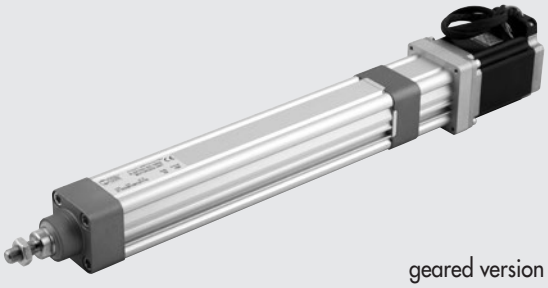
ELECTRIC CYLINDER SERIES ELEKTRO ISO 15552 WITH ACME SCREW (ACME)

An electric cylinder with a connection interface in accordance with ISO 15552.
The piston rod is moved forwards by a lead screw and nut with a trapezoidal outline (Acme): this is an irreversible system that can be used to move the loads vertically. If the motor power supply fails, the load is supported by the screw. The piston has a gauged driving band that minimises the clearance with the jacket (the screw is made of steel while the nut is in brass).
The cylinder can be equipped with a built-in non-rotating system featuring two opposing slides that run in separate longitudinal slots in the barrel. The piston comes with magnets and the barrel has longitudinal slots for housing sensors. The piston rod has increased outside diameter and thickness to make it extra rigid and more resistant to radial and peak loads.
A system for greasing the screws is included. Numerous standard accessories for pneumatic cylinders, including intermediate hinge, can be used for mounting the cylinder.
The motor can be selected from an optimised range.
There is a version for in-line assembly, where the drive shaft is jointed directly onto the screw. There is also a geared motor version, where transmission is provided by pulleys and a cog belt standard 1:1.
Suitable motor drives are provided.
Special adaptor flanges and joints can be provided if the customer wishes to use a particular make of motor.
It is advisable to lubricate the cylinder every 50 km or at least once a year (preferably with MOBILITH SHC 460 grease).

in-line version



geared version

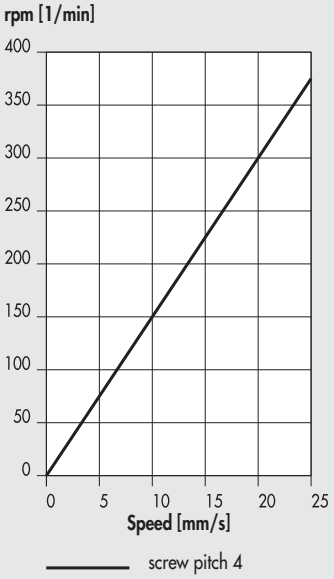
TECHNICAL DATA		Ø 32	Ø 50	Ø 63	Ø 80
Piston rod thread		M10x1.25	M16x1.5	M16x1.5	M20x1.5
Environmental temperature range for STEPPING motors	°C	-10 to +50			
Electrical protection rating with STEPPING motors		IP40 or IP55 (see key to codes)			
Maximum relative humidity of the air for IP55 STEPPING motor		90% con 40°C; 57% con 50°C (no condensate)			
Maximum stroke	mm	500	1500		
Positioning repeatability	mm	± 0.1			
Positioning accuracy	mm	± 0.5 **			
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			
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		0°45'			
Work position		Any			
Duty cycle		20%			

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

MECHANICAL FEATURES		Ø 32	Ø 50	Ø 63	Ø 80
Screw pitch (p)	mm	4			
Screw diameter	mm	14	16	20	30
Maximum liftable load	kg	100	200	400	800
	N	1000	2000	4000	8000
Maximum speed (V_{max})	mm/s	25			

PISTON ROD SPEED AS A FUNCTION OF rpm

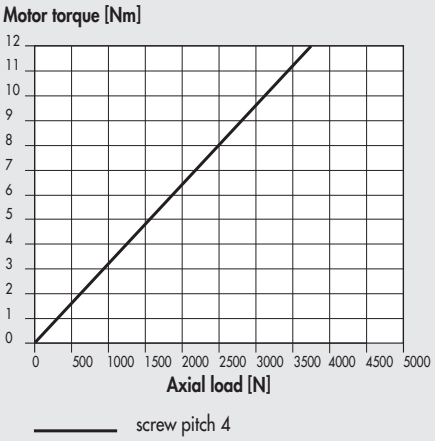
The graph shows the direct correspondence between the number of turns (1/min) and the translation speed of the stem (mm/s).
In any case all the other conditions and limitations of each specific cylinder will have to be complied.



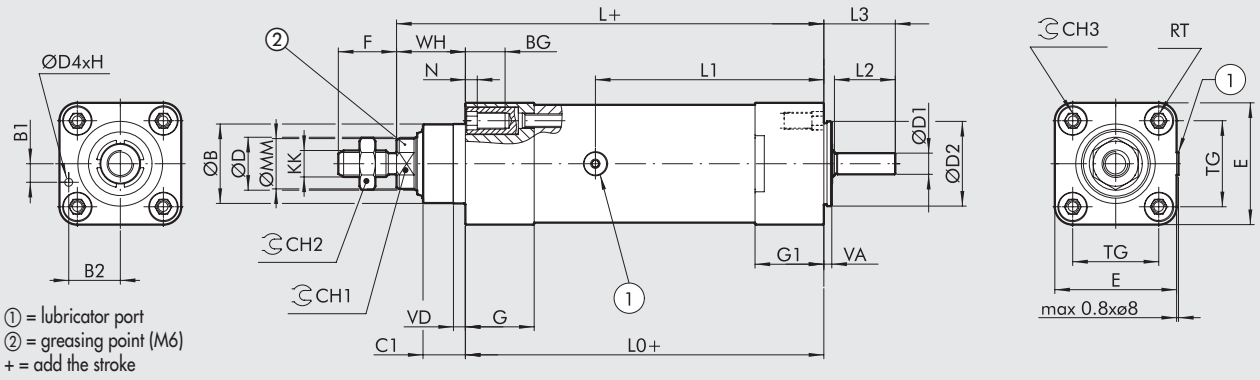
DRIVE TORQUE AS A FUNCTION OF THE AXIAL LOAD APPLIED TO THE PISTON ROD

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

Ø 32, Ø 50, Ø 63, Ø 80



CYLINDER DIMENSIONS (WITHOUT MOTOR)



Ø	ØB (d11)	B1	B2	BG	C1	CH1	CH2	CH3	ØD (f7)	ØD1 (h7)	ØD2	ØD4 (h7)	E	F	G	G1	H	KK	L	L0
32	30	7	19.5	14.5	16	17	17	6	20	8	32	3	46	22	26	26	9	M10x1.25	168.4	134
50	40	7	28	17.5	25	21	24	8	25	9	50	3	64.5	32	30	30	9	M16x1.5	201.4	157
63	45	9	34.5	17.5	25	26	24	8	30	14	63	3	75.5	32	32	46	9	M16x1.5	227.4	183
80	60	15	42.5	21	31	40	30	10	45	19	80	3	93	40	38	67	9	M20x1.5	331.4	248

Ø	L1	L2	L3	ØMM	N	RT	TG	VA	VD	WH
32	86.3	23	27	19	4.5	M6	32.5	3	4.5	34.4
50	100.8	24	28.4	24	5.5	M8	46.5	5.5	5.5	44.4
63	122.3	34	39.5	29.5	5.5	M8	56.5	5.5	6.5	44.4
80	181.1	41.7	47.2	44	5	M10	72	5.5	17.5	53.4

KEY TO CODES CYLINDER (WITHOUT MOTOR)

CYL	37	1	V	32	0100	1	5
	TYPE			BORE	STROKE	SCREW PITCH	VERSION
	37 Electric actuators	**1** ISO 15552 electric cylinder	**V** Acme screw	32 50 63 80		**1** Screw pitch 4	**5** Without antirotation IP40 **6** With antirotation IP40 **7** Without antirotation IP55/IP65 **8** With antirotation IP55/IP65

Please contact our sales offices for further information and quotation.