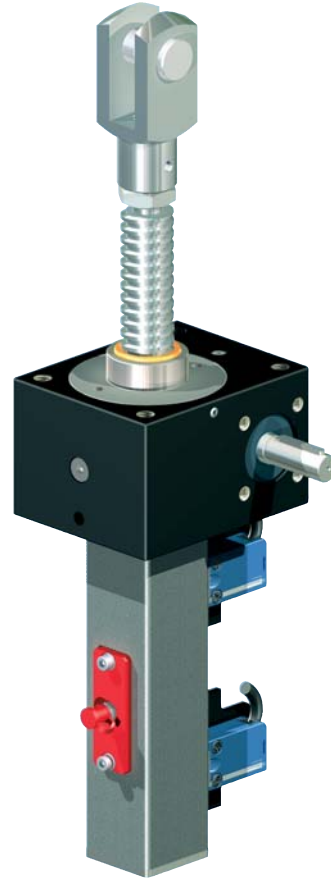


**Screw Jack Systems
MSZ Alu series**

The preferred range
with full range

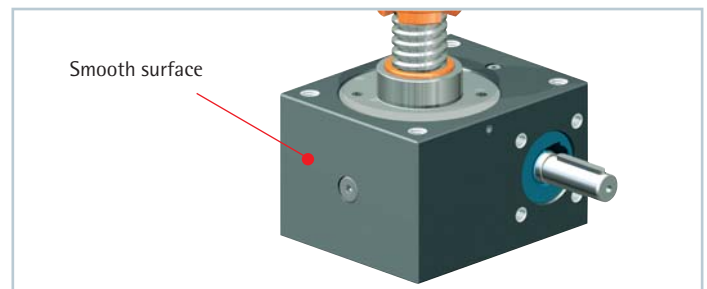
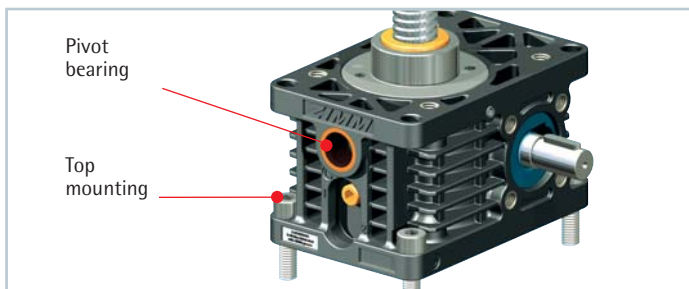


Z series

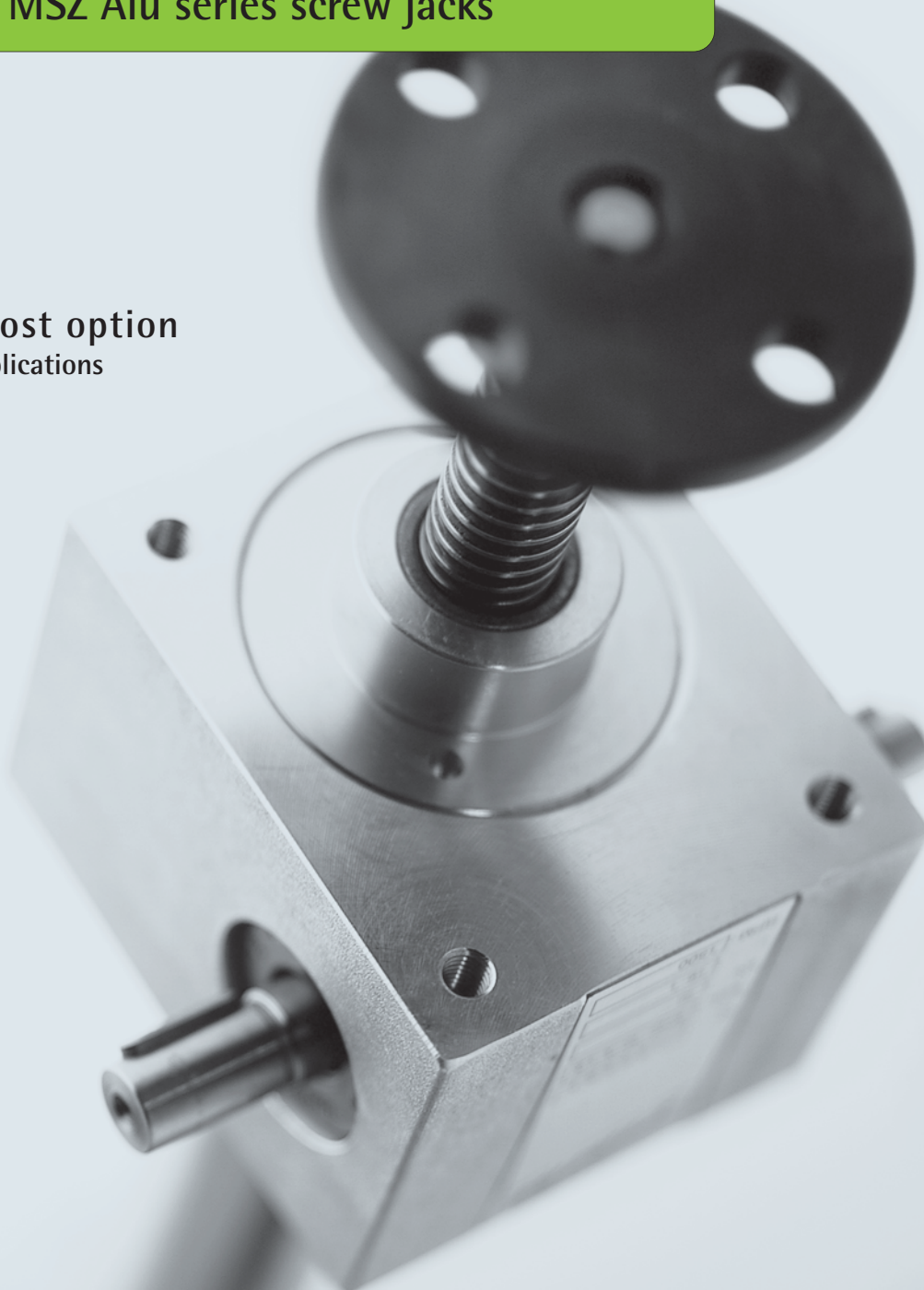
Z series screw jacks are the preferred range with the largest number of types. The Z series feature through holes for top mounting and integral pivot bearings, features not available on the GSZ series

GSZ series

GSZ series screw jacks are designed for applications where smooth surface are required. These screw jacks are easier to clean.



The low-cost option
for simple applications



MSZ Alu series

The MSZ Alu gearboxes are low-cost options for simple applications such as manual control or motor operation with lower duty cycle. So, the stroke applications can be realized economically.

Peter Gridling, Sales Manager at ZIMM, Austria

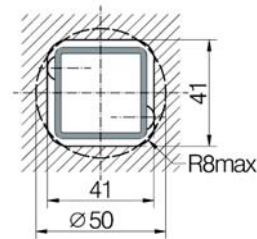
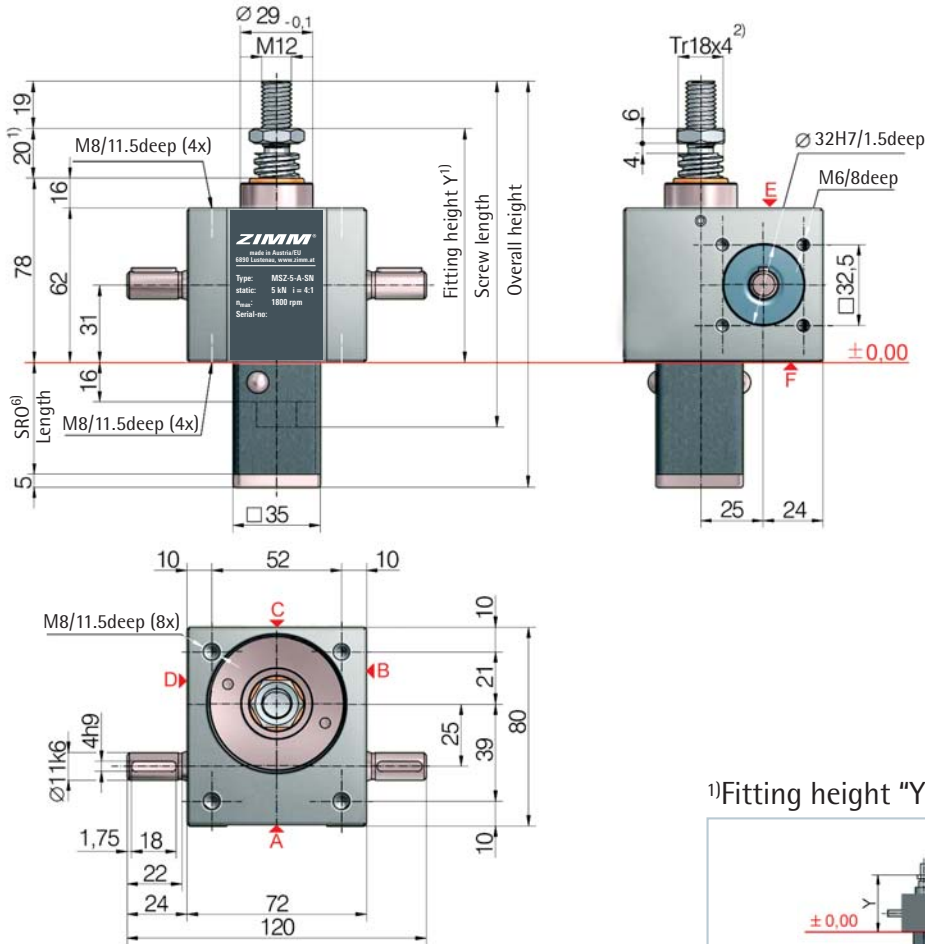
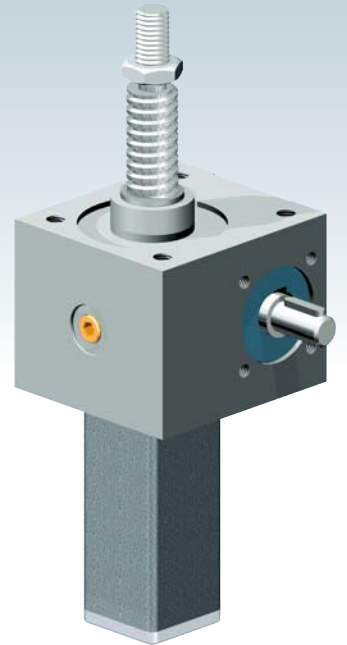


FACTS: MSZ Alu series

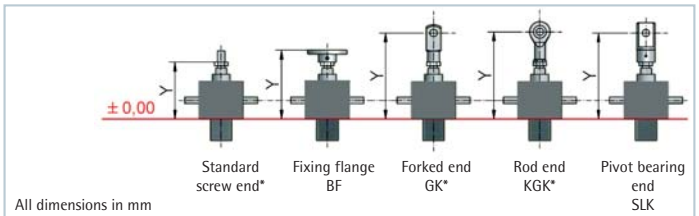
- Size 5 kN, 10 kN, 25 kN
- For simple, minor applications
- Manual adjustment
- Motor operation with lower duty cycle
- Customary dimensions



MSZ-5-A-S translating screw 5 kN



¹⁾Fitting height "Y" for 0-stroke, with Tr 18x4 screw



All dimensions in mm

Bellocs FB	Y	Y	Y	Y	Y
without bellocs FB	94	114	142	144	142
Z-5-FB-265	127	127	175	177	155
Z-5-FB-500	192	192	240	242	220
Z-5-FB-800	212	212	260	262	240

*with bellows fixing ring Z-5-FBR

⁶⁾Protective tube length SRO with Tr 18x4 screw

Without escape/rotation protection	Escape/rotation protection	Rotation protection, with limit switch set ES	Rotation protection with ES and KAR*
46+stroke	61+stroke	119+stroke	140+stroke

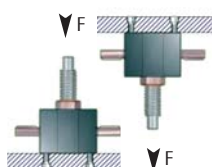
*Hinged bearing plate KAR, fitted on face F (below).

Standard ratios

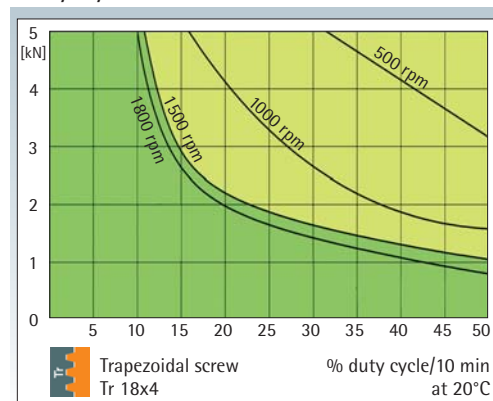
Type	Version	Speed	Standard screw ²⁾	i	Stroke per drive shaft rotation ⁵⁾
MSZ-5-A-SN	Translating	Normal	Tr 18x4	4:1	1.00 mm
MSZ-5-A-SL	screw	Low speed		16:1	0.25 mm
MSZ-5-A-RN	Rotating	Normal	Tr 18x4	4:1	1.00 mm
MSZ-5-A-RL	screw	Low speed		16:1	0.25 mm

Screw jack mounting

max. load: 5 kN compressive and tensile load
 Screw: M8, strength class 8.8
 Screw-in depth: 10 to 11.5 mm
 Tightening torque: 19 Nm
 Screw locking: with Loctite 243



Duty cycle thermal limit, for S+R



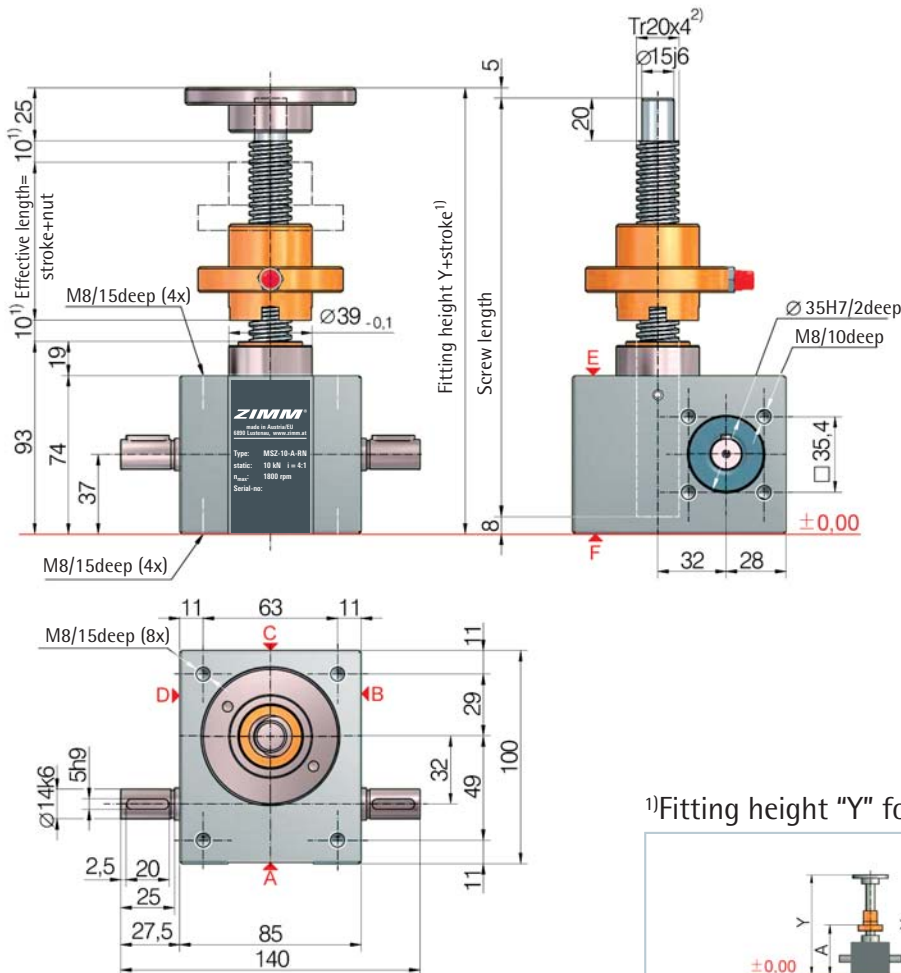
These curves are for guidance under standard industrial conditions (ambient temperature etc.) and correct maintenance (lubrication etc.). The max. input drive torques for optimum service life are at the right page - technical data (1500 rpm).

Trapezoidal screw

Tr



MSZ-10-A-R rotating screw 10 kN



¹⁾Fitting height "Y" for 0-stroke, with Tr 20x4 screw

All dimensions in mm	Flange nut FM	Duplex nut DM	Duplex nut DM with SIFA	Self-aligning nut PM	Greasless nut FFDM
	Y/A	Y/A	Y/A	Y/A	Y/A
Bellows FB	182/115	183/128	222/167	221/162	191/136
without bellows FB	-	317/196	353/232	355/230	325/204
2x Z-10-FB-340	-	357/216	393/252	395/250	365/224
2x Z-10-FB-700	-	457/266	493/302	495/300	465/274

Detailed instructions for determining the length can be found in catalogue XII (Section 8)

10 kN

Technical data series MSZ-10-A-S / MSZ-10-A-R

max. compressive/tensile force, static	- 10 kN (1 t)
max. compressive/tensile force, dynamic	- see duty cycle curves
Nominal speed	- 1500 rpm
max. drive shaft speed	- 1800 rpm (depending on the load and duty cycle)
Screw size standard	- Tr 20x4 ²⁾
Gear ratio	- 4:1 (N) / 16:1 (L)
Housing material	- aluminium
Worm shaft	- steel, case-hardened, ground
Weight of screw jack body	- 2.0 kg
Weight of screw/m	- 2.0 kg
Gearbox lubrication	- grease lubrication
Screw lubrication	- grease lubrication
Gearbox operating temperature	- max. 60°C, higher on request
Moment of inertia	- N: 0.641 kg cm ² / L: 0.271 kg cm ²
Input torque (at 1500 rpm)	- max. 13.5 Nm (N) / max. 7.5 Nm (L)
Drive-through torque	- max. 57 Nm

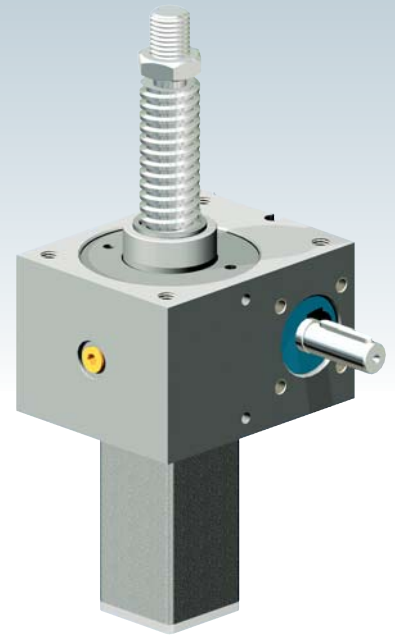
Drive torque M_G (Nm)	- F (kN) \times 0.64 ³⁾ + M_L (N-normal)
Breakaway torque	- F (kN) \times 0.20 ³⁾ + M_L (L-low speed)
Idling torque ⁴⁾ M_L (Nm)	- Drive torque M_G \times 1.5
	- 0.26 (N-normal) / 0.16 (L-low speed)

Between gearbox and nut or nut and end of thread, provide for a safety distance of (minimum) 10 mm!

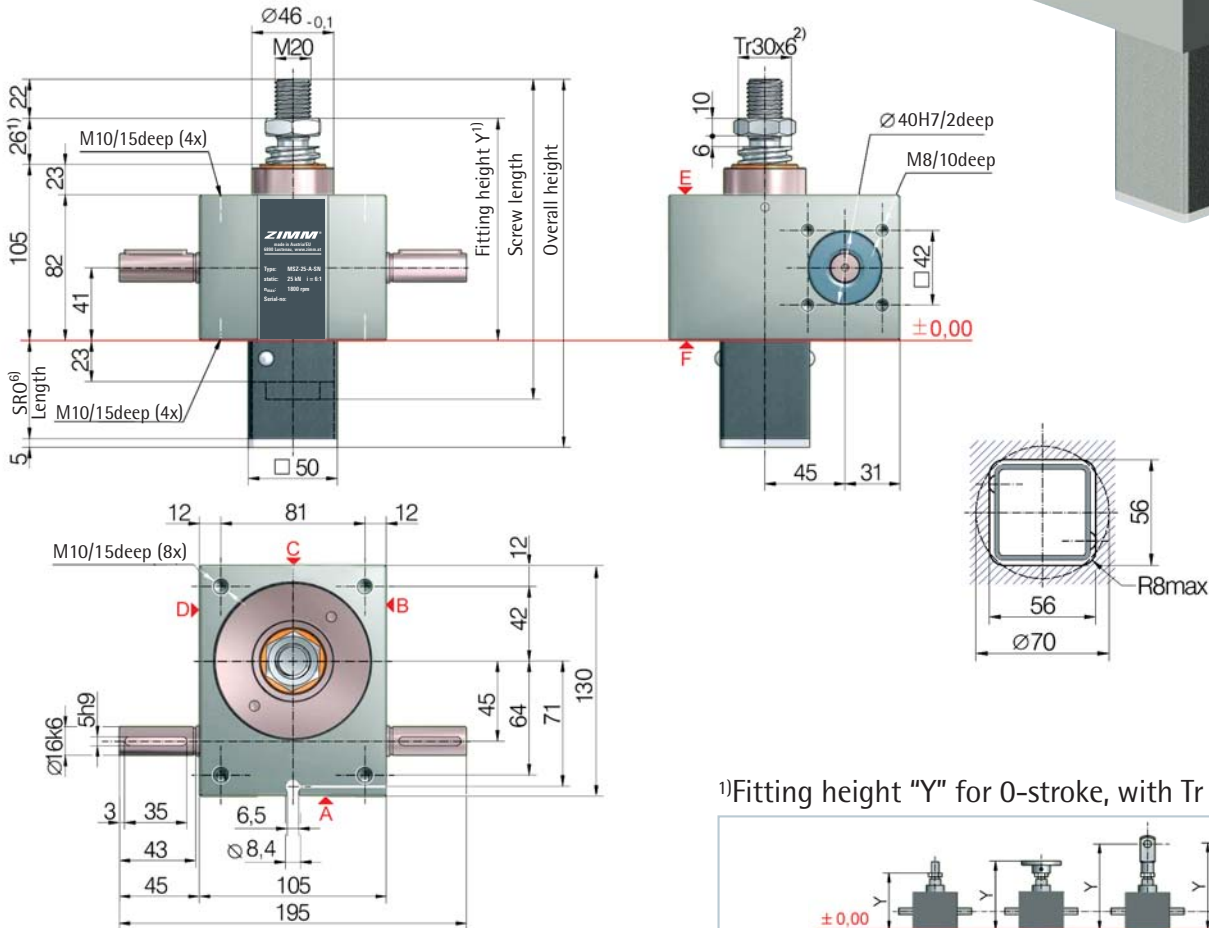
See for the checklist in catalogue Screw Jack Systems XII (Section 7).

Important information

- 1) - extension if a bellows or spiral spring is fitted: see the table or catalogue XII (Section 8)
- 2) - Tr 20x4 is standard, also available: stainless steel only for the R version: double-pitch, left-handed, increased screw Tr 30x6
- 3) - factor includes efficiency, ratio and 30% safety
- 4) - at 20°C, can be higher when new
- 5) - for a 4 mm screw pitch

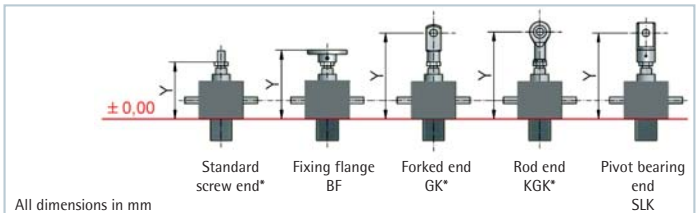


MSZ-25-A-S translating screw 25 kN



Opening for protective tube SRO, square 56x56 or round $\varnothing 70$

1) Fitting height "Y" for 0-stroke, with Tr 30x6 screw



Bellocs FB	Y	Y	Y	Y	Y
without bellocs FB	125	148	205	202	205
Z-25-FB-300	200	192	280	277	249
Z-25-FB-700	230	222	310	307	279
Z-25-FB-1000	250	242	330	327	299

6) Protective tube length SRO with Tr 30x6 screw

Without escape/ rotation protection	Escape/ rotation protection	Rotation protection, with limit switch set ES	Rotation protection with ES and KAR*
53+stroke	73+stroke	125+stroke	149+stroke

*Hinged bearing plate KAR, fitted on face F (below)

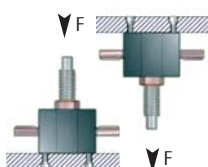
*with bellows fixing ring Z-25-FBR

Standard ratios

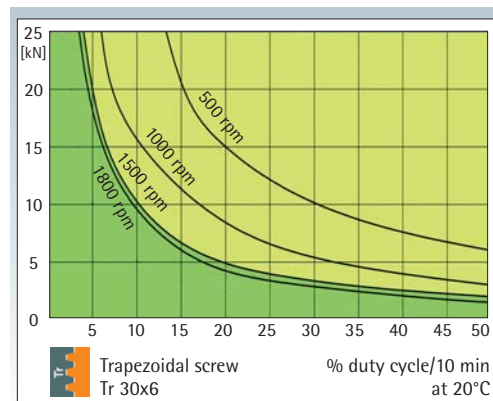
Type	Version	Speed	Standard screw ²⁾	i	Stroke per drive shaft rotation ⁵⁾
MSZ-25-A-SN	Translating	Normal	Tr 30x6	6:1	1.00 mm
MSZ-25-A-SL	screw	Low speed		24:1	0.25 mm
MSZ-25-A-RN	Rotating	Normal	Tr 30x6	6:1	1.00 mm
MSZ-25-A-RL	screw	Low speed		24:1	0.25 mm

Screw jack mounting

max. load: 25 kN compressive and tensile load
 Screw: M10, strength class 8.8
 Screw-in depth: 12 to 15 mm
 Tightening torque: 27 Nm
 Screw locking: with Loctite 243



Einschaltdauer-Kennfeld, thermisch, für S+R



These curves are for guidance under standard industrial conditions (ambient temperature etc.) and correct maintenance (lubrication etc.). The max. input drive torques for optimum service life are at the right page - technical data (1500 rpm).

Wide range of accessories



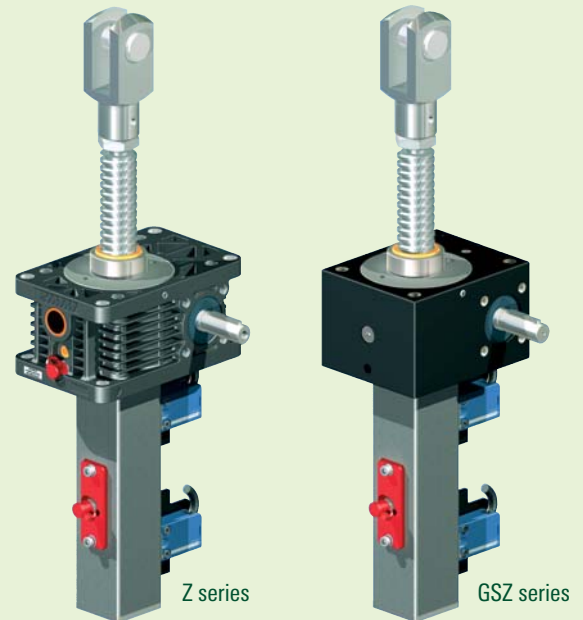
i The right accessories can be found in the catalogue Screw Jack Systems XII

ZIMM – screw jacks Z series and GSZ series

A screw jack gearbox is an electromechanical drive and is used where weights have to be very accurately controlled and carefully positioned.

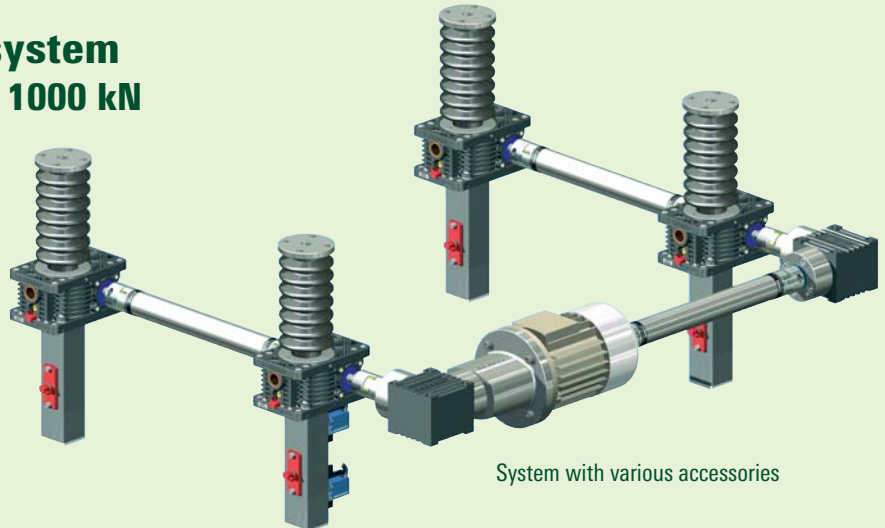
Some areas of use

- Assembly lines of practically every renowned motor manufacturer
- Elevating platforms and aircraft manufacture assembly and maintenance
- Production lines:
 - for flat screen manufacture
 - for production of plastic profiles for the window industry
 - for the manufacture of sheet steel and steel profiles, insulated glass for fleece materials, hygiene products and insulation material
- Packing machines
- Drinks bottle filling and labelling plants
- Paper processing plants
- Food processing industry



ZIMM – building block system Sizes ranging from 2.5 kN to 1000 kN

- Screw jacks with trapezoidal and ball screws
- Bevel gearboxes
- Three phase AC motors and motor flanges
- Limit switches and rotary pulse encoders
- Couplings and connecting shafts
- Attachments (fork heads, ball heads, pivot bearing heads, clamping flanges, opposed bearing plates, etc.)
- Protective covers (bellows, spiral springs)
- Pivot bearing plates and pivot mounts



ZIMM – News New ball screw version

- Loads from 5 kN to 1000 kN
- Diameter 16 to 160 mm
- Leads from 5 to 80 mm
- Stroke speeds from 1 to 125 mm/s with high loads
- Low power consumption



Lubrication systems

Proper lubrication for screw jack equipment

Catalogue Screw Jack Systems XII available in:

German | English | French | Italian | Spanish | Korean

CAD product configurator

CAD-Download: www.zimm.eu

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