

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 12"/300mm are made of aluminium
- 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:

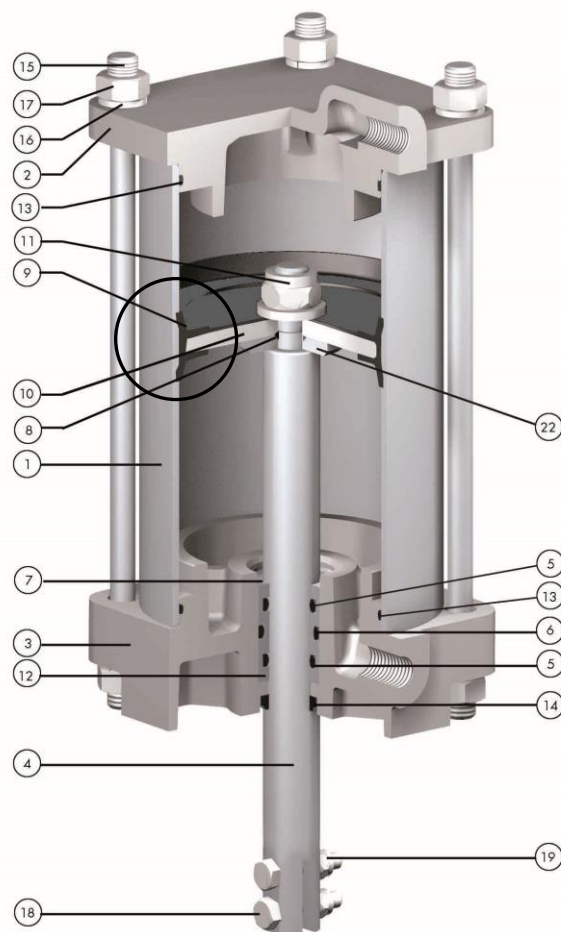
- End caps and barrels up to bore 12"/300mm in anodized aluminium
- Detachable clevis with different dimensions
- Magnetic limit switches available with internal magnetic kit
- Single acting up to 10"/250mm bore
- Manual override system (two piston rods)

Bore sizes ("/mm):

DN 4"/100mm, 5"/125mm, 6,3"/160mm, 8"/200mm, 10"/250mm and 12"/300mm.

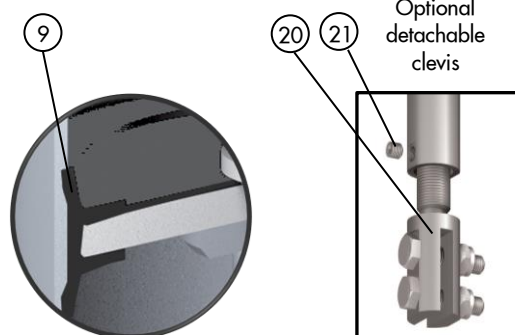
Seal kit*: Items 5,6,8,13 and 14.

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

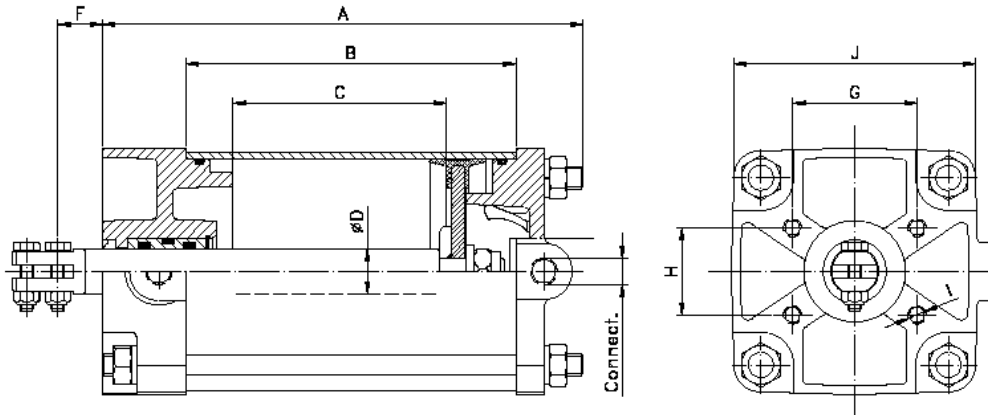


PART LIST

Item:	Description:	Material:
1	Barrel	Aluminum
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	Carbon Steel
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



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	¼"	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	¼"	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	¼"	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	¼"	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	¼"	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	¼"	11,02/5	15
Ø 6,3"/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	¼"	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	½"	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	½"	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	½"	92,60/42	266

Note: air connections available following NPT and BSP standards.

*Approx. air consumption per stroke at 4 bar air supply

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 - SER.10, EW, EB - SER.11, ET - SER.20, BT - SER.22, XC - SER.14, DT - SER.80	EK/HK	TL/ - SER.30	TK	VG - SER.61 WG - SER.65
2" /50mm				-	4" /100mm
2,5"/65mm					
3" /80mm	4" /100mm	4" /100mm	4" /100mm	4" /100mm	5" /125mm
4" /100mm					
5" /125mm	5" /125mm	5" /125mm	5" /125mm	5" /125mm	6,3" /160mm
6" /150mm	6,3" /160mm	6,3" /160mm	6,3" /160mm	6,3" /160mm	8" /200mm
8" /200mm	8" /200mm	8" /200mm	8" /200mm	8" /200mm	10" /250mm
10" /250mm					12" /300mm
12" /300mm					
14" /350mm	10" /250mm		10" /250mm	10" /250mm	14" /350mm
16" /400mm					
18" /450mm					
20" /500mm	12" /300mm	10" /250mm	12" /300mm	12" /300mm	16" /400mm
24" /600mm					
28" /700mm	14" /350mm		14" /350mm	-	
32" /800mm				-	
36" /900mm				-	
40" /1000mm	16" /400mm	12" /300mm	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)

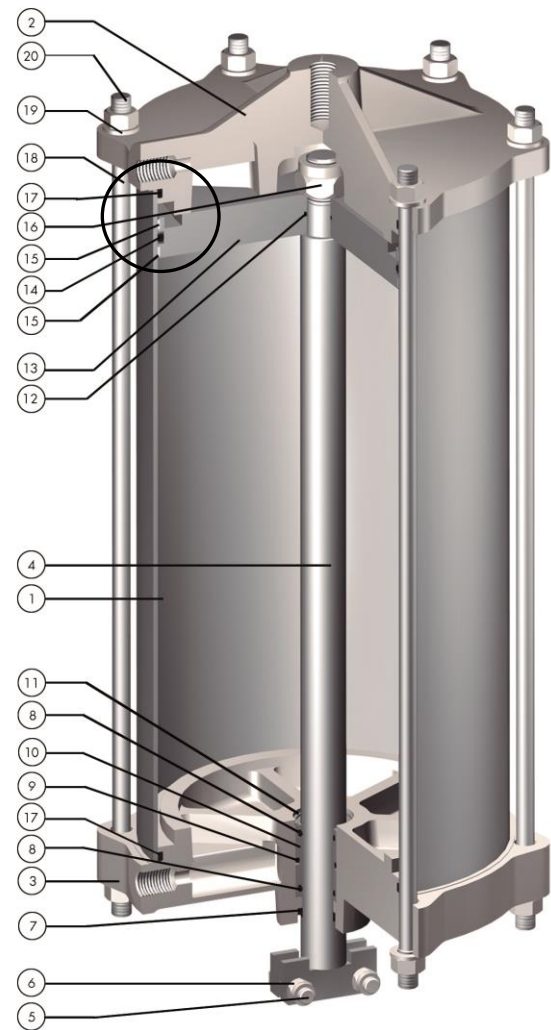
Options:

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

Bore sizes ("/mm):

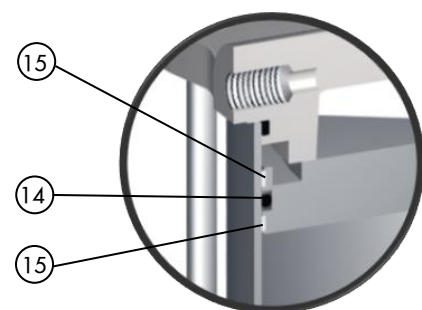
DN 14"/350mm and 16"/400mm

Seal kit*: Items 7,8,9,12, 14 and 17

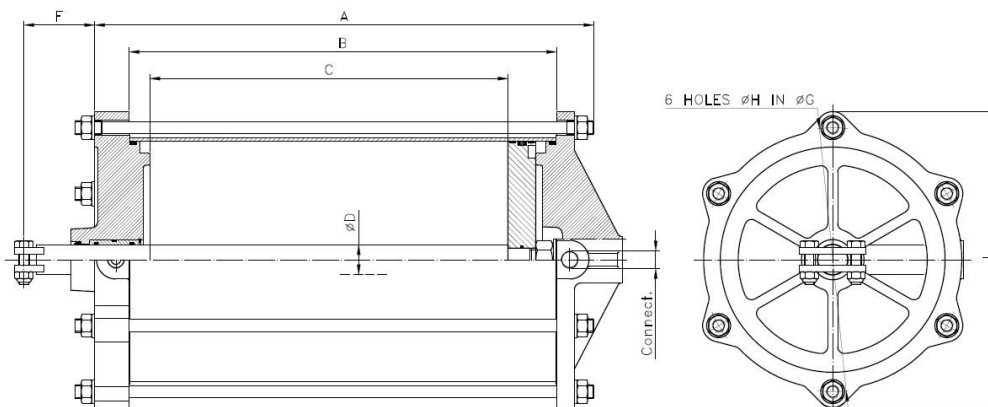


PART LIST

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	Aluminium
14*	Seal Kit	Nitrile
15	Piston slider	PTFE
16	Self locking nut	Carbon Steel
17*	O-ring	Nitrile
18	Tie rods	Carbon Steel - Zn plated
19	Washer	Carbon Steel - Zn plated
20	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.

*Approx. air consumption per stroke at 4 bar air supply

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 -SER.10, EW, EB - SER.11, ET - SER.20, BT - SER.22, XC - SER.14, DT - SER.80	EK/HK	TL/ - SER.30	TK	VG - SER.61 WG - SER.65		
2" /50mm	4" /100mm	4" /100mm	4" /100mm	-	4" /100mm		
2,5" /65mm				4" /100mm		4" /100mm	5" /125mm
3" /80mm							
4" /100mm	5" /125mm	5" /125mm	5" /125mm	6,3" /160mm	6,3" /160mm		
5" /125mm				6,3" /160mm		6,3" /160mm	8" /200mm
6" /150mm	8" /200mm	8" /200mm	8" /200mm		10" /250mm		
8" /200mm				10" /250mm	10" /250mm	12" /300mm	
10" /250mm							12" /300mm
12" /300mm	10" /250mm	10" /250mm	10" /250mm	14" /350mm	14" /350mm		
14" /350mm				12" /300mm		12" /300mm	12" /300mm
16" /400mm							
18" /450mm	12" /300mm	12" /300mm	12" /300mm	-			
20" /500mm					16" /400mm	16" /400mm	-
24" /600mm							
28" /700mm	12" /300mm	12" /300mm	-	-			
32" /800mm					-	-	-
36" /900mm	-	-	-	-			
40" /1000mm					-	-	-
48" /1200mm	-	-	-	-			

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