

CHAPTER 2 | GSZ-SERIES

Cubic screw jacks series

Tr

Trapezoidal screw (Tr), S + R-Version

GSZ-Series (Tr), S + R-Version, 2,5 kN	72
GSZ-Series (Tr) Bevel gearbox (KSZ-2) Accessories for GSZ-2,5	76
GSZ-Series (Tr), S + R-Version, 5 kN	78
GSZ-Series (Tr), S + R-Version, 10 kN	80
GSZ-Series (Tr), S + R-Version, 25 kN	82
GSZ-Series (Tr), S + R-Version, 50 kN	84
GSZ-Series (Tr), S + R-Version, 100 kN	86
GSZ-Series (Tr), S + R-Version, 150 kN	88

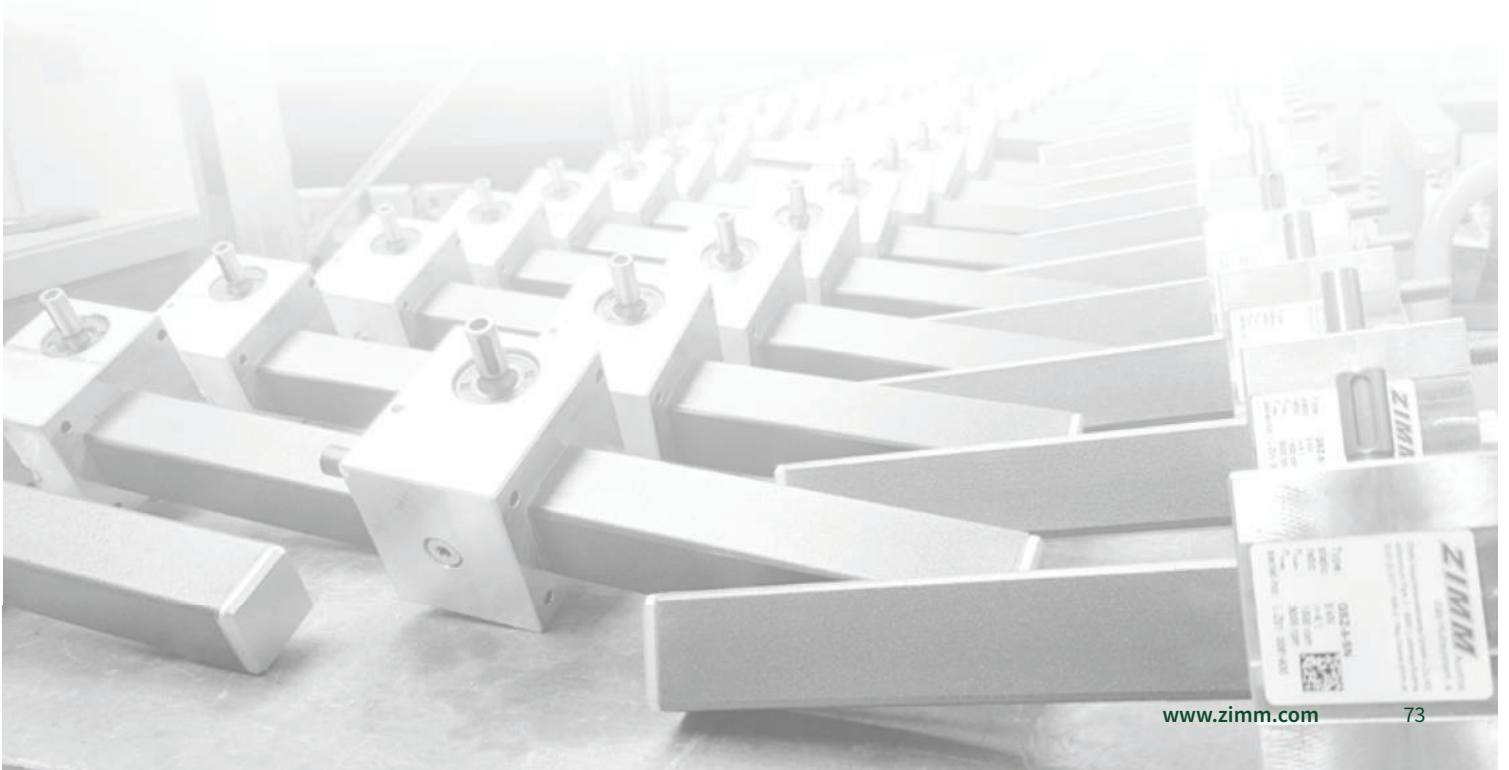
KGT

Ball screw (KGT), S-Version

GSZ-Series (KGT), S-Version, 5 - 25 kN	90
GSZ-Series (KGT), S-Version, 50 - 150 kN	92

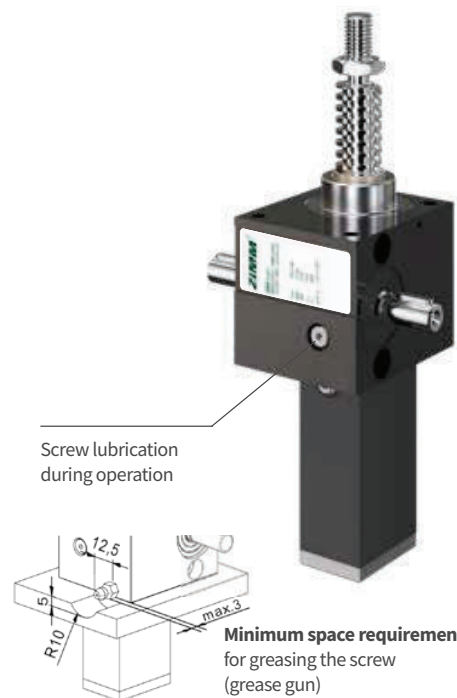
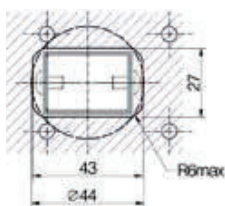
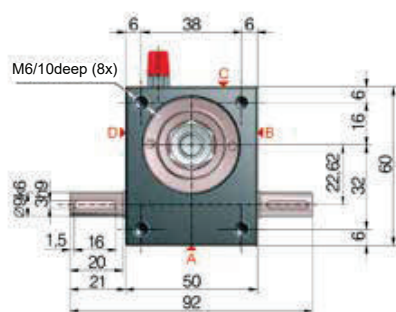
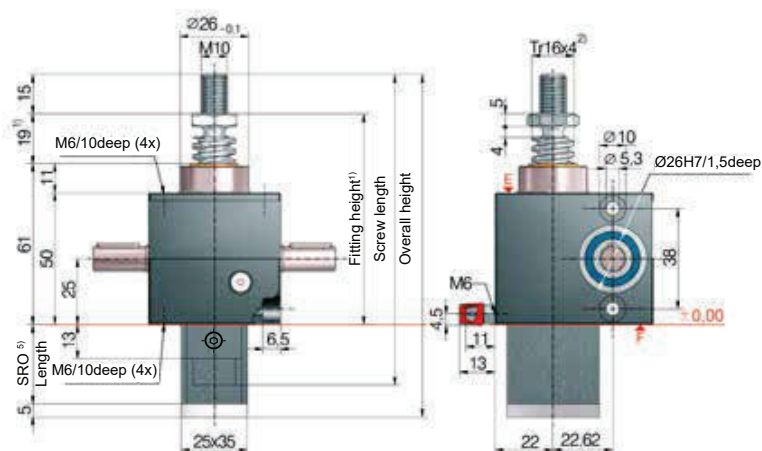
Ball screw (KGT), R-Version

GSZ-Series (KGT), R-Version, 2,5 - 25 kN	94
GSZ-Series (KGT), R-Version, 50 - 150 kN	96





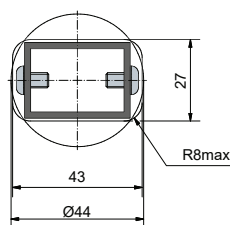
S 2,5 kN
GSZ-2-S | translating screw



Screw lubrication during operation

Minimum space requirement
for greasing the screw
(grease gun)

Opening for protective tube SRO:



5) Protective tube length SRO with Tr 16x4-Screw

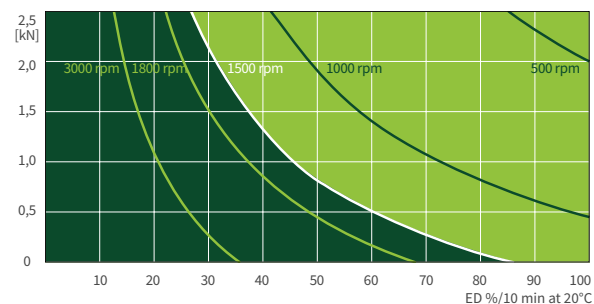
Without escape/rotation protection	47 + stroke
Escape/rotation protection	62 + stroke
Rotation protection, with limit switch set ES	117 + stroke
Rotation protection and ESSET and KAR*	139 + stroke

*with bellows fixing ring FBR

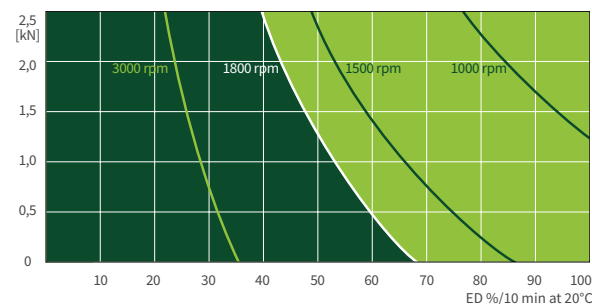
Code	Gearbox (series)	Size	Version (variant)	Ratio	Screw	Stroke per drive shaft rotation
GSZ-2-SN	GSZ	2,5	S (translating screw)	N (normal) 4:1	Tr 16x4	1,00 mm
GSZ-2-SL				L (low) 16:1		0,25 mm

Duty cycle thermal limit (S + R)

Ratio „N“ (4:1)



Ratio „L“ (16:1)

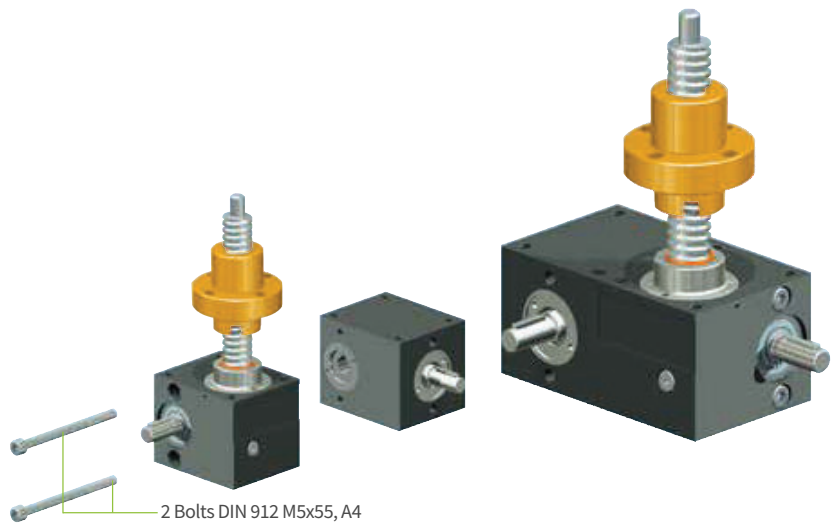


These curves are for guidance under standard industrial conditions (ambient temperature 20°C etc.) and correct maintenance (lubrication etc.). They are based on the ZIMM standard trapezoidal thread Tr 16x4. With the use of a ball screw, the operation cycles can be many times longer.

Bevel gearboxes

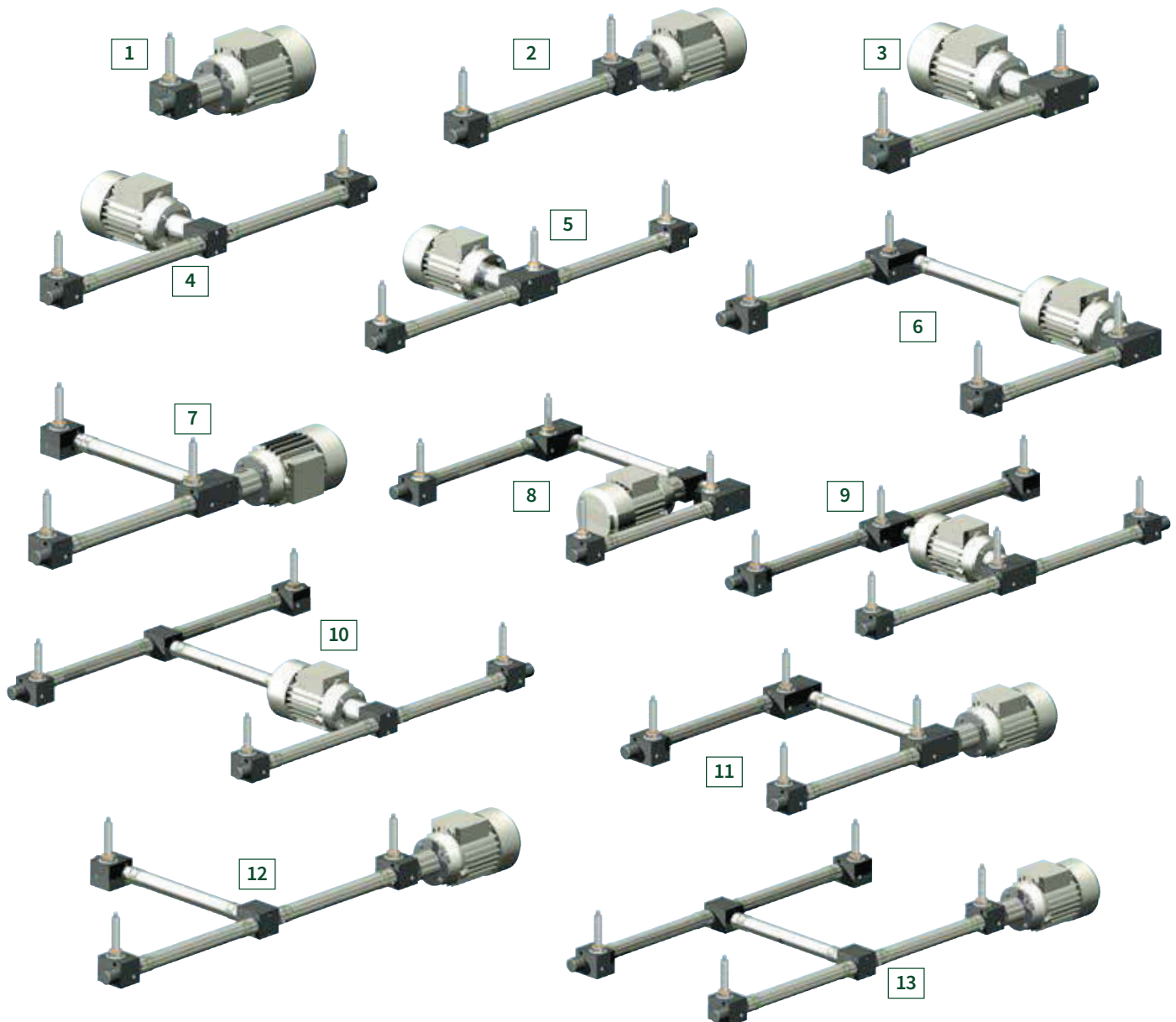
KSZ-2

The KSZ-2 is a bolt-on gearbox and therefore where larger bevel gearboxes such as the KSZ-H series are used the layouts will be different.

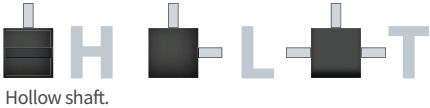


Layout examples

Other layouts possible.



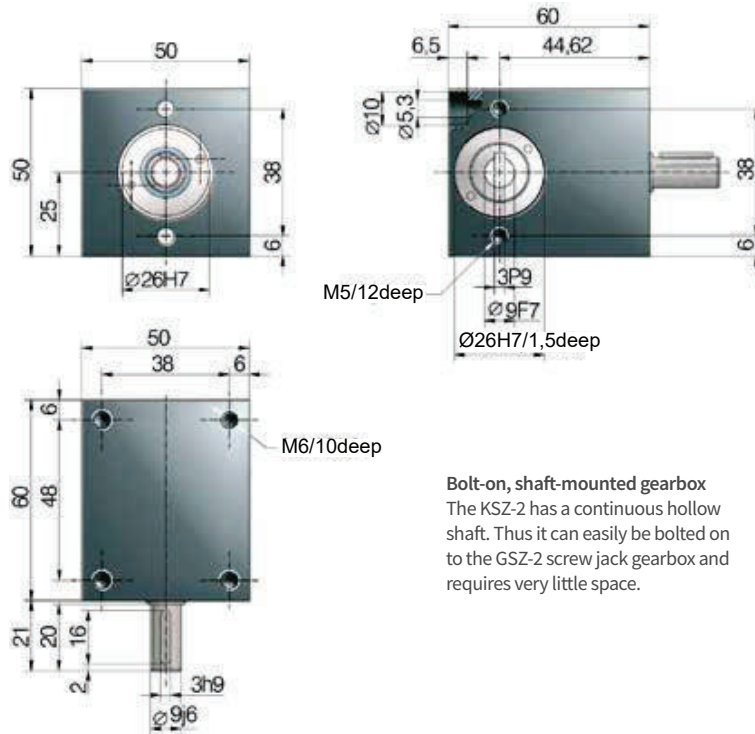
Spiral-toothed



Hollow shaft.

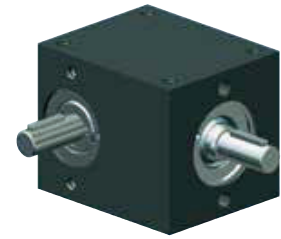
Bevel gearboxes

KSZ-2



Bolt-on, shaft-mounted gearbox

The KSZ-2 has a continuous hollow shaft. Thus it can easily be bolted on to the GSZ-2 screw jack gearbox and requires very little space.



Spiral-toothed

Spiral toothing ensures high torque and low running noise

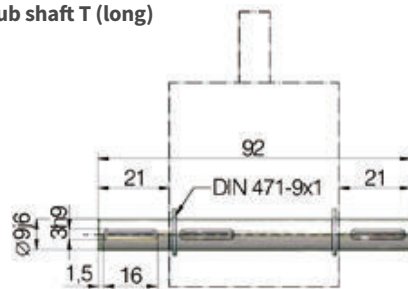


Technical data KSZ-2

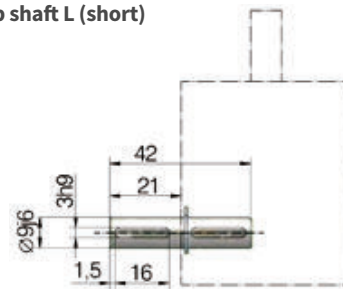
max. compressive/tensile force, static:	2,5 kN (250 kg)
Input speed:	1500 rpm / max. 3000 rpm
Screw size standard GSZ-2:	Tr 16x4 ²⁾ (GSZ-2)
Gear ratio:	1:1
Housing material:	aluminium, hard anodised
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	0,45 kg
Screw lubrication:	gear oil
Duty cycle:	40%
max. torque:	3 Nm
Drive-through torque:	max. 4,2 Nm



Stub shaft T (long)



Stub shaft L (short)



Note

Fitting a stub shaft allows the KSZ-2 to be used as a conventional right-angle gearbox

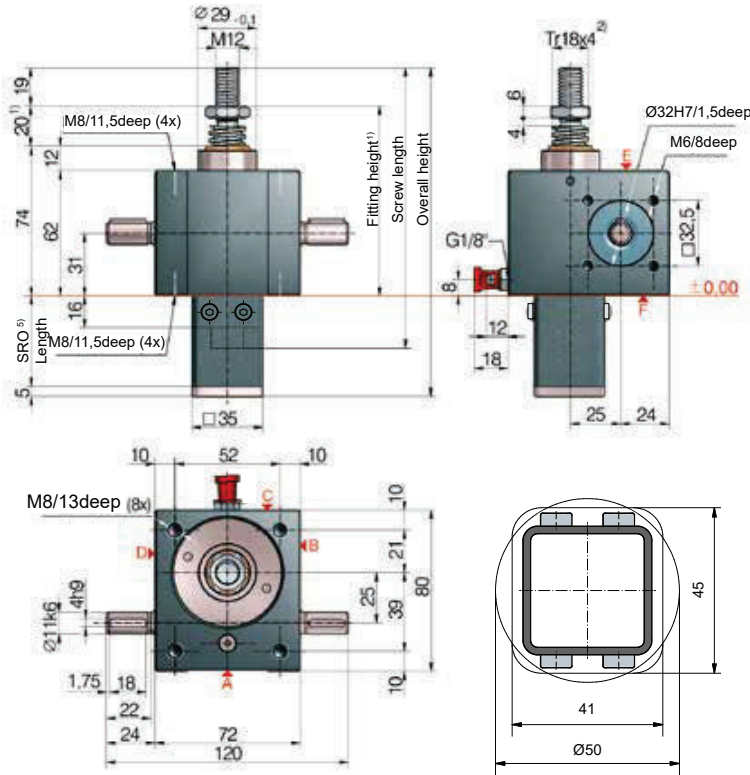
Ordering example:

	KSZ-2	KSZ-2-T	KSZ-2-L	KSZ-2
Bevel gearbox	↑	↑	↑	↑
Stub shaft		↑	↑	↑
T: long		↑		
L: short			↑	
Hollow shaft	↑			



5 kN

GSZ-5-S | translating screw



Opening for protective tube square and round



5) Protective tube length SRO with Tr 18x4-Screw

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

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

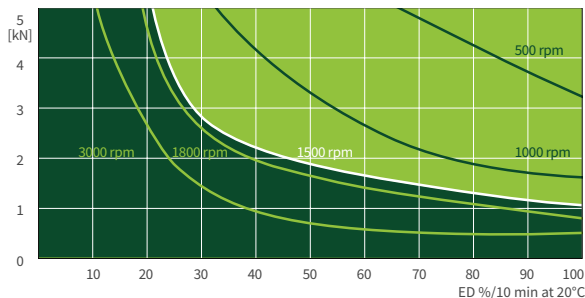
Standard configuration

Code	Gearbox (series)	Size	Version (variant)	Ratio	Screw	Stroke per drive shaft rotation
GSZ-5-SN	GSZ	5	S (translating screw)	N (normal) 4:1	Tr 18x4	1,00 mm
GSZ-5-SL				L (low) 16:1		0,25 mm

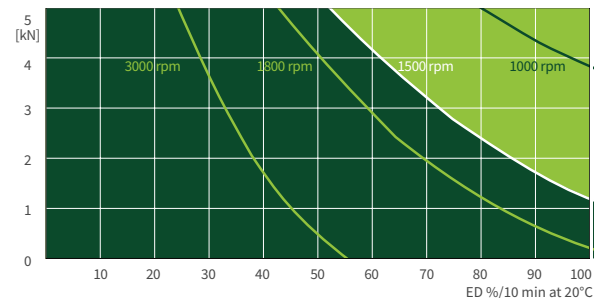
5 kN

Duty cycle thermal limit (S + R)

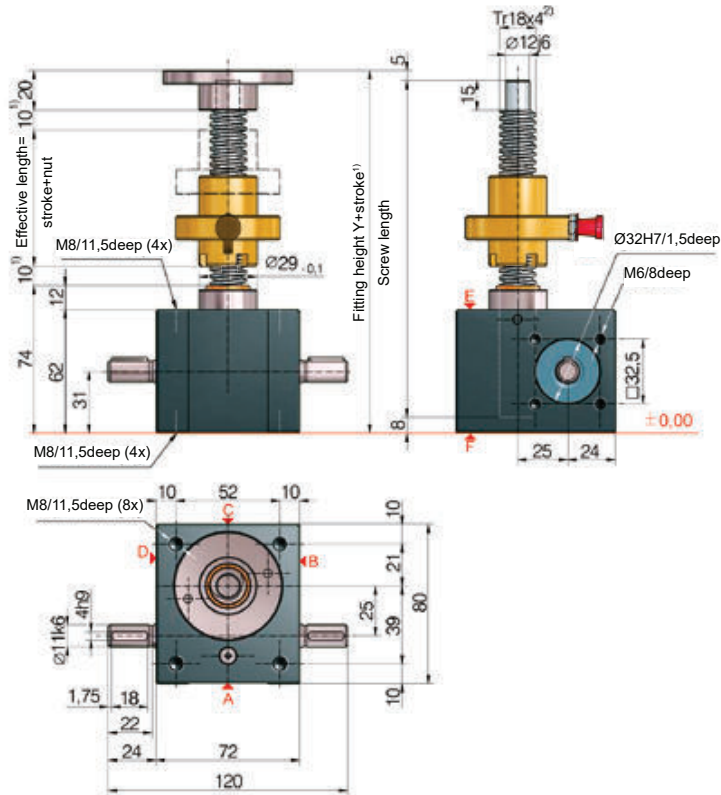
Ratio „N“ (4:1)



Ratio „L“ (16:1)



These curves are for guidance under standard industrial conditions (ambient temperature 20°C etc.) and correct maintenance (lubrication etc.). They are based on the ZIMM standard trapezoidal thread Tr 18x4. With the use of a ball screw, the operation cycles can be many times longer.



Standard configuration

Code	Gearbox (series)	Size	Version (variant)	Ratio	Screw	Stroke per drive shaft rotation
GSZ-5-RN	GSZ	5	R (rotating screw)	N (normal) 4:1	Tr 18x4	1,00 mm
GSZ-5-RL				L (low) 16:1		0,25 mm

Technical data series GSZ-5-S / GSZ-5-R

max. compressive/tensile force, static:	5 kN (0,5 t)
max. compressive/tensile force, dyn.:	see duty cycle curves
Input speed:	1500 rpm / max. 3000 rpm (depending on the load and duty cycle)
Screw size standard:	Tr 18x4 ²⁾
Gear ratio:	4:1 (N) / 16:1 (L)
Housing material:	aluminium, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	1,2 kg
Weight of screw/m:	1,58 kg
Gearbox lubrication:	synthetic gear oil
Screw lubrication:	grease lubrication
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 0,132 kg cm ² / L: 0,091 kg cm ²
Input torque (at 1500 rpm):	max. 4,7 Nm (N) / max. 1,5 Nm (L)
Drive-through torque:	max. 39 Nm
Drive torque MG (Nm):	F (kN) x 0,62 ^{3,4)} (N-Normal) F (kN) x 0,21 ^{3,4)} (L-Low)
Breakaway torque:	Drive torque MG 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!

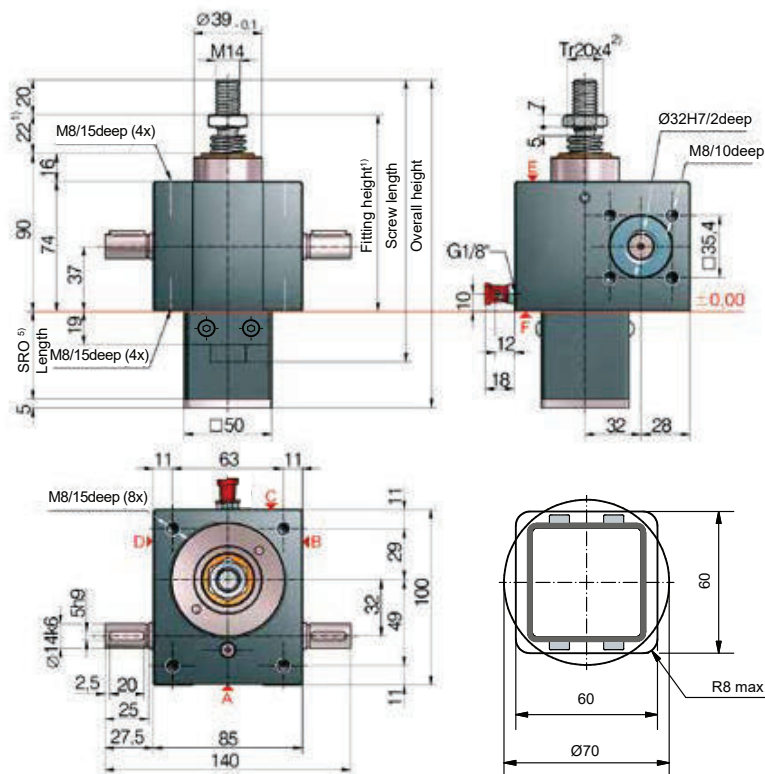
Detailed calculation of the fitting dimensions (bellows, screw, protective tube...) can be conveniently determined with our online configurator: www.zimm.com

Important information:

- 1) for bellows extension please check e.g. by online configurator.
- 2) Tr 18x4 is standard, also available: double-pitch, INOX, left-handed, increased screw Tr 20x4 (only for the R-Version)
- 3) factor includes efficiency, ratio and 30% safety
- 4) for a 4 mm screw pitch
- 5) to calculate the length of our protective tube length SRO simply use our online configurator: www.zimm.com



10 kN GSZ-10-S | translating screw



Opening for protective tube square and round



5) Protective tube length SRO with Tr 20x4-Screw

Without escape/rotation protection	49 + stroke
Escape/rotation protection	69 + stroke
Rotation protection, with limit switch set ESSET	121 + stroke
Rotation protection and ESSET and KAR	141 + stroke

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

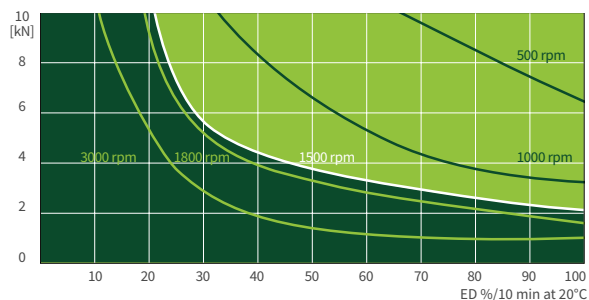
Standard configuration

Code	Gearbox (series)	Size	Version (variant)	Ratio	Screw	Stroke per drive shaft rotation
GSZ-10-SN	GSZ	10	S (translating screw)	N (normal) 4:1	Tr 20x4	1,00 mm
GSZ-10-SL				L (low) 16:1		0,25 mm

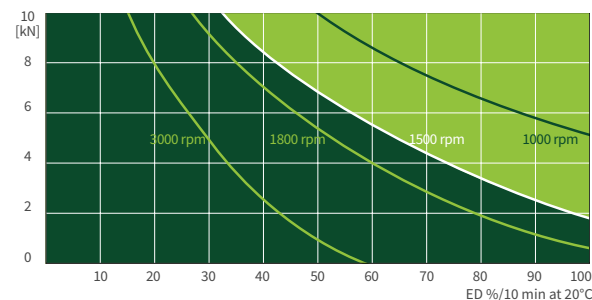
10 kN

Duty cycle thermal limit (S + R)

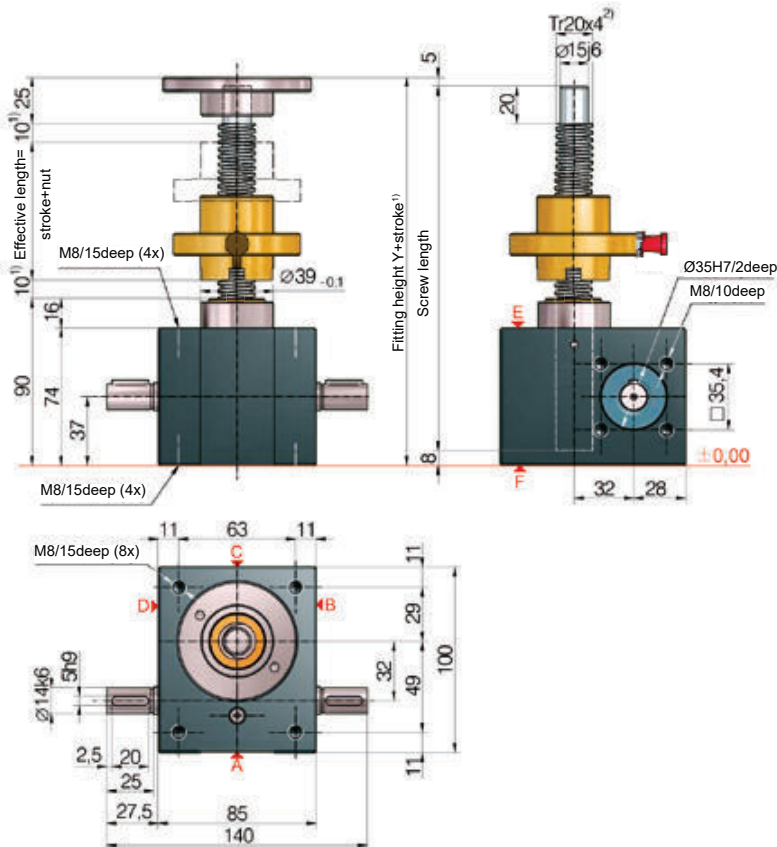
Ratio „N“ (4:1)



Ratio „L“ (16:1)



These curves are for guidance under standard industrial conditions (ambient temperature 20°C etc.) and correct maintenance (lubrication etc.). They are based on the ZIMM standard trapezoidal thread Tr 20x4. With the use of a ball screw, the operation cycles can be many times longer.



Standard configuration

Code	Gearbox (series)	Size	Version (variant)	Ratio	Screw	Stroke per drive shaft rotation
GSZ-10-RN	GSZ	10	R (rotating screw)	N (normal) 4:1	Tr 20x4	1,00 mm
GSZ-10-RL				L (low) 16:1		0,25 mm

Technical data series GSZ-10-S / GSZ-10-R

max. compressive/tensile force, static:	10 kN (1 t)
max. compressive/tensile force, dyn:	see duty cycle curves
Input speed:	1500 rpm / max. 3000 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, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	2,1 kg
Weight of screw/m:	2 kg
Gearbox lubrication:	synthetic gear oil
Screw lubrication:	grease lubrication
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 0,361 kg cm ² / L: 0,226 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) x 0,64 ^{3,4)} (N-Normal) F (kN) x 0,20 ^{3,4)} (L-Low)
Breakaway torque:	Drive torque M _G 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

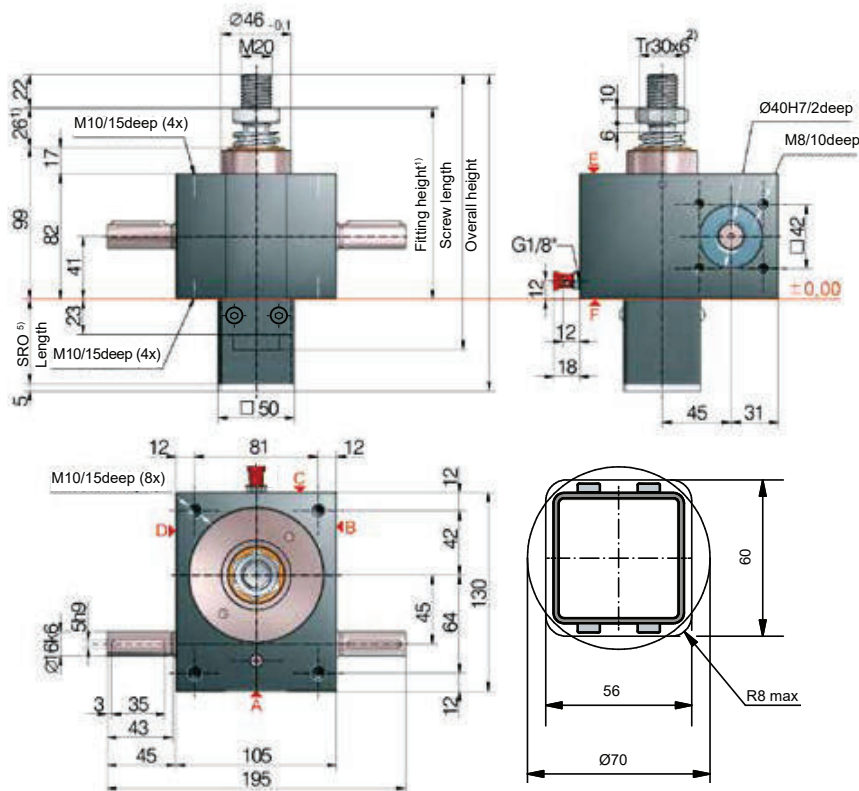
Important information:

- 1) for bellows extension please check e.g. by online configurator.
- 2) Tr 20x4 is standard, also available: double-pitch, INOX, left-handed, increased screw Tr 30x6 (only for the R-Version)
- 3) factor includes efficiency, ratio and 30% safety
- 4) for a 4 mm screw pitch
- 5) to calculate the length of our protective tube length SRO simply use our online configurator: www.zimm.com



S 25 kN

GSZ-25-S | translating screw



Opening for protective tube square and round



⁵⁾ Protective tube length SRO with Tr 30x6-Screw

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

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

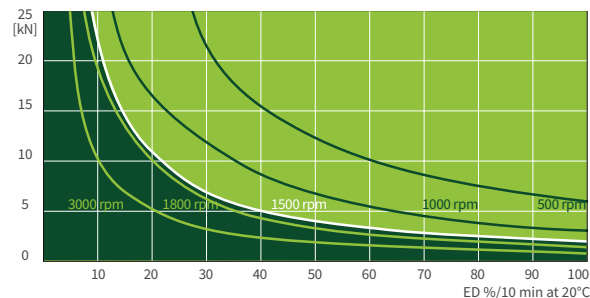
Standard configuration

Code	Gearbox (series)	Size	Version (variant)	Ratio	Screw	Stroke per drive shaft rotation
GSZ-25-SN	GSZ	25	S (translating screw)	N (normal) 6:1	Tr 30x6	1,00 mm
GSZ-25-SL				L (low) 24:1		0,25 mm

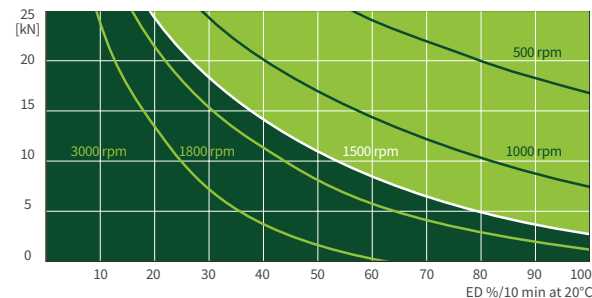
25 kN

Duty cycle thermal limit (S + R)

Ratio „N“ (6:1)



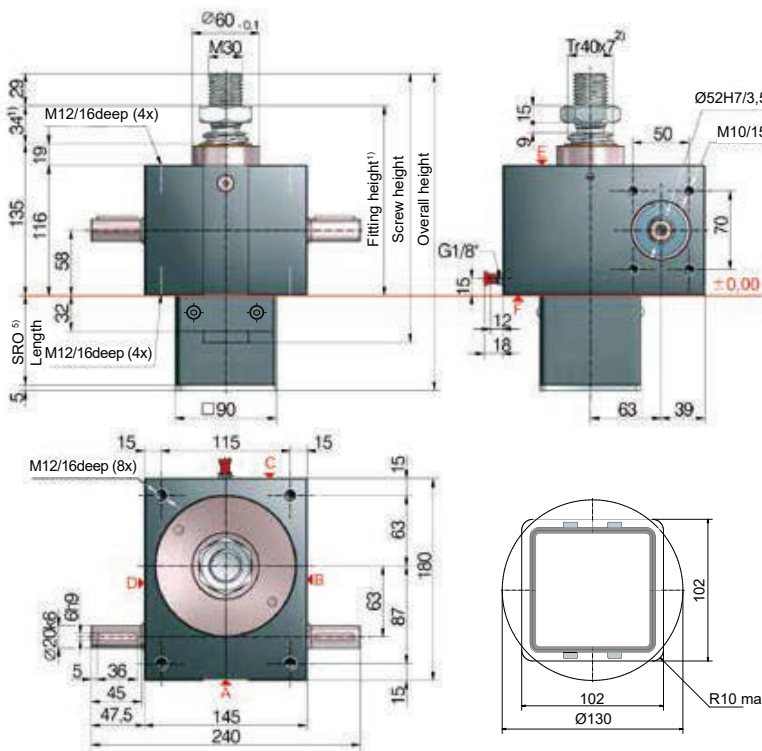
Ratio „L“ (24:1)



These curves are for guidance under standard industrial conditions (ambient temperature 20°C etc.) and correct maintenance (lubrication etc.). They are based on the ZIMM standard trapezoidal thread Tr 30x6. With the use of a ball screw, the operation cycles can be many times longer.



S 50 kN
GSZ-50-S | translating screw



Opening for protective tube square and round



⁵⁾Protective tube length SRO with Tr 40x7-Screw

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

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

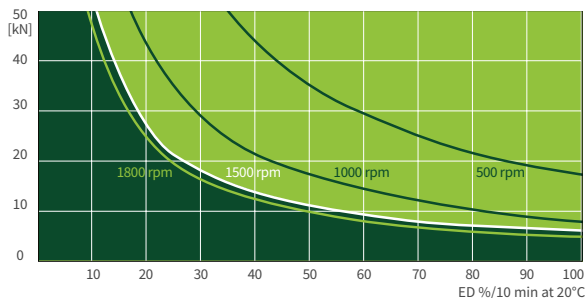
Standard configuration

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

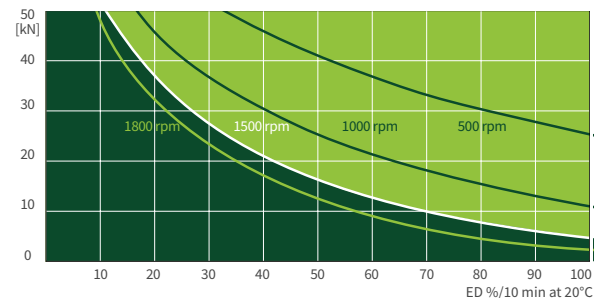
50 kN

Duty cycle thermal limit (S + R)

Ratio „N“ (7:1)



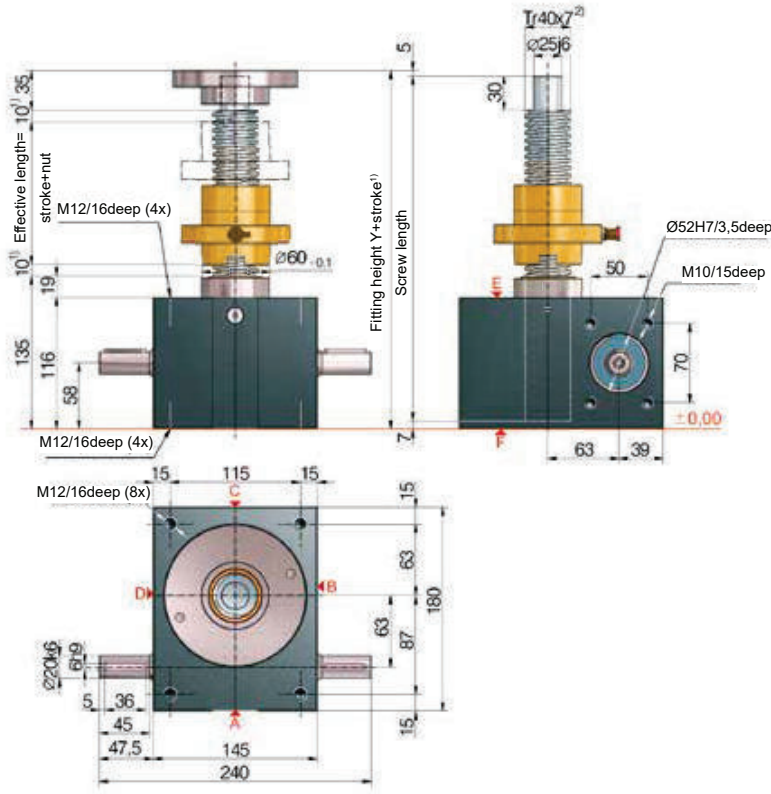
Ratio „L“ (28:1)



These curves are for guidance under standard industrial conditions (ambient temperature 20°C etc.) and correct maintenance (lubrication etc.). They are based on the ZIMM standard trapezoidal thread Tr 40x7. With the use of a ball screw, the operation cycles can be many times longer.



R 50 kN
GSZ-50-R | rotating screw



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

Screw size standard:	depending on the load and duty cycle Tr 40x7 ²⁾
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 ² / L: 1,73 kg cm ²
Input torque (at 1500 rpm):	max. 31,5 Nm (N) / max. 10,4 Nm (L)
Drive-through torque:	max. 260 Nm
Drive torque M _G (Nm):	F (kN) x 0,68 ^{3, 4)} (N-Normal)

Breakaway torque: $M_G \times 0,25$

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

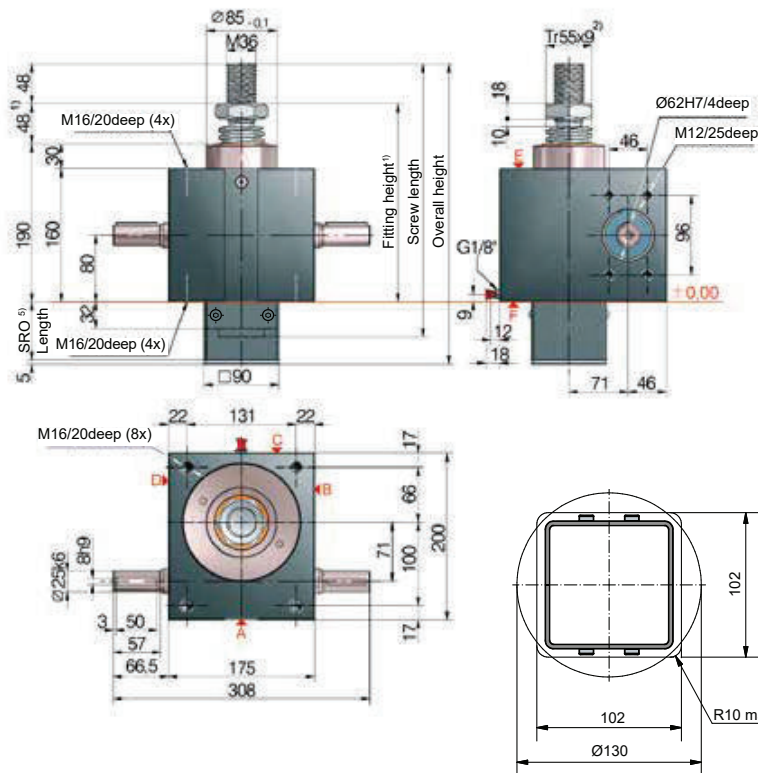
Detailed calculation of the fitting dimensions (bellows, screw, protective tube...) can be conveniently determined with our online configurator: www.zimm.com

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



100 kN GSZ-100-S | translating screw



Opening for protective tube square and round



⁵⁾Protective tube length SRO with Tr 55x9-Screw

Without escape/ rotation protection	82 + stroke
Escape/ rotation protection	112 + stroke
Rotation protection, with limit switch set ESSET	144 + stroke
Rotation protection and ESSET and KAR*	169 + stroke

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

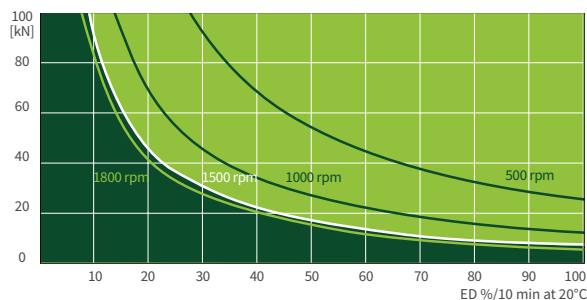
Standard configuration

Code	Gearbox (series)	Size	Version (variant)	Ratio	Screw	Stroke per drive shaft rotation
GSZ-100-SN	GSZ	100	S (translating screw)	N (normal) 9:1	Tr 55x9	1,00 mm
GSZ-100-SL				L (low) 36:1		0,25 mm

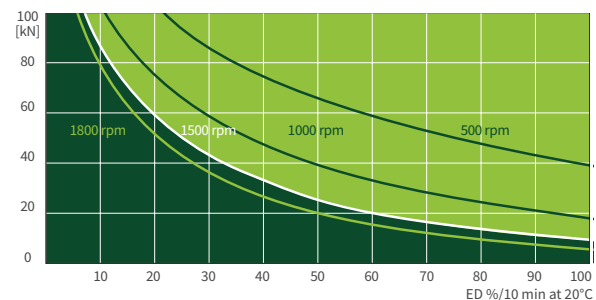
100 kN

Duty cycle thermal limit (S + R)

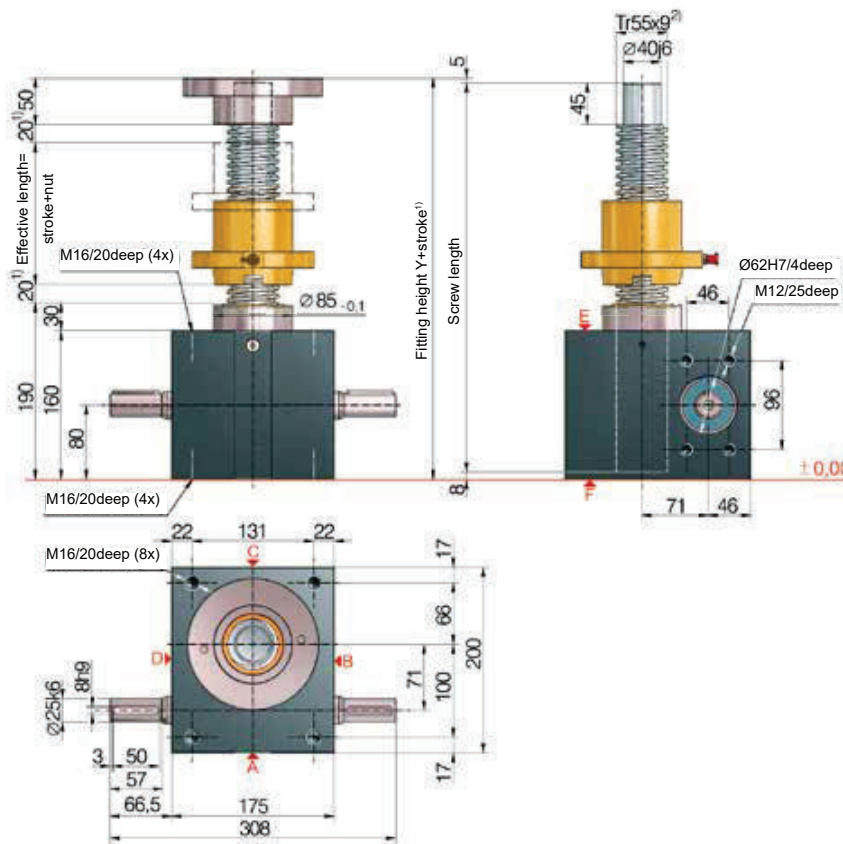
Ratio „N“ (9:1)



Ratio „L“ (36:1)



These curves are for guidance under standard industrial conditions (ambient temperature 20°C etc.) and correct maintenance (lubrication etc.). They are based on the ZIMM standard trapezoidal thread Tr 55x9. With the use of a ball screw, the operation cycles can be many times longer.



Standard configuration

Code	Gearbox (series)	Size	Version (variant)	Ratio	Screw	Stroke per drive shaft rotation
GSZ-100-RN	GSZ	100	R (rotating screw)	N (normal) 9:1	Tr 55x9	1,00 mm
GSZ-100-RL				L (low) 36:1		0,25 mm

Technical data series GSZ-100-S / GSZ-100-R

max. compressive/tensile force, static:	100 kN (10 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 55x9 ²⁾
Gear ratio:	9:1 (N) / 36:1 (L)
Housing material:	GGG-50, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	30 kg
Weight of screw/m:	15,7 kg
Gearbox lubrication:	synthetic fluid grease
Screw lubrication:	grease lubrication
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 4,66 kg cm ² / L: 3,38 kg cm ²
Input torque (at 1500 rpm):	max. 53,4 Nm (N) / max. 13,5 Nm (L)
Drive-through torque:	max. 540 Nm
Drive torque M _G (Nm):	F (kN) x 0,72 ^{3,4)} (N-Normal) F (kN) x 0,23 ^{3,4)} (L-Low)
Breakaway torque:	Drive torque M _G x 1,5

Make a plan to keep a safe distance of at least 20 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

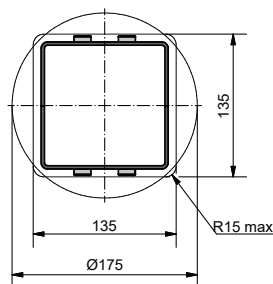
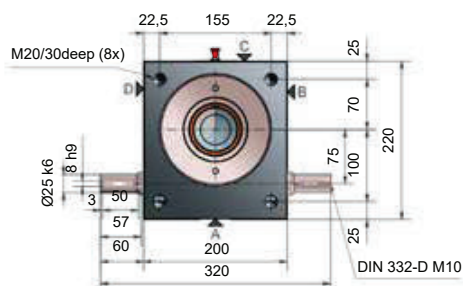
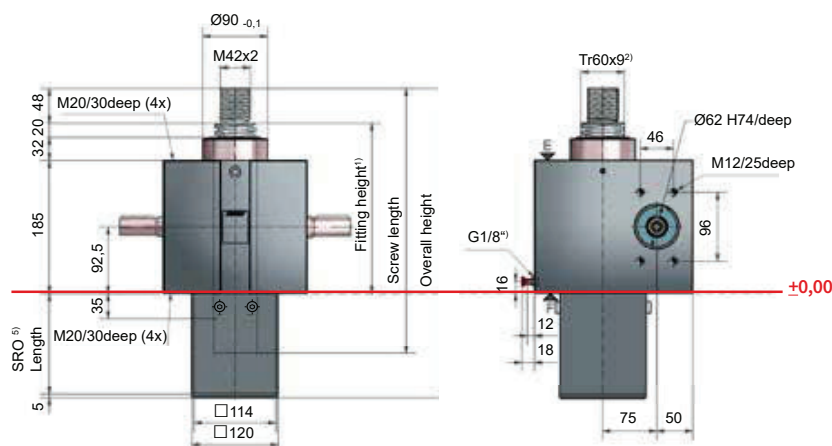
Important information:

- 1) for bellows extension please check e.g. by online configurator.
- 2) Tr 55x9 is standard, also available: double-pitch, INOX, left-handed, increased screw Tr 60x9 (only for the R-Version)
- 3) factor includes efficiency, ratio and 30% safety
- 4) for a 9 mm screw pitch
- 5) to calculate the length of our protective tube length SRO simply use our online configurator: www.zimm.com



150 kN

GSZ-150-S | translating screw



Opening for protective tube square and round

5) Protective tube length SRO with Tr 60x9-Screw

Without escape/rotation protection	87 + stroke
Escape/rotation protection	117 + stroke
Rotation protection, with limit switch set ESSET	149 + stroke
Rotation protection, ES and KAR*	199 + stroke

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

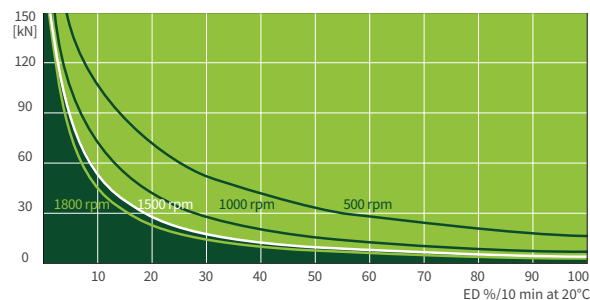
Standard configuration

Code	Gearbox (series)	Size	Version (variant)	Ratio	Screw	Stroke per drive shaft rotation
GSZ-150-SN	GSZ	150	S (translating screw)	N (normal) 9:1	Tr 60x9	1,00 mm
GSZ-150-SL				L (low) 36:1		0,25 mm

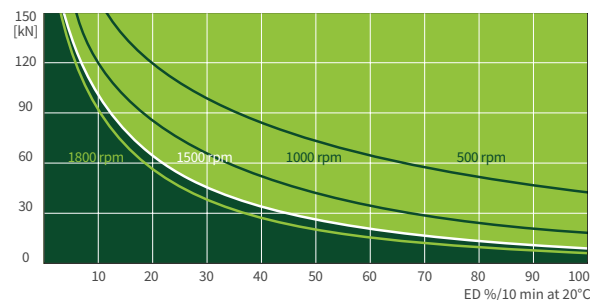
150 kN

Duty cycle thermal limit (S + R)

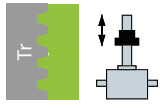
Ratio „N“ (9:1)



Ratio „L“ (36:1)

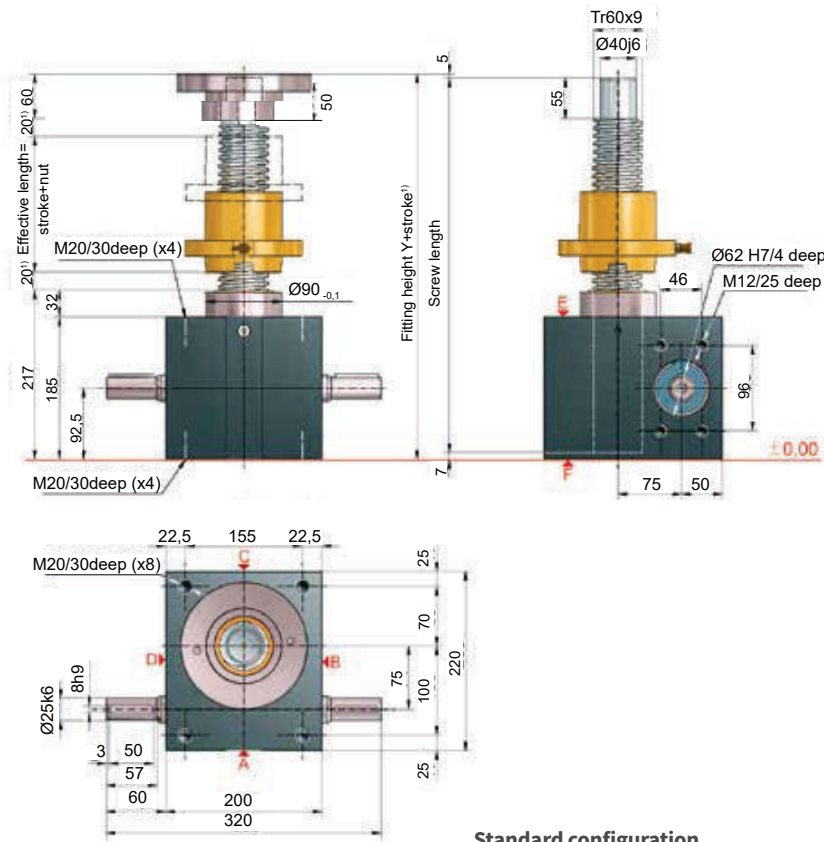


These curves are for guidance under standard industrial conditions (ambient temperature 20°C etc.) and correct maintenance (lubrication etc.). They are based on the ZIMM standard trapezoidal thread Tr 60x9. With the use of a ball screw, the operation cycles can be many times longer.



150 kN

GSZ-150-R | rotating screw



Standard configuration

Code	Gearbox (series)	Size	Version (variant)	Ratio	Screw	Stroke per drive shaft rotation
GSZ-150-RN	GSZ	150	R (rotating screw)	N (normal) 9:1	Tr 60x9	1,00 mm
GSZ-150-RL				L (low) 36:1		0,25 mm

Technical data series GSZ-150-S / GSZ-150-R

max. compressive/tensile force, static:	150 kN (15 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 60x9 ²⁾
Gear ratio:	9:1 (N) / 36:1 (L)
Housing material:	GGG-50, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	42 kg
Weight of screw/m:	19 kg
Gearbox lubrication:	synthetic fluid grease
Screw lubrication:	grease lubrication
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 7,92 kg cm ² / L: 5,17 kg cm ²
Input torque (at 1500 rpm):	max. 75,1 Nm (N) / max. 20,7 Nm (L)
Drive-through torque:	max. 540 Nm
Drive torque M _G (Nm):	F (kN) x 0,75 ^{3,4)} (N-Normal) F (kN) x 0,25 ^{3,4)} (L-Low)
Breakaway torque:	Drive torque M _G x 1,5

Make a plan to keep a safe distance of at least 20 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

Important information:

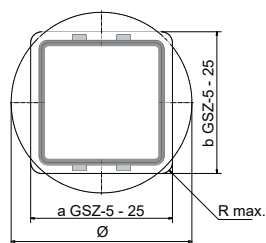
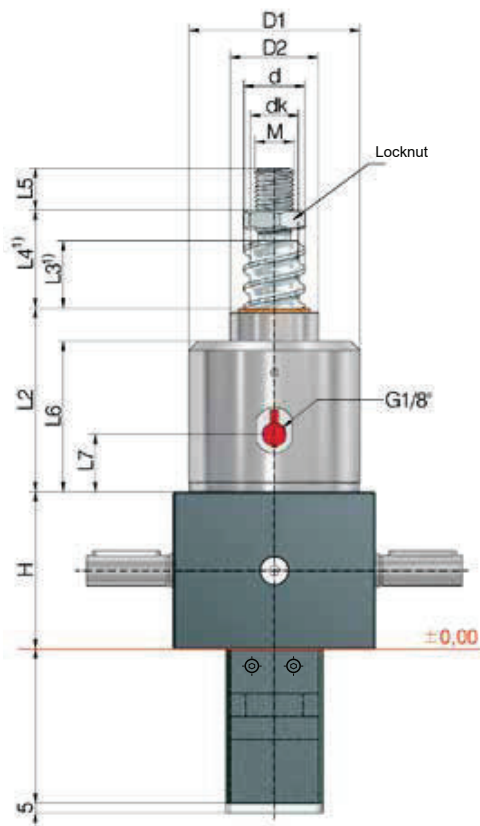
- 1) for bellows extension please check e.g. by online configurator.
- 2) Tr 60x9 is standard, also available: double-pitch, INOX, left-handed, increased screw Tr 80x16 (only for the R-Version)
- 3) factor includes efficiency, ratio and 30% safety
- 4) for a 9 mm screw pitch
- 5) to calculate the length of our protective tube length SRO simply use our online configurator: www.zimm.com



S

GSZ 5 to 25 kN

KGT-S | translating screw



Opening for protective tube SRO

GSZ-5	GSZ-10	GSZ-25
Protective tube square: a41 x b45, or Ø50		Protective tube square: a60 x b60, R max. 8 or Ø70

VS rotation protection is recommended as standard.

Protective tube length SRO

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

Screw jacks	KGT Screw	Stroke per drive revolution		KGT Load rating kN		Axial play max ³⁾ mm
	ØxP	SN	SL	dyn. C ²⁾	stat. C ₀ =C _{0a}	
GSZ-5	16x5	1,25	0,31	10,1	12	0,06
	16x10	2,50	0,63	11,1	12,9	0,06
GSZ-10	25x5	1,25	0,31	13,7	21,5	0,06
	25x10	2,50	0,63	25,2	45,4	0,06
	25x25	6,25	1,56	20,7	37,3	0,06
GSZ-25	25x50	12,50	3,13	19,2	37,3	0,06
	32x5	0,83	0,21	24,8	49,7	0,06
	32x10	1,67	0,42	30,8	45,6	0,06
	32x20	3,33	0,83	32,9	47,1	0,06
	32x40	6,67	1,67	18,3	37,3	0,06

Technical data

GSZ-5-S

max. compressive/tensile force, static:	5 kN (500 kg)
Input speed:	1500 rpm / max. 3000 rpm
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 0,17 kg cm ² / L: 0,093 kg cm ²
Input torque (at 1500 rpm):	max. 4,7 Nm (N) / max. 1,5 Nm (L)
Drive-through torque:	max. 39 Nm
Drive torque:	4:1 (Normal) / 16:1 (Low)
Housing material:	aluminium, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	1,5 kg
Gearbox / Screw lubrication:	synthetic gear oil / grease lubrication

GSZ-25-S

max. compressive/tensile force, static:	25 kN (2,5 t)
Input speed:	1500 rpm / max. 3000 rpm
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 1,449 kg cm ² / L: 0,589 kg cm ²
Input torque (at 1500 rpm):	max. 18 Nm (N) / max. 10 Nm (L)
Drive-through torque:	max. 108 Nm
Drive torque:	6:1 (Normal) / 24:1 (Low)
Housing material:	aluminium, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	3,8 kg
Gearbox / Screw lubrication:	synthetic gear oil / grease lubrication

GSZ-10-S

max. compressive/tensile force, static:	10 kN (1 t)
Input speed:	1500 rpm / max. 3000 rpm
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:	4:1 (Normal) / 16:1 (Low)
Housing material:	aluminium, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	2,8 kg
Gearbox / Screw lubrication:	synthetic gear oil / grease lubrication

Ordering example: GSZ-25-SN-KGT 32x10, C = 30,8 kN



Because of the lack of friction, a holding brake is necessary: a motor brake or a spring pressure brake is required.

Screw: 1.1213 (Cf 53), induction hardened and polished.

Screw jacks	KGT Screw ØxP	Dimensions mm											
		H	d	dk	D1	D2	L2	L3 ¹⁾	L4 ¹⁾	L5	L6	L7	M
GSZ-5	16x5	62	15,5	12,9	59	29	66	15	25	19	54	23	M12
	16x10	62	15,5	12,9	59	29	66	25	35	19	54	23	M12
GSZ-10	25x5	74	24,5	21,9	69	39	85	15	27	20	69	21	M14
	25x10	74	24,5	21,9	69	39	85	25	37	20	69	21	M14
	25x25	74	24,5	21,9	69	39	85	60	72	20	69	21	M14
	25x50	74	24,5	21,9	69	39	85	125	137	20	69	21	M14
GSZ-25	32x5	82	31,5	28,9	89	46	99	15	31	22	82	33	M20
	32x10	82	31,5	26,8	89	46	99	20	36	22	82	33	M20
	32x20	82	31,5	26,8	89	46	99	35	51	22	82	33	M20
	32x40	82	31,5	28,9	89	46	99	70	86	22	82	33	M20

1) Depending on the control system and drive, the dimension L3 and L4 can be reduced at your own discretion.

An extension may be required if a bellows or spiral spring is fitted.

2) Dynamic load rating to DIN ISO 3408

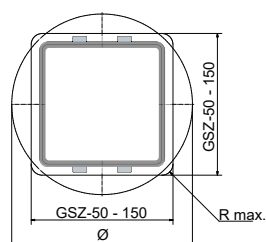
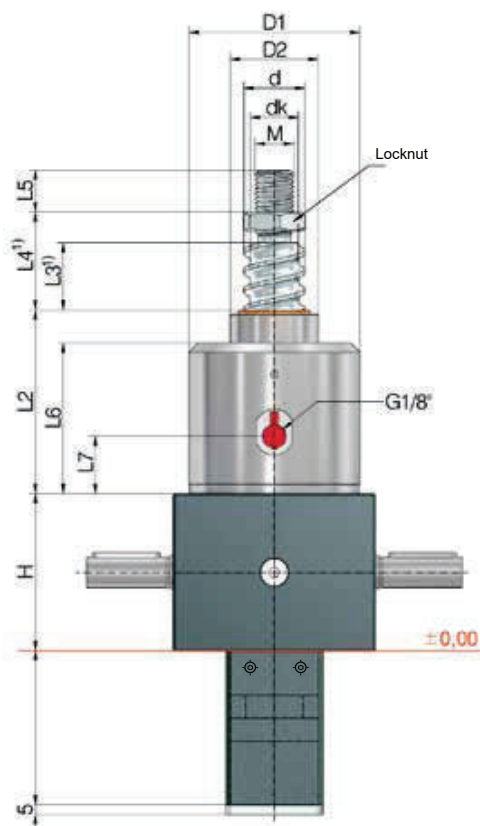
3) Reduced play 0,02 mm available on request



S

GSZ 50 to 150 kN

KGT-S | translating screw



Opening for protective tube SRO

GSZ-50

Protective tube square:
102x102, R max. 10 or Ø130

GSZ-100

GSZ-150

Protective tube square:
135x135, R max. 15 or Ø175

VS rotation protection is recommended as standard.

Protective tube length SRO

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

Screw jacks	KGT Screw	Stroke per drive revolution		KGT Load rating kN		Axial play max ³⁾ mm
	ØxP	SN	SL	dyn. C ²⁾	stat. C ₀ =C _{0a}	
GSZ-50	40x5	0,71	0,18	27,5	63,6	0,06
	40x10	1,43	0,36	46,1	71,3	0,06
	40x20	2,86	0,72	44	80,4	0,06
	40x40	5,71	1,43	35	101,9	0,06
GSZ-100	50x10	1,11	0,28	122,4	248,6	0,06
	50x20	2,22	0,56	127,3	270,3	0,06
	50x40	4,44	1,11	84,7	143,1	0,06
GSZ-150	63x10	1,11	0,28	150,2	598,4	0,03
	63x20	2,22	0,56	173,5	346,2	0,03
	63x40	4,44	1,11	96,6	205,1	0,03
	63x60 ³⁾	6,67	1,67	59,5	102,5	0,03

Technical data

GSZ-50-S

max. compressive/tensile force, static:	50 kN (5 t)
Input speed:	1500 rpm / max. 1800 rpm
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 2,85 kg cm ² / L: 1,75 kg cm ²
Input torque (at 1500 rpm):	max. 31,5 Nm (N) / max. 10,4 Nm (L)
Drive-through torque:	max. 260 Nm
Gear ratio:	7:1 (Normal) / 28:1 (Low)
Housing material:	GGG-50, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	23 kg
Gearbox / Screw lubrication:	synthetic gear oil / grease lubrication

GSZ-150-S

max. compressive/tensile force, static:	150 kN (15 t)
Input speed:	1500 rpm / max. 1800 rpm
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 7,92 kg cm ² / L: 5,17 kg cm ²
Input torque (at 1500 rpm):	max. 75,1 Nm (N) / max. 20,7 Nm (L)
Drive-through torque:	max. 540 Nm
Gear ratio:	9:1 (Normal) / 36:1 (Low)
Housing material:	GGG-50, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	55 kg
Gearbox / Screw lubrication:	synthetic gear oil / grease lubrication

GSZ-100-S

max. compressive/tensile force, static:	100 kN (10 t)
Input speed:	1500 rpm / max. 1800 rpm
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 5,45 kg cm ² / L: 3,43 kg cm ²
Input torque (at 1500 rpm):	max. 53,4 Nm (N) / max. 13,5 Nm (L)
Drive-through torque:	max. 540 Nm
Gear ratio:	9:1 (Normal) / 36:1 (Low)
Housing material:	GGG-50, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	39 kg
Gearbox / Screw lubrication:	synthetic gear oil / grease lubrication

Ordering example: GSZ-100-SN-KGT 50x20, C = 127,3 kN



Because of the lack of friction, a holding brake is necessary: a motor brake or a spring pressure brake is required.

Screw: 1.1213 (Cf 53), induction hardened and polished.

Screw jacks	KGT Screw ØxP	Dimensions mm											
		H	d	dk	D1	D2	L2	L3 ¹⁾	L4 ¹⁾	L5	L6	L7	M
GSZ-50	40x5	116	39	36,4	125	60	93	15	39	29	74	17	M30
	40x10	116	39	33,3	125	60	93	15	39	29	74	17	M30
	40x20	116	39	34,3	125	60	93	30	54	29	74	17	M30
	40x40	116	39	36,4	125	60	93	60	84	29	74	17	M30
GSZ-100	50x10	160	49	43,3	148	85	148	20	48	48	118	19	M36
	50x20	160	49	43,3	148	85	148	40	68	48	118	19	M36
	50x40	160	50	41,1	148	85	148	80	108	48	118	19	M36
GSZ-150	63x10	185	63	56,6	168	90	150	20	20	48	118	24	M32
	63x20	185	63	51,8	168	90	150	40	40	48	118	24	M32
	63x40	185	63	54,1	168	90	150	80	80	48	118	24	M32
	63x60 ³⁾	185	63	54,1	168	90	150	120	120	48	118	24	M32

1) Depending on the control system and drive, the dimension L3 and L4 can be reduced at your own discretion.

An extension may be required if a bellows or spiral spring is fitted.

2) Dynamic load rating to DIN ISO 3408

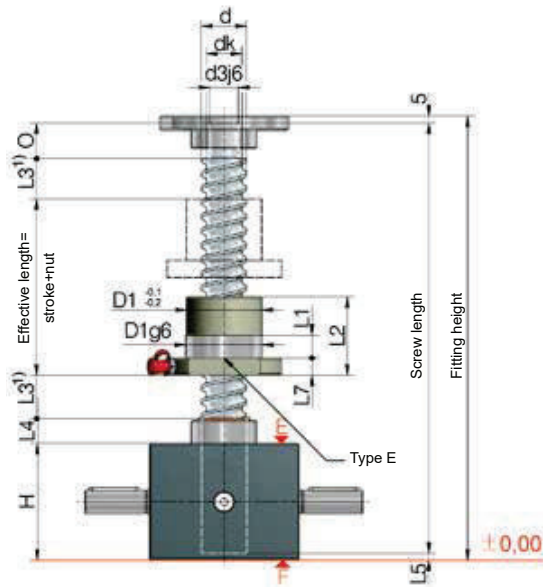
3) Reduced play 0,02 mm available on request



R

GSZ 2 to 25 kN

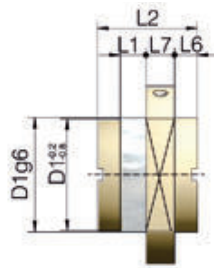
KGT-R | rotating screw



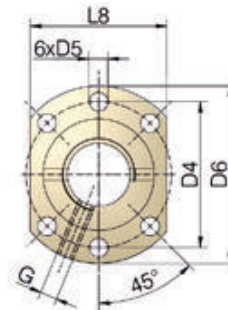
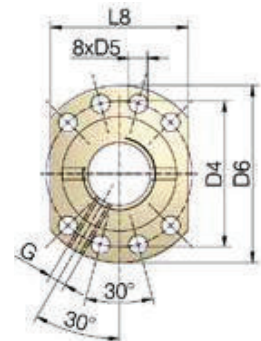
Position of the flange nut:

G = flange gearbox side (as shown)

S = flange screw side



Type S

Hole pattern 1
to DIN 69051Hole pattern 2
to DIN 69051

Screw jacks	KGT Screw	Stroke per drive revolution		KGT Load rating kN		Nut		Lubrication hole	Axial play max ³⁾ mm
	ØxP	RN	RL	dyn. C ²⁾	stat. Co=C _{0a}	Type	Hole pattern	G	
GSZ-2	16x5	1,25	0,31	10,1	12	E	1	M6	0,06
	16x10	2,5	0,63	11,1	12,9	E	1	M6	0,06
GSZ-5	16x5	1,25	0,31	10,1	12	E	1	M6	0,06
	16x10	2,5	0,63	11,1	12,9	E	1	M6	0,06
GSZ-10	25x5	1,25	0,31	13,7	21,5	E	1	M6	0,06
	25x10	2,5	0,63	25,2	45,4	E	1	M6	0,06
	25x25	6,25	1,56	20,7	37,3	E	1	M6	0,06
GSZ-25	25x50	12,5	3,14	19,2	37,3	E	1	M6	0,06
	32x5	0,83	0,21	24,8	49,7	E	1	M6	0,06
	32x10	1,67	0,42	30,8	45,6	E	1	M6	0,06
	32x20	3,33	0,83	32,9	47,1	E	1	M6	0,06
	32x40 ³⁾	6,67	1,67	18,3	37,3	S	N ⁴⁾	M6	0,06

Technical data

GSZ-2-R

max. compressive/tensile force, static:	2,5 kN (250 kg)
Input speed:	1500 rpm / max. 3000 rpm
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 0,047 kg cm ² / L: 0,031 kg cm ²
Input torque (at 1500 rpm):	max. 1,4 Nm (N) / max. 0,5 Nm (L)
Drive-through torque:	max. 9 Nm
Gear ratio:	4:1 (Normal) / 16:1 (Low)
Housing material:	aluminium, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	0,6 kg
Gearbox / Screw lubrication:	synthetic gear oil / grease lubrication

GSZ-10-R

max. compressive/tensile force, static:	10 kN (1 t)
Input speed:	1500 rpm / max. 3000 rpm
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 0,361 kg cm ² / L: 0,226 kg cm ²
Input torque (at 1500 rpm):	max. 13,5 Nm (N) / max. 7,5 Nm (L)
Drive-through torque:	max. 57 Nm
Gear ratio:	4:1 (Normal) / 16:1 (Low)
Housing material:	aluminium, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	2,1 kg
Gearbox / Screw lubrication:	synthetic gear oil / grease lubrication

GSZ-5-R

max. compressive/tensile force, static:	5 kN (500 kg)
Input speed:	1500 rpm / max. 3000 rpm
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 0,132 kg cm ² / L: 0,226 kg cm ²
Input torque (at 1500 rpm):	max. 4,7 Nm (N) / max. 1,5 Nm (L)
Drive-through torque:	max. 39 Nm
Gear ratio:	4:1 (Normal) / 16:1 (Low)
Housing material:	aluminium, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	1,2 kg
Gearbox / Screw lubrication:	synthetic gear oil / grease lubrication

GSZ-25-R

max. compressive/tensile force, static:	25 kN (2,5 t)
Input speed:	1500 rpm / max. 3000 rpm
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 0,667 kg cm ² / L: 0,443 kg cm ²
Input torque (at 1500 rpm):	max. 18 Nm (N) / max. 10 Nm (L)
Drive-through torque:	max. 108 Nm
Gear ratio:	6:1 (Normal) / 24:1 (Low)
Housing material:	aluminium, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	3,8 kg
Gearbox / Screw lubrication:	synthetic gear oil / grease lubrication

Because of the lack of friction, a holding brake is necessary: a motor brake or a spring pressure brake is required.

Screw: 1.1213 (Cf 53), induction hardened and polished.

Pitch accuracy: 0,05 mm / 300 mm

Note

An increased screw can also be used for the rotating version.
(z.B.: ZE-10-RN with screw 32*10)

Adapter for KGT:
Dimension sheet on request



Screw jacks	KGT Screw		Dimensions mm															
	ØxP	d	dk	d3j6	O	H	D1	D4	D5	D6	L1	L2	L3 ¹⁾	L4	L5	L6	L7	L8
GSZ-2	16x5	15,5	12,9	10	12	50	28	38	5,5	48	10	42	15	11	3		10	40
	16x10	15,4	13	10	12	50	28	38	5,5	48	10	55	25	11	3		10	40
GSZ-5	16x5	15,5	12,9	12	15	62	28	38	5,5	48	10	42	15	12	8		10	40
	16x10	15,4	13	12	15	62	28	38	5,5	48	10	55	25	12	8		10	40
GSZ-10	25x5	24,5	21,9	15	20	74	40	51	6,6	62	10	42	15	16	8		10	48
	25x10	24,5	21,9	15	20	74	40	51	6,6	62	16	55	25	16	8		10	48
	25x25	24,5	21,9	15	20	74	40	51	6,6	62	9	35	60	16	8	8	10	
	25x50	24,5	21,9	15	20	74	40	51	6,6	62	10	58	125	16	8	10	10	48
GSZ-25	32x5	31,5	28,9	20	25	82	50	65	9	80	10	55	15	17	5		12	62
	32x10	31,5	26,8	20	25	82	53 ⁶⁾	65	9	80	16	69	20	17	5		12	62
	32x20	31,5	26,8	20	25	82	53 ⁶⁾	65	9	80	16	80	35	17	5		12	62
	32x40 ³⁾	31,5	28,9	20	25	82	53 ⁶⁾	68 ⁶⁾	7 ⁶⁾	80	14	45	70	17	5	7,5	16	³⁾

1) Depending on the control system and drive, the dimension L3 and L4 can be reduced at your own discretion. An extension may be required if a bellows or spiral spring is fitted.

2) Dynamic load rating to DIN ISO 3408

3) Round flange

4) Non-preferred design

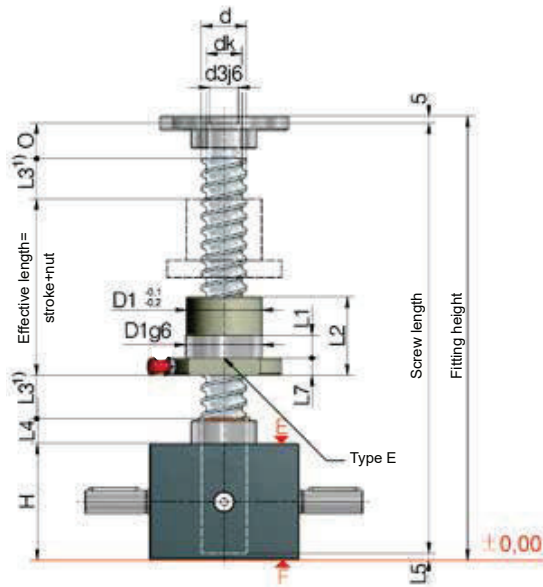
5) Reduced play 0,02 mm available on request

6) Not to DIN 69051

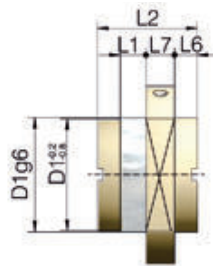


R

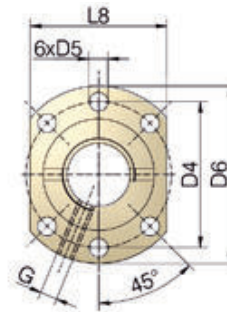
GSZ 50 to 150 kN

KGT-R | rotating screw


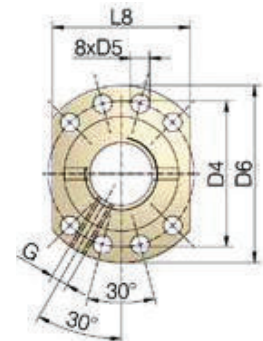
Position of the flange nut:
G = flange gearbox side (as shown)
S = flange screw side



Type S



Hole pattern 1
to DIN 69051



Hole pattern 2
to DIN 69051

Screw jacks	KGT Screw	Stroke per drive revolution		KGT Load rating kN		Nut		Lubrication hole	Axial play max ¹⁾ mm
	ØxP	RN	RL	dyn. C ²⁾	stat. C ₀ =C _{0a}	Type	Hole pattern	G	
GSZ-50	40x5	0,71	0,18	27,5	63,6	E	1	M6	0,06
	40x10	1,43	0,36	46,1	71,3	E	1	M8x1	0,06
	40x20	2,86	0,72	44	80,4	E	1	M8x1	0,06
	40x40	5,71	1,43	35	101,9	E	1	M8x1	0,06
GSZ-100	50x10	1,11	0,28	122,4	248,6	E	1	M8x1	0,06
	50x20	2,22	0,56	127,3	270,3	E	1	M8x1	0,06
	50x40	4,44	1,11	84,7	143,1	E	1	M8x1	0,06
	50x50 ⁴⁾	5,56	1,39	84,7	143,1	E	1	M8x1	0,03
GSZ-150	63x10	1,11	0,28	150,2	598,4	E	2	M8x1	0,03
	63x20	2,22	0,56	173,5 ⁵⁾	346,2	E	2	M8x1	0,03
	63x40	4,44	1,11	96,6	205,1	E	2	M8x1	0,03
	63x60 ³⁾	6,67	1,67	59,5	102,5	E	2	M8x1	0,03

Technical data

GSZ-50-R

max. compressive/tensile force, static:	50 kN (5 t)
Input speed:	1500 rpm / max. 1800 rpm
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 2,49 kg cm ² / L: 1,73 kg cm ²
Input torque (at 1500 rpm):	max. 31,5 Nm (N) / max. 10,4 Nm (L)
Drive-through torque:	max. 260 Nm
Gear ratio:	7:1 (Normal) / 28:1 (Low)
Housing material:	GGG-50, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	15 kg
Gearbox / Screw lubrication:	synthetic gear oil / grease lubrication

GSZ-150-R

max. compressive/tensile force, static:	150 kN (15 t)
Input speed:	1500 rpm / max. 1800 rpm
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 7,92 kg cm ² / L: 5,17 kg cm ²
Input torque (at 1500 rpm):	max. 75,1 Nm (N) / max. 20,7 Nm (L)
Drive-through torque:	max. 540 Nm
Gear ratio:	9:1 (Normal) / 36:1 (Low)
Housing material:	GGG-50, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	42 kg
Gearbox / Screw lubrication:	synthetic gear oil / grease lubrication

GSZ-100-R

max. compressive/tensile force, static:	100 kN (10 t)
Input speed:	1500 rpm / max. 1800 rpm
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 4,66 kg cm ² / L: 3,38 kg cm ²
Input torque (at 1500 rpm):	max. 53,4 Nm (N) / max. 13,5 Nm (L)
Drive-through torque:	max. 540 Nm
Gear ratio:	9:1 (Normal) / 36:1 (Low)
Housing material:	GGG-50, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	30 kg
Gearbox / Screw lubrication:	synthetic gear oil / grease lubrication

Ordering example: GSZ-100-RN-KGT 50x20, C = 127,3 kN

Version	_____
RN or RL (Ratio)	_____
KGT Screw	_____
Dynamic load rating C	_____

Because of the lack of friction, a holding brake is necessary: a motor brake or a spring pressure brake is required.

Screw: 1.1213 (Cf 53), induction hardened and polished. **Pitch accuracy:** 0,05 mm / 300 mm

Note

An increased screw can also be used for the rotating version.
(z.B.: GSZ-10-RN with screw 32*10)

Adapter for KGT:
Dimension sheet on request



Screw jacks	KGT Screw	Dimensions mm																
	ØxP	d	dk	d3j6	O	H	D1	D4	D5	D6	L1	L2	L3 ¹⁾	L4	L5	L6	L7	L8
GSZ-50	40x5	39	36,4	25	30	116	63	78	9	93	10	57	15	19	7		14	70
	40x10	39	33,3	25	30	116	63	78	9	93	16	71	15	19	7		14	70
	40x20	39	34,3	25	30	116	63	78	9	93	16	80	30	19	7		14	70
	40x40	39	36,4	25	30	116	63	78	9	93	16	85	60	19	7	7,5	14	³⁾
GSZ-100	50x10	49	43,3	40	45	160	75	93	11	110	16	107	20	30	8		16	85
	50x20	49	43,3	40	45	160	85 ⁶⁾	103 ⁶⁾	11	120 ⁶⁾	16	125	40	30	8		16	95
	50x40	50	41,1	40	45	160	85 ⁶⁾	103 ⁶⁾	11	120 ⁶⁾	16	125	80	30	8		16	95
	50x50 ⁴⁾	50	41,1	40	45	160	85 ⁶⁾	103 ⁶⁾	11	120 ⁶⁾	16	145	100	30	8		16	95
GSZ-150	63x10	63	56,6	45	55	185	90	108	11	125	16	135	20	32	7		18	95
	63x20	63	51,8	45	55	185	95	115	13,5	135	25	135	40	32	7		20	100
	63x40	63	54,1	45	55	185	95	115	13,5	135	25	126	80	32	7		20	100
	63x60 ³⁾	63	54,1	45	55	185	95	115	13,5	135	25	126	120	32	7		20	100

1) Depending on the control system and drive, the dimension L3 and L4 can be reduced at your own discretion. An extension may be required if a bellows or spiral spring is fitted.

2) Dynamic load rating to DIN ISO 3408

3) Round flange

4) Non-preferred design

5) Reduced play 0,02 mm available on request

6) Not to DIN 69051

