

INDUSTRIAL
ENTIRE RANGE

LUKAS
moving your projects



LUKAS INDUSTRIAL

LUKAS has been developing and manufacturing extraordinary high-pressure hydraulics for industrial use in widely differing branches of industry since 1948. Regardless of the loads that need to be moved, we have the appropriate product for your application scenario.

We are particularly proud of the quality of our tools, because they are created in our own Production Department and are assembled with great attention to detail and dedication. Each item is created for your extraordinary projects. Then and now – reliable, flexible and durable.

Moving your projects.

LUKAS
MASSBLÄTTER



FRIESEKE & HOEPFNER
G M B H
ERLANGEN-BRUCK



**MEIN
LUKAS**

HEBT · DRÜCKT · SCHIEBT
PRESST · ZIEHT · BIEGT

ALLES

Lieferbar in Standard-Typen für eine Druckkraft von 5 · 10 · 20
50 · 75 und 100t mit Hand- oder Motorpumpe. Öldruck 450 atü



**UNIVERSAL
HYDRO-
WERKZEUGE
LUKAS**

Arbeitszeiterparnis mit

LUKAS

hebt
drückt
schiebt
preßt
zieht
biegt
alles

Öldruck 450 at

**FRIESEKE &
HOEPFNER
GMBH**

8520 ERLANGEN-BRUCK

THE LUKAS CORE COMPETENCES

We are pioneers in the development of light metal cylinders. Our powerful helpers are made of aluminium and are therefore not only particularly light, but also extremely resistant to corrosion. The LUKAS cylinders move reliably, have a long service life and very low material fatigue.

Most important for us, however, is your safety. That's why special hoses, whose quick-stop system prevents uncontrolled lowering of the load in your projects, can be connected to all cylinders from our 500 bar range.

You also save crucial time thanks to the unique quick-connect coupling, to which the hoses can be connected with no effort at all.

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SAFE WORKING WITH HYDRAULIC TOOLS



1. OPERATING PRESSURE

The oil pressure for extending the cylinders is generated with LUKAS hand pumps or motorised pumps. This oil pressure may not exceed the maximum permissible operating pressure of the cylinder, connectors and hoses.



2. OIL REQUIREMENT

The oil requirement of the cylinder is calculated from the factors piston area x stroke. The usable quantity of oil in the tank for the hydraulic pump in use should be at least 20% higher than the oil requirement of the cylinder to be operated.



3. COMPRESSIVE FORCE

The compressive force of hydraulic cylinders is calculated from the factors piston area x operating pressure.



4. LIFTING A LOAD

The compressive force of the cylinder must exceed the load to be lifted. The compressive forces of multiple cylinders add up.



5. LIFTING WITH MULTIPLE CYLINDERS

For the synchronous raising and lowering of a load using multiple cylinders, each cylinder must be separately controllable with a distribution valve.



6. WITH SAFE QUICK-STOP

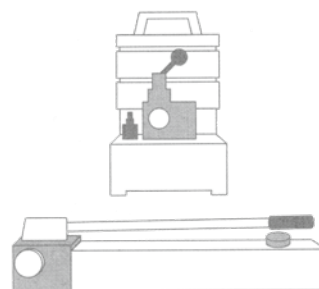
For protection in case of a burst hose, the quick-connect coupling system of our 500-bar range offers the unique safe stop, which prevents the lowering of the raised load in case of a sudden loss of pressure.

HOW DO I ARRANGE A SYSTEM?

For the operation of
a single-action cylinder

you need
1 hose and 1 coupling (quick
connection or screw coupling)
as a connection

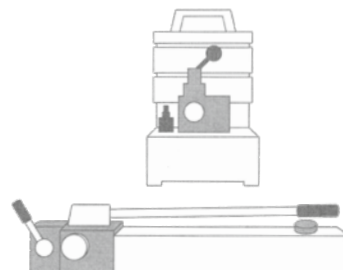
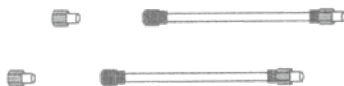
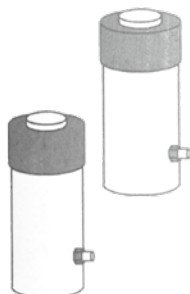
and a motorised pump or
hand pump **for the drive.**



For the operation of
several single-action
cylinders

you need 2 hoses and 2
couplings (quick connection
or screw coupling) **as a**
connection

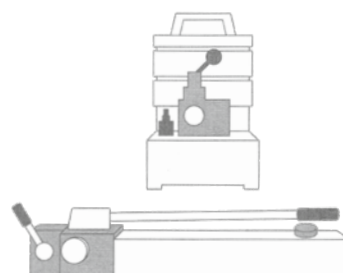
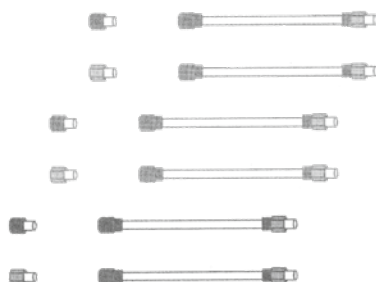
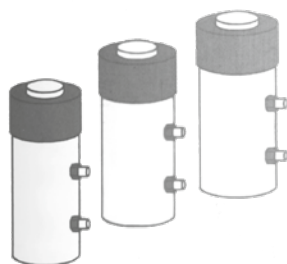
and a motorised pump or hand
pump with a suitable distribu-
tion valve **for the drive**



For the operation of
one or more double-action
cylinders

you need 2 hoses and 2
couplings (quick connection or
screw coupling) **for connection**

and a motorised pump or
hand pump with a suitable
distribution valve **for the drive**



LIFTING CYLINDERS

SAFETY THROUGH CONTROLLED ENERGY

Our lifting cylinders are operated by mineral oil and are important components when working with hydraulics. Inside them, the energy from the hydraulic fluid supplied by a hydraulic pressure accumulator or a hydraulic pump is converted into an easily-controllable, straight-acting force. Controlling this energy professionally is one of our core competences.

Use this safety for your projects!

We are at your side – whether lifting ships in shipyards, building bridges and motorways, testing materials for fixing and pushing away loads, or when building tunnels.

The LUKAS cylinders lift, shape, compact and press and are suitable for the use of loads from five to 1,000 metric tons.





LIGHT METAL CYLINDERS

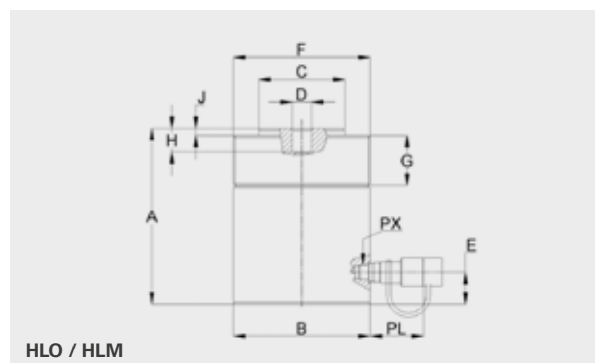
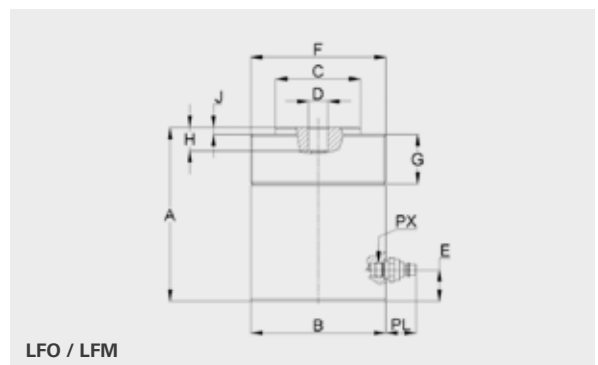
SINGLE-ACTION – WITH SPRING RETRACTION

LUKAS offers you a large number of powerful cylinders made of light metal. They are therefore easier to transport, user-friendly and corrosion-resistant. Our light metal cylinders are available in single-action and double-action versions. The single-action cylinders are equipped with a strong retraction spring to ensure fast retraction.



ADVANTAGES

- Quick-connect coupling and quick-stop system
- Internationally common screw couplings
- High lateral load compatibility
- Wiper rings reduce contamination and wear
- Fully loadable stroke limitation
- Strong retraction spring for fast retraction
- Light due to aluminium construction
- Loads up to 140 metric tons
- Lifting heights up to 200 mm
- Fastening holes in the cylinder base (optional)

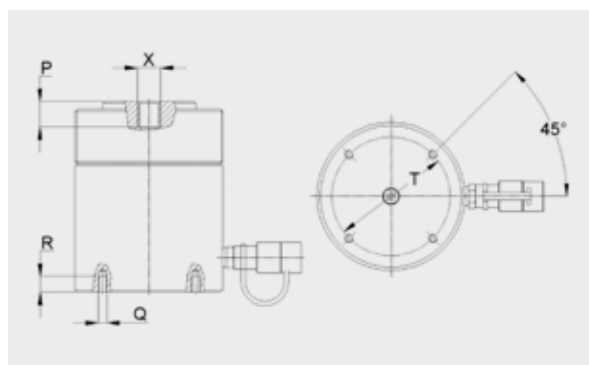


500 BAR

Type	Order No.	Lifting force (kN)	Stroke (mm)	Piston area (cm ²)	Effective oil requirements (l)	A (mm)	B (Ø mm)	C (Ø mm)	D (Ø mm)	E (mm)	F (Ø mm)	G (Ø mm)	H (mm)	J (mm)	PX	PL (mm)	Mass (kg)
LFO 6/20*	851441704	63	20	12,6	0,03	65	56	32	16	21	-	-	-	1	M 18x1,5	66	0,9
LFM 6/50	851451808	63	50	12,6	0,06	160	58	32	16	23	M 55x2	42	16	5	M 18x1,5	44	1,4
LFM 6/100	851451811	63	100	12,6	0,13	210	58	32	16	23	M 55x2	42	20	5	M 18x1,5	44	2
LFM 6/160	851451813	63	160	12,6	0,2	270	58	32	16	23	M 55x2	42	20	5	M 18x1,5	44	2,5
LFM 10/50	851452208	98	50	19,6	0,1	186	70	40	16	23	M 68x2	50	29	6	M 18x1,5	44	2,7
LFM 10/160	851452213	98	160	19,6	0,31	296	70	40	16	23	M 68x2	50	29	6	M 18x1,5	44	4,2
LFM 16/50	851452608	156	50	31,2	0,16	205	85	50	25	40	M 85x2	60	30	7	M 18x1,5	44	5,2
LFM 16/160	851452613	156	160	31,2	0,5	315	85	50	25	40	M 85x2	60	30	7	M 18x1,5	44	6,4
LFM 25/25**	851453005	251	25	50,3	0,15	101	110	63	25	21	M 110x3	55	25	1	M 18x1,5	44	6,7
LFM 25/50	851453008	251	50	50,3	0,25	215	127	63	25	40	M 120x3	70,5	30	7	M 18x1,5	44	9
LFM 25/100	851453011	251	100	50,3	0,5	265	127	63	25	40	M 120x3	70,5	30	7	M 18x1,5	44	11
LFM 25/150	851453013	251	150	50,3	0,75	315	127	63	25	40	M 120x3	70,5	30	7	M 18x1,5	44	13,5
LFM 25/200	851453014	251	200	50,3	1,01	365	127	63	25	40	M 120x3	70,5	30	7	M 18x1,5	44	15
LFM 40/50	851453408	393	50	78,5	0,39	224	146	90	25	30	M 140x3	70,5	30	9	M 18x1,5	44	11
LFM 40/150	851453413	393	150	78,5	1,18	324	146	90	25	30	M 140x3	70,5	30	9	M 18x1,5	72	15,5
LFM 40/200	851453414	393	200	78,5	1,57	374	146	90	25	30	M 140x3	70,5	30	9	M 18x1,5	44	17
LFM 63/50	851453808	614	50	122,7	0,61	225	175	110	25	41	M 170x3	70,5	30	9	M 18x1,5	44	15,5
LFM 63/160	851453813	614	160	122,7	1,96	341	175	110	25	41	M 170x3	70,5	30	9	M 18x1,5	44	22,5
LFM 63/200	851453814	614	200	122,7	2,45	384	175	110	25	41	M 170x3	70,5	30	9	M 18x1,5	44	25
LFO 100/32***	851444106	1005	32	201	0,65	125	220	140	40	25	-	-	-	-	M 18x1,5	44	35
LFM 100/50	851454208	1005	50	201	1,01	265	220	140	40	55	M 220x4	70	30	9	M 18x1,5	44	29,5
LFM 100/150	851454213	1005	150	201	3,01	365	220	140	40	55	M 220x4	70	30	9	M 18x1,5	72	38,8
LFM 100/200	851454214	1005	200	201	4,02	415	220	140	40	55	M 220x4	70	30	9	M 18x1,5	44	44

*without external thread | **without spring retraction | ***without spring retraction, without external thread

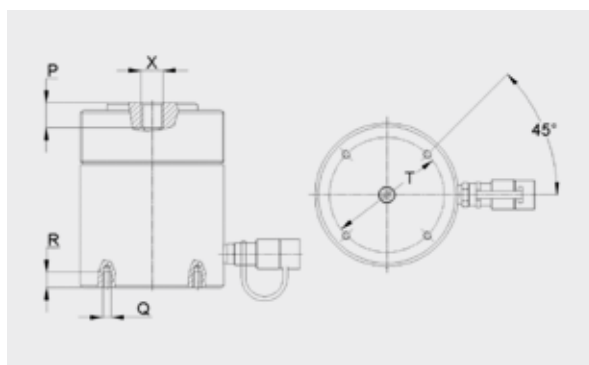
OPTIONAL FASTENING HOLE



Type	X (mm)	P (mm)	Q	R (mm)	T (mm)
LFM 6/20	M 18x1,5	10	-	-	-
LFM 6/..	M 18x1,5	13,5	M 6	10	35
LFM 10/..	M 18x1,5	22,5	M 6	10	50
LFM 16/..	M 27x2	22,5	M 8	13	66
LFM 25/..	M 27x2	24	M 8	13	88
LFM 40/..	M 27x2	30	M 10	19	110
LFM 63/..	M 27x2	30	M 10	19	140
LFM 100/..	-	-	M 12	24	185

700 BAR

Type	Order No.	Lifting force (kN)	Stroke (mm)	Piston area (cm ²)	Effective oil requirements (l)	A (mm)	B (Ø mm)	C (Ø mm)	D (Ø mm)	E (mm)	F (Ø mm)	G (Ø mm)	H (mm)	J (mm)	PX	PL (mm)	Mass (kg)
HLO 9/20 M	831441704	88	20	12,6	0,03	65	56	32	16	21	-	-	-	-	M 18x1,5	72	0,9
HLM 9/50 M	831451808	88	50	12,6	0,06	160	58	32	16	23	M 55x2	42	16	5	M 18x1,5	72	1,4
HLM 9/100 M	831451811	88	100	12,6	0,13	210	58	32	16	23	M 55x2	42	20	5	M 18x1,5	72	2
HLM 9/160 M	831451813	88	160	12,6	0,2	270	58	32	16	23	M 55x2	42	20	5	M 18x1,5	72	2,5
HLM 14/50 M	831452208	137	50	19,6	0,1	186	70	40	16	23	M 68x2	50	29	6	M 18x1,5	72	2,7
HLM 14/160 M	831452213	137	160	19,6	0,31	296	70	40	16	23	M 68x2	50	29	6	M 18x1,5	72	4,2
HLM 22/50 M	831452608	218	50	31,2	0,16	205	85	50	25	40	M 85x2	60	30	7	M 18x1,5	72	5,2
HLM 22/160 M	831452613	218	160	31,2	0,5	315	85	50	25	40	M 85x2	60	30	7	M 18x1,5	72	6,4
HLM 35/50 M	831453008	352	50	50,3	0,25	215	127	63	25	40	M 120x3	70,5	30	7	M 18x1,5	72	9
HLM 35/100 M	831453011	352	100	50,3	0,5	265	127	63	25	40	M 120x3	70,5	30	7	M 18x1,5	72	11
HLM 35/150 M	831453013	352	150	50,3	0,75	315	127	63	25	40	M 120x3	70,5	30	7	M 18x1,5	72	13,5
HLM 35/200 M	831453014	352	200	50,3	1,01	365	127	63	25	40	M 120x3	70,5	30	7	M 18x1,5	72	15
HLM 55/50 M	831453408	550	50	78,5	0,39	224	146	90	25	30	M 140x3	70,5	30	9	M 18x1,5	72	11
HLM 55/150 M	831453413	550	150	78,5	1,18	324	146	90	25	30	M 140x3	70,5	30	9	M 18x1,5	72	15,5
HLM 55/200 M	831453414	550	200	78,5	1,57	374	146	90	25	30	M 140x3	70,5	30	9	M 18x1,5	72	17
HLM 85/50 M	831453808	859	50	122,7	0,61	225	175	110	25	41	M 170x3	70,5	30	9	M 18x1,5	72	15,5
HLM 85/160 M	831453813	859	160	122,7	1,96	341	175	110	25	41	M 170x3	70,5	30	9	M 18x1,5	72	22,5
HLM 85/200 M	831453814	859	200	122,7	2,45	384	175	110	25	41	M 170x3	70,5	30	9	M 18x1,5	72	25
HLM 140/50 M	831454208	1407	50	201	1,01	265	220	140	40	55	M 220x4	70	30	9	M 18x1,5	72	29,5
HLM 140/150 M	831454213	1407	150	201	3,01	365	220	140	40	55	M 220x4	70	30	9	M 18x1,5	72	38,8
HLM 140/200 M	831454214	1407	200	201	4,02	415	220	140	40	55	M 220x4	70	30	9	M 18x1,5	72	44


OPTIONAL FASTENING HOLE


Type	X (mm)	P (mm)	Q	R (mm)	T (mm)
HLO 9/20	M 18x1,5	10	-	-	-
HLM 9/..	M 18x1,5	13,5	M 6	10	35
HLM 14/..	M 18x1,5	22,5	M 6	10	50
HLM 22/..	M 27x2	22,5	M 8	13	66
HLM 35/..	M 27x2	24	M 8	13	88
HLM 55/..	M 27x2	30	M 10	19	110
HLM 85/..	M 27x2	30	M 10	19	140
HLM 140/..	-	-	M 12	24	185



LUKAS

26 t

85145 3005
LFM 25/25 - PN500
ohne Feststellbremse
Fd = 251 kN
Ser. No.: 335297
Made in Germany

LUKAS

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lukas.info@idexcorp.com www.lukas.info

85145 1813

LFM 6/160 - PN500

Fd = 63 kN

Ser. No: 334514 Nov - 2020 00002

6 t

CE

Made in Germany

LIGHT METAL CYLINDERS

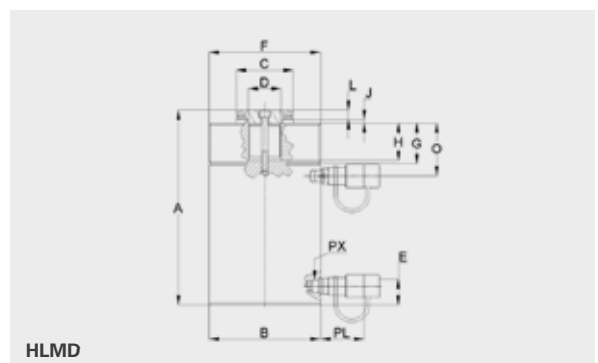
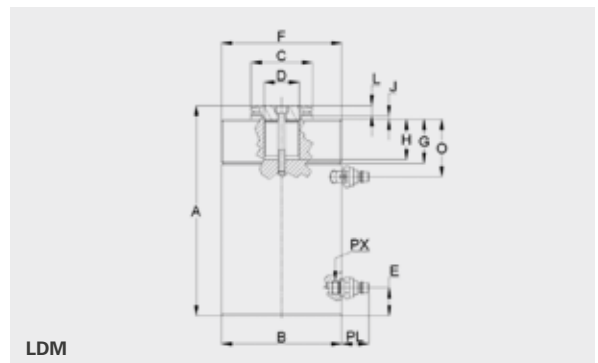
DOUBLE-ACTION

LUKAS offers you a large number of powerful cylinders made of light metal. They are therefore easier to transport, user-friendly and corrosion-resistant.



ADVANTAGES

- Quick-connect coupling and quick-stop system
- Internationally common screw couplings
- High lateral load compatibility
- Light due to aluminium construction
- Wiper rings reduce contamination and wear
- Loads up to 140 metric tons
- Lifting heights up to 200 mm
- Fully loadable stroke limitation



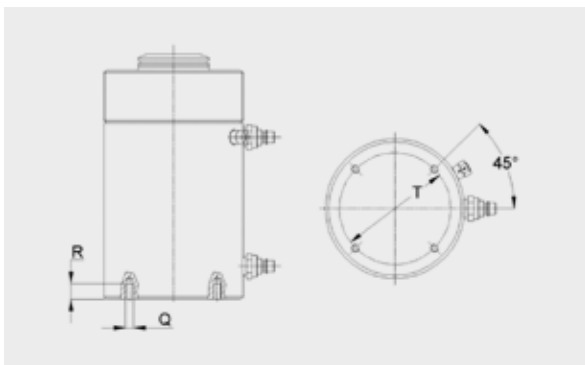
500 BAR

Type	Order No.	Lifting force (kN)	Pulling force (kN)	Stroke (mm)	Piston area (pushing) (cm ²)	Piston area (pulling) (cm ²)	Effective oil requirements (l)	A (mm)	B (Ø mm)	C (Ø mm)	D	E (mm)	F (Ø mm)	G (mm)	H (mm)	J (mm)	L (mm)	O (mm)	PX	PL (mm)	Mass (kg)
LDM 10-5/200 PN 500	851492314	98	47	200	19,6	9,5	0,2	330	100	36	M 20x1,5	26	M 100x2	35,1	48	5	10	74	M 18x1,5	44	9
LDM 40-20/100 PN 500	851493511	393	200	100	78,5	40,1	0,38	280	150	70	M 36x1,5	27	M 150x3	52,6	53	5	15	74	M 18x1,5	44	15
LDM 40-20/150 PN 500	851493513	393	200	100	78,5	40,1	0,58	330	150	70	M 36x1,5	27	M 150x3	52,6	53	5	15	74	M 18x1,5	44	15
LDM 63-30/100 PN 500	851493911	614	296	100	122,7	59,1	0,64	295	175	90	M 50x1,5	30	M 175x3	61,6	59	5	15	83,5	M 18x1,5	72	22
LDM 63-30/150 PN 500	851493913	614	296	150	122,7	59,1	0,95	345	175	90	M 50x1,5	30	M 175x3	61,6	59	5	15	84	M 18x1,5	44	24
LDM 63-30/200 PN 500	851493914	614	296	200	122,7	59,1	1,27	395	175	90	M 50x1,5	30	M 175x3	61,1	59	5	15	84	M 18x1,5	44	27
LDM 100-40/150 PN 500	851494313	1005	440	150	201,1	88	1,7	360	225	120	M 80x2	30	M 220x4	70,9	68	5	15	92	M 18x1,5	44	40

700 BAR

Type	Order No.	Lifting force (kN)	Pulling force (kN)	Stroke (mm)	Piston area (pushing) (cm ²)	Piston area (pulling) (cm ²)	Effective oil requirements (l)	A (mm)	B (Ø mm)	C (Ø mm)	D	E (mm)	F (Ø mm)	G (mm)	H (mm)	J (mm)	L (mm)	O (mm)	PX	PL (mm)	Mass (kg)
HLMD 15-6/200M	831492314	137	66	200	19,6	9,5	0,2	330	100	36	M 20x1,5	25,5	M 100x2	35,1	48	5	10	54,4	M 18x1,5	72	9
HLMD 35-15/200M	831493114	352	179	200	50,3	25,6	0,49	370	130	56	M 33x1,5	27	M 130x2	49,5	48	5	10	70	M 18x1,5	72	14
HLMD 55-25/100M	831453511	550	280	100	78,5	40,1	0,38	280	150	70	M 36x1,5	27	M 150x3	52,6	53	5	15	74,5	M 18x1,5	72	15
HLMD 55-25/150M	831493513	550	280	150	78,5	40,1	0,58	330	150	70	M 36x1,5	27	M 150x3	52,6	53	5	15	74,5	M 18x1,5	72	17
HLMD 55-25/200M	831493514	550	280	200	78,5	40,1	0,77	380	150	70	M 36x1,5	27	M 150x3	52,6	53	5	15	74,5	M 18x1,5	72	19
HLMD 85-40/100M	831493911	859	414	100	122,7	59,1	0,64	295	175	90	M 50x1,5	30	M 175x3	61,6	59	5	15	83,5	M 18x1,5	72	22
HLMD 85-40/150M	831493913	859	414	150	122,7	59,1	0,95	345	175	90	M 50x1,5	30	M 175x3	61,6	59	5	15	83,5	M 18x1,5	72	24
HLMD 85-40/200M	831493914	859	414	200	122,7	59,1	1,27	395	175	90	M 50x1,5	30	M 175x3	61,6	59	5	15	83,5	M 18x1,5	72	27
HLMD 140-60/150M	831494313	1407	616	150	201,1	88	1,7	360	225	120	M 80x2	30	M 220x4	70,9	68	5	15	92	M 18x1,5	72	40
HLMD 140-60/200M	831494314	1407	616	200	201,1	88	2,26	410	225	120	M 80x2	30	M 220x4	70,9	68	5	15	92	M 18x1,5	72	45

OPTIONAL FASTENING HOLE



Type	Q	R (mm)	T (mm)
LDM 10 / HLMD 15/...	M 6	10	50
LDM 25 / HLMD 35/...	M 8	13	88
LDM 40 / HLMD 55/...	M 10	19	110
LDM 63 / HLMD 85/...	M 10	19	140
LDM 100 / HLMD 140/...	M 12	24	185

HOLLOW PISTON CYLINDERS

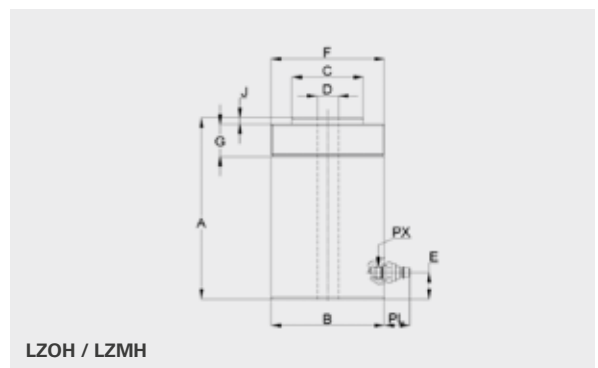
SINGLE-ACTION – WITH SPRING RETRACTION

The LUKAS hollow piston cylinders lift loads – and remove solid elements from shafts, press bearings in or tension steel ropes. Due to their lightweight design, they are particularly user-friendly, which makes it much easier to use them in all positions. Our hollow piston cylinders are available in single-action and double-action versions.



ADVANTAGES

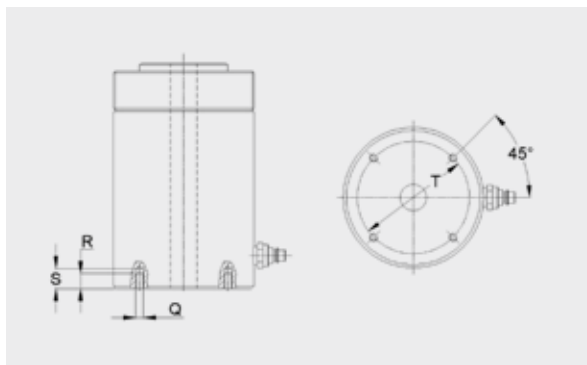
- Quick-connect couplings and quick-stop system
- High lateral load compatibility
- Fully loadable stroke limitation
- Wiper rings reduce contamination and wear
- Considerably reduced weight
- Piston rods with through-holes
- Fastening holes in the cylinder base (optional)
- Fast retraction thanks to strong retraction spring



500 BAR

Type	Order No.	Lifting force (kN)	Stroke (mm)	Piston area (cm ²)	Effective oil requirements (l)	A (mm)	B (Ø mm)	C (Ø mm)	D (Ø mm)	E (mm)	F	G (mm)	J (mm)	PX	PL (mm)	Mass (kg)
LZOH 10/50-20,5	841422108	120	50	24,1	0,1	147	85	45	20,5	22	-	-	2	M 18x1,5	44	3,2
LZMH 25/50-33	841423008	238	50	47,7	0,25	225	125	63	33	23	M 100x2	50	10	M 18x1,5	44	7,9
LZMH 25/100-33	841426011	238	100	47,7	0,5	285	125	63	33	23	M 100x2	50	10	M 18x1,5	44	10
LZMH 40/100-37	841426411	377	100	75,4	0,8	275	150	80	37	23	M 150x3	50	14	M 18x1,5	44	13,2

OPTIONAL FASTENING HOLE



Type	Q	R (mm)	S (mm)	T (mm)
LZOH 10/50-20,5	M 8	13	18	66
LZMH 25/50-33	M 8	13	18	100
LZMH 25/100-33	M 8	13	18	100
LZMH 40/100-37	M 8	13	18	125



HOLLOW PISTON CYLINDERS

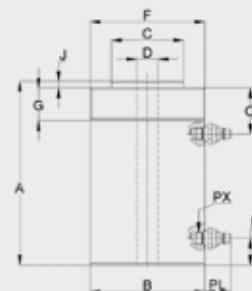
DOUBLE-ACTION - WITH HYDRAULIC RETRACTION

The LUKAS hollow piston cylinders lift loads – and remove solid elements from shafts, press bearings in or tension steel ropes. Due to their lightweight design, they are particularly user-friendly, which makes it much easier to use them in all positions.



ADVANTAGES

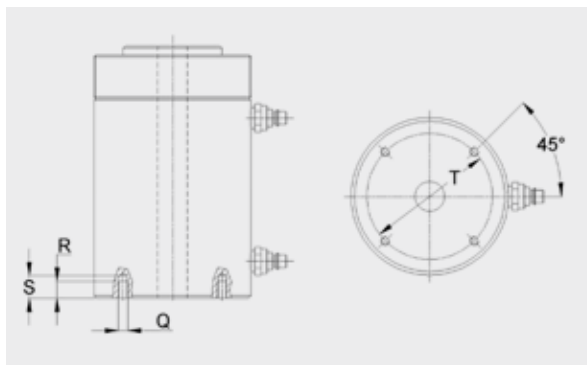
- Overpressure protection through the safety nipple StNi 6-D
- Quick-connect couplings and quick-stop system
- High lateral load compatibility
- Wiper rings reduce contamination and wear
- Fully loadable stroke limitation
- Hydraulic retraction improves working speed and control
- Faster retraction of the pistons
- Considerably reduced weight
- Fastening holes in the cylinder base (optional)
- Piston rods with through-holes
- Handles for LZMH 40/200-37 and LZMH 63/200-59 as standard



LZMH / LZOH

500 BAR

Type	Order No.	Lifting force (kN)	Stroke (mm)	Piston area (cm ²)	Effective oil requirements (l)	A (mm)	B (Ø mm)	C (Ø mm)	D (Ø mm)	E (mm)	F	G (mm)	J (mm)	O (mm)	PX	PL (mm)	Mass (kg)
LZMH 40/200-37	841423414	377	200	75,4	0,6	375	150	80	37	23	M 150x3	50	14	70	M 18x1,5	44	16,5
LZMH 63/200-59	841423814	632	200	126,5	1,1	415	205	115	59	30	M 205x4	60	15	85	M 18x1,5	44	34
LZOH 100/200-74	841424114	1178	200	235,6	2,5	435	270	160	74	30	-	-	17	90	M 18x1,5	44	63

 OPTIONAL FASTENING HOLE


Type	Q	R (mm)	S (mm)	T (mm)
LZMH 40/200-37	M 8	13	18	125
LZMH 63/200-59	M 10	19	24,5	175
LZOH 100/200-74	M 12	24	30	240



STAINLESS STEEL CYLINDERS

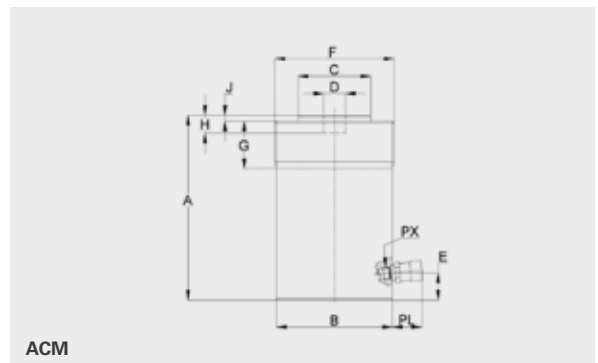
SINGLE-ACTION – WITH SPRING RETRACTION

The LUKAS stainless steel cylinders have been specially developed for all applications where particular resistance is important: On drilling rigs, in the chemical industry, in nuclear power plants or in the food industry. They are particularly durable due to their high surface quality. The stainless steel cylinders are our resistant specialists for every project.



ADVANTAGES

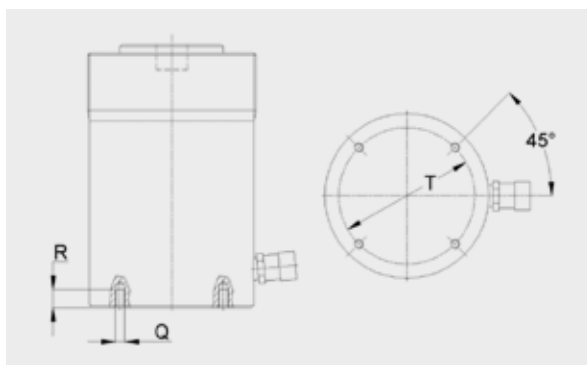
- Fast retraction thanks to strong retraction spring
- Standard and internationally common screw coupling
- Resistant to acids and seawater
- Decontamination-capable
- Corrosion resistant
- For all work in aggressive environments
- Easier to decontaminate than painted cylinders
- Fully loadable stroke limitation
- In environments with special hygiene requirements
- Thread in cylinder base (optional)
- Also approved for 800 bar
- LUKAS plug-in coupling for integration into existing 500 bar system (including burst hose protection)



700 BAR

Type	Order No.	Lifting force (kN)	Stroke (mm)	Piston area (cm ²)	Effective oil requirements (l)	A (mm)	B (Ø mm)	C (Ø mm)	D (Ø mm)	E (mm)	F	G (mm)	H (mm)	J (mm)	PX	PL (mm)	Mass (kg)
ACM 10/150	841406233	88	150	12,6	0,19	234	52	32	16	21,5	M 55x2	30	12	4	G 1/4	72	3
ACM 25/50	841406008	219	50	31,2	0,16	139	80	50	16	21	M 85x2	34	10	4	G 1/4	72	4,7
ACM 25/150	841406033	219	150	31,2	0,49	239	80	50	16	21	M 85x2	34	10	4	G 1/4	72	7,1
ACM 63/50	841406808	550	50	78,5	0,39	160	130	80	25	24	M 135x3	50	17	7	G 1/4	72	14
ACM 63/200	841406814	550	200	78,5	1,57	310	130	80	25	24	M 135x3	50	17	7	G 1/4	72	22,4

OPTIONAL FASTENING HOLE



Type	Q	R (mm)	T (mm)
ACM 10/...	M 6	10	40
ACM 25/...	M 6	10	60
ACM 63/...	M 8	14	110



STEEL CYLINDERS

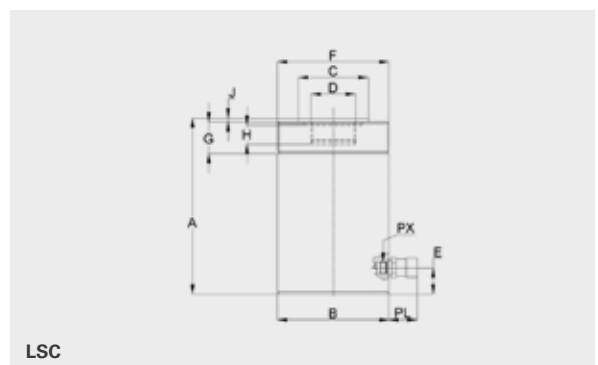
SINGLE-ACTION – WITH SPRING RETRACTION

Our single and double-action steel cylinders are robust helpers for tough applications. They are used in particular for lifting, moving, positioning and fixing of components, or the forming of metal parts. The single-action steel cylinders are retracted by a strong spring and can easily be integrated into existing systems.



ADVANTAGES

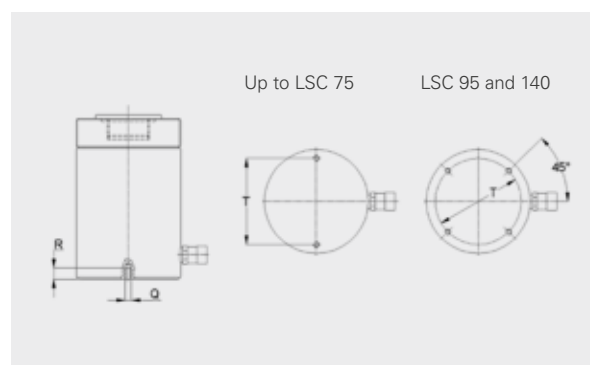
- Standard external thread for easy assembly
- Standard fastening holes in the cylinder base
- As standard with internationally common screw coupling
- Internal thread in the piston rod for auxiliary tools
- Fully loadable stroke limitation
- Wiper rings reduce contamination and wear
- Delivered complete with piston protection plates and screw coupling sleeves
- Optionally with LUKAS plug-in coupling for integration into an existing 500 bar system
- With spring retraction
- Corrosion protection due to enamelled surfaces
- Hard chrome-plated pistons for protection against scoring and corrosion



700 BAR

Type	Order No.	Lifting force (kN)	Stroke (mm)	Piston area (cm ²)	Effective oil requirements (l)	A (mm)	B (Ø mm)	C (Ø mm)	D	E (mm)	F	G (mm)	H (mm)	J (mm)	PX	PL (mm)	Mass (kg)
LSC 5/25	84148090101	49	25	7,06	0,02	110	40	25	3/4"-16	19	1 1/2"-16	28	14	6	3/8-18 NPT	72	1
LSC 5/180	84148090104	49	180	7,06	0,13	276	40	25	3/4"-16	19	1 1/2"-16	28	14	6	3/8-18 NPT	72	2,4
LSC 10/55	84148090202	111	54	15,9	0,09	121	60	36	1"-8	19	2 1/4"-14	32	19	6	3/8-18 NPT	72	2,4
LSC 10/105	84148090203	111	105	15,9	0,17	172	60	36	1"-8	19	2 1/4"-14	32	19	6	3/8-18 NPT	72	3,3
LSC 10/255	84148090206	111	257	15,9	0,41	352	60	36	1"-8	19	2 1/4"-14	32	19	6	3/8-18 NPT	72	6,6
LSC 10/305	84148090207	111	307	15,9	0,49	402	60	36	1"-8	19	2 1/4"-14	32	19	6	3/8-18 NPT	72	7,4
LSC 10/355	84148090208	111	355	15,9	0,57	454	60	36	1"-8	19	2 1/4"-14	32	19	6	3/8-18 NPT	72	8,4
LSC 15/25	84148090301	166	25	23,7	0,06	126	75	45	-	20	2 3/4"-16	32	-	5	3/8-18 NPT	72	4,2
LSC 15/55	84148090302	166	54	23,7	0,13	157	75	45	1"-8	20	2 3/4"-16	32	25	8	3/8-18 NPT	72	5
LSC 15/205	84148090305	166	205	23,7	0,49	329	75	45	1"-8	20	2 3/4"-16	32	25	8	3/8-18 NPT	72	10
LSC 15/255	84148090306	166	257	23,7	0,61	381	75	45	1"-8	20	2 3/4"-16	32	25	8	3/8-18 NPT	72	11,5
LSC 15/300	84148090307	166	307	23,7	0,73	428	75	45	1"-8	20	2 3/4"-16	32	25	8	3/8-18 NPT	72	12,8
LSC 15/355	84184090308	166	355	23,7	0,84	479	75	45	1"-8	20	2 3/4"-16	32	25	8	3/8-18 NPT	72	14,2
LSC 25/25	84148090401	231	25	33,1	0,08	144	85	56	1 1/2"-16	25	3 5/16"-12	45	25	10	3/8-18 NPT	72	6
LSC 25/260	84148090406	231	261	33,1	0,87	383	85	56	1 1/2"-16	25	3 5/16"-12	45	25	10	3/8-18 NPT	72	15
LSC 25/310	84148090407	231	310	33,1	1,03	434	85	56	1 1/2"-16	25	3 5/16"-12	45	25	10	3/8-18 NPT	72	16,9
LSC 25/360	84148090408	231	362	33,1	1,2	484	85	56	1 1/2"-16	25	3 5/16"-12	45	25	10	3/8-18 NPT	72	18,8
LSC 30/150	84148090502	309	150	44,1	0,66	274	100	60	1 1/2"-16	30	3 7/8"-12	48	25	10	3/8-18 NPT	72	14,6
LSC 50/60	84148090601	496	60	70,8	0,43	175	127	80	-	35	5"-12	55	-	5	3/8-18 NPT	72	16,4
LSC 50/160	84148090603	496	160	70,8	1,13	284	127	80	-	35	5"-12	55	-	5	3/8-18 NPT	72	25,5
LSC 75/160	84148090701	727	160	103,8	1,66	284	150	90	-	35	5 3/4"-12	55	-	5	3/8-18 NPT	72	32
LSC 75/330	84148090702	727	330	103,8	3,43	494	150	90	-	35	5 3/4"-12	55	-	5	3/8-18 NPT	72	54
LSC 95/60	84148090801	929	60	132,7	0,8	179	177	110	-	40	6 7/8"-12	55	-	5	3/8-18 NPT	72	32
LSC 95/150	84148090802	929	150	132,7	1,99	299	177	110	-	40	6 7/8"-12	55	-	5	3/8-18 NPT	72	53
LSC 95/260	84148090803	929	260	132,7	3,45	454	177	110	-	40	6 7/8"-12	55	-	5	3/8-18 NPT	72	78,5
LSC 140/60	84148090901	1407	60	201	1,21	189	216	140	-	40	8 1/2"-12	55	-	5	3/8-18 NPT	72	52
LSC 140/150	84148090902	1407	150	201	3,02	319	216	140	-	40	8 1/2"-12	55	-	5	3/8-18 NPT	72	85,7
LSC 140/260	84148090903	1407	260	201	5,23	469	216	140	-	40	8 1/2"-12	55	-	5	3/8-18 NPT	72	124,5
LSC 220/150	84148091001	2199	150	314	4,71	339	250	160	-	40	-	-	-	5	3/8-18 NPT	72	116,5

FASTENING HOLE AS STANDARD



Type	Ø	R (mm)	T (mm)
LSC 5/...	1/4"-20	14	25
LSC 10/...	5/16"-18	12	39
LSC 15/...	3/8"-16	12	47
LSC 25/...	1/2"-13	19	58
LSC 30/...	1/2"-13	19	66
LSC 50/...	1/2"-13	19	95
LSC 75/...	3/4"-10	19	115
LSC 95/...	3/4"-10	25	139
LSC 140/...	3/4"-10	25	165

STEEL CYLINDERS

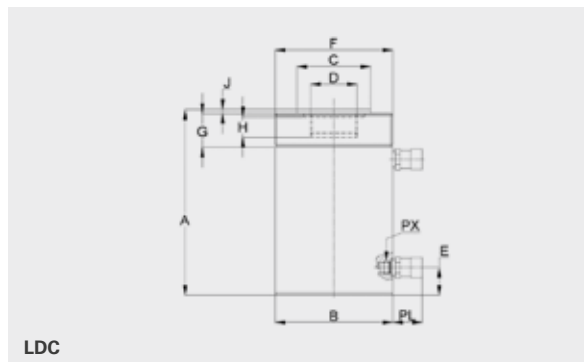
DOUBLE-ACTION – WITH HYDRAULIC RETRACTION

The double-action steel cylinders from LUKAS feature hydraulic retraction and are therefore even more versatile than single-action cylinders. They retract faster and can also be used for pulling work. In addition, these steel cylinders offer more safety for the user thanks to their special overpressure valve. They are used to lift and precisely move particularly heavy loads up to 220 metric tons. They, too, can be integrated into existing systems without any effort.



ADVANTAGES

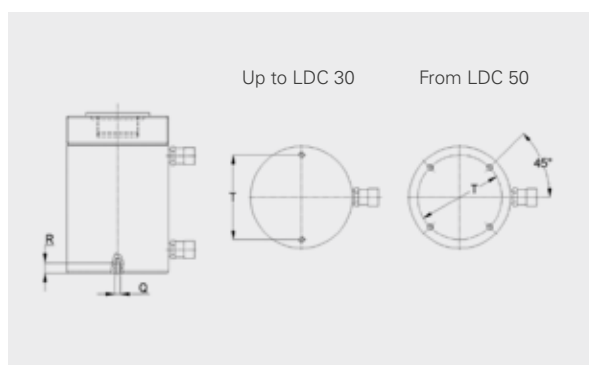
- Standard external thread for easy assembly
- Standard fastening holes in the cylinder base
- As standard with internationally common screw coupling
- Internal thread in the piston rod for auxiliary tools
- Exceptional lateral load compatibility due to wide guide rings
- Fully loadable stroke limitation
- Wiper rings reduce contamination and wear
- Optionally with LUKAS plug-in coupling for integration into an existing 500 bar system
- Overpressure valve protects the user in the event of operating errors
- Hydraulic piston retraction
- Suitable for extremely large loads up to 220 metric tons
- Particularly robust and solid
- Corrosion protection due to enamelled surfaces
- Hard chrome-plated pistons for protection against scoring and corrosion



700 BAR

Type	Order No.	Lifting force (kN)	Pulling force (kN)	Stroke (mm)	Piston area (cm ²)	Effective oil requirements (l)	A (mm)	B (Ø mm)	C (Ø mm)	D	E (mm)	F	G (mm)	H (mm)	J (mm)	O (mm)	PX	PL (mm)	Mass (kg)
LDC 10-2/160	84148210101	111	20	160	15,9	0,26	310	60	36	1"-8	20	2 1/4"-14	32	24	7	53,5	3/8-18 NPT	72	6,5
LDC 10-2/250	84148210102	111	20	250	15,9	0,4	400	60	36	1"-8	20	2 1/4"-14	32	24	7	53,5	3/8-18 NPT	72	8,5
LDC 10-2/320	84148210103	111	20	320	15,9	0,51	470	60	36	1"-8	20	2 1/4"-14	32	24	7	53,5	3/8-18 NPT	72	9,5
LDC 20-5/250	84148210202	218	53	250	31,1	0,78	410	83	45	1"-8	20	3 1/4"-12	40	24	8	60	3/8-18 NPT	72	15
LDC 20-5/320	84148210203	218	53	320	31,1	1	480	83	45	1"-8	20	3 1/4"-12	40	24	8	60	3/8-18 NPT	72	17
LDC 30-7/320	84148210302	309	68	320	44,1	1,41	495	102	56	1 1/2"-16	26	3 7/8"-12	48	25	10	77	3/8-18 NPT	72	27
LDC 50-7/160	84148210401	496	72	160	70,8	1,13	335	127	80	1 3/4"-12	28	5"-12	50	25	10	70	3/8-18 NPT	72	31
LDC 50-7/320	84148210402	496	72	320	70,8	2,27	510	127	80	1 3/4"-12	28	5"-12	50	25	10	85	3/8-18 NPT	72	49
LDC 75-14/160	84148210501	727	140	160	103,8	1,66	338	150	90	1 3/4"-12	30	5 3/4"-12	50	25	10	70	3/8-18 NPT	72	42
LDC 75-14/320	84148210502	727	140	320	103,8	3,32	512	150	90	1 3/4"-12	30	5 3/4"-12	50	25	10	80	3/8-18 NPT	72	61
LDC 95-19-160	84148210601	929	189	160	132,7	2,12	339	177	100	1 3/4"-12	38	6 7/8"-12	50	30	10	70	3/8-18 NPT	72	64
LDC 95-19-260	84148210613	929	189	260	132,7	3,45	439	177	100	1 3/4"-12	38	6 7/8"-12	50	30	10	84	3/8-18 NPT	72	78
LDC 95-19-320	84148210602	929	189	320	132,7	4,26	509	177	100	1 3/4"-12	38	6 7/8"-12	50	30	10	84	3/8-18 NPT	72	85
LDC 140-37/50	84148210701	1407	370	50	201	1,01	258	215	110	2 1/2"-12	49	8"-12	55	40	10	85	3/8-18 NPT	72	66
LDC 140-37/150	84148210702	1407	370	150	201	3,02	378	215	110	2 1/2"-12	49	8"-12	55	40	10	85	3/8-18 NPT	72	90
LDC 140-37/300	84148210703	1407	370	300	201	6,03	528	215	110	2 1/2"-12	49	8"-12	55	40	10	85	3/8-18 NPT	72	119
LDC 220-56/150	84148210802	2199	560	150	314,1	4,71	394	265	140	2 1/2"-12	65	9 3/4"-12	55	60	10	85	3/8-18 NPT	72	151
LDC 220-56/300	84148210803	2199	560	300	314,1	9,42	544	265	140	2 1/2"-12	65	9 3/4"-12	55	60	10	85	3/8-18 NPT	72	197

FASTENING HOLE AS STANDARD



Type	Ø	R (mm)	T (mm)
LDC 10	5/16"-18	14	39
LDC 20	1/2"-13	15	58
LDC 30	1/2"-13	15	66
LDC 50	1/2"-13	15	95
LDC 75	1/2"-13	18	100
LDC 95	3/4"-10	18	139
LDC 140	3/4"-16	25	158
LDC 220	1"-8	25	127

STEEL HOLLOW PISTON CYLINDERS

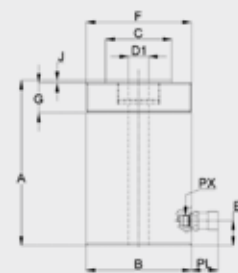
SINGLE-ACTION – WITH SPRING RETRACTION

The extremely compact and resistant hollow piston cylinders made of tempered steel are ideal for moving heavy loads or for safely tensioning steel ropes. With their great strength, they cope with the largest loads: The single-action steel hollow piston cylinders are retracted by a strong spring. They can easily be integrated into existing systems.



ADVANTAGES

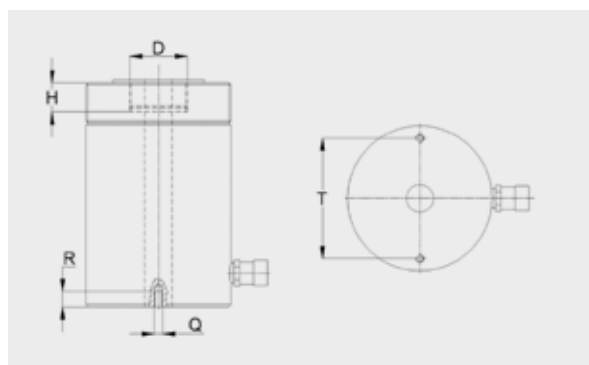
- Standard external thread for easy assembly
- Standard fastening holes in the cylinder base
- As standard with internationally common screw coupling
- Exceptional lateral load compatibility
- Fully loadable stroke limitation
- Wiper rings reduce contamination and wear
- Optionally with LUKAS plug-in coupling for integration into an existing 500 bar system
- Single-action design for one working direction
- Particularly robust and solid, suitable for demanding applications
- Can also be used for lifting work
- Corrosion protection due to enamelled surfaces
- Hard chrome-plated pistons for protection against scoring and corrosion



LHC

700 BAR

Type	Order No.	Lifting force (kN)	Stroke (mm)	Piston area (cm ²)	Effective oil requirements (l)	A (mm)	B (Ø mm)	C (Ø mm)	D1	E (mm)	F	G (mm)	J (mm)	PX	PL (mm)	Mass (kg)
LHC 12/40 PN 700	84148400101	123	40	17,6	0,07	124	75	40	20,5	19	2 3/4"-16	30	2,5	3/8-18 NPT	72	4
LHC 12/75 PN 700	84148400102	123	76	17,6	0,13	176	75	40	20,5	19	2 3/4"-16	30	2,5	3/8-18 NPT	72	5
LHC 12/150 PN 700	84148400103	123	150	17,6	0,26	300	75	40	20,5	19	2 3/4"-16	30	2,5	3/8-18 NPT	72	8,5
LHC 22/50 PN 700	84148400201	221	50	31,6	0,16	165	105	56	27	23,5	3 7/8"-12	38	2,5	3/8-18 NPT	72	9,5
LHC 22/150 PN 700	84148400202	221	150	31,6	0,47	318	105	56	27	23,5	3 7/8"-12	38	2,5	3/8-18 NPT	72	16,4
LHC 30/60 PN 700	84148400303	308	64	44	0,28	197	120	68	33,4	27	4 1/2"-12	42	4	3/8-18 NPT	72	13,2
LHC 30/150 PN 700	84148400302	308	150	44	0,66	322	120	68	33,4	27	4 1/2"-12	42	4	3/8-18 NPT	72	18,5
LHC 60/75 PN 700	84148400401	589	76	84,2	0,64	223	165	95	54	31	6 1/4"-12	48	4	3/8-18 NPT	72	29
LHC 60/150 PN 700	84148400402	589	153	84,2	1,29	315	165	95	54	31	6 1/4"-12	48	4	3/8-18 NPT	72	38
LHC 100/80 PN 700	84148400501	1037	80	148,5	1,19	282	213	130	80	37	8 3/8"-12	60	5	3/8-18 NPT	72	58

 FASTENING HOLE AS STANDARD


Type	D	H (mm)	Q	R (mm)	T (mm)
LHC 12	M 28x1,5	18	5/16"-18	12	51
LHC 22	1 9/16"-16	20	3/8"-16	15	83
LHC 30	1 13/16"-16	22	3/8"-16	17	92
LHC 60	2 3/4"-16	22	1/2"-13	14	130
LHC 100	4"-16	25	5/8"-11	19	178



STEEL HOLLOW PISTON CYLINDERS

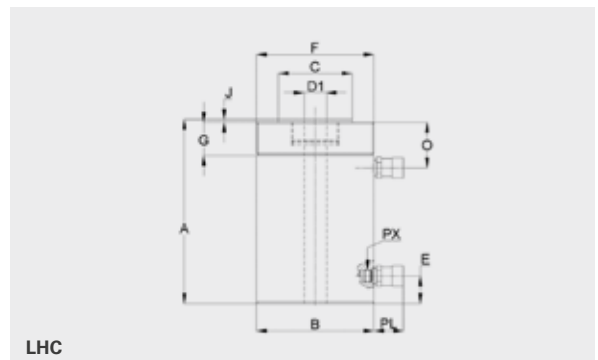
DOUBLE ACTION - WITH HYDRAULIC PISTON RETRACTION

The extremely compact and resistant hollow piston cylinders made of tempered steel are ideal for moving heavy loads or for safely tensioning steel ropes. With their great strength, they cope with the largest loads: The double-action steel hollow piston cylinders can be hydraulically extended and retracted. Therefore, they can also be used ideally for pulling work. They can easily be integrated into existing systems.



ADVANTAGES

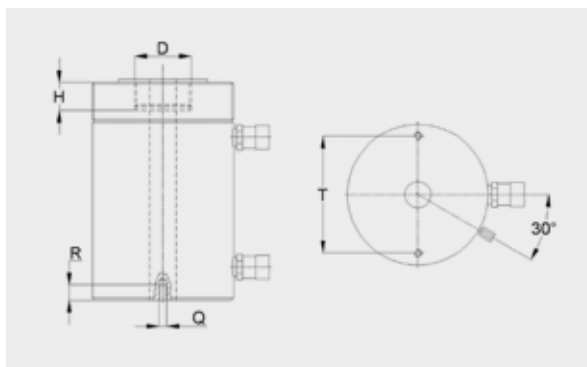
- Standard external thread for easy assembly
- Standard fastening holes in the cylinder base
- As standard with internationally common screw coupling
- Exceptional lateral load compatibility
- Fully loadable stroke limitation
- Wiper rings reduce contamination and wear
- Optionally with LUKAS plug-in coupling for integration into an existing 500 bar system
- Double-action version for two working directions
- Particularly robust and solid, suitable for demanding applications
- Can also be used for lifting work
- Corrosion protection due to enamelled surfaces
- Hard chrome-plated pistons for protection against scoring and corrosion
- Overpressure valve protects users in case of operating errors



700 BAR

Type	Order No.	Lifting force (kN)	Pulling force (kN)	Stroke (mm)	Piston area (cm ²)	Effective oil requirements (l)	A (mm)	B (Ø mm)	C (Ø mm)	D1	E (mm)	F	G (mm)	J (mm)	O (mm)	PX	PL (mm)	Mass (kg)
LHC 30-17/150 PN 700	84148400601	308	172	150	44	0,66	300	120	70	33,4	26	4 1/2"-12	42	4	68	3/8-18 NPT	72	22
LHC 30-17/250 PN 700	84148400602	308	172	250	44	1,1	400	120	70	33,4	26	4 1/2"-12	42	4	68	3/8-18 NPT	72	28
LHC 60-35/80 PN 700	84148400701	589	355	80	84,2	0,67	249	165	95	54	31	6 1/4"-12	48	5	66	3/8-18 NPT	72	35
LHC 60-35/150 PN 700	84148400702	589	355	150	84,2	1,26	319	165	95	54	31	6 1/4"-12	48	5	66	3/8-18 NPT	72	42
LHC 60-35/250 PN 700	84148400703	589	355	250	84,2	2,11	419	165	95	54	31	6 1/4"-12	48	5	66	3/8-18 NPT	72	53
LHC 100-65/35 PN 700	84148400801	1037	646	38	148,5	0,56	197	220	130	80	37	-	-	5	60	3/8-18 NPT	72	48
LHC 100-65/75 PN 700	84148400802	1037	646	76	148,5	1,13	255	220	130	80	37	8 3/8"-12	60	5	80	3/8-18 NPT	72	60
LHC 100-65/150 PN 700	84148400803	1037	646	150	148,5	2,23	335	220	130	80	37	8 3/8"-12	60	5	80	3/8-18 NPT	72	76
LHC 100-65/250 PN 700	84148400804	1037	646	250	148,5	3,71	465	220	130	80	37	8 3/8"-12	60	5	80	3/8-18 NPT	72	102
LHC 140-55/175 PN 700	84148400901	1433	566	175	204,8	3,59	350	250	160	80	37	-	-	10	60	3/8-18 NPT	72	110
LHC 140-55/200 PN 700	84148400902	1433	566	200	204,8	4,09	375	250	160	80	37	-	-	10	60	3/8-18 NPT	72	116

FASTENING HOLE AS STANDARD



Type	D	H (mm)	Q	R (mm)	T (mm)
LHC 30	1 13/16"-16	22	3/8"-16	17	92
LHC 60	2 3/4"-16	22	1/2"-13	14	130
LHC 100	4"-16	25	5/8"-11	19	178
LHC 140	4 1/4"-12	40	-	-	-



SPECIAL CYLINDERS

LUKAS – EXPERT FOR EXTRAORDINARY OPERATIONS

There is no solution that LUKAS special cylinders don't cope with. Whether particularly flat, compact, with a lot of resistance or for heavy loads. Versatility is in demand with the LUKAS special cylinders. Thanks to an extensive product portfolio, there is a wide range of "power packs".

Do you need to move heavy loads? The support time is particularly long and the movement area very small? Or do you need a special cylinder for bridge construction, to lift transformers and other components or to position large machines?

No problem, our LUKAS special cylinders assist and support you in your tasks.





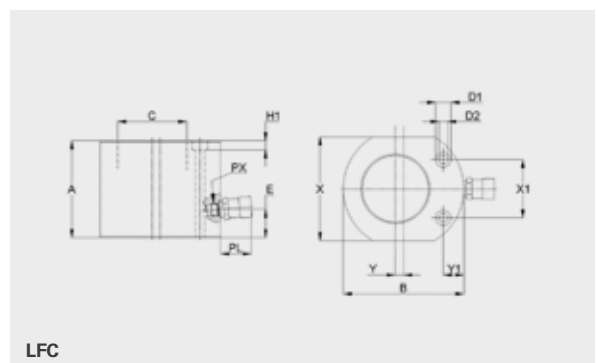
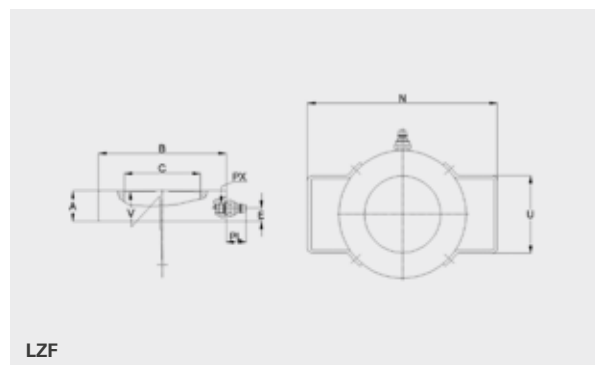
FLAT CYLINDERS

Our flat cylinders are designed for use in confined and difficult projects. They are suitable for the lifting of machines or the replacement of bridge bearings, or serve as preparation for the use of a higher subsequent cylinder. The flat cylinders are returned to the original state by a load or by spring retraction.



ADVANTAGES

- 500 bar variants with quick-connect coupling to which the safe quick stop system can be connected
- 700 bar range with international screw couplings
- Fastening holes standard with 700 bar cylinders
- Fully loadable stroke limitation
- Extremely flat height from 37 mm
- Particularly low space requirement
- Made of tempered special steel
- Partially equipped with carrying handles
- Variants in 500 and 700 bar range
- 500 bar variants without spring retraction, 700 bar variants with spring retraction



500 BAR

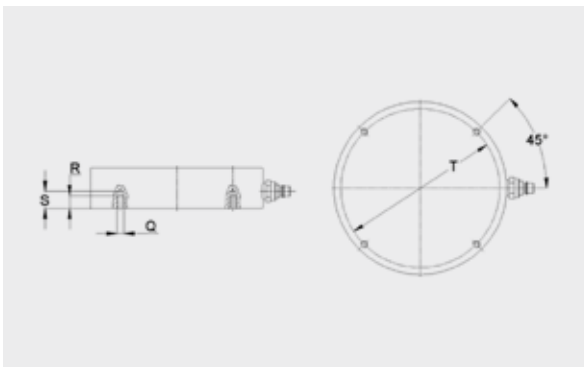
Type	Order No.	Lifting force (kN)	Stroke (mm)	Piston area (cm ²)	Effective oil requirements (l)	A (mm)	B (Ø mm)	C (Ø mm)	E (mm)	N (mm)	U (mm)	V (mm)	PX	PL (mm)	Mass (kg)
LZF 25/10	841412901	251	10	50,3	0,05	37	130	70	15,5	-	-	600	G 1/4	-	3,7
LZF 63/10	841413701	613	10	122,7	0,12	46	188	115	21	-	-	1500	G 1/4	-	9,8
LZF 100/16	841414103	1005	16	201,1	0,32	59	250	150	25	372	152	1800	M 18x1,5	44	22,5

700 BAR

Type	Order No.	Lifting force (kN)	Stroke (mm)	Piston area (cm ²)	Effective oil requirements (l)	A (mm)	B (Ø mm)	C (Ø mm)	D1 (Ø mm)	D2 (Ø mm)	E (mm)	H1 (mm)	X (mm)	X1 (mm)	Y (mm)	Y1 (mm)	PX	PL (mm)	Mass (kg)
LFC 5/16 PN 700	84148500302	43	16	6,4	0,01	42,5	60	25	9,5	5,5	16	6	41	28	9	19	3/8-18 NPT	72	1,2
LFC 10/11 PN 700	84148500303	99	11	14,5	0,01	43	83	38	11	6,5	20	7	56	37	12,5	21	3/8-18 NPT	72	1,6
LFC 23/11 PN 700	84148500304	227	11	33,2	0,03	52	102	57	14	9	20	9	80	50	10	22	3/8-18 NPT	72	2,8
LFC 50/16 PN 700	84148500306	486	16	70,9	0,11	68	140	78	19	13	21	13	114	87	12	26	3/8-18 NPT	72	6,6
LFC 150/16 PN 700	84148500310	1450	16	211,3	0,33	100	216	134	14	9	25	15	194	117	-	35	3/8-18 NPT	72	25



OPTIONAL FASTENING HOLE



Type	Q	R (mm)	S (mm)	T (mm)
LZF 25/10	M 6	10	14,5	118
LZF 63/10	M 8	13	18	170
LZF 100/10	M 10	15	20,5	230

The LZF25/10 and LZF63/10 cylinders are supplied with 0.5 hose and plug-in coupling nipple STNI 61.

COMPACT CYLINDERS

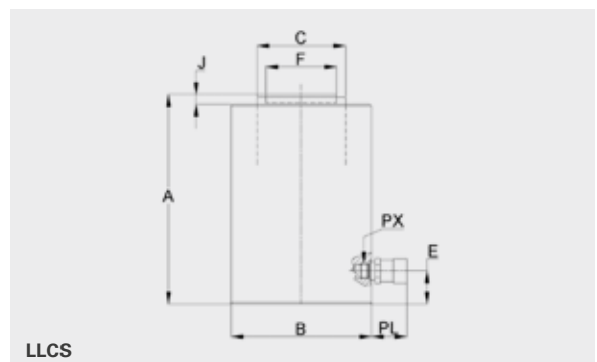
WITH SPRING RETRACTION

The LUKAS compact cylinders bridge the gap between our flat cylinders and the standard lifting cylinders. Our compact cylinders are used where the flat cylinders are too low and the lifting cylinders are too high. They have a balanced ratio of low height and comparatively long stroke.



ADVANTAGES

- As standard with internationally common screw coupling
- Optionally with LUKAS plug-in coupling for integration into existing 500 bar system
- Exceptional lateral load compatibility
- Fully loadable stroke limitation
- Wiper rings reduce contamination and wear
- Large stroke with compact installation height
- Suitable for work with little clearance
- High-strength, made of tempered special steel
- Particularly robust, compact and stable



700 BAR

Type	Order No.	Lifting force (kN)	Stroke (mm)	Piston area (cm ²)	Effective oil requirements (l)	A (mm)	B (Ø mm)	C (Ø mm)	E (mm)	F (Ø mm)	J (mm)	PX	PL (mm)	Mass (kg)
LLCS 10/40 PN 700	84148500101	111	40	15,9	0,06	89	66	36	14	-	2	3/8-18 NPT	72	3
LLCS 20/40 PN 700	84148500102	218	40	31,2	0,13	101	90	56	14	-	2	3/8-18 NPT	72	5
LLCS 30/60 PN 700	84148500107	309	60	44,2	0,27	125	102	60	14	45	2	3/8-18 NPT	72	8
LLCS 50/60 PN 700	84148500104	496	60	70,8	0,43	125	127	80	16	61	2	3/8-18 NPT	72	12
LLCS 100/60 PN 700	84148500105	928	60	132,7	0,8	141	175	110	26	88	2	3/8-18 NPT	72	25
LLCS 100/150 PN 700	84148500106	928	150	132,7	1,99	254	175	110	26	88	2	3/8-18 NPT	72	43



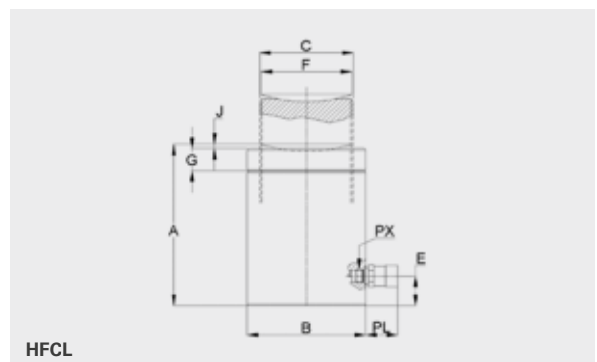
SHORT-STROKE LOCKING CYLINDERS

The LUKAS short-stroke locking cylinders are very compact and feature robust locking nuts that securely support loads up to 500 metric tons for a long period of time with a low space requirement. The mechanical locking and the high-strength special steel are additional advantages for the endurance and safety of the cylinder. In the case of an uneven surface, the cylinders must be supported over their entire surface with a stable underlay.



ADVANTAGES

- As standard with internationally common screw coupling
- Optionally with LUKAS plug-in coupling for integration into existing 500 bar system
- Long and safe holding of a load
- Robust, solid and compact thanks to high-strength special steel
- Piston can be retracted under load
- A spray hole limits the extension travel and protects against incorrect operation. Warning in the form of a red stripe.
- As standard with movable balancing plates for optimal alignment
- Special surface protection against corrosion



700 BAR

Type	Order No.	Lifting force (kN)	Stroke (mm)	Piston area (cm ²)	Effective oil requirements (l)	A (mm)	B (Ø mm)	C (Ø mm)	E (mm)	F	G (mm)	J (mm)	PX	PL (mm)	Mass (kg)
HFCL 50/50 PN 700	60-50-01	496	50	70,8	0,355	125	125	TR 95x4	20	92	21	6	3/8-18 NPT	72	11
HFCL 100/45 PN 700	60-50-10	929	45	132,7	0,597	137	165	TR 130x6	23	126	31	8	3/8-18 NPT	72	22
HFCL 150/45 PN 700	60-50-20	1407	45	201,1	0,905	148	205	TR 160x6	28	148	38	9	3/8-18 NPT	72	39
HFCL 230/45 PN 700	60-50-30	2199	45	314,2	1,413	155	255	TR 200x6	32	157	40	10	3/8-18 NPT	72	62
HFCL 300/45 PN 700	60-50-40	3036	45	433,7	1,952	173	310	TR 235x6	38	215	45	11	3/8-18 NPT	72	97
HFCL 400/45 PN 700	60-50-50	4008	45	572,6	2,577	180	350	TR 270x6	44	260	50	10	3/8-18 NPT	72	130
HFCL 500/45 PN 700	60-50-60	5114	45	730,6	3,388	195	400	TR 305x6	50	295	60	10	3/8-18 NPT	72	184



SINGLE-ACTION HEAVY-DUTY CYLINDERS

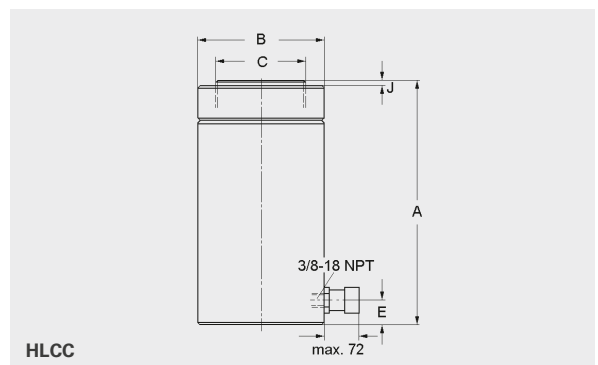
WITH LOCKING NUT AND LOAD RETRACTION

The LUKAS heavy-duty cylinders are the ultimate power packs that lift even heavy loads safely. They are reduced to the essentials and are therefore particularly robust, stable and cost-effective. The range of uses is huge: selectable according to the load to be lifted and the lifting distance to be covered.



ADVANTAGES

- Capacity from 30 to 1000 metric tonnes, stroke up to 300 mm
- Longer mechanical holding of the load possible due to adjusting ring
- Adjusting ring tested under 50% overload
- Spray hole for stroke limitation, without stop ring, warning in the form of a red stripe
- Body, adjusting ring and pressure piece black nitrided to ensure high corrosion protection and improved wear properties
- Use HFCL models in confined spatial conditions



700 BAR

Type	Order No.	Lifting force (kN)	Stroke (mm)	Piston area (cm ²)	Effective oil requirements (l)	A (mm)	A (mm) with APTS	B (mm)	C	E	J	PX	PL	Mass (kg)
HLCC 30/50 PN 700	60-51-01	303	50	44,2	0,221	141	155	100	Tr 75x4	20	3	3/8-18 NPT	72	9
HLCC 30/100 PN 700	60-51-02	303	100	44,2	0,442	191	205	100	Tr 75x4	20	3	3/8-18 NPT	72	12
HLCC 30/200 PN 700	60-51-03	303	200	44,2	0,884	296	310	100	Tr 75x4	20	3	3/8-18 NPT	72	18
HLCC 30/300 PN 700	60-51-04	303	300	44,2	1,325	405	419	100	Tr 75x4	20	3	3/8-18 NPT	72	25
HLCC 50/50 PN 700	60-51-10	496	50	70,9	0,354	153	167	125	Tr 95x4	25	3	3/8-18 NPT	72	14
HLCC 50/100 PN 700	60-51-11	496	100	70,9	0,709	203	217	125	Tr 95x4	25	3	3/8-18 NPT	72	19
HLCC 50/200 PN 700	60-51-12	496	200	70,9	1,418	311	325	125	Tr 95x4	25	3	3/8-18 NPT	72	30
HLCC 50/300 PN 700	60-51-13	496	300	70,9	2,126	416	430	125	Tr 95x4	25	3	3/8-18 NPT	72	40
HLCC 100/50 PN 700	60-51-20	929	50	132,7	0,664	180	190	170	Tr 130x6	30	3	3/8-18 NPT	72	31
HLCC 100/100 PN 700	60-51-21	929	100	132,7	1,327	230	240	170	Tr 130x6	30	3	3/8-18 NPT	72	40
HLCC 100/200 PN 700	60-51-22	929	200	132,7	2,655	335	345	170	Tr 130x6	30	3	3/8-18 NPT	72	59
HLCC 100/300 PN 700	60-51-23	929	300	132,7	3,982	441	451	170	Tr 130x6	30	3	3/8-18 NPT	72	78
HLCC 140/50 PN 700	60-51-30	1407	50	201,1	1,005	195	214	210	Tr 160x6	40	3	3/8-18 NPT	72	52
HLCC 140/100 PN 700	60-51-31	1407	100	201,1	2,011	245	264	210	Tr 160x6	40	3	3/8-18 NPT	72	65
HLCC 140/200 PN 700	60-51-32	1407	200	201,1	4,021	359	378	210	Tr 160x6	40	3	3/8-18 NPT	72	96
HLCC 140/300 PN 700	60-51-33	1407	300	201,1	6,032	465	484	210	Tr 160x6	40	3	3/8-18 NPT	72	125
HLCC 220/150 PN 700	60-51-40	2192	150	314,2	4,712	328	346	260	Tr 200x6	50	3	3/8-18 NPT	72	134
HLCC 220/300 PN 700	60-51-41	2192	300	314,2	9,425	488	506	260	Tr 200x6	50	3	3/8-18 NPT	72	201
HLCC 300/150 PN 700	60-51-45	3037	150	433,7	6,506	351	390	305	Tr 235x6	55	5	3/8-18 NPT	72	197
HLCC 300/300 PN 700	60-51-46	3037	300	433,7	13,012	511	550	305	Tr 235x6	55	5	3/8-18 NPT	72	289
HLCC 400/150 PN 700	60-51-50	4008	150	572,6	8,588	370	418	350	Tr 270x6	65	5	3/8-18 NPT	72	274
HLCC 400/300 PN 700	60-51-51	4008	300	572,6	17,177	530	578	350	Tr 270x6	65	5	3/8-18 NPT	72	395
HLCC 500/150 PN 700	60-51-56	5114	150	730,6	10,959	395	442	400	Tr 305x6	75	5	3/8-18 NPT	72	378
HLCC 500/300 PN 700	60-51-57	5114	300	730,6	21,918	555	602	400	Tr 305x6	75	5	3/8-18 NPT	72	535
HLCC 600/50 PN 700	60-51-60	5987	50	855,3	4,276	311	363	430	Tr 330x6	80	5	3/8-18 NPT	72	347
HLCC 600/150 PN 700	60-51-61	5987	150	855,3	12,829	421	473	430	Tr 330x6	80	5	3/8-18 NPT	72	472
HLCC 600/300 PN 700	60-51-62	5987	300	855,3	25,659	581	633	430	Tr 330x6	80	5	3/8-18 NPT	72	654
HLCC 800/50 PN 700	60-51-70	8149	50	1164,20	5,821	348	405	505	Tr 385x6	95	5	3/8-18 NPT	72	537
HLCC 800/150 PN 700	60-51-71	8149	150	1164,20	17,462	458	515	505	Tr 385x6	95	5	3/8-18 NPT	72	709
HLCC 800/300 PN 700	60-51-72	8149	300	1164,20	34,925	618	675	505	Tr 385x6	95	5	3/8-18 NPT	72	959
HLCC 1000/50 PN 700	60-51-80	10644	50	1520,50	7,603	392	468	570	Tr 440x6	105	5	3/8-18 NPT	72	772
HLCC 1000/150 PN 700	60-51-81	10644	150	1520,50	22,808	502	578	570	Tr 440x6	105	5	3/8-18 NPT	72	991
HLCC 1000/300 PN 700	60-51-82	10644	300	1520,50	45,616	673	749	570	Tr 440x6	105	5	3/8-18 NPT	72	1332

SINGLE-ACTION HEAVY-DUTY CYLINDERS

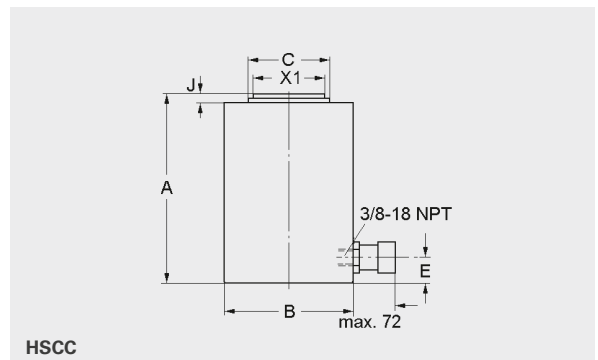
WITH LOAD RETRACTION

The LUKAS heavy-duty cylinders are the ultimate power packs that lift heaviest loads extremely comfortably. They are completely reduced to the essentials and are therefore particularly robust, stable and cost-effective. They are used, for example, in bridge construction to lift transformers and other giant components or to position the heaviest machines.



ADVANTAGES

- Capacity from 50 to 1000 metric tonnes, stroke up to 300 mm
- As standard with internationally common screw coupling
- Large variety of types
- Retract under load
- Wiper rings prevent contamination and wear
- Optionally with LUKAS plug-in coupling for integration into an existing 500 bar system
- Load retraction, particularly suitable for weighing, lifting and positioning applications in civil engineering and underground construction
- Hard chrome-plated pistons for protection against scoring and corrosion
- Spray hole for stroke limitation, without stop ring, warning in the form of a red stripe



700 BAR

Type	Order No.	Lifting force (kN)	Stroke (mm)	Piston area (cm ²)	Effective oil re- quirements (l)	A (mm)	A (mm) with APTS	B (mm)	C (mm)	E (mm)	J (mm)	X1 (mm)	Mass (kg)
HSCC 140/50 PN 700	60-52-01	1407	50	201,1	1,005	160	178	210	160	40	6	94	43
HSCC 140/150 PN 700	60-52-02	1407	150	201,1	3,016	274	294	210	160	40	6	94	74
HSCC 140/300 PN 700	60-52-03	1407	300	201,1	6,032	430	449	210	160	40	6	94	116
HSCC 220/50 PN 700	60-52-10	2199	50	314,2	1,571	180	203	260	200	50	6	113	75
HSCC 220/150 PN 700	60-52-11	2199	150	314,2	4,712	291	314	260	200	50	6	113	120
HSCC 220/300 PN 700	60-52-12	2199	300	314,2	9,425	451	474	260	200	50	6	113	187
HSCC 300/50 PN 700	60-52-20	3036	50	433,7	2,169	193	232	305	235	55	8	140	110
HSCC 300/150 PN 700	60-52-21	3036	150	433,7	6,506	309	348	305	235	55	8	140	176
HSCC 300/300 PN 700	60-52-22	3036	300	433,7	13,012	469	508	305	235	55	8	140	267
HSCC 400/50 PN 700	60-52-30	4008	50	572,6	2,863	215	263	350	270	65	10	159	161
HSCC 400/150 PN 700	60-52-31	4008	150	572,6	8,588	325	373	350	270	65	10	159	244
HSCC 400/300 PN 700	60-52-32	4008	300	572,6	17,177	485	533	350	270	65	10	159	364
HSCC 500/50 PN 700	60-52-40	5114	50	730,6	3,653	225	277	400	305	70	10	179	221
HSCC 500/150 PN 700	60-52-41	5114	150	730,6	10,959	335	387	400	305	70	10	179	329
HSCC 500/300 PN 700	60-52-42	5114	300	730,6	21,918	495	547	400	305	70	10	179	486
HSCC 600/50 PN 700	60-52-50	5987	50	855,3	4,276	236	288	430	330	80	10	194	268
HSCC 600/150 PN 700	60-52-51	5987	150	855,3	12,829	346	398	430	330	80	10	194	393
HSCC 600/300 PN 700	60-52-52	5987	300	855,3	25,659	506	558	430	330	80	10	194	574
HSCC 800/50 PN 700	60-52-60	8149	50	1164,20	5,821	263	320	505	385	95	10	224	411
HSCC 800/150 PN 700	60-52-61	8149	150	1164,20	17,462	373	430	505	385	95	10	224	583
HSCC 800/300 PN 700	60-52-62	8149	300	1164,20	34,925	533	590	505	385	95	10	224	834
HSCC 1000/50 PN 700	60-52-70	10644	50	1520,50	7,603	292	368	570	440	105	10	249	582
HSCC 1000/150 PN 700	60-52-71	10644	150	1520,50	22,808	402	478	570	440	105	10	249	801
HSCC 1000/300 PN 700	60-52-72	10644	300	1520,50	45,616	573	649	570	440	105	10	249	1142

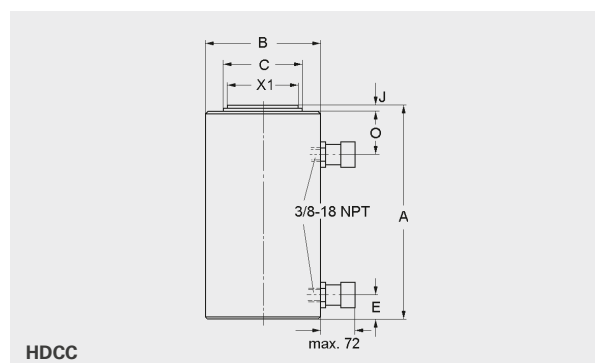
DOUBLE-ACTION HEAVY-DUTY CYLINDERS

The LUKAS double-action heavy-duty cylinders are the ultimate power packs that lift the heaviest loads extremely comfortably. They are completely reduced to the essentials and are therefore particularly robust, stable and cost-effective. They are used, for example, in bridge construction to lift transformers and other giant components or to position the heaviest machines.



ADVANTAGES

- Capacity from 50 to 1000 metric tonnes, stroke up to 300 mm
- Safety valve on entry side to prevent accidental overpressure
- As standard with internationally common screw coupling
- Wiper rings prevent contamination and wear
- Optionally with LUKAS plug-in coupling for integration into an existing 500 bar system
- Hard chrome-plated pistons for protection against scoring and corrosion
- Body and pressure piece black nitrided to ensure high corrosion protection and improved wear properties



700 BAR

Type	Order No.	Lifting force (kN)	Pulling force (kN)	Stroke (mm)	Piston area (cm ²)	Effective oil re- quirements (l)	A (mm)	A (mm) with APTS	B (mm)	C (mm)	E (mm)	J (mm)	O (mm)	X1 (mm)	Mass (kg)
HDCC 140-75/50 PN 700	60-53-01	1407	742	50	201,1	1,005	213	282	210	110	40	6	65	94	53
HDCC 140-75/150 PN 700	60-53-02	1407	742	150	201,1	3,016	318	487	210	110	40	6	70	94	74
HDCC 140-75/300 PN 700	60-53-03	1407	742	300	201,1	6,032	478	797	210	110	40	6	80	94	104
HDCC 220-110/50 PN 700	60-53-10	2199	1121	50	314,2	1,571	233	251	260	140	50	6	75	113	90
HDCC 220-110/150 PN 700	60-53-11	2199	1121	150	314,2	4,712	333	351	260	140	50	6	75	113	120
HDCC 220-110/300 PN 700	60-53-12	2199	1121	300	314,2	9,425	489	516	260	140	50	6	85	113	169
HDCC 300-85/50 PN 700	60-53-20	3036	837	50	433,7	2,169	251	290	305	200	55	8	85	140	137
HDCC 300-85/150 PN 700	60-53-21	3036	837	150	433,7	6,506	357	396	305	200	55	8	85	140	189
HDCC 300-85/300 PN 700	60-53-22	3036	837	300	433,7	13,012	512	551	305	200	55	8	85	140	263
HDCC 400-130/50 PN 700	60-53-30	4008	1347	50	572,6	2,863	275	323	350	220	65	10	95	159,5	197
HDCC 400-130/150 PN 700	60-53-31	4008	1347	150	572,6	8,588	382	430	350	220	65	10	95	159,5	262
HDCC 400-130/300 PN 700	60-53-32	4008	1347	300	572,6	17,177	538	586	350	220	65	10	95	159,5	357
HDCC 500-170/50 PN 700	60-53-40	5114	1678	50	730,6	3,653	305	352	400	250	75	10	110	179,5	287
HDCC 500-170/150 PN 700	60-53-41	5114	1678	150	730,6	10,959	410	457	400	250	75	10	110	179,5	371
HDCC 500-170/300 PN 700	60-53-42	5114	1678	300	730,6	21,918	566	613	400	250	75	10	110	179,5	496
HDCC 600-200/50 PN 700	60-53-50	5987	1979	50	855,3	4,276	315	367	430	270	80	10	115	195	342
HDCC 600-200/150 PN 700	60-53-51	5987	1979	150	855,3	12,829	420	472	430	270	80	10	115	195	440
HDCC 600-200/300 PN 700	60-53-52	5987	1979	300	855,3	25,659	576	628	430	270	80	10	115	195	583
HDCC 800-250/50 PN 700	60-53-60	8149	2519	50	1164,20	5,821	335	392	505	320	95	10	120	225	504
HDCC 800-250/150 PN 700	60-53-61	8149	2519	150	1164,20	17,462	446	503	505	320	95	10	120	225	649
HDCC 800-250/300 PN 700	60-53-62	8149	2519	300	1164,20	34,925	606	663	505	320	95	10	120	225	858
HDCC 1000-430/50 PN 700	60-53-70	10644	4288	50	1520,50	7,603	365	441	570	340	105	10	130	250	696
HDCC 1000-430/150 PN 700	60-53-71	10644	4288	150	1520,50	22,808	476	552	570	340	105	10	130	250	869
HDCC 1000-430/300 PN 700	60-53-72	10644	4288	300	1520,50	45,616	636	712	570	340	105	10	130	250	1116

SPREADERS

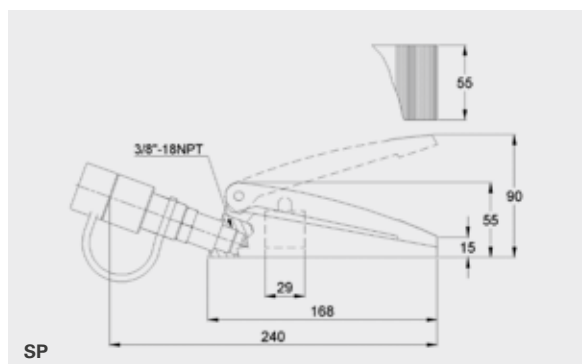
WITH SPRING RETRACTION

Due to its very slim design, the LUKAS spreader is able to get under heavy loads to raise them for the next work step. It does the preparatory work for the next suitable cylinder. It is also the ideal tool for spreading, pushing apart, moving, wedging and widening.



ADVANTAGES

- Closes with spring retraction
- Robust, stable and compact
- Operation possible with any LUKAS hand pump (700 bar)
- As standard with internationally common screw coupling
- Optionally with LUKAS plug-in coupling for integration into existing 500 bar system



700 BAR

Type	Order No.	Lifting force (kN)	Effective oil requirements (l)	Mass (kg)
SP 91	841901310	9,8	0,01	2



PUMPS

POWER MACHINES FOR THE RIGHT OPERATING PRESSURE

The LUKAS motorised and hand pumps are lightweight, user-friendly and suitable for the operation of our cylinders in the range.

Precision and sensitive control of the cylinders ensures a continuous volumetric flow, which makes them particularly powerful. The oil pressure for extending the cylinders is generated repeatedly and kept constant.



HAND PUMPS TYPE ZPH + LH

FOR SINGLE AND DOUBLE-ACTION CYLINDERS

Hand pumps type ZPH

The LUKAS ZPH hand pumps are particularly robust and user-friendly two-stage pumps. They are particularly ergonomic due to their compact design and are intuitive to use. Thanks to an optimal hand lever force, high conveying capacities can always be achieved when using single and double-action cylinders. The exhaust valve can be operated sensitively.

Hand pumps type LH

The hand pumps from the LUKAS LH series have been doing their work reliably and tirelessly for years. They are maintenance-free and move the loads in one go thanks to the automatic switching between high and low pressure. They are suitable for single and double-action cylinders.



➤ ADVANTAGES

- Sensitive operation possible
- Labour-saving and ergonomic
- Compact design for mobile handling
- Maintenance-free and durable
- Retrofit kits for hand pumps for the operation of single and double-action cylinders
- Automatic switching between high and low pressure
- Usable upside down
- Sensitive lowering of single-action cylinders thanks to exhaust valve

Hand pumps type ZPH

- Stable stand at both ends of the hand pump (ZPH 1AF/1)
- Large model ZPH 3 with particularly high conveying capacity
- Lockable pump lever forms carrying handle

Handpumpen Typ LH

- Lockable pump lever forms carrying handle

500 BAR

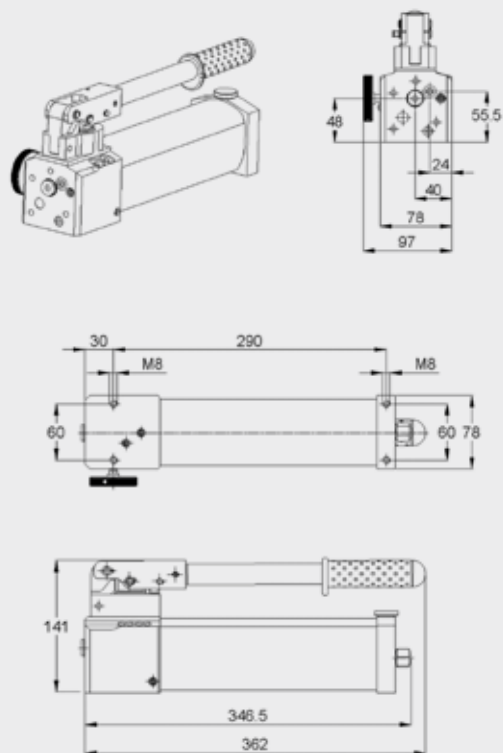
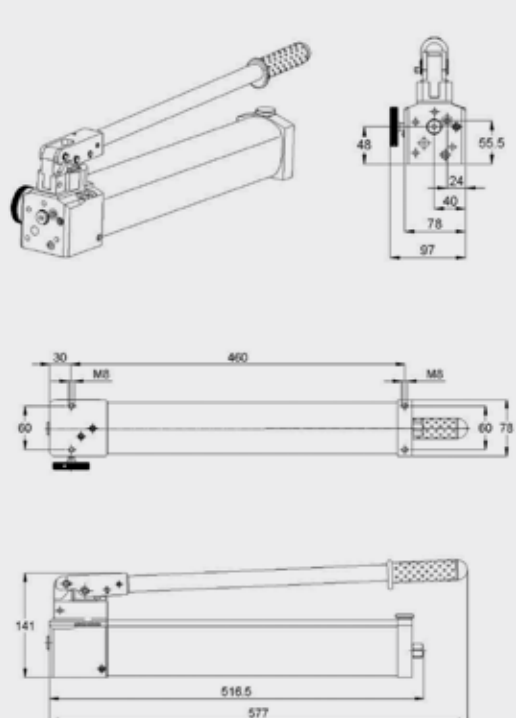
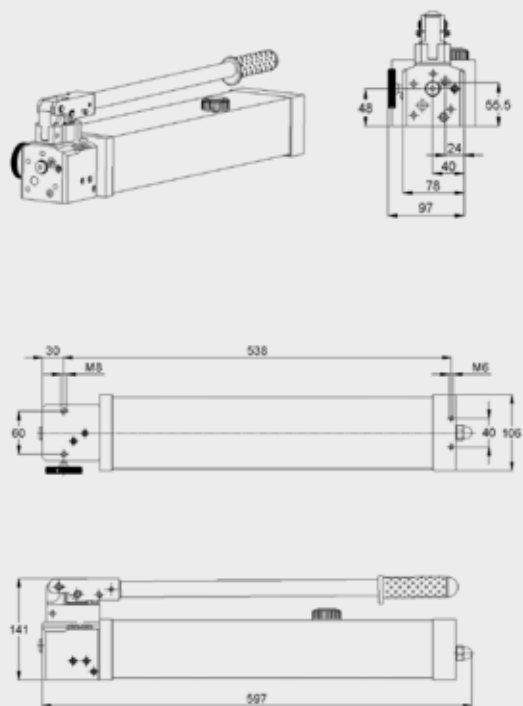
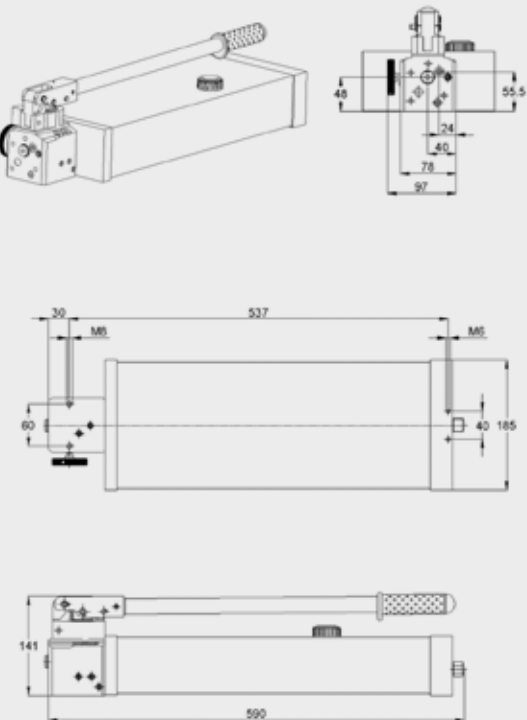
Type	Order No.	Filling quantity (l)	Usable quantity (l)	Delivery quantity per stroke (low pressure) (cm ³)	Automatic switchover at (bar)	Delivery quantity per stroke (high pressure) (cm ³)	Mass (kg)
LH 1/0,5-50	841291120_C	0,7	0,47	6	20	0,8	4
LH 2/0,9-50	841292130_C	1,3	0,9	17	20	1,7	5,2
LH 2/1,8-50	841292140_C	2,3	1,8	17	20	1,7	6,5
LH 2/3,8-50	841292150_C	4,5	3,8	17	20	1,7	10,8
ZPH 1A/1	841200120	1,3	1,1	10	100	1,6	7,7
ZPH 1AF/1*	841203120	1,3	1,1	10	100	1,6	7,9
ZPH 1A/5	841200122	5,2	4,5	10	100	1,6	13,1
ZPH 3/4	841200410	5,25	4	10,8	180	4,2	11
ZPH 3/8	841200420	10,5	8	10,8	180	4,2	15,4

* ZPH 1AF/1 with stable stand, ZPH 1A/1 as attached version without stand.

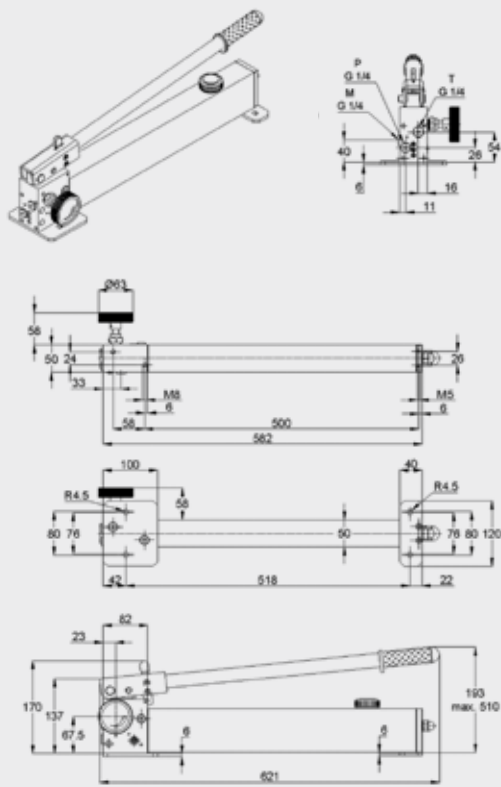
700 BAR

Type	Order No.	Filling quantity (l)	Usable quantity (l)	Delivery quantity per stroke (low pressure) (cm ³)	Automatic switchover at (bar)	Delivery quantity per stroke (high pressure) (cm ³)	Mass (kg)
LH 1/0,5-70	841291220_C	0,7	0,47	6	20	0,8	4
LH 2/0,9-70	841292230_C	1,3	0,9	17	20	1,7	5,2
LH 2/1,8-70	841292240_C	2,3	1,8	17	20	1,7	6,5
LH 2/3,8-70	841292250_C	4,5	3,8	17	20	1,7	10,8
ZPH 1A/1	841200179	1,3	1,1	10	100	1,6	7,7
ZPH 1AF/1*	841203179	1,3	1,1	10	100	1,6	7,9
ZPH 1A/5	841200180	5,2	4,5	10	100	1,6	13,1
ZPH 3/4	841200415	5,25	4	10,8	180	4,2	11
ZPH 3/8	841200425	10,5	8	10,8	180	4,2	15,4

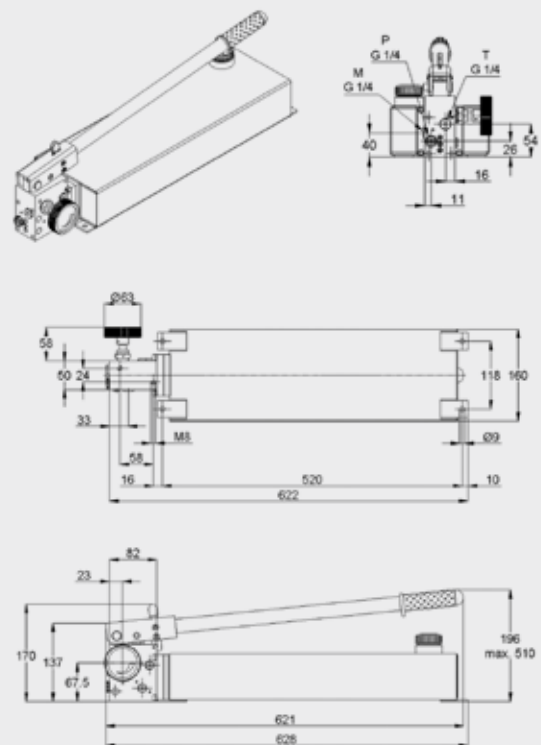
* ZPH 1AF/1 with stable stand, ZPH 1A/1 as attached version without stand.

LH 1/0,5

LH 2/0,9

LH 2/1,8

LH 2/3,8


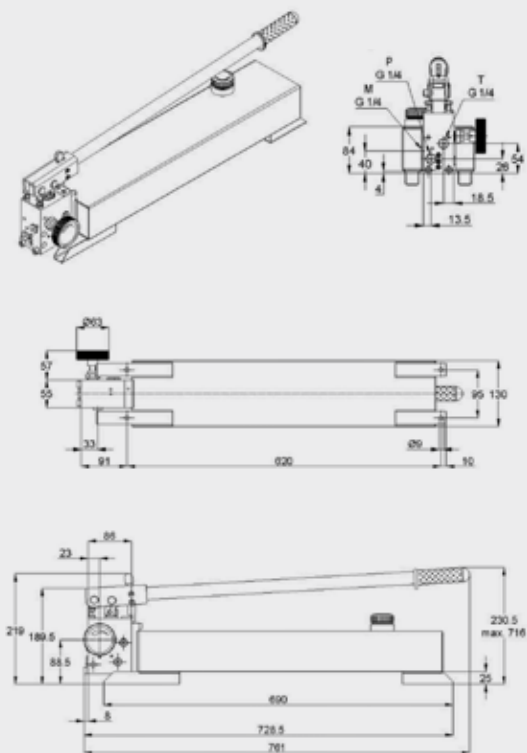
ZPH 1A/1 & ZPH 1AF/1



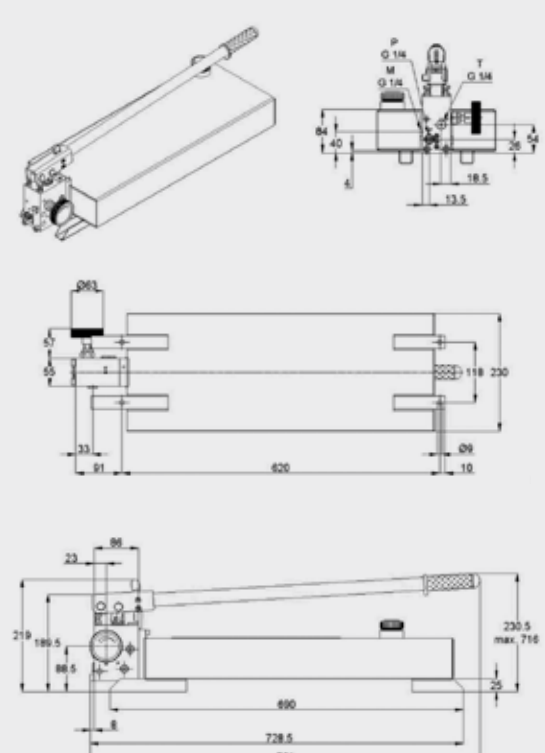
ZPH 1A/5



ZPH 3/4



ZPH 3/8



AIR-HYDRAULIC PUMPS

FOR SINGLE AND DOUBLE-ACTION CYLINDERS

LUKAS air-hydraulic pumps work quickly, automatically and are operated by the user with the foot. This frees up your hands and allows you to actively support your project. Thanks to the easy operation, the work is particularly labour-saving and ergonomic.



ADVANTAGES

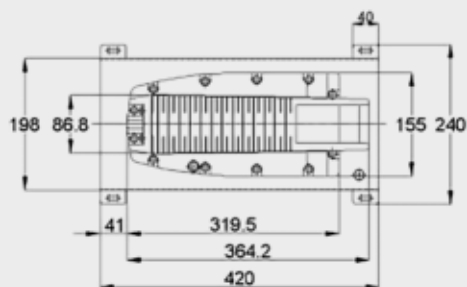
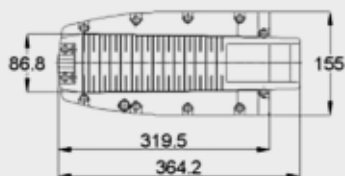
- Internal pressure limiting valve protects against overload
- Labour-saving and ergonomic
- Maintenance-free and durable
- Two variants with different tank volumes (2.4 and 5 litres)
- Suitable for driving single and double-action hydraulic cylinders
- Simple operation via a pedal with the settings: Extend - Stop - Retract
- Oscillating pressure translator (air/oil) generates oil pressure proportional to the input pressure
- Can be connected to any workshop compressed air system

500 BAR

Type	Order No.	For single-action cylinders	For double-action cylinders	Oil tank (l)	Max operating pressure (bar)	Conveying capacity (without load) (l/min)	Conveying capacity (with load) (l/min)	Usable oil quantity (l)	Air pressure range (bar)	Air consumption (bar)	Compressed air connection	Oil connection	Mass (kg)
AHP 2-1E-502	HR149463251	X	O	2,4	500	1,1	0,15	2,1	2,8-10	340	G 1/4"	G 1/4"	6,3
AHP 2-1E-505	HR149463252	X	O	5	500	1,1	0,15	4,5	2,8-10	340	G 1/4"	G 1/4"	8,8
AHP 2-1D-502	HR149463255	O	X	2,4	500	1,1	0,15	2,1	2,8-10	340	G 1/4"	G 1/4"	6,3
AHP 2-1D-505	HR149463256	O	X	5	500	1,1	0,15	4,5	2,8-10	340	G 1/4"	G 1/4"	8,8

700 BAR

Type	Order No.	For single-action cylinders	For double-action cylinders	Oil tank (l)	Max operating pressure (bar)	Conveying capacity (without load) (l/min)	Conveying capacity (with load) (l/min)	Usable oil quantity (l)	Air pressure range (bar)	Air consumption (bar)	Compressed air connection	Oil connection	Mass (kg)
AHP 2-1E-702	HR149463253	X	O	2,4	700	1,1	0,15	2,1	2,8 - 10	340	G 1/4"	G 1/4"	6,3
AHP 2-1E-705	HR149463254	X	O	5	700	1,1	0,15	2,1	2,8 - 10	340	G 1/4"	G 1/4"	8,8
AHP 2-1D-702	HR149463257	O	X	2,4	700	1,1	0,15	2,1	2,8 - 10	340	G 1/4"	G 1/4"	6,3



AHP

UNITS

HIGH-PERFORMANCE MOTORISED PUMPS FOR ALL CYLINDERS

The powerful two-stage LUKAS units are the power donors for the operation of cylinders when even more power is required.

The LUKAS motorised pumps are powerful and quiet. Sensitive extension and retraction are easily possible thanks to the exhaust valve with handwheel.

By later switching from low pressure to high pressure at 16 MPa (160 bar), higher working speeds can be achieved in the lower load range than with conventional working pumps. At just 66 dB (A), the hydraulic power units are just as loud as a passing car and are therefore absolutely suitable for working indoors.

The integrated radial piston pump is robust and ensures longevity of the motorised pump through constant performance with high efficiency.





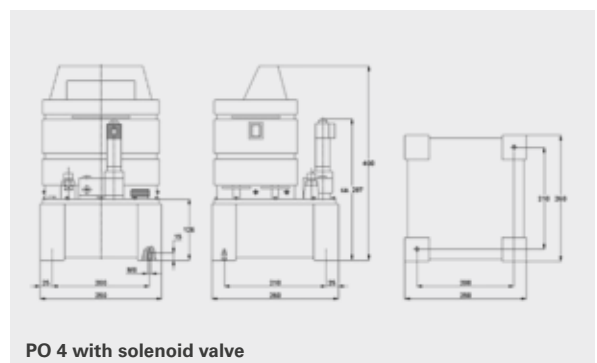
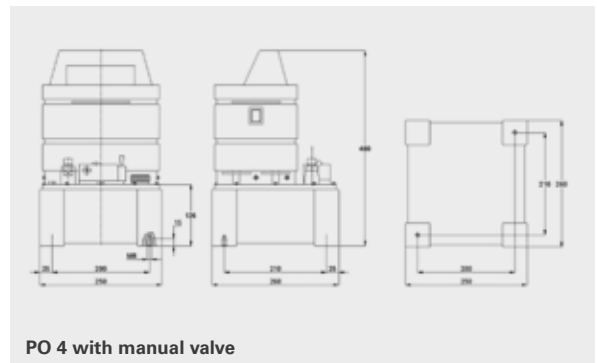
HYDRAULIC UNITS PO 4

With the compact motorised pumps from the PO 4 series, you are well equipped when you need to drive small and medium-sized cylinders more frequently in different locations. The compact power packs perform reliably, even for long periods of time



ADVANTAGES

- Portable and specially designed for mobile use
- Durable and low-maintenance
- Constant high-pressure conveying capacity up to maximum pressure
- LUKAS radial piston pump with suction valves for constant flow
- Switching pressure for quick extension without load
- Unit with remote control (switching on/off in jogging mode)
- Cable length 3 m (with remote control)



500 BAR

Type	Order No.	Filling quantity (l)	Usable quantity (l)	Conveying capacity low pressure (l/min)	Switching (bar)	Conveying capacity high pressure (l/min)	Motor	Power (kW)	Protection class according to DIN 40050	Mass (kg)
PO4-4-N3/N4 500 F	8411215	5	4	2,1	50	0,24	230 V / 50 Hz	0,55	IP 20	22,7
PO4-4-L2/2 500 F	841122403	5	4	2,1	50	0,24	230 V / 50 Hz	0,55	IP 20	23
PO4-4-G2/2 500 F	841122503	5	4	2,1	50	0,24	230 V / 50 Hz	0,55	IP 20	23

700 BAR

Type	Order No.	Filling quantity (l)	Usable quantity (l)	Conveying capacity low pressure (l/min)	Switching (bar)	Conveying capacity high pressure (l/min)	Motor	Power (kW)	Protection class according to DIN 40050	Mass (kg)
PO4-4-N3/N4 700 F	8411225	5	4	2,1	50	0,24	230 V / 50 Hz	0,55	IP 20	22,7
PO4-4-L2/2 700 F	841122401	5	4	2,1	50	0,24	230 V / 50 Hz	0,55	IP 20	23
PO4-4-G2/2 700 F	841122501	5	4	2,1	50	0,24	230 V / 50 Hz	0,55	IP 20	23

 VARIANTS
Version N3 for single-action cylinders

Sensitive extension and positioning of the load. The load can also be held when the motor is switched on (unpressurised oil circulation). Retractable with the motor switched on or off.

Version N4 for double-action cylinders

Extension and holding of the load is possible with the motor switched on (unpressurised oil circulation). Retraction only works with the motor switched on.

Version L 2/2 - without load-holding function

Motor start-up when actuating the remote control, solenoid valve closes. The connected hydraulic cylinder extends as long as the button remains pressed. To retract, release the button - the motor stops, solenoid valve to "idle", cylinder retracts by spring retraction.

Version G 2/2 - with load-holding function

Remote control with 3-position switch

Position "1" = motor on, solenoid valve closed, cylinder extends

Centre position "0" = motor off, solenoid valve closed, load is held

Position "2" = motor off, solenoid valve to "idle", cylinder retracts by spring retraction

HYDRAULIC UNITS PO 6

FOR SINGLE AND DOUBLE-ACTION CYLINDERS

The LUKAS PO6 hydraulic unit is our powerful motorised pump for all cylinders in different designs.



VARIANTS

PO 6 1E for a single-action cylinder:

Precise control of the speed during lifting or lowering is achieved by throttling the exhaust valve. Load holding function with closed exhaust valve and motor switched off.

PO 6 1D for a single or double-action cylinder:

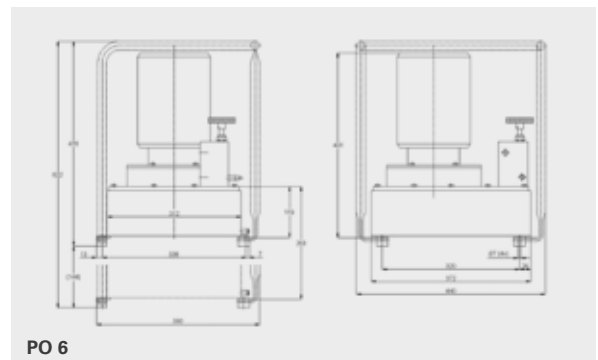
Lifting and lowering the load by means of a switching valve. Load holding function in the centre position of the switching valve. A double-action cylinder may only be retracted when the motor is running.

Operate cylinders with a motorised pump to generate even more power. Through the later switching from low pressure to high pressure at 16 MPa (160 bar), you can achieve higher working speeds in the lower load range than with conventional motorised pumps.



ADVANTAGES

- High-pressure conveying capacity remains constant up to maximum pressure
- Radial piston pump with patented suction valves
- Compact design and low weight facilitate transport
- Carrying handle as optional accessory



PO 6

500 BAR

Type	Order No.	Filling quantity (l)	Usable quantity (l)	Conveying capacity low pressure (l/min)	Switching (bar)	Conveying capacity high pressure (l/min)	Motor	Power (kW)	Protection class according to DIN 40050	Mass (kg)
PO6-1E-10-50	841125607	7,5 - 10	6 - 8,5	4,4	160	1,4	230 V / 50 Hz	2,2	IP 54	41
PO6-1D-10-50	841125609	7,5 - 10	6 - 8,5	4,4	160	1,4	230 V / 50 Hz	2,2	IP 54	42
PO6-1E-25-50	841125627	15 - 24	10 - 19	4,4	160	1,4	230 V / 50 Hz	2,2	IP 54	54
PO6-1D-25-50	841125629	15 - 24	10 - 19	4,4	160	1,4	230 V / 50 Hz	2,2	IP 54	55

700 BAR

Type	Order No.	Filling quantity (l)	Usable quantity (l)	Conveying capacity low pressure (l/min)	Switching (bar)	Conveying capacity high pressure (l/min)	Motor	Power (kW)	Protection class according to DIN 40050	Mass (kg)
PO6-1E-10-70	841125601	7,5 - 10	6 - 8,5	4,4	160	1,4	230 V / 50 Hz	2,2	IP 54	41
PO6-1D-10-70	841125603	7,5 - 10	6 - 8,5	4,4	160	1,4	230 V / 50 Hz	2,2	IP 54	42
PO6-1E-25-70	841125621	15 - 24	10 - 19	4,4	160	1,4	230 V / 50 Hz	2,2	IP 54	54
PO6-1D-25-70	841125623	15 - 24	10 - 19	4,4	160	1,4	230 V / 50 Hz	2,2	IP 54	55

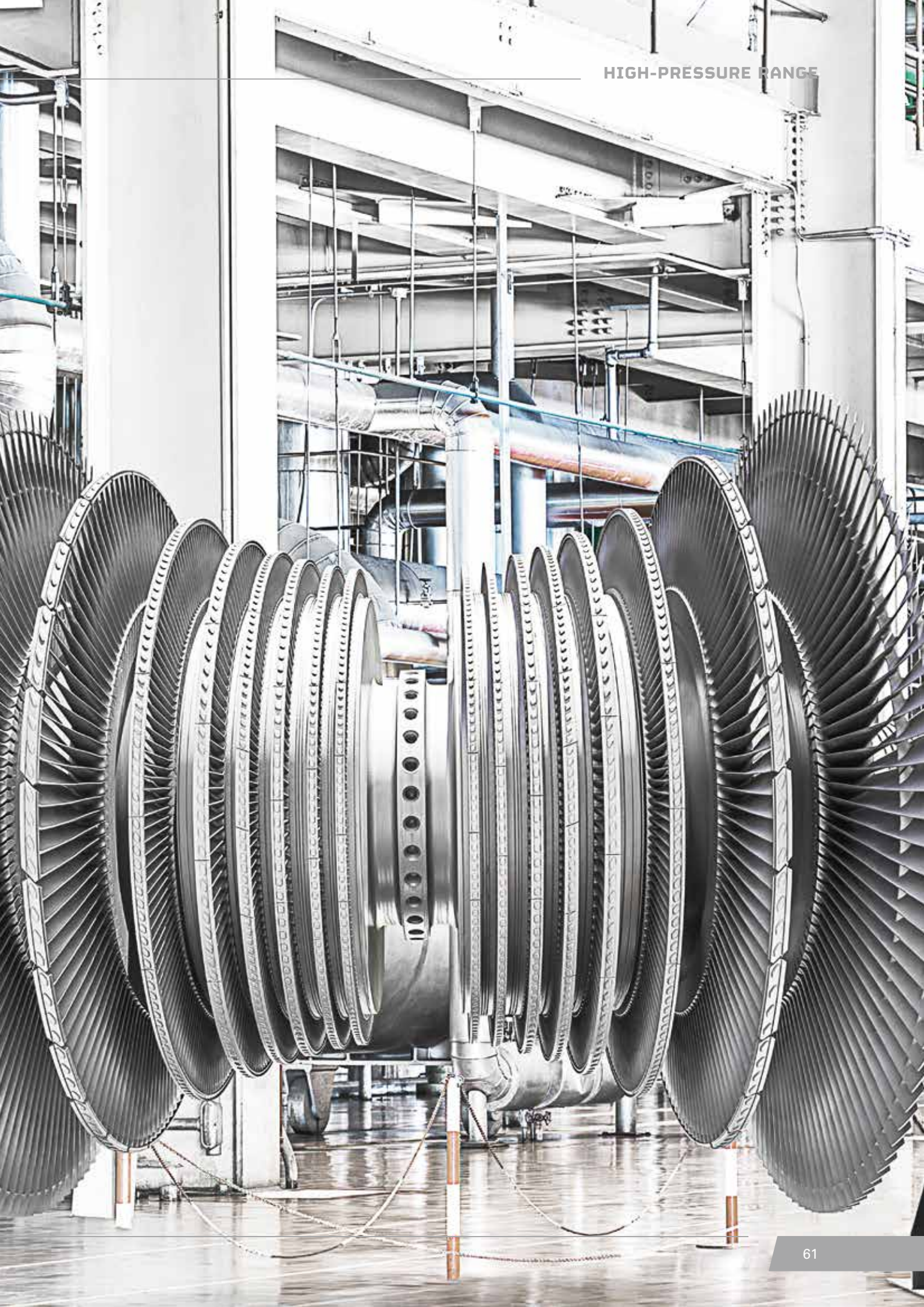


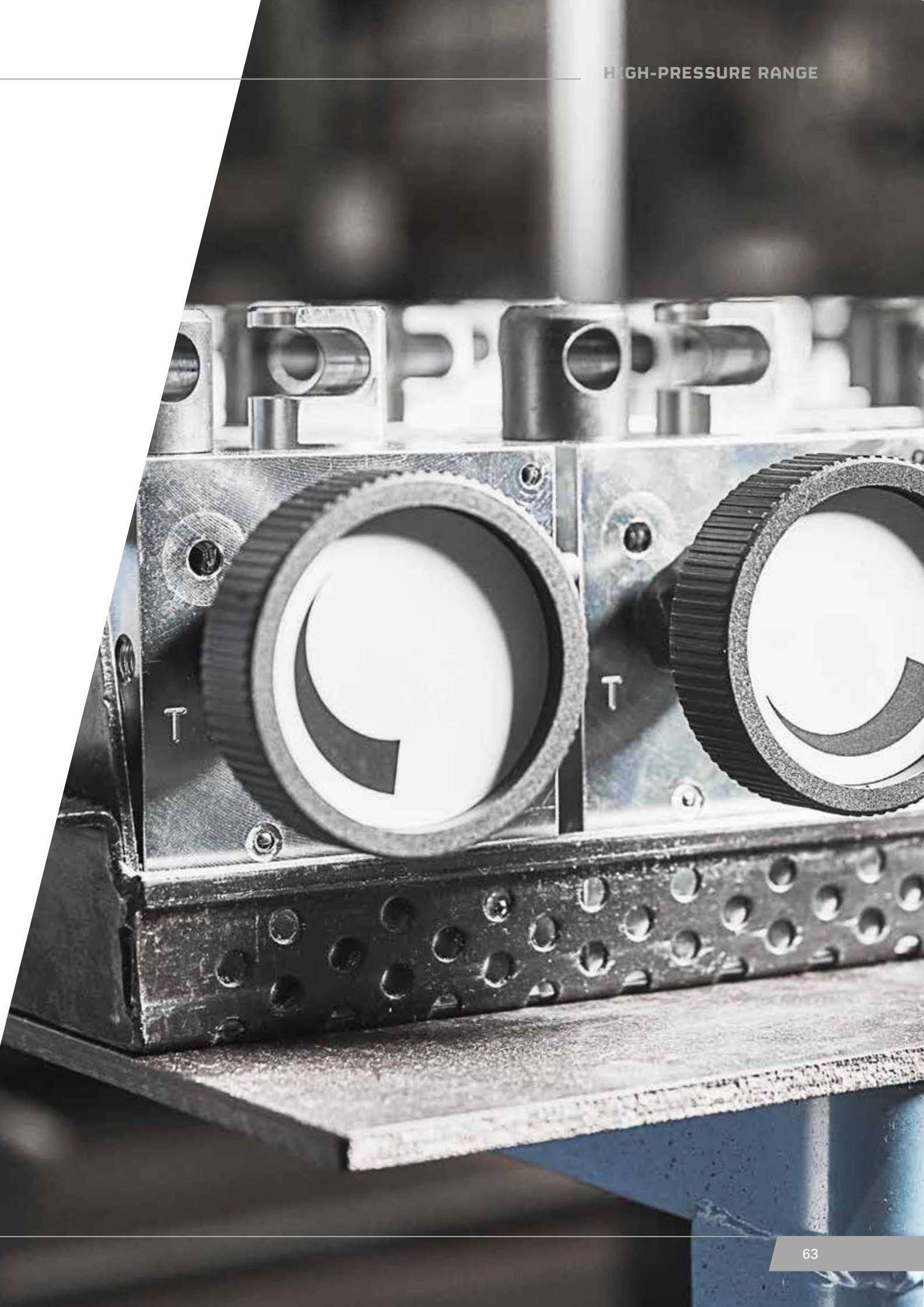
HIGH-PRESSURE RANGE

THE RIGHT PRESSURE FOR YOUR SPECIAL APPLICATIONS

Projects with extraordinary demands – these are exactly the challenges that LUKAS likes to face.

We have developed our high-pressure range for your special applications, in which pressure ranges up to 2,500 bar are no problem. Especially if you only need high pressure for a certain project or temporarily and do not need a permanent solution in this area, our products are just the right choice for you.





PRESSURE MULTIPLIER SET

3000 BAR

The LUKAS pressure multiplier is mainly used to loosen interference fits by expanding the bearings, wheels or gears to be pulled off. For this purpose, the pressure multiplier increases the input pressure several times over up to a maximum output pressure of 3000 bar. The pressure multiplier is screwed directly into a hole in the work-piece to be pulled off. The input pressure is generated with the hand pump.

The multiplier set contains:

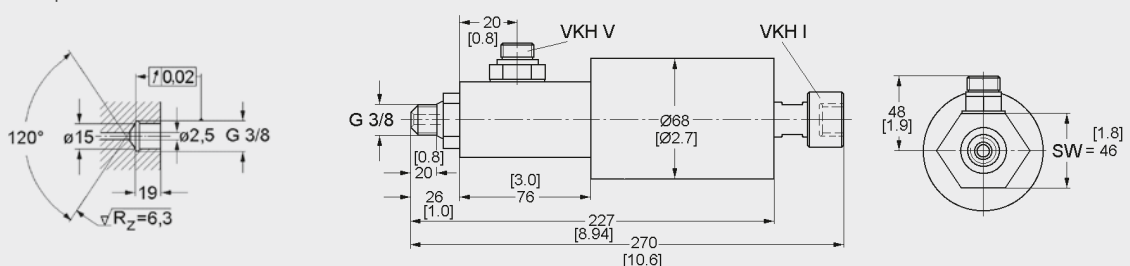
A 3000-bar multiplier, a ZPH 1AF/1 hand pump with pressure setting 450 bar, manometer, hand valve, hoses with couplings, transport box



ADVANTAGES

- Increase of the input pressure of max. 450 bar in a ratio of 1:6.7
- The maximum output pressure is thus 3000 bar
- Supplied as a complete set

Workpiece - internal connection



Type	Set order number	Pressure primary (bar)	Secondary pressure (bar)	Secondary lifting volume (cm ³)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (Ø mm)	SW	Weight of set (kg)
300 MPa	840328115	450	3000	15,1	270	227	26	76	20	16	48	68	46	28



High-pressure range

ACCESSORIES

YOU CAN RELY ON

THE LUKAS ACCESSORIES!

At LUKAS, your safety is very important to us. That's why we specialise in making your work easier on site and offer a variety of "little helpers" in addition to our industrial portfolio, which effectively contribute to success.

Whether you need carrying handles to move our cylinders more easily or a specially adapted transport trolley for our unit.

You will find the right aid in the accessories. Compensation plates to compensate for unequal movements when lifting loads? No problem! The compensating rescuers are inserted directly into the cylinder and adapt themselves so that forces can act evenly.

Our LUKAS base plates provide for better stability and the quick-connect couplings make coupling much easier.

We think through your project with you, down to the last detail.

Moving your Projects.

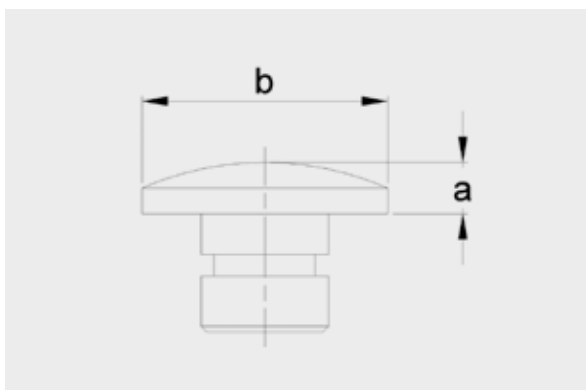




CYLINDER ACCESSORIES

CONVEX PRESSURE PIECES

Protect cylinders and parts you move against unwanted damage.

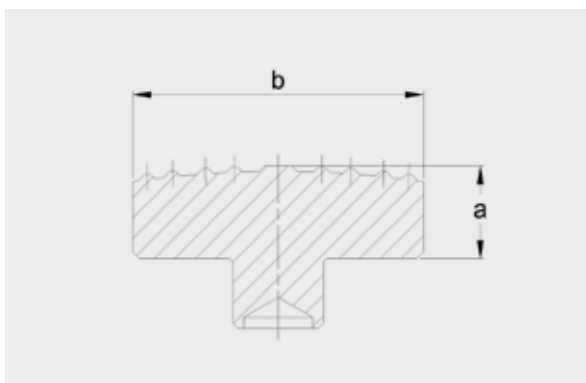


Type	Order No.	A (mm)	B (Ø mm)	Mass (kg)
LF. 6, LF. 10	841281509	15	32	0,1
LF. 16	841281513	10	48	0,35
HL... 9, HL... 14	841281509	15	32	0,1
HL... 22	841281513	10	48	0,35
ACM 10/...	841281509	15	32	0,1
ACM 25/...	841281513	10	48	0,35

PISTON PROTECTION PLATES

Protect cylinders and parts you move against unwanted damage.

LUKAS piston protection plates offer the right solution for the standard application.



Type	Order No.	A (mm)	B (Ø mm)	Mass (kg)
LF.6, LF.10	841285002	17	40	0,2
LF.16, LF.25	841285004	20	63	0,6
LF.100	841285007	28	120	2,7
HL... 9, HL... 35	841285002	17	40	0,2
HL... 22, HL... 35	841285004	20	63	0,6
HL... 140	841285007	28	120	2,7
ACM 10/ ...	841285002	17	40	0,2
ACM 25/ ...	841285002	17	40	0,2

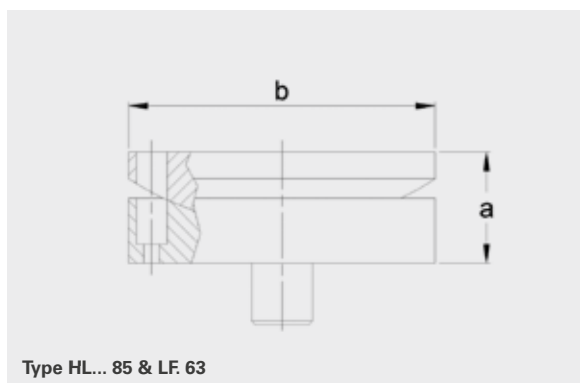
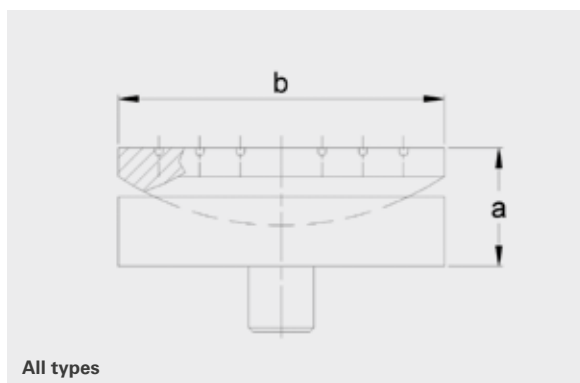
COMPENSATION PLATES

LUKAS compensation plates are indispensable in the case of unequal movements - for example, in the one-sided lifting of loads.

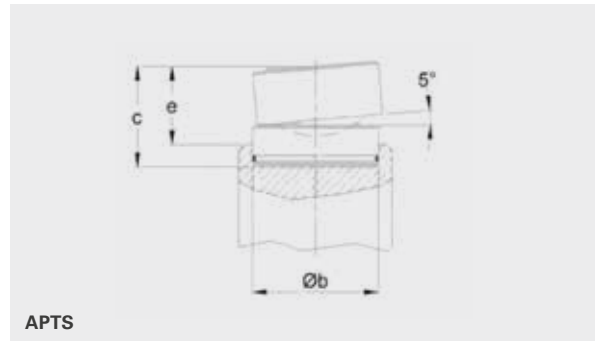
Inserted directly into the cylinder piston, they adapt themselves so that the forces can act evenly again as planned.

Type	Order No.	A (mm)	B (Ø mm)	Angle of inclination (°)	Mass (kg)
LF. 6, LF. 10	841285063	20	50	5	0,3
LF. 16, LF. 25	841285062	20	63	5	0,3
LF. 40	841285065	28	80	5	1,1
HL... 9, HL... 14	841285063	20	50	5	0,3
HL... 22, HL... 35	841285062	20	63	5	0,3
HL... 55	841285065	28	80	5	1,1
ACM 10/...	841285063	20	50	5	0,3
ACM 25/...	841285063	20	50	5	0,3
ACM 63/...	841285065	28	80	5	1,1

Type	Order No.	A (mm)	B (Ø mm)	Angle of inclination (°)	Mass (kg)
HL... 85	841281624	45	110	5	3
LF. 63	841281624	45	110	5	3



COMPENSATION PLATES FOR HEAVY-DUTY CYLINDERS



Type	Order No.	For LUKAS Cylinders	C (mm)	e (mm)	b (mm)	Mass (kg)
APTS50	60-54-01	HLCC30; HLCC50	34	14	50	1
APTS100	60-54-02	HLCC100	30	10	71	1,5
APTS150	60-54-03	HLCC140; HSCC140; HDCC140	39	19	94	3
APTS200	60-54-04	HLCC220; HSCC220; HDCC220	43	18	113	4,4
APTS300	60-54-05	HLCC300; HSCC300; HDCC300	68,5	38,5	140	10,3
APTS400	60-54-06	HLCC400; HSCC400; HDCC400	78	48	159	17
APTS500	60-54-07	HLCC500; HSCC500; HDCC500	77	47	179	20
APTS600	60-54-08	HLCC600; HSCC600; HDCC600	81,5	51,5	194	24
APTS800	60-54-09	HLCC800; HSCC800; HDCC800	86,5	56,5	224	32
APTS1000	60-54-10	HLCC1000; HSCC1000; HDCC1000	105,5	75,5	249	46

EXTENSIONS

When the crucial centimetres are lacking, LUKAS extensions offer a practical solution.

Important: Use is only allowed:

- with central force transmission
- with no more than one extension
- in combination with the appropriate cylinders



Type	Order No.	A (mm)	B (Ø mm)	Mass (kg)
LF. 6, LF. 10	840318101	100	32	0,63
LF. 16, LF. 25	8403107	100	50	4
LF. 16, LF. 25	8403108	200	50	8
HL... 9, HL... 14	840318101	100	32	0,63
HL... 22, HL... 35	8403107	100	50	4
HL... 22, HL... 35	8403108	200	50	8

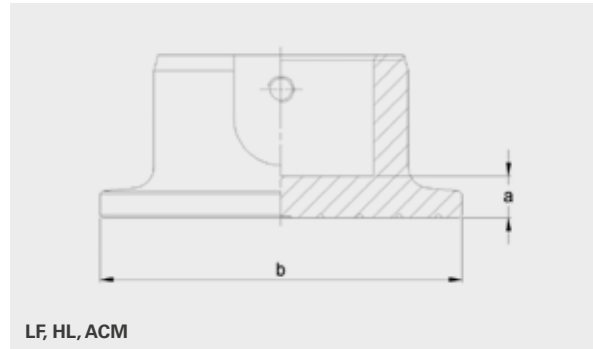
BASE PLATES

LUKAS base plates increase the footprints of cylinders, thus helping stable and secure positioning. So that your planned work steps always work right away!

Recommended for all lifting work!



Type	Order No.	A (mm)	B (Ø mm)	Mass (kg)
LF. 16	841280607	17	158	1,3
LF. 100	841281320	20	300	9
HL... 22	841280607	17	158	1,3
HL... 140	841281320	20	300	9
ACM 25/...	841280607	17	158	1,3



ACCESSORIES FOR PUMPS

HOSES

For an optimal 4-fold safety factor, LUKAS high-pressure hoses are manufactured in the highest quality. They are thus as flexible and kink-resistant as possible.

In both hose variants (red hose = 500 bar, black hose = 700 bar) there are cap nuts at both ends, which allow the direct screwing in of quick-connect sleeves. In the case of the red 500 bar hose, dimension M is 14 x 1.5 and in the case of the black 700 bar hose, dimension G is 1/4.

A connection nipple G 1/4 is required to connect the other end to the pump. This is included with the respective hose.

500 BAR



Type	Order No.	Length (mm)	Max operating pressure(bar)	Quantity (l)
M 14x1,5	8407126005	500	700	0,3
M 14x1,5	8407126010	1000	700	0,5
M 14x1,5	8407126020	2000	700	0,8
M 14x1,5	8407126030	3000	700	1,1
M 14x1,5	8407126050	5000	700	1,8
M 14x1,5	8407126100	10000	700	3,5

700 BAR

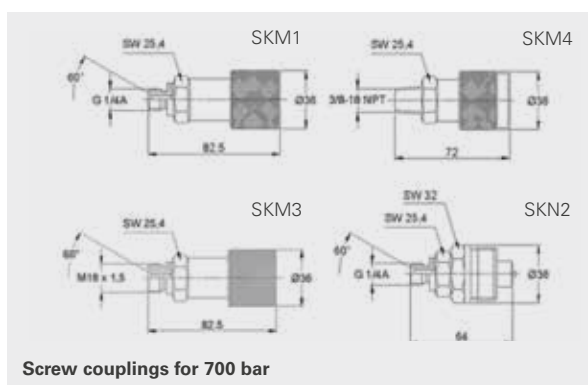
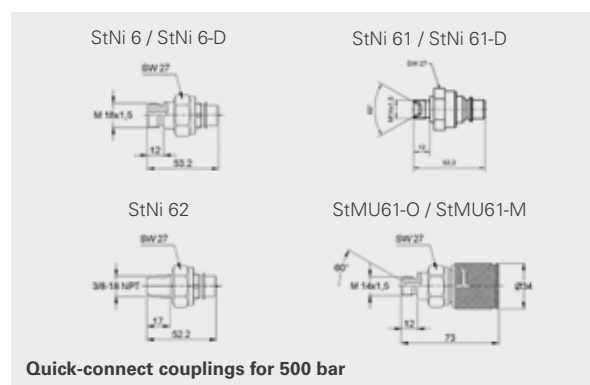


Type	Order No.	Length (mm)	Max operating pressure(bar)	Quantity (l)
G 1/4	8407127005	500	700	0,3
G 1/4	8407127010	1000	700	0,5
G 1/4	8407127020	2000	700	0,8
G 1/4	8407127030	3000	700	1,1
G 1/4	8407127050	5000	700	1,8
G 1/4	8407127100	10000	700	3,5

COUPLINGS

The LUKAS quick-connect coupling makes coupling much easier. This makes plugging together – for example of two hoses - not only faster. Thanks to a safety device, unintentional uncoupling is also prevented.

Sleeves and nipples are equipped with dust protection caps against contamination and are available individually.



QUICK-CONNECT COUPLINGS FOR 500 BAR

Type	Order No.	Identifying colour	Application	Max operating pressure (bar)	Mass (kg)
StNi 6	8405313	silver	single-action	700	0,125
StNi 6-D	8405315	golden	double-action	700	0,125
StNi 61	840531370	silver	single-action	700	0,125
StNi 61-D	840531570	golden	double-action	700	0,125
StNi 62	8405316	silver	single-action	700	0,125
StMu 61-M	840531270	silver	with quick stop	700	0,28
StMu 61-O	840531470	black	without quick stop	700	0,28

SCREW COUPLINGS FOR 700 BAR

Type	Order No.	Designation	Mass (kg)
SKM 1	840533510	Sleeve	0,4
SKM 3	840533530	Sleeve	0,4
SKM 4	840533550	Sleeve	0,4
SKN 2	840533520	Nipple	0,4

SCREW CONNECTION

To permanently connect hydraulic hoses or devices, LUKAS screw fittings are the most practical solution. Choose from a variety of connection threads and sealing methods to keep your transition tight. Your personal LUKAS advisor will be happy to help you with your selection.



Connectors

Type	Order No.	d1	d2	Mass (kg)
AS	84126520608	G 1/4	M 14x1,5	0,1
AS	841265230	M 14x1,5	G 1/4 A	0,1
AS	84126520623	M 18x1,5	G 1/4 A	0,1
AS	841265218	G 3/8-NPT	G 1/4 A	0,15
AS	84126522501	G 1/4	G 3/8-NPT	0,15



Connection nipple

Type	Order No.	d1	d2	Max operating pressure(bar)	Mass (kg)
AN	V84071338001	G 1/4 A	M 14x1,5	1600	0,05
AN	84126510215	M 14	M 14x1,5	700	0,05



Connection sleeve

Type	Order No.	d1	d2	Mass (kg)
AM	8407179	G 1/4	M 18x1,5	0,12
AM	84126500109	G 1/4	G 1/4	0,08

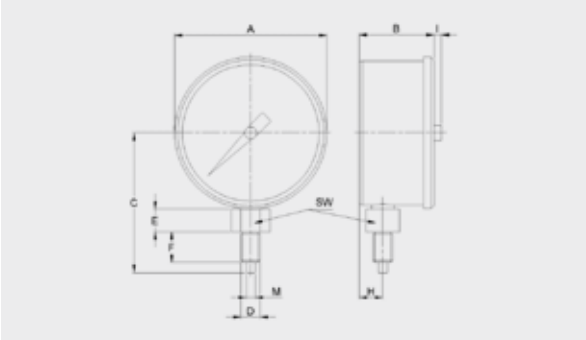


Connection nipple, high pressure

Type	Order No.	d1	d2	Max operating pressure(bar)	Mass (kg)
AN	84126510202	G 1/4 A	G 1/4 A	1600	0,05
AN	V84071338001	M 14x1,5	G 1/4 A	1600	0,05

MANOMETERS

LUKAS manometers are simply mounted on the hand pump USING the appropriate high-pressure connection. The operating pressure in the hydraulic system can be read on a clear display.



Type	Order No.	Execution	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	H (mm)	M (mm)	SW	Max operating pressure (bar)	Mass (kg)
M 210/G*	KT 149376189	Liquid-damped	100	49	92	G 1/2	15	20	15,5	6	22	1000	1,2



MANOMETER UNITS

With the variable manometer connectors from LUKAS, you can mount them either vertically or at an angle of 30°. This way, you always place the display in the optimal position to be able to read it more easily. All LUKAS manometer units are liquid-damped.

MEL: Suitable for most LUKAS hydraulic pumps.

MEG: Suitable for the LUKAS PO61D hydraulic pumps and for the PO4 with solenoid valve control.

MA3: Suitable for all LUKAS hand pumps.

MA2: Suitable for lateral attachment to LUKAS ZPH hand pumps.

Type	Order No.	Max operating pressure (bar)	Mass (kg)
MEL 700 N	841120109	700	1
MEG 700	841120105	700	0,6
MA3	841265232	700	0,8
MA2	841265231	700	0,15



MEL 700 N



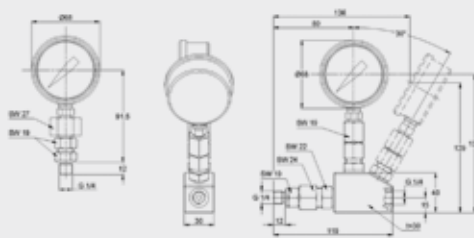
MEG 700



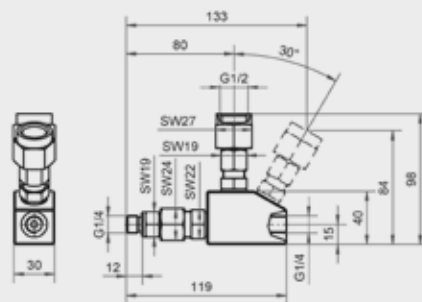
MA3



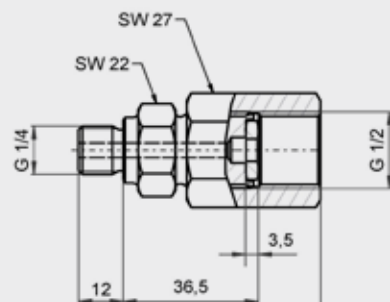
MA2



MEG 700 & MEL 700 N



MA3



MA2

RETROFIT KITS FOR ZPH HAND PUMPS

For the operation of a double-action cylinder:

- 4/2-way valve N4/2W as control valve
- Dimensions (L x W x H): 80 x 50 x 147 mm
- Mass: 1.5 kg
- Order number: 841119848

For the operation two single-action cylinders

- N2W 2-way distribution valve
- Distribution valve for operating two single-action cylinders
- Partial streams can be regulated and coordinated with each other
- Dimensions (L x W x H): 115 x 80 x 114 mm
- Mass: 2.1 kg
- Order number: 841489903

N4M oil distributor with manometer connection

- Splitting an oil stream into 5 streams (e.g. 4 device connections and 1 manometer connection MA2)
- Dimensions (L x W x H): 57 x 54 x 75 mm
- Mass: 1.4 kg
- Order number: 841489905

RETROFIT KITS FOR LH1 / LH 2 HAND PUMPS

For the operation of a double-action cylinder:

- 4/3-way valve N4/3W as control valve
- Dimensions (L x W x H): 55 x 85 x 143 mm
- Mass: 1.5 kg
- Article number: 841297310

For the operation two single-action cylinders

- N2W 2-way distribution valve
- Partial streams can be regulated and coordinated with each other
- Dimensions (L x W x H): 115 x 80 x 114 mm
- Mass: 2.1 kg
- Article number: 841489903

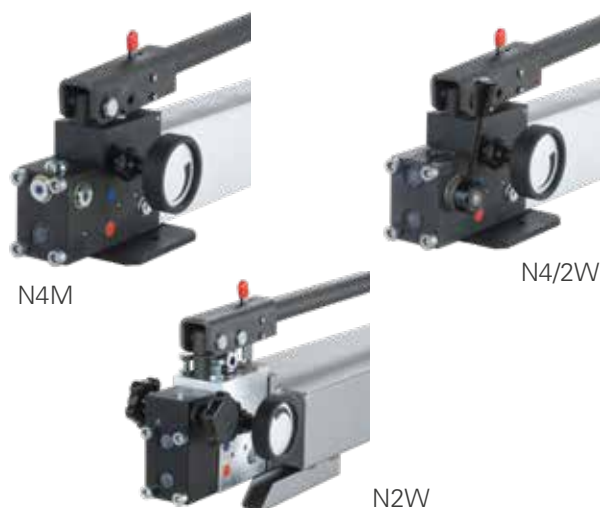
N4M oil distributor with manometer connection

- Splitting an oil stream into 5 streams (e.g. with 4 device connections and 1 manometer connection (MA2))
- Dimensions (L x W x H): 57 x 54 x 75 mm
- Mass: 1.4 kg
- Article number: 841489905

Please order ASP2 connection plate for mounting N2W and N4M separately

- Dimensions (L x W x H): 68 x 76.5 x 20 mm
- Mass 0.3 kg
- Article number: 841297413

See also Accessories: couplings, hoses and manometers



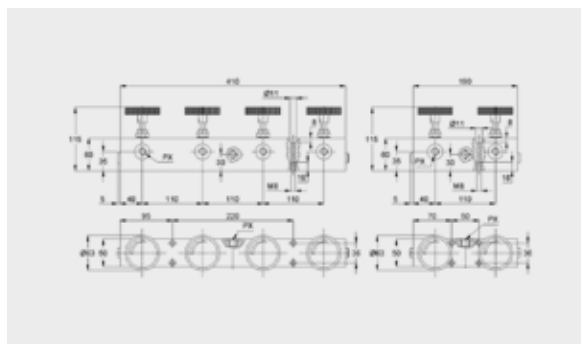
DISTRIBUTION VALVES



Convert a single oil stream into several individually regulable oil streams. The LUKAS distribution valves offer practical functions for this purpose – simply by opening and closing:

- 1) Control the flow rate of each oil stream individually
- 2) Shut off oil streams independently of each other

Type	Order No.	Max operating pressure (bar)	Connection thread	Mass (kg)
2-way valve	841120720	700	G 1/4	4,5
4-way valve	841120721	700	G 1/4	9,75



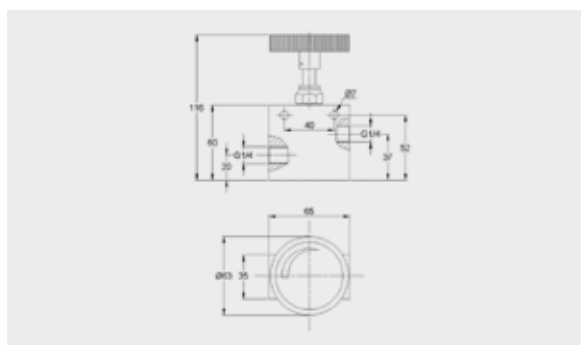
SHUT-OFF THROTTLE VALVE



The needle valve can be installed in both flow directions in order to throttle the flow rate of an oil stream or completely shut it off. For example, when lowering a load with the cylinder, the lowering speed can be regulated, while the extension speed remains unaffected.

Includes hydraulic screw fittings for mounting on LUKAS hydraulic pumps.

Type	Order No.	Flow rate (l/min)	Max operating pressure (bar)	Connection thread	Mass (kg)
ADV	841489914	12	700	G 1/4 A	1,1



ACCESSORIES FOR UNITS

LSI 2 TRANSPORT TROLLEY

The transport trolley for the LUKAS industrial cutting kit is ideal for mobile use. It consists of a sturdy steel frame with holders for the various devices.

Large hard rubber wheels (200 mm) facilitate transport.

Type	Order No.	Dimensions (mm)	Mass (kg)
LSI 2	841501361	1002 x 621	14,8



CARRYING FRAME

Facilitate transport with our carrying frame for PO6 units with 10 litre tank.

Type	Order No.	Dimensions (mm)	Mass (kg)
Carrying frame	V84150760103	440 x 380 x 450	1,8



ACCESSORIES FOR HIGH-PRESSURE RANGE

HIGH-PRESSURE HOSES

For an optimal safety factor, LUKAS high-pressure hoses are manufactured in excellent quality. They are thus as flexible and kink-resistant as possible. Both ends are equipped with a cap nut.

Two connecting nipples (M 14 x 1.5/G 1/4 A) are supplied as standard.
For the hoses type 250 MPa, the connecting nipple has a basic seal.



Type	Order No.	Max pressure (MPa)	Length (mm)	Mass (kg)
160 MPa	840713313	160	2000	0,7
160 MPa	840713316	160	5000	1,4
250 MPa	840713373	250	2000	1,2
250 MPa	840713376	250	5000	2,3

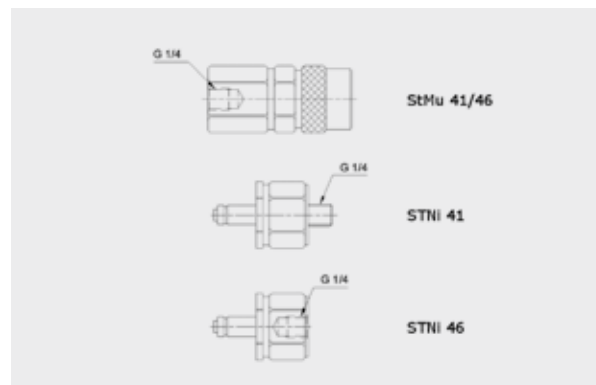
QUICK-CONNECT COUPLINGS; HIGH PRESSURE

The LUKAS quick-connect coupling makes coupling much easier. This makes plugging together - for example of two hoses - not only faster. Thanks to a safety device, unintentional uncoupling is also prevented.

Sleeves and nipples are equipped with dust protection caps against contamination and are available individually.

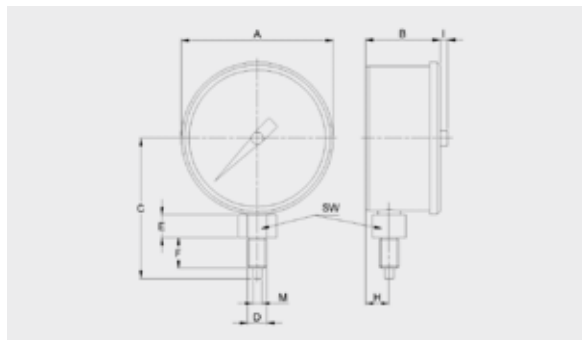


Type	Order No.	Application	Max operating pressure (bar)	Mass (kg)
StNi 41	840535050	Standard	1000	0,125
StNi 41-M	840535051	Quick-stop	1000	0,125
StNi 46	840535030	Standard	1600	0,125
StMu 41	840535052	Universal	1000	0,125
StMu 46	840535040	standard	1600	0,125



HIGH-PRESSURE MANOMETER

LUKAS high-pressure manometers are simply mounted on the hand pump with the appropriate high-pressure connector. The operating pressure in the hydraulic system can be read on a clear display.



Type	Order No.	Execution	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	H (mm)	M (mm)	SW	Max operating pressure(bar)	Mass (kg)
M 210/G*	KT 149376189	Liquid-damped	100	49	92	G 1/2	15	20	15,5	6	22	1000	1,2
M 316	KT 149376081	Liquid-damped	100	75,5	123	G 1/2	15	20	24	6	22	1600	0,6
M 416	KT 149376096	Liquid-damped	100	75,5	123	G 1/2	15	20	24	6	22	2500	1,6

CONNECTORS FOR HIGH-PRESSURE MANOMETER

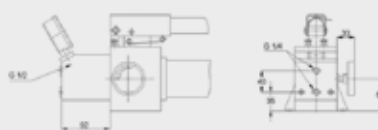
Perfectly fit between LUKAS pumps and manometers from the high-pressure range. Very robust thanks to high-quality workmanship!



Suitable for HKP 8 and HKP 10



Suitable for HKP 6



Type	Order No.	Execution
HKP 10, HKP 8	841832510	Front attachment
HKP 6	841808320	Front attachment

HYDRAULIC OIL

LUKAS hydraulic oils are universally usable with all LUKAS industrial products. With ageing resistance and reduction of device wear, it meets all the characteristics you expect from a high-performance hydraulic oil.

Mineral oil:

LUKAS mineral oil-based hydraulic oil meets the requirements of DIN 51524.

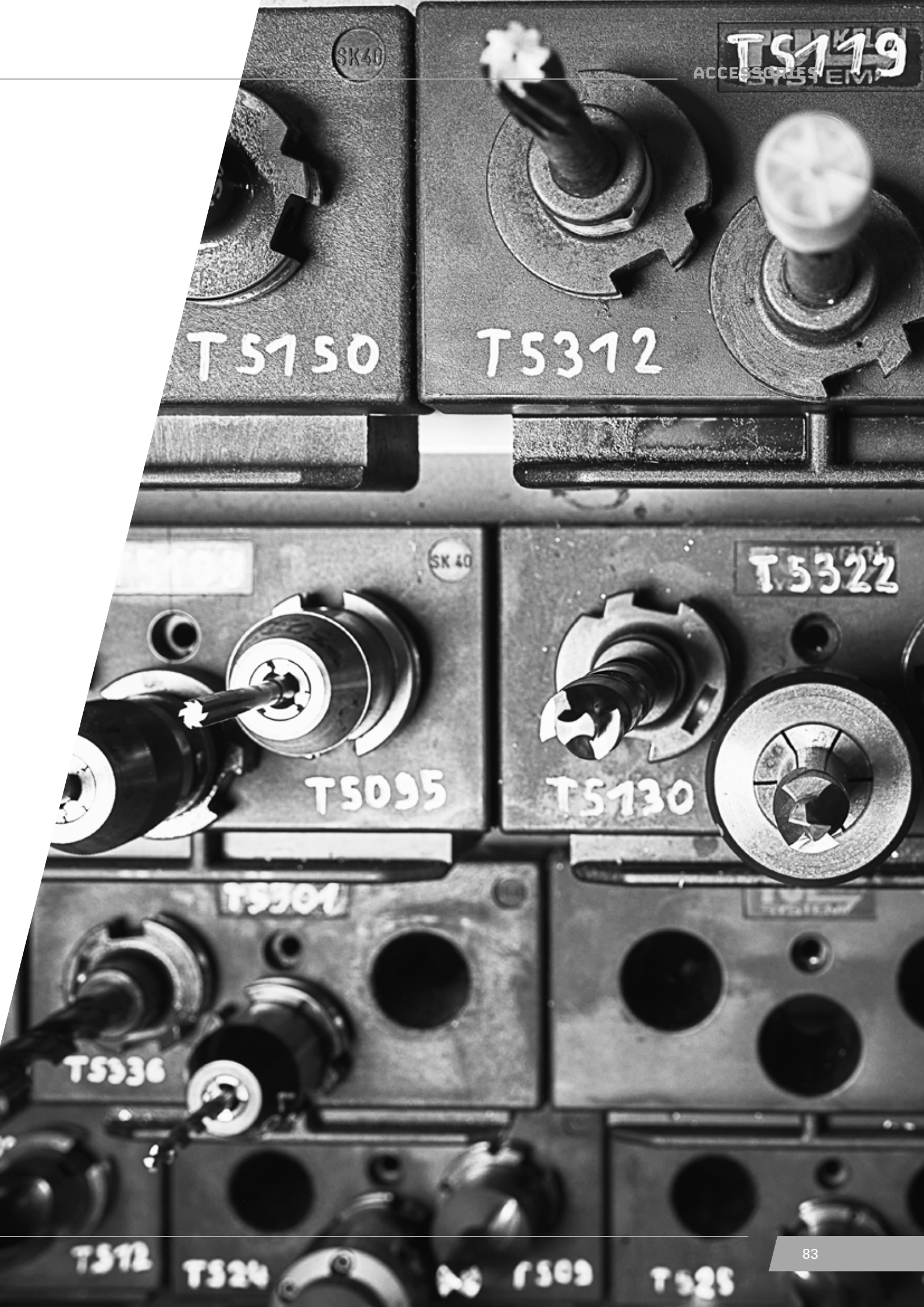
Environmentally friendly synthetic oil:

Important: The biodegradable LUKAS synthetic oil can be mixed in any ratio with commercially available mineral oil-based hydraulic oils. When switching to biodegradable oil, it is recommended for environmental reasons to empty and, if necessary, clean all oil-carrying containers: from the tank of the hydraulic pump to the hoses to the work equipment.



Type	Order No.	Viscosity class	Quantity (l)
For 500-700 bar	15-10-05	VG 10	5
For 500-700 bar	15-10-10	VG 10	10





SK40

TS119
ACCESSORIES
SYSTEM

T5150

T5312

SK 40

T5322

T5095

T5130

T5304

T5336

T512

T524

T509

T509

T525

INDUSTRIAL CUTTING DEVICES

EASY OPERABILITY AND EXCEPTIONAL CUTTING PERFORMANCE

Our **LUKAS cutting devices** facilitate the dismantling and demolition of buildings, on construction sites and in scrapyards, because they combine convenient handling with easy operability and exceptional cutting performance.





LSI 200 AND 220 CUTTING DEVICES

The LUKAS LSI 200 and LSI 220 are powerful cutting devices with a cutting force of between 305 and 311 kN. Due to the low weight of 13.8 and 15.7 kg respectively, the tools can be used very flexibly and make their way through, no matter what material. The blades can be reground and the LUKAS star grip valve can be controlled easily without twisting the wrist.



AVAILABLE BLADE FORMS:



LSI 230



LSI 235



LSI 240



ADVANTAGES

- Blades can be reground
- Star grip valve with thumb pressure control
- Grease nipple on the central bolt
- With cutting blades: Recycling of cars and cables, cutting work in production plants
- Easy handling thanks to low weight
- Precise easy control in any working position
- Durable, robust sliding plates
- Blade shapes geometrically optimised for a wide range of applications

Type	Order No.	Opening width (mm)	Dimensions (mm)	Cutting force at 500 bar (kN)	Mass (kg)
LSI 200	841501352	125	670 x 220 x 163	311	13,8
LSI 220	841501349	150	725 x 220 x 163	305	15,7

LSI 511 V CUTTING DEVICE

The LUKAS LSI 511 V cutting device is designed for the hardest work. Whether it's the demolition of buildings, the dismantling of industrial plants or in the scrapyard, with the mobile cutting force of 689 kN you can easily master the most challenging tasks.



ADVANTAGES

- Maximum cutting forces
- Blades can be reground
- Star grip valve with thumb pressure control
- Grease nipple on the central bolt
- Durable, robust sliding plates
- Blade shapes geometrically optimised for a wide range of applications

Type	Order No.	Opening width (mm)	Dimensions (mm)	Cutting force at 500 bar (kN)	Mass (kg)
LSI 511 V	841501492	132	755 x 235 x 168	689	23,5

HYDRAULIC UNITS PO 6 LSI 10-50

FOR INDUSTRIAL CUTTING DEVICES

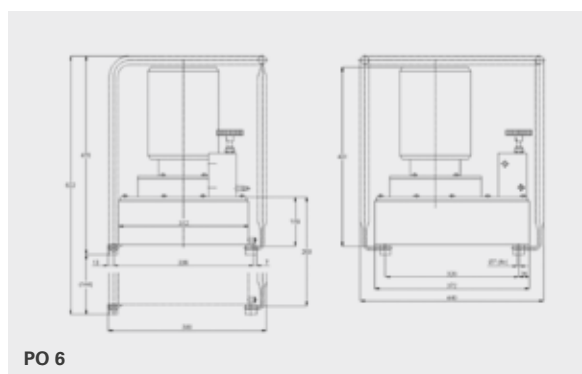
The LUKAS PO 6 LSI 10-50 hydraulic unit is our powerful motorised pump for all industrial cutting devices. The powerful LUKAS PO 6 LSI 10-50 two-stage unit is the power donor for our cutting equipment.

Equipped with an electric motor and a radial piston pump, a particularly low noise level in combination with fast working is guaranteed.



ADVANTAGES

- High-pressure conveying capacity remains constant up to maximum pressure
- Radial piston pump with patented suction valves
- Compact design and low weight facilitate transport
- Carrying handle as optional accessory
- You can find the matching transport trolley in the accessories!



500 BAR

Type	Order No.	Filling quantity (l)	Usable quantity (l)	Conveying capacity low pressure (l/min)	Switching (bar)	Conveying capacity high pressure (l/min)	Motor	Power (kW)	Protection class according to DIN 40050	Mass (kg)
PO6-LSI-10-50	841125646	7,5 - 10	6 - 8,5	4,4	160	1,4	230 V / 50 Hz	1,3	IP 54	41



LUKAS



LUKAS Hydraulik GmbH · A Unit of IDEX Corporation · www.lukas.com · www.lukas-store.de

STRONG PARTNERS STRONG PERFORMANCE

OUR PRODUCTS CONVINCE
IN EVERY APPLICATION

Industrial cushions 8 bar – IKV and V-series

Silent and jerk-free tool.

- Fast as lightning
- Type designation = lifting force
- Controllable with millimetre accuracy
- Can be filled with water



Vetter industrial cushions 8 bar are characterised in particular by silent, jerk-free and stepless lifting of the heaviest loads. They lift, press, hold and split – even in inclined positions.

The surface profile improves adhesion to slippery surfaces such as grass, sand, etc. They have a multi-layered structure that is widely covering on each side of the pillow. This is an aramid reinforcement.

The industrial cushions can be filled with both air and water. The accessories necessary for filling can be assembled individually.



The industrial cushions from the **IKV series** have been specially developed for applications with high lifting frequencies, such as:

- Closing devices in presses or other machines
- Regular pressing or lifting of loads
- Mould ejection in production lines.

The industrial cushions from the **V-series** are best suited for temporary uses, such as:

- Assembly and maintenance work on machines and other equipment
- Transfer and adjustment of heavy loads.

Industriekissen 8 bar		Lifting force metric tonnes / US tons	Lifting height, max cm / inch	Size cm / inch	Air requirement Liter / cu.ft	Weight, approx. kg / lbs
V 1 1314009300	IKV 1 5100010800	1,0 1,1	7,5 3,0	14 x 13 5,5 x 5,1	2,7 0,1	0,5 1,1
V 3 1314009500	IKV 3 5100010900	3,3 3,6	12,0 4,7	25,5 x 20 10 x 7,9	15,8 0,6	1,0 2,2
V 5 1314018200	IKV 5 5100011000	5,7 6,3	14,5 5,7	28 x 28 11 x 11	28,4 1,0	1,4 3,1
V 6 1314009600	IKV 6 5100011100	6,4 7,0	16,5 6,5	29,5 x 29,5 11,6 x 11,6	39,6 1,4	1,9 4,2
V 10 1314002200	IKV 10 5100011200	9,6 10,6	20,3 8,0	37 x 37 15 x 15	82,8 2,9	3,3 7,3
V 12 1314002400	IKV 12 5100010600	12,0 13,2	20,0 7,9	32 x 52 13 x 20	96,3 3,4	3,9 8,6
V 18 1314002500	IKV 18 5100011300	17,7 19,5	27,0 10,6	47 x 52 19 x 20	195,3 6,9	5,7 12,6
V 20 1314011800		19,4 21,4	28,0 11,0	48 x 58 19 x 23	224,1 7,9	6,2 13,7
V 24 1314002600	IKV 24 5100011500	24,0 26,5	30,6 12,0	52 x 62 20 x 24	296,1 10,4	7,2 15,9
V 24 L 1314002700	IKV 24 L 5100011600	24,0 26,5	20,1 7,9	31 x 102 12 x 40	211,5 7,5	6,8 15,0
V 31 1314002800	IKV 31 5100011700	31,4 34,6	37,0 14,6	65 x 69 26 x 27	517,5 18,0	10,1 22,3
V 35 L 1314018300		35,8 39,5	31,0 12,2	43 x 115 17 x 45	349,4 12,3	10,0 22,1
V 40 1314002900	IKV 40 5100011900	39,6 43,7	40,2 15,8	78 x 69 31 x 27	675,0 23,6	12,2 26,9
V 54 1314003000	IKV 54 5100012100	54,4 60,0	47,8 18,8	86 x 86 34 x 34	1.117,8 39,5	17,3 38,1
V 68 1314003100	IKV 68 5100012200	67,7 74,6	52,0 20,5	95 x 95 37 x 37	1.457,1 51,4	20,7 45,6

Industrial cushions (8 bar):

Operating pressure: 8 bar
 Test pressure: 14 bar
 Bursting pressure, at least: 32 bar

L = elongated cushion

The sizes IKV 1 (V 1) – IKV 40 (V 40) have an insertion height of 2.5 cm, IKV 54 (V 54) – IKV 68 (V 68) of 2.8 cm.

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