

PNEUMATIC ACTUATOR EC



This series of linear pneumatic actuators is designed to automate knife gate valves. Available in 6 sizes and different stroke lengths.

TECHNICAL DATA

Design:	Double-acting pneumatic linear cylinder
Diameter of cylinder barrel:	Ø 100 mm Ø 125 mm Ø 160 mm Ø 200 mm Ø 250 mm Ø 320 mm
Stroke:	90 mm up to 1030 mm
Supply pressure:	max. 10 bar
Temperature range:	Standard: -20 to +80 °C High and low temperature design on request
Power range: (at 6 bar):	4524 N - 46322 N
Namur Interface:	NAMUR, VDI / VDE 3845
Air supply:	clean and dry compressed air acc. to ISO 8573-1: 2010 min. class 3 Other supply media on request
Valve interface:	based on ISO 5211
Surface:	Body anodized Cover: powder-coated
Approval:	Fulfills the requirements of DIN EN 15714-3

FEATURES:

- Body groove for integration of limit switches acc. to ISO 15552 for contact-free position indication with magnetic pistons (optional)
- Both Namur interface for direct mounting of solenoid valves and air ducts integrated in the body reduce mounting and piping efforts to a minimum
- Robust stainless steel pull rod design
- Optimal sliding properties by precise guided piston and exact bearing of piston rod
- Low maintenance by lifetime lubrication
- Low weight by aluminium lightweight construction
- Body: In- and exterior made of anodized aluminium for optimal abrasion and sliding properties
- Cover and extruded body made of aluminium form a compact and stable cylinder for multifunctional application

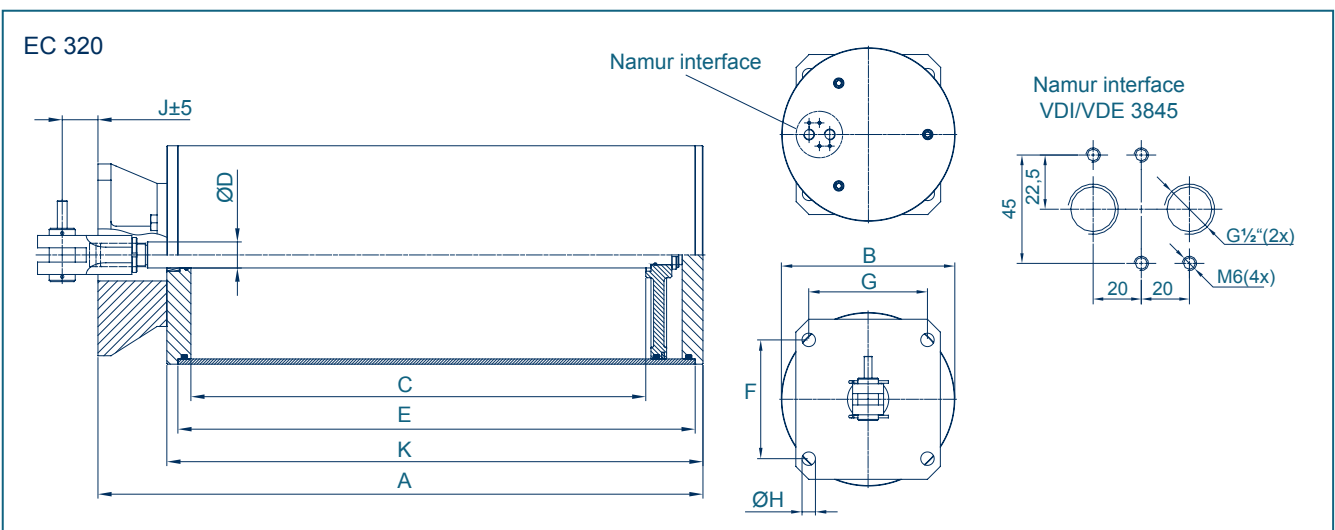
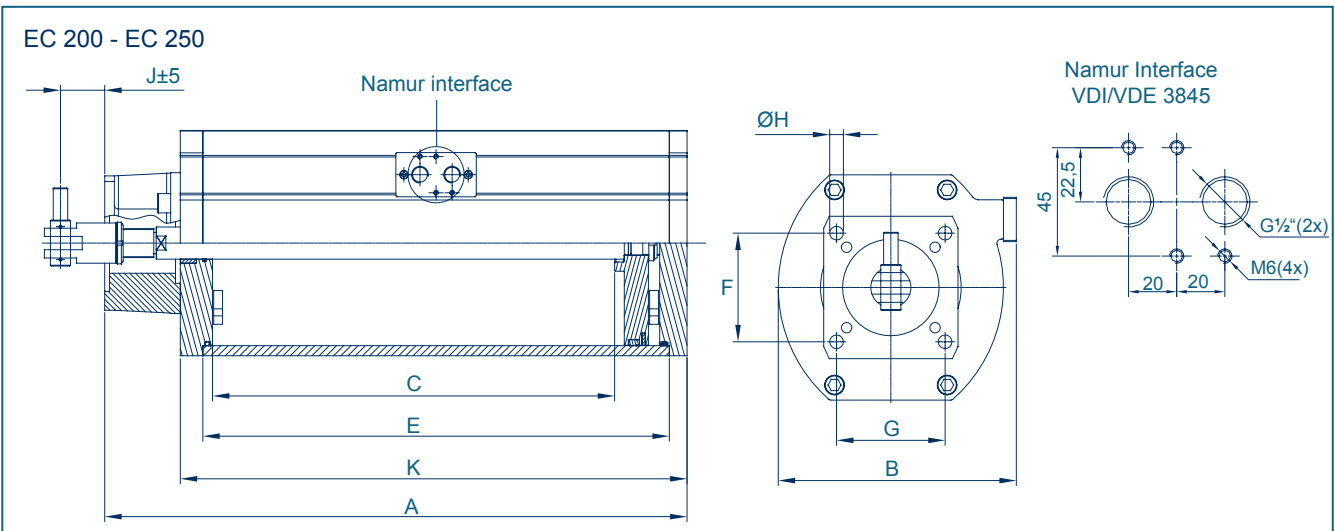
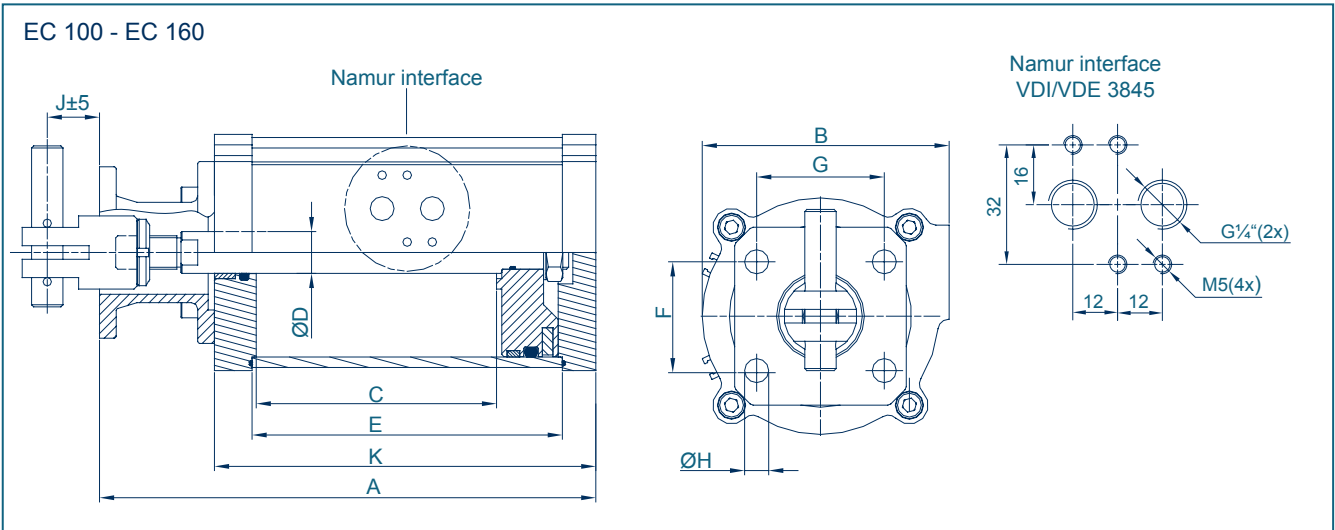
OPTIONS:

- Spring return version
- End of stroke damping
- Adjustable stroke
- Emergency manual override
- Special surface coating
- Trip function



The body groove to integrate limit switches and the Namur interface

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Type EC	Stroke length [mm]	Dimensions [mm]										Weight [kg]	*Filling volume / Stroke
		A	B	C	D	E	F	G	H	J	K		
100	90	213	118	90	20	124	52	61	11	25	158	4,1	0,7
100	115	238	118	115	20	149	52	61	11	25	183	4,5	0,9
100	140	263	118	140	20	173	52	61	11	25	208	4,6	1,1
100	165	288	118	165	20	199	52	61	11	25	233	4,9	1,3
125	115	285	147	115	32	153	52	61	11	25	198	7,6	1,4
125	165	335	147	165	32	203	52	61	11	25	248	8,0	2,0
160	115	285	188	115	32	153	52	61	11	25	198	10,0	2,3
160	140	310	188	140	32	178	52	61	11	25	223	10,5	2,8
160	165	335	188	165	32	203	52	61	11	25	248	11,0	3,3
160	215	366	188	215	32	253	100	110	13	40	298	13,0	4,3
160	270	421	188	270	32	308	100	110	13	40	353	14,0	5,4
160	320	471	188	320	32	358	100	110	13	40	403	15,0	6,4
200	215	432	245	215	40	290	100	110	13	40	338	30	7,4
200	270	487	245	270	40	345	100	110	13	40	393	32,5	9,4
200	320	537	245	320	40	395	100	110	13	40	443	34,5	11,1
200	350	567	245	350	40	425	135	135	17	55	473	36	12,1
200	400	637	245	400	40	475	160	160	21	55	523	46	13,9
200	450	667	245	450	40	525	160	160	21	55	573	50	15,6
200	550	787	245	550	40	625	160	160	21	55	673	54,5	19,1
250	350	574	296	350	40	430	135	135	17	55	480	48,0	17,9
250	400	644	296	400	40	480	135	135	17	55	530	58,0	20,4
250	450	694	296	450	40	530	160	160	21	55	580	63,5	23,0
250	500	744	296	500	40	580	160	160	21	55	630	71,0	25,5
250	575	819	296	575	40	655	230	230	26	55	705	75,0	29,4
250	630	874	296	630	40	710	200	200	21	55	760	78,5	32,2
250	800	1044	296	800	40	880	230	230	26	55	930	90,0	40,9
320	500	731	336	500	40	596	230	230	26	55	625	67,0	39,2
320	575	806	336	575	40	671	230	230	26	55	700	70,5	45,1
320	700	931	336	700	40	796	230	230	26	55	825	76,0	54,9
320	715	954	336	715	40	811	230	230	26	55	840	78,0	56,1
320	800	1031	336	800	40	896	230	230	26	80	925	84,0	62,8
320	915	1146	336	915	40	1011	230	230	26	80	1040	89,0	71,8
320	1030	1261	336	1030	40	1126	230	230	26	80	1155	95,0	80,8

*Filling volume / Stroke at 1 atm

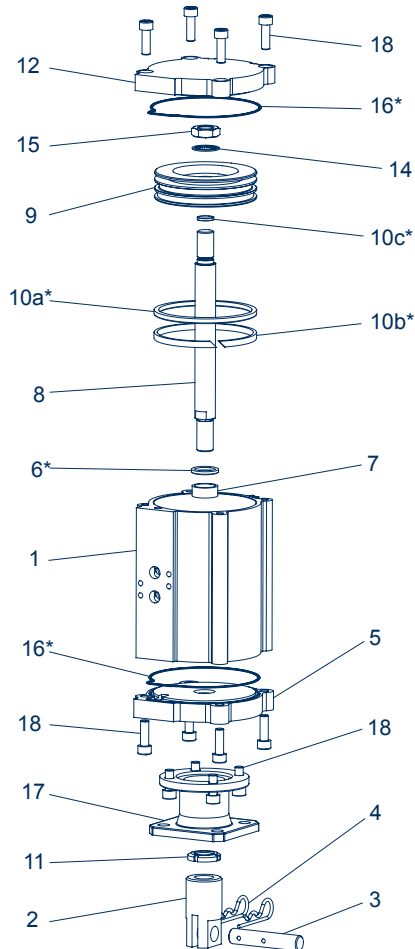
EC	Force / Stroke in Newton (N)									
	4 bar		4,5 bar		5 bar		5,5 bar		6 bar	
	Close	Open	Close	Open	Close	Open	Close	Open	Close	Open
100	3142	3016	3534	3393	3927	3770	4320	4147	4712	4524
125	4909	4587	5522	5160	6136	5734	6750	6307	7363	6881
160	8042	7721	9048	8686	10053	9651	11058	10616	12064	11581
200	13854	13352	15586	15021	17318	16690	19050	18359	20782	20028
250	20428	19926	22982	22416	25535	24907	28089	27398	30642	29888
320	31385	30882	35308	34742	39231	38602	43154	42463	47077	46323

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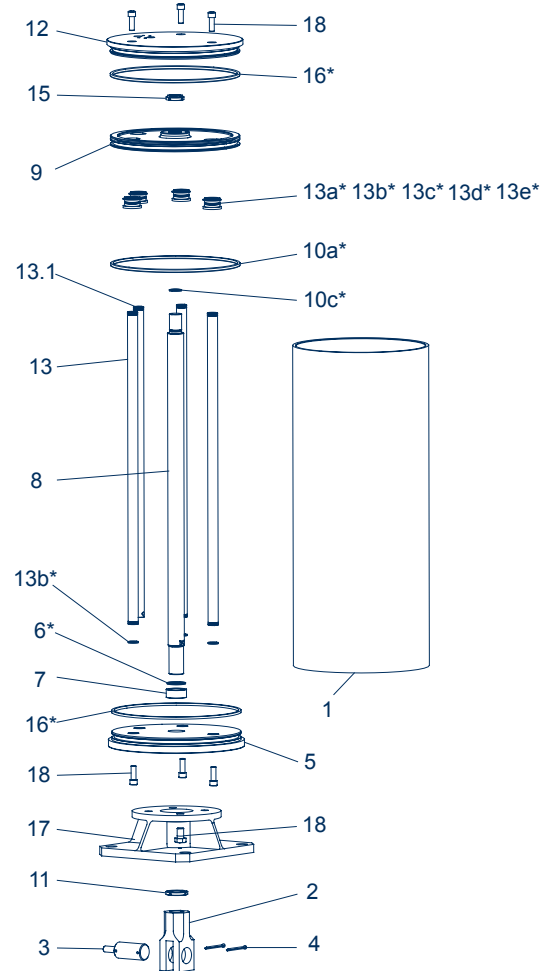
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MATERIAL SPECIFICATION AND PARTS LIST

EC 100 - EC 250



EC 320



Pt.	Description	Material	Pt.	Description	Material
1	Cylinder barrel	Aluminium	12	Top cover	Aluminium
2	Gate clevis	Stainless steel	13	Guide bar	Stainless steel
3	Clevis pin	Stainless steel	13.1	Air supply bar	Steel
4	Locking pin	Stainless steel	13a*	Guide bar bushing	Bronze
5	Lower cover	Aluminium	13b*	Guide bar O-ring	NBR
6*	Lower cover internal O-ring	Nitrile	13c*	Clips	Steel
7	Lower cover internal bushing	Bronze	13d*	O-ring bushing outside	NBR
8	Piston rod	Stainless steel	13e*	O-ring bushing inside	NBR
9	Piston	Aluminium	14	Piston washer	Stainless steel
10a*	Piston O-Ring	Nitrile	15	Self locking nut	Stainless steel
10b*	Piston bearing	POM	16*	Covers O-Ring	NBR
10c*	Piston rod O-Ring	Nitrile	17	Mounting bracket	Stainless steel
11	Locking nut	Stainless steel	18	Hex socket screws	Stainless steel

* Component of the sealing set

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