

Without escape/ rotation protection	62 + stroke
Escape/ rotation protection	92 + stroke
Rotation protection, with limit switch set ESSET	144 + stroke
Rotation protection and ESSET and KAR*	169 + stroke

Opening for protective tube square and round

Code	Gearbox (series)	Size	Version (variant)	Ratio	Screw	Stroke per drive shaft rotation
GSZ-50-SN	GSZ	50	S (translating screw)	N (normal) 7:1	Tr 40x7	1,00 mm
GSZ-50-SL				L (low) 28:1		0,25 mm

### Duty cycle thermal limit (S + R)

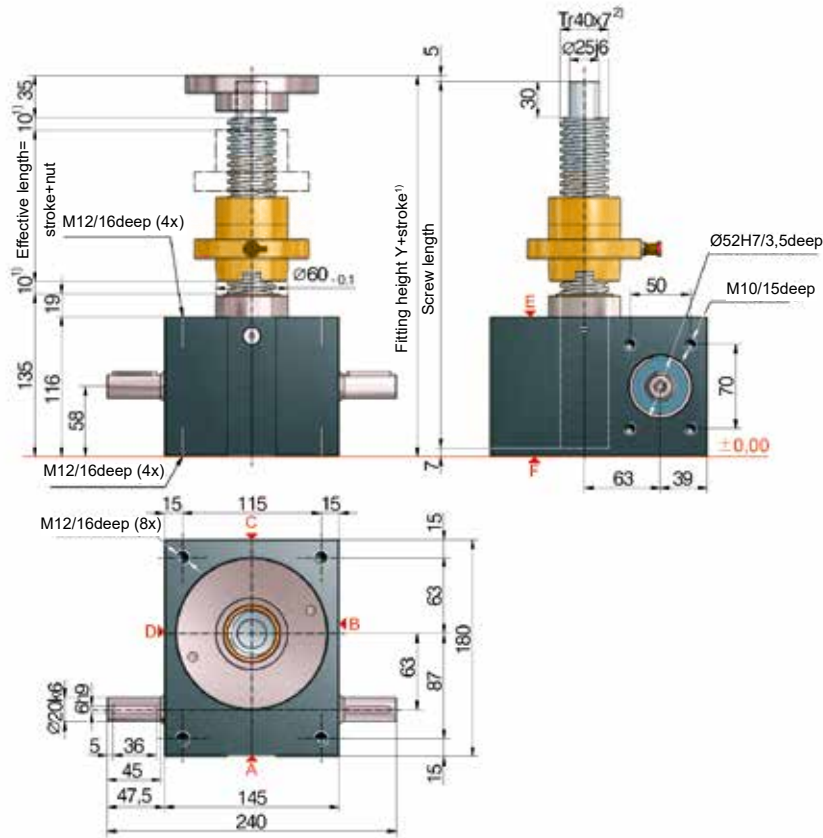
The graph plots Force [kN] on the y-axis (0 to 50) against ED %/10 min at 20°C on the x-axis (10 to 100). Four curves represent different RPM values: 1800 rpm (blue), 1500 rpm (green), 1000 rpm (red), and 500 rpm (purple). All curves show a decreasing trend of force as ED % increases. Higher RPM values result in higher force levels for a given ED %.

ED %/10 min at 20°C	1800 rpm [kN]	1500 rpm [kN]	1000 rpm [kN]	500 rpm [kN]
10	~45	~48	~50	~52
20	~25	~28	~32	~35
30	~18	~20	~24	~28
40	~14	~15	~18	~22
50	~11	~12	~14	~17
60	~9	~10	~12	~15
70	~7.5	~8.5	~10	~13
80	~6.5	~7.5	~9	~11.5
90	~5.8	~6.8	~8.2	~10.5
100	~5.2	~6.2	~7.5	~9.5

The graph plots Force [kN] on the y-axis (0 to 50) against ED %/10 min at 20°C on the x-axis (10 to 100). Four curves represent different RPM values: 1800 rpm (yellow), 1500 rpm (light green), 1000 rpm (dark green), and 500 rpm (black). The force decreases as the percentage of ED increases and as the RPM decreases.

ED %/10 min at 20°C	1800 rpm [kN]	1500 rpm [kN]	1000 rpm [kN]	500 rpm [kN]
10	50	-	-	-
20	30	45	-	-
30	22	35	45	-
40	18	28	35	45
50	14	22	28	35
60	11	18	22	28
70	9	15	18	22
80	7	12	15	18
90	6	10	12	15
100	5	8	10	12

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### Standard configuration

Code	Gearbox (series)	Size	Version (variant)	Ratio	Screw	Stroke per drive shaft rotation
GSZ-50-RN	GSZ	50	R (rotating screw)	N (normal) 7:1	Tr 40x7	1,00 mm
GSZ-50-RL				L (low) 28:1		0,25 mm

### Technical data series GSZ-50-S / GSZ-50-R

max. compressive/tensile force, static:	50 kN (5 t)
max. compressive/tensile force, dyn:	see duty cycle curves
Input speed:	1500 rpm / max. 1800 rpm (depending on the load and duty cycle)
Screw size standard:	Tr 40x7 <sup>2)</sup>
Gear ratio:	7:1 (N) / 28:1 (L)
Housing material:	GGG-50, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	15 kg
Weight of screw/m:	8 kg
Gearbox lubrication:	synthetic gear oil
Screw lubrication:	grease lubrication
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 2,49 kg cm <sup>2</sup> / L: 1,73 kg cm <sup>2</sup>
Input torque (at 1500 rpm):	max. 31,5 Nm (N) / max. 10,4 Nm (L)
Drive-through torque:	max. 260 Nm
Drive torque M <sub>G</sub> (Nm):	F (kN) x 0,68 <sup>3,4)</sup> (N-Normal) F (kN) x 0,23 <sup>3,4)</sup> (L-Low)
Breakaway torque:	Drive torque M <sub>G</sub> x 1,5

Make a plan to keep a safe distance of at least 10 mm between gearbox and nut or between nut and threaded end!

Detailed calculation of the fitting dimensions (bellows, screw, protective tube...) can be conveniently determined with our online configurator: [www.zimm.com](http://www.zimm.com)

#### Important information:

- 1) for bellows extension please check e.g. by online configurator.
- 2) Tr 40x7 is standard, also available: double-pitch, INOX, left-handed, increased screw Tr 55x9 (only for the R-Version)
- 3) factor includes efficiency, ratio and 30% safety
- 4) for a 7 mm screw pitch
- 5) to calculate the length of our protective tube length SRO simply use our online configurator: [www.zimm.com](http://www.zimm.com)