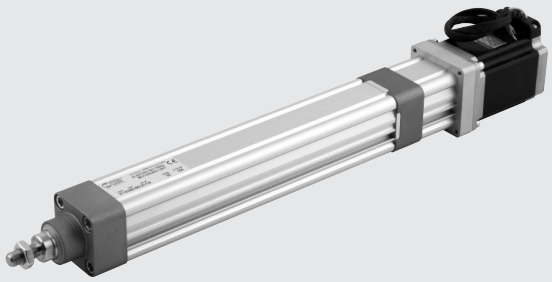
ELECTRIC CYLINDER
SERIES ELEKTRO ISO 15552

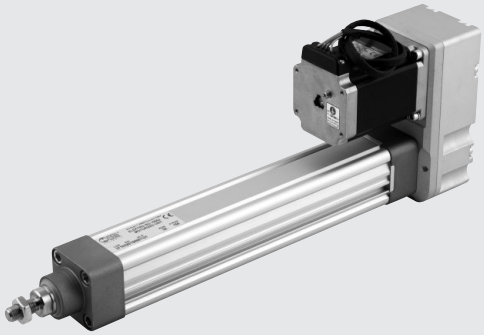
This electric cylinder features an ISO 15552 mounting interface that ensures full compatibility with the standard accessories used in pneumatic cylinders. The piston rod is moved by a hardened and tempered screw coupled with a ball recirculation nut, which guarantees precision and reliability over time. A version with a built-in anti-rotation system is also available. It consists of two opposing pads that slide along special longitudinal grooves cut out of the cylinder sleeve. These grooves are designed to house sensors, while the piston is equipped with a magnet. The rod boasts an enhanced outer diameter and thickness, which guarantees maximum rigidity and greater resistance to radial and peak loads. The system also includes a device for lubricating the screw and nut, thereby ensuring long life and steady performance.
The cylinder can be secured using a wide range of standard accessories, readily available in both aluminium and steel, which is particularly suitable for applications subject to high mechanical stress.
The cylinder can be equipped with motors chosen from an optimised range, which includes stepper motors and brushless motors. Versions with an in-line motor are available, where the motor shaft is connected directly to the screw via a coupling, and versions with a geared motor, where motion is driven via pulleys and a toothed belt. The most suitable drives for motor control are also provided. On request, flanges and adaptor couplings can be manufactured with a view to allowing the use of specific brand motors chosen by the customer.

N.B.: A piston rod anti-rotation system must be used. If the piston rod is not fixed firmly to an element, a flange or to any other device preventing it from rotating, a cylinder in the anti-rotation version must be used.

in-line version



geared version



TECHNICAL DATA			Ø 32	Ø 50	Ø 63 Ø63 HD	Ø 80	Ø 100 Ø 100 HD
Piston rod thread			M10x1.25	M16x1.5	M16x1.5	M20x1.5	
Temperature range	WITH MOTOR	°C	see single motor data sheet				
	ONLY MECHANICS	°C	from -10 to +50				
Electrical protection rating with	STEPPING motors		IP20/IP40 or IP55 (see key to codes on page **A5**.33)			IP55 (only for Ø 80 and Ø 100)	
	BRUSHLESS motors		IP40 or IP65 (see key to codes on page **A5**.33)			IP65	
Minimum stroke for version with non-rotating			Twice the screw pitch (to guarantee ball lubrication)				
Minimum stroke for version without non-rotating		mm	80 (in order to re-grease the screw)			125 (in order to re-grease the screw)	
Maximum stroke		mm	1370	1500			
Positioning repeatability		mm	± 0.02				
Positioning accuracy		mm	± 0.2 **				
Overall radial oscillation of the piston rod (without load) for 100 mm of stroke		mm	0.4				
Versions			With or without piston rod non-rotating			With or without piston rod non-rotating; in line or geared motor; wth or without planetary gearbox	
Uncontrolled impact at the end of stroke			NOT ALLOWED (it provides an extra-stroke minimum 5 mm)				
Sensor magnet			YES				
Maximum angle of twist of the piston rod for non-rotating version			1°30′	1°	0°45′	0°35′	0°30′
Work position			Any				

** indicative average data that gets influenced by various factors such as the stroke, the type of motor, the cylinder version, etc ...

N.B.: On request available with:
- piston rod in stainless steel (Ø32, Ø50 in AISI 316; Ø63, Ø63HD, Ø80, Ø100, Ø100 HD in AISI 304), with limitations to the maximum stroke;
- head-sleeve fixing screws in AISI 316 stainless steel;
- lubrication grease compatible with the food industry, certified NSF Cat. H1 (accidental contact with food).

METAL WORK PNEUMATIC

MECHANICAL FEATURES		Ø 32		Ø 50			Ø 63			Ø 63 HD		Ø 80			Ø 100		Ø 100 HD
Screw pitch (p)	mm	4	12	5	10	16	5	10	20	5	10	5	10	32	10	40	10
Screw diameter	mm	12	12	16	16	16	20	20	20	20	20	32	32	32	50	40	50
Static axial load (F_o)*	N	2800		3700			6900			13500		24100			32000		40000
Dynamic axial load (F)	N	5000	5000	6700	6670	4330	10010	11200	4880	17600	18980	30890	36300	26400	44200	43510	73000
		Calculate mean axial load and the calculate life (see graphs on page **A5**.10)															
Maximum number of revs	1/min	4000		3000			2500			2500		2000			3000	2200	3000
Maximum speed (V_{max})	mm/s	267	800	250	500	800	208	417	833	208	417	165	310	1100	500	1500	500

* **N.B.:** Static loads bearable without damage. Useful loads are shown in the diagrams on page **A5**.12 onwards.

WEIGHTS (ONLY CYLINDER)

		Ø 32		Ø 50			Ø 63 - 63 HD		
Screw pitch (p)	mm	4	12	5	10	16	5	10	20
Transmission ratio (τ)		1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1
Weight at stroke 0	g	896	973	1990	2043	2086	2942	3209	3056
Additional weight each mm of stroke	g	3.98	3.96	6.64	6.62	6.55	6.25	6.32	6.32
Weight of the in-line transmission (without motor)	g	300		900			1100		
Weight of the geared transmission (without motor)	g	1100		2000			3000		
Moving mass at stroke 0 (non-rotating version) Mx	g	270	353	586	629	703	956	1215	1067
Additional moving mass each mm of stroke	g	1.25		1.84			1.98		

		Ø 80					Ø 100						Ø 100 HD	
Screw pitch (p)	mm	5		10			32		10			40			10	
Transmission ratio (τ)		1:1	1:1.25	1:1	1:1.25	1:1.5	1:1	1:1.5	1:1	1:2	1:3	1:1	1:2	1:3	1:1	1:2
Weight at stroke 0	g	8658		8629			8650		15049			13719			17056	
Additional weight each mm of stroke	g	15.6		15.3			16		35.5			26			35.5	
Weight of the in-line transmission (without motor)	g	1700							2900						3200	
Weight of the geared transmission (without motor)	g	6300							8700						12900	8800
Moving mass at stroke 0 (non-rotating version) Mx	g	3709		3730			3667		6630			6171			6630	
Additional moving mass each mm of stroke	g	4.9							15			9.6			15	

N.B.: You get the total weight of a complete cylinder by adding
weight stroke 0 + stroke [mm] x weight for each mm of stroke + weight of the transmission + gearbox weight (if present) + weight of the motor.

MASS MOMENTS OF INERTIA

		Ø 32		Ø 50			Ø 63 - 63 HD		
Screw pitch	mm	4	12	5	10	16	5	10	20 (solo Ø63)
Transmission ratio (τ)		1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1
J0 at stroke 0	kgmm²	1.2407	2.4309	5.3455	6.1360	9.1113	12.4043	14.8767	23.5427
J1 each metre of stroke	kgmm²/m	12.2592	17.8468	35.2305	38.5264	49.1936	86.2990	96.6652	116.3671
J2 each kg of load	kgmm²/kg	0.4053	3.6476	0.6333	2.5332	6.4849	0.6333	2.5332	10.1327
J3 in-line transmission	kgmm²	5.2		5.2			36.2		
J3 geared transmission	kgmm²	62		161.7			322.1		

		Ø 80								
Screw pitch	mm	5		10			32			
Transmission ratio (τ)		1:1	1:1.25	1:1	1:1.25	1:1.5	1:1	1:1.5		
J0 at stroke 0	kgmm²	430		420.3			438.8			
J1 each metre of stroke	kgmm²/m	688		608			753			
J2 each kg of load	kgmm²/kg	0.6333		2.5330			25.9382			
J3 in-line transmission	kgmm²	148.2	-	148.2	-	-	148.2	-		
J3 geared transmission	kgmm²	1773.4	523.6	1773.4	523.6	1421.7	1773.4	1421.7		

		Ø 100						Ø 100 HD		
Screw pitch	mm	10			40			10		
Transmission ratio (τ)		1:1	1:2	1:3 ●	1:1	1:2	1:3 ●	1:1	1:2	1:3 ●
J0 at stroke 0	kgmm²	1357			1042.4			1357		
J1 each metre of stroke	kgmm²/m	3984			1869.3			3984		
J2 each kg of load	kgmm²/kg	2.5330			40.5284			2.533		
J3 in-line transmission	kgmm²	327.8	-	258.4	327.8	-	258.4	427.8	-	269.5
J3 geared transmission	kgmm²	1773.4	1491.2	-	1773.4	1491.2	-	-	1491.2	906.5

● with planetary gearbox

The total mass moment of inertia (Jtot) reduced for the motor is: Jtot = [J1 · Stroke [m] + J2 · (Load [kg] + Mx [kg]) + J0] · τ^2 + J3
Mx is defined in the weight table.

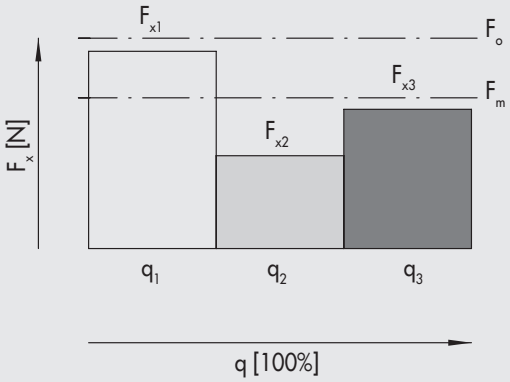
CALCULATION OF MEAN AXIAL LOAD F_m AND VERIFICATION

Peak axial load in a work cycle must not exceed the static axial load F_o. The peak value is usually achieved during upward acceleration in vertical installation. Exceeding this value leads to greater wear and hence shorter life of the recirculating ball screw.

Mean axial load F_m

$$F_m = \sqrt[3]{\sum F_x^3 \times \frac{V_x}{V_m} \times \frac{q}{100}} =$$

$$F_m = \sqrt[3]{F_{x1}^3 \times \frac{V_{x1}}{V_m} \times \frac{q_1}{100} + F_{x2}^3 \times \frac{V_{x2}}{V_m} + \frac{q_2}{100} + F_{x3}^3 \times \frac{V_{x3}}{V_m} \times \frac{q_3}{100} + \ldots}$$

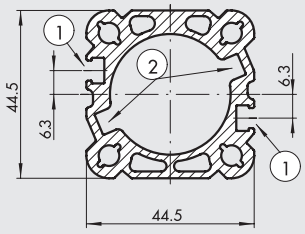


F_x = Axial load at stage x
F_m = Mean axial load during extension
F_o = Static axial load
q = Time segment
V_x = Speed in the phase x
V_m = Average speed

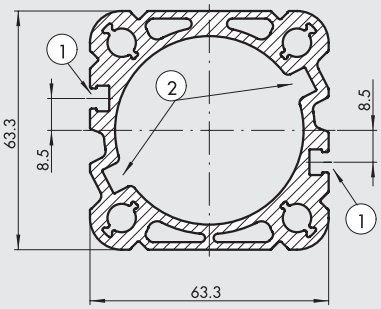
The mean axial load must not exceed the dynamic axial load: $F_m \leq F$
The graphs on page **A5**.10 show screw life as a function of F_m

BARREL CROSS SECTION

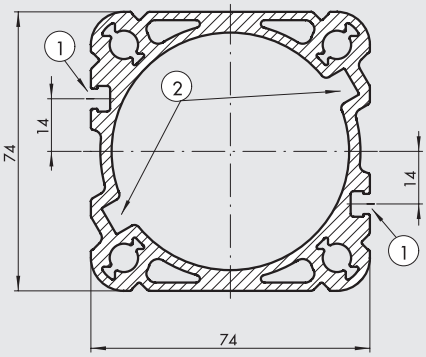
Ø 32



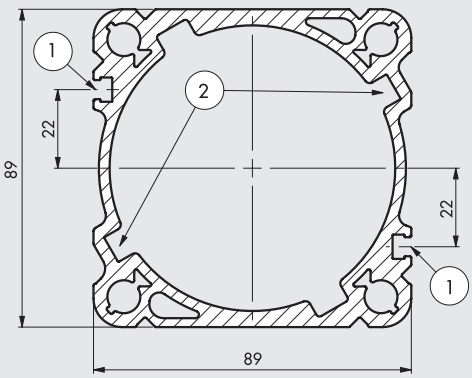
Ø 50



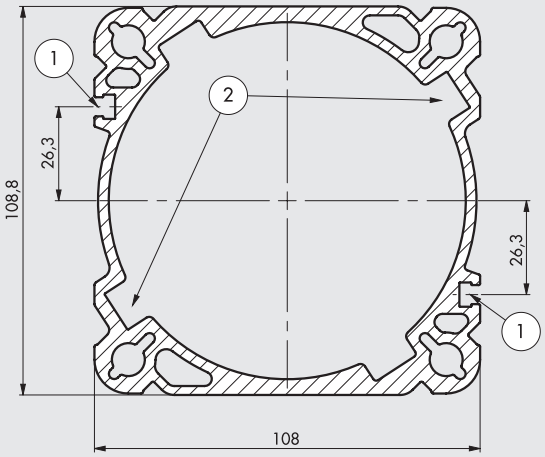
Ø 63 - Ø 63 HD



Ø 80



Ø 100 - Ø 100 HD

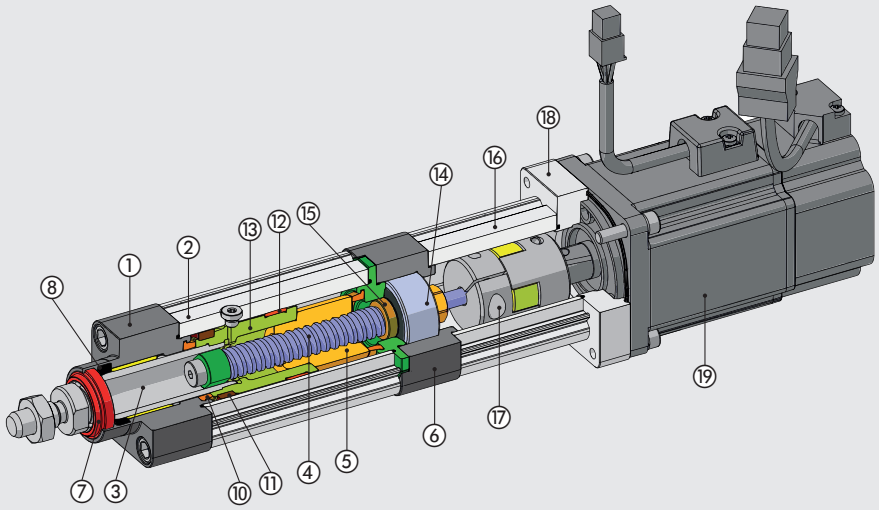


① Slots for sensors
② Slots for anti-rotation

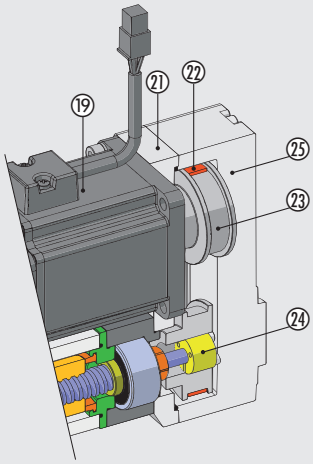
METAL WORK PNEUMATIC

COMPONENTS

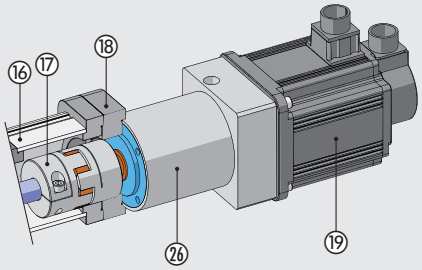
IN-LINE VERSION WITH MOTOR



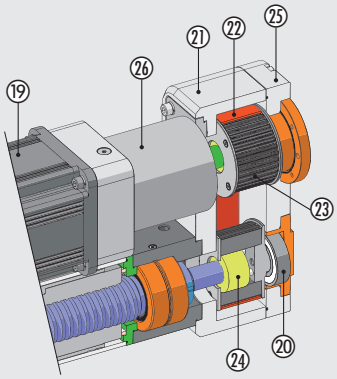
GEARED VERSION WITH MOTOR



IN-LINE VERSION WITH MOTOR AND GEARBOX



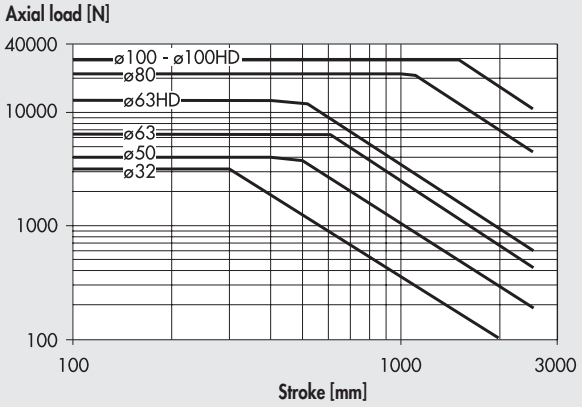
GEARED VERSION WITH MOTOR AND GEARBOX



① FRONT CYLINDER HEAD: anodized aluminium
② BARREL: extruded and anodized aluminium alloy
③ PISTON ROD: grinded chromed steel
④ WORM SCREW: hardened steel
⑤ BALL SCREW NUT: steel
⑥ REAR CYLINDER HEAD: anodized aluminium
⑦ WIPER RING: polyurethane
⑧ PISTON ROD GASKET: NBR (IP55/ IP65 version only)
⑨ GUIDE BUSHING: steel strip with bronze and PTFE insert
⑩ BUFFER: technopolymer
⑪ MAGNET: plastoferrite
⑫ GUIDE STRIP: self-lubricated calibrated technopolymer
⑬ PISTON: aluminium
⑭ BEARING: oblique with two ball rings / with tapered rollers (only for Ø 100 HD)
⑮ BEARING LOCKING RING: anodized aluminium
⑯ BELL: extruded and anodized aluminium alloy
⑰ COUPLING
⑱ ADAPTOR PLATE: anodized aluminium
⑲ ELECTRIC MOTOR
⑳ PULLEY SUPPORT BEARING
㉑ TRANSMISSION PLATE: anodized aluminium
㉒ DRIVE BELT
㉓ PULLEY: steel
㉔ SHRINK DISC
㉕ COVER: anodized aluminium
㉖ PLANETARY GEARBOX

PEAK LOADS

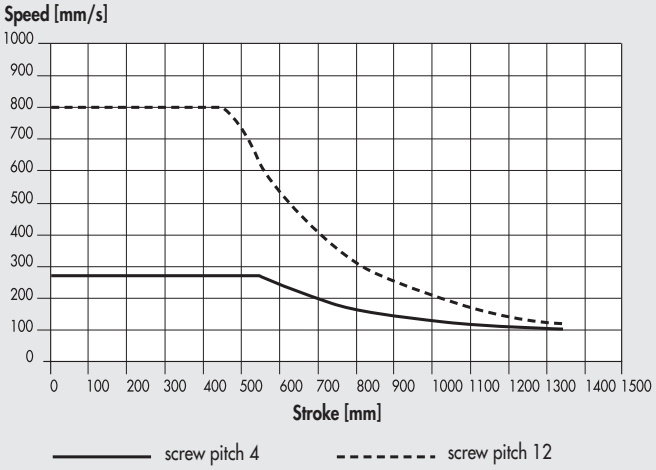
The following load conditions applied to the piston rod must be met.



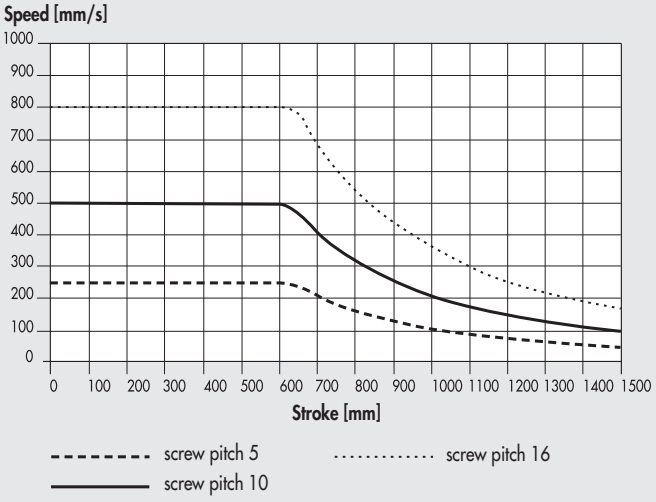
CRITICAL VELOCITY

The two variables (stroke and linear speed) must meet the conditions in the graph below, otherwise resonance could be generated and affect the system.

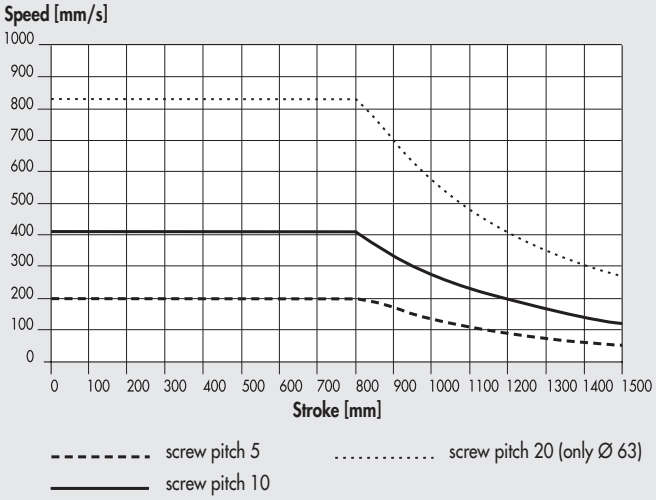
Ø 32



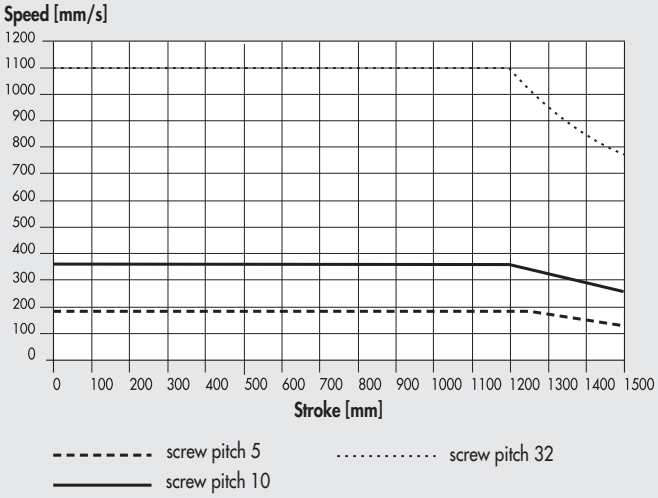
Ø 50



Ø 63 - Ø 63 HD

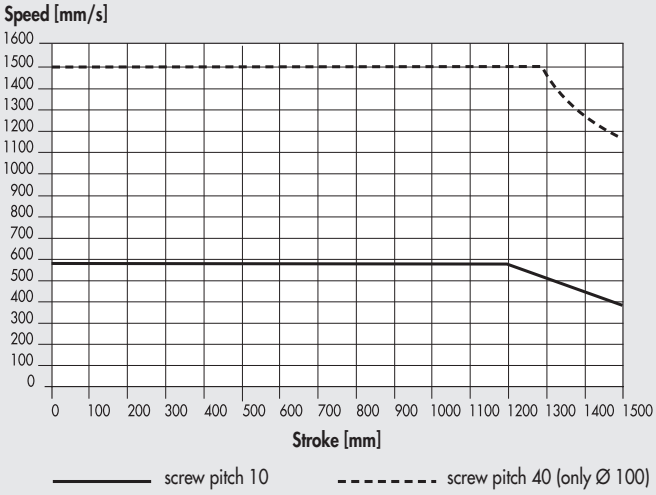


Ø 80

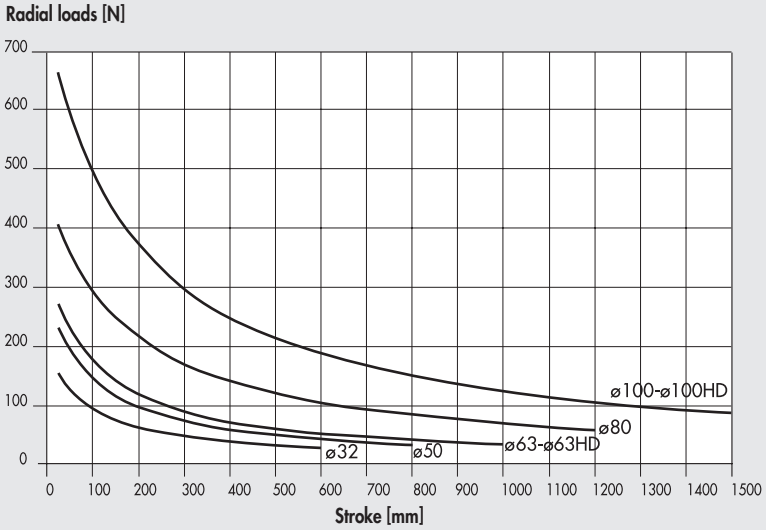


METAL WORK PNEUMATIC

Ø 100 - Ø 100 HD



MAXIMUM RADIAL LOADS ON PISTON ROD



Radial loads can be applied to the piston rod.
They must not exceed the values in the adjacent chart, otherwise the guides on the rod and piston will be subjected to excessive wear.

PISTON ROD SPEED DEPENDING ON THE NUMBER OF SCREW TURNS

SCREW PITCH	TRANSMISSION RATIO	K (n/V)
4	1:1	15
5	1:1	12
	1:1.25	15
10	1:1	6
	1:1.25	7.5
	1:1.5	9
	1:2	12
	1:3	18
12	1:1	5
16	1:1	3.75
20	1:1	3
32	1:1	1.87
	1:1.5	2.81
40	1:1	1.5
	1:2	3
	1:3	4.5

The table shows the direct correspondence between the number of turns (1/min) and the translation speed of the stem (mm/s).
In any case all the other conditions and limitations of each specific cylinder will have to be complied.

Example:
V = 100 mm/s
pitch = 10
transmission ratio = 1:1.5
K = 9
n = V x K = 900 rpm

DRIVE TORQUE AS A FUNCTION OF THE AXIAL LOAD APPLIED TO THE PISTON ROD

SCREW PITCH	TRANSMISSION RATIO	h (C/F)
4	1:1	0.0008
5	1:1	0.0010
	1:1.25	0.0008
10	1:1	0.0020
	1:1.25	0.0016
	1:1.5	0.0013
	1:2	0.0010
	1:3	0.0007
12	1:1	0.0024
16	1:1	0.0032
20	1:1	0.0040
32	1:1	0.0064
	1:1.5	0.0043
40	1:1	0.0080
	1:2	0.0040
	1:3	0.0027

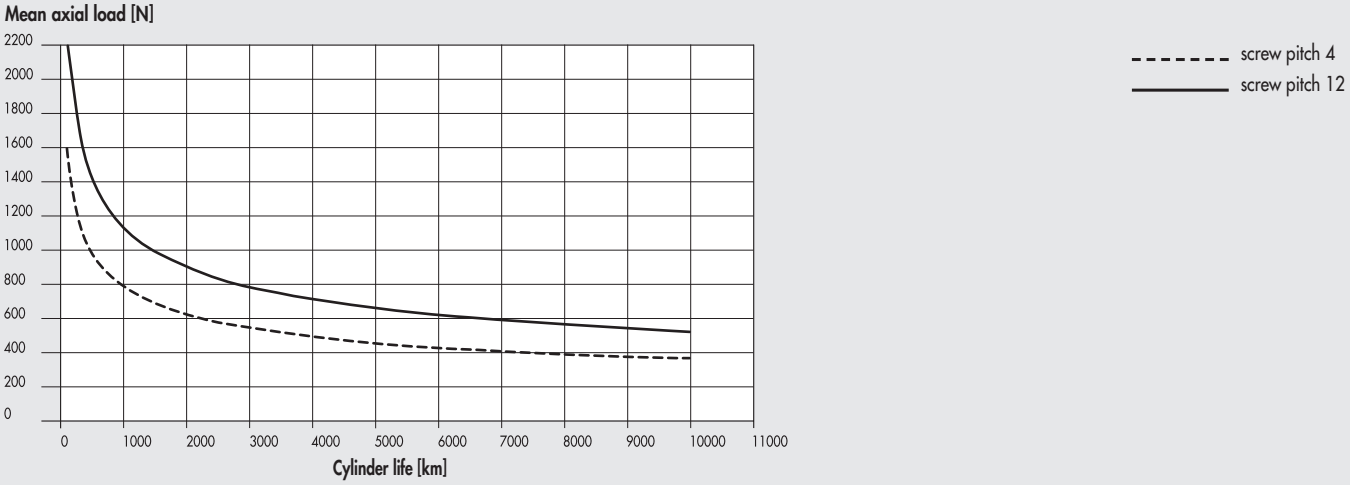
The friction generated in the mechanical system is taken into account.

Example:
F = 1000 N
pitch = 10
transmission ratio = 1:1.5
h = 0.0013
C = F x h = 1.3 Nm

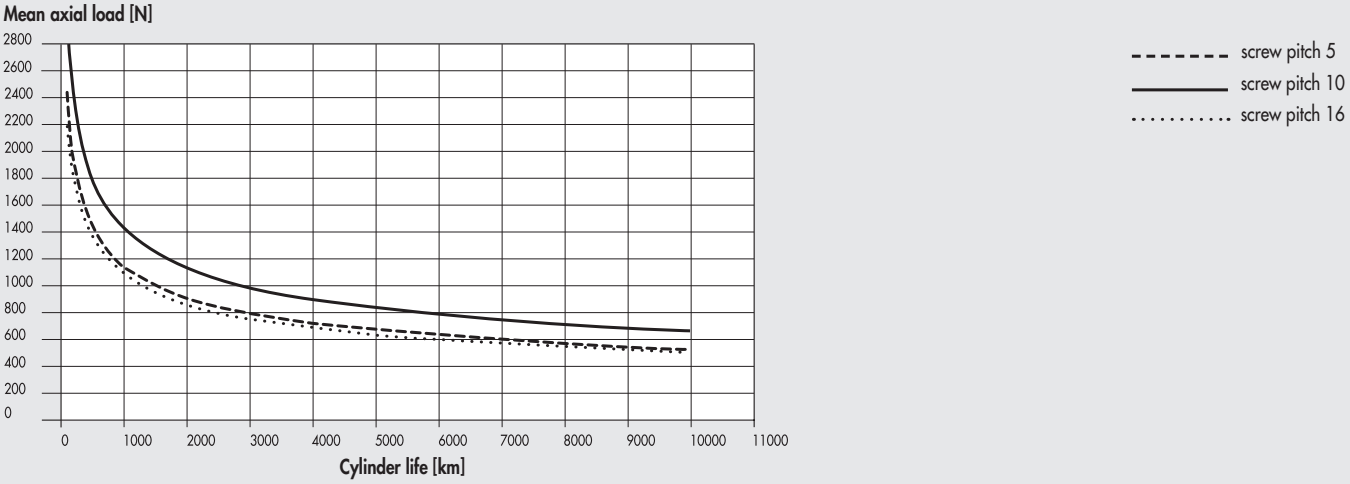
LIFE CHARACTERISTICS AS A FUNCTION OF THE MEAN AXIAL LOAD

Life characteristics can vary considerably from those indicated in the graphs due to different operating conditions (radial loads, temperature, lubrication status, etc.).

Ø 32

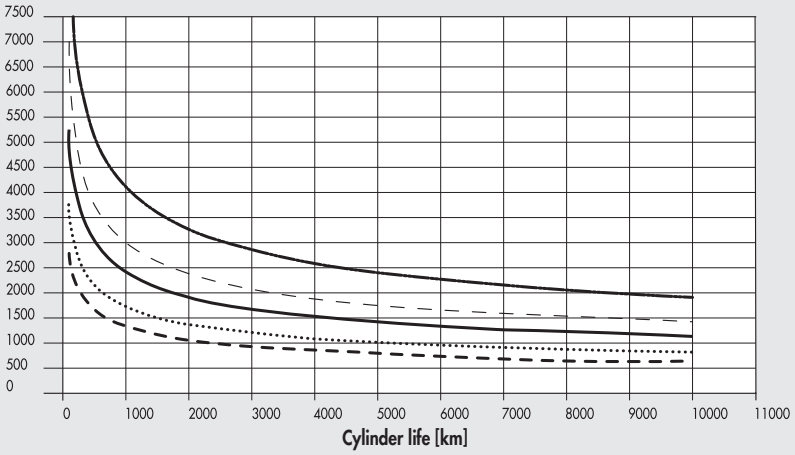


Ø 50



Ø 63 - Ø 63 HD

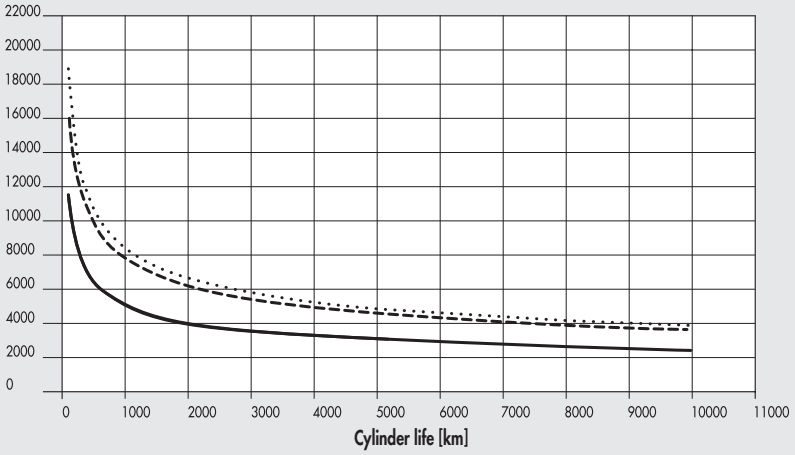
Mean axial load [N]



screw pitch 5
screw pitch 10
screw pitch 20
screw pitch 5 HD
screw pitch 10 HD

Ø 80

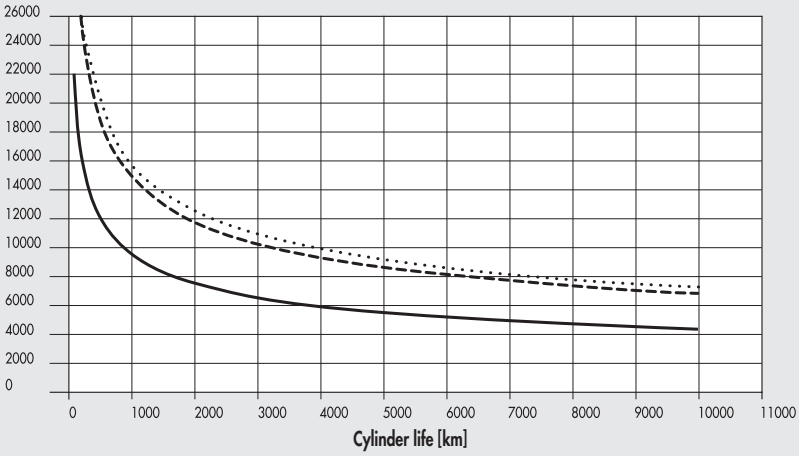
Mean axial load [N]



screw pitch 5
screw pitch 10
screw pitch 32

Ø 100 - Ø 100 HD

Mean axial load [N]

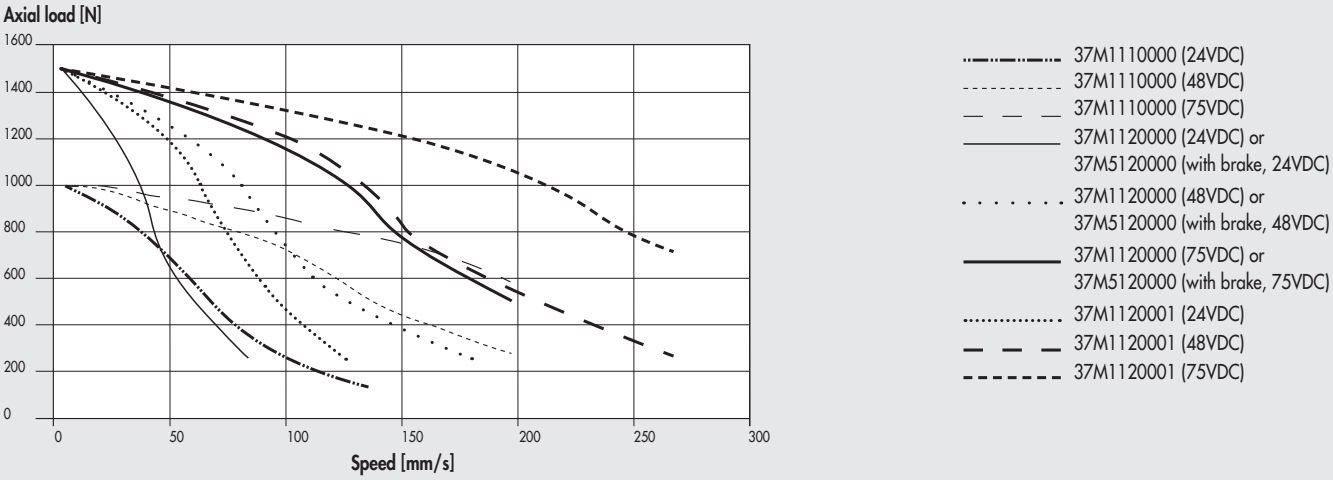


screw pitch 10
screw pitch 40
screw pitch 10 HD

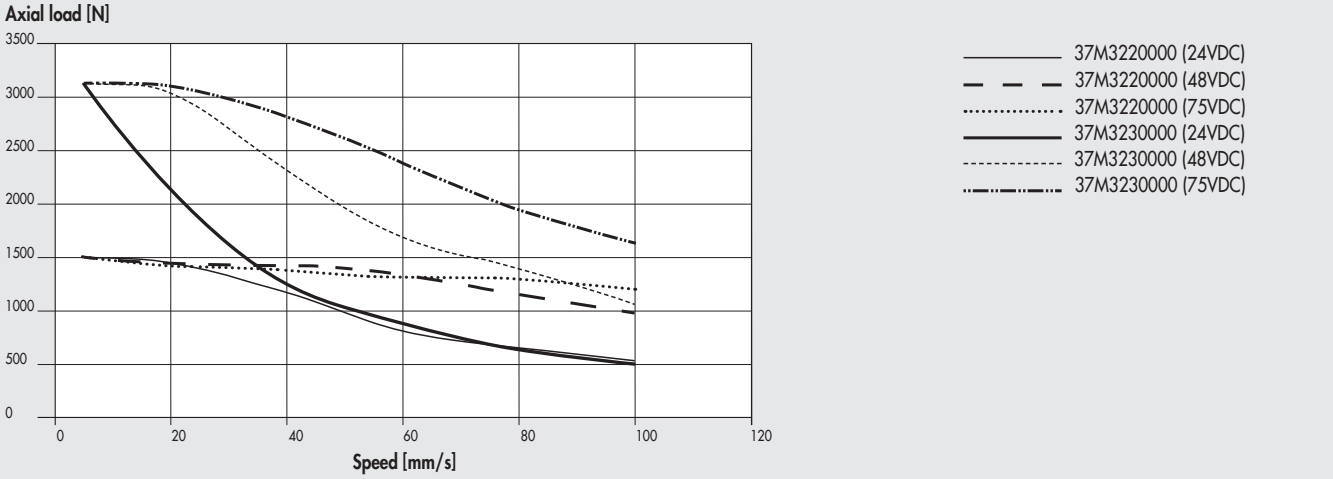
AXIAL LOAD CURVES AS A FUNCTION OF SPEED (CYLINDER COMPELTE WITH MOTOR AND DRIVE)

N.B.: The obtainable load values already take the efficiency of the system into account. For STEPPING motors, with the motor off, the drive current is automatically reduced by 50% to prevent overheating. Consequently, available axial load with the motor stopped is also reduced by 50%.

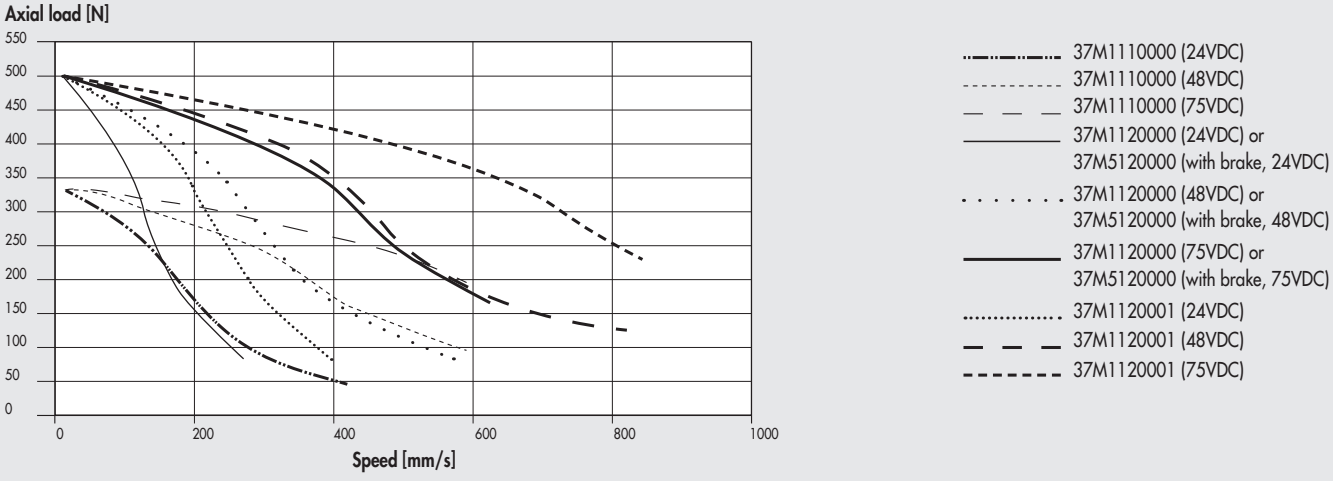
Ø 32 with pitch 4 screw, STEPPING motors and motor 1 STEPPING with BRAKE



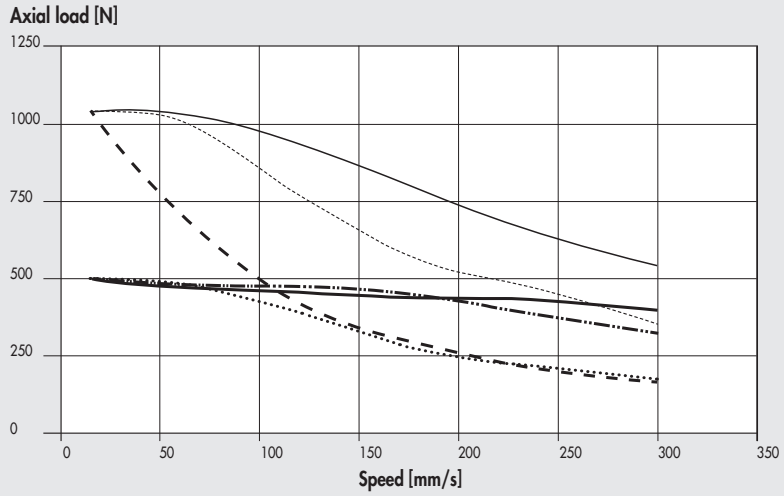
Ø 32 with pitch 4 screw, STEPPING motors with BRAKE + ENCODER



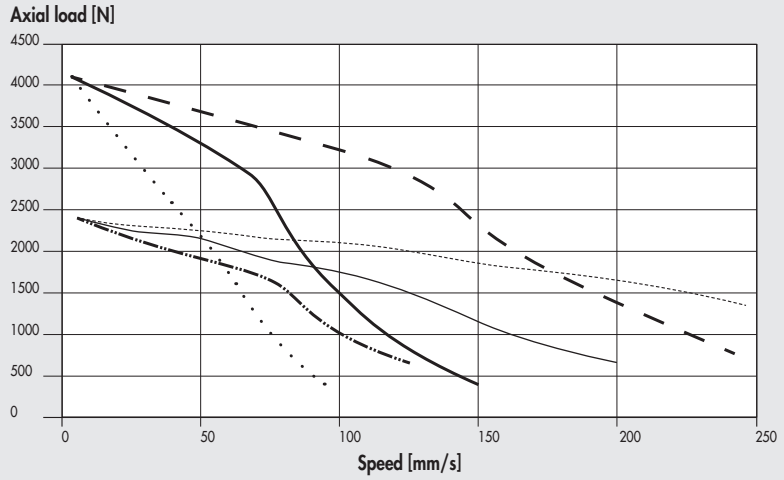
Ø 32 with pitch 12 screw, STEPPING motors and motor 1 STEPPING with BRAKE



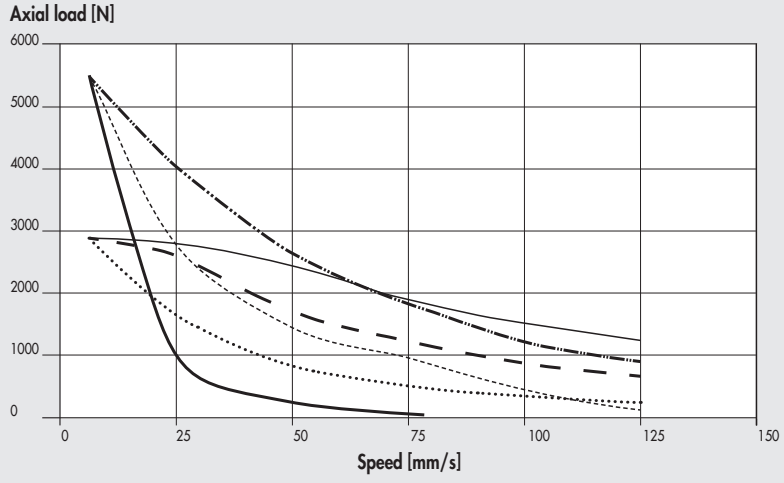
Ø 32 with pitch 12 screw, STEPPING motors with BRAKE + ENCODER



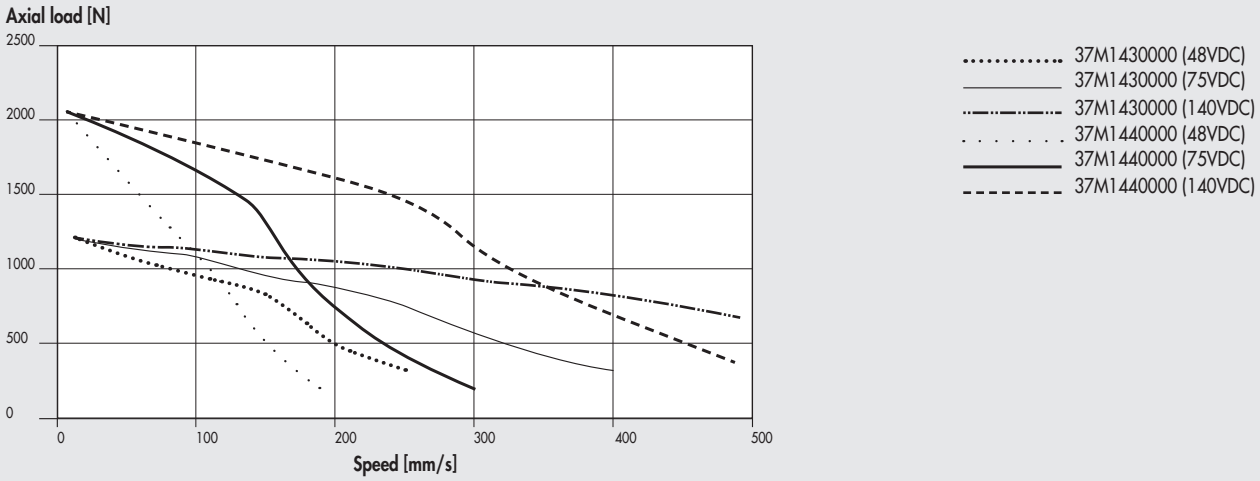
Ø 50 with pitch 5 screw, STEPPING motors



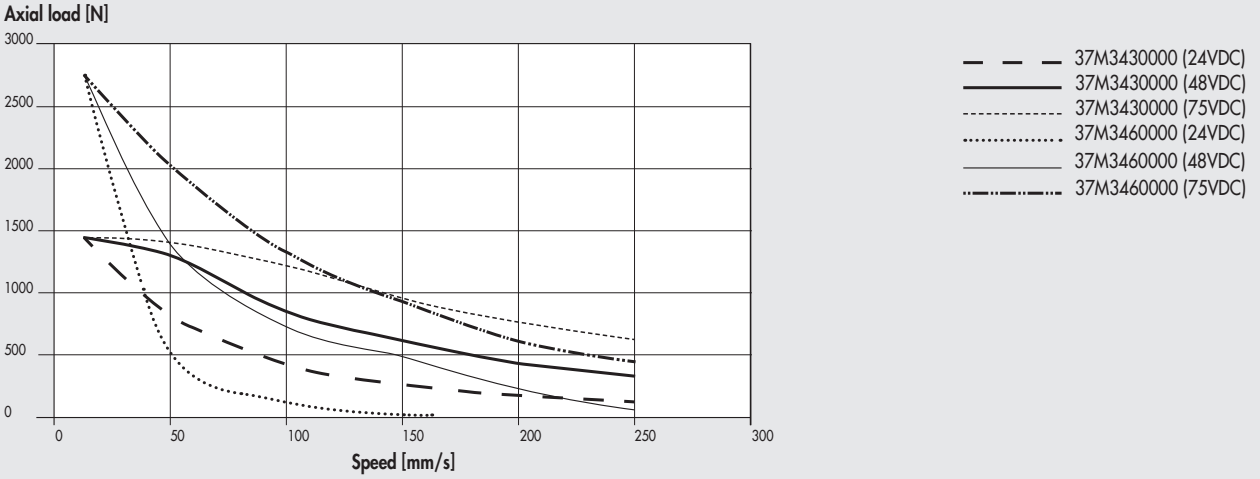
Ø 50 with pitch 5 screw, STEPPING motors with BRAKE + ENCODER



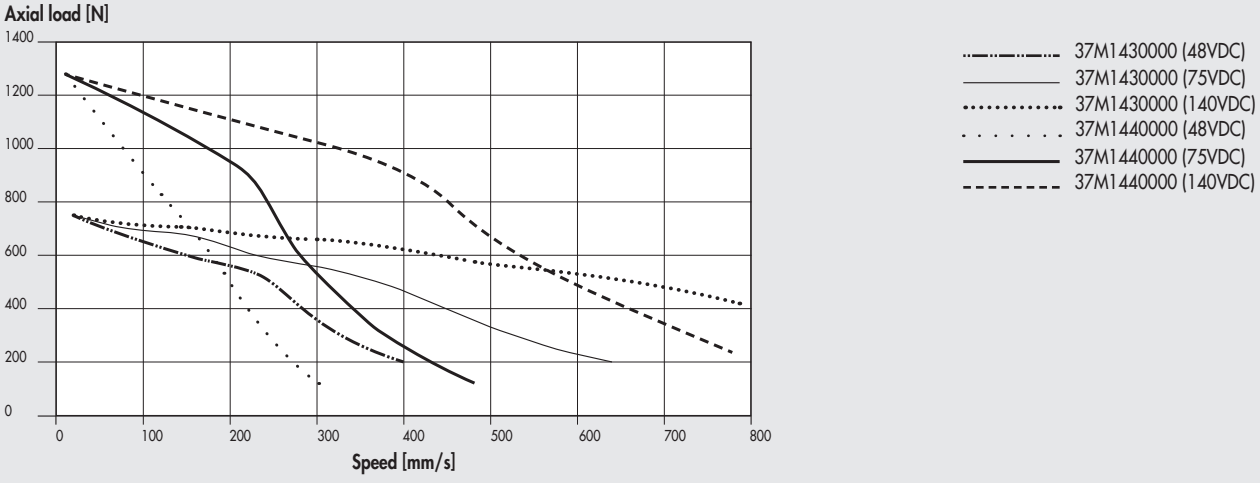
Ø 50 with pitch 10 screw, STEPPING motors



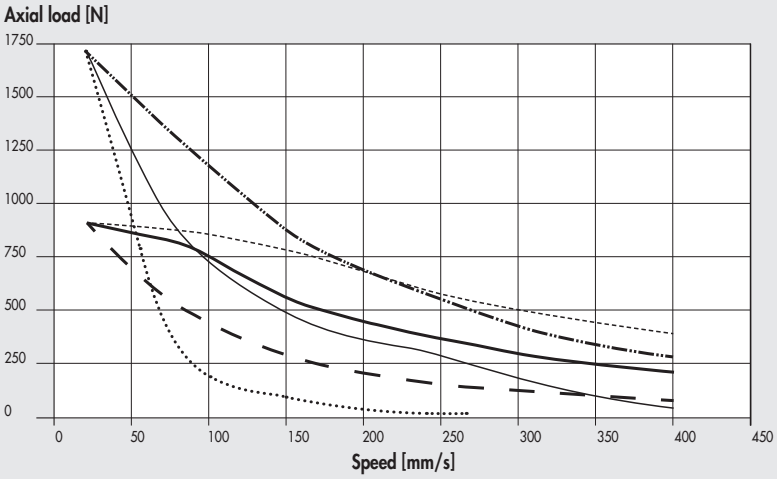
Ø 50 with pitch 10 screw, STEPPING motors with BRAKE + ENCODER



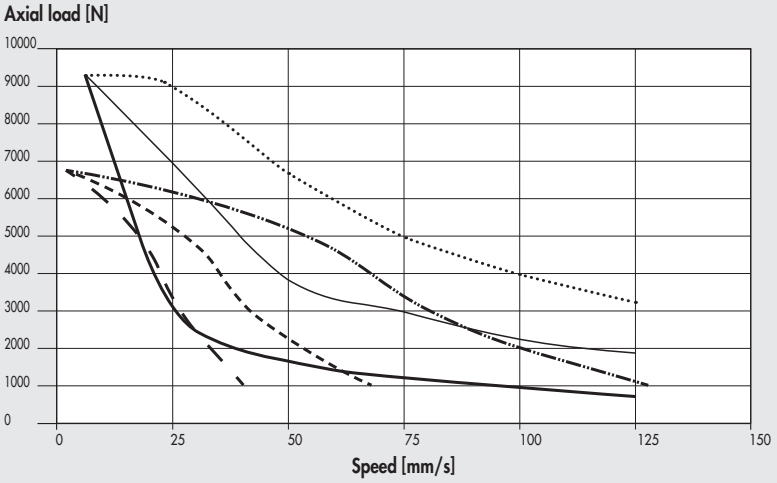
Ø 50 with pitch 16 screw, STEPPING motors



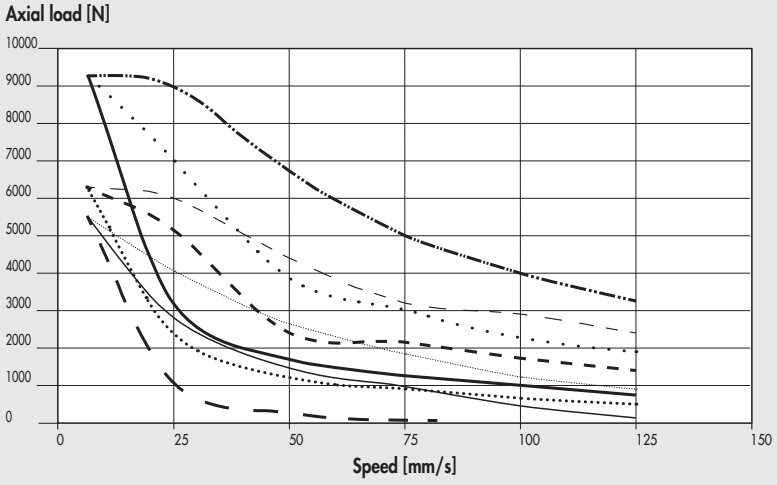
Ø 50 with pitch 16 screw, STEPPING motors with BRAKE + ENCODER



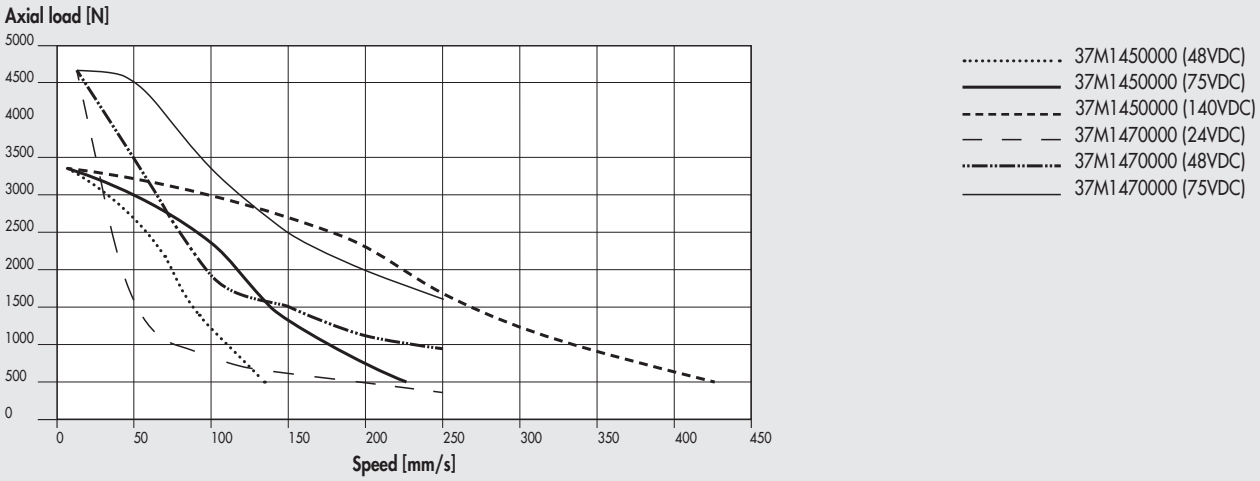
Ø 63 with pitch 5 screw, STEPPING motors



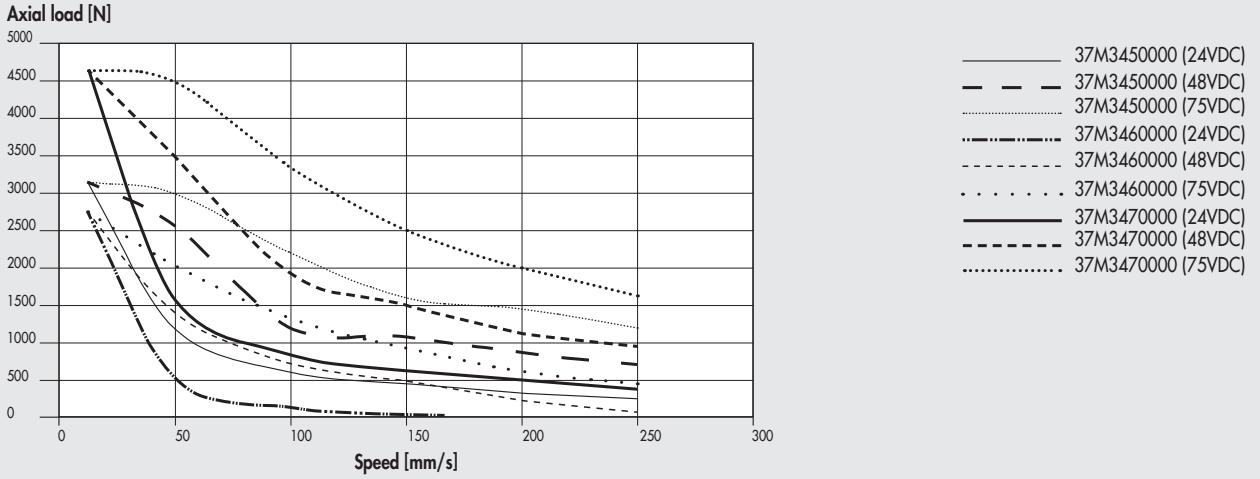
Ø 63 with pitch 5 screw, STEPPING motors with BRAKE + ENCODER



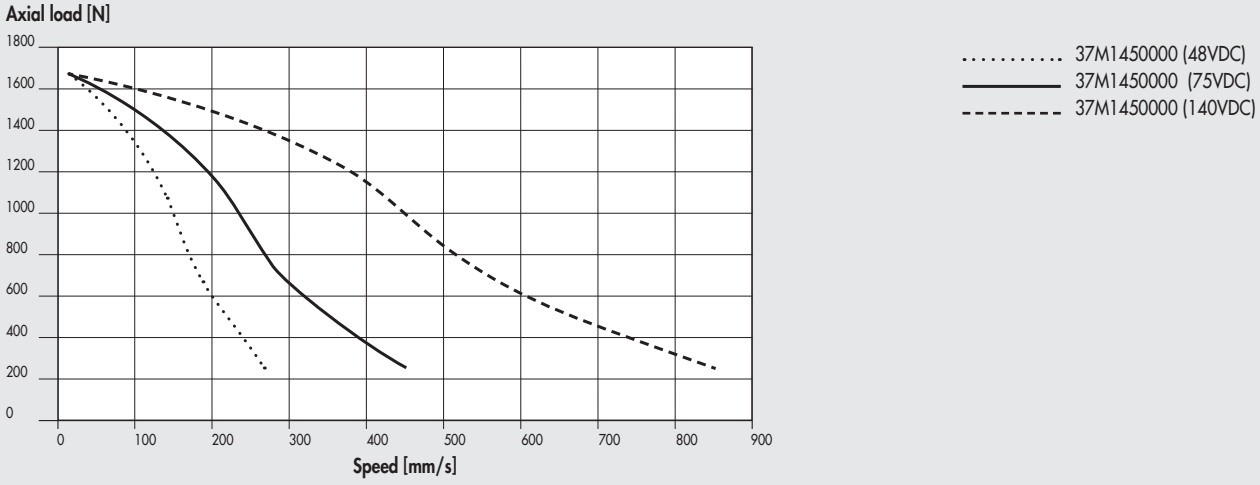
Ø 63 with pitch 10 screw, STEPPING motors



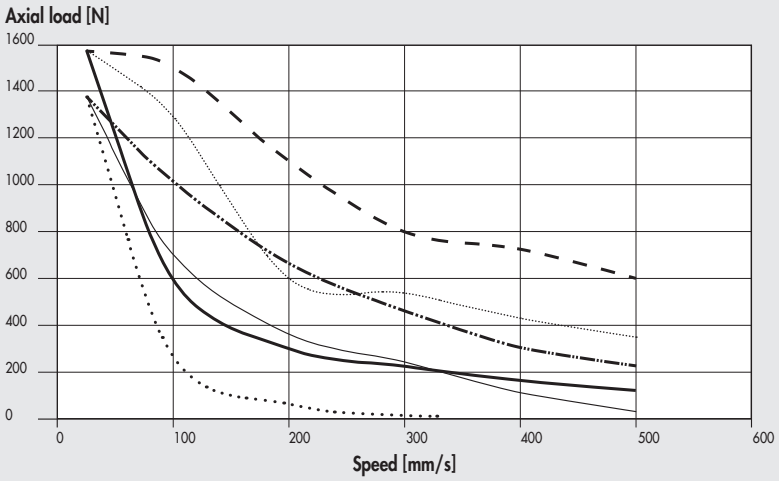
Ø 63 with pitch 10 screw, STEPPING motors with BRAKE + ENCODER



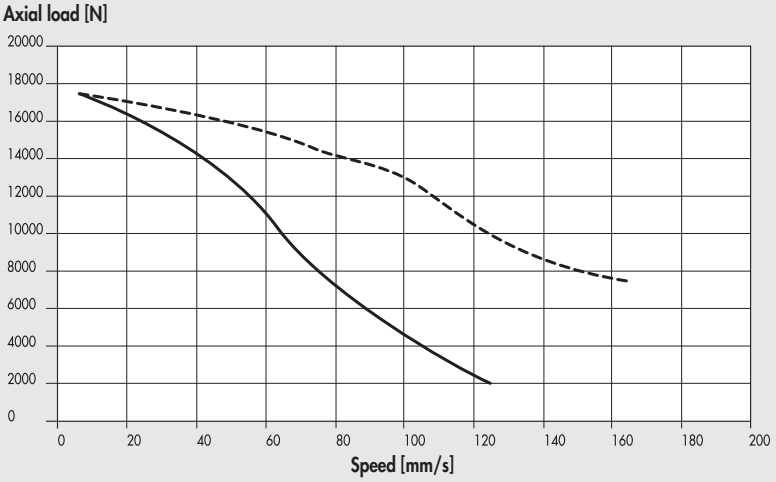
Ø 63 with pitch 20 screw, STEPPING motors



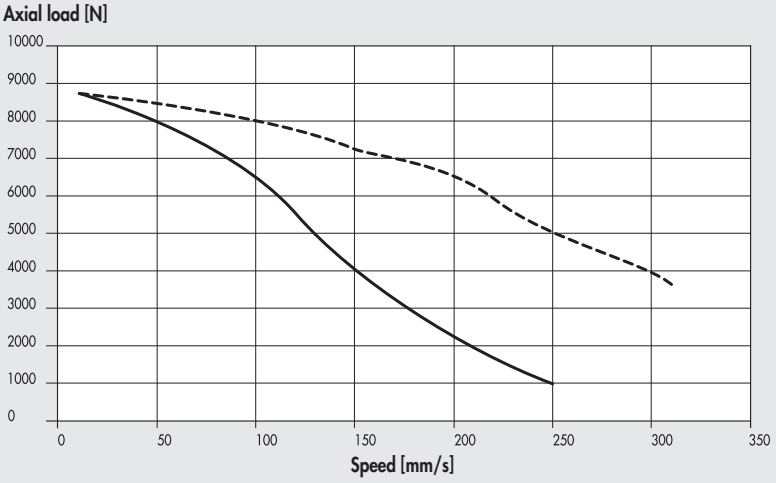
Ø 63 with pitch 20 screw, STEPPING motors with BRAKE + ENCODER



ø 80 with pitch 5 screw, STEPPING motors

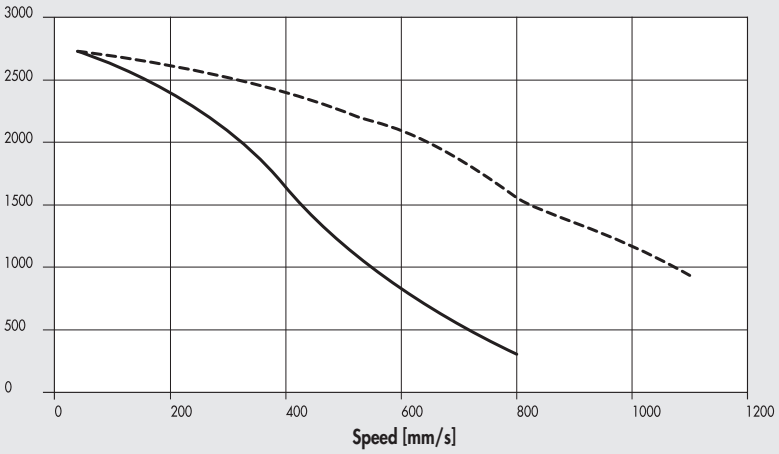


ø 80 with pitch 10 screw, STEPPING motors



Ø 80 with pitch 32 screw, STEPPING motors

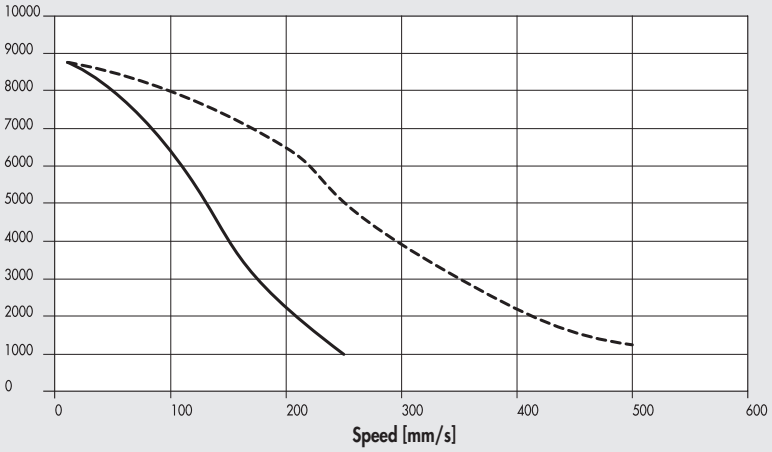
Axial load [N]



37M1890000 + 37D1362001 (230VAC)
37M1890000 + 37D1362001 (115VAC)

Ø 100 with pitch 10 screw, STEPPING motors

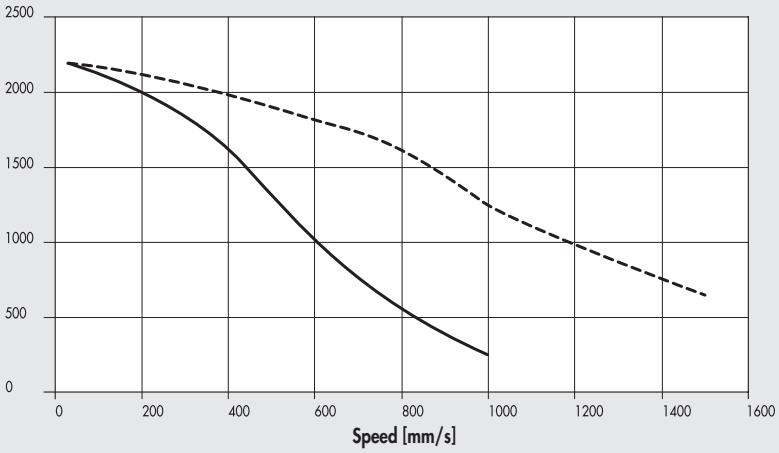
Axial load [N]



37M1890000 + 37D1362001 (230VAC)
37M1890000 + 37D1362001 (115VAC)

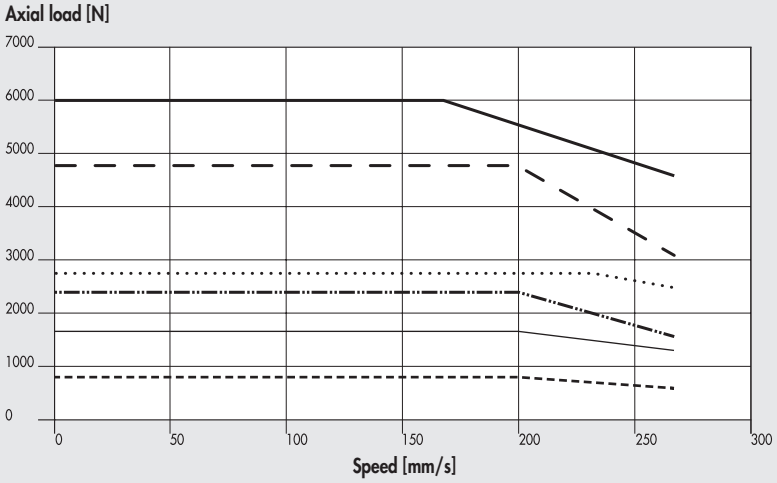
Ø 100 with pitch 40 screw, STEPPING motors

Axial load [N]



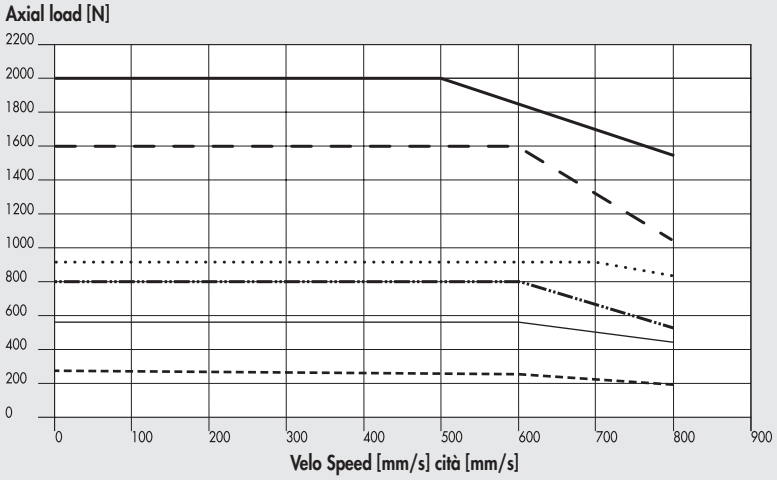
37M1890000 + 37D1362001 (230VAC)
37M1890000 + 37D1362001 (115VAC)

Ø 32 with pitch 4 screw, BRUSHLESS motors and BRUSHLESS motors with BRAKE



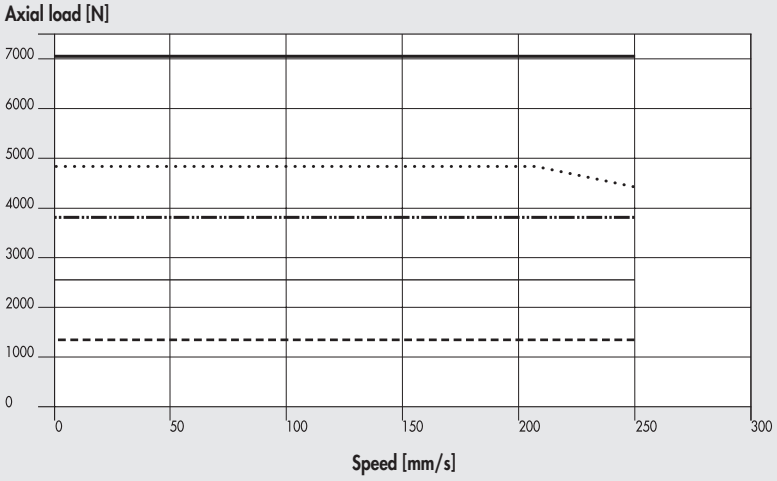
- Nominal 37M2200000/1 or 37M4200000/1 (with brake) + 37D2400008 / 37D2200001 (200W)
- Nominal 37M2220000/1 or 37M4220000/1 (with brake) + 37D2400008 / 37D2300001 (400W)
- Maximum 37M2200001 or 37M4200001 (with brake) + 37D2200001 (200W)
- Maximum 37M2200000 or 37M4200000 (with brake) + 37D2400008 (200W)
- Maximum 37M2220001 or 37M4220001 (with brake) + 37D2300001 (400W)
- Maximum 37M2220000 or 37M4220000 (with brake) + 37D2400008 (400W)

Ø 32 with pitch 12 screw, BRUSHLESS motors and BRUSHLESS motors with BRAKE



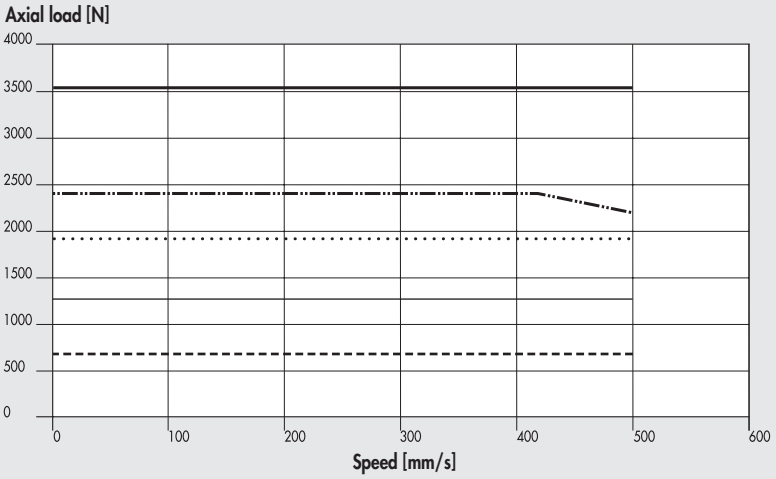
- Nominal 37M2200000/1 or 37M4200000/1 (with brake) + 37D2400008 / 37D2200001 (200W)
- Nominal 37M2220000/1 or 37M4220000/1 (with brake) + 37D2400008 / 37D2300001 (400W)
- Maximum 37M2200001 or 37M4200001 (with brake) + 37D2200001 (200W)
- Maximum 37M2200000 or 37M4200000 (con freno) + 37D2400008 (200W)
- Maximum 37M2220001 or 37M4220001 (with brake) + 37D2300001 (400W)
- Maximum 37M2220000 or 37M4220000 (with brake) + 37D2400008 (400W)

Ø 50 with pitch 5 screw, BRUSHLESS motors and BRUSHLESS motors with BRAKE



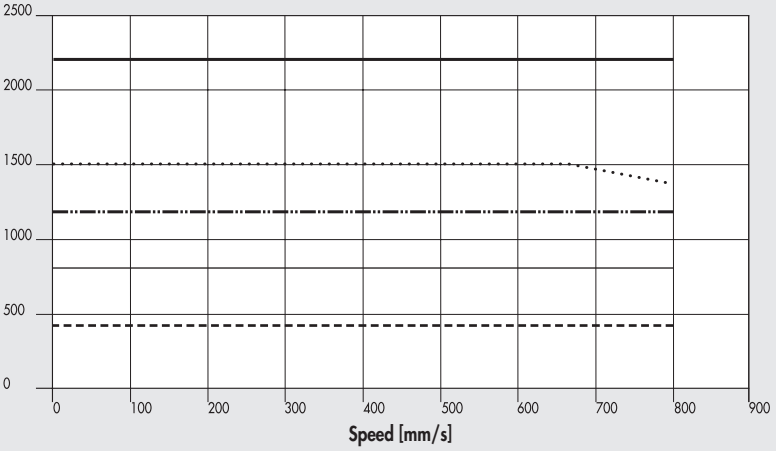
- Nominal 37M2220000/1 or 37M4220000/1 (with brake) + 37D2400008 / 37D2300001 (400W)
- Nominal 37M2330000/1 or 37M4330000/1 (with brake) + 37D2400008 / 37D2400007 (750W)
- Maximum 37M2220001 or 37M4220001 (with brake) + 37D2300001 (400W)
- Maximum 37M2220000 or 37M4220000 (with brake) + 37D2400008 (400W)
- Maximum 37M2330000/1 or 37M4330000/1 (with brake) + 37D2400008/37D2400007 (750W)

Ø 50 with pitch 10 screw, BRUSHLESS motors and BRUSHLESS motors with BRAKE



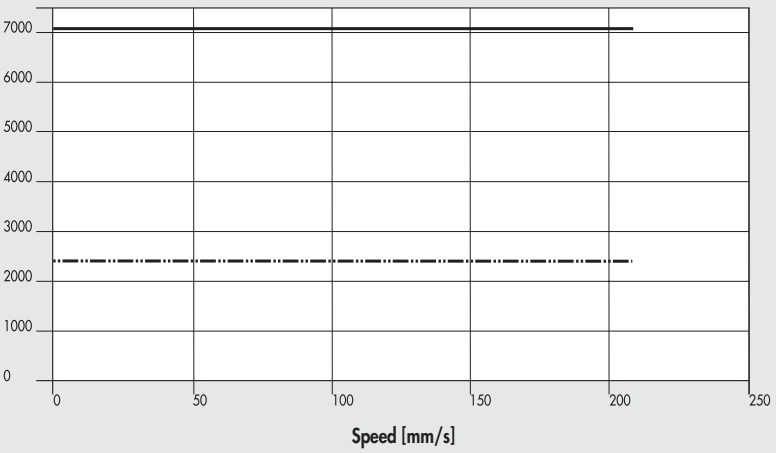
- Nominal 37M2220000/1 or 37M4220000/1 (with brake) + 37D2400008 / 37D2300001 (400W)
- Nominal 37M2330000/1 or 37M4330000/1 (with brake) + 37D2400008 / 37D2400007 (750W)
- Maximum 37M2220001 or 37M4220001 (with brake) + 37D2300001 (400W)
- Maximum 37M2220000 or 37M4220000 (with brake) + 37D2400008 (400W)
- Maximum 37M2330000/1 or 37M4330000/1 (with brake) + 37D2400008/37D2400007 (750W)

Ø 50 with pitch 16 screw, BRUSHLESS motors and BRUSHLESS motors with BRAKE



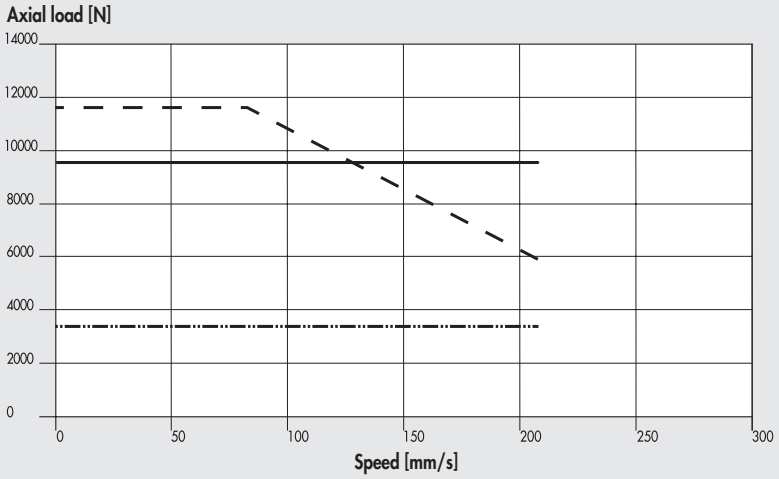
- Nominal 37M2220000/1 or 37M4220000/1 (with brake) + 37D2400008 / 37D2300001 (400W)
- Nominal 37M2330000/1 or 37M4330000/1 (with brake) + 37D2400008 / 37D2400007 (750W)
- Maximum 37M2220001 or 37M4220001 (with brake) + 37D2300001 (400W)
- Maximum 37M2220000 or 37M4220000 (with brake) + 37D2400008 (400W)
- Maximum 37M2330000/1 or 37M4330000/1 (with brake) + 37D2400008/37D2400007 (750W)

Ø 63 - Ø 63 HD with pitch 5 screw, BRUSHLESS motors and BRUSHLESS motors with BRAKE (750 W)



- Nominal 37M2330000/1 or 37M4330000/1 (with brake) + 37D2400008 / 37D2400007 (750W)
- Maximum 37M2330000/1 or 37M4330000/1 (with brake) + 37D2400008/37D2400007 (750W)

Ø 63 HD with pitch 5 screw, BRUSHLESS motors and BRUSHLESS motors with BRAKE (1000 W)

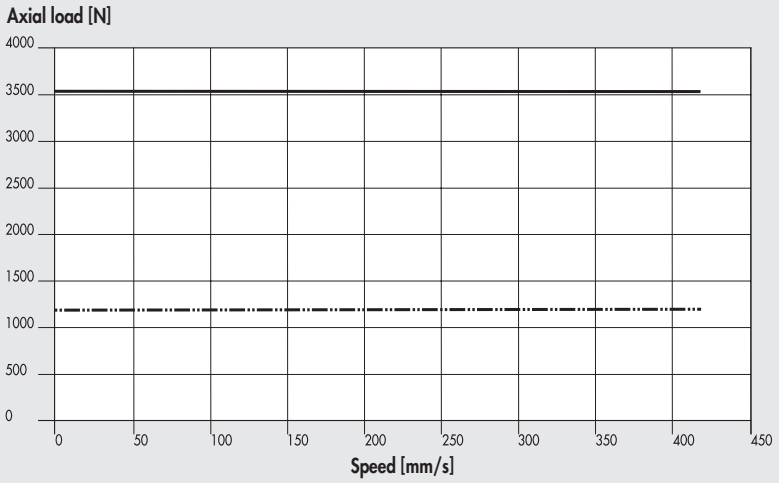


Nominal 37M2540000/37M2640000 or 37M4540000/37M4640000 (with brake) + 37D2400008/37D2400006 (1000W)

Maximum 37M2640000 or 37M4640000 (with brake) + 37D2400006 (1000W)

Maximum 37M2540000 or 37M4540000 (with brake) + 37D2400008 (1000W)

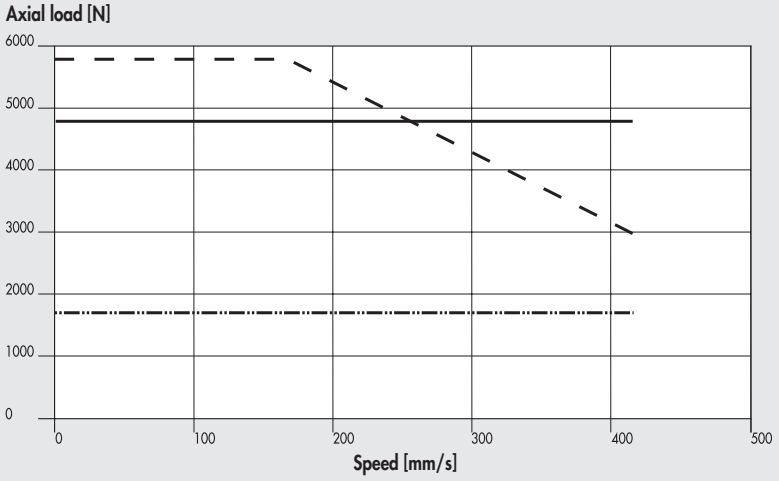
Ø 63 - Ø 63 HD with pitch 10 screw, BRUSHLESS motors and BRUSHLESS motors with BRAKE (750 W)



Nominal 37M2330000/1 or 37M4330000/1 (with brake) + 37D2400008 / 37D2400007 (750W)

Maximum 37M2330000/1 or 37M4330000/1 (with brake) + 37D2400008/37D2400007 (750W)

Ø 63 HD with pitch 10 screw, BRUSHLESS motors and BRUSHLESS motors with BRAKE (1000 W)

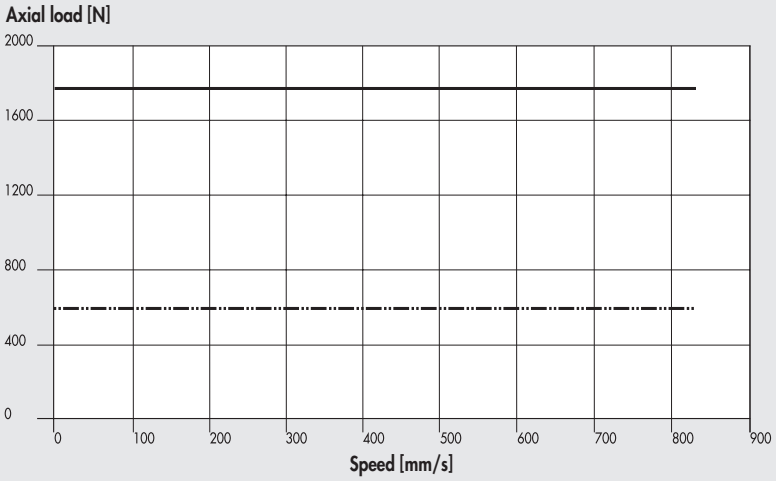


Nominal 37M2540000/37M2640000 or 37M4540000/37M4640000 (with brake) + 37D2400008/37D2400006 (1000W)

Maximum 37M2640000 or 37M4640000 (with brake) + 37D2400006 (1000W)

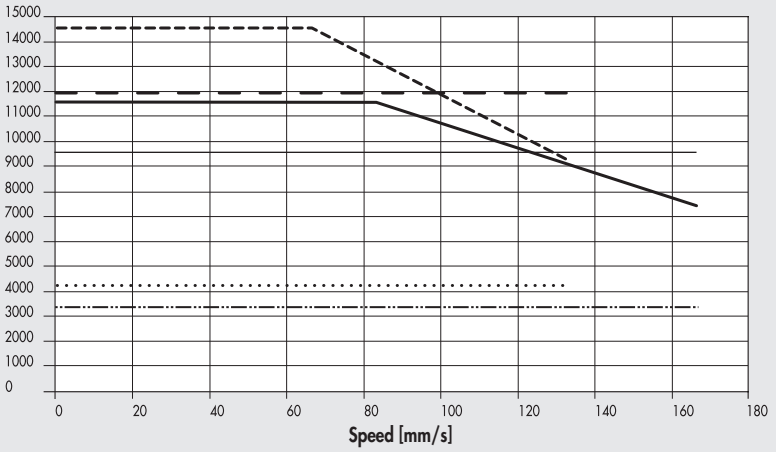
Maximum 37M2540000 or 37M4540000 (with brake) + 37D2400008 (1000W)

Ø 63 with pitch 20 screw, BRUSHLESS motors and BRUSHLESS motors with BRAKE



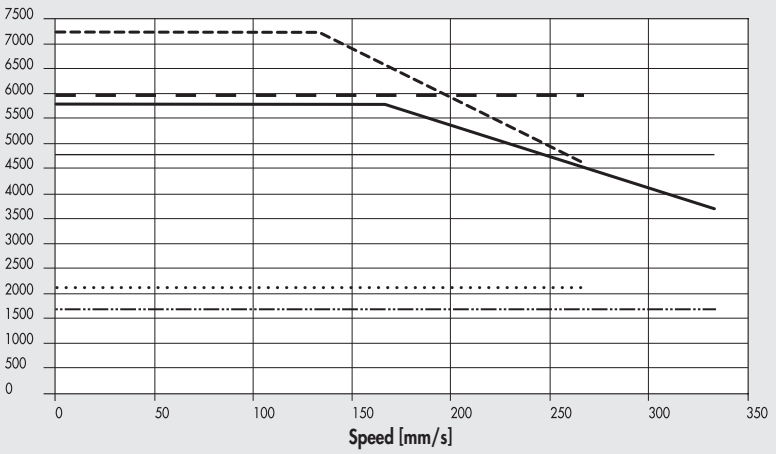
- Nominal 37M2330000/1 or 37M4330000/1 (with brake) + 37D2400008 / 37D2400007 (750W)
- Maximum 37M2330000/1 or 37M4330000/1 (with brake) + 37D2400008/37D2400007 (750W)

Ø 80 with pitch 5 screw, BRUSHLESS motors and BRUSHLESS motors with BRAKE (1000W)



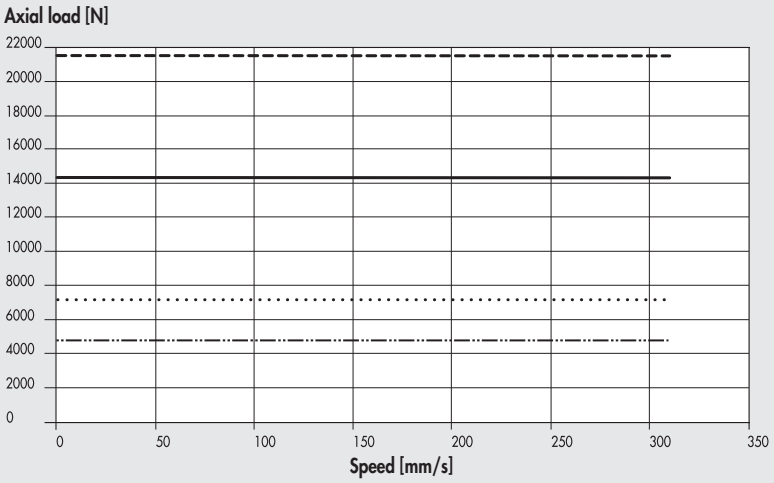
- Nominal 37M2540000/37M2640000 or 37M4540000/37M4640000 (with brake) + 37D2400008/37D2400006 (1000W) in-line version
- Nominal 37M2540000/37M2640000 or 37M4540000/37M4640000 (with brake) + 37D2400008/37D2400006 (1000W) geared version (1:1.25)
- Maximum 37M2640000 or 37M4640000 (with brake) + 37D2400006 (1000W) in-line version
- Maximum 37M2540000 or 37M4540000 (with brake) + 37D2400008 (1000W) in-line version
- Maximum 37M2640000 or 37M4640000 (with brake) + 37D2400006 (1000W) geared version (1:1.25)
- Maximum 37M2540000 or 37M4540000 (with brake) + 37D2400008 (1000W) geared version (1:1.25)

Ø 80 with pitch 10 screw, BRUSHLESS motors and BRUSHLESS motors with BRAKE (1000W)



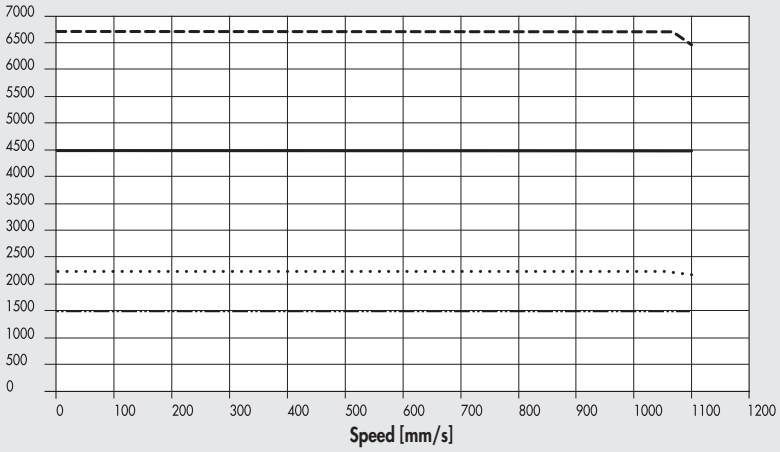
- Nominal 37M2540000/37M2640000 or 37M4540000/37M4640000 (with brake) + 37D2400008/37D2400006 (1000W) in-line version
- Nominal 37M2540000/37M2640000 or 37M4540000/37M4640000 (with brake) + 37D2400008/37D2400006 (1000W) geared version (1:1.25)
- Maximum 37M2640000 or 37M4640000 (with brake) + 37D2400006 (1000W) in-line version
- Maximum 37M2540000 or 37M4540000 (with brake) + 37D2400008 (1000W) in-line version
- Maximum 37M2640000 or 37M4640000 (with brake) + 37D2400006 (1000W) geared version (1:1.25)
- Maximum 37M2540000 or 37M4540000 (with brake) + 37D2400008 (1000W) geared version (1:1.25)

Ø 80 with pitch 10 screw, BRUSHLESS motors and BRUSHLESS motors with BRAKE (3000W)



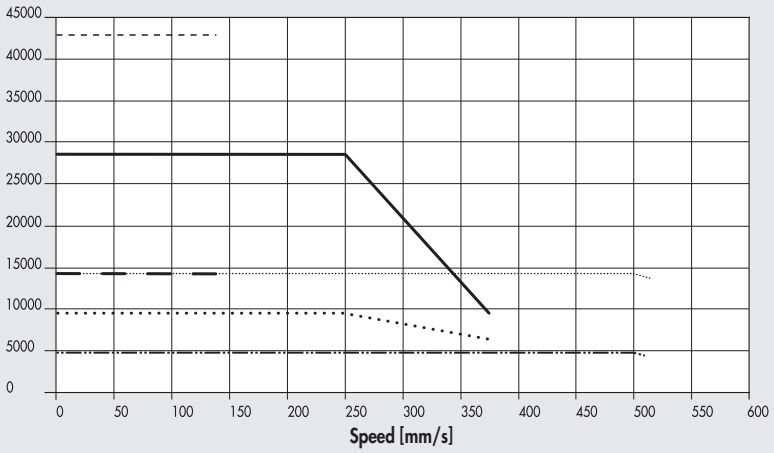
- Maximum 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) in-line version (1:1)
- Nominal 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) in-line version (1:1)
- Maximum 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) geared version (1:1.5)
- Nominal 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) geared version (1:1.5)

Ø 80 with pitch 32 screw, BRUSHLESS motors and BRUSHLESS motors with BRAKE (3000W)



- Maximum 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) in-line version (1:1)
- Nominal 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) in-line version (1:1)
- Maximum 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) geared version (1:1.5)
- Nominal 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) geared version (1:1.5)

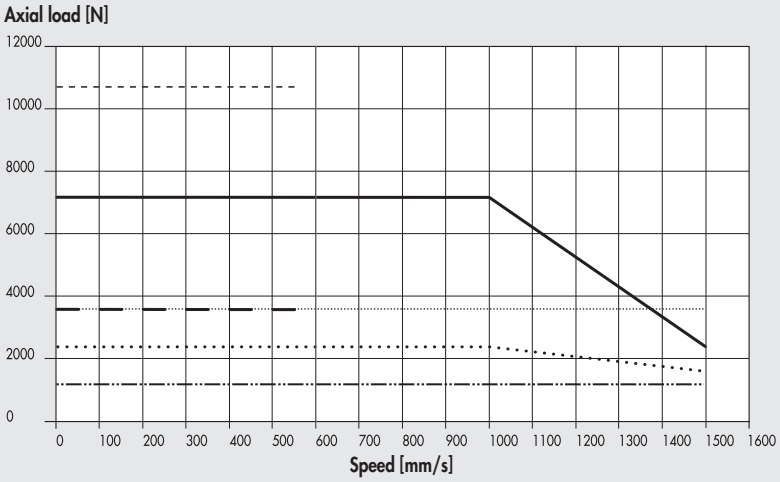
Ø 100 - Ø 100 HD with pitch 10 screw, BRUSHLESS motors and BRUSHLESS motors with BRAKE (3000W)



- Maximum 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) in-line version with gearbox (1:3)*
- Nominal 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) in-line version with gearbox (1:3)*
- Maximum 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) geared version (1:2)
- Nominal 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) geared version (1:2)
- Maximum 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) in-line version (1:1)
- Nominal 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) in-line version (1:1)

* For the Ø 100 HD, the postponed version with reducer is also available.

Ø 100 with pitch 40 screw, BRUSHLESS motors and BRUSHLESS motors with BRAKE (3000W)

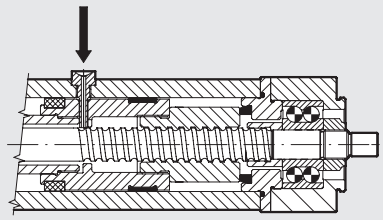


- Maximum 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) in-line version with gearbox (1:3)
- Nominal 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) in-line version with gearbox (1:3)
- Maximum 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) geared version (1:2)
- Nominal 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) geared version (1:2)
- Maximum 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) in-line version (1:1)
- Nominal 37M2770000 or 37M4770000 (with brake) + 37D2600001 (3000W) in-line version (1:1)

LUBRICATION DIAGRAMS

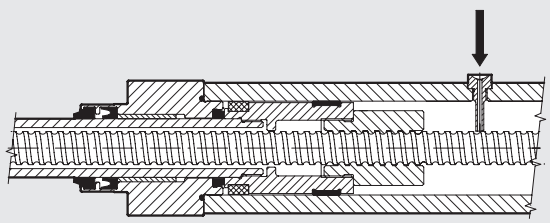
Our electric rod cylinders are pre-greased with permanent grease. It is, however, possible to maintain them by re-lubricating, but before this operation we recommend periodic maintenance, at least once a year, which includes checks of: functionality, noise, wears and plays, if possible motor absorption (to be compared with the previous ones), and only after adding, in case, grease according to the instructions in the manual: a continuous addition of grease, since it is not disposable, could be worse. The quantities in the manual are valid for strokes up to approximately 500 mm. Between 500 mm and 1000 mm double the quantity. Between 1000 mm and 1500 mm triple the quantity.

LUBRICATION OF VERSION WITH NON-ROTATING PISTON ROD



- Retract the piston rod towards the rear head. The piston rod/piston/ball screw system must rest against the buffer of the rear head.
- Unscrew the cap on the lubricator port (see note 1 in the drawing on **next page**).
- Screw the lubricating pin (see accessory on page **A5**.39) into the thread. Make sure you enter the corresponding hole in the piston below.
- Pump grease (code 9910506) using the suitable lubricator according to the quantity in table.
- Unscrew the lubricating pin and make the piston rod perform four complete strokes. The piston rod should end up in the initial (retracted) position.
- Repeat the last two operations.

LUBRICATION OF VERSION WITHOUT NON-ROTATING PISTON ROD



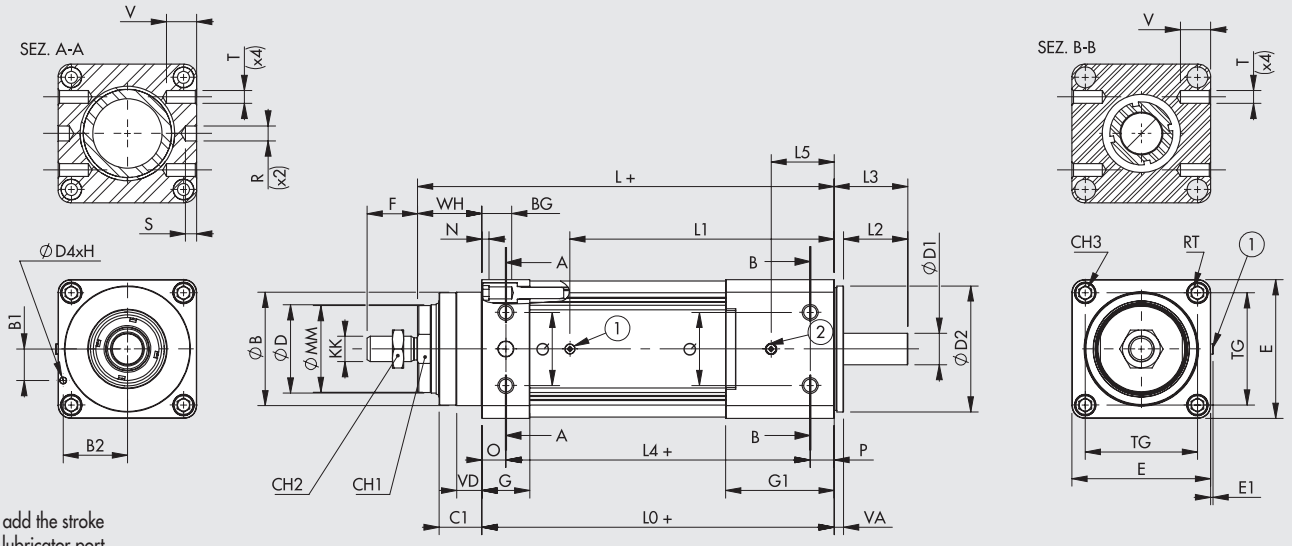
- Extend the piston rod completely. The piston rod/piston/ball screw system must rest against the buffer of the front head.
- Unscrew the cap on the lubricator port (see note 1 in the drawing on **next page**).
- Screw the lubricating pin (see accessory on page **A5**.39) into the thread. Make sure you enter the corresponding hole in the piston below.
- Pump grease (code 9910506) using the suitable lubricator according to the quantity in table.
- Unscrew the lubricating pin and make the piston rod perform four complete strokes. The piston rod should end up in the initial (extended) position.
- Repeat the last two operations.

		Ø 32		Ø 50			Ø 63			Ø 63 HD		Ø 80			Ø 100		Ø 100 HD
Screw pitch (p)	mm	4	12	5	10	16	5	10	20	5	10	5	10	32	10	40	10
Relube grease quantity	g	0.3	0.6	0.9	1.5	2.1	1.5	1.8	3	1.5	1.8	2.1	3.3	4.8	7.2	12.9	7.2
	cc	0.26	0.52	0.77	1.30	1.81	1.30	1.55	2.60	1.30	1.55	1.81	2.84	4.13	6.20	11.10	6.20

N.B.: These are indicative values that can change as a function of the stroke

DIMENSIONS

CYLINDER DIMENSIONS (WITHOUT MOTOR)



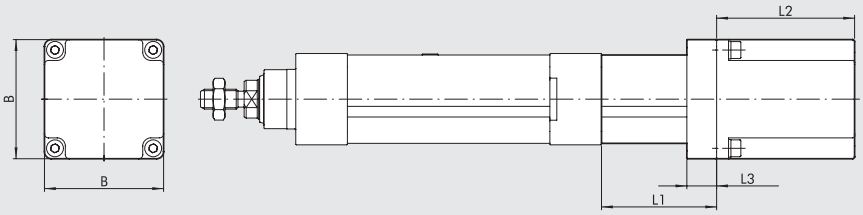
\+ = add the stroke
① = lubricator port
② = lubricator port for the Ø 100 HD (present on all sides)

Ø	ØB (d11)	B1	B2	BG	C1	CH1	CH2	CH3	ØD (f7)	ØD1 (h7)	ØD2	ØD4 (h7)	E	E1	F	G	G1	H	KK	L
32	30	7	19.5	14.5	16	17	17	6	20	6.35	32	3	46	-	22	26	26	9	M10x1.25	160
50	40	7	28	17.5	25	21	24	8	25	10	50	3	64.5	-	32	30	30	9	M16x1.5	194
63	45	9	34.5	17.5	25	26	24	8	30	12	63	3	75.5	0.65	32	32	32	9	M16x1.5	210
63 HD	45	9	34.5	17.5	25	26	24	8	30	12	63	3	75.5	0.65	32	32	46	9	M16x1.5	230
80	60	15	42.5	21	31	41	30	10	45	19	80	3	93	0.5	40	38	67	9	M20x1.5	294
100	90	25	21	21	34	65	30	10	70	24	100	5	110	1.9	40	38	77	9	M20x1.5	321.5
100 HD	90	25	21	21	34	65	30	10	70	24	100	5	110	1.9	40	38	77	9	M20x1.5	330.5

Ø	L0	L1	L2	L3	L4	L5	ØMM	N	O	P	Q	R (h7)	S	T	V	RT	TG	VA	VD	WH
32	134	86.3	23	27	-	-	19	4.5	-	-	-	-	-	-	-	M6	32.5	3	4.5	26
50	157	100.8	24	28.4	-	-	24	5.5	-	-	-	-	-	-	-	M8	46.5	5.5	5.5	37
63	173	112.3	34	39.5	-	-	29	5.5	-	-	-	-	-	-	-	M8	56.5	5.5	6.5	37
63 HD	193	132.3	34	39.5	-	-	29.5	5.5	-	-	-	-	-	-	-	M8	56.5	5.5	6.5	37
80	248	181.1	41.7	47.2	215	-	42	5	19	14	44	10	9	M10	17.5	M10	72	5.5	17.5	46
100	270.5	200.6	46.9	54.9	232.5	-	69	5	19	19	58	12	9	M12	20	M10	89	8	20	51
100 HD	279.5	209.6	50.95	58.45	241.5	50	69	5	19	19	58	12	9	M12	20	M10	89	7.5	20	51

NOTES

DIMENSIONS OF CYLINDERS WITH IN-LINE MOTOR



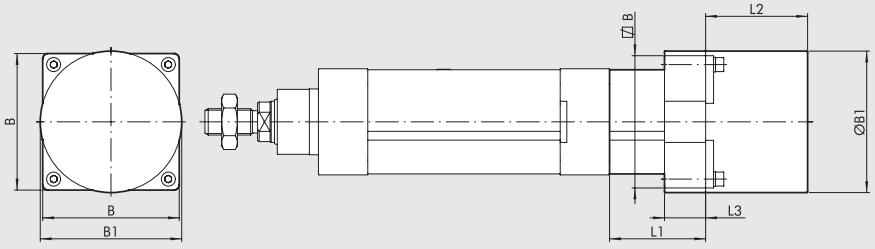
For any missing dimensions, please refer to page **A5**.25

VERSION WITH MOTOR

Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Motor torque [Nm]	Coupling flange	B	L1	L2	L3
32	BRUSHLESS	371032_ _ _ _ _2200	37M2200000	0.64	60	60	62	69.5	15
		371032_ _ _ _ _2220	37M2220000	1.27	60	60	62	95.5	15
		371032_ _ _ _ _220E	37M2200001	0.64	60	60	69.5	105.5	13.5
		371032_ _ _ _ _222E	37M2220001	1.27	60	60	69.5	130.7	13.5
	STEPPING	371032_ _ _ _ _1110	37M1110000	0.8	NEMA 23	56	45	53.8	12
		371032_ _ _ _ _1120	37M1120000	1.2	NEMA 23	56	45	75.8	12
		371032_ _ _ _ _1121	37M1120001	1.2	NEMA 23	56	45	75.8	12
50	BRUSHLESS	371050_ _ _ _ _2330	37M2330000	2.39	80	80	77.4	107.3	35
63	STEPPING	371063_ _ _ _ _1450	37M1450000	6.7	NEMA 34	85.5	63.5	127	16
63 HD	STEPPING	371H63_ _ _ _ _1450	37M1450000	6.7	NEMA 34	85.5	63.5	127	16
		371H63_ _ _ _ _1470	37M1470000	9.3	NEMA 34	86.6	63.5	130	16
80	BRUSHLESS	371080_ _ _ _ _2770	37M2770000	9.5	130	130	120	187.5	26
100	BRUSHLESS	371100_ _ _ _ _2770	37M2770000	9.5	130	130	126	187.5	40
100 HD	BRUSHLESS	371HA1_ _ _ _ _2770	37M2770000	9.5	130	130	133.5	187.5	40

VERSION WITH MOTOR AND BRAKE

Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Motor torque [Nm]	Coupling flange	B	L1	L2	L3
32	BRUSHLESS	371032_ _ _ _ _4200	37M4200000	0.64	60	60	62	97.5	15
		371032_ _ _ _ _4220	37M4220000	1.27	60	60	62	123.5	15
		371032_ _ _ _ _420E	37M4200001	0.64	60	60	69.5	141.6	13.5
		371032_ _ _ _ _422E	37M4220001	1.27	60	60	69.5	166.8	13.5
	STEPPING	371032_ _ _ _ _3220	37M3220000	1.2	60	60	45	151.8	7
		371032_ _ _ _ _3230	37M3230000	2.5	60	60	45	184.5	7
		371032_ _ _ _ _5120	37M5120000	1.2	NEMA 23	56	45	112	12
50	BRUSHLESS	371050_ _ _ _ _4330	37M4330000	2.39	80	80	77.4	143	35
	STEPPING	371050_ _ _ _ _3430	37M3430000	2.9	NEMA 34	86.6	63.4	156.5	9.9
		371050_ _ _ _ _3460	37M3460000	5.5	NEMA 34	86.6	63.4	188.5	9.9
63	STEPPING	371063_ _ _ _ _3460	37M3460000	5.5	NEMA 34	86.6	63.5	188.5	9.9
		371063_ _ _ _ _3450	37M3450000	6.3	NEMA 34	86.6	63.5	188.5	9.9
63 HD	STEPPING	371H63_ _ _ _ _3450	37M3450000	6.3	NEMA 34	86.6	63.5	188.5	16
		371H63_ _ _ _ _3460	37M3460000	5.5	NEMA 34	86.6	63.5	188.5	16
		371H63_ _ _ _ _3470	37M3470000	9.3	NEMA 34	86.6	63.5	220.5	16
80	BRUSHLESS	371080_ _ _ _ _4770	37M4770000	9.5	130	130	120	216	26
100	BRUSHLESS	371100_ _ _ _ _4770	37M4770000	9.5	130	130	126	216	40
100 HD	BRUSHLESS	371HA1_ _ _ _ _4770	37M4770000	9.5	130	130	133.5	216	40

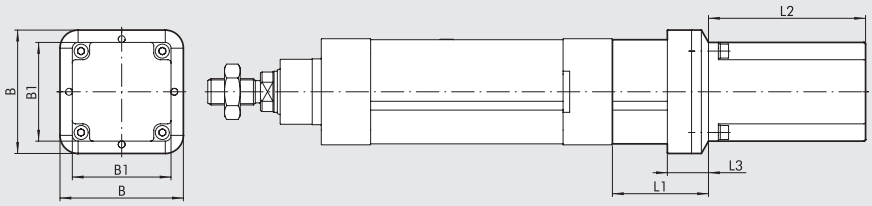


For any missing dimensions, please refer to page **A5**.25

VERSION WITH MOTOR

Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Motor torque [Nm]	Coupling flange	B	Ø B1	L1	L2	L3
50	STEPPING	371050_ _ _ _ _1430	37M1430000	2.4	NEMA 34	83	86	61.4	62	25
		371050_ _ _ _ _1440	37M1440000	4.2	NEMA 34	83	86	61.4	92.2	25
80	STEPPING	371080_ _ _ _ _1890	37M1890000	17.5	NEMA 42	106.4	106.4	102	221	35
100	STEPPING	371100_ _ _ _ _1890	37M1890000	17.5	NEMA 42	110	106.4	109	221	35

DIMENSIONS OF CYLINDERS WITH IN-LINE MOTOR



For any missing dimensions, please refer to page **A5**.25

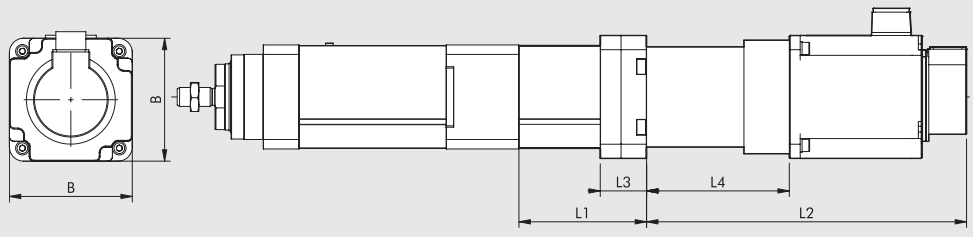
VERSION WITH MOTOR

Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Motor torque [Nm]	Coupling flange	B	B1	L1	L2	L3
50	BRUSHLESS	371050_ _ _ _ _2220	37M2220000	1.27	60	74.5	60	61.4	95.5	25
		371050_ _ _ _ _222E	37M2220001	1.27	60	74.5	60	70.5	130.7	25
		371050_ _ _ _ _233E	37M2330001	2.39	80	92	80	78.1	138.3	29
63	BRUSHLESS	371063_ _ _ _ _2330	37M2330000	2.39	80	94	80	78.5	107.3	25
		371063_ _ _ _ _233E	37M2330001	2.39	80	94	80	89.2	138.3	25
63 HD	BRUSHLESS	371H63_ _ _ _ _2330	37M2330000	2.39	80	94	80	78.5	107.3	25
		371H63_ _ _ _ _2540	37M2540000	3.18	86	94	84.4	78.5	137.1	25
		371H63_ _ _ _ _233E	37M2330001	2.39	80	94	80	89.2	138.3	25
		371H63_ _ _ _ _264E	37M2640000	3.18	100	100	100	99.2	153.3	35
80	BRUSHLESS	371080_ _ _ _ _2540	37M2540000	3.18	86	93	84.4	102	137.1	35
		371080_ _ _ _ _264E	37M2640000	3.18	100	100	100	111	153.3	44

VERSION WITH MOTOR AND BRAKE

Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Motor torque [Nm]	Coupling flange	B	B1	L1	L2	L3
50	BRUSHLESS	371050_ _ _ _ _4220	37M4220000	1.27	60	74.5	60	61.4	123.5	25
		371050_ _ _ _ _422E	37M4220001	1.27	60	74.5	60	70.5	166.8	25
		371050_ _ _ _ _433E	37M4330001	2.39	80	92	80	78.1	178	29
63	BRUSHLESS	371063_ _ _ _ _4330	37M4330000	2.39	80	94	80	78.5	143	25
		371063_ _ _ _ _433E	37M4330001	2.39	80	94	80	89.2	178	25
63 HD	BRUSHLESS	371H63_ _ _ _ _4330	37M4330000	2.39	80	94	80	78.5	143	25
		371H63_ _ _ _ _4540	37M4540000	3.18	86	94	84.4	78.5	163	25
		371H63_ _ _ _ _433E	37M4330001	2.39	80	94	80	89.2	178	25
		371H63_ _ _ _ _464E	37M4640000	3.18	100	100	100	99.2	192.5	35
80	BRUSHLESS	371080_ _ _ _ _4540	37M4540000	3.18	86	93	84.4	102	163	35
		371080_ _ _ _ _464E	37M4640000	3.18	100	100	100	111	192.5	44

DIMENSIONS OF CYLINDERS WITH IN-LINE MOTOR AND GEARBOX



For any missing dimensions, please refer to page **A5**.25

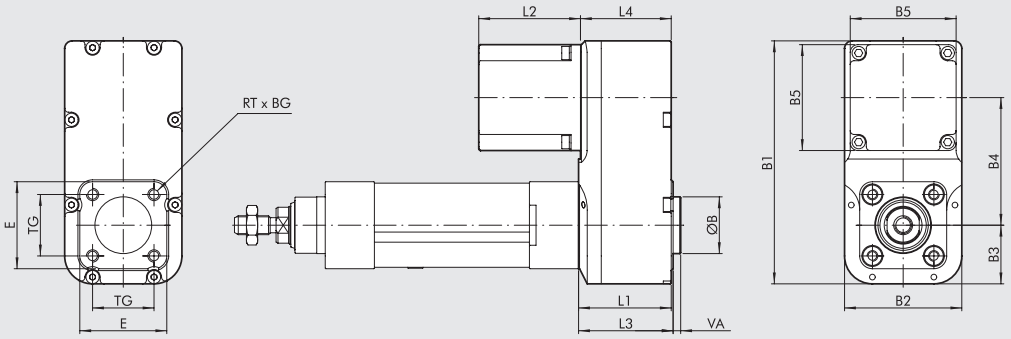
VERSION WITH MOTOR

Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Code for gear mounted on the cylinder	Motor torque [Nm]	Coupling flange	B	L1	L2	L3	L4
100	BRUSHLESS	371100_ _ _ _ _6770	37M2770000	37R0364000	9.5	130	130	135	338.5	49	151
100 HD	BRUSHLESS	371HA1_ _ _ _ _6770	37M2770000	37R0364000	9.5	130	130	140.5	338.5	49	151

VERSION WITH MOTOR AND BRAKE

Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Code for gear mounted on the cylinder	Motor torque [Nm]	Coupling flange	B	L1	L2	L3	L4
100	BRUSHLESS	371100_ _ _ _ _7770	37M4770000	37R0364000	9.5	130	130	135	367	49	151
100 HD	BRUSHLESS	371HA1_ _ _ _ _7770	37M4770000	37R0364000	9.5	130	130	140.5	367	49	151

DIMENSIONS OF CYLINDERS WITH GEARED MOTOR



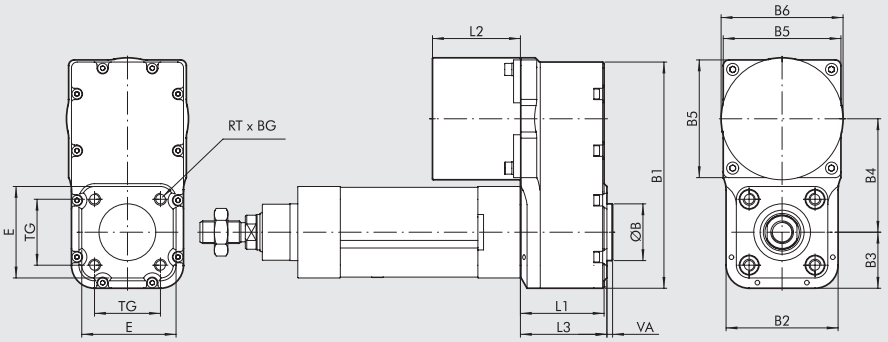
For any missing dimensions, please refer to page **A5**.25

VERSION WITH MOTOR

Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Motor torque [Nm]	Coupling flange	ØB (d11)	B1	B2	B3	B4	B5	BG	E	L1	L2	L3	L4	TG	RT	VA
32	STEPPING	371032_ _ _ _ _ _1110	37M1110000	0.8	NEMA 23	30	128.5	62	31	67.5	56	15	46	49	53.8	50	48	32.5	M6	4
		371032_ _ _ _ _ _1120	37M1120000	1.2	NEMA 23	30	128.5	62	31	67.5	56	15	46	49	75.8	50	48	32.5	M6	4
		371032_ _ _ _ _ _1121	37M1120001	1.2	NEMA 23	30	128.5	62	31	67.5	56	15	46	49	75.8	50	48	32.5	M6	4
63	STEPPING	371063_ _ _ _ _ _1450	37M1450000	6.7	NEMA 34	45	179.5	92	46	87.5	84.5	17	75.5	70	127	72	68	56.5	M8	4
63 HD	STEPPING	371H63_ _ _ _ _ _1450	37M1450000	6.7	NEMA 34	45	179.5	92	46	87.5	85.5	17	75.5	70	127	72	68	56.5	M8	4
80	BRUSHLESS	371080_ _ _ _ _ _2540	37M2540000	3.18	86	45	204.5	115	57	97.5	86	21	-	80.5	137.1	-	-	72	M10	4

VERSION WITH MOTOR AND BRAKE

Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Motor torque [Nm]	Coupling flange	ØB (d11)	B1	B2	B3	B4	B5	BG	E	L1	L2	L3	L4	TG	RT	VA
32	STEPPING	371032_ _ _ _ _ _3220	37M3220000	1.2	60	30	128.5	62	31	67.5	60	15	46	49	151.8	50	48	32.5	M6	4
		371032_ _ _ _ _ _3230	37M3230000	2.5	60	30	128.5	62	31	67.5	60	15	46	49	184.5	50	48	32.5	M6	4
		371032_ _ _ _ _ _5120	37M5120000	1.2	NEMA 23	30	128.5	62	31	67.5	56	15	46	49	112	50	48	32.5	M6	4
80	BRUSHLESS	371080_ _ _ _ _ _4540	37M4540000	3.18	86	45	204.5	115	57	97.5	86	21	-	80.5	163	-	-	72	M10	4



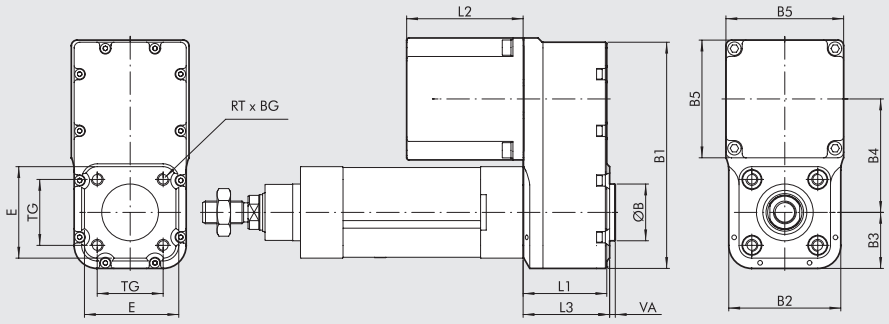
For any missing dimensions, please refer to page **A5**.25

VERSION WITH MOTOR

Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Motor torque [Nm]	Coupling flange	ØB (d11)	B1	B2	B3	B4	B5	ØB6	BG	E	L1	L2	L3	TG	RT	VA
50	STEPPING	371050_ _ _ _ _ _1430	37M1430000	2.4	NEMA 34	40	159.5	79	39.5	80	80	86	17	64.5	59	62	61	46.5	M8	4
		371050_ _ _ _ _ _1440	37M1440000	4.2	NEMA 34	40	159.5	79	39.5	80	83	86	17	64.5	59	92.2	61	46.5	M8	4

METAL WORK PNEUMATIC

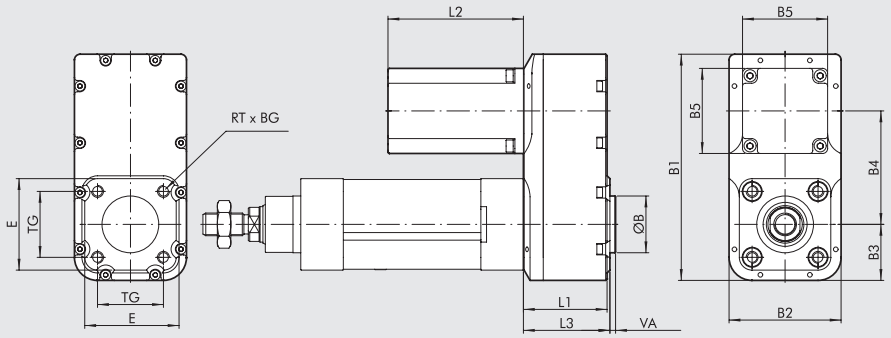
DIMENSIONS OF CYLINDERS WITH GEARED MOTOR



For any missing dimensions, please refer to page **A5**.25

VERSION WITH MOTOR AND BRAKE

Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Motor torque [Nm]	Coupling flange	ØB (d11)	B1	B2	B3	B4	B5	BG	E	L1	L2	L3	TG	RT	VA
50	STEPPING	371050_ _ _ _ _3430	37M3430000	2.9	NEMA 34	40	159.5	79	39.5	80	86.6	17	64.5	59	156.5	61	46.5	M8	4
		371050_ _ _ _ _3460	37M3460000	5.5	NEMA 34	40	159.5	79	39.5	80	86.6	17	64.5	59	188.5	61	46.5	M8	4



For any missing dimensions, please refer to page **A5**.25

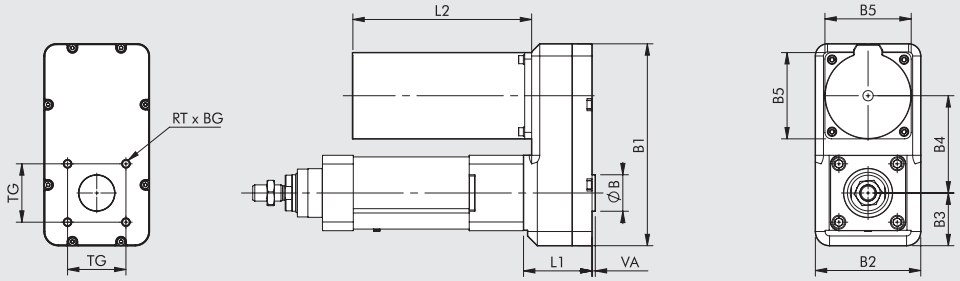
VERSION WITH MOTOR

Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Motor torque [Nm]	Coupling flange	ØB (d11)	B1	B2	B3	B4	B5	BG	E	L1	L2	L3	TG	RT	VA
50	BRUSHLESS	371050_ _ _ _ _2220	37M2220000	1.27	60	40	159.5	79	39.5	80	60	17	64.5	59	95.5	61	46.5	M8	4
		371050_ _ _ _ _222E	37M2220001	1.27	60	40	159.5	79	39.5	80	60	17	64.5	59	130.7	61	46.5	M8	4
		371050_ _ _ _ _233E	37M2330001	2.39	80	40	159.5	80	39.5	75	80	17	64.5	59	138.3	61	46.5	M8	4
63	BRUSHLESS	371063_ _ _ _ _2330	37M2330000	2.39	80	45	179.5	92	46	87.5	80	17	75.5	70	107.3	72	56.5	M8	4
		371063_ _ _ _ _233E	37M2330001	2.39	80	45	179.5	92	46	87.5	80	17	75.5	70	138.3	72	56.5	M8	4
63 HD	BRUSHLESS	371H63_ _ _ _ _2330	37M2330000	2.39	80	45	179.5	92	46	87.5	80	17	75.5	70	107.3	72	56.5	M8	4
		371H63_ _ _ _ _2540	37M2540000	3.18	86	45	179.5	92	46	87.5	86	17	75.5	70	137.1	72	56.5	M8	4
		371H63_ _ _ _ _233E	37M2330001	2.39	80	45	179.5	92	46	87.5	80	17	75.5	70	138.3	72	56.5	M8	4
		371H63_ _ _ _ _264E	37M2640000	3.18	100	45	191.4	100	46	95	100	17	75.5	74.8	153.3	76.8	56.5	M8	4
	STEPPING	371H63_ _ _ _ _1470	37M1470000	9.3	NEMA 34	45	179.5	92	46	87.5	86.6	17	75.5	70	130	72	56.5	M8	4
80	BRUSHLESS	371080_ _ _ _ _264E	37M2640000	3.18	100	45	224.8	130	59	109.8	100	17	-	76.5	153.3	-	72	M10	4

VERSION WITH MOTOR AND BRAKE

Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Motor torque [Nm]	Coupling flange	ØB (d11)	B1	B2	B3	B4	B5	BG	E	L1	L2	L3	TG	RT	VA
50	BRUSHLESS	371050_ _ _ _ _4220	37M4220000	1.27	60	40	159.5	79	39.5	80	60	17	64.5	59	123.5	61	46.5	M8	4
		371050_ _ _ _ _422E	37M4220001	1.27	60	40	159.5	79	39.5	80	60	17	64.5	59	166.8	61	46.5	M8	4
		371050_ _ _ _ _433E	37M4330001	2.39	80	40	159.5	80	39.5	75	80	17	64.5	59	178	61	46.5	M8	4
63	BRUSHLESS	371063_ _ _ _ _4330	37M4330000	2.39	80	45	179.5	92	46	87.5	80	17	75.5	70	143	72	56.5	M8	4
		371063_ _ _ _ _433E	37M4330001	2.39	80	45	179.5	92	46	87.5	80	17	75.5	70	178	72	56.5	M8	4
	STEPPING	371063_ _ _ _ _3460	37M3460000	5.5	NEMA 34	45	179.5	92	46	87.5	86.6	17	75.5	70	188.5	72	56.5	M8	4
		371063_ _ _ _ _3450	37M3450000	6.3	NEMA 34	45	179.5	92	46	87.5	86.6	17	75.5	70	188.5	72	56.5	M8	4
63 HD	BRUSHLESS	371H63_ _ _ _ _4330	37M4330000	2.39	80	45	179.5	92	46	87.5	80	17	75.5	70	143	72	56.5	M8	4
		371H63_ _ _ _ _4540	37M4540000	3.18	86	45	179.5	92	46	87.5	86	17	75.5	70	163	72	56.5	M8	4
		371H63_ _ _ _ _433E	37M4330001	2.39	80	45	179.5	92	46	87.5	80	17	75.5	70	178	72	56.5	M8	4
		371H63_ _ _ _ _464E	37M4640000	3.18	100	45	191.4	100	46	95	100	17	75.5	74.8	192.5	76.8	56.5	M8	4
	STEPPING	371H63_ _ _ _ _3470	37M3470000	9.3	NEMA 34	45	179.5	92	46	87.5	86.6	17	75.5	70	220.5	72	56.5	M8	4
		371H63_ _ _ _ _3450	37M3450000	6.3	NEMA 34	45	179.5	92	46	87.5	86.6	17	75.5	70	188.5	72	56.5	M8	4
		371H63_ _ _ _ _3460	37M3460000	5.5	NEMA 34	45	179.5	92	46	87.5	86.6	17	75.5	70	188.5	72	56.5	M8	4
80	BRUSHLESS	371080_ _ _ _ _464E	37M4640000	3.18	100	45	224.8	130	59	109.8	100	17	-	76.5	192.5	-	72	M10	4

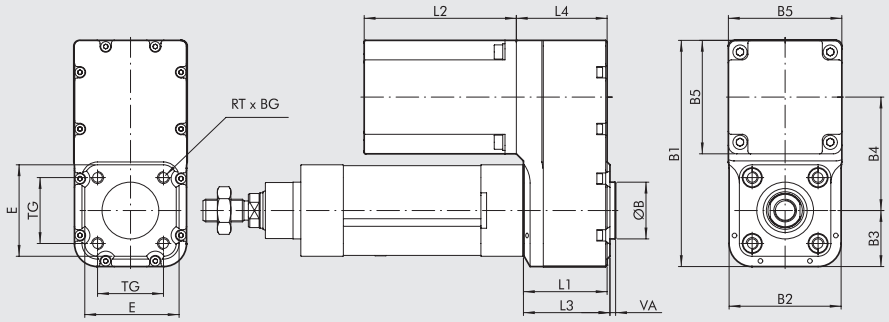
DIMENSIONS OF CYLINDERS WITH GEARED MOTOR



For any missing dimensions, please refer to page **A5**.25

VERSION WITH MOTOR

Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Motor torque [Nm]	Coupling flange	ØB (d11)	B1	B2	B3	B4	B5	BG	L1	L2	TG	RT	VA
80	STEPPING	371080_ _ _ _ _ _1890	37M1890000	17.5	NEMA 42	45	249	130	65	120	106.4	21	84.5	221	72	M10	4
100	STEPPING	371100_ _ _ _ _ _1890	37M1890000	17.5	NEMA 42	55	285	150	75	120	106.4	21	91.5	221	89	M10	4



For any missing dimensions, please refer to page **A5**.25

VERSION WITH MOTOR

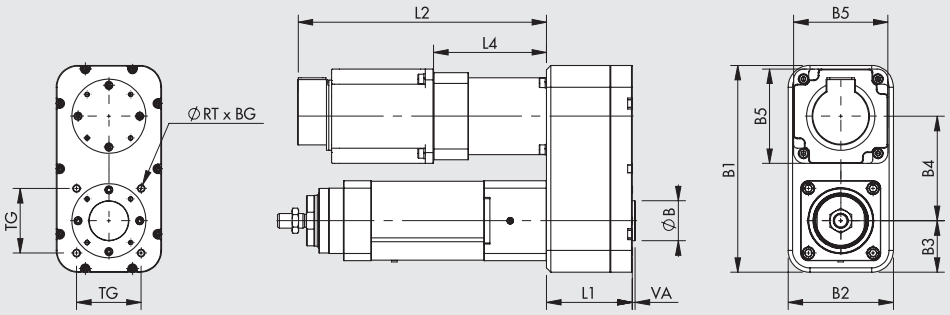
Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Motor torque [Nm]	Coupling flange	ØB (d11)	B1	B2	B3	B4	B5	BG	E	L1	L2	L3	L4	TG	RT	VA
32	BRUSHLESS	371032_ _ _ _ _ _2200	37M2200000	0.64	60	30	128.5	62	31	67.5	60	15	46	49	69.5	50	51	32.5	M6	4
		371032_ _ _ _ _ _2220	37M2220000	1.27	60	30	128.5	62	31	67.5	60	15	46	49	95.5	50	51	32.5	M6	4
		371032_ _ _ _ _ _220E	37M2200001	0.64	60	30	128.5	62	31	67.5	60	15	46	49	105.5	50	51	32.5	M6	4
		371032_ _ _ _ _ _222E	37M2220001	1.27	60	30	128.5	62	31	67.5	60	15	46	49	130.7	50	51	32.5	M6	4
50	BRUSHLESS	371050_ _ _ _ _ _2330	37M2330000	2.39	80	40	159.5	79	39.5	80	80	17	64.5	59	107.3	61	64	46.5	M8	4
80	BRUSHLESS	371080_ _ _ _ _ _2770	37M2770000	9.5	130	45	249	130	65	119	130	21	-	84.5	187.5	-	-	72	M10	4
100	BRUSHLESS	371100_ _ _ _ _ _2770	37M2770000	9.5	130	55	285	150	75	145	130	21	-	91.5	187.5	-	-	89	M10	4
100 HD	BRUSHLESS	371HA1_ _ _ _ _ _2770	37M2770000	9.5	130	55	285	150	75	145	130	21	-	91.5	188	-	-	89	M10	4

VERSION WITH MOTOR AND BRAKE

Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Motor torque [Nm]	Coupling flange	ØB (d11)	B1	B2	B3	B4	B5	BG	E	L1	L2	L3	L4	TG	RT	VA
32	BRUSHLESS	371032_ _ _ _ _ _4200	37M4200000	0.64	60	30	128.5	62	31	67.5	60	15	46	49	67.5	50	51	32.5	M6	4
		371032_ _ _ _ _ _4220	37M4220000	1.27	60	30	128.5	62	31	67.5	60	15	46	49	123.5	50	51	32.5	M6	4
		371032_ _ _ _ _ _420E	37M4200001	0.64	60	30	128.5	62	31	67.5	60	15	46	49	141.6	50	51	32.5	M6	4
		371032_ _ _ _ _ _422E	37M4220001	1.27	60	30	128.5	62	31	67.5	60	15	46	49	166.8	50	51	32.5	M6	4
50	BRUSHLESS	371050_ _ _ _ _ _4330	37M4330000	2.39	80	40	159.5	79	39.5	80	80	17	64.5	59	143	61	64	46.5	M8	4
80	BRUSHLESS	371080_ _ _ _ _ _4770	37M4770000	9.5	130	45	249	130	65	119	130	21	-	84.5	216	-	-	72	M10	4
100	BRUSHLESS	371100_ _ _ _ _ _4770	37M4770000	9.5	130	55	285	150	75	145	130	21	-	91.5	216	-	-	89	M10	4
100 HD	BRUSHLESS	371HA1_ _ _ _ _ _4770	37M4770000	9.5	130	55	285	150	75	145	130	21	-	91.5	216	-	-	89	M10	4

METAL WORK PNEUMATIC

DIMENSIONS OF CYLINDERS WITH GEARED MOTOR AND GEARBOX



For any missing dimensions, please refer to page **A5**.25

VERSION WITH MOTOR

Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Code for gearbox mounted on the cylinder	Motor torque [Nm]	Coupling flange	ØB (d11)	B1	B2	B3	B4	B5	BG	L1	L2	L4	TG	RT	VA
100 HD	BRUSHLESS	**371HA1_____6770**	**37M2770000**	**37R0364000**	**9.5**	**130**	55	285	145	71	144	130	21	118	343	156	89	M10	4

VERSION WITH MOTOR AND BRAKE

Size	Motor type	Code for cylinder complete with motor	Code for motor mounted on the cylinder	Code for gearbox mounted on the cylinder	Motor torque [Nm]	Coupling flange	ØB (d11)	B1	B2	B3	B4	B5	BG	L1	L2	L4	TG	RT	VA
100 HD	BRUSHLESS	**371HA1_____7770**	**37M4770000**	**37R0364000**	**9.5**	**130**	55	285	145	71	144	130	21	118	371.5	156	89	M10	4

NOTES

MOTOR-DRIVE COUPLINGS

MOTOR CODES			DRIVES CODES				
		Metal Work	37D1222000 *	37D1332000 *	37D1442000	37D1552000	37D1362001
		Manufacturer	RTA CSD 94	RTA NDC 96	RTA PLUS A4	RTA PLUS B7	X-MIND B6
Metal Work	Manufacturer		(4.4A 24-48VDC)	(6A 2-75VDC)	(6A 77-140VDC)	(10A 28-62VAC) ●	(6A 110-230VAC) ●
STEPPING MOTORS							
37M1110000	SANYO DENKI 103-H7123-1749 (4A 75V max)		Ø32	Ø32 ◆	-	Ø32 ■	-
37M1120000	SANYO DENKI 103-H7126-1740 (4A 75V max)		Ø32	Ø32 ◆	-	Ø32 ■	-
37M1120001	SANYO DENKI 103-H7126-6640 (5.6A 75V max)		-	Ø32	-	Ø32 ■	-
37M1430000	SANYO DENKI 103-H8221-6241 (6A 140V max)		-	Ø50	Ø 50	Ø50 ◆	Ø50 ▲
37M1440000	SANYO DENKI 103-H8222-6340 (6A 140V max)		-	Ø50	Ø 50	Ø50 ◆	Ø50 ▲
37M1450000	SANYO DENKI SM-2863-5255 (6A 140V max)		-	Ø63 - Ø63 HD	Ø63 - Ø63 HD	Ø63 - Ø63 HD ◆	Ø63 - Ø63 HD ▲
37M1470000	B&R 80MPH6.101S000-01 (10A 80V max)		-	-	-	Ø63 HD	-
37M1890000	SANYO DENKI 103-H89223-6341 (6A 230V max)		-	-	-	-	Ø80 - Ø100
STEPPING MOTORS WITH BRAKE							
37M5120000	SANYO DENKI 103-H7126-1710B (4A 75V max)		Ø32	Ø32 ◆	-	Ø32 ■	-
STEPPING MOTORS WITH BRAKE + ENCODER							
37M3220000	B&R 80MPF3.500D114-01 (5A 80V max)		-	Ø32 ◆	Ø32 ■	Ø32 ■	
37M3230000	B&R 80MPF5.500D114-01 (5A 80V max)		-	Ø32 ◆	Ø32 ■	Ø32 ■	
37M3430000	B&R 80MPH1.600D114-01 (6A 80V max)		-	Ø50	Ø50 ▲	Ø50 ◆	
37M3460000	B&R 80MPH3.600D114-01 (6A 80V max)		-	Ø50 - Ø63 - Ø63 HD	Ø50 - Ø63 - Ø63 HD ▲	Ø50 - Ø63 - Ø63 HD ◆	
37M3450000	B&R 80MPH4.101D114-01 (10A 80V max)		-	-	-	Ø63 - Ø63 HD	
37M3470000	B&R 80MPH6.101D114-01 (10A 80V max)		-	-	-	Ø63 HD	

✱ In all applications requiring motor powered up to 6A / 55VDC, the programmable drive **e**.drive, code 37D1332002, can be used.
◆ **Important!** Limit current
■ **Important!** Limit current and voltage
▲ **Important!** Limit voltage
● **Important!** AC drive to continuous voltage VDC = VAC · $\sqrt{2}$

MOTOR CODES			DRIVES CODES					
		Metal Work	37D2400008	37D2200001	37D2300000	37D2400007	37D2400006	37D2600001
		Manufacturer	SANYO DENKI RS3A03	DELTA ASD-A2-0221-M	DELTA ASD-A2-0421-M	DELTA ASD-A2-0721-M	DELTA ASD-A2-1021-M	DELTA ASD-A2-3043-M
Metal Work	Manufacturer		(30A 200-1000 W)	(200W)	(400W)	(750W)	(1000W)	(3000W)
BRUSHLESS MOTORS								
37M2200000	SANYO DENKI R2AA06020FXH11M (200W)		Ø32	-	-	-	-	-
37M2220000	SANYO DENKI R2AA06040FXH11M (400W)		Ø32 - Ø50	-	-	-	-	-
37M2330000	SANYO DENKI R2AA08075FXH11M (750W)		Ø50 - Ø63 - Ø63 HD	-	-	-	-	-
37M2540000	SANYO DENKI R2AAB8100HXH29M (1000W)		Ø63 HD - Ø80	-	-	-	-	-
37M2200001	DELTA ECMA-C20602RS (200W)		-	Ø32	-	-	-	-
37M2220001	DELTA ECMA-C20604RS (400W)		-	-	Ø32 - Ø50	-	-	-
37M2330001	DELTA ECMA-C20807RS (750W)		-	-	-	Ø50 - Ø63 - Ø63HD	-	-
37M2640000	DELTA ECMA-C21010R9 (1000W)		-	-	-	-	Ø63HD - Ø80	-
37M2770000	DELTA ECMA-J11330R4 (3000W)		-					Ø80 - Ø100 - Ø100 HD
BRUSHLESS MOTORS WITH BRAKE								
37M4200000	SANYO DENKI R2AA06020FCH11M (200W)		Ø32					-
37M4220000	SANYO DENKI R2AA06040FCH11M (400W)		Ø32 - Ø50					-
37M4330000	SANYO DENKI R2AA08075FCH11M (750W)		Ø50 - Ø63 - Ø63 HD					-
37M4540000	SANYO DENKI R2AAB8100HCH29M (1000W)		Ø63 HD - Ø80					-
37M4200001	DELTA ECMA-C20602SS (200W)		-	Ø32	-	-	-	-
37M4220001	DELTA ECMA-C20604SS (400W)		-	-	Ø32 - Ø50	-	-	-
37M4330001	DELTA ECMA-C20807SS (750W)		-	-	-	Ø50 - Ø63 - Ø63HD	-	-
37M4640000	DELTA ECMA-C21010S9 (1000W)		-	-	-	-	Ø63HD - Ø80	-
37M4770000	DELTA ECMA-J11330S4 (3000W)		-					Ø80 - Ø100 - Ø100 HD

KEY TO CODES FOR ELECTRIC CYLINDER SERIE ELEKTRO ISO 15552

KEY TO CODES CYLINDER WITHOUT MOTOR

CYL	37 TYPE	1	032 SIZE	0100 STROKE	1 SCREW PITCH	5 VERSION
	37 Electric actuators	**1** ISO 15552 electric cylinder	**032** 32 **050** 50 **063** 63 ◆ **H63** 63 Heavy Duty ◀ **080** 80 ◀ **100** 100 ▼ **HA1** 100 Heavy Duty		**1** Pitch 4 **2** Pitch 5 **4** Pitch 10 **5** Pitch 12 **6** Pitch 16 **7** Pitch 20 **8** Pitch 32 **9** Pitch 40	**5** Without non-rotating IP40 **6** With non-rotating IP40 **7** Without non-rotating IP55/IP65 **8** With non-rotating IP55/IP65

N.B.: For the possible ordering codes, please refer to the next page.
◆ Only with screw pitch 5 or pitch 10.
◀ Only for versions 7 and 8.
▼ Only with screw pitch 10.

N.B.: An piston rod anti-rotation system must be used. If the piston rod is not fixed firmly to an element, a flange or to any other device preventing it from rotating, a cylinder in the anti-rotation version must be used.

KEY TO CODES CYLINDER WITH MOTOR

CYL	37 TYPE	1	032 SIZE	0100 STROKE	1 SCREW PITCH	1 VERSION	DRIVE 1 MOTOR ✱	DRIVE 2 FLANGE	DRIVE 2 TORQUE	DRIVE 0
	37 Electric actuators	**1** ISO 15552 electric cylinder	**032** 32 **050** 50 **063** 63 ◆ **H63** 63 Heavy Duty ◀ **080** 80 ◀ **100** 100 ▼ **HA1** 100 Heavy Duty		**1** Pitch 4 **2** Pitch 5 **4** Pitch 10 **5** Pitch 12 **6** Pitch 16 **7** Pitch 20 **8** Pitch 32 **9** Pitch 40	**IN-LINE** ● **1** Without non-rotating IP40/IP20 ● **2** With non-rotating IP40/IP20 ■ **3** Without non-rotating IP55/IP65 ■ **4** With non-rotating IP55/IP65 **GEARED** ● **5** Without non-rotating IP40/IP20 ● **6** With non-rotating IP40/IP20 ■ **7** Without non-rotating IP55/IP65 ■ **8** With non-rotating IP55/IP65	**1** STEPPING **2** BRUSHLESS **3** STEPPING with BRAKE + Encoder **4** BRUSHLESS with BRAKE **5** STEPPING with BRAKE without Encoder **6** BRUSHLESS with gearbox **7** BRUSHLESS with BRAKE + gearbox	**1** NEMA 23 **2** 60 **3** 80 **4** NEMA 34 **5** 86 **6** 100 **7** 130 **8** NEMA 42	**0** 0 - 0.79 Nm **1** 0.8 - 1.19 Nm **2** 1.2 - 2.19 Nm **3** 2.2 - 3 Nm **4** 3.01 - 5 Nm **5** 6.21 - 7 Nm **6** 5.01 - 6.2 Nm **7** 7.01 - 10 Nm **9** 15.01 - 25 Nm	**0** Base **1** Greater rpm ✚ **E** Type "E"

N.B.: The Orderable configurations are shown on the next page.
◆ Only with screw pitch 5 or pitch 10.
◀ Only for versions 3, 4, 7 and 8.
▼ Only with screw pitch 10.
● Version IP40 available for all STEPPING and BRUSHLESS motors, for only the sizes 32, 50 and 63, with the exception of motor code 37M5120000 which it is IP20.
■ Version IP55 available for STEPPING motors, for only the sizes 50, 63, 80 and 100 all the motors, with the exception of motor code 37M1470000; for Ø 32 only for motor code 37M1120001; version IP65 available for BRUSHLESS motors, BRUSHLESS with BRAKE and STEPPING with BRAKE + ENCODER motors (all sizes).
✚ Identifies configuration with Delta BRUSHLESS motors.
✱ On request available versions with gearbox with reduction ratios other than those eventually foreseen as standard.

N.B.: An piston rod anti-rotation system must be used. If the piston rod is not fixed firmly to an element, a flange or to any other device preventing it from rotating, a cylinder in the anti-rotation version must be used.

POSSIBLE ORDERING CODES

Ø 32

Drive
Version
Screw pitch

371032_ _ _ _	1	1	1110
	5	2	1120
		5	1121
		6	5120
			2200
			220E
			2220
			222E
			3220
			3230
			4200
			420E
			4220
			422E
		3	1121
		4	2200
		7	220E
		8	2220
			222E
			3220
			3230
			4200
			420E
			4220
			422E

_ _ _ _ = Enter the stroke in mm

Ø 50

Drive
Version
Screw pitch

371050_ _ _ _	2	1	1430
	4	2	1440
	6	3	2220
		4	222E
		5	2330
		6	233E
		7	3430
		8	3460
			4220
			422E
			4330
			433E

_ _ _ _ = Enter the stroke in mm

Ø 63

Drive
Version
Screw pitch

371063_ _ _ _	2	1	1450
	4	2	2330
	7	3	233E
		4	3450
		5	3460
		6	4330
		7	433E
		8	

_ _ _ _ = Enter the stroke in mm

Ø 63 HD

Drive
Version
Screw pitch

371H63_ _ _ _	2	1	1450
	4	2	1470
		5	2330
		6	233E
			2540
			264E
			3450
			3460
			3470
			4330
			433E
			4540
			464E
		3	1450
		4	2330
		7	233E
		8	2540
			264E
			3450
			3460
			3470
			4330
			433E
			4540
			464E

_ _ _ _ = Enter the stroke in mm

Ø 80

Drive
Version
Screw pitch

				Transmission ratio ✱
371080_ _ _ _	2	3	1890	1
		4	2540	1
			264E	1
			4540	1
			464E	1
		7	1890	1
		8	2540	4/5
			264E	4/5
			4540	4/5
			464E	4/5
	4	3	1890	1
	8	4	2540	1
			264E	1
			2770	1
			4540	1
			464E	1
			4770	1
		7	1890	1
		8	2540	4/5
			264E	4/5
			2770	2/3
			4540	4/5
			464E	4/5
			4770	2/3

_ _ _ _ = Enter the stroke in mm

Ø 100

Drive
Version
Screw pitch

				Transmission ratio ✱
371100_ _ _ _	4	3	1890	1
	9	4	2770	1
			4770	1
			6770	1/3
			7770	1/3
		7	1890	1
		8	2770	1/2
			4770	1/2

_ _ _ _ = Enter the stroke in mm

Ø 100 HD

Drive
Version
Screw pitch

				Transmission ratio ✱
371HA1_ _ _ _	4	3	2770	1
		4	4770	1
			6770	1/3
			7770	1/3
		7	2770	1/2
		8	4770	1/2
			6770	1/3
			7770	1/3

_ _ _ _ = Enter the stroke in mm

✱ For sizes Ø80, Ø100 and Ø100 HD the standard transmission ratio depends on screw pitch, version and motorization. For the other sizes the standard transmission ratio is 1.

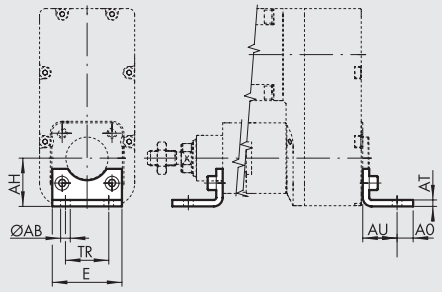
METAL WORK PNEUMATIC

NOTES

ACCESSORIES FOR ELECTRIC CYLINDER SERIES ELEKTRO ISO 15552

N.B.: Where specified, limit the maximum axial loads (Fmax) according to the electric cylinders

FOOT - MODEL A

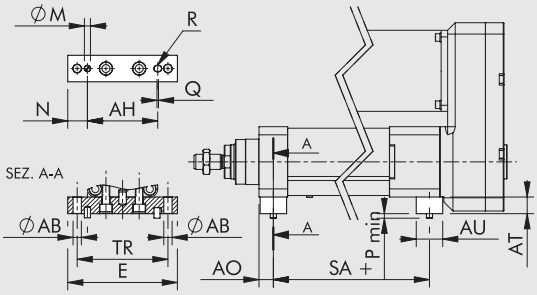


STEEL

Code	Ø	Ø AB	AH	AO	AT	AU	TR	E	Weight [g]	Fmax [N]
W0950322001	32	7	32	11	4	24	32	45	76	1600
W0950502001	50	9	45	15	5	32	45	65	162	4000
W0950632001	63	9	50	15	5	32	50	75	266	6000
W0950632001	63 HD	9	50	15	5	32	50	75	266	6000
W095E802001	80	12	68.5*	20	6	41	63	95	414	10000
W095EA12001	100	14	79*	25	6	41	75	115	518	16000
W095EA12001	100 HD	14	79*	25	6	41	75	115	518	16000

* Dimensions not to ISO 15552
Note: Individually packed with 2 screws

FOOT ON CYLINDER HEADS

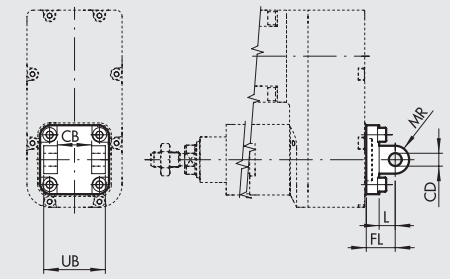


STEEL

Code	Ø	Ø AB	AH	AO	AT	AU	TR	E	ØM H7	N	P	Q	R H7	SA	Weight [g]	Fmax [N]
0950807042	80	11	93	19	22	35	120	145	8	26	6	2	8	215	770	10000
0951007042	100	13	111	19	24	35	140	165	8	27	6	2	8	232.5	945	16000
0951007042	100 HD	13	111	19	24	35	140	165	8	27	6	2	8	241.5	945	16000

Note: Individually packed with 2 screws, 3 pins

FEMALE HINGE - MODEL B



ALUMINIUM

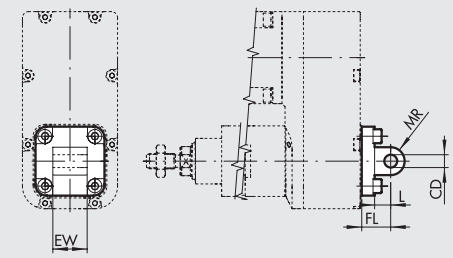
Code	Ø	UB	CB H14	FL	CD H9	MR	L	Weight [g]	Fmax [N]
W0950322003	32	45	26	22	10	10	12	116	800
W0950502003	50	60	32	27	12	12	15	252	2000
W0950632003	63	70	40	32	16	16	20	394	3000
W0950632003	63 HD	70	40	32	16	16	20	394	3000

STEEL

Code	Ø	UB	CB H14	FL	CD H9	MR	L	Weight [g]	Fmax [N]
W095E322003	32	45	26	22	10	10	13	348	1600
W095E502003	50	60	32	27	12	12	16	756	4000
W095E632003	63	70	40	32	16	15	22	1182	6000
W095E632003	63 HD	70	40	32	16	15	22	1182	6000
W095E802003	80	90	50	36	16	16	22	2010	10000
W095EA12003	100	110	60	41	20	20	27	3255	16000
W095EA12003	100 HD	110	60	41	20	20	27	3255	16000

Note: Supplied with 4 screws, 4 washers, 2 snap-rings, 1 pin

MALE HINGE - MODEL BA



ALUMINIUM

Code	Ø	EW	FL	MR	CD H9	L	Weight [g]	Fmax [N]
W0950322004	32	26	22	10	10	13	94	800
W0950502004	50	32	27	12	12	16	220	2000
W0950632004	63	40	32	16	16	22	316	3000
W0950632004	63 HD	40	32	16	16	22	316	3000

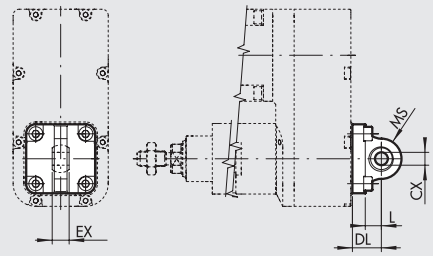
STEEL

Code	Ø	EW	FL	MR	CD H9	L	Weight [g]	Fmax [N]
W095E322004	32	26	22	10	10	13	282	1600
W095E502004	50	32	27	12	12	16	660	4000
W095E632004	63	40	32	16	16	22	948	6000
W095E632004	63 HD	40	32	16	16	22	948	6000
W095E802004	80	50	36	16	16	22	1734	10000
W095EA12004	100	60	41	20	20	27	2550	16000
W095EA12004	100 HD	60	41	20	20	27	2550	16000

Note: Supplied with 4 screws.

METAL WORK PNEUMATIC

ARTICULATED MALE HINGE - MODEL BAS



ALUMINIUM

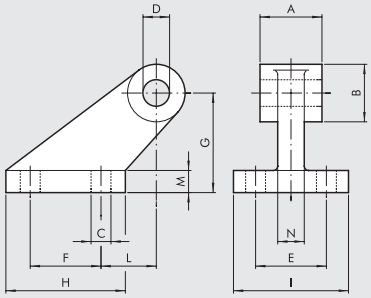
Code	Ø	DL	MS	L	CX H9	EX	Weight [g]	Fmax [N]
W0950322006	32	22	16	12	10	14	106	800
W0950502006	50	27	21	15	12	16	236	2000
W0950632006	63	32	23	20	16	21	336	3000
W0950632006	63 HD	32	23	20	16	21	336	3000

STEEL

Code	Ø	DL	MS	L	CX H9	EX	Weight [g]	Fmax [N]
W095E322006	32	22	15	14	10	14	318	1600
W095E502006	50	27	20	17	16	21	708	4000
W095E632006	63	32	23	22	16	21	1008	6000
W095E632006	63 HD	32	23	22	16	21	1008	6000
W095E802006	80	36	27	23	20	25	1716	10000
W095EA12006	100	41	30	28	20	25	2520	16000
W095EA12006	100 HD	41	30	28	20	25	2520	16000

Note: Supplied with 4 screws, 4 washers

CETOP HINGE FOR MODEL B - MODEL GL

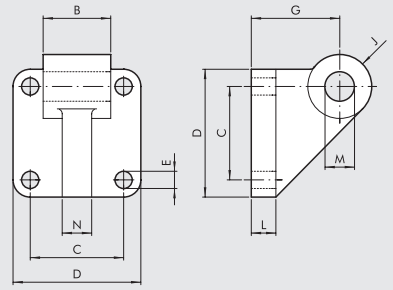


ALUMINIUM

Code	Ø	A	B	C	D	E	F	G	H	I	L	M	N	Weight [g]	Fmax [N]
W0950322008	32	26	19	7	10	25	20	32	37	41	18	8	10	96	800
W0950502008	50	32	26	9	12	32	32	45	54	52	25	10	12	212	2000
W0950632008	63	40	33	11	16	40	50	63	75	63	32	12	15	440	3000
W0950632008	63 HD	40	33	11	16	40	50	63	75	63	32	12	15	440	3000

Note: Supplied with 4 screws, 4 washers

COUNTER-HINGE FOR MODEL B - MODEL GS

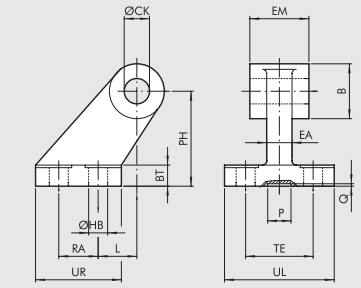


ALUMINIUM

Code	Ø	B	C	D	E	G	J	L	M	N	Weight [g]	Fmax [N]
W0950322108	32	26	32.5	45	7	32	11	10	10	10	106	800
W0950502108	50	32	46.5	65	9	45	13	12	12	12	252	2000
W0950632108	63	40	56.5	75	9	50	17	12	16	15	350	3000
W0950632108	63 HD	40	56.5	75	9	50	17	12	16	15	350	3000

Note: Supplied with 4 screws, 4 washers

ISO 15552 COUNTER-HINGE FOR MODEL B - MODEL AB7



ALUMINIUM

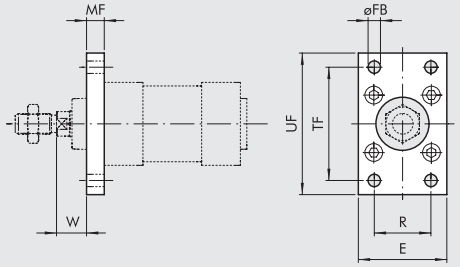
Code	Ø	EM	B	ØHB	ØCK	TE	RA	PH	UR	UL	L	BT	EA	P	Q	Weight [g]	Fmax [N]
W0950322017	32	26	20	6.6	10	38	18	32	31	51	3	8	10	21	3	60	800
W0950502017	50	32	26	9	12	50	30	45	45	65	3	12	16	21	3	162	2000
W0950632017	63	40	30	9	16	52	35	50	50	67	2	14*	16	21	3	191	3000
W0950632017	63 HD	40	30	9	16	52	35	50	50	67	2	14*	16	21	3	191	3000

STEEL

Code	Ø	EM	B	ØHB	ØCK	TE	RA	PH	UR	UL	L	BT	EA	P	Q	Weight [g]	Fmax [N]
W095E322017	32	26	20	6.6	10	38	18	32	31	51	3	8	8.5	20	5	180	1600
W095E502017	50	32	26	9	12	50	30	45	45	65	3	12	13.5	30	5	486	4000
W095E632017	63	40	30	9	16	52	35	50	50	67	2	12	13.5	35	5	573	6000
W095E632017	63 HD	40	30	9	16	52	35	50	50	67	2	12	13.5	35	5	573	6000
W095E802017	80	50	30	11	16	66	40	63	60	86	7	14	15	45	5	996	10000
W095EA12017	100	60	38	11	20	76	50	71	70	96	5	15	15	55	5	1566	16000
W095EA12017	100 HD	60	38	11	20	76	50	71	70	96	5	15	15	55	5	1566	16000

* Dimensions not to ISO 15552

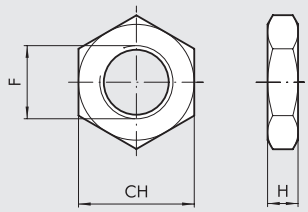
FRONT FLANGE - MODEL C



Code	Ø	TF	UF	E	MF	R	øFB	W	Weight [g]	Fmax [N]
W0950322002	32	64	80	50	10	32	7	16	246	1600
W0950502002	50	90	110	65	12	45	9	25	522	5000
W0950632002	63	100	120	75	12	50	9	25	670	7000
W0950632002	63 HD	100	120	75	12	50	9	25	670	7000

Note: Supplied with 4 screws

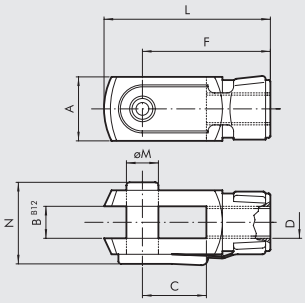
ROD NUT - MODEL S



Code	Ø	F	H	CH	Weight [g]
0950322010	32	M10x1.25	6	17	6
0950502010	50	M16x1.5	8	24	20
0950502010	63	M16x1.5	8	24	20
0950502010	63 HD	M16x1.5	8	24	20
0950802010	80	M20x1.5	9	30	32
0950802010	100	M20x1.5	9	30	32
0950802010	100 HD	M20x1.5	9	30	32

Note: Individually packed

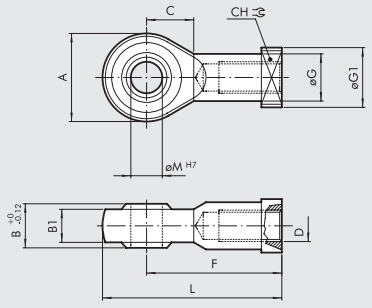
FORK MODEL GK-M



Code	Ø	øM	C	B	A	L	F	D	N	Weight [g]
W0950322020	32	10	20	10	20	52	40	M10x1.25	26	92
W0950502020	50	16	32	16	32	83	64	M16x1.5	40	340
W0950502020	63	16	32	16	32	83	64	M16x1.5	40	340
W0950502020	63 HD	16	32	16	32	83	64	M16x1.5	40	340
W0950802020	80	20	40	20	40	105	80	M20x1.5	40	690
W0950802020	100	20	40	20	40	105	80	M20x1.5	48	690
W0950802020	100 HD	20	40	20	40	105	80	M20x1.5	48	690

Note: Individually packed

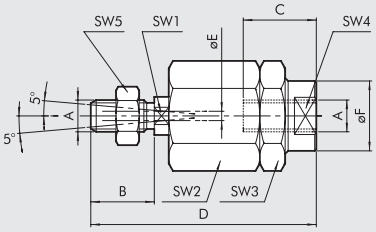
ROD EYE - MODEL GA-M



Code	Ø	øM	C	B1	B	A	L	F	D	øG	CH	øG1	Weight [g]
W0950322025	32	10	15	10.5	14	28	57	43	M10x1.25	15	17	19	78
W0950502025	50	16	22	15	21	42	85	64	M16x1.5	22	22	22	226
W0950502025	63	16	22	15	21	42	85	64	M16x1.5	22	22	22	226
W0950502025	63 HD	16	22	15	21	42	85	64	M16x1.5	22	22	22	226
W0950802025	80	20	26	18	25	50	102	77	M20x1.5	27.5	30	27	404
W0950802025	100	20	26	18	25	50	102	77	M20x1.5	27.5	30	27	404
W0950802025	100 HD	20	26	18	25	50	102	77	M20x1.5	27.5	30	27	404

Note: Individually packed

SELF ALIGNING ROD COUPLER - MODEL GA-K



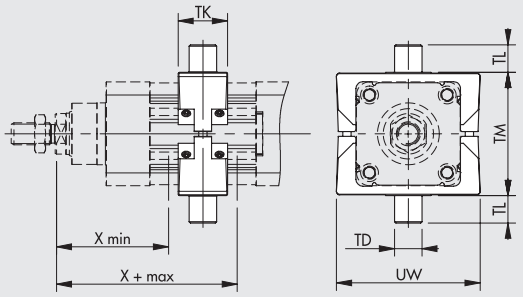
Code	Ø	A	B	C	D	øF	øE	SW1	SW2	SW3	SW4	SW5	Weight [g]
W0950322030	32	M10x1.25	20	20	71	22	4	12	30	30	19	17	216
W0950502030	50	M16x1.5	32	32	103	32	4	20	41	41	30	24	620
W0950502030	63	M16x1.5	32	32	103	32	4	20	41	41	30	24	620
W0950502030	63 HD	M16x1.5	32	32	103	32	4	20	41	41	30	24	620
W0950802030	80	M20x1.5	40	40	119	32	4	20	41	41	30	30	680
W0950802030	100	M20x1.5	40	40	119	32	4	20	41	41	30	30	680
W0950802030	100 HD	M20x1.5	40	40	119	32	4	20	41	41	30	30	680

Note: Individually packed

METAL WORK PNEUMATIC

INTERMEDIATE HINGE - MODEL EN

+ = ADD THE STROKE

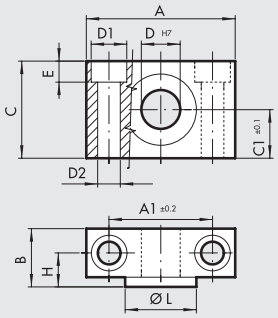


STEEL

Code	Ø	X (min)	X (max) IN LINE	X (max) GEARED	TM	TL	TD e 9	TK	UW	Weight [g]	Fmax [N]	T [Nm] ◆
0950322107	**32**	63	123	*	50	12	12	22	65	170	500	2
0950502107	**50**	83	148	*	75	16	16	28	95	595	1200	6
0950632107	**63**	88	163	*	90	20	20	36	105	960	2000	10
0950632107	**63 HD**	88	163	*	90	20	20	36	105	960	2000	10

* Depending on motor length
◆ Reccommended tightening torque of grub screws
Note: Supplied with 8 grub screws, 2 pins

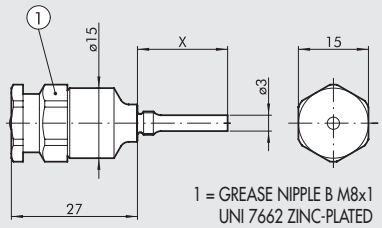
COUNTER-HINGE FOR MODEL EN - MODEL EL



Code	Ø	A	A_1	B	C	C_1	D_1	D_2	D	E	H	øL	Weight [g]
W0950322009	**32**	46	32	18	30	15	11	7	12	6.5	10.5	22	162
W0950402009	**50**	55	36	21	36	18	15	9	16	8.5	12	28	278
W0950632009	**63**	65	42	23	40	20	18	11	20	10.5	13	35	414
W0950632009	**63 HD**	65	42	23	40	20	18	11	20	10.5	13	35	414

Note: 2-pieces pack with 4 screws

GREASING NEEDLE

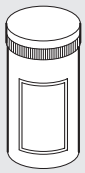


1 = GREASE NIPPLE B M8x1
UNI 7662 ZINC-PLATED

Code	Ø	Pitch	X
0950327108	**32**	-	12
0950507108	**50**	-	19.3
0950637108	**63**	-	23.6
0950637108	**80**	-	23.6
0950637108	**100**	10	23.6
0951007108	**100**	40	28.6

Note: Individually packed

GREASE

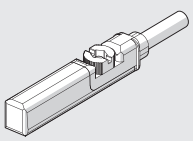


Code	Description	Weight [g]
9910506	Grease pipe RHEOLUBE 363 AX1	400

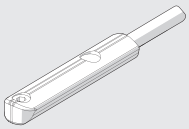
RETRACTABLE SENSOR

For codes and technical data, see **chapter A6**.

SENSOR, SQUARE TYPE
Latest generation,
secure fixing

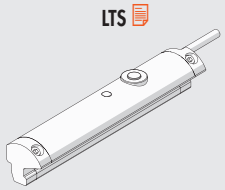


SENSOR, OVAL TYPE
Traditional

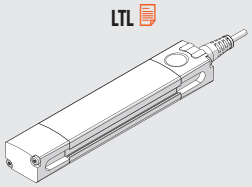


POSITION SENSORS

LTS

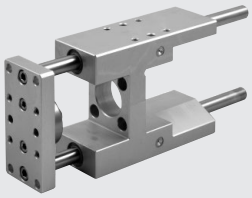


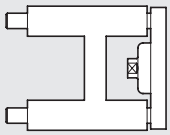
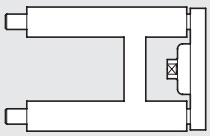
LTL



For technical data and usage strokes see chapter A6.

GUIDE UNIT



Version	Code	Bore	Type
Sliding on bronze bushings (GDH)			
	**W0700322...**	32*	UNIT MW DH 032...
	W0700502...	50	UNIT MW DH 050...
	W0700632...	63	UNIT MW DH 063...
	W0700E802...	80	UNIT MW DH 080...
	W070EA12...	100	UNIT MW DH 100...
	* Also available in V-Lock version (see **chapter A3**).		
	Note: The guide units must only be used with anti-rotation cylinders.		
	To complete the type and code, add the 3-digit stroke (e.g. 50=050)		
	For technical data and dimensions, see **chapter A1**.		
Sliding on ball bearing (GDM)			
	**W0700323...**	32*	UNIT MW DM 032...
	W0700503...	50	UNIT MW DM 050...
	W0700633...	63	UNIT MW DM 063...
	W0700E803...	80	UNIT MW DM 080...
	W070EA13...	100	UNIT MW DM 100...
	* Also available in V-Lock version (see **chapter A3**).		
	Note: The guide units must only be used with anti-rotation cylinders.		
	To complete the type and code, add the 3-digit stroke (e.g. 50=050)		
	For technical data and dimensions, see **chapter A1**.		

DRIVES

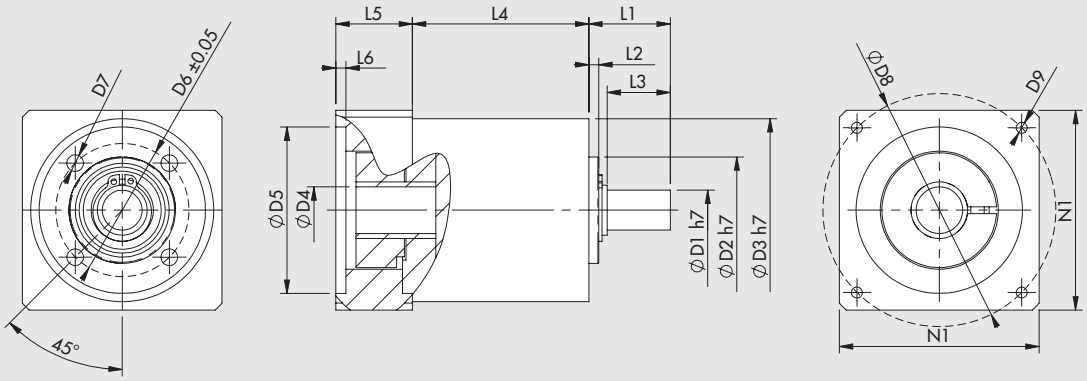
For motor-drive couplings see table on page **A5**.32

NOTES

METAL WORK PNEUMATIC

SPARE PARTS

ELEKTRO ISO 15552 Ø 100 - Ø 100 HD GEARBOX



Code	Description	Application	C_{OUT} nominal [Nm]	N_{IN} nominal [1/min]	J reduced to motor shaft [kgmm²]	Mass [kg]	D1	D2	D3	D4	D5	D6	D7	D8	D9	L1	L2	L3	L4	L5	L6	N1
37R0364000	Gearbox MP105 1:3	Elektro ISO 15552 Ø 100 - Ø 100 HD	100	2500	222	6.5	25	70	106	24	110	85	M8	145	M8x20	57.5	5	50.5	107.5	48	6.5	120

C_{OUT} = nominal output torque N_{IN} = nominal input speed J = mass moment of inertia of the gearhead

ELECTRIC MOTORS

For motor-drive couplings see table on page **A5**.32

NOTES