nuts, suitable washers must be used, if necessary, to prevent unacceptable loads.

*** For such applications the corresponding rules, e.g. according to DIN EN 818-4, must be observed.**