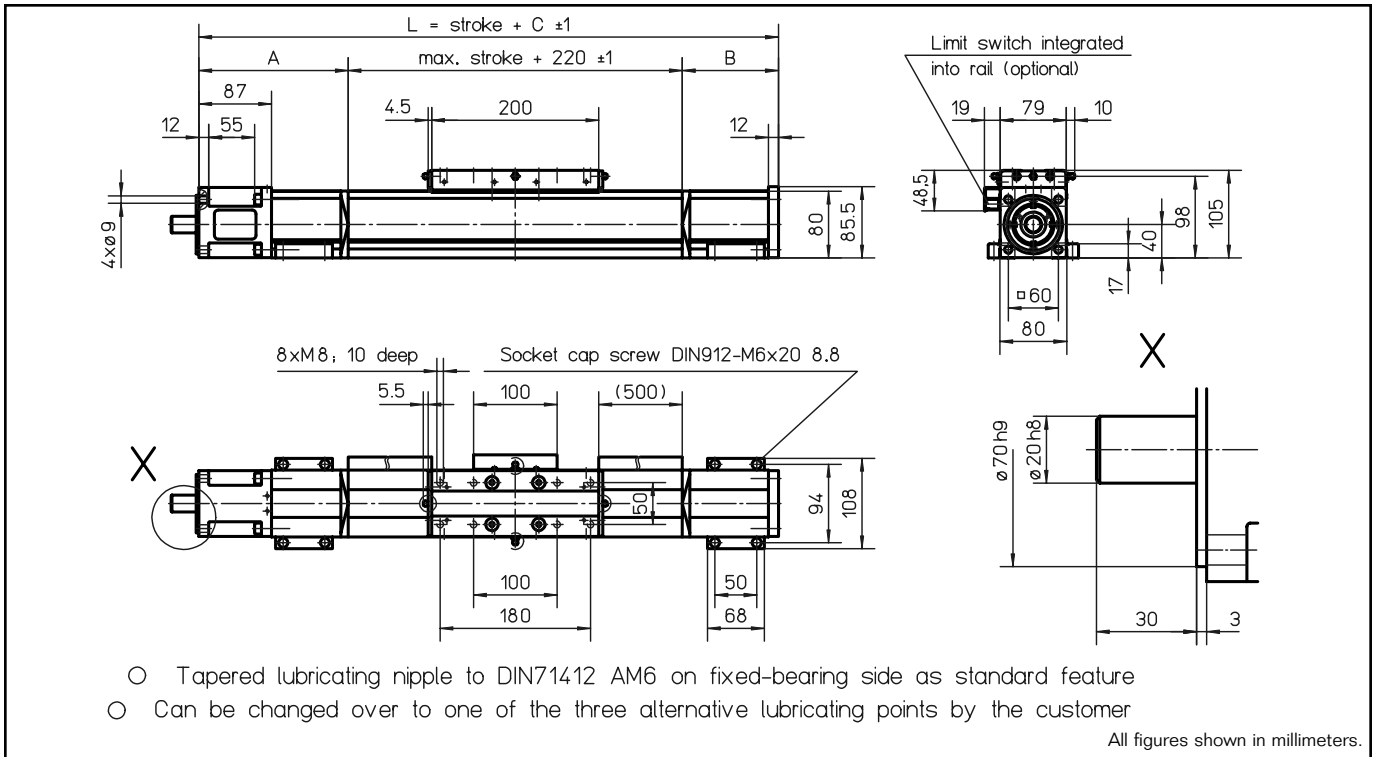


# WIESEL™ POWERLine® WM80 – 370

with ball screw drive and integrated linear ball-bearing guide and short guide system



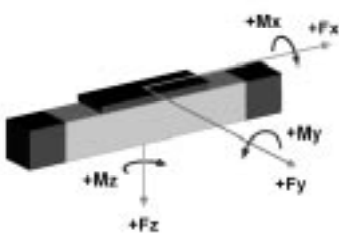
### Technical data

Linear speed: .....max. 2.5 m/s  
 Repeatability: .....± 0.02 mm  
 Acceleration: .....max. 10 m/s<sup>2</sup>  
 Rotational speed: .....max. 3000 rpm  
 Drive element: Pretensioned ball screw with single nut, no backlash  
 Diameter: .....25 mm  
 Lead: .....5, 10, 20, 50 mm  
 Stroke length: .....up to 5000 mm  
 Power bridge: .....200 mm long  
 Geometrical moment of inertia: .....ly 1.9 x 10<sup>6</sup> mm<sup>4</sup>  
 lz 1.9 x 10<sup>6</sup> mm<sup>4</sup>

### Weights

Basic unit with zero stroke: .....7.00 kg  
 100 mm stroke: .....1.10 kg  
 Power bridge with carriage: .....1.60 kg  
 Provided: .....4 pieces KAO mounting brackets

### Loads and load moments



Load	dynam. [N]
Fx drive	3500
Fy	2100
± Fz	2100
Load moment	dynam. [Nm]
Mx	150
My	180
Mz	180

### 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

**Geometrical moment of inertia:**  
 1 m<sup>4</sup>=10<sup>12</sup> mm<sup>4</sup>=2.4025 x 10<sup>6</sup> in<sup>4</sup>

**Mass moment of inertia:**  
 1 kg · m<sup>2</sup>=10<sup>7</sup> kg · cm<sup>2</sup>=0.738 lb · ft · s<sup>2</sup>

**Mass:**  
 1 kg=2.2 lb

### Idle torques [Nm]

Rotational speed [rpm]	Lead P [mm]			
	5	10	20	50
150	0.6	1.1	1.3	2.8
1500	1.1	1.5	1.6	2.2
3000	1.4	1.8	1.8	2.7

### Additional lengths as a function of the stroke

Stroke length [mm]	A [mm]	B [mm]	Additional length C [mm]
0-680	95	35	350
681-1310	125	80	425
1311-2065	150	105	475
2066-2830	170	125	515
2831-3590	195	150	565
3591-4355	215	170	605
4356-5000	235	190	645