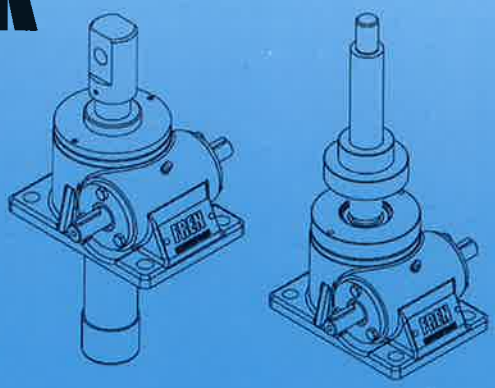
ENZFELDER GmbH

Power transmission- and lifting engineering

Screw jack
Type SG



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Product information

General:

FREN screw jacks are robust worm gear pairs driving a trapezoid thread spindle. The gearbox cases are made of ductile cast iron for high loads and meeting high safety standards. The worm is hardened and grounded and running on tapered roller bearings. The worm wheel is made of high-strength material which is particularly resistant to abrasion; it is mounted between deep groove ball thrust bearings.
The SG0005 to SG0500 line is filled with grease on delivery and fit for operating temperatures ranging between -30°C and +80°C. The operating factor at maximum load is 20% per hour or 30% per 10 minutes. The trapezoid thread spindles are stand single-threads and double-threads execution. For higher demands with regard to lifting speed and operating factor we use ball screw spindles. FREN spindle gears are fitted with a water-soluble blue prime coat (RAL 5012). The spindle is non-lubricated on delivery: it is not to be lubricated before mounting.

Types/Sizes:

In basically two types are to be differentiated: the basic type and the traveling nut type. The basic type is equiped with a non-rotating spindle which moves up and down. The traveling nut type is equiped with a rotating spindle on which a traveling nut moves up and down. Both types can be mounted to exit the gear either upwardly or downwardly (see page 6). FREN screw jacks are manufactured in 15 standard sizes ranging from 5kN to 3000kN and equiped with single- or double- trapezoid thread spindles or ball screw spindles.
Lifting spindles in the basic type must be secured against torsion. If this is not possible on the part of the constructor we deliver a mounted securing device.

Applications:

Screw jacks are prefabricated parts used in engine construction and plant engineering and are widely in use there.
Expediently designed, precisely manufactured according to the latest standards. Highly efficient and long-lasting, screw jacks are holding an irreplaceable position in the market and have become a fundamentally building block for the constructing engineer of today.

Plant Engineering: aluminium electric analysis, agitator, gate valve operating mechanism.
Production: machine tools, presses, lifting tables, take-up devices, tilting devices, material loadings, inlay presses, waste presses, filter screen, adjustment of the press table.
Installation and repair: lifting systems for rail vehicles, climbing scaffolds, working platform, mounting table, lifting ramp, loading platform, mounting table for chassis.
Structural engineering: concrete formwork, casting mold for a precast concrete part, adjustable mold, linear actuators for theater, impulse for window- and roof constructions, adjustment drive for tunnel formwork.
Hydraulic engineering and shipbuilding: impulse for sluice and slide, height adjustment of bridges, adjustment device in dockyards, adjustment for deck of ships.
Environment engineering: filter plant, level control system, control of flood-gates.
Aerotechnics: adjustment unit for Airbus.
Machine tools: sheet metal profiling machine, lining machine, bending machine, adjustments for compactor, gluing machine, bath for impregnation.
Rolling mill and Foundry technology: roller- and calender adjustment, stacking table for steel plates, height adjustment for pouring cars.
Research and new Technologys: closing safety device and portable hoisting platforms in nuclear power plants, laboratory and research institution, lifting gears for solar plants, wind power station.

Advantages:

Exact synchronism of several lifting spindles also in case of eccentric stress.
Automatic lock at standstill, consequently 100% prevention of sinking.
Synchronous actuation by motors or crank handle possible.
Precise adjustment and measuring possible.
Operable in any position.
Indifference to temperature over long periods.
Many combinations possible because of the standard parts.
High thrusts (up to 3000kN) and long spindles (up to 10 000mm) feasible.

Attachments, Example for application

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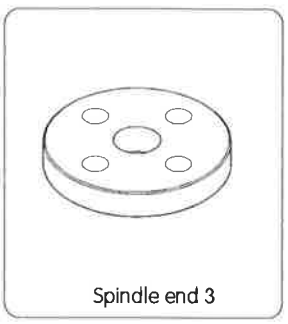
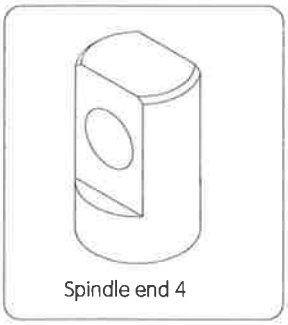
Examples for attachments


Traveling nut


traveling nut - flattened


swivelling console


Spindle end 3

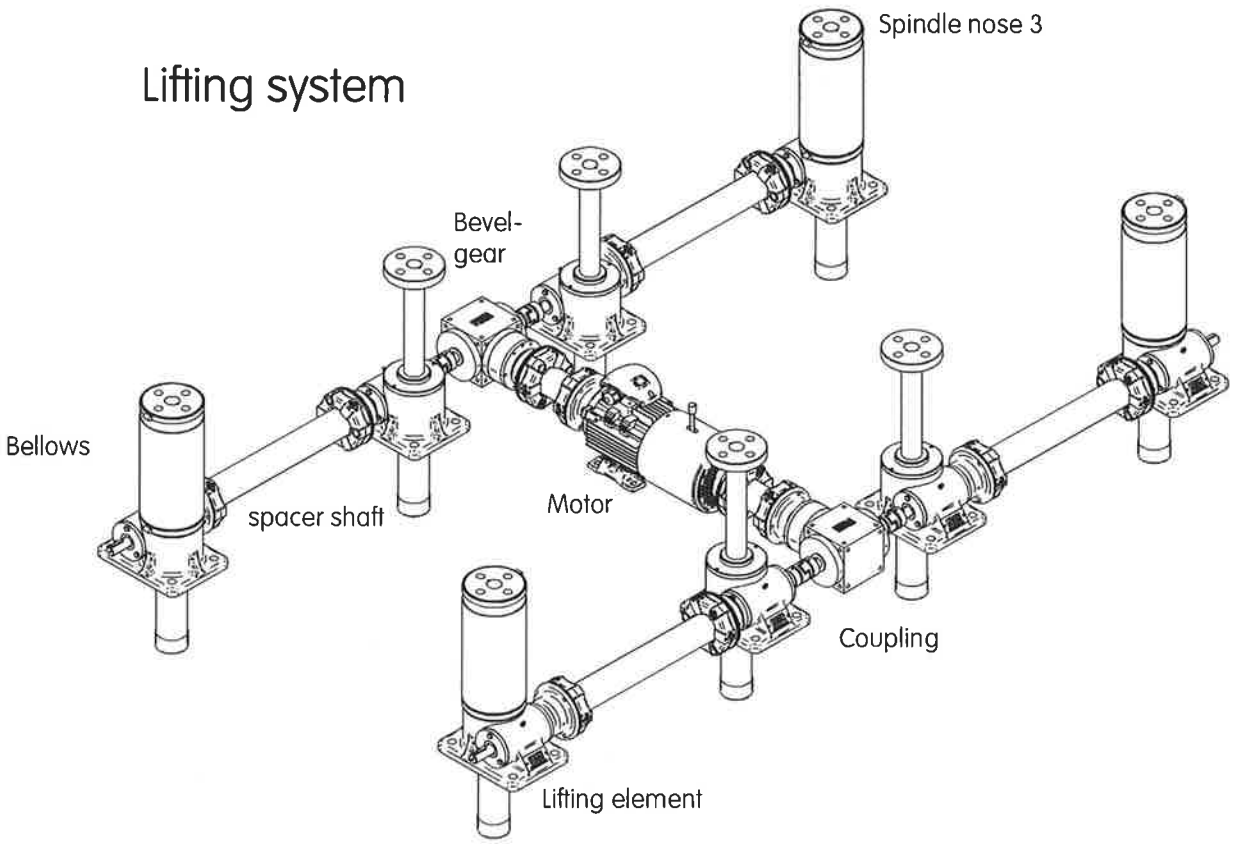

Spindle end 4


Spindle end 5


pedestal bearing


flange bearing

Lifting system



Selection of spindle gears

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For the correct selection of spindle gears the following datas are of decisive importance:

1.) load	[kN]	
2.) lifting speed	[m/min]	
3.) operating cycle	[%/10min] [%/hour]	
4.) spindle length (buckling)	[mm]	
5.) tensile- or pressure load	[kN]	
6.) ambient temperature	[°C]	
7.) fitting length (please indicate when ordering)	[mm]	If you use the questionnaire on page 33
8.) critical speed of the spindle	[min-1]	please provide the data available.

How to proceed in the selection: on the base of the desired load data (in kN) a suitable type of gear is selected from the preselection table below.

Preselection Table

Single-thread- spindle actuated gears

Type	SG 0005		SG 0010		SG 0015		SG 0020		SG 0030		SG * 0050		SG 0100		SG 0150		SG 0200		SG 0240		SG 0300		SG 0350		SG 0500	
rated power kN	5		10		15		20		30		50		100		150		200		240		300		350		500	
size of spindle	Tr 20x6		Tr 22x5		Tr 24x6		Tr 26x6		Tr 30x6		Tr 40x9 (Tr 40x7)		Tr 55x12		Tr 60x12		Tr 65x12		Tr 75x14		Tr 90x16		Tr 100x16		Tr 120x16	
gear reduction	10:1	20:1	5:1	20:1	6:1	25:1	6:1	24:1	6:1	24:1	6:1	24:1	8:1	24:1	8:1	24:1	8:1	24:1	9⅓:1	28:1	10⅔:1	32:1	10⅔:1	32:1	10⅔:1	32:1
length of stroke per rotation in mm	0,6	0,3	1	0,25	1	0,24	1	0,25	1	0,25	1,5 (1,17)	0,375 (0,29)	1,5	0,5	1,5	0,5	1,5	0,5	1,5	0,5	1,5	0,5	1,5	0,5	1,5	0,5
torque at rated power Nm	1,54	1,04	4,97	1,8	7,23	2,86	9,8	4,1	16,5	7	37,3 (35,2)	15,3 (14,2)	81	39	133	68,2	184	93,6	221	112	286	149	363	186	586	300
efficiency in %	31	23	32	44,5	33	20	32	19	29	17	32 (26)	19,5 (16)	29	20	27	17,5	26	17	25	17	25	16	23	15	20	13
max. RPM	2800		2800		2800		2800		2800		1800		1800		1500		1500		1500		1000		1000		1000	
max. lifting speed m/min	1,68	0,84	2,8	0,7	2,8	0,67	2,8	0,7	2,8	0,7	2,7	0,67	2,25	0,75	2,25	0,75	2,25	0,75	2,25	0,75	1,5	0,5	1,5	0,5	1,5	0,5
max. driving power in kW at 20% duty cycle	0,18		0,4		0,35		0,5		0,6		1,2		2,1		2,8		3,9		4,5		5,2		6,2		7,8	
max. driving power in kW at 10% duty cycle	0,23		0,6		0,46		0,7		0,8		1,6		2,8		3,8		5,1		5,9		6,9		8,3		10,8	
weight, basic type excl. lifting element in kg	1,5		3,2		3,2		7,8		8,2		18		23		28		40		58		75		90		180	
100mm spindle in kg	0,2		0,23		0,3		0,34		0,43		0,8		1,5		1,8		2,15		2,8		4,2		5,2		7,7	
g of grease contained in spindle gear	40		40		55		115		115		225		320		400		500		650		800		1200		2500	
catalog page	9		10		11		12		13		14		15		16		17		18		19		20		21	

Double-thread spindle actuated gears

(no longer self-locking - braking motor must be used!)

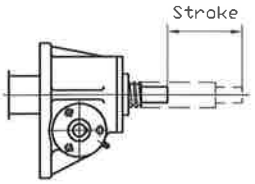
rated power kN	4		8		12		16		24		40		80		120		150		180		220		280		400	
size of spindle	Tr20x12P6		Tr22x10P5		Tr24x12P6		Tr26x12P6		Tr30x12P6		Tr40x18P9		Tr55x24P12		Tr60x24P12		Tr65x24P12		Tr75x28P14		Tr90x32P16		Tr100x32P16		Tr120x32P16	
length of stroke per rotation in mm	1,2	0,6	2	0,5	2	0,48	2	0,5	2	0,5	3	0,75	3	1	3	1	3	1	3	1	3	1	1	3	3	1
max. lifting speed m/min	3,36	1,68	5,6	1,4	5,6	1,34	5,6	1,4	5,6	1,4	5,4	1,35	4,5	1,5	4,5	1,5	4,5	1,5	4,5	1,5	3	1	1	3	3	1
torque at rated power Nm	1,86	1,23	5,72	2,08	8,48	3,27	12,1	4,89	18,2	7,64	43,4	17,7	91,2	47,2	151	77	194	100	232	120	284	146	393	203	637	318
efficiency in %	41	31	44,5	30,5	45	28	42	26	41	25	44	27	42	27	38	25	37	24	37	24	37	24	34	22	30	20

*SG0050 is also available actuated by a lead screw Tr 40x7. Corresponding data in ( ).
For the standard gears SG0750 and SG1000 please request the standard sheet!

Read of the dimensioned sketch and the performance table on the corresponding page of the catalog:

1.) whether the dimensions of gear and spindle fit into your system.
2.) which gear reduction must be selected for the desired lifting speed
(for higher lifting speeds the use of a double-thread spindle may be necessary).
3.) whether the power required for the desired lifting speed is admissible.
4.) whether under pressure load the critical buckling force is not exceeded (see diagram on page 29).
5.) whether the critical revolutions/min of the spindle are not exceeded (see diagram on page 28).
6.) If one of these requirements cannot be met the type next in size must be chosen.
7.) If point 6 is not sufficient, choose one of the types next in size or ask for special types (questionnaire see pages 33-34)!

Survey of construction modes with



Stroke:
0-10000 mm

Attachment-Driving shaft:
00 _ without attachments
(M)R _ motor flange right
(M)L _ motor flange left
(M)R/L _ motor flange right and left
MR _ motor right
ML _ motor left
MRL _ motor right and left
GMR _ gearmotor right
GML _ gearmotor left
GMRL _ gearmotor right and left

HK _ hand crank
HR _ hand wheel
KR _ coupling right
KL _ coupling left
FR _ flange right
FL _ flange left
GER _ gear limit switch at the right
GEL _ gear limit switch at the left
IGR _ incremental encoder at the right
IGL _ incremental encoder at the left
AGR _ absolute encoder at the right
AGL _ absolute encoder at the left

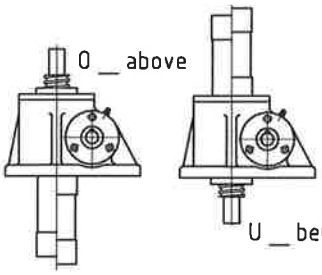
Reduction i
see chart page 4

SG _ screw jack
KSG _ screw jack with ball screw drive
PSG _ screw jack with planetary roller drive
SE _ swiveling element
KSE _ swiveling element with ball screw drive
PSE _ swiveling element with planetary roller drive
SK _ design with swivel housing
SSG _ special screw jack

SG 0000 - 0 - G - 0 - 1 - Stroke - M10 - 00-

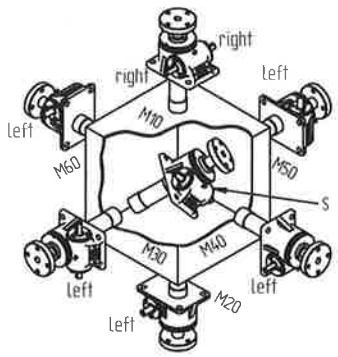
Type:
0005 / 0015 / 0020 / 0030 / 0050 /
0100 / 0150 / 0200 / 0240 / 0300 /
0350 / 0500 / 0750 / 1000 / 1500/
2000 / 2500/ 3000

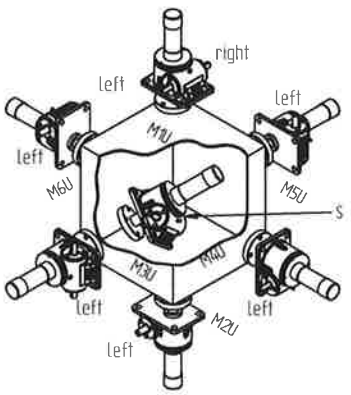
G _ Standard type



Design:
0_above
U_below

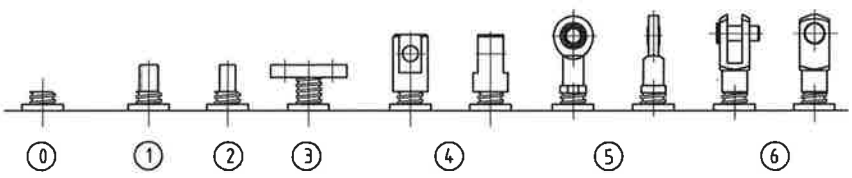
Mounting position:
M10 / M1U / M20 / M2U / M30 /
M3U / M40 / M4U /M50 / M5U /
M60 / M6U/ S (=obliquely)





Spindle end SG:
0, 1, 2, 3, 4, 5, 6, So
Spindle end SE:
1/4, 4/4, 5/5

standard spindle ends



example for ordering - Basic Type

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Driving shaft:

B __ both sides
R __ right
L __ left
R/LS __ standard on right / special on left
L/RS __ standard on left / special on right
R/LoP __ standard on right / standard on left without parallel key
L/RoP __ standard on left / standard on right without parallel key
BoP __ standard without parallel key
BHW __ both sides with quill shaft
R/LHW __ standard on right /left side with quill shaft
L/RHW __ standard on left /right side with quill shaft

Attachment-Spindle side:

0 __ without guiding
F __ guiding standard
FFB __ guiding for bellow
FSA __ guiding for lubrication
FSE __ guiding adjustable
FSE/A __ guiding adjustable with lubrication connection
SIO __ safety nut optical (short without guiding/travelling nut type)
SIF __ safety nut optical with guiding
SIFSA __ safety nut optical with guiding + lubrication connection
SIE __ safety nut electrically monitored with guiding
SIESA __ safety nut electrically monitored with guiding + lubrication connection
SIM __ safety nut electronically monitored with guiding
VS __ turn lock device with feather key on spindle

- B - F - Sf - Tr55x12 - __ - __ - __ - __ - __

Attachment-protection tube side:

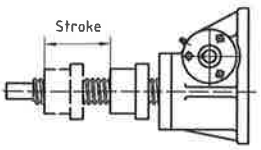
0 __ without guiding
F __ with guiding without protecting tube
FFB __ guiding with bellow
S __ protecting tube
Sf __ protecting tube with guide ring
SfSA __ guiding with lubrication connection
SfSE __ guiding adjustable
SfSE/A __ guiding adjustable with lubrication connection
VV __ square tube turn lock device
VP __ turn lock device by 2x parallel key in the protection tube
SIO __ safety nut optical (short without guiding/travelling nut type)
SIF __ safety nut optical with guiding
SIFSA __ safety nut optical with guiding + lubrication connection
SIE __ safety nut electrically monitored with guiding
SIESA __ safety nut electrically monitored with guiding + lubrication connection
SIM __ safety nut electronically monitored with guiding

Spindle code:
for example: Tr30x12P6
Tr40x7 LH (left-handed)
KGT2005

Additional gear descriptive designations:

- Spindle protection:
  FB __ bellow
  FS __ flat spiral spring cover
- AS __ turn out device
- ES __ turn in device
- DÜ __ drive monitoring
- GD __ noise attenuation (rubber plate, distance sleeve for boring)
- Stub covering
  SR __ stub covering at the right for retrospectivally building in
  SL __ stub covering at the left for retrospectivally building in
- Limit stop:
  EAS1 __ limit switch mechanical
  EAS2 __ limit switch magnetical
  EAS3 __ limit switch inductive
  DFE __ compression spring turn off
- Swivelling consoles:
  SP __ swivelling plate
  SP90 __ swivelling plate 90° turned
  SK __ swivelling console
  SK90 __ swivelling console 90° turned
  SL __ swivelling bearing
  SLA __ swivel feet
  GL __ bearing for swivelling housing
- VL __ spindle extension
  VL10 __ spindle extension 10mm
- FI __ filter for bellow ventilation
- SSG __ lubricator
- SO __ special parts

Survey of construction modes with example



Stroke:
0-10000 mm

Attachment-Driving shaft:
00 _ without motor
(M)R _ motor flange right
(M)L _ motor flange left
(M)R/L _ motor flange right and left
MR _ motor right
ML _ motor left
MRL _ motor right and left
GMR _ gearmotor right
GML _ gearmotor left
GMRL _ gearmotor right and left

HK _ hand crank
HR _ hand wheel
KR _ coupling right
KL _ coupling left
FR _ flange right
FL _ flange left
GER _ gear limit switch at the right
GEL _ gear limit switch at the left
IGR _ incremental encoder at the right
IGL _ incremental encoder at the left
AGR _ absolute encoder at the right
AGL _ absolute encoder at the left

Reduction i
see chart page 4

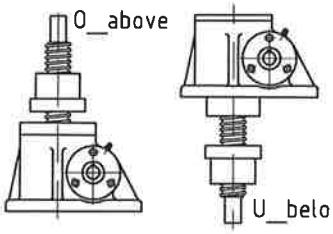
SG _ screw jack
KSG _ screw jack with ball screw drive
SSG _ special screw jack

SG 0000 - 0 - L - 0 - 0 - Stroke - M10 - 00-

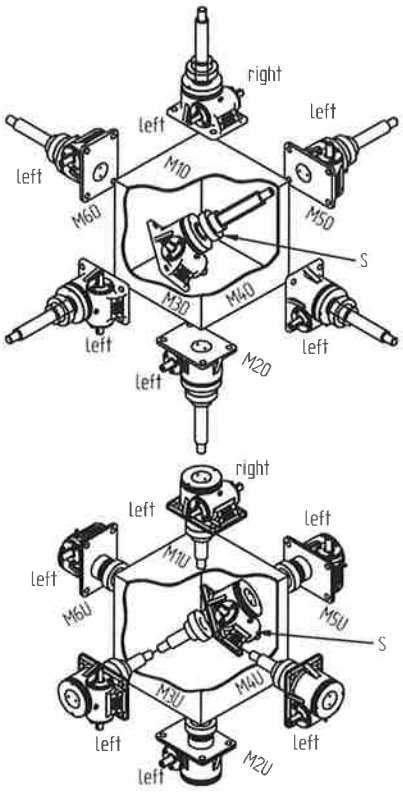
Type:
0005 / 0015 / 0020 / 0030 / 0050 /
0100 / 0150 / 0200 / 0240 / 0300 /
0350 / 0500 / 0750 / 1000 / 1500/
2000 / 2500/ 3000

Mounting position:
M10 / M1U / M20 / M2U / M30 /
M3U / M40 / M4U /M50 / M5U /
M60 / M6U/ S (=obliquely)

L _ Travelling nut type

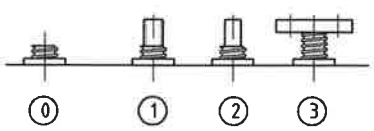


Design:
0 _ above
U _ below



Spindle end: 0, 1, 2, 3, So
3 _ spindle end 3 with bearing
FL _ bearing of the flange UCFL
SL _ pedestal bearing UCP
LL _ floating bearing
AS _ securing against hollowing
AH _ spindle end with
spacer like the ELZ

standard spindle ends



for ordering - Travelling nut Type

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Driving shaft:

B __both sides
R __right
L __left
R/LS __standard on right / special on left
L/RS __standard on left / special on right
R/LoP __standard on right / standard on left
without parallel key
L/RoP __standard on left / standard on right
without parallel key
BoP __standard without parallel key
BHW __both sides with quill shaft
R/LHW __standard on right /left side with quill shaft
L/RHW __standard on left /right side with quill shaft

Travelling nut:

LS __travelling nut standard
LF __travelling nut with guiding rings
LJP __travelling nut with yoke plate
LSF __travelling nut with key area
LSA __travelling nut with lubrication connection
LFI __travelling nut with filter for bellow ventilation
LSR __travelling nut with protection tube
LSP __travelling nut with spherical plate

by ball screw:
EFM __single flange nut
EFDM __single flange double nut
MFM __middle flange nut

- B - LS - Tr60x12 - __ - __ - __ - __ - __

Spindle code:
for example: Tr30x12P6
Tr40x7 LH (left-handed)
KGT2005

Additional gear descriptive designations:

- Spindle protection:
  FB __bellow
  FS __flat spiral spring cover
- GD __noise attenuation (rubber plate, distance sleeve for boring)
- Safety nut:
  SIO __safety nut optically
  (short without guiding/travelling nut)
  SIE __safety nut electrically monitored
- Stub covering:
  SR __stub covering at the right for retrospectively building in
  SL __stub covering at the left for retrospectively building in
- VL __spindle extension
  VL10 __spindle extension 10mm
- FI __filter for bellow ventilation
- SSG __lubricator
- AS __turn out device
- SO __special parts

- Swivelling consoles:
  SP __swivelling plate
  SP90__swivelling plate 90° turned
  SK __swivelling console
  SK90__swivelling console 90° turned
  SL __swivelling bearing
  SLA __swivel feet
  GL __bearing for swivelling housing

Screw jack SG 0005

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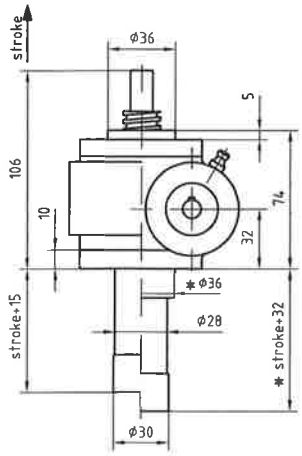
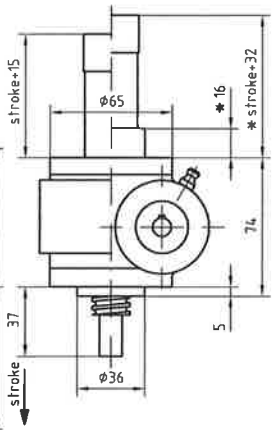
Basic type (G)

above (0)

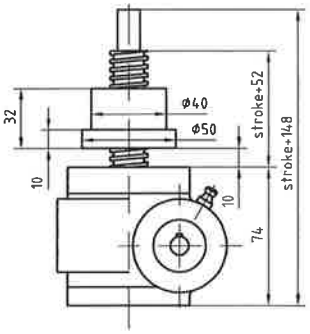


below (U)

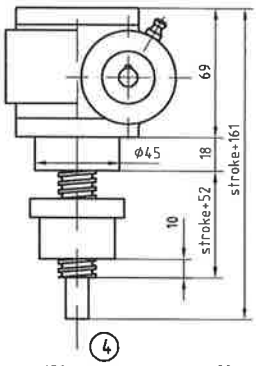


Traveling nut type (L)

above (0)

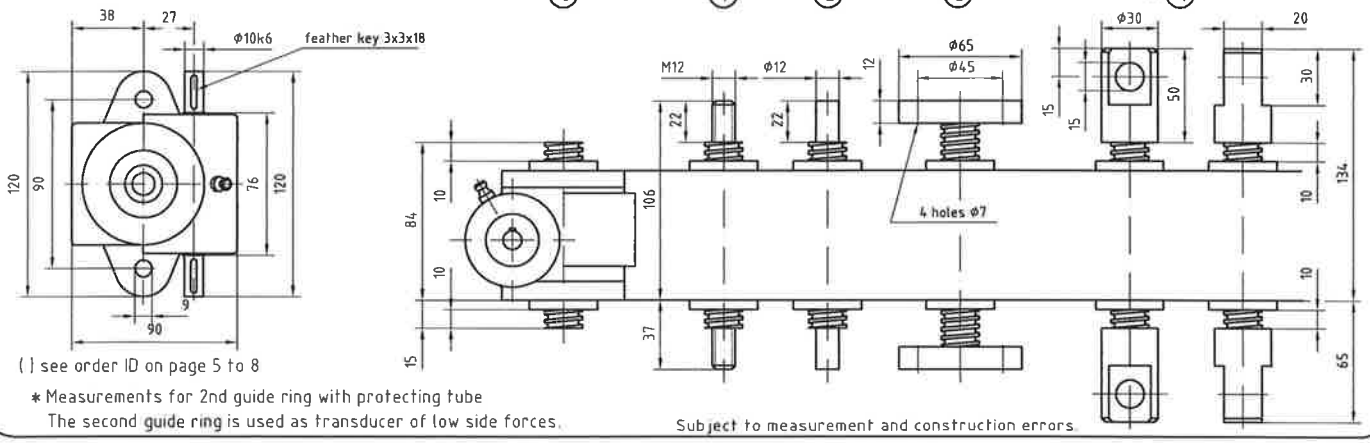


below (U)



Spindle noses

Spindle noses 5 and 6 (page 28)



( ) see order ID on page 5 to 8

* Measurements for 2nd guide ring with protecting tube
The second guide ring is used as transducer of low side forces.

Subject to measurement and construction errors.

Tr 20x6 single-thread lifting power in kN

10:1 = 0,6mm/R
20:1 = 0,3mm/R

n_1	lift. speed m/min		5				4				3				2				1,5				1			
	10:1	20:1	10:1		20:1		10:1		20:1		10:1		20:1		10:1		20:1		10:1		20:1		10:1		20:1	
min^{-1}			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
2800	1,68	0,84	*1,54*	*0,44*	*1,04*	*0,3*	*1,23*	*0,36*	*0,83*	*0,24*	*0,92*	*0,27*	0,62	0,18	0,61	0,18	0,41	0,12	0,46	0,14	0,31	0,09	0,3	0,1	0,21	0,06
1500	0,90	0,45	*1,54*	*0,24*	1,04	0,16	*1,23*	*0,19*	0,83	0,13	0,92	0,14	0,62	0,1	0,61	0,1	0,41	0,07	0,46	0,08	0,31	0,06	0,3	0,06	0,21	0,04
1000	0,60	0,30	1,54	0,16	1,04	0,11	1,23	0,13	0,83	0,09	0,92	0,1	0,62	0,07	0,61	0,07	0,41	0,05	0,46	0,06	0,31	0,04	0,3	0,05	0,21	0,04
750	0,45	0,22	1,54	0,12	1,04	0,08	1,23	0,1	0,83	0,07	0,92	0,08	0,62	0,06	0,61	0,06	0,41	0,04	0,46	0,05	0,31	0,04	0,3	0,04	0,21	0,04
500	0,30	0,15	1,54	0,08	1,04	0,06	1,23	0,07	0,83	0,05	0,92	0,06	0,62	0,04	0,61	0,04	0,41	0,04	0,46	0,04	0,31	0,04	0,3	0,04	0,21	0,04
200	0,12	0,06	1,54	0,04	1,04	0,05	1,23	0,04	0,83	0,04	0,92	0,04	0,62	0,04	0,61	0,04	0,41	0,04	0,46	0,04	0,31	0,04	0,3	0,04	0,21	0,04

RPM, power demand and admissible lifting speed at a reduction of 10:1 and 20:1 single-thread and double-thread spindle actuated, apply to the dynamic lifting power and a 20%/h or 30%/10min duty cycle at 20°C.
In the range of the spaces containing italics (above the lines) the spindle gears are overheated, the surface pressure in the thread is too high. We do not furnish a guarantee in this area.
However, it is feasible to transmit higher powers at a reduced duty cycle, or lower powers at a higher temperature (see preselection table, page 4).
Please ask for further information.

For lifting speeds higher than those given in the tables, also oil-lubricated ball bearing spindles or special reductions are available.

Tr 20x12P6 double-thread lifting power in kN

10:1 = 1,2mm/R
20:1 = 0,6mm/R

n_1	lift. speed m/min		4				3				2				1,5				1				0,5			
	10:1	20:1	10:1		20:1		10:1		20:1		10:1		20:1		10:1		20:1		10:1		20:1		10:1		20:1	
min^{-1}			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
2800	3,36	1,68	*1,86*	*0,54*	*1,23*	*0,36*	*1,39*	*0,4*	*0,92*	*0,27*	*0,93*	*0,27*	0,62	0,18	*0,7*	*0,2*	0,46	0,14	0,47	0,14	0,31	0,09	0,23	0,08	0,16	0,05
1500	1,80	0,90	*1,86*	*0,29*	*1,23*	*0,19*	*1,39*	*0,22*	0,92	0,15	0,93	0,15	0,62	0,1	0,7	0,11	0,46	0,08	0,47	0,07	0,31	0,06	0,23	0,04	0,16	0,04
100	1,20	0,60	*1,86*	*0,19*	1,23	0,13	1,39	0,14	0,92	0,1	0,93	0,1	0,62	0,07	0,7	0,07	0,46	0,06	0,47	0,05	0,31	0,04	0,23	0,04	0,16	0,04
750	0,90	0,45	1,86	0,15	1,23	0,1	1,39	0,11	0,92	0,08	0,93	0,08	0,62	0,05	0,7	0,06	0,46	0,04	0,47	0,04	0,31	0,04	0,23	0,04	0,16	0,04
500	0,60	0,30	1,86	0,1	1,23	0,07	1,39	0,08	0,92	0,05	0,93	0,06	0,62	0,04	0,7	0,05	0,46	0,04	0,47	0,04	0,31	0,04	0,23	0,04	0,16	0,04
200	0,24	0,12	1,86	0,05	1,23	0,04	1,39	0,04	0,92	0,04	0,93	0,04	0,62	0,04	0,7	0,04	0,46	0,04	0,47	0,04	0,31	0,04	0,23	0,04	0,16	0,04

Technical specifications

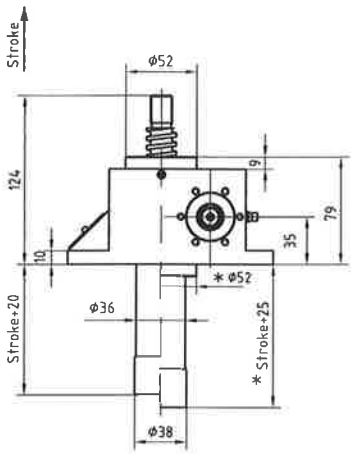
max. lifting power	5 kN
gear reduction	10:1 / 20:1
dimension of spindle	Tr20x6 / Tr20x12P6
start-up moment	table entry x 1,3
casing material	aluminium
weight without lifting (kg)	1,5
weight of spindle per 100mm lifting (kg)	0,2
lubricant	grease
quantity of lubricant (kg)	0,05
max. driving power (duty cycle 20%/h)	0,18 kW
max. driving power (duty cycle 10%/h)	0,23 kW

Screw jack SG 0010

ENZFELDER GmbH.
WERK ENZESFELD:
A-2551 ENZESFELD, EICHENGASSE 36
Tel.:++43(0)2256/81287
Fax.:++43(0)2256/81287-95
E-Mail: office@enzfelder.at
Internet: www.enzfelder.at

Basic type (G)

above (O)



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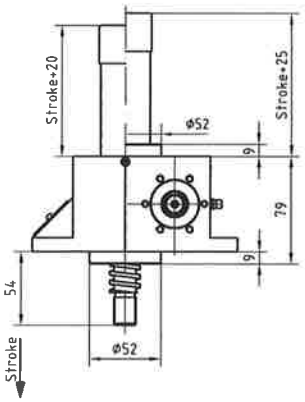
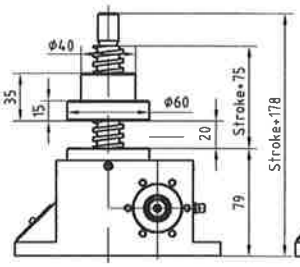
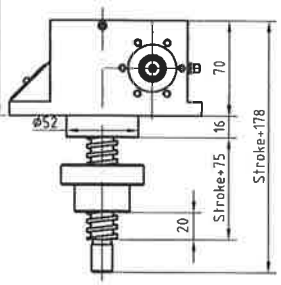


Traveling nut type (L)

above (O)

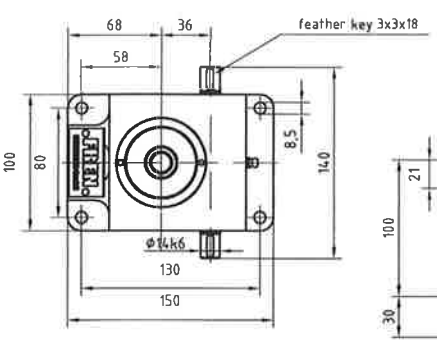


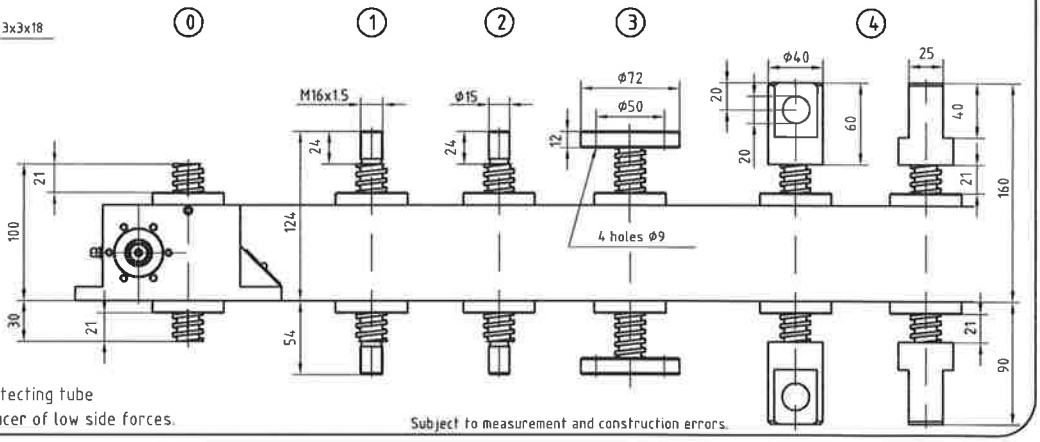
below (U)



Spindle noses

Spindle noses 5 and 6 (page 28)





( ) see order ID on page 5 to 8

*Measurements for 2nd guide ring with protecting tube
The second guide ring is used as transducer of low side forces.

Subject to measurement and construction errors.

Tr 22x5 single-thread lifting power in kN — 5:1 = 1,0mm/U, 20:1 = 0,25mm/U

n_1 min^{-1}	Hubgeschw. m/min 5:1	20:1	10 5:1 Nm	kW	10 20:1 Nm	kW	8 5:1 Nm	kW	8 20:1 Nm	kW	6 5:1 Nm	kW	6 20:1 Nm	kW	4 5:1 Nm	kW	4 20:1 Nm	kW	3 5:1 Nm	kW	3 20:1 Nm	kW	1 5:1 Nm	kW	1 20:1 Nm	kW
2800	2,80	0,70	*4,97*	*1,43*	*1,8*	*0,52*	*3,98*	*1,14*	*1,44*	*0,42*	*2,98*	*0,86*	*1,08*	*0,32*	*1,98*	*0,57*	*0,72*	*0,21*	*1,49*	*0,43*	0,54	0,16	0,5	0,15	0,18	0,06
1500	1,50	0,375	*4,97*	*0,77*	*1,8*	*0,28*	*3,98*	*0,61*	*1,44*	*0,15*	*2,98*	*0,46*	1,08	0,17	*1,98*	*0,31*	0,72	0,12	1,49	0,23	0,54	0,09	0,5	0,08	0,18	0,03
1000	1,00	0,25	*4,97*	*0,51*	*1,8*	*0,19*	*3,98*	*0,41*	1,44	0,15	*2,98*	*0,31*	1,08	0,12	1,98	0,21	0,72	0,08	1,49	0,16	0,54	0,06	0,5	0,06	0,18	0,02
750	0,75	0,19	*4,97*	*0,39*	1,8	0,14	*3,98*	*0,31*	1,44	0,12	*2,98*	*0,23*	1,08	0,09	1,98	0,16	0,72	0,06	1,49	0,12	0,54	0,05	0,5	0,04	0,18	0,02
500	0,50	0,125	*4,97*	*0,26*	1,8	0,10	3,98	0,21	1,44	0,08	2,98	0,16	1,08	0,06	1,98	0,11	0,72	0,04	1,49	0,08	0,54	0,03	0,5	0,03	0,18	0,01
200	0,20	0,05	4,97	0,11	1,8	0,04	3,98	0,09	1,44	0,03	2,98	0,07	1,08	0,03	1,98	0,05	0,72	0,02	1,49	0,04	0,54	0,02	0,5	0,01	0,18	0,01

Tr 22x10P5 double-thread lifting power in kN — 5:1 = 2,0mm/U, 20:1 = 0,5mm/U

n_1 min^{-1}	liff. speed m/min 5:1	20:1	8 5:1 Nm	kW	8 20:1 Nm	kW	6 5:1 Nm	kW	6 20:1 Nm	kW	4 5:1 Nm	kW	4 20:1 Nm	kW	3 5:1 Nm	kW	3 20:1 Nm	kW	1 5:1 Nm	kW	1 20:1 Nm	kW
2800	5,6	1,4	*5,72*	*1,64*	*2,08*	*0,6*	*4,3*	*1,23*	*1,56*	*0,45*	*2,86*	*0,82*	*1,04*	*0,3*	*2,15*	*0,62*	0,78	0,23	0,72	0,21	0,2	0,08
1500	3,0	0,75	*5,72*	*0,88*	*2,08*	*0,32*	*4,3*	*0,66*	1,56	0,24	*2,86*	*0,44*	1,04	0,16	2,15	0,33	0,78	0,12	0,72	0,11	0,2	0,04
1000	2,5	0,5	*5,72*	*0,59*	2,08	0,22	*4,3*	*0,44*	1,56	0,16	*2,86*	*0,3*	1,04	0,11	2,15	0,22	0,78	0,08	0,72	0,08	0,2	0,03
750	1,5	0,38	*5,72*	*0,44*	2,08	0,16	*4,3*	*0,33*	1,56	0,12	2,86	0,22	1,04	0,08	2,15	0,17	0,78	0,06	0,72	0,06	0,2	0,02
500	1,0	0,25	*5,72*	*0,3*	2,08	0,11	4,3	0,22	1,56	0,08	2,86	0,15	1,04	0,06	2,15	0,11	0,78	0,04	0,72	0,04	0,2	0,02
200	0,4	0,1	5,72	0,12	2,08	0,05	4,3	0,09	1,56	0,04	2,86	0,06	1,04	0,03	2,15	0,05	0,78	0,02	0,72	0,02	0,2	0,01

RPM, power demand and admissible lifting speed at a reduction of 10:1 and 20:1 single-thread and double-thread spindle actuated, apply to the dynamic lifting power and a 20%/h or 30%/10min duty cycle at 20°C.
In the range of the spaces containing italics (above the lines) the spindle gears are overheated, the surface pressure in the thread is too high. We do not furnish a guarantee in this area.
However, it is feasible to transmit higher powers at a reduced duty cycle, or lower powers at a higher temperature (see preselection table, page 4).
Please ask for further information.

For lifting speeds higher than those given in the tables, also oil-lubricated ball bearing spindles or special reductions are available.

Technical specifications

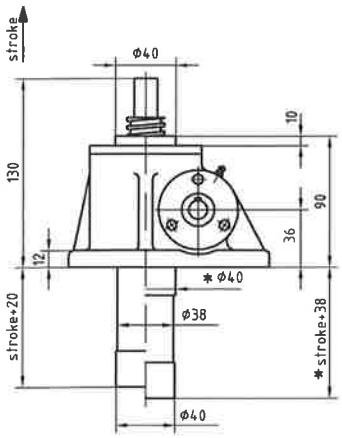
max. lifting power	10 kN
gear reduction	5:1 / 20:1
dimension of spindle	Tr22x5 / Tr22x10P5
start-up moment	table entry x 1,3
casing material	GJS400-15
weight without lifting (kg)	3,2
weight of spindle per 100mm lifting (kg)	0,23
lubrication	grease
quantity of lubricat (kg)	0,04
max. driving power (duty cycle 20%/h)	0,4 kW
max. driving power (duty cycle 10%/h)	0,6 kW

Screw jack SG 0015

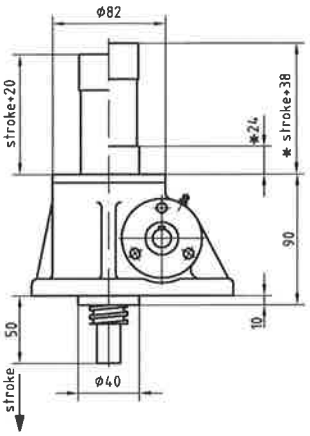
ENZFELDER GmbH.
WERK ENZESFELD:
A-2551 ENZESFELD, EICHENGASSE 36
Tel.:++43(0)2256/81287
Fax.:++43(0)2256/81287-95
E-Mail: office@enzfelder.at
Internet: www.enzfelder.at

Basic type (G)

above (0)

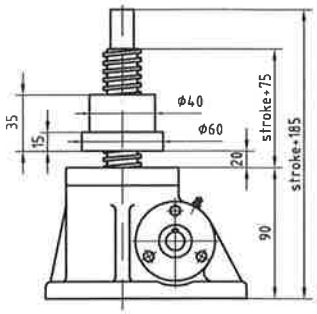


below (U)



Traveling nut type (L)

above (0)



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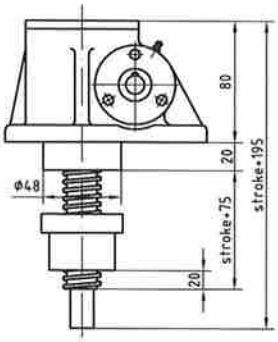
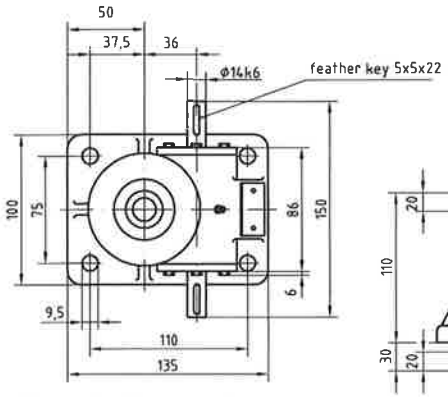
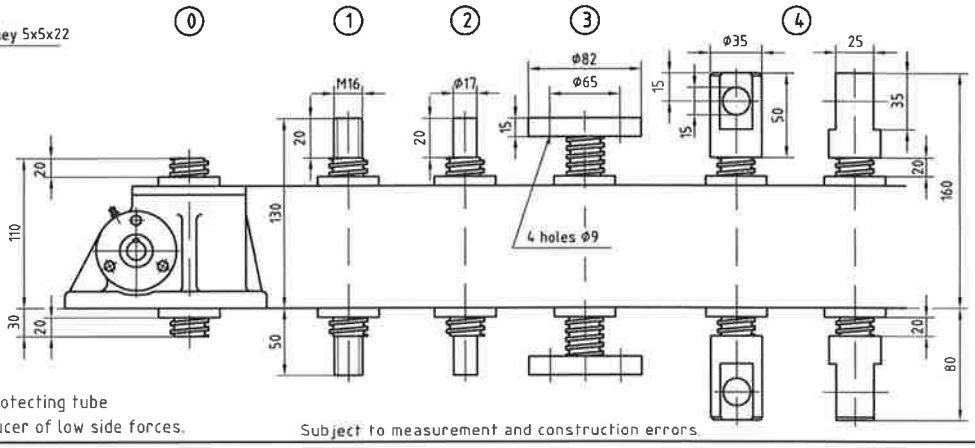


Spindle noses

Spindle noses 5 and 6 (page 28)





( ) see order ID on page 5 to 8

* Measurements for 2nd guide ring with protecting tube
The second guide ring is used as transducer of low side forces.

Subject to measurement and construction errors.

Tr 24x6 single-thread lifting power in kN

6:1 = 1,0mm/R
25:1 = 0,24mm/R

n_1 min^{-1}	lift. speed m/min 6:1	lift. speed m/min 25:1	15 6:1 Nm	15 6:1 kW	15 25:1 Nm	15 25:1 kW	12 6:1 Nm	12 6:1 kW	12 25:1 Nm	12 25:1 kW	8 6:1 Nm	8 6:1 kW	8 25:1 Nm	8 25:1 kW	5 6:1 Nm	5 6:1 kW	5 25:1 Nm	5 25:1 kW	3 6:1 Nm	3 6:1 kW	3 25:1 Nm	3 25:1 kW	1 6:1 Nm	1 6:1 kW	1 25:1 Nm	1 25:1 kW
2800	2,80	0,67	*7,23*	*2,08*	*2,86*	*0,82*	*5,78*	*1,66*	*2,29*	*0,66*	*3,86*	*1,11*	*1,52*	*0,44*	*2,41*	*0,7*	0,95	0,28	*1,45*	*0,42*	0,57	0,17	0,48	0,14	0,19	0,07
1500	1,50	0,36	*7,23*	*1,11*	*2,86*	*0,45*	*5,78*	*0,9*	*2,29*	*0,36*	*3,86*	*0,6*	1,52	0,23	*2,41*	*0,37*	0,95	0,16	1,45	0,23	0,57	0,11	0,48	0,09	0,19	0,06
1000	1,00	0,24	*7,23*	*0,74*	2,86	0,3	*5,78*	*0,6*	2,29	0,24	*3,86*	*0,4*	1,52	0,16	2,41	0,25	0,95	0,11	1,45	0,15	0,57	0,08	0,48	0,07	0,19	0,06
750	0,75	0,18	*7,23*	*0,56*	2,86	0,22	*5,78*	*0,45*	2,29	0,18	3,86	0,3	1,52	0,12	2,41	0,2	0,95	0,08	1,45	0,12	0,57	0,06	0,48	0,06	0,19	0,06
500	0,50	0,12	*7,23*	*0,37*	2,86	0,15	5,78	0,3	2,29	0,12	3,86	0,2	1,52	0,09	2,41	0,13	0,95	0,06	1,45	0,09	0,57	0,06	0,48	0,06	0,19	0,06
200	0,20	0,05	7,23	0,15	2,86	0,08	5,78	0,12	2,29	0,06	3,86	0,1	1,52	0,06	2,41	0,07	0,95	0,06	1,45	0,06	0,57	0,06	0,48	0,06	0,19	0,06

RPM, power demand and admissible lifting speed at a reduction of 10:1 and 20:1 single-thread and double-thread spindle actuated, apply to the dynamic lifting power and a 20%/h or 30%/10min duty cycle at 20°C.
In the range of the spaces containing italics (above the lines) the spindle gears are overheated, the surface pressure in the thread is too high. We do not furnish a guarantee in this area.
However, it is feasible to transmit higher powers at a reduced duty cycle, or lower powers at a higher temperature (see preselection table, page 4).
Please ask for further information.

For lifting speeds higher than those given in the tables, also oil-lubricated ball bearing spindles or special reductions are available.

Tr 24x12P6 double-thread lifting power in kN

6:1 = 2,0mm/R
25:1 = 0,48mm/R

n_1 min^{-1}	lift. speed m/min 6:1	lift. speed m/min 25:1	12 6:1 Nm	12 6:1 kW	12 25:1 Nm	12 25:1 kW	10 6:1 Nm	10 6:1 kW	10 25:1 Nm	10 25:1 kW	8 6:1 Nm	8 6:1 kW	8 25:1 Nm	8 25:1 kW	5 6:1 Nm	5 6:1 kW	5 25:1 Nm	5 25:1 kW	3 6:1 Nm	3 6:1 kW	3 25:1 Nm	3 25:1 kW	1 6:1 Nm	1 6:1 kW	1 25:1 Nm	1 25:1 kW
2800	5,60	1,34	*8,48*	*2,44*	*3,27*	*0,94*	*7,07*	*2,03*	*2,72*	*0,78*	*5,65*	*1,65*	*2,18*	*0,62*	*3,53*	*1,1*	*1,36*	*0,39*	*2,12*	*0,62*	0,82	0,24	0,71	0,21	0,27	0,09
1500	3,00	0,72	*8,48*	*1,31*	*3,27*	*0,51*	*7,07*	*1,09*	*2,72*	*0,42*	*5,65*	*0,87*	2,18	0,34	*3,53*	*0,55*	1,36	0,21	2,12	0,33	0,82	0,13	0,71	0,11	0,27	0,06
1000	2,00	0,48	*8,48*	*0,87*	3,27	0,34	*7,07*	*0,73*	2,72	0,28	*5,65*	*0,58*	2,18	0,23	*3,53*	*0,36*	1,36	0,15	2,12	0,22	0,82	0,1	0,71	0,08	0,27	0,06
750	1,50	0,36	*8,48*	*0,66*	3,27	0,26	*7,07*	*0,55*	2,72	0,22	*5,65*	*0,44*	2,18	0,17	3,53	0,28	1,36	0,11	2,12	0,17	0,82	0,07	0,71	0,06	0,27	0,06
500	1,00	0,24	*8,48*	*0,44*	3,27	0,17	*7,07*	*0,37*	2,72	0,15	5,65	0,29	2,18	0,13	3,53	0,19	1,36	0,08	2,12	0,12	0,82	0,06	0,71	0,06	0,27	0,06
200	0,40	0,10	8,48	0,18	3,27	0,08	7,07	0,15	2,72	0,07	5,65	0,12	2,18	0,06	3,53	0,09	1,36	0,06	2,12	0,06	0,82	0,06	0,71	0,06	0,27	0,06

Technical specifications

max. lifting power	15 kN
gear reduction	6:1 / 25:1
dimension of spindle	Tr24x6 / Tr24x12P6
start-up moment	table entry x 1,3
casing material	GJS400-15
weight without lifting (kg)	3,2
weight of spindle per 100mm lifting (kg)	0,3
lubricant	grease
quantity of lubricant (kg)	0,1
max. driving power (duty cycle 20%/h)	0,35 kW
max. driving power (duty cycle 10%/h)	0,46 kW

Screw jack SG 0020

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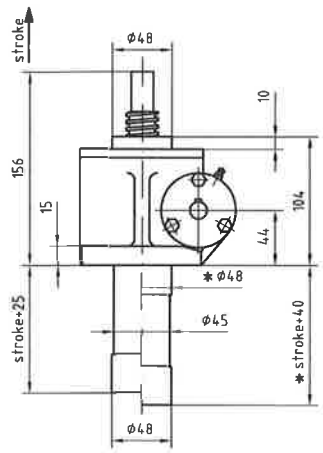
Internet: www.enzfelder.at

Basic type (G)

above (O)



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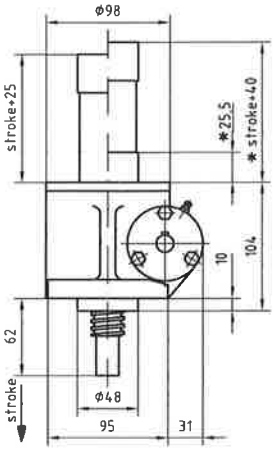
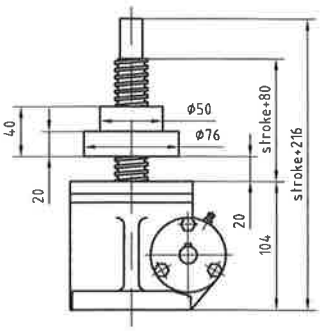


Traveling nut type (L)

above (O)



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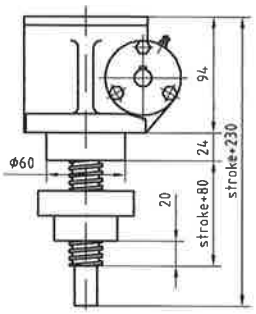
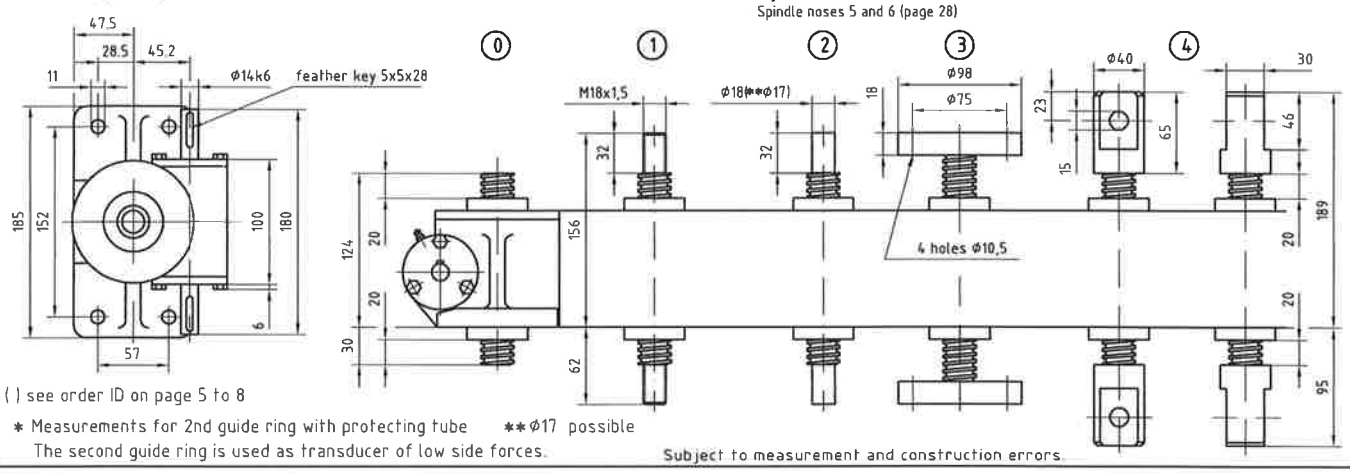


Spindle noses

Spindle noses 5 and 6 (page 28)



( ) see order ID on page 5 to 8

* Measurements for 2nd guide ring with protecting tube **Ø17 possible
The second guide ring is used as transducer of low side forces.

Subject to measurement and construction errors.

Tr 26x6 single-thread lifting power in kN

6:1 = 1,0mm/R
24:1 = 0,25mm/R

n_1	lift. speed m/min		20				15				10				8				5				2			
	6:1	24:1	6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1	
min^{-1}			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
2800	2,80	0,70	*9,8*	*2,86*	*4,1*	*1,2*	*7,35*	*2,15*	*2,14*	*0,9*	*4,9*	*1,44*	*1,43*	*0,6*	*3,92*	*1,15*	1,14	0,48	*2,45*	*0,72*	0,71	0,3	0,98	0,29	0,28	0,12
1500	1,50	0,375	*9,8*	*1,53*	*4,1*	*0,65*	*7,35*	*1,15*	2,14	0,48	*4,9*	*0,77*	1,43	0,32	*3,92*	*0,61*	1,14	0,26	2,45	0,38	0,71	0,16	0,98	0,16	0,28	0,08
1000	1,00	0,25	*9,8*	*1,02*	4,1	0,43	*7,35*	*0,77*	2,14	0,32	*4,9*	*0,51*	1,43	0,22	3,92	0,41	1,14	0,18	2,45	0,26	0,71	0,12	0,98	0,11	0,28	0,06
750	0,75	0,19	*9,8*	*0,77*	4,1	0,33	*7,35*	*0,58*	2,14	0,25	4,9	0,38	1,43	0,16	3,92	0,31	1,14	0,13	2,45	0,19	0,71	0,09	0,98	0,09	0,28	0,06
500	0,50	0,125	9,8	0,51	4,1	0,22	7,35	0,39	2,14	0,16	4,9	0,26	1,43	0,12	3,92	0,22	1,14	0,1	2,45	0,13	0,71	0,07	0,98	0,07	0,28	0,06
200	0,20	0,05	9,8	0,21	4,1	0,1	7,35	0,16	2,14	0,08	4,9	0,11	1,43	0,06	3,92	0,09	1,14	0,06	2,45	0,06	0,71	0,06	0,98	0,06	0,28	0,06

RPM, power demand and admissible lifting speed at a reduction of 10:1 and 20:1 single-thread and double-thread spindle actuated, apply to the dynamic lifting power and a 20%/h or 30%/10min duty cycle at 20°C.
In the range of the spaces containing italics (above the lines) the spindle gears are overheated, the surface pressure in the thread is too high. We do not furnish a guarantee in this area.
However, it is feasible to transmit higher powers at a reduced duty cycle, or lower powers at a higher temperature (see preselection table, page 4).
Please ask for further information.

For lifting speeds higher than those given in the tables, also oil-lubricated ball bearing spindles or special reductions are available.

Tr 26x12P6 double-thread lifting power in kN

6:1 = 2,0mm/R
24:1 = 0,5mm/R

n_1	lift. speed m/min		16				12				8				6				4				2			
	6:1	24:1	6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1	
min^{-1}			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
2800	5,60	1,40	*12,1*	*3,48*	*4,9*	*1,4*	*9,09*	*2,61*	*3,68*	*1,06*	*6,06*	*1,8*	*2,45*	*0,7*	*4,55*	*1,3*	*1,83*	*0,53*	*3,03*	*0,9*	1,23	0,35	1,51	0,45	0,62	0,18
1500	3,00	0,75	*12,1*	*1,86*	*4,9*	*0,75*	*9,09*	*1,4*	*3,68*	*0,57*	*6,06*	*0,93*	2,45	0,37	*4,55*	*0,7*	1,83	0,28	3,03	0,46	1,23	0,19	1,51	0,23	0,62	0,1
1000	2,00	0,50	*12,1*	*1,25*	4,9	0,5	*9,09*	*0,93*	3,68	0,38	*6,06*	*0,62*	2,45	0,25	4,55	0,47	1,83	0,19	3,03	0,31	1,23	0,13	1,51	0,16	0,62	0,08
750	1,50	0,375	*12,1*	*0,93*	4,9	0,38	*9,09*	*0,7*	3,68	0,28	6,06	0,47	2,45	0,19	4,55	0,35	1,83	0,15	3,03	0,23	1,23	0,1	1,51	0,13	0,62	0,06
500	1,00	0,25	*12,1*	*0,62*	4,9	0,25	9,09	0,46	3,68	0,19	6,06	0,31	2,45	0,13	4,55	0,23	1,83	0,1	3,03	0,16	1,23	0,08	1,51	0,09	0,62	0,06
200	0,40	0,10	12,1	0,25	4,9	0,1	9,09	0,19	3,68	0,09	6,06	0,13	2,45	0,07	4,55	0,1	1,83	0,06	3,03	0,07	1,23	0,06	1,51	0,06	0,62	0,06

Technical specifications

max. lifting power	20 kN
gear reduction	6:1 / 24:1
dimension of spindle	Tr26x6 / Tr26x12P6
start-up moment	table entry x 1,3
casing material	GJS400-15
weight without lifting (kg)	7,8
weight of spindle per 100mm lifting (kg)	0,34
lubricant	grease
quantity of lubricant (kg)	0,15
max. driving power (duty cycle 20%/h)	0,5 kW
max. driving power (duty cycle 10%/h)	0,7 kW

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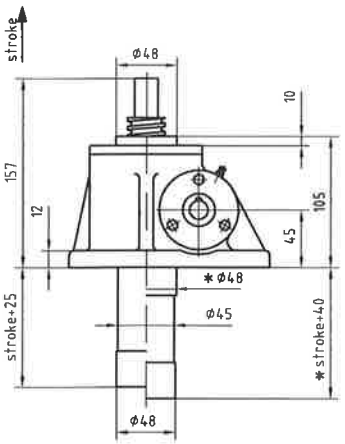
Screw jack SG 0030

Basic type (G)

above (0)



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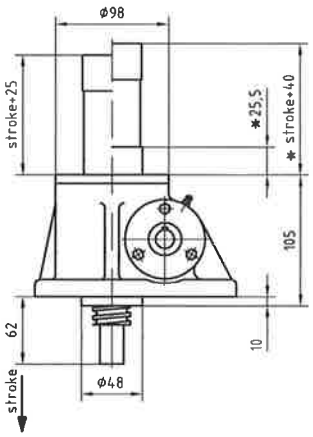
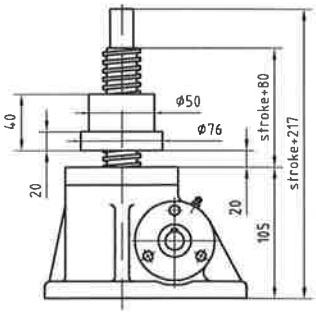


Traveling nut type (L)

above (0)



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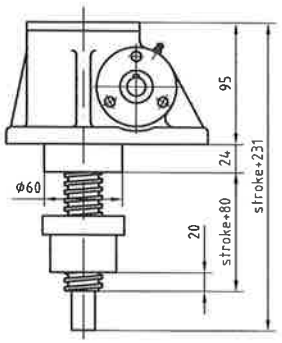
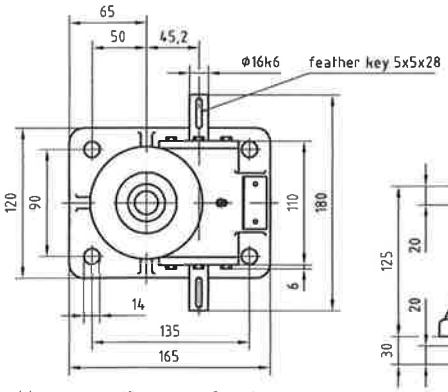
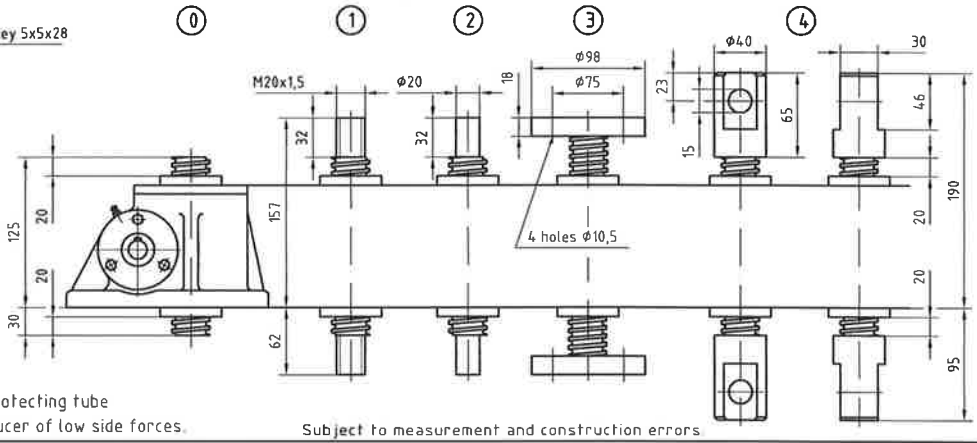


Spindle noses

Spindle noses 5 and 6 (page 28)





( ) see order ID on page 5 to 8

* Measurements for 2nd guide ring with protecting tube
The second guide ring is used as transducer of low side forces.

Subject to measurement and construction errors.

Tr 30x6 single-thread lifting power in kN

6:1 = 1,0mm/R
24:1 = 0,25mm/R

n_1	lift. speed m/min		30				20				15				10				5				2			
			6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1	
min^{-1}	6:1	24:1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
2800	2,80	0,70	*16,5*	*4,73*	*6,9*	*2,02*	*11*	*3,15*	*4,6*	*1,35*	*8,25*	*2,37*	*3,45*	*1*	*5,5*	*1,57*	*2,3*	*0,67*	*2,75*	*0,79*	1,15	0,34	1,1	0,32	0,46	0,15
1500	1,50	0,375	*16,5*	*2,53*	*6,9*	*1,08*	*11*	*1,69*	*4,6*	*0,72*	*8,25*	*1,27*	3,45	0,54	*5,5*	*0,85*	2,3	0,36	2,75	0,42	1,15	0,18	1,1	0,17	0,46	0,09
1000	1,00	0,25	*16,5*	*1,69*	*6,9*	*0,72*	*11*	*1,13*	4,6	0,48	*8,25*	*0,84*	3,45	0,36	5,5	0,56	2,3	0,24	2,75	0,28	1,15	0,13	1,1	0,12	0,46	0,07
750	0,75	0,19	*16,5*	*1,26*	6,9	0,55	*11*	*0,84*	4,6	0,37	*8,25*	*0,63*	3,45	0,28	5,5	0,42	2,3	0,18	2,75	0,21	1,15	0,10	1,1	0,10	0,46	0,06
500	0,50	0,125	*16,5*	*0,84*	6,9	0,36	11	0,56	4,6	0,24	8,25	0,42	3,45	0,18	5,5	0,28	2,3	0,12	2,75	0,14	1,15	0,08	1,1	0,07	0,46	0,06
200	0,20	0,05	16,5	0,34	6,9	0,15	11	0,23	4,6	0,11	8,25	0,17	3,45	0,09	5,5	0,12	2,3	0,07	2,75	0,07	1,15	0,06	1,1	0,06	0,46	0,06

Tr 30x12P6 double-thread lifting power in kN

6:1 = 2,0mm/R
24:1 = 0,5mm/R

n_1	lift. speed m/min		24				18				12				8				5				2			
			6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1	
min^{-1}	6:1	24:1	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
2800	5,60	1,40	*18,2*	*5,35*	*7,64*	*2,19*	*13,7*	*4*	*5,7*	*1,64*	*9,1*	*2,9*	*3,8*	*1,09*	*6,1*	*1,8*	*2,6*	*0,73*	*3,8*	*1,12*	1,6	0,46	1,5	0,45	0,7	0,19
1500	3,00	0,75	*18,2*	*2,87*	*7,64*	*1,18*	*13,7*	*2,15*	*5,7*	*0,88*	*9,1*	*1,43*	3,8	0,59	*6,1*	*0,96*	2,6	0,40	3,8	0,60	1,6	0,25	1,5	0,24	0,7	0,11
1000	2,00	0,50	*18,2*	*1,91*	*7,64*	*0,78*	*13,7*	*1,43*	5,7	0,59	*9,1*	*0,96*	3,8	0,40	*6,1*	*0,64*	2,6	0,26	3,8	0,40	1,6	0,17	1,5	0,16	0,7	0,08
750	1,50	0,375	*18,2*	*1,43*	7,64	0,59	*13,7*	*1,08*	5,7	0,44	*9,1*	*0,72*	3,8	0,30	6,1	0,48	2,6	0,20	3,8	0,30	1,6	0,13	1,5	0,12	0,7	0,07
500	1,00	0,25	*18,2*	*0,96*	7,64	0,40	*13,7*	*0,71*	5,7	0,30	9,1	0,48	3,8	0,20	6,1	0,32	2,6	0,13	3,8	0,20	1,6	0,10	1,5	0,09	0,7	0,06
200	0,40	0,10	18,2	0,38	7,64	0,20	13,7	0,29	5,7	0,13	9,1	0,20	3,8	0,10	6,1	0,14	2,6	0,07	3,8	0,10	1,6	0,06	1,5	0,07	0,7	0,06

RPM, power demand and admissible lifting speed at a reduction of 10:1 and 20:1 single-thread and double-thread spindle actuated, apply to the dynamic lifting power and a 20%/h or 30%/10min duty cycle at 20°C.
In the range of the spaces containing italics (above the lines) the spindle gears are overheated, the surface pressure in the thread is too high. We do not furnish a guarantee in this area.
However, it is feasible to transmit higher powers at a reduced duty cycle, or lower powers at a higher temperature (see preselection table, page 4).
Please ask for further information.

For lifting speeds higher than those given in the tables, also oil-lubricated ball bearing spindles or special reductions are available.

Technical specifications

max. lifting power	30 kN
gear reduction	6:1 / 24:1
dimension of spindle	Tr30x6 / Tr30x12P6
start-up moment	table entry x 1,3
casing material	GJS400-15
weight without lifting (kg)	8,2
weight of spindle per 100mm lifting (kg)	0,43
lubricant	grease
quantity of lubricant (kg)	0,2
max. driving power (duty cycle 20%/h)	0,6 kW
max. driving power (duty cycle 10%/h)	0,8 kW

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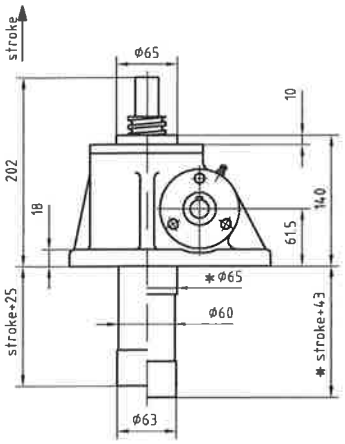
E-Mail: office@enzfelder.at
Internet: www.enzfelder.at

Screw jack SG 0050

Basic type (G)

above (0)



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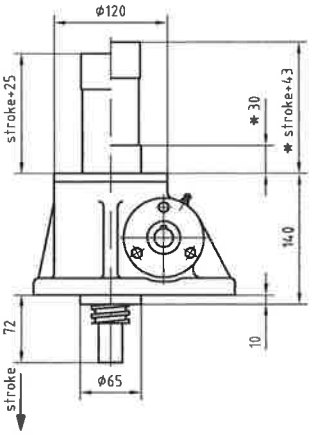
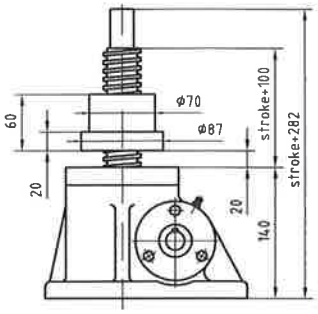


Traveling nut type (L)

above (0)



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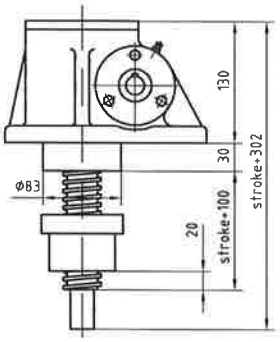
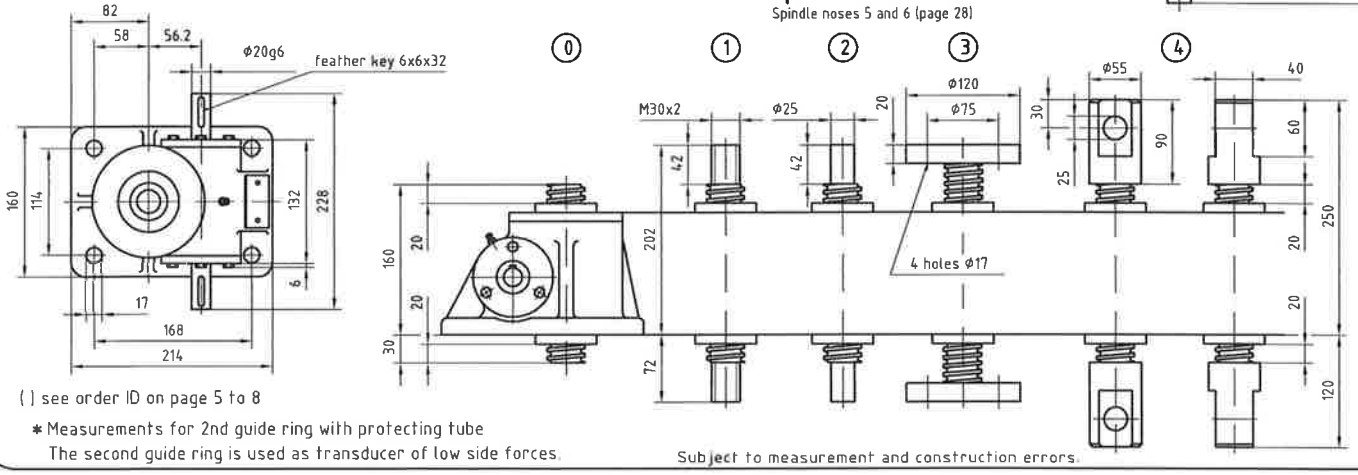


Spindle noses

Spindle noses 5 and 6 (page 28)



( ) see order ID on page 5 to 8

* Measurements for 2nd guide ring with protecting tube
The second guide ring is used as transducer of low side forces.

Subject to measurement and construction errors.

Tr 40x9 single-thread lifting power in kN

6:1 = 1,5mm/R
24:1 = 0,375mm/R

n_1	lift. speed m/min		50				40				30				20				15				10			
	6:1	24:1	6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1	
min^{-1}			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1800	2,70	0,67	*37,3*	*6,9*	*15,3*	*2,82*	*29,8*	*5,52*	*12,2*	*2,26*	*22,4*	*4,13*	*9,18*	*1,7*	*14,9*	*2,75*	6,12	1,13	*11,2*	*2,07*	4,59	0,85	*7,46*	*1,37*	3,06	0,57
1500	2,25	0,56	*37,3*	*5,75*	*15,3*	*2,35*	*29,8*	*4,59*	*12,2*	*1,88*	*22,4*	*3,44*	*9,18*	*1,41*	*14,9*	*2,29*	6,12	0,94	*11,2*	*1,72*	4,59	0,71	7,46	1,15	3,06	0,47
1000	1,50	0,37	*37,3*	*3,83*	*15,3*	*1,57*	*29,8*	*3,06*	*12,2*	*1,25*	*22,4*	*2,29*	9,18	0,94	*14,9*	*1,53*	6,12	0,63	11,2	1,15	4,59	0,47	7,46	0,77	3,06	0,31
750	1,12	0,28	*37,3*	*2,87*	15,3	1,17	*29,8*	*2,29*	12,2	0,94	*22,4*	*1,72*	9,18	0,7	14,9	1,15	6,12	0,47	11,2	0,86	4,59	0,35	7,46	0,58	3,06	0,23
500	0,75	0,19	*37,3*	*1,91*	15,3	0,78	*29,8*	*1,53*	12,2	0,63	22,4	1,15	9,18	0,47	14,9	0,77	6,12	0,31	11,2	0,58	4,59	0,23	7,46	0,38	3,06	0,16
200	0,30	0,075	37,3	0,77	15,3	0,31	29,8	0,61	12,2	0,26	22,4	0,45	9,18	0,19	14,9	0,3	6,12	0,13	11,2	0,23	4,59	0,09	7,46	0,15	3,06	0,07

RPM, power demand and admissible lifting speed at a reduction of 10:1 and 20:1 single-thread and double-thread spindle actuated, apply to the dynamic lifting power and a 20%/h or 30%/10min duty cycle at 20°C.
In the range of the spaces containing italics (above the lines) the spindle gears are overheated, the surface pressure in the thread is too high. We do not furnish a guarantee in this area.
However, it is feasible to transmit higher powers at a reduced duty cycle, or lower powers at a higher temperature (see preselection table, page 4).
Please ask for further information.

For lifting speeds higher than those given in the tables, also oil-lubricated ball bearing spindles or special reductions are available.

Tr 40x18P9 double-thread lifting power in kN

6:1 = 3,0mm/R
24:1 = 0,75mm/R

n_1	lift. speed m/min		40				30				20				15				10				5			
	6:1	24:1	6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1		6:1		24:1	
min^{-1}			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1800	5,40	1,35	*43,4*	*8*	*17,7*	*3,26*	*32*	*6*	*13,3*	*2,45*	*21,7*	*4*	*8,84*	*1,63*	*16,3*	*3*	*6,63*	*1,23*	*10,9*	*2*	4,42	0,82	5,42	1,0	2,21	0,41
1500	4,50	1,12	*43,4*	*6,68*	*17,7*	*2,72*	*32*	*5*	*13,3*	*2,04*	*21,7*	*3,34*	*8,84*	*1,36*	*16,3*	*2,5*	6,63	1,02	*10,9*	*1,67*	4,42	0,68	5,42	0,84	2,21	0,35
1000	3,00	0,75	*43,4*	*4,46*	*17,7*	*1,82*	*32*	*3,34*	*13,3*	*1,36*	*21,7*	*2,23*	8,84	0,9	*16,3*	*1,67*	6,63	0,68	10,9	1,11	4,42	0,45	5,42	0,56	2,21	0,23
750	2,25	0,56	*43,4*	*3,34*	*17,7*	*1,36*	*32*	*2,5*	13,3	1,02	*21,7*	*1,67*	8,84	0,68	*16,3*	*1,25*	6,63	0,51	10,9	0,84	4,42	0,39	5,42	0,42	2,21	0,2
500	1,50	0,37	*43,4*	*2,23*	17,7	0,9	*32*	*1,67*	13,3	0,68	21,7	1,11	8,84	0,45	16,3	0,84	6,63	0,34	10,9	0,56	4,42	0,23	5,42	0,28	2,21	0,11
200	0,60	0,15	43,4	0,89	17,7	0,38	32	0,67	13,3	0,28	21,7	0,44	8,84	0,2	16,3	0,34	6,63	0,14	10,9	0,22	4,42	0,1	5,42	0,11	2,21	0,06

Technical specifications

max. lifting power	50 kN
gear reduction	6:1 / 24:1
dimension of spindle*	Tr40x9 / Tr40x18P9
start-up moment	table entry x 1,3
casing material	GJS400-15
weight without lifting (kg)	18
weight of spindle per 100mm lifting (kg)	0,8
lubricant	grease
quantity of lubricant (kg)	0,35
max. driving power (duty cycle 20%/h)	1,2 kW
max. driving power (duty cycle 10%/h)	1,6 kW
*also available with spindle Tr40x7 or Tr40x14/7	

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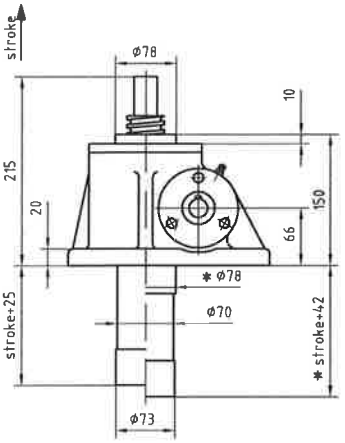
Internet: www.enzfelder.at

Screw jack SG 0100

Basic type (G)

above (0)



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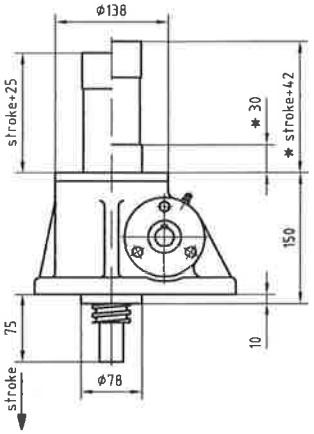
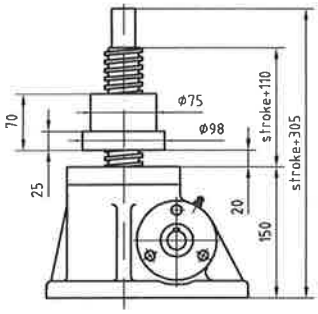


Traveling nut type (L)

above (0)



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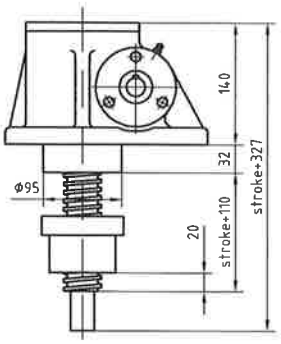
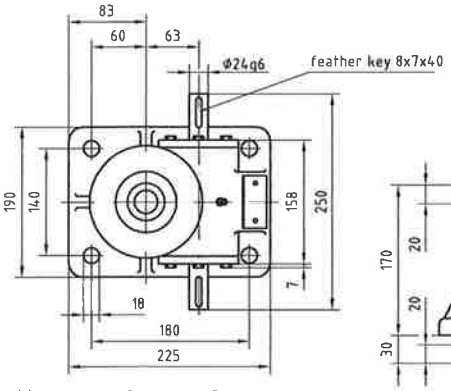
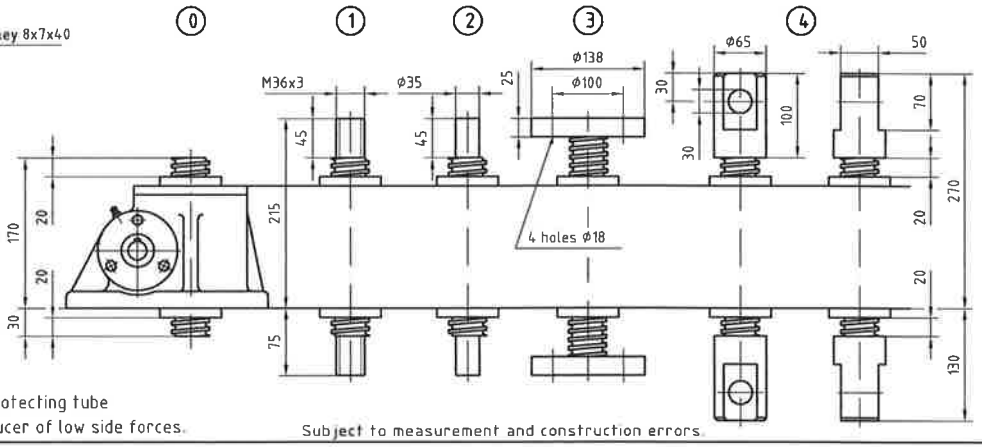


Spindle noses

Spindle noses 5 and 6 (page 28)





( ) see order ID on page 5 to 8

* Measurements for 2nd guide ring with protecting tube
The second guide ring is used as transducer of low side forces.

Subject to measurement and construction errors.

Tr 55x12 single-thread lifting power in kN

8:1 = 1,5mm/R
24:1 = 0,5mm/R

n_1	lift. speed m/min		100				80				60				40				20				10			
	8:1	24:1	8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1	
min^{-1}			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1800	2,70	0,90	*81*	*15,2*	*39*	*7,4*	*64,8*	*12,2*	*31,2*	*5,9*	*48,6*	*9,1*	*23,4*	*4,4*	*32,4*	*6,1*	*15,6*	*3*	*16,2*	*3,1*	7,8	1,5	8,1	1,5	3,9	0,75
1500	2,25	0,75	*81*	*12,7*	*39*	*6,1*	*64,8*	*10,2*	*31,2*	*4,9*	*48,6*	*7,6*	*23,4*	*3,7*	*32,4*	*5,1*	*15,6*	*2,5*	*16,2*	*2,5*	7,8	1,3	8,1	1,3	3,9	0,62
1000	1,50	0,50	*81*	*8,5*	*39*	*4,1*	*64,8*	*6,8*	*31,2*	*3,3*	*48,6*	*5,1*	*23,4*	*2,5*	*32,4*	*3,4*	15,6	1,6	16,2	1,7	7,8	0,8	8,1	0,85	3,9	0,42
750	1,125	0,375	*81*	*6,4*	*39*	*3,1*	*64,8*	*5,1*	*31,2*	*2,5*	*48,6*	*3,8*	23,4	1,9	*32,4*	*2,5*	15,6	1,3	16,2	1,3	7,8	0,62	8,1	0,63	3,9	0,31
500	0,75	0,25	*81*	*4,2*	39	2	*64,8*	*3,4*	31,2	1,65	*48,6*	*2,5*	23,4	1,3	32,4	1,7	15,6	0,82	16,2	0,85	7,8	0,41	8,1	0,42	3,9	0,21
200	0,30	0,10	81	1,7	39	0,82	64,8	1,4	31,2	0,65	48,6	1	23,4	0,5	32,4	0,68	15,6	0,33	16,2	0,35	7,8	0,17	8,1	0,18	3,9	0,10

Tr 55x24P12 double-thread lifting power in kN

8:1 = 3,0mm/R
24:1 = 1,0mm/R

n_1	lift. speed m/min		80				60				40				20				10				5			
	8:1	24:1	8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1	
min^{-1}			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1800	5,40	1,80	*91,2*	*16,8*	*47,2*	*8,7*	*68,4*	*12,6*	*31,7*	*6,5*	*45,6*	*8,4*	*21,1*	*4,4*	*22,8*	*4,2*	*10,6*	*2,2*	11,4	2,1	5,3	1,1	5,7	1,1	2,7	0,6
1500	4,50	1,50	*91,2*	*14*	*47,2*	*7,3*	*68,4*	*10,5*	*31,7*	*5,5*	*45,6*	*7*	*21,1*	*3,6*	*22,8*	*3,5*	10,6	1,8	11,4	1,8	5,3	0,9	5,7	0,9	2,7	0,5
1000	3,00	1,00	*91,2*	*9,3*	*47,2*	*4,9*	*68,4*	*7*	*31,7*	*3,6*	*45,6*	*4,7*	*21,1*	*2,4*	*22,8*	*2,3*	10,6	1,2	11,4	1,2	5,3	0,6	5,7	0,6	2,7	0,4
750	2,25	0,75	*91,2*	*7*	*47,2*	*3,6*	*68,4*	*5,3*	*31,7*	*2,8*	*45,6*	*3,5*	21,1	1,8	22,8	1,75	10,6	0,9	11,4	0,9	5,3	0,5	5,7	0,5	2,7	0,3
500	1,50	0,50	*91,2*	*4,7*	*47,2*	*2,4*	*68,4*	*3,5*	31,7	1,8	*45,6*	*2,3*	21,1	1,2	22,8	1,2	10,6	0,6	11,4	0,6	5,3	0,3	5,7	0,3	2,7	0,2
200	0,60	0,20	91,2	1,9	47,2	1,0	68,4	1,4	31,7	0,8	45,6	1,0	21,1	0,6	22,8	0,5	10,6	0,3	11,4	0,3	5,3	0,2	5,7	0,2	2,7	0,2

RPM, power demand and admissible lifting speed at a reduction of 10:1 and 20:1 single-thread and double-thread spindle actuated, apply to the dynamic lifting power and a 20%/h or 30%/10min duty cycle at 20°C.
In the range of the spaces containing italics (above the lines) the spindle gears are overheated, the surface pressure in the thread is too high. We do not furnish a guarantee in this area.
However, it is feasible to transmit higher powers at a reduced duty cycle, or lower powers at a higher temperature (see preselection table, page 4).
Please ask for further information.

For lifting speeds higher than those given in the tables, also oil-lubricated ball bearing spindles or special reductions are available.

Technical specifications

max. lifting power	100 kN
gear reduction	8:1 / 24:1
dimension of spindle	Tr55x12 / Tr55x24P12
start-up moment	table entry x 1,3
casing material	GJS400-15
weight without lifting (kg)	23
weight of spindle per 100mm lifting (kg)	1,5
lubricant	grease
quantity of lubricant (kg)	0,6
max. driving power (duty cycle 20%/h)	2,1 kW
max. driving power (duty cycle 10%/h)	2,8 kW

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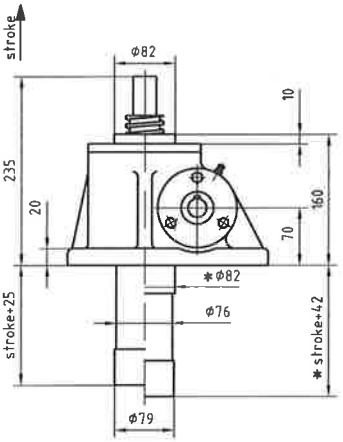
E-Mail: office@enzfelder.at
Internet: www.enzfelder.at

Screw jack SG 0150

Basic type (G)

above (0)



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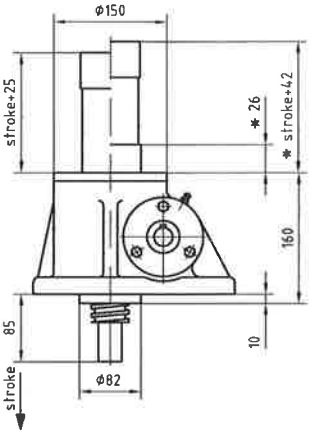
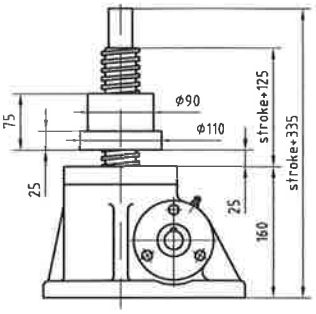


Traveling nut type (L)

above (0)



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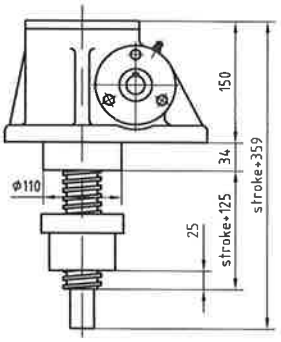
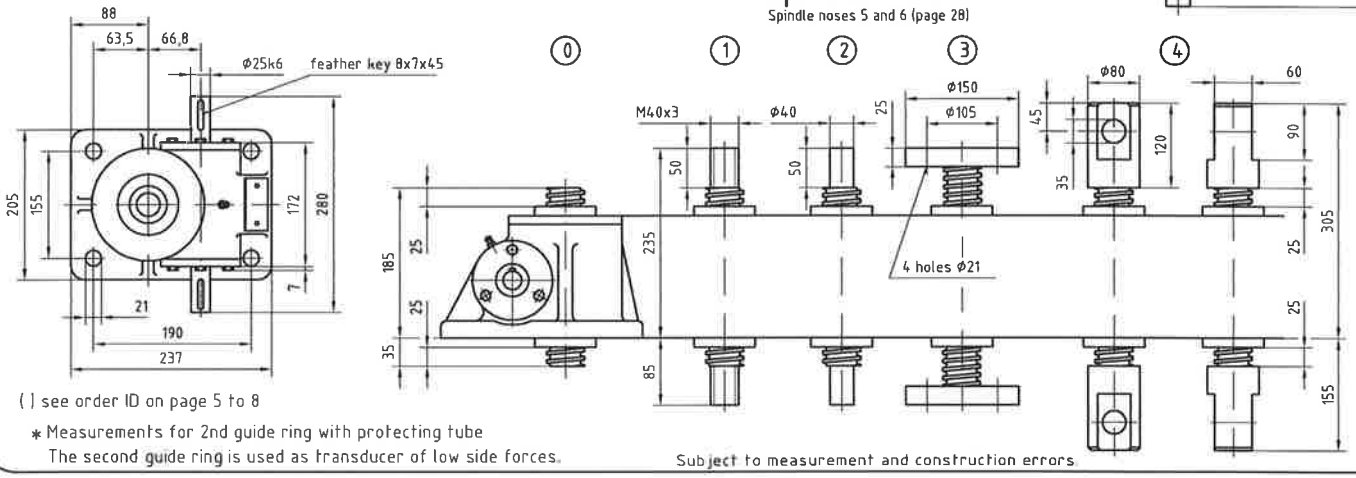


Spindle noses

Spindle noses 5 and 6 (page 28)



( ) see order ID on page 5 to 8

* Measurements for 2nd guide ring with protecting tube
The second guide ring is used as transducer of low side forces.

Subject to measurement and construction errors.

Tr 60x12 single-thread lifting power in kN

8:1 = 1,5mm/R
24:1 = 0,5mm/R

n_1	lift. speed m/min		150				120				100				80				50				20			
	8:1	24:1	8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1	
min^{-1}			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1500	2,25	0,75	*133*	*20,4*	*68,2*	*10,5*	*106*	*16,3*	*54,6*	*8,4*	*89*	*13,6*	*45,5*	*7*	*71*	*10,9*	*36,4*	*5,6*	*44,3*	*6,8*	*22,7*	*3,5*	17,7	2,7	9,1	1,4
1000	1,50	0,50	*133*	*13,6*	*68,2*	*7,0*	*106*	*10,9*	*54,6*	*5,6*	*89*	*9,1*	*45,5*	*4,7*	*71*	*7,3*	*36,4*	*3,8*	*44,3*	*4,6*	22,7	2,4	17,7	1,8	9,1	1,0
750	1,125	0,375	*133*	*10,2*	*68,2*	*5,3*	*106*	*8,2*	*54,6*	*4,2*	*89*	*6,8*	*45,5*	*3,5*	*71*	*5,5*	36,4	2,8	*44,3*	*3,4*	22,7	1,8	17,7	1,4	9,1	0,7
500	0,75	0,25	*133*	*6,8*	*68,2*	*3,5*	*106*	*5,5*	54,6	2,8	*89*	*4,6*	45,5	2,4	*71*	*3,7*	36,4	1,9	44,3	2,3	22,7	1,2	17,7	0,9	9,1	0,5
320	0,48	0,16	*133*	*4,4*	68,2	2,3	*106*	*3,5*	54,6	1,8	*89*	*2,9*	45,5	1,5	71	2,4	36,4	1,2	44,3	1,5	22,7	0,8	17,7	0,6	9,1	0,3
160	0,24	0,08	133	2,2	68,2	1,2	106	1,8	54,6	0,9	89	1,5	45,5	0,8	71	1,2	36,4	0,6	44,3	0,8	22,7	0,4	17,7	0,3	9,1	0,2

RPM, power demand and admissible lifting speed at a reduction of 10:1 and 20:1 single-thread and double-thread spindle actuated, apply to the dynamic lifting power and a 20%/h or 30%/10min duty cycle at 20°C.
In the range of the spaces containing italics (above the lines) the spindle gears are overheated, the surface pressure in the thread is too high. We do not furnish a guarantee in this area.
However, it is feasible to transmit higher powers at a reduced duty cycle, or lower powers at a higher temperature (see preselection table, page 4).
Please ask for further information.

For lifting speeds higher than those given in the tables, also oil-lubricated ball bearing spindles or special reductions are available.

Tr 60x24P12 double-thread lifting power in kN

8:1 = 3,0mm/R
24:1 = 1,0mm/R

n_1	lift. speed m/min		120				100				80				50				20				10			
	8:1	24:1	8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1	
min^{-1}			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1500	4,50	1,50	*151*	*23,2*	*77*	*11,8*	*126*	*19,4*	*64,2*	*9,8*	*101*	*15,5*	*51,3*	*7,8*	*62,9*	*9,7*	*32,1*	*4,9*	*25,2*	*3,9*	12,8	2,0	12,6	2,0	6,4	1,0
1000	3,00	1,00	*151*	*15,5*	*77*	*7,9*	*126*	*12,9*	*64,2*	*6,6*	*101*	*10,3*	*51,3*	*5,3*	*62,9*	*6,5*	*32,1*	*3,3*	25,2	2,6	12,8	1,3	12,6	1,3	6,4	0,7
750	2,25	0,75	*151*	*11,6*	*77*	*5,9*	*126*	*9,7*	*64,2*	*4,9*	*101*	*7,7*	*51,3*	*4*	*62,9*	*4,8*	32,1	2,5	25,2	2,0	12,8	1,0	12,6	1,0	6,4	0,5
500	1,50	0,50	*151*	*7,7*	*77*	*3,9*	*126*	*6,5*	*64,2*	*3,3*	*101*	*5,2*	51,3	2,6	*62,9*	*3,2*	32,1	1,6	25,2	1,3	12,8	0,7	12,6	0,7	6,4	0,4
320	0,96	0,32	*151*	*5*	77	2,5	*126*	*4,2*	64,2	2,1	*101*	*3,3*	51,3	1,7	62,9	2,1	32,1	1,1	25,2	0,8	12,8	0,5	12,6	0,4	6,4	0,3
160	0,48	0,16	151	2,5	77	1,3	126	2,1	64,2	1,1	101	1,7	51,3	0,9	62,9	1,1	32,1	0,6	25,2	0,4	12,8	0,3	12,6	0,2	6,4	0,2

Technical specifications

max. lifting power	150 kN
gear reduction	8:1 / 24:1
dimension of spindle	Tr60x12 / Tr60x24P12
start-up moment	table entry x 1,3
casing material	GJS400-15
weight without lifting (kg)	28
weight of spindle per 100mm lifting (kg)	1,8
lubricant	grease
quantity of lubricant (kg)	0,8
max. driving power (duty cycle 20%/h)	2,8 kW
max. driving power (duty cycle 10%/h)	3,8 kW

Screw jack SG 0200

ENZFELDER GmbH.
WERK ENZESFELD:
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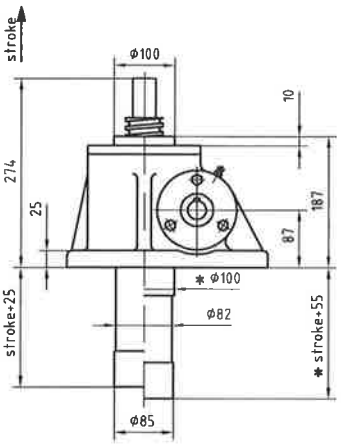
Tel.:++43(0)2256/81287
Fax.:++43(0)2256/81287-95
E-Mail: office@enzfelder.at
Internet: www.enzfelder.at

Basic type (G)

above (O)



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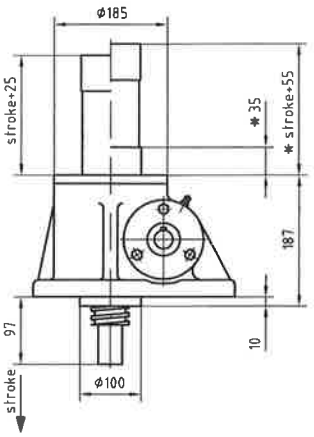
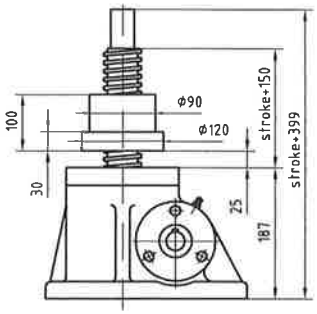


Traveling nut type (L)

above (O)



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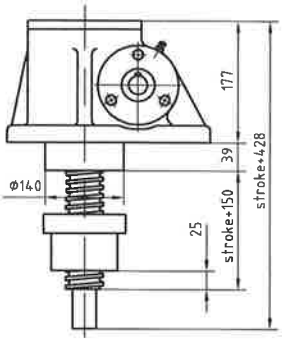
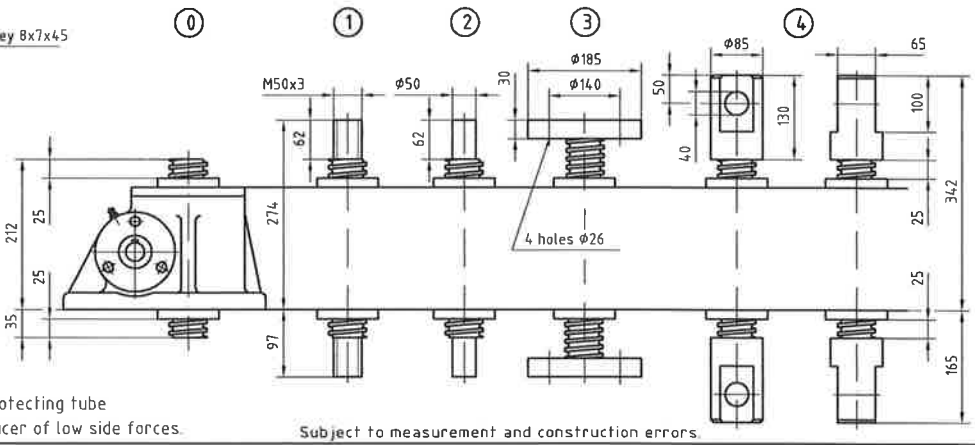
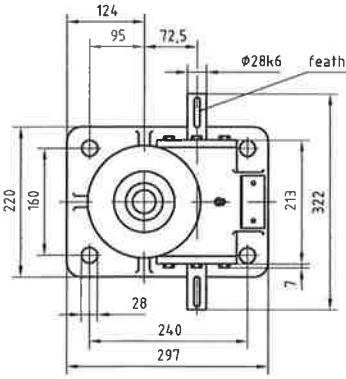


Spindle noses

Spindle noses 5 and 6 (page 28)





( ) see order ID on page 5 to 8

* Measurements for 2nd guide ring with protecting tube
The second guide ring is used as transducer of low side forces.

Subject to measurement and construction errors.

Tr 65x12 single-thread lifting power in kN

8:1 = 1,5mm/R
24:1 = 0,5mm/R

n_1	lift. speed m/min		200				150				100				75				50				25			
	8:1	24:1	8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1	
min^{-1}			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1500	2,25	0,75	184	28,3	93,6	14,4	138	21,2	70,2	10,8	92	14,2	46,8	7,2	69	10,6	35,1	5,4	46	7,1	23,4	3,6	23	3,6	11,7	1,8
1000	1,50	0,50	184	18,9	93,6	9,6	138	14,2	70,2	7,2	92	9,5	46,8	4,8	69	7,1	35,1	3,6	46	4,7	23,4	2,4	23	2,3	11,7	1,2
750	1,125	0,375	184	14,2	93,6	7,2	138	10,6	70,2	5,4	92	7,1	46,8	3,6	69	5,3	35,1	2,7	46	3,6	23,4	1,8	23	1,6	11,7	0,9
500	0,75	0,25	184	9,4	93,6	4,8	138	7,1	70,2	3,6	92	4,7	46,8	2,4	69	3,6	35,1	1,8	46	2,3	23,4	1,2	23	1,2	11,7	0,7
320	0,48	0,16	184	6	93,6	3,1	138	4,5	70,2	2,3	92	3,0	46,8	1,6	69	2,3	35,1	1,2	46	1,6	23,4	0,8	23	0,8	11,7	0,5
160	0,24	0,08	184	3,0	93,6	1,6	138	2,3	70,2	1,2	92	1,6	46,8	0,8	69	1,2	35,1	0,6	46	0,8	23,4	0,5	23	0,5	11,7	0,4

Tr 65x24P12 double-thread lifting power in kN

8:1 = 3,0mm/R
24:1 = 1,0mm/R

n_1	lift. speed m/min		150				100				75				50				25				16			
	8:1	24:1	8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1		8:1		24:1	
min^{-1}			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1500	4,50	1,50	194	29,8	100	15,4	130	20	66,7	10,2	97	15,5	50	7,7	64,7	10	33,3	5,1	32,4	5	16,7	2,6	20,7	3,2	10,7	1,7
1000	3,00	1,00	194	20	100	10,2	130	13,3	66,7	6,8	97	10,3	50	5,1	64,7	6,7	33,3	3,4	32,4	3,4	16,7	1,7	20,7	2,2	10,7	1,2
750	2,25	0,75	194	15	100	7,7	130	10	66,7	5,1	97	7,8	50	3,9	64,7	5	33,3	2,6	32,4	2,5	16,7	1,3	20,7	1,6	10,7	0,9
500	1,50	0,50	194	10	100	5,1	130	6,7	66,7	3,4	97	5,2	50	2,6	64,7	3,4	33,3	1,7	32,4	1,7	16,7	0,9	20,7	1,1	10,7	0,6
320	0,96	0,32	194	6,4	100	3,3	130	4,3	66,7	2,2	97	3,3	50	1,7	64,7	2,2	33,3	1,1	32,4	1,1	16,7	0,6	20,7	0,7	10,7	0,5
160	0,48	0,16	194	3,2	100	1,7	130	2,2	66,7	1,1	97	1,7	50	0,9	64,7	1,1	33,3	0,6	32,4	0,6	16,7	0,5	20,7	0,5	10,7	0,5

RPM, power demand and admissible lifting speed at a reduction of 10:1 and 20:1 single-thread and double-thread spindle actuated, apply to the dynamic lifting power and a 20%/h or 30%/10min duty cycle at 20°C.
In the range of the spaces containing italics (above the lines) the spindle gears are overheated, the surface pressure in the thread is too high. We do not furnish a guarantee in this area.
However, it is feasible to transmit higher powers at a reduced duty cycle, or lower powers at a higher temperature (see preselection table, page 4).
Please ask for further information.

For lifting speeds higher than those given in the tables, also oil-lubricated ball bearing spindles or special reductions are available.

Technical specifications

max. lifting power	200 kN
gear reduction	8:1 / 24:1
dimension of spindle	Tr65x12 / Tr65x24P12
start-up moment	table entry x 1,3
casing material	GJS400-15
weight without lifting (kg)	40
weight of spindle per 100mm lifting (kg)	2,15
lubricant	grease
quantity of lubricant (kg)	1,2
max. driving power (duty cycle 20%/h)	3,9 kW
max. driving power (duty cycle 10%/h)	5,1 kW

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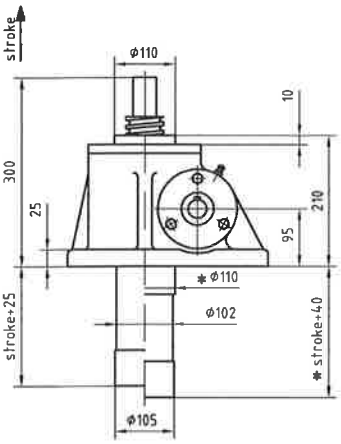
E-Mail: office@enzfelder.at
Internet: www.enzfelder.at

Screw jack SG 0240

Basic type (G)

above (0)



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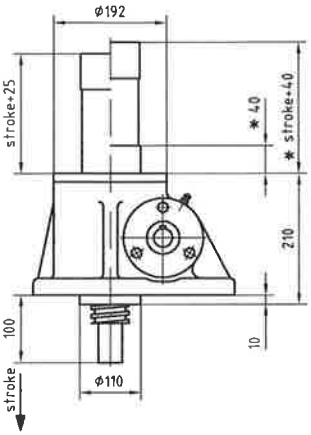
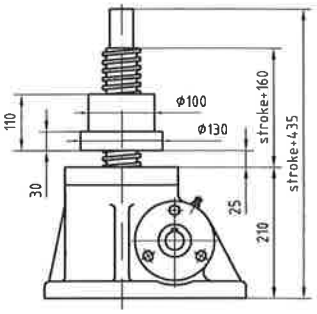


Traveling nut type (L)

above (0)



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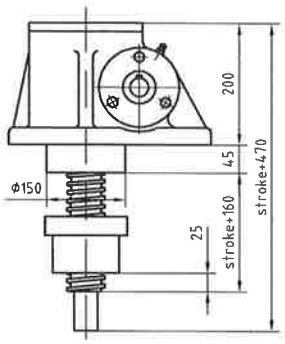
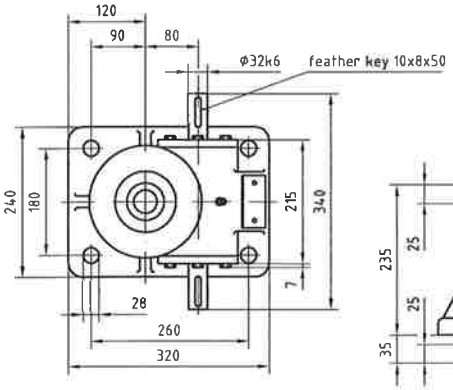
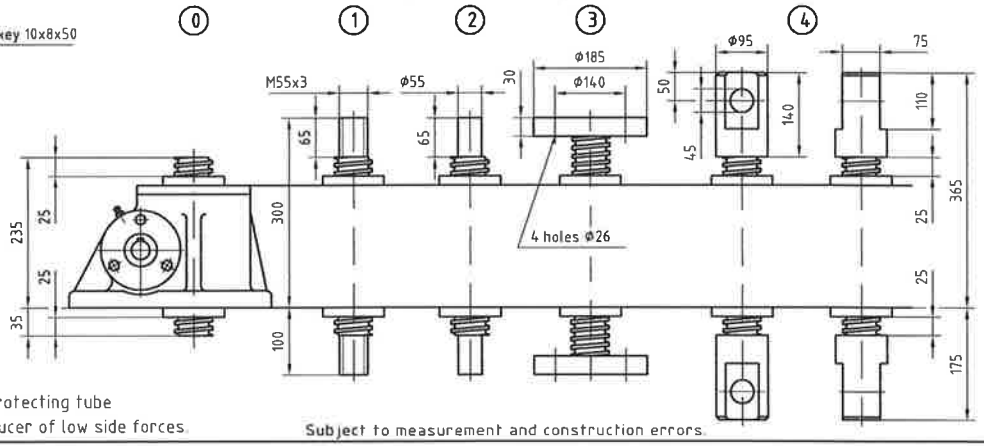


Spindle noses

Spindle noses 5 and 6 (page 28)





( ) see order ID on page 5 to 8

* Measurements for 2nd guide ring with protecting tube
The second guide ring is used as transducer of low side forces.

Subject to measurement and construction errors.

Tr 75x14 single-thread lifting power in kN

9⅓ :1 = 1,5mm/R
28:1 = 0,5mm/R

n_1	lift speed m/min		240				160				120				80				60				40			
	9⅓:1	28:1	9⅓:1		28:1		9⅓:1		28:1		9⅓:1		28:1		9⅓:1		28:1		9⅓:1		28:1		9⅓:1		28:1	
min^{-1}			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1500	2,25	0,75	*221*	*35,3*	*112*	*17,3*	*147*	*23,5*	*74,7*	*11,6*	*110*	*17,7*	56	8,7	*73,7*	*11,8*	*37,3*	*5,8*	*55,3*	*8,8*	28,0	4,4	*36,8*	*5,9*	18,7	2,9
1000	1,50	0,50	*221*	*23,6*	*112*	*11,6*	*147*	*15,7*	*74,7*	*7,7*	*110*	*11,8*	56	5,8	*73,7*	*7,9*	37,3	3,8	*55,3*	*5,9*	28,0	2,9	36,8	4,0	18,7	1,9
750	1,125	0,375	*221*	*17,7*	*112*	*8,7*	*147*	*11,8*	*74,7*	*5,8*	*110*	*8,9*	56	4,4	*73,7*	*5,9*	37,3	2,9	55,3	4,4	28,0	2,2	36,8	3,0	18,7	1,5
500	0,75	0,25	*221*	*11,8*	*112*	*5,8*	*147*	*7,9*	74,7	3,8	*110*	*5,9*	56	2,9	73,7	4,0	37,3	1,9	55,3	3,0	28,0	1,5	36,8	2,0	18,7	0,9
320	0,48	0,16	*221*	*7,6*	112	3,7	*147*	*5,1*	74,7	2,5	110	3,8	56	1,9	73,7	2,5	37,3	1,3	55,3	1,9	28,0	1,0	36,8	1,3	18,7	0,7
160	0,24	0,08	221	3,8	112	1,9	147	2,6	74,7	1,3	110	1,9	56	1,0	73,7	1,3	37,3	0,7	55,3	1,0	28,0	0,6	36,8	0,7	18,7	0,5

Tr 75x28P14 double-thread lifting power in kN

9⅓ :1 = 3,0mm/R
28:1 = 1,0mm/R

n_1	lift speed m/min		180				120				90				60				45				30			
	9⅓:1	28:1	9⅓:1		28:1		9⅓:1		28:1		9⅓:1		28:1		9⅓:1		28:1		9⅓:1		28:1		9⅓:1		28:1	
min^{-1}			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1500	4,50	1,50	*232*	*35,8*	*120*	*18,4*	*155*	*23,8*	*80*	*12,2*	*116*	*17,9*	*60*	*9,2*	*77,3*	*11,9*	*40*	*6,1*	*58*	*9*	*30*	*4,6*	*38,7*	*6*	40	3,2
1000	3,00	1,00	*232*	*23,8*	*120*	*12,2*	*155*	*16*	*80*	*8,1*	*116*	*11,9*	*60*	*6,1*	*77,3*	*8*	40	4	*58*	*6*	30	3,2	38,7	4	40	2
750	2,25	0,75	*232*	*17,9*	*120*	*9,2*	*155*	*11,9*	*80*	*6,1*	*116*	*9*	*60*	*4,6*	*77,3*	*6*	40	3,2	58	4,5	30	2,3	38,7	3	40	1,6
500	1,50	0,50	*232*	*11,9*	*120*	*6,1*	*155*	*8*	80	4	*116*	*6*	60	3,2	77,3	4	40	2	58	3	30	1,6	38,7	2	40	1
320	0,96	0,32	*232*	*7,6*	120	4	*155*	*5,1*	80	2	116	4	60	2	77,3	2,6	40	1	58	2	30	1	38,7	1,3	40	0,6
160	0,48	0,16	232	3,8	120	2	155	2,6	80	1	116	2	60	1	77,3	1,3	40	0,6	58	1	30	0,6	38,7	0,8	40	0,5

RPM, power demand and admissible lifting speed at a reduction of 10:1 and 20:1 single-thread and double-thread spindle actuated, apply to the dynamic lifting power and a 20%/h or 30%/10min duty cycle at 20°C.
In the range of the spaces containing italics (above the lines) the spindle gears are overheated, the surface pressure in the thread is too high. We do not furnish a guarantee in this area.
However, it is feasible to transmit higher powers at a reduced duty cycle, or lower powers at a higher temperature (see preselection table, page 4).
Please ask for further information.

For lifting speeds higher than those given in the tables, also oil-lubricated ball bearing spindles or special reductions are available.

Technical specifications

max. lifting power	240 kN
gear reduction	9⅓1 / 28:1
dimension of spindle	Tr75x14 / Tr75x28P14
start-up moment	table entry x 1,3
casing material	GJS400-15
weight without lifting (kg)	58
weight of spindle per 100mm lifting (kg)	2,8
lubricant	grease
quantity of lubricant (kg)	1,5
max. driving power (duty cycle 20%/h)	4,5 kW
max. driving power (duty cycle 10%/h)	5,9 kW

Screw jack SG 0300

ENZFELDER GmbH.
WERK ENZESFELD:
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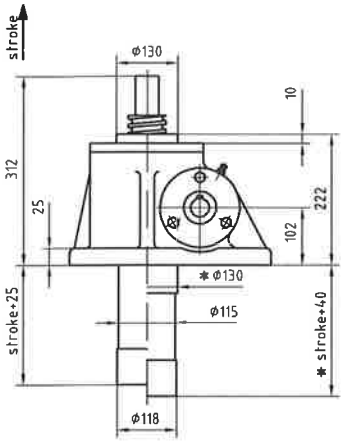
Tel.:++43(0)2256/81287
Fax.:++43(0)2256/81287-95
E-Mail: office@enzfelder.at
Internet: www.enzfelder.at

Basic type (G)

above (0)



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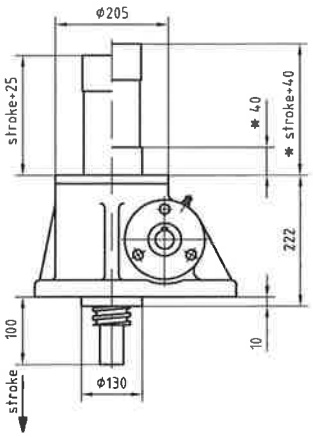
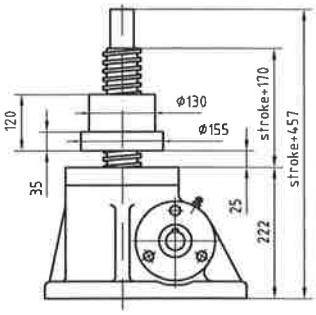


Traveling nut type (L)

above (0)



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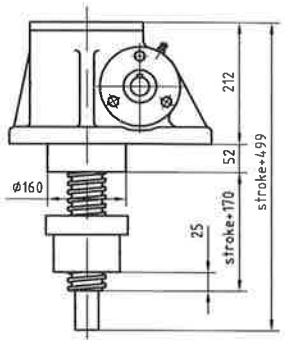
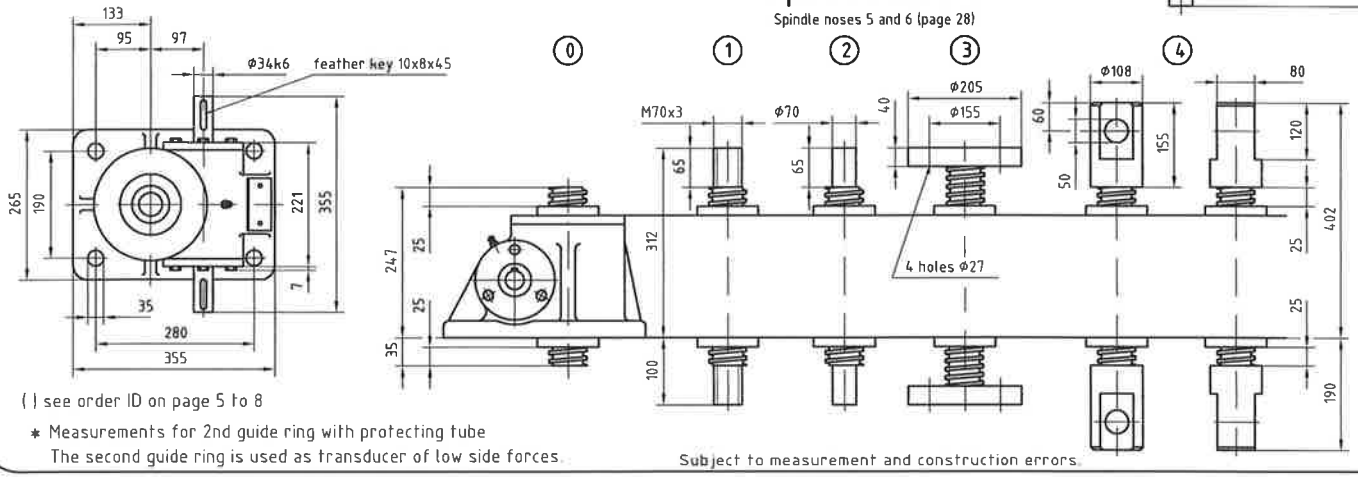


Spindle noses

Spindle noses 5 and 6 (page 28)



( ) see order ID on page 5 to 8

* Measurements for 2nd guide ring with protecting tube
The second guide ring is used as transducer of low side forces.

Subject to measurement and construction errors.

Tr 90x16 single-thread lifting power in kN

10³⁄₁ = 1,5mm/R
32:1 = 0,5mm/R

n_1	lift. speed m/min		300				200				150				100				75				50			
	10³⁄₁	32:1	10³⁄₁		32:1		10³⁄₁		32:1		10³⁄₁		32:1		10³⁄₁		32:1		10³⁄₁		32:1		10³⁄₁		32:1	
min⁻¹			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1000	1,50	0,50	*286*	*29,4*	*14,9*	*15,3*	*191*	*19,6*	*99,3*	*10,2*	*143*	*14,7*	*74,5*	*7,7*	*95*	*9,8*	49,7	5,1	*71,6*	*7,4*	37,3	3,9	47,7	4,9	24,8	2,6
750	1,125	0,375	*286*	*22,1*	*14,9*	*11,5*	*191*	*14,7*	*99,3*	*7,7*	*143*	*11,1*	*74,5*	*5,8*	*95*	*7,4*	49,7	3,9	*71,6*	*5,5*	37,3	2,9	47,7	3,7	24,8	2
500	0,75	0,25	*286*	*14,7*	*14,9*	*7,7*	*191*	*9,8*	99,3	5,1	*143*	*7,4*	74,5	3,9	95	4,9	49,7	2,6	71,6	3,7	37,3	2	47,7	2,5	24,8	1,3
360	0,54	0,18	*286*	*10,6*	*14,9*	*5,5*	*191*	*7,1*	99,3	3,7	143	5,2	74,5	2,8	95	3,6	49,7	1,9	71,6	2,7	37,3	1,4	47,7	1,8	24,8	1
240	0,36	0,12	*286*	*7,1*	149	3,7	191	4,8	99,3	2,5	143	3,6	74,5	1,9	95	2,4	49,7	1,3	71,6	1,8	37,3	1	47,7	1,2	24,8	0,8
120	0,18	0,06	286	3,6	149	1,9	191	2,4	99,3	1,3	143	1,8	74,5	1	95	1,2	49,7	0,8	71,6	1	37,3	0,7	47,7	0,7	24,8	0,6

Tr 90x32P16 double-thread lifting power in kN

10³⁄₁ = 3,0mm/R
32:1 = 1,0mm/R

n_1	lift. speed m/min		220				160				120				80				60				40			
	10³⁄₁	32:1	10³⁄₁		32:1		10³⁄₁		32:1		10³⁄₁		32:1		10³⁄₁		32:1		10³⁄₁		32:1		10³⁄₁		32:1	
min⁻¹			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1000	3,00	1,00	*284*	*29,2*	*14,6*	*15*	*207*	*21,2*	*106*	*10,9*	*155*	*16*	*79,6*	*7,3*	*103*	*10,6*	*53,1*	*5,8*	*77,5*	*8*	39,8	3,7	51,7	5,2	26,6	2,9
750	2,25	0,75	*284*	*21,9*	*14,6*	*11,3*	*207*	*15,9*	*106*	*8,2*	*155*	*12*	*79,6*	*5,5*	*103*	*8*	53,1	4,1	*77,5*	*6*	39,8	2,8	51,7	4	26,6	2,2
500	1,50	0,50	*284*	*14,6*	*14,6*	*7,5*	*207*	*10,6*	*106*	*5,5*	*155*	*8*	79,6	3,7	103	5,2	53,1	2,8	77,5	4	39,8	2	51,7	2,7	26,6	1,5
360	1,08	0,36	*284*	*10,5*	*14,6*	*5,4*	*207*	*7,7*	106	4	155	5,2	79,6	2,7	103	3,9	53,1	2,1	77,5	2,6	39,8	1,5	51,7	2	26,6	1,1
240	0,72	0,24	*284*	*7*	146	3,6	207	5,2	106	2,8	155	3,5	79,6	1,9	103	2,6	53,1	1,5	77,5	1,8	39,8	1,1	51,7	1,4	26,6	0,8
120	0,36	0,12	284	3,5	146	1,8	207	2,6	106	1,4	155	1,8	79,6	1	103	1,5	53,1	0,9	77,5	1,1	39,8	0,7	51,7	0,9	26,6	0,6

RPM, power demand and admissible lifting speed at a reduction of 10:1 and 20:1 single-thread and double-thread spindle actuated, apply to the dynamic lifting power and a 20%/h or 30%/10min duty cycle at 20°C.
In the range of the spaces containing italics (above the lines) the spindle gears are overheated, the surface pressure in the thread is too high. We do not furnish a guarantee in this area.
However, it is feasible to transmit higher powers at a reduced duty cycle, or lower powers at a higher temperature (see preselection table, page 4).
Please ask for further information.

For lifting speeds higher than those given in the tables, also oil-lubricated ball bearing spindles or special reductions are available.

Technical specifications

max. lifting power	300 kN
gear reduction	10³⁄₁ / 32:1
dimension of spindle	Tr90x16 / Tr90x32P16
start-up moment	table entry x 1,3
casing material	GJS400-15
weight without lifting (kg)	75
weight of spindle per 100mm lifting (kg)	4,2
lubricant	grease
quantity of lubricant (kg)	1,7
max. driving power (duty cycle 20%/h)	5,2 kW
max. driving power (duty cycle 10%/h)	6,9 kW

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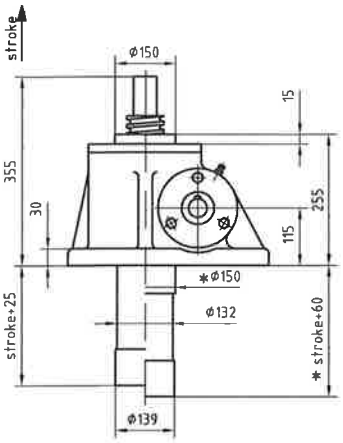
Internet: www.enzfelder.at

Screw jack SG 0350

Basic type (G)

above (O)



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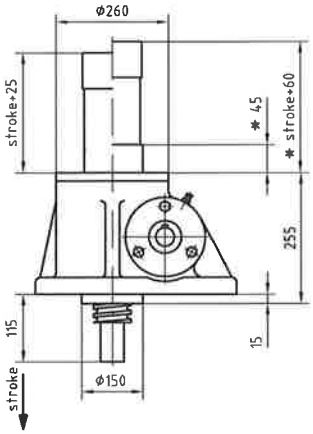
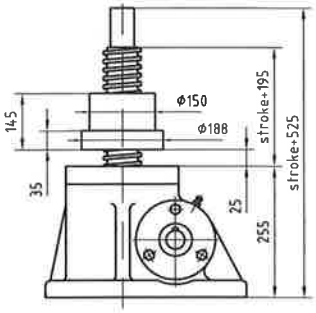


Traveling nut type (L)

above (O)



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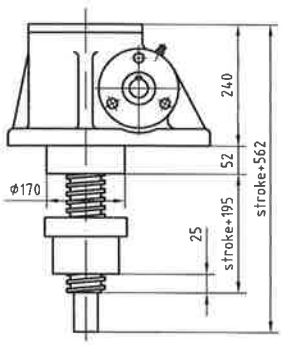
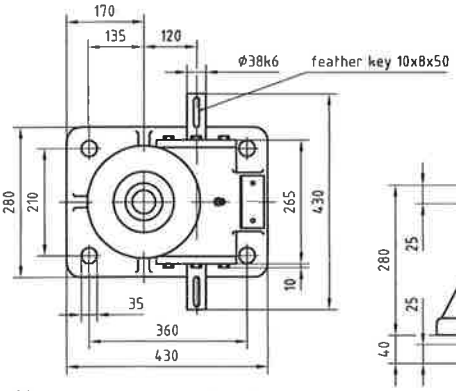
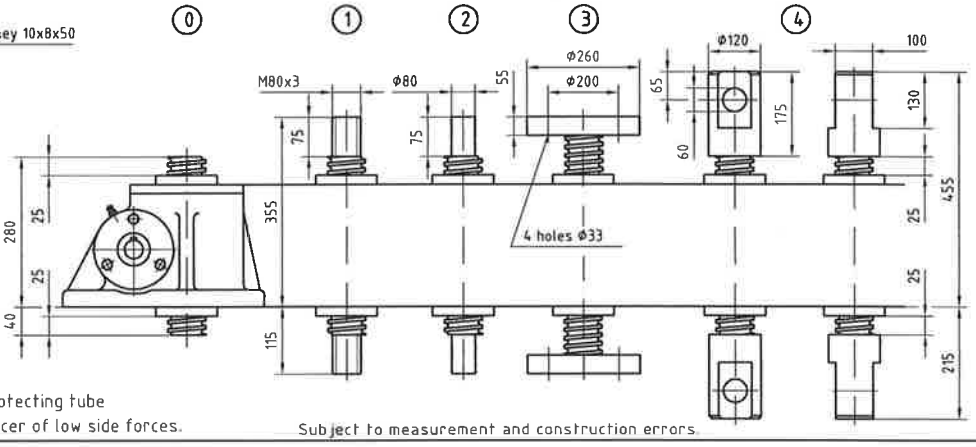




Spindle noses

Spindle noses 5 and 6 (page 28)



( ) see order ID on page 5 to 8

* Measurements for 2nd guide ring with protecting tube
The second guide ring is used as transducer of low side forces.

Subject to measurement and construction errors.

Tr 100x16 single-thread lifting power in kN

10⅔:1 = 1,5mm/R
32:1 = 0,5mm/R

n_1	lift speed m/min		350				250				200				150				100				50			
	10⅔:1	32:1	10⅔:1		32:1		10⅔:1		32:1		10⅔:1		32:1		10⅔:1		32:1		10⅔:1		32:1		10⅔:1		32:1	
min^{-1}			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1000	1,50	0,50	*363*	*37,3*	186	19,1	*260*	*26,6*	133	13,7	*208*	*21,3*	106	10,9	*156*	*16*	*79,7*	*8,2*	*104*	*10,7*	53,1	5,5	51,9	5,4	26,6	2,8
750	1,125	0,375	*363*	*28*	186	14,3	*260*	*20*	133	10,2	*208*	*16*	*106*	*8,2*	*156*	*12*	79,7	6,2	*104*	*8*	53,1	4,1	51,9	4	26,6	2,1
500	0,75	0,25	*363*	*18,7*	186	9,6	*260*	*13,3*	133	6,8	*208*	*10,7*	106	5,5	*156*	*8*	79,7	4,1	104	5,4	53,1	2,8	51,9	2,7	26,6	1,5
360	0,54	0,18	*363*	*13,4*	186	6,9	*260*	*9,6*	133	5	*208*	*7,7*	106	4	156	5,8	79,7	3	104	3,9	53,1	2,1	51,9	2	26,6	1,1
240	0,36	0,12	*363*	*9*	186	4,6	*260*	*6,4*	133	3,3	208	5,2	106	2,6	156	4	79,7	2,1	104	2,8	53,1	1,5	51,9	1,5	26,6	0,9
120	0,18	0,06	363	4,5	186	2,4	260	3,2	133	1,8	208	2,6	106	1,4	156	2	79,7	1,1	104	1,4	53,1	0,9	51,9	0,8	26,6	0,6

RPM, power demand and admissible lifting speed at a reduction of 10:1 and 20:1 single-thread and double-thread spindle actuated, apply to the dynamic lifting power and a 20%/h or 30%/10min duty cycle at 20°C.
In the range of the spaces containing italics (above the lines) the spindle gears are overheated, the surface pressure in the thread is too high. We do not furnish a guarantee in this area.
However, it is feasible to transmit higher powers at a reduced duty cycle, or lower powers at a higher temperature (see preselection table, page 4).
Please ask for further information.

For lifting speeds higher than those given in the tables, also oil-lubricated ball bearing spindles or special reductions are available.

Tr 100x32P16 double-thread lifting power in kN

10⅔:1 = 3,0mm/R
32:1 = 1,0mm/R

n_1	lift speed m/min		280				200				150				100				60				40			
	10⅔:1	32:1	10⅔:1		32:1		10⅔:1		32:1		10⅔:1		32:1		10⅔:1		32:1		10⅔:1		32:1		10⅔:1		32:1	
min^{-1}			Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
1000	3,00	1,00	*393*	*40,4*	*203*	*21,2*	*281*	*28,8*	*145*	*15,1*	*211*	*21,6*	*109*	*11,3*	*141*	*14,4*	*72,5*	*7,6*	*84,2*	*8,7*	43,5	4,6	56,1	4,4	29	3,1
750	2,25	0,75	*393*	*30,3*	*203*	*15,9*	*281*	*21,6*	*145*	*11,4*	*211*	*16,2*	*109*	*8,6*	*141*	*10,8*	72,5	5,7	*84,2*	*6,6*	43,5	3,5	56,1	3,3	29	2,5
500	1,50	0,50	*393*	*20,2*	*203*	*10,6*	*281*	*14,4*	*145*	*7,6*	*211*	*10,8*	*109*	*10,7*	*141*	*7,2*	72,5	3,8	84,2	4,4	43,5	2,4	56,1	2,3	29	1,8
360	1,08	0,36	*393*	*14,6*	*203*	*7,6*	*281*	*10,4*	145	5,6	*211*	*7,8*	109	4,2	141	5,2	72,5	2,9	84,2	3,3	43,5	1,9	56,1	1,8	29	1,3
240	0,72	0,24	*393*	*9,7*	203	5,2	*281*	*7*	145	3,8	211	5,2	109	2,9	141	3,5	72,5	2	84,2	2,2	43,5	1,3	56,1	1,2	29	1,0
120	0,36	0,12	393	4,9	203	2,6	281	3,5	145	2	211	2,6	109	1,5	141	1,9	72,5	1,2	84,2	1,2	43,5	0,8	56,1	0,7	29	0,6

Technical specifications

max. lifting power	350 kN
gear reduction	10⅔:1 / 32:1
dimension of spindle	Tr100x16 / Tr100x32P16
start-up moment	table entry x 1,3
casing material	GJS400-15
weight without lifting (kg)	90
weight of spindle per 100mm lifting (kg)	5,2
lubricant	grease
quantity of lubricant (kg)	2,2
max. driving power (duty cycle 20%/h)	6,2 kW
max. driving power (duty cycle 10%/h)	8,3 kW

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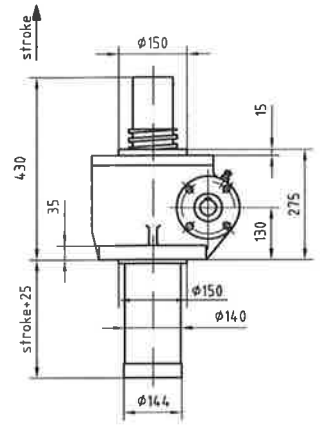
Internet: www.enzfelder.at

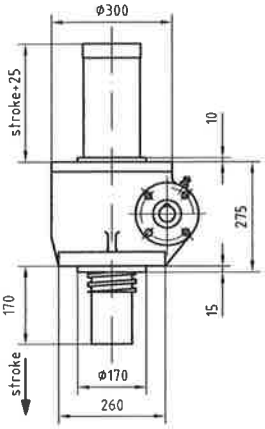
Screw jack SG 0500

Basic type (G)

above (O)

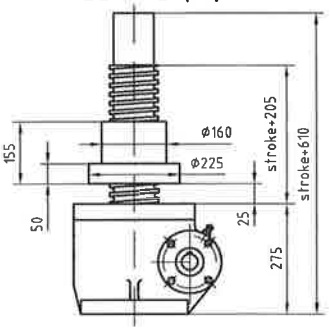


below (U)



Traveling nut type (L)

above (O)



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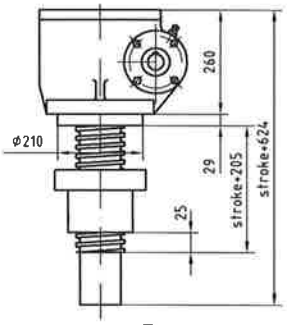
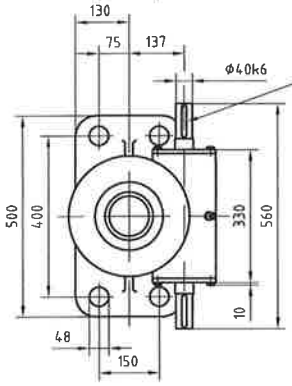
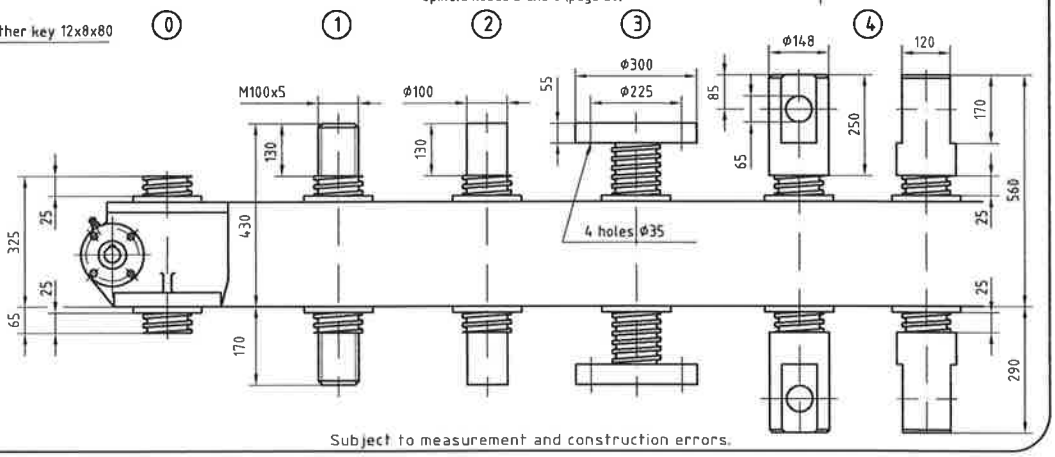




Spindle noses

Spindle noses 5 and 6 (page 28)



( ) see order ID on page 5 to 8

Subject to measurement and construction errors.

Tr 120x16 single-thread lifting power in kN

10⅔ :1 = 1,5mm/R
32:1 = 0,5mm/R

n_1 min^{-1}	lift. speed m/min 10⅔:1	32:1	500 10⅔:1 Nm	kW	32:1 Nm	kW	400 10⅔:1 Nm	kW	32:1 Nm	kW	250 10⅔:1 Nm	kW	32:1 Nm	kW	200 10⅔:1 Nm	kW	32:1 Nm	kW	100 10⅔:1 Nm	kW	32:1 Nm	kW	50 10⅔:1 Nm	kW	32:1 Nm	kW
1000	1,50	0,50	586	61,3	300	31,4	487	49	240	25,2	293	30,7	150	15,7	235	24,5	120	12,6	117	12,3	60	6,3	58,6	6,2	30	3,2
750	1,125	0,375	586	46	300	23,6	487	36,8	240	18,9	293	23	150	11,8	235	18,4	120	9,5	117	9,2	60	4,8	58,6	4,6	30	2,5
500	0,75	0,25	586	30,6	300	15,7	487	24,5	240	12,6	293	15,3	150	7,9	235	12,3	120	6,3	117	6,2	60	3,2	58,6	3,1	30	1,7
360	0,54	0,18	586	22,1	300	11,3	487	17,7	240	9,1	293	11,1	150	5,7	235	8,9	120	4,6	117	4,5	60	2,4	58,6	2,3	30	1,3
240	0,36	0,12	586	14,7	300	7,6	487	11,8	240	6,1	293	7,4	150	3,8	235	6	120	3,1	117	3,1	60	1,6	58,6	1,6	30	0,9
120	0,18	0,06	586	7,4	300	3,8	487	6	240	3,1	293	3,8	150	2	235	3,1	120	1,6	117	1,6	60	0,9	58,6	0,9	30	0,6

RPM, power demand and admissible lifting speed at a reduction of 10:1 and 20:1 single-thread and double-thread spindle actuated, apply to the dynamic lifting power and a 20%/h or 30%/10min duty cycle at 20°C.
In the range of the spaces containing italics (above the lines) the spindle gears are overheated, the surface pressure in the thread is too high. We do not furnish a guarantee in this area.
However, it is feasible to transmit higher powers at a reduced duty cycle, or lower powers at a higher temperature (see preselection table, page 4).
Please ask for further information.

For lifting speeds higher than those given in the tables, also oil-lubricated ball bearing spindles or special reductions are available.

Tr 120x32P16 double-thread lifting power in kN

10⅔ :1 = 3,0mm/R
32:1 = 1,0mm/R

n_1 min^{-1}	lift. speed m/min 10⅔:1	32:1	400 10⅔:1 Nm	kW	32:1 Nm	kW	300 10⅔:1 Nm	kW	32:1 Nm	kW	200 10⅔:1 Nm	kW	32:1 Nm	kW	150 10⅔:1 Nm	kW	32:1 Nm	kW	75 10⅔:1 Nm	kW	32:1 Nm	kW	50 10⅔:1 Nm	kW	32:1 Nm	kW
1000	3,00	1,00	637	65,4	318	32,7	478	49	239	24,5	319	32,7	159	16,4	239	24,5	120	12,3	120	12,3	60	6,2	80	8,2	40	4,1
750	2,25	0,75	637	49	318	24,5	478	36,8	239	18,4	319	24,5	159	12,3	239	18,4	120	9,2	120	9,2	60	4,6	80	6,2	40	3,2
500	1,50	0,50	637	32,7	318	16,4	478	24,5	239	12,3	319	16,4	159	8,2	239	12,3	120	6,2	120	6,2	60	3,2	80	4,1	40	2,1
360	1,08	0,36	637	23,6	318	11,8	478	17,7	239	8,8	319	11,8	159	5,9	239	8,9	120	4,5	120	4,5	60	2,3	80	3	40	1,6
240	0,72	0,24	637	15,7	318	7,8	478	11,8	239	6	319	7,9	159	4	239	5,6	120	3,1	120	3	60	1,6	80	2	40	1,1
120	0,36	0,12	637	7,8	318	4	478	6	239	3	319	4	159	2,1	239	2,9	120	1,6	120	1,6	60	0,9	80	1,2	40	0,7

Technical specifications

max. lifting power	500 kN
gear reduction	10⅔:1 / 32:1
dimension of spindle	Tr120x16 / Tr120x32P16
start-up moment	table entry x 1,3
casing material	GJS400-15
weight without lifting (kg)	180
weight of spindle per 100mm lifting (kg)	7,7
lubricant	grease
quantity of lubricant (kg)	3,3
max. driving power (duty cycle 20%/h)	7,8 kW
max. driving power (duty cycle 10%/h)	10,8 kW

Ball screw jack
Swinging elements

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WERK ENZESFELD:
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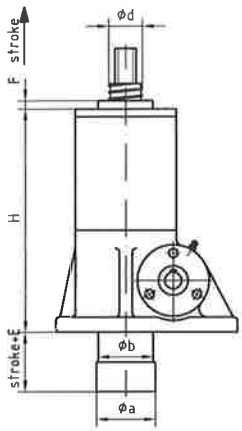
Tel.:++43(0)2256/81287
Fax.:++43(0)2256/81287-95
E-Mail: office@enzfelder.at
Internet: www.enzfelder.at

Basic type, ball-screw actuated (KSG)

above (O)



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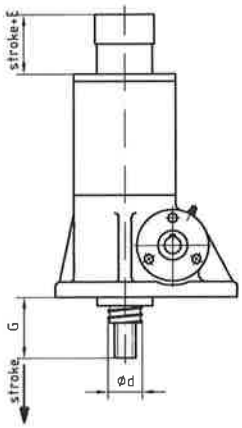
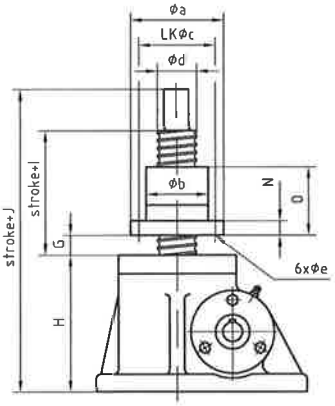


Exakt dimensions after consulting by the factory!

Traveling nut type, ball-screw actuated (KSG)

above (O)



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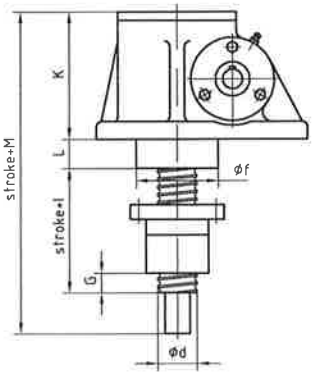
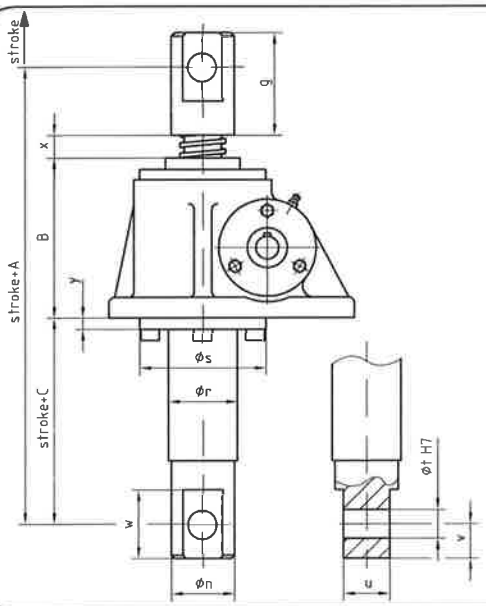


Exakt dimensions after consulting by the factory!

Swinging element (SE)



SE	0005	0015	0020	0030	0050	0100	0150	0200	0240	0300	0500
A	stroke+180	stroke+215	stroke+247	stroke+250	stroke+320	stroke+350	stroke+390	stroke+432	stroke+475	stroke+502	stroke+762
B	74	90	103	106	140	150	160	187	210	222	282
C	stroke+61	stroke+75	stroke+82	stroke+82	stroke+100	stroke+110	stroke+130	stroke+140	stroke+150	stroke+160	stroke+265
g	50	50	65	65	90	100	120	130	140	155	250
øn	30	35	40	40	55	65	80	85	95	108	148
ør	28	36	45	45	60	70	80	90	110	127	150
øs	59	65	80	80	110	120	140	160	180	190	240
øt H7	15	15	15	15	25	30	35	40	45	50	65
u	20	25	30	30	40	50	60	65	75	80	120
v	15	15	23	23	30	30	45	50	50	60	85
w	30	35	46	46	60	70	90	100	110	120	170
x	10	20	20	20	20	20	25	25	25	25	50
y	8	10	10	10	10	12	15	20	20	20	25

Special types available on request

Elastic Cardan Shafts, Pedestal Bearings, Flange Bearings

ENZFELDER GmbH.
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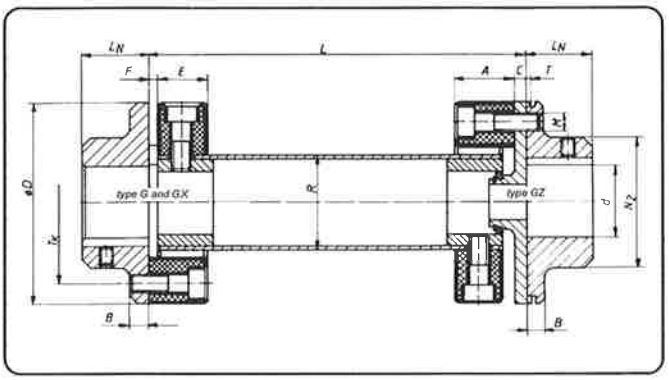
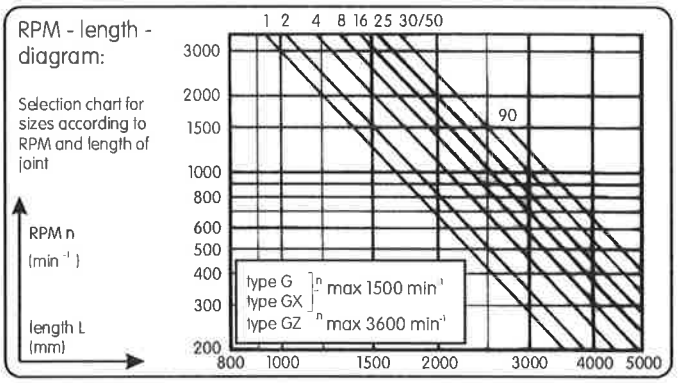
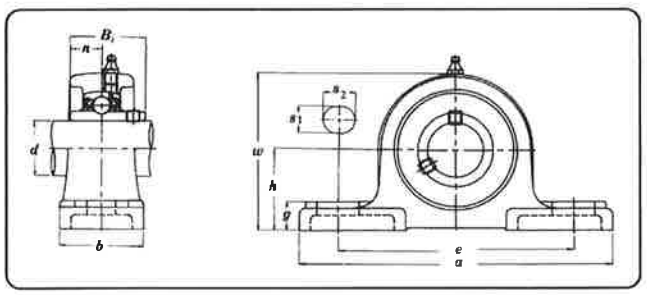
Elastic propeller shafts G/GX/GZ





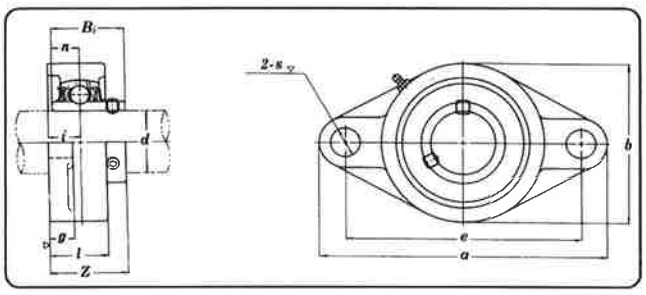
size	rated torque (Nm) type G	GX	GZ	weight (kg) for 2 hubs	for 1 m tube	max. shift of angle G+GZ	GX	A	B	C	ØD	pilot drill d	d max	E	F	L_N	ØN_2	R	T	T_K /M
1	10	10	10	1,0	1,1	3°	1°	24	7	5	56	8	25	22	2	24	36	30	1,5	Ø 44 / 2 x M6
2	20	30	20	2,2	1,4	3°	1°	24	8	5	85	12	38	20	4	28	55	40	1,5	Ø 68 / 2 x M8
4	40	60	40	3,4	1,6	3°	1°	28	8	5	100	15	45	24	4	30	65	45	1,5	Ø 80 / 3 x M8
8	80	120	80	7,3	2,2	3°	1°	32	10	5	120	18	55	28	4	42	80	60	1,5	Ø 100 / 3 x M10
16	160	240	160	12,4	2,5	3°	1°	42	12	5	150	20	70	36	6	50	100	70	1,5	Ø 125 / 3 x M12
25	250	370	250	19,1	3,1	3°	1°	46	14	5	170	20	85	40	6	55	115	85	1,5	Ø 140 / 3 x M14
30	400	550	400	31,1	4,8	3°	1°	58	16	5	200	25	100	50	8	66	140	100	1,5	Ø 165 / 3 x M16
50	600	-	600	32,1	4,8	3°	1°	58	16	5	200	25	100	50	8	66	140	100	1,5	Ø 165 / 3 x M16
90	900	-	900	58,7	7,6	3°	1°	70	19	5	260	30	110	62	8	80	160	125	2,0	Ø 215 / 3 x M20

Pedestal bearing



Type	ø d (mm)	Dimensions (mm) h	a	e	b	s_2	s_1	g	w	n	Bolt Used (mm)	Weight (kg)
UCP 205	25	36,5	140	105	38	19	13	13	71	14,3	10	0,8
UCP 206	30	42,9	165	121	48	21	17	15	84	15,9	14	1,3
UCP 207	35	47,6	167	127	48	21	17	16	93	17,5	14	1,6
UCP 208	40	49,2	184	137	54	21	17	17	98	19,0	14	2,0
UCP 209	45	54,0	190	146	54	21	17	17	106	19,0	14	2,2
UCP 210	50	57,2	206	159	60	22	20	19	113	19,0	16	2,9
UCP 212	60	69,8	241	184	70	25	20	22	138	25,4	16	4,9
UCP 214	70	79,4	266	210	72	30	25	28	156	30,2	20	6,8
UCP 216	80	88,9	292	232	78	35	25	32	174	33,3	20	9,0
UCP 217	85	95,2	310	247	83	40	25	32	185	34,1	20	10,8

Flange bearing



Type	ø d (mm)	Dimensions (mm) a	e	i	g	l	s	b	Z	Bi	n	Weight (kg)
UCFL 201	12	113	90	15	11	25,5	12	60	33,3	31,0	12,7	0,48
UCFL 203	17	113	90	15	11	25,5	12	60	33,3	31,0	12,7	0,48
UCFL 204	20	113	90	15	11	25,5	12	60	33,3	31,0	12,7	0,48
UCFL 205	25	130	99	16	13	27	16	68	35,7	34,0	14,3	0,64
UCFL 207	35	161	130	19	14	34	16	90	44,4	42,9	17,5	1,2
UCFL 208	40	175	144	21	14	36	16	100	51,2	49,2	19,0	1,6
UCFL 210	50	197	157	22	15	40	19	115	54,6	51,6	19,0	2,2
UCFL 212	60	250	202	29	18	48	23	140	68,7	65,1	25,4	4,2
UCFL 214	70	265	216	31	20	54	23	160	75,4	74,6	30,2	5,7
UCFL 216	80	290	233	34	20	58	25	180	83,3	82,6	33,3	7,8

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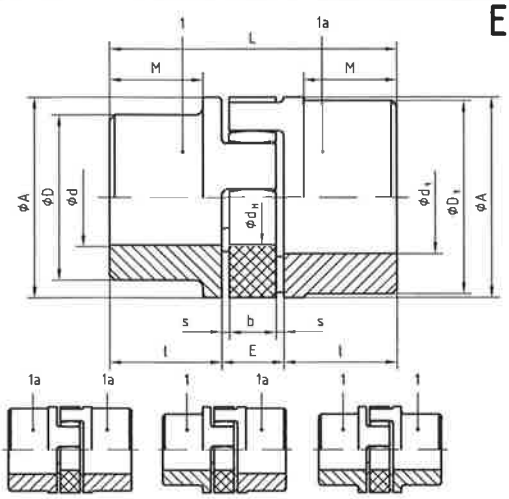
Couplings, expansion bellows

Elastic couplings (KU)



Type R	Mt nom in Nm at 80° Shore[1]	Mt nom in Nm at 92° Shore[1]	Mt nom in Nm at 98° Shore[1]	holes pilot drill	hub 1 finished Ød min	hub 1 finished Ød max	pilot drill	hub 1a finished Ød1 min	hub 1a finished Ød1 max	ØA	ØD	ØD1	L	l	E	s	b	M	ØdH	material	weight[3] type 1 in kg	weight[3] type 1a in kg
14	4	7	12	-	4	14	-	-	-	30	30	-	35	11	13	1,5	10	-	10	aluminium or GG	0,14	0,14
19/24	5	10	17	4	6	19	-	6	24	40	32	40	66	25	16	2	12	-	18		0,32	0,36
24/28	17	35	60	6	8	24	6	8	28	55	40	48	78	30	18	2	14	24	27		0,60	0,72
28/38	46	95	160	8	10	28	8	10	38	65	48	65	90	35	20	2,5	15	28	30		0,97	1,33
38/45	93	190	325	10	12	38	36	38	45	80	66	77	114	45	24	3	18	37	38		2,08	2,46
42/55	130	265	450	12	14	42	40	42	55	95	75	94	126	50	26	3	20	40	46		3,21	3,93
48/60	150	310	525	13	15	48	46	48	60	105	85	102	140	56	28	3,5	21	45	51		4,41	5,19
55/70	180	375	625	18	20	55	52	55	70	120	98	120	160	65	30	4	22	52	60	GG	6,64	8,10
65/75[2]	205	425	640	20	22	65	63	65	75	135	115	135	185	75	35	4,5	26	61	68		10,13	11,65
75/90[2]	475	975	1465	28	30	75	73	75	90	160	135	160	210	85	40	5	30	69	80		16,03	19,43

Finish-borings are made according, to the ISO system of tolerances H7. Feather key grooves are made according to DIN 6885/1. The max. angle shift is 1°30', the twisting angle 3,2° at Mt nom. The operable temperature range lies between -40°C and +100°C.

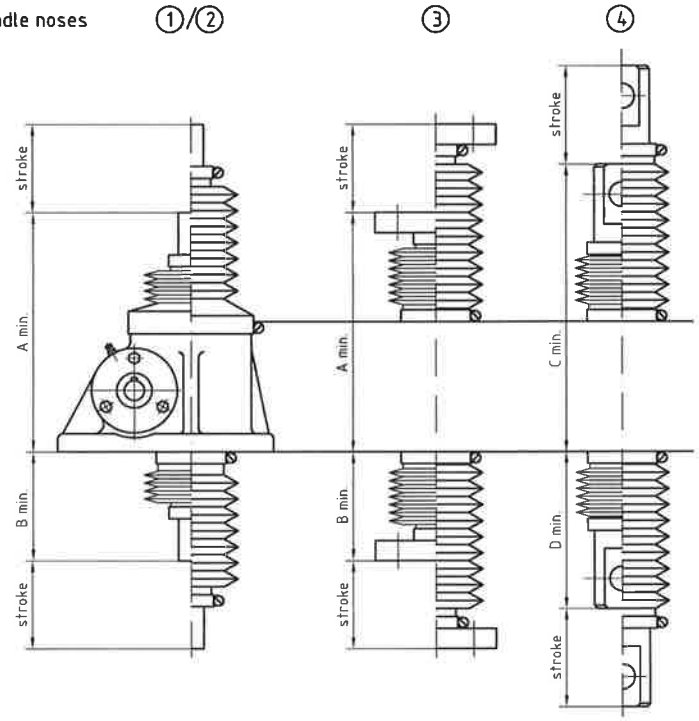
1) The rated turning moments are valid for normal operation with slight jolts; due to the higher start-up moment of three-phase squirrel cage motors an imfact factor of 2 must be taken into account.
2) from size 65/75 95° Shore on
3) weight for GG, aluminium approx. 60% less.

Product as delivered: enclosed

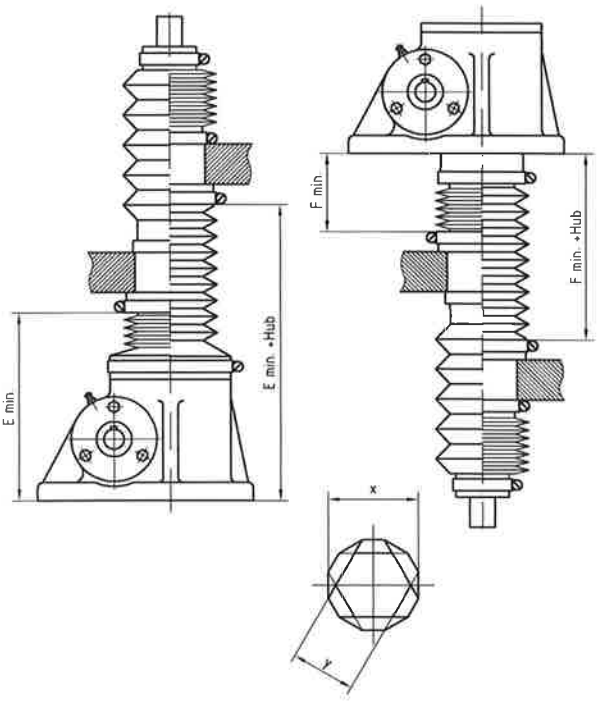
Expansion bellows (FB)

basic type

spindle noses ①/② ③ ④



traveling nut type



SG	0005	0015	0020	0030	0050	0100	0150	0200	0240	0300	0350	0500
A min.	106+0,15xstroke	130+0,15xstroke	156+0,15xstroke	157+0,15xstroke	202+0,15xstroke	215+0,15xstroke	235+0,15xstroke	274+0,15xstroke	300+0,15xstroke	312+0,15xstroke	355+0,15xstroke	455+0,15xstroke
B min.	37+0,15xstroke	50+0,15xstroke	62+0,15xstroke	62+0,15xstroke	72+0,15xstroke	75+0,15xstroke	85+0,15xstroke	97+0,15xstroke	100+0,15xstroke	100+0,15xstroke	115+0,15xstroke	195+0,15xstroke
C min.	134+0,15xstroke	160+0,15xstroke	189+0,15xstroke	190+0,15xstroke	250+0,15xstroke	270+0,15xstroke	305+0,15xstroke	342+0,15xstroke	365+0,15xstroke	402+0,15xstroke	455+0,15xstroke	575+0,15xstroke
D min.	65+0,15xstroke	80+0,15xstroke	95+0,15xstroke	95+0,15xstroke	120+0,15xstroke	130+0,15xstroke	155+0,15xstroke	165+0,15xstroke	175+0,15xstroke	190+0,15xstroke	215+0,15xstroke	315+0,15xstroke
E min.	84+0,15xstroke	110+0,15xstroke	124+0,15xstroke	125+0,15xstroke	160+0,15xstroke	170+0,15xstroke	185+0,15xstroke	212+0,15xstroke	235+0,15xstroke	247+0,15xstroke	280+0,15xstroke	325+0,15xstroke
F min.	28+0,15xstroke	40+0,15xstroke	44+0,15xstroke	44+0,15xstroke	50+0,15xstroke	52+0,15xstroke	59+0,15xstroke	64+0,15xstroke	70+0,15xstroke	77+0,15xstroke	77+0,15xstroke	79+0,15xstroke
x	75	75	75	105	105	125	125	140	140	150	180	210
y	38	38	38	63	63	75	75	100	100	110	120	150

This chart is valid for closed rooms at a normal ambient temperature
In case of deviations please inquire.

Product as delivered: enclosed

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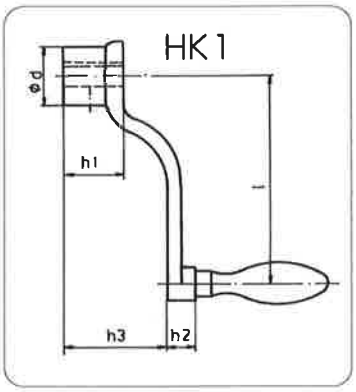
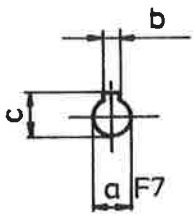
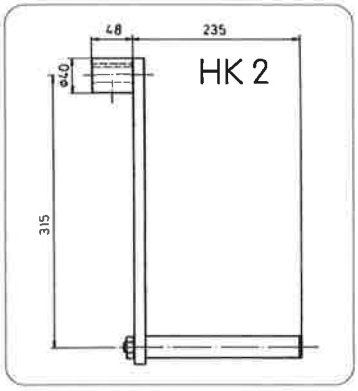
Crank handles (HK)







HK 1

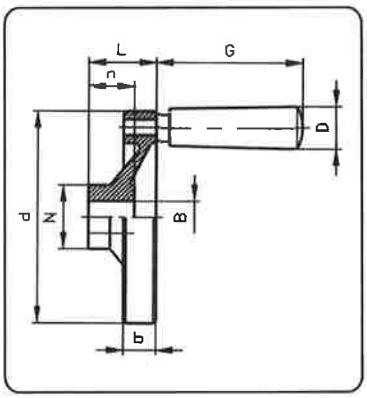
SG	0005	0010	0015	0020	0030	0050	0100
a F 7	10	14	14	14	16	20	24
b P 9	3	5	5	5	5	6	8
c	11,4	16,3	16,3	16,3	18,3	22,8	27,3
d	28	38	38	38	38	44	48
h1	28	38	38	38	38	44	48
h2	13	14	14	14	14	21	21
h3	48	65	65	65	65	78	90
l	100	160	160	160	160	200	250

HK 2

SG	0150	0200
a F 7	25	28
b P 9	8	8
c	28,3	31,3

Dimensional variations according to DIN 7168 medium. Deviating dimensions on request.

Hand wheels (HR)



Type	d	N	b	n	L	G	D	Pilot drill H7	Weight kg
SG 0005	80	26	13,0	16	30	58,5	22	10	0,16
SG 0010, 0015, 0020, 0030	125	31	15,0	18	34	67,5	23	14	1,3
SG 0030, 0050	160	36	18,0	20	37	67,5	23	14	1,5
SG 0050, 0100	200	42	20,5	24	45	80,0	26	18	1,0
SG 0100, 0150	250	48	23,0	28	51	90,0	28	24	1,3

Swivelling console, Limit stop, Turn-lock device

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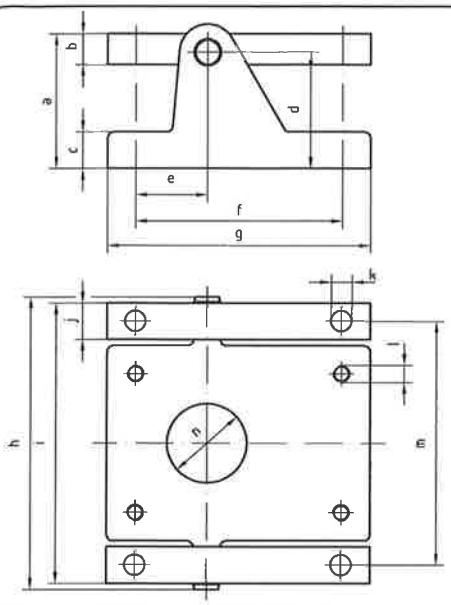
Swivelling console (SK)



SG	0005	0015	0030	0050	0100	0150	0200	0240	0300	0350	0500
a	50	67,5	90	110	110	150	160	155	170	210	200
b	10	15	25	30	35	45	50	55	60	65	80
c	8	15	20	30	30	30	40	40	50	60	80
d	45	60	77,5	95	92,5	127,5	135	127,5	140	177,5	160
e	30	37,5	50	58	60	63,5	95	90	95	135	175
f	60	110	135	168	180	190	240	260	280	360	350
g	70	135	165	215	225	237	297	320	355	430	440
h	150	150	190	240	270	297	322	344	411	424	685
i	144	140	180	230	260	285	310	330	395	410	670
j	10	15	25	30	30	35	40	40	60	60	80
k	6	9	13	18	18	21	26	26	35	35	48
l	M8	M8	M12	M16	M16	M20	M24	M24	M30	M30	M42
m	134	125	155	200	230	250	270	290	335	350	590
n	45,2	48,2	60,2	83,2	95,2	110,2	140,2	150,2	160,2	170,5	210,5

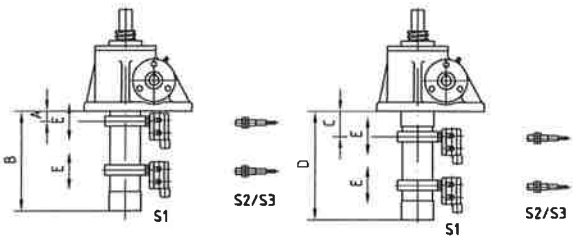
Special executions on request

Product as delivered: enclosed

Limit stop (EAS)

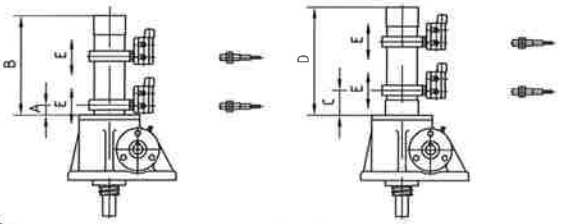
type above

type above with 2nd guide ring



type below

type below with 2nd guide ring

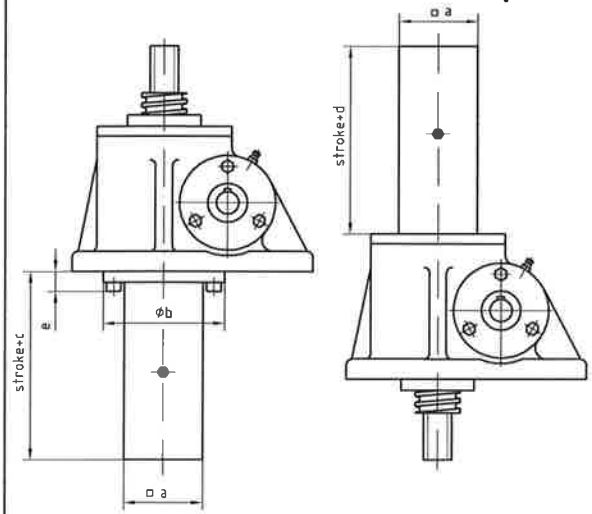


	A	B	C	D
SG 0005	32	stroke+95	47	stroke+119
SG 0015	32	stroke+105	57	stroke+130
SG 0020	32	stroke+105	57	stroke+130
SG 0030	32	stroke+105	62	stroke+135
SG 0050	32	stroke+105	62	stroke+135
SG 0100	32	stroke+105	62	stroke+135
SG 0150	32	stroke+105	58	stroke+131
SG 0200	32	stroke+105	67	stroke+140
SG 0240	32	stroke+105	72	stroke+145
SG 0300	32	stroke+105	72	stroke+145
SG 0350	32	stroke+105	77	stroke+150
SG 0500	-	-	45	stroke+120

Limit switches must be adjusted in situ!
Product as delivered: enclosed

limit switch type		S1	S2	S3
current max. at voltage	250V	0,25A	220mA	-
	120V	0,5A	500mA	-
	24V	7A	1A	1A
type of connection		binding posts	cable 3x0,5mm² 1m length	cable
setting range E		±15	the entire range	the entire range
temperature min/max		-10°C +80°C	-5°C +70°C	-25°C +70°C
system of protection		IP 65	IP 67	IP 65
type of switch		mech.	magnet	inductive

Square turn-lock device (VV)



SG	0005	0015	0020 0030	0050	0100	0150	0200	0240 0300	0350	0500
□a	30	40	40	70	80	90	110	120	140	180
Φb	59	70	70	108	116	129	148	177	197	240
c	stroke+67	stroke+92	stroke+92	stroke+106	stroke+112	stroke+115	stroke+121	stroke+132	stroke+137	stroke+158
d	stroke+60	stroke+77	stroke+77	stroke+90	stroke+90	stroke+100	stroke+110	stroke+110	stroke+115	stroke+158
e	11	14	14	18	20	22	22	26	26	26

A turn-lock device comprised of a grooved spindle and feather key is also available on request.

Motor flanges, Safety nuts

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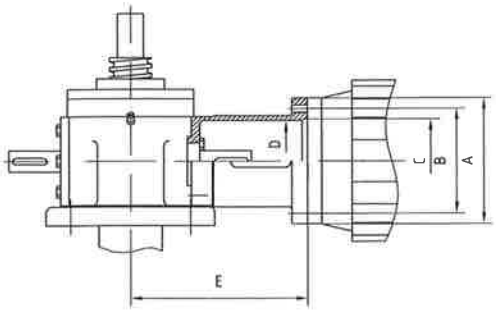
Motor flanges (M)

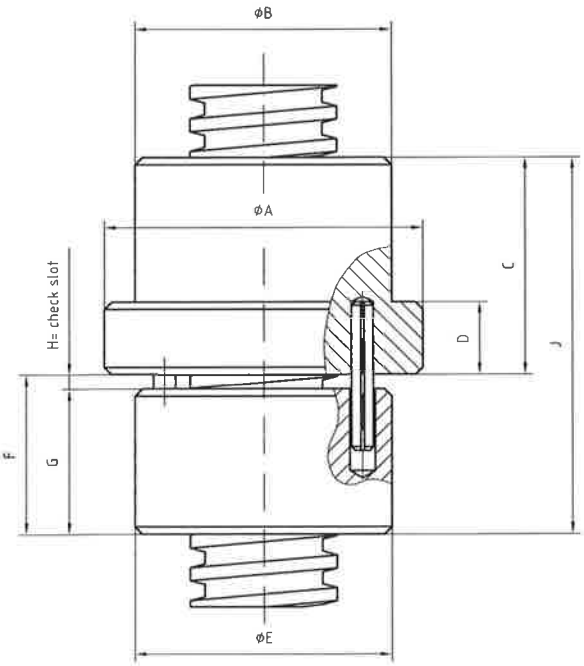


	type of motor	flange ØA	ØB	ØC	ØD	E	shaft ends Ø SG	shaft ends Ø motor	4 pieces bolts DIN 912 for motor
SG 0005	56 B14	80	65	50	44	93	10	9	M5 x 16
	63 B14	90	75	60	44	96	10	11	M5 x 20
	71 B14	105	85	70	44	103	10	14	M6 x 25
SG 0015	63 B14	90	75	60	52	114	14	11	M5 x 20
	71 B14	105	85	70	52	119	14	14	M6 x 25
	80 B14	120	100	80	52	131	14	19	M6 x 25
SG 0030	71 B14	105	85	70	61	136	16	14	M6 x 25
	80 B14	120	100	80	61	146	16	19	M6 x 25
	90 B14	140	115	95	61	156	16	24	M8 x 25
SG 0050	80 B14	120	100	80	77	171	20	19	M6 x 25
	90 B14	140	115	95	76	181	20	24	M8 x 25
	100 B14	160	130	110	76	193	20	28	M8 x 25
	112 B14	160	130	110	76	193	20	28	M8 x 25
SG 0100	90 B14	140	115	95	83	192	24	24	M8 x 25
	100 B14	160	130	110	80	203	24	28	M8 x 25
	112 B14	160	130	110	80	203	24	28	M8 x 25
	132 B14	200	165	130	80	225	24	38	M10 x 30
SG 0150	100 B14	160	130	110	84	218	25	28	M8 x 25
	112 B14	160	130	110	84	218	25	28	M8 x 25
	132 B14	200	165	130	84	240	25	38	M10 x 30
SG 0200	132 B14	200	165	130	100	263	28	38	M10 x 30
	160 B5	350	300	250	100	307	28	42	M16 x 60 + 4 nuts
SG 0240	132 B14	200	165	130	108	270	32	38	M10 x 30
	160 B5	350	300	250	108	304	32	42	M16 x 60 + 4 nuts
SG 0300	132 B14	200	165	130	114	278	34	38	M10 x 30
	160 B5	350	300	250	114	312	34	42	M16 x 60 + 4 nuts
SG 0350	160 B5	350	300	250	130	349	38	42	M16 x 60 + 4 nuts
	180 B5	350	300	250	130	351	38	48	M16 x 60 + 4 nuts
SG 0500	160 B5	350	300	250	150	414	40	42	M16 x 60 + 4 nuts
	180 B5	350	300	250	150	416	40	48	M16 x 60 + 4 nuts

Important:

Unless otherwise requested by the customer, motor flanges are mounted on the right, as shown above!
Engines and fastening bolts are delivered non mounted.

Safety nuts (SI0)



SG	0005	0010 0015	0020 0030	0050	0100	0150	0200	0240	0300	0350	0500
ØA	50	60	76	87	98	110	120	130	155	188	225
ØB	40	40	50	70	75	90	90	100	130	150	160
C	32	35	40	60	70	75	100	110	120	145	155
D	10	15	20	20	25	25	30	30	35	35	50
ØE	40	38	50	70	73	85	90	98	120	145	160
F	23	25	33	44	56	66	71	80	98	108	128
G	20	22	30	40	50	60	65	73	90	100	120
H	3	3	3	4	6	6	6	7	8	8	8
J	55	60	73	104	126	141	171	190	218	253	283

Connected with the loaded traveling nut via driving pins, the locking nut runs at idle. As the threads in the traveling nut wear, it approaches the idling, unloaded and therefore unworn safety nut. The wear is ascertained by checking the slot H. When the table entry H has declined by half of the traveling nut must be replaced!

The visual check of the slot H can be automated by integrating an automatic disconnecting limit switch which is actuated when the traveling nut sinks.

Also available for the basic type
Standard sheet on request

Product as delivered: enclosed

Pivoting Heads, Fork Heads, Critical Speed

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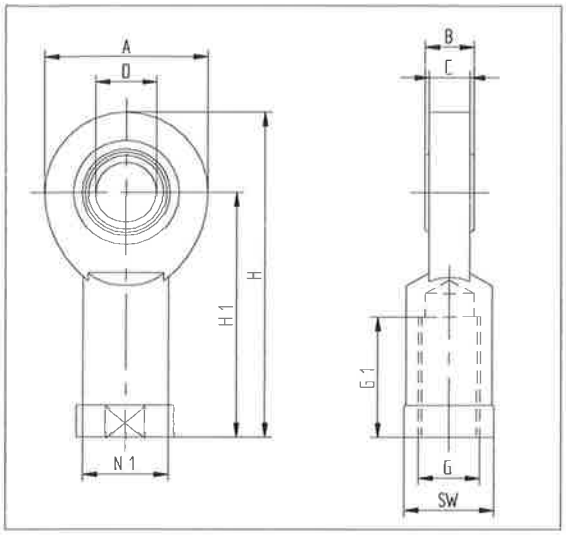
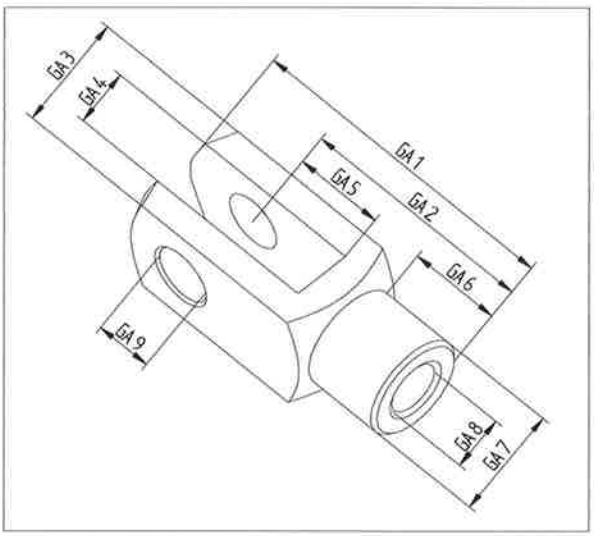


Pivoting heads

Type	A	B	C	D	G	G 1	H	H 1	SW	N 1
SG 0005	34	10	8,5	12	M12	18	67	50	18	19
SG 0010	40	12	10,5	15	M14	21	81	61	21	21
SG 0015	40	12	10,5	15	M14	21	81	61	21	21
SG 0020	46	14	11,5	17	M16	24	90	67	27	25
SG 0030	53	16	13,5	20	M20 x 1,5	30	103,5	77	30	28
SG 0050	73	22	20	30	M30 x 3	45	146,5	110	46	42
SG 0100	82	25	22	35	M36 x 3	60	166	125	55	48
SG 0150	92	28	24	40	M39 x 3	65	188	142	60	52
SG 0200	112	35	31	50	M45 x 3	68	216	130	70	62
SG 0240	112	35	31	50	M45 x 3	68	216	130	70	62
SG 0300	135	44	39	60	M52 x 3	70	242,5	175	80	70
SG 0350	160	49	43	70	M56 x 4	80	280	200	85	80
SG 0500	180	55	48	80	M64 x 4	85	320	230	95	95

Special versions on request



Fork heads

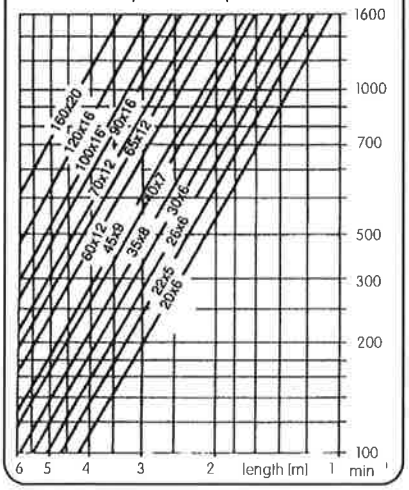
Type	GA 1	GA 2	GA 3	GA 4	GA 5	GA 6	GA 7	GA 8	GA 9
SG 0005	62	48	24	12	24	18	20	M12	12
SG 0010	72	56	27	14	28	22,5	24	M14	14
SG 0015	72	56	27	14	28	22,5	24	M14	14
SG 0020	83	64	32	16	32	24	26	M16	16
SG 0030	105	80	40	20	40	30	34	M20	20
SG 0050	148	110	60	30	60	40	48	M30	30
SG 0100	188	144	72	36	72	54	60	M36	36
SG 0150	265	192	96	50	96	73	82	M45 x 2	50
SG 0200	-	-	-	-	-	-	-	-	-
SG 0240	-	-	-	-	-	-	-	-	-
SG 0300	-	-	-	-	-	-	-	-	-
SG 0350	-	-	-	-	-	-	-	-	-
SG 0500	-	-	-	-	-	-	-	-	-

Special versions on request

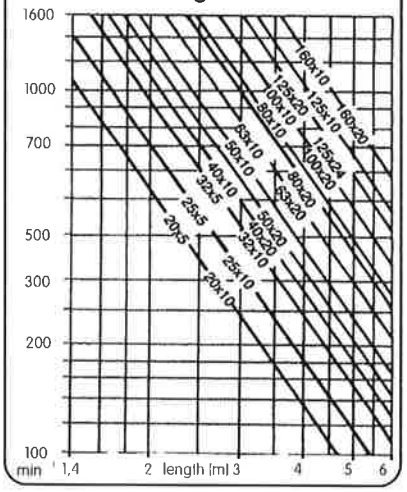
Critical speed

In the L execution the critical speed depends on diameter and length of the spindle and on the spindle bearing arrangement.
The basis is a fixed bearing arrangement in the transmission case of the screw jacks and a single-row movalbe bearing arrangement at the spindle nose. If no movable bearing arrangement is available, the admissible RPMs of the spindle are reduced to: TPM = table entry x 0,2.

trapezoid spindles



recirculating ball screw



Critical Buckling Force

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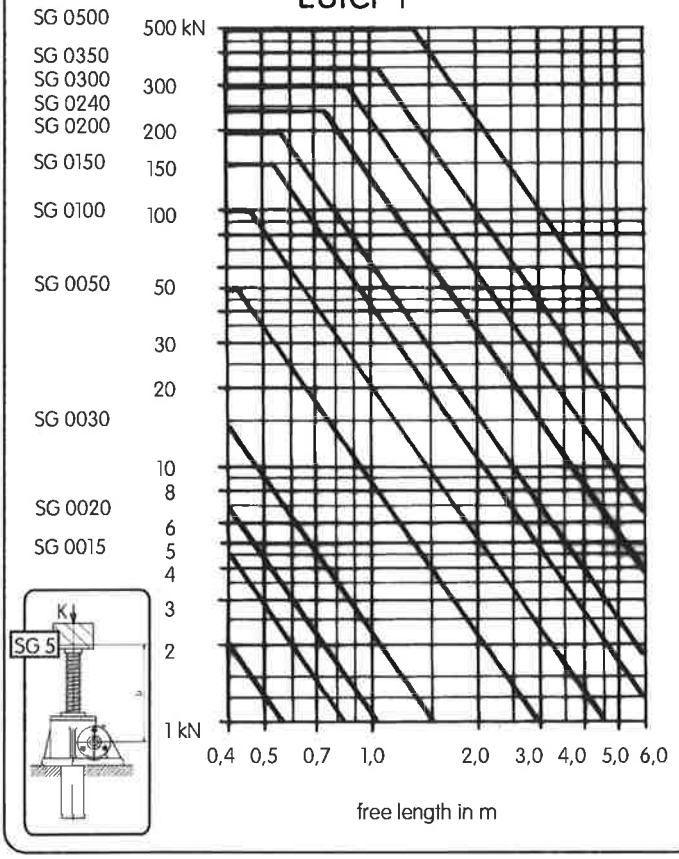
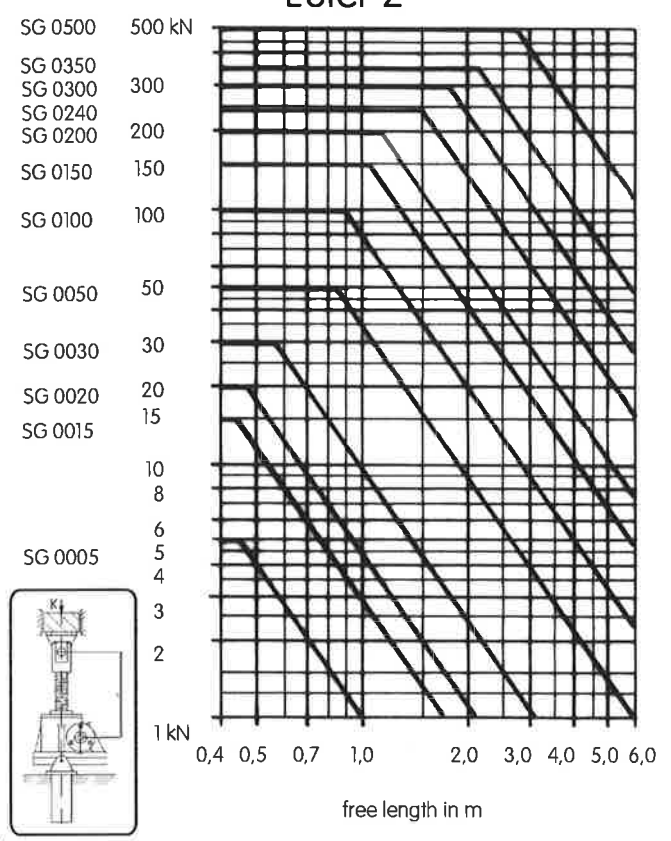
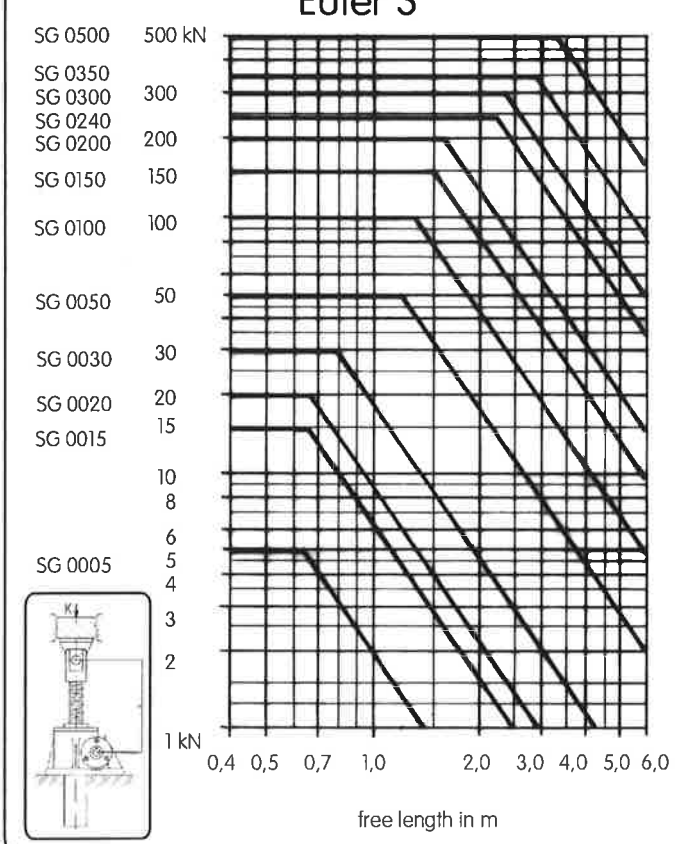
Euler 1



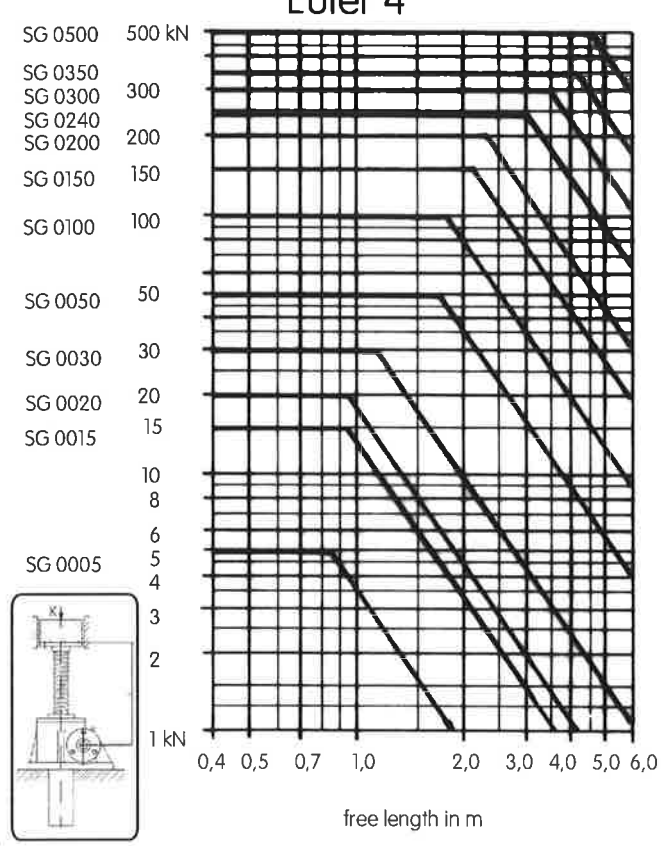
Euler 2



Euler 3



Euler 4



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Symbols:

F (kN)	= dynamic load	P_{SG} (kW)	= operating performance of the screw jack
v (m/min)	= lifting speed	P_{ges} (kW)	= operating performance of all screw jacks
s (mm)	= spindle pitch	P_{Anl} (kW)	= operating performance of the system
n (R/min)	= revolutions/min at the worm	η_{ges}	= operating efficiency (preselection table page 4)
i	= worm gear reduction	η_{Anl}	= efficiency of the system
f_M	= factor for spindle load torque	M_{sp} (Nm)	= spindle load torque
		M (Nm)	= load torque at the worm

Driving power:

If the required driving power cannot be read sufficiently clear from the preselection and performance charts, it is computed as follows:

Driving power P_{SG} per spindle gear:

$$P_{SG} = \frac{F \times v}{61{,}2 \times \eta_{ges}}$$

Driving power P_{ges} all of multiple spindle systems:

After adding the individual performances P_{SG} to reach the total performance P_{ges}, the losses of spacer shafts, bevel gears, couplings, pedestal bearings, alignment errors etc. must be allowed for.

Standard value in case of 2 screw jacks	η	0,95
3 screw jacks	η	0,90
4 screw jacks	η	0,85
6-8 screw jacks	η	0,80

$$P_{Anl} = \frac{P_{ges}}{\eta_{Anl}}$$

Starting capacity:

To compute the starting capacity the performance value P_{SG} or P_{Anl} is multiplied by 1.3.

Ambient temperature:

At an ambient temerature higher than +20°C the operating factor must be reduced in correspondence with the following table.

Ambient temperature °C	50	60	70	80
max. possible duty cycle in %/h	18	15	10	5
max. possible duty cycle in %/10min	27	22	15	8

Load torque at the worm:

$$M = \frac{F \times s}{2 \times \pi \times i \times \eta_{ges}}$$

$$M = \frac{9550 \times P_{SG}}{n}$$

Spindle load torque:

The spindle load torque M_{sp} is the load torque acting on the various parts of the system via the spindle noses 3,4 or the traveling nut. The spindle load torque can be computed with the help of the f_M factor in the table below.

$$F \times f_M = M_{sp}$$

SG	0005	0010	0015	0020	0030	0050	0100	0150	0200	0240	0300	0350	0500
f_M SG single-thread	1,87	1,81	2,07	2,17	2,42	3,29	4,5	4,84	5,0	5,8	6,98	7,5	8,5
f_M SG double-thread	2,85	2,57	3,06	3,16	3,35	4,77	6,47	6,7	6,95	8,1	9,43	10,0	11,1
f_M KSG					1,67	1,67		3,35					

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Mounting

Spindle gears must be mounted in true alignment on a flat surface which must be so stiff that it can assume the maximal load without oscillations or deformations.

Align the screw jack and spindle with a machine spirit level and bolt them into place (do not tighten yet).

In lifting systems the spindle noses (in case of the basic type) or the traveling nuts (in case of the traveling nut type) must lie even with each other before the worms of the spindle gears are connected.

Before the driving gear is mounted the sense of rotation must be checked: in bevel gear driven lifting systems the sense of rotation can easily be confused; the result would be faulty mounting and possible damage of the installation.

Ensure that the spindle is parallel to any guidance. Use the position with the least amount of play between the screw jack element and the guidance as the point of reference.

Only when the spindle runs lightly and evenly over the entired stroke, can the mounting screws can be tightened and if necessary the screw jacks additionally pinned. An increased power requirement and increased temperatures are indicative of abnormal lateral forces.

Clean the spindle and re-lubricate it along the entired stroke length.

Attention! Misalignment and faulty gripping lead to increased power consumption, which is converted into friction and noise. The consequence is quick wear.
Additional add-on pieces: check under "Options".

If our specifications and performances according to the technical instructions are not observed and/or the components are not used as prescribed, any warranty claims will no longer be applicable.

Maintenance

Screw jacks are filled with the greasing AGIP GRS M2 in the factory.
Grease the spindle and all lubricating nipples at regular intervals (~ 30-50 operating hours). The intervals depend on the given operating conditions and the duty cycle of the screw jacks. In case doubt please set up the lubrication plan together with us. After approx. 200-300 operating hours the wear of the traveling nut or the worm wheel due to the backlash of threads should be checked. The maximal normal backlash of single trapezoid threads must not exceed 1/4 of the thread pitch. In the cases of multiple threads or special threads 1/4 of P is the maximum normal acceptable backlash. When the maximum normal backlash is reached the traveling nut or the worm wheel must be replaced. After a short run-in period all screws must be checked.

After approx. 500 operating hours we recommend cleaning gear and spindle to remove the grease, checking all piece parts as to wear, and recharging them with new grease.

Recommended lubricants: Shell Darina 2, Castrol Grease MS3, BP Energrease LS-EP2.
The lubricant recommended can be used both for gears and spindles. If a high-grade spindle lubricant is to be used, we recommend Klueberplex GE 11-680.
For special conditions (e.g. higher temperatures) we recommend the lubricants specified in the enclosed technical manual.

In case of possible dirt accumulation in or damage of the spindle, expansion bellows or spring steel spirals must be used to protect the spindle. For oil-lubricated gears please ask for a special service manual.

If you order spare parts, the gear specifications marked on the type plate must be provided.

For more information apply for the detailed installation instructions in the company.

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Tolerances

1.) External dimensions

For connecting dimensions the tolerances given in the corresponding drawings are valid. The values where no tolerance is indicated are not toleranced dimensions.

2.) The lateral backlash of the spindle

In the basic type (the spindle travels in and out) the lateral backlash of the spindle is the result of the difference between outside diameter of the spindle and inside diameter of the guide rings. Depending on the type of lifting element it is 0,1 to 0,3 mm. The result of these values is a lateral backlash at the end of the spindle, depending on the stroke (or how far the spindle is actually extended) if 2 guide rings are used. The approximate values of this lateral backlash "S" are listed in the table below. This lateral backlash can be reduced if required.

Backlash "S" (mm) with second guide ring									
stroke in mm	SG 0005	SG 0010/0015/0020	SG 0030	SG 0050	SG 0100/0150	SG 0200	SG 0300	SG 0350	SG 0500
0	0,6	0,7	0,7	0,9	1,0	1,0	1,0	1,1	1,1
75	0,9	1,0	1,0	1,2	1,3	1,2	1,3	1,3	1,3
150	1,3	1,3	1,3	1,5	1,6	1,5	1,4	1,5	1,5
300	2,0	1,9	1,9	2,1	2,2	2,0	2,0	1,9	1,9
500	3,0	2,7	2,7	2,9	3,0	2,6	2,6	2,5	2,4
750		3,7	3,7	4,0	4,0	3,5	3,4	3,2	3,0
1000		4,7	4,7	5,0	5,0	4,3	4,2	3,9	3,6
1500			6,7	7,1	7,0	6,0	5,8	5,3	4,8
2000			8,6	9,1	9,0	7,7	7,4	6,7	6,1
2500				11,2	11,0	9,3	9,0	8,2	7,3

3.) The axial backlash of the spindle

The axial backlash of the spindle (basic type) and of the traveling nut (traveling nut type) is necessary for the building-up of an adequate lubricating film. Wear during operation will increase the axial backlash; please pay attention to our operating and maintenance instructions.
If desired the axial backlash can be limited accordingly through low-backlash or adjustable backlash executions.

spindle pitch (mm)	6	7	8	10	12	16
max. axial backlash of the threaded spindle as manufactured (mm)	0,25	0,26	0,28	0,30	0,32	0,40
max. permissible axial backlash due to wear (mm)	1,5	1,7	2,0	2,5	3,0	4,0

4.) Pitch errors of the spindle

Due to the work tolerances of the processing machines a pitch error of 0,05 to 0,075 mm per 300 mm threaded length results in whirl thread spindles. In the practice this error has hardly any effect on the precision of the lifting. In case of doubt please contact us.

5.) Straightness of the spindle

The threaded spindles are made of drawn material and deviate from straightness max. by 0,5 mm per 1 m spindle length.

6.) Backlash of tooth flank

The backlash of the tooth profile between worm and wormwheel is 0,0 to 0,15 mm as manufactured. Due to the high speed-increasing ratios the effect on the lifting motion is practically imperceptible.

7.) Adjustment tolerance

An adjustment tolerance around 0,1 mm can easily be achieved with one-side load direction and manual operation. In the case of an alternation of load the above-mentioned points must be observed. For manual operation also fixed stop motion devices can be used.
In case of a motor drive a number of additional factors must be taken into account, e.g. speed of the driving motor, lifting load, flywheel effect, speed-reducing ratios in the piece parts, efficiency, load direction etc..
If suitable limit switches are used, which are adjusted in the process of assemblage, the point can be determined relatively exactly (prerequisite: constant operating conditions).
If in certain cases greater consider accuracy is required, braking motors or motor operators equipped with brakes must be used. Fixed stroke-arresting devices are not permissible. If in certain cases running against fixed devices is unavoidable, adequate steps must be taken to make sure that overstress is prevented (e.g. by slipping clutch, load-controlled motor cutoff, etc.).

Questionnaire

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COMPANY .....
ADDRESS .....
NAME ..... Dept ..... Phone ..... Fax .....

To be able to prepare a proposal meeting your specific demands, please provide us with the following information:

In which systems are the lifting elements to be used?
.....
Number of systems .....
Number of lifting elements per system .....

AXIAL LOAD

per system	pressure	dynamic ..... kN		tension	dynamic ..... kN	
		static ..... kN			static ..... kN	
per spindle	pressure	dynamic ..... kN		tension	dynamic ..... kN	
		static ..... kN			static ..... kN	

Type of buckling load according to Euler (see page 29) I□ , II□ , III□ oder IV□

OPERATING CONDITIONS

Effective stroke ..... mm
Side forces acting ..... kN
Lifting speed desired ..... mm/min
Mounting of spindle ..... vertically/horizontally
Ambient temperature ..... °C
Duty cycle/load conditions per 10min .....
per hour .....
Distance per alternation of load ..... mm

FOR WHICH PARTS DO YOU WISH TO RECEIVE OUR OFFER?

Spindle lifting element with lifting spindle:
Basic type ..... O or U
Spindle nose 0/1/2/3/4/5/6/So

Spindle lifting element with rotating spindle and traveling nut:
Travling nut type ..... O or U
Spindle nose 0/1/2/3/So

Expansion bellows ..... yes/no
Bevel gear box ..... yes/no
Elastic cardan shafts ..... yes/no
Couplings ..... yes/no
Pedestal bearings ..... yes/no
Motor; voltage ..... **frequency** ..... **system of protection** .....
Limit stop ..... yes/no
Crank handle, handwheel ..... yes/no
Swinging element ..... yes/no
Swivelling console ..... yes/no
Safety nut ..... yes/no
Other .....

Product overview 03/2015

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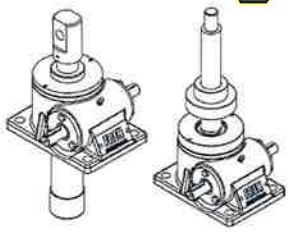
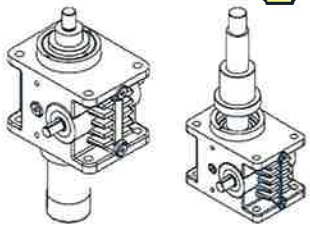
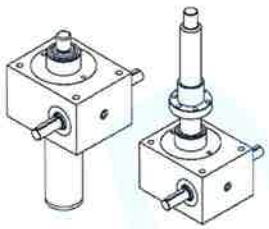
SG
Screw jack
Classic



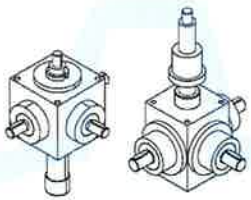
HSG
High performance-
Screw jack



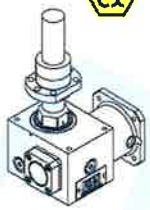
BG
Screw jack
Cubic



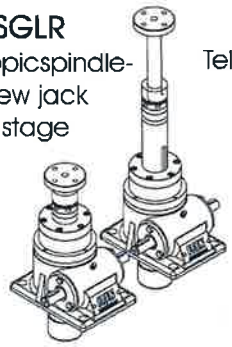
SHG
Quick-lifting
screw jack



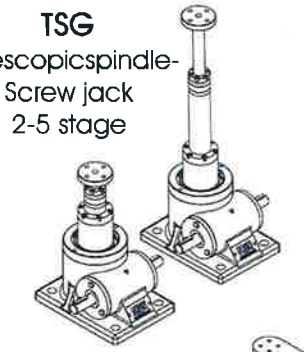
SH
Servo lifting
gear



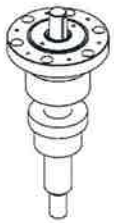
TSGLR
Telescopicspindle-
Screw jack
2-stage



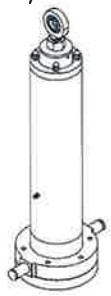
TSG
Telescopicspindle-
Screw jack
2-5 stage



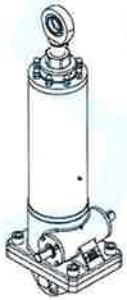
SLA
Spindlebearing



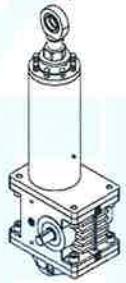
SEZ
Spindlebearings-
Cylinder



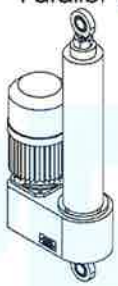
ELZ
Electric cylinder



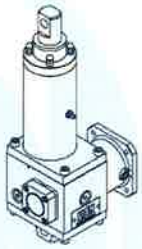
HELZ
High performance-
Elektric cylinder



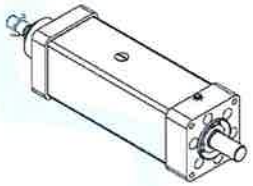
ELZP
Electric cylinder
Parallel



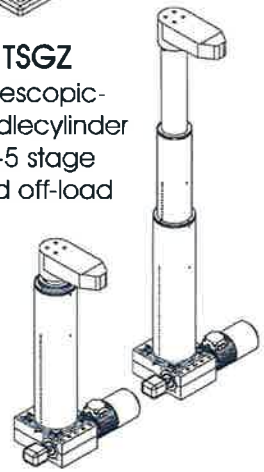
SHELZ
Servo electric-
cylinder



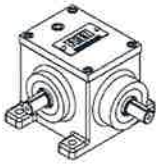
EPNEU
Spindle-
Elektric cylinder



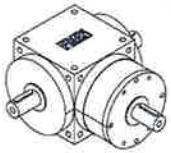
TSGZ
Telescopic-
spindlecylinder
2-5 stage
And off-load



K
Bevel gear
Type K

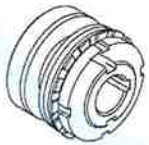


H
Bevel gear
Type H



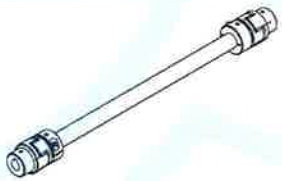
R / GS
Elastic / backlash-free
Coupling

RT
Slip hub

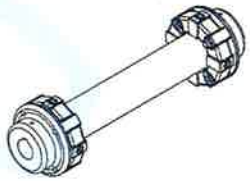


RK
Slip coupling

ZR
FREN
Connecting shaft



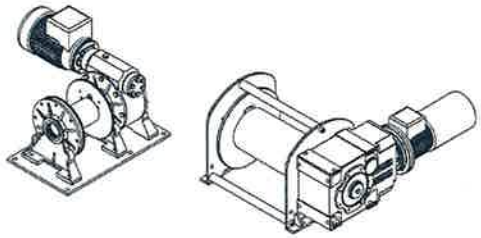
G / GX
Elastic
Connecting shaft



Cardan shaft

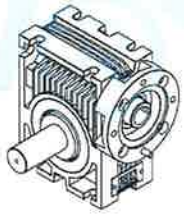
HT
Lifting table
mechanic / hydraulic

SW
Rope winche

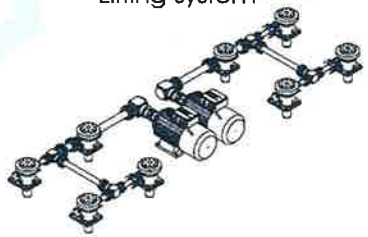


PLG
Planetary gear

uniCe
Worm gear



HA
Lifting system



Special gear