

## Hollow-piston cylinders in CFR lightweight construction Portable hollow-piston CFRP cylinders



- Portable from 40 t to 320 t
- Unsurpassable ratio of performance to weight

## Portable hollow-piston CFRP cylinders

Universally usable and lightweight! For quick tensioning and testing of tie rods and tensioning cables.  
Force of pressure: 80t – 320t, working pressure: 700 bar, series L-HK-DZ

	Hub Stroke [mm]	Durchlass (A) Passage (A) [mm]	Masse Mass [kg]	Kolbenfläche Piston Area [cm <sup>2</sup> ]	Druckkraft Compressive Force [kN]	Einbaumaße (B) x (C) [mm]	Typ Type
<b>40 t</b>	50	36	8,9	58,9	412	140 x 216	L-HK-DZ-040-050-036-HP
	150	36	11,3	58,9	412	140 x 316	L-HK-DZ-040-150-036-HP
<b>80 t</b>	100	60	13,6	114,9	804	165 x 282	L-HK-DZ-080-100-060-HP
	100	80	16,9	118,8	832	190 x 282	L-HK-DZ-080-100-080-HP
	150	60	14,9	114,9	804	165 x 332	L-HK-DZ-080-150-060-HP
	150	80	18,8	118,8	832	190 x 332	L-HK-DZ-080-150-080-HP
	200	60	16,3	114,9	804	165 x 382	L-HK-DZ-080-200-060-HP
	200	80	20,7	118,8	832	190 x 382	L-HK-DZ-080-200-080-HP
	250	60	17,8	114,9	804	165 x 432	L-HK-DZ-080-250-060-HP
	250	80	22,6	118,8	832	190 x 432	L-HK-DZ-080-250-080-HP
<b>100 t</b>	100	52	15	134	938	165 x 282	L-HK-DZ-100-100-052-HP
	100	83	18,8	141,4	990	190 x 282	L-HK-DZ-100-100-083-HP
	150	52	16,6	134	938	165 x 332	L-HK-DZ-100-150-052-HP
	150	83	21	141,4	990	190 x 332	L-HK-DZ-100-150-083-HP
	200	52	18,2	134	938	165 x 382	L-HK-DZ-100-200-052-HP
	200	83	23,2	141,4	990	190 x 382	L-HK-DZ-100-200-083-HP
	250	52	19,9	134	938	165 x 432	L-HK-DZ-100-250-052-HP
	250	83	25,3	141,4	990	190 x 432	L-HK-DZ-100-250-083-HP
<b>120 t</b>	100	90	21,6	167,8	1175	215 x 282	L-HK-DZ-120-100-090-HP
	100	100	23,5	167,8	1175	215 x 283	L-HK-DZ-120-100-100-HP
	*180	90	25,3	167,8	1175	215 x 362	L-HK-DZ-120-180-090-HP*
	180	100	28,2	167,8	1175	215 x 363	L-HK-DZ-120-180-100-HP
	250	90	28,6	167,8	1175	215 x 432	L-HK-DZ-120-250-090-HP
	250	100	32,3	167,8	1175	215 x 433	L-HK-DZ-120-250-100-HP
	300	90	30,9	167,8	1175	215 x 482	L-HK-DZ-120-300-090-HP
	300	100	35,2	167,8	1175	215 x 483	L-HK-DZ-120-300-100-HP



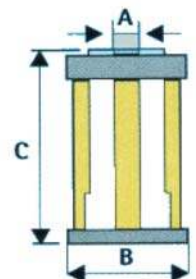
80 t



100 t



120 t



All specifications correct at time of publishing.  
Due to continuous further development they are subject to change.

\* Standard cylinders available

## Portable hollow-piston CFRP cylinders

The hollow-pistons offer weight saving of 60% and more compared to the common steel cylinders. This enormous advantage pays especially for mobile use as well as for manual handling. In most of the cases lifting equipment is not necessary for transport and assembly of the cylinders.

**The lightweight CFRP-cylinders allow efficient and easy working!**

	Hub Stroke [mm]	Durchlass (A) Passage (A) [mm]	Masse Mass [kg]	Kolbenfläche Piston Area [cm <sup>2</sup> ]	Druckkraft Compressive Force [kN]	Einbaumaße (B) x (C) [mm]	Typ Type
<b>140 t</b>	180	84	26,9	199,3	1395	215 x 363	L-HK-DZ-140-180-084-HP
	180	105	31,7	197,9	1385	235 x 363	L-HK-DZ-140-180-105-HP
	250	84	30,3	199,3	1395	215 x 433	L-HK-DZ-140-250-084-HP
	250	105	36	197,9	1385	235 x 433	L-HK-DZ-140-250-105-HP
	300	84	32,8	199,3	1395	215 x 483	L-HK-DZ-140-300-084-HP
	300	105	39,2	197,9	1385	235 x 483	L-HK-DZ-140-300-105-HP
<b>170 t</b>	180	84	34,3	240,1	1681	235 x 377	L-HK-DZ-170-180-084-HP
	180	110	45,6	254,5	1781	260 x 377	L-HK-DZ-170-180-110-HP
	250	84	38,6	240,1	1681	235 x 447	L-HK-DZ-170-250-084-HP
	250	110	52,1	254,5	1781	260 x 447	L-HK-DZ-170-250-110-HP
	300	84	41,7	240,1	1681	235 x 497	L-HK-DZ-170-300-084-HP
	300	110	56,7	254,5	1781	260 x 497	L-HK-DZ-170-300-110-HP
<b>200 t</b>	180	150	57,8	274,5	1922	324 x 379	L-HK-DZ-200-180-150-HP
	250	150	66	274,5	1922	324 x 449	L-HK-DZ-200-250-150-HP
	300	150	71,8	274,5	1922	324 x 499	L-HK-DZ-200-300-150-HP
<b>270 t</b>	180	130	61,6	396,5	2775	324 x 380	L-HK-DZ-270-180-130-HP
	250	130	69,3	396,5	2775	324 x 450	L-HK-DZ-270-250-130-HP
	300	130	74,9	396,5	2775	324 x 500	L-HK-DZ-270-300-130-HP
<b>320 t</b>	180	100	67,5	450,5	3153	324 x 380	L-HK-DZ-320-180-100-HP
	250	100	76,3	450,5	3153	324 x 450	L-HK-DZ-320-250-100-HP
	300	100	82,6	450,5	3153	324 x 500	L-HK-DZ-320-300-100-HP



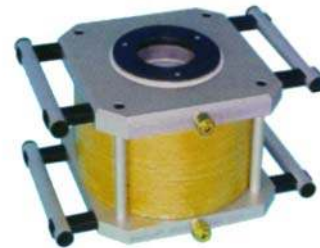
140 t



170 t



200 t



320 t

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

## Hollow-piston cylinders in CFRP lightweight construction

**Universally usable and lightweight!  
For quick tensioning and testing of the rods and  
tensioning cables**

- hydraulic return for quick retraction of the cylinders
- overload protection and pressure control valve to avoid damage in case of overpressure
- high-quality wiper rings at the rod will protect from dirt
- ergonomic carrying handles for easy handling
- impact protection by aramide cover
- corrosion-resistance by high-quality material and hightec coating



**Portable hollow-piston cylinders**  
unsurpassable ratio of performance  
to weight



**Portable heavy-duty cylinders**  
Flexible use at all locations due  
to their low weight



**Portable complete tensioning systems**



**Specially-made cylinders in  
CFRP lightweight construction**  
Special solutions per your requirements



**Compact aggregates and control  
aggregates**  
For all tensioning and testing tasks



**Accessories for high-pressure  
hydraulic systems**



**Calotte shells**  
For mismatch and angle calibration

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