Stop Nuts

Modern day controls, limit switches, and encoders… are highly sophisticated. However, those controls are not always fool proof – particularly during prototype system development stages. In such cases, Duff-Norton highly recommends the use of stop nuts. **In either horizontal or vertical applications where a positive mechanical stop may be desired; the Duff-Norton stop nut is up to the task and will prevent the system from over running its limits. Stop nuts should only be used as a last resort as jamming the acme or ball nut can damage the entire system.**

Acme stop nuts are machined with female acme threads. Ball stop nuts are machined to a ball thread form designed to mate with the ball screws' threads. Both Acme and Ball stop nuts are also drilled and tapped for an appropriately sized half dog set-screw. Typical stop nut installation on an Acme or Ball Screw involves lightly drilling into the screws' surface to pilot the half dog set-screw during stop nut installation.

Stop nuts are available for most screw diameters and leads. Contact our customer service group for more information as to how to include stop nuts in your application.

Acme stop nuts are machined with female acme threads.

Ball stop nuts are machined to a ball thread form designed to mate with the ball screws' threads.

Safety Nuts

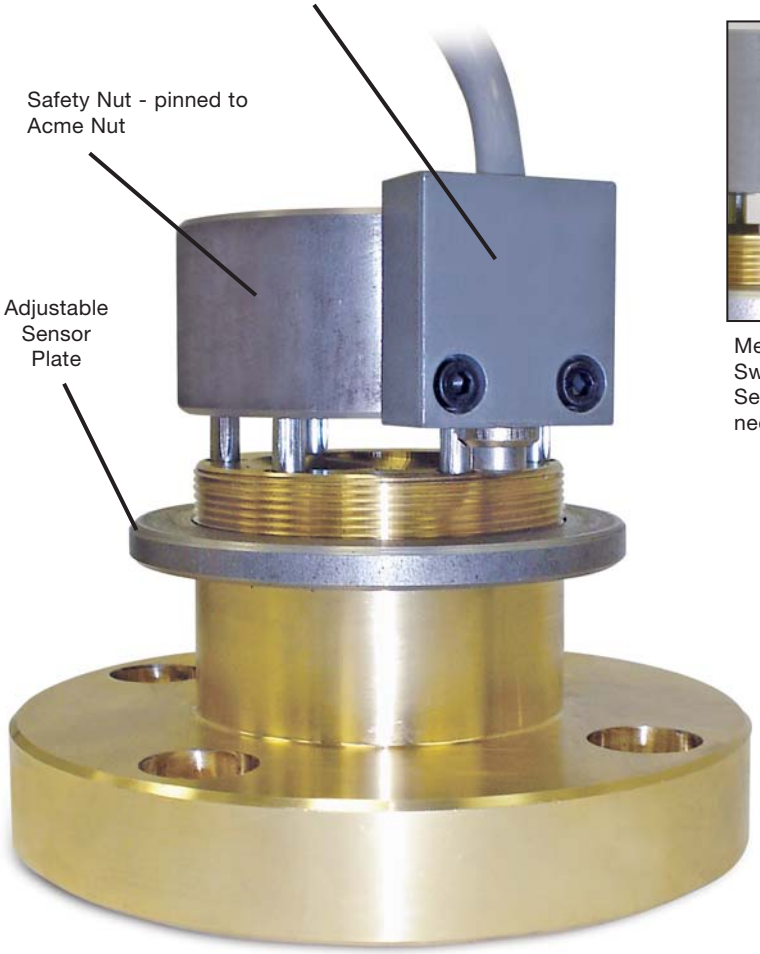
The Duff-Norton safety nut is highly recommended for vertical applications where the load must be maintained. The safety nut is pinned to the acme or ball nut and can be supplied with either a mounted proximity switch or mechanical switch.

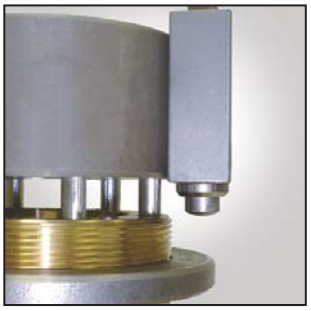
Proximity Safety Nuts - The desired distance between the safety nut and acme or ball nut is established during installation. When the acme nut threads or ball nut bearing balls begin to wear, the distance between the acme and/or ball nut and the safety nut changes and the proximity switch sends a warning signal to the system controls.

Mechanical Safety Nuts – This system uses a mechanical switch mounted to the safety nut. The system is installed with the mechanical switch in a compressed or un-compressed state. When the acme or ball nut begins to wear the distance between the safety and acme or ball nut increases and the mechanical switch compresses or decompresses which sends a warning signal to the system controls.

Safety nuts are available for most screw sizes. Safety Nut installation can be to either end of the acme nut, and to the flange end of a ball nut.

Safety Nut threads are machined to a slightly larger tolerance than are the acme or ball nut threads. This larger tolerance allows the acme or ball nut to rotate freely around its respective screw with the safety nut still performing its function.





Mechanical or Proximity Switches can be used. Sensor plate may not be needed in some designs.

Acme or Ball systems are available for many applications.

Safety nut can be machined to accomodate a customer supplied switch.