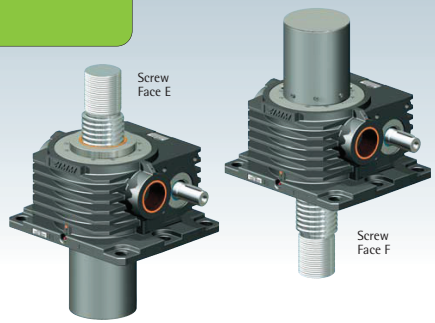
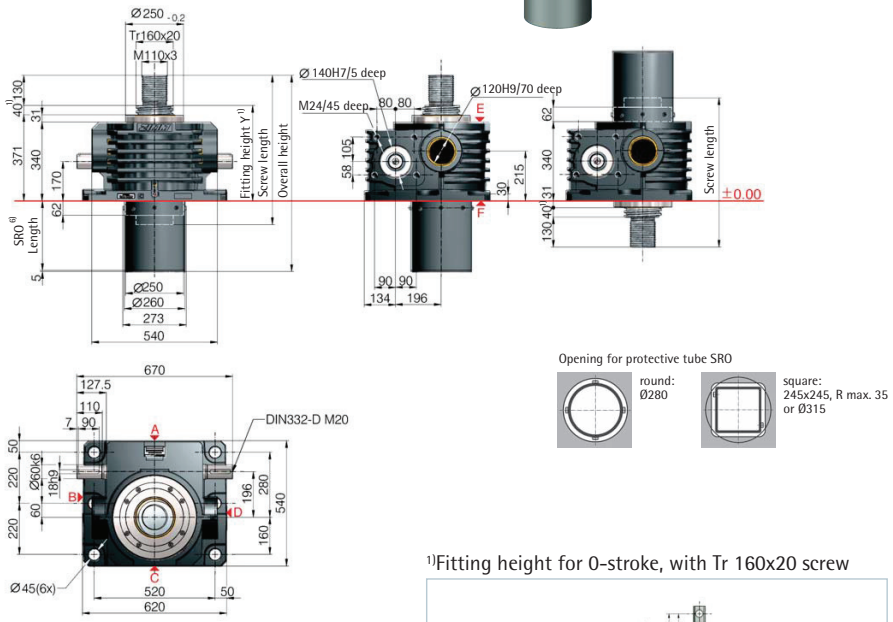
Trapezoidal screw Tr



Z-1000-S translating screw 1,000 kN



Opening for protective tube SRO

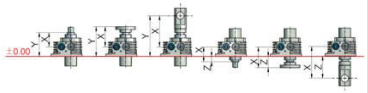
round: Ø280

square: 245x245, R max. 35 or Ø315

[6]Protective tube length SRO with Tr 160x20 screw

only screw	with escape protection AS	with rotation protection VS	with VS and limit switch set ES
○ Ø260	○ Ø260	□ 220x220	□ 220x220
157+stroke	197+stroke	197+stroke	205+stroke

[1]Fitting height for 0-stroke, with Tr 160x20 screw



All dimensions in mm	BF	SLK		BF	SLK
	X/Y	X/Y	X/Y	X/Z	X/Z	X/Z
without bellows FB	196/411	328/543	on request	196/181	328/313	on request

Standard ratios

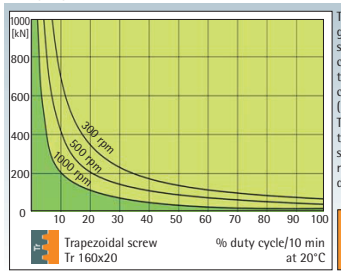
Type	Version	Speed	Standard screw[2]	i	Stroke per drive shaft rotation[5]
Z-1000-SN	Translating	Normal	Tr 160x20	13.33:1	1.5 mm
Z-1000-SL	screw	Low speed		40:1	0.5 mm
Z-1000-RN	Rotating	Normal	Tr 160x20	13.33:1	1.5 mm
Z-1000-RL	screw	Low speed		40:1	0.5 mm

Screw jack mounting

Full static nominal load

max. load: see Section 8

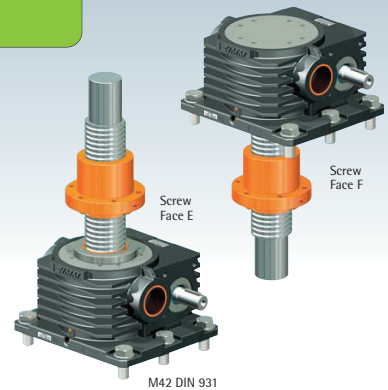
Duty cycle thermal limit, for S+R



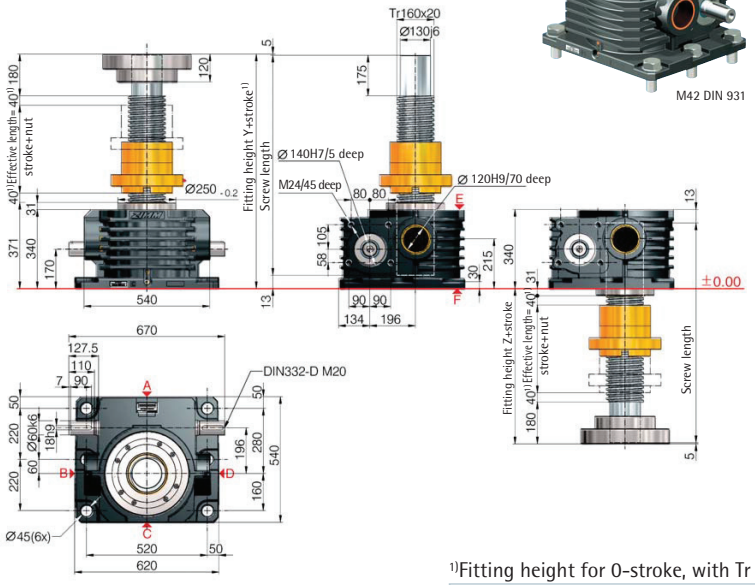
These curves are for guidance under standard industrial conditions (ambient temperature etc.) and correct maintenance (lubrication etc.). The max. input drive torques for optimum service life are at the right page - technical data (1000 rpm)

KGT: % duty cycle 2 times to 4 times higher

Trapezoidal screw Tr

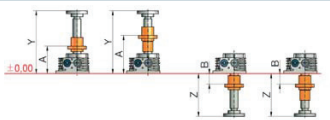


Z-1000-R rotating screw 1,000 kN



1000 kN

[1]Fitting height for 0-stroke, with Tr 160x20 screw



All dimensions in mm	DM	DM with SIFA	DM	DM with SIFA
	Y/A	Y/A	Z/B	Z/B
without bellows FB	951/521	1131/701	611/281	791/281

Detailed instructions for determining the length can be found in Section 8

Technical data series Z-1000-S / Z-1000-R

max. compressive/tensile force, static	- 1000 kN (100 t)
max. compressive/tensile force, dynamic	- see duty cycle curves
Nominal speed	- 1000 rpm
max. drive shaft speed	- 1000 rpm
Screw size standard	- Tr 160x20[2]
Gear ratio	- 13.33:1 (N) / 40:1 (L)
Housing material	- GGG-50, corrosion-resistant
Worm shaft	- steel, case-hardened, ground
Weight of screw jack body	- 408 kg
Weight of screw/m	- 139 kg
Gearbox lubrication	- synthetic gear oil
Screw lubrication	- grease lubrication
Gearbox operating temperature	- max. 60°C, higher on request
Moment of inertia	- N: 1058.2 kg cm² / L: 459.2 kg cm²
Input torque (at 1000 rpm)	- max. 680 Nm (N) / max. 450 Nm (L)
Drive-through torque	- max. 4570 Nm
Drive torque M_0 (Nm)	- F (kN) x 1.32[3][5] + M_L (N-normal)
	- F (kN) x 0.51[3][5] + M_L (L-low speed)
Breakaway torque	- Drive torque M_0 x 1.5
Idling torque[4] M_L (Nm)	- 9.70 (N-normal) / 5.90 (L-low speed)

Between gearbox and nut or nut and end of thread, provide for a safety distance of (minimum) 40 mm!
See Section 7 for the checklist.

Important information
1) - extension if a bellows or spiral spring is fitted: see Section 8
2) - Tr 160x20 is standard, also available: double-pitch, stainless steel, left-handed, increased screw Tr 190x24 (only for the R version)
3) - factor includes efficiency, ratio and 30% safety
4) - at 20°C, can be higher when new
5) - for a 20 mm screw pitch