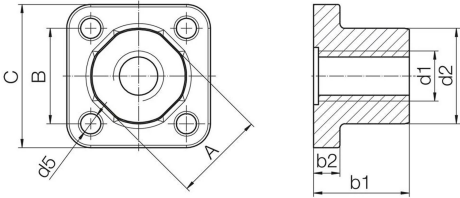


dryspin® injection-moulded flange lead screw nuts,
thread cut, DST-E7FLM

DST-E7FLM-C-01-DS10X2



dryspin® injection-moulded flange lead screw
nuts, thread cut, DST-E7FLM

- Longer service life
- Vibration-dampening
- Quiet operation
- For high speeds at low loads

Product description

Introducing the dryspin injection-moulded flange lead screw nut, DST-E7FLM, crafted from iglidur A180, a high-performance polymer that is FDA-compliant for food and pharmaceutical applications. This nut offers a maintenance-free operation, is durable in challenging environments, and withstands temperatures up to +90°C. With its quiet and vibration-free travel, it's perfect for low to medium load applications. Experience reliability and efficiency with this innovative solution designed for your needs.

Requirements

Mould-resistant according to DIN EN ISO 846 Procedure A	No
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General properties

Thread direction	Left-hand thread
Thread type	High helix thread dryspin; highest efficiency
With spanner flat	No
Weight	5.114 g

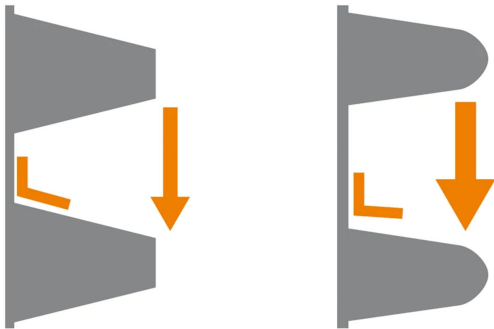


Dimensions

Thread size	DS10X2
Ø d1	10 mm
Ø d2	20 mm
Ø d5	4.2 mm
A	19 mm
B	20 mm
C	30 mm
b1	20 mm
b2	5.5 mm



Additional information and diagrams

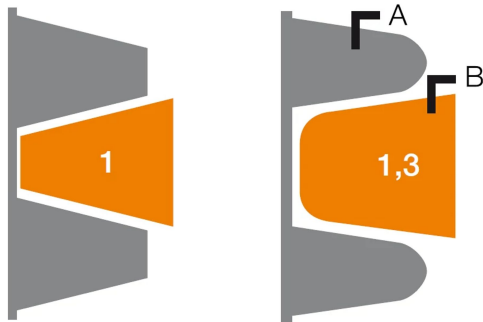


Higher efficiency due to optimised thread angle

Due to a flatter thread angle in dryspin® high helix lead screws (similar to a trapezoidal thread), the applied force is efficiently converted into a translational motion. Compared with a steeper thread angle, this means a lower power loss.

Left: Steep flank angle, standard geometry

Right: Flat flank angle, dryspin® geometry



Extended service life due to asymmetry

Due to the larger distances between the individual dryspin® thread turns, the thread ideally matches the properties of the lubrication-free igus® high-performance polymers. The proportion of the tribologically optimised polymer in the thread turns can be extended by a factor of 1.3 for all sizes. More wear-resistant material and higher levels of efficiency are crucial for a service life that is up to 5 times longer compared to standard geometries. The larger the lead screw diameter, the stronger the impact of this effect. Backlash can be minimised life-long by the use of dryspin® zero-backlash threaded nuts with integrated spring pretension.

Left: Symmetrical standard geometry

Right: Asymmetrical dryspin® geometry



Wear test high helix thread

Wear-resistant high helix thread 10x50, dryspin® high helix thread / standard high helix thread, load 36 N, 100 rpm for 50,000/150,000/200,000 cycles

drylin® lead screw nuts are made from tribologically optimised materials. Starting in the development phase, the focus is on optimising the friction properties of the drylin® lead screw units, with the objective of attaining the lowest possible wear rates and good friction values.

A Blue: Standard high helix thread/POM plastic nuts

B Green: Standard high helix thread/lead screw nut igus®

C Yellow: dryspin® high helix thread/lead screw nut igus®

y = wear rate [μm/km stroke]