ITH®

Round Nuts
RMS/RMZ

INNOVATIVE BOLTING TECHNOLOGY

Round Nuts RMS/RMZ

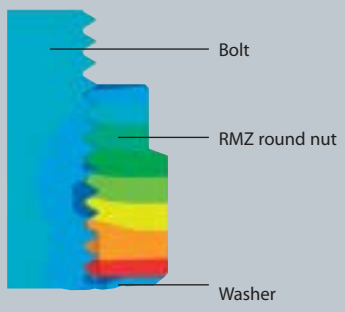
The certified **ITH** round nuts are used in combination with the **ITH** stretch method. The round nuts are used to replace standard hexagon nuts to ISO 4032, DIN 934 and DIN 6915. The **ITH** round nuts are produced in a hexagon version (type RMS), a two-flat version (type RMZ) and to customer specification. The high degree of reproducibility in the pre-tensioning force is achieved by special geometric factors. Scientific studies have shown that when **ITH** round nuts are used, the pre-tensioning force in bolts is 40% higher than with DIN hexagon nuts. The life span of the bolt is increased by the use of **ITH** round nuts because the notch stresses on the first load-bearing thread of the bolt are substantially lower than when standard hexagon nuts are used. With **ITH** round nuts RMS / RMZ, it is possible to reduce the tensioning factor of the tool (α factor to 2230 VDI). **ITH** round nuts reduce costs, because fewer of them are required in comparison to standard hexagon nuts and the plant has a higher degree of process reliability. **ITH** round nuts can be supplied with special coatings (zinc lamination, galvanized, Dakromet).

The round nuts have the following outstanding advantages:

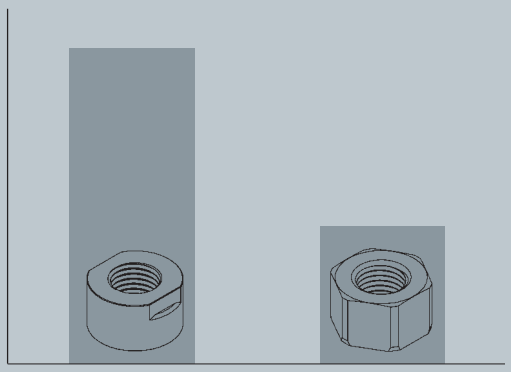
- Reduced costs through lower number
- Higher plant reliability
- Lower surface pressure on the contact flange
- Lower surface pressure on the bolt
- High reproducibility in combination with the ITH stretch method
- Possible reduction of the tensioning factor α_A
- Design certified by German Lloyds.

Germanischer Lloyd

Stress-optimised design of ITH round nuts



Pre-tension force, nut



Pre-tension force, **ITH** round nut

Pre-tension force, DIN hexagon nut

Definition of article number for RMS and RMZ nuts

40 .X0XXX - MXX / XXXX

Definition of article number for RMS and RMZ nuts
Type: 0 = standard; 1 = HV type
Height: 1 = standard; 2 = lower height Design of flats: 23 = RMZ two-flat type; 24 = RMS hexagon type.
Thread size, metric / inch
Special material

Thread „M“	Type designation		Thread „M“	Type designation	
	RMZ	RMS		RMZ	RMS
M 24	RMZ 24-10	RMS 24-10	M 48	RMZ 48-10	RMS 48-10
M 27	RMZ 27-10	RMS 27-10	M 52	RMZ 52-10	RMS 52-10
M 30	RMZ 30-10	RMS 30-10	M 56	RMZ 56-10	RMS 56-10
M 33	RMZ 33-10	RMS 33-10	M 60	RMZ 60-10	RMS 60-10
M 36	RMZ 36-10	RMS 36-10	M 64	RMZ 64-10	RMS 64-10
M 39	RMZ 39-10	RMS 39-10	M 72	RMZ 72-10	RMS 72-10
M 42	RMZ 42-10	RMS 42-10	M 80	RMZ 80-10	RMS 80-10
M 45	RMZ 45-10	RMS 45-10	M 100	RMZ 100-10	RMS 100-10