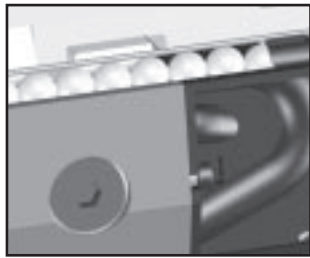


New: WIESEL™ VARIOLine™

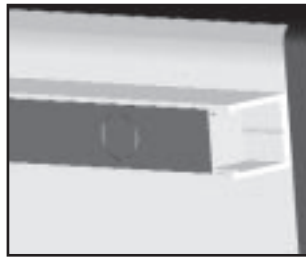
Here's how to get to grips with things

The new WIESEL™ VARIOLine™ really makes your decision for a handling unit with increased lateral forces easy. Precision Technology USA, Inc. has already integrated many functions perfectly in this ready-to-install solution. Ideal for changing workpieces, gripping or inserting – for all of these uses, the high screw leads now make it possible to combine high speed and high precision. This not only saves you in-house design effort, it also saves valuable space. So if you are looking for a particularly efficient way of feeding workpieces into a workspace, here is your chance.



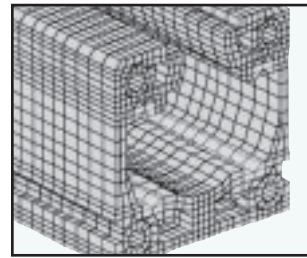
Integrated guidance system

The integrated Precision Technology USA, Inc. linear ball bearing guidance system in the tubular section and the robust ball sleeve on the piston rod absorb high forces and moments.



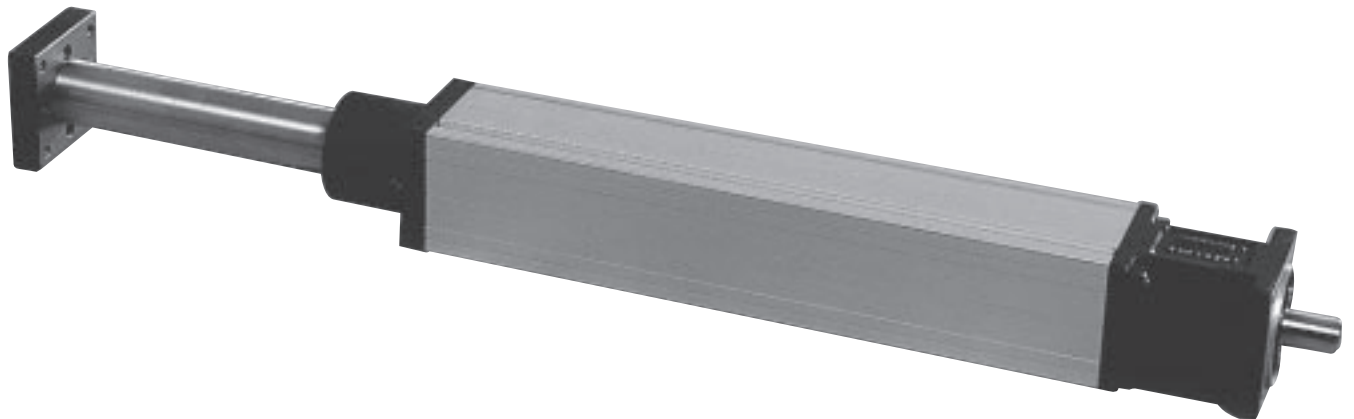
Integrated design

Adjustable limit switches are already installed.



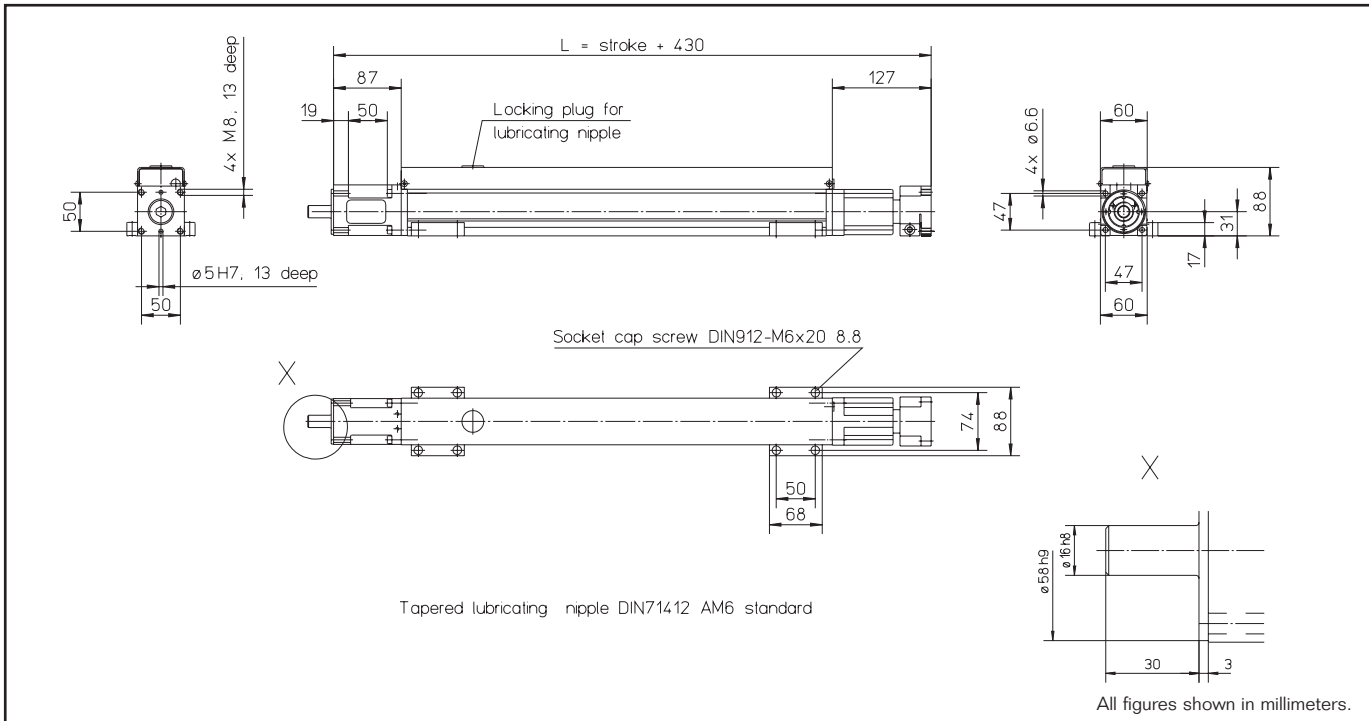
FEM optimized design

Maximum power density through FEM optimized design.



WIESEL™ VARIOLine™ WZ60

with ball screw drive and integrated linear ball bearing drive



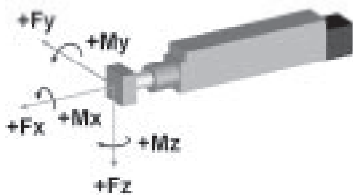
Technical data

- Linear speed:max. 1.5 m/s
- Repeatability: ± 0.02 mm
- Acceleration:max. 20 m/s^2
- Rotational speed:3000 rpm
- Drive element:ball screw with backlash free single nut
- Diameter:20 mm
- Lead:5, 20, 50 mm
- Stroke length:max 400 mm
- Geometrical moment of inertia:ly $5.8 \times 10^5 \text{ mm}^4$
lz $5.9 \times 10^5 \text{ mm}^4$

Weights

- Basic unit with zero stroke:4.5 kg
- 100 mm stroke:0.77 kg
- Mass to be moved without stroke:1.8 kg
- Mass to be moved per 100 mm stroke:0.26 kg
- Provided:4 pieces KAO mounting brackets

Loads and load moments



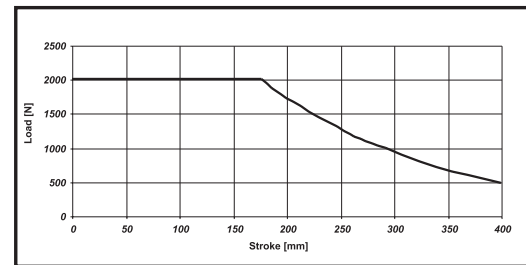
Load	dynam. [N]
Fx drive	2800
Fy	see diagram
$\pm Fz$	see diagram
Load moment	dynam. [Nm]
Mx	50

Unit conversions

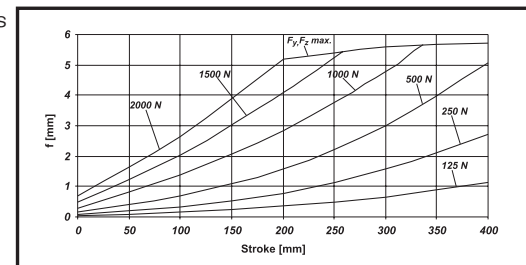
Length:	1 m=1000 mm=39.37 inches 1 inch=25.4 mm
Force:	1 N=0.225 lbf 1 lbf=4.45 N
Moment of Force:	1 Nm=0.738 lb · ft=8.85 lb · inches 1 lb · ft=1.36 Nm

Idle torques [Nm]

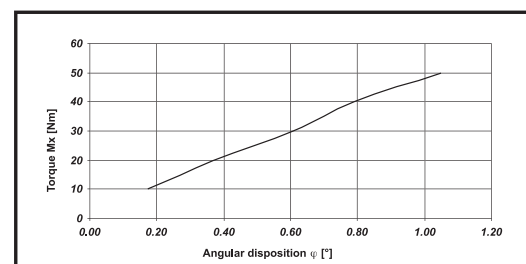
Rotational speed [rpm]	Lead P [mm]		
	5	20	50
150	0.5	0.9	1.2
1500	0.9	1.4	1.8
3000	1.3	1.6	2.0



Max side load Fy, Fz



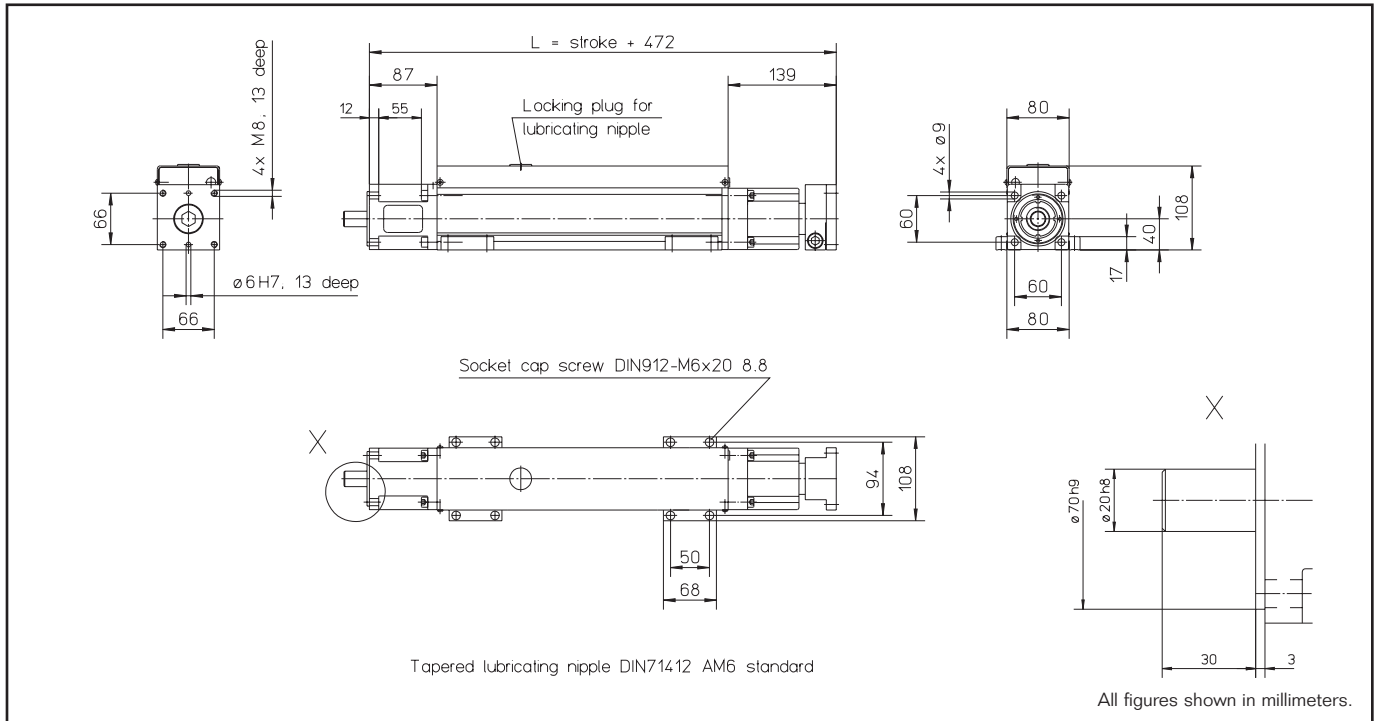
Deflection due to Fy, Fz



Torsion

WIESEL™ VARIOLine™ WZ80

with ball screw drive and integrated linear ball bearing drive



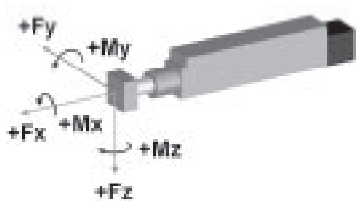
Technical data

- Linear speed:max. 1.5 m/s
- Repeatability:± 0.02 mm
- Acceleration:max. 20 m/s²
- Rotational speed:3000 rpm
- Drive element:ball screw with backlash free single nut
- Diameter:25 mm
- Lead:5, 10, 20, 50 mm
- Stroke length:max 500 mm
- Geometrical moment of inertia:ly 1.9 x 10⁶ mm⁴
lz 1.9 x 10⁶ mm⁴

Weights

- Basic unit with zero stroke:7.5 kg
- 100 mm stroke:1.35 kg
- Mass to be moved without stroke:3.0 kg
- Mass to be moved per 100 mm stroke:0.5 kg
- Provided:4 pieces KAO mounting brackets

Loads and load moments



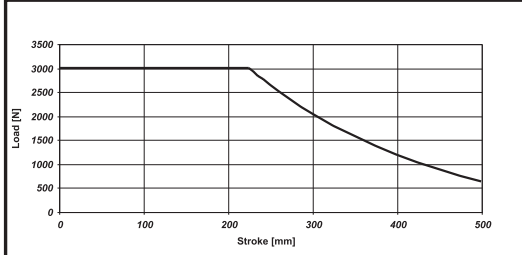
Load	dynam. [N]
Fx drive	3500
Fy	see diagram
±Fz	see diagram
Load moment	dynam. [Nm]
Mx	150

Unit conversions

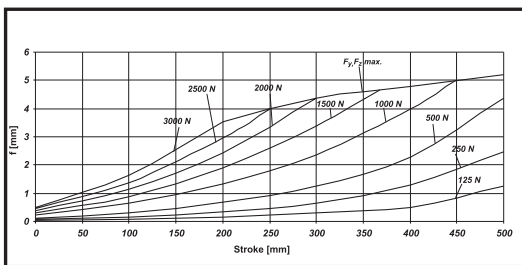
Geometrical moment of inertia:	1 m ⁴ =10 ¹² mm ⁴ =2.4025 x 10 ⁸ in ⁴
Mass moment of inertia:	1 kg · m ² =10 ⁴ kg · cm ² =0.738 lb · ft · s ²
Mass:	1 kg=2.2 lb

Idle torques [INm]

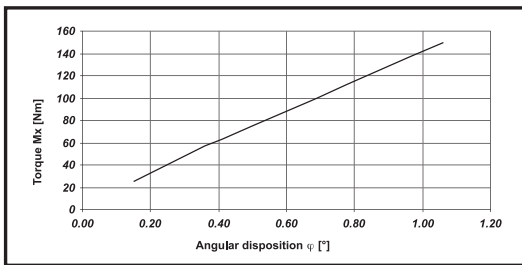
Rotational speed [rpm]	Lead P [mm]			
	5	10	20	50
150	0.6	1.1	1.3	1.8
1500	1.1	1.5	1.6	2.2
3000	1.4	1.8	1.8	2.7



Max side load Fy, Fz



Deflection due to Fy, Fz



Torsion