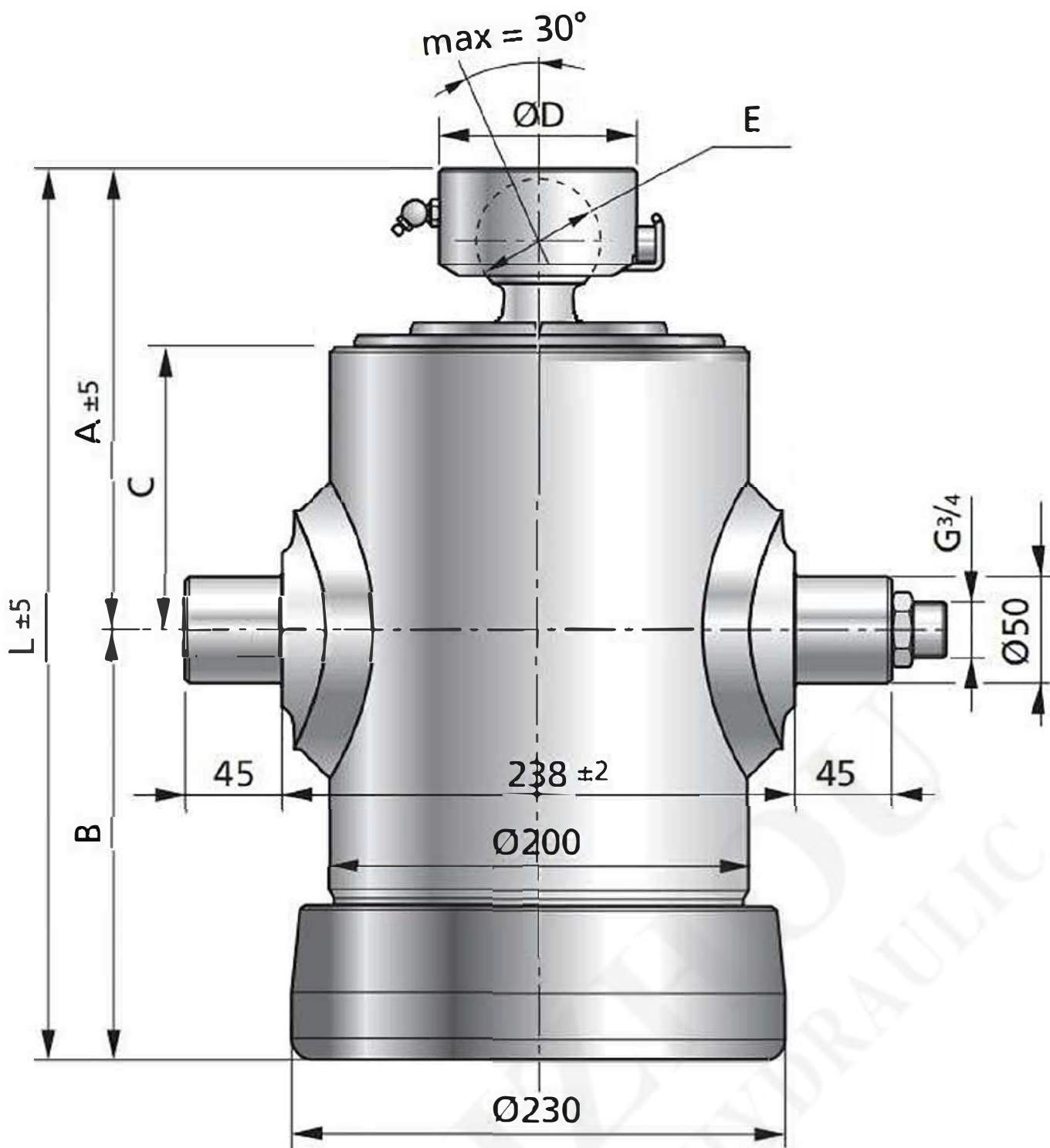


L 174

EFFECTIVE DIAMET (mm) 174•154•135•120•105•90•75•60

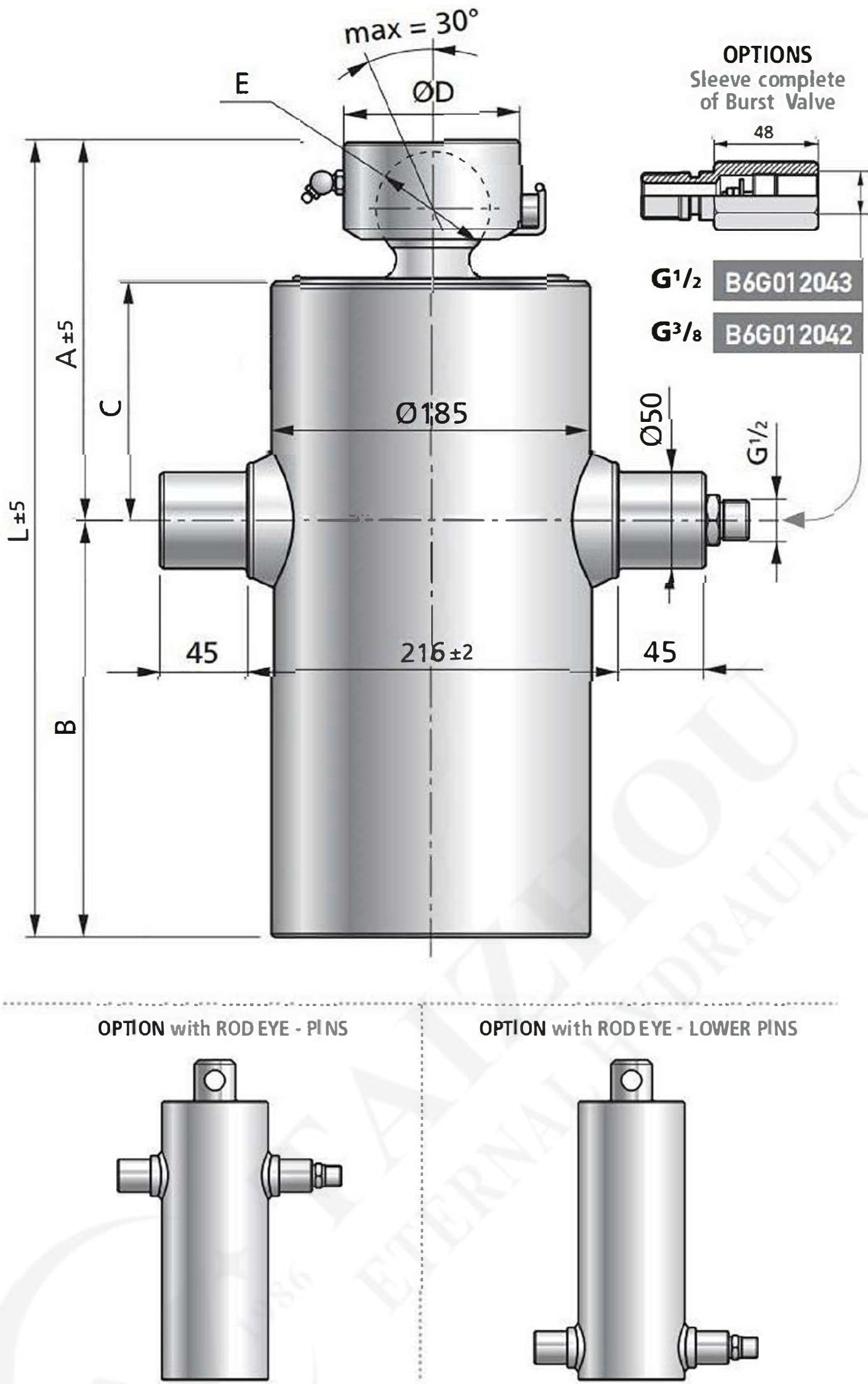


L 174 TECHNICAL DATA

MODEL	EXTENSION N.	POWER STROKE [mm]	MASS [kg]	WORKING VOLUME [dm³]	MAX. WORKING PRESSURE [bar]	TIPPING CAPACITY [ton]	L	A	B [mm]	C	D	E
BL300 1796 174 8	8	1796	78	20,1	180	14-24	417	216	201	133	92	58
BL300 1569 174 7	7	1569	81	19,5	180	17-28	417	216	201	133	92	58
BL300 1345 174 6	6	1345	74	18,5	180	18-30	417	216	201	133	92	58

L 160

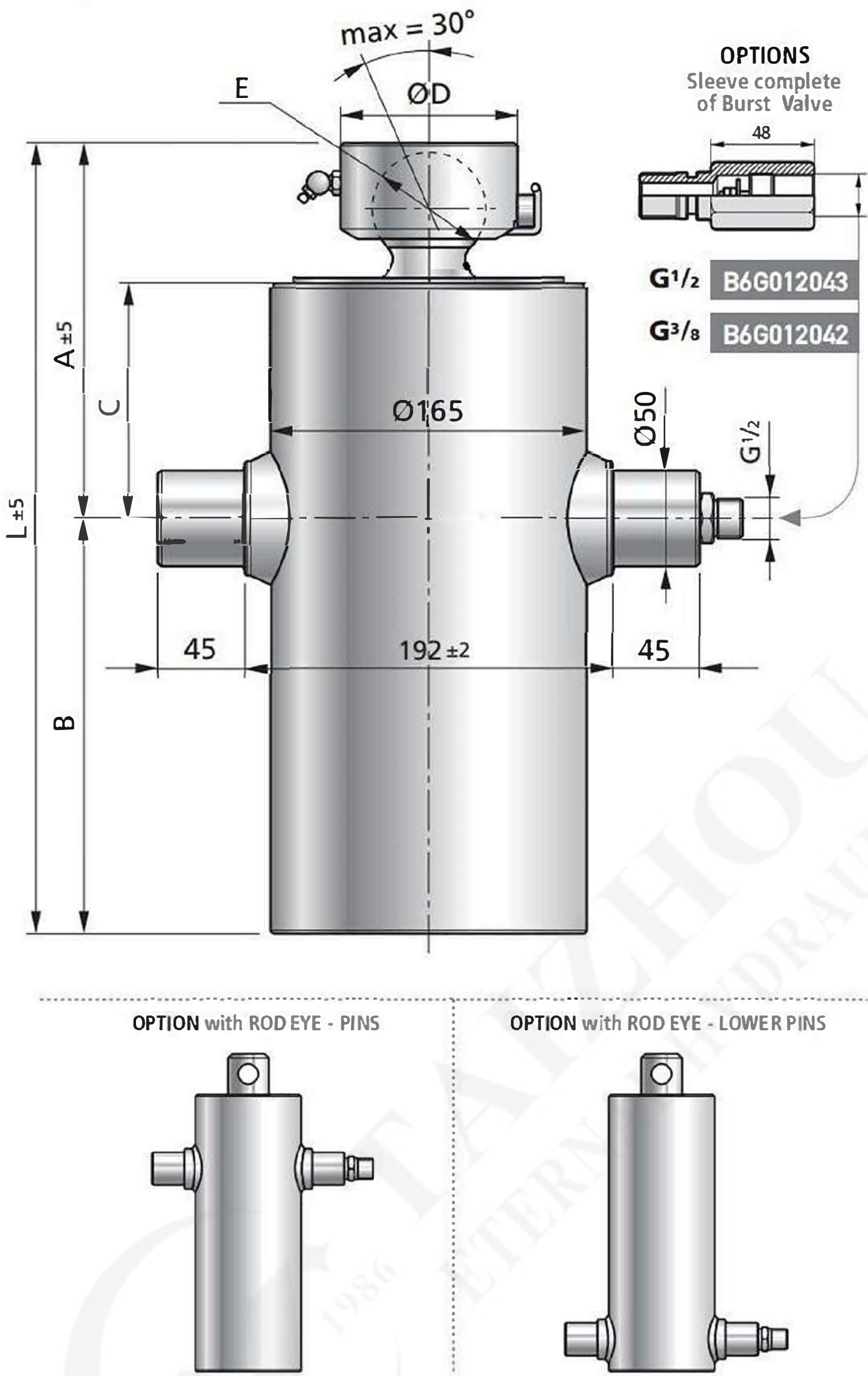
EFFECTIVE DIAMET (mm) 160•140•120•105•90•75•60



L 160 TECHNICAL DATA													
MODEL	CODE	EXTENSION N.	POWER STROKE [mm]	MASS [kg]	WORKING VOLUME [dm³]	MAX. WORKING PRESSURE [bar]	TIPPING CAPACITY [ton]	L	A	B	C	D	E
BL400 2271 160 7	3104001607001	7	2271	76	22,6	180	12-21	517	246	271	174	92	58
BL400 1950 160 6	3104001606001	6	1950	77	21,7	180	15-25	517	246	271	174	92	58
BL400 1631 160 5	3104001605001	5	1631	68	20,2	180	17-29	517	246	271	174	92	58
BL400 1315 160 4	3104001604001	4	1315	65	18,2	180	17-29	517	246	271	174	92	58
BL300 1613160 7	3103001607001	7	1613	61	16,1	180	12-21	423	219	204	147	92	58
BL300 1386 160 6	3103001606001	6	1386	61	15,4	180	15-25	423	219	204	147	92	58
BL300 1161 160 5	3103001605001	5	1161	55	14,4	180	17-29	423	219	204	147	92	58

L 140

EFFECTIVE DIAMET (mm) 140 • 120 • 105 • 90 • 75 • 60

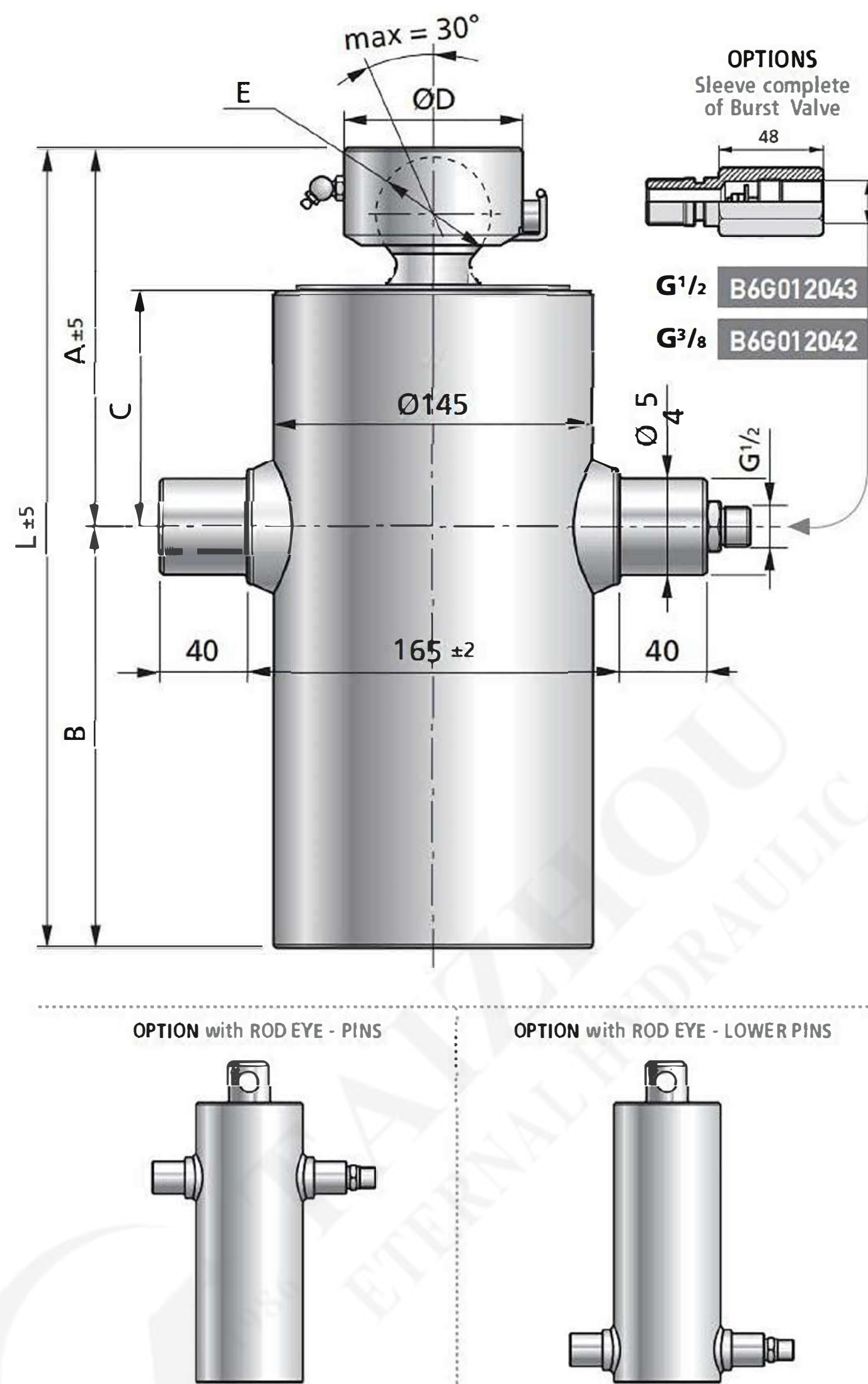


L 140 TECHNICAL DATA

MODEL	CODE	EXTENSION N.	POWER STROKE [mm]	MASS [kg]	WORKING VOLUME [dm ³]	MAX. WORKING PRESSURE [bar]	TIPPING CAPACITY [ton]	L	A	B	C	D	E
BL400 1947 140 6	3104001406001	6	1947	61	16	180	11-18	510	234	276	162	92	58
BL400 1625 140 5	3104001405001	5	1625	63	15,1	180	13-22	510	234	276	162	92	58
BL400 1307 140 4	3104001404001	4	1307	53	13,7	180	15-25	510	234	276	162	92	58
BL300 1383 140 6	3103001406001	6	1383	49	11,4	180	11-18	416	242	174	170	92	58
BL300 1155 140 5	3103001405001	5	1155	50	10,8	180	13-22	416	242	174	170	92	58
BL300 930 140 4	3103001404001	4	930	43	9,8	180	15-25	416	242	174	170	92	58
BL270 1197 140 6	3102701406001	6	1197	45	9,9	180	11-18	385	204	181	132	92	58
BL270 1000 140 5	3102701405001	5	1000	46	9,3	180	13-22	385	204	181	132	92	58
BL270 806 140 4	3102701404001	4	806	40	8,5	180	15-25	385	204	181	132	92	58

L 120

EFFECTIVE DIAMET (mm) 120 • 105 • 90 • 75 • 60 • 45

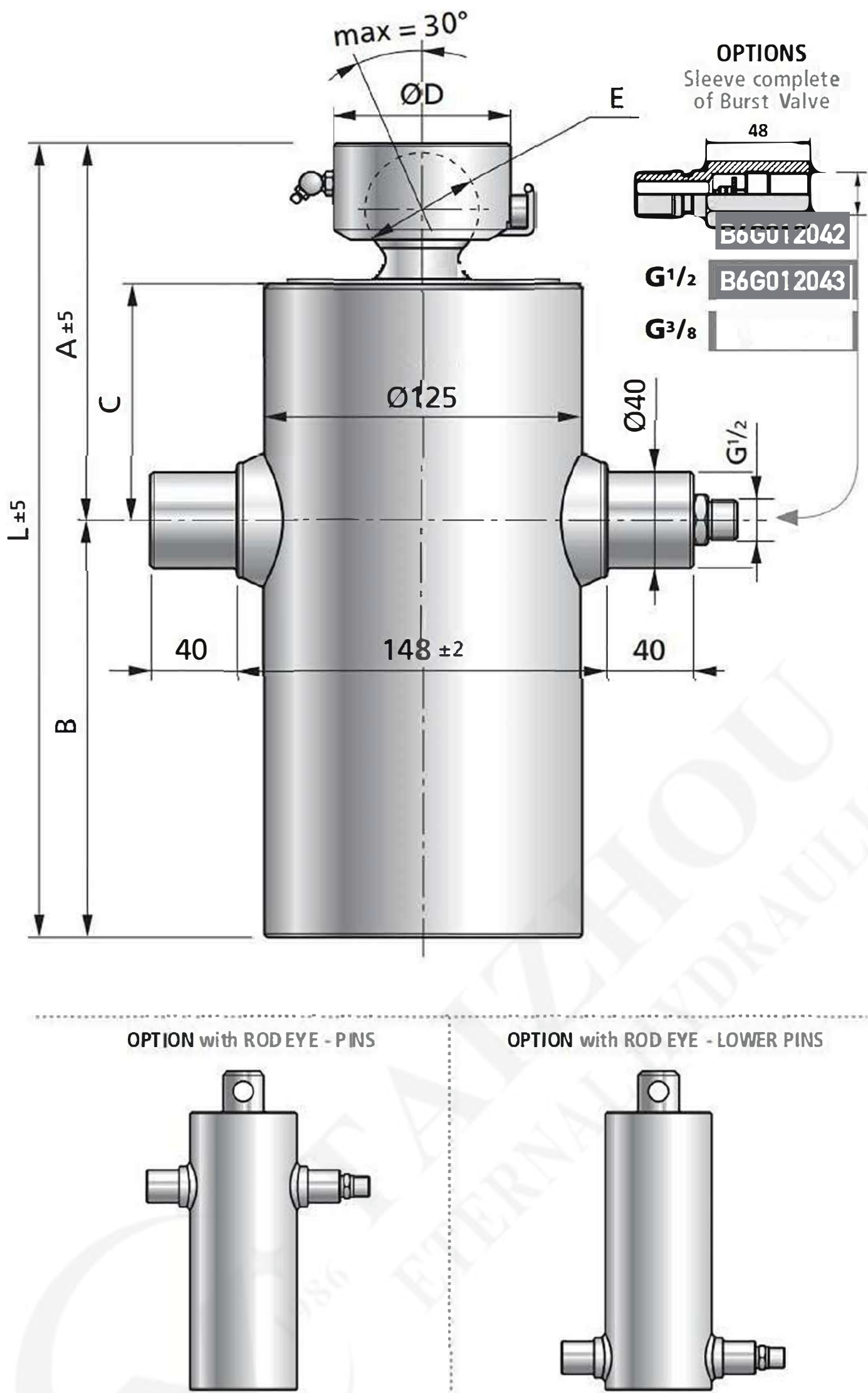


L 120 TECHNICAL DATA

MODEL	CODE	EXTENSION N.	POWER STROKE [mm]	MASS [kg]	WORKING VOLUME [dm³]	MAX. WORKING PRESSURE [bar]	TIPPING CAPACITY [ton]	L	A	B [mm]	C	D	E
BL445 2250 1206	3104451206001	6	2250	50	13,2	200	7-14	541	143	398	88	74	43
BL445 1875 1205	3104451205001	5	1875	55	12,6	200	9-17	558	160	398	88	92	58
BL445 1501 1204	3104451204001	4	1501	55	11,6	200	11-21	558	160	398	88	92	58
BL4102057 1206	3104101206001	6	2057	47	12,1	200	7-14	508	215	293	160	74	43
BL410 17101205	3104101205001	5	1710	50	11,5	200	9-17	525	232	293	160	92	58
BL4101369 1204	3104101204001	4	1369	51	10,6	200	11-21	525	232	293	160	92	58
BL370 896 1203	3103701203001	3	896	38	7,9	200	13-24	480	197	283	125	92	58
BL360 1727 1206	3103601206001	6	1727	42	10,2	200	7-14	453	180	273	125	74	43
BL360 1435 1205	3103601205001	5	1435	44	9,7	200	9-17	470	197	273	125	92	58
BL360 1145 1204	3103601204001	4	1145	46	8,8	200	11-21	470	197	273	125	92	58
BL305 1415 1206	310305 1206001	6	1415	36	8,3	200	7-14	401	180	221	125	74	43
BL305 1175 1205	3103051205001	5	1175	39	7,9	200	9-17	418	197	221	125	92	58
BL275 1241 1206	3102751206001	6	1241	37	7,3	200	7-14	372	180	192	125	74	43
BL275 10301205	3102751205001	5	1030	35	7	200	9-17	389	197	192	125	92	58

L 105

EFFECTIVE DIAMET (mm) 105 • 90 • 75 • 60 • 45 • 30

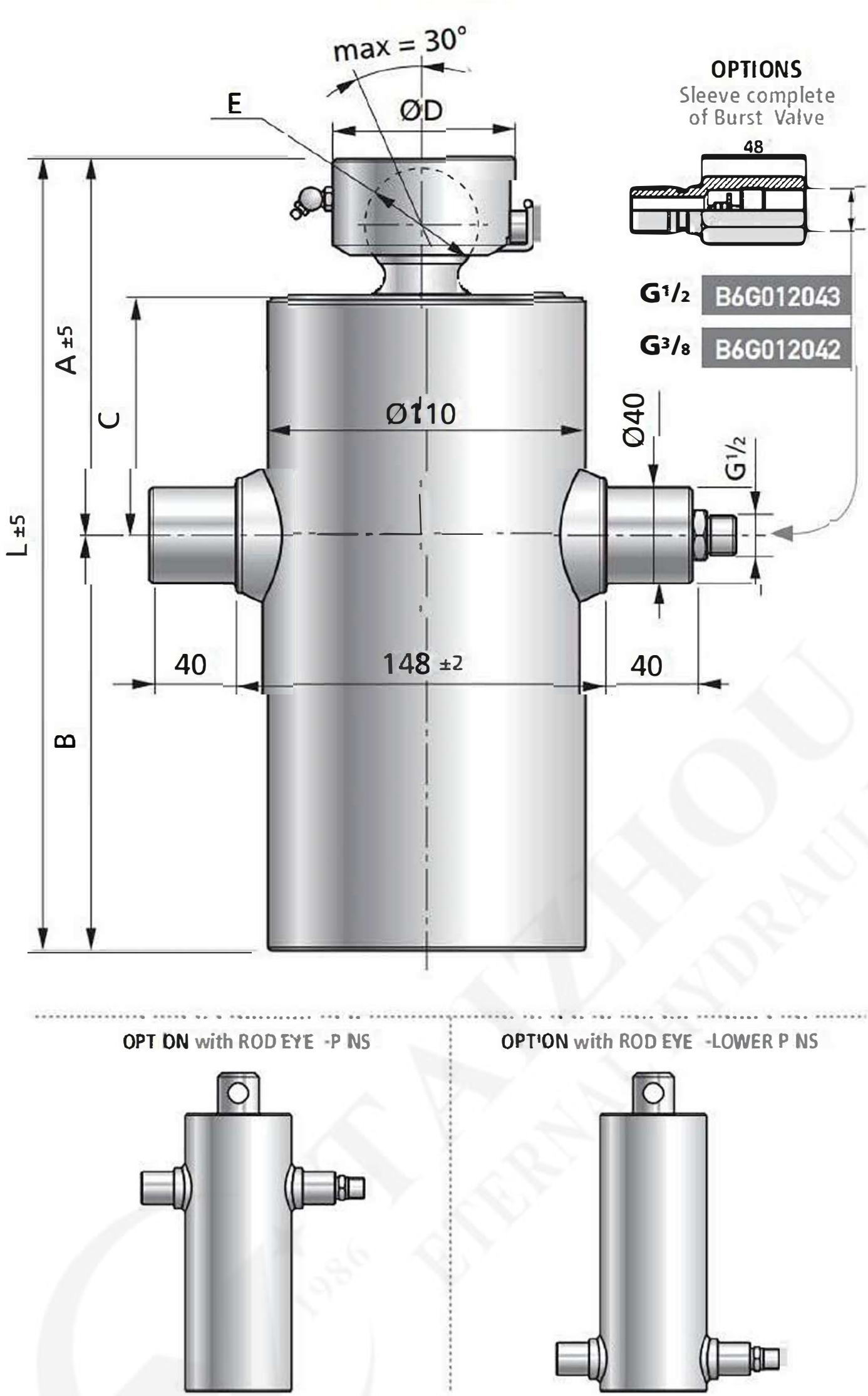


L 105 TECHNICAL DATA

MODEL	CODE	EXTENSION N.	POWER STROKE [mm]	MASS [kg]	WORKING VOLUME [dm³]	MAX. WORKING PRESSURE [bar]	TIPPING CAPACITY [ton]	L	A	B [mm]	C	D	E
BL445 1872 105 5	3104451055001	5	1872	38	8,9	200	6-12	532	140	392	85	74	43
BL445 1492 105 4	3104451054001	4	1492	40	8,3	200	8-15	549	157	392	85	92	58
BL360 1432 105 5	3103601055001	5	1432	30	6,8	200	6-12	444	150	294	95	74	43
BL360 1140 105 4	3103601054001	4	1140	33	6,4	200	8-15	461	167	294	95	92	58
BL360 855 105 3	3103601053010	3	855	35	5,6	200	10-18	461	167	294	95	92	58
BL320 1237 105 5	3103201055001	5	1237	28	5,9	200	6-12	405	150	255	95	74	43
BL320 984 105 4	3103201054001	4	984	27	5,5	200	8-15	405	150	255	95	74	43
BL320 984 105 4	3103201054003	4	984	29	5,9	200	8-15	422	167	255	95	92	58
BL275 1027 105 5	3102751055001	5	1027	24	4,6	200	6-12	363	150	213	95	74	43
BL275 816 105 4	3102751054001	4	816	22	4,7	200	8-15	363	150	213	95	74	43
BL265 1182 105 6	3102651056001	6	1172	22	4,1	200	5-9	351	151	200	95	74	43
BL235 1003 105 6	3102351056001	6	1004	21	4,1	200	5-9	323	151	172	95	74	43

L 90

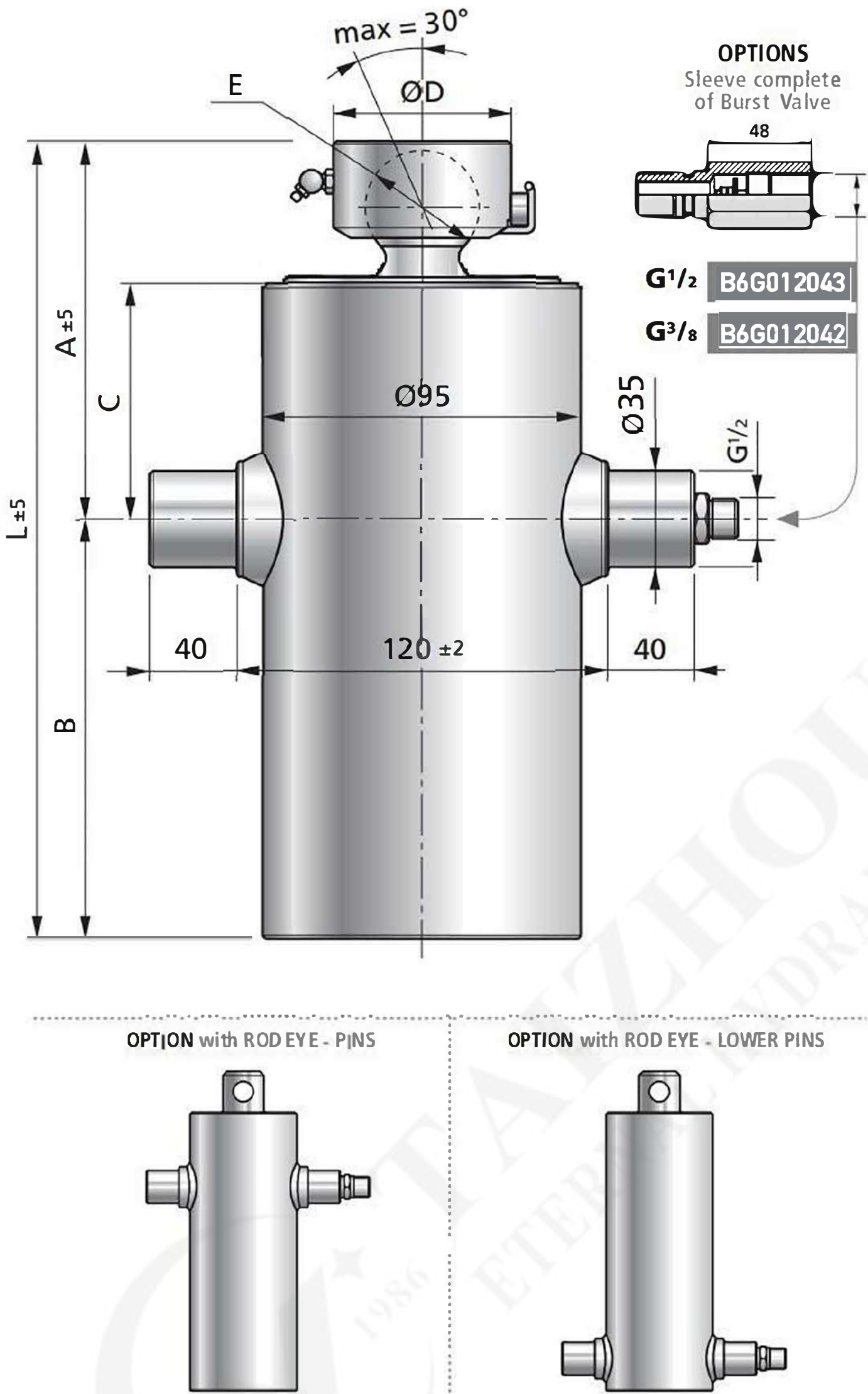
EFFECTIVE DIAMET (mm) 90 • 75 • 60 • 45 • 30



L 90 TECHNICAL DATA													
MODEL	CODE	EXTENSION N.	POWER STROKE [mm]	MASS [kg]	WORKING VOLUME [dm³]	MAX. WORKING PRESSURE [bar]	TIPPING CAPACITY [ton]	L	A	B	C	D	E
										[mm]			
BL475 1211 90 3	3104750903001	3	1199	35	5,4	220	5-14	578	180	398	108	92	58
BL360 1140 90 4	3103600904001	4	1140	25	4,3	220	5-11	445	156	289	100	74	43
BL360 866 90 3	3103600903001	3	848	26	3,8	220	5-14	445	156	289	100	74	43
BL320 1256 90 5	3103200905001	5	1256	25	4	220	4-8	405	155	250	100	74	43
BL320 984 90 4	3103200904001	4	984	23	3,7	220	5-11	405	155	250	100	74	43
BL275 816 90 4	3102750904001	4	816	20	3,1	220	5-11	363	155	208	100	74	43
BL245 676 90 4	3102450904001	4	676	19	2,5	220	5-11	328	152	176	97	74	43

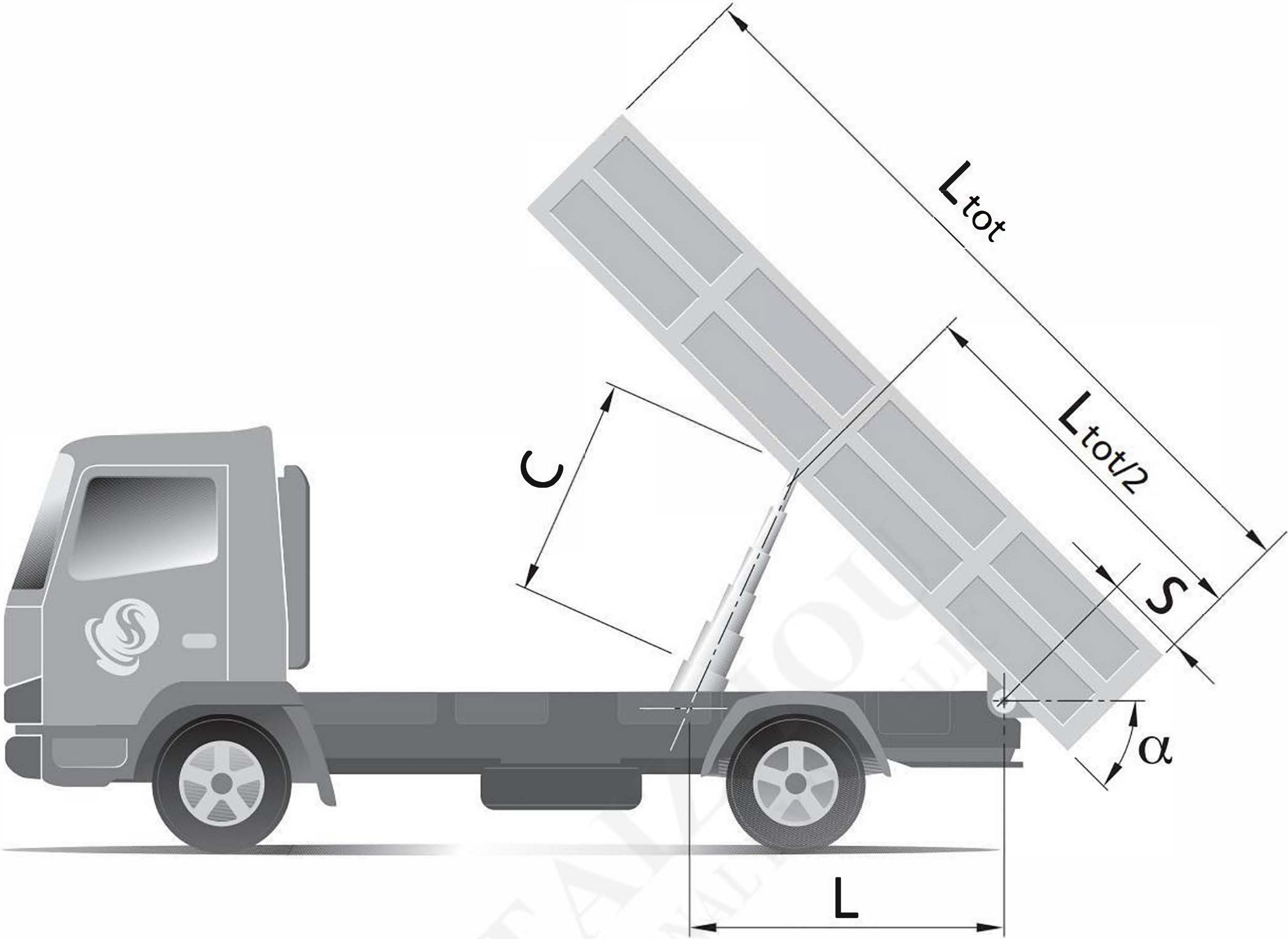
L 75

EFFECTIVE DIAMET (mm) 75 • 60 • 45



L 75 TECHNICAL DATA													
MODEL	CODE	EXTENSION N.	POWER STROKE [mm]	MASS [kg]	WORKING VOLUME [dm³]	MAX. WORKING PRESSURE [bar]	TIPPING CAPACITY [ton]	L	A	B	C	D	E
BL425 1055 75 3	3104250753001	3	1055	22	3,1	220	4-9	509	150	359	95	74	43
BL360 860 75 3	3103600753001	3	860	20	2,5	220	4-9	444	150	294	95	74	43

Selection charts



STROKE						
L [mm]	BODY TILTING α [°]					
	40	45	48	50	55	60
500	342	383	407	423	462	500
750	513	574	610	634	693	750
1000	684	765	813	845	923	1000
1100	752	842	895	930	1016	1100
1200	821	918	976	1014	1108	1200
1300	889	995	1058	1099	1201	1300
1400	958	1072	1139	1183	1293	1400
1500	1026	1148	1220	1268	1385	1500
1600	1094	1225	1302	1352	1478	1600
1700	1163	1301	1383	1437	1570	1700
1800	1231	1378	1464	1521	1662	1800
1900	1300	1454	1546	1606	1755	1900
2000	1368	1531	1627	1690	1847	2000
2150	1471	1646	1749	1817	1986	2150
2300	1573	1760	1871	1944	2124	2300
2450	1676	1875	1993	2071	2263	2450
2600	1779	1990	2115	2198	2401	2600
2750	1881	2105	2237	2324	2540	2750
3000	2052	2296	2440	2536	2770	3000
3200	2189	2449	2603	2705	2955	3200

$$C_{[mm]} = 2L_{[mm]} \sin(\frac{\alpha_{[rad]}}{2}) \Rightarrow$$
$$\Rightarrow C_{[mm]} \cong \frac{3,1416}{180} \cdot \alpha_{[°]} \cdot L_{[mm]} \cdot (1 - \frac{9,8696}{777600} \alpha_{[°]}^2)$$

• The stroke is identified by crossing the pivot length (L) with the requested tipping angle (°).

C POWER STROKE
[mm]

THRUST									
EXTENSION Ø [mm]	PRESSIONE PRESSURE [bar]								
	50	75	100	125	150	175	200	220	240
30	4	5	7	9	11	12	14	16	17
45	8	12	16	20	24	28	32	35	38
60	14	21	28	35	42	49	57	62	68
75	22	33	44	55	66	77	88	97	106
90	32	48	64	80	95	111	127	140	153
105	43	65	87	108	130	152	173	190	208
120	57	85	113	141	170	198	226	249	271
135	72	107	143	179	215	250	286	315	343
140	77	115	154	192	231	269	308	338	369
154	115	173	231	290	350	410	470	523	570
160	100	151	201	251	301	352	402	442	482
174	119	178	238	297	356	416	475	523	570

$$S_{[kN]} = \frac{\pi}{4} d_{[mm]}^2 \frac{p_{[bar]}}{10000} \Rightarrow$$
$$\Rightarrow S_{[kN]} \cong \frac{0,785}{10000} d_{[mm]}^2 p_{[bar]}$$

- The thrust is a force generated by oil under pressure, which lifts the stage of the cylinder. "D" is the diameter of the stage.

QUICK REFERENCE SELECTION CHART								
TYPE	TOTAL MASS [ton]							
	25÷30	20÷25	15÷20	13÷15	11÷13	9÷11	7÷9	4÷7
L174	6	7	8					
L160	5	6	7					
L140		4	5	6				
L120			3	4	5	6		
L105					3	4	5	6
L90						3	4	5
L75							2	3



EXTENSION N.

• Depending on the total tipping weight, the chart indentifies the most suitable model and number of stages available.

Assembly

