

Portable Hollow-Piston CFRP Cylinders



Portable from 40 t to 400 t – Unsurpassable ratio of performance to weight

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Carbon Fiber Reinforced Hollow Piston (CFRP) Cylinders are light-weight and offer an optimum alternative to conventional hollow piston cylinders made of aluminum and steel with weight savings of 60% and more.

Portable Hollow Piston CFRP Cylinders guarantee an easy, quick and efficient positioning and handling. In most cases, lifting tools are unnecessary for transportation and assembly.

CFRP Hollow Piston Cylinders are mainly used in bridge construction, reinforced concrete construction and foundation engineering. By default, cylinders are available with capacities ranging from 40t to 400t.

400t CFRP cylinders are used in bridge construction for tensioning external post-tensioning tendons in hollow box girders. Tensioning can be readily undertaken by two workers without the need for lifting tools. Particularly in geotechnical applications, Portable CFRP Cylinders offer a very significant advantage. The equipment mainly used for these application only weighs 25kg and has a 120t capacity.

External jack cylinders and tensioning chairs for post-tensioning anchors and soil nails can be attached to CFRP Cylinders.

With a minimum of effort, CFRP Hollow Piston Cylinders are used for the quick tensioning and testing of bar and strand anchors.

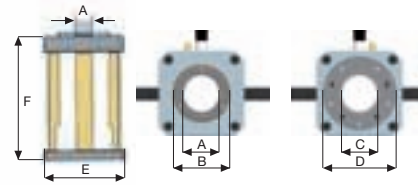


The main advantages

- Easy to operate and universally applicable
- Considerable reduction of physical strain for employees
- Hydraulic return for quick retraction of the cylinder
- Integrated overflow and pressure control valve to avoid damage in case of overpressure
- High-quality wiper rings at the rod protect from dirt
- Impact protection by aramide cover
- Corrosion-resistance by high-quality material and high-tech coating
- 700 bar operating pressure
- Available in standard and custom sizes

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Portable Hollow-Piston Cylinders Series L-HK-DZ
Compressive Force: 40-400t, Working Pressure: 700 bar



	Stroke	Passage	Mass	Piston Area	Compressive Force	[E] x [F]	A	B	C	D	Type
	[mm]	[mm]	[kg]	[cm ²]	[kN]	[mm]	[mm]	[mm]	[mm]	[mm]	
40 t	50	38	8,9	58,9	412	140 x 216	38	70	38	108	L-HK-DZ-040-050-038-HP
	150	38	11,3	58,9	412	140 x 316	38	70	38	108	L-HK-DZ-040-150-038-HP
80 t	100	60	13,6	114,9	804	165 x 282	60	105	60	145	L-HK-DZ-080-100-060-HP
	100	80	16,9	118,8	832	190 x 282	80	128	80	165	L-HK-DZ-080-100-080-HP
	150	80	18,8	118,8	832	190 x 332	80	128	80	165	L-HK-DZ-080-150-080-HP
	200	80	20,7	118,8	832	190 x 382	80	128	80	165	L-HK-DZ-080-200-080-HP
	250	80	22,6	118,8	832	190 x 432	80	128	80	165	L-HK-DZ-080-250-080-HP
100 t	100	52	15	134	938	165 x 282	52	97	52	145	L-HK-DZ-100-100-052-HP
	100	83	18,8	141,4	990	190 x 282	83	122	83	165	L-HK-DZ-100-100-083-HP
	150	83	21	141,4	990	190 x 332	83	122	83	165	L-HK-DZ-100-150-083-HP
	*200	83	23,2	141,4	990	190 x 382	83	122	83	165	L-HK-DZ-100-200-083-HP
	250	83	25,3	141,4	990	190 x 432	83	122	83	165	L-HK-DZ-100-250-083-HP
120 t	100	90	21,6	167,8	1175	215 x 282	90	143	90	186	L-HK-DZ-120-100-090-HP
	100	100	23,5	167,8	1175	215 x 283	100	147	100	186	L-HK-DZ-120-100-100-HP
	*180	90	25,3	167,8	1175	215 x 362	90	143	90	186	L-HK-DZ-120-180-090-HP
	180	100	28,2	167,8	1175	215 x 363	100	147	100	186	L-HK-DZ-120-180-100-HP
	250	90	28,6	167,8	1175	215 x 432	90	143	90	186	L-HK-DZ-120-250-090-HP
	250	100	32,3	167,8	1175	215 x 433	100	147	100	186	L-HK-DZ-120-250-100-HP
	300	90	30,9	167,8	1175	215 x 482	90	143	90	186	L-HK-DZ-120-300-090-HP
300	100	35,2	167,8	1175	215 x 483	100	147	100	186	L-HK-DZ-120-300-100-HP	
140 t	180	84	26,9	199,3	1395	215 x 363	84	129	84	186	L-HK-DZ-140-180-084-HP
	180	105	31,7	197,9	1385	235 x 363	105	149	105	199	L-HK-DZ-140-180-105-HP
	250	84	30,3	199,3	1395	215 x 433	84	129	84	186	L-HK-DZ-140-250-084-HP
	*250	105	36	197,9	1385	235 x 433	105	149	105	199	L-HK-DZ-140-250-105-HP
	300	84	32,8	199,3	1395	215 x 483	84	129	84	186	L-HK-DZ-140-300-084-HP
	300	105	39,2	197,9	1385	235 x 483	105	149	105	199	L-HK-DZ-140-300-105-HP
170 t	180	84	34,3	240,1	1681	235 x 377	84	139	84	199	L-HK-DZ-170-180-084-HP
	180	110	45,6	254,5	1781	260 x 377	110	168	110	225	L-HK-DZ-170-180-110-HP
	250	84	38,6	240,1	1681	235 x 447	84	139	84	199	L-HK-DZ-170-250-084-HP
	*250	110	52,1	254,5	1781	260 x 447	110	168	110	225	L-HK-DZ-170-250-110-HP
	300	84	41,7	240,1	1681	235 x 497	84	139	84	199	L-HK-DZ-170-300-084-HP
300	110	56,7	254,5	1781	260 x 497	110	168	110	225	L-HK-DZ-170-300-110-HP	
200 t	180	150	57,8	274,5	1922	324 x 379	150	228	150	270	L-HK-DZ-200-180-150-HP
	250	150	66	274,5	1922	324 x 449	150	228	150	270	L-HK-DZ-200-250-150-HP
	300	150	71,8	274,5	1922	324 x 499	150	228	150	270	L-HK-DZ-200-300-150-HP
270 t	180	130	61,6	396,5	2775	324 x 380	130	200	130	270	L-HK-DZ-270-180-130-HP
	250	130	69,3	396,5	2775	324 x 450	130	200	130	270	L-HK-DZ-270-250-130-HP
	300	130	74,9	396,5	2775	324 x 500	130	200	130	270	L-HK-DZ-270-300-130-HP
320 t	180	100	67,5	450,5	3153	324 x 380	100	182	100	270	L-HK-DZ-320-180-100-HP
	250	100	76,3	450,5	3153	324 x 450	100	182	100	270	L-HK-DZ-320-250-100-HP
	300	100	82,6	450,5	3153	324 x 500	100	182	100	270	L-HK-DZ-320-300-100-HP
400 t	250	100	ca. 93	584,1	4089	354 x 481	100	200	100	300	L-HK-DZ-400-250-100-HP

If above mentioned data does not meet your requirements, please contact us.

Due to continuous further development specifications are subject to change

*Standard cylinders with 50 bar return pressure available on stock; also available with 100 bar pressure return

**For optimal operation of the CFRP Cylinder
we offer the whole variety of accessories**

**Portable Complete
Tensioning System**



Stressing Heads
for tensioning
and testing
strands



Centering Plates
for Tensioning
and testing
GEWI® bars.



Tensioning Chairs



**Hydraulic Wedge
Setting Device**



Gauge
Gauge with tripod

Power Units



Power Unit

- 700bar
- 10l or 25l tank
- Analog or digital manometer
- 230V or 400V



Power Unit

- 700bar
- With 3 connectors to use CFRP Cylinder with hydraulic wedge setting device
- 15l tank



Hand Pump

Anchor Load Measuring Devices



**Anchor load measuring
devices**

- With analog manometer
- Electrical with handheld monitor

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