

BORE SIZES 4"/100mm - 12"/300mm

ORBINOX standard double acting pneumatic cylinders are specifically designed to suit ORBINOX knife gate valves.

Main features:

- End caps and barrels up to bore 10"/250mm are made of aluminium
- Barrels with bore 12"/300mm are made of composite material
- Piston rod in stainless steel
- Air supply can vary from 50psi/3,5bar up to a maximum 150psi/10bar
- Air quality requirements according to ISO 8573-1 Grade 5:4:3 for normal processes, Grade 5:3:3 for cold temperature applications (min. -20° C water dew point); for cylinders with positioners Grades 3:4:3 (standard) / 3:3:3 (-20°C)

Options:

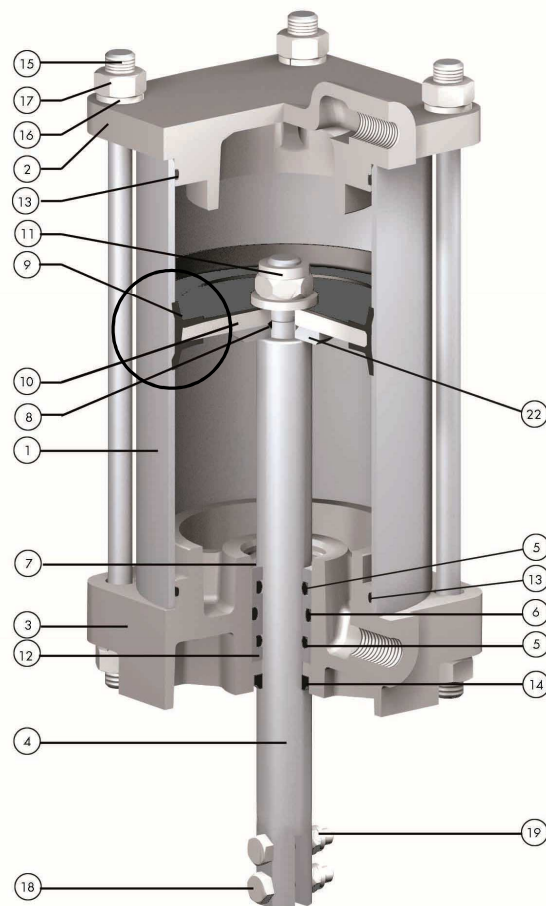
- End caps and barrels up to bore 10"/250mm in anodized aluminium
- Detachable clevis with different dimensions
- Magnetic limit switches available with internal magnetic kit
- Single acting up to 10"/250mm bores
- Manual override system (two piston rods)

Bore sizes ("/mm):

DN 4"/100mm, 5"/125mm, 6"/160mm, 8"/200mm, 10"/250mm and 12"/300mm.

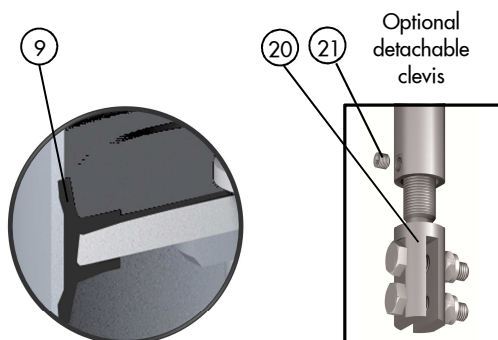
Seal kit*: Items 5,6,8,13 and 14.

One-piece vulcanized piston:** Items 9 and 10



PART LIST

Item:	Description:	Material:
1	Barrel	Aluminum/ Composite
2	Cap	Aluminium
3	Head	Aluminium
4	Piston Rod	AISI - 304
5*	O-Ring	Nitrile
6*	O-Ring	Nitrile
7	Circlip DIN472	Steel
8*	O-Ring	Nitrile
9**	Piston seal	Nitrile
10**	Piston	Carbon Steel
11	Self locking nut	AISI - 304
12	Bushing	Nylon
13*	O-Ring	Nitrile
14*	Scraper	Steel + Nitrile
15	Tie rods	Carbon Steel - Zn plated
16	Washer	Carbon Steel - Zn plated
17	Nut	Carbon Steel - Zn plated
18	Bolt	AISI - 304
19	Self locking nut	AISI - 304
20	Clevis	AISI - 304
21	Lock pin	AISI - 304
22	Washer	Carbon Steel - Zn plated



Reserves the right to change specifications without notice

ORBINOX CANADA, ORBINOX USA, ORBINOX BRAZIL, ORBINOX SPAIN, ORBINOX UK, ORBINOX FRANCE, ORBINOX GERMANY, ORBINOX INDIA, ORBINOX CHINA, ORBINOX S.E.A.

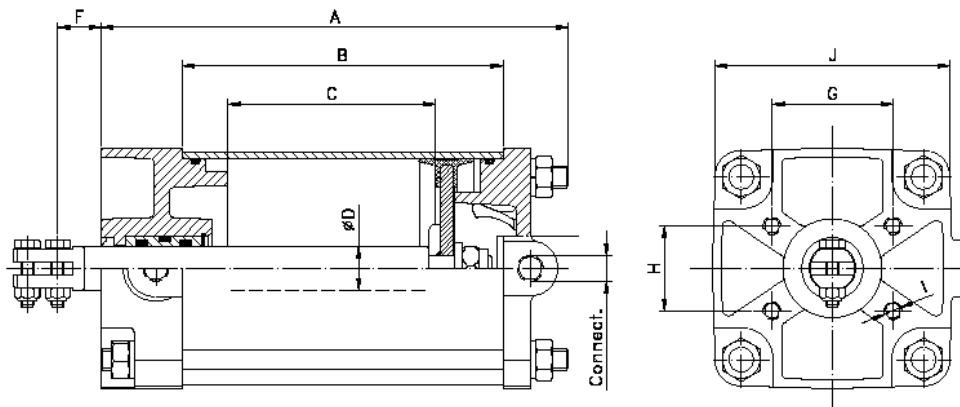
www.orbinox.com

OBX 01/18

Rev.5

DA Pneumatic Cylinder_1

BORE SIZES 4"/100mm - 12"/300mm



Ø Barrel ("/mm) - Valve size ("/mm)	A	B	C	ØD	F	G	H	I	J	Air Connections	Weight (lbs./kg)	Air (litre)
Ø 4"/100mm - 2"/50mm	6,42/163	4,49/114	2,44/62	0,79/20	0,79/20	2,18/55,44	1,53/38,82	M8	4,33/110	1/4"	4,4/2	4
Ø 4"/100mm - 2,5"/65mm	7,01/178	5,08/129	3,03/77	0,79/20	0,79/20	2,18/55,44	1,53/38,82	M8	4,33/110	1/4"	4,96/2,25	5
Ø 4"/100mm - 3"/80mm	7,71/196	5,78/147	3,74/95	0,79/20	0,79/20	2,18/55,44	1,53/38,82	M8	4,33/110	1/4"	4,96/2,25	6
Ø 4"/100mm - 4"/100mm	2,28/216	6,57/167	4,52/115	0,79/20	0,79/20	2,18/55,44	1,53/38,82	M8	4,33/110	1/4"	6,61/3	7
Ø 5"/125mm - 5"/125mm	9,57/243	8/203	5,63/143	0,98/25	1,14/29	2,18/55,5	1,53/39	M8	5,31/135	1/4"	8,81/3	13
Ø 5"/125mm - 6"/150mm	10,55/268	8,98/228	6,61/168	0,98/25	1,14/29	2,18/55,5	1,53/39	M8	5,31/135	1/4"	11,02/5	15
Ø 6"/160mm - 8"/200mm	12,83/326	11,02/280	8,66/220	1,18/30	1,70/43	4/100	2/50	M10	6,70/170	1/4"	20/9	31
Ø 8"/200mm - 10"/250mm	15,47/393	13,42/341	10,63/270	1,18/30	1,70/43	4/100	2/50	M10	8,46/215	3/8"	33/15	59
Ø 8"/200mm - 12"/300mm	17,44/443	15,39/391	12,60/320	1,18/30	1,70/43	4/100	2/50	M10	8,46/215	3/8"	35,27/16	70
Ø 10"/250mm - 14"/350mm	19,88/505	17,64/448	14,76/375	1,57/40	3,30/84	3,90/99	3,90/99	M16	10,78/274	3/8"	79,36/36	127
Ø 10"/250mm - 16"/400mm	21,85/555	19,60/498	16,73/425	1,57/40	3,30/84	3,90/99	3,90/99	M16	10,78/274	3/8"	81,57/37	144
Ø 12"/300mm - 18"/450mm	25,40/645	21,81/554	18,70/475	1,77/45	3,05/77,5	3,90/99	3,90/99	M16	15,04/382	1/2"	83,77/38	232
Ø 12"/300mm - 20"/500mm	27,36/695	23,78/604	20,66/525	1,77/45	3,05/77,5	3,90/99	3,90/99	M16	15,04/382	1/2"	88,18/40	257
Ø 12"/300mm - 24"/600mm	31,29/795	25,75/654	24,60/625	1,77/45	3,05/77,5	3,90/99	3,90/99	M16	15,04/382	1/2"	92,60/42	266

Note: air connections available following NPT and BSP standards.

Recommended cylinder bore size for standard ORBINOX valves considering 6 bar of air supply:

ORBINOX VALVES (DN in inches/mm)	PNEUMATIC CYLINDER BORE SIZE		
	EX/EK - SER.10, EB - SER.11, ET - SER.20, BT - SER.22, XC - SER.14, DT - SER.80	TL/TK - SER.30	VG - SER.61
2" /50mm	4" /100mm	4" /100mm	4" /100mm
2,5"/65mm			
3" /80mm			
4" /100mm			5" /125mm
5" /125mm	5" /125mm	6" /150mm	6" /150mm
6" /150mm			
8" /200mm			
10" /250mm	8" /200mm	8" /200mm	10" /250mm
12" /300mm			12" /300mm
14" /350mm	10" /250mm	10" /250mm	14" /350mm
16" /400mm			
18" /450mm	12" /300mm	12" /300mm	16" /400mm
20" /500mm			
24" /600mm			
28" /700mm			
32" /800mm	14" /350mm	14" /350mm	-
36" /900mm			
40" /1000mm	16" /400mm	16" /400mm	-
48" /1200mm			

BORE SIZES 14"/350mm - 16"/400mm

ORBINOX standard double acting pneumatic cylinders are specifically designed to suit ORBINOX knife gate valves.

Main features:

- End caps are made of aluminium
- Barrels are made of composite material
- Piston rod in stainless steel
- Air supply can vary from 50psi/3,5bar up to a maximum 150psi/10bar
- Air quality requirements according to ISO 8573-1 Grade 5:4:3 for normal processes, Grade 5:3:3 for cold temperature applications (min. -20° C water dew point); for cylinders with positioners Grades 3:4:3 (standard) / 3:3:3 (-20°C)

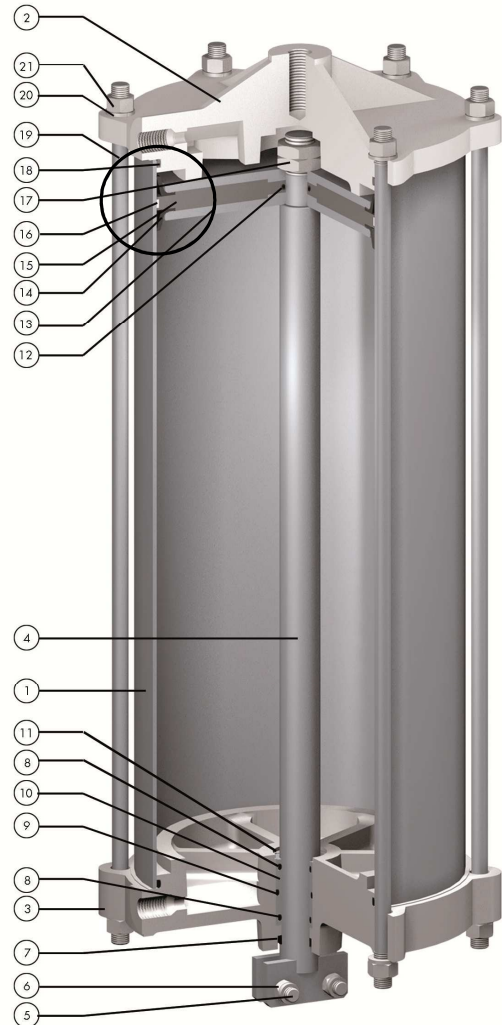
Options:

- Magnetic limit switches available with special magnetic kit under the piston
- Manual override system (two piston rods)

Bore sizes ("/mm):

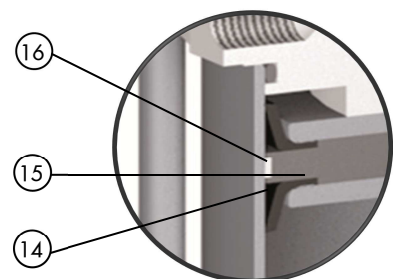
DN 14"/350mm and 16"/400mm.

Seal kit*: Items 7,8,9,12 and 18.

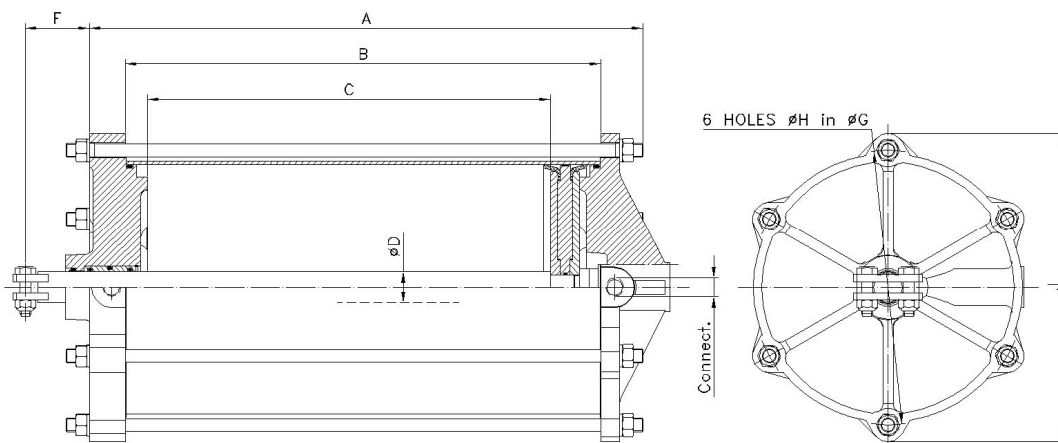


PART LIST

Item:	Description:	Material:
1	Barrel	Composite
2	Cap	Aluminium
3	Head	Aluminium
4	Piston Rod	AISI - 304
5	Bolt	AISI - 304
6	Self locking nut	AISI - 304
7*	Scraper	Carbon Steel + Nitrile
8*	O-ring	Nitrile
9*	O-ring	Nitrile
10	Bushing	Nylon
11	Circlip DIN472	Steel
12*	O-ring	Nitrile
13	Piston support plate	Carbon Steel
14	Piston seal	Nitrile
15	Piston	Carbon Steel
16	Piston slider	PTFE
17	Nut	Carbon Steel
18*	O-ring	Nitrile
19	Tie rods	Carbon Steel - Zn plated
20	Washer	Carbon Steel - Zn plated
21	Nut	Carbon Steel - Zn plated



BORE SIZES 14"/350mm - 16"/400mm



Ø Barrel ("/mm) - Valve size ("/mm)	A	B	C	ØD	F	ØG	ØH	J	Air Connections	Weight (lbs./kg)	Air (litre)
Ø14"/350mm - 28"/700mm	37,940	32,75/832	28,74/730	1,77/45	3,09/78,5	15,59/396	0,87/22	17,48/444	3/4"	121/55	485
Ø14"/350mm - 32"/800mm	40,94/1040	36,70/932	32,68/830	1,77/45	3,09/78,5	15,59/396	0,87/22	17,48/444	3/4"	128/58	552
Ø16"/400mm - 36"/900mm	45,35/1152	41,10/1044	36,61/930	2/50	3,09/78,5	18,15/461	1,06/27	20,27/515	3/4"	137/62	807
Ø16"/400mm - 40"/1000mm	49,29/1252	45,04/1144	40,55/1030	2/50	3,09/78,5	18,15/461	1,06/27	20,27/515	3/4"	144/65	895

Note: air connections available following NPT and BSP standards.

Recommended cylinder bore size for standard ORBINOX valves considering 6 bar of air supply:

ORBINOX VALVES (DN in inches/mm)	PNEUMATIC CYLINDER BORE SIZE		
	EX/EK - SER.10, EB - SER.11, ET - SER.20, BT - SER.22, XC - SER.14, DT - SER.80	TL/TK - SER.30	VG - SER.61
2" /50mm	4" /100mm	4" /100mm	4" /100mm
2,5" /65mm			5" /125mm
3" /80mm			6" /150mm
4" /100mm			8" /200mm
5" /125mm	5" /125mm	6" /150mm	10" /250mm
6" /150mm			12" /300mm
8" /200mm			14" /350mm
10" /250mm	8" /200mm	8" /200mm	16" /400mm
12" /300mm			18" /450mm
14" /350mm	10" /250mm	10" /250mm	14" /350mm
16" /400mm			16" /400mm
18" /450mm			18" /450mm
20" /500mm			20" /500mm
24" /600mm	12" /300mm	12" /300mm	16" /400mm
28" /700mm			18" /450mm
32" /800mm			20" /500mm
36" /900mm	14" /350mm	14" /350mm	24" /600mm
40" /1000mm			28" /700mm
48" /1200mm	16" /400mm	16" /400mm	-

MAIN ACCESSORIES

- Magnetic limit switches set (fig.1) available for all bore sizes with special magnetic kit above the piston.
- Single acting up to 10"/250mm bore (fig.2).
- Manual override system with two piston rods (fig.3).



Fig.1

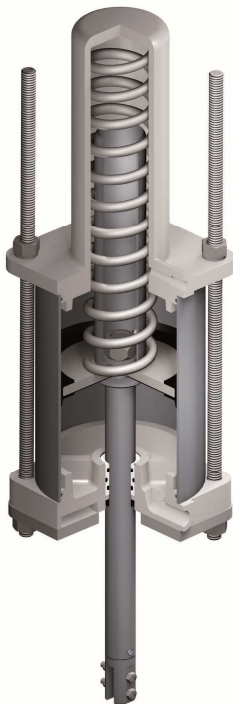


Fig.2

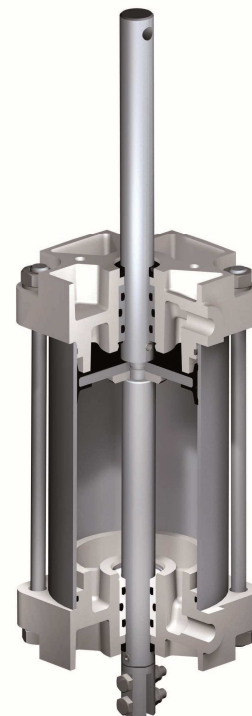


Fig.3