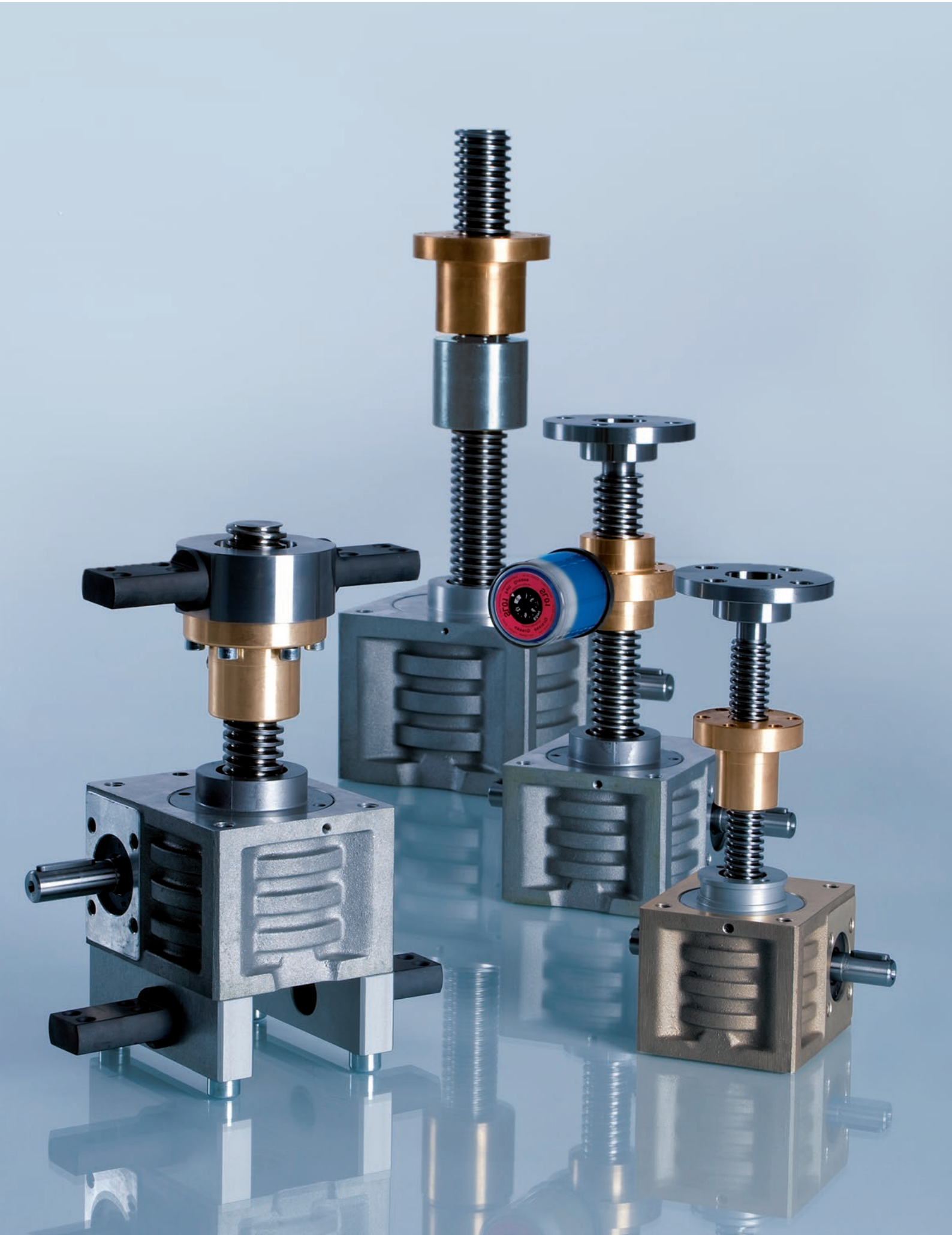
3. Screw jacks, rotating



3. Screw jacks, rotating

The spindle has a fixed connection to the worm wheel and rotates with it. The nut therefore screws itself up and down.

The innovative Nozag screw jack kit makes it possible to create perfect drive solutions from cost-effective standard components. The kit is subject to the highest standards of functionality, quality and design. A lot can be moved with very little expense and the investment, maintenance and operating costs remain within limits.

Screw jacks developed and manufactured by Nozag solve this task in a simple, inexpensive manner.

Screw Jacks «Gold» – For Extreme Environmental and Operational Conditions

The shiny casing, mounting flange and cover indicate the highest degree of corrosion resistance. In simple terms, the conventional aluminum components as well as the external parts have been replaced by components made of the aluminum bronze material CuAl10Fe5Ni5. All the spindles and shafts as well as the internal elements are manufactured from stainless steel or synthetic material (seals).

- High corrosion stability combined with a high degree of wearing resistance and cavitation protection through CuAl10Fe5Ni5
- Resistance against mechanical damages due to an oxide protection film (basically Al203) that immediately forms on the material surface
- Excellent performance in applications with gases, fluids and solid materials

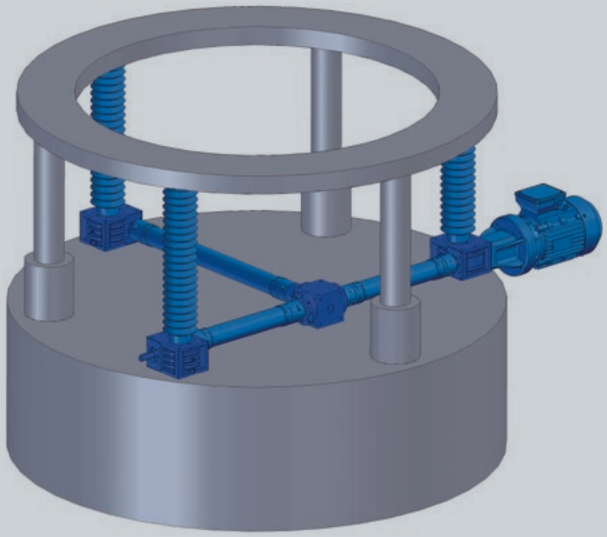
The CuAl10Fe5Ni5 material

- features high scaling resistance (up to 800°)
- has a lower degree of corrosion resistance to strongly acidic media with high oxidation potential (such as nitric acid) as well as alkaline materials, because these will dissolve the oxide coating and prevent its formation.
- has a lower tendency to selective corrosion (dealumination)

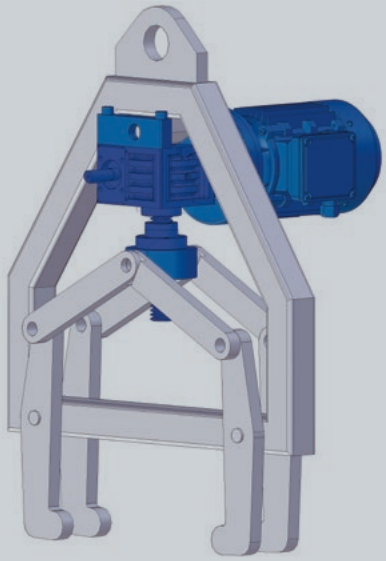
Areas of Application

Screw jacks of this design may be used for instance in industrial applications in the vicinity of saline water or sulfuric oxide, in slightly oxidizing and weak alkaline areas, in brackish water, in organic acids (acetate) and in reducing as well as slightly oxidizing mineral acids (diluted hydrochloric, hydrofluoric or phosphoric acid), in environments containing sulfuric acid at room temperature or at elevated temperatures.

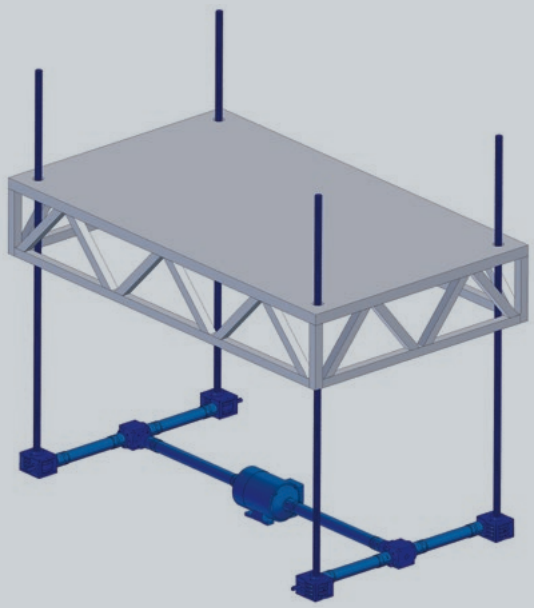
Device adjustment



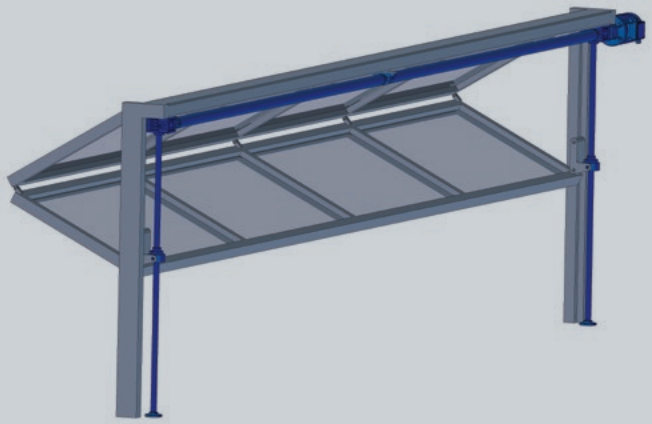
Gripper



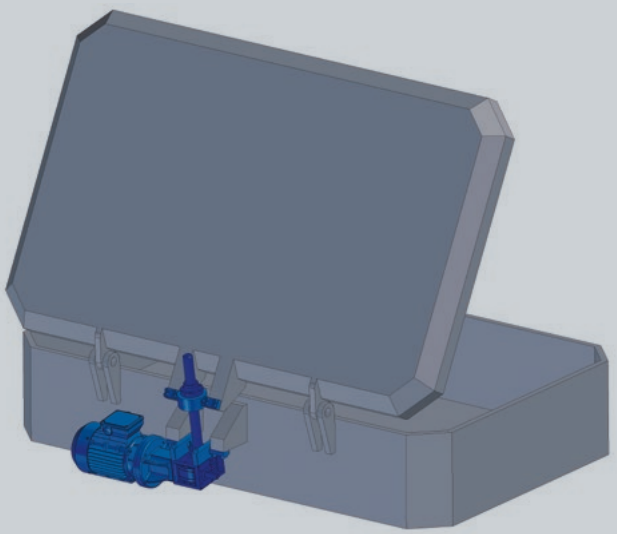
Height adjustment of a platform



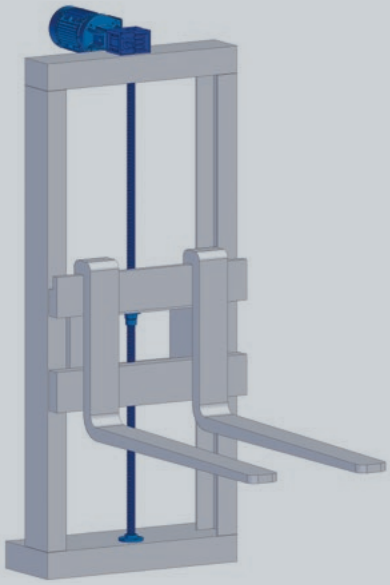
Gate opening



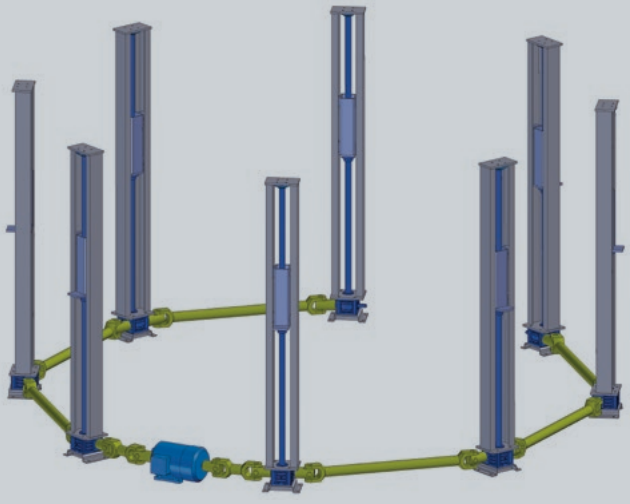
Cover adjustment



Lifting movement of a forklift truck



Hub device for silo assembly



Rotating version

Mail info@nozag.ch
FAX-Nozag CH +41 (0)44 805 17 18

Company: _____ Date: _____
Address: _____ Tel.: _____
_____ Fax: _____
Contact person: _____ Mail: _____

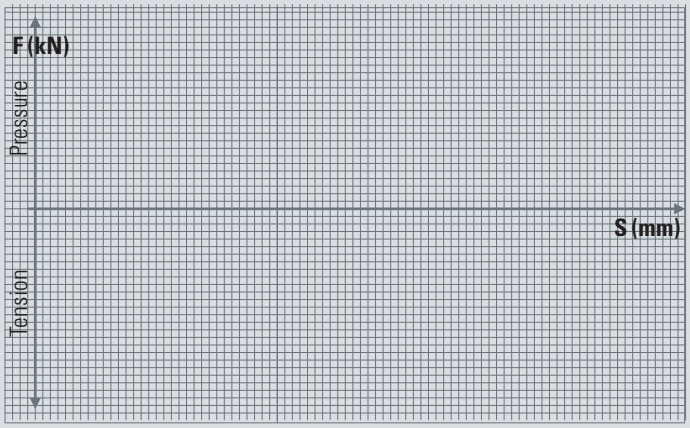
Lifting force in kN

_____ kN per gearbox
_____ kN under tensile load
_____ kN static load
_____ kN entire installation
_____ kN under compressive load
_____ kN dynamic load

Installation position

☐ vertical ☐ horizontal

Force flow

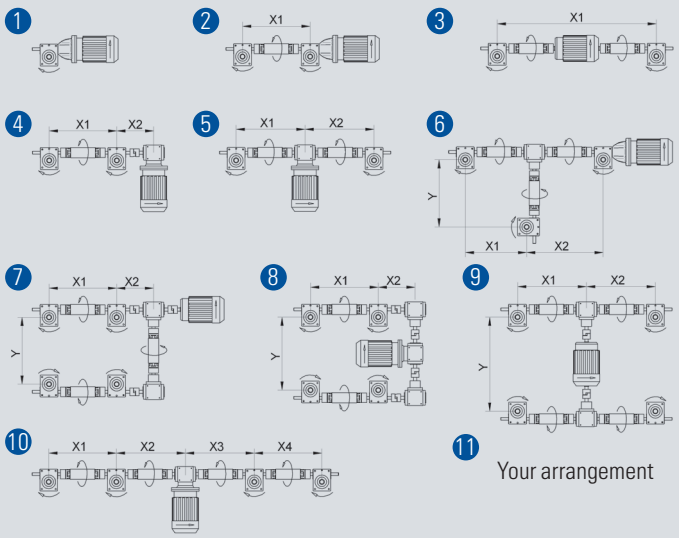


(F=force, S=stroke)

Conditions (operational demands)

☐ Steady (constant) ☐ Impact loading (swelling)
☐ Vibrations (alternating) ☐ _____

Arrangement



11 Your arrangement

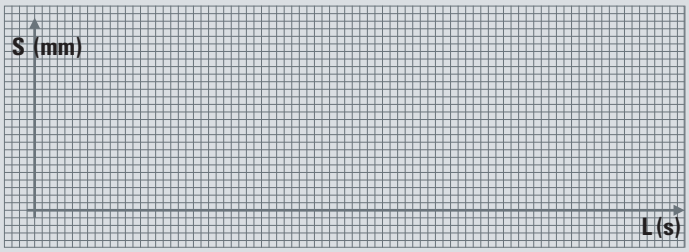
Stroke

_____ mm stroke _____ mm spindle length

Lifting speed (in case of a drive with 1500 min^{-1})

☐ Type RN = 25 mm/s (NSE2-RN = 20 mm/s)
☐ Type RL = 6.25 mm/s (NSE2-RL = 5.00 mm/s)

Working cycle



(S=stroke, L=time)

Duty cycle, working cycle

_____ Strokes per day
_____ Strokes per hour

Hours per day

☐ 8 ☐ 16 ☐ 24 ☐ _____
_____ % duty cycle (ED) referred to 10 min

Motor

☐ Three-phase Motor ☐ Braking motor
☐ Manual drive ☐ _____

Operating conditions

☐ Dryness ☐ Dust
☐ Humidity ☐ Swarf

Ambient temperature

_____ °C min. _____ °C max.

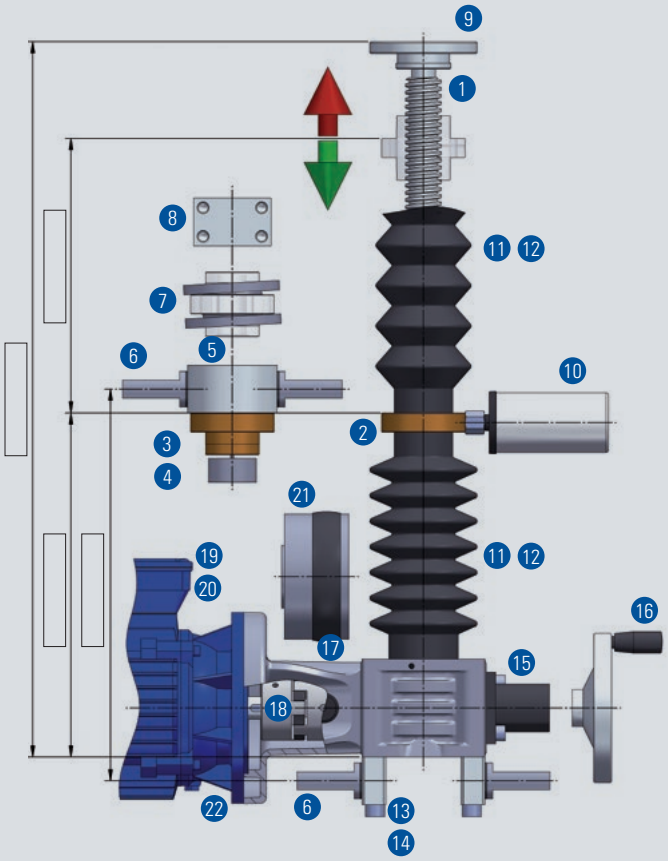
Quantity

_____ pieces ☐ prototype first

Desired delivery dates

_____ for quote _____ for delivery

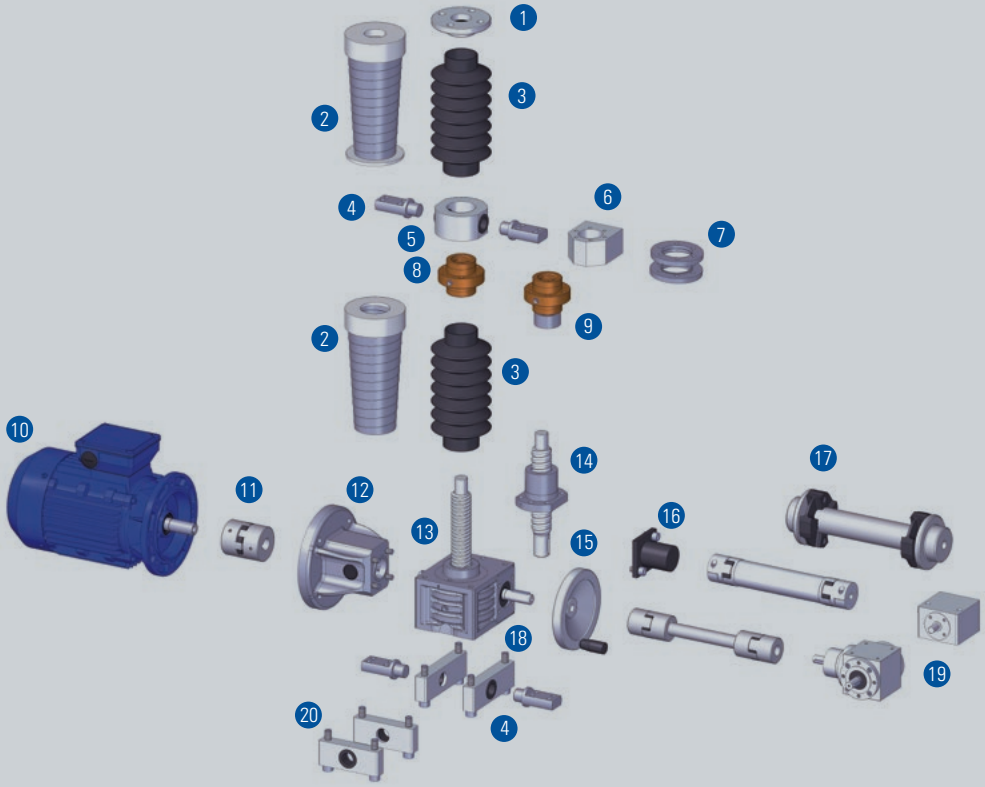
Rotating version



1	Spindle	☐
2	Duplex nut	☐
3	Flange nut	☐
4	Safety trap nut	☐
5	Suspension adapter for flange nut	☐
6	Suspension bolt	☐
7	Calotte disks	☐
8	Carrier flange	☐
9	Flange bearing	☐
10	Lubricant dispenser	☐
11	Bellow	☐
12	Spiral spring cover	☐
13	Suspension adapter long	☐
14	Suspension adapter short	☐
15	Protection cap	☐
16	Hand wheel	☐
17	Motor adapter	☐
18	Flexible coupling	☐
19	Motor	☐
20	Brake motor	☐
21	Spring brake	☐
22	Rotary pulse encoder	☐

Description of function / notes / installation diagramm

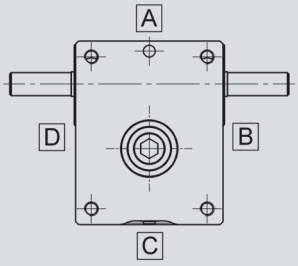
Attachment ☐ CAD File STEP/LGES/DXF or ☐ PDF or ☐ _____

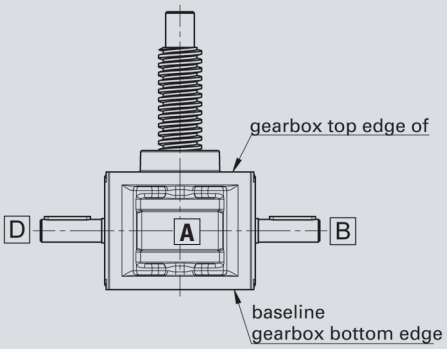


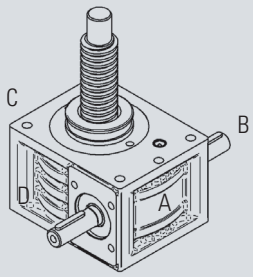
1 Flange bearing
2 Spiral spring cover
3 Bellows
4 Suspension bolt
5 Suspension adapter for flange nut
6 Carrier flange
7 Calotte disks
8 Flange nut/Duplex nut
9 Safety trap nut
10 Motor/brake motor
11 Flexible coupling
12 Motor adapter
13 Screw jack, rotating
14 Ball screw flange nut
15 Hand wheel
16 Protection cap
17 Connecting shafts
18 Suspension adapter long
19 Bevel gearboxes
20 Suspension adapter short

Size		NSE2	NSE5	NSE10	NSE25	NSE50	NSE100
maximum lifting capacity (kN)		2	5	10	25	50	100
Standard spindle		TR14x4	TR18x4	TR20x4	TR30x6	TR40x7	TR60x9
Ratio (i)	N	5:1	4:1	4:1	6:1	7:1	9:1
	L	20:1	16:1	16:1	24:1	28:1	36:1
Maximum driveshaft speed (min^{-1}) (higher on request)		1800	1800	1800	1800	1800	1800
Max. driving torque (Nm) (based on 1500 min^{-1})	N	2.50	5.60	10.50	22.50	51.00	60.20
	L	0.80	2.00	4.20	7.80	18.00	20.20
Stroke per revolution (mm)	N	0.80	1.00	1.00	1.00	1.00	1.00
	L	0.20	0.25	0.25	0.25	0.25	0.25
Efficiency gearbox (grease)	N	0.76	0.84	0.86	0.87	0.89	0.85
	L	0.45	0.62	0.69	0.69	0.74	0.65
Efficiency gearbox (oil)	N	0.86	0.87	0.96	0.98	0.94	0.95
	L	0.64	0.66	0.77	0.75	0.81	0.72
Efficiency spindle		0.50	0.42	0.40	0.40	0.36	0.32
Lubrication		Grease	Grease	Grease	Grease	Grease	Grease
Weight screw jack without spindle (kg)		0.64	1.06	1.98	3.62	10.02	16.80
Weight spindle (kg/m)		1.05	1.58	2.00	4.50	8.00	19.00

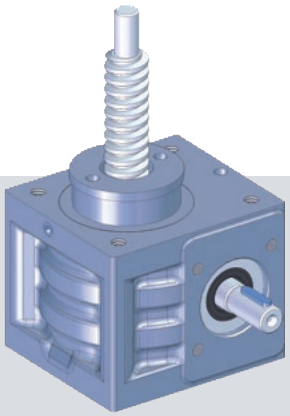
Orientation point

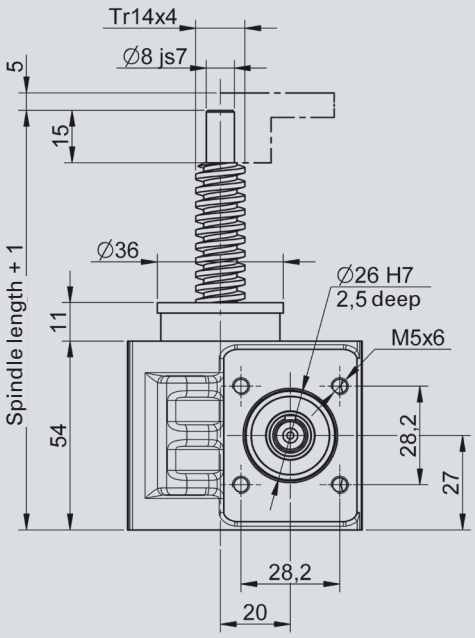


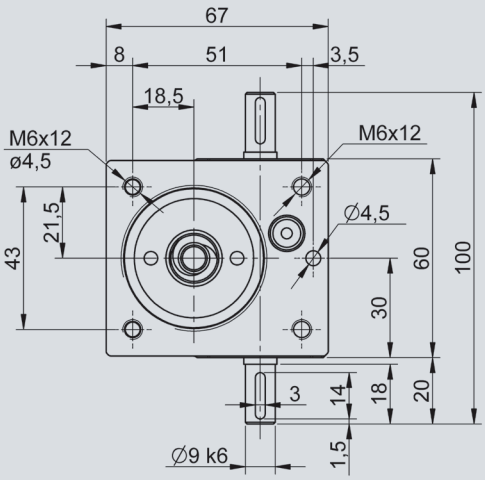




NSE 2-RN/RL







Maximum lifting capacity:	2 kN (200 kg)
Maximum driveshaft speed:	1800 min^{-1} (higher on request)
Spindle:	TR 14x4 (standard)
	TR 18x4 (optional, strengthened version)

Material

Material (housing):	Aluminium, option CuAL10Fe5Ni5
Lubrication:	Grease, option oil

Weight

Screw jack weight:	0.64 kg (with grease / without spindle)
Spindle weight:	1.05 kg/m

Versions

Safety trap nut (SFM)	see page 77
Ball screw (KGT)	see page 78

Available on request:

- Double-threaded trapezoidal screw
- Stainlesssteel spindle (INOX)
- Surface-treated spindle

More informations

Please find CAD - Data and productdatasheets under www.nozag.ch

Features

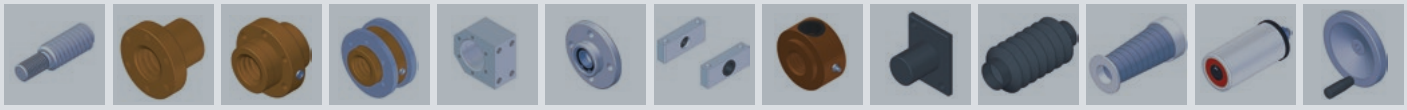
	Ratio	Stroke per revolution	Driving torque[1]	Max. torque	Drive through torque[2]
	i	mm	Nm	Nm	Nm
NSE2-RN	5:1	0.80	F(kN) x 0.34 + 0.21	2.50	12
NSE2-RL	20:1	0.20	F(kN) x 0.14 + 0.11	0.80	12
NSE2-RN[3]	5:1	0.80	F(kN) x 0.40 + 0.21	2.50	12
NSE2-RL[3]	20:1	0.20	F(kN) x 0.17 + 0.11	0.80	12

1) Factor includes efficiency, ratio and safety 1

2) With more than six gearboxes in series, please contact our technicians

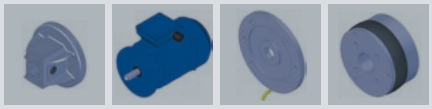
3) Optional, strengthened version TR18/4

Attachments > chapter 3.5



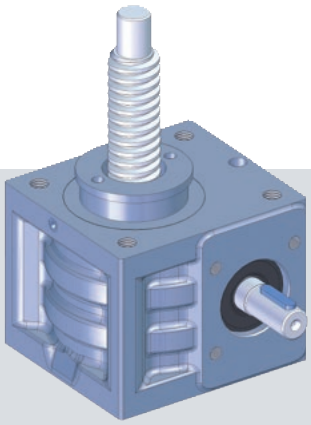
Drive components > chapter 4

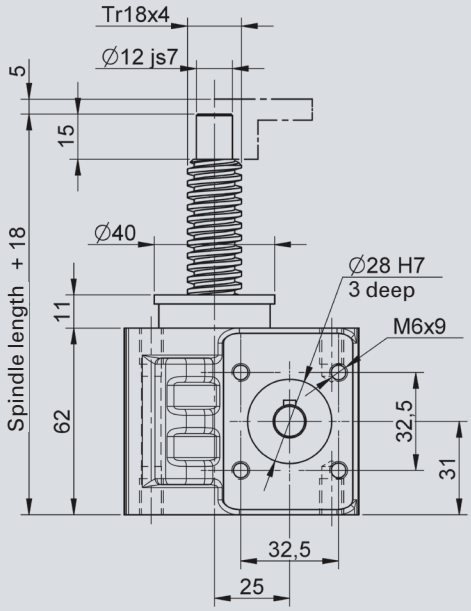
Motor mounting > chapter 5

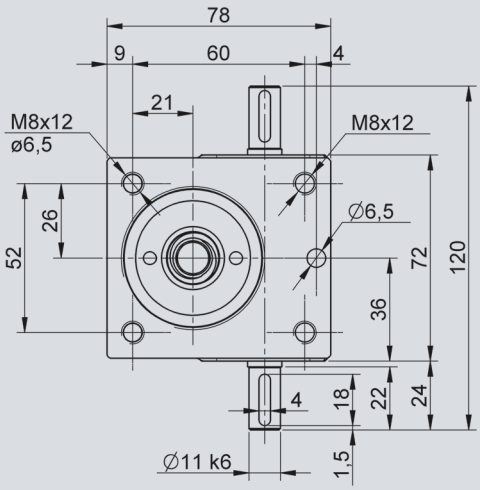


Non-rotating version > chapter 2

NSE 5-RN/RL







Maximum lifting capacity:	5 kN (500 kg)
Maximum driveshaft speed:	1800 min^{-1} (higher on request)
Spindle:	TR 18x4 (standard)
	TR 24x5 (optional, strengthened version)

Material

Material (housing):	Aluminium, option CuAL10Fe5Ni5
Lubrication:	Grease, option oil

Weight

Screw jack weight:	1.02 kg (with grease / without spindle)
Spindle weight:	1.58 kg/m

Versions

Safety trap nut (SFM)	see page 77
Ball screw (KGT)	see page 78

Available on request:

- Double-threaded trapezoidal screw
- Stainlesssteel spindle (INOX)
- Surface-treated spindle

More informations

Please find CAD - Data and productdatasheets under www.nozag.ch

Features

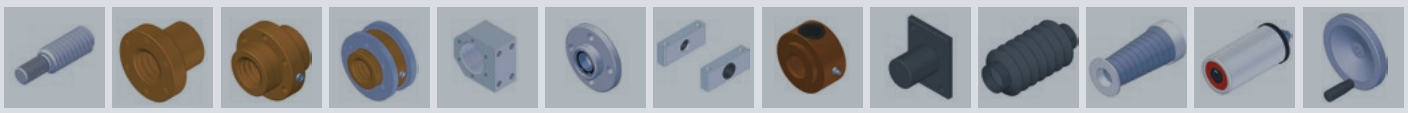
	Ratio	Stroke per revolution	Driving torque[1]	Max. torque	Drive-through torque[2]
	i	mm	Nm	Nm	Nm
NSE5-RN	4:1	1.00	F(kN) x 0.45 + 0.10	5.60	23
NSE5-RL	16:1	0.25	F(kN) x 0.15 + 0.08	2.00	23
NSE5-RN[3]	4:1	1.25	F(kN) x 0.58 + 0.10	5.60	23
NSE5-RL[3]	16:1	0.31	F(kN) x 0.20 + 0.08	2.00	23

1) Factor includes efficiency, ratio and safety 1

2) With more than six gearboxes in series, please contact our technicians

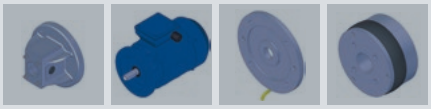
3) Optional, strengthened version TR24/5

Attachments > chapter 3.5



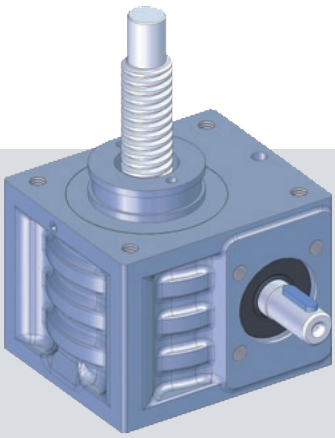
Drive components > chapter 4

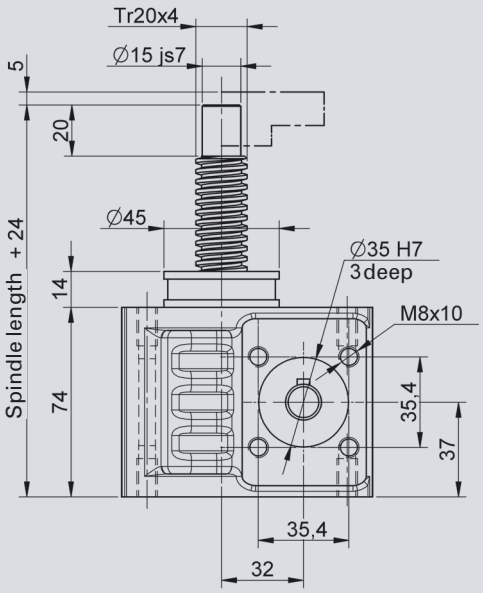
Motor mounting > chapter 5

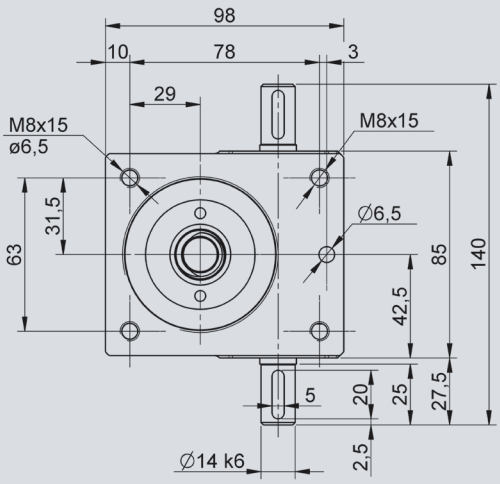


Non-rotating version > chapter 2

NSE 10-RN/RL







Maximum lifting capacity:	10 kN (1000 kg)
Maximum driveshaft speed:	1800 min^{-1} (higher on request)
Spindle:	TR 20x4 (standard)
	TR 24x5 (optional, strengthened version))

Material

Material (housing):	Aluminium, option CuAL10Fe5Ni5
Lubrication:	Grease, option oil

Weight

Screw jack weight:	1.92 kg (with grease / without spindle)
Spindle weight:	2.00 kg/m

Versions

Safety trap nut (SFM)	see page 77
Ball screw (KGT)	see page 78

Available on request:

- Double-threaded trapezoidal screw
- Stainlesssteel spindle (INOX)
- Surface-treated spindle

More informations

Please find CAD - Data and productdatasheets under www.nozag.ch

Features

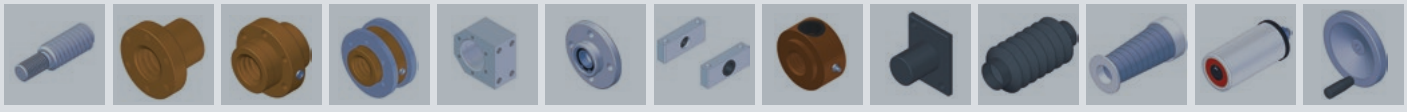
	Ratio	Stroke per revolution	Driving torque[1]	Max. torque	Drive-through torque[2]
	i	mm	Nm	Nm	Nm
NSE10-RN	4:1	1.00	F(kN) x 0.46 + 0.26	10.50	42
NSE10-RL	16:1	0.25	F(kN) x 0.14 + 0.16	4.20	42
NSE10-RN[3]	4:1	1.25	F(kN) x 0.56 + 0.26	10.50	42
NSE10-RL[3]	16:1	0.31	F(kN) x 0.18 + 0.16	4.20	42

1) Factor includes efficiency, ratio and safety 1

2) With more than six gearboxes in series, please contact our technicians

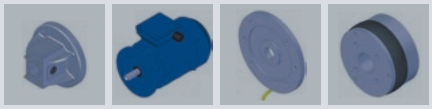
3) Optional, strengthened version TR24/5

Attachments > chapter 3.5



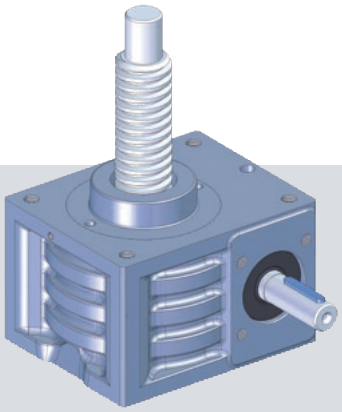
Drive components > chapter 4

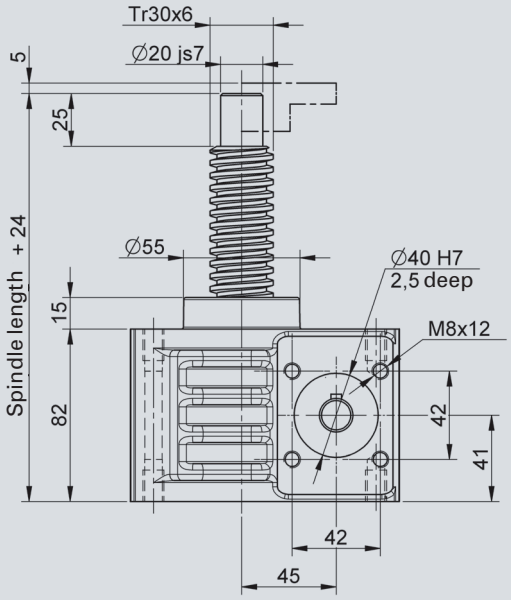
Motor mounting > chapter 5

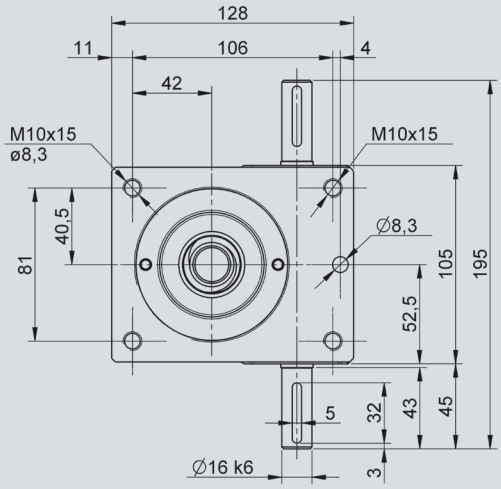


Non-rotating version > chapter 2

NSE 25-RN/RL







Maximum lifting capacity:	25 kN (2500 kg)
Maximum driveshaft speed:	1800 min^{-1} (higher on request)
Spindle:	TR 30x6 (standard)
	TR 40x7 (optional, strengthened version)

Material

Material (housing):	Aluminium, option CuAL10Fe5Ni5
Lubrication:	Grease, option oil

Weight

Screw jack weight:	3.54 kg (with grease / without spindle)
Spindle weight:	4.50 kg/m

Versions

Safety trap nut (SFM)	see page 77
Ball screw (KGT)	see page 78

Available on request:

- Double-threaded trapezoidal screw
- Stainlesssteel spindle (INOX)
- Surface-treated spindle

More informations

Please find CAD - Data and productdatasheets under www.nozag.ch

Features

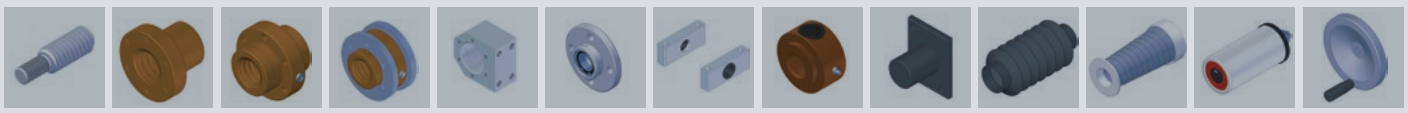
	Ratio	Stroke revolution	Driving torque[1]	Max. torque	Drive through torque[2]
	i	mm	Nm	Nm	Nm
NSE25-RN	6:1	1.00	F(kN) x 0.46 + 0.36	22.50	86
NSE25-RL	24:1	0.25	F(kN) x 0.14 + 0.26	7.80	86
NSE25-RN[3]	6:1	1.17	F(kN) x 0.59 + 0.36	22.50	86
NSE25-RL[3]	24:1	0.29	F(kN) x 0.19 + 0.26	7.80	86

1) Factor includes efficiency, ratio and safety 1

2) With more than six gearboxes in series, please contact our technicians

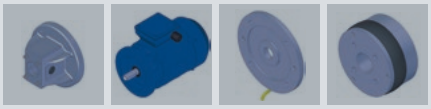
3) Optional, strengthened version TR40/7

Attachments > chapter 3.5



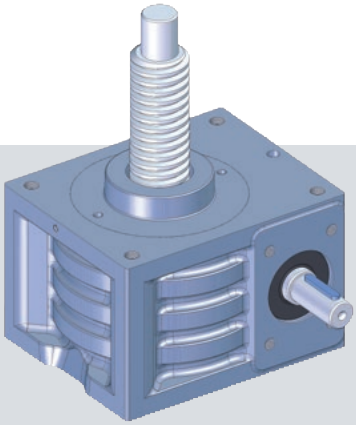
Drive components > chapter 4

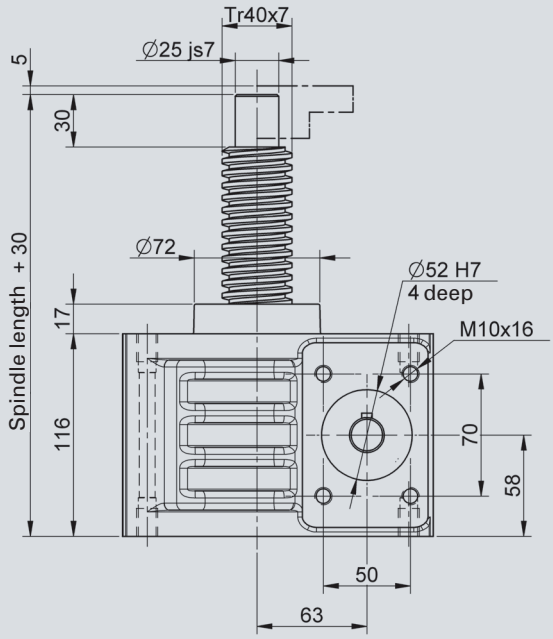
Motor mounting > chapter 5

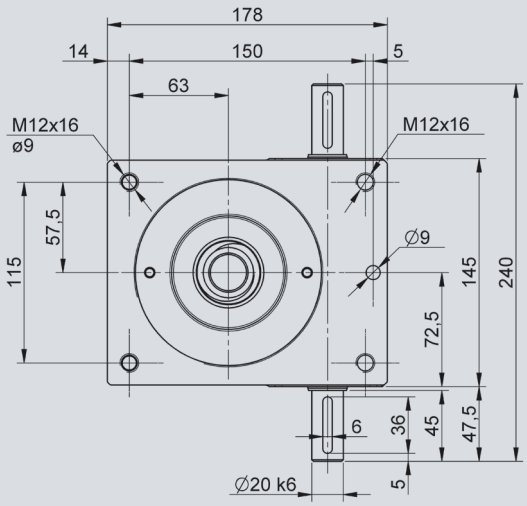


Non-rotating version > chapter 2

NSE 50-RN/RL







Maximum lifting capacity:	50 kN (5000 kg)
Maximum driveshaft speed:	1800 min^{-1} (higher on request)
Spindle:	TR 40x7 (standard)
	TR 50x8 (optional, strengthened version)

Material

Material (housing):	Aluminium, option CuAL10Fe5Ni5
Lubrication:	Grease, option oil

Weight

Screw jack weight:	9.98 kg (with grease / without spindle)
Spindle weight:	8.00 kg/m

Versions

Safety trap nut (SFM)	see page 77
Ball screw (KGT)	see page 78

Available on request:

- Double-threaded trapezoidal screw
- Stainlesssteel spindle (INOX)
- Surface-treated spindle

More informations

Please find CAD - Data and productdatasheets under www.nozag.ch

Features

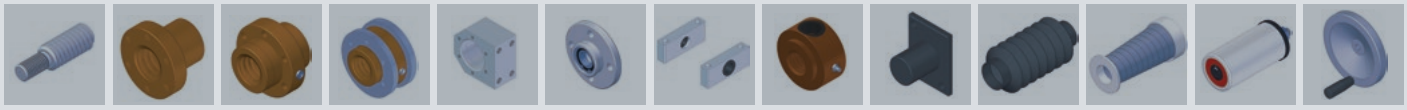
	Ratio	Stroke per revolution	Driving torque[1]	Max. torque	Drive through torque[2]
	i	mm	Nm	Nm	Nm
NSE50-RN	7:1	1.00	F(kN) x 0.50 + 0.76	51.00	150
NSE50-RL	28:1	0.25	F(kN) x 0.15 + 0.54	18.00	150
NSE50-RN[3]	7:1	1.14	F(kN) x 0.60 + 0.76	51.00	150
NSE50-RL[3]	28:1	0.29	F(kN) x 0.18 + 0.54	18.00	150

1) Factor includes efficiency, ratio and safety 1

2) With more than six gearboxes in series, please contact our technicians

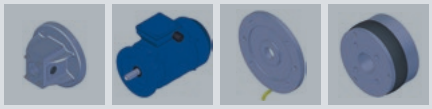
3) Optional, strengthened version TR50/8

Attachments > chapter 3.5



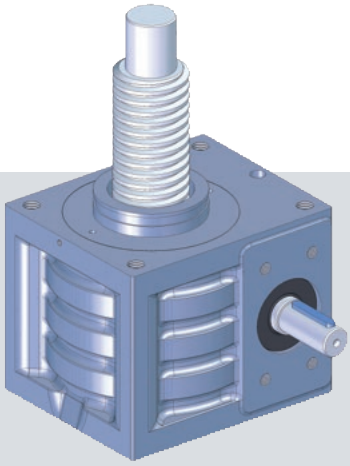
Drive components > chapter 4

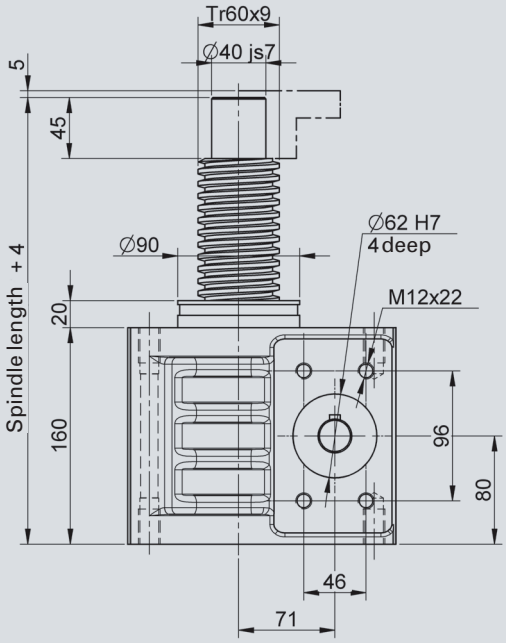
Motor mounting > chapter 5

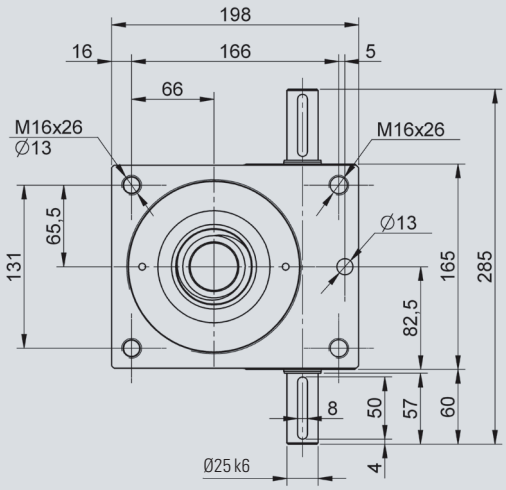


Non-rotating version > chapter 2

NSE 100-RN/RL







Maximum lifting capacity:	100 kN (10000 kg)
Maximum driveshaft speed:	1800 min^{-1} (higher on request)
Spindle:	TR 60x9 (standard)

Material

Material (housing):	Aluminium, option CuAL10Fe5Ni5
Lubrication:	Grease, option oil

Weight

Screw jack weight:	16.70 kg (with grease / without spindle))
Spindle weight:	19.00 kg/m

Versions

Safety trap nut (SFM)	see page 77
Ball screw (KGT)	see page 78

Available on request:

- Double-threaded trapezoidal screw
- Stainlesssteel spindle (INOX)
- Surface-treated spindle

More informations

Please find CAD - Data and productdatasheets under www.nozag.ch

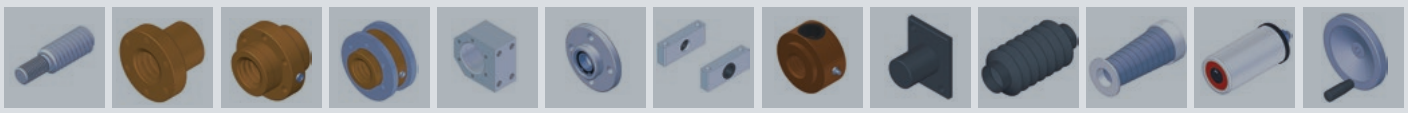
Features

	Ratio	Stroke per revolution	Driving torque[1]	Max. torque[1]	Drive through torque[2]
	i	mm	Nm	Nm	Nm
NSE100-RN	9:1	1.00	F(kN) x 0.59 + 1.68	60.20	315
NSE100-RL	36:1	0.25	F(kN) x 0.19 + 1.02	20.20	315

1) Factor includes efficiency, ratio and safety 1

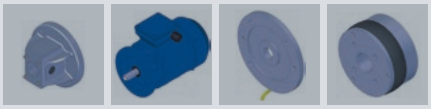
2) With more than six gearboxes in series, please contact our technicians

Attachments > chapter 3.5

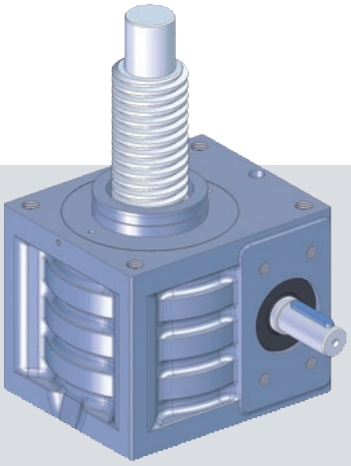


Drive components > chapter 4

Motor mounting > chapter 5



Non-rotating version > chapter 2



NSE 150-1000-RN/RL

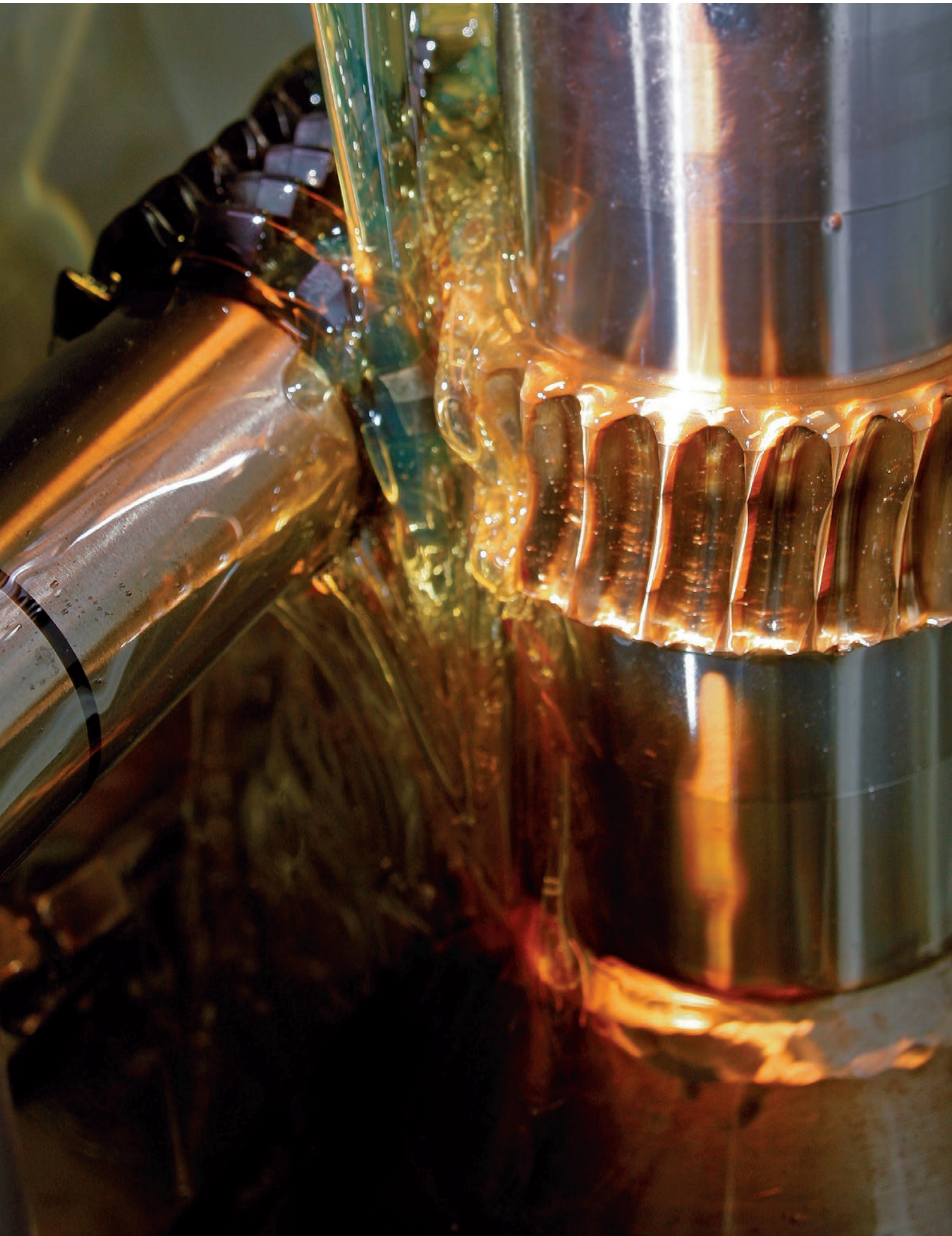
Individual and needs-oriented design
Screw jacks from size 150kN usually are used for complex tasks. We develop, manufacture or combine these dimensions individually for your needs. Take advantage of our experience and expertise in simple and complex projects with power requirements over 100kN. We provide very economical solutions, thanks to the modular system, yet also custom-made screw jacks for your needs.

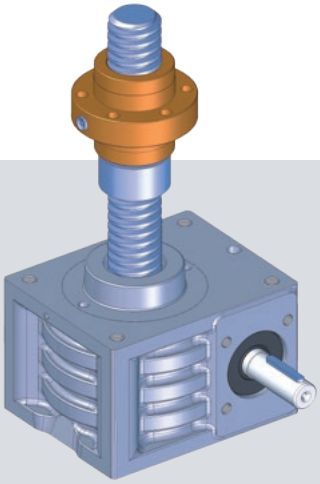
These screw jacks are available in different versions, for example,
- Material (housing): cast Iron / steel
- Double-threaded trapezoidal screws
- Stainless steel screws (INOX)
- Surface-treated screws
- Ball screw s(KGT)
- Safety trap nut (SFM)

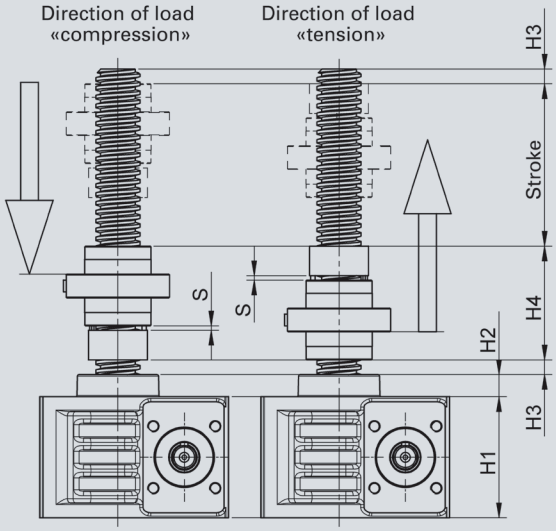
	Maximum lifting capacity
NSE150-RN	150kN
NSE150-RL	150kN
NSE250-RN	250kN
NSE250-RL	250kN
NSE350-RN	350kN
NSE350-RL	350kN
NSE500-RN	500kN
NSE500-RL	500kN
NSE750-RN	750kN
NSE750-RL	750kN
NSE1000-RN	1000kN
NSE1000-RL	1000kN
NSE1000-SL	1000kN

Standard Sizes
The screw jacks are available with the following lifting forces.

Details and advice on request
We are happy to help and assist you in details, design and calculation. CAD data or a checklist are available. Please contact us or send us your requirements.







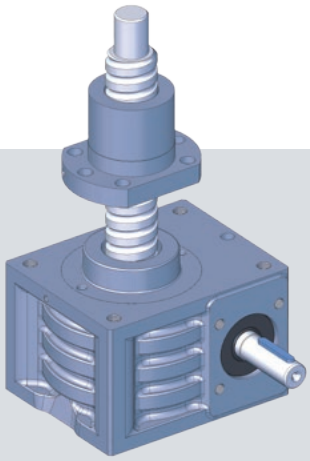
	H1	H2	H3	H4	S
NSE2	54	11	4	49.0	2.0
NSE5	62	11	4	49.0	2.0
NSE10	74	14	4	60.0	2.0
NSE25	82	15	6	77.0	3.0
NSE50	116	17	7	97.5	3.5
NSE100	160	20	9	134.5	4.5

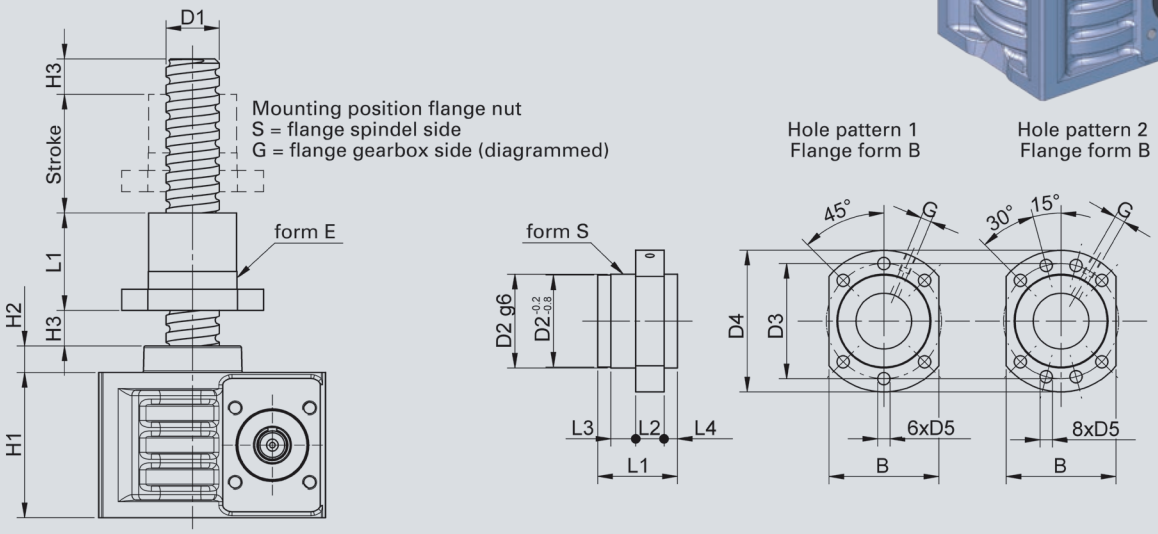
Function
The safety trap nut acts in only one direction, it runs alongside without load. In case of fracture of the travelling nut, the load bears on the trap nut.

The wear can be checked through the distance «S». As soon as the dimension «S» is reduced by more than 20% of the thread pitch (= 40% of the tooth thickness), the travelling nut must be replaced.

Load direction
Please exactly check the load direction (tension or compression). A drawing with a depiction of the functions is necessary to ensure the safety function.

Electronic wear monitoring is available upon request.





Pitch accuracy
0,05 mm/300 mm

Self-locking
None! Therefore, braking motor or spring-loaded brake FDB necessary

Fouling
Nuts are always fitted with scrapers. In case of serious fouling and fine dust/ swarf, we recommend installing bellows or a spiral spring cover.

Lubrication
Adequate lubrication is an important factor to insure the life of the system, reducing friction and ensuring smooth running. For KGT we use the same lubricants as for ball bearings.

Locking
The spindles or nuts must not be unscrewed or disengaged under any circumstances.

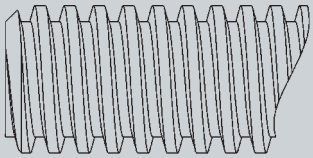
System starting and braking
Especially with high pitches and large gearboxes we recommend the use of a frequency inverter or a soft start for acceleration and deceleration. This provides protection for the whole system. Subject to a suitable control system being used the safety distance may be reduced. Please contact the technical department for more information.

Switching-on time
Owing to the lower heat generation with ball screws, you can multiply the switching-on times (ED in % per 10') by a factor of 2. Please contact us regarding applications with a switching-on time greater than 40 % (4 min per 10 min).

																			Load rating [kN]	
	KGT	RN*	RL*	Nut shape	Hole pattern	B	D2	D3	D4	D5	G	H1	H2	H3 (min.)	L1	L2	L3	L4	Axial play (max)	dy-namic	static
NSE5	16x5	1.25	0.31	E	1	40	28	38	48	5.5	M6	62	11	10	42	10	10	–	0.08	9.3	13.1
	16x10	2.50	0.63	E	1	40	28	38	48	5.5	M6	62	11	20	55	10	10	–	0.08	15.4	26.5
NSE10	25x5	1.25	0.31	E	1	48	40	51	62	6.6	M6	74	14	10	42	10	10	–	0.08	12.3	22.5
	25x10	2.50	0.63	E	1	48	40	51	62	6.6	M6	74	14	20	55	10	16	–	0.08	13.2	25.3
	25x25	6.25	1.56	S	1	48	40	51	62	6.6	M6	74	14	50	35	10	9	8	0.08	16.7	32.2
	25x50	12.50	3.13	S	1	48	40	51	62	6.6	M6	74	14	100	58	10	10	10	0.08	15.4	31.7
NSE25	32x5	0.83	0.21	E	1	62	50	65	80	9.0	M6	82	15	10	55	12	10	–	0.08	21.5	49.3
	32x10	1.67	0.42	E	1	62	53	65	80	9.0	M6	82	15	20	69	12	16	–	0.08	33.4	54.5
	32x20	3.33	0.83	E	1	62	53	65	80	9.0	M8x1	82	15	40	80	12	16	–	0.08	29.7	59.8
	32x40	6.67	1.67	S	6x60°	(round)	53	68	80	7.0	M6	82	15	80	45	16	14	7.5	0.08	14.9	32.4
NSE50	40x5	0.71	0.18	E	2	70	63	78	93	9.0	M6	116	17	10	57	14	10	–	0.08	23.8	63.1
	40x10	1.43	0.36	E	2	70	63	78	93	9.0	M8x1	116	17	20	71	14	16	–	0.08	38.0	69.1
	40x20	2.86	0.71	E	2	70	63	78	93	9.0	M8x1	116	17	40	80	14	16	–	0.08	33.3	76.1
	40x40	5.71	1.43	S	2	(round)	63	78	93	9.0	M8x1	116	17	80	85	14	16	7.5	0.08	35.0	101.9
NSE100	50x10	1.25	0.31	E	2	85	75	93	110	11.0	M8x1	160	20	20	95	16	16	–	0.08	68.7	155.8
	50x20	2.50	0.63	E	2	95	85	103	125	11.0	M8x1	160	20	40	95	18	22	–	0.08	60.0	136.3

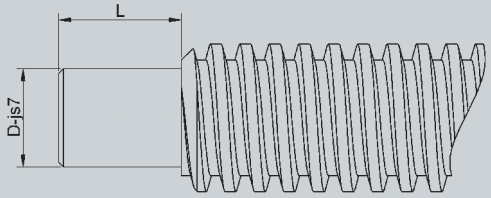
* Stroke per revolution (mm)

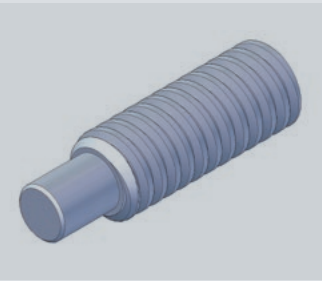
Spindle end, rotating spindle TR



	TR
NSE2-TR	TR14x4
NSE5-TR	TR18x4
NSE10-TR	TR20x4
NSE25-TR	TR30x6
NSE50-TR	TR40x7
NSE100-TR	TR60x9

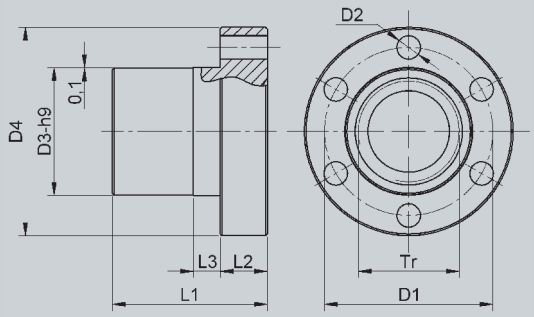
Spindle end, rotating spindle TRZ

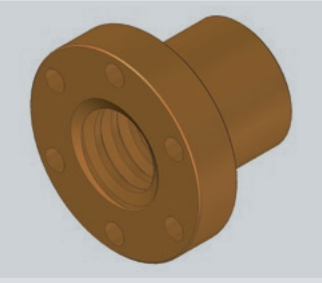




	TR	D	L
NSE2-TRZ	TR14x4	8	15
NSE5-TRZ	TR18x4	12	15
NSE10-TRZ	TR20x4	15	20
NSE25-TRZ	TR30x6	20	25
NSE50-TRZ	TR40x7	25	30
NSE100-TRZ	TR60x9	40	45

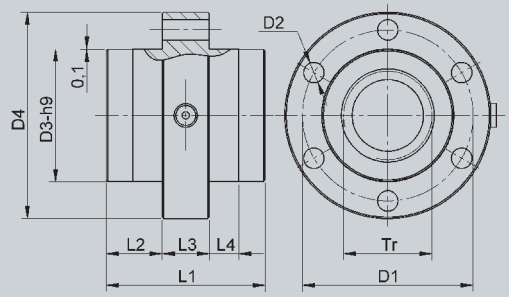
Flange nut FM

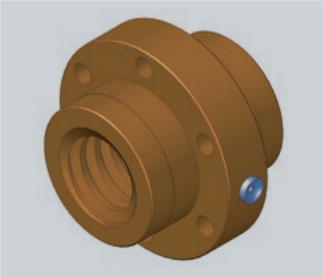




	TR	D1	D2	D3	D4	L1	L2	L3
NSE2-FM	TR14x4	38	6	28	48	35	12	8
NSE5-FM	TR18x4	38	6	28	48	35	12	8
NSE10-FM	TR20x4	45	7	32	55	44	12	8
NSE25-FM	TR30x6	50	7	38	62	46	14	8
NSE50-FM	TR40x7	78	9	63	95	66	16	12
NSE100-FM	TR60x9	110	13	88	130	90	20	16

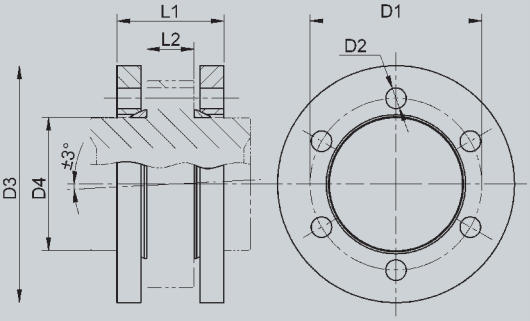
Duplex nut DMN

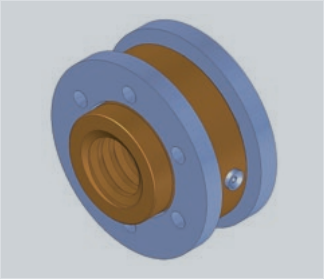




	TR	D1	D2	D3	D4	L1	L2	L3	L4
NSE2-DMN	TR14x4	38	6	28	48	35	11.5	12	8
NSE5-DMN	TR18x4	38	6	28	48	35	11.5	12	8
NSE10-DMN	TR20x4	45	7	32	55	44	16.0	12	8
NSE25-DMN	TR30x6	58	7	45	70	54	19.0	16	10
NSE50-DMN	TR40x7	78	9	63	95	66	25.0	16	12
NSE100-DMN	TR60x9	110	13	88	130	90	35.0	20	16

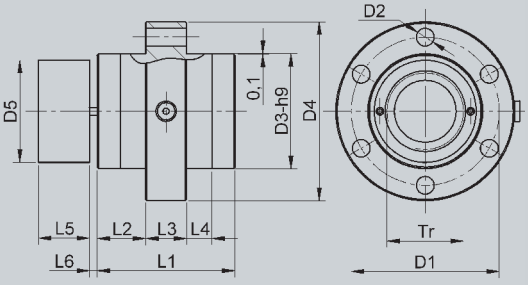
Calotte disks KS fitting duplex nut DMN

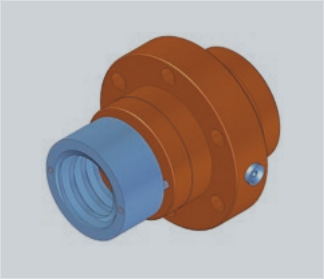




	TR	D1	D2	D3	D4	L1	L2
NSE2-KS	TR14x4	38	6	50	28	27	12
NSE5-KS	TR18x4	38	6	50	28	27	12
NSE10-KS	TR20x4	45	7	60	32	32	12
NSE25-KS	TR30x6	58	7	80	45	36	16
NSE50-KS	TR40x7	78	9	100	63	42	16
NSE100-KS	TR60x9	110	13	140	88	52	20

Safety trap nut SFM

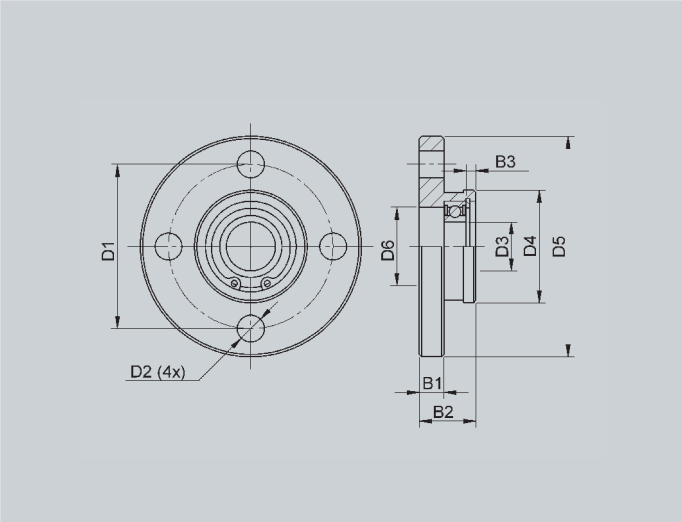


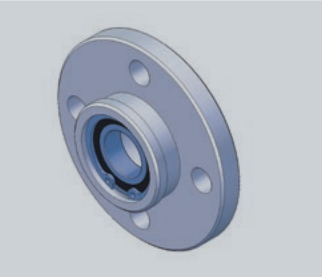


	D5	L5	L6
NSE2-R-SFM	25	12	2.0
NSE5-R-SFM	25	12	2.0
NSE10-R-SFM	31	14	2.0
NSE25-R-SFM	40	20	3.0
NSE50-R-SFM	58	28	3.5
NSE100-R-SFM	74	40	4.5

Remaining dimensions are the same as duplex nut

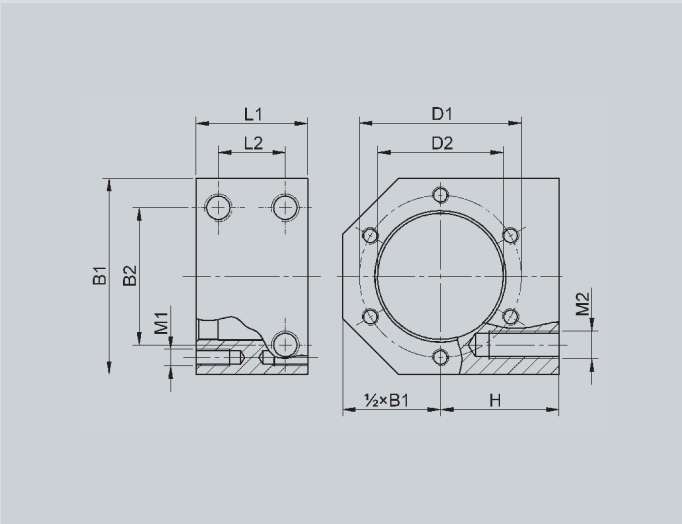
Flange bearing FL

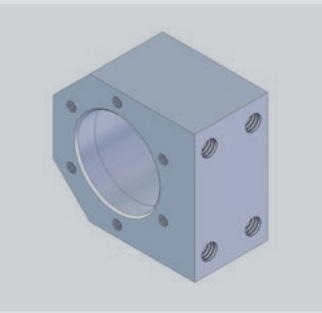




	B1	B2	B3	D1	D2	D3	D4	D5	D6
NSE2-FL	7	20	5	48	9	8	29	65	18
NSE5-FL	7	20	5	48	9	12	29	65	20
NSE10-FL	8	21	5	60	11	15	39	80	28
NSE25-FL	10	23	5	67	11	20	46	90	32
NSE50-FL	15	30	5	85	13	25	60	110	42
NSE100-FL	20	50	4	117	17	40	85	150	60

Carrier flange TRMFL for duplex nut or flange nut

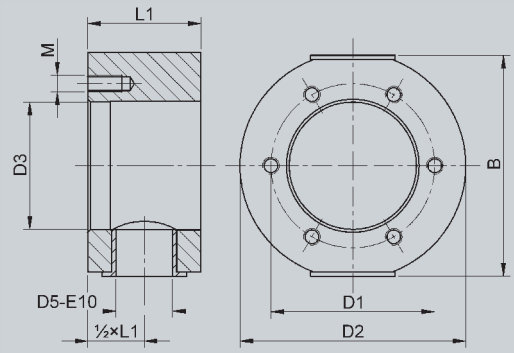


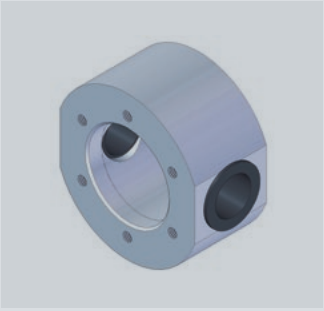


	B1	B2	D1	D2	H	L1	L2	M1	M2
NSE2-TRMFL	50	34	38	28	35.0	40	24	M5x10	M8x25
NSE5-TRMFL	50	34	38	28	35.0	40	24	M5x10	M8x25
NSE10-TRMFL	58	39	45	32	37.5	40	24	M6x12	M8x25
NSE25-TRMFL*	70	49	58	45	42.5	40	24	M6x12	M10x25
NSE50-TRMFL	100	76	78	63	70.0	65	41	M8x16	M14x43

NSE-100 TRMFL on request
* fits only on duplex nuts DMN

Cardan adapter KAM for duplex or flange nut



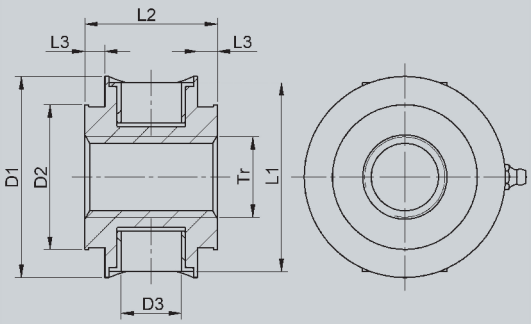


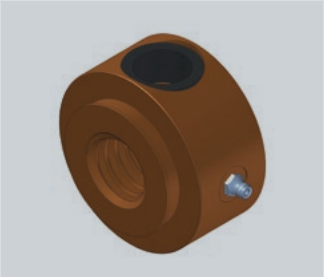
	B	D1	D2	D3	D5	L1	M
NSE5-KAM	50	38	58	28	15	30	M5x10
NSE10-KAM	57	45	60	32	15	30	M6x12
NSE25-KAM*	78	58	80	45	20	40	M6x12
NSE50-KAM	105	78	110	63	30	60	M8x14
NSE100-KAM	150	110	155	88	40	75	M12x20

* fits only on duplex nuts DMN

Cardan Nut KM

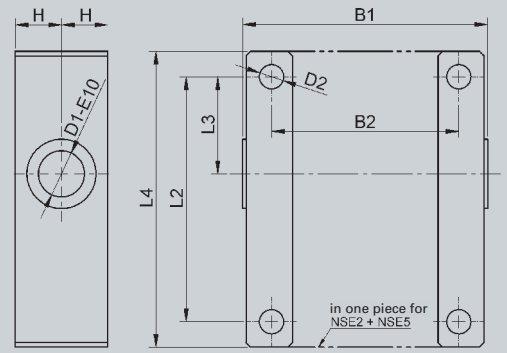
on request

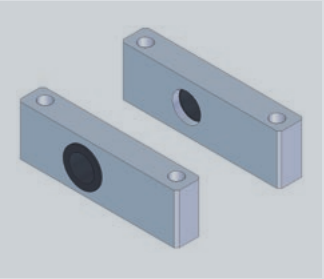




	TR	D1	D2	D3	L1	L2	L3
NSE2-KM	TR14x4	44	44	10	40	35	8
NSE5-KM	TR18x4	50	50	15	46	40	8
NSE10-KM	TR20x4	54	54	15	50	44	10
NSE25-KM	TR30x6	74	74	20	70	54	10
NSE50-KM	TR40x7	100	72	30	94	66	10
NSE100-KM	TR60x9	140	90	40	134	90	10

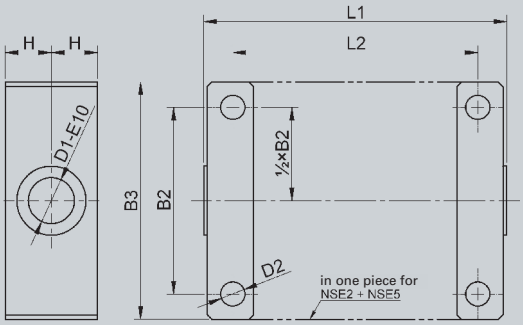
Suspension adapter plate long KAL

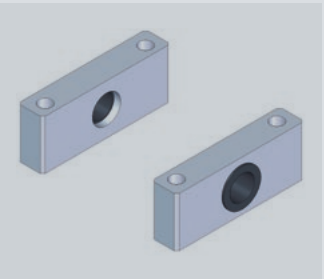




	B1	B2	D1	D2	H	L2	L3	L4
NSE2-KAL	61	43	10	6.5	12.5	51	18.5	67
NSE5-KAL	72	52	15	8.5	15.0	60	21.0	78
NSE10-KAL	85	63	15	8.5	15.0	78	29.0	98
NSE25-KAL	106	81	20	10.5	20.0	106	42.0	128
NSE50-KAL	147	115	30	13.0	30.0	150	63.0	178
NSE100-KAL	165	131	40	17.0	37.5	166	66.0	196

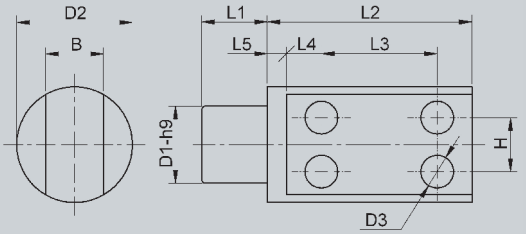
Suspension adapter plate short KAK

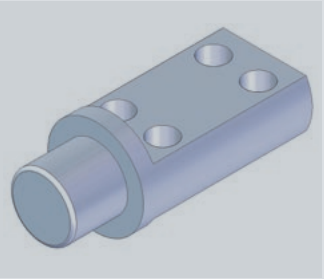




	B2	B3	D1	D2	H	L1	L2
NSE2-KAK	43	59	10	6.5	12.5	69	51
NSE5-KAK	52	70	15	8.5	15.0	80	60
NSE10-KAK	63	83	15	8.5	15.0	100	78
NSE25-KAK	81	103	20	10.5	20.0	131	106
NSE50-KAK	115	143	30	13.0	30.0	182	150
NSE100-KAK	131	161	40	17.0	37.5	200	166

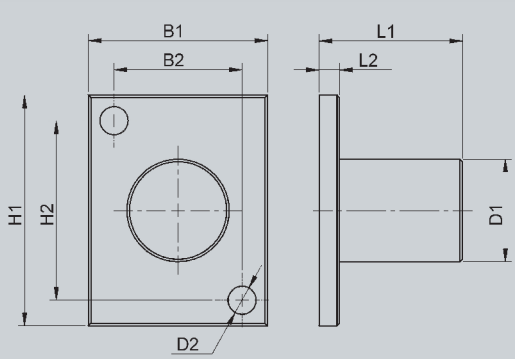
Suspension adapter bolt KB

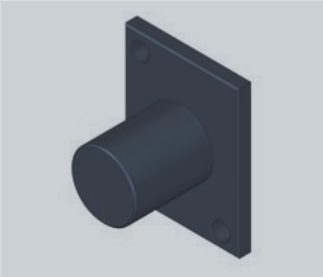




	B	D1	D2	D3	H	L1	L2	L3	L4	L5
NSE2-KB	9	10	20	5.5	10	10	30	15	6	3
NSE5-KB	12	15	25	6.5	12	10	40	20	8	5
NSE10-KB	12	15	25	6.5	12	10	40	20	8	5
NSE25-KB	15	20	30	8.5	14	16	53	30	9	5
NSE50-KB	20	30	40	10.5	18	21	60	35	10	5
NSE100-KB	30	40	50	12.5	20	31	80	50	12	5

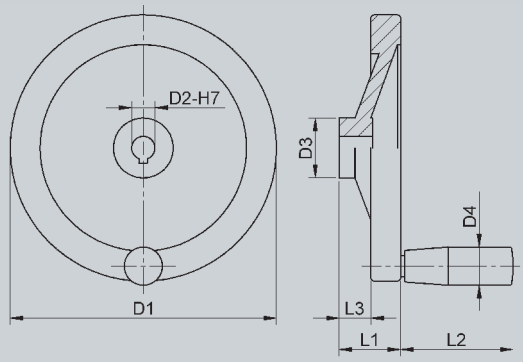
Protection cap SK





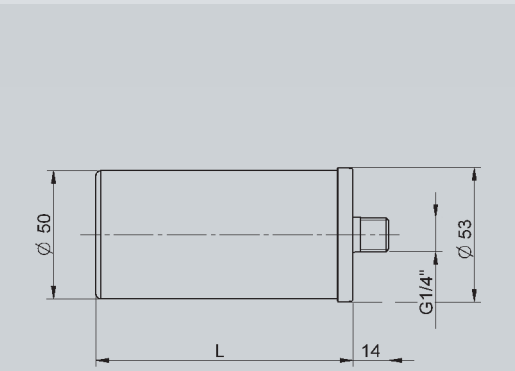
	B1	B2	D1	D2	H1	H2	L1	L2
NSE2-SK	38	28.2	30	5.5	49	28.2	25	6
NSE5-SK	45	32.5	30	7.0	45	32.5	32	8
NSE10-SK	50	35.4	30	9.0	50	35.4	35	8
NSE25-SK	60	42.0	40	9.0	60	42.0	53	8
NSE50-SK	70	50.0	40	11.0	90	70.0	56	8
NSE100-SK	70	46.0	50	13.5	120	96.0	70	8

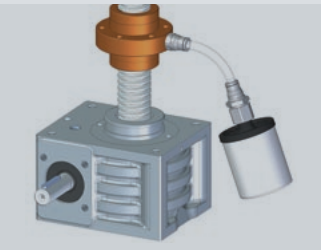
Hand wheel HR



	D1	D3	D4	L1	L2	L3	D2 with keyway
HR-60	60	18	21	22	52.5	15	09/11
HR-80	80	26	18	26	42.5	16	11
HR-125	125	31	23	33	67.5	18	11/14
HR-160	160	36	26	39	82.5	20	14/16
HR-200	200	42	26	45	82.5	24	16/20
HR-250	250	48	28	51	92.5	28	20/25

Lubricant dispenser SSG

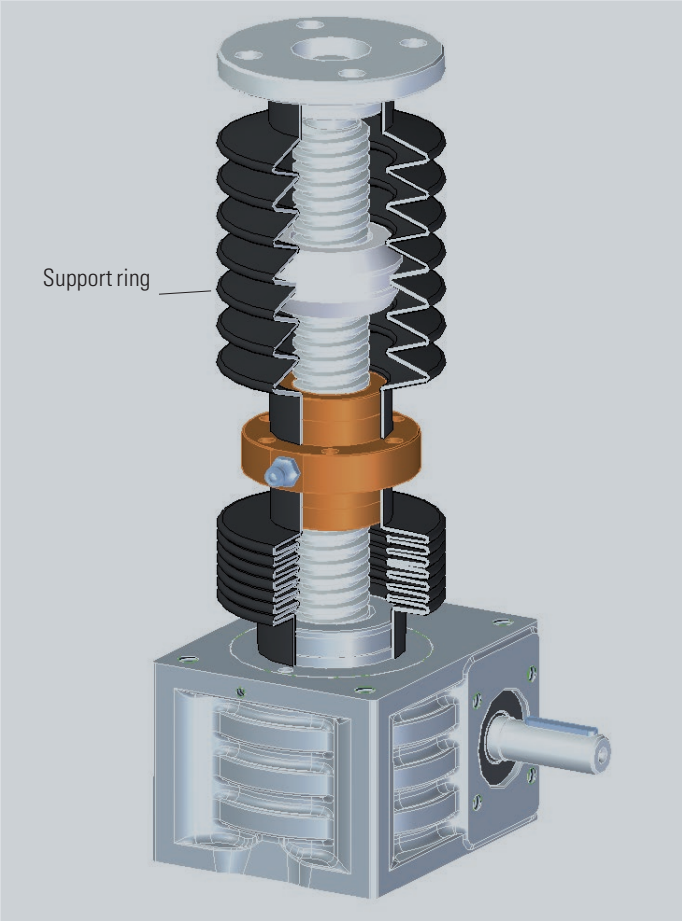




	L	Filling
SSG-60-UM	62	60 ml Universal grease with MoS2
SSG-125-UM	100	125 ml Universal grease with MoS2
SSG-125-L	100	125 ml Food fat

	SSG	SSG mit Schlauch
NSE2	**SSG-RED-M6/-G1/8**	**SSG-RED-M6 + SSG-S**
NSE5	**SSG-RED-M6/-G1/8**	**SSG-RED-M6 + SSG-S**
NSE10-RN/RL*	**SSG-RED-M6/-G1/8**	**SSG-RED-M6 + SSG-S**
NSE25	**SSG-RED-G1/8**	**SSG-S**
NSE50	**SSG-RED-G1/8**	**SSG-S**
NSE100	**SSG-RED-G1/8**	**SSG-S**

Depending on the required amount of lubrication, the dispensers last for 1 up to 12 months.
We would gladly supply you with accsessories (tube, busching, etc.)

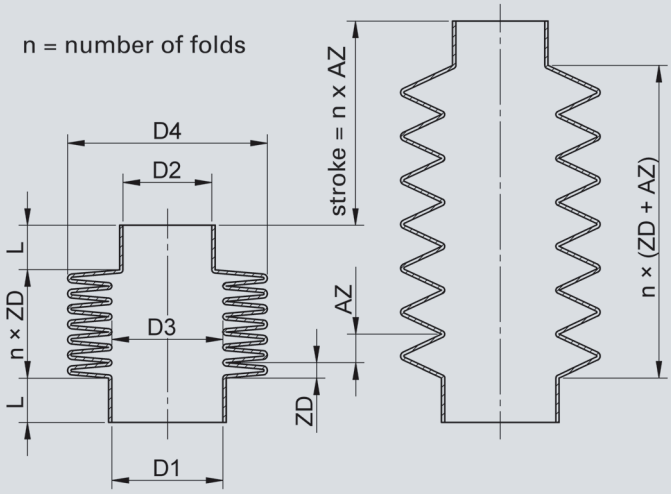


The bellows protect the spindle from dirt and moisture.

Particularly in the case of on-site assembly, they protect the spindles from: construction dust, grinding dust from angle grinders, welding spatters, etc. Protect the bellows from direct sunlight. Please note also that the maximum operation time is reduced by the heat-insulating of the gearboxes effect of the bellows.

Attention:
The bellows must not be compressed below the dimension ZD or extended beyond the dimension AZ. (For strokes greater than 1000 mm, use the bellows with support rings.) Take into consideration that, for horizontal installation of the bellows, it must not come into contact with screw: Serious wear will occure! This can be avoided by the use of support rings.

Air holes must be made by the customer, depending on the speed.



Example for ordering

Type
Number of folds
Gaiter diameter 1/2

FB90-15-30/40

Screw jack NSE2–NSE5

	L	ZD*	AZ*	D1	D2	D3	D4
FB52	10	2.1	10.5	26	34	30	52

* per fold
Standard is FB52-29-26/34-300 mit ZD = 60mm

Material: NBR
Temperature range: -20 … +80 °C

Screw jack NSE10–NSE50

	L	ZD*	AZ*	D1	D2	D3	D4
FB90	20	3.5	24.5	30/40/50	30/40/50	50	90

* per fold

Material: Nitril, black
Temperature range: -20 … +80 °C

Screw jack NSE100

	L	ZD*	AZ*	D1	D2	D3	D4
FB130	20	2.0	26.0	68/88	68/88	70	130

* per fold

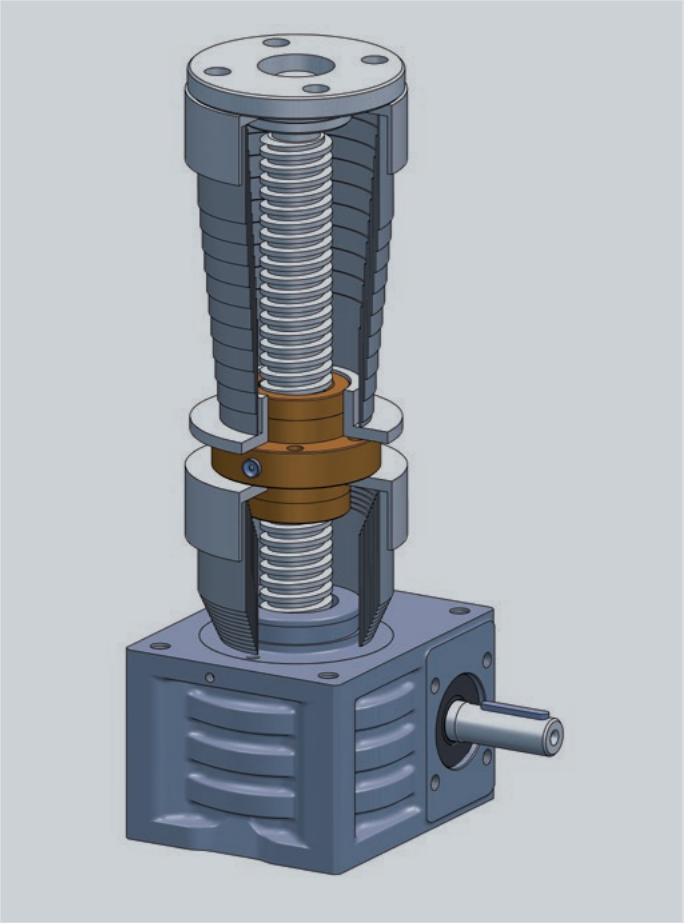
Material: NBR
Temperature range: -20 … +80 °C

Internal support ring fitting FB52

NSE2-FB52-STR
NSE5-FB52-STR

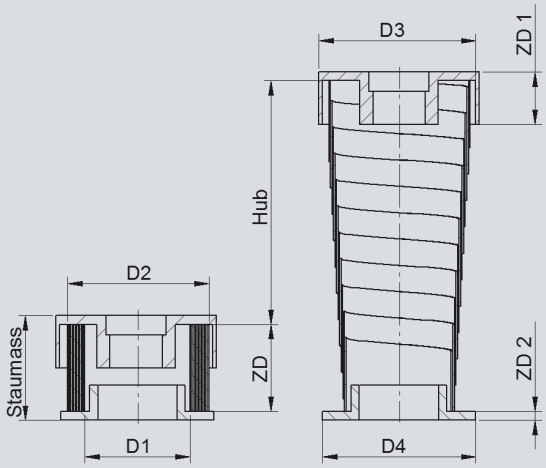
Internal support ring fitting FB90

NSE5-FB-STR
NSE10-FB-STR
NSE25-FB-STR
NSE50-FB-STR



Spiral spring covers can be used for different applications. If you want to combine different add-on components, centering sleeves are required, which we would be happy to supply.

Important: The spiral spring cover must not be allowed to uncoil. Please specify if the spiral spring cover SF is to be installed vertically or horizontally. We recommend placing the large diameter facing up for vertical installation, and for horizontal installation the large diameter in the direction of the swarf. A light film of oil improves operation and increases the operating life.



Screw jack NSE5

	D1	D2	ZD	Stroke horizontal	Stroke vertical
045/350/030	45	65	30	260	320
045/550/050	45	68	50	400	500

Screw jack NSE10

	D1	D2	ZD	Stroke horizontal	Stroke vertical
050/350/030	50	73	30	260	320
050/550/050	50	73	50	400	500
050/750/060	50	80	60	570	690
050/1100/100	50	77	100	800	1000

Screw jack NSE25

	D1	D2	ZD	Stroke horizontal	Stroke vertical
060/350/050	60	78	50	200	300
060/550/060	60	81	60	370	490
060/750/075	60	89	75	525	675
060/1100/075	60	102	75	875	1025

Screw jack NSE50

	D1	D2	ZD	Stroke horizontal	Stroke vertical
075/350/050	75	95	50	200	300
075/750/060	75	109	60	570	690
075/1100/100	75	108	100	800	1000
075/1500/100	75	120	100	1200	1400

Screw jack NSE100

	D1	D2	ZD	Stroke horizontal	Stroke vertical
100/350/060	100	126	60	170	290
100/800/075	100	138	75	575	725
100/1200/100	100	137	100	900	1100
100/1800/150	100	151	150	1350	1650

Example for ordering

Spiral spring cover
Interal diameter D1
Longest length AZ
Smallest length ZD
Installation H/V (horizontal/vertical)

SF-050-0550-050-V

By means of the following table, you can determine the required spindle lengths. So that you can quickly calculate the installation dimensions of your screw jack. These allowances are the minimum required. For special installation situations, please make a drawing or contact us.

Explanation
Spindle length = stroke + basic length + attachments

Calculation example

NSE25-RL with 270 mm stroke with pin for flange bearing, Duplex nut and bellow

Spindle length
270 + 110 + 54 + 42 = 476 mm spindle length

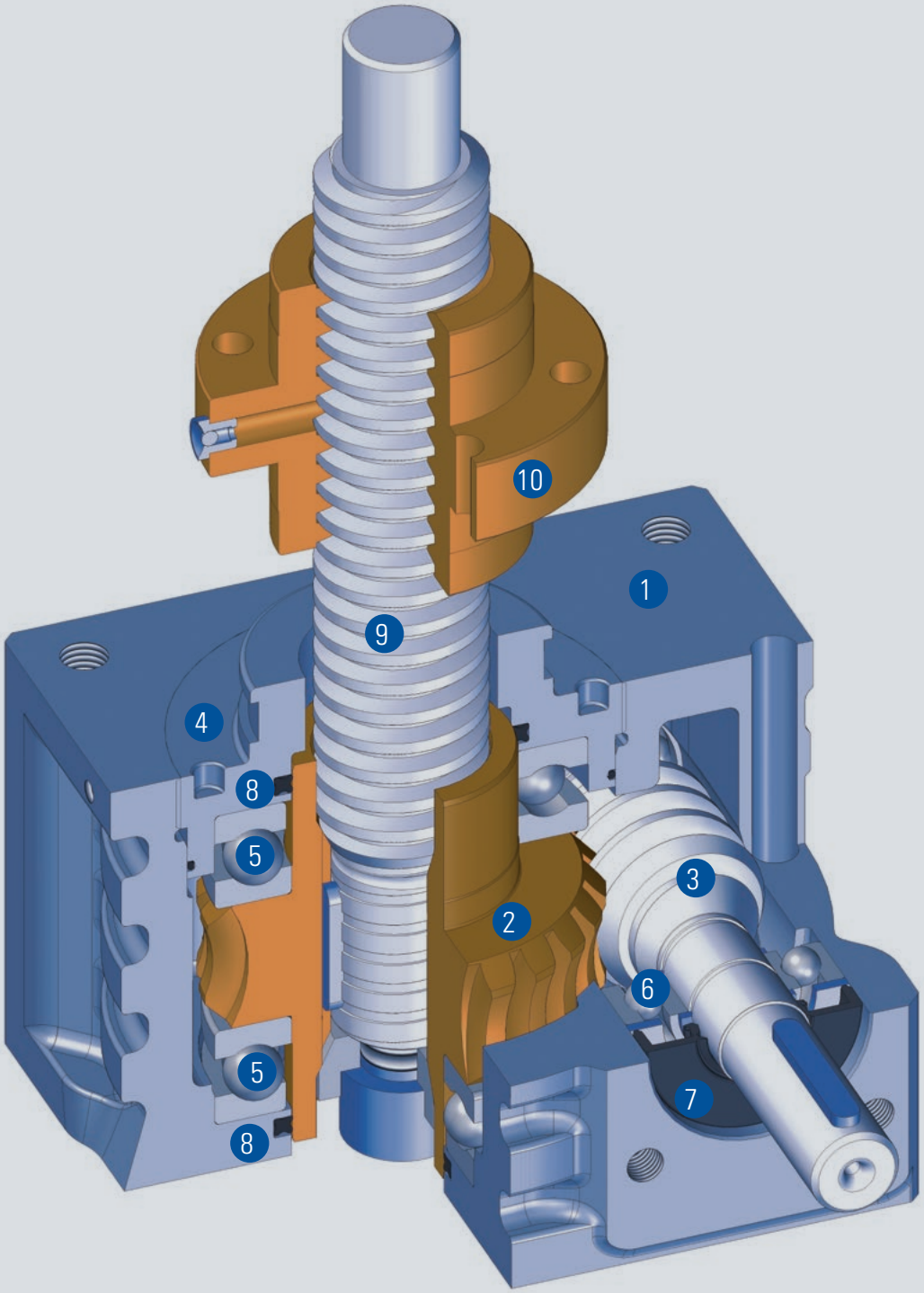
Smallest length bellow
$^{270}/_{24.5} = 11.02 > 12 \times 3.5 = 42$

	NSE2	NSE5	NSE10	NSE25	NSE50	NSE100
TR-basic length*	72	63	72	85	117	194
KGT-basic length**		75 16x05	84 25x05	93 32x05	123 40x05	216 50x10
		95 16x10	104 25x10	113 32x10	143 40x10	256 50x20
			164 25x25	153 32x20	183 40x20	
			264 25x50	233 32x40	263 40x40	
Basic length without safety	64	55	64	73	103	176
Pin length	15	15	20	25	30.0	45.0
Flange nut	35	35	44	46	66.0	90.0
Flange nut with SFM	49	49	60	69	97.5	134.5
Duplex nut	35	35	44	54	66.0	90.0
Duplex nut with SFM	49	49	60	77	97.5	134.5
KGT-nut L1 see page 78		42 16x05	42 25x05	55 32x05	57	95 50x10
		55 16x10	55 25x10	69 32x10	71 40x10	95 50x10
			35 25x25	80 32x20	80 40x20	
			58 25x50	45 32x40	85 40x40	
Smallest length bellow	$^{Stroke}/_{10.5}$ = ... x 2.1 *round number*	$^{Stroke}/_{10.5}$ = ... x 2.1 *round number*	$^{Stroke}/_{24.5}$ = ... x 3.5 *round number*	$^{Stroke}/_{24.5}$ = ... x 3.5 *round number*	$^{Stroke}/_{24.5}$ = ... x 3.5 *round number*	$^{Stroke}/_{26.0}$ = ... x 2.0 *round number*

* Contains 2 x the safety distance (spindle pitch)
** Contains 4 x the safety distance (spindle pitch)
Subject to dimension changes

- Spiral spring cover SF: As the extension in case of a spiral spring cover is different depending on the attachment, this option has to be determined graphically. We would be happy to generate this drawing for you.

CAD data can be found at www.nozag.ch



1 Housing
2 Worm wheel
3 Worm
4 Bearing cap
5 Deep groove ball thrust bearing
6 Deep groove ball bearing
7 Oil seal
8 X-ring/O-ring
9 Spindle
10 Duplex nut