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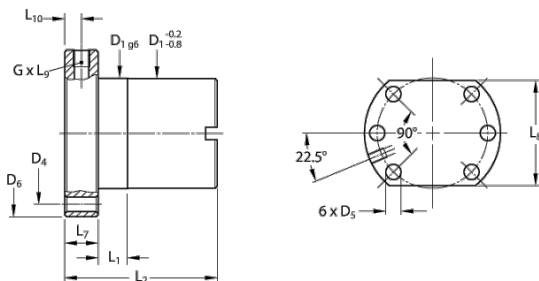


Kugelgewindemutter

Kugelgewindemutter, 25 mm X 10 mm, Gewinderichtung: rechtsgängig, Mit Flansch, Inklusive Abstreifer, Rund, Ohne Sicherungsfunktion, Kanal, 13200 N

- Nur Mutter
- Qualitätsgeprüft für zuverlässige Leistung
- Verlässliche Präzision und Wiederholgenauigkeit zu einem günstigen Preis

Abmessungen



Maß	Wert
D1	40.00 mm (1.575 in)
D4	51.00 mm (2.008 in)
D5	7.00 mm (0.276 in)
D6	62.00 mm (2.441 in)
L1	16.00 mm (0.630 in)
L2	55.00 mm (2.165 in)
L7	10.00 mm (0.394 in)
L8	48.00 mm (1.890 in)
L9	10.00 mm (0.394 in)
L10	5.00 mm (0.197 in)

Technische Daten

Technische Daten	Wert
Durchmesser	25 mm
Steigung	10,0 mm
Mutterwerkstoff	Stahllegierung
Mutter-Ausführung	KGF

Technische Daten	Wert
Abstreifer	Included
Flansch	Integral
Spindel-Teilenummer	0205000273-RL6000
Anzahl Gänge	2
Gesamtgewicht	0,500 kg

Leistung

Permissible Rotational Speed

The permissible rotational speed depends on two factors: screw critical speed and nut critical speed.

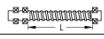
Screw Critical Speed

The screw critical speed is related to the natural frequency of the screw shaft. Exceeding this value may result in excessive vibration.

$$\text{Critical Speed (rpm)} = C_s \times 1.2 \times 10^4 \times \frac{d_r}{L^2}$$

d_r = Root Diameter (mm)
 L = Length between Bearing Supports (mm)
 C_s = End Fixity Factor (see below)

$$\text{Safe Drive Speed (rpm)} = 0.8 \times \text{Critical Speed}$$

End Fixity Factor - Critical Screw Speed		
	End Supports	C_s
A	 One end fixed, one end free	0.36
B	 Both ends supported	1.00
C	 One end fixed, one end supported	1.47
D	 Both ends fixed	2.23

Nut Critical Speed

The critical nut speed is related to the velocity of the ball bearings rotating around the screw shaft. Exceeding this value may result in permanent damage to the ball recirculation components. Thomson recommends a maximum DN value of 140 000 for standard internal transfer designs, which applies to the majority of the Metric products. Higher values may be accommodated by special design (consult with application engineering).

$$\text{DN (140 000 Maximum)} = d_0 \times n$$

d_0 = nominal shaft diameter (mm)
 n = rotational speed of shaft (rpm)

Ball Screw Life

The ball screw assembly's useful life will vary according to load and speed. Life is typically rated at 90% confidence, L10 (which represents time at which 90% of assemblies still perform).

$$\text{life in revolutions } L_{10} = \left[\frac{\text{Dynamic Load rating [N]}}{\text{Equivalent operating load [N]}} \right]^3 \cdot 10^6 \text{ (revolutions)}$$

Rated load/service life calculation based on DIN 69 051/4

Torque

$$\text{Driving torque (Nm)} = \frac{F_{eq} \times P}{2\pi\epsilon} = 1.77 \times 10^{-4} \times F_{eq} \times P$$

F_{eq} = Equivalent Operating Load (N)
 P = Lead (mm)
 ϵ = Efficiency = 0.90

$$\text{Backdrive torque (Nm)} = \frac{F_{eq} \times P \times \epsilon}{2\pi} = 1.43 \times 10^{-4} \times F_{eq} \times P$$

