

Lightraulics® Composite Hydraulics

Heavy Duty Tool Cylinders



A Revolution in Lifting

New ultra-lightweight tool cylinders from Parker Hannifin use Lightraulics® materials technology to transform the way in which loads are managed on-site.

In place of traditional heavy steel lifting cylinders, which cannot be moved without assistance and are difficult to locate accurately, Lightraulics® tool cylinders are built from corrosion-resistant lightweight alloys and carbon fibre composite materials. Weighing typically between 1/3 and 1/4 of a comparable steel cylinder, they can be positioned quickly and accurately – often by a single operator.

The result: Higher productivity, a saving in time and manpower, and a reduced risk of injury.

Parker's patented ultra-light Composite Tool Cylinders cut time on site, boost productivity, reduce the need for mechanical handling and protect operator safety – a win-win lifting solution.

For customized specifications or references, please contact:

**Parker Hannifin Manufacturing
Germany GmbH & Co. KG**
Composite Technologies Europe
CTE

Carl-Zeiss-Str. 38
28816 Stuhr
+ 49 (0)421 56 98-200
lightraulics@parker.com
www.parker.com



Typical Masses of Comparable Cylinders

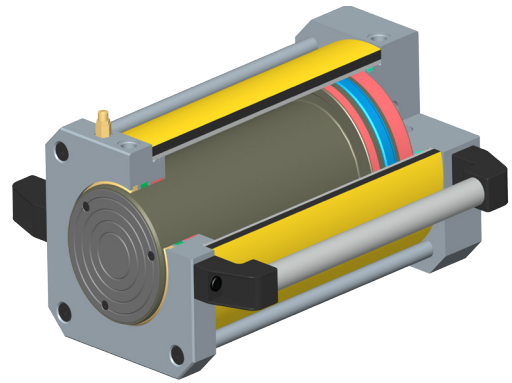
Load tonnes	Stroke mm	Steel kg	Aluminium kg	Composite kg
50	200	27	19	8.5
80	200	42	27	13
120	200	58	36	19
150	200	78	45	24
195	300	150	–	40
220	300	180	–	46
285	300	300	–	63
410	300	420	–	97



ENGINEERING YOUR SUCCESS.

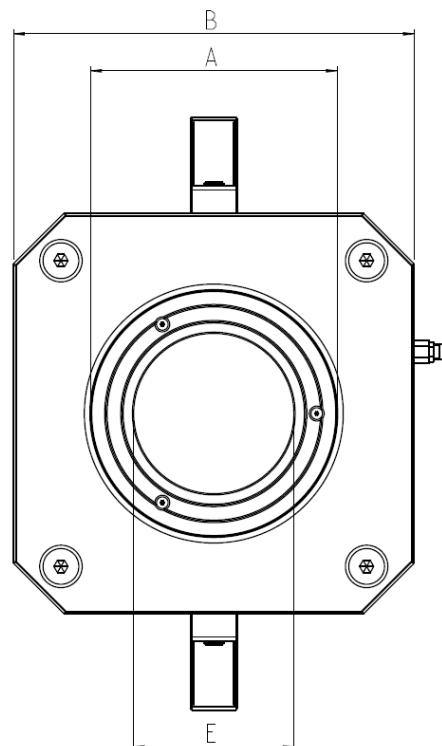
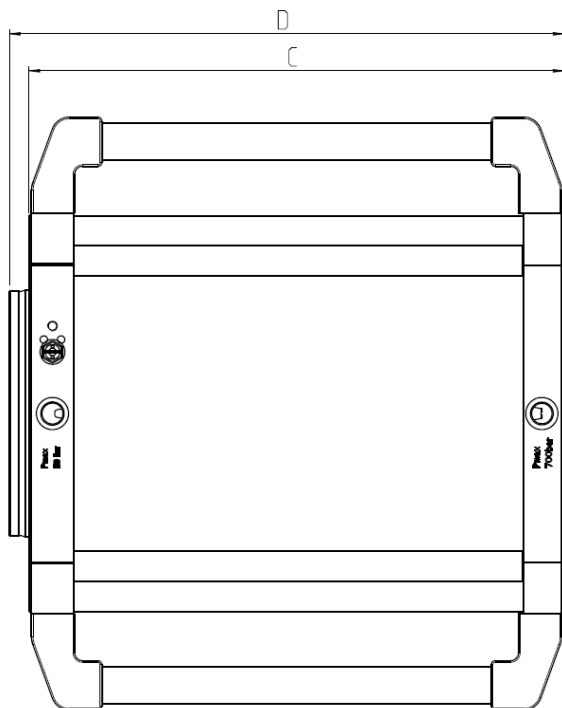
Product Specifications

Working pressure	700 bar (10,152 psi)
Retraction pressure	50 bar (725 psi)
Test pressure	770 bar (11,167 psi)
Stroke length	up to 300 mm
Maximum piston speed	0.3 m/s
Barrel material	thinwalled metal with composite reinforcement and abrasion protective aramid overwrap
Piston rod material	hard anodized aluminium
Port size	both ports M 18x1,5
Sealing system	
– piston seal	thermoplastic polyester elastomer
– rod seal	polyurethane lip type
– wiper seal	polyester-based
– O-rings	polyurethane (PU)
Temperature range	-20 °C to +80 °C
Fluid medium	mineral hydraulic oil



For customised specifications, please contact lightraulics@parker.com with details of your application.

Cylinder Dimensions



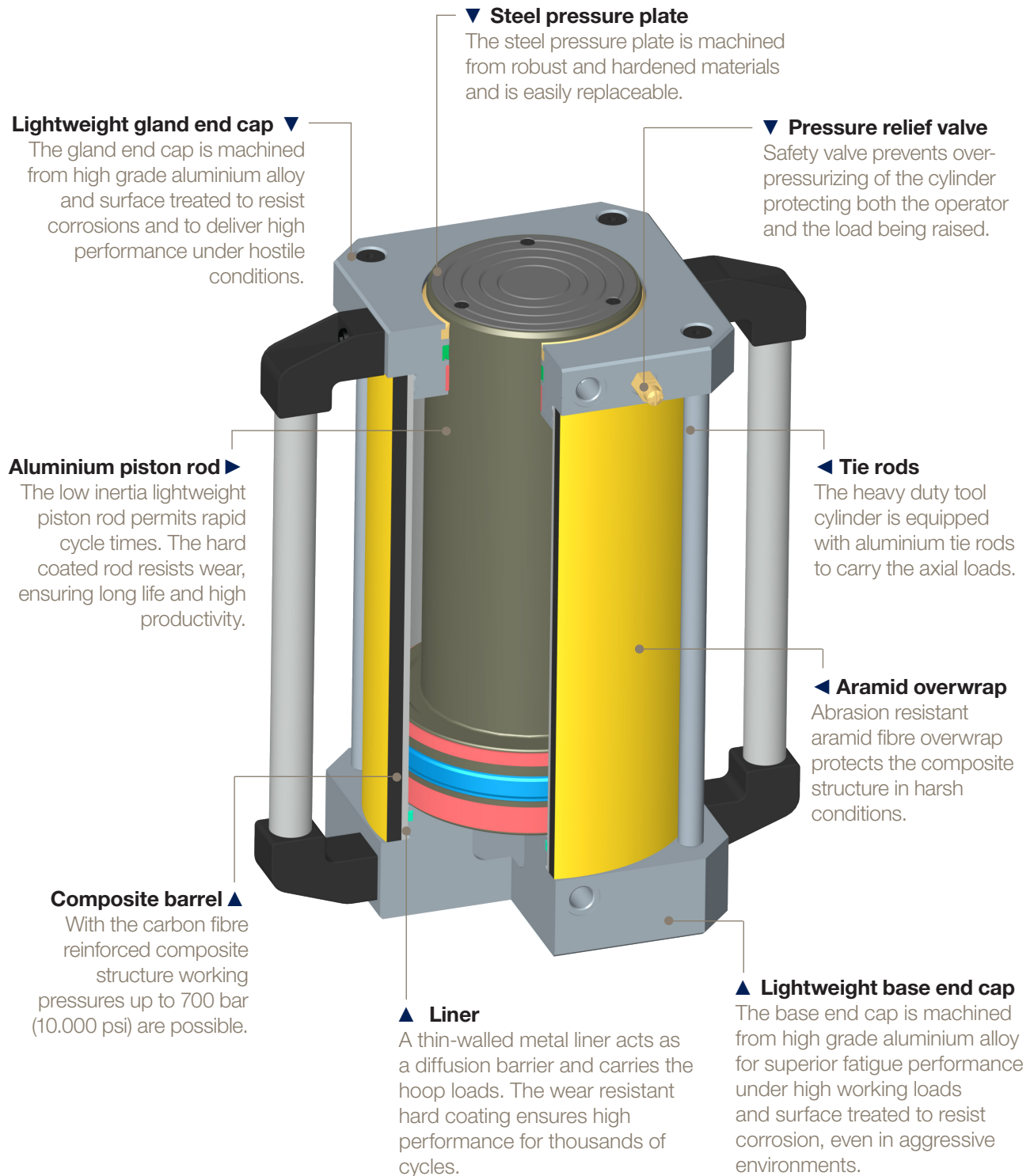
Stroke	Piston Area (cm²)	Oil Volume (cm³)	Force (kN)	Mass (kg)	A	B	C	D	Article No.	
50t	50	70,9	354	496	6	55	115	214	221	L-P-DZ-050-050-HP
	100	70,9	709	496	6,7	55	115	264	271	L-P-DZ-050-100-HP
	150	70,9	1063	496	7,4	55	115	314	321	L-P-DZ-050-150-HP
	200	70,9	1418	496	8,1	55	115	364	371	L-P-DZ-050-200-HP
	250	70,9	1772	496	8,8	55	115	414	421	L-P-DZ-050-250-HP
	300	70,9	2126	496	9,5	55	115	414	421	L-P-DZ-050-300-HP
80t	50	113,1	565	792	8,7	75	140	227	234	L-P-DZ-080-050-HP
	100	113,1	1131	792	9,8	75	140	277	284	L-P-DZ-080-100-HP
	150	113,1	1696	792	11	75	140	327	334	L-P-DZ-080-150-HP
	200	113,1	2262	792	12,1	75	140	377	384	L-P-DZ-080-200-HP ¹⁾
	250	113,1	2827	792	13,3	75	140	427	434	L-P-DZ-080-250-HP
	300	113,1	3393	792	14,4	75	140	477	484	L-P-DZ-080-300-HP
120t	50	165,1	826	1156	12,6	99	165	237	244	L-P-DZ-120-050-HP
	100	165,1	1651	1156	14,1	99	165	287	294	L-P-DZ-120-100-HP
	150	165,1	2477	1156	16,2	99	165	337	344	L-P-DZ-120-150-HP
	200	165,1	3303	1156	17,4	99	165	387	394	L-P-DZ-120-200-HP
	250	165,1	4128	1156	18,9	99	165	437	444	L-P-DZ-120-250-HP
	300	165,1	4954	1156	20,5	99	165	487	494	L-P-DZ-120-300-HP
150t	50	213,8	1069	1497	16,6	108	194	242	249	L-P-DZ-150-050-HP
	100	213,8	2138	1497	18,5	108	194	292	299	L-P-DZ-150-100-HP
	150	213,8	3207	1497	21,1	108	194	342	349	L-P-DZ-150-150-HP
	200	213,8	5346	1497	22,3	108	194	392	399	L-P-DZ-150-200-HP ¹⁾
	250	213,8	5346	1497	24,2	108	194	442	449	L-P-DZ-150-250-HP
	300	213,8	6415	1497	26,1	108	194	492	499	L-P-DZ-150-300-HP
195t	50	268,8	1344	1882	23,2	133	217	261	269	L-P-DZ-195-050-HP
	100	268,8	2688	1882	25,3	133	217	311	319	L-P-DZ-195-100-HP
	180	268,8	4838	1882	28,66	133	217	391	399	L-P-DZ-195-180-HP ¹⁾
	200	268,8	5376	1882	29,5	133	217	411	419	L-P-DZ-195-200-HP
	250	268,8	6720	1882	31,6	133	217	461	469	L-P-DZ-195-250-HP
	300	268,8	8064	1882	33,7	133	217	511	519	L-P-DZ-195-300-HP
220t	50	311	1555	2177	27,2	143	235	261	269	L-P-DZ-220-050-HP
	100	311	3110	2177	30,6	143	235	311	319	L-P-DZ-220-100-HP
	150	311	4665	2177	32,9	143	235	361	369	L-P-DZ-220-150-HP
	200	311	6221	2177	36,3	143	235	411	419	L-P-DZ-220-200-HP
	250	311	7776	2177	39,2	143	235	461	469	L-P-DZ-220-250-HP
	300	311	9331	2177	42	143	235	511	519	L-P-DZ-220-300-HP
285t	50	397,6	1988	2783	35,4	163	265	271	279	L-P-DZ-285-050-HP
	100	397,6	3976	2783	39,1	163	265	321	329	L-P-DZ-285-100-HP
	180	397,6	7157	2783	45,02	163	265	401	409	L-P-DZ-285-180-HP
	200	397,6	7952	2783	46,5	163	265	421	429	L-P-DZ-285-200-HP
	250	397,6	9940	2783	50,2	163	265	471	479	L-P-DZ-285-250-HP ¹⁾
	300	397,6	11928	2783	53,9	163	265	521	529	L-P-DZ-285-300-HP
410t	50	572,6	2863	4008	44,7	192	325	326	334	L-P-DZ-410-050-HP
	100	572,6	5726	4008	50,3	192	325	326	334	L-P-DZ-410-100-HP
	150	572,6	8588	4008	66	192	325	376	384	L-P-DZ-410-150-HP
	200	572,6	11451	4008	73,5	192	325	426	434	L-P-DZ-410-200-HP
	250	572,6	14314	4008	79,1	192	325	476	484	L-P-DZ-410-250-HP ¹⁾
	300	572,6	17177	4008	87,5	192	325	526	534	L-P-DZ-410-300-HP

All dimensions are in millimetres unless otherwise stated. In line with our policy of continuous product improvement, specifications in this flyer are subject to change without notice. Please enquire for exact dimensions when placing order.

1) Standard cylinder sizes are highlighted in yellow



Lightraulics® Heavy Duty Tool Cylinders



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EMEA Product Information Centre

Free phone: 00 800 27 27 5374

(from AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IL, IS, IT, LU, MT, NL, NO, PL, PT, RU, SE, SK, UK, ZA)

US Product Information Centre

Toll-free number: 1-800-27 27 537

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