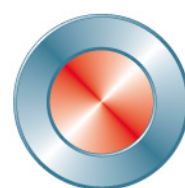
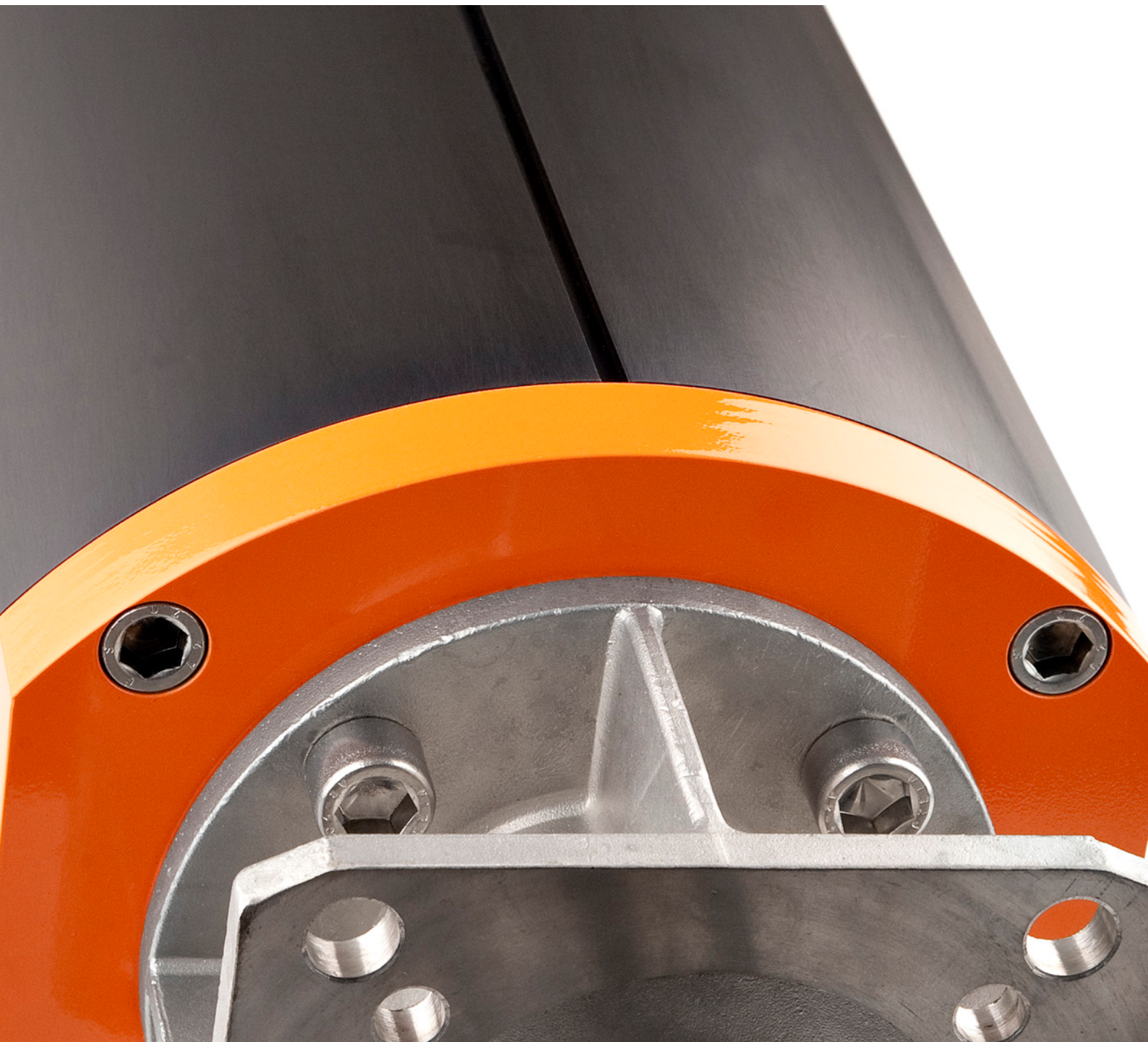


Double-acting pneumatic cylinder type EC



Stafsjö
SINCE 1666

Double-acting pneumatic cylinder type EC

Stafsjö's double-acting pneumatic cylinder type EC is designed to be reliable during tough operating conditions and it is available in several sizes ranging from EC 100 up to EC 320 and larger on request. It has a barrel in anodized aluminium and powder coated aluminium covers in order to resist corrosive environments.

The EC cylinder is always supplied with a valve adapter and a gate clevis set for Stafsjö's knife gate valves. The Namur interface according to VDI/VDE 3845 makes it easy to install the solenoid valve directly onto the cylinder. The cylinder can be supplied with stroke limitation, pre-installed magnetic limit switches and solenoid valve upon delivery. The supply pressure for the cylinder should be maximum 10 bar and the air should be dry or oil mist.

Please contact Stafsjö or your local representative for advice and further information.



Attachment details for Stafsjö's knife gate valves

The EC cylinder is always supplied with a valve adapter and a gate clevis set for perfect match to Stafsjö's different knife gate valves.



Namur interface for solenoid valves

Solenoid valves can easily be installed directly onto the cylinder according to the Namur interface VDI/VDE 3845. In this way the solenoid valve-cylinder unit becomes really compact.



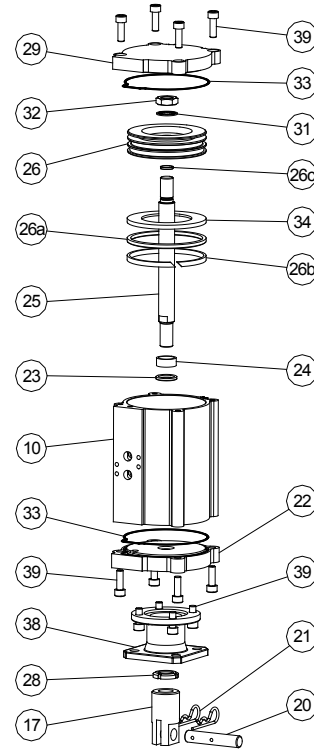
Magnetic indication for limit switches

Up to EC 200 the cylinder comes with a piston magnet as standard and on larger on request. The cylinder barrel has a T groove, which makes it really easy to equip it with magnetic limit switches.

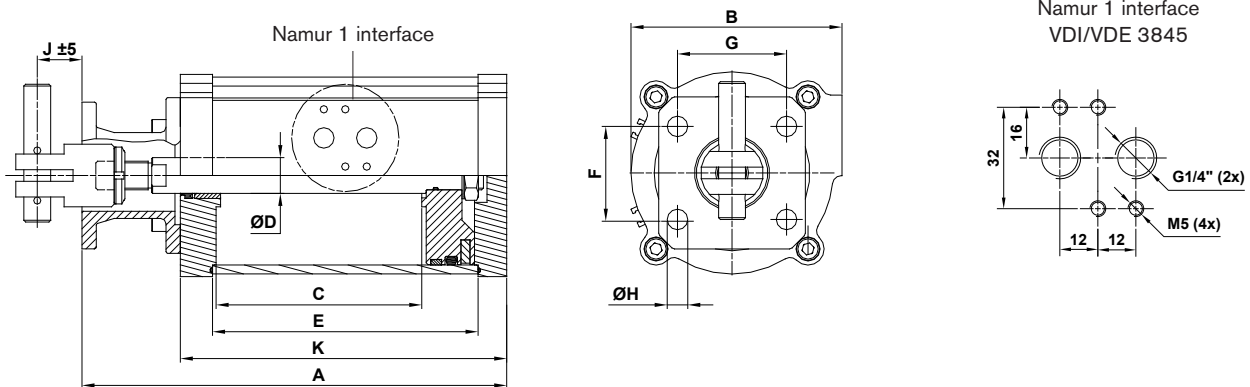
Part list EC 100

Pos.	Detail	Material
10	Cylinder barrel	Anodized aluminium (AL6063)
17	Gate clevis	Stainless steel (EN 1.4305/SS 2346)
20	Clevis pin	Stainless steel (EN 1.4305/SS 2346)
21	Split pins	Stainless steel (EN 1.4305/SS 2346)
22	Lower cover	Powder coated aluminium (AL6082)
23*	Lower cover o-ring	Nitrile
24	Lower cover bushing	Bronze
25	Piston rod	Steel (C45E), phosphated and chromed with molykote coating in the ends
26	Piston	Aluminium (AL6082)
26a*	Piston o-ring	Nitrile
26b*	Piston bearing	POM
26c*	Piston rod o-ring	Nitrile
28	Locking nut	Stainless steel (EN 1.4305/SS 2346)
29	Top cover	Powder coated aluminium (AL6082)
31	Piston washer	Stainless steel (A2)
32	Piston nut	Stainless steel (A2)
33*	Cover o-ring sealings	Nitrile
34	Magnetic washer	Plastoferrite
38	Valve adapter	Powder coated aluminium (EN1706-43100-T6) Option in stainless steel (EN 1.4308)
39	Hex socket screws	Stainless steel (A2)

* Recommended spare parts



Drawing EC 100



Main dimensions EC 100

Dimensions (mm)												
Type and size of barrel-stroke length	A	B	C	D	E	F	G	H	J	K	Weight ¹⁾	Air ²⁾
EC100-90	213	118	90	20	124	52	61	11	25	158	4,1	6
EC100-115	238	118	115	20	149	52	61	11	25	183	4,5	7
EC100-140	263	118	140	20	173	52	61	11	25	208	4,6	9
EC100-165	288	118	165	20	199	52	61	11	25	233	4,9	10

¹⁾ Weight in kg for cylinder including valve adapter, screws, gate clevis, cylinder pin and split pins.

²⁾ Consumption of free air at 20°C in litres for a single stroke at supply pressure of 6 bar.

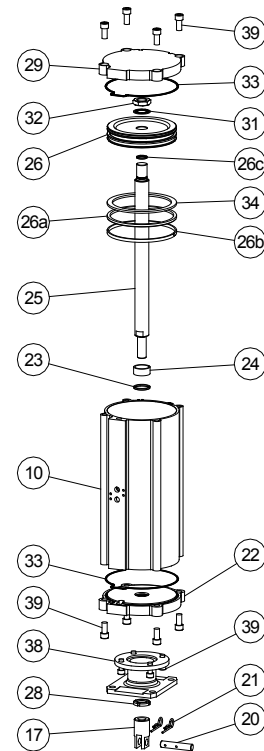
Information on recommended air pipe dimension is available in the installations and service instruction for EC and ECS.

Main dimensions are only for information. Contact Stafsjö for certified drawings.

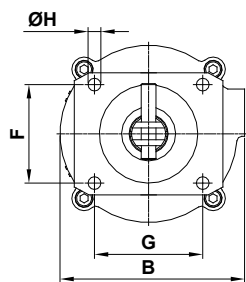
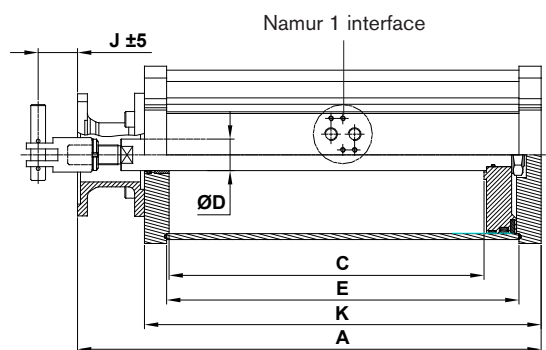
Part list EC 125

Pos.	Detail	Material
10	Cylinder barrel	Anodized aluminium (AL6063)
17	Gate clevis	Stainless steel (EN 1.4305/SS 2346)
20	Clevis pin	Stainless steel (EN 1.4305/SS 2346)
21	Split pins	Stainless steel (EN 1.4305/SS 2346)
22	Lower cover	Powder coated aluminium (AL6082)
23*	Lower cover o-ring	Nitrile
24	Lower cover bushing	Bronze
25	Piston rod	Steel (C45E), phosphated and chromed with molykote coating in the ends
26	Piston	Aluminium (AL6082)
26a*	Piston o-ring	Nitrile
26b*	Piston bearing	POM
26c*	Piston rod o-ring	Nitrile
28	Locking nut	Stainless steel (EN 1.4305/SS 2346)
29	Top cover	Powder coated aluminium (AL6082)
31	Piston washer	Stainless steel (A2)
32	Piston nut	Stainless steel (A2)
33*	Cover o-ring sealings	Nitrile
34	Magnetic washer	Plastoferrite
38	Valve adapter	Powder coated aluminium (EN1706-43100-T6) Option in stainless steel (EN 1.4308)
39	Hex socket screws	Stainless steel (A2)

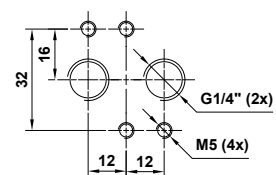
* Recommended spare parts



Drawing EC 125



Namur 1 interface
VDI/VDE 3845



Main dimensions EC 125

Dimensions (mm)												
Type and size of barrel-stroke length	A	B	C	D	E	F	G	H	J	K	Weight ¹⁾	Air ²⁾
EC125-115	285	147	115	32	153	52	61	11	25	198	7,6	11
EC125-165	335	147	165	32	203	52	61	11	25	248	8,0	16

¹⁾ Weight in kg for cylinder including valve adapter, screws, gate clevis, cylinder pin and split pins.

²⁾ Consumption of free air at 20°C in litres for a single stroke at supply pressure of 6 bar.

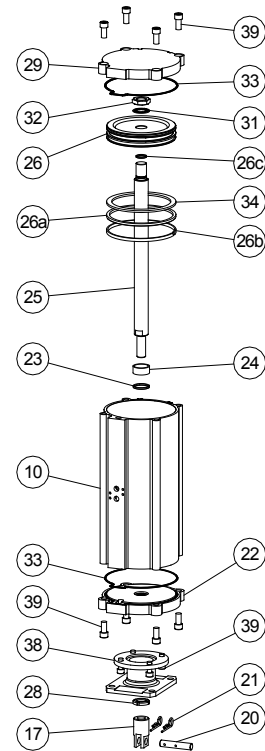
Information on recommended air pipe dimension is available in the installations and service instruction for EC and ECS.

Main dimensions are only for information. Contact Stafsjö for certified drawings.

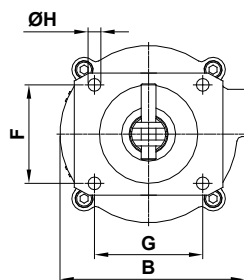
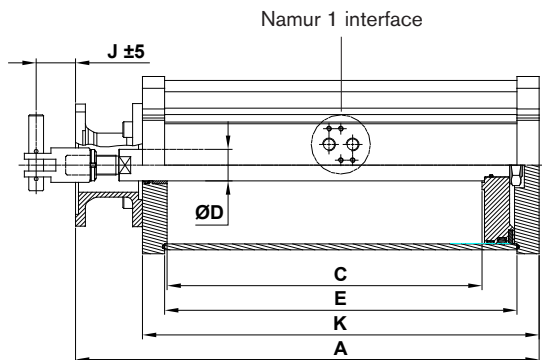
Part list EC 160

Pos.	Detail	Material
10	Cylinder barrel	Anodized aluminium (AL6063)
17	Gate clevis	Stainless steel (EN 1.4305/SS 2346)
20	Clevis pin	Stainless steel (EN 1.4305/SS 2346)
21	Split pins	Stainless steel (EN 1.4305/SS 2346)
22	Lower cover	Powder coated aluminium (AL6082)
23*	Lower cover o-ring	Nitrile
24	Lower cover bushing	Bronze
25	Piston rod	Steel (C45E), phosphated and chromed with molykote coating in the ends
26	Piston	Aluminium (AL6082)
26a*	Piston o-ring	Nitrile
26b*	Piston bearing	POM
26c*	Piston rod o-ring	Nitrile
28	Locking nut	Stainless steel (EN 1.4305/SS 2346)
29	Top cover	Powder coated aluminium (AL6082)
31	Piston washer	Stainless steel (A2)
32	Piston nut	Stainless steel (A2)
33*	Cover o-ring sealings	Nitrile
34	Magnetic washer	Plastoferrite
38	Valve adapter	Powder coated aluminium (EN1706-43100-T6) Option in stainless steel (EN 1.4308)
39	Hex socket screws	Stainless steel (A2)

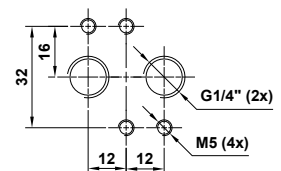
* Recommended spare parts



Drawing EC 160



Namur 1 interface
VDI/VDE 3845



Main dimensions EC 160

Dimensions (mm)												
Type and size of barrel-stroke length	A	B	C	D	E	F	G	H	J	K	Weight ¹⁾	Air ²⁾
EC160-115	285	188	115	32	153	52	61	11	25	198	10,0	18
EC160-140	310	188	140	32	178	52	61	11	25	223	10,5	22
EC160-165	335	188	165	32	203	52	61	11	25	248	11,0	26
EC160-215	366	188	215	32	253	100	110	13	40	298	13,0	34
EC160-270	421	188	270	32	308	100	110	13	40	353	14,0	43
EC160-320	471	188	320	32	358	100	110	13	40	403	15,0	51

¹⁾ Weight in kg for cylinder including valve adapter, screws, gate clevis, cylinder pin and split pins.

²⁾ Consumption of free air at 20°C in litres for a single stroke at supply pressure of 6 bar.

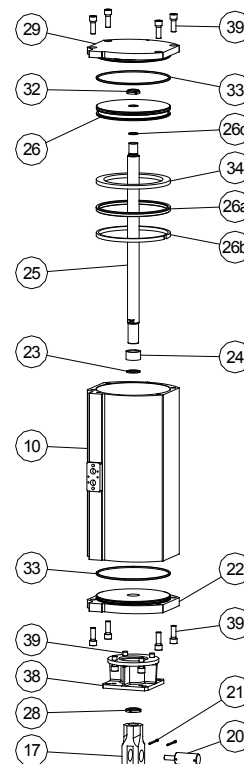
Information on recommended air pipe dimension is available in the installations and service instruction for EC and ECS.

Main dimensions are only for information. Contact Stafsjö for certified drawings.

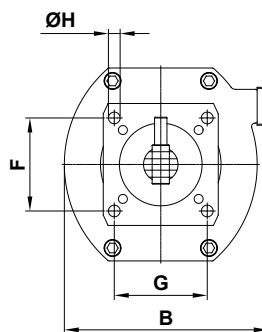
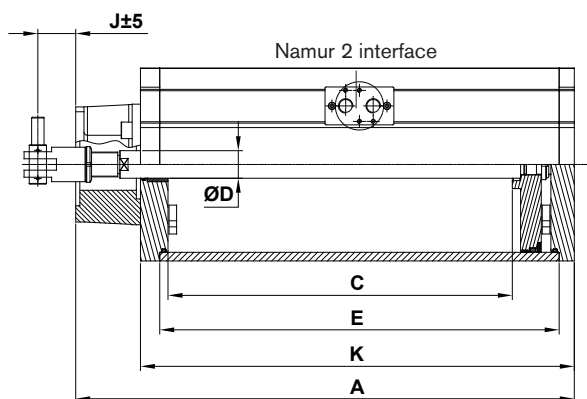
Part list EC 200

Pos.	Detail	Material
10	Cylinder barrel	Anodized aluminium (AL6063)
17	Gate clevis	Stainless steel (EN 1.4305/SS 2346)
20	Clevis pin	Stainless steel (EN 1.4305/SS 2346)
21	Split pins	Stainless steel (EN 1.4305/SS 2346)
22	Lower cover	Powder coated aluminium (AL6082)
23*	Lower cover o-ring	Nitrile
24	Lower cover bushing	Bronze
25	Piston rod	Steel (C45E), phosphated and chromed with molykote coating in the ends
26	Piston	Aluminium (AL6082)
26a*	Piston o-ring	Nitrile
26b*	Piston bearing	POM
26c*	Piston rod o-ring	Nitrile
28	Locking nut	Stainless steel (EN 1.4305/SS 2346)
29	Top cover	Powder coated aluminium (AL6082)
32	Locking nut	Stainless steel (A2)
33*	Cover o-ring sealings	Nitrile
34	Magnetic washer	Plastoferrite
38	Valve adapter	Powder coated aluminium (EN1706-43100-T6) Option in stainless steel (EN 1.4308)
39	Hex socket screws	Stainless steel (A2)

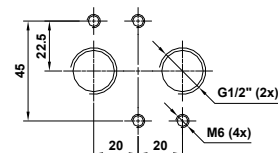
* Recommended spare parts



Drawing EC 200



Namur 2 interface
VDI/VDE 3845



Main dimensions EC 200

Dimensions (mm)												
Type and size of barrel-stroke length	A	B	C	D	E	F	G	H	J	K	Weight ¹⁾	Air ²⁾
EC200-215	432	245	215	40	290	100	110	13	40	338	30,0	53
EC200-270	487	245	270	40	345	100	110	13	40	393	32,5	67
EC200-320	537	245	320	40	395	100	110	13	40	443	34,5	80
EC200-350	567	245	350	40	425	135	135	17	55	473	36,0	87
EC200-400	637	245	400	40	475	160	160	21	55	523	46,0	99
EC200-450	667	245	450	40	525	160	160	21	55	573	50,0	112
EC200-550	787	245	550	40	625	160	160	21	55	673	54,5	136

¹⁾ Weight in kg for cylinder including valve adapter, screws, gate clevis, cylinder pin and split pins.

²⁾ Consumption of free air at 20°C in litres for a single stroke at supply pressure of 6 bar.

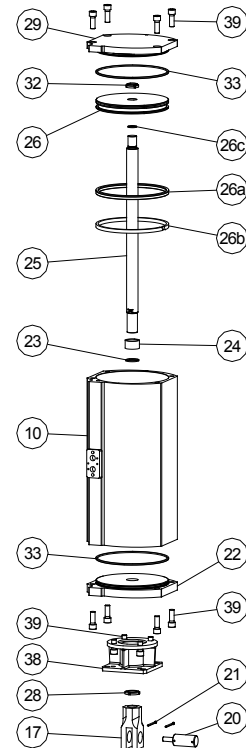
Information on recommended air pipe dimension is available in the installations and service instruction for EC and ECS.

Main dimensions are only for information. Contact Stafsjö for certified drawings.

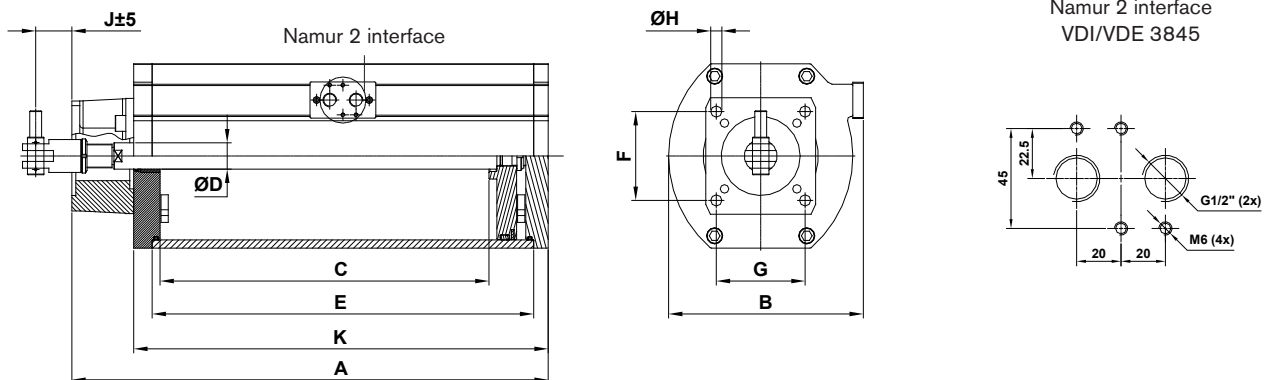
Part list EC 250

Pos.	Detail	Material
10	Cylinder barrel	Anodized aluminium (AL6063)
17	Gate clevis	Stainless steel (EN 1.4305/SS 2346)
20	Clevis pin	Stainless steel (EN 1.4305/SS 2346)
21	Split pins	Stainless steel (EN 1.4305/SS 2346)
22	Lower cover	Powder coated aluminium (AL6082)
23*	Lower cover o-ring	Nitrile
24	Lower cover bushing	Bronze
25	Piston rod	Steel (C45E), phosphated and chromed with molykote coating in the ends
26	Piston	Aluminium (AL6082)
26a*	Piston o-ring	Nitrile
26b*	Piston bearing	POM
26c*	Piston rod o-ring	Nitrile
28	Locking nut	Stainless steel (EN 1.4305/SS 2346)
29	Top cover	Powder coated aluminium (AL6082)
32	Locking nut	Stainless steel (A2)
33*	Cover o-ring sealings	Nitrile
34	Magnetic washer	Plastoferrite
38	Valve adapter	Powder coated aluminium (EN1706-43100-T6) or stainless steel (EN 1.4308)
39	Hex socket screws	Stainless steel (A2)

* Recommended spare parts



Drawing EC 250



Main dimensions EC 250

Dimensions (mm)												
Type and size of barrel-stroke length	A	B	C	D	E	F	G	H	J	K	Weight ¹⁾	Air ²⁾
EC250-350	574	296	350	40	430	135	135	17	55	480	48,0	135
EC250-400	644	296	400	40	480	135	135	17	55	530	58,0	154
EC250-450	694	296	450	40	530	160	160	21	55	580	63,5	173
EC250-500	744	296	500	40	580	160	160	21	55	630	71,0	193
EC250-575	819	296	575	40	655	230	230	26	55	705	75,0	221
EC250-630	874	296	630	40	710	200	200	21	55	760	78,5	243
EC250-800	1044	296	800	40	880	230	230	26	55	930	90,0	309

¹⁾ Weight in kg for cylinder including valve adapter, screws, gate clevis, cylinder pin and split pins.

²⁾ Consumption of free air at 20°C in litres for a single stroke at supply pressure of 6 bar.

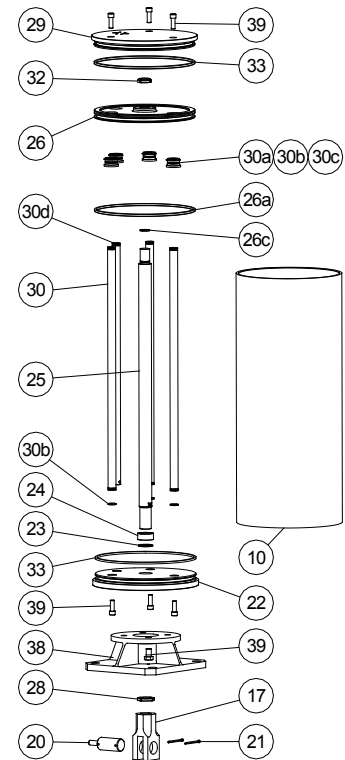
Information on recommended air pipe dimension is available in the installations and service instruction for EC and ECS.

Main dimensions are only for information. Contact Stafsjö for certified drawings.

Part list EC 320

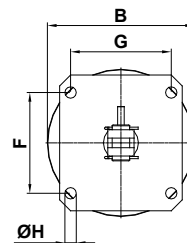
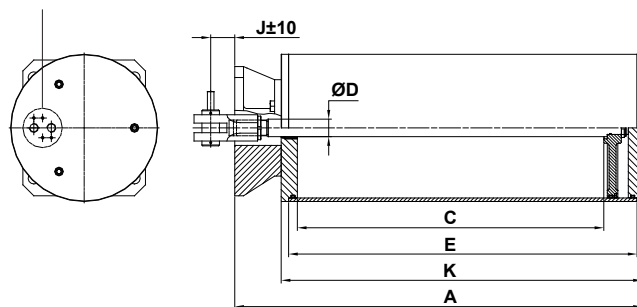
Pos.	Detail	Material
10	Cylinder barrel	Anodized aluminium (AL6063)
17	Gate clevis	Stainless steel (EN 1.4305/SS 2346)
20	Clevis pin	Stainless steel (EN 1.4305/SS 2346)
21	Split pins	Stainless steel (EN 1.4305/SS 2346)
22	Lower cover	Powder coated aluminium (AL6082)
23*	Lower cover o-ring	Nitrile
24	Lower cover bushing	Bronze
25	Piston rod	Steel (C45E), phosphated and chromed with molykote coating in the ends
26	Piston	Aluminium (AL6082)
26a*	Piston o-ring	Nitrile
26c*	Piston rod o-ring	Nitrile
28	Locking nut	Stainless steel (EN 1.4305/SS 2346)
29	Top cover	Powder coated aluminium (AL6082)
30	Guide bar	Stainless steel (AISI 304/EN 1.4301)
30a*	Guide bar bushing	Bronze
30b*	Guide bar o-ring	Nitrile
30c*	Clips	Steel
30d	Air supply bar	Chromed steel (E235)
32	Locking nut	Steel, zinc coated
33*	Cover o-ring sealings	Nitrile
38	Valve adapter	Stainless steel (EN 1.4308)
39	Hex socket screws	Stainless steel (A2)

* Recommended spare parts

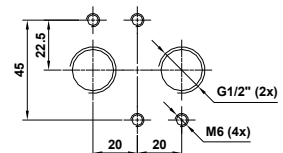


Drawing EC 320

Namur 2 interface



Namur 2 interface
VDI/VDE 3845



Main dimensions EC 320

Dimensions (mm)												
Type and size of barrel-stroke length	A	B	C	D	E	F	G	H	J	K	Weight ¹⁾	Air ²⁾
EC320-500	731	336	500	40	596	230	230	26	55	625	67,0	317
EC320-575	806	336	575	40	671	230	230	26	55	700	70,5	366
EC320-700	931	336	700	40	796	230	230	26	55	825	76,0	444
EC320-715	954	336	715	40	811	230	230	26	55	840	78,0	453
EC320-800	1031	336	800	40	896	230	230	26	80	925	84,0	507
EC320-915	1146	336	915	40	1011	230	230	26	80	1040	89,0	580
EC320-1030	1261	336	1030	40	1126	230	230	26	80	1155	95,0	653

¹⁾ Weight in kg for cylinder including valve adapter, screws, gate clevis, cylinder pin and split pins.

²⁾ Consumption of free air at 20°C in litres for a single stroke at supply pressure of 6 bar.

Information on recommended air pipe dimension is available in the installations and service instruction for EC and ECS.

Main dimensions are only for information. Contact Stafsjö for certified drawings.

Further information is available on www.stafsjo.com

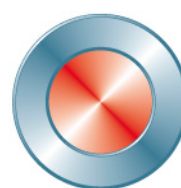
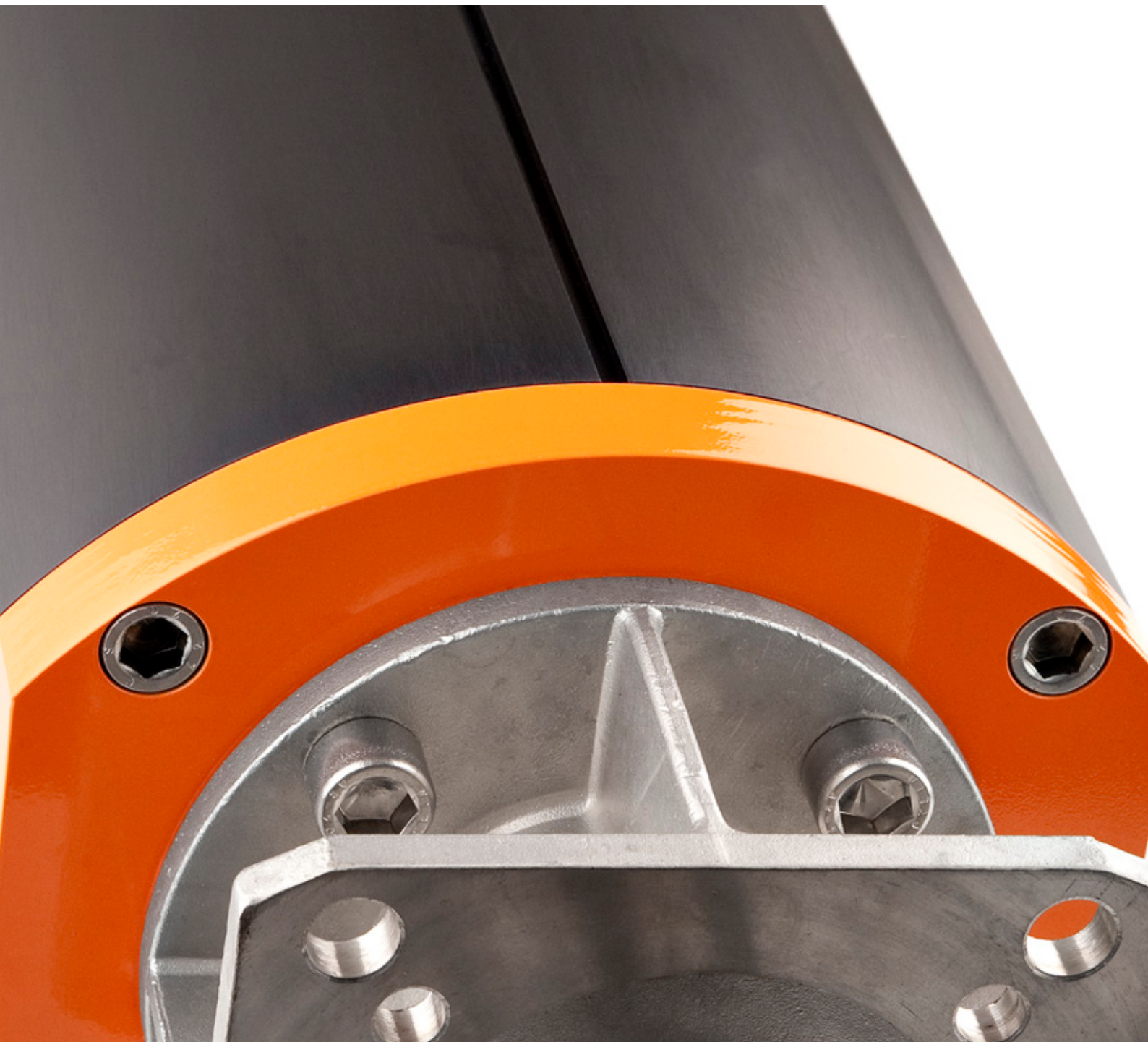


Globally active. Locally represented.

AFRICA South Africa: Valve & Automation (Pty) Ltd, **ASIA** China: EBRO ARMATUREN (BEIJING) CO., LTD, India: Ebro Armaturen India Pvt. Ltd, Indonesia: Contromatic Prima Mandiri PT, Japan: SKC Co. Ltd, Malaysia: Precision Control SdnBnd, Philippines: EBRO ARMATUREN (PHILIPPINES) INC., Thailand: EBRO VALVES (Trading) Co. Ltd., Vietnam: EBRO VALVES (Thailand) Co., Ltd, **AUSTRALIA/OCEANIA** Australia: EBRO ARMATUREN Pacific PTY. LTD, New Zealand: H.J.Asmuss&Co.Ltd **EUROPE** Austria: EBRO ARMATUREN GmbH, Belgium: V.C.T. - Valve & Connector Technology n.v., Denmark: Valtor Industri A/S, Finland: Tecalemit Flow Oy, France: EBRO ARMATUREN, Germany: EBRO ARMATUREN Gebr. Bröer GmbH, Great Britain: EBRO Valves Ltd, Hungary: EBRO ARMATUREN Kft, Ireland: ESI Technologies Ltd., Iceland: Héðinn HF, Italy: EBRO VALVOLE SRL, The Netherlands: EBRO VALVES B.V., Norway: BAGGES AS, Poland: EBRO ARMATUREN GmbH, Portugal: AxFlow Comércio de Equipamentos LDA, Russia and Belarus: EBRO ARMATUREN and LesBumMash Ltd, Spain: EBRO ARMATUREN ESPAÑA, S.L., Switzerland: EBRO Armaturen Est. & Co. KG, Sweden: Stafsjö Valves AB and Ahlsell Sverige AB, Turkey: EBRO ARMATUREN Otomasyon Sistemleri San ve Tic Ltd. Sti, Ukraine: EBRO ARMATUREN GmbH Representative office Kiev **NORTH AMERICA** Canada: Armour Valve Ltd, USA: EBRO ARMATUREN USA Inc. **SOUTH AMERICA** Argentina: ESCO ARGENTINA S.A, Brazil: Ebro Stafsjö Valves do Brasil LTD, Chile: Ebro Stafsjö Valves Chile Ltd For other countries, please contact us directly.



Single-acting pneumatic cylinder type ECS



Stafsjö
SINCE 1666

Single-acting pneumatic cylinder type ECS

Stafsjö's single-acting pneumatic cylinder type ECS is designed to be reliable during tough operating conditions. It is supplied with a long barrel in anodized aluminium and powder coated aluminium covers in order to resist corrosive environments. It is available with spring return to closed (ECS-C) or to opened position (ECS-O).

The EC cylinder is always supplied with a valve adapter and a gate clevis set for Stafsjö's knife gate valves. The Namur interface according to VDI/VDE 3845 makes it easy to install the solenoid valve directly onto the cylinder. The cylinder can be supplied with stroke limitation, pre-installed magnetic limit switches and 3/2-way solenoid valve upon delivery. The supply pressure for the cylinder should be in between 5-10 bar and the air should be dry or oil mist.

Please contact Stafsjö or your local representative for advice and further information.



Attachment details for Stafsjö's knife gate valves

The EC cylinder is always supplied with a valve adapter and a gate clevis set for perfect match to Stafsjö's different knife gate valves.



Namur interface for solenoid valves

Solenoid valves can easily be installed directly onto the cylinder according to the Namur interface VDI/VDE 3845. In this way the solenoid valve-cylinder unit becomes really compact.

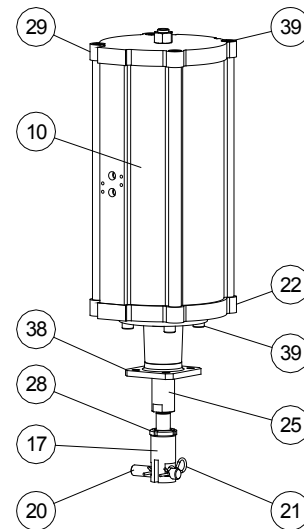


Magnetic indication is optional

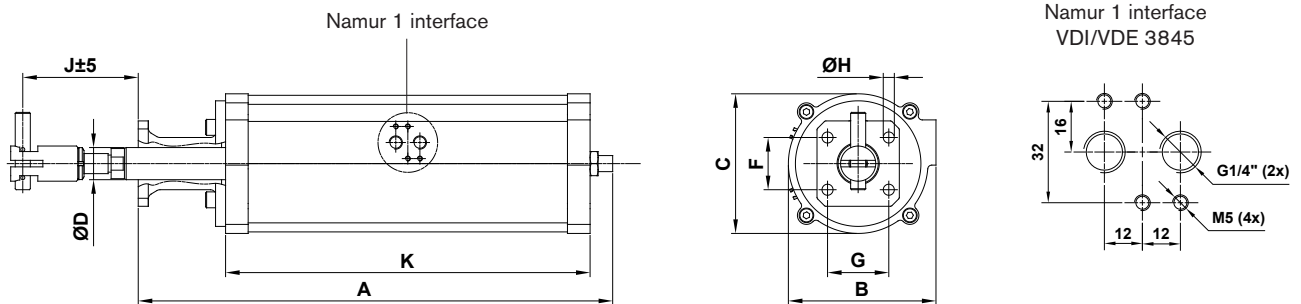
The cylinder can on request be supplied with magnetic piston and pre-installed magnetic limit switches in the barrel's T groove.

Part list ECS 125 - ECS 160

Pos.	Detail	Material
10	Cylinder barrel	Anodized aluminium (Al6063)
17	Gate clevis	Stainless steel (EN 1.4305)
20	Clevis pin	Stainless steel (EN 1.4305)
21	Locking pins	Stainless steel (EN 1.4305)
22	Lower cover	Powder coated aluminium (Al6082)
25	Piston rod	Steel (C45E), phosphated and chromed with molykote coating in the ends
28	Locking nut	Stainless steel (EN 1.4305)
29	Top cover	Powder coated aluminium (Al6082)
38	Valve adapter	Powder coated aluminium (EN1706-43100-T6) or stainless steel (EN 1.4308)
39	Hex socket screws	Stainless steel (A2)



Drawing ECS 125 - ECS 160



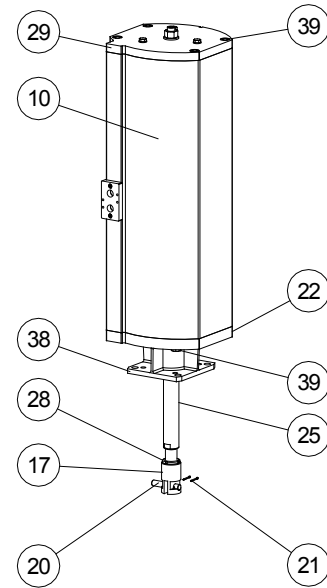
Main dimensions ECS 125 - ECS 160

Dimensions (mm)											
ECS type	Size	Stroke length	A	B	C	D	F	G	H	J	K
ECS-C	125	90	473	147	139	32	52	61	11	115	363
ECS-C	160	115	493	188	180	32	52	61	11	140	387
ECS-C	160	140	593	188	180	32	52	61	11	165	483

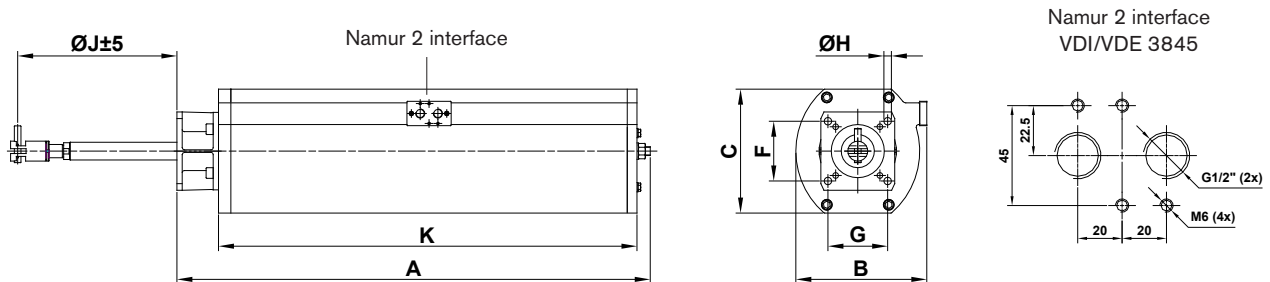
Main dimensions are only for information. Contact Stafsjö for certified drawings.

Part list ECS 200 - ECS 250

Pos.	Detail	Material
10	Cylinder barrel	Anodized aluminium (Al6063)
17	Gate clevis	Stainless steel (EN 1.4305)
20	Clevis pin	Stainless steel (EN 1.4305)
21	Locking pins	Stainless steel (EN 1.4305)
22	Lower cover	Powder coated aluminium (Al6082)
25	Piston rod	Steel (C45E), phosphated and chromed with molykote coating in the ends
28	Locking nut	Stainless steel (EN 1.4305)
29	Top cover	Powder coated aluminium (Al6082)
38	Valve adapter	Powder coated aluminium (EN1706-43100-T6) or stainless steel (EN 1.4308)
39	Hex socket screws	Stainless steel (A2)



Drawing ECS 200 - ECS 250



Main dimensions ECS 200 - ECS 250

Dimensions (mm)											
ECS type	Size	Stroke length	A	B	C	D	F	G	H	J	K
ECS	200	165	675	245	236	40	52	61	11	190	559
ECS	200	215	854	245	236	40	100	110	13	255	743
ECS	250	270	920	296	280	40	100	110	13	310	796
ECS	250	320	1070	296	280	40	100	110	13	360	946

Main dimensions are only for information. Contact Stafsjö for certified drawings.

Further information is available on www.stafsjo.com



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Hydraulic cylinder

Stafsjö's standard hydraulic cylinder comes from Bosch Rexroth, type CDL2 with attachment according to MF3. The cylinders in this series have been designed for 2 million load cycles at a nominal pressure of 160/250 bar.

The hydraulic cylinders are primed with a coating in RAL 5010, Min. 40 µm. Other types of coatings can be supplied on request. The hydraulic cylinder can be operated in temperatures ranges from -20°C to +80°C and the mineral oil must comply with DIN 51524 (HL, HLP). The fluid must also comply with cleanliness class according to ISO 4406 (c) Class 20/18/15. Filters can prevent faults and at the same time increases the life time of the components.

For advice and further information on Bosch Rexroth hydraulic cylinders, please contact Stafsjö, your local representative or visit www.boschrexroth.com.



Recommended hydraulic cylinder sizes

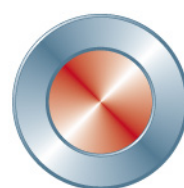
Type and attachment	Diameter (mm)	Working pressure (bar)	MV sizes	HG sizes	SLV sizes
CDL2 MF3	Ø32	100-120	DN 50 - DN 150	DN 80 - DN 125	DN 50 - DN 65
CDL2 MF3	Ø40	100-120	DN 200 - DN 300	DN 150 - DN 200	DN 80 - DN 100
CDL2 MF3	Ø50	100-120	DN 350 - DN 400	DN 250 - DN 350	DN 125 - DN 150
CDL2 MF3	Ø63	100-120	DN 600	DN 400	DN 200 - DN 250
CDL2 MF3	Ø80	100-120			DN 300 - DN 350
CDL2 MF3	Ø100	100-120			DN 400

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Stafsjö's standard manual actuators



Stafsjö
SINCE 1666

Hand wheel

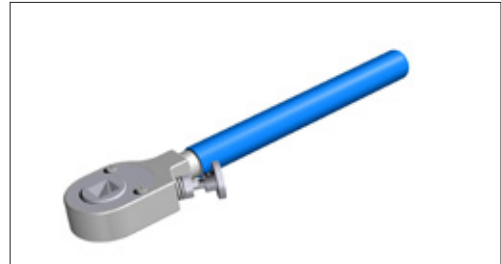
Stafsjö's hand wheel is robust and equipped with a spinner knob for easy manoeuvring. It can also be supplied with a locking device on request.

The hand wheel is supplied in coated cast iron EN-JL1040/ GG25 for sizes Ø 200 - Ø 315 and EN-JL1030/ GG20 for Ø 400 - Ø 635. For recommended hand wheel sizes, please see data sheet for each valve type.



Ratchet wrench

Stafsjö's ratchet wrench is designed to be used in applications where there are limited space to open/close the valve. By only using a limited angle at the top of the valve stem, the valve can be opened and closed. The ratchet wrench operates in both directions by a simple turn of the pin on the wrench side. The ratchet wrench is 200 mm long and it is supplied in stainless steel EN 1.4408. It can be used on knife gate valves MV, TV and the WB series in sizes DN 50 – DN 150.



Hand lever

Stafsjö's hand lever is designed for small valves that need to be opened or closed quickly in one movement. The hand lever is available in different versions depending on the valve type. Please contact Staf-sjö for further information.



Chain wheel

Stafsjö's chain wheel is supplied in coated cast iron EN-JL1030/ GG20. It also comes with a chain guide that keeps the chain in place around the chain wheel, which is supplied in steel EN 1.0045. The chain wheel is designed for a chain type SMS 1507, 5,5 mm. Chain can be supplied on request.



Recommended chain wheel sizes (mm)

Chain wheel size (Ø)	MV sizes	HG sizes	WB sizes	XV sizes
225	DN 50 - DN 150	DN 80 - DN 150	DN 80 - DN 150	DN 80 - DN 150
320	DN 200 - DN 300	DN 200 - DN 250	DN 200 - DN 300	DN 200 - DN 300
435	DN 350 - DN 400	DN 300 - DN 350	DN 350 - DN 400	

Bevel gear

Stafsjö's knife gate valves can be supplied with bevel gear box type GK 10.2 and GK 14.2 from AUMA. Rising stem with attachment A is standard, but attachment B3 with non-rising stem can also be supplied on request. Further information on the bevel gear is available on www.auma.com.



Basic data

AUMA bevel gear box				
Type	Reduction ratio	Hand wheel Ø	Valve attachment ISO 5210	Weight in kg
GK 10.2	2:1	315	F 10/A	8,5
GK 14.2	2.8:1	315/400	F 14/A	15

Recommended bevel gear box sizes to Stafsjös knife gate valves			
AUMA type	Knife gate valves: MV, MP, WB, WB11, WB12, WB14 and XV	Knife gate valves: HL, HG, HP and HPT	Knife gate valves: SLV and SLF
GK 10.2	DN 50 - DN 400	DN 80 - DN 350	DN 50 - DN 300
GK 14.2	DN 450 - DN 1000	DN 400 - DN 800	DN 350 - DN 600

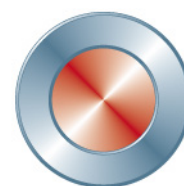
The table above gives recommended sizes at normal operation. For other operating conditions, please contact Stafsjö or your local representative for advice.

Further information is available on www.stafsjo.com



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Stafsjö
SINCE 1666

Electrical actuator

Stafsjö's standard electrical actuator comes from AUMA. It is a multi-turn actuator type SA with attachment A for rising stem. It is available with 3-ph AC or 1-ph AC motors. Our knife gate valves can also be supplied with modulating actuators type SAR and also with nonrising stem with attachment B3.

The multi-turn actuator type SA is used for open-close operations within temperatures $-40\text{ }^{\circ}\text{C}$ to $+80\text{ }^{\circ}\text{C}$. The actuator has enclosure protection IP 68 and it fulfills corrosion protection class KS. It has a wide torque range, is easy to commission and has low service requirements.

The AUMA actuator can also be supplied with various local integral controls, i.e. AUMA MATIC. The AUMA MATIC AM is the most cost-effective solution for those applications with conventional control of the valves in open-close duty. Further requirements such as position control, logging of operating data or a fieldbus interface such as Profibus can be met with the AUMATIC AC.

Recommended motor sizes is presented in each knife gate valve data sheet. For advice and further information on the AUMA actuators or on ATEX-classified ones, please contact Stafsjö, your local representative or visit www.auma.com.



Basic equipment for AUMA multi-turn type SA

Torque switch for opening/closing
Overload protection against torque peaks
Limit switch for opened/closed position
Thermo switches
Built in heater
Hand wheel for manual operation

Type of AUMA® actuator	Attachment acc. ISO 5210	Torque Nm	Weight in kg
SA 07.2	F 10/A	10 - 30	20
SA 07.6	F 10/A	20 - 60	21
SA 10.2	F 10/A	40 - 120	25
SA 14.2	F 14/A	100 - 250	48
SA 14.6	F 14/A	200 - 500	53
SA 16.2	F 16/A	400 - 1000	79

Further technical data on the AUMA actuator is available on www.auma.com.



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