Flex Nut

(Reactive Side Solutions)

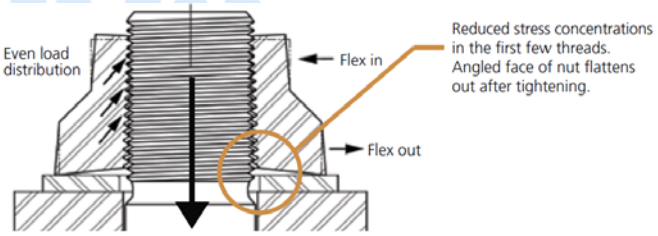
❖ Flexnuts for through hole applications

Flexnuts are used in combination with NMTG's Tensioner Nuts and are designed to flex out at the bottom and flex in toward the top of the nut. This distributes the bolt load along many threads, adds elasticity, and prevents stress concentrations in the first few threads.

For through hole applications we have developed the flexnut, which is a reactive nut that is able to flex elastically. Putting a Flexnut gives the same advantages as the tensioner nut on the reactive side. Under load they flex at the bottom and at the top. This helps relieve stress concentrations and increases the fatigue life of the bolt. Since flexnuts are reactive nuts to be used opposite our tensioners, they are never torqued directly to achieve preload.

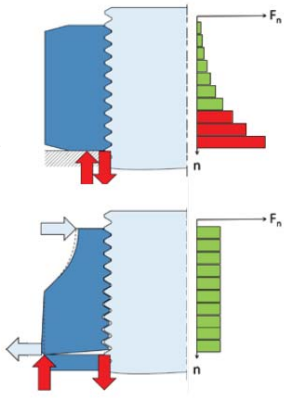
❖ Advantages with NMTG Flexnuts:

- Under load they ensure an equal load distribution on the thread of the bolt/stud.
- Adds elasticity in the joint.
- Increases the fatigue life of the bolt/stud.
- NMTG Flexnut meet all requirements of ISO 898-2. They therefore have the same strength as conventional hex nuts and can replace them 1:1.
- **Reusable:** Flexnuts are entirely reusable. The bolted joint will not be damaged during tightening and loosening.
- **Compatible:** Flexnuts meet all requirements of ISO 898-2. They can replace any conventional nut with the same strength class as long as they are only reactively loaded and are not used for active tensioning.
- **Durable:** The more elastic a bolt is in relation to the clamped parts, the less stress it will be subjected to. Due to their flexing, Reaction Nuts reduce the load on the bolt and thus increase the durability of the bolted joint



- **Secure:** Also the more elastic a bolted joint is, the less susceptible it is to untightening and self-loosening. The additional elasticity stored in the Flexnuts counteracts preload losses due to settling or creeping. This ensures that the bolted joint remains securely tightened.

The NMTG Flexnut offers decisive advantages over other products:



❖ Hex Nuts

Conventional hex nuts are very rigid and have little elasticity.

Problem: In the thread the preload acts in tension, while an equally high compressive force is generated on the contact surface of the hex nut. As a result, the preload force is very strongly deflected in the first load-bearing threads and leads to an uneven load distribution. This is why bolts often break here.

Advantage of the NMTG Flexnut: The NMTG Flexnut creates an almost even load distribution in the thread. The service life of the bolts is significantly increased!