

single
acting
underbody
cylinder

binotto.com

A/B DWR CYLINDER TYPE



Binotto®

THE TIPPING POWER

SINGLE ACTING UNDERBODY CYLINDER

CATALOGUE



SINGLE ACTING UNDERBODY CYLINDER

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IMPORTANT

The user, through its own analysis and testing, is solely responsible for making the final selection of the cylinders and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met and that the use presents no health or safety hazards.

Before installation, maintenance, service and use of Binotto cylinders, make sure you have read carefully and understood all documents which are sent together with the products (User Manual and Mounting Instructions).

A digital version of the documents is available in our official website www.binotto.com.

In case of service or spare part request, please contact your trusted Binotto sales&service point. A global and update overview of main Binotto official sales&service points is available online network.binotto.com.

Even if you are at a considerable distance from the listed points, you should still contact your nearest one or contact your supplier of hydraulic equipment. Most distributors maintain their own network and can advise you of the most convenient for your work.



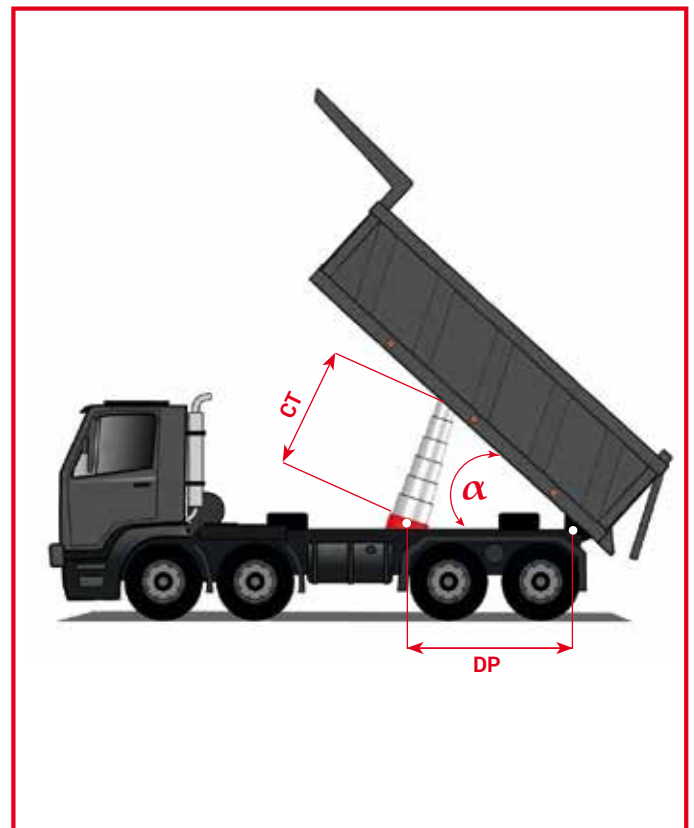
SINGLE ACTING UNDERBODY CYLINDER

GUIDELINES FOR CYLINDER STROKE SELECTION

Select the hinge distance of your tipping vehicle (**DP**) and choose your target tipping angle (**α**). You will find the suitable stroke of the cylinder.

STROKE SELECTION TABLE

DP [mm]	CT at 45° [mm]	CT at 50° [mm]	CT at 55° [mm]
900	690	760	835
1000	765	845	925
1100	845	930	1020
1200	920	1015	1110
1300	95	1100	1205
1400	1075	1185	1295
1500	1150	1270	1390
1600	1225	1355	1480
1700	1300	1440	1575
1800	1380	1525	1665
1900	1455	1605	1760
2000	1530	1690	1850
2100	1610	1775	1945
2200	16585	1860	2035
2300	1760	1945	2130
2400	1840	2030	2220
2500	1915	2115	2315
2600	1990	2200	2405
2700	2065	2285	2500
2800	2145	2370	2590
2900	2220	2450	2685
3000	2300	2535	2775
3200	2450	27045	2960
3400	2605	2875	3145
3600	2755	3045	3330
3800	2910	3215	3515



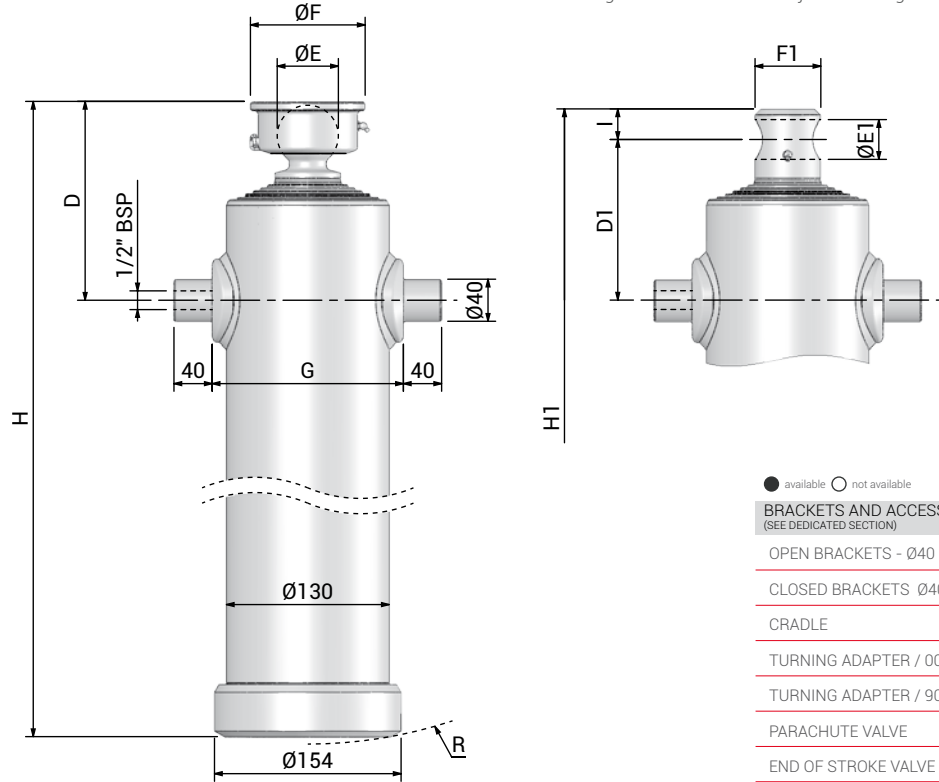
As a shortcut you can also use this formula:

$$CT = \frac{DP \times \alpha}{59}$$

For detailed tipping calculations please refer to:
<https://spinta.binotto.com>



Stage Ø [mm]	Thrust at 150 bar [ton]
107	13,5
88	9,2
69	5,6



● available ○ not available

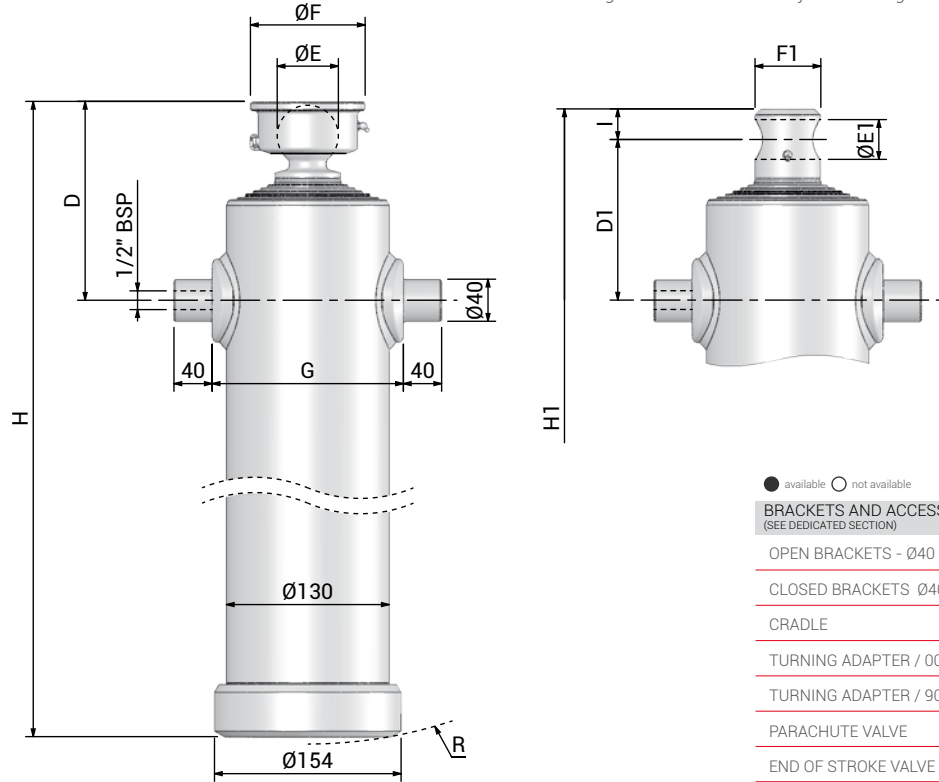
BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø40	●
CLOSED BRACKETS Ø40	●
CRADLE	○
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
3/585/130	3	585	250	210	60	36	93	67	170	405	393	28	168	3,6	29
3/645/130	3	645	250	210	60	36	93	67	170	425	413	28	187	4,0	31
3/705/130	3	705	250	210	60	36	93	67	170	445	433	28	206	4,4	33
3/765/130	3	765	250	210	60	36	93	67	170	465	453	28	225	4,8	35
3/825/130	3	825	250	210	60	36	93	67	170	485	473	28	244	5,1	37
3/885/130	3	885	250	210	60	36	93	67	170	505	493	28	263	5,5	39
3/1005/130	3	1005	250	210	60	36	93	67	170	545	533	28	302	6,3	43
3/1185/130	3	1185	250	210	60	36	93	67	170	605	593	28	361	7,4	48

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 200 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.



Stage Ø [mm]	Thrust at 150 bar [ton]
108	18,3
92	13,3
76	9,0
60	5,7



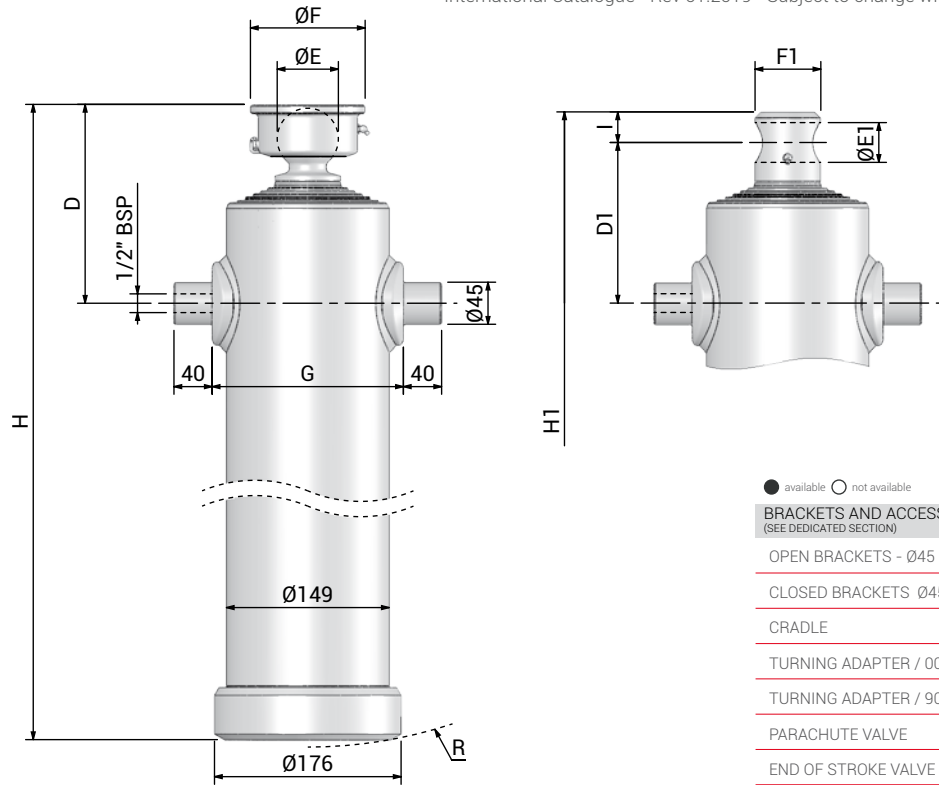
- available ○ not available
- BRACKETS AND ACCESSORIES**
(SEE DEDICATED SECTION)
- OPEN BRACKETS - Ø40 ●
 - CLOSED BRACKETS Ø40 ●
 - CRADLE ○
 - TURNING ADAPTER / 00° ○
 - TURNING ADAPTER / 90° ●
 - PARACHUTE VALVE ●
 - END OF STROKE VALVE ●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
4/780/130	4	780	250	215	60	36	93	60	170	409	402	28	172	4,5	30
4/860/130	4	860	250	215	60	36	93	60	170	429	422	28	191	5,0	32
4/940/130	4	940	250	215	60	36	93	60	170	449	442	28	210	5,4	34
4/1020/130	4	1020	250	215	60	36	93	60	170	469	462	28	229	5,9	36
4/1100/130	4	1100	250	215	60	36	93	60	170	489	482	28	248	6,3	38
4/1180/130	4	1180	250	215	60	36	93	60	170	509	502	28	267	6,8	40
4/1340/130	4	1340	250	215	60	36	93	60	170	549	542	28	306	7,7	44
4/1580/130	4	1580	250	215	60	36	93	60	170	609	602	28	365	9,1	49

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 200 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.



Stage Ø [mm]	Thrust at 150 bar [ton]
126	18,7
107	13,5
88	9,2



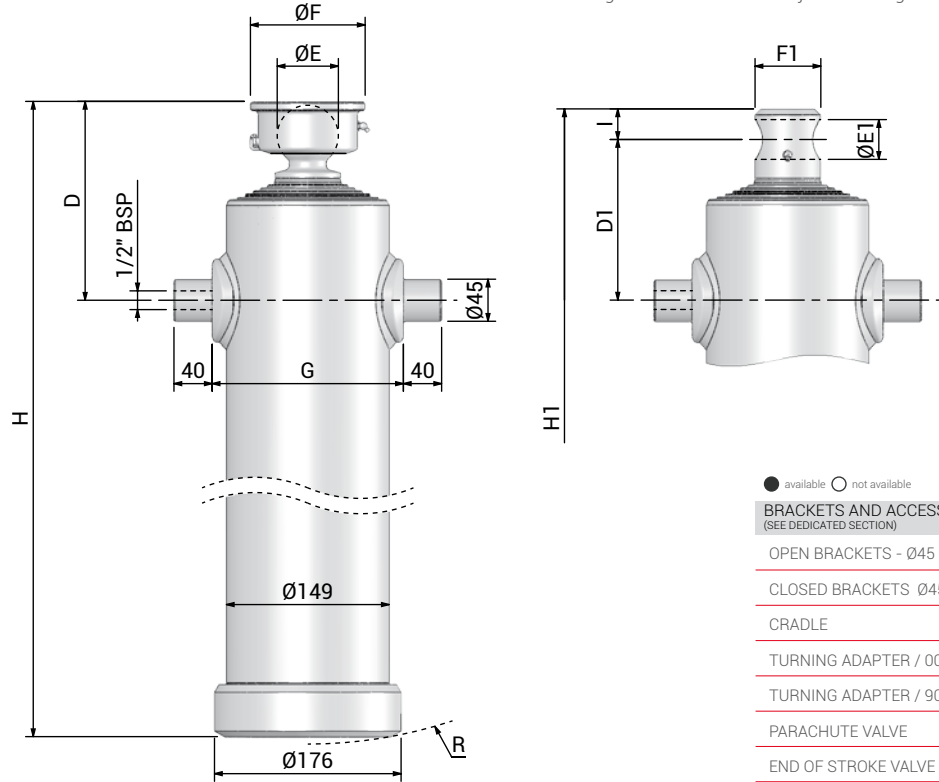
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BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø45	●
CLOSED BRACKETS Ø45	●
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
3/585/149	3	585	250	205	60	36	93	86	185	417	402	30	183	5,3	38
3/645/149	3	645	250	205	60	36	93	86	185	437	422	30	202	5,9	40
3/705/149	3	705	250	205	60	36	93	86	185	457	442	30	220	6,4	42
3/765/149	3	765	250	205	60	36	93	86	185	477	462	30	239	7,0	44
3/825/149	3	825	250	205	60	36	93	86	185	497	482	30	258	7,5	46
3/885/149	3	885	250	205	60	36	93	86	185	517	502	30	278	8,1	48
3/1005/149	3	1005	250	205	60	36	93	86	185	557	542	30	316	9,2	52
3/1185/149	3	1185	250	205	60	36	93	86	185	617	602	30	375	10,9	57

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 200 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 150 bar [ton]
126	18,7
107	13,5
88	9,2
69	5,6



● available ○ not available

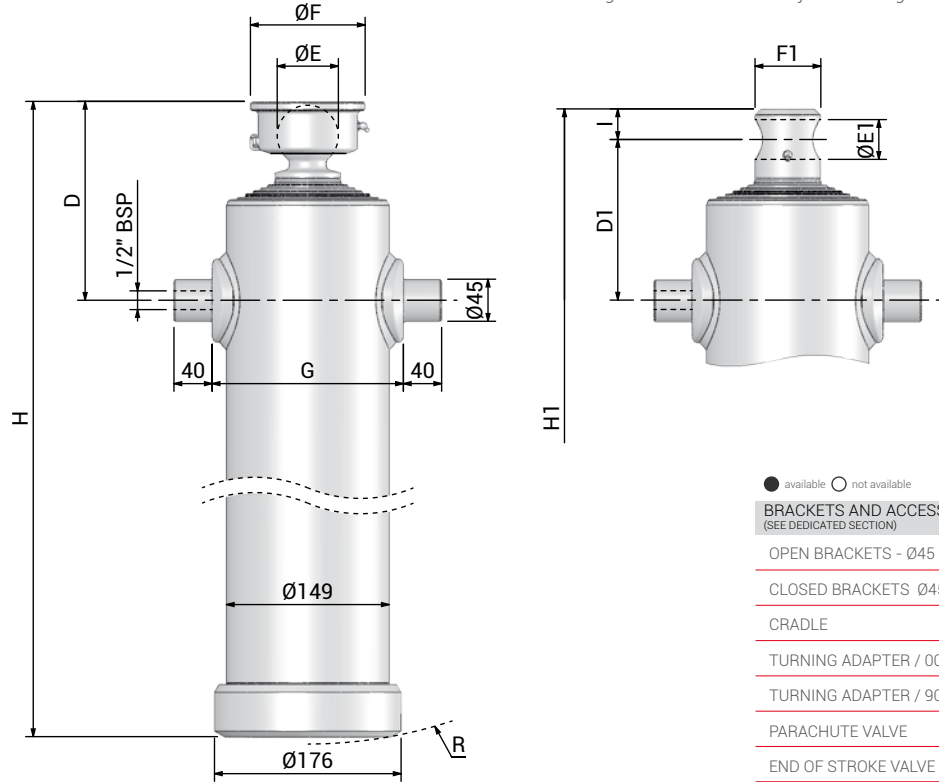
BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø45	●
CLOSED BRACKETS Ø45	●
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
4/780/149	4	780	250	210	60	36	93	67	185	418	406	28	184	6,1	40
4/860/149	4	860	250	210	60	36	93	67	185	438	426	28	203	6,7	42
4/940/149	4	940	250	210	60	36	93	67	185	458	446	28	221	7,3	44
4/1020/149	4	1020	250	210	60	36	93	67	185	478	466	28	240	8,0	46
4/1100/149	4	1100	250	210	60	36	93	67	185	498	486	28	259	8,6	48
4/1180/149	4	1180	250	210	60	36	93	67	185	518	506	28	279	9,2	50
4/1340/149	4	1340	250	210	60	36	93	67	185	558	546	28	317	10,5	54
4/1580/149	4	1580	250	210	60	36	93	67	185	618	606	28	376	12,3	59

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 200 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.



Stage Ø [mm]	Thrust at 150 bar [ton]
126	18,7
108	13,8
92	9,9
76	6,8
60	4,2



● available ○ not available

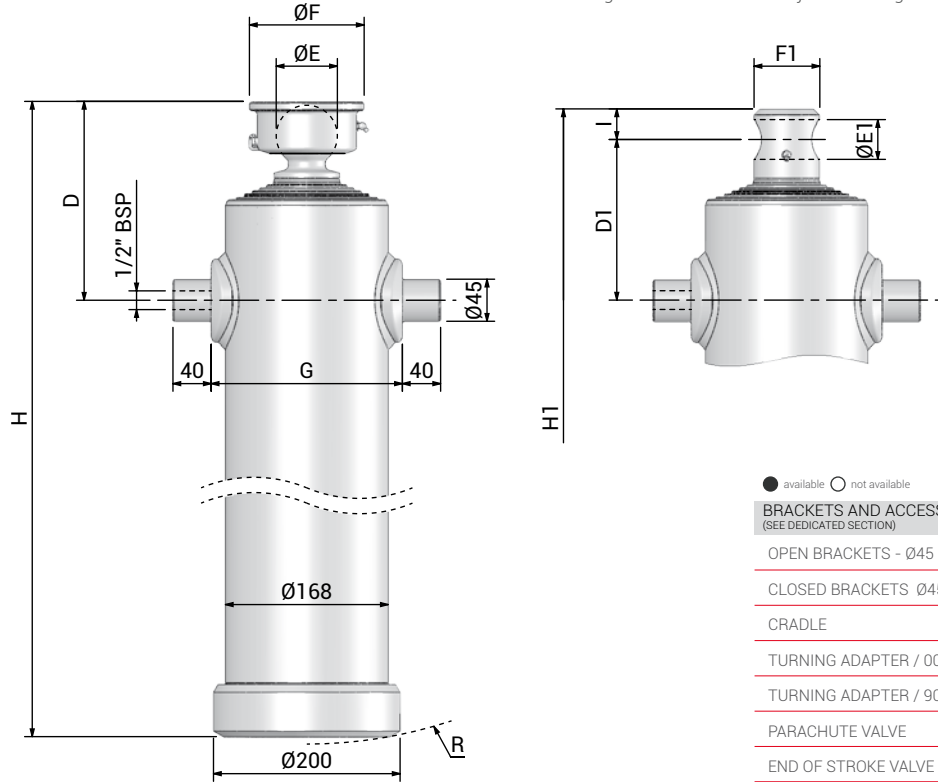
BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø45	●
CLOSED BRACKETS Ø45	●
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
5/975/149	5	975	250	215	60	36	93	60	185	422	415	28	188	6,9	40
5/1075/149	5	1075	250	215	60	36	93	60	185	442	435	28	206	7,6	42
5/1175/149	5	1175	250	215	60	36	93	60	185	462	455	28	225	8,4	44
5/1275/149	5	1275	250	215	60	36	93	60	185	482	475	28	244	9,1	46
5/1375/149	5	1375	250	215	60	36	93	60	185	502	495	28	263	9,9	48
5/1475/149	5	1475	250	215	60	36	93	60	185	522	515	28	282	10,5	50
5/1675/149	5	1675	250	215	60	36	93	60	185	562	555	28	321	11,9	54
5/1975/149	5	1975	250	215	60	36	93	60	185	622	615	28	380	14,1	59

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 200 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.



Stage Ø [mm]	Thrust at 150 bar [ton]
145	24,7
126	18,7
107	13,5

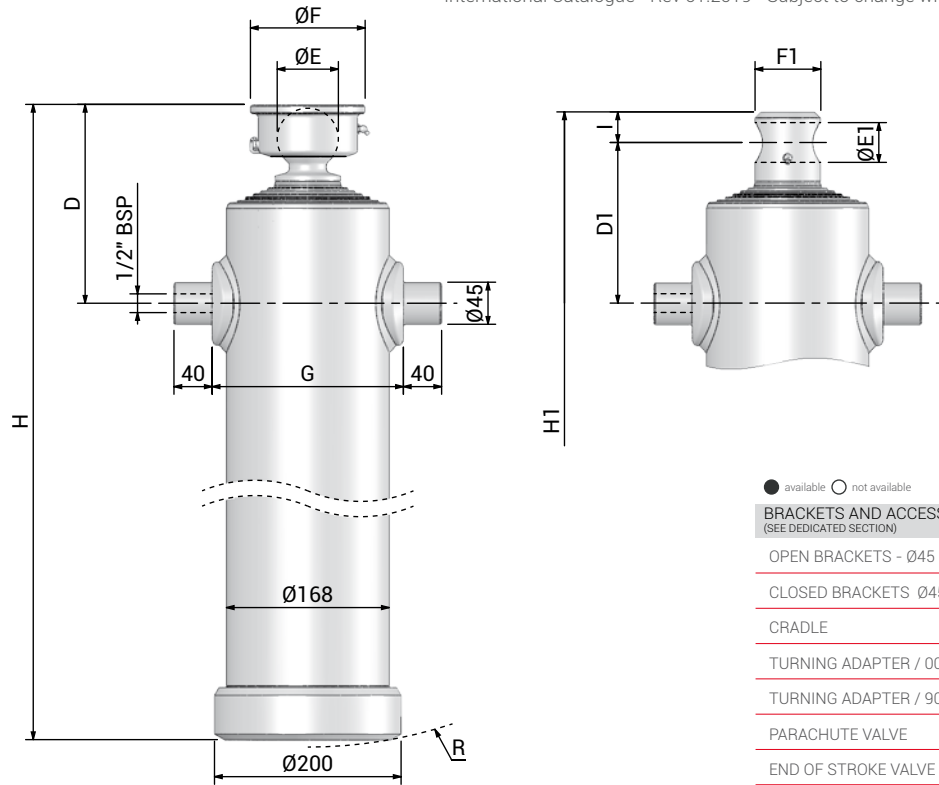


- available ○ not available
- BRACKETS AND ACCESSORIES**
(SEE DEDICATED SECTION)
- OPEN BRACKETS - Ø45 ●
 - CLOSED BRACKETS Ø45 ●
 - CRADLE ●
 - TURNING ADAPTER / 00° ○
 - TURNING ADAPTER / 90° ●
 - PARACHUTE VALVE ●
 - END OF STROKE VALVE ●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
3/585/168	3	585	250	210	60	45	93	105	205	420	415	35	190	7,4	45
3/645/168	3	645	250	210	60	45	93	105	205	440	435	35	208	8,1	47
3/705/168	3	705	250	210	60	45	93	105	205	460	455	35	227	8,9	49
3/765/168	3	765	250	210	60	45	93	105	205	480	475	35	245	9,7	51
3/825/168	3	825	250	210	60	45	93	105	205	500	495	35	264	10,4	53
3/885/168	3	885	250	210	60	45	93	105	205	520	515	35	283	11,2	55
3/1005/168	3	1005	250	210	60	45	93	105	205	560	555	35	322	12,7	59
3/1185/168	3	1185	250	210	60	45	93	105	205	620	615	35	380	15,0	65

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 200 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 150 bar [ton]
145	24,7
126	18,7
107	13,5
88	9,2



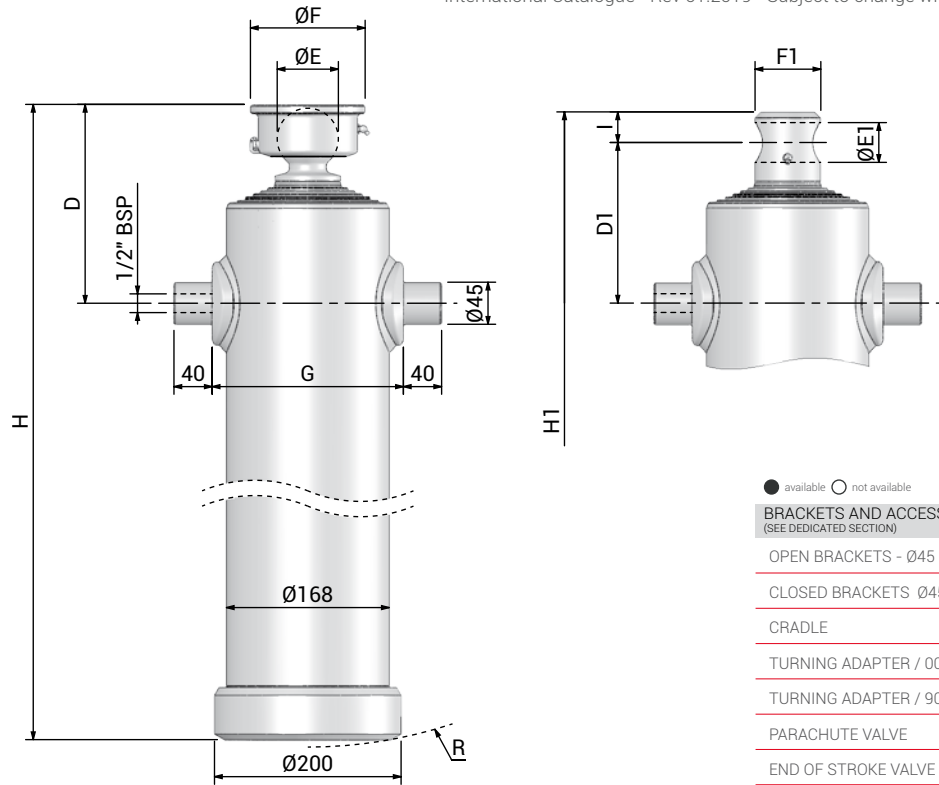
● available ○ not available

BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø45	●
CLOSED BRACKETS Ø45	●
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
4/780/168	4	780	250	205	60	36	93	86	205	422	407	30	192	8,6	49
4/860/168	4	860	250	205	60	36	93	86	205	442	427	30	210	9,4	51
4/940/168	4	940	250	205	60	36	93	86	205	462	447	30	228	10,3	53
4/1020/168	4	1020	250	205	60	36	93	86	205	482	467	30	247	11,2	55
4/1100/168	4	1100	250	205	60	36	93	86	205	502	487	30	266	12,1	57
4/1180/168	4	1180	250	205	60	36	93	86	205	522	507	30	285	13,0	59
4/1340/168	4	1340	250	205	60	36	93	86	205	562	547	30	324	14,7	66
4/1580/168	4	1580	250	205	60	36	93	86	205	622	607	30	382	17,4	73

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 200 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 150 bar [ton]
145	24,7
126	18,7
107	13,5
88	9,2
69	5,6



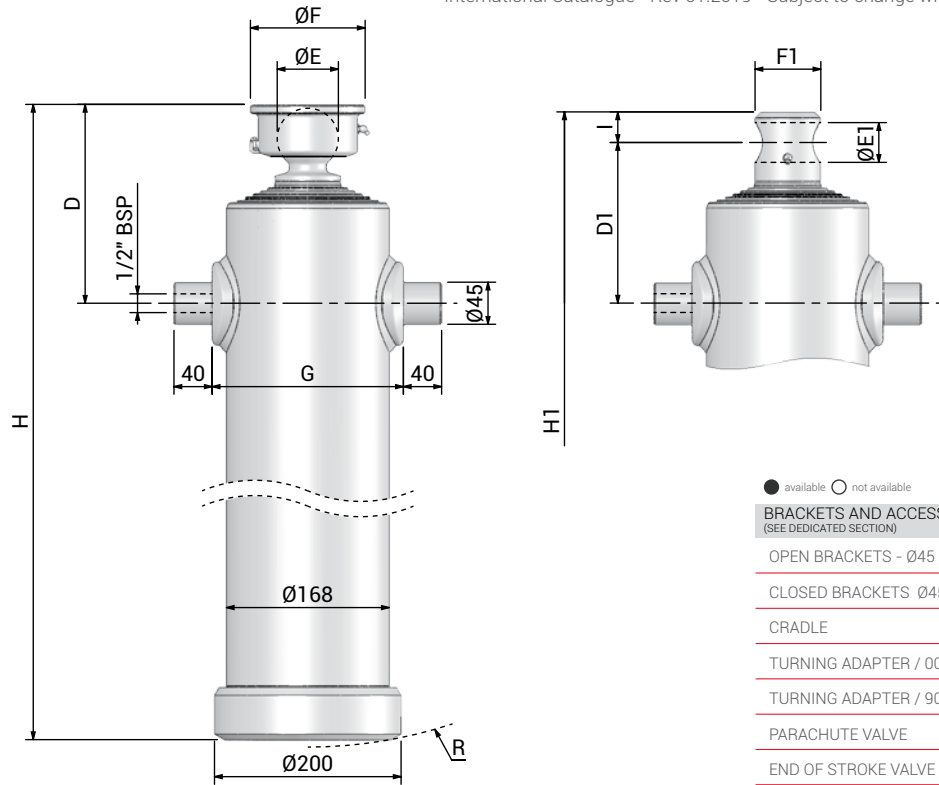
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BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø45	●
CLOSED BRACKETS Ø45	●
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
5/1025/168	5	1025	250	210	60	36	93	67	205	415	403	28	186	11,5	50
5/1125/168	5	1125	250	210	60	36	93	67	205	435	423	28	209	12,3	53
5/1225/168	5	1225	250	210	60	36	93	67	205	455	443	28	227	13,3	55
5/1325/168	5	1325	250	210	60	36	93	67	205	475	463	28	245	14,4	57
5/1425/168	5	1425	250	210	60	36	93	67	205	495	483	28	263	15,4	59
5/1525/168	5	1525	250	210	60	36	93	67	205	515	503	28	282	16,5	62
5/1725/168	5	1725	250	210	60	36	93	67	205	555	543	28	320	18,5	67
5/2000/168	5	2000	250	210	60	36	93	67	205	615	603	28	378	20,9	75

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 200 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 150 bar [ton]
145	24,7
126	18,7
108	13,7
92	9,9
76	6,8
60	4,2



● available ○ not available

BRACKETS AND ACCESSORIES
(SEE DEDICATED SECTION)

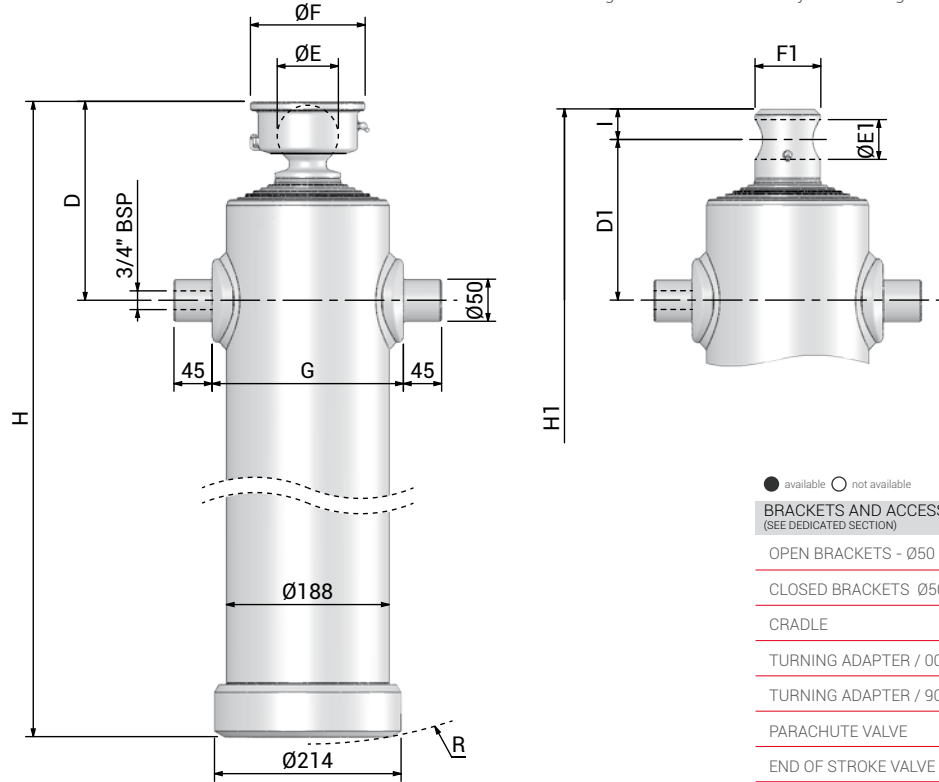
OPEN BRACKETS - Ø45	●
CLOSED BRACKETS Ø45	●
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
6/1230/168	6	1230	250	215	60	36	93	60	205	420	413	28	196	12,6	50
6/1350/168	6	1350	250	215	60	36	93	60	205	440	433	28	213	13,4	53
6/1470/168	6	1470	250	215	60	36	93	60	205	460	453	28	231	14,6	56
6/1590/168	6	1590	250	215	60	36	93	60	205	480	473	28	250	15,7	58
6/1710/168	6	1710	250	215	60	36	93	60	205	500	493	28	268	16,3	61
6/1830/168	6	1830	250	215	60	36	93	60	205	520	513	28	287	18,0	64
6/2070/168	6	2070	250	215	60	36	93	60	205	560	553	28	324	20,3	69
6/2400/168	6	2400	250	215	60	36	93	60	205	620	613	28	383	23,8	75

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 200 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.



Stage Ø [mm]	Thrust at 150 bar [ton]
165	32,1
145	24,7
126	18,7
107	13,5
88	9,2



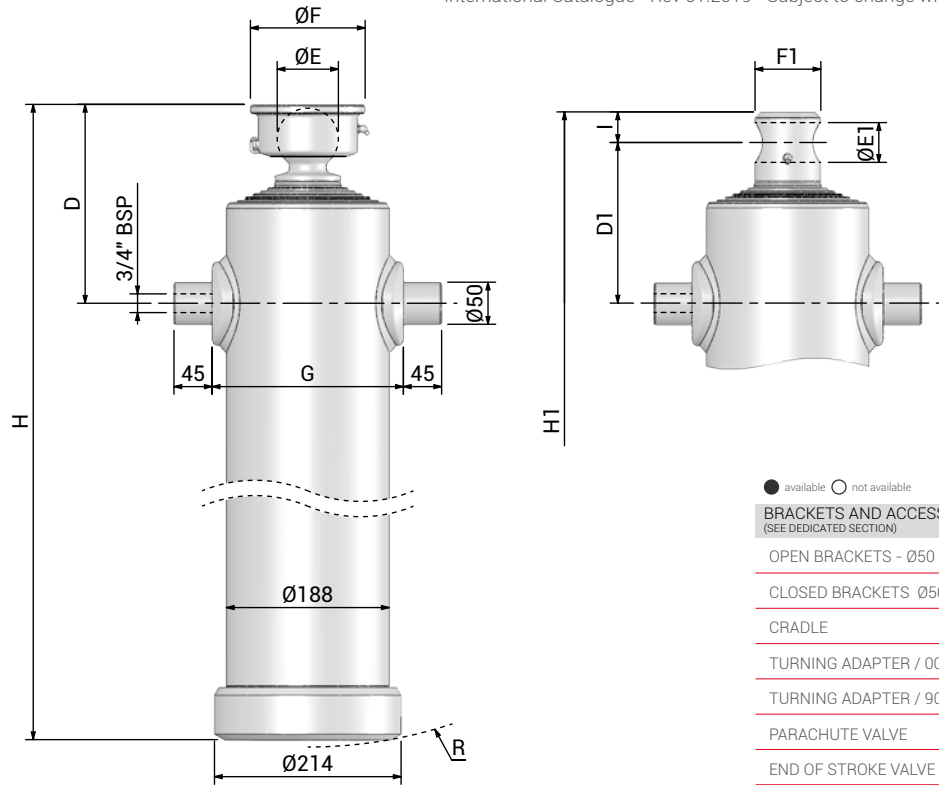
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BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø50	●
CLOSED BRACKETS Ø50	●
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
5/1020/188	5	1020	250	205	60	36	93	86	225	420	405	30	201	14,8	60
5/1120/188	5	1120	250	205	60	36	93	86	225	440	425	30	218	15,8	63
5/1220/188	5	1220	250	205	60	36	93	86	225	460	445	30	236	17,2	67
5/1320/188	5	1320	250	205	60	36	93	86	225	480	465	30	254	18,6	69
5/1420/188	5	1420	250	205	60	36	93	86	225	500	485	30	272	20,0	73
5/1520/188	5	1520	250	205	60	36	93	86	225	520	505	30	290	21,5	75
5/1720/188	5	1720	250	205	60	36	93	86	225	560	545	30	327	24,3	81
5/2000/188	5	2000	250	205	60	36	93	86	225	620	605	30	385	28,2	91

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 200 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 150 bar [ton]
165	32,1
145	24,7
126	18,7
107	13,5
88	9,2
69	5,6



● available ○ not available

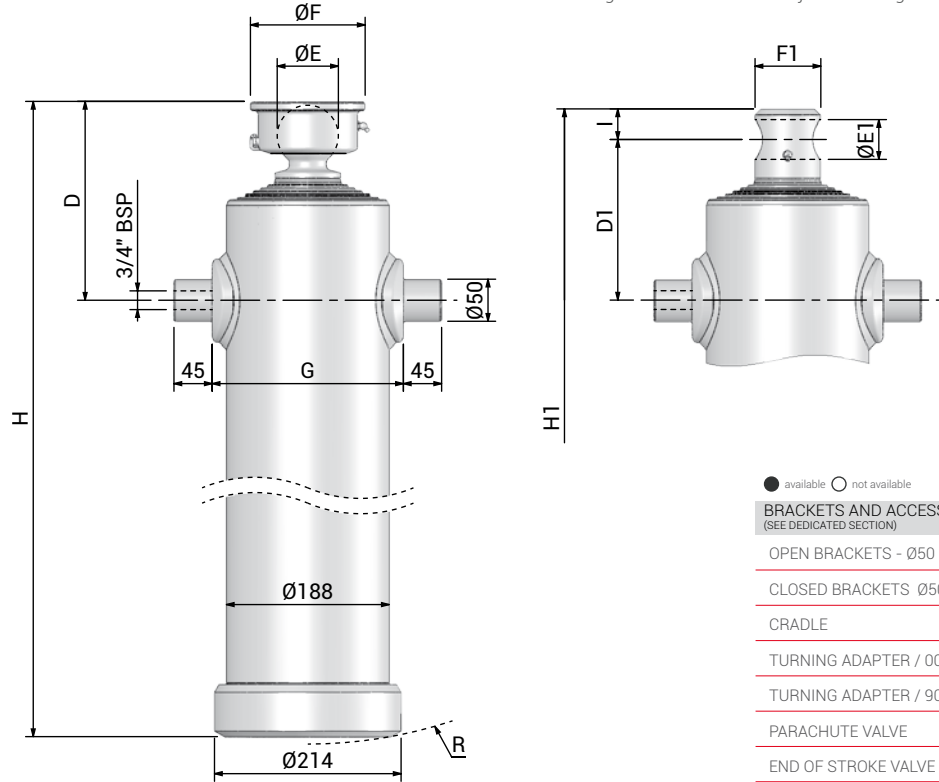
BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø50	●
CLOSED BRACKETS Ø50	●
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
6/1225/188	6	1225	250	210	60	36	93	67	225	420	408	28	201	15,7	64
6/1345/188	6	1345	250	210	60	36	93	67	225	440	428	28	218	16,9	69
6/1465/188	6	1465	250	210	60	36	93	67	225	460	448	28	236	18,3	70
6/1585/188	6	1585	250	210	60	36	93	67	225	480	468	28	254	19,9	74
6/1705/188	6	1705	250	210	60	36	93	67	225	500	488	28	272	21,3	78
6/1825/188	6	1825	250	210	60	36	93	67	225	520	508	28	290	22,8	80
6/2065/188	6	2065	250	210	60	36	93	67	225	560	548	28	327	25,8	86
6/2400/188	6	2400	250	210	60	36	93	67	225	620	608	28	385	29,9	94

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 200 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.



Stage Ø [mm]	Thrust at 150 bar [ton]
165	32,1
145	24,7
126	18,7
108	13,8
92	9,9
76	6,8
60	4,2



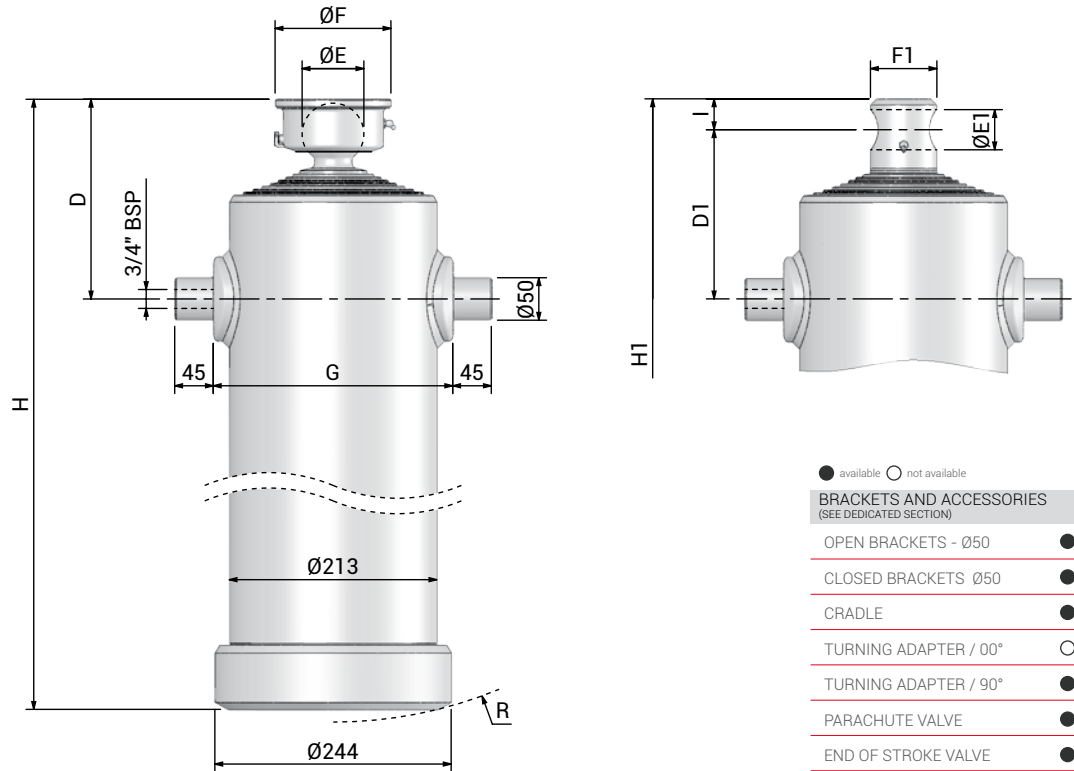
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BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø50	●
CLOSED BRACKETS Ø50	●
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
7/1430/188	7	1430	250	215	60	36	93	60	225	425	418	28	205	16,4	64
7/1570/188	7	1570	250	215	60	36	93	60	225	445	438	28	222	17,6	68
7/1710/188	7	1710	250	215	60	36	93	60	225	465	458	28	240	19,2	71
7/1850/188	7	1850	250	215	60	36	93	60	225	485	478	28	258	20,8	74
7/1990/188	7	1990	250	215	60	36	93	60	225	505	498	28	277	22,4	76
7/2130/188	7	2130	250	215	60	36	93	60	225	525	518	28	295	23,9	80
7/2410/188	7	2410	250	215	60	36	93	60	225	565	558	28	332	27,1	87
7/2800/188	7	2800	250	215	60	36	93	60	225	625	618	28	390	31,5	95

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 200 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 150 bar [ton]
187	41,2
165	32,1
145	24,7
126	18,7
107	13,5
88	9,2

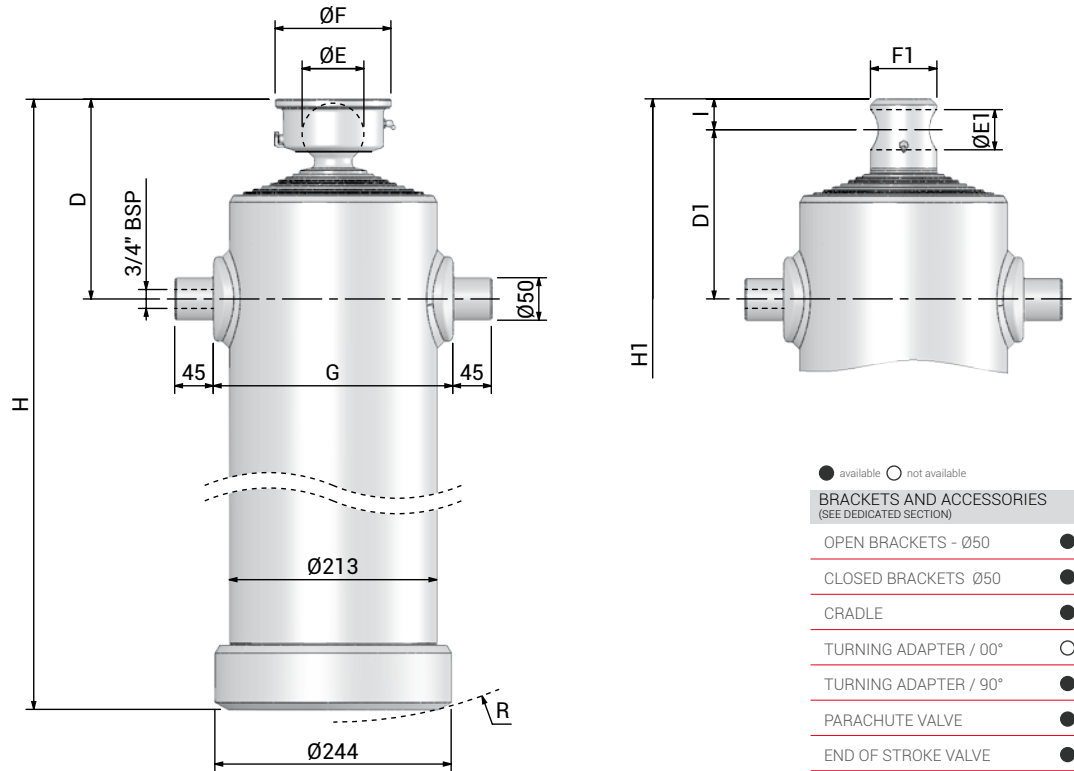


- available ○ not available
- BRACKETS AND ACCESSORIES**
(SEE DEDICATED SECTION)
- OPEN BRACKETS - Ø50 ●
 - CLOSED BRACKETS Ø50 ●
 - CRADLE ●
 - TURNING ADAPTER / 00° ○
 - TURNING ADAPTER / 90° ●
 - PARACHUTE VALVE ●
 - END OF STROKE VALVE ●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
6/1220/213	6	1220	250	205	60	36	93	86	250	425	410	30	213	20,8	80
6/1340/213	6	1340	250	205	60	36	93	86	250	445	430	30	230	22,3	84
6/1460/213	6	1460	250	205	60	36	93	86	250	465	450	30	247	24,3	88
6/1580/213	6	1580	250	205	60	36	93	86	250	485	470	30	264	26,3	92
6/1700/213	6	1700	250	205	60	36	93	86	250	505	490	30	282	28,3	95
6/1820/213	6	1820	250	205	60	36	93	86	250	525	510	30	301	30,3	100
6/2060/213	6	2060	250	205	60	36	93	86	250	565	550	30	338	34,2	107
6/2400/213	6	2400	250	205	60	36	93	86	250	625	610	30	394	39,8	118

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 200 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 150 bar [ton]
187	41,2
165	32,1
145	24,7
126	18,7
107	13,5
88	9,2
69	5,6



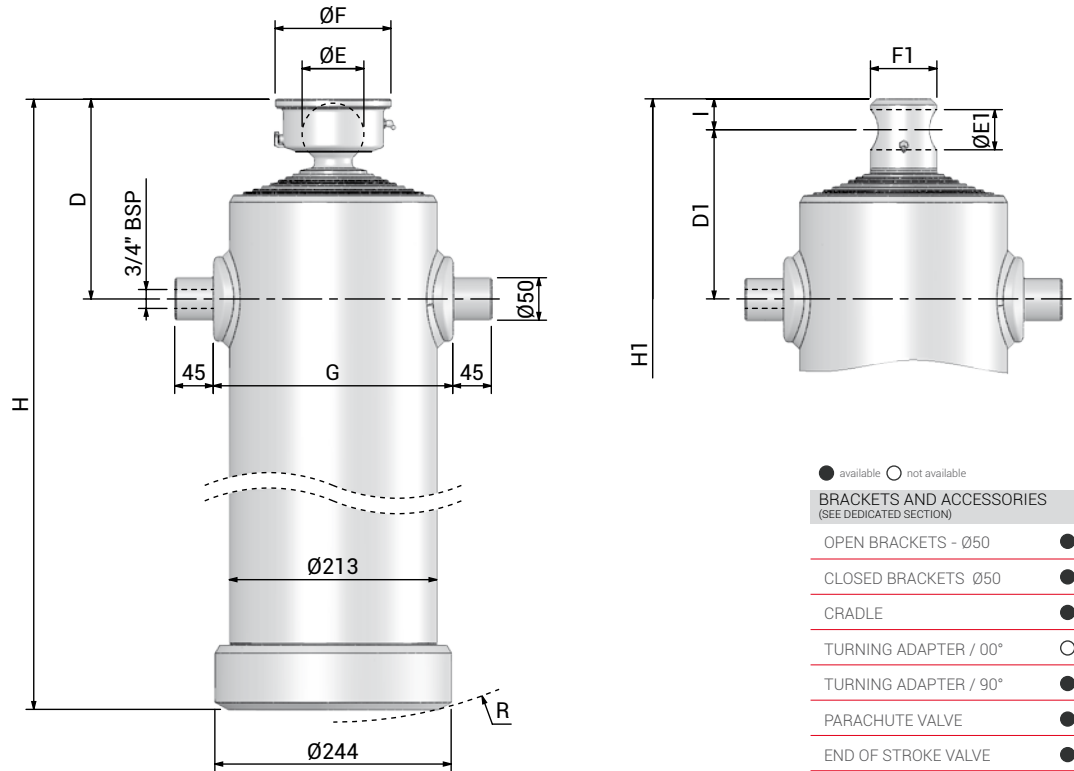
● available ○ not available

BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø50	●
CLOSED BRACKETS Ø50	●
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
7/1425/213	7	1425	250	210	60	36	93	67	250	425	413	28	213	21,7	83
7/1565/213	7	1565	250	210	60	36	93	67	250	445	433	28	230	23,3	90
7/1705/213	7	1705	250	210	60	36	93	67	250	465	453	28	247	25,3	92
7/1845/213	7	1845	250	210	60	36	93	67	250	485	473	28	264	27,4	95
7/1985/213	7	1985	250	210	60	36	93	67	250	505	493	28	282	29,5	100
7/2125/213	7	2125	250	210	60	36	93	67	250	525	513	28	301	31,6	104
7/2405/213	7	2405	250	210	60	36	93	67	250	565	553	28	338	35,7	112
7/2800/213	7	2800	250	210	60	36	93	67	250	625	613	28	394	41,5	124

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 200 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 150 bar [ton]
187	41,2
165	32,1
145	24,7
126	18,7
108	13,8
92	9,9
76	6,8
60	4,2

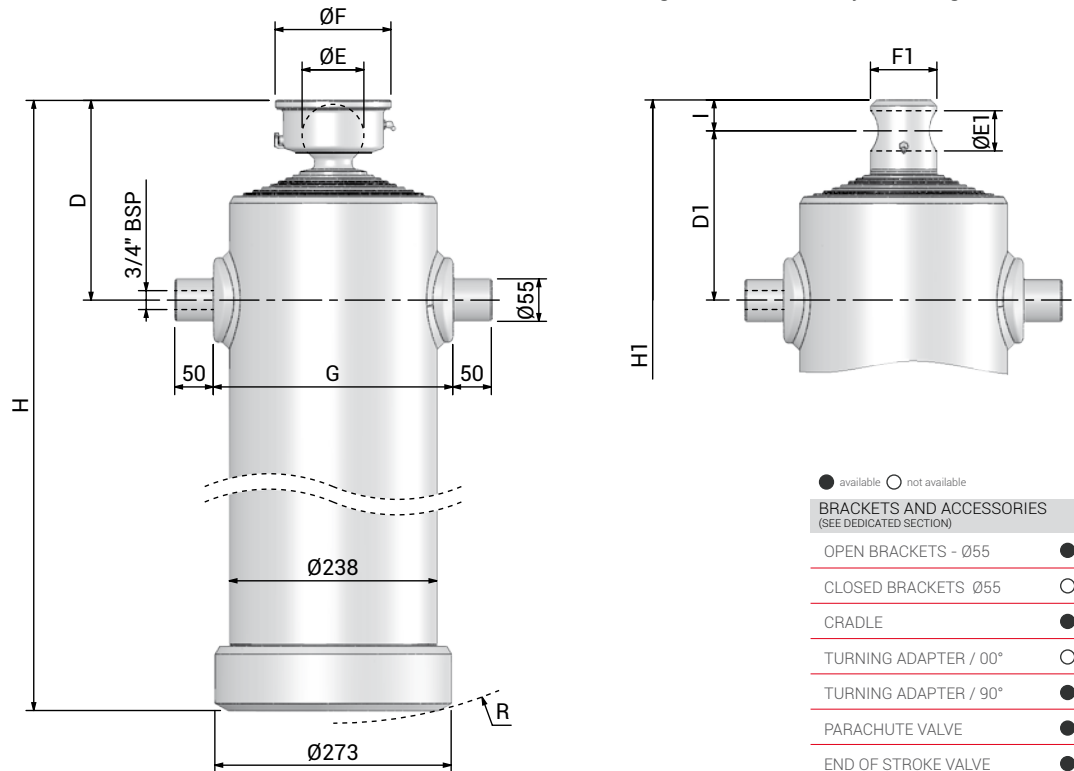


- available ○ not available
- BRACKETS AND ACCESSORIES**
(SEE DEDICATED SECTION)
- OPEN BRACKETS - Ø50 ●
 - CLOSED BRACKETS Ø50 ●
 - CRADLE ●
 - TURNING ADAPTER / 00° ○
 - TURNING ADAPTER / 90° ●
 - PARACHUTE VALVE ●
 - END OF STROKE VALVE ●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
8/1625/213	8	1625	250	215	60	36	93	60	250	435	428	28	222	21,7	85
8/1785/213	8	1785	250	215	60	36	93	60	250	455	448	28	239	23,9	89
8/1945/213	8	1945	250	215	60	36	93	60	250	485	468	28	256	26,0	93
8/2105/213	8	2105	250	215	60	36	93	60	250	495	488	28	273	28,2	96
8/2265/213	8	2265	250	215	60	36	93	60	250	515	508	28	292	30,4	100
8/2425/213	8	2425	250	215	60	36	93	60	250	535	528	28	310	32,6	106
8/2745/213	8	2745	250	215	60	36	93	60	250	575	568	28	347	36,9	112
8/3225/213	8	3225	250	215	60	36	93	60	250	635	628	28	404	43,4	126

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 200 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 135 bar [ton]
210	46,7
187	37,1
165	28,9
145	22,2
126	16,8
107	12,1



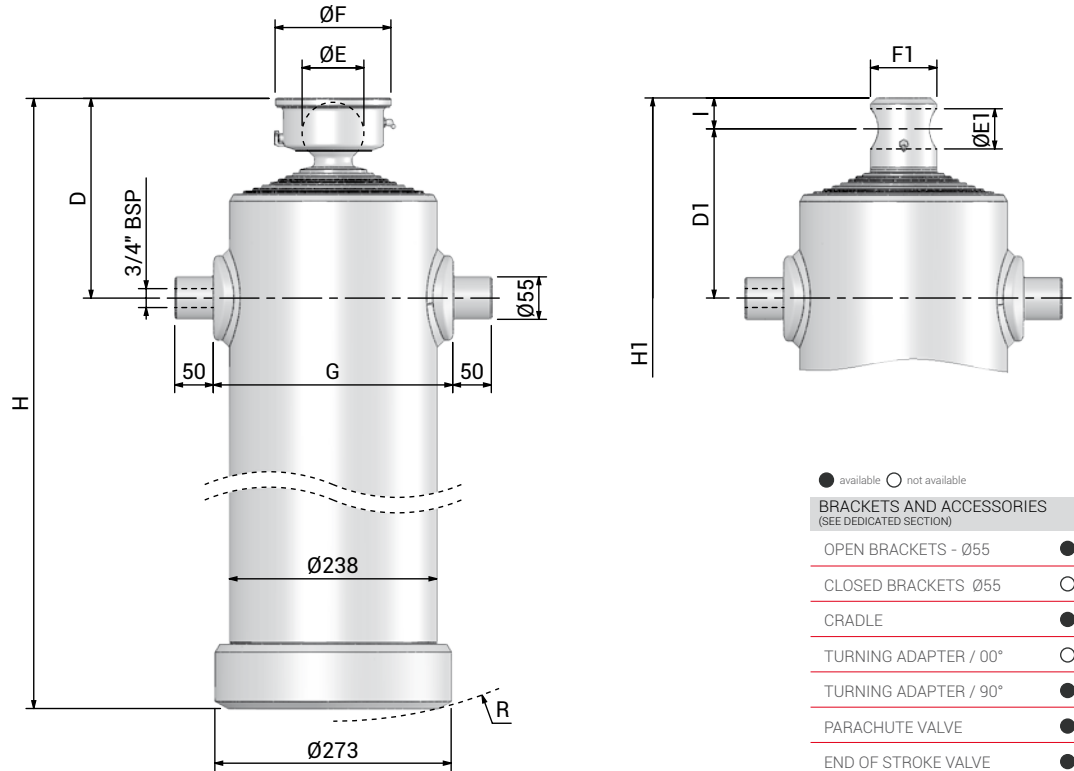
● available ○ not available

BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø55	●
CLOSED BRACKETS Ø55	○
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
6/1215/238	6	1215	250	205	68	45	110	105	275	435	425	35	220	24,6	106
6/1335/238	6	1335	250	205	68	45	110	105	275	455	445	35	237	27,0	109
6/1455/238	6	1455	250	205	68	45	110	105	275	475	465	35	255	29,4	113
6/1575/238	6	1575	250	205	68	45	110	105	275	495	485	35	273	31,9	117
6/1695/238	6	1695	250	205	68	45	110	105	275	515	505	35	291	34,3	122
6/1815/238	6	1815	250	205	68	45	110	105	275	535	525	35	309	36,7	127
6/2055/238	6	2055	250	205	68	45	110	105	275	575	565	35	337	41,6	138
6/2400/238	6	2400	250	205	68	45	110	105	275	635	625	35	403	48,6	152

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 170 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 135 bar [ton]
210	46,7
187	37,1
165	28,9
145	22,2
126	16,8
107	12,1
88	8,2



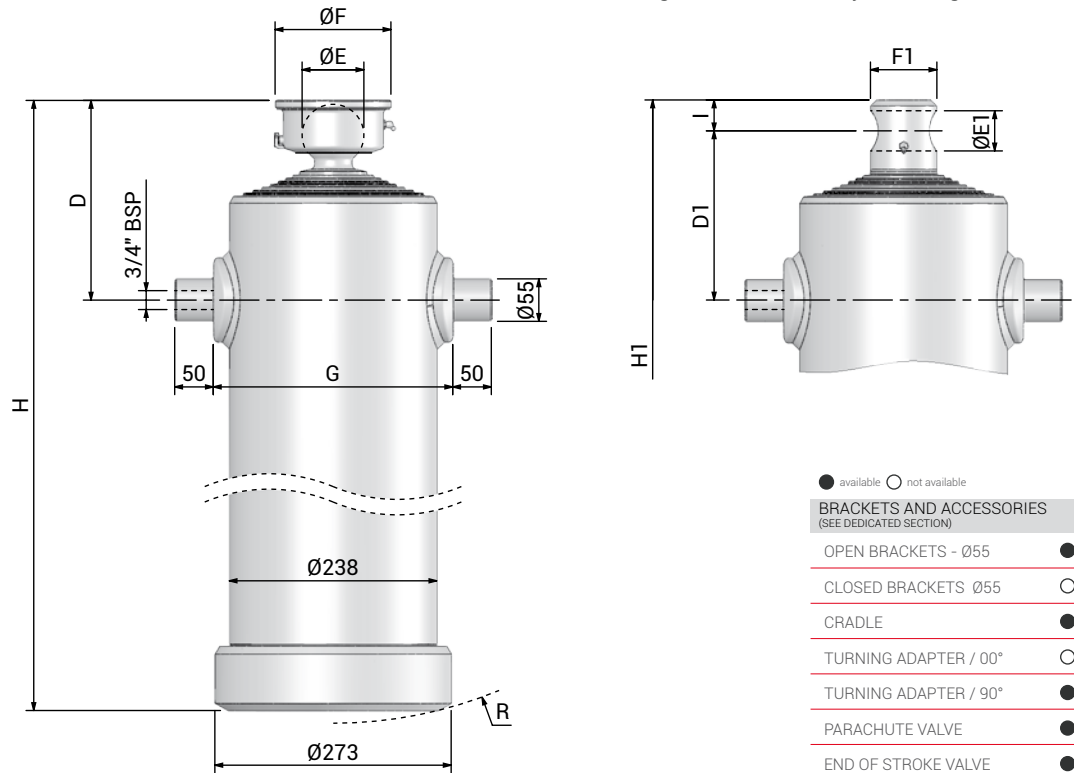
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BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø55	●
CLOSED BRACKETS Ø55	○
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
7/1420/238	7	1420	250	200	68	36	110	86	275	435	415	30	220	25,8	105
7/1560/238	7	1560	250	200	68	36	110	86	275	455	435	30	237	28,4	110
7/1700/238	7	1700	250	200	68	36	110	86	275	475	455	30	255	30,9	115
7/1840/238	7	1840	250	200	68	36	110	86	275	495	475	30	273	33,5	121
7/1980/238	7	1980	250	200	68	36	110	86	275	515	495	30	291	36,1	126
7/2120/238	7	2120	250	200	68	36	110	86	275	535	515	30	309	38,6	130
7/2400/238	7	2400	250	200	68	36	110	86	275	575	555	30	337	43,7	141
7/2800/238	7	2800	250	200	68	36	110	86	275	635	615	30	403	51,0	156

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 170 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 135 bar [ton]
210	46,7
187	37,1
165	28,9
145	22,2
126	16,8
107	12,1
88	8,2
69	5,0



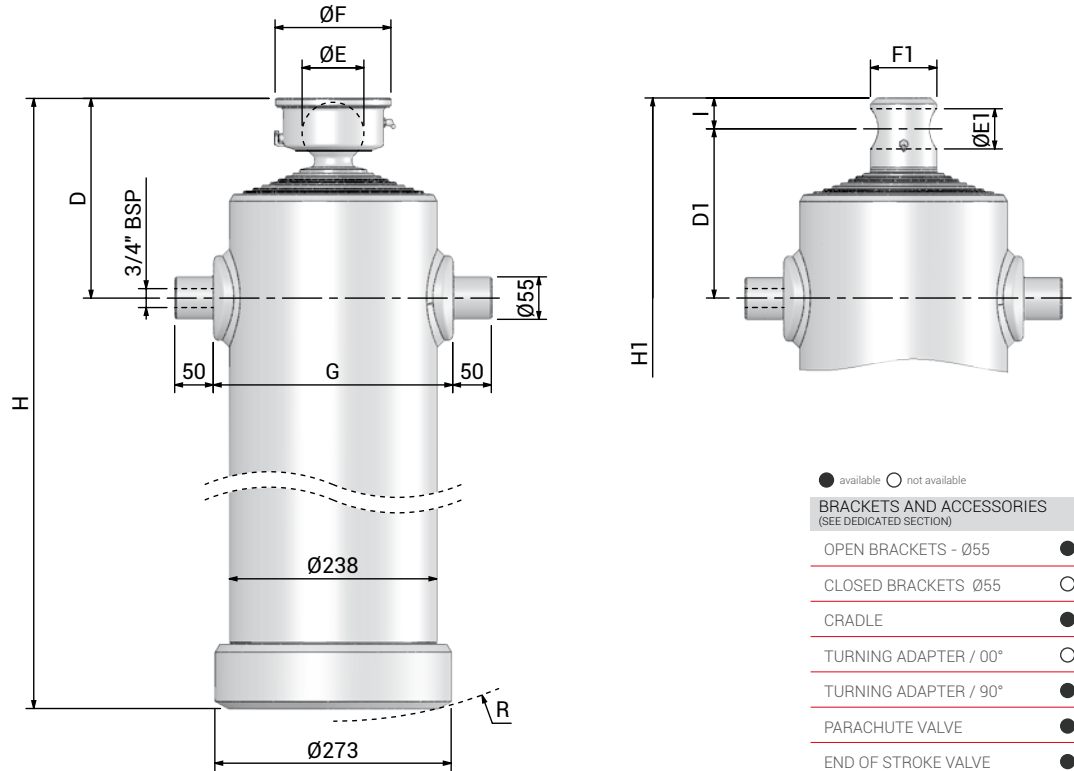
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BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø55	●
CLOSED BRACKETS Ø55	○
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
8/1595/238	8	1595	250	205	68	36	110	67	275	440	423	28	234	26,1	108
8/1755/238	8	1755	250	205	68	36	110	67	275	460	443	28	250	28,8	113
8/1915/238	8	1915	250	205	68	36	110	67	275	480	463	28	267	31,4	118
8/2075/238	8	2075	250	205	68	36	110	67	275	500	483	28	285	34,0	123
8/2235/238	8	2235	250	205	68	36	110	67	275	520	503	28	303	36,7	129
8/2395/238	8	2395	250	205	68	36	110	67	275	540	523	28	321	39,3	134
8/2715/238	8	2715	250	205	68	36	110	67	275	580	563	28	357	44,5	146
8/3170/238	8	3170	250	205	68	36	110	67	275	640	623	28	413	52,0	160

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 170 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 135 bar [ton]
210	46,7
187	37,1
165	28,9
145	22,2
126	16,8
108	12,4
92	8,9
76	6,1
60	4,1



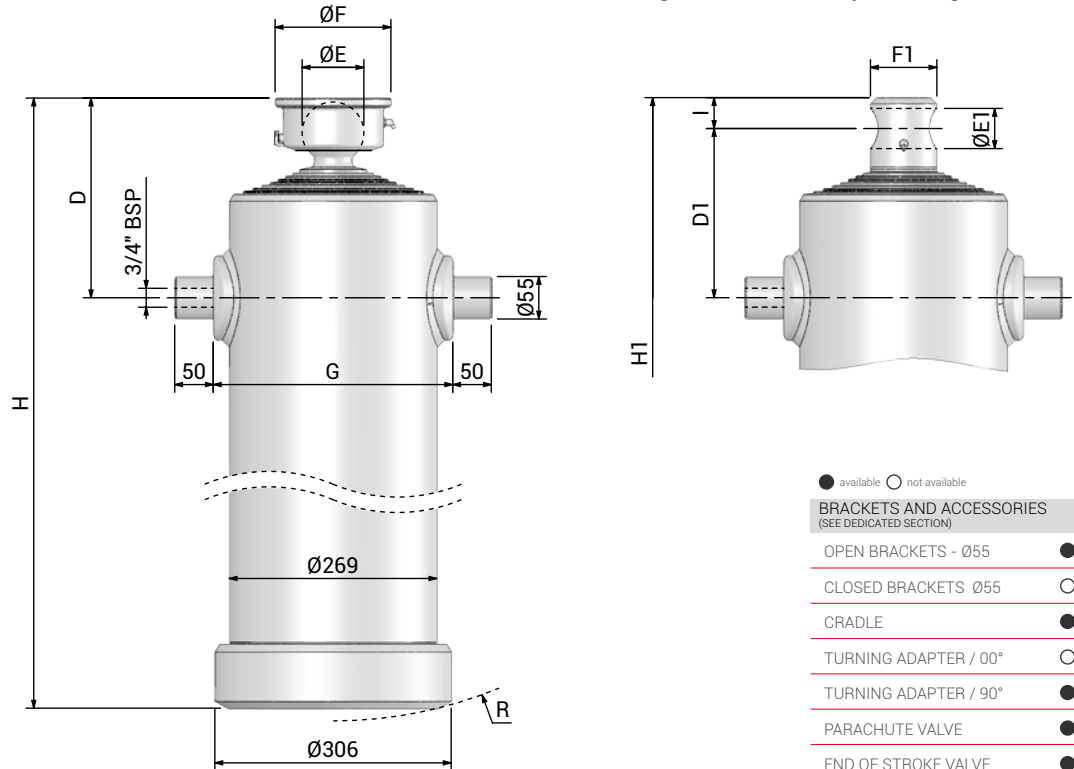
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BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø55	●
CLOSED BRACKETS Ø55	○
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
9/1825/238	9	1825	250	215	60	36	93	60	275	440	433	28	234	27,5	105
9/2005/238	9	2005	250	215	60	36	93	60	275	460	453	28	250	30,2	112
9/2185/238	9	2185	250	215	60	36	93	60	275	480	473	28	267	32,9	118
9/2365/238	9	2365	250	215	60	36	93	60	275	500	493	28	285	35,6	121
9/2545/238	9	2545	250	215	60	36	93	60	275	520	513	28	303	38,3	125
9/2725/238	9	2725	250	215	60	36	93	60	275	540	533	28	321	41,0	134
9/3085/238	9	3085	250	215	60	36	93	60	275	580	573	28	357	46,5	144
9/3625/238	9	3625	250	215	60	36	93	60	275	640	633	28	413	54,6	166

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 170 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 135 bar [ton]
236	59
210	46,7
187	37,1
165	28,9
145	22,2
126	16,8



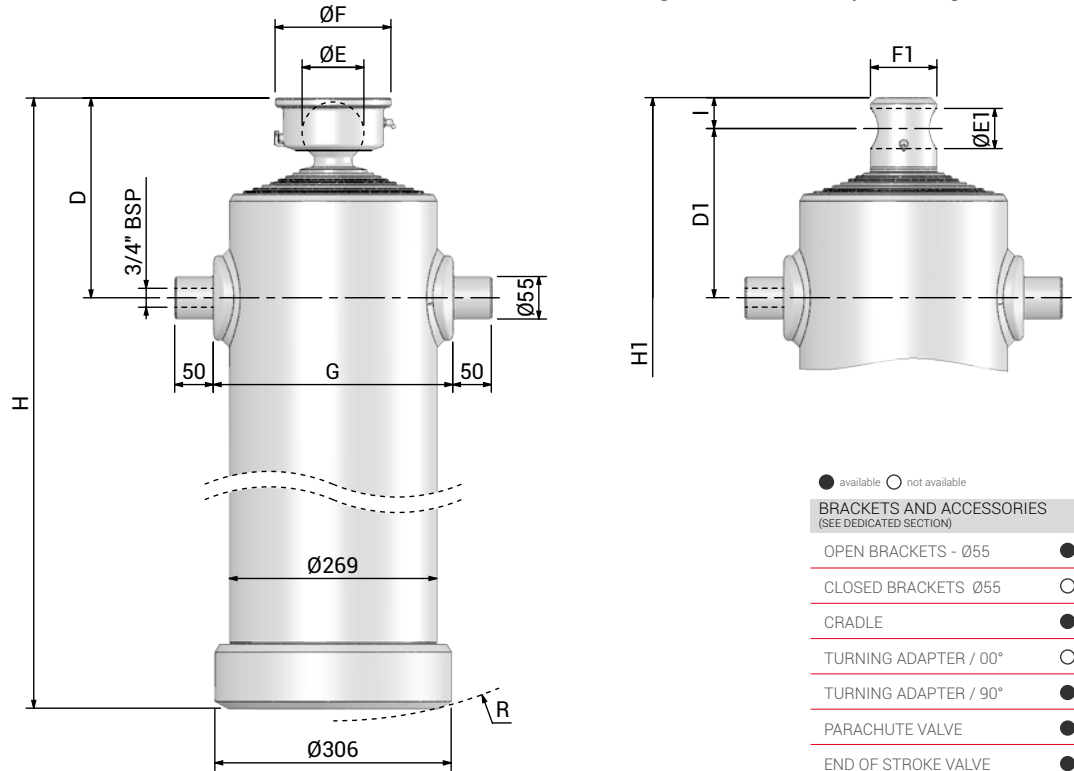
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BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø55	●
CLOSED BRACKETS Ø55	○
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
6/1210/269	6	1210	250	225	68	45	110	85	310	440	450	35	244	31,5	130
6/1330/269	6	1330	250	225	68	45	110	85	310	460	470	35	260	34,6	138
6/1450/269	6	1450	250	225	68	45	110	85	310	480	490	35	276	37,7	144
6/1570/269	6	1570	250	225	68	45	110	85	310	500	510	35	293	40,8	153
6/1690/269	6	1690	250	225	68	45	110	85	310	520	530	35	310	44,0	157
6/1810/269	6	1810	250	225	68	45	110	85	310	540	550	35	328	47,1	162
6/2050/269	6	2050	250	225	68	45	110	85	310	580	590	35	364	53,3	176
6/2400/269	6	2400	250	225	68	45	110	85	310	640	650	35	419	62,5	194

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 170 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 135 bar [ton]
236	59
210	46,7
187	37,1
165	28,9
145	22,2
126	16,8
107	12,1



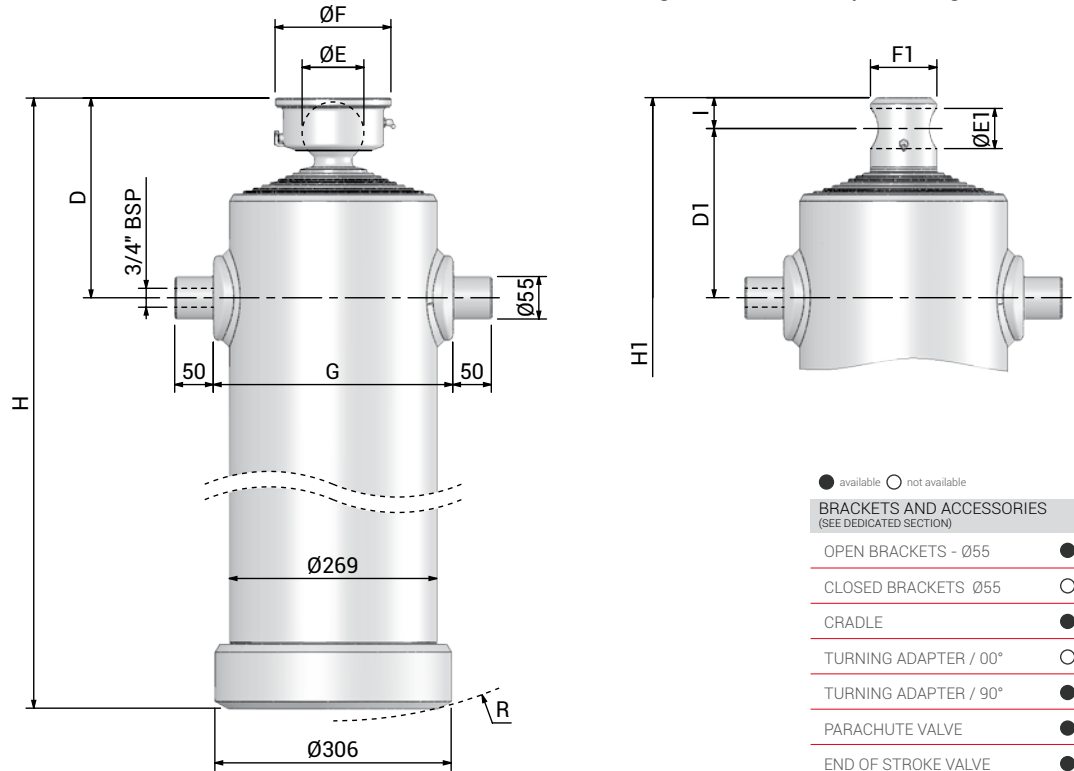
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BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø55	●
CLOSED BRACKETS Ø55	○
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
7/1415/269	7	1415	250	205	68	45	110	105	310	445	435	35	248	33,4	136
7/1555/269	7	1555	250	205	68	45	110	105	310	465	455	35	264	36,7	142
7/1695/269	7	1695	250	205	68	45	110	105	310	485	475	35	280	40,0	147
7/1835/269	7	1835	250	205	68	45	110	105	310	505	495	35	297	43,3	155
7/1975/269	7	1975	250	205	68	45	110	105	310	525	515	35	315	46,6	161
7/2115/269	7	2115	250	205	68	45	110	105	310	545	535	35	332	49,9	178
7/2395/269	7	2395	250	205	68	45	110	105	310	585	575	35	368	56,5	178
7/2800/269	7	2800	250	205	68	45	110	105	310	645	635	35	424	66,1	200

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 170 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 135 bar [ton]
236	59
210	46,7
187	37,1
165	28,9
145	22,2
126	16,8
107	12,1
88	8,2



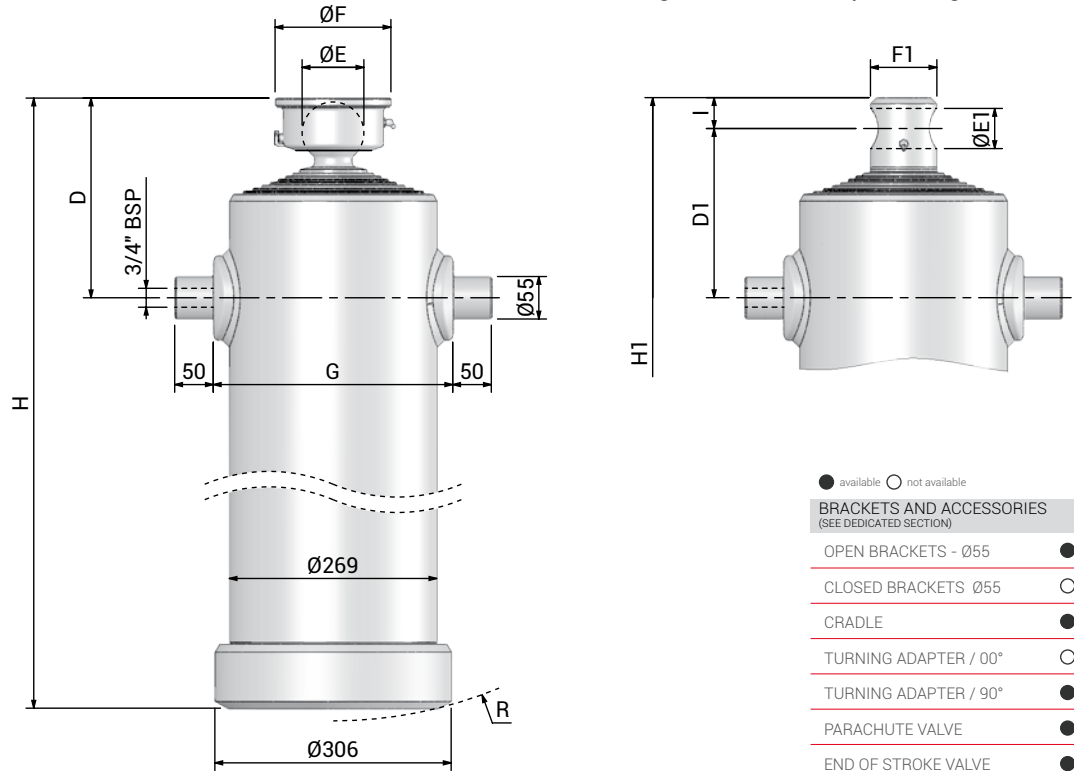
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BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø55	●
CLOSED BRACKETS Ø55	○
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
8/1620/269	8	1620	250	200	68	36	110	86	310	445	425	30	248	34,7	135
8/1780/269	8	1780	250	200	68	36	110	86	310	465	445	30	264	38,1	143
8/1940/269	8	1940	250	200	68	36	110	86	310	485	465	30	280	41,5	148
8/2100/269	8	2100	250	200	68	36	110	86	310	505	485	30	297	44,9	156
8/2260/269	8	2260	250	200	68	36	110	86	310	525	505	30	315	48,4	163
8/2420/269	8	2420	250	200	68	36	110	86	310	545	525	30	332	51,8	169
8/2740/269	8	2740	250	200	68	36	110	86	310	585	565	30	368	58,6	184
8/3200/269	8	3200	250	200	68	36	110	86	310	645	625	30	424	68,5	201

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 170 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 135 bar [ton]
236	59
210	46,7
187	37,1
165	28,9
145	22,2
126	16,8
107	12,1
88	8,2
69	5,0



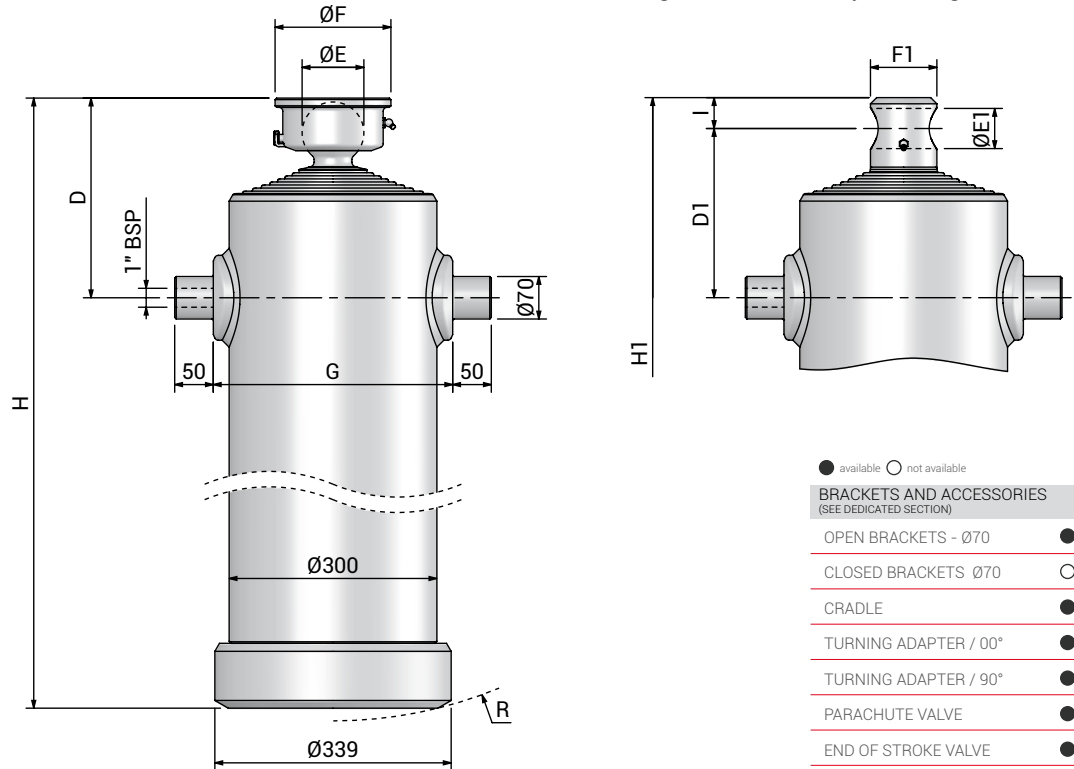
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BRACKETS AND ACCESSORIES (SEE DEDICATED SECTION)	
OPEN BRACKETS - Ø55	●
CLOSED BRACKETS Ø55	○
CRADLE	●
TURNING ADAPTER / 00°	○
TURNING ADAPTER / 90°	●
PARACHUTE VALVE	●
END OF STROKE VALVE	●

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
9/1795/269	9	1795	250	205	68	36	110	67	310	450	433	28	252	34,9	138
9/1975/269	9	1975	250	205	68	36	110	67	310	470	453	28	268	38,4	145
9/2155/269	9	2155	250	205	68	36	110	67	310	490	473	28	285	41,9	151
9/2335/269	9	2335	250	205	68	36	110	67	310	510	493	28	302	45,4	159
9/2515/269	9	2515	250	205	68	36	110	67	310	530	513	28	319	48,9	168
9/2695/269	9	2695	250	205	68	36	110	67	310	550	533	28	337	52,4	175
9/3055/269	9	3055	250	205	68	36	110	67	310	590	573	28	373	59,4	188
9/3570/269	9	3570	250	205	68	36	110	67	310	650	633	28	428	69,4	208

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 170 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 135 bar [ton]
265	68,9
236	54,7
210	43,3
187	34,3
165	26,7
145	20,6
126	15,6



● available ○ not available

BRACKETS AND ACCESSORIES
(SEE DEDICATED SECTION)

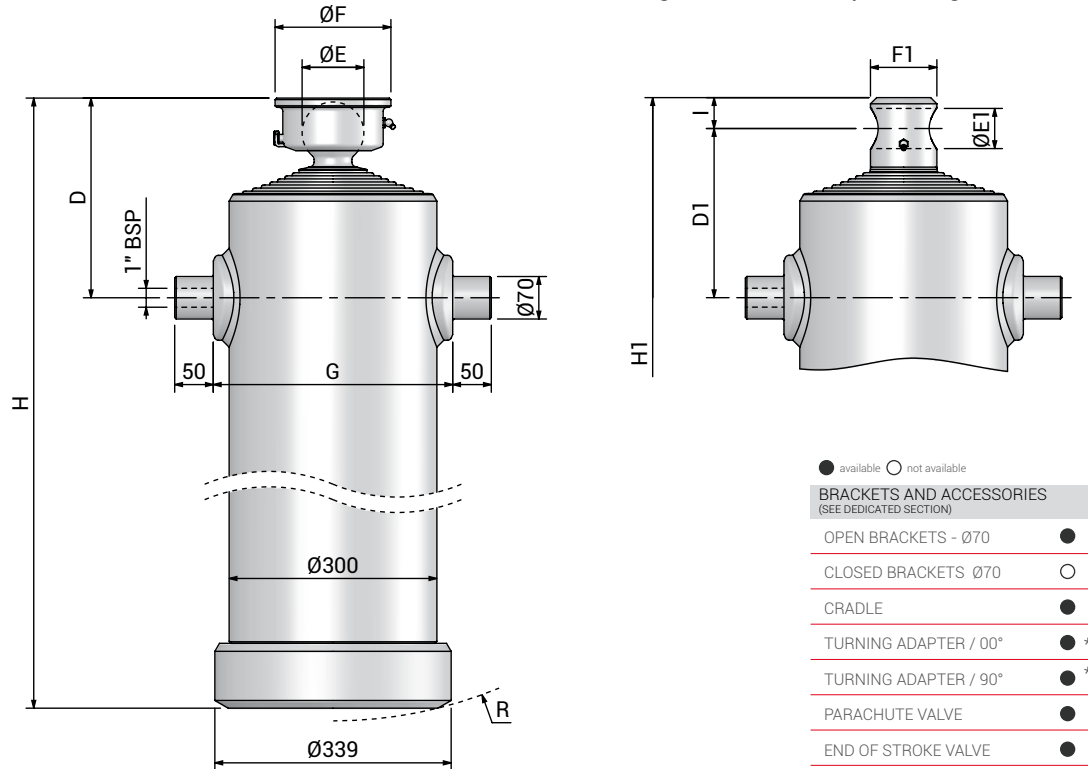
OPEN BRACKETS - Ø70	●
CLOSED BRACKETS Ø70	○
CRADLE	●
TURNING ADAPTER / 00°	● *
TURNING ADAPTER / 90°	● *
PARACHUTE VALVE	●
END OF STROKE VALVE	●

* Turning adapter is mandatory item

DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
7/1410/300	7	1410	250	215	80	45	150	85	340	455	455	35	266	42,5	167
7/1550/300	7	1550	250	215	80	45	150	85	340	475	475	35	282	46,8	175
7/1690/300	7	1690	250	215	80	45	150	85	340	495	495	35	298	51,0	187
7/1830/300	7	1830	250	215	80	45	150	85	340	515	515	35	315	55,2	195
7/1970/300	7	1970	250	215	80	45	150	85	340	535	535	35	332	59,5	161
7/2110/300	7	2110	250	215	80	45	150	85	340	555	555	35	349	63,7	209
7/2390/300	7	2390	250	215	80	45	150	85	340	595	595	35	384	72,1	226
7/2800/300	7	2800	250	215	80	45	150	85	340	655	655	35	439	84,5	250
7/4235/300	7	4235	250	215	80	45	150	85	340	910	910	35	681	127,8	363
7/4515/300	7	4515	250	215	80	45	150	85	340	960	960	35	730	136,3	380
7/5075/300	7	5075	250	215	80	45	150	85	340	1060	1060	35	828	153,2	417

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 150 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

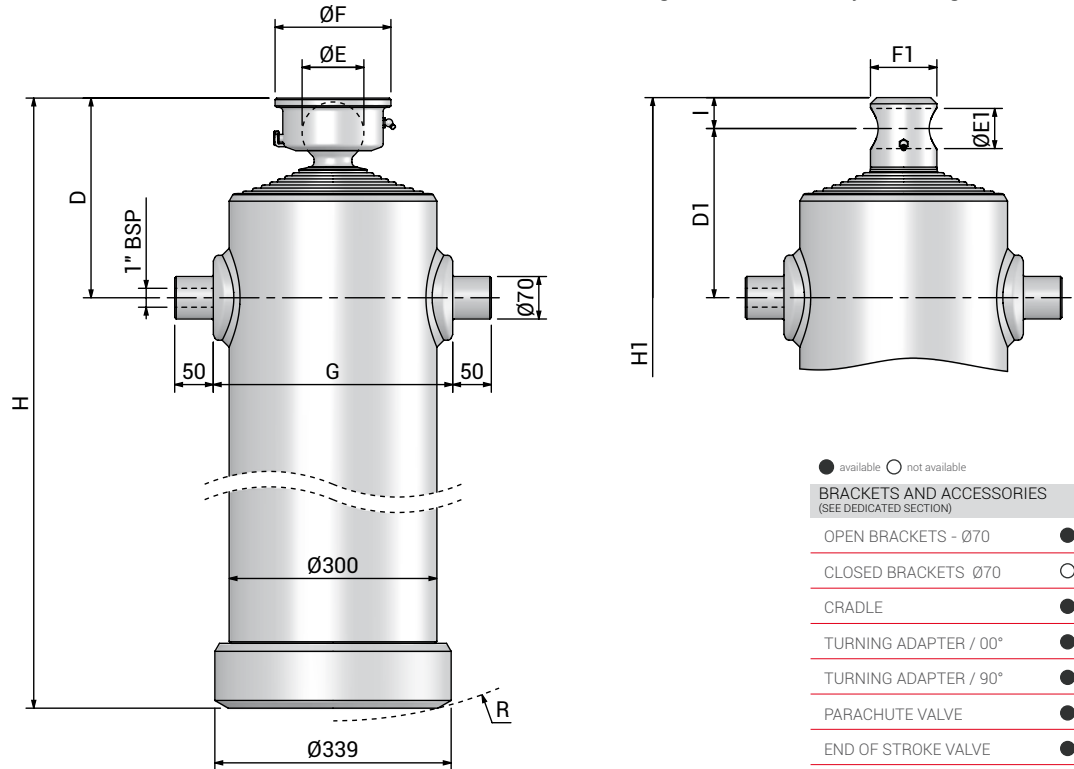
Stage Ø [mm]	Thrust at 135 bar [ton]
265	69,9
236	54,7
210	43,3
187	34,3
165	26,7
145	20,6
126	15,6
107	11,2



DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
8/1615/300	8	1615	250	205	68	45	110	105	340	455	445	35	266	44,5	171
8/1775/300	8	1775	250	205	68	45	110	105	340	475	465	35	282	48,9	180
8/1935/300	8	1935	250	205	68	45	110	105	340	495	485	35	298	53,3	186
8/2095/300	8	2095	250	205	68	45	110	105	340	515	505	35	315	57,7	195
8/2255/300	8	2255	250	205	68	45	110	105	340	535	525	35	332	62,1	202
8/2415/300	8	2415	250	205	68	45	110	105	340	555	545	35	349	66,5	211
8/2735/300	8	2735	250	205	68	45	110	105	340	595	585	35	384	75,3	228
8/3200/300	8	3200	250	205	68	45	110	105	340	655	645	35	439	88,1	252

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 150 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.

Stage Ø [mm]	Thrust at 135 bar [ton]
265	68,9
236	54,7
210	43,3
187	34,3
165	26,7
145	20,6
126	15,6
107	11,2
88	7,6



- available ○ not available
- BRACKETS AND ACCESSORIES**
(SEE DEDICATED SECTION)
- OPEN BRACKETS - Ø70 ●
 - CLOSED BRACKETS Ø70 ○
 - CRADLE ●
 - TURNING ADAPTER / 00° ● *
 - TURNING ADAPTER / 90° ● *
 - PARACHUTE VALVE ●
 - END OF STROKE VALVE ●
- * Turning adapter is mandatory item

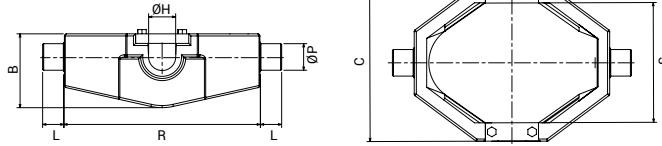
DESCRIPTION	STAGES	STROKE [mm]	D [mm]	D1 [mm]	Ø E [mm]	Ø E1 [mm]	Ø F [mm]	F1 [mm]	G [mm]	H [mm]	H1 [mm]	I [mm]	R [mm]	VOL [L]	WEIGHT [kg]
9/1795/300	9	1795	250	200	68	36	110	86	340	455	435	30	266	45,1	172
9/1975/300	9	1975	250	200	68	36	110	86	340	475	455	30	282	49,7	181
9/2155/300	9	2155	250	200	68	36	110	86	340	495	475	30	298	54,2	190
9/2335/300	9	2335	250	200	68	36	110	86	340	515	495	30	315	58,7	198
9/2515/300	9	2515	250	200	68	36	110	86	340	535	515	30	332	63,3	205
9/2695/300	9	2695	250	200	68	36	110	86	340	555	535	30	349	67,8	216
9/3055/300	9	3055	250	200	68	36	110	86	340	595	575	30	384	76,8	230
9/3575/300	9	3575	250	200	68	36	110	86	340	655	635	30	439	89,9	261

The application of a telescopic cylinder is to lift up tipping bodies, loaded with different materials, in order to discharge this material during its extension. • This cylinder is designed as a lifting device only for loads along the longitudinal axis. • It must not be used as a structural member or be subject to side load. • Hydraulic oil temperature allowable range between -40°C and +80°C. Chromed thickness: minimum 20 µm • For standard version, max. duration of extension is 2 hrs. • Cylinder is painted gray (RAL 7021) with a thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO 10289, rating 9). • The max tipping weight that can be raised by the cylinder is the body weight plus the max payload. This value, calculated at the max pressure, is a rough indication of the tipping power of the cylinder and must be used as a first criteria for the selection of the cylinder. • The real tipping mass can only be calculated by the design engineer of the dump truck, and must take into account the geometry of the dump body and operating conditions. • Never exceed maximum cylinder load. • Never exceed maximum pressure. • Maximum working pressure 150 bar. • For Pump flow selection, contact the Binotto Technical Department. • Keep always 2 mm clearance between each bracket and cylinder to avoid friction. The cylinder must always be sold together with Quick Instructions (QI) and User Manual (MU). Make sure they are included and check them carefully before installation, usage, service or repair.



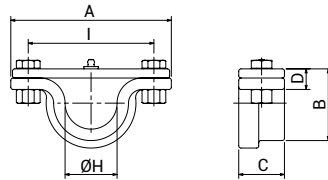
BRACKETS AND ACCESSORIES

CRADLES



SHORT CODE	B [mm]	C [mm]	ØH [mm]	L [mm]	ØP [mm]	R [mm]	S [mm]	APPLICATION
CUL#AE	126	279	46	40	45	280	207	Ø168 series
CUL#C6	139	295	51	40	50	370	226	Ø188 series
CUL#C7	139	335	51	55	50	384	251	Ø213 series
CUL#C8	175	364	56	55	55	460	281	Ø238 series
CUL#C9	175	394	56	55	55	460	310	Ø269 series
CUL#CQ	280	408	71	50	70	570	342	Ø300 series

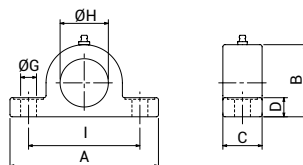
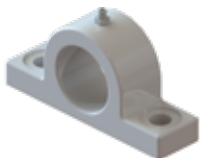
OPEN BRACKETS



Note: upper plate, greaser, bolts&nuts included

SHORT CODE	A [mm]	B [mm]	C [mm]	D [mm]	ØH [mm]	I [mm]	APPLICATION
SU#AA	145	56	40	20	40.5	110	Ø40 pin
SU#AB	145	58	40	20	45.5	110	Ø45 pin
SU#AC	188	63	56	25	50.5	115	Ø50 pin
SU#AD	185	77	56	25	55.5	115	Ø55 pin
SU#AE	210	104	59	29.5	70.5	147	Ø70 pin

CLOSED BRACKETS

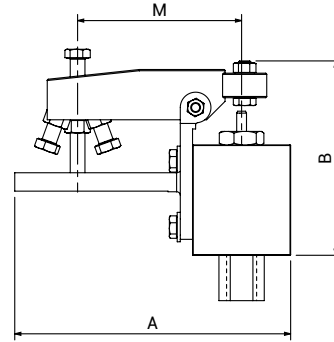
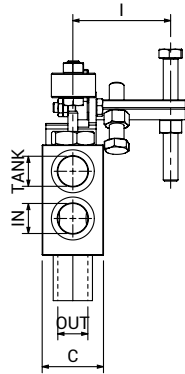
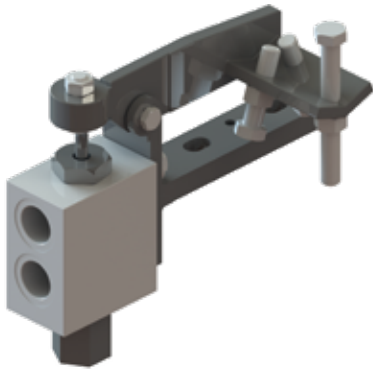


SHORT CODE	A [mm]	B [mm]	C [mm]	D [mm]	ØG [mm]	ØH [mm]	I [mm]	APPLICATION
SU#CB	140	68	37	18	15	40.5	105	Ø40 pin
SU#CC	140	68	37	18	15	45.5	105	Ø45 pin
SU#CD	140	68	37	18	15	50.5	105	Ø50 pin



BRACKETS AND ACCESSORIES

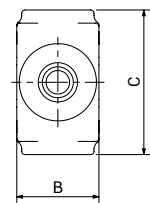
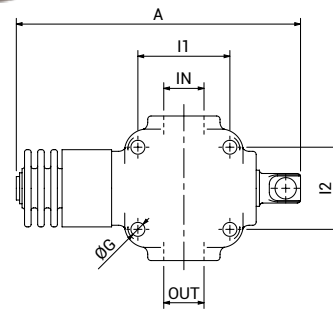
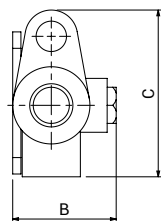
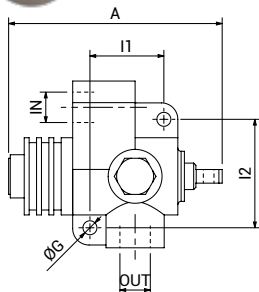
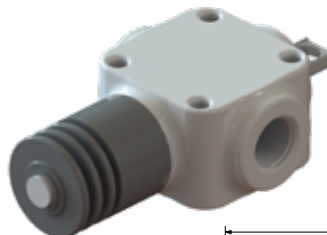
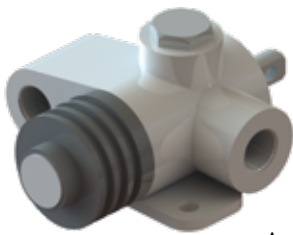
3 - WAY END-OF-STROKE VALVE



SHORT CODE	A [mm]	B [mm]	C [mm]	I [mm]	M [mm]	IN/OUT TANK	APPLICATION
VLV_FC_3/4-80	230	156	50	80	136	3/4" BSP	ø188 and ø213 series
VLV_FC_3/4-100	230	156	50	100	136	3/4" BSP	ø238 and ø269 series

Note: cylinder must be modified and mounted with special cradle

1-WAY, 3-WAY END-OF-STROKE VALVE



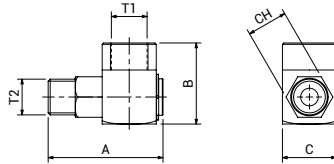
SHORT CODE	A [mm]	B [mm]	C [mm]	ØG [mm]	I1 [mm]	I2 [mm]	IN/OUT	APPLICATION
VLV_FC_1/2-CRD_01	130	68	103	8,5	45	66	1/2" BSP	light/medium duty
VLV_FC_3/4-CRD_02	173	50	92	8,5	56	50	3/4" BSP	heavy duty

Note: spring included



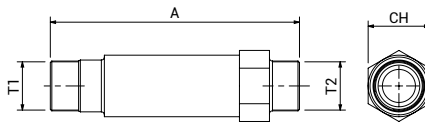
BRACKETS AND ACCESSORIES

TURNING ADAPTER - 90°



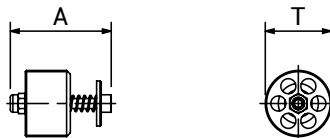
SHORT CODE	A [mm]	B [mm]	C [mm]	CH [mm]	T1	T2	REMARKS
RSN#90ABXBC0	85	60	40	30	3/4" BSP	1/2" BSP	
RSN#90ACXBC0	85	60	40	30	3/4" BSP	3/4" BSP	
RSN#90ADXBD0	80	62	40	--	1" BSP	1" BSP	mandatory for Ø300 series

TURNING ADAPTER - 00°



SHORT CODE	A [mm]	CH [mm]	T1	T2	REMARKS
RSN#00ADXAD1	166	41	1" BSP	1" BSP	mandatory for Ø300 series

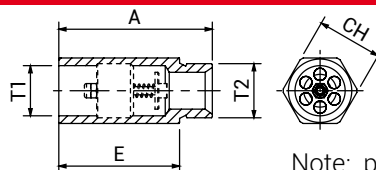
PARACHUTE VALVE



Note: preset for 150 l/min max flow rate

SHORT CODE	A [mm]	T [mm]	APPLICATION
VLV_PRC_1/2-0	29	1/2" BSP	1/2" BSP
VLV_PRC_3/4-0	34	3/4" BSP	3/4" BSP

PARACHUTE VALVE ADAPTER



Note: parachute valve and dawty washers not included

SHORT CODE	A [mm]	E [mm]	T1	T2	APPLICATION
RID#00ABXBBG	62	48	1/2" BSP	1/2" BSP	1/2" BSP
RID#00ACXBCG	75	59	3/4" BSP	3/4" BSP	3/4" BSP



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