

ZE

Evolution

Screw Jack System

ZIMM

Electromechanical Movement with precision



Screw Jack Series ZE

ZIMM Evolution 5 to 200 kN



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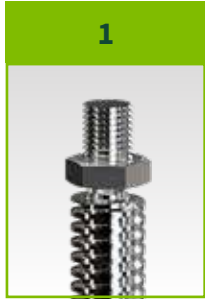
ZIMM GmbH

Millennium Park 3 | Lustenau, 6890 Austria





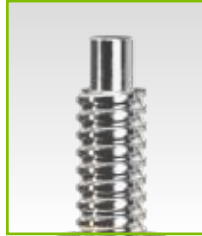
Product features



Screw variant:
Trapezoidal screw
(Tr)



Screw variant:
Safety nut
SIFA (Tr)



Screw variant:
Ball screw
(KGT)



High-performance
hardened and ground
gears



Standard-motor flange



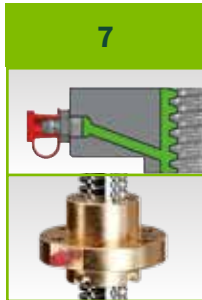
Corrosion resistant



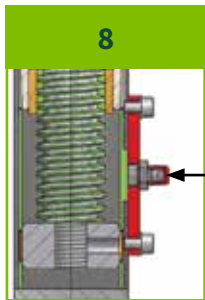
Integrated pivot bearing
for hinged bearing plate



Sealed gearbox,
no need to lubricate
additionally



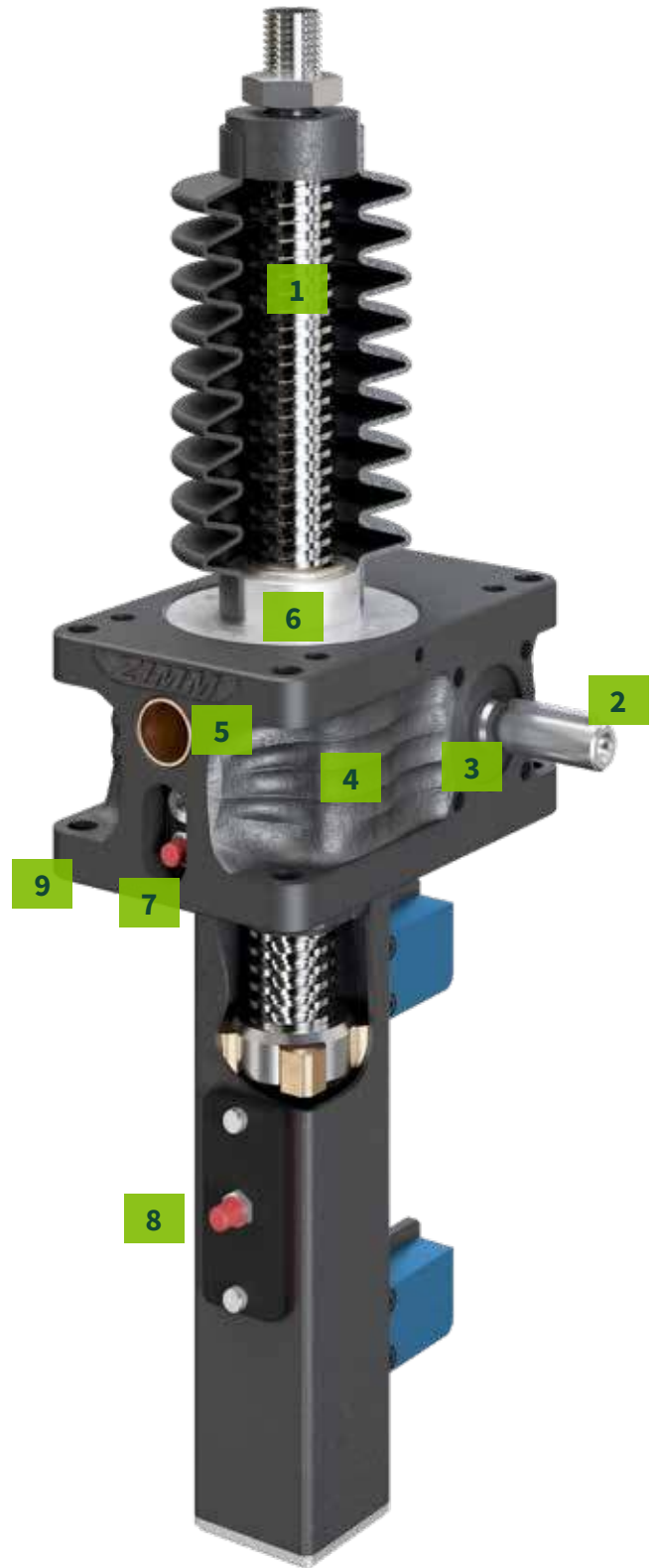
Simple spindle lubrication
mechanism



Easy access to lubricate
the protection against
rotation part



Multitude of installation
options





ZIMM Evolution

AR App for Smartphones & Tablets

Touch the future with the ZE App. Virtual Reality & Augmented Reality at your fingertips

The ZE-Evolution application offers an interactive 3d representation of a ZE-series screw jack, including appropriate parts commonly required for a complete system solution.

The animated screw jack itself can be viewed from all sides. Highlights are the interactive product features, which explain the many advantages of the ZIMM ZE series, as well as an exploded view for more details.

There is no internet connection required, once the software is installed. However, sharing options and links to catalogues or visiting parts of our website e.g. contact page would require a working internet connection.

Our App offers two viewing modes:

- VR - Virtual Reality
- AR - Augmented Reality



AR - Augmented Reality

Using the camera of the smart device, the 3d model screw jack will be rendered into the real environment.

In other words the screw jack is projected into the real picture of the camera viewer.

Experience ZIMM Evolution now

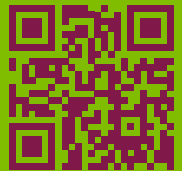
From iOS 9.0 or Android 6.0 Marshmallow!
Access and download the app from our website:

www.appszimm.com



The ZIMM ZE Evolution app is available both, for Apple iOS and Google Android.

Take advantage now and scan the QR-Code with your smart device or visit the website to install our app



www.appszimm.com

VR - Virtual Reality

The 3d model screw jack is loaded into a virtually created neutral background.

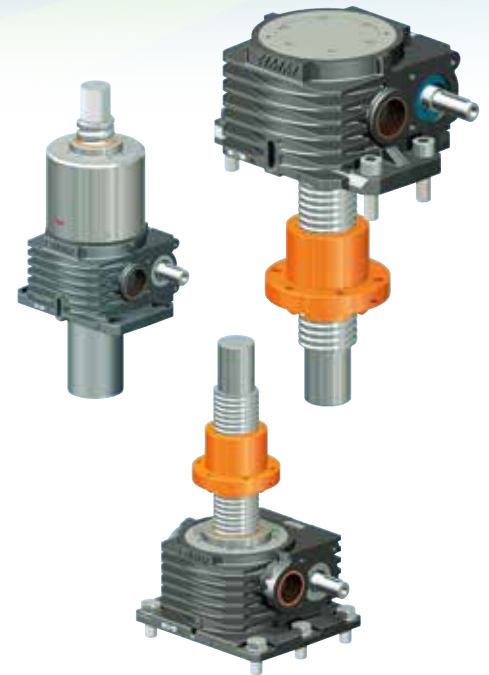
The 3d model can then inspected by finger-touch gestures (move, rotate, enlarge, zoom-out...)

Even more solutions

Sizes from 250 to 1000 kN

Need to go bigger? The Z-series screw jacks from ZIMM go up to 1000 kN

Z-series	250 kN	350 kN	500 kN	750 kN	1000 kN
S-translating screw R-rotating screw	S + R Version	S + R Version	S + R Version	S + R Version	S + R Version
Translations	10,66:1 32:1			13,33:1 40:1	
Housing material	GGG				
Z-Tr trapezoidal screw	80x16	100x16	120x16	140x20	160x20
Z-SIFA Tr safety nut	80x16	100x16	120x16	140x20	160x20
Z-KGT ball screw	80x10 80x20 80x40 80x60	100x20 100x40 100x60 100x80	125x25 125x40 125x60 125x80	140x25 140x40 140x60 140x80	160x25 160x40 160x60 160x80



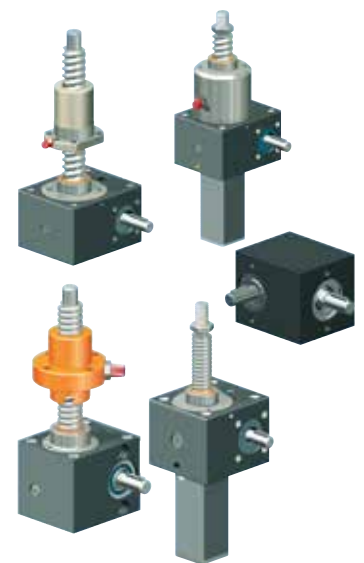
ZIMM recommends the Z-series for bigger loads

For technical information and data sheets, visit our website or download the catalogue online. Alternatively you can design screw jack systems, specify on-the-fly online with our unique ZIMM Configurator and download the 3d files of your project, as well as accessory parts with a few clicks.

Cubic design with sizes 2,5 to 150 kN

GSZ-Series	2,5 kN		5 kN		10 kN	25 kN	50 kN	100 kN	150 kN
S-translating R-rotating	S	R	S	R	S + R	S + R	S + R	S + R	S + R
Translations	4:1 16:1				6:1 24:1	7:1 28:1	9:1 36:1	9:1 36:1	
Housing material	Aluminium						GGG		GGG
Z-Tr trapezoidal screw	16x4		18x4		20x4	30x6	40x7	55x9	60x9
Z-SIFA Tr safety nut	-	16x4	-	18x4	20x4	30x6	40x7	55x9	60x9
Z-KGT ball screw	-	16x5 16x10	-	16x5 16x10	25x5 25x10 25x25 25x50	32x5 32x10 32x20 32x40	40x5 40x10 40x20 40x40	50x10 50x20 50x40 50x50	63x10 63x20 63x40 63x60

New Size



Cubic gearbox design with smooth surface.

The GSZ-series is compatible with common cubic designs from other brands as well previous series „SHZ“ and „MSZ“. The smooth case surface of the gearbox offers advantages when the working environment needs to be cleaned regularly or heavy pollution is expected.

The size 2.5 kN offers a solid design which has a unique benefit when coupled with the KSZ-2 bevel gearbox. The KSZ-2 has a continuous hollow shaft. Thus it can easily be bolted on the GSZ screw jack gearbox and requires very little space.

ZE-Series

Chapter 2 | Screw Jacks Sizes 5 - 200 kN

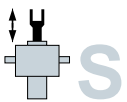


ZE-Series	5 kN		10 kN	25 kN	35 kN		50 kN	100 kN	150 kN	200 kN	
S-translating screw R-rotating screw	S	R	S + R Version	S + R Version	S	R	S + R Version	S + R Version	S + R Version	S	R
Translations	4:1 16:1		6:1 24:1	7:1 28:1	7:1 28:1		9:1 36:1		8:1 24:1		
Housing material	Aluminium				GGG				GGG		
ZE-Tr trapezoidal screw	18x4		20x4	30x6	40x7		40x7	55x9	60x9	70x12	
ZE-SIFA Tr safety nut	-	18x4	20x4	30x6	40x7		40x7	55x9	60x9	-	70x12
ZE-KGT ball screw	16x5 16x10		25x5 25x10 25x25 25x50	32x5 32x10 32x20 32x40	-	40x5 40x10 40x20 40x40	40x5 40x10 40x20 40x40	50x10 50x20 50x40 50x50	63x10 63x20 63x40 63x60	80x10 80x20 80x40 80x60	

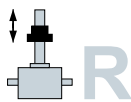
new size

Icon description

Screw Jack versions



S = translating screw



R = rotating screw



Spindel-variants



Tr = trapezoidal screw
S + R Version
Chapter 2



SIFA = safety nut
For Tr only (S + R Version)
Chapter 2.1



KGT = ball screw
S + R Version
Chapter 2.2

Access and download 3D-files and design complete systems online

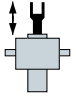
Complete screw jack system solutions can easily be designed, configured and then accessed in the most accepted 3d formats.

Also common accessory parts are available to configure and download just as easy.

You can find a nifty explanatory video as well as further information within our FAQ section online.

ZIMM online configurator:
www.zimm.com

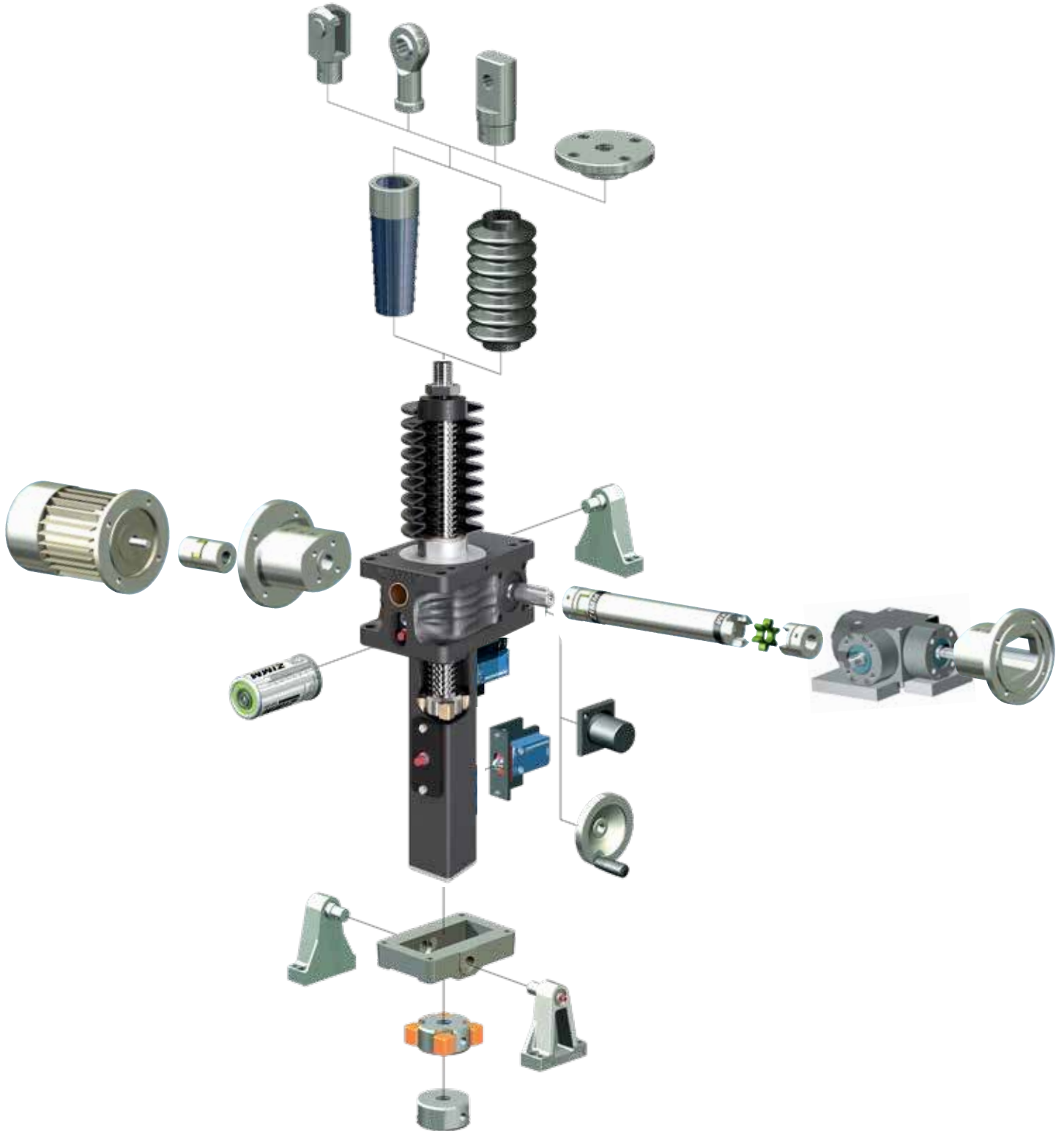




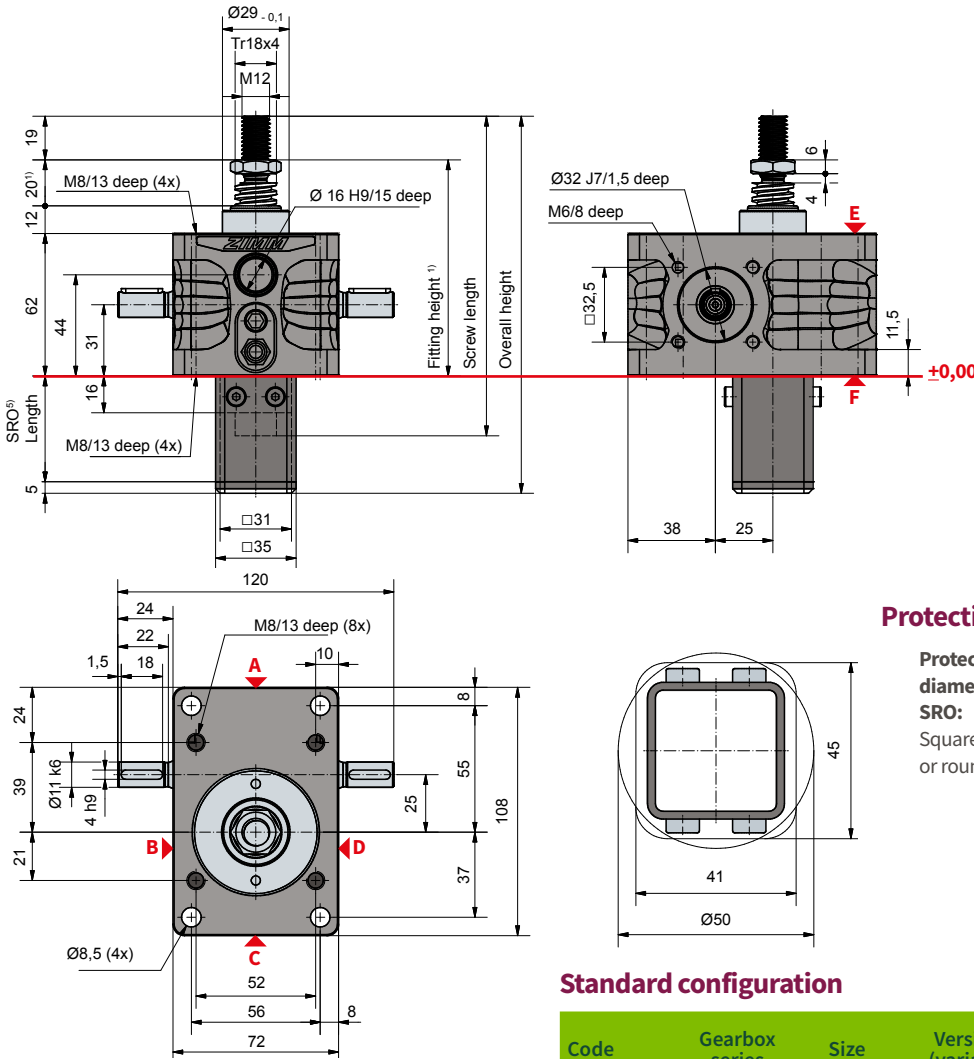
S

ZIMM System-Toolkit

Overview | Translating screw



5 kN
ZE-5-S | translating screw



Protective tube length SRO with Tr 18x4-screw

Protective tube diameter SRO:	Configuration	Stroke
Square or round.	w/o escape protection/ anti-rotation device	46 + Stroke
	Incl. escape protection/ anti-rotation device	61 + Stroke
	Incl. anti-rotation device and limit switch ES	119 + Stroke
	Incl. anti-rotation device, ES and KAR	140 + Stroke

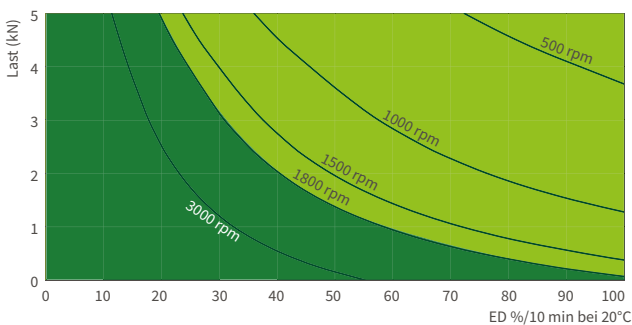
Standard configuration

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

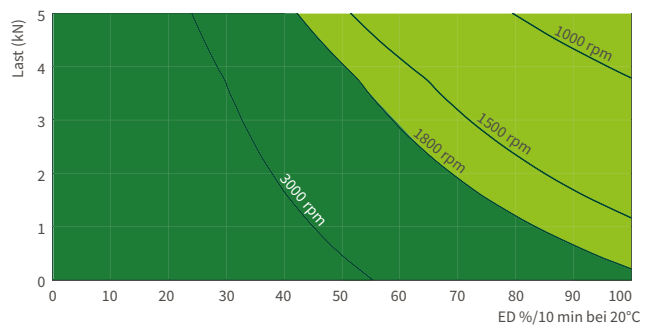
5 kN

Duty cycle thermal limit (S + R) for standard gearbox (grease lubrication)

Ratio „N“ (4:1)

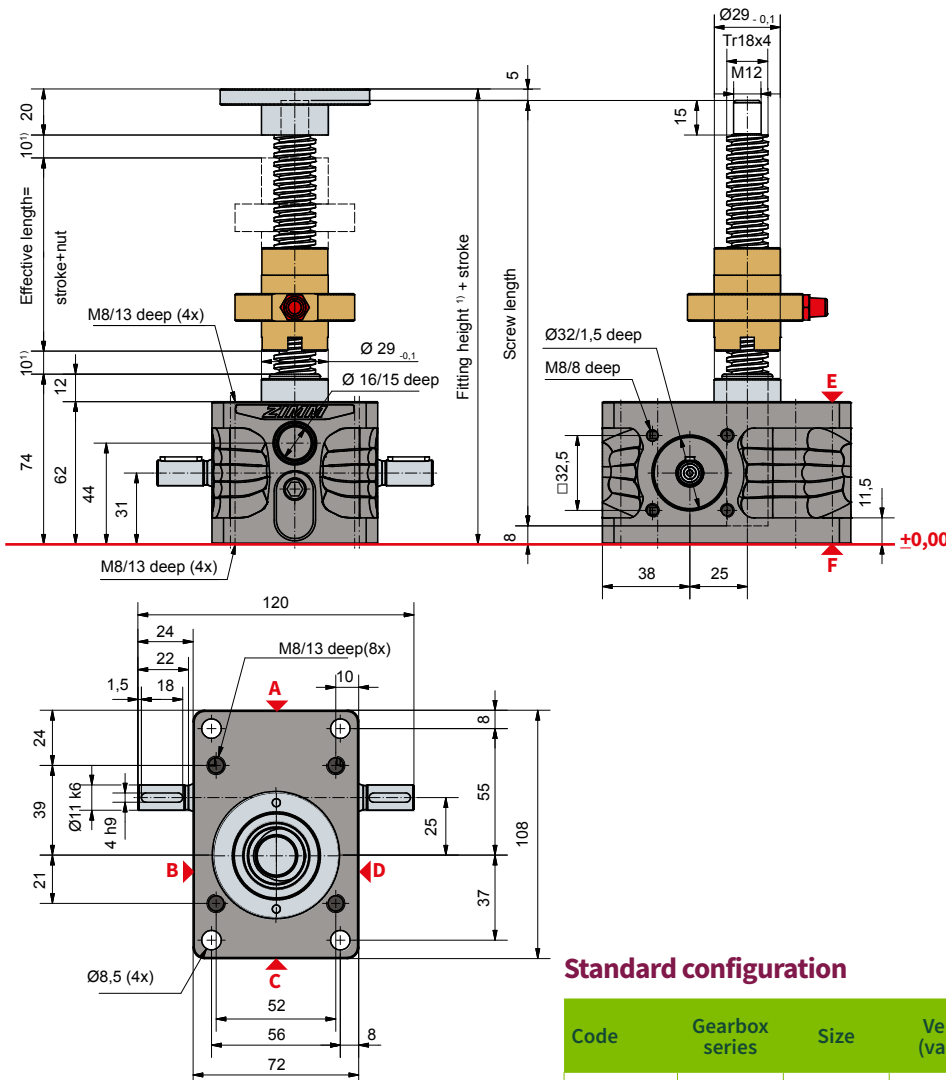


Ratio „L“ (16:1)



These maps are for orientation under standard industrial terms (ambient temperature, etc.) and proper 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.

5 kN
R ZE-5-R | rotating screw



Standard configuration

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

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

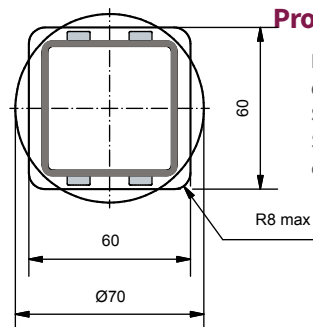
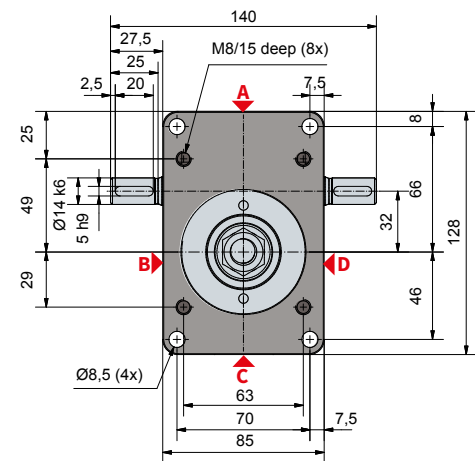
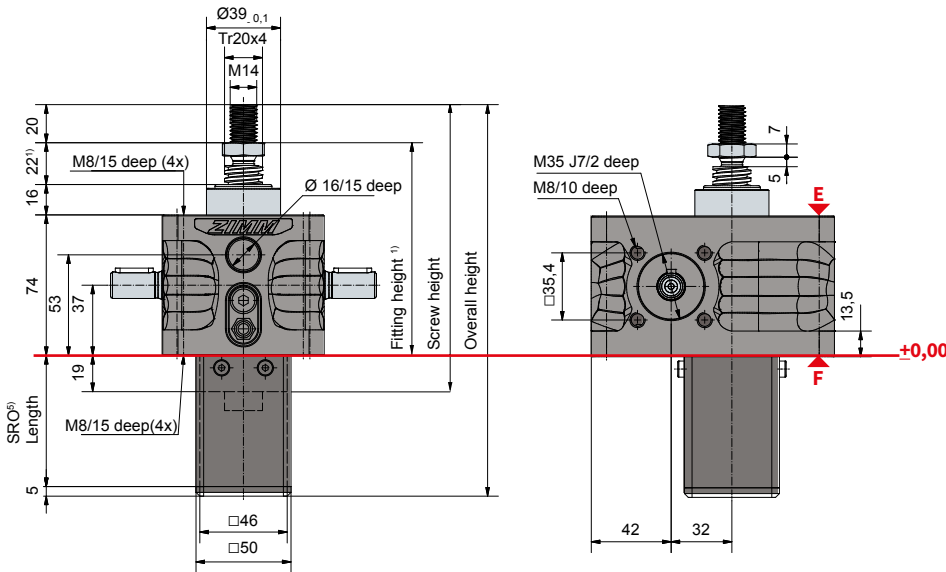
max. compressive / tensile force, static: 5 kN (0,5 t)
max. compressive / tensile force, dyn.: see duty cycle curves
Input speed: 1500 rpm / max. 3000 rpm (depending on the load and duty cycle)
Screw size standard: Tr 18x4²⁾
Gear ratio: 4:1 (N) / 16:1 (L)
Housing material: aluminium, corrosion-resistant
Worm shaft: steel, case-hardened, ground
Weight of screw jack body: 1,2 kg
Weight of screw/m: 1,58 kg
Gearbox lubrication: synthetic fluid grease
Screw lubrication: grease lubrication
Gearbox operating temperature: max. 60°C, higher on request
Moment of inertia: N: 0,132 kg cm² / L: 0,091 kg cm²
Input torque (at 1500 rpm): max. 4,7 Nm (N) / max. 1,5 Nm (L)
Drive-through torque: max. 39 Nm
Drive torque M_G (Nm): F (kN) x 0,62^{3,4)} (N-normal)
 F (kN) x 0,21^{3,4)} (L-low-speed)
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 length calculations of protection tubes and bellows are easy and convenient with our online configurator: www.zimm.com

Important information:

- 1) If a bellow, spiral spring or double pitch is used; more fitting space is required
- 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
ZE-10-S | translating screw



Protective tube length SRO with Tr 20x4-screw

Protective tube diameter SRO:	Stroke
w/o escape protection/ anti-rotation device	49 + Stroke
Incl. escape protection/ anti-rotation device	69 + Stroke
Incl. anti-rotation device and limit switch ES	121 + Stroke
Incl. anti-rotation device, ES and KAR	141 + Stroke

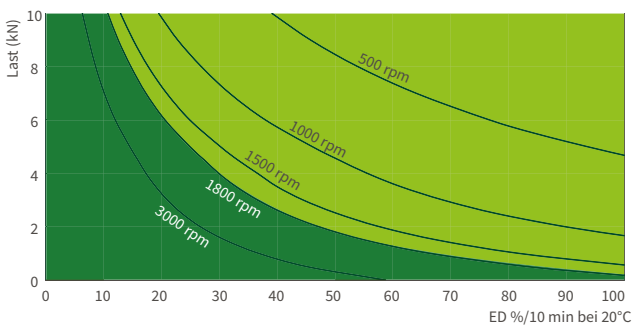
Standard configuration

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

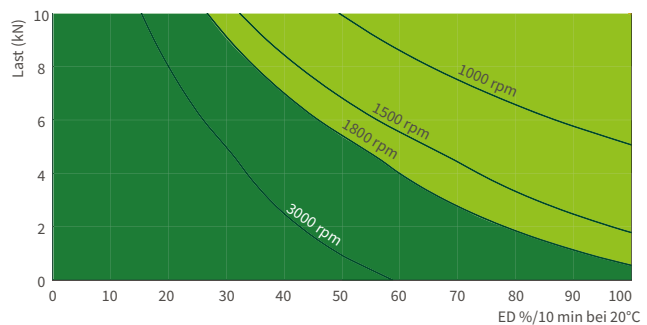
10 kN

Duty cycle thermal limit (S + R) for standard gearbox (grease lubrication)

Ratio „N“ (4:1)



Ratio „L“ (16:1)

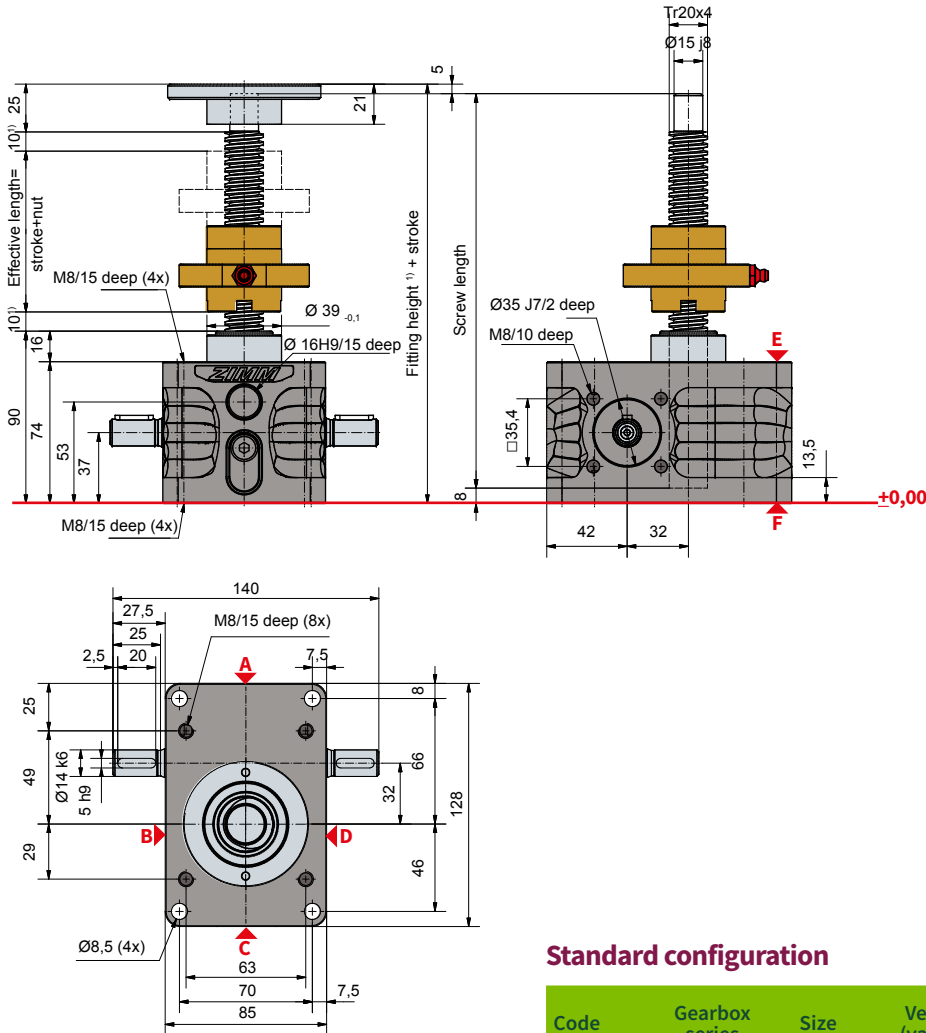


These maps are for orientation under standard industrial terms (ambient temperature 20% etc.) and proper maintenance (lubrication, etc.). They are based on the ZIMM standard trapezoidal thread Tr 20x4. With the use of a ball screw, the operation cycles can be many times longer.



10 kN

ZE-10-R I rotating screw



Standard configuration

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

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

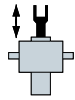
max. compressive / tensile force, static:	10 kN (1 t)
max. compressive / tensile force, dyn.:	see duty cycle curves
Input speed:	1500 rpm / max. 3000 rpm (depending on the load and duty cycle)
Screw size standard:	Tr 20x4 ²⁾
Gear ratio:	4:1 (N) / 16:1 (L)
Housing material:	aluminium, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	2,1 kg
Weight of screw/m:	2 kg
Gearbox lubrication:	synthetic fluid grease
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 speed)
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 length calculations of protection tubes and bellows are easy and convenient with our online configurator:

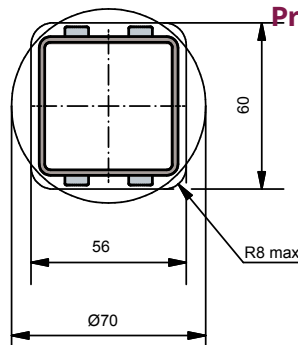
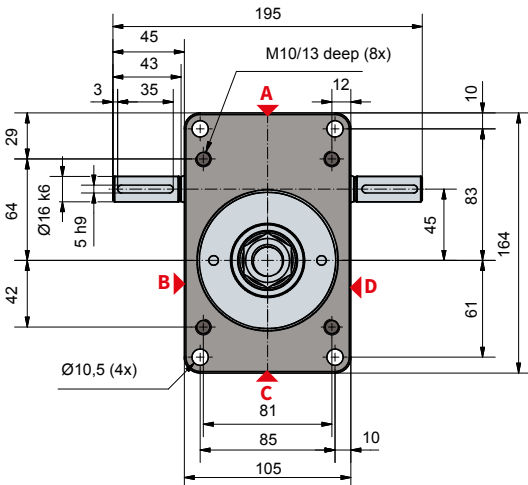
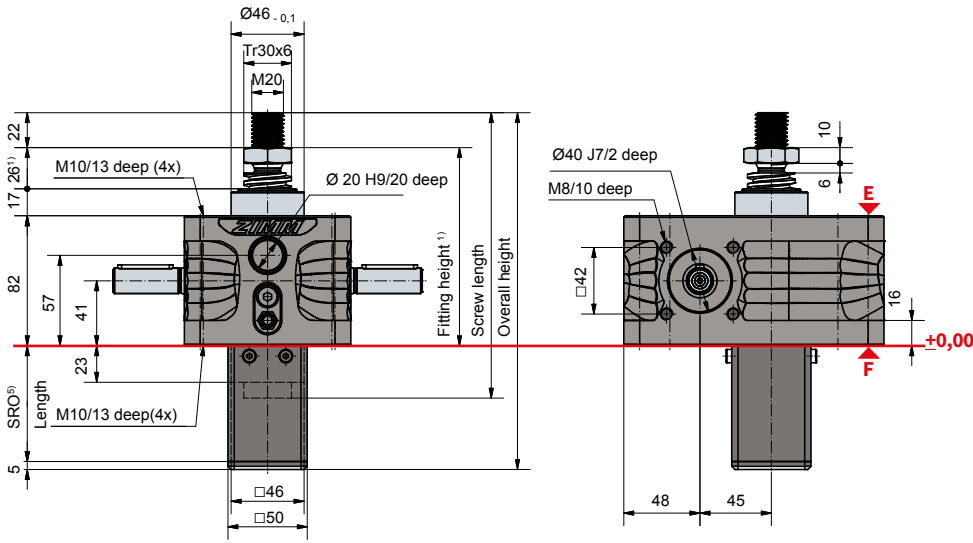
www.zimm.com

Important information:

- 1) If a bellow, spiral spring or double pitch is used; more fitting space is required
- 2) Tr 20x4 ist 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



25 kN ZE-25-S | translating screw



Protective tube length SRO with Tr 30x6-screw

Protective tube diameter SRO:	Stroke
w/o escape protection/ anti-rotation device	53 + Stroke
Incl. escape protection/ anti-rotation device	73 + Stroke
Incl. anti-rotation device and limit switch ES	125 + Stroke
Incl. anti-rotation device, ES and KAR	149 + Stroke

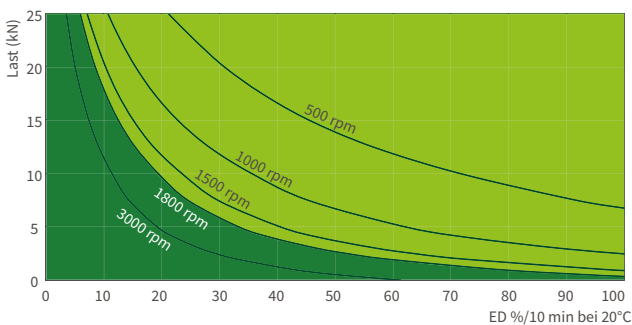
Standard configuration

Code	Gearbox series	Size	Version (variant)	Speed & ratio	Spindel	Stroke per drive shaft rotation
ZE-25-SN	ZE	25	S (translating screw)	N (normal) 6:1	Tr 30x6	1,00 mm
ZE-25-SL				L (low-speed) 24:1		0,25 mm

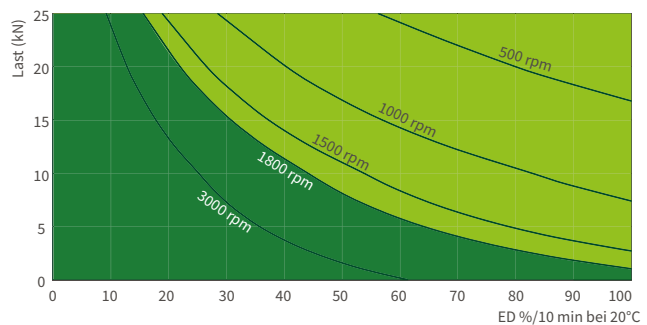
25 kN

Duty cycle thermal limit (S + R) for standard gearbox (grease lubrication)

Ratio „N“ (4:1)



Ratio „L“ (24:1)

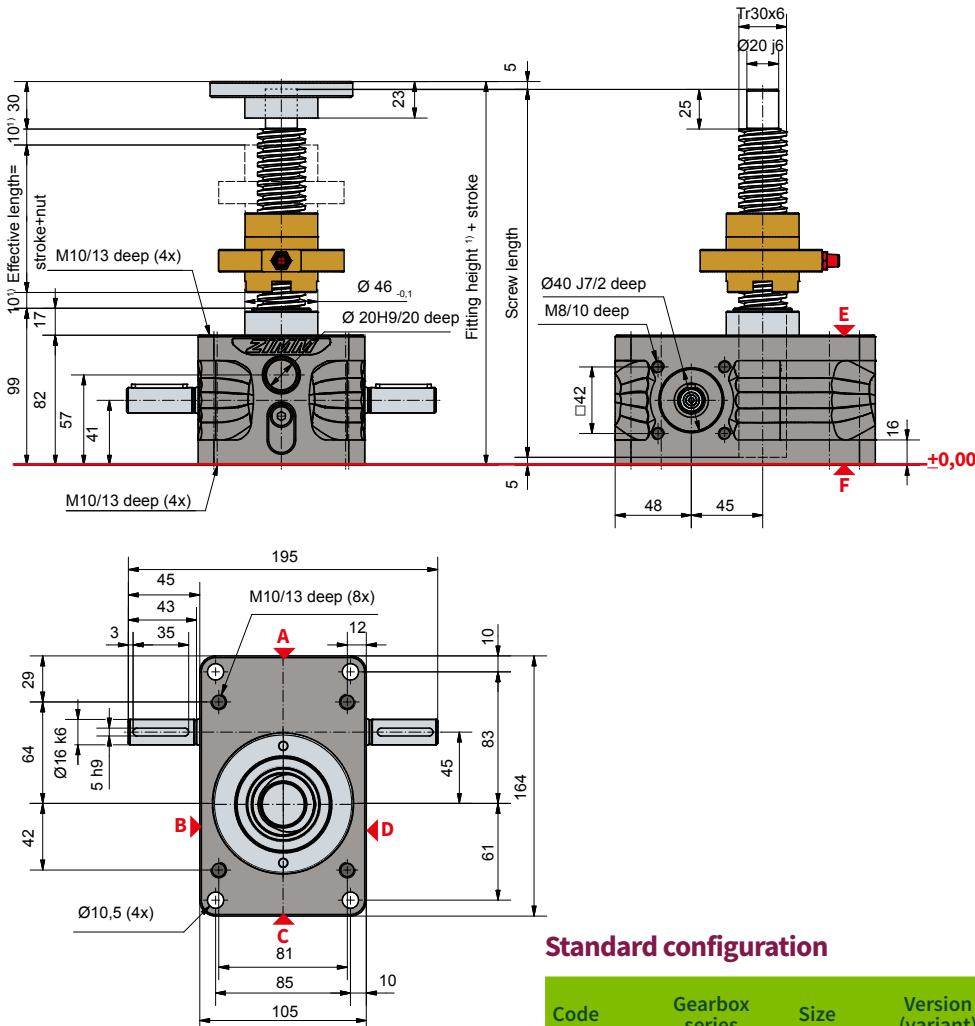


These maps are for orientation under standard industrial terms (ambient temperature 20% etc.) and proper maintenance (lubrication, etc.). They are based on the ZIMM standard trapezoidal thread Tr 30x6. With the use of a ball screw, the operation cycles can be many times longer.



25 kN

ZE-25-R I rotating screw



Standard configuration

Code	Gearbox series	Size	Version (variant)	Speed & ratio	Spindel	Stroke per drive shaft rotation
ZE-25-RN	ZE	25	R (rotating screw)	N (normal) 6:1	Tr 30x6	1,00 mm
ZE-25-RL				L (low-speed) 24:1		0,25 mm

Technical data series ZE-25-S / ZE-25-R

max. compressive / tensile static:	25 kN (2,5 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 30x6 ²⁾
Gear ratio:	6:1 (N) / 24:1 (L)
Housing material:	aluminium, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	3,8 kg
Weight of screw/m:	4,5 kg
Gearbox lubrication:	synthetic fluid grease
Screw lubrication:	grease lubrication
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
Drive torque M _G (Nm):	F (kN) x 0,63 ^{3,4)} (N-normal) F (kN) x 0,20 ^{3,4)} (L-low speed)
Breakaway torque:	Drive torque M _G x 1,5

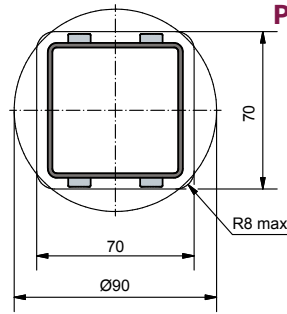
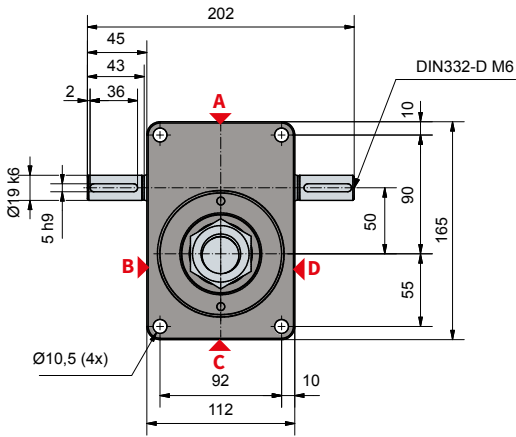
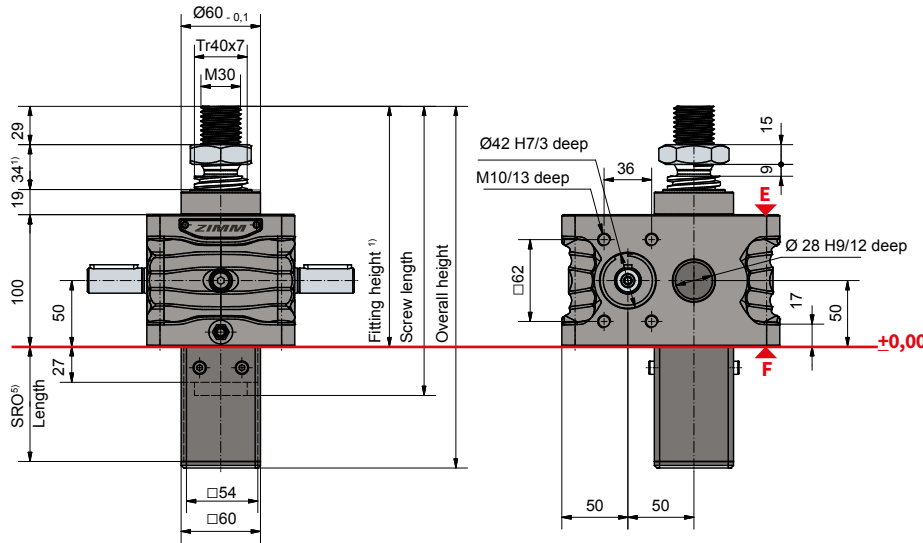
Make a plan to keep a safe distance of at least 10 mm between gearbox and nut or between nut and threaded end!
Detailed length calculations of protection tubes and bellows are easy and convenient with our online configurator:

www.zimm.com

Important information:

- 1) If a bellow, spiral spring or double pitch is used; more fitting space is required
- 2) Tr 30x6 is standard, also available: double pitch, INOX, left-handed, increased screw Tr 40x7 (only for R version)
- 3) factor includes efficiency, ratio and 30% safety
- 4) for a 6 mm screw pitch
- 5) to calculate the length of our protective tube length SRO simply use our online configurator: www.zimm.com

35 kN
ZE-35-S | translating screw



Protective tube length SRO with Tr 40x7-screw

Protective tube diameter SRO:	Stroke
w/o escape protection/ anti-rotation device	57 + Stroke
Incl. escape protection/ anti-rotation device	87 + Stroke
Incl. anti-rotation device and limit switch ES	143 + Stroke

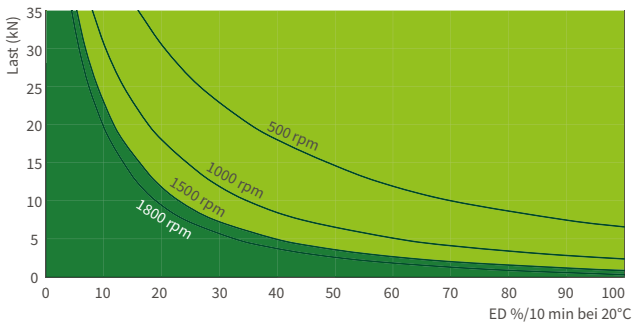
Standard configuration

Code	Gearbox series	Size	Version (variant)	Speed & ratio	Spindel	Stroke per drive shaft rotation
ZE-35-SN	ZE	35	S (translating screw)	N (normal) 7:1	Tr 40x7	1,00 mm
ZE-35-SL				L (low-speed) 28:1		0,25 mm

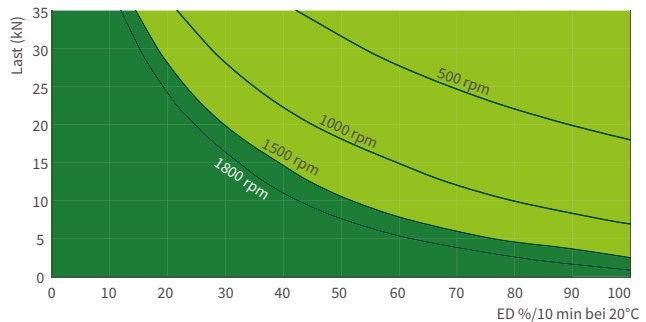
35 kN

Duty cycle thermal limit (S + R) for standard gearbox (grease lubrication)

Ratio „N“ (7:1)



Ratio „L“ (28:1)

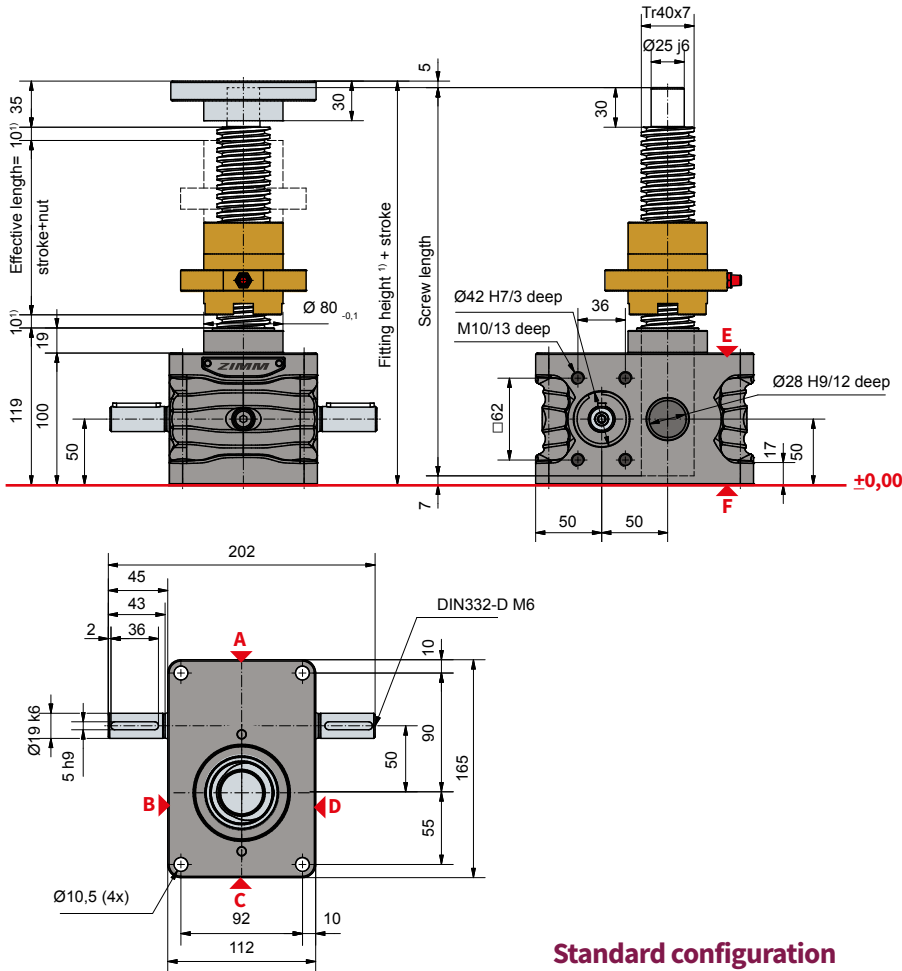


These maps are for orientation under standard industrial terms (ambient temperature 20% etc.) and proper maintenance (lubrication, etc.). They are based on the ZIMM standard trapezoidal thread Tr 40x7. With the use of a ball screw, the operation cycles can be many times longer. In case you need an even longer duration or performance, you will find information about our ZE-H high performance gearboxes in chapter 2.3.



35 kN

ZE-35-R | rotating screw



Standard configuration

Code	Gearbox series	Size	Version (variant)	Speed & ratio	Spindel	Stroke per drive shaft rotation
ZE-35-RN	ZE	35	R (rotating screw)	N (normal) 7:1	Tr 40x7	1,00 mm
ZE-35-RL				L (low-speed) 28:1		0,25 mm

Technical data series ZE-35-S / ZE-35-R

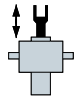
max. compressive / tensile force, static:	35 kN (3,5 t)
max. compressive / tensile force, dyn.:	see duty cycle curves
Input speed:	1500 rpm / max. 1800 rpm (depending on the load and duty cycle)
Screw size standard:	Tr 40x7 ²⁾
Gear ratio:	7:1 (N) / 28:1 (L)
Housing material:	GGG, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	9,5 kg
Weight of screw/m:	8 kg
Gearbox lubrication:	synthetic fluid grease
Screw lubrication:	grease lubrication
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 0,97 kg cm ² / L: 0,67 kg cm ²
Input torque (at 1500 rpm):	max. 19,8 Nm (N) / max. 9 Nm (L)
Drive-through torque:	max. 130 Nm
Drive torque M _G (Nm):	F (kN) x 0,69 ^{3,4)} (N-normal) F (kN) x 0,23 ^{3,4)} (L-low speed)
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 length calculations of protection tubes and bellows are easy and convenient with our online configurator:

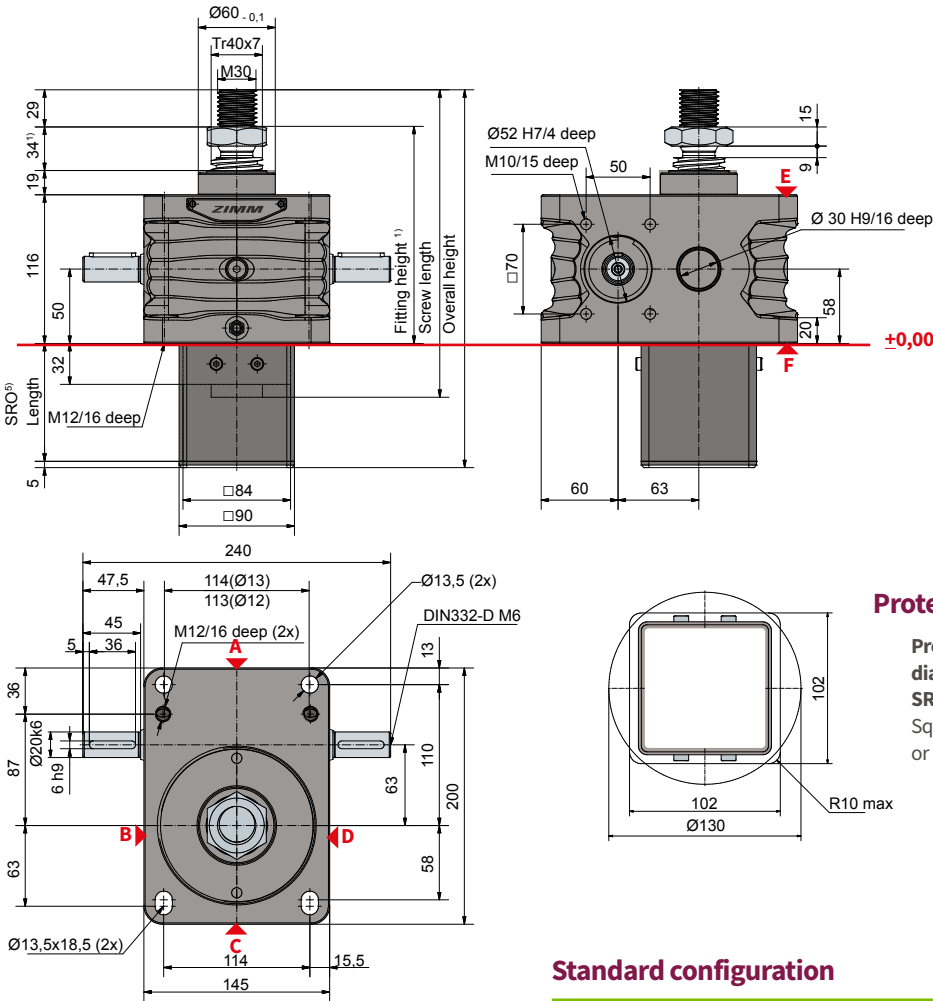
www.zimm.com

Important information:

- 1) If a bellow, spiral spring or double pitch is used; more fitting space is required
- 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



S 50 kN ZE-50-S | translating screw



Protective tube length SRO with Tr 40x7-screw

Protective tube diameter SRO:	w/o escape protection/ anti-rotation device	62 + Stroke
Square or round.	Incl. escape protection/ anti-rotation device	92 + Stroke
	Incl. anti-rotation device and limit switch ES	144 + Stroke

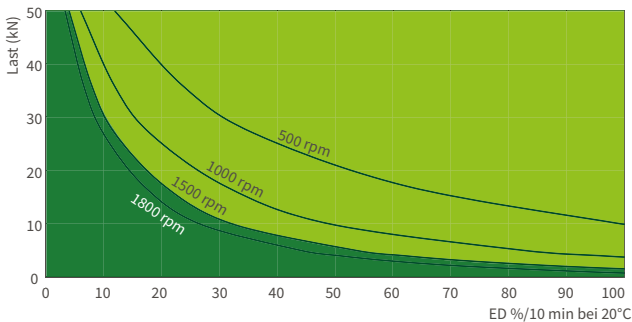
Standard configuration

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

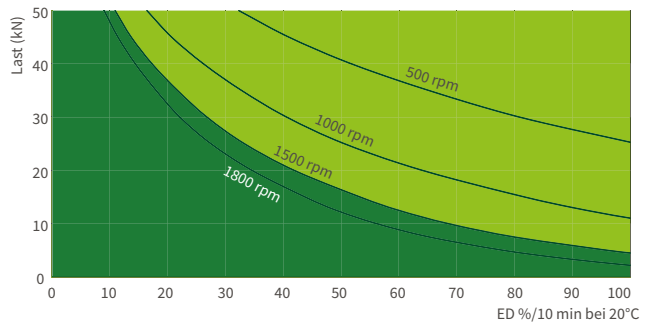
50 kN

Duty cycle thermal limit (S + R) for standard gearbox (grease lubrication)

Ratio „N“ (7:1)

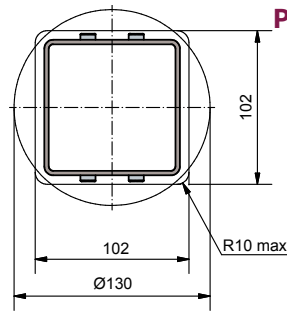
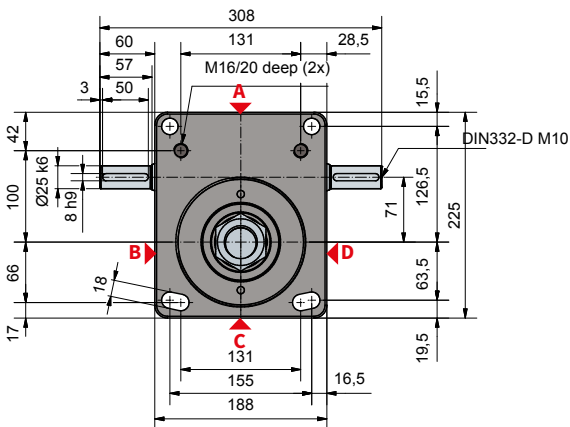
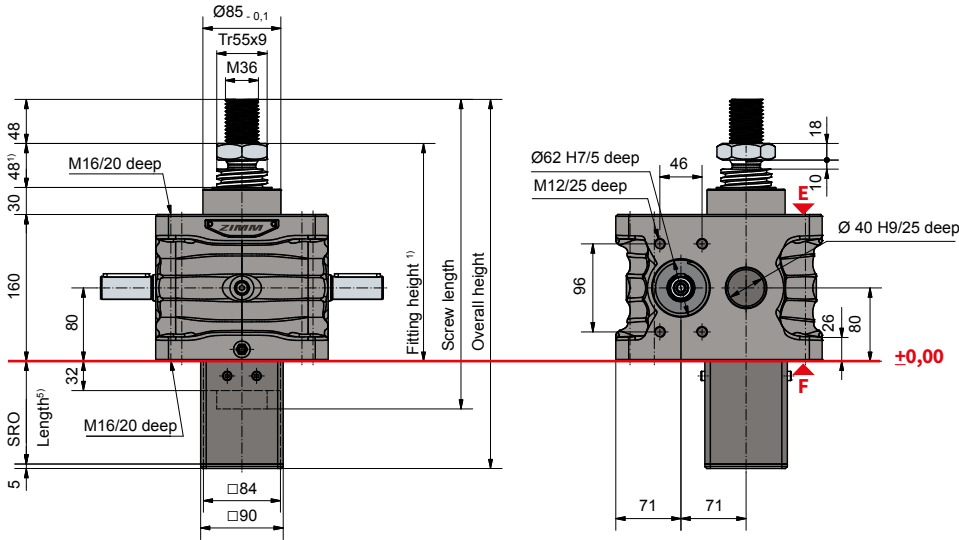


Ratio „L“ (28:1)



These maps are for orientation under standard industrial terms (ambient temperature 20% etc.) and proper 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. In case you need an even longer duration or performance, you will find information about our ZE-H high performance gearboxes on chapter 2.3.

100 kN
ZE-100-S I translating screw



Protective tube length SRO with Tr 55x9-screw

Schutzrohr Durchbruch SRO: Quadratisch oder rund.	w/o escape protection/ anti-rotation device	82 + Stroke
	Incl. escape protection/ anti-rotation device	112 + Stroke
	Incl. anti-rotation device and limit switch ES	144 + Stroke

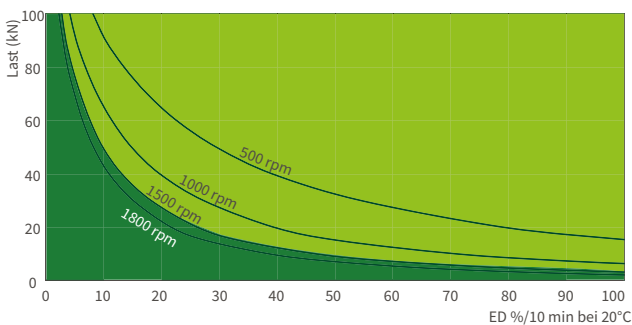
Standard configuration

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

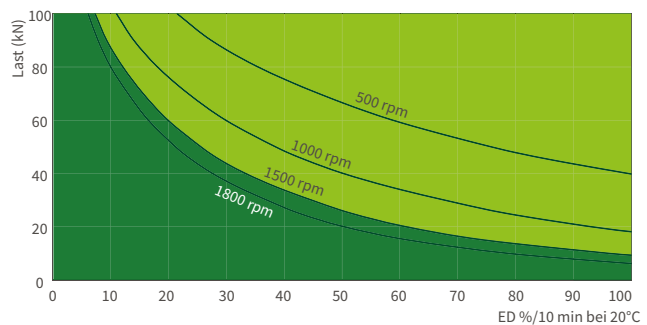
100 kN

Duty cycle thermal limit (S + R) for standard gearbox (grease lubrication)

Ratio „N“ (9:1)



Ratio „L“ (36:1)

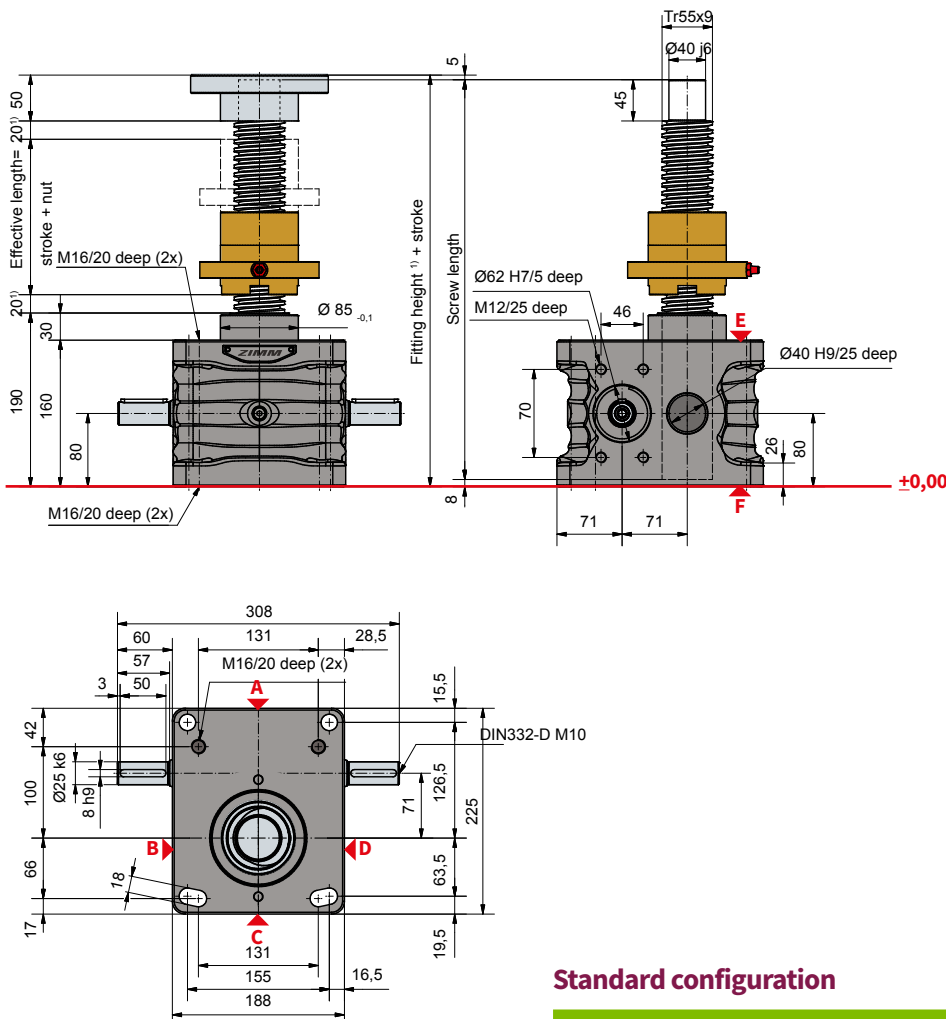


These maps are for orientation under standard industrial terms (ambient temperature 20% etc.) and proper maintenance (lubrication, etc.). They are based on the ZIMM standard trapezoidal thread Tr 55x9. With the use of a ball screw, the operation cycles can be many times longer. In case you need an even longer duration or performance, you will find information about our ZE-H high performance gearboxes on chapter 2.3.



100 kN

ZE-100-R | rotating screw



Standard configuration

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

Technical data series ZE-100-S / ZE-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, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	29 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-speed)
Breakaway torque:	Drive torque M _G x 1,5

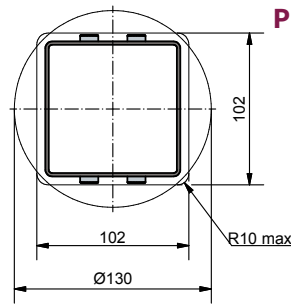
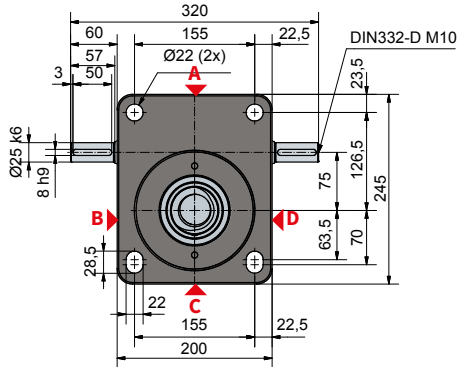
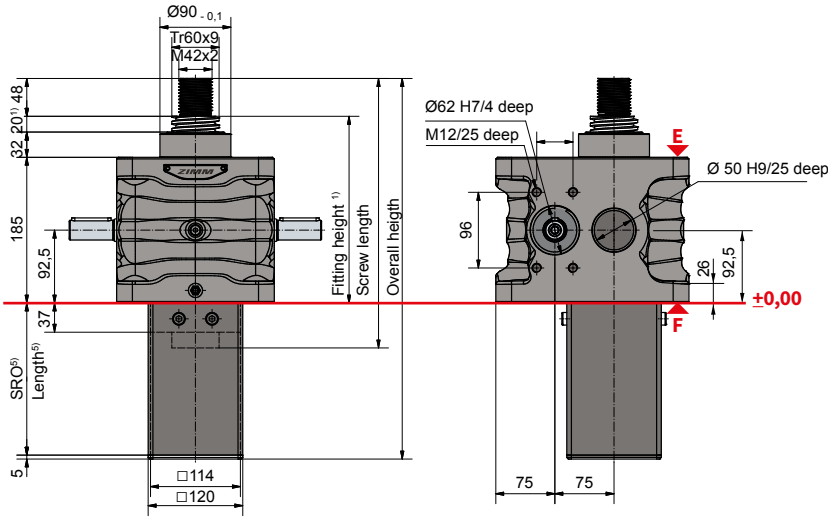
Make a plan to keep a safe distance of at least 20 mm between gearbox and nut or between nut and threaded end!
Detailed length calculations of protection tubes and bellows are easy and convenient with our online configurator:

www.zimm.com

Important information:

- 1) If a bellow, spiral spring or double pitch is used; more fitting space is required
- 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
ZE-150-S | translating screw



Protective tube length SRO with Tr 60x9-screw

Protective tube diameter SRO:	Stroke
w/o escape protection/ anti-rotation device	87 + Stroke
Incl. escape protection/ anti-rotation device	117 + Stroke
Incl. anti-rotation device and limit switch ES	149 + Stroke

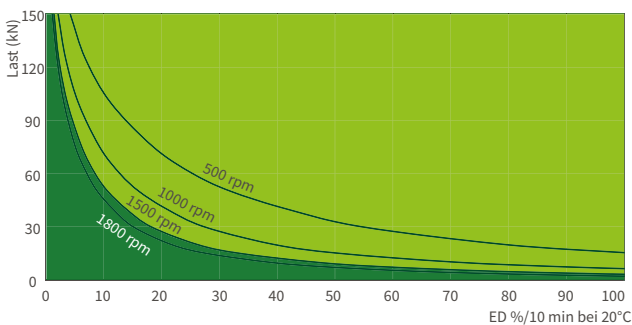
Standard configuration

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

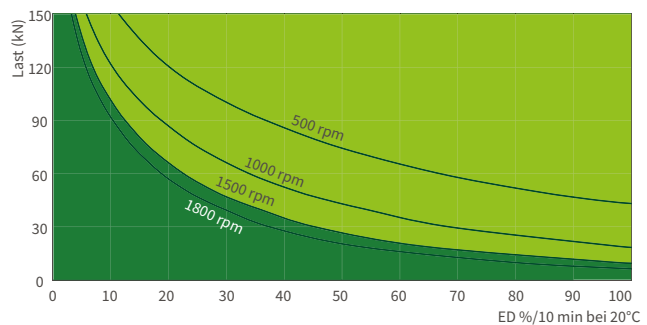
150 kN

Duty cycle thermal limit (S + R) for standard gearbox (grease lubrication)

Ratio „N“ (9:1)



Ratio „L“ (36:1)

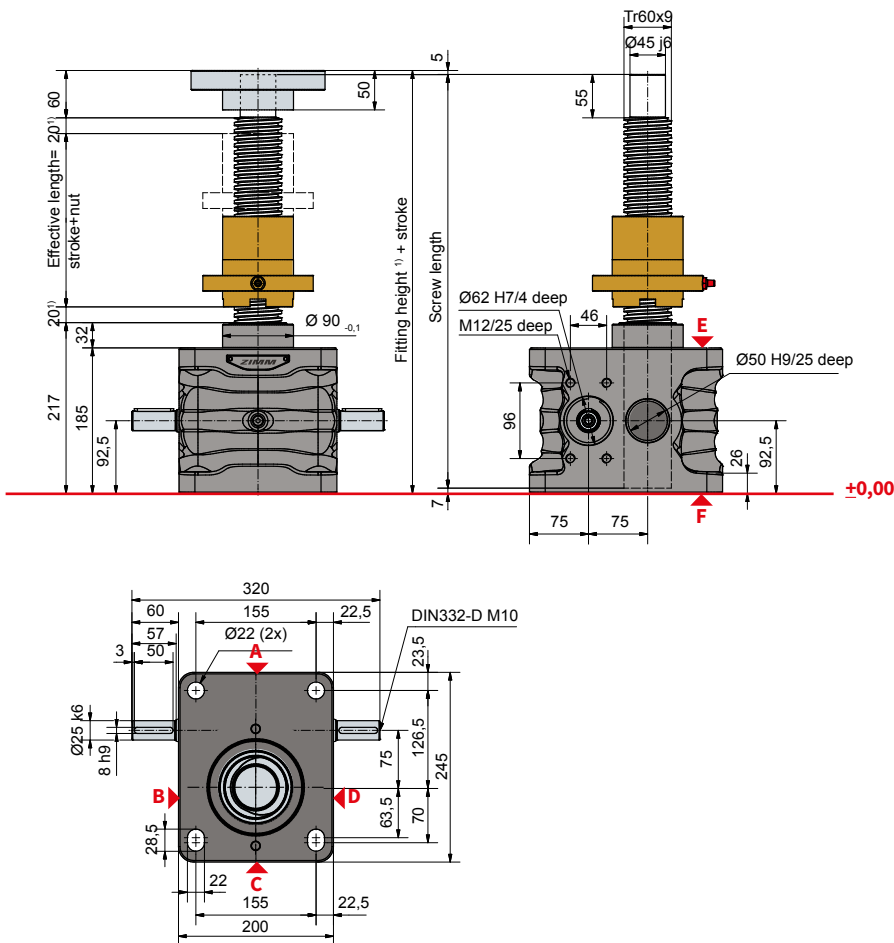


These maps are for orientation under standard industrial terms (ambient temperature 20% etc.) and proper maintenance (lubrication, etc.). They are based on the ZIMM standard trapezoidal thread Tr 60x9. With the use of a ball screw, the operation cycles can be many times longer. In case you need an even longer duration or performance, you will find information about our ZE-H high performance gearboxes on chapter 2.3.



150 kN

ZE-150-R | rotating screw



Standard configuration

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

Technical data series ZE-150-S / ZE-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, 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-speed)
Breakaway torque:	Drive torque M _G x 1,5

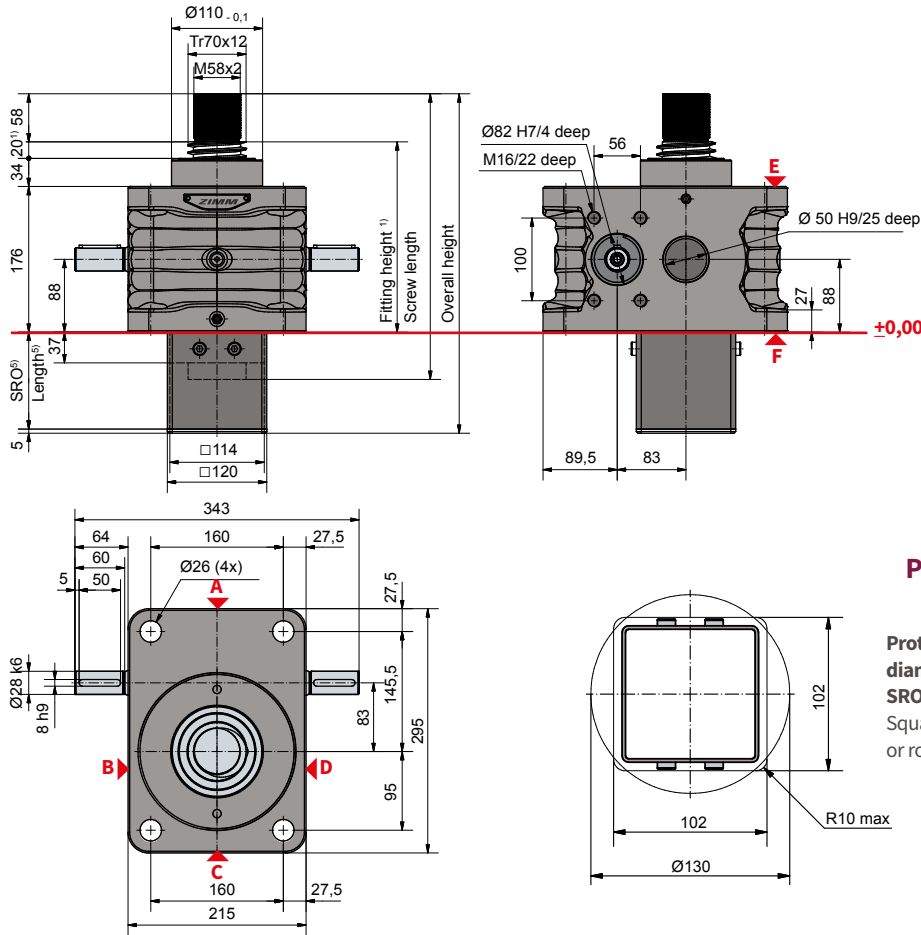
Make a plan to keep a safe distance of at least 20 mm between gearbox and nut or between nut and threaded end!
Detailed length calculations of protection tubes and bellows are easy and convenient with our online configurator:

www.zimm.com

Important information:

- 1) If a bellow, spiral spring or double pitch is used; more fitting space is required
- 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

200 kN
ZE-200-S | translating screw



Protective tube length SRO with Tr 70x12-screw

Protective tube diameter SRO:	Configuration	Length
Square or round.	w/o escape protection/anti-rotation device	87 + Stroke
	Incl. escape protection/anti-rotation device	117 + Stroke
	Incl. anti-rotation device and limit switch ES	149 + Stroke

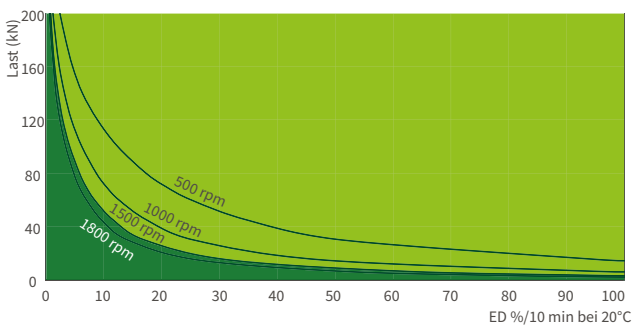
Standard configuration

Code	Gearbox series	Size	Version (variant)	Speed & ratio	Spindel	Stroke per drive shaft rotation
ZE-200-SN	ZE	200	S	N (normal) 8:1	Tr 70x12	1,50 mm
ZE-200-SL			(translating screw)	L (low-speed) 24:1		0,50 mm

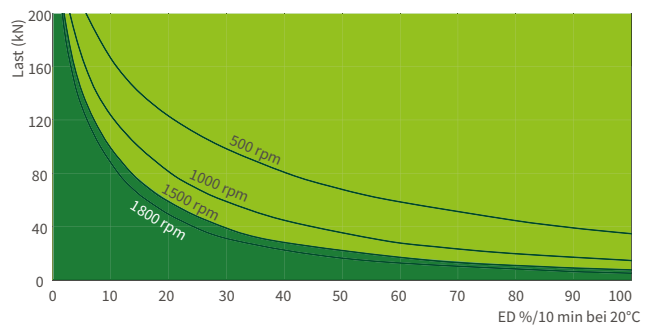
200 kN

Duty cycle thermal limit (S + R) for standard gearbox (grease lubrication)

Ratio „N“ (8:1)



Ratio „L“ (24:1)

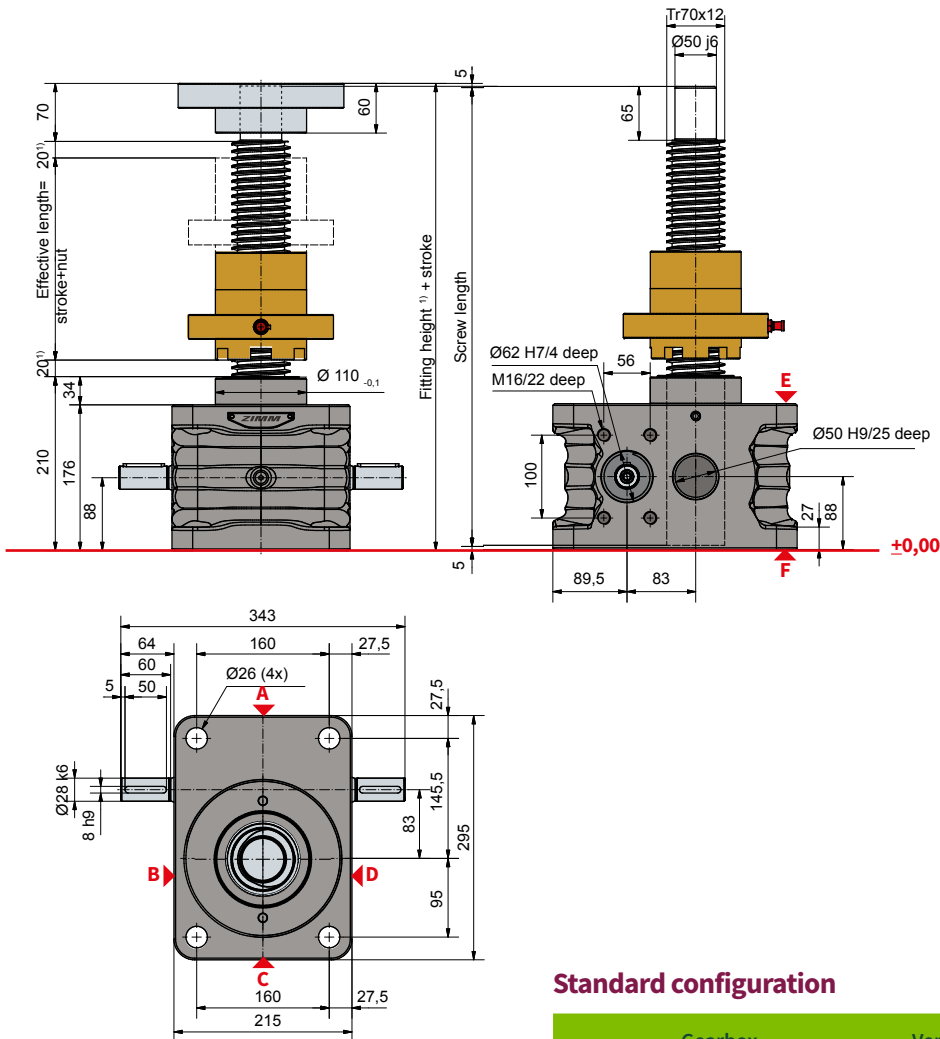


These maps are for orientation under standard industrial terms (ambient temperature 20% etc.) and proper maintenance (lubrication, etc.). They are based on the ZIMM standard trapezoidal thread Tr 70x12. With the use of a ball screw, the operation cycles can be many times longer. In case you need an even longer duration or performance, you will find information about our ZE-H high performance gearboxes chapter 2.3.



200 kN

ZE-200-R | rotating screw



Standard configuration

Code	Gearbox series	Size	Version (variant)	Speed & ratio	Spindel	Stroke per drive shaft rotation
ZE-200-RN	ZE	200	R (rotating screw)	N (normal) 8:1	Tr 70x12	1,50 mm
ZE-200-RL				L (low-speed) 24:1		0,50 mm

Technical data series ZE-200-S / ZE-200-R

max. compressive / tensile force, static:	200 kN (20 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 70x12 ²⁾
Gear ratio:	8:1 (N) / 24:1 (L)
Housing material:	GGG, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight of screw jack body:	50 kg
Weight of screw/m:	25 kg
Gearbox lubrication:	synthetic fluid grease
Screw lubrication:	grease lubrication
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 11,5 kg cm ² / L: 7,99 kg cm ²
Input torque (at 1500 rpm):	max. 94,5 Nm (N) / max. 39,3 Nm (L)
Drive-through torque:	max. 700 Nm
Drive torque M _G (Nm):	F (kN) x 1,1 ^{3,4)} (N-normal) F (kN) x 0,45 ^{3,4)} (L-low-speed)
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 length calculations of protection tubes and bellows are easy and convenient with our online configurator:

www.zimm.com

Important information:

- 1) If a bellow, spiral spring or double pitch is used; more fitting space is required
- 2) Tr 70x12 is standard, also available: double-pitch, INOX, left-handed
- 3) factor includes efficiency, ratio and 30% safety
- 4) for a 12 mm screw pitch
- 5) to calculate the length of our protective tube length SRO simply use our online configurator: www.zimm.com



Security & inspection

Protect downtime & people

” Judging by the application, I would recommend the electric SIFA-Option as a solution.

13:56

– Peter Gridling | Sales manager

” The safety of our customers must not be the only thing that is guaranteed. We need a device that will alert our ground personnel if the device has a certain amount of wear.

Which should also be designed for non-technicians.

14:28

– ZIMM customer

” The ZIMM SIFA-S monitoring system saves you time and money in the long term. Maintenance or replacement is virtually guaranteed by monitoring wear.

14:36

– Peter Gridling | Sales manager



Safety nut

ZE-SIFA | translating & rotating screw



Tr SIFA-S visual



Tr SIFA-S electric



Tr SIFA-R visual



Tr SIFA-R electric

Technical data

Wear:

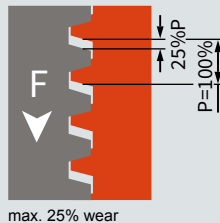
Once the wear exceeds max. 25% of the screw pitch, the load nut (R version) or the gearbox (S version) must be replaced.

Monitoring:

Wear and thread play should be checked and documented at regular intervals (depending on the duty cycle). This allows the fitting of replacement parts to be planned ahead, reducing unscheduled system downtime.

Electrical monitoring:

Electrical monitoring gives a signal when wear reaches approx. 25%. This signal can be displayed immediately at a central control point. Replacement of the worn parts can then be scheduled.



A safety nut is designed for use where stripping and break up of the thread could cause a hazard to a person or people.

A safety nut can also provide protection for other equipment against the consequences of machine failure and downtimes.

Screw jacks TrØxP	Pitch P mm	max. permissible wear/ thread play* (25% of P) mm
Tr16x4, Tr18x4, Tr20x4	4	1
Tr30x6	6	1,5
Tr40x7	7	1,75
Tr55x9, Tr60x9	9	2,25
Tr70x12	12	3
Tr80x16	16	4

*Identical for double pitch screw (same thread flank thickness)



Directions of loading

Compressive and tensile

Important feature of the ZIMM SIFA.

The SIFA S operates equally in both compressive and tensile directions of loading.

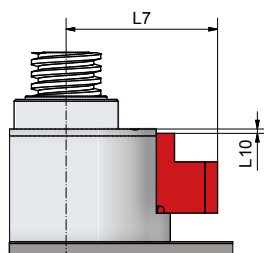
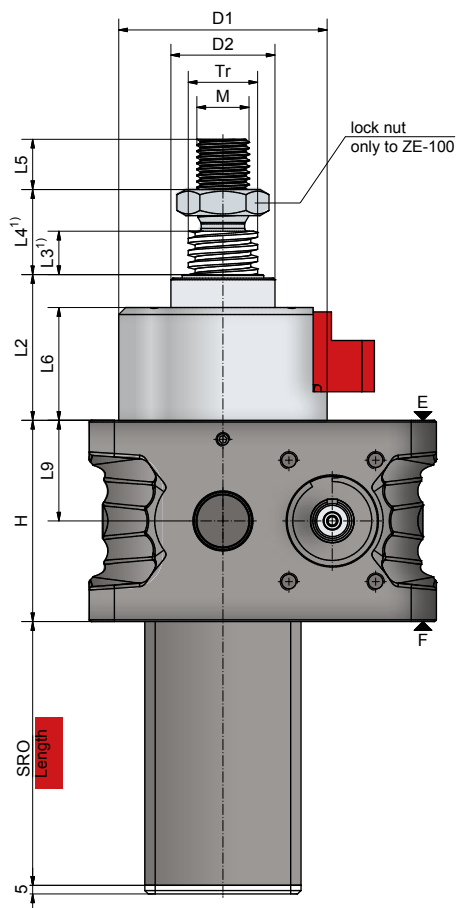


visual SIFA monitoring

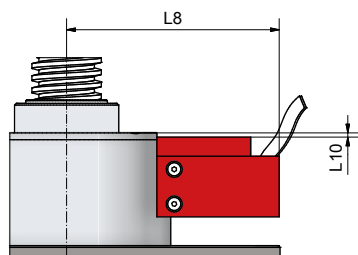
electrical SIFA monitoring

Function:

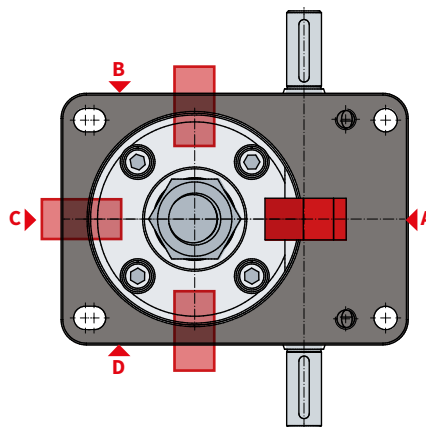
The load is borne by the worm wheel via the screw. If the worm wheel screw thread wears through, the SIFA restrains the screw. The load remains supported.



visual SIFA monitoring



electrical SIFA monitoring



Screw jacks	Stroke per drive resolution		Tr-thread	H	D1	D2	L2	L3 ¹⁾	L4 ¹⁾	L5	L6	L7	L8	L9	L10	M
	SN	SL														
ZE-10	1	0,25	20x4	74	81	39	74	10	22	20	58	72	108	21	1	M14
ZE-25	1	0,25	30x6	82	92	46	76	10	26	22	59	79	114	25	1	M20
ZE-35	1	0,25	40x7	100	100	60	80	10	34	29	61	82	117	50	1	M30
ZE-50	1	0,25	40x7	116	120	60	84	10	34	29	65	88	123	58	1	M30
ZE-100	1	0,25	55x9	160	135	85	103	20	48	48	73	95	130	80	9	M36
ZE-150	1	0,25	60x9	185	161	90	113	20	20	48	81	107	141	92,5	6	M42x2

1) See technical section on our website for extension if bellows or spiral spring is fitted.



Safety nut

SIFA-S monitoring

Standard (without any monitoring)

If the version used has no visual or electrical monitoring, the dimension A must be measured and documented when new, then regularly checked and documented frequently.

That way the user can detect the wear by measuring by hand from time to time.



Visual monitoring

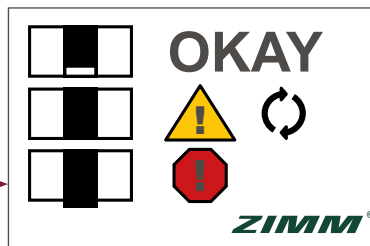
Monitoring

Wear should be checked and documented at regular intervals. This allows the fitting operation for replacement to be planned in good time so as to avoid system downtime.

OK
Wear still <25% of P

CAUTION!
max. permissible wear reached - Replace the gearbox

STOP!
Wear >25% or thread already worn through
Stop operation immediately!



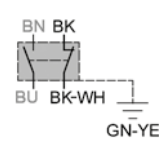
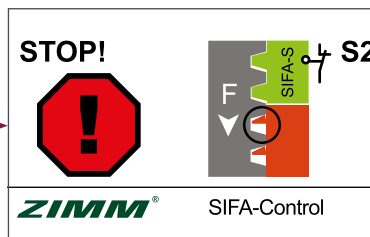
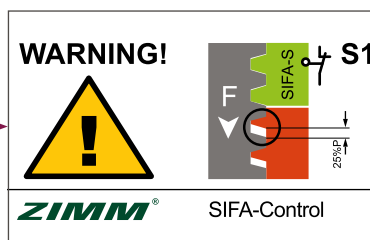
Electrical monitoring

WARNING! Switch S1
At 25% wear the limit switch S1 trips. The customer must detect this signal. This enables substitution to be planned well in advance and therefore prevents any unnecessary downtime.

STOP! Switch S2
If after the first signal operation of the jack continues, the nut will continue to wear until the thread is worn through.

When the thread is worn through, the safety nut takes the load. The limit switch S2 trips.

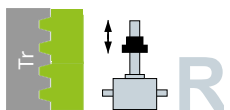
The customer must detect this signal and stop the system.



For safety application, use opener only.

Ordering example: Z-35-SN-SIFA-OP-A

Version	SN or SL	worn through
Monitoring		Position
NO:	without any monitoring	A (standard), B, C or D
OP:	visual	(can also subsequently be rotated steplessly through 360°)
EL:	electrical (wear, thread stripping)	



Safety nut SIFA-R | rotating screw

Funktion:

The load is borne by the duplex nut.
The safety nut runs alongside the duplex nut, bearing no load.
If the nut thread is worn through due to wear, the SIFA takes the load.

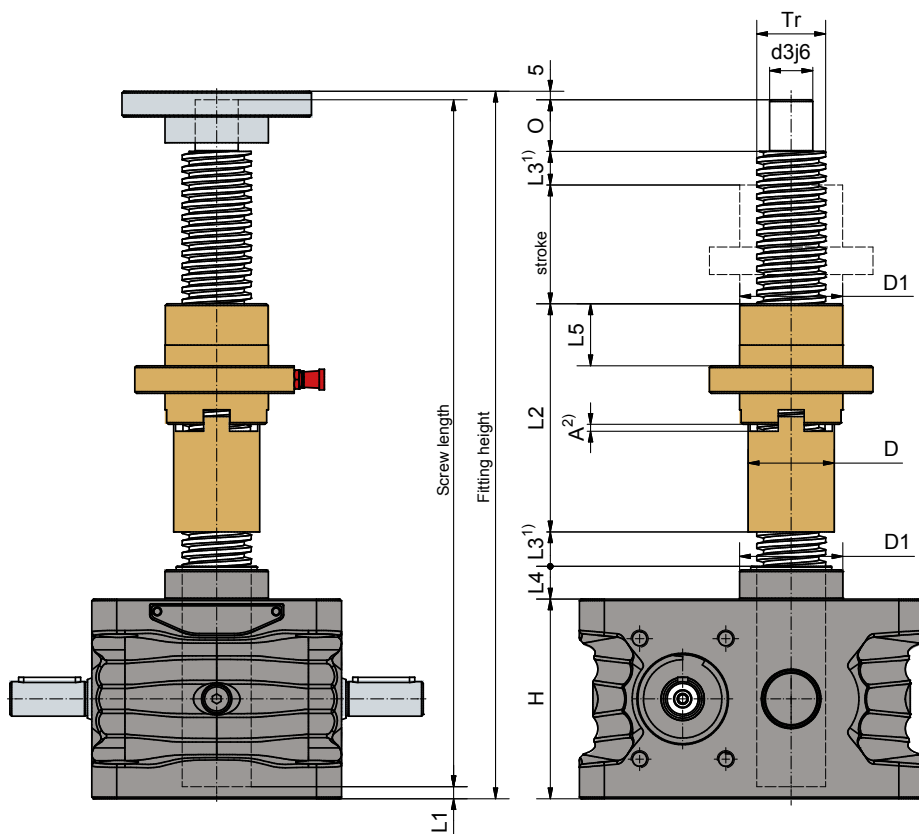
Direction of loading

A drawing showing the direction of loading is necessary in order to ensure the safety function. The SIFA R operates in only one direction of loading!

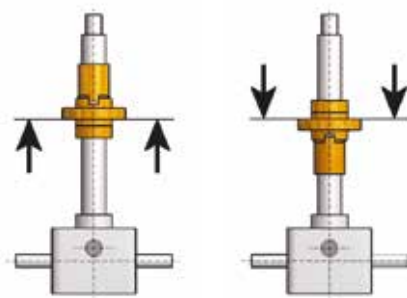


SIFA without monitoring

electrical SIFA monitoring



Correct Mounting Side SIFA-R



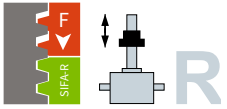
„Direction of load compression“
(from gearbox away)

„Direction of load tension“
(towards the gearbox)

Screw jack	Tr-Screw	H	D1	D	d3j6	O	L1	L2	L3 ¹⁾	L4	L5	A ²⁾ ca.
ZE-5	18x4	62	29	24	12	15	8	70	10	12	20	3
ZE-10	20x4	74	39	28	15	20	8	84	10	16	20	3
ZE-25	30x6	82	46	38	20	25	5	95	10	17	23	4
ZE-35	40x7	100	60	50	25	30	7	133	10	19	36	4
ZE-50	40x7	116	60	50	25	30	7	133	10	19	36	4
ZE-100	55x9	160	85	65	40	45	8	173	20	30	54	6
ZE-150	60x9	185	90	70	45	55	7	211	20	32	75	6
ZE-200	70x12	176	110	95	50	65	5	233	20	34	75	7

1) See "Technical information"-section on our website for extension if bellows or spiral spring is fitted

2) approx. original setting, must be measured and documented by the customer, and referred to when checking



Monitoring with safety nut

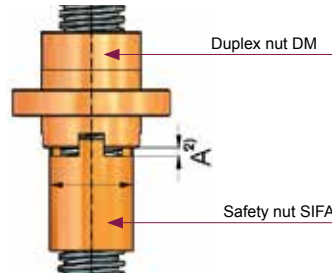
SIFA-R | rotating screw

Visual monitoring

Dimension A is approx. the original setting. Dimension A must be measured and documented by the customer, and referred to when checking.

This enables substitution to be planned well in advance and therefore prevents any unnecessary downtime.

When the thread is worn through, take the equipment out of service immediately.



Getriebe TrØxP	pitch P mm	max. zul. Verschleiß/ Gewindespiel* (25% von P) mm
Tr16x4, Tr18x4, Tr20x4	4	1
Tr30x6	6	1,5
Tr40x7	7	1,75
Tr50x8	8	2
Tr55x9, Tr60x9	9	2,25
Tr70x12	12	3
Tr80x16	16	4

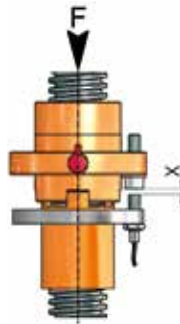
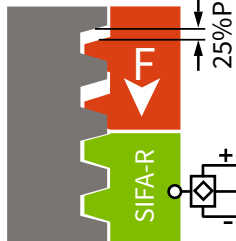
*same double threaded screw (selbe Flankenstärke)

Electrical monitoring

The initiator must be set so that it switches off when the load nut reaches 25% of the wear.

This enables a replacement to be planned well in advance and therefore prevents any unnecessary downtime.

When the thread is worn through, take the system out of service immediately.



Ordering example:

Z-35-RL-SIFA-OP

Version

RN or RL

Monitoring

OP: Visual monitoring

EL: Electrical monitoring (wear, thread stripping)





Trapezoidal Thread & Ball Screw Guide

Discover the appropriate spindle for your application

Which spindle type should you use?

The parameters and requirements for the application of your lifting gear are crucial when choosing either a trapezoidal thread or ball screw, especially concerning the following:

- operation cycle
- repetition of positioning
- lifting speed
- static and dynamic parameters
(Is it required to hold one position accurately or a simple a permanent positioning move)



Features of TR (Tr)

The trapezoidal thread is robust and moderately priced. It is the right choice for most adjustment tasks.

Spindle and nut are exposed to friction and must be well lubricated. Usually it is suitable for applications up to max. 20% of Operating cycle. Most single-start trapezoidal threads are self-locking (that means the load is held at engine stop, which is particularly useful in suspended loads or applications where loads are being lifted). Trapezoidal threaded spindles are also available in stainless material on request. ZIMM offers a wide selection of different nuts which have different advantages. Another aspect is the safety nut systems (SIFA) which are only available in trapezoidal thread design. There is no calculation for the life span of the trapezoidal thread drives as there is for the ball screw drives.



Features of the ball screw drives (KGT)

The ball screw is used primarily when higher positioning and repetition movements are the priority.

The efficient ball screw principle of the threaded nut allows higher operation cycles, higher duty cycle and speeds. This is due to the higher efficiency compared to the trapezoidal thread, i.e. a lower energy consumption as well as lower heat generation due to the smoother movements.

The operating cycle can be up to 4x higher than with the trapezoidal thread. The ball screws are offered in different pitch, which result in different lifting speeds. Important note: Ball screws are not self-locking, therefore a holding brake is necessary.



Notes on KGT

Lifetime

In order to calculate the theoretical lifetime, provide us with the load and lifting speed.

Contamination

All nuts are fitted with scrapers. For heavy contamination and fine dust/chips, we recommend fitting bellows or a spiral spring cover.

Escape/rotation protection

The spindle or nut must under no circumstances be screwed off. For this reason, we always provide escape/rotation protection on the S version.

Grease nipples

The standard position of the grease nipple in the S version is in gearbox side „C“. Optionally side A is available. Side B and D on request.

Pitch Accuracy

The pitch accuracy is 0.05/300 mm. Induction hardened and polished.

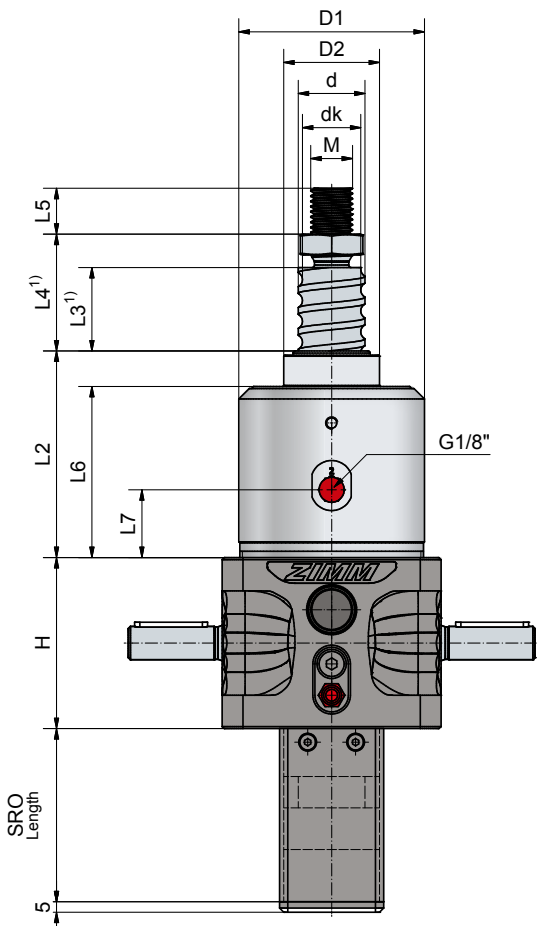
No self-locking

Due to the low-rolling friction, ball screws are not self-locking. A holding brake is necessary: a motor brake or a spring pressure brake is required.

Start ramp / braking ramp

We recommend using a frequency converter or a servomotor, especially for high lead screw jacks. This allows regulation of the start ramp / braking ramp. This ensures protection for the entire system. Safety clearance L3 can be reduced at your own discretion, in particular for high pitches.

5 to 25 kN
KGT-S I translating screw



Screw jacks	KGT Screw ØxP	Stroke per drive revolution		KGT load rating kN		Axialplay max ³⁾ mm
		SN	SL	dyn. C ²⁾	stat. Co=C _{0a}	
ZE-5	16x5	1,25	0,31	10,1	12	0,06
	16x10	2,50	0,63	11,1	12,9	0,06
ZE-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
	25x50	12,50	3,14	19,2	37,3	0,06
ZE-25	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

ZE-5-S

max. compressive/tensile force, static:	5 kN (0,5 t)
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
Gear ratio:	4:1 (normal) / 16:1 (low-speed)
Housing material:	aluminium, corrosion-resistant
Whorm shaft:	steel, case-hardened, ground
Weight of screw:	1,5 kg
Gearbox lubrication:	synthetic fluid grease

ZE-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: 0,957 kg cm ² / L: 0,461 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-speed)
Housing material:	aluminium, corrosion-resistant
Whorm shaft:	steel, case-hardened, ground
Weight of screw:	5,2 kg
Gearbox lubrication:	synthetic fluid grease

ZE-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: 0,478 kg cm ² / L: 0,233 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-speed)
Housing material:	aluminium, corrosion-resistant
Whorm shaft:	steel, case-hardened, ground
Weight (screw jack):	2,8 kg
Gearbox lubrication:	synthetic fluid grease

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

Version	_____
SN or SL (translation)	_____
KGT Screw	_____
Dynamic load rating C	_____

A holding brake is necessary due to the lack of self-locking: either a brake motor or spring-loaded brake can be used.

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

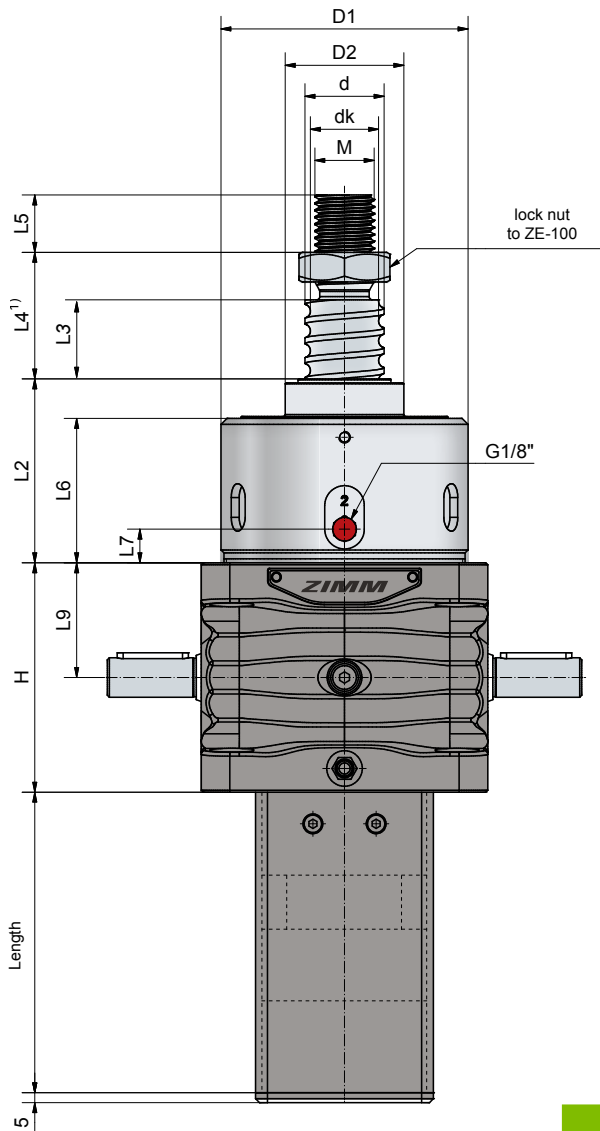
Screw jacks	KGT Screw ØxP	Dimensions mm											
		H	d	dk	D1	D2	L2	L3 ¹⁾	L4 ¹⁾	L5	L6	L7	M
ZE-5	16x5	62	15,5	12,9	59	29	66	15	25	19	54	23	M12
	16x10	62	15,5	12,9	59	29	66	25	35	19	54	23	M12
ZE-10	25x5	74	24,5	21,9	69	39	85	15	27	20	69	21	M14
	25x10	74	24,5	21,9	69	39	85	25	37	20	69	21	M14
	25x25	74	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
ZE-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 dimensions L3 and L4 can be reduced at your own discretion, in particular for high pitches. An extension may be required if a bellows or spiral spring is fitted.

2) Dynamic load rating to DIN 69051 part 4 draft 1989

3) Reduced play 0,02 mm available on request

KGT **S** **50 to 200 kN**
KGT-S I translating screw



Screw jacks	KGT Screw ØxP	Stroke per drive revolution		KGT load rating kN		Axialplay max ⁴⁾ mm
		SN	SL	dyn. C ²⁾	stat. Co=C _{oa}	
ZE-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	39,5	102,1	0,06
ZE-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	0,03
ZE-150	63x10	1,11	0,28	150,2	598,4	0,03
	63x20	2,22	0,56	173,5 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
ZE-200	80x10 ³⁾	1,25	0,42	206	710,8	0,03
	80x20	2,50	0,83	463,5	1163,7	0,03
	80x40	5,00	1,67	283,8	902	0,03
	80x60	7,50	2,50	193,6	582,5	0,03

Technical data

ZE-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-thorough torque:	max. 260 Nm
Gear ratio:	7:1 (normal) / 28:1 (low-speed)
Housing material:	GGG, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight (screw jack):	23 kg

ZE-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-thorough torque:	max. 540 Nm
Gear ratio:	9:1 (normal) / 36:1 (low-speed)
Housing material:	GGG, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight (screw jack):	42 kg

ZE-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-thorough torque:	max. 540 Nm
Gear ratio:	9:1 (normal) / 36:1 (low-speed)
Housing material:	GGG, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight (screw jack):	39 kg

ZE-200-R

max. compressive/tensile force, static:	200 kN (20 t)
Input speed:	1500 rpm / max. 1800 rpm
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 16,91 kg cm ² / L: 8,59 kg cm ²
Input torque (at 1500 rpm):	max. 94,5 Nm (N) / max. 39,3 Nm (L)
Drive-thorough torque:	max. 700 Nm
Gear ratio:	8:1 (normal) / 24:1 (low-speed)
Housing material:	GGG, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight (screw jack):	82 kg

A holding brake is necessary due to the lack of self-locking: either a brake motor or spring-loaded brake can be used.

Material: 1.1213 (Cf53), hardened inductiv and polished.

Hint for high performance -Series ZE-H

For high duty cycles or input speed up to 3000 rpm please contact our sales department.

Ordering example: ZE-50-SL-KGT 40x20, C = 44 kN

Version _____
 SN or SL (translation)
 KGT Screw _____
 Dynamic load rating C _____

Screw jacks	KGT Screw ØxP	Dimensions mm													
		H	d	dk	D1	D2	L2	L3 ¹⁾	L4 ¹⁾	L5	L6	L7	L9	M	
ZE-50	40x5	116	39	36,4	125	60	93	15	39	29	74	17	58	M30	
	40x10	116	39	33,3	125	60	93	15	39	29	74	17	58	M30	
	40x20	116	39	34,3	125	60	93	30	54	29	74	17	58	M30	
	40x40	116	39	36,4	125	60	93	60	84	29	74	17	58	M30	
ZE-100	50x10	160	49	43,3	148	85	148	20	48	48	118	19	80	M36	
	50x20	160	49	43,3	148	85	148	40	68	48	118	19	80	M36	
	50x40	160	50	41,1	148	85	148	80	108	48	118	19	80	M36	
ZE-150	63x10	185	63	56,6	168	90	150	20	40	48	118	24	92,5	M42x2	
	63x20	185	63	51,8	168	90	150	40	40	48	118	24	92,5	M42x2	
	63x40	185	63	54,1	168	90	150	80	80	48	118	24	92,5	M42x2	
	63x60 ³⁾	185	63	54,1	168	90	150	120	120	48	118	24	92,5	M42x2	
ZE-200	80x10 ³⁾	176	79,4	74,36	214	110	226	20	20	58	192	128	88	M56x2	
	80x20	176	79,4	69,32	214	110	226	40	40	58	192	128	88	M56x2	
	80x40	176	79,4	72,68	214	110	226	80	80	58	192	128	88	M56x2	
	80x60	176	79,4	72,68	214	110	226	120	120	58	192	128	88	M56x2	

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

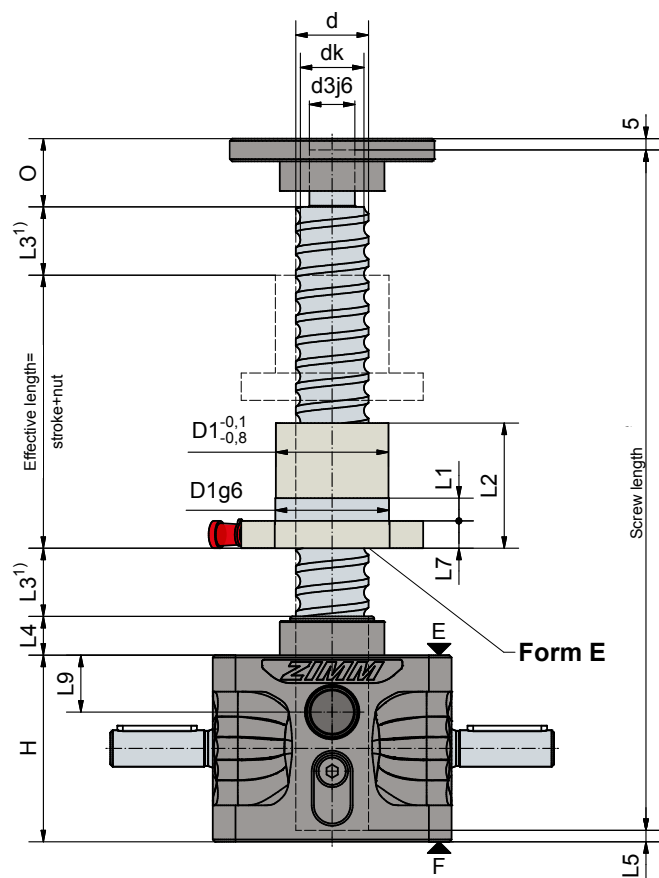
2) Dynamic load rating to DIN 69051 part 4 draft 1989

3) Non-preferred design

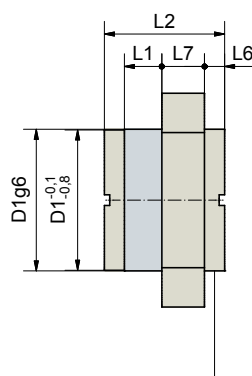
4) Reduced play 0,02 mm available on request

5) Service life calculation with C_{dyn} 159 kN (gearbox bearing)

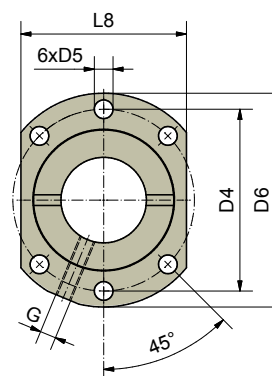
KGT **R** **5 to 25 kN**
KGT-R I rotating screw



Mounting side flange nut:
G = flange gearbox side (as shown)
S = flange screw side



Form S



arrangement of boreholes
1 to DIN 69051

Screw jacks	KGT Screw ØxP	Stroke per drive revolution		KGT load rating kN		Nut		Lubrication- hole G	Axialplay max ⁵⁾ mm
		RN	RL	dyn. C ²⁾	stat. Co=C _{0a}	Type	Hole pattern		
ZE-5	16x5	1,25	0,31	10,1	12	E	1	M6	0,06
	16x10	2,50	0,63	11,1	12,9	E	1	M6	0,06
ZE-10	25x5	1,25	0,31	13,7	21,5	E	1	M6	0,06
	25x10	2,50	0,63	25,2	45,4	E	1	M6	0,06
	25x25	6,25	1,56	20,7	37,3	S	1	M6	0,06
ZE-25	25x50	12,50	3,14	19,2	37,3	S	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	M8x1	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

ZE-5-R

max. compressive/tensile force, static:	5 kN (0,5 t)
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: 0,091 kg cm ²
Input torque (at 1500 rpm):	max. 4,7 Nm (N) / max. 1,5 Nm (L)
Drive-through torque:	max. 39 Nm
Gear ratio:	4:1 (normal) / 16:1 (low-speed)
Housing material:	aluminium, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight (screw jack):	1,2 kg
Gearbox lubrication:	synthetic fluid grease

ZE-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-speed)
Housing material:	aluminium, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight (screw jack):	3,8 kg
Gearbox lubrication:	synthetic fluid grease

ZE-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-speed)
Housing material:	aluminium, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight (screw jack):	2,1 kg
Gearbox lubrication:	synthetic fluid grease

Ordering example: ZE-10-RN-KGT 25x10, C = 25,2 kN - G

Version	_____
RN or RL (translation)	_____
KGT Screw	_____
Dynamic load rating C	_____
Nut flange	_____
G: flange gearbox side	
S: flange screw side	

A holding brake is necessary due to the lack of self-locking: either a brake motor or spring-loaded brake can be used.

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

Screw jacks	KGT Screw ØxP	Dimensions mm																	
		d	dk	d3j6	O	H	D1	D4	D5	D6	L1	L2	L3 ¹⁾	L4	L5	L6	L7	L8	L9
ZE-5	16x5	15,5	12,9	12	15	62	28	38	5,5	48	10	42	15	12	8		10	40	18
	16x10	15,5	12,9	12	15	62	28	38	5,5	48	10	55	25	12	8		10	40	18
ZE-10	25x5	24,5	21,9	15	20	74	40	51	6,6	62	10	42	15	16	8		10	48	21
	25x10	24,5	21,9	15	20	74	40	51	6,6	62	16	55	25	16	8		10	48	21
	25x25	24,5	21,9	15	20	74	40	51	6,6	62	9	35	60	16	8	8	10	48	21
	25x50	24,5	21,9	15	20	74	40	51	6,6	62	10	58	125	16	8	10	10	48	21
ZE-25	32x5	31,5	28,9	20	25	82	50	65	9,00	80	10	55	15	17	5		12	62	25
	32x10	31,5	26,8	20	25	82	53 ⁶⁾	65	9,00	80	16	69	20	17	5		12	62	25
	32x20	31,5	26,8	20	25	82	53 ⁶⁾	65	9,00	80	16	80	35	17	5		12	62	25
	32x40 ³⁾	31,5	28,9	20	25	82	53 ⁶⁾	68 ⁶⁾	7,0 ⁶⁾	80	14	45	70	17	5	7,5	16	³⁾	25

An increased screw can also be used for the rotating version.

(such as: ZE-10-RN with screw 32x10)

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

2) Dynamic load rating to DIN 69051 part 4 draft 1989

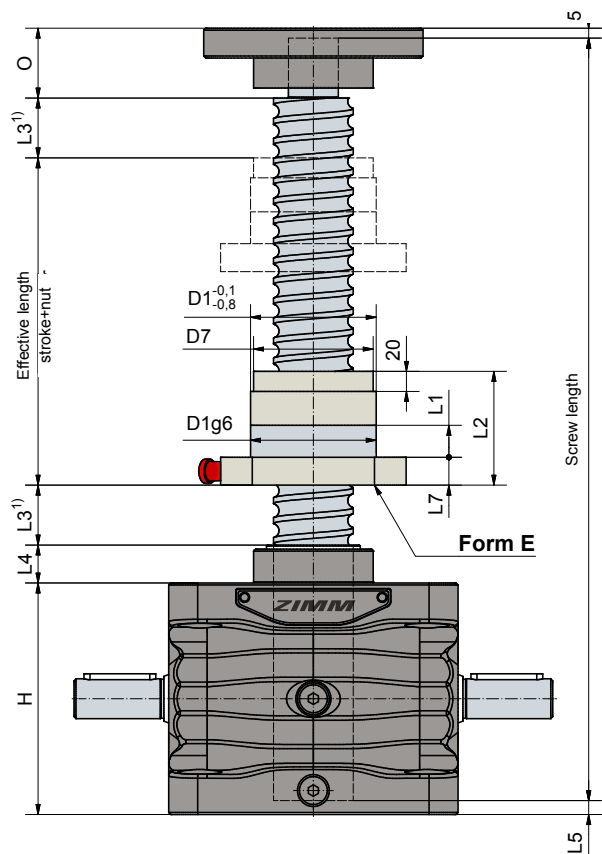
3) Round flange

4) Hole pattern on request

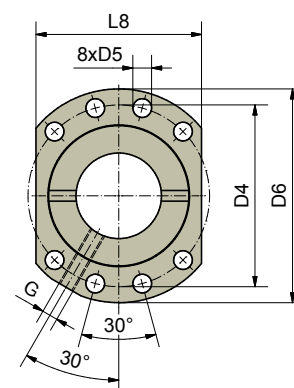
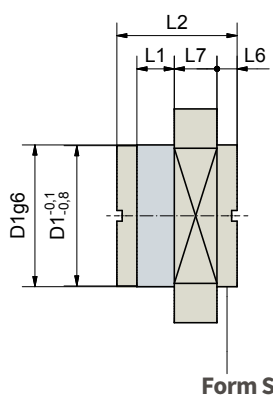
5) Reduced play 0,02 mm available on request

6) Not to DIN 69051

KGT R **35 to 100 kN**
KGT-R | rotating screw



Mounting side flange nut:
G = flange gearbox side (as shown)
S = flange screw side



arrangement of boreholes
2 to DIN 69051

Screw jacks	KGT Screw ØxP	Stroke per drive revolution		KGT load rating kN		Nut		Lubrication- hole G	Axialplay max ⁶⁾ mm
		RN	RL	dyn. C ²⁾	stat. C ₀ =C _{0a}	Type	Hole pattern		
ZE-35	40x5	0,71	0,18	27,5	63,3	E	2	M6	0,06
	40x10	1,43	0,36	46,1	71,3	E	2	M8x1	0,06
	40x20	2,86	0,72	44	80,4	E	2	M8x1	0,06
	40x40 ³⁾	5,71	1,43	39,5	102,1	S	2	M8x1	0,06
ZE-50	40x5	0,71	0,18	27,5	63,6	E	2	M6	0,06
	40x10	1,43	0,36	46,1	71,3	E	2	M8x1	0,06
	40x20	2,86	0,72	44	80,4	E	2	M8x1	0,06
	40x40 ³⁾	5,71	1,43	39,5	102,1	S	2	M8x1	0,06
ZE-100	50x10	1,11	0,28	122,4	248,6	E	2	M8x1	0,06
	50x20	2,22	0,56	127,3	270,3	S	N ⁴⁾	M8x1	0,06
	50x40	4,44	1,11	84,7	143,1	E	2	M8x1	0,03
	50x50 ⁵⁾	5,56	1,39	84,7	143,1	E	2	M8x1	0,03

Technical data

ZE-35-R

max. compressive/tensile force, static:	35 kN (3,5 t)
Input speed:	1500 rpm / max. 1800 rpm
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 0,97 kg cm ² / L: 0,67 kg cm ²
Input torque (at 1500 rpm):	max. 19,8 Nm (N) / max. 9 Nm (L)
Drive-through torque:	max. 130 Nm
Gear ratio:	7:1 (normal) / 28:1 (low-speed)
Housing material:	GGG, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight (screw jack):	9,5 kg

ZE-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-speed)
Housing material:	GGG, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight (screw jack):	17 kg

ZE-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-speed)
Housing material:	GGG, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight (screw jack):	29 kg

Ordering example: ZE-35-RN-KGT 40x10, C = 46,1 kN - G

Version	↑
RN or RL (translation)	↑
KGT Screw	↑
Dynamic load rating C	↑
Nut flange	↑
G: flange gearbox sides	
S: flange screw side	

A holding brake is necessary due to the lack of self-locking: either a brake motor or spring-loaded brake can be used.

Screw: 1.1213 (CF53), hardened inductively and polished.

High performance Series ZE-H

For high duty cycles or input speed up to 3000 rpm please contact our sales department.

Screw jacks	KGT Screw		Dimensions mm															
	ØxP	d	dk	d3j6	O	H	D1	D4	D5	D6	L1	L2	L3 ³⁾	L4	L5	L6	L7	L8
ZE-35	40x5	39	36,4	25	30	100	63	78	9	93	10	57	15	19	7		14	70
	40x10	39	33,3	25	30	100	63	78	9	93	16	71	15	19	7		14	70
	40x20	39	34,3	25	30	100	63	78	9	93	16	80	30	19	7		14	70
	40x40 ³⁾	39	36,4	25	30	100	63	78	9	93	16	85	60	19	7	7,5	14	³⁾
ZE-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 ³⁾	39	36,4	25	30	116	63	78	9	93	16	85	60	19	7	7,5	14	³⁾
ZE-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 ⁷⁾	103 ⁷⁾	11	120 ⁷⁾	16	125	40	30	8		16	95
	50x40	50	41,1	40	45	160	85 ⁷⁾	103 ⁷⁾	11	120 ⁷⁾	16	125	80	30	8		16	95
	50x50 ⁵⁾	50	41,1	40	45	160	85 ⁷⁾	103 ⁷⁾	11	120 ⁷⁾	16	145	100	30	8		16	95

An increased screw can also be used for the rotating version. (such as: ZE-35-RN with screw 50x20)

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

2) Dynamic load rating to DIN 69051 part 4 draft 1989

3) Round flange

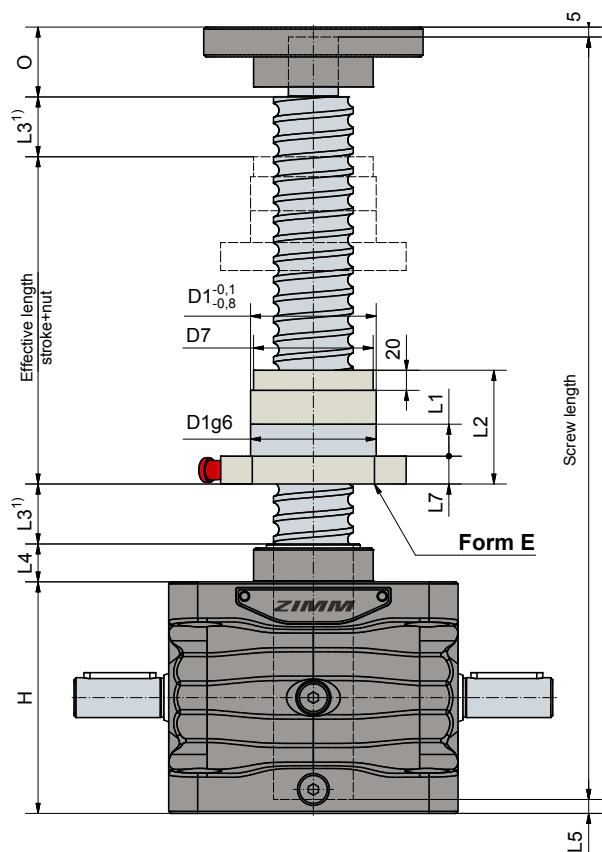
4) arrangement of boreholes on request

5) Non-preferred design

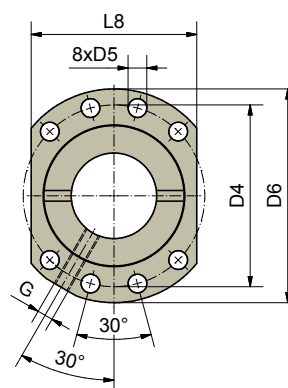
6) Reduced play 0,02 mm available on request

7) Not to DIN 69051

KGT R **150 to 200 kN**
KGT-R I rotating screw



Mounting side flange nut:
G = flange gearbox side (as shown)
S = flange screw side



arrangement of boreholes
2 to DIN 69051

Screw jacks	KGT Screw ØxP	Stroke per drive revolution		KGT load rating kN		Nut		Lubrication hole G	Axialplay max ⁴⁾ mm
		RN	RL	dyn. C ²⁾	stat. Co=C _{0a}	Type	Hole pattern		
ZE-150	63x10	1,11	0,28	150,2	598,4	E	2	M8x1	0,03
	63x20	2,22	0,56	173,5 ³⁾	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
ZE-200	80x10 ³⁾	1,25	0,42	206	710,8	E	2	M8x1	0,03
	80x20	2,50	0,83	463,5	1163,7	E	2	M8x1	0,03
	80x40	5,00	1,67	283,8	902	E	2	M8x1	0,03
	80x60	7,50	2,50	193,6	582,5	E	2	M8x1	0,03

Technical data

ZE-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-speed)
Housing material:	GGG, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight (screw jacks):	42 kg

ZE-200-R

max. compressive/tensile force, static:	200 kN (20 t)
Input speed:	1500 rpm / max. 1800 rpm
Gearbox operating temperature:	max. 60°C, higher on request
Moment of inertia:	N: 11,5 kg cm ² / L: 7,99 kg cm ²
Input torque (at 1500 rpm):	max. 94,5 Nm (N) / max. 39,3 Nm (L)
Drive-through torque:	max. 700 Nm
Gear ratio:	8:1 (normal) / 24:1 (low-speed)
Housing material:	GGG, corrosion-resistant
Worm shaft:	steel, case-hardened, ground
Weight (screw jacks):	50 kg

Ordering example: ZE-150-RN-KGT 63x40, C = 96,6 kN - G

Version	_____↑
RN or RL (translation)	_____↑
KGT Screw	_____↑
Dynamic load rating C	_____↑
Nut flange	_____↑
G: flange gearbox side	
S: flange screw side	

A holding brake is necessary due to the lack of self-locking: either a brake motor or spring-loaded brake can be used.

Spindel: 1.1213 (Cf53), induktiv gehärtet und poliert.

High performance Series ZE-H

For high duty cycles or input speed up to 3000 rpm please contact our sales department.

Screw jacks	KGT Screw	Dimensions mm																
		ØxP	d	dk	d3j6	O	H	D1	D4	D5	D6	D7	L1	L2	L3 ³⁾	L4	L5	L7
ZE-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	90	25	135	40	32	7	20	100
	63x40	63	54,1	45	55	185	95	115	13,5	135	90	25	126	80	32	7	20	100
	63x60 ³⁾	63	54,1	45	55	185	95	115	13,5	135	90	25	126	120	32	7	20	100
ZE-200	80x10 ³⁾	79,4	74,36	50	65	176	105	125	13,5	145	-	16	160	20	34	5	20	110
	80x20	79,4	69,32	50	65	176	125	145	13,5	165	120	25	190	40	34	5	25	130
	80x40	79,4	72,68	50	65	176	125	145	13,5	165	120	25	190	80	34	5	25	130
	80x60	79,4	72,68	50	65	176	125	145	13,5	165	120	25	190	120	34	5	25	130

An increased screw can also be used for the rotating version.

(such as: ZE-150-RN with screw 80x20)

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

2) Dynamic load rating to DIN 69051 part 4 draft 1989

3) Non-preferred design

4) Reduced play 0.02 mm available on request

5) Service life calculation with C_{dyn} 150 kN

(gearbox bearing)

Innovative, separated lubrication

Lubricants for spindle and gearbox

3

Trapezoid threaded screw (Tr)

Ball screw (KGT)

Lubrication during operation possible!
Engineered by the ZIMM R&D team, for optimum grease distribution.
For trapezoid threaded screws and ball screws.

Screw lubrication during operating provides optimum grease distribution.

1 Ball screw KGT

Make sure to lubricate your ball screw KGT every 300 hours of effective operation.
For heavy-duty systems every 100 hours.
Grease quantity:
Guideline value approx. 1 ml per cm screw diameter.

1 Trapezoid threaded screw Tr

Inspect the trapezoidal screw regularly and regrease it depending on the operating cycle.
Use the grease that we recommend.
These are ideally matched to the operating requirements of our screw jack system.

2 Escape/rotation protection VS

The escape/rotation protection features sliding blocks made of bronze. These can be lubricated by using grease nipples on the protective tube during operation.

3 Gearbox lubrication

The gearbox is sealed and is filled with high-performance synthetic grease (high performance version with oil-filling also available). The gearbox is lubricated for life in normal operation.

Note

At operating temperatures up to 70 °C, the best lubrication properties are usually achieved with the standard greases. Depending on the ambient temperature, load and duty cycle, the grease becomes too fluid for good lubrication. Especially with trapezoidal thread spindles, high temperatures are reached quickly.

Therefore, high-temperature and high-performance greases must be used. We are at your service to advise you on your application.

Warning: Higher idle and breakaway torques are generally to be expected at low temperatures. Synthetic fats are much more suitable than mineral fats here.

Trapezoid threaded screw (Tr)

Ball screw (KGT)

Lubrication during operation possible!
Engineered by the ZIMM R&D team, for optimum grease distribution.
For trapezoid threaded screws and ball screws.

Ordering example: Z-LUB-125-/Tribol GR 4020/460-2 PD

Quantity: 125mL **Filling:**

Lubricants

Recommended, tested lubrications for most favorable life-span

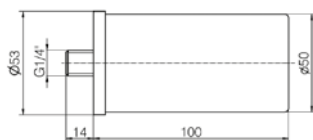
Tr	Trapezoidal thread Tr		Lubricant-type		Suitability	
	application	grease	appropriate	conditional/ not appropriate		
	Standard grease up to size 200 kN		Tribol GR 4020/460-2 PD	best properties in normal conditions and temperatures	very rigid at low temperatures	
	Standard grease from size 250 kN		Tribol GR 3020/1000-2 PD	higher loads, slow speeds, up to size 250 kN	very rigid at low temperatures	
	High performance grease, high temperature grease		Tribol GR XT 2HT	at high duty cycle or at high ambient temperature	at constant temperatures up to 160°C low fat lifetime	
	High performance grease up to 150°C		Braycote 2115-2	long lifetime at high continuous temperature up to 200°C, cleanroom, vacuum and food processing	high price	
	Low temperature grease		Tribol GR 4747/220-2HT	optimum properties and smooth at low temperatures	above 60°C operating temperature too low viscosity	
	Food grade grease		Tungrease CSH2	approved for food industry, NSF-H1		
	Spindel grease ZE-H series		Tungrease BS1	for high operating cycles or higher loads		

KGT	Ball screw KGT		Lubricant-Type		Suitability	
	application	grease	appropriate	conditional/ not appropriate		
	Standard grease for KGT		Tribol GR 4747/220-2HT	high quality, synthetic grease for all standard applications		
	Food grade grease		Tungrease CSH2	approved for food industry, NSF-H1		

Gear fluid grease (ZE, Z + GSZ)	Lubricant-Type		Suitability		
	application	grease	appropriate	conditional/ not appropriate	
	Standard gear fluid grease		Optileb GR UF 00	very high quality, synthetic grease for all standard applications with NSF-H1-approval	
	Heavy-duty grease from 250 and ZE-H		Tevier PG Oil	high loads, low speeds ZE-H 35 - 200, Z-250 bis Z-1000	
	High temperature grease up to 150°C		Braycote 2115-0	long lifetime at high continuous temperatures up to 200°C, cleanroom, vacuum and food	high price

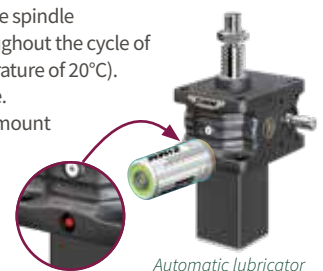


Lubricants Z-LUB & KART



The ZIMM-Lubricator (Z-LUB) provides grease to the spindle continuously with the right amount required throughout the cycle of 12 months (1 to 12 months at an ambience temperature of 20°C). The method works via gas evolution cell technique. Due to the transparent casing you can check the amount of grease left in the Z-LUB.

All spindle greases are available in cartridges 400g (for trapezoidal thread R 0 Alloy 2115: 800g)

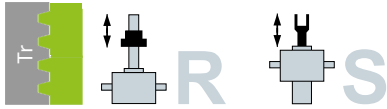


Automatic lubricator Z-LUB



Code	Description	Lubricant	Size mL
Z-LUB	ZIMM-Lubricator	check table	250, *125, 60, 30, *15
KART	Standard spindle grease cartridge	check table	400g

*In stock, other sizes available on request.



High performance gearbox ZE-H

Characteristics and duty cycle thermal limit

35 to 200 kN

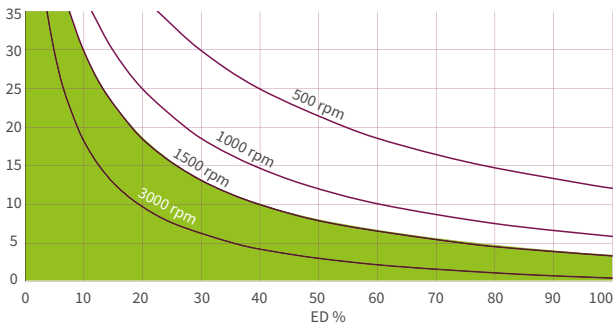
ZE-H Series Features

- 1 Higher performance possible:
In comparison to standard gearboxes, the ZE-H series can drive significantly higher loads at the same speed, or higher speeds at the same load.
- 2 Higher operating cycle possible
- 3 Speeds of up to 3000 rpm
- 4 Optimised gearing with increased lifetime.
Manufactured on high-precision gear cutting and grinding machines
- 5 Fully synthetic worm gear oil
- 6 Reduced twist-flank play in the worm gear.
- 7 Spindle grease optimized for high performance
- 8 Improved temperature endurance during both continuous and peak loads
- 9 High quality gaskets
- 10 Simplified maintenance when changing the lubricant: if necessary, an easy oil change is possible.

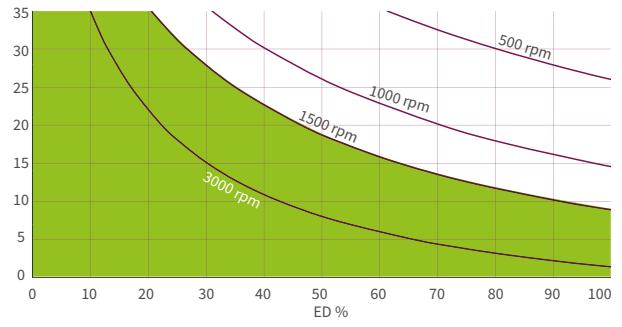


These charts are for orientation under standard industrial conditions (ambient temperature, etc.) and proper maintenance (lubrication, etc.). The charts are based on the ZIMM Standard Trapezoidal Thread. With ball screws the duration of operating cycles can be much longer.

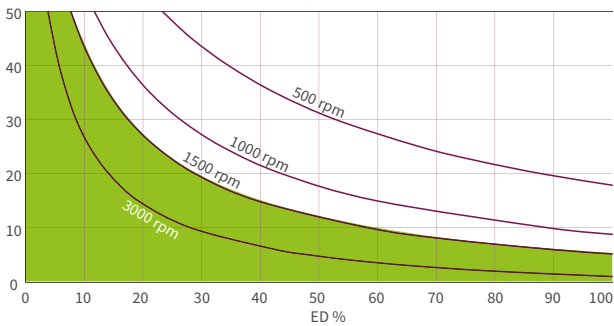
ZE-H 35 kN Oil lubricated with 7:1 ratio



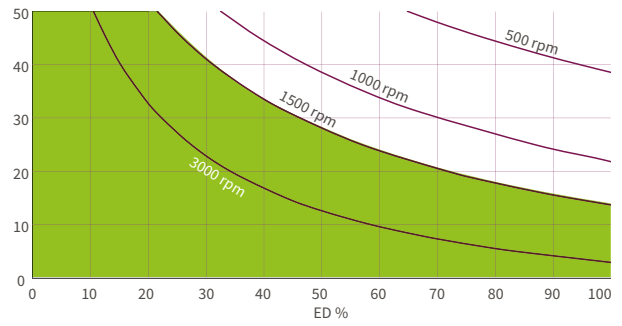
ZE-H 35 kN Oil lubricated 28:1 ratio



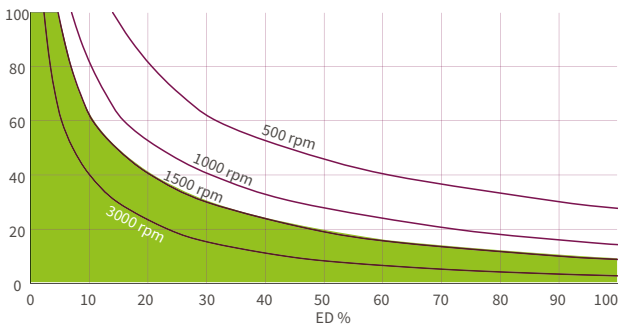
ZE-H 50 kN Oil lubricated with 7:1 ratio



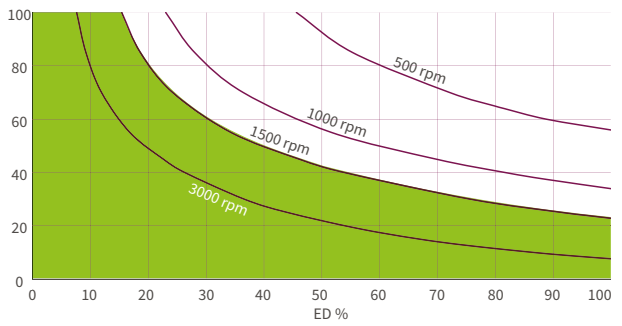
ZE-H 50 kN Oil lubricated 28:1 ratio



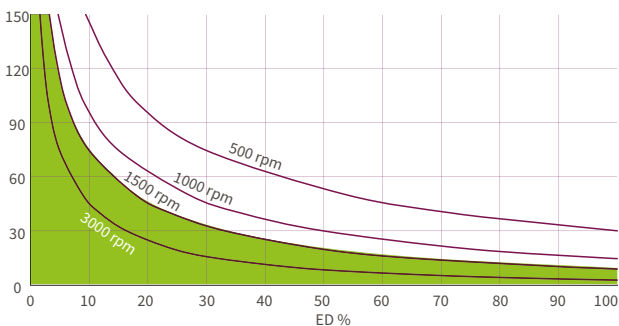
ZE-H 100 kN Oil lubricated with 9:1 ratio



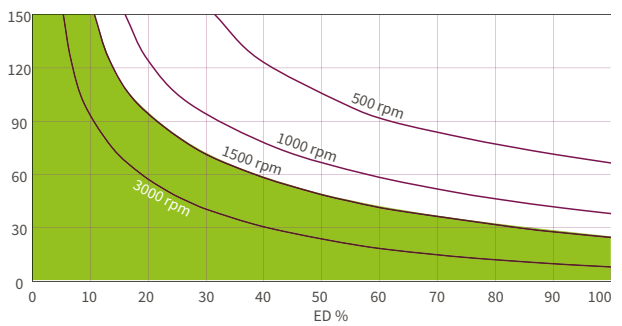
ZE-H 100 kN Oil lubricated 36:1 ratio



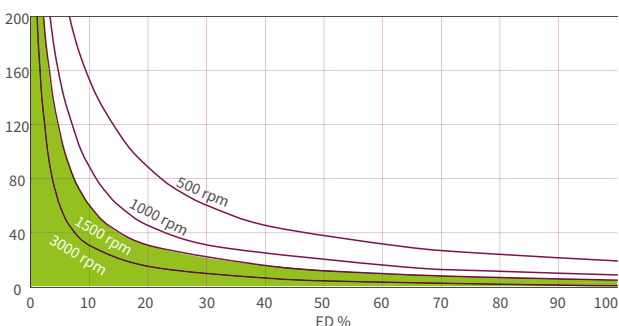
ZE-H 150 kN Oil lubricated with 9:1 ratio



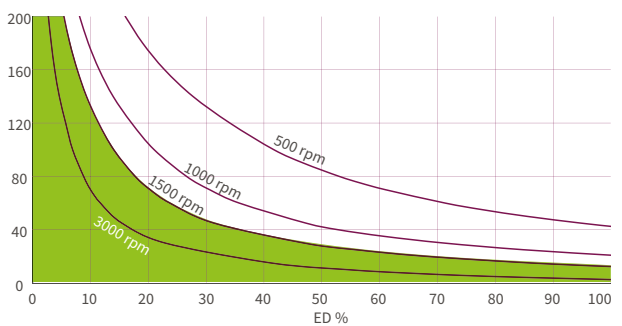
ZE-H 150 kN Oil lubricated 36:1 ratio



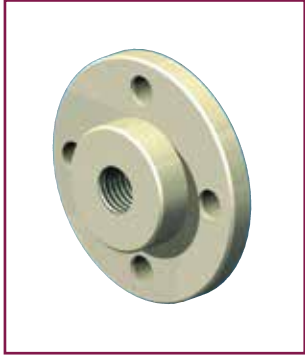
ZE-H 200 kN Oil lubricated with 8:1 ratio



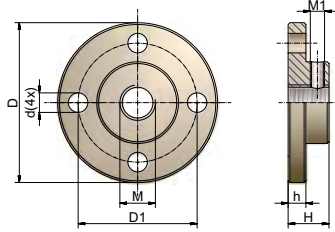
ZE-H 200 kN Oil lubricated 24:1 ratio



S ZE Accessories
Add-on components I for the translating version



Fixing flange BF

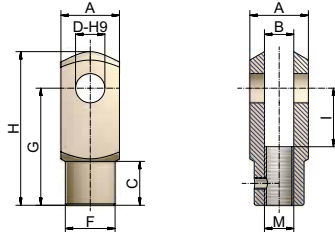


Code	D	D1	D2	M	d	h	H	M1	kg
ZE-5-BF	65	48	29	M12	9	7	20	5	0,2
ZE-10-BF	80	60	38	M14	11	8	21	6	0,3
ZE-25-BF	90	67	46	M20	11	10	23	8	0,5
ZE-35/50-BF	110	85	60	M30	13	15	30	8	1,2
ZE-100-BF	150	117	85	M36	17	20	50	10	3,5
ZE-150-BF	170	130	90	M42x2	21	25	50	10	4,7
ZE-200-BF	200	155	110	M56x2	26	30	60	12	7,8

Material: steel, corrosion-resistant;



Forked end GK

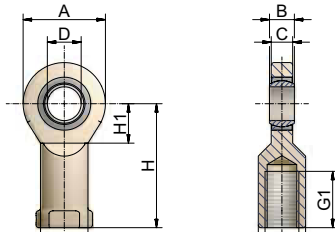


Code	A	B	C	D	M	F	G	H	I	kg
ZE-5-GK	24	12	18	12	M12	20	48	62	24	0,2
ZE-10-GK	27	14	22	14	M14	24	56	72	28	0,2
ZE-25-GK	40	20	30	20	M20	34	80	105	40	0,7
ZE-35/50-GK	60	30	42	30	M30	52	120	160	60	2,5
ZE-100-GK	70	36	54	35	M36	60	144	188	72	3,7
ZE-150-GK	85	42	63	42	M42x2	70	168	232	84	5,3

Material: steel, galvanised (INOX on request) incl. bolt, Splint and cotter pin



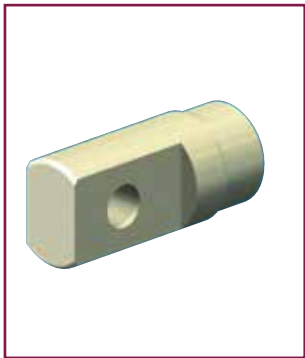
Rod KGK



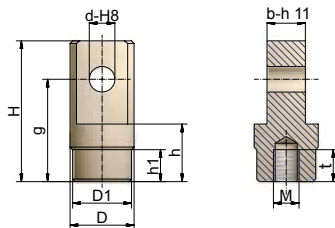
Code	A	B	C	D	G	G1	H	H1	SW	N1	kg
ZE-5-KGK	34	10	8,5	12	M12	23	50	17,5	18	17	0,1
ZE-10-KGK	40	12	10	15	M14	30	61	20	21	20	0,16
ZE-25-KGK	53	16	13	20	M20	40	77	27,5	30	27,5	0,32
ZE-35/50-KGK	73	22	19	30	M30	56	110	37	41	40	1,03
ZE-100-KGK	92	28	24	40	M36	65	142	46	60	52	2,1
ZE-150-KGK	112	35	31	50	M42x2	68	160	56	70	62	3,61
ZE-200-KGK	135	44	38	60	M56x2	70	175	73	75	70	5,6

Material: steel/steel, galvanised; (INOX on request)

CAUTION: Use only with rotation protection



Pivot bearing end SLK

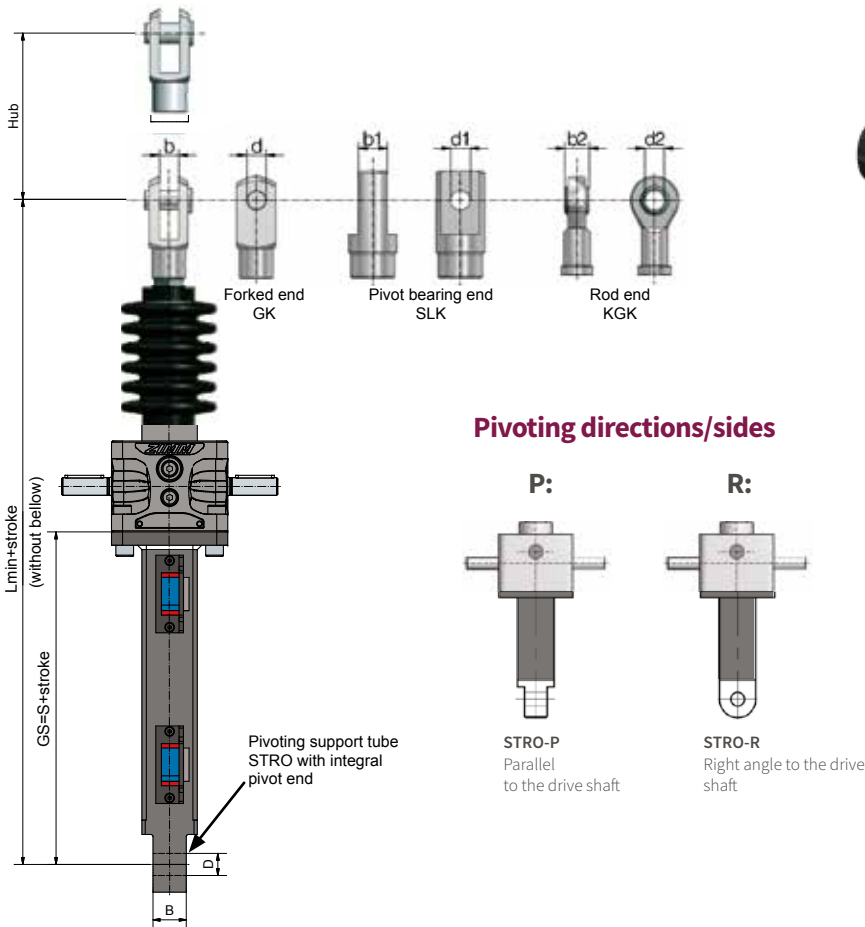


Bestell Code	H	D	D1	d	M	g	b	h	h1	t	kg
ZE-5-SLK	65	30	29	12	M12	48	18	25	20	22	0,3
ZE-10-SLK	80	40	39	14	M14	56	24	25	20	25	0,6
ZE-25-SLK	110	50	46	20	M20	80	30	45	25	25	1,2
ZE-35/50-SLK	130	65	60	30	M30	92	35	50	30	33	2,1
ZE-100-SLK	144	90	85	35	M36	108	40	65	40	55	4,4
ZE-150-SLK	210	100	90	50	M42x2	155	57	90	50	70	8
ZE-200-SLK	235	115	110	65	M56x2	165	70	85	45	63	12

Material: steel, corrosion-resistant incl. cotter pin

S Pivoting support tube STRO

Maximum stroke 500 mm

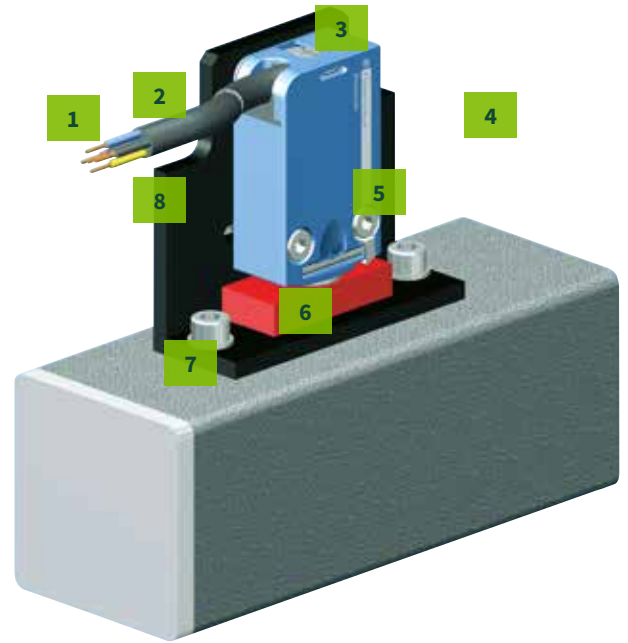


Note
When using the pivoting support tube, take into consideration the torques arising due to the weight of the motor etc. - support is necessary!

Size	Options	S	L min. GK	L min. SLK	L min. KGK	d	b	d1	b1	d2	b2	D	B
ZE-5	Standard	82	224	224	226	12	12	12	18	12	10	12	20
	with AS/VS	97	239	239	241	12	12	12	18	12	10	12	20
	with ES	155	297	297	299	12	12	12	18	12	10	12	20
ZE-10	Standard	94	262	262	267	14	14	14	24	15	12	20	30
	with AS/VS	114	282	282	287	14	14	14	24	15	12	20	30
	with ES	166	334	334	339	14	14	14	24	15	12	20	30
ZE-25	Standard	98	303	303	300	20	20	20	30	20	16	20	30
	with AS/VS	118	323	323	320	20	20	20	30	20	16	20	30
	with ES	170	375	375	372	20	20	20	30	20	16	20	30
ZE-35	Standard	117	390	362	380	30	30	30	35	30	22	30	35
	with AS/VS	147	420	392	410	30	30	30	35	30	22	30	35
	with ES	203	476	448	466	30	30	30	35	30	22	30	35
ZE-50	Standard	137	426	398	416	30	30	30	35	30	22	40	50
	with AS/VS	167	456	428	446	30	30	30	35	30	22	40	50
	with ES	219	508	480	498	30	30	30	35	30	22	40	50
ZE-100	Standard	157	539	503	537	35	36	35	40	40	28	40	50
	with AS/VS	187	569	533	567	35	36	35	40	40	28	40	50
	with ES	219	601	565	599	35	36	35	40	40	28	40	50

Maximum stroke for this type: 500 mm. Sizes above send inquiry.

S Limit switch set ES for the translating version



Cable outlet turnable 180°



Cable length 5m standard (2m, 10m)



Integrated plug, for fast and comfortable revisions



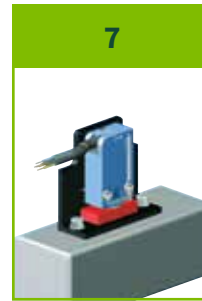
One size fits all



Fine adjustment +/- 5 mm possible



Enclosed fitting, resistant to dirt penetration



Assembled and preset delivery

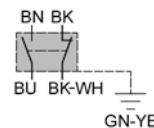
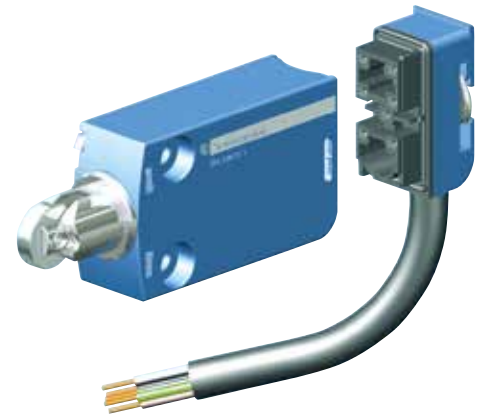


Massive mounting, protection against damage

Technical data

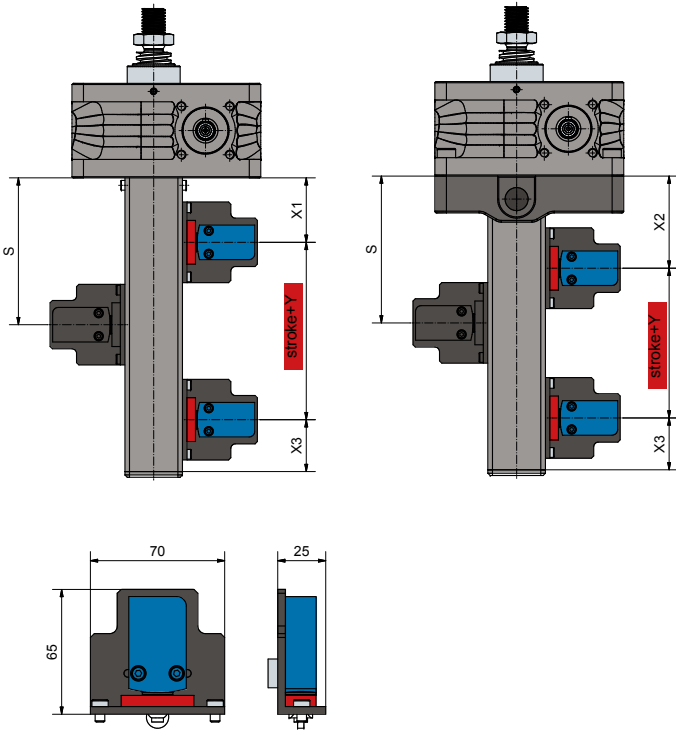
Type: mechanical limit switch with positively-actuated NC relay
 Material: metal housing and roller plunger
 Mode of operation: 1Ö + 1S, snap action contacts
 Protection class: IP67
 Temperature range: -40°C bis +70°C
 Cable standard-material: PvR black Ø 7,3 mm, 5 x 0,75 mm²
 Cable standard-temperature: -25°C bis +70°C
 Cable special-temperature: -40°C bis +105°C (only request available)
 Electrical duty: max. 240V AC / 1,5A
 max. 250V DC / 0,1A
 Electrical service life: 5 million DC switching operations at 24V DC/3W
 1 million AC switching operations at 230V AC/0,5A
 Weight: Limit switch set: 0,2 kg; cabel (5m): 0,45 kg

NC	BK	black	black
	BK-WH	black-white	black-white
NO	BU	blue	blue
	BN	brown	brown
Protective earth conductor	GN-YE	green-yellow	green-yellow



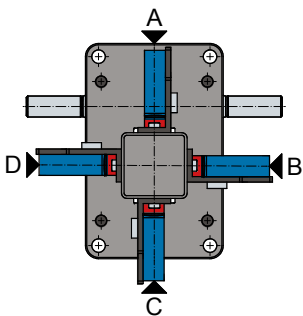
Limit switch set ES - Dimensions

Positions I for the translating version



Size	Screw	X1	X2	X3	Y
ZE-5	Tr18x4	49	70	45	25
	KGT16x05, x10	49	70	45	25
ZE-10	Tr20x4	52	72	45	24
	KGT25x05, x10	52	72	45	24
	KGT25x25	77	77	68	24
	KGT25x50	142	142	133	24
ZE-25	Tr30x6	56	80	45	24
	KGT32x05, x10, x20	56	80	45	24
	KGT32x40	91	91	78	24
ZE-35	Tr40x7	64	90	45	34
ZE-50	Tr40x7	65	90	45	34
	KGT40x5, x10, x20	65	90	45	34
	KGT40x40	90	90	68	34
ZE-100	Tr55x9	65	110	45	34
	KGT50x10	65	110	45	34
	KGT50x20	70	110	48	34
	KGT50x40	110	110	88	34
ZE-150	Tr60x9	70	120	45	34
	KGT63x10	70	120	45	34
	KGT63x20	75	120	48	34
	KGT63x40	115	120	88	34
ZE-200	KGT63x60	155	155	128	34
	Tr70x12	70	-	45	34
	KGT80x10	70	-	45	34
	KGT80x20	75	-	48	34
ZE-200	KGT80x40	115	-	88	34
	KGT80x60	155	-	128	34

Limit switch positions



The limit switch can be mounted on any potential position/side of the protective tube

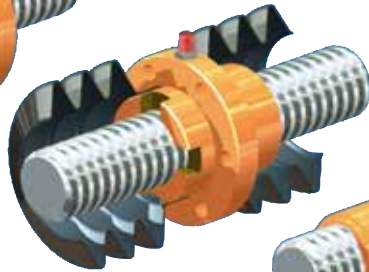
Ordering example for a single switch: ZE-25-ES-2

Gearbox size _____
 Limit switch _____
 Cable length _____
 2m, 5m (standard) oder 10m, 0 = without cabel

ZE Accessories
R Nuts | rotating version



Flange nut FM
 Standard nut for simple applications



Duplex nut DM
 - Bellows can be attached both sides
 - Uniform Ø on gearbox neck, nut and opposed bearing plate
 - Grease nipple or connection to central lubrication or lubricator



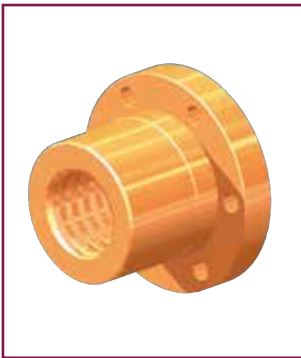
Safety nut SIFA
 In combination with duplex nut or self-aligning nut



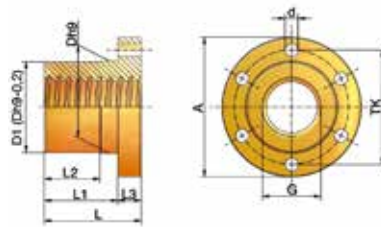
Self-aligning nut PM
 - Angular compensation up to max. 3°
 - Bellows can be attached both sides
 - Uniform Ø on gearbox neck, nut and opposed bearing plate
 - Grease nipple or connection to central lubrication or lubricator



Greaseless nut FFDM
 - Specially suitable for dry running (such as textiles, foodstuffs, chemicals,...)
 - Bellows can be attached both sides
 - Reinforced with a stainless steel washer

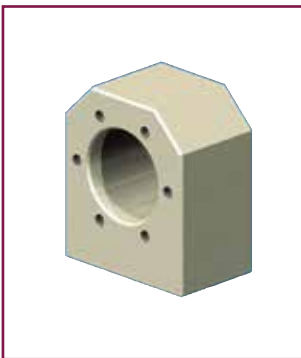


Flange nut FM

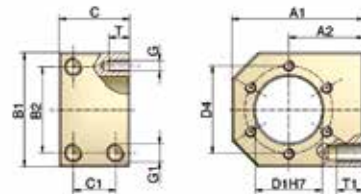


Code	G	D1*Dh9	TK	A	d (6x)	L	L1	L2	L3	kg
ZE-5-FM	Tr18x4	28	38	48	6	35	23	15	12	0,2
ZE-10-FM	Tr20x4	32	45	55	7	44	32	24	12	0,3
ZE-25-FM	Tr30x6	38	50	62	7	46	32	24	14	0,4
ZE-35/50-FM	Tr40x7	63	78	95	9	66	50	38	16	1,7
ZE-100-FM	Tr55x9	85	108	130	11	90	70	54	20	4
ZE-150-FM	Tr60x9	90	116	140	13	100	75	54	25	5,5
ZE-200-FM	Tr70x12	110	143	175	17	120	90	60	30	10,2

Material: 2.1090.01 (RG7-red brass alloy)
 Quality: 7H DIN 103. Right-handed (left-handed, double-pitch on request)



Driving flange TRMFL for flange nut FM



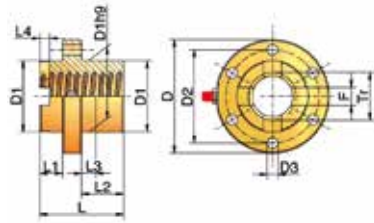
Code	für FM	A1	A2max ¹⁾	A2min ¹⁾	B1	B2	C	C1	G1xT	D1	D4	GxT	kg
TRMFL-18x4	Tr18x4	60	35	25	50	34	40	24	M8x15	28	38	M5x10	0,7
TRMFL-20x4	Tr20x4	68	37,5	29	58	39	40	24	M8x15	32	45	M6x12	0,9
TRMFL-30x6	Tr30x6	75	42,5	32,5	65	49	40	24	M10x15	38	50	M6x12	1,1
TRMFL-40x7	Tr40x7	120	70	50	100	76	65	41	M14x25	63	78	M8x14	4,5

1) Supplied ex-works with size A2max. Can be machined by the customer to A2min.
 Material: steel, corrosion-resistant

 **ZE Accessories**
Nuts | rotating version

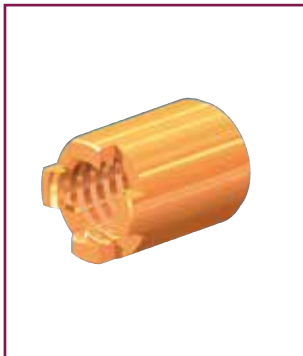


Duplex nut DM

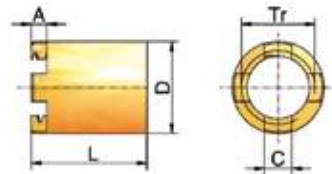


Code	Tr	D	D1	D2	D3	L	L1	L2	L3	L4	F	kg
ZE-5-DM	Tr18x4	52	29	40	6	45	13	20	8	6	6	0,3
ZE-10-DM	Tr20x4	68	39	54	7	45	13	20	8	6	8	0,6
ZE-25-DM	Tr30x6	79	46	61	7	50	13	23	8	7	12	0,8
ZE-35/50-DM	Tr40x7	95	60	78	9	70	18	36	12	8,5	15	1,5
ZE-100-DM	Tr55x9	130	85	108	11	90	18	54	18	10	20	4,1
ZE-150-DM	Tr60x9	140	90	116	13	115	20	75	20	10	20	5,3
ZE-200-DM	Tr70x12	175	110	110	17	130	25	75	30	14	25	10,3

Material: 2.1090.01 (RG7-bronze); quality: 7H DIN 103 Right-handed (left-handed, double-pitch on request); Threaded grease nipple, up to ZE-50 G1/8", from ZE-100 G1/4"

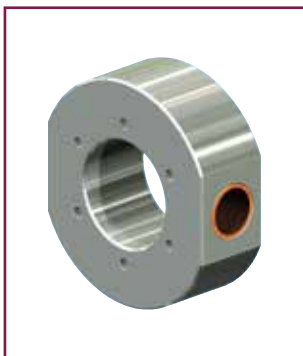


Safety nut SIFA-R

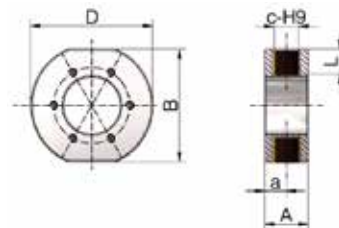


Code	Tr	A	C	D	L	kg
ZE-5-SIFA-R	Tr18x4	6	6	24	28	0,1
ZE-10-SIFA-R	Tr20x4	6	8	28	42	0,1
ZE-25-SIFA-R	Tr30x6	7	12	38	47,5	0,2
ZE-35/50-SIFA-R	Tr40x7	8,5	15	50	67	0,5
ZE-100-SIFA-R	Tr55x9	10	20	65	87	1,1
ZE-150-SIFA-R	Tr60x9	10	20	70	100	1,2
ZE-200-SIFA-R	Tr70x12	14	25	95	110	3,8

Material: RG7



Cardan adapters DMA for duplex nut DM



Code	B	D	c-H9	L	A	a	kg
ZE-5-DMA	72	78	16	15	30	15	1
ZE-10-DMA	72	78	16	15	30	15	0,9
ZE-25-DMA	90	98	20	20	36	18	1,4
ZE-35-DMA	100	116	28	15	46	23	2,3
ZE-50-DMA	100	116	30	15	46	23	2,3
ZE-100-DMA	140	156	40	25	60	30	4,8
ZE-150-DMA	145	160	50	25	76	38	6,8
ZE-200-DMA	175	192	50	25	80	40	10,3

Material: steel, corrosion-resistant; pivot bearing: Bronze, PTFE coated



Main direction of loading

Select the main direction of loading so that tensile loads on the nut are avoided

ZE Accessories
Nuts | rotating version

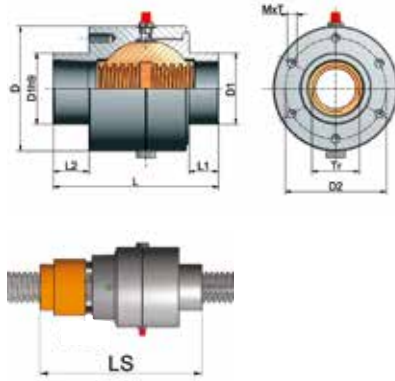


Trapezoidal screw:
DIN 103, quality 7H, right-handed

Screwed grease nipple
Thread 1/8" / 1/4" from Tr 40x7

Material
Housing: GG 25 (grey cast iron)
Spherical nut: Rg7 (bronze)

Self-aligning nut PM

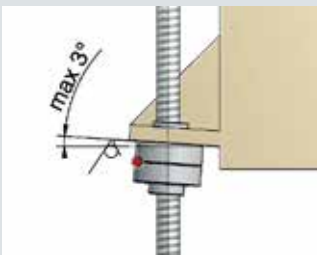


Safety nut SIFA
is available for the self-aligning nut on request.

Code	Thread Tr dxP	D	D1	D2
ZE-5-PM	Tr18x4	52	29	40
ZE-10-PM	Tr20x4	74	39	60
ZE-25-PM	Tr30x6	88	46	70
ZE-35/50-PM	Tr40x7	105	60	85
ZE-100-PM	Tr55x9	148	85	120
ZE-150-PM	Tr60x9	165	90	125

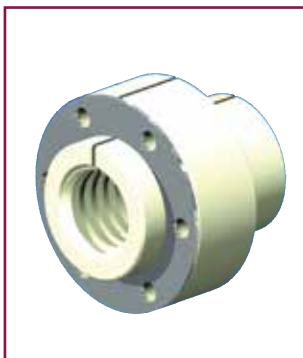
Code	M x T	L	L1	L2	LS*	kg
ZE-5-PM	M5x12	78	13	21	123	0,7
ZE-10-PM	M6x12	83	13	24	128	1,5
ZE-25-PM	M6x12	95	13	27	158	2,4
ZE-35/50-PM	M8x16	129	15	30	212	5,1
ZE-100-PM	M10x20	190	15	45	298	15,1
ZE-150-PM	M12x24	210	15	45	330	21,9

*Overall length PM incl. SIFA safety nut

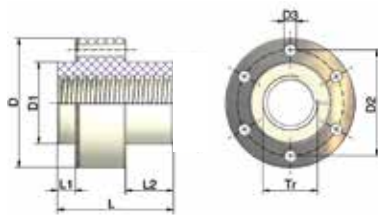


Application:
(Welded) fabrications often exhibit angular errors, which lead to rapid wear of the trapezoidal screw nuts. The self-aligning nut PM can compensate small angular errors on the attachment face up to maximum +/-3°. A large grease reservoir increases the maintenance intervals and extends the service life.

CAUTION:
Self-aligning nuts cannot compensate parallelism errors between screws or between screws and guides. Take care to ensure precise alignment. The attachment faces for the gearboxes must therefore be exactly at right angles to the guides.



Greaseless nut FFDM



Code	Tr	D	D1 ²⁾	D2	D3	L	L1	L2	kN max. Load ¹⁾	kg
ZE-5-FFDM	Tr18x4	52	29	40	6	53	11	20	1	0,1
ZE-10-FFDM	Tr20x4	68	39	54	7	53	11	20	2	0,1
ZE-25-FFDM	Tr30x6	79	46	61	7	59	11	23	5	0,2
ZE-35/50-FFDM	Tr40x7	95	60	78	9	85	13	35	7	0,4

Nut material: Plastic, high-performance polymer

Steel ring material: stainless steel

Quality: 7H DIN 103, right-handed

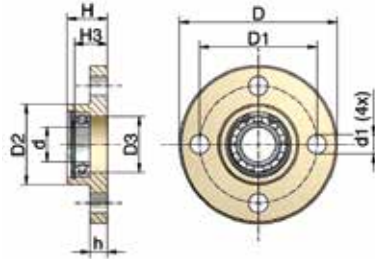
1) As approximate value, depending on the stroke speed and ambient temperature

2) Connection bore for D1 +0.2 mm for thermal expansion

 **ZE Accessories**
Opposed bearing plate | rotating version



Opposed bearing plate GLP



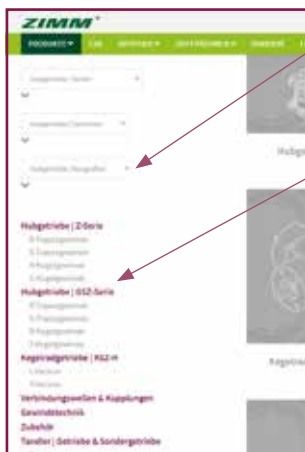
Code	ØD	ØD1	ØD2	ØD3	Ød	Ød1	h	H	H3	Lager	Si-Ring	kg
ZE-5-GLP	65	48	29	20	12	9	7	20	13	61901.2RS	J 24	0,2
ZE-10-GLP	80	60	39	28	15	11	8	21	17	6002.2RS	J 32	0,5
ZE-25-GLP	90	67	46	32	20	11	10	23	19	61904.2RS	J 37	0,5
ZE-35/50-GLP	110	85	60	42	25	13	15	30	22	6005.2RS	J 47	1,1
ZE-100-GLP	150	117	85	60	40	17	20	50	35	6008.2RS	J 68	2,9
ZE-150-GLP	170	130	90	68	45	21	25	50	31	6009.2RS	J 75	4
ZE-200-GLP	200	155	110	83	50	26	30	60	50	2x6210.2RS	J 90	7,2

Online enquiries always available

Always there for you - 24/7

www.zimm.com

The mobile-friendly ZIMM website is not just comprehensive, and a breeze to browse through the vast product range but also very nifty when it comes to make enquiries.



With the dropdown menu you can filter specifically by gearbox sizes.

Easy navigation between the product series and additional parts.



When selecting the product, enter the parameters you require.



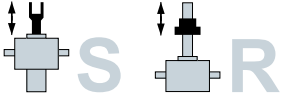
You can quickly change to the next size up or down here.

Click this button to save/add your selection onto the request/enquiry-list and continue browsing.

Here you can retrieve your the list of products, check and amend your selection. You now can also attach a drawing or a sketch (PDF/JPG) and submit your enquiry.

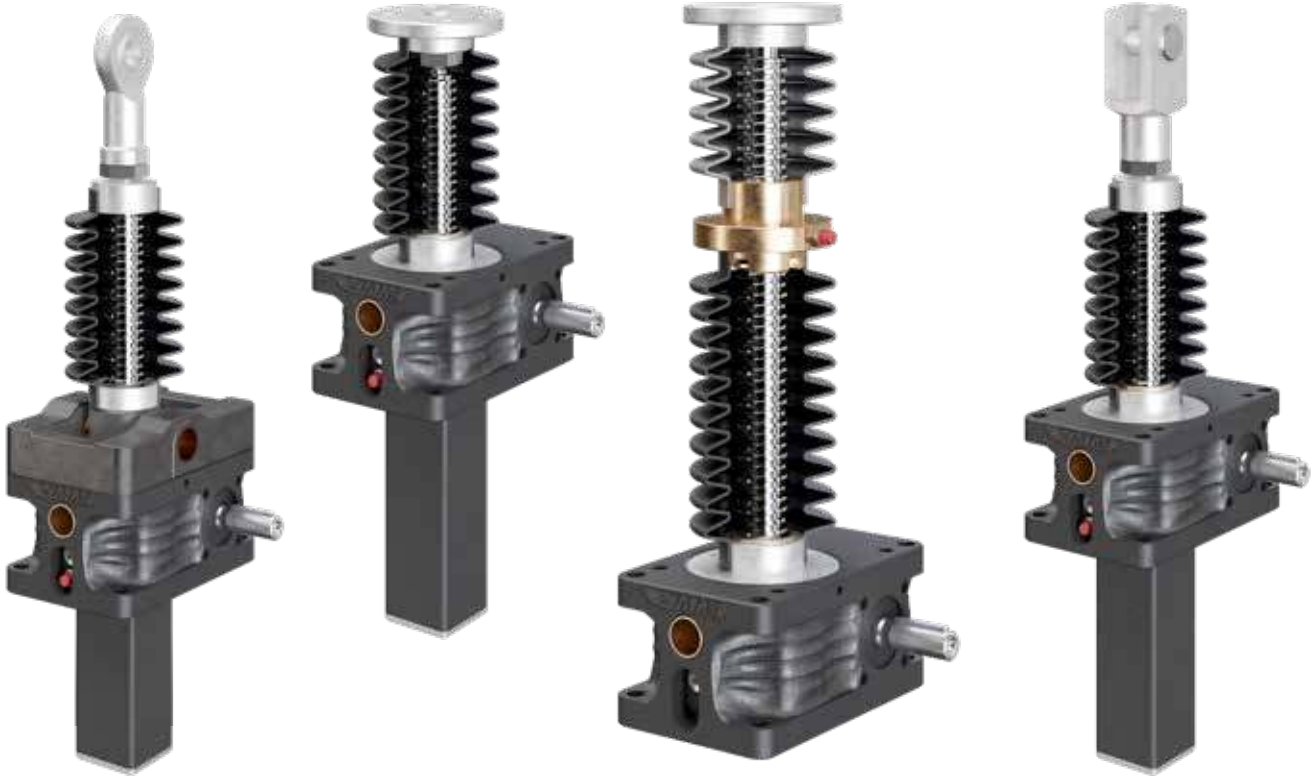


Thank you. We are looking forward to your requests.



ZE Accessories

Bellow FB | Add-on component for translating and rotating version



The bellows protect the screw against dirt and moisture

For optimum conditions use in conjunction with a bellow.

PLEASE NOTE:

The bellows must not be compressed to less than the ZD dimension nor extended beyond the AZ dimension. If the stroke is longer than 1000 mm, fit a bellows with an extension block. Take into consideration that when the bellows are fitted horizontally they must not touch the screw.

Risk of destruction!

This is prevented by using bellows with bushings.

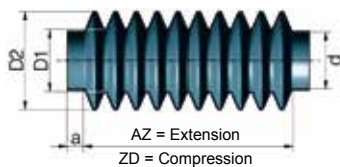
A special installation to protect the spindle and bellows is required from:

Concrete dust, grinding dust from angle grinders, welding spatter, etc. protect the bellows also from direct sunlight.

The maximum operating cycle of the lifting gear can be reduced by the heat-insulating effect of the bellows.



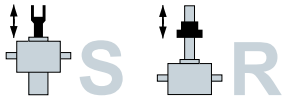
Bellow FB, round



Code	a	d	ZD	AZ	Hub	D1	D2	kg
ZE-5-FB-265	12	29	35	300	265	40	76	0,2
ZE-10-FB-340	10	39	80	420	340	40	80	0,2
ZE-25-FB-300	15	50	70	370	300	50	83	0,3
ZE-35/50-FB-390	18	60	85	475	390	66	102	0,4
ZE-100-FB-285	15	85	75	360	285	85	118	0,3
ZE-150-FB-350	20	90	50	400	350	92	141	0,4
ZE-200-FB-390	15	110	90	480	390	110	160	0,8

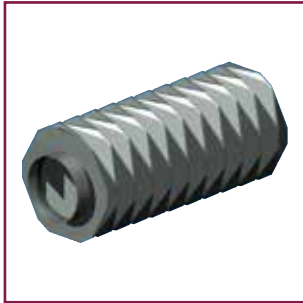
Material: Thermoplast 99, PVC, operating temperature -20°C bis +70°C (max. +85°C), cold fracture temperature -32°C, incl. 2 galvanised hose clips.

CAUTION: For screw extensions, see Sections 2+3

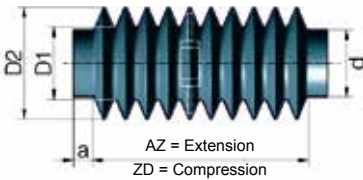


ZE Accessories

Bellow FB | Add-on component for translating and rotating version



Bellows -FB, polygonal

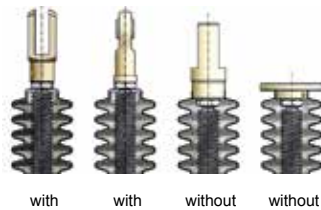


Material: Polyurethane-coated polyester fabric type, temperature stability -18°C to +70°C, UV and humidity resistant. When mounted horizontally, the bellows must be fitted with suitable support rings. For lengths longer than 1000 mm stroke, an extension block is necessary. Comes with 2 galvanised hose clips.

Code	a	d	ZD	AZ	Hub	D1	D2	kg
ZE-5-FB-500	10	29	100	600	500	38	68	0,3
ZE-5-FB-800	10	29	120	920	800	38	68	0,5
ZE-10-FB-700	10	39	100	800	700	38	78	0,4
ZE-10-FB-1000	10	39	150	1150	1000	38	78	0,6
ZE-25-FB-700	15	46	100	800	700	65	105	0,5
ZE-25-FB-1000	15	46	120	1120	1000	65	105	0,7
ZE-35/50-FB-600	15	60	72	672	600	65	105	0,4
ZE-35/50-FB-1000	15	60	130	1130	1000	65	105	0,7
ZE-35/50-FB-1200	15	60	125	1325	1200	65	105	0,9
ZE-35/50-FB-1500	15	60	180	1680	1500	65	105	1,1
ZE-100-FB-600	15	85	72	672	600	70	110	0,4
ZE-100-FB-1000	15	85	130	1130	1000	70	110	0,7
ZE-100-FB-1500	15	85	180	1680	1500	70	110	1,1
ZE-150-FB-600	15	90	72	672	600	110	150	0,7
ZE-150-FB-1000	15	90	130	1130	1000	110	150	1,1
ZE-150-FB-1500	15	90	180	1680	1500	110	150	1,7
ZE-200-FB-600	15	110	72	672	600	110	150	0,7
ZE-200-FB-1000	15	110	130	1130	1000	110	150	1,1



Bellows fixing ring FBR

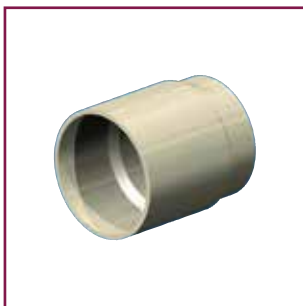


The fixing ring FBR is used to secure the bellows FB to the forked end GK or rod end KGK. If a forked end GK or rod end KGK is included in the scope of the order, the fixing ring is supplied automatically. Otherwise, please order it separately.

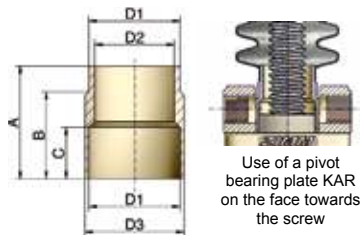
Material: POM (plastic)

Ordering example

ZE-25-FBR



Bellows adapter FBA

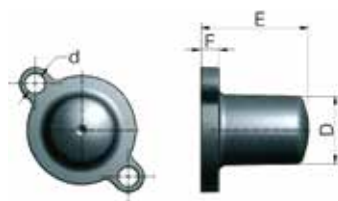


Code	D1	D2	D3	A	B	C
ZE-5-FBA	29	25	32	44	32	20
ZE-10-FBA	39	30	42	42	32	22
ZE-25-FBA	46	40	50	57	42	26
ZE-35/50-FBA	60	52	65	70	52	40
ZE-100-FBA	85	80	90	90	72	50
ZE-150-FBA	90	85	95	100	82	50

Material: Aluminium



Protective cap



incl. screw

Code	D	d	E	F	Screw DIN 912	kg
ZE-5-SK	25	7	32	8	M6x16	0,02
ZE-10-SK	30	9	32	8	M8x16	0,04
ZE-25-SK	31	9	49	8	M8x16	0,05
ZE-35-SK	35	11	54	8	M10x20	0,07
ZE-50-SK	35	11	55	8	M10x20	0,08
ZE-100/150-SK	46	13,5	74	8	M12x25	0,13
ZE-200-SK	60	17,5	82	25	M16x25	0,50

Material: ZE-5 to ZE-200: PA6 GF15, to 120°C, kurzzeitig 180°C

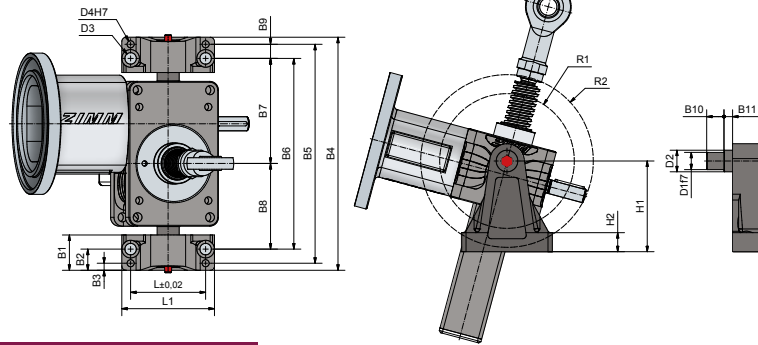
Integrated pivoting eyes

Ingenius and cost-effective design.
Hinged bearing holes are directly integrated into the gearbox.



Axis of pivoting **R**
(at right angles to drive)

Bearing mount LB (5 - 25)



Ordering example

- ZE-5/10-LB Set (2 items)
- ZE-25-LB Set (2 items)

Lubrication

The bronze bushes are PTFE-coated and therefore require no lubrication in normal service. We recommend regular lubrication for high loadings

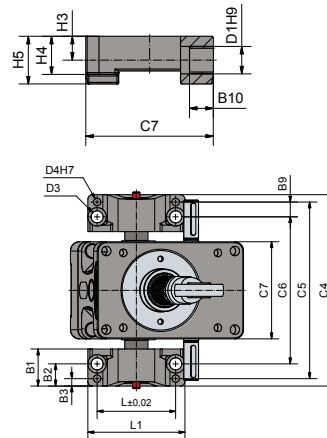
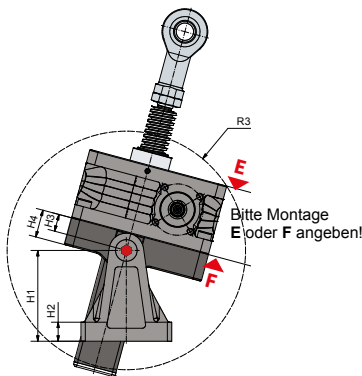
Code	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	D1	D2	D3	D4	H1	H2	L1	L2	R1	R2	kg/Set
ZE-5 (5/10-LB)	40	25	10	200	180	150	84	66	15	15	6	16	22	11	8	80	18	90	70	57	63	0,7
ZE-10 (5/10-LB)	40	25	10	220	200	170	95	75	15	15	6	16	22	11	8	80	18	90	70	68	74	0,7
ZE-25 (25-LB)	40	24	8	264	248	216	119	97	16	20	10	20	25	13	8	105	21	105	85	78	100	1,3

Material: Aluminium, corrosion-resistant, Bolt: stainless steel



Axis of pivoting **P**
(parallel to the drive)

Pivot bearing plate KAR



Lubrication

The bronze bushings in the gearbox are PTFE-coated and therefore do not need to be lubricated during normal operation. For heavy loads we recommend regular lubrication.

Using LB bearing blocks directly in the gearbox is the best and the most financially accessible solution. For large motors, long strokes and a high operating cycle, the variant with the slide bearing plate KAR is to be preferred because then the motor weight is absorbed by the pivot bearing plate and does not affect the spindle.

Dimensions and information for „R“ and „P“ pivot bearing plates are available on request.

Code	B1	B2	B3	B9	B10	C4	C5	C6	C7	D1	D3	D4	H1	H2	H3	H4	H5	L1	L2	R3	kg
ZE-5-KAR	40	25	10	15	15	166	146	116	74	16	11	8	80	18	15	21	30	90	70	100	0,2
ZE-10-KAR	40	25	10	15	15	179	159	129	87	16	11	8	80	18	15	24	30	90	70	116	0,3
ZE-25-KAR	40	24	8	16	20	207	191	159	107	20	13	8	105	21	20	32	40	105	85	138	0,8

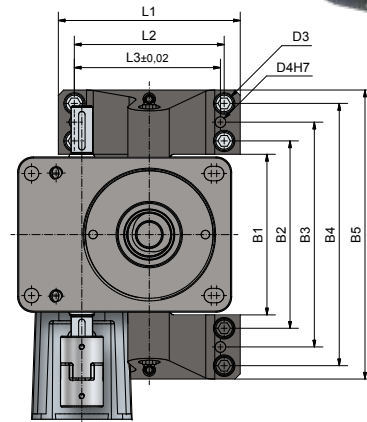
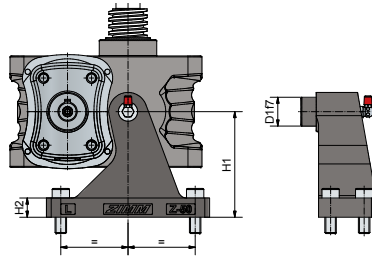
Material: Aluminium, corrosion-resistant

ZE Accessories

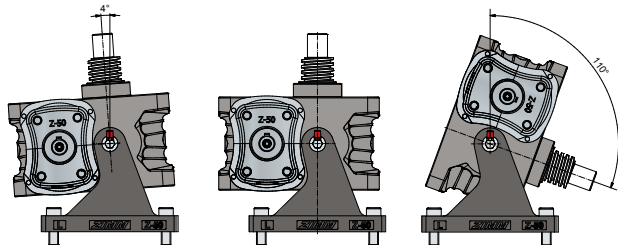
Bearing mount LB, hinged bearing plate KAR | 35 to 200 kN



Bearing mount LB (35 - 200)



Axis of pivoting **P**
(parallel to the drive)



Lubrication

The bronze bushes are PTFE-coated and therefore require no lubrication in normal service. We recommend regular lubrication for high loadings.

Ordering example

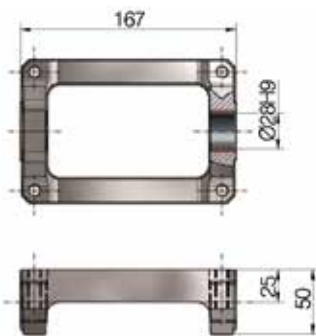
ZE-50-LB Set (2 items)

Code	D1	D3	D4	H1	H2	L1	L2	L3	B1	B2	B3	B4	B5	kg/Set
ZE-35-LB	28	11	8	85	18	130	106	106	124	146	174	202	224	3,2
ZE-50-LB	30	13	10	110	18	170	140	140	150	175	210	245	270	5
ZE-100-LB	40	22	20	120	22	260	180	225	210	250	290	330	370	11,8
ZE-150-LB	50	22	20	135	24	280	200	235	222	262	312	362	402	18
ZE-200-LB	50	22	20	135	24	280	200	235	235	275	325	375	415	-

Material: cast steel, tempered, corrosion-resistant



Swivel bearing plate for ZE-35-KAR



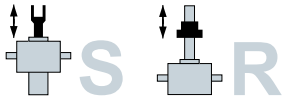
Other sizes of pivot arrangements "R" and "P" are available on request.

Multiple system control

With the swivel bearing plate KAR you can control and connect a setup of multiple gearboxes lined up in a row.

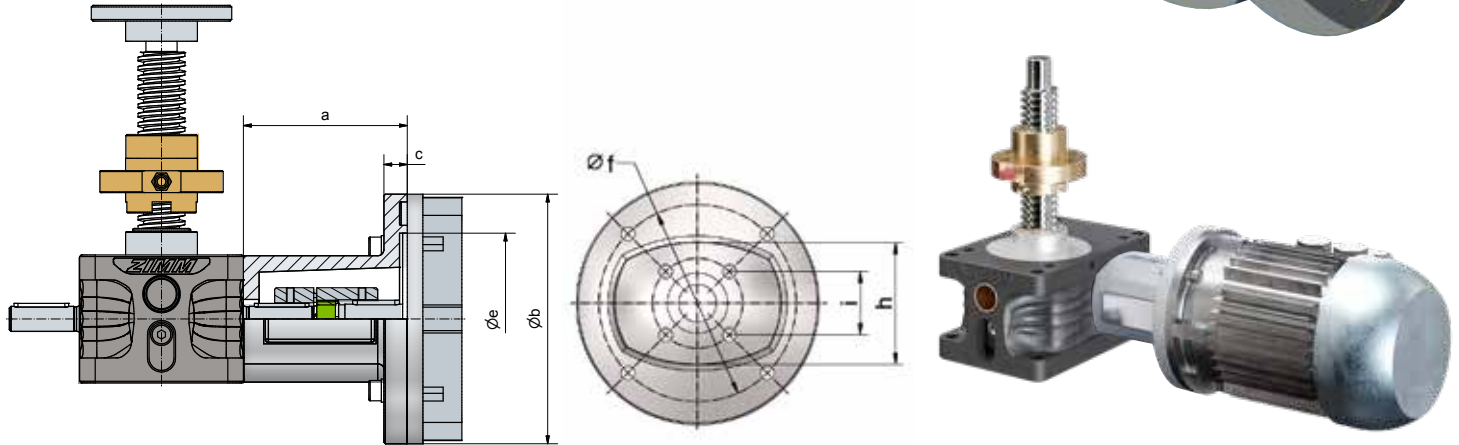


Axis of pivoting **R**
(at right angles to the drive)



ZE Accessories Motor flange MF | ZE-5 to ZE-25

Motor flange MF



Code	Motor Type	Coupling Code		4 Srew gearbox side 8.8	4 of socket head caps crews 8.8 DIN 912 for motor	a	b	c	e	f	h	i	kg
		Bore - ϕ	size gearbox motor										
ZE-5-MF-120-60	63 B14B	KUZ-14	11 11	M6x12 - DIN 7991	M6x20 + Federring	60	120	10	80	100	61	32,5	0,3
ZE-5-MF-105-68	71 B14C	KUZ-19	11 14	M6x12 - DIN 7991	M6x20 + Federring	68	105	10	70	85	61	32,5	0,3
ZE-10-MF-120-66	63 B14B	KUZ-19	14 11	M8x16 - DIN 7991	M6x20 + Federring	66	120	10	80	100	73	35,4	0,4
ZE-10-MF-160-75	71 B5	KUZ-19	14 14	M8x16 - DIN 7991	M8x35 + Mutter	75	160	15	110	130	73	35,4	0,8
ZE-10-MF-160-90	80 B14B	KUZ-24	14 19	M8x16 - DIN 7991	M8x30 + Federring	90	160	15	110	130	73	35,4	0,8
ZE-25-MF-160-105	71 B5	KUZ-28	16 14	M8x20 - DIN 7991	M8x35 + Mutter	105	160	15	110	130	81	42	1,1
ZE-25-MF-160-105	80 B14B	KUZ-24	16 19	M8x20 - DIN 7991	M8x30 + Federring	105	160	15	110	130	81	42	1,1
ZE-25-MF-160-105	90 B14B	KUZ-24	16 24	M8x20 - DIN 7991	M8x30 + Federring	105	160	15	110	130	81	42	1,1
ZE-25-MF-160-122	100 B14C	KUZ-28	16 28	M8x20 - DIN 7991	M8x30 + Federring	122	160	15	110	130	81	42	1,2

Material: Aluminium, all screws galvanized nut DIN 934 and spring ring DIN 128. delivery incl. screws

Discover the complimentary

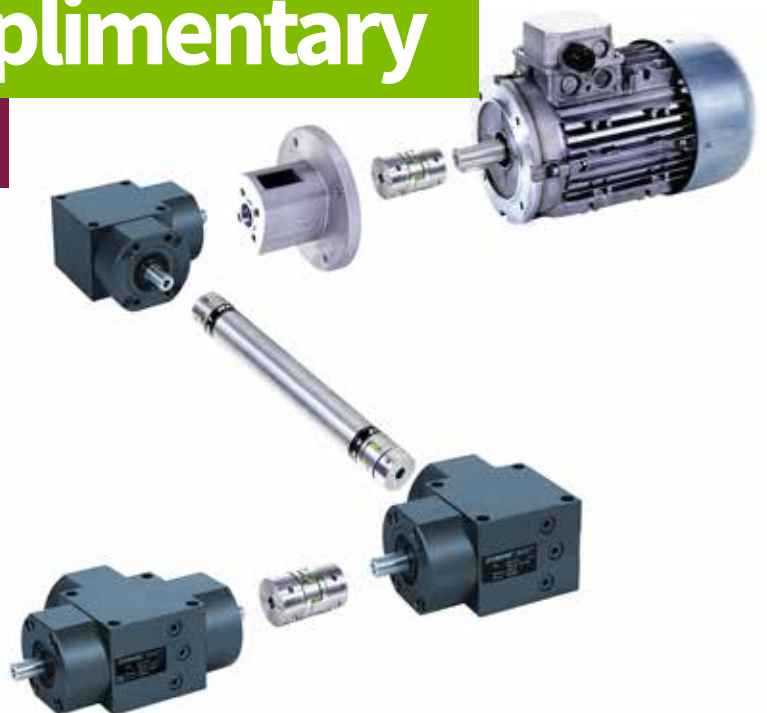
ZIMM bevel gearbox series

Easy combination from bevel gearboxes, screw jack, couplings, connecting shafts, motors and motor flange.

The **bevel gearbox KSZ-H series** is available in 7 sizes in the L and T variants.
Ratio: 1:1, 2:1 and 3:1

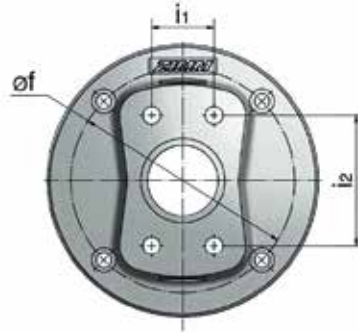
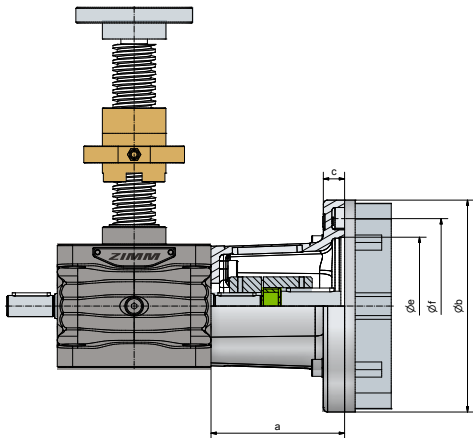
Simply visit our website for more product information.
Alternatively, you can download the KSZ-H bevel gearbox brochure, as well as download 3D-file.

www.zimm.com

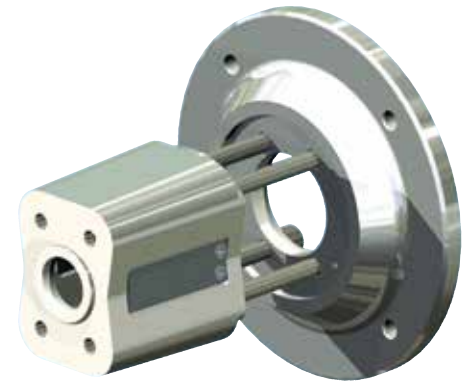
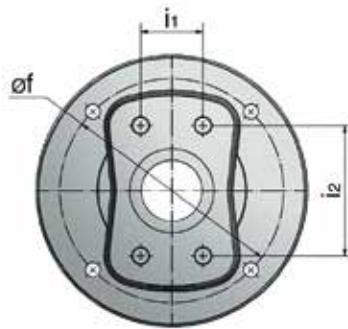
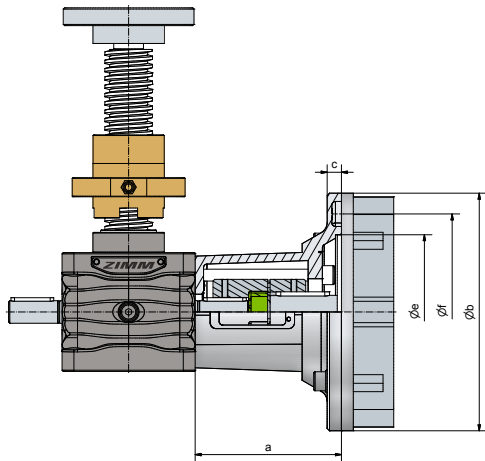


ZE Accessories
Motor flange MF | ZE-35 to ZE-200

Motor flange MF



Motor flange-base MF-B and motor flange-plate MF-P - ZE-35 to ZE-200



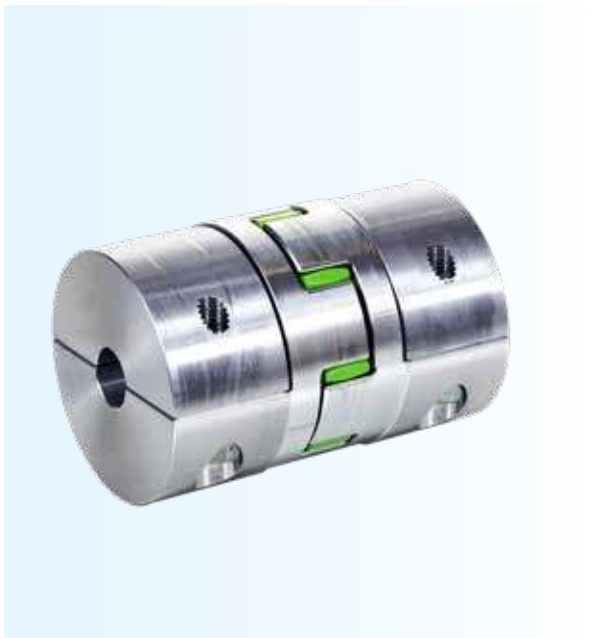
Code	Motor Type	Coupling Code			4 Screw gearbox side DIN 912	4 Screw motor side DIN 912	a	b	c	e	f	i1	i2	kg
		Bore - Ø	size	gearbox										
ZE-35-MF-160-111	80 B14B	KUZ-24	19	19	M10x30	M8x25 ¹⁾	111	160	15	110	130	36	62	2,7
ZE-35-MF-160-111	90 B14B	KUZ-24	19	24	M10x30	M8x25 ¹⁾	111	160	15	110	130	36	62	2,7
ZE-35-MF-B + ZE-35-MF-P-200	100 B14B	KUZ-28	19	28	M10x120	M10x30 ¹⁾	123	200	12	130	165	36	62	3,6
ZE-35-MF-B + ZE-35-MF-P-200	112 B14B	KUZ-28	19	28	M10x120	M10x30 ¹⁾	123	200	12	130	165	36	62	3,6
ZE-35-MF-B + flange plate	Servomotor, gear motor, Nema, ...													
ZE-50-MF-200-116	90 B5	KUZ-28	20	24	M10x30	M10x45 ²⁾	116	200	20	130	165	50	70	4,1
ZE-50-MF-200-126	100 B14B	KUZ-28	20	28	M10x30	M10x35 ¹⁾	126	200	20	130	165	50	70	4,3
ZE-50-MF-200-126	112 B14B	KUZ-28	20	28	M10x30	M10x35 ¹⁾	126	200	20	130	165	50	70	4,3
ZE-50-MF-B + flange plate	Servomotor, gear motor, Nema, ...													
ZE-100/150-MF-200-138	100 B14B	KUZ-28	25	28	M12x40 ³⁾	M10x35 ¹⁾	138 ³⁾	200	20	130	165	46	96	5,3
ZE-100/150-MF-200-138	112 B14B	KUZ-28	25	28	M12x40 ³⁾	M10x35 ¹⁾	138 ³⁾	200	20	130	165	46	96	5,3
ZE-100/150-MF-B + P-200	132 B14C	KUZ-38	25	38	M12x150 ³⁾	M10x65 ¹⁾	161 ³⁾	200	48	130	165	46	96	8,7
ZE-100/150-MF-B + flange plate	Servomotor, gear motor, Nema, ...													
ZE-200-MF-200-168	100 B14B	KUZ-38	28	28L	M16x45	M10x40 ¹⁾	168	200	20	130	165	56	100	8,1
ZE-200-MF-200-168	112 B14B	KUZ-38	28	28L	M16x45	M10x40 ¹⁾	168	200	20	130	165	56	100	8,1
ZE-200-MF-200-168	132 B14C	KUZ-38	28	38	M16x45	M10x40 ¹⁾	168	200	20	130	165	56	100	8,1
ZE-200-MF-200-168 + P-350	160 B5	KUZ-45	28	42	M16x45	M16x70 ²⁾	198	350	30	250	300	56	100	24,8
ZE-200-MF-200-168 + flange plate	Servomotor, gear motor, Nema, ...													

Material: GGG-50, corrosion-resistant, all screws galvanized nut DIN 934 and spring ring DIN 128, delivery incl. screws.

- 1) incl. spring rings
- 2) incl. nuts and spring rings
- 3) Threaded bolt 8.8 with nuts and spring rings

Discover the vast ZIMM product range

For more information simply visit www.zimm.com



Please inform on our website about:

- connecting shafts
- couplings
- bevel gearboxes (KSZ-H)
- flange & motor
- screw jacks up to 1000 kN (Z-Serie 250 -1000 kN)
- mini-screw jacks (GSZ-series starting from 2,5 kN)
- trapezoid threaded- spindels and ball screws
- and much more



Accelerate your design workflow

with the ZIMM online configurator

Loads of up to 100 tons can be moved precisely with the comprehensive ZIMM modular toolkit for spindle lifting gears. The modular ZIMM program is designed so that, depending on the application, the right lifting gear with the various accessories can be assembled quickly and easily.

ZIMM's unique product configurator makes it comfortable and quick to select spindle lifting gears. The designer selects the desired gearbox, size, add-on parts and then receives the requested data by e-mail.

The most popular 3D CAD formats, such as a 2D DWG format can be selected to be downloaded. ZIMM even offers a 3D-PDF for immediate viewing and sharing to other colleagues or departments who don't have a CAD application installed. This allows the designer and team to view the components quickly and easily on any computer.

Leave the headache to us and design away without the worries and mistakes

Furthermore, the configurator continuously performs a plausibility check in the background.

In other words, if the user makes a mistake, the configurator immediately displays an indication that this combination is not possible and the field then is highlighted in red.

The configurator not only checks the compilation, it also updates it automatically!

If, for example, a limit switch is selected, the program automatically activates all other components that are required for the intended configuration.



Conclusion

In addition to the usual accessories and attachment parts that can also be downloaded individually, it is also possible to design lifting equipment as a complete system

Try it, it's free:

Simply register your details on the configurator login page and start designing. The CAD page also features „Frequently Asked Questions“ as well as video instructions and further information inside the actual configurator application.

ZIMM Online Configurator: www.zimm.com

Inquiry

Checklists | Parameters Sheet 1

Company:	_____	Date:	_____
Address:	_____	Phone:	_____
Contact:	_____	E-Mail:	_____
Dept.:	_____	Web:	_____

1. max. lifting force in kN

- per gearbox _____ kN entire system _____ kN
- in tension _____ kN in compressio _____ kN
- Load: static _____ kN dynamisch _____ kN

Installation axis

- vertical horizontal pivoting
- Type of load
- smooth impact loads vibration

2. max. lift/travel _____ mm effective working stroke _____ mm

For short stroke applications

(eff. working stroke < gearbox height): regular lubrication stroke practical not practical

3. Lifting speed

- type N= 25 mm/s (1,5 m/min) type L=6,25 mm/s (0,375m/min) _____ mm/s

4. Duty factor, work cycle, description of cycle

_____ strokes per hour _____ strokes per day Hours per day: 8 16 24

i For high duty factors or long strokes, please provide an exact detailed description on page 123 - 4a

5. Type S „Translating screw“ R „Rotating screw“

6. Version ZE-Screw jack GSZ-Screw jack

7. Motor Rotary voltage motor With brake Manual release _____

8. Operating conditions Dry Humid Dust Chipping _____

Guided movement No guides (no dyn. lateral forces)

Ambient temperature: min. _____ °C max. _____ °C (when <10°C und >40°C)

i If possible please provide an exact description or sketch on page 123 - 7a

9. Standard layouts no: _____ Size: MA1 _____ MA2 _____ MA3 _____ MA4 _____ MA5 _____

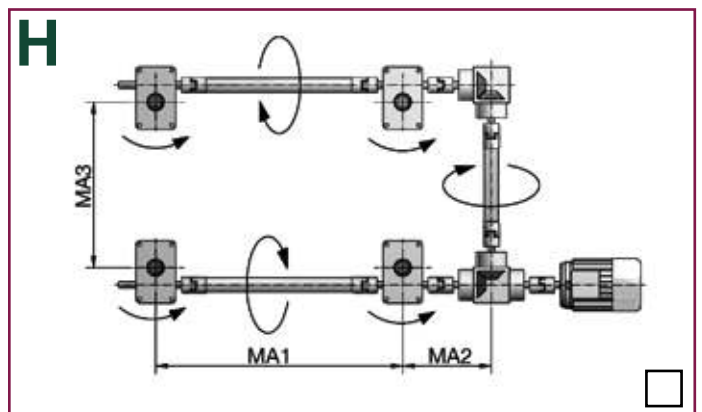
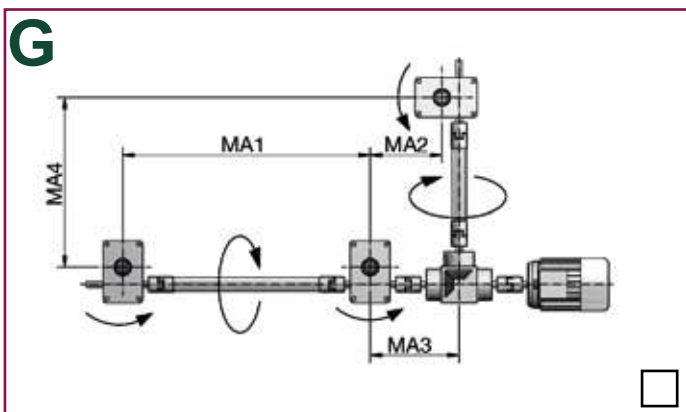
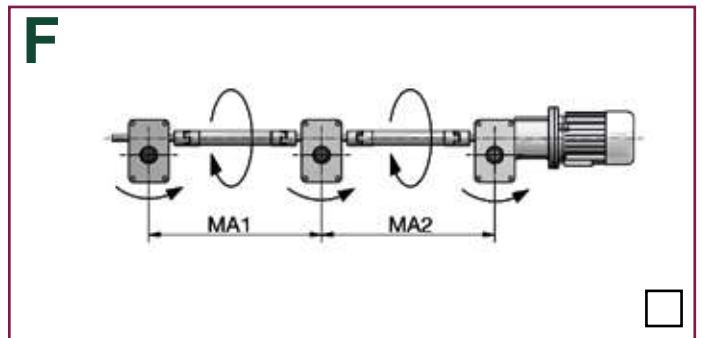
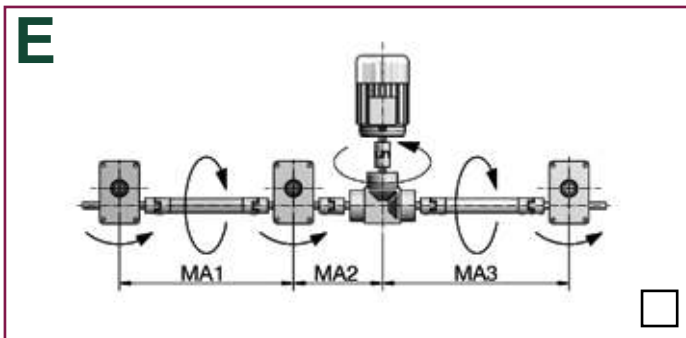
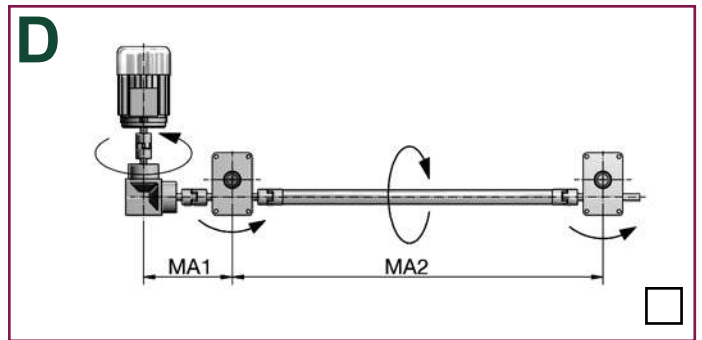
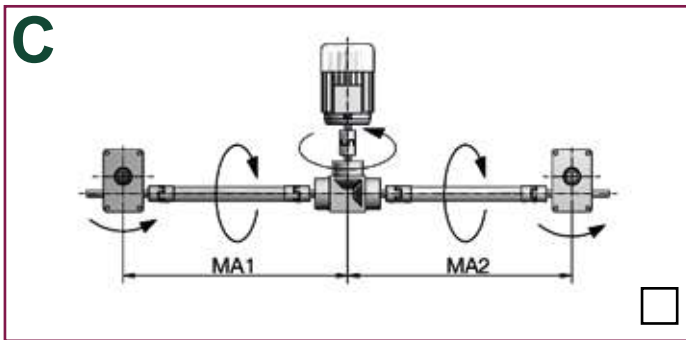
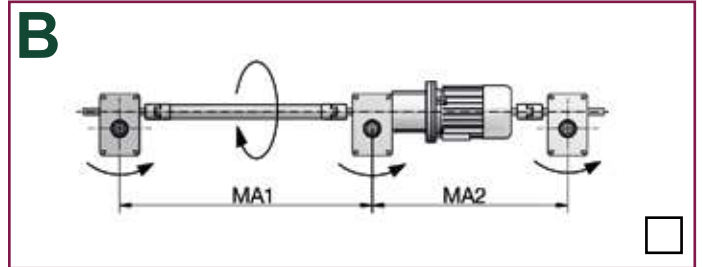
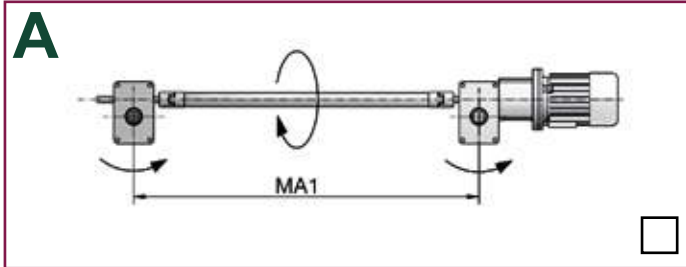
see standard layouts, checklist sheets 5 and 6 (for multi-jack systems)

10. Quantity Required _____ Series _____

11. Schedule Quotation _____ Delivery _____

Inquiry

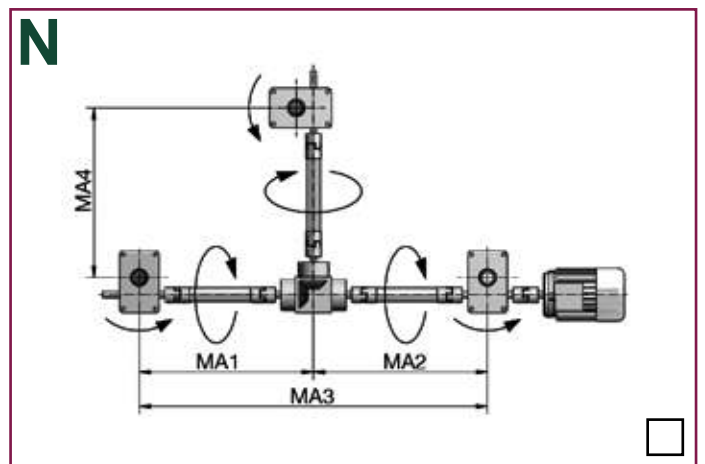
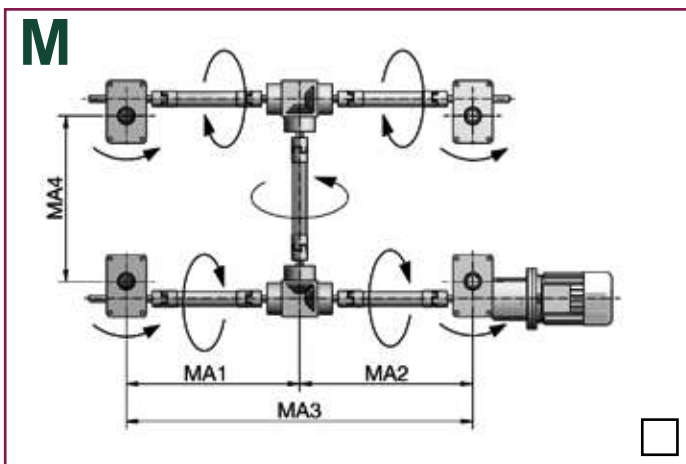
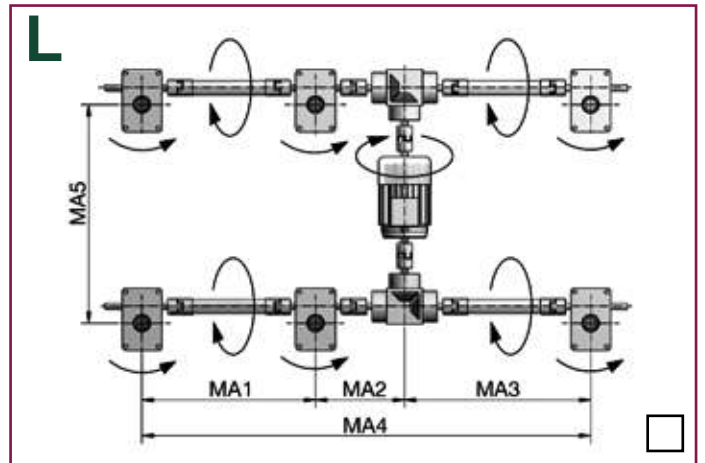
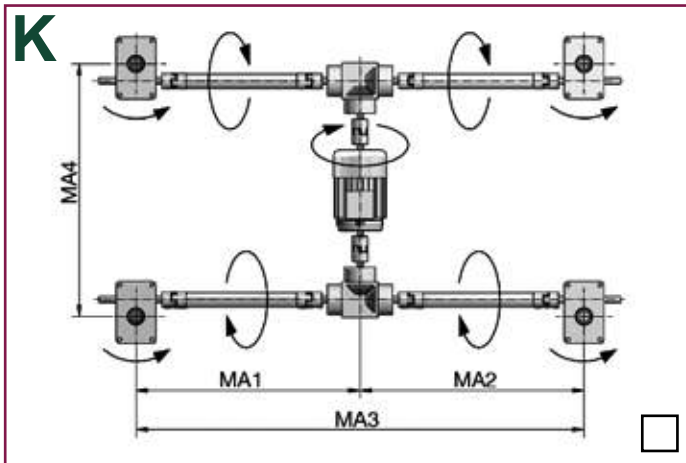
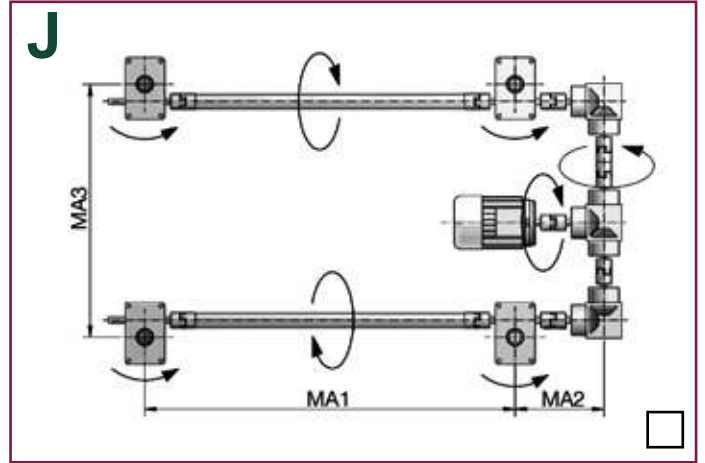
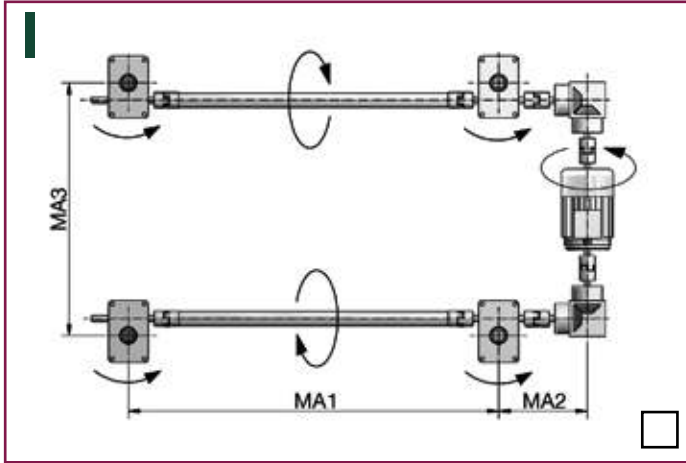
Checklists | Sheet 3 - System layouts



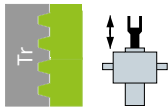
The most common layouts are shown. If your design is different, be sure to check the direction of rotation!

Inquiry

Checklists | Sheet 4 - System layouts



The most common layouts are shown. If your design is different, be sure to check the direction of rotation!



Inquiry

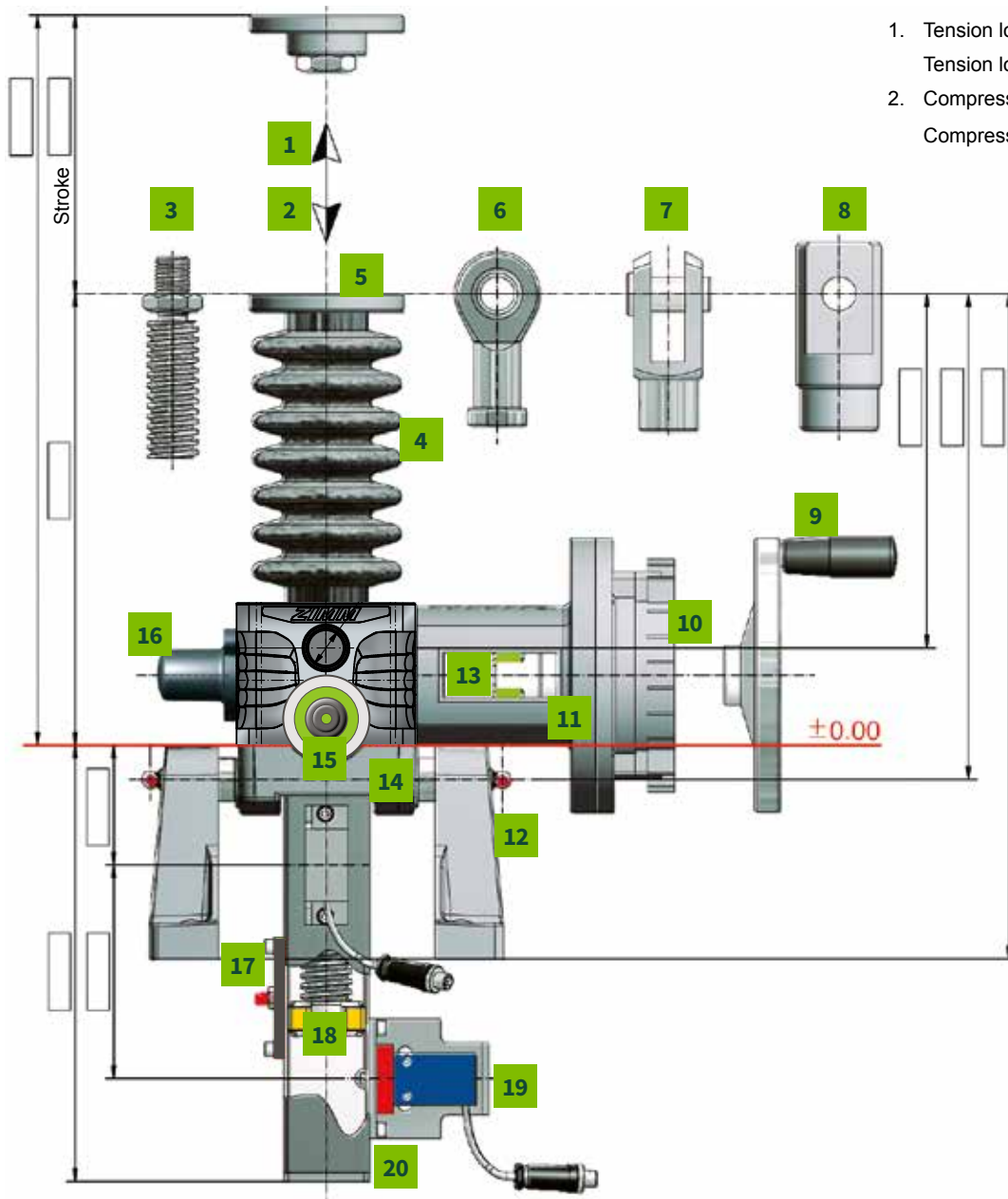
Checklists | Sheet 5 - List of components S

Type:

- SN (Translating screw, normal)
- SL (Translating screw, low speed)

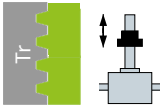
Variant:

- Tr screw
- SIFA safety nut
 - with SIFA monitoring
- KGT ball screw



- 1. Tension load (kN): static
- Tension load (kN): dynamic
- 2. Compression load (kN): static
- Compression load (kN): dynamic

- 3. Standard screw end
- 4. Bellows FB
- Spiral spring cover SF
- 5. Fixing flange BF
- 6. Rod end KGK
- 7. Forked end GK
- 8. Pivot bearing end SLK
- 9. Handwheel HR
- 10. Motor with brake
- Motor without brake
- 11. Motor flange MF
- 12. Pivot mounts LB
- 13. Coupling KUZ
- 14. Pivot bearing plate KAR
- 15. Lubricator Z-LUB
- 16. Protective cap SK
- 17. Lubrication strip SL
- 18. Rotation protection VS
- Escape protection AS
- 19. 2x limit switch ES
- 20. Protective tube SRO
- Stützrohr STRO



Inquiry

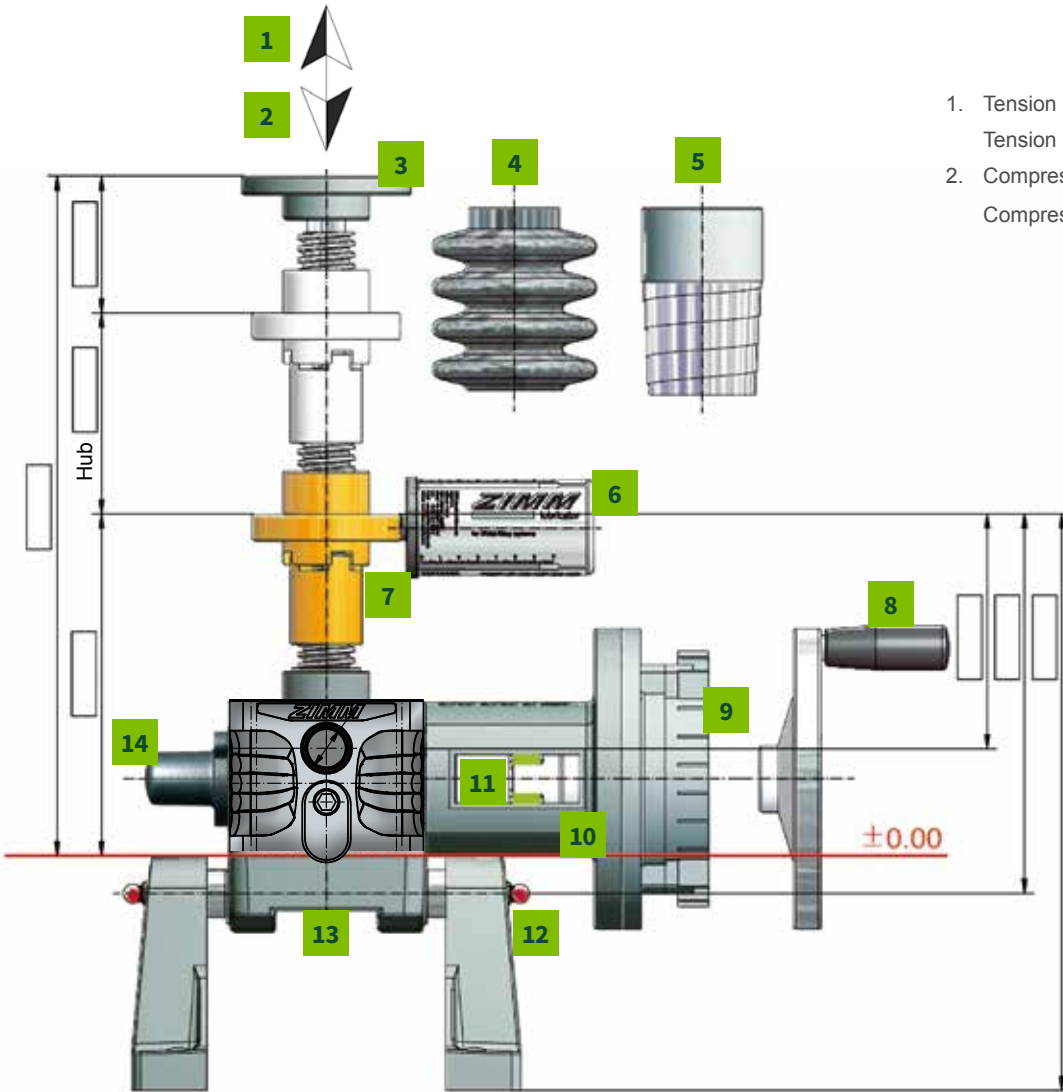
Checklists I Sheet 6 - List of components R

Type:

- RN (Rotating screw, normal)
- RL (Rotating screw, low speed)

Variant:

- Tr Screw
- SIFA safety nut
 - with SIFA monitoring
- KGT ball screw



- 1. Tension load (kN): static
- Tension load (kN): dynamic
- 2. Compression load (kN): static
- Compression load (kN): dynamic

- 3. Opposed bearing plate GLP
- 4. Bellows FB
- 5. Spiral spring cover SF
- 6. Lubricator Z-LUB
- 7. Duplex nut DM
- Tr flange nut FM
- Cardan adapter DMA
- KGT flange nut KGT-F
- Self-aligning nut PM
- Greaseless nut FFDM
- Driving flange TRMFL
- Safety nut SIFA
- Wear monitoring
- SIFA Control
- 8. Handwheel HR
- 9. Motor with brake
- Motor without brake
- 10. Motor flange MF
- 11. Coupling KUZ
- 12. Pivot mounts LB
- 13. Pivot bearing plate KAR
- 14. Protective cap SK



ZIMM Facts

- Family-owned business, founded in 1977
- Wealth of experience and competence in drive and gear technology
- Quality and environmentally conscious across-the-board philosophy
- Continuous investments in design, innovation and customer service



Gunther Zimmermann | CEO

Customer-oriented

- Extensive warehouse and efficient assembly processes
- Fast response and delivery
- High delivery reliability
- Adaptation to customer needs
- Personal advice on the spot provided by our office and field sales engineers
- Enquiries also possible using our website www.zimm.com
- Unique product configurator for fast and error-free creation of 3D data
- Catalogues and documents in various languages

Design & Concept

- Modular system toolkit allows a large number of variants and system configurations
- Modern and attractive design of spindle lifting gears
- Quality built with a lasting design
- Use of high-quality materials

Quality

- Certified in accordance with ISO 9001: 2015
- Various measuring units as well as in-house 3D and 4D measuring systems



Production & Capacities

- Continuous investments in the most modern production facilities and manufacturing processes
- High production capacities and long-standing upstream suppliers ensure fast turnaround times
- In-house trial and testing facilities on which the most diverse parameters are tested, evaluated and documented in order to ensure a high level of safety and to optimize the properties of ZIMM products

Product range

The ZIMM modular system toolkit has a total number of 14 sizes for lifting forces from 2 kN up to 1000 kN. A large number of solutions are provided through the use of trapezoidal threads or ball screws from 16 mm up to 160 mm in diameter with many gradients. We can quickly provide standard solutions for customers as we are supplemented by a comprehensive range of accessories, fasteners, ZIMM bevel gears, motors and flanges.

Worldwide operations

Local production with global service

ZIMM offers over 40 years of experience in drive and transmission technology. We supply renowned machine and plant manufacturers with electromechanical drives all over the world.

ZIMM provides competent service and advice through an international sales network in over 40 countries.



Head office & manufacturing site

Offices & operations

Distributors & sales partner



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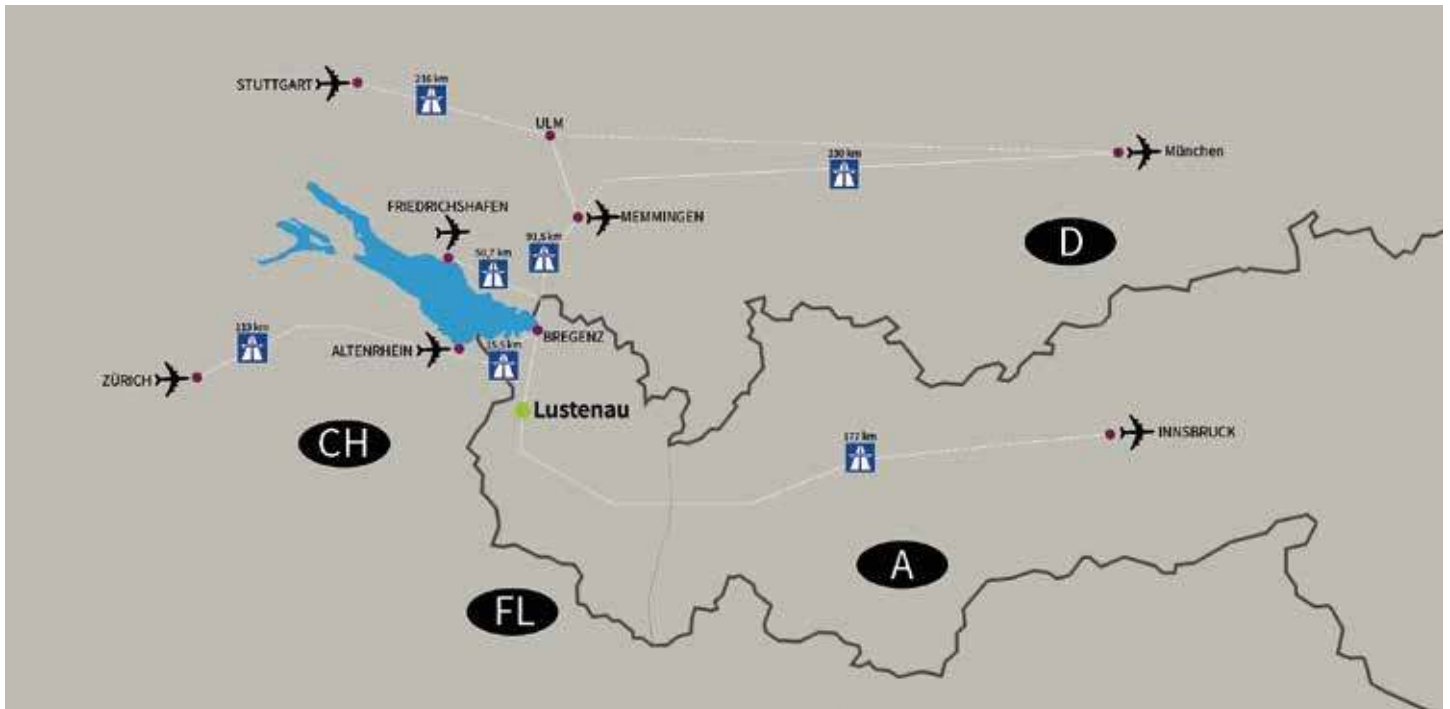
Owner, publisher and responsible for the content:

ZIMM GmbH
 Millennium Park 3, 6890 Lustenau/Austria
 Tel: +435577 806-0, Fax: +435577 806-8
 info@zimm.com, www.zimm.com
 ATU 69063247, Feldkirch
 ARA licence number 4334

Bank accounts:

Austria (A):
 Raiffeisenlandesbank Bregenz
 IBAN AT40 3700 0000 0001 1999, BIC RVVGAT2B

Switzerland (CH):
 BTV Staad
 IBAN CH11 0852 5000 SA31 733A B, BIC BTVACH22



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ISO certificate

Certified according to the requirements of ISO 9001:2015
 First certified: 17.12.1996 | Registration number: 00953/0

Patents

We have patents registered or pending for a range of functions and components.

Copyright and rights of use

All copyright and rights of use regarding information, artwork, photographs and drawings presented on our website and in our catalogues are reserved exclusively to us. Text and graphics are protected by copyright. Their use, duplication and re-use – especially where this involves distribution to third parties – requires our express permission in writing.

Exclusion of liability

Neither our website nor our catalogues ranks as commercial or legal advice. Such a commitment requires a specific enquiry and conclusion of a contract with us.

The contents of our catalogues and website are not binding and do not constitute an offer to conclude a contract. We accept no liability for the currency, accuracy or completeness of their contents. This applies in particular to contents of external websites accessed by links from our website. We are entitled to change the contents of our catalogues and website at any time. We accept no liability for and make no guarantee of the availability of our website or catalogues.

Drawings are valid only when they have been checked and approved by both partners in accordance with the order acknowledgement.

Effectiveness at law of the exclusion of liability

If a legal relationship has arisen exclusively from the contents of our website or catalogues without any direct contact between us, this is subject exclusively to Austrian law, with exclusion of the tie-breaker rule. All legal disputes arising shall be subject to the exclusive jurisdiction of the court having competence A-6800 Feldkirch.

Data protection declaration

We are subject to the provisions of the Austrian Federal Data Protection Act for protection of personal data. We will pass personal information and data relating to persons to other parties only where this is for the purpose of and in relation to contractual orders. Information may be passed to suppliers and subcontractors only where such companies which can offer sufficient guarantees of secure use of the data. We are permitted to pass data to companies directly or indirectly associated with us.

ZIMM GmbH | Millennium Park 3, 6890 Lustenau, Österreich
Tel.: +43 5577 806-0 | Fax: +43 5577 806-8 | info@zimm.com | www.zimm.com

1. General

All our contracts are submitted to the following terms and conditions unless otherwise agreed upon in writing. These terms and conditions are deemed acknowledged and agreed upon through signing of the contract. Any terms and conditions – of any nature – contrary to the present General Terms and Conditions, shall be completely inapplicable and invalid, irrespective of the form in which they were brought to our knowledge. Modifications of or amendments to these General Terms and Conditions shall only be effective if they have been agreed upon and confirmed by us in writing. Any agreement to abandon this formal requirement must equally be in writing and signed by both parties. Silence about any terms and conditions deviating from those given below shall not be regarded as acceptance or as confirmation of the same.

2. Offers | Prices | Contents of contract

2.1 Our offers remain valid for 60 days after submission, subject to changes as provided for in clause 2.5.

2.2 Details given in our catalogues are not binding (see also clause 3).

2.3 All our prices must be understood in Euros excl. VAT. Unless otherwise agreed upon, prices as mentioned in our price list valid at the time of contract conclusion will be invoiced. The prices are stated ex works. Costs for packaging, freight and/or shipping costs are not included. If consignment and delivery have explicitly been agreed upon, prices do not include costs for unloading and transportation to the working site. Risk and right of use pass to our contractual partner at the time of shipment. Delivery is always ex works.

2.4 Delivery times and dates are binding, provided they have been promised by us in writing. This commitment ceases if our contractual partner requests to modify the order after the contract award or in the occurrence of impediments beyond our control, such as for instance through force majeure or due to late supply by our presuppliers.

2.5 Economic changes

In the event of circumstances beyond our control, e.g. raw materials, taxes, wage rates, currency differentials, strike, war, terrorist attacks, blockades, fire, natural disasters or any other acts of God, we shall be entitled to appropriately adjust our offers and orders placed with us. This shall particularly be applicable in the case of changes in the prices of e.g. aluminium and copper to the extent of more than 10%. In all of the above mentioned cases we will be entitled to adapt our prices | target dates even after contract conclusion.

3. Construction and design

The selection or dimensioning is performed by the customer's designer because we do not have any details on construction factors such as the installation location and application usage. Upon request, we can provide support during selection and design and then prepare a proposal component drawing and calculation based on your parameters. The drawing with parts list is subject to your approval and release and subsequently serves as basis for manufacture and preassembly.

4. Technical modifications during the term

We are entitled to carry through technical modifications after contract conclusion provided such modifications do not affect the contractually guaranteed performance of the goods.

5. Warranty and liability for defects

5.1 Without any exception the warranty period will be of one year. Modifications of this term must explicitly be confirmed by us in writing.

5.2 To ensure safe operation, a test run under load or real operation (according to the Contractor's design parameters) is required. We carry out idle, no-load test runs according to the Contractor's installation conditions. The test runs at the Contractor's site are necessary to achieve a perfect installation geometry by means of exact mounting and to exclude dysfunctional influences. Any liability for damages and defects due to the fact that test runs under load or real operation are not carried out at the Contractor's site is excluded.

Furthermore, we assume no liability or warranty for the installation of our products in all types of land, water and air vehicles without our written permission to the contrary.

5.3 Our contractual partners are obligated to verify goods after delivery and, if necessary, to inform us in writing immediately, however, at the latest within 14 days after delivery, about any defects. If no notice of defects is communicated within this time limit, these goods are deemed approved and warranty claims and damage claims shall be excluded.

5.4 Our liability is limited to intent and gross negligence. Any liability for slight negligence, the replacement of indirect and property rights, unrealized earnings, interest losses for damages incurred by our Contractors due to the third party claims against them is excluded.

5.5 Mechatronic products

Especially in outdoor applications where increased environmental impact occurs. In case of breakdown we need the documented cause analysis – for example, of environmental influences or product errors. If such a cause analysis is not provided to us by Contractor, we are not obliged to remedy any defects. In this case claims for warranty and damages are excluded.

5.6 Corrective actions

Should a product delivered by us be really defective, an immediate return to our site – including fault documentation / cause analysis – is required. Cause analysis is the basis for our laboratory review and sustainable error prevention. The shipping costs are borne by the Consignor.

6. Retention of title

6.1 All goods delivered shall remain our sole property until complete payment of the purchase price.

6.2 Our contractual partner shall be obligated to treat the goods carefully as long as retention of title applies to the delivered goods. If maintenance and/or inspection work is necessary, our contractual partner shall carry out such work regularly at his own expense.

6.3 Retention of title remains effective even if goods supplied by us are mounted or built in. Our contractual partner shall not be entitled to resell the goods which are subject matter of the present contract as long as retention of title is effective.

7. Place of performance | Applicable law | Competent court

The exclusive place of performance for all contractual relations is A-6890 Lustenau. Austrian law shall govern under exclusion of the conflict rules. All legal disputes arising from or relating to the business relations and contracts shall be subject to the exclusive jurisdiction of the court having competence for A-6890 Lustenau.

8. Severability clause

Should any individual provisions in the above General Terms and Conditions be or become invalid, either in part or in full, this will not affect the validity of the other provisions. The invalid provision will be replaced by a ruling that is as close as possible in economic purpose to the invalid provision in a legally effective and practicable form.

ZIMM GmbH | Released: 8. August 2019

You're most welcome

to be our guest on our next trade show we exhibit



more on

www.zimm.com

ZIMM GmbH

Millennium Park 3
A-6890 Lustenau
Tel.: 0043 5577 / 806-0
Fax: 0043 5577 / 806-8
E-Mail: info@zimm.com
Website: www.zimm.com



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