

LUKAS

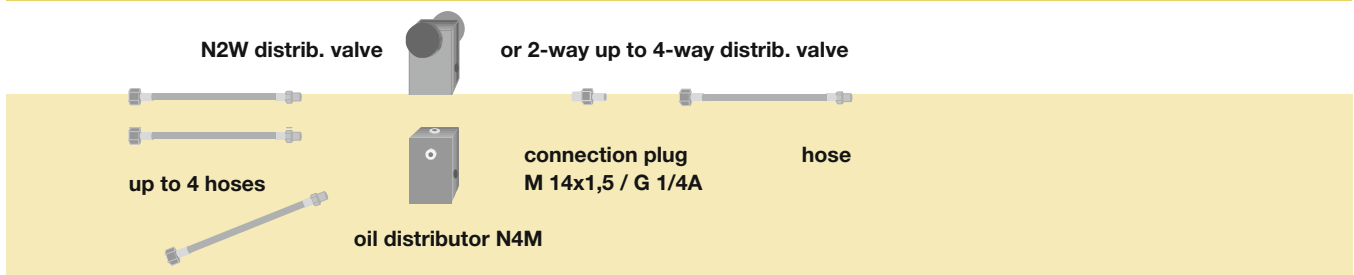
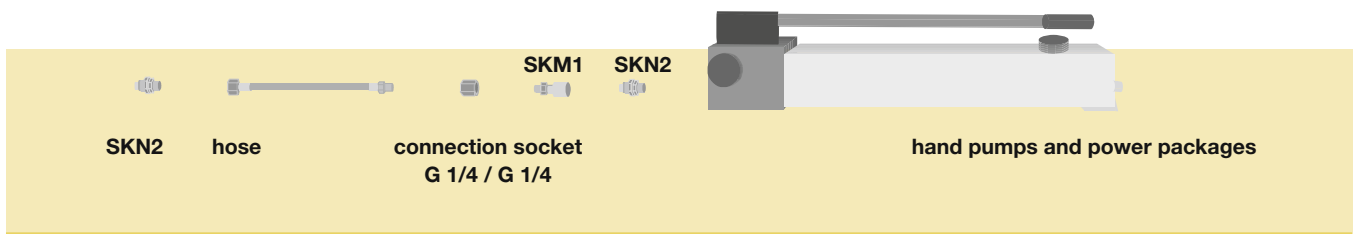
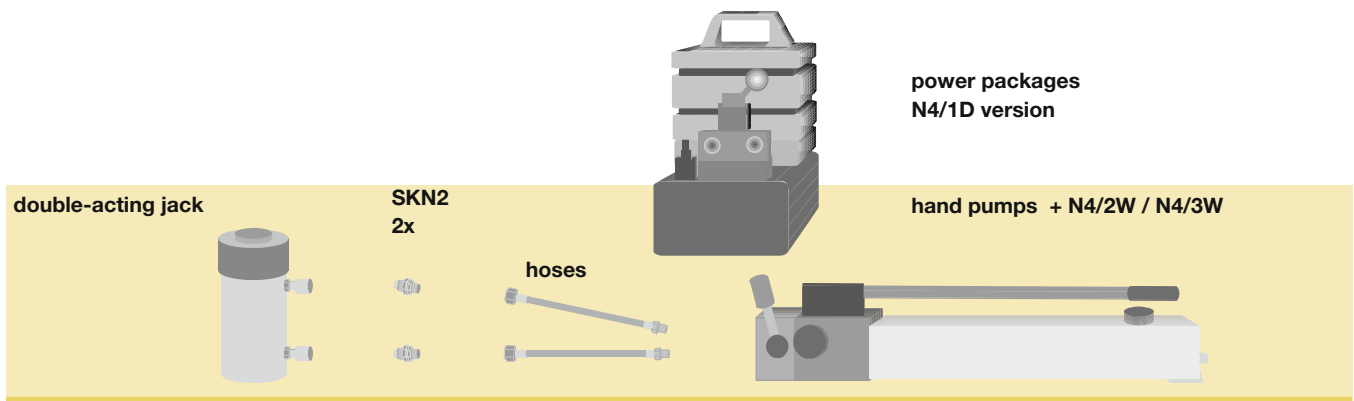
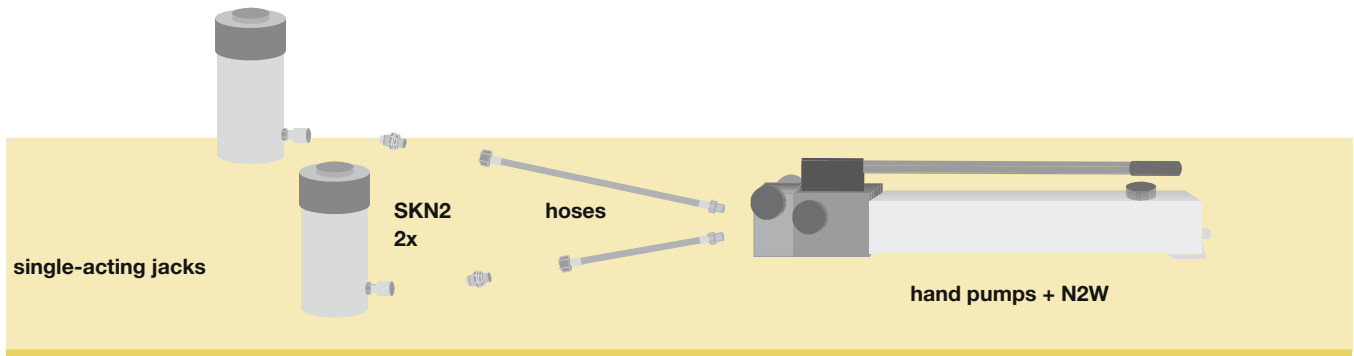
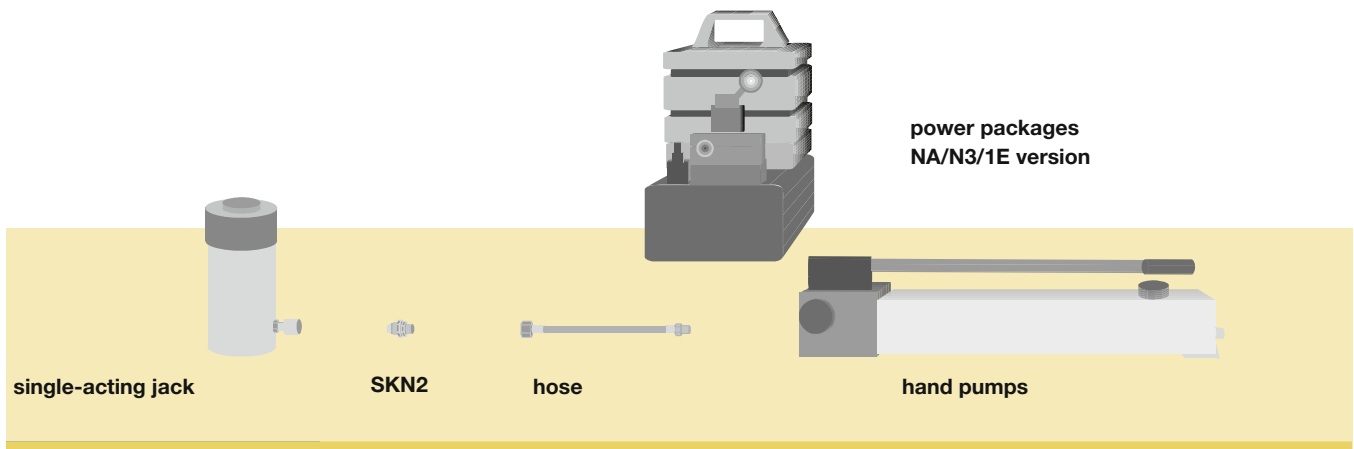
Passion makes the difference!

Hydraulic Tools



700 bar

Connection versions



Single-acting light-alloy cylinders with spring return 9 t up to 140 t

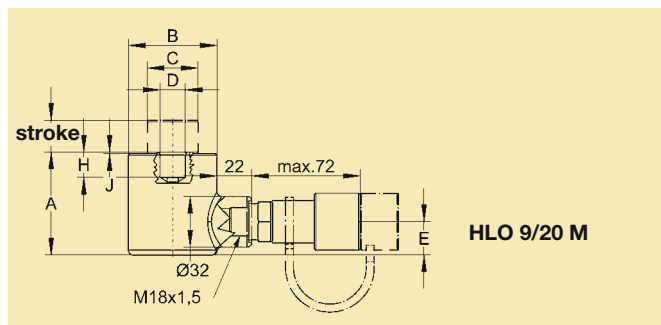


LUKAS HLO, HLM, HLZ cylinders are made of high strength light alloy and are easy to transport due to their low weight. They are mainly used on construction sites and for repair work in factories and workshops.

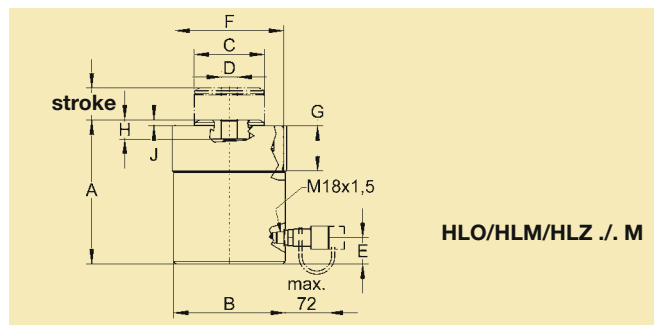
The HL. cylinder series is distinguished by flexible design of the differently equipped versions. This means greater flexibility when installing in machines and plants. The cylinders can be supplied without a collar thread, with metric or inch thread dimensions. M 18 x 1.5 and 3/8-18 NPT are available as connection threads. Further options are fixing bores in the bottom of the cylinder and the piston rod.

Features & Benefits:

- ▲ Resistant against lateral load
- ▲ Scraper rings against pollution and wear
- ▲ Fully loadable stroke limitation
- ▲ Strong return spring – fast piston retraction even with large cylinders
- ▲ Flexibility for external thread and connecting bore
- ▲ Equipped with internationally used screw couplers
- ▲ Can be re-equipped with LUKAS quick couplers



HLO 9/20 M



HLO/HLM/HLZ ./. M

HLO without collar thread and pressure port M 18 x 1,5

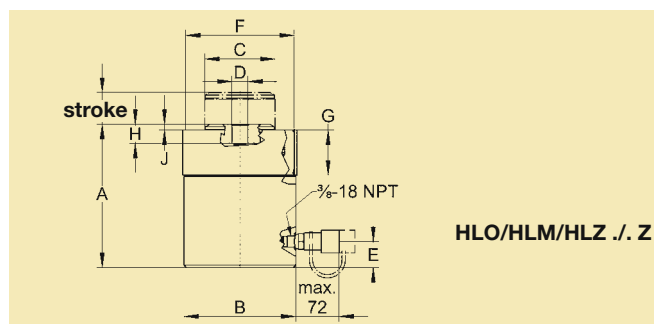
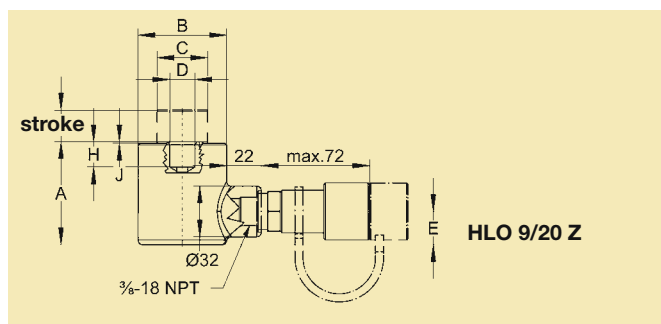
type	order no.	lifting cap. kN	stroke mm	effective area cm ²	oil capacity l	A mm	B Ø mm	C Ø mm	D Ø mm	E mm	F=B Ø mm	G mm	H mm	J mm	weight kg
HLO 9/20 M	83144/1704	88	20	12,6	0,03	65	56	32	16	21	56	---	16	5	0,9
HLO 9/50 M	83144/1808	88	50	12,6	0,06	160	58	32	16	23	58	---	16	5	1,4
HLO 9/160 M	83144/1813	88	160	12,6	0,20	270	58	32	16	23	58	---	20	5	2,5
HLO 14/50 M	83144/2208	137	50	19,6	0,10	186	70	40	16	23	70	---	29	6	2,7
HLO 14/160 M	83144/2213	137	160	19,6	0,31	296	70	40	16	23	70	---	29	6	4,2
HLO 22/50 M	83144/2608	218	50	31,2	0,16	205	85	50	25	40	85	---	30	7	5,2
HLO 22/160 M	83144/2613	218	160	31,2	0,50	315	85	50	25	40	85	---	30	7	6,4
HLO 35/50 M	83144/3008	352	50	50,3	0,25	215	127	63	25	40	127	---	30	7	9
HLO 35/100 M	83144/3011	352	100	50,3	0,50	265	127	63	25	40	127	---	30	7	11
HLO 35/200 M	83144/3014	352	200	50,3	1,01	365	127	63	25	40	127	---	30	7	15
HLO 55/50 M	83144/3408	550	50	78,5	0,39	224	146	90	25	30	146	---	30	9	11
HLO 55/200 M	83144/3414	550	200	78,5	1,57	374	146	90	25	30	146	---	30	9	17
HLO 85/50 M	83144/3808	859	50	122,7	0,61	225	175	110	25	41	175	---	30	9	15,5
HLO 85/160 M	83144/3813	859	160	122,7	1,96	341	175	110	25	41	175	---	30	9	22,5
HLO 85/200 M	83144/3814	859	200	122,7	2,45	384	175	110	25	41	175	---	30	9	25
HLO 140/50 M	83144/4208	1407	50	201	1,01	265	220	140	40	55	220	---	30	9	29,5
HLO 140/200 M	83144/4214	1407	200	201	4,02	415	220	140	40	55	220	---	30	9	44

HLM with metric collar thread and pressure port M 18 x 1,5

type	order no.	lifting cap. kN	stroke mm	effective area cm ²	oil capacity l	A mm	B Ø mm	C Ø mm	D Ø mm	E mm	F mm	G mm	H mm	J mm	weight kg
HLM 9/50 M	83145/1808	88	50	12,6	0,06	160	58	32	16	23	M 55x2	42	16	5	1,4
HLM 9/160 M	83145/1813	88	160	12,6	0,20	270	58	32	16	23	M 55x2	42	20	5	2,5
HLM 14/50 M	83145/2208	137	50	19,6	0,10	186	70	40	16	23	M 68x2	50	29	6	2,7
HLM 14/160 M	83145/2213	137	160	19,6	0,31	296	70	40	16	23	M 68x2	50	29	6	4,2
HLM 22/50 M	83145/2608	218	50	31,2	0,16	205	85	50	25	40	M 85x2	60	30	7	5,2
HLM 22/160 M	83145/2613	218	160	31,2	0,50	315	85	50	25	40	M 85x2	60	30	7	6,4
HLM 35/50 M	83145/3008	352	50	50,3	0,25	215	127	63	25	40	M 120x3	70,5	30	7	9
HLM 35/100 M	83145/3011	352	100	50,3	0,50	265	127	63	25	40	M 120x3	70,5	30	7	11
HLM 35/200 M	83145/3014	352	200	50,3	1,01	365	127	63	25	40	M 120x3	70,5	30	7	15
HLM 55/50 M	83145/3408	550	50	78,5	0,39	224	146	90	25	30	M 140x3	70,5	30	9	11
HLM 55/200 M	83145/3414	550	200	78,5	1,57	374	146	90	25	30	M 140x3	70,5	30	9	17
HLM 85/50 M	83145/3808	859	50	122,7	0,61	225	175	110	25	41	M 170x3	70,5	30	9	15,5
HLM 85/160 M	83145/3813	859	160	122,7	1,96	341	175	110	25	41	M 170x3	70,5	30	9	22,5
HLM 85/200 M	83145/3814	859	200	122,7	2,45	384	175	110	25	41	M 170x3	70,5	30	9	25
HLM 140/50 M	83145/4208	1407	50	201	1,01	265	220	140	40	55	M 220x4	70	30	9	29,5
HLM 140/200 M	83145/4214	1407	200	201	4,02	415	220	140	40	55	M 220x4	70	30	9	44

HLZ with inch size collar thread and pressure port M 18 x 1,5

type	order no.	lifting cap. kN	stroke mm	effective area cm ²	oil capacity l	A mm	B Ø mm	C Ø mm	D Ø mm	E mm	F mm	G mm	H mm	J mm	weight kg
HLZ 9/50 M	83134/1808	88	50	12,6	0,06	160	58	32	16	23	2 1/4"-14 UNS	43,1	16	5	1,4
HLZ 9/160 M	83134/1813	88	160	12,6	0,20	270	58	32	16	23	2 1/4"-14 UNS	43,1	20	5	2,5
HLZ 14/50 M	83134/2208	137	50	19,6	0,10	186	70	40	16	23	2 3/4"-16 UNS	50,9	29	6	2,7
HLZ 14/160 M	83134/2213	137	160	19,6	0,31	296	70	40	16	23	2 3/4"-16 UNS	50,9	29	6	4,2
HLZ 22/50 M	83134/2608	218	50	31,2	0,16	205	85	50	25	40	3 5/8"-12 UNS	59,8	30	7	5,2
HLZ 22/160 M	83134/2613	218	160	31,2	0,50	315	85	50	25	40	3 5/8"-12 UNS	59,8	30	7	6,4
HLZ 35/50 M	83134/3008	352	50	50,3	0,25	215	127	63	25	40	5"-12 UN	74	30	7	9
HLZ 35/100 M	83134/3011	352	100	50,3	0,50	265	127	63	25	40	5"-12 UN	74	30	7	11
HLZ 35/200 M	83134/3014	352	200	50,3	1,01	365	127	63	25	40	5"-12 UN	74	30	7	15
HLZ 55/50 M	83134/3408	550	50	78,5	0,39	224	146	90	25	30	5 3/4"-12 UN	73,5	30	9	11
HLZ 55/200 M	83134/3414	550	200	78,5	1,57	374	146	90	25	30	5 3/4"-12 UN	73,5	30	9	17
HLZ 85/50 M	83134/3808	859	50	122,7	0,61	225	175	110	25	41	6 7/8"-12 UN	72,8	30	9	15,5
HLZ 85/160 M	83134/3813	859	160	122,7	1,96	341	175	110	25	41	6 7/8"-12 UN	72,8	30	9	22,5
HLZ 85/200 M	83134/3814	859	200	122,7	2,45	384	175	110	25	41	6 7/8"-12 UN	72,8	30	9	25
HLZ 140/50 M	83134/4208	1407	50	201	1,01	265	220	140	40	55	8 1/2"-12 UN	71	30	9	29,5
HLZ 140/200 M	83134/4214	1407	200	201	4,02	415	220	140	40	55	8 1/2"-12 UN	71	30	9	44



HLO without collar thread and pressure port M 18x1,5

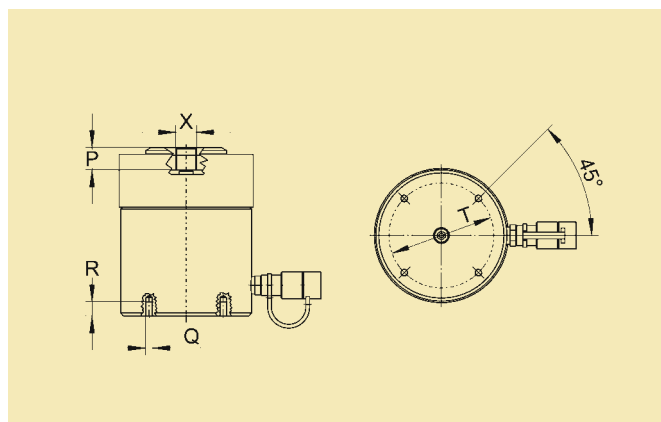
type	order no.	lifting cap. kN	stroke mm	effective area cm ²	oil capacity l	A mm	B Ø mm	C Ø mm	D Ø mm	E mm	F=B Ø mm	G mm	H mm	J mm	weight kg
HLO 9/20 Z	84144/1704	88	20	12,6	0,03	65	56	32	16	21	56	---	16	5	0,9
HLO 9/50 Z	84144/1808	88	50	12,6	0,06	160	58	32	16	23	58	---	16	5	1,4
HLO 9/160 Z	84144/1813	88	160	12,6	0,20	270	58	32	16	23	58	---	20	5	2,5
HLO 14/50 Z	84144/2208	137	50	19,6	0,10	186	70	40	16	23	70	---	29	6	2,7
HLO 14/160 Z	84144/2213	137	160	19,6	0,31	296	70	40	16	23	70	---	29	6	4,2
HLO 22/50 Z	84144/2608	218	50	31,2	0,16	205	85	50	25	40	85	---	30	7	5,2
HLO 22/160 Z	84144/2613	218	160	31,2	0,50	315	85	50	25	40	85	---	30	7	6,4
HLO 35/50 Z	84144/3008	352	50	50,3	0,25	215	127	63	25	40	127	---	30	7	9
HLO 35/100 Z	84144/3011	352	100	50,3	0,50	265	127	63	25	40	127	---	30	7	11
HLO 35/200 Z	84144/3014	352	200	50,3	1,01	365	127	63	25	40	127	---	30	7	15
HLO 55/50 Z	84144/3408	550	50	78,5	0,39	224	146	90	25	30	146	---	30	9	11
HLO 55/200 Z	84144/3414	550	200	78,5	1,57	374	146	90	25	30	146	---	30	9	17
HLO 85/50 Z	84144/3808	859	50	122,7	0,61	225	175	110	25	41	175	---	30	9	15,5
HLO 85/160 Z	84144/3813	859	160	122,7	1,96	341	175	110	25	41	175	---	30	9	22,5
HLO 85/200 Z	84144/3814	859	200	122,7	2,45	384	175	110	25	41	175	---	30	9	25
HLO 140/50 Z	84144/4208	1407	50	201	1,01	265	220	140	40	55	220	---	30	9	29,5
HLO 140/200 Z	84144/4214	1407	200	201	4,02	415	220	140	40	55	220	---	30	9	44

HLM with metric collar thread and pressure port M 18x1,5

type	order no.	lifting cap. kN	stroke mm	effective area cm ²	oil capacity l	A mm	B Ø mm	C Ø mm	D Ø mm	E mm	F	G mm	H mm	J mm	weight kg
HLM 9/50 Z	84145/1808	88	50	12,6	0,06	160	58	32	16	23	M 55x2	42	16	5	1,4
HLM 9/160 Z	84145/1813	88	160	12,6	0,20	270	58	32	16	23	M 55x2	42	20	5	2,5
HLM 14/50 Z	84145/2208	137	50	19,6	0,10	186	70	40	16	23	M 68x2	50	29	6	2,7
HLM 14/160 Z	84145/2213	137	160	19,6	0,31	296	70	40	16	23	M 68x2	50	29	6	4,2
HLM 22/50 Z	84145/2608	218	50	31,2	0,16	205	85	50	25	40	M 85x2	60	30	7	5,2
HLM 22/160 Z	84145/2613	218	160	31,2	0,50	315	85	50	25	40	M 85x2	60	30	7	6,4
HLM 35/50 Z	84145/3008	352	50	50,3	0,25	215	127	63	25	40	M 120x3	70,5	30	7	9
HLM 35/100 Z	84145/3011	352	100	50,3	0,50	265	127	63	25	40	M 120x3	70,5	30	7	11
HLM 35/200 Z	84145/3014	352	200	50,3	1,01	365	127	63	25	40	M 120x3	70,5	30	7	15
HLM 55/50 Z	84145/3408	550	50	78,5	0,39	224	146	90	25	30	M 140x3	70,5	30	9	11
HLM 55/200 Z	84145/3414	550	200	78,5	1,57	374	146	90	25	30	M 140x3	70,5	30	9	17
HLM 85/50 Z	84145/3808	859	50	122,7	0,61	225	175	110	25	41	M 170x3	70,5	30	9	15,5
HLM 85/160 Z	84145/3813	859	160	122,7	1,96	341	175	110	25	41	M 170x3	70,5	30	9	22,5
HLM 85/200 Z	84145/3814	859	200	122,7	2,45	384	175	110	25	41	M 170x3	70,5	30	9	25
HLM 140/50 Z	84145/4208	1407	50	201	1,01	265	220	140	40	55	M 220x4	70	30	9	29,5
HLM 140/200 Z	84145/4214	1407	200	201	4,02	415	220	140	40	55	M 220x4	70	30	9	44

HLZ with inch size collar thread and pressure port M 18x1,5

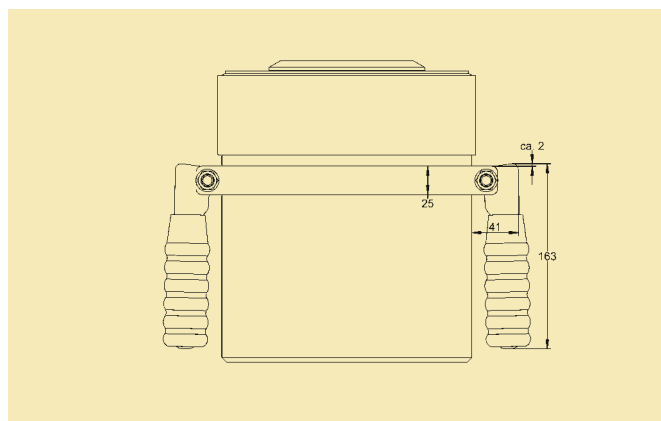
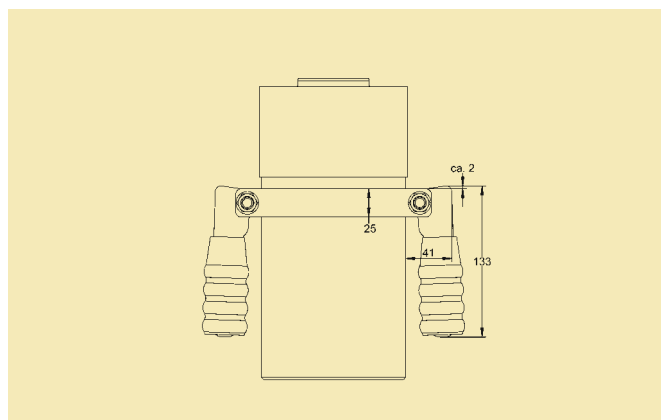
type	order no.	lifting cap. kN	stroke mm	effective area cm ²	oil capacity l	A mm	B Ø mm	C Ø mm	D Ø mm	E mm	F	G mm	H mm	J mm	weight kg
HLZ 9/50 Z	84134/1808	88	50	12,6	0,06	160	58	32	16	23	2 1/4"-14 UNS	43,1	16	5	1,4
HLZ 9/160 Z	84134/1813	88	160	12,6	0,20	270	58	32	16	23	2 1/4"-14 UNS	43,1	20	5	2,5
HLZ 14/50 Z	84134/2208	137	50	19,6	0,10	186	70	40	16	23	2 3/4"-16 UNS	50,9	29	6	2,7
HLZ 14/160 Z	84134/2213	137	160	19,6	0,31	296	70	40	16	23	2 3/4"-16 UNS	50,9	29	6	4,2
HLZ 22/50 Z	84134/2608	218	50	31,2	0,16	205	85	50	25	40	3 5/16"-12 UNS	59,8	30	7	5,2
HLZ 22/160 Z	84134/2613	218	160	31,2	0,50	315	85	50	25	40	3 5/16"-12 UNS	59,8	30	7	6,4
HLZ 35/50 Z	84134/3008	352	50	50,3	0,25	215	127	63	25	40	5"-12 UN	74	30	7	9
HLZ 35/100 Z	84134/3011	352	100	50,3	0,50	265	127	63	25	40	5"-12 UN	74	30	7	11
HLZ 35/200 Z	84134/3014	352	200	50,3	1,01	365	127	63	25	40	5"-12 UN	74	30	7	15
HLZ 55/50 Z	84134/3408	550	50	78,5	0,39	224	146	90	25	30	5 3/4"-12 UN	73,5	30	9	11
HLZ 55/200 Z	84134/3414	550	200	78,5	1,57	374	146	90	25	30	5 3/4"-12 UN	73,5	30	9	17
HLZ 85/50 Z	84134/3808	859	50	122,7	0,61	225	175	110	25	41	6 7/8"-12 UN	72,8	30	9	15,5
HLZ 85/160 Z	84134/3813	859	160	122,7	1,96	341	175	110	25	41	6 7/8"-12 UN	72,8	30	9	22,5
HLZ 85/200 Z	84134/3814	859	200	122,7	2,45	384	175	110	25	41	6 7/8"-12 UN	72,8	30	9	25
HLZ 140/50 Z	84134/4208	1407	50	201	1,01	265	220	140	40	55	8 1/2"-12 UN	71	30	9	29,5
HLZ 140/200 Z	84134/4214	1407	200	201	4,02	415	220	140	40	55	8 1/2"-12 UN	71	30	9	44



Optionally with fixing holes in the piston rod and the cylinder base.

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

Handles



for	order no.	weight
HLO / HLM / HLZ 35/50 M/Z	83145/3066	0,9 kg
HLO / HLM / HLZ 35/100 M/Z	83145/3066	0,9 kg
HLO / HLM / HLZ 35/200 M/Z	83145/3066	0,9 kg
HLO / HLM / HLZ 55/50 M/Z	83145/3466	0,9 kg
HLO / HLM / HLZ 55/200 M/Z	83145/3466	0,9 kg
HLO / HLM / HLZ 85/50 M/Z	83148/3966	1,0 kg
HLO / HLM / HLZ 85/160 M/Z	83148/3966	1,0 kg
HLO / HLM / HLZ 85/200 M/Z	83148/3966	1,0 kg



for	order no.	weight
HLO / HLM / HLZ 140/50 M/Z	83145 / 4266	1,2 kg
HLO / HLM / HLZ 140/200 M/Z	83145 / 4266	1,2 kg

Cylinder Accessories HLO/HLM/HLZ

100% loadable

For better protection of the piston we recommend to use **piston saddles** or other special saddles.

Prism saddles are used for pushing special-shaped material.

Tilting saddles are put on the piston for compensating arc movements, e. g. when a load is lifted only on one side. As the tilting saddle is a piston-side accessory.

Base plates increase the cylinder area for better stability.

Use extensions only with centre power transfer!
Never put two extensions one upon another!

	mm	mm	weight kg	order no.
--	----	----	--------------	-----------

(1) Piston saddles for

HL... 9, HL... 14	17	40	0,2	84128/5002
HL... 22, HL... 35	20	63	0,6	84128/5004
HL... 55	24	80	1,0	84128/5005
HL... 85	24	110	1,9	84128/5006
HL... 140	28	120	2,7	84128/5007

(2) Spherical saddles for

HL... 9, HL... 14	15	32	0,1	84128/1509
HL... 22	10	48	0,35	84128/1513
HL... 35	15	60	0,45	84128/1514

(3) Prism saddles for

HL... 9, HL... 14	31	46	0,3	84031/77
HL... 25, HL... 35	45	70	0,9	84031/52

(4) (5) Tilting saddles for

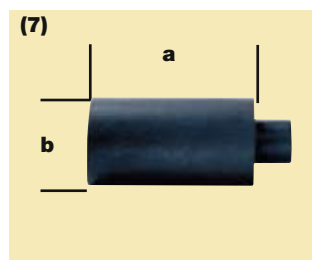
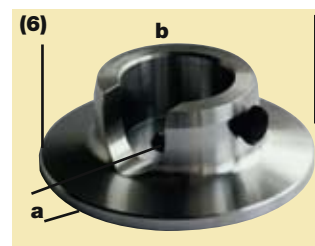
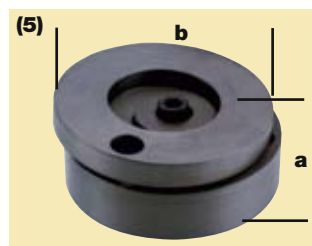
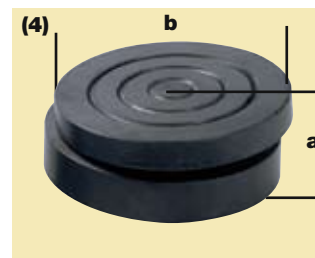
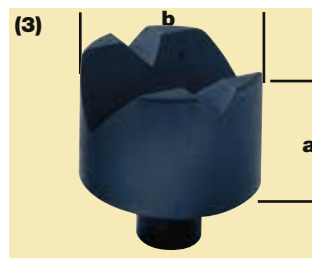
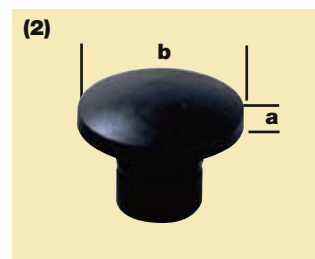
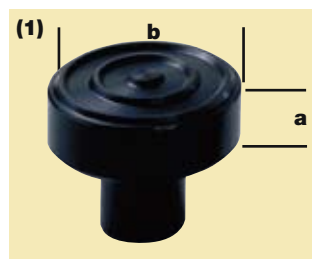
HL... 9, HL... 14	20	50	0,3	84128/5063
HL... 22, HL... 35	20	63	0,3	84128/5062
HL... 55	29	80	1,1	84128/5065
HL... 85 (5)	45	110	3,0	84128/1624

(6) Base plates for

HL... 9	10	118	0,6	83145/0605
HL... 14	16	138	1,0	83145/0606
HL... 22	17	158	1,3	84128/0607
HL... 35	23	198	2,3	83145/0608
HL... 55	27	218	3,9	83145/0609
HL... 85	20	300	7,4	83145/1319
HL... 140	20	300	9,0	84128/1320

(7) Extensions for

HL... 9, HL... 14	100	32	0,63	84031/8101
HL... 22, HL... 35	100	50	4	84031/07
HL... 22, HL... 35	200	50	8	84031/08



700 bar

Double-acting light-alloy cylinders 15 t up to 140 t



LUKAS HLOD, HLMD, HLZD cylinders are made of high strength light alloy and are easy to transport due to their low weight. They are mainly used on construction sites and for repair work in factories and workshops.

The HL.D cylinder series is distinguished by flexible design of the differently equipped versions. This means greater flexibility when installing in machines and plants.

The cylinders can be supplied without a collar thread, with metric or inch thread dimensions. M 18 x 1.5 and 3/8-18 NPT are available as connection threads. Further options are fixing bores in the bottom of the cylinder.

Features & Benefits:

- ▲ Resistant against lateral load
- ▲ Scraper rings against pollution and wear
- ▲ Fully loadable stroke limitation
- ▲ Hydraulic return can also be used for pulling operations
- ▲ Flexibility for collar thread and pressure port thread
- ▲ Equipped with internationally used screw couplers
- ▲ Can be re-equipped with LUKAS quick couplers

Technical specifications of all versions

types	lifting ca. kN	pulling cap. kN	stroke mm	effect. area (pushing) cm ²	effect. area (pulling) cm ²	required oil cap. l	weight kg
HLOD/HLMD/HLZD 15-6/200 M/Z	137	66	200	19,6	9,5	0,20	9
HLOD/HLMD/HLZD 35-15/200 M/Z	352	179	200	50,3	25,6	0,49	14
HLOD/HLMD/HLZD 55-25/100 M/Z	550	280	100	78,5	40,1	0,38	15
HLOD/HLMD/HLZD 55-25/150 M/Z	550	280	150	78,5	40,1	0,58	17
HLOD/HLMD/HLZD 55-25/200 M/Z	550	280	200	78,5	40,1	0,77	19
HLOD/HLMD/HLZD 85-40/100 M/Z	859	414	100	122,7	59,1	0,64	22
HLOD/HLMD/HLZD 85-40/150 M/Z	859	414	150	122,7	59,1	0,95	24
HLOD/HLMD/HLZD 85-40/200 M/Z	859	414	200	122,7	59,1	1,27	27
HLOD/HLMD/HLZD 140-60/150 M/Z	1407	616	150	201,1	88,0	1,70	40
HLOD/HLMD/HLZD 140-60/200 M/Z	1407	616	200	201,1	88,0	2,26	45

HLOD without collar thread and pressure port M 18 x 1,5

type	order no	A mm	B Ø mm	C Ø mm	D	E mm	F = B Ø mm	G	H mm	J mm	L mm	O mm
HLOD 15-6/200 M	83148/2314	330	100	36	M 20x1,5	25,5	100	---	48	5	10	54,4
HLOD 35-15/200M	83148/3114	370	130	56	M 33x1,5	27	130	---	48	5	10	70
HLOD 55-25/100M	83148/3511	280	150	70	M 36x1,5	27	150	---	53	5	15	74,5
HLOD 55-25/150M	83148/3513	330	150	70	M 36x1,5	27	150	---	53	5	15	74,5
HLOD 55-25/200M	83148/3514	380	150	70	M 36x1,5	27	150	---	53	5	15	74,5
HLOD 85-40/100M	83148/3911	295	175	90	M 50x1,5	30	175	---	59	5	15	83,5
HLOD 85-40/150M	83148/3913	345	175	90	M 50x1,5	30	175	---	59	5	15	83,5
HLOD 85-40/200M	83148/3914	395	175	90	M 50x1,5	30	175	---	59	5	15	83,5
HLOD140-60/150M	83148/4313	360	225	120	M 80x2	30	225	---	68	5	15	92
HLOD140-60/200M	83148/4314	410	225	120	M 80x2	30	225	---	68	5	15	92

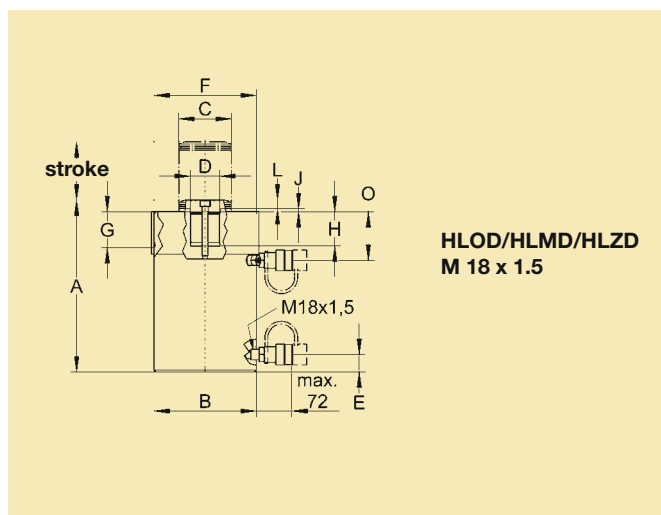
700 bar

HLMD with metric collar thread and pressure port M 18 x 1,5

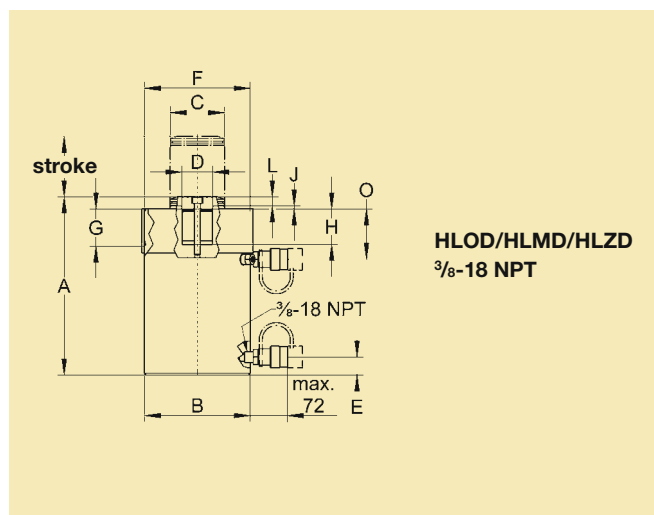
type	order no	A mm	B Ø mm	C Ø mm	D	E mm	F	G mm	H mm	J mm	L mm	O mm
HLMD 15-6/200 M	83149/2314	330	100	36	M 20x1,5	25,5	M 100x2	35,1	48	5	10	54,4
HLMD 35-15/200M	83149/3114	370	130	56	M 33x1,5	27	M 130x2	49,5	48	5	10	70
HLMD 55-25/100M	83149/3511	280	150	70	M 36x1,5	27	M 150x3	52,6	53	5	15	74,5
HLMD 55-25/150M	83149/3513	330	150	70	M 36x1,5	27	M 150x3	52,6	53	5	15	74,5
HLMD 55-25/200M	83149/3514	380	150	70	M 36x1,5	27	M 150x3	52,6	53	5	15	74,5
HLMD 85-40/100M	83149/3911	295	175	90	M 50x1,5	30	M 175x3	61,6	59	5	15	83,5
HLMD 85-40/150M	83149/3913	345	175	90	M 50x1,5	30	M 175x3	61,6	59	5	15	83,5
HLMD 85-40/200M	83149/3914	395	175	90	M 50x1,5	30	M 175x3	61,6	59	5	15	83,5
HLMD140-60/150M	83149/4313	360	225	120	M 80x2	30	M 220x4	70,9	68	5	15	92
HLMD140-60/200M	83149/4314	410	225	120	M 80x2	30	M 220x4	70,9	68	5	15	92

HLZD with inch size collar thread and pressure port M 18 x 1,5

type	order no	A mm	B Ø mm	C Ø mm	D	E mm	F	G mm	H mm	J mm	L mm	O mm
HLZD 15-6/200 M	83138/2314	330	100	36	M 20x1,5	25,5	3 7/8"-12 UN	35,1	48	5	10	54,4
HLZD 35-15/200M	83138/3114	370	130	56	M 33x1,5	27	5"-12 UN	49,5	48	5	10	70
HLZD 55-25/100M	83138/3511	280	150	70	M 36x1,5	27	5 3/4"-12 UN	52,6	53	5	15	74,5
HLZD 55-25/150M	83138/3513	330	150	70	M 36x1,5	27	5 3/4"-12 UN	52,6	53	5	15	74,5
HLZD 55-25/200M	83138/3514	380	150	70	M 36x1,5	27	5 3/4"-12 UN	52,6	53	5	15	74,5
HLZD 85-40/100M	83138/3911	295	175	90	M 50x1,5	30	6 7/8"-12 UN	61,6	59	5	15	83,5
HLZD 85-40/150M	83138/3913	345	175	90	M 50x1,5	30	6 7/8"-12 UN	61,6	59	5	15	83,5
HLZD 85-40/200M	83138/3914	395	175	90	M 50x1,5	30	6 7/8"-12 UN	61,6	59	5	15	83,5
HLZD140-60/150M	83138/4313	360	225	120	M 80x2	30	8 1/2"-12 UN	70,9	68	5	15	92
HLZD140-60/200M	83138/4314	410	225	120	M 80x2	30	8 1/2"-12 UN	70,9	68	5	15	92



**HLOD/HLMD/HLZD
M 18 x 1.5**



**HLOD/HLMD/HLZD
3/8-18 NPT**

HLOD without external thread and pressure port 3/8-18 NPT

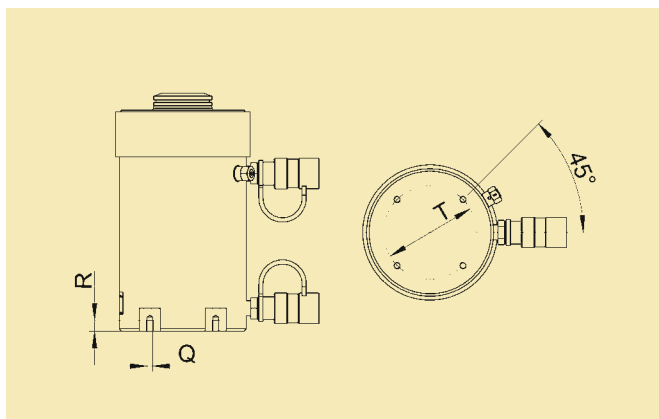
type	order no.	A mm	B Ø mm	C Ø mm	D	E mm	F = B Ø mm	G	H mm	J mm	L mm	O mm
HLOD 15-6/200 Z	84148/2314	330	100	36	M 20x1,5	25,5	100	---	48	5	10	54,4
HLOD 35-15/200Z	84148/3114	370	130	56	M 33x1,5	27	130	---	48	5	10	70
HLOD 55-25/100Z	84148/3511	280	150	70	M 36x1,5	27	150	---	53	5	15	74,5
HLOD 55-25/150Z	84148/3513	330	150	70	M 36x1,5	27	150	---	53	5	15	74,5
HLOD 55-25/200Z	84148/3514	380	150	70	M 36x1,5	27	150	---	53	5	15	74,5
HLOD 85-40/100Z	84148/3911	295	175	90	M 50x1,5	30	175	---	59	5	15	83,5
HLOD 85-40/150Z	84148/3913	345	175	90	M 50x1,5	30	175	---	59	5	15	83,5
HLOD 85-40/200Z	84148/3914	395	175	90	M 50x1,5	30	175	---	59	5	15	83,5
HLOD140-60/150Z	84148/4313	360	225	120	M 80x2	30	225	---	68	5	15	92
HLOD140-60/200Z	84148/4314	410	225	120	M 80x2	30	225	---	68	5	15	92

HLMD with metric collar thread and pressure port 3/8-18 NPT

type	order no.	A mm	B Ø mm	C Ø mm	D	E mm	F	G	H mm	J mm	L mm	O mm
HLMD 15-6/200 Z	84149/2314	330	100	36	M 20x1,5	25,5	M 100x2	35,1	48	5	10	54,4
HLMD 35-15/200Z	84149/3114	370	130	56	M 33x1,5	27	M 130x2	49,5	48	5	10	70
HLMD 55-25/100Z	84149/3511	280	150	70	M 36x1,5	27	M 150x3	52,6	53	5	15	74,5
HLMD 55-25/150Z	84149/3513	330	150	70	M 36x1,5	27	M 150x3	52,6	53	5	15	74,5
HLMD 55-25/200Z	84149/3514	380	150	70	M 36x1,5	27	M 150x3	52,6	53	5	15	74,5
HLMD 85-40/100Z	84149/3911	295	175	90	M 50x1,5	30	M 175x3	61,6	59	5	15	83,5
HLMD 85-40/150Z	84149/3913	345	175	90	M 50x1,5	30	M 175x3	61,6	59	5	15	83,5
HLMD 85-40/200Z	84149/3914	395	175	90	M 50x1,5	30	M 175x3	61,6	59	5	15	83,5
HLMD140-60/150Z	84149/4313	360	225	120	M 80x2	30	M 220x4	70,9	68	5	15	92
HLMD140-60/200Z	84149/4314	410	225	120	M 80x2	30	M 220x4	70,9	68	5	15	92

HLZD with inch size collar thread and pressure port 3/8-18 NPT

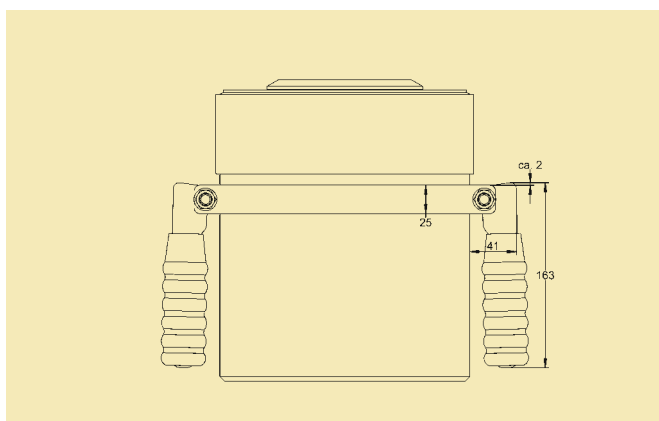
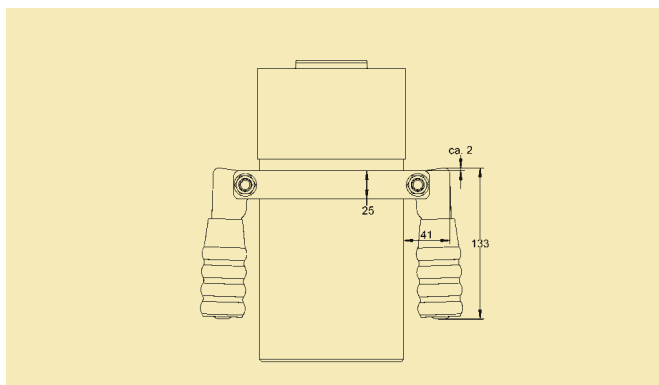
type	order no.	A mm	B Ø mm	C Ø mm	D	E mm	F	G	H mm	J mm	L mm	O mm
HLZD 15-6/200 Z	84138/2314	330	100	36	M 20x1,5	25,5	3/8"-12 UN	35,1	48	5	10	54,4
HLZD 35-15/200Z	84138/3114	370	130	56	M 33x1,5	27	5/8"-12 UN	49,5	48	5	10	70
HLZD 55-25/100Z	84138/3511	280	150	70	M 36x1,5	27	5/8"-12 UN	52,6	53	5	15	74,5
HLZD 55-25/150Z	84138/3513	330	150	70	M 36x1,5	27	5/8"-12 UN	52,6	53	5	15	74,5
HLZD 55-25/200Z	84138/3514	380	150	70	M 36x1,5	27	5/8"-12 UN	52,6	53	5	15	74,5
HLZD 85-40/100Z	84138/3911	295	175	90	M 50x1,5	30	6/8"-12 UN	61,6	59	5	15	83,5
HLZD 85-40/150Z	84138/3913	345	175	90	M 50x1,5	30	6/8"-12 UN	61,6	59	5	15	83,5
HLZD 85-40/200Z	84138/3914	395	175	90	M 50x1,5	30	6/8"-12 UN	61,6	59	5	15	83,5
HLZD140-60/150Z	84138/4313	360	225	120	M 80x2	30	8 1/2"-12 UN	70,9	68	5	15	92
HLZD140-60/200Z	84138/4314	410	225	120	M 80x2	30	8 1/2"-12 UN	70,9	68	5	15	92



Optionally with fixing holes in the cylinder base.

	Q	R	T
HLOD / HLMD / HLZD 15/...	M 6	10 mm	50 mm
HLOD / HLMD / HLZD 35/...	M 8	13 mm	88 mm
HLOD / HLMD / HLZD 55/...	M 10	19 mm	110 mm
HLOD / HLMD / HLZD 85/...	M 10	19 mm	140 mm
HLOD / HLMD / HLZD 140/...	M 12	24 mm	185 mm

Handles

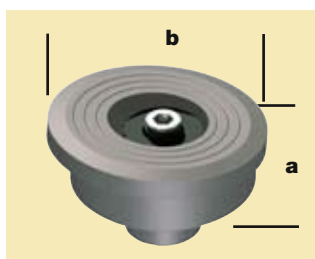


for	order no.	weight
HLOD / HLMD / HLZD 85-40/100 M/Z	83148/3966	1,0 kg
HLOD / HLMD / HLZD 85-40/150 M/Z	83148/3966	1,0 kg
HLOD / HLMD / HLZD 85-40/200 M/Z	83148/3966	1,0 kg



for	order no.	weight
HLOD / HLMD / HLZD 35-15/200 M/Z	83148/3166	1,0 kg
HLOD / HLMD / HLZD 55-25/100 M/Z	83148/3566	1,0 kg
HLOD / HLMD / HLZD 55-25/150 M/Z	83148/3566	1,0 kg
HLOD / HLMD / HLZD 55-25/200 M/Z	83148/3566	1,0 kg
HLOD / HLMD / HLZD 140-60/150 M/Z	83148/4366	1,2 kg
HLOD / HLMD / HLZD 140-60/200 M/Z	83148/4366	1,2 kg

Tilting Saddles



Tilting saddles are put on the piston for compensating arc movements, e. g. when a load is lifted only on one side. As the tilting saddle is a piston-side accessory.

Tilting Saddle for	order no.	mm	Ø mm	tilting angle	weight
HLOD / HLMD / HLZD 15	83148/1623	24	50	5°	0,4 kg
HLOD / HLMD / HLZD 35	83148/1631	20	75	5°	0,6 kg
HLOD / HLMD / HLZD 55	83148/1635	32	95	5°	1,4 kg
HLOD / HLMD / HLZD 85	83148/1639	45	135	5°	3,9 kg
HLOD / HLMD / HLZD 140	83148/1643	45	155	5°	6,2 kg

700 bar

Single-acting stainless steel cylinders with spring return, 10 t up to 63 t



LUKAS stainless steel cylinders ACM are specially designed for applications where highest surface quality is required. Even when employed in an aggressive atmosphere, e.g. in the offshore area, they convince with extreme resistance against corrosion and long service life. After application in a radioactive environment they can be decontaminated much easier than painted cylinders. Of course they can also be used with workshops, on

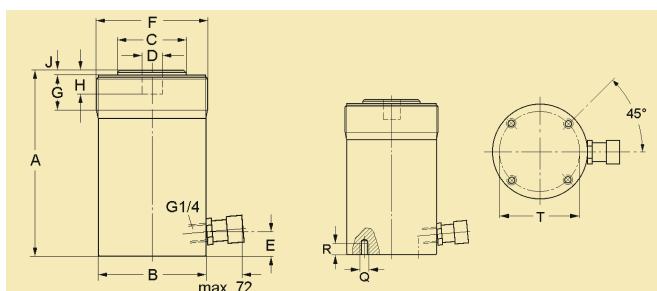
construction sites and on the area of bridge building and bridge maintenance.

Locking sleeves and 100% loadable accessories are available.

For fast piston return without load all models are equipped with a strong retraction spring. ACM cylinders are equipped with screw couplers having dimensions as per international standard.

type	order no.	lifting cap. kN	stroke mm	eff. area cm ²	oil cap. l	A mm	B Ø mm	C Ø mm	D Ø mm	E mm	F	G mm	H mm	J mm	weight kg
ACM 10/50	84140/6208	88	50	12,6	0,06	134	52	32	16	21,5	M 55 x 2	30	12	4	1,9
ACM 10/100	84140/6211	88	100	12,6	0,13	184	52	32	16	21,5	M 55 x 2	30	12	4	2,5
ACM 10/150	84140/6233	88	150	12,6	0,19	234	52	32	16	21,5	M 55 x 2	30	12	4	3
ACM 25/50	84140/6008	219	50	31,2	0,16	139	80	50	16	21	M 85 x 2	34	10	4	4,7
ACM 25/100	84140/6011	219	100	31,2	0,31	189	80	50	16	21	M 85 x 2	34	10	4	5,9
ACM 25/150	84140/6033	219	150	31,2	0,49	239	80	50	16	21	M 85 x 2	34	10	4	7,1
ACM 63/50	84140/6808	550	50	78,5	0,39	160	130	80	25	24	M 135 x 3	50	17	7	14
ACM 63/100	84140/6811	550	100	78,5	0,79	210	130	80	25	24	M 135 x 3	50	17	7	16,8
ACM 63/200	84140/6814	550	200	78,5	1,57	310	130	80	25	24	M 135 x 3	50	17	7	22,4

Models ACM 63/... are equipped with handles.



Optionally with fixing holes in the cylinder base.

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

Cylinder accessories ACM, 100% loadable



LUKAS support tubes are used for 100% stable long-time load support.

For better protection of the piston we recommend to use **piston saddles** or other special saddles.

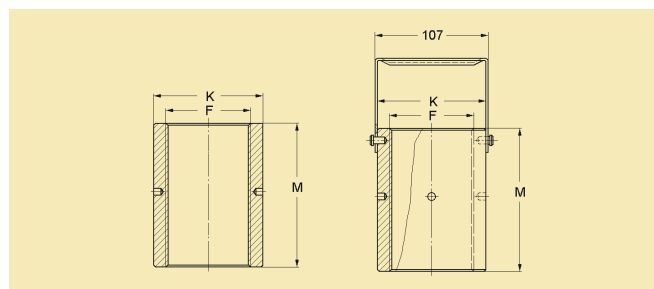
Tilting saddles are put on the piston for compensating arc movements, e. g. when a load is lifted only on one side. As the tilting saddle is a piston-side accessory, it works perfectly together with a base lifter attached to the same cylinder.

Base plates increase the cylinder area for better stability.

order no.	F	K	M	weight
		Ø mm	mm	kg

Support tubes for

ACM 10/50	84128/5110	M 55 x 2	70	85	1,0
ACM 10/100	84128/5120	M 55 x 2	70	135	1,6
ACM 25/100	84128/5122	M 85 x 2	100	140	2,4
ACM 25/150	84128/5132	M 85 x 2	100	190	3,3



a	b	weight	order no.
mm	mm	kg	

(1) piston saddles for

ACM 10/...	17	40	0,2	84128/5002
ACM 10/...	17	40	0,2	84128/5002
ACM 25/...	17	40	0,2	84128/5002
ACM 63/...	24	80	1,0	84128/5005

(2) Spherical saddles for

ACM 10/...	15	32	0,1	84128/1509
ACM 25/...	10	48	0,1	84128/5013

(3) Tilting saddles for

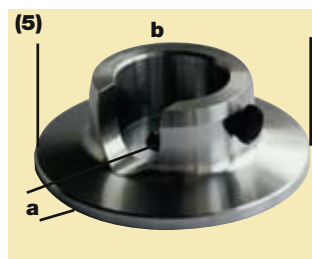
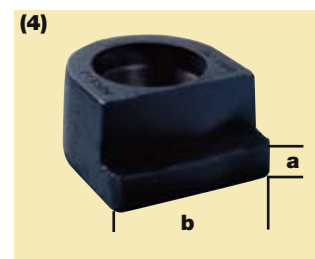
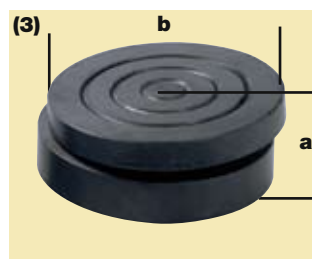
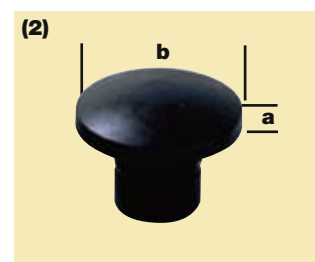
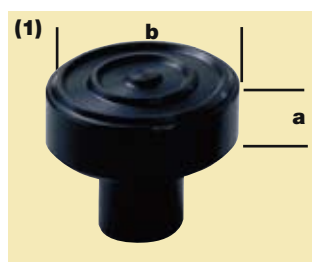
ACM 10/...	20	50	0,3	84128/5063
ACM 25/...	20	50	0,3	84128/5063

(4) Base lifters for

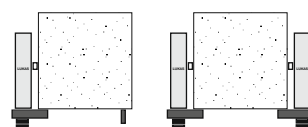
ACM 10/...	26	72	1,3	84128/0501
ACM 25/...	36	125	4,9	84128/0503

(5) Base plates for

ACM 10/...	10	118	0,6	84128/0605
ACM 25/...	17	158	1,3	84128/0607



Working with
LUKAS base lifters



700 bar

Single-acting short stroke stainless steel cylinders with spring return 10 t up to 63 t

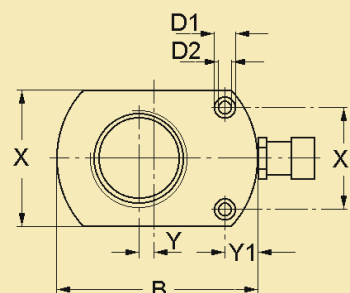
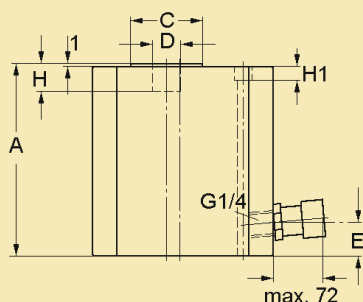


LUKAS stainless steel short-stroke cylinders ACK are specially designed for applications where highest surface quality is required. Even when employed in an aggressive atmosphere, e.g. in the off-shore area, they convince with extreme resistance against corrosion and long service life. After application in a radioactive environment they can be decontaminated much easier than painted cylinders. With their low retracted height ACK models are especially

suitable for lifting of machines and any kind of heavy load, e.g. on the area of bridge building and bridge maintenance.

For fixing ACK cylinders have through bores in the cylinder body. They are equipped with a screw coupler having dimensions as per international standard.

type	order no.	lifting cap.	stroke	eff. area	oil cap.	A	B	C	D	D1	D2	E	H	H1	X	X1	Y	Y1	weight
		kN	mm	cm ²	l	mm			Ø mm						mm				kg
ACK 10/25	84140/6105	88	25	12,6	0,03	77	75	32	16	11	6,6	17	12	6,8	55	37	10	17,5	2,4
ACK 25/25	84140/6905	219	25	31,2	0,08	88	100	50	16	15	9	18,5	10	9	80	50	10	20	4,8
ACK 63/25	84140/6705	550	25	78,5	0,2	118	150	80	25	18	11	24	17	11	125	70	10	25	14,3



Single-acting flat cylinders with spring return 5 t up to 150 t



LUKAS flat cylinders LFC are made of high quality steel and suitable for use even under hardest conditions. Baked enamel finish provides optimum protection against corrosion.

LFC models are combining optimum stroke length with low retracted height. They are recommended for operation in restricted work areas, e.g. for lifting of machines or for change of bridge bearings.

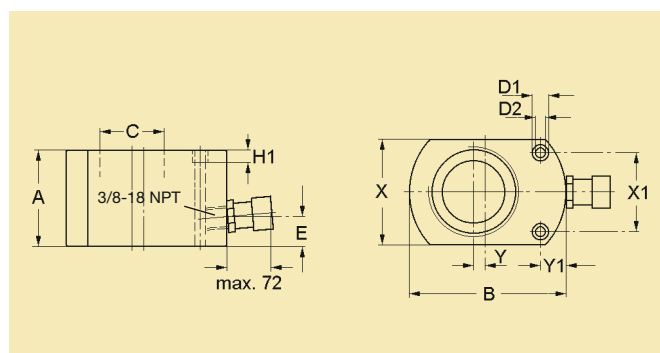
For fast piston return without load all models are equipped with a strong retraction spring.

LFC cylinders are equipped with a screw coupler having dimensions as per international standard. Through bores in the cylinder body can be used for fixing, if required.

700 bar

type	order no.	lifting cap.	stroke	eff. area	oil cap.	A	B	C	D1	D2	E	H1	X	X1	Y	Y1	weight
		kN	mm	cm ²	l	mm	Ø mm	mm	Ø mm	mm	mm	mm	mm	mm	mm	mm	kg
LFC 5/6	84148/5003-01	43	6	6,4	0,01	32,2	60	25	9,5	5,5	16	6	41	28	9	19	0,9
LFC 5/16	84148/5003-02	43	16	6,4	0,01	42,5	60	25	9,5	5,5	16	6	41	28	9	19	1,2
LFC 10/11	84148/5003-03	99	11	14,5	0,01	43	83	38	11	6,5	20	7	56	37	12,5	21	1,6
LFC 23/11	84148/5003-04	227	11	33,2	0,03	52	102	57	14	9	20	9	80	50	10	22	2,8
LFC 30/13	84148/5003-05	287	13	41,9	0,05	59	114	60	17	11	20	11	95	52	10	21	4,1
LFC 50/16	84148/5003-06	486	16	70,9	0,11	68	140	78	19	13	21	13	114	67	12	26	6,6
LFC 75/16	84148/5003-07	712	16	103,8	0,17	79	165	95	20	13	22	13	140	76	12	31	12,5
LFC 100/16	84148/5003-08	953	16	138,9	0,22	87	178	108	20	13	20	13	158	76	10	25	15
LFC 150/16	84148/5003-10	1450	16	211,3	0,33	100	216	134	20	13	25	15	194	117	11	35	25

Models LFC 100/16 and LFC 150/16 are equipped with handles.



All **LFC-cylinders** can be mounted with LUKAS quick couplers so that they can also be integrated into existing LUKAS 50 MPa-systems.

Please order quick coupler **StNi 62 (order no. 84053/16)** separately and change it against the standard coupler.

Single-acting steel cylinders with spring return 5 t up to 220 t



Hydraulic cylinders series LSC are made of high quality steel and suitable for use even under hardest conditions. Baked enamel finish provides optimum protection against corrosion. All cylinders will be delivered complete with piston guard plate and screw coupler. Choose out of the large number of LSC models this one which perfectly meets your requirement, e.g. for repair and maintenance works, for lifting and shifting works and wherever metal components have to be positioned or deformed.

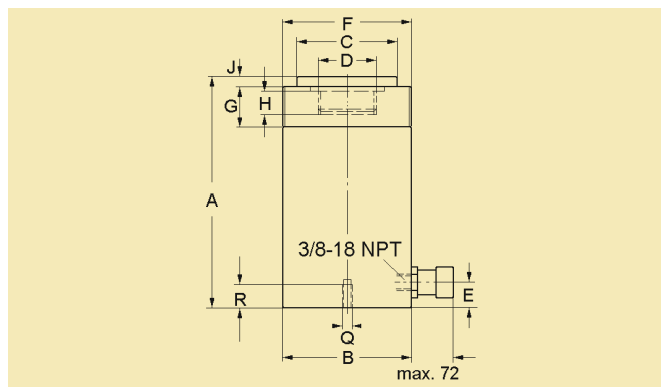
Features & Benefits:

- ▲ Fully loadable stroke limitation
- ▲ Hard-chrome plated piston rods prevent channels and corrosion
- ▲ Scraper rings against pollution and wear
- ▲ External threads for easy mounting
- ▲ Internal threads in the piston rod for taking up additional tools
- ▲ Fixing bores in the cylinder base
- ▲ Couplings comply with international standard

All **LSC-cylinders** can be mounted with LUKAS quick couplers so that they can also be integrated into existing LUKAS 50 MPa-systems.

Please order quick coupler

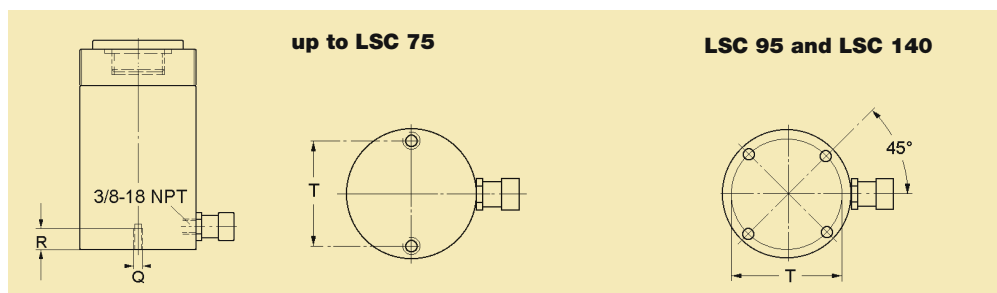
StNi 62 (order no. 84053/16) separately and change it against the standard coupler.



type	order no.	lifting	stroke	eff. area	oil cap.	A	B	C	D	E	F	G	H	J	weight
		kN	mm	cm ²	l	mm	Ømm	Ø mm		mm		mm	mm	mm	kg
LSC 5/25	84148/0901-01	49	25	7,06	0,02	110	40	25	3/4"-16	19	1 1/2"-16	28	14	6	1,0
LSC 5/75	84148/0901-02	49	76	7,06	0,05	168	40	25	3/4"-16	19	1 1/2"-16	28	14	6	1,5
LSC 5/125	84148/0901-03	49	127	7,06	0,09	219	40	25	3/4"-16	19	1 1/2"-16	28	14	6	1,9
LSC 5/180	84148/0901-04	49	180	7,06	0,13	276	40	25	3/4"-16	19	1 1/2"-16	28	14	6	2,4
LSC 5/230	84148/0901-05	49	232	7,06	0,16	328	40	25	3/4"-16	19	1 1/2"-16	28	14	6	2,8
LSC 10/25	84148/0902-01	111	25	15,9	0,04	90	60	36	1"-8	19	2 1/4"-14	32	19	6	1,8
LSC 10/55	84148/0902-02	111	54	15,9	0,09	121	60	36	1"-8	19	2 1/4"-14	32	19	6	2,4
LSC 10/105	84148/0902-03	111	105	15,9	0,17	172	60	36	1"-8	19	2 1/4"-14	32	19	6	3,3
LSC 10/155	84148/0902-04	111	155	15,9	0,25	247	60	36	1"-8	19	2 1/4"-14	32	19	6	4,7
LSC 10/205	84148/0902-05	111	205	15,9	0,33	301	60	36	1"-8	19	2 1/4"-14	32	19	6	5,7
LSC 10/255	84148/0902-06	111	257	15,9	0,41	352	60	36	1"-8	19	2 1/4"-14	32	19	6	6,6
LSC 10/305	84148/0902-07	111	307	15,9	0,49	402	60	36	1"-8	19	2 1/4"-14	32	19	6	7,4
LSC 10/355	84148/0902-08	111	355	15,9	0,57	454	60	36	1"-8	19	2 1/4"-14	32	19	6	8,4
LSC 15/25	84148/0903-01	166	25	23,7	0,06	126	75	45	1"-8	20	2 3/4"-16	32	25	8	4,2
LSC 15/55	84148/0903-02	166	54	23,7	0,13	157	75	45	1"-8	20	2 3/4"-16	32	25	8	5,0
LSC 15/105	84148/0903-03	166	105	23,7	0,25	207	75	45	1"-8	20	2 3/4"-16	32	25	8	6,4
LSC 15/155	84148/0903-04	166	155	23,7	0,37	277	75	45	1"-8	20	2 3/4"-16	32	25	8	8,5
LSC 15/205	84148/0903-05	166	205	23,7	0,49	329	75	45	1"-8	20	2 3/4"-16	32	25	8	10
LSC 15/255	84148/0903-06	166	257	23,7	0,61	381	75	45	1"-8	20	2 3/4"-16	32	25	8	11,5
LSC 15/300	84148/0903-07	166	307	23,7	0,73	428	75	45	1"-8	20	2 3/4"-16	32	25	8	12,8
LSC 15/355	84148/0903-08	166	355	23,7	0,84	479	75	45	1"-8	20	2 3/4"-16	32	25	8	14,2
LSC 25/25	84148/0904-01	231	25	33,1	0,08	144	85	56	1 1/2"-16	25	3 5/8"-12	45	25	10	6,0
LSC 25/50	84148/0904-02	231	51	33,1	0,17	170	85	56	1 1/2"-16	25	3 5/8"-12	45	25	10	7,0
LSC 25/100	84148/0904-03	231	102	33,1	0,34	221	85	56	1 1/2"-16	25	3 5/8"-12	45	25	10	8,9
LSC 25/160	84148/0904-04	231	159	33,1	0,53	281	85	56	1 1/2"-16	25	3 5/8"-12	45	25	10	11,2
LSC 25/210	84148/0904-05	231	210	33,1	0,70	330	85	56	1 1/2"-16	25	3 5/8"-12	45	25	10	13
LSC 25/260	84148/0904-06	231	261	33,1	0,87	383	85	56	1 1/2"-16	25	3 5/8"-12	45	25	10	15
LSC 25/310	84148/0904-07	231	310	33,1	1,03	434	85	56	1 1/2"-16	25	3 5/8"-12	45	25	10	16,9
LSC 25/360	84148/0904-08	231	362	33,1	1,20	484	85	56	1 1/2"-16	25	3 5/8"-12	45	25	10	18,8
LSC 30/60	84148/0905-01	309	60	44,1	0,27	169	100	60	1 1/2"-16	30	3 7/8"-12	48	25	10	9,3
LSC 30/150	84148/0905-02	309	150	44,1	0,66	274	100	60	1 1/2"-16	30	3 7/8"-12	48	25	10	14,6
LSC 30/210	84148/0905-03	309	210	44,1	0,93	344	100	60	1 1/2"-16	30	3 7/8"-12	48	25	10	18,2
LSC 50/60	84148/0906-01	496	60	70,8	0,43	175	127	80	--	35	5"-12	55	--	5	16,4
LSC 50/100	84148/0906-02	496	102	70,8	0,72	226	127	80	--	35	5"-12	55	--	5	20,7
LSC 50/160	84148/0906-03	496	160	70,8	1,13	284	127	80	--	35	5"-12	55	--	5	25,5
LSC 50/335	84148/0906-04	496	339	70,8	2,40	464	127	80	--	35	5"-12	55	--	5	40,4
LSC 75/160	84148/0907-01	727	160	103,8	1,66	284	146	90	--	35	5 3/4"-12	55	--	5	32
LSC 75/330	84148/0907-02	727	330	103,8	3,43	494	146	90	--	35	5 3/4"-12	55	--	5	54
LSC 95/60	84148/0908-01	929	60	132,7	0,80	179	177	110	--	40	6 7/8"-12	55	--	5	32
LSC 95/150	84148/0908-02	929	150	132,7	1,99	299	177	110	--	40	6 7/8"-12	55	--	5	53
LSC 95/260	84148/0908-03	929	260	132,7	3,45	454	177	110	--	40	6 7/8"-12	55	--	5	78,5
LSC 140/60	84148/0909-01	1407	60	201	1,21	189	216	140	--	40	8 1/2"-12	55	--	5	52
LSC 140/150	84148/0909-02	1407	150	201	3,02	319	216	140	--	40	8 1/2"-12	55	--	5	85,7
LSC 140/260	84148/0909-03	1407	260	201	5,23	469	216	140	--	40	8 1/2"-12	55	--	5	124,5
LSC 220/150	84148/0910-01	2199	150	314	4,71	339	250	160	--	40	--	--	--	5	116,5

700 bar

With fixing bores in the cylinder base and piston rod



	Q	R	T
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	74
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
LSC 220/...	--	--	--

Hollow piston steel cylinders single-acting and double-acting, 12 up to 140 t



LUKAS hollow piston cylinders LHC have pistons with through bores. Single-acting models provide force in the advance, double-acting ones in both the advance and the retract cycle.

Besides normal lifting works they are mainly employed for pulling in connection with a rod accommodated by the through bore. Thus they can be used for mounting or dismounting of bearings or for tensioning steel wire ropes.

They are made of high-quality special steel with baked enamel finish for maximum corrosion resistance.

LHC cylinders will be delivered with a saddle with smooth through bore.

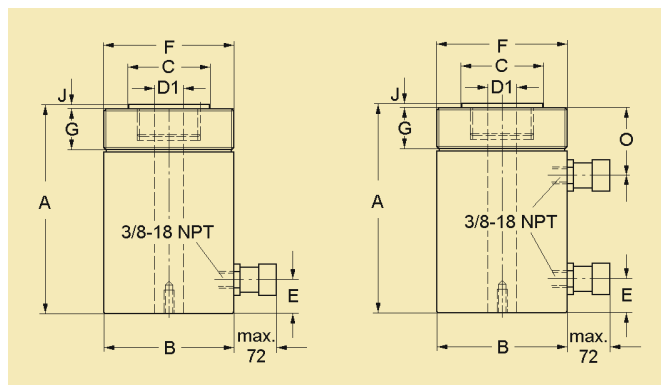
Features & Benefits:

- ▲ High lateral load tolerance
- ▲ Hard-chrome plated piston rods prevent channels and corrosion
- ▲ Scraper rings against pollution and wear
- ▲ Fully loadable stroke limitation
- ▲ External threads for easy mounting
- ▲ Threaded fixing bores in the cylinder base
- ▲ Couplings comply with international standard
- ▲ Double-acting models with safety valve on the piston rod side

All **LHC-cylinders** can be mounted with LUKAS quick couplers so that they can also be integrated into existing LUKAS 50 MPa - systems.

Please order quick coupler

StNi 62 (order no. 84053/16) separately and change it against the standard coupler.



Models with spring return

type	order no.	lifting cap. kN	stroke mm	eff. area cm ²	oil cap l	A mm	B Ø mm	C Ø mm	D1 Ø mm	E mm	F	G mm	J mm	O mm	weight kg
LHC 12/40	84148/4001-01	123	40	17,6	0,07	124	75	40	20,5	19	2 3/4"-16	30	2,5	--	4
LHC 12/75	84148/4001-02	123	76	17,6	0,13	176	75	40	20,5	19	2 3/4"-16	30	2,5	--	5
LHC 12/150	84148/4001-03	123	150	17,6	0,26	300	75	40	20,5	19	2 3/4"-16	30	2,5	--	8,5
LHC 22/50	84148/4002-01	221	50	31,6	0,16	165	105	56	27	23,5	3 7/8"-12	38	2,5	--	9,5
LHC 22/150	84148/4002-02	221	150	31,6	0,47	318	105	56	27	23,5	3 7/8"-12	38	2,5	--	18
LHC 30/50	84148/4003-01	308	50	44	0,22	180	120	68	33,4	27	4 1/2"-12	42	4	--	14
LHC 30/150	84148/4003-02	308	150	44	0,66	322	120	68	33,4	27	4 1/2"-12	42	4	--	23,5
LHC 60/75	84148/4004-01	589	76	84,2	0,64	253	165	95	54	31	6 1/4"-12	48	4	--	35
LHC 60/150	84148/4004-02	589	153	84,2	1,29	341	165	95	54	31	6 1/4"-12	48	4	--	44
LHC 100/80	84148/4005-01	1037	80	148,5	1,19	306	220	130	80	37	8 3/8"-12	60	5	--	73

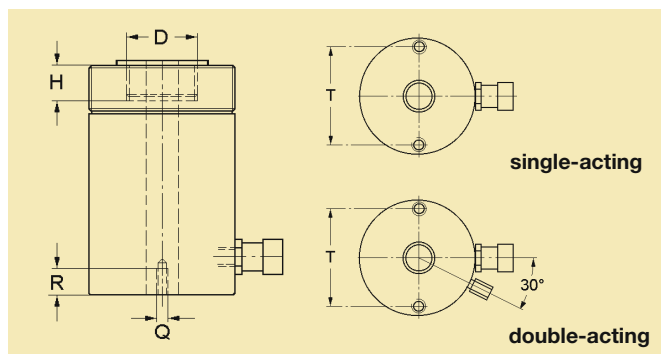
Models with hydraulic piston return

type	order no.	lifting cap. kN	pull. cap. kN	stroke mm	eff. area cm ²	oil cap l	A mm	B Ø mm	C Ø mm	D1 Ø mm	E mm	F	G mm	J mm	O mm	weight kg
LHC 30-17/150	84148/4006-01	308	172	150	44	0,66	300	120	70	33,4	26	4 1/2"-12	42	4	68	22
LHC 30-17/250	84148/4006-02	308	172	250	44	1,10	400	120	70	33,4	26	4 1/2"-12	42	4	68	28
LHC 60-35/80	84148/4007-01	589	355	80	84,2	0,67	249	165	95	54	31	6 1/4"-12	48	5	66	35
LHC 60-35/150	84148/4007-02	589	355	150	84,2	1,26	319	165	95	54	31	6 1/4"-12	48	5	66	42
LHC 60-35/250	84148/4007-03	589	355	250	84,2	2,11	419	165	95	54	31	6 1/4"-12	48	5	66	53
LHC 100-65/35	84148/4008-01	1037	646	38	148,5	0,56	197	220	130	80	37	--	--	5	60	48
LHC 100-65/75	84148/4008-02	1037	646	76	148,5	1,13	255	220	130	80	37	8 3/8"-12	60	5	80	60
LHC 100-65/150	84148/4008-03	1037	646	150	148,5	2,23	335	220	130	80	37	8 3/8"-12	60	5	80	76
LHC 100-65/250	84148/4008-04	1037	646	250	148,5	3,71	465	220	130	80	37	8 3/8"-12	60	5	80	102
LHC 140-55/175	84148/4009-01	1433	566	175	204,8	3,59	350	250	160	80	37	--	--	10	60	110

*) effective oil capacity

700 bar

With fixing bores in the cylinder base and piston



	D	H mm	Q	R mm	T mm
LHC 12	M 28x1,5	18	5/16"-18	12	50,8
LHC 22	1 1/16"-16	20	3/8"-16	15	82,6
LHC 30	1 13/16"-16	22	3/8"-16	17	92,2
LHC 60	2 3/4"-16	22	1/2"-13	14	130,3
LHC 100	4"-16	25	5/8"-11	19	177,7
LHC 140	4 1/4"-12	40	--	--	--

Double-acting steel cylinders, 10 up to 560 t



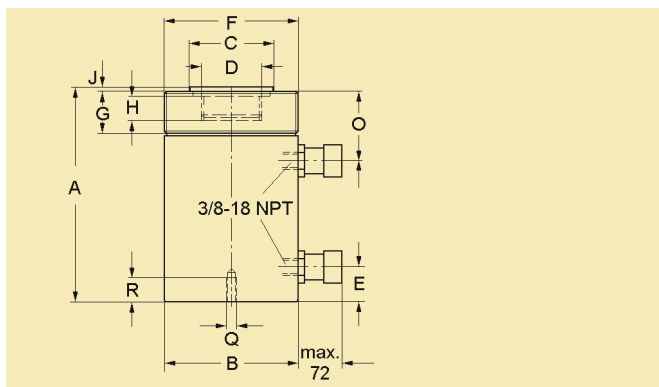
The **double-acting LUKAS LDC cylinders** provide force in both the advance and the retract cycle. The body is made of high quality special steel with baked enamel finish. All cylinders will be delivered with piston guard plates.

Features & Benefits:

- ▲ High lateral load tolerance
- ▲ Hard chrome-plated piston rods prevent channels and corrosion
- ▲ Scraper rings against pollution and wear
- ▲ Fully loadable stroke limitation
- ▲ External threads for easy mounting and maximum versatility
- ▲ Threaded fixing bores in the cylinder base
- ▲ Couplings comply with international standard
- ▲ Overload safety valve on the piston rod side

All **LDC-cylinders** can be mounted with LUKAS quick couplers so that they can also be integrated into existing LUKAS 50 MPa-systems.

Please order quick coupler **StNi 62 (order no. 84053/16)** separately and change it against the standard coupler.

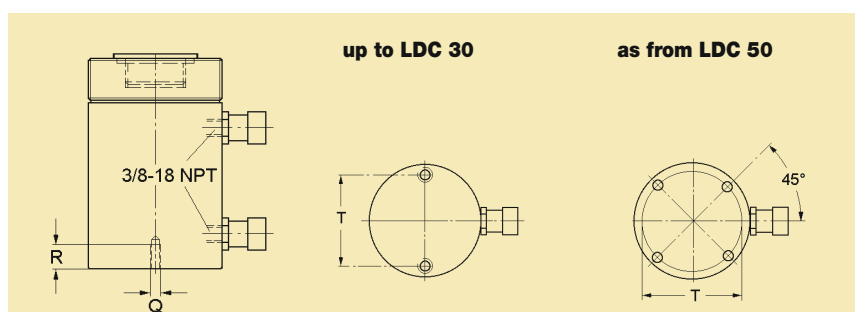


type	order no.	lifting cap. kN	pull. cap. kN	stroke mm	eff. area cm ²	oil cap* l	A mm	B Ø mm	C Ø mm	D Ø mm	E Ø mm	F Ø mm	G mm	H mm	J mm	O mm	weight kg
LDC 10-2/160	84148/2101-01	111	20	160	15,9	0,26	317	60	36	1"-8	20	2¼"-14	32	24	7	53,5	6,5
LDC 10-2/250	84148/2101-02	111	20	250	15,9	0,40	407	60	36	1"-8	20	2¼"-14	32	24	7	53,5	8,5
LDC 10-2/320	84148/2101-03	111	20	320	15,9	0,51	477	60	36	1"-8	20	2¼"-14	32	24	7	53,5	9,5
LDC 20-5/160	84148/2102-01	218	53	160	31,1	0,50	328	83	45	1"-8	20	3¼"-12	40	24	8	60	12
LDC 20-5/250	84148/2102-02	218	53	250	31,1	0,78	418	83	45	1"-8	20	3¼"-12	40	24	8	60	15
LDC 20-5/320	84148/2102-03	218	53	320	31,1	1,00	488	83	45	1"-8	20	3¼"-12	40	24	8	60	17
LDC 30-7/160	84148/2103-01	309	68	160	44,1	0,71	345	102	56	1½"-16	26	3⅞"-12	48	25	10	77	19
LDC 30-7/320	84148/2103-02	309	68	320	44,1	1,41	505	102	56	1½"-16	26	3⅞"-12	48	25	10	77	27
LDC 50-7/160	84148/2104-01	496	72	160	70,8	1,13	345	127	80	1¾"-12	28	5"-12	50	25	10	70	31
LDC 50-7/320	84148/2104-02	496	72	320	70,8	2,27	520	127	80	1¾"-12	28	5"-12	50	25	10	85	49
LDC 75-14/160	84148/2105-01	727	140	160	103,8	1,66	348	150	90	1¾"-12	30	5¾"-12	50	25	10	70	42
LDC 75-14/320	84148/2105-02	727	140	320	103,8	3,32	522	150	90	1¾"-12	30	5¾"-12	50	25	10	80	61
LDC 95-19/160	84148/2106-01	929	189	160	132,7	2,12	349	177	100	1¾"-12	38	6⅞"-12	50	30	10	70	64
LDC 95-19/320	84148/2106-02	929	189	320	132,7	4,26	519	177	100	1¾"-12	38	6⅞"-12	50	30	10	84	85
LDC 140-37/50	84148/2107-01	1407	370	50	201	1,01	268	215	110	2½"-12	49	8"-12	55	40	10	85	66
LDC 140-37/150	84148/2107-02	1407	370	150	201	3,02	388	215	110	2½"-12	49	8"-12	55	40	10	85	90
LDC 140-37/300	84148/2107-03	1407	370	300	201	6,03	538	215	110	2½"-12	49	8"-12	55	40	10	85	119
LDC 220-56/50	84148/2108-01	2199	560	50	314,1	1,57	284	265	140	2½"-12	65	9¼"-12	55	60	10	85	112
LDC 220-56/150	84148/2108-02	2199	560	150	314,1	4,71	404	265	140	2½"-12	65	9¼"-12	55	60	10	85	151
LDC 220-56/300	84148/2108-03	2199	560	300	314,1	9,42	554	265	140	2½"-12	65	9¼"-12	55	60	10	85	197
LDC 350-100/50	84148/2109-01	3436	1014	50	490,8	2,45	309	330	160	3"-12	85	12¼"-12	60	70	10	90	189
LDC 350-100/150	84148/2109-02	3436	1014	150	490,8	7,36	429	330	160	3"-12	85	12¼"-12	60	70	10	90	247
LDC 350-100/300	84148/2109-03	3436	1014	300	490,8	14,72	579	330	160	3"-12	85	12¼"-12	60	70	10	90	346
LDC 560-170/50	84148/2110-01	5629	1714	50	804,2	4,02	398	430	200	4"-12	110	15⅝"-8	80	85	15	120	396
LDC 560-170/150	84148/2110-02	5629	1714	150	804,2	12,06	533	430	200	4"-12	110	15⅝"-8	80	85	15	120	504
LDC 560-170/300	84148/2110-03	5629	1714	300	804,2	24,12	683	430	200	4"-12	110	15⅝"-8	80	85	15	120	625

*) effective oil capacity

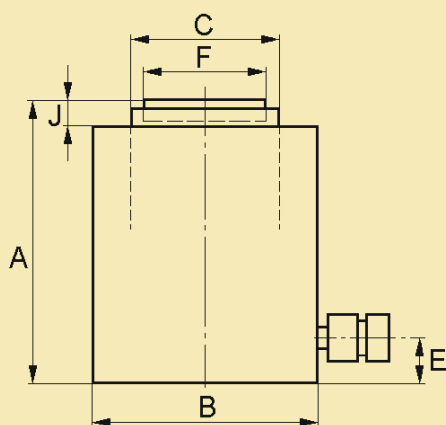
700 bar

With fixing bores in the cylinder base



	Q	R mm	T mm
LDC 10	⅝"-18	14	39
LDC 20	½"-13	15	58
LDC 30	½"-13	15	66
LDC 50	½"-13	15	95
LDC 70	½"-13	18	100
LDC 90	¾"-10	18	139
LDC 140	¾"-16	25	158
LDC 220	1"-8	25	127
LDC 350	1¼"-7	40	158
LDC 560	1¾"-5	55	203

Single-acting low height steel cylinders with and without spring return 10 up to 100 t



LUKAS LLC Cylinders offer very big piston stroke compared to the retracted height. With their special compact design they are meant for use in confined spaces.

- ▲ The piston is grooved so that no extra saddles are required.
- ▲ Models from 30 to 100 tons are optionally available with tilting saddle.
- ▲ Available with load return (models LLC) or spring return (models LLCS) with same outer dimensions.

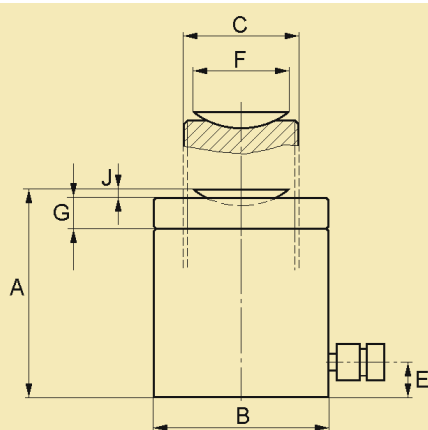
All **LLC(S)-cylinders** can be mounted with LUKAS quick couplers so that they can also be integrated into existing LUKAS 50 MPa-systems.

Please order quick coupler **StNi 62 (order no. 84053/16)** separately and change it against the standard coupler.

type	order no.	lift. cap. kN	stroke mm	eff. area cm ²	oil cap. l	mm	ømm	ømm	mm	ømm	mm	weight kg
without spring return												
LLC 10/40	84148/5000-01	111	40	15,9	0,06	89	66	36	14*	--	2	2,2
LLC 20/40	84148/5000-02	218	40	31,2	0,13	101	90	56	14*	--	2	4,8
LLC 30/60	84148/5000-07	309	60	44,2	0,27	125	102	60	14*	45	2	7,6
LLC 50/60	84148/5000-04	496	60	70,8	0,43	125	127	80	16*	61	2	11,3
LLC 100/60	84148/5000-05	928	60	132,7	0,80	141	175	110	26	88	2	24,7
LLC 100/150	84148/5000-06	928	150	132,7	1,99	254	175	110	26	88	2	43,3
with spring return												
LLCS 10/40	84148/5001-01	111	40	15,9	0,06	89	66	36	14*	--	2	2,2
LLCS 20/40	84148/5001-02	218	40	31,2	0,13	101	90	56	14*	--	2	4,8
LLCS 30/60	84148/5001-07	309	60	44,2	0,27	125	102	60	14*	45	2	7,6
LLCS 50/60	84148/5001-04	496	60	70,8	0,43	125	127	80	16*	61	2	11,3
LLCS 100/60	84148/5001-05	928	60	132,7	0,80	141	175	110	26	88	2	24,7
LLCS 100/150	84148/5001-06	928	150	132,7	1,99	254	175	110	26	88	2	43,3

*) coupler inclined 10°

Single-acting short stroke lock nut cylinders load return 50 up to 550 t



LUKAS HFCL-Cylinders are extremely flat and equipped with lock nuts to sustain loads mechanically over a longer period of time.

- ▲ All models with tilting plates to avoid lateral load
- ▲ Special surface coating to prevent corrosion
- ▲ The ejection hole serves to avoid overtravel and protects the cylinder

Please note! When based on unequal or yielding ground the cylinders must be completely supported with a stable base plate.

700 bar

All **HFCL-cylinders** can be mounted with LUKAS quick couplers so that they can also be integrated into existing LUKAS 50 MPa-systems.

Please order quick coupler **StNi 62 (order no. 84053/16)** separately and change it against the standard coupler.



type	order no.	lift. cap. kN	stroke mm	eff. area cm ²	oil cap. l	A mm	B ømm	C ømm	E mm	F ømm	G mm	J mm	weight kg
HFCL 50/50	84148/9946-90	495	50	70,8	0,36	125	120	Tr 95x4	19	95	21	6	12
HFCL 90/45	84148/9946-91	928	45	132,7	0,60	137	165	Tr130x6	21	126	31	8	23
HFCL 140/45	84148/9946-92	1407	45	201	0,91	148	205	Tr160x6	27	160	38	9	39
HFCL 220/45	84148/9946-93	2198	45	314	1,41	155	255	Tr200x6	28	200	40	10	62
HFCL 350/45	84148/9946-94	3434	45	490,6	2,21	178	320	Tr250x6	35	240	50	11	111
HFCL 550/45	84148/9946-95	5656	45	803,8	3,62	192	405	Tr320x6	38	295	60	10	193

Single-acting high tonnage cylinders load return



The single-acting **heavy-duty cylinder models HSCR** are made of steel. They have chromium plated pistons and are equipped with guide rings. Scraper rings prevent wear of piston rod through pollution.

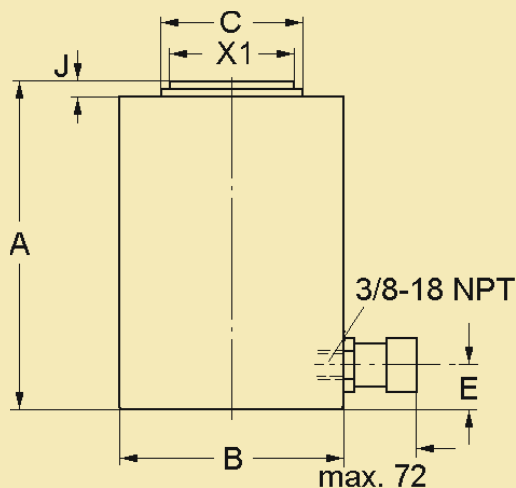
HSCR cylinders are available with lifting forces from 140 t up to 1100 t in strokes from 50 to 300 mm in steps of 50 mm. They are equipped with an ejection hole. Overtravel must be avoided. If necessary, please choose next stroke length.

HSCR cylinders are specially suitable for lifting heaviest loads on the field of surface and underground engineering.

All **HSCR-cylinders** can be mounted with LUKAS quick couplers so that they can also be integrated into existing LUKAS 50 MPa-systems.

Please order quick coupler

StNi 62 (order no. HR 84053/16) separately and change it against the standard coupler.



type	order no.	lifting cap.	stroke	eff. area	oil cap.	A	B	C	E	J	X1	weight
		kN	mm	cm ²	l	mm	Ø mm	Ø mm	mm	mm	mm	kg
HSCR 140/50	84148/9944-15	1407	50	201	1,00	155	200	160	35	6	111,5	38
HSCR 140/100	84148/9944-16	1407	100	201	2,01	205	200	160	35	6	111,5	51
HSCR 140/150	84148/9944-17	1407	150	201	3,01	255	200	160	35	6	111,5	63
HSCR 140/200	84148/9944-18	1407	200	201	4,02	305	200	160	35	6	111,5	75
HSCR 140/250	84148/9944-19	1407	250	201	5,02	355	200	160	35	6	111,5	88
HSCR 140/300	84148/9944-20	1407	300	201	6,03	405	200	160	35	6	111,5	100
HSCR 220/50	84148/9944-25	2199	50	314	1,57	170	250	200	40	7	111,5	64
HSCR 220/100	84148/9944-26	2199	100	314	3,14	220	250	200	40	7	111,5	85
HSCR 220/150	84148/9944-27	2199	150	314	4,71	270	250	200	40	7	111,5	104
HSCR 220/200	84148/9944-28	2199	200	314	6,28	320	250	200	40	7	111,5	123
HSCR 220/250	84148/9944-29	2199	250	314	7,85	370	250	200	40	7	111,5	143
HSCR 220/300	84148/9944-30	2199	300	314	9,42	420	250	200	40	7	111,5	162
HSCR 350/50	84148/9944-35	3436	50	491	2,45	210	310	250	50	7	177,5	123
HSCR 350/100	84148/9944-36	3436	100	491	4,91	260	310	250	50	7	177,5	154
HSCR 350/150	84148/9944-37	3436	150	491	7,36	310	310	250	50	7	177,5	184
HSCR 350/200	84148/9944-38	3436	200	491	9,82	360	310	250	50	7	177,5	213
HSCR 350/250	84148/9944-39	3436	250	491	12,28	410	310	250	50	7	177,5	243
HSCR 350/300	84148/9944-40	3436	300	491	14,73	460	310	250	50	7	177,5	273
HSCR 560/50	84148/9944-45	5629	50	804	4,02	240	390	320	60	7	250	223
HSCR 560/100	84148/9944-46	5629	100	804	8,04	290	390	320	60	7	250	272
HSCR 560/150	84148/9944-47	5629	150	804	12,06	340	390	320	60	7	250	319
HSCR 560/200	84148/9944-48	5629	200	804	16,08	390	390	320	60	7	250	366
HSCR 560/250	84148/9944-49	5629	250	804	20,10	440	390	320	60	7	250	413
HSCR 560/300	84148/9944-50	5629	300	804	24,12	490	390	320	60	7	250	459
HSCR 880/50	84148/9944-55	8759	50	1257	6,28	290	490	400	70	10	290	423
HSCR 880/100	84148/9944-56	8759	100	1257	12,57	340	490	400	70	10	290	503
HSCR 880/150	84148/9944-57	8759	150	1257	18,85	390	490	400	70	10	290	577
HSCR 880/200	84148/9944-58	8759	200	1257	25,14	440	490	400	70	10	290	651
HSCR 880/250	84148/9944-59	8759	250	1257	31,43	490	490	400	70	10	290	725
HSCR 880/300	84148/9944-60	8759	300	1257	37,71	540	490	400	70	10	290	799
HSCR 1100/50	84148/9944-65	11132	50	1590	7,95	415	550	450	80	10	325	766
HSCR 1100/100	84148/9944-66	11132	100	1590	15,90	465	550	450	80	10	325	867
HSCR 1100/150	84148/9944-67	11132	150	1590	23,85	515	550	450	80	10	325	960
HSCR 1100/200	84148/9944-68	11132	200	1590	31,80	565	550	450	80	10	325	1054
HSCR 1100/250	84148/9944-69	11132	250	1590	39,75	615	550	450	80	10	325	1147
HSCR 1100/300	84148/9944-70	11132	300	1590	47,70	665	550	450	80	10	325	1240

Double-acting high tonnage cylinders



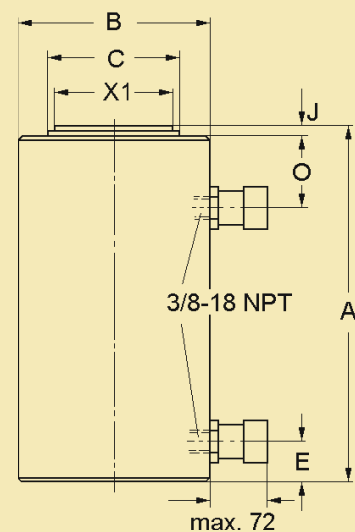
The double-acting **heavy-duty cylinder models HDCR** are made of steel. Pistons are hydraulically retracted without external load.

They have chromium plated pistons and are equipped with guide rings. Scraper rings prevent wear of piston rods through pollution. The guide rings are loadable as stroke limitation.

HDCR cylinders are available with lifting forces from 140 t up to 1100 t in strokes from 50 to 300 mm in steps of 50 mm.

All **HDCR-cylinders** can be mounted with LUKAS quick couplers so that they can also be integrated into existing LUKAS 50 MPa-systems.

Please order quick coupler **StNi 62 (order no. 84053/16)** separately and change it against the standard coupler.



type	order no.	lift. cap.	pull. cap.	stroke	eff. area	oil cap. *)	A	B	C	E	J	O	X1	weight
		kN	kN	mm	cm ²	l	mm	Ø mm	Ø mm	mm	mm	mm	mm	kg
HDCR 140-75/50	84148/9945-10	1407	727	50	201	1,00	201	200	110	35	6	60	88	44
HDCR 140-75/100	84148/9945-11	1407	727	100	201	2,01	251	200	110	35	6	60	88	51
HDCR 140-75/150	84148/9945-12	1407	727	150	201	3,01	306	200	110	35	6	65	88	59
HDCR 140-75/200	84148/9945-13	1407	727	200	201	4,02	356	200	110	35	6	65	88	66
HDCR 140-75/250	84148/9945-14	1407	727	250	201	5,02	411	200	110	35	6	70	88	74
HDCR 140-75/300	84148/9945-15	1407	727	300	201	6,03	461	200	110	35	6	70	88	81
HDCR 220-110/50	84148/9945-20	2199	1099	50	314	1,57	216	250	140	40	6	70	111,5	75
HDCR 220-110/100	84148/9945-21	2199	1099	100	314	3,14	266	250	140	40	6	70	111,5	86
HDCR 220-110/150	84148/9945-22	2199	1099	150	314	4,71	326	250	140	40	6	75	111,5	101
HDCR 220-110/200	84148/9945-23	2199	1099	200	314	6,28	376	250	140	40	6	75	111,5	112
HDCR 220-110/250	84148/9945-24	2199	1099	250	314	7,85	436	250	140	40	6	80	111,5	127
HDCR 220-110/300	84148/9945-25	2199	1099	300	314	9,42	486	250	140	40	6	80	111,5	139
HDCR 265-125/50	84148/9945-30	2660	1229	50	380	1,90	226	270	160	45	6	75	131,5	92
HDCR 265-125/100	84148/9945-31	2660	1229	100	380	3,80	276	270	160	45	6	75	131,5	106
HDCR 265-125/150	84148/9945-32	2660	1229	150	380	5,70	336	270	160	45	6	80	131,5	124
HDCR 265-125/200	84148/9945-33	2660	1229	200	380	7,60	386	270	160	45	6	80	131,5	137
HDCR 265-125/250	84148/9945-34	2660	1229	250	380	9,50	446	270	160	45	6	85	131,5	155
HDCR 265-125/300	84148/9945-35	2660	1229	300	380	11,40	496	270	160	45	6	85	131,5	168
HDCR 350-120/50	84148/9945-40	3436	1212	50	491	2,45	231	310	200	50	6	75	178	127
HDCR 350-120/100	84148/9945-41	3436	1212	100	491	4,91	281	310	200	50	6	75	178	148
HDCR 350-120/150	84148/9945-42	3436	1212	150	491	7,35	341	310	200	50	6	80	178	175
HDCR 350-120/200	84148/9945-43	3436	1212	200	491	9,82	391	310	200	50	6	80	178	195
HDCR 350-120/250	84148/9945-44	3436	1212	250	491	12,28	451	310	200	50	6	85	178	222
HDCR 350-120/300	84148/9945-45	3436	1212	300	491	14,73	501	310	200	50	6	85	178	243
HDCR 430-160/50	84148/9945-50	4310	1617	50	616	3,08	248	340	220	55	8	85	178	164
HDCR 430-160/100	84148/9945-51	4310	1617	100	616	6,16	298	340	220	55	8	85	178	188
HDCR 430-160/150	84148/9945-52	4310	1617	150	616	9,24	353	340	220	55	8	85	178	215
HDCR 430-160/200	84148/9945-53	4310	1617	200	616	12,32	403	340	220	55	8	85	178	239
HDCR 430-160/250	84148/9945-54	4310	1617	250	616	15,40	458	340	220	55	8	85	178	266
HDCR 430-160/300	84148/9945-55	4310	1617	300	616	18,48	508	340	220	55	8	85	178	290
HDCR 560-215/50	84148/9945-60	5629	2150	50	804	4,02	268	390	250	65	8	90	200	234
HDCR 560-215/100	84148/9945-61	5629	2150	100	804	8,04	318	390	250	65	8	90	200	266
HDCR 560-215/150	84148/9945-62	5629	2150	150	804	12,06	373	390	250	65	8	90	200	301
HDCR 560-215/200	84148/9945-63	5629	2150	200	804	16,08	423	390	250	65	8	90	200	332
HDCR 560-215/250	84148/9945-64	5629	2150	250	804	20,10	488	390	250	65	8	100	200	377
HDCR 560-215/300	84148/9945-65	5629	2150	300	804	24,12	538	390	250	65	8	100	200	408
HDCR 670-240/50	84148/9945-70	6734	2377	50	962	4,81	283	430	280	65	8	95	200	304
HDCR 670-240/100	84148/9945-71	6734	2377	100	962	9,62	333	430	280	65	8	95	200	343
HDCR 670-240/150	84148/9945-72	6734	2377	150	962	14,43	398	430	280	65	8	100	200	400
HDCR 670-240/200	84148/9945-73	6734	2377	200	962	19,24	448	430	280	65	8	100	200	439
HDCR 670-240/250	84148/9945-74	6734	2377	250	962	24,05	508	430	280	65	8	105	200	490
HDCR 670-240/300	84148/9945-75	6734	2377	300	962	28,86	558	430	280	65	8	105	200	530
HDCR 880-310/50	84148/9945-80	8759	3104	50	1257	6,28	310	490	320	70	10	115	250	434
HDCR 880-310/100	84148/9945-81	8759	3104	100	1257	12,57	360	490	320	70	10	115	250	485
HDCR 880-310/150	84148/9945-82	8759	3104	150	1257	18,85	420	490	320	70	10	115	250	551
HDCR 880-310/200	84148/9945-83	8759	3104	200	1257	25,14	470	490	320	70	10	115	250	602
HDCR 880-310/250	84148/9945-84	8759	3104	250	1257	31,43	530	490	320	70	10	115	250	668
HDCR 880-310/300	84148/9945-85	8759	3104	300	1257	37,71	580	490	320	70	10	115	250	719
HDCR 1100-400/50	84148/9945-90	11132	3929	50	1590	7,95	330	550	360	80	10	125	325	584
HDCR 1100-400/100	84148/9945-91	11132	3929	100	1590	15,90	380	550	360	80	10	125	325	648
HDCR 1100-400/150	84148/9945-92	11132	3929	150	1590	23,85	440	550	360	80	10	125	325	731
HDCR 1100-400/200	84148/9945-93	11132	3929	200	1590	31,80	490	550	360	80	10	125	325	795
HDCR 1100-400/250	84148/9945-94	11132	3929	250	1590	39,75	550	550	360	80	10	125	325	878
HDCR 1100-400/300	84148/9945-95	11132	3929	300	1590	47,70	600	550	360	80	10	125	325	943

*) effective oil capacity

700 bar

Single-acting cylinders with locking collar, load return



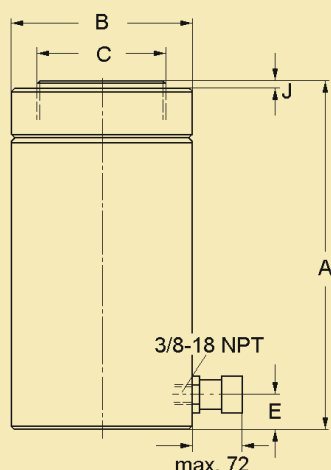
These cylinders are built for safe support of heaviest loads. They have a threaded piston with locking collar to sustain a load mechanically over a longer period of time. Available with lifting forces from 30 t up to 1100 t in strokes from 50 to 250 mm resp. 300 mm.

Cylinders series HLC are equipped with an ejection hole. Overtravel must be avoided. If necessary, please choose next stroke length. Suitable for high off-center load through hard-textile guiding bands.

All **HLC-cylinders** can be mounted with LUKAS quick couplers so that they can also be integrated into existing LUKAS 50 MPa-systems.

Please order quick coupler

StNi 62 (order no. 84053/16) separately and change it against the standard coupler.



type	order no.	lifting cap.	stroke	eff. area	oil cap.	A	B	C	E	J	weight
		kN	mm	cm ²	l	mm	Ø mm		mm	mm	kg
HLC 30/50	84148/9946-50	309	50	44,15	0,22	169	100	Tr75x4	25	3	10,5
HLC 30/100	84148/9946-51	309	100	44,15	0,44	219	100	Tr75x4	25	3	13,5
HLC 30/200	84148/9946-52	309	200	44,15	0,88	314	100	Tr75x4	25	3	19,5
HLC 30/300	84148/9946-53	309	300	44,15	1,33	419	100	Tr75x4	25	3	26
HLC 50/50	84148/9946-54	496	50	70,84	0,36	185	125	Tr95x4	30	3	17,5
HLC 50/100	84148/9946-55	496	100	70,84	0,71	235	125	Tr95x4	30	3	22
HLC 50/200	84148/9946-56	496	200	70,84	1,42	335	125	Tr95x4	30	3	32
HLC 50/300	84148/9946-57	496	300	70,84	2,13	435	125	Tr95x4	30	3	41,5
HLC 100/50	84148/9946-58	929	50	132,6	0,66	200	180	Tr130x6	30	3	40
HLC 100/100	84148/9946-59	929	100	132,6	1,33	250	180	Tr130x6	30	3	46
HLC 100/200	84148/9946-60	929	200	132,6	2,65	350	180	Tr130x6	30	3	65
HLC 100/300	84148/9946-61	929	300	132,6	3,98	450	180	Tr130x6	30	3	82
HLC 140/50	84148/9946-62	1407	50	200,9	1,01	211	215	Tr160x6	39	3	60
HLC 140/100	84148/9946-63	1407	100	200,9	2,01	259	215	Tr160x6	39	3	73,5
HLC 140/200	84148/9946-64	1407	200	200,9	4,02	359	215	Tr160x6	39	3	102
HLC 140/300	84148/9946-65	1407	300	200,9	6,03	459	215	Tr160x6	39	3	130
HLC 220/50	84148/9946-66	2199	50	314,1	1,57	245	265	Tr200x6	50	3	106
HLC 220/150	84148/9946-67	2199	150	314,1	4,71	345	265	Tr200x6	50	3	149
HLC 220/250	84148/9946-68	2199	250	314,1	7,85	445	265	Tr200x6	50	3	191,5
HLC 350/50	84148/9946-69	3436	50	490,6	2,45	275	330	Tr250x6	59	5	184
HLC 350/150	84148/9946-70	3436	150	490,6	7,36	395	330	Tr250x6	59	5	264
HLC 350/250	84148/9946-71	3436	250	490,6	12,27	495	330	Tr250x6	59	5	330,5
HLC 560/50	84148/9946-72	5629	50	803,8	4,019	345	430	Tr320x6	80	5	390
HLC 560/150	84148/9946-73	5629	150	803,8	12,06	475	430	Tr320x6	80	5	535
HLC 560/250	84148/9946-74	5629	250	803,8	20,10	575	430	Tr320x6	80	5	650
HLC 880/50	84148/9946-75	8756	50	1256	6,28	400	540	Tr400x6	100	5	714
HLC 880/150	84148/9946-76	8756	150	1256	18,84	555	540	Tr400x6	100	5	990
HLC 880/250	84148/9946-77	8756	250	1256	31,40	655	540	Tr400x6	100	5	1170
HLC 1100/50	84148/9946-78	11132	50	1589,6	7,95	440	600	Tr450x6	110	5	969
HLC 1100/150	84148/9946-79	11132	150	1589,6	23,85	595	600	Tr450x6	110	5	1310
HLC 1100/250	84148/9946-80	11132	250	1589,6	39,74	695	600	Tr450x6	110	5	1530

Accessories for steel cylinders

order no.	a	b	c	d	e
	mm	mm	mm		mm

(1) Tilting saddles for

HLC 30/..	84148/0904-13	--	45	36	--	28
LSC 50/.., LSC 75/.., LDC 50/.., LDC 75/..	84148/0906-13	--	61	39	--	36
HLC 50/.., LSC 95/.., LDC 95/.., LDC 140/.., HLC 100/..	84148/0908-13	--	88	47	--	36
HDCR 140/..	84148/0909-13	--	111	52	--	40
LSC 140/.., LDC 220/.., HLC 140/.., HSCR 140/.., HDCR 220/.., HSCR 220/..	84148/0910-13	--	131	57	--	45
LSC 220/.., LDC 350/.., HLC 220/.., HSCR 220/.., HDCR 260/..	84148/2110-13	--	178	67	--	47
LDC 560/.., HSCR 350/.., HLC 350/.., HDCR 350/.., HDCR 420/..	84148/9948-87	--	200	79	--	57
HLC 560/.., HSCR 560/.., HDCR 880/..	84148/9948-88	--	250	105	--	75
HLC 880/.., HSCR 880/..	84148/9946-01	--	290	140	--	100
HLC 1100/.., HSCR 1100/.., HDCR 1100/..	84148/9946-02	--	325	175	--	125

(2) Flanges for

LSC 5/..	84148/0901-12	76	88	25	1½"-16	--
LSC 10/..	84148/0902-12	88	114	30	2¼"-14	--
LSC 15/..	84148/0903-12	114	101	30	2¾"-16	--
LSC 25/..	84148/0904-12	127	127	45	3⅝"-12	--
LSC 30/..	84148/0905-12	135	135	45	3⅞"-12	--

(3) Base lifters for

loadable to 50% of rated cylinder capacity

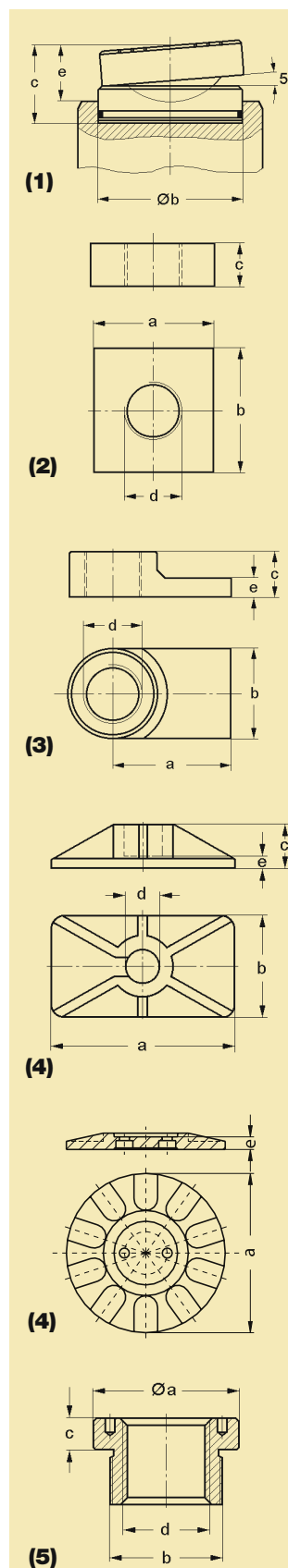
LSC 5/..	84148/0901-11	71	40	30	1½"-16	11
LSC 10/..	84148/0902-11	79	60	37	2¼"-14	12
LSC 25/..	84148/0904-11	105	110	40	3⅝"-12	20

(4) Base plate for

LSC 5/...	84148/0901-10	163	102	31	40,5 mm	20
LSC 10/...	84148/0902-10	180				15
LSC 15/...	84148/0903-10	180				15
LSC 25/...	84148/0904-10	215				17
LSC 30/...	84148/0905-10	215				17
LSC 50/...	84148/0906-10	305				22
LSC 75/...	84148/0907-10	350				32
LSC 95/...	84148/0908-10	400				40

(5) Hollow saddles with internal thread for hollow piston cylinders

LHC 12/..	84148/9946-83	34	M 28 x 1,5	7	¾"-16	--
LHC 22/..	84148/9946-84	48	1⅞"-16	8	1"-8	--
LHC 30/..	84148/9946-85	55	1⅜"-16	9	1¼"-7	--
LHC 60/75, LHC 60/150	84148/9946-86	80	2¾"-16	12	1⅝"-5 ½	--
LHC 100/..	84148/9946-87	116	4"-16	13	2½"-8	--
LHC 140/..	84148/9946-88	135	4¼"-16	20	2½"-8	--



Pulling cylinders

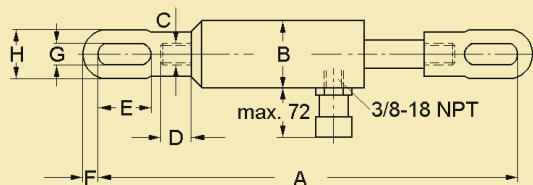


The **LUKAS pulling cylinders LPC** are used for precision pulling work e.g. in shipyards or on construction sites. They are ideal tools for drawing together prefabricated metal modules for welding. They allow a precise working to the mm.

The baked enamel finished cylinder body and the hard-chrome plated plunger provide maximum corrosion resistance and long life.

For high lateral load tolerance the cylinder is equipped with a wide guiding ring which serves also as a fully loadable stroke limitation.

When the pulling job is finished the piston is spring-retracted to its initial (extended) position.



Optionally available complete with metal protection cover for the piston rod.

Attention!

Models with this cover have a 30 mm shorter stroke!

All **LPC-cylinders** can be mounted with LUKAS quick couplers so that they can also be integrated into existing LUKAS 50 MPa-systems.

Please order quick coupler **StNi 62 (order no. 84053/16)** separately and change it against the standard coupler.

type	order no.	pull. cap.	stroke	eff. area	oil cap.	A	B	C	D	E	F	G	H	weight
		kN	mm	cm ²	l	mm	Ø mm		mm	mm	mm	mm	mm	kg
LPC 10/150	84183/2005	94	150	13,5	0,2	726	86	M 30 x 2	25	109	30,5	46	107	12
LPC 30/150	84183/2015	307	150	43,9	0,7	873	125	M 40 x 2	45	153	29	50	108	32
LPC 50/150	84183/2020	492	150	70,3	1,1	907	148	M 52 x 2	60	150	70	50	130	60

700 bar

Hand pumps LH 1/LH 2 for single- and double-acting cylinders

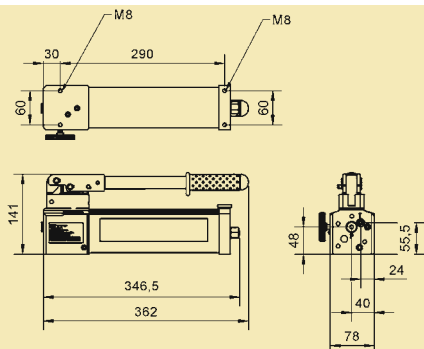


Robust two-stage hand pumps with automatic switch-over from low to high pressure. They can be used in horizontal and vertical position with the pump head facing

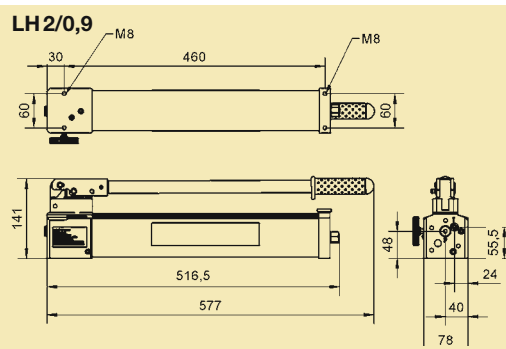
downwards. Precise lowering of a lifted load is possible with the hand wheel on the drain valve.

type	order no.	oil capacity	usable oil capacity	delivery per stroke low pressure	automatic switchover at	delivery per stroke high pressure	weight
		l	l	cm ³	MPa (bar)	cm ³	kg
LH 1/0,5-70	84129/1220	0,7	0,47	6,0	2 (20)	0,8	4,0
LH 1/0,9-70	84129/1230	1,3	0,9	6,0	2 (20)	0,8	5,2
LH 2/0,9-70	84129/2230	1,3	0,9	17,0	2 (20)	1,7	5,2
LH 2/1,8-70	84129/2240	2,3	1,8	17,0	2 (20)	1,7	6,5
LH 2/3,8-70	84129/2250	4,5	3,8	17,0	2 (20)	1,7	10,8

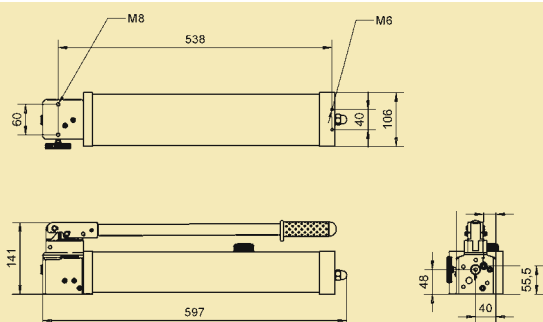
LH1/0,5



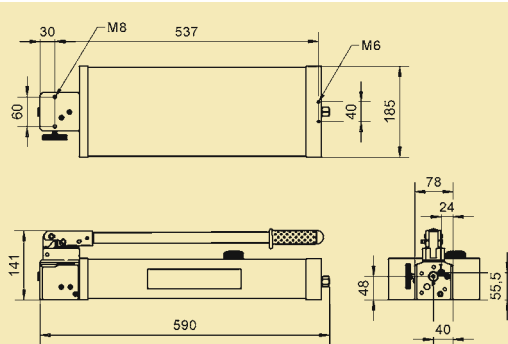
LH1/0,9 · LH2/0,9



LH2/1,8



LH2/3,8



Accessories for hand pumps



N4/3W



N2W



N4M



MA3

**Connection plate ASP2
for N2W and N4M**

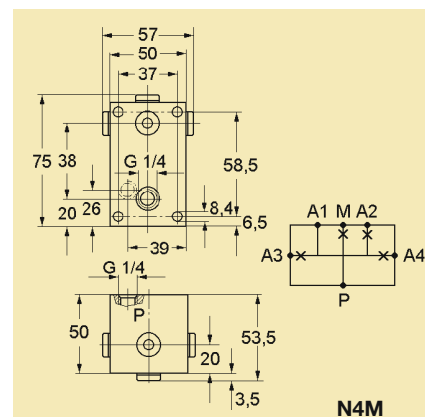
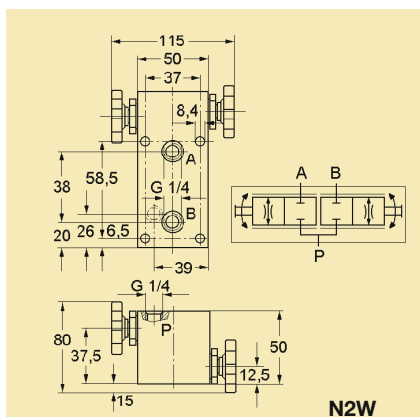
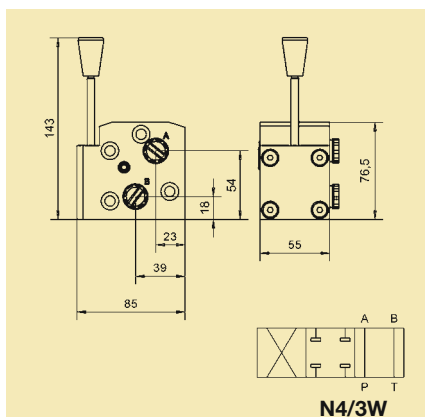


Conversion sets suitable for LH1, LH2

type	order no.	dimensions (l x w x h) mm	weight kg	
4/3-way valve N4/2W	84129/7110	55 x 85 x 143	1,5	Control valve for one double-acting cylinder
2-way distributor valve N2W	84148/9903*	115 x 80 x 114	2,1	Distributor valve used to divide one oil flow into two individual flows. Both oil flows can be regulated and matched to one another.
Connection plate ASP2	84129/7413	68 x 76,5 x 20	0,3	please order separately
Oil distributor with pressure gauge connection N4M	84148/9905*	57 x 54 x 75	1,4	To divide one flow oil into 5 individual oil flows; e.g. 4 tool connections and 1 pressure gauge adapter (MA2).
Connection plate ASP2	84129/7413	68 x 76,5 x 20	0,3	please order separately
Press. gauge connector MA3	84126/5232		0,8	Position of pressure gauge 30° resp. 90°

* can be mounted in a hose- resp. a tube system

700 bar



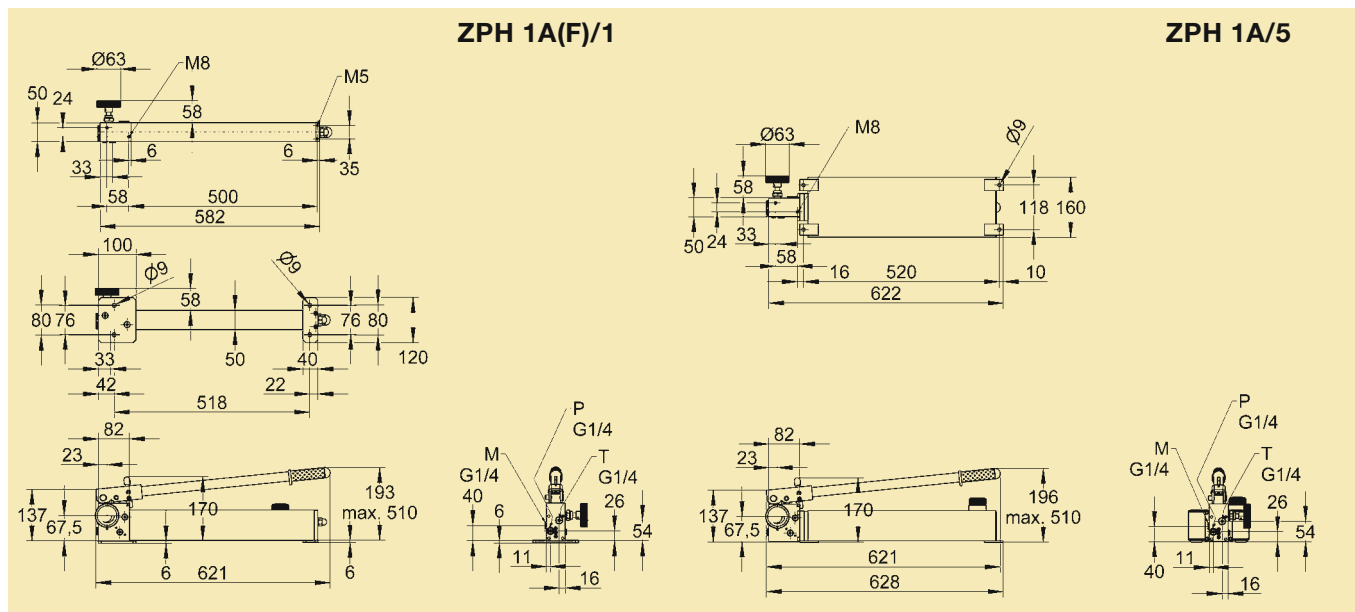
Hand pumps ZPH 1A./... for single- and double-acting cylinders



LUKAS hand pumps ZPH 1A./... are robust and easy to operate two-stage pumps with automatic switch-over from low pressure (LP) to high pressure (HP) mode. The basic version is suitable for operation of a single-acting cylinder.

Features & Benefits:

- ▲ High LP/HP switch-over pressure for fast extension of a cylinder without load
- ▲ Modular valve kits for easy upgrading to operation of one double-acting or several single-acting cylinders
- ▲ Precise lowering of a load by means of hand operated drain valve
- ▲ Usable in horizontal and vertical (pump head facing downwards) position



type	order no.	hand lever force at 70 MPa	oil capacity l	usable oil capacity l	delivery per stroke low pressure cm ³	automatical switchover at MPa (bar)	delivery per stroke high pressure cm ³	weight kg
ZPH 1A/1	84120/0179	36 kg	1,3	1,1	10	10 (100)	1,6	7,7
ZPH 1AF/1	84120/3179	36 kg	1,3	1,1	10	10 (100)	1,6	7,9
ZPH 1A/5	84120/0180	36 kg	5,2	4,5	10	10 (100)	1,6	13,1

*ZPH 1AF/1 with stable base plate · ZPH 1A/1 mounting version without base plate

Accessories for hand pumps



N4/2W



N2W



N4M



NFP



MA3

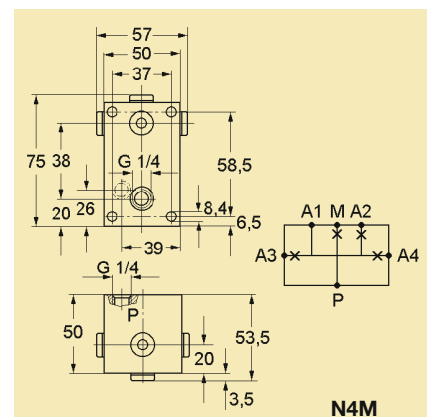
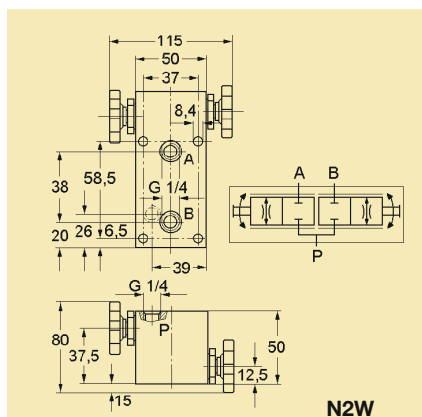
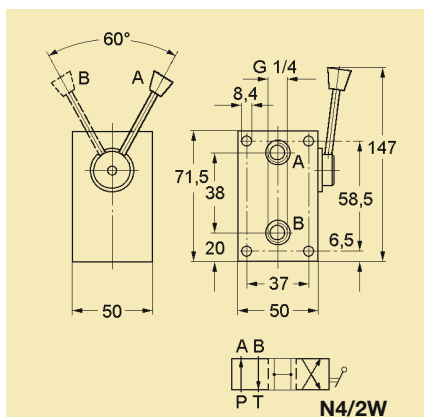


MA2

Conversion sets suitable for ZPH 1A./...

type	order no.	dimensions (l x w x h) mm	weight kg	
4/2-way valve N4/2W	84111/9848	80 x 50 x 147	1,5	Control valve for one double-acting cylinder
2-way distributor valve N2W	84148/9903*	115 x 80 x 114	2,1	Distributor valve used to divide one oil flow into two individual flows. Both oil flows can be regulated and matched to one another.
Oil distributor with pressure gauge connection N4M	84148/9905*	57 x 54 x 75	1,4	To divide one flow oil into 5 individual oil flows; e.g. 4 tool connections and 1 pressure gauge adapter (MA2).
Press. gauge connector MA3	84126/5232		0,8	Position of pressure gauge 30° resp. 90°
Press. gauge connector MA2	84126/5231		0,15	Connection of pressure gauge laterally on pump head
Foot pump NFP	84120/2-0001	--	0,6	Conversion set for foot operation.

* can be mounted in a hose- resp. a tube system



Hand pumps ZPH 3/... for single- and double-acting cylinders with large oil volume



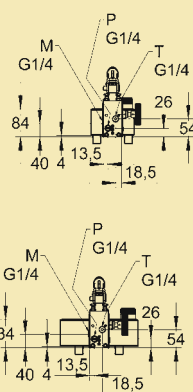
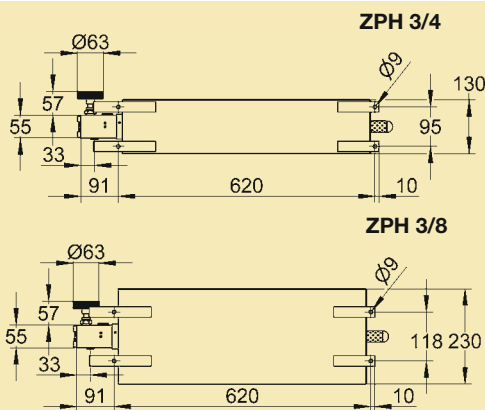
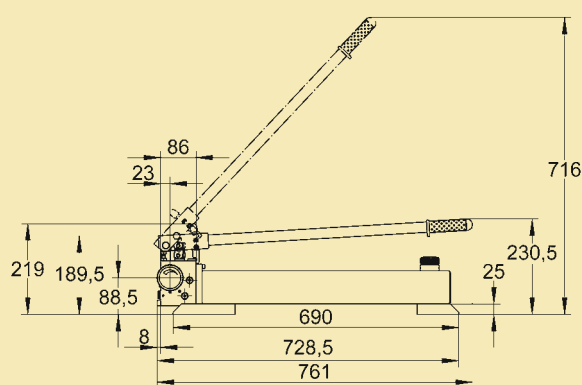
LUKAS Handpumps ZPH 3... are robust and easy to operate two-stage pumps with automatic switch-over from low pressure (LP) to high pressure (HP) mode. The basic version is suitable for operation of a single-acting cylinder.

Features & Benefits:

▲ Modular valve kits for easy upgrading to operation of one double-acting or several single-acting cylinders

- ▲ Big oil container
- ▲ High LP/HP switch-over pressure for fast extension of a cylinder without load
- ▲ High HP oil delivery for fast extension of a cylinder with load
- ▲ Precise lowering of a load by means of hand operated drain valve
- ▲ Usable in horizontal and vertical (pump head facing downwards) position

ZPH 3/8 / ZPH 3/4



type	order no.	hand lever force at 70 MPa	oil capacity l	usable oil capacity l	delivery per stroke low pressure cm ³	automatic switch over at MPa (bar)	delivery per stroke high pressure cm ³	weight kg
ZPH 3/4	84120/0415	62 kg	5,25	4	10,8	18 (180)	4,2	11
ZPH 3/8	84120/0425	62 kg	10,5	8	10,8	18 (180)	4,2	15,4

Accessories for hand pumps



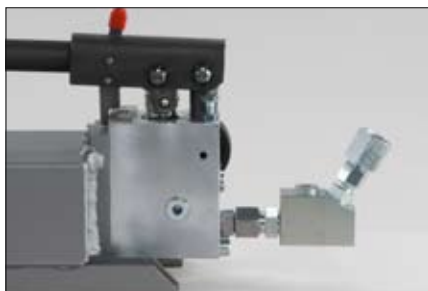
N4/2W



N2W



N4M



MA3



MA3 with pressure gauge

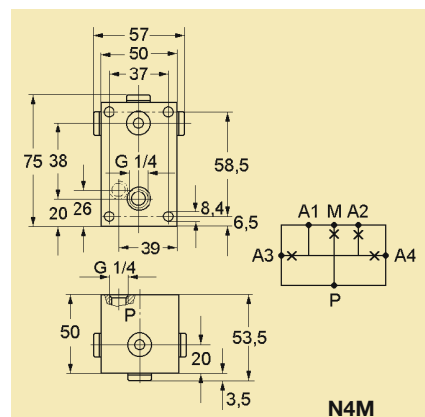
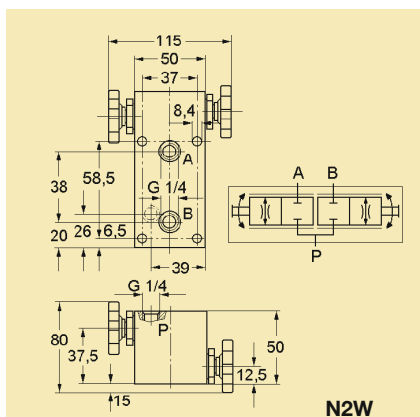
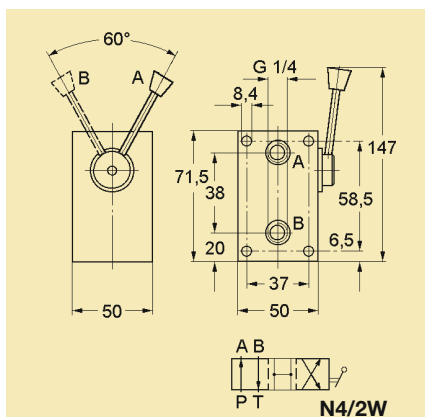


MA2

Conversion sets suitable for ZPH 3/...

type	order no.	dimensions (l x w x h) mm	weight kg	
4/2-way valve N4/2W	84111/9848	80 x 50 x 147	1,5	Control valve for one double-acting cylinder
2-way distributor valve N2W	84148/9903*	115 x 80 x 114	2,1	Distributor valve used to divide one oil flow into two individual flows. Both oil flows can be regulated and matched to one another.
Oil distributor with pressure gauge connection N4M	84148/9905*	57 x 54 x 75	1,4	To divide one flow oil into 5 individual oil flows; e.g. 4 tool connections and 1 pressure gauge adapter (MA2).
Press. gauge connector MA3	84126/5232		0,8	Position of pressure gauge 30° resp. 90°
Press. gauge connector MA2	84126/5231		0,15	Connection of pressure gauge laterally on pump head

* can be mounted in a hose- resp. a tube system,



700 bar

Foot pump LFP 2 for single-acting cylinders

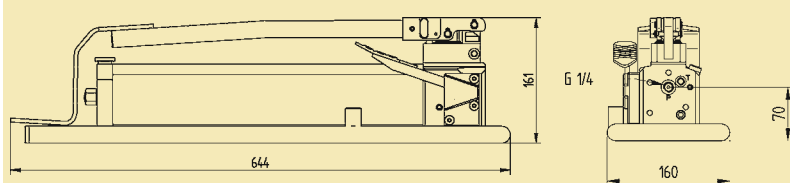


Robust two-stage foot pump with automatic switch-over from low to high pressure mode. For increased stability the pump is mounted on a tube frame. The foot lever would function as a carry handle once it is latched in

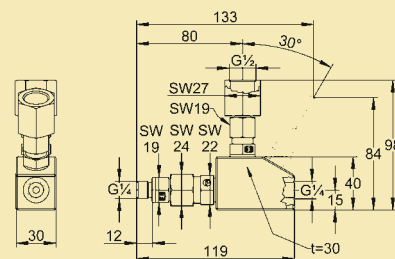
horizontal position. Precise lowering of a lifted load is possible with the foot-operated drain valve.

type	order no.	oil capacity l	usable oil capacity l	delivery per stroke low pressure cm ³	automatic switchover at MPa (bar)	delivery per stroke high pressure cm ³	weight kg
LFP 2/0,9-70	HR 1494 63327	1,3	0,9	17,0	2 (20)	1,7	8,0
LFP 2/1,8-70	HR 1494 63329	2,3	1,8	17,0	2 (20)	1,7	10,0

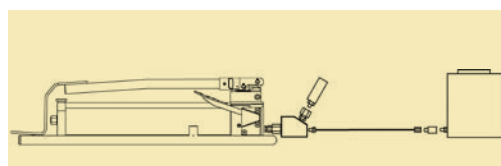
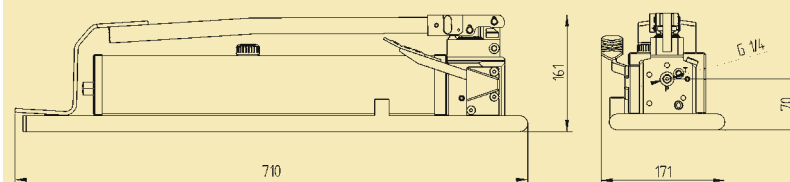
LFP 2/0,9



Pressure gauge connector for LFP 2



LFP 2/1,8



type	order no.	weight
MA 3	84126/5232	0,8 kg

Air Hydraulic Pumps AHP 2 Series



for double acting cylinders

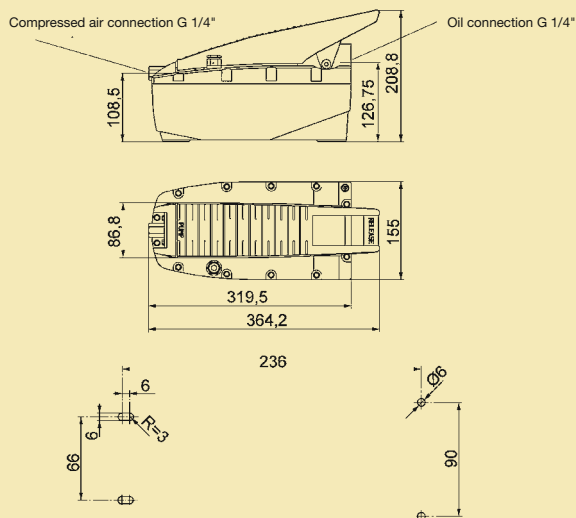
for single acting cylinders

Technical Data

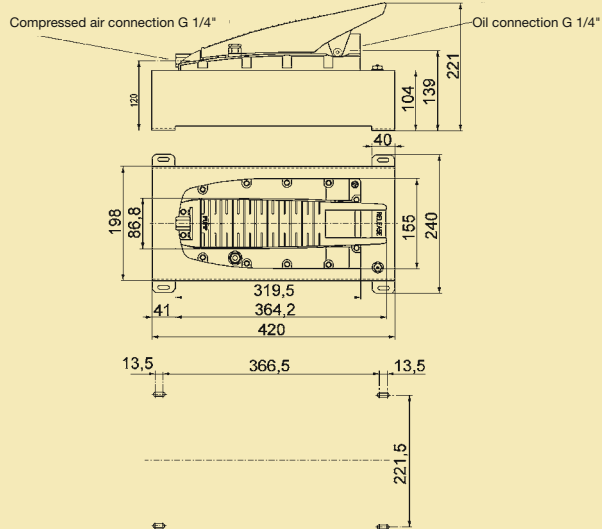
Type	AHP 2-1E-702	AHP 2-1E-705
	AHP 2-1D-702	AHP 2-1D-705
Oil tank	2,4 l	5 l
Max. working pressure	500 bar	500 bar
Output flow rate (without load)	1,1 l/min	1,1 l/min
Output flow rate (with load)	0,15 l/min	0,15 l/min
Useable oil capacity	2,1 l	4,5 l
Air pressure range	2,8 – 10 bar	2,8 – 10 bar
Air consumption	340 l/min	340 l/min
Compressed air connection	G 1/4"	G 1/4"
Oil connection	G 1/4"	G 1/4"
Weight	6,3 kg	8,8 kg

- ▲ suitable for operation of single-acting rams (1E) and double-acting rams (1D)
- ▲ can be driven by normal shop air
- ▲ operates in horizontal and vertical position
- ▲ easy operation by foot pedal with 3 positions: advance – hold – retract
- ▲ Extremely low noise level (75 dBA)
- ▲ Reciprocating pressure intensifier (air/oil) produces oil pressure proportionally to primary air pressure
- ▲ internal relief valve protects automatically against overload

AHP 2 - 2,4 I



AHP 2 - 51



500 bar	oil tank	order no.	type
AHP 2-1E-702	2,4 l	HR 1494 63 253	single-acting cylinder
AHP 2-1E-705	5 l	HR 1494 63 254	single-acting cylinder
AHP 2-1D-702	2,4 l	HR 1494 63 257	double-acting cylinder
AHP 2-1D-705	5 l	HR 1494 63 258	double-acting cylinder

Hydraulic power packages **PO 6/GO 6 for all cylinders**



PO6-1E-10



GO6-1E-10



PO6-2E-10



GO6-2E-10



PO6-1D-10



GO6-1D-10

The **PO 6 models** are powerful two-stage motor pumps for use in intermittent mode. Thanks to the high LP/HP switch-over pressure (16 MPa = 160 bar) they provide in the low pressure mode a faster working speed than traditional motor pumps.

The units will be delivered with a basic oil filling of 7,5 l resp. 15 l. If necessary oil can be filled up to 10 l resp. 24 l. A carry frame kit is available as separate accessory.

Features & Benefits:

- ▲ LUKAS radial piston pump with patented suction valve for maximum efficiency
- ▲ Constant high pressure oil delivery up to the max. working pressure 70 MPa
- ▲ Available with electric motor (PO) or gasoline engine (GO)
- ▲ Compact design and light weight for easy transport



PO6-1E-10



GO6-1E-10



PO6-2E-25



PO6-1D-25

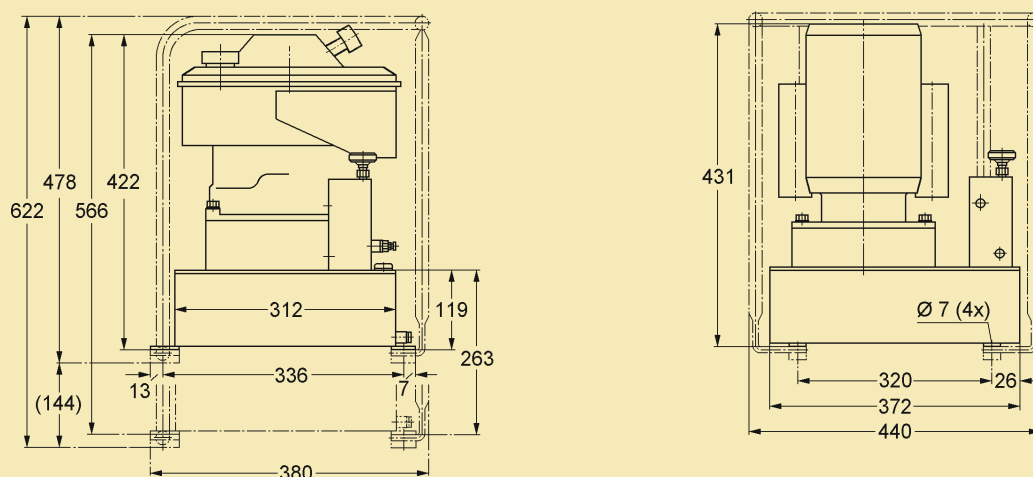


GO6-1E-25



GO6-2E-25

Hydraulic power packages PO 6/GO 6 for all cylinders



type	order no.	oil capacity standard-max.	usable oil cap. standard-max.	delivery low pressure l/min	switchover pressure MPa	delivery high pressure l/min	motor	electr. protect. acc. to DIN 40050	weight* approx. kg
PO6-1E-10-70	84112/5601	7,5 - 10	6 - 8,5	4,4		1,4	electric motor		41
PO6-2E-10-70	84112/5602	7,5 - 10	6 - 8,5	4,4		1,4	230 V/50 Hz		43,5
PO6-1D-10-70	84112/5603	7,5 - 10	6 - 8,5	4,4	16	1,4	2,2 kW	IP 54	42
PO6-1E-25-70	84112/5621	15 - 24	10 - 19	4,4		1,4			54
PO6-2E-25-70	84112/5622	15 - 24	10 - 19	4,4		1,4			56,5
PO6-1D-25-70	84112/5623	15 - 24	10 - 19	4,4		1,4			55
GO6-1E-10-70	84112/5604	7,5 - 10	6 - 8,5	4,7		1,45	4 stroke		38
GO6-2E-10-70	84112/5605	7,5 - 10	6 - 8,5	4,7		1,45	gasoline engine		40,5
GO6-1D-10-70	84112/5606	7,5 - 10	6 - 8,5	4,7	16	1,45	2,6 kW/3200 rpm		39
GO6-1E-25-70	84112/5624	15 - 24	10 - 19	4,7		1,45			49
GO6-2E-25-70	84112/5625	15 - 24	10 - 19	4,7		1,45			51,5
GO6-1D-25-70	84112/5626	15 - 24	10 - 19	4,7		1,45			50

* with basic oil filling

Accessories

Carry frame for 10 l oil container order no. V 84150/7601-03

Carry frame for 25 l oil container order no. V 84072/9230-06

Function of valve versions:

PO6-1E for 1 single-acting cylinder:

Piston movement under load is controlled by switching the motor on or off. When lowering the load, precise speed control through drain valve with hand wheel.

GO6-1E for 1 single-acting cylinder:

Same hydraulic function as PO6-1E; however gasoline engine doesn't start under full load.

PO6/GO6-2E for 2 single-acting cylinders:

Precise speed control of each cylinder when lifting or lowering with and without load.

PO6/GO6-1D for 1 double-acting cylinder:

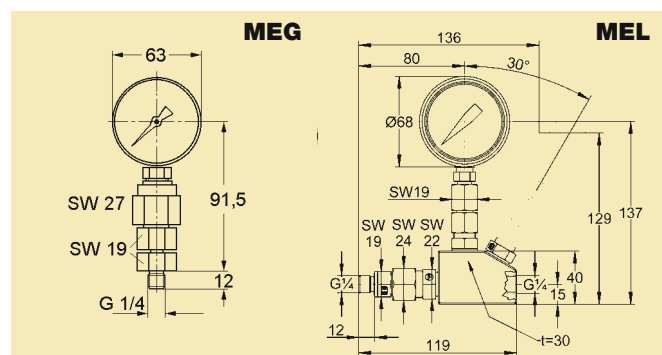
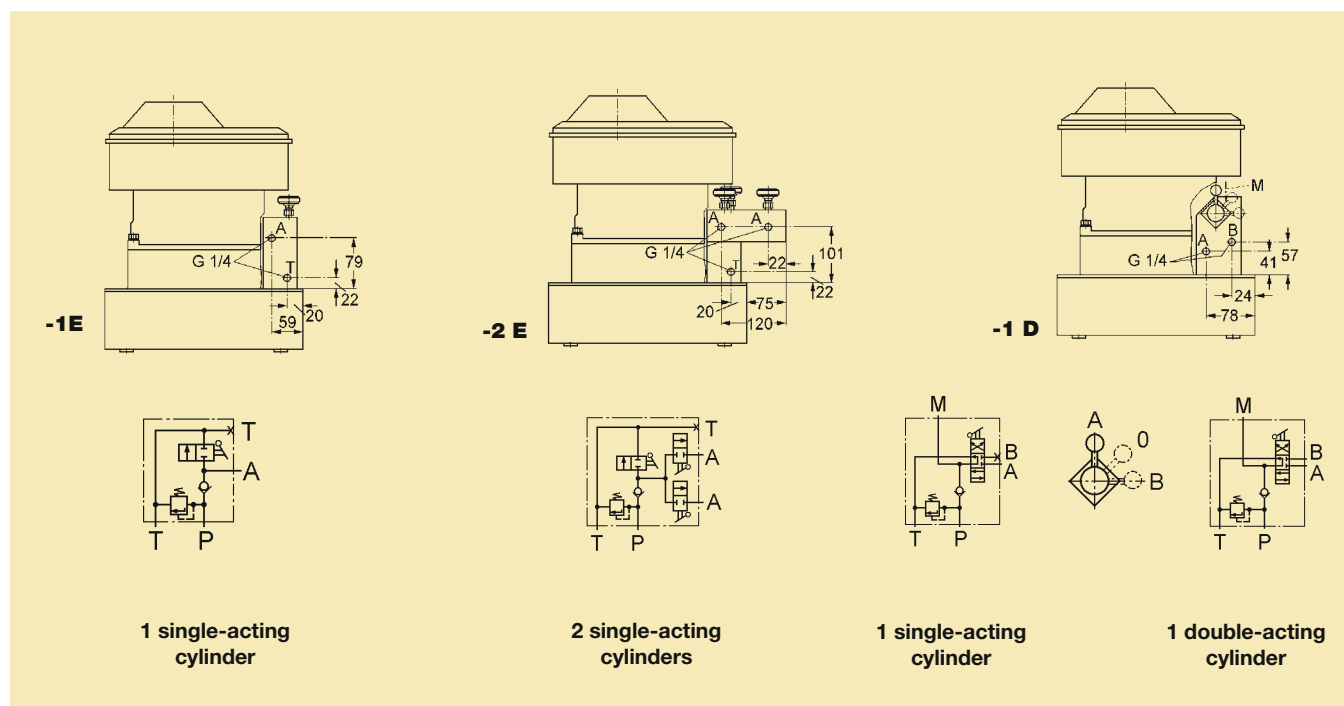
Precise speed control when lifting or lowering with and without load. When lowering the motor must stay switched on.

PO6/GO6-1D for 1 single-acting cylinder:

Precise speed control when lifting or lowering with and without load.

700 bar

Hydraulic power packages PO 6/GO 6 for all cylinders



Pressure gauge units liquid filled

type	order no.	for version	weight
MEG 700	84112/0105	-1D	0,6 kg
MEL 700 N	84112/0109	-1E/-2E	1,0 kg

GO6-1E with MEL 700 N



GO6-2E with MEL 700 N



GO6-1D with MEG 700



Low-noise hydraulic power packages PO 6S for all cylinders



PO6S-1E-10



PO6S-2E-10



PO6S-1D-10



PO6S-1E-25

Noise level only 66 db(A) under full load!

The ideal power unit for indoor use

The **PO 6S** models are powerful two-stage motor pumps for use in intermittent mode. Thanks to the high LP/HP switch-over pressure (16 MPa = 160 bar) they provide in the low pressure mode a faster working speed than traditional motor pumps.

The units will be delivered with a basic oil filling of 7,5 l resp. 15 l. If necessary oil can be filled up to 10 l resp. 24 l.



PO6S-2E-25



PO6S-1D-25

Features & Benefits:

- ▲ LUKAS radial piston pump with patented suction valve for maximum efficiency
- ▲ Constant high pressure oil delivery up to the max. working pressure 70 MPa
- ▲ Available with electric motor (PO)
- ▲ Compact design and light weight for easy transport
- ▲ Optionally equipped with carry frame



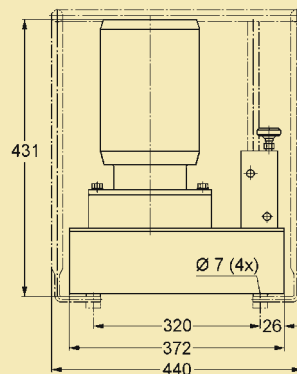
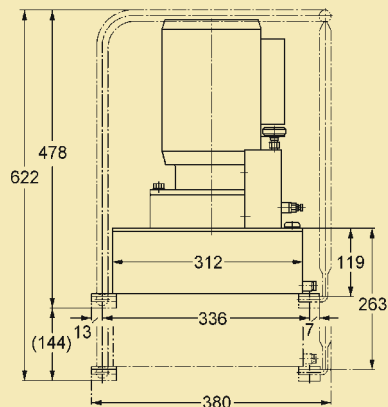
PO6S-1D-10



PO6S-2E-25

700 bar

Low-noise hydraulic power packages PO 6S for all cylinders



type	order no.	oil capacity standard-max. l	usable oil cap. standard-max. l	delivery low pressure l/min	switchover pressure MPa	delivery high pressure l/min	motor	electr. protect. acc. to	weight approx. kg
PO 6S-1E-10-70	84112/5401	7,5 - 10	6 - 8,5	2,2	16	0,7	electric motor		37
PO 6S-2E-10-70	84112/5402	7,5 - 10	6 - 8,5	2,2	16	0,7	230 V/50 Hz		39,5
PO 6S-1D-10-70	84112/5403	7,5 - 10	6 - 8,5	2,2	16	0,7	1,1 kW	IP 54	38
PO 6S-2E-25-70	84112/5404	15 - 24	10 - 19	2,2	16	0,7	1500 rpm		52,5
PO 6S-1D-25-70	84112/5405	15 - 24	10 - 19	2,2	16	0,7			51

* with basic oil filling

Accessories

Carry frame for 10 l oil container order no. V 84150/7601-03

Carry frame for 25 l oil container order no. V 84072/9230-06

Function of valve versions:

PO 6S-1E for 1 single-acting cylinder:

Piston movement under load is controlled by switching the motor on or off. When lowering the load, precise speed control through drain valve with hand wheel.

PO 6S-2E for 2 single-acting cylinders:

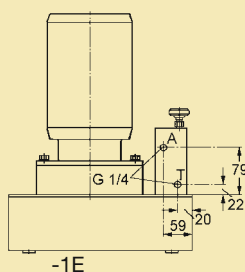
Precise speed control of each cylinder when lifting or lowering with and without load.

PO 6S-1D for 1 double-acting cylinder:

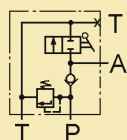
Precise speed control when lifting or lowering with and without load. When lowering the motor must stay switched on.

PO 6S-1D for 1 single-acting cylinder:

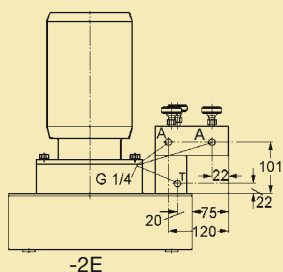
Precise speed control when lifting or lowering with and without load.



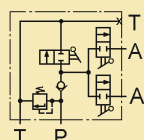
-1E



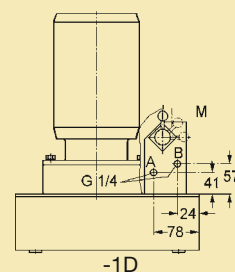
1 single-acting cylinder



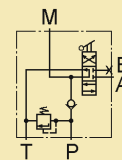
-2E



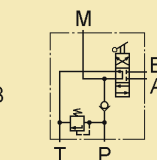
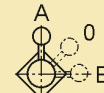
2 single-acting cylinders



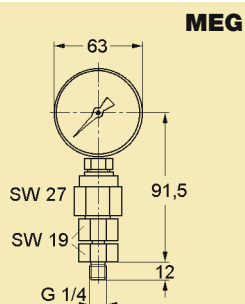
-1D



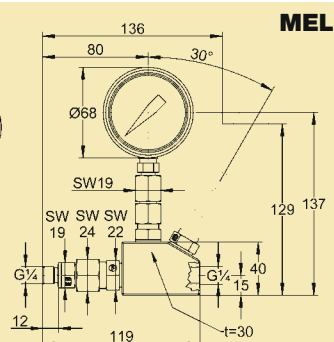
1 single-acting cylinder



1 double-acting cylinder



MEG



MEL

Pressure gauge units liquid filled

type	order no.	for version	weight
MEG 700	84112/0105	-1D	0,6 kg
MEL 700 N	84112/0109	-1E/-2E	1,0 kg

PO6S-1E with MEL 700 N



PO6S-2E with MEL 700 N



PO6S-1D with MEG 700



700 bar

Hydraulic Power Units tailor made for your application



PO6-M4/3-25-70-230V50Hz-F

PO6-4E-25-70-230V50Hz-F

PO6-8D-100-70-230V50Hz-F

Features & Benefits:

LUKAS PO 6 models are powerful two-stage motor pumps. Thanks to the high LP/HP switchover pressure 16 MPa (160 bar) they provide in the low pressure mode a faster working speed than traditional motor pumps.

The following spread shows the numerous models which can be manufactured. These Power Units will be assembled using the well known LUKAS high quality modules.

- ▲ LUKAS radial piston pump with patented suction valve for maximum efficiency
- ▲ Constant high pressure oil delivery up to the maximum working pressure of 70 MPa
- ▲ Available with electric motor (PO6) or electric silent motor (PO6S)
- ▲ Compact design and light weight for easy transport

Models with manual valves can be provided with combustion engine on request.

Available models

type	valve assembly		oil capacity	max. operating pressure		motor	pressure limiting valve	
			l		MPa			
PO 6	-	1 E	-	10	-	70	-	F = fix adjustment
PO 6S		2 E		25				R = adjustable
		4 E		40				
		6 E		50				
		8 E		75				
		1 D		100				
		2 D		150				
		4 D						
		6 D						
		8 D						
		G 2/2						
		L 2/2						
		M 4/3						

PO6 Power packages

delivery low pressure	l/min	4,4
switchover pressure	MPa/bar	16 (160)
delivery high pressure	l/min	1,4

Motor types

elektric motor 230 V 50Hz,	2,2 kW
elektric motor 230 V 60Hz,	
elektric motor 400 V 50Hz,	
elektric motor 115 V 60Hz,	

PO 6 S low-noise

power packages

Noise level only 66 db (A) under full load

delivery low pressure	l/min	2,2
switchover pressure	MPa/bar	16 (160)
delivery high pressure	l/min	0,7

Motor types

elektric motor 230 V 50Hz,	1,1 kW
elektric motor 230 V 60Hz,	
elektric motor 400 V 50Hz,	
elektric motor 115 V 60Hz,	

Oil Capacity/Usable Oil capacity

Oil capacity	10 l	usable oil capacity	8,5 l
Oil capacity	24 l	usable oil capacity	19 l
Oil capacity	40 l	usable oil capacity	33 l
Oil capacity	50 l	usable oil capacity	41 l
Oil capacity	75 l	usable oil capacity	61 l
Oil capacity	100 l	usable oil capacity	85 l
Oil capacity	150 l	usable oil capacity	125 l

Function of the valve versions:

Manual valves

1E - 8E

for one up to eight single-acting cylinders:

Piston movement under load is controlled by switching the motor on or off. When lowering the load, precise speed control through drain valve with hand wheel.

1D - 8D

for one up to eight double-acting cylinders:

Precise speed control when lifting or lowering with and without load. When lowering the motor must stay switched on.

1D - 8D

for one up to eight single-acting cylinders:

Precise speed control when lifting or lowering with and without load

Solenoid valves

L 2/2

without load holding function

Motor starts when remote control button is pushed, solenoid valve closes. - The connected hydraulic cylinder advances as long as the button is pushed. - For retracting release the button, motor stops, valve is set to „open“, piston returns.

G 2/2

with load holding function:

Remote control with 3 - position switch

- Position „1“ = motor on, valve closed, cylinder advances
- Middle position „0“ = motor off, valve closed, load is held
- Position „2“ = motor off, valve set to open, piston returns

M 4/3

with remote control and solenoid valves for one double acting or single acting cylinder. Load holding function when the motor is switched on or off.

Hydraulic power packages PO 4 for small and medium size cylinders



The powerful 2-stage **hydraulic pumps PO 4** are compact and light and can be transported easily. They reach a long operation time in intermittent duty meeting the highest quality and technology requirements.

The remote control version (F) can be operated by just pushing a button on the ergonomic control panel. The remote control cable is 3 m long.

Features & Benefits:

- ▲ Long service life through genuine LUKAS radial piston pump
- ▲ high switch-over pressure for fast piston advance without load
- ▲ constant high pressure oil delivery up to the max. working pressure
- ▲ maximum effective oil delivery through patented LUKAS suction valves
- ▲ The max. oil delivery is always available, regardless of the temperature

Function of valve versions:

Version NA for single-acting cylinders:

Extending - holding load, when motor is switched off – retracting, when motor is switched on or off (pressureless oil flow).

Version N3 for single-acting cylinders:

Sensitive extending and positioning of load – holding load also when motor is switched on (pressureless oil flow) – retracting when motor is switched on or off.

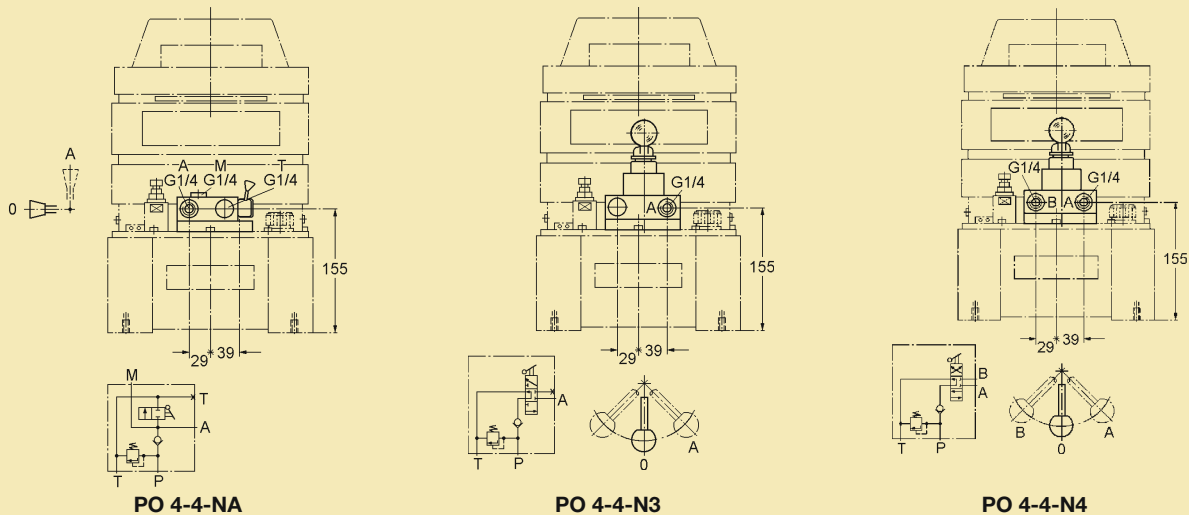
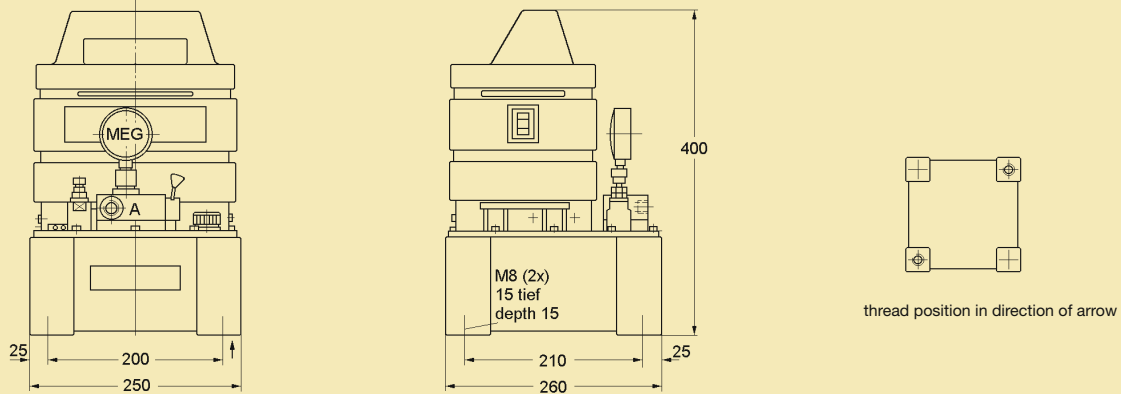
Version N4 for double-acting cylinders:

Extending – holding load also when motor is switched on (pressureless oil flow) – retracting when motor is switched on.

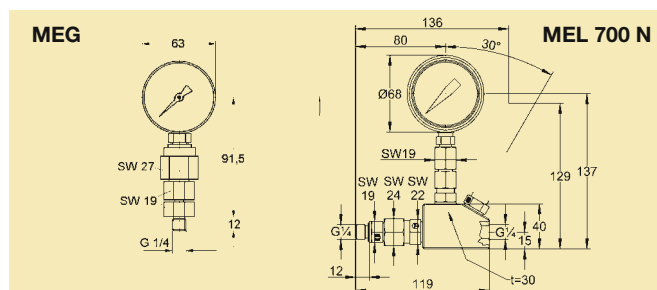
type	order no.	usable oil capacity l	weight kg
PO4-4-NA 700	84112/22	4	22,0
PO4-4-NA 700 F	84112/24	4	22,5
PO4-4-N3/N4 700	84112/23	4	22,2
PO4-4-N3/N4 700 F	84112/25	4	22,7
delivery low pressure		2,1 l/min	
switchover pressure		5 MPa (50 bar)	
delivery high pressure		0,24 l/min	
oil capacity		5 l	
power		0,55 kW	
voltage		230 V/50 Hz	
electr. protection acc. to DIN 40050		IP 20	

Hydraulic power packages PO 4 for small and medium size cylinders

PO 4-4-NA 700 (with accessory MEG 700)



Pressure gauge units



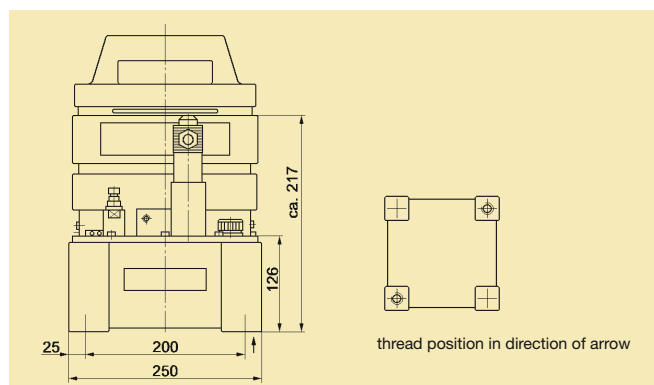
type	order no.	for version	weight
MEG 700	84112/0105	-NA	0,6 kg
MEL 700 N	84112/0109	-NA/-N3/-N4	1,0 kg

PO4-4-NA with MEL 700 N or MEG 700

PO4-4-N3/N4 with MEL 700 N



Hydraulic power packages P0 4 with solenoid valve and remote control

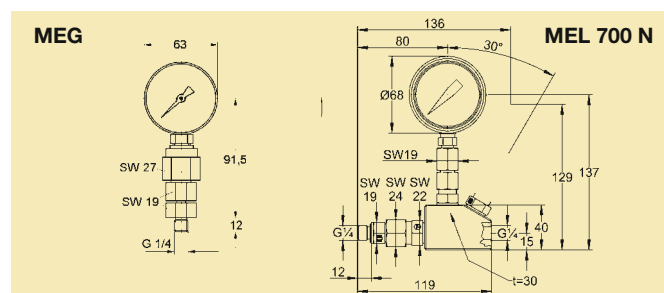


PO 4 pumps with solenoid valves are especially suitable for operation such as pressing, cutting, crimping etc. With the included remote control (cable length 3 m) both motor and solenoid valve can be activated.

type	order no.	useable oil capacity l	weight kg
PO4-4-L2/2 700 F	84112/2401	4	23
PO4-4-G2/2 700 F	84112/2501	4	23

delivery low pressure	2,1 l/min
switchover pressure	5 MPa (50 bar)
delivery high pressure	0,24 l/min
oil capacity	5 l
power	0,55 kW
voltage	230 V/50 Hz
electr. protection acc. to DIN 40050	IP 20

Pressure gauge units



PO4 G2/2 and PO4 L2/2 with MEL 700 N or MEG 700



Available with two valve versions:

Model L 2/2 without load holding function

Motor starts when remote control button is pushed, solenoid valve closes. - The connected hydraulic cylinder advances as long as the button is pushed. - For retracting release the button, motor stops, valve is set to „open“, piston returns.

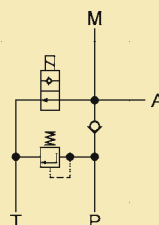
Model G 2/2 with load holding function:

Remote control with 3 - position switch

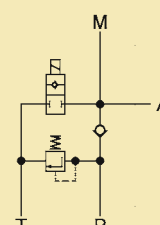
- Position „1“ = motor on, valve closed, cylinder advances
- Middle position „0“ = motor off, valve closed, load is held
- Position „2“ = motor off, valve set to open, piston returns

type	order no.	weight
MEG 700	84112/0105	0,6 kg
MEL 700 N	84112/0109	1,0 kg

Hydraulic diagrams L 2/2



G 2/2



LUKAS hydraulic oil



Mineral oil acc. to DIN 51524

LUKAS hydraulic oil on mineral oil basis has excellent oxidation resistance and outstanding anti-wear performance.

HLP 10 is recommended for all climatic conditions.

class of viscosity	size of can	order no.	temperature range oil
HLP 10	1 l	84117/2-0001	- 18 ... + 50°C
HLP 10	5 l	84117/2-0002	- 18 ... + 50°C
HLP 10	10 l	84117/2-0003	- 18 ... + 50°C

Biodegradable synthetic oil

LUKAS biodegradable **HF-E** synthetic oil can be mixed with all normal hydraulic oils on mineral basis. For reason of environment protection it is recommended however, prior to switching to the biodegradable type to flush oil reservoir, hoses and hydraulic cylinders and to clear them.

class of viscosity	size of can	order no.	temperature range oil
HF-E 15	5 l	84117/2-0008	- 8 ... + 70°C

Micro Power Pack



Version S



Version F

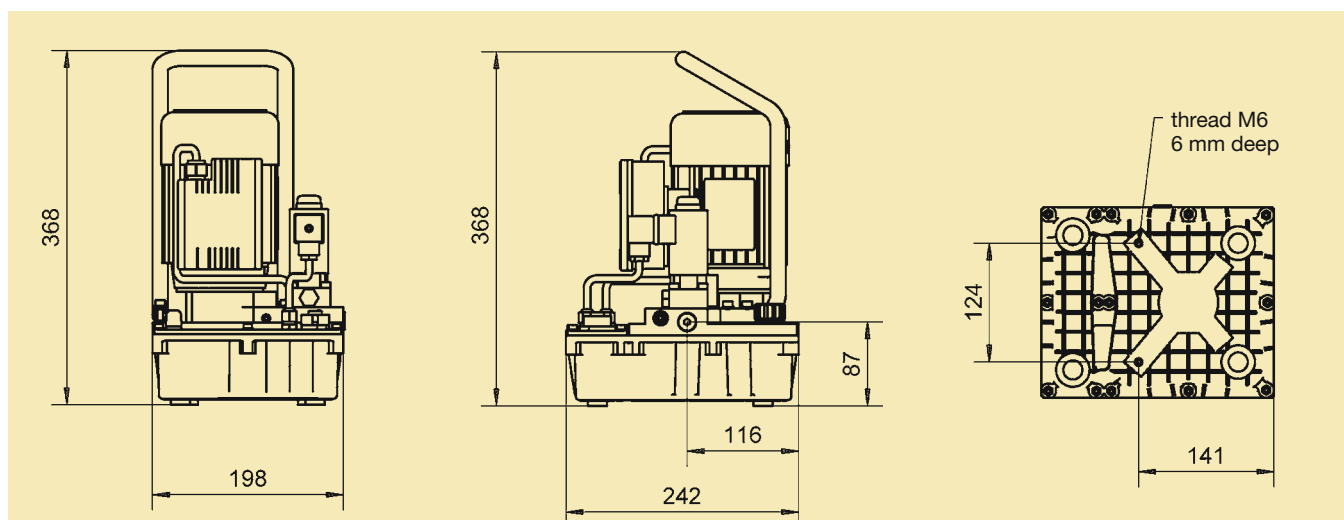
The **LUKAS Micro Power Pack** has been designed to operate single acting hydraulic tools such as pressing tools, spreading wedges, or nut splitters. Two versions of the power unit are available: With electric switch directly beside the hydraulic coupler (version S) or with separate remote control (version F, cable length 3 m). A solenoid valve controls the extending/retracting function.

The Micro power unit is especially suitable for use on construction sites due to its robust design, small dimensions and low weight. A single stage hydraulic pumps provides constantly high oil flow up to 70 MPa (700 bar) operating pressure.

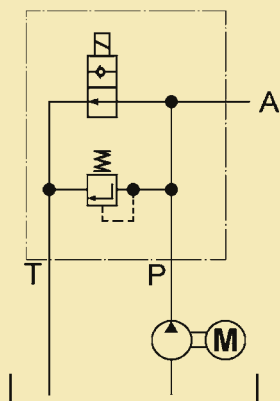
type	order no.	usable oil capacity	weight
P02-L2/2 700 S	84112/5201	0,8 l	11,4 kg
P02-L2/2 700 F	84112/5202	0,8 l	9,8 kg
delivery		0,26 l/min	
oil capacity tank		1,1 l	
power		0,26 kW	
voltage		230 V/50 Hz	
electr. protection acc. to DIN 40050		IP 54	

Function

Motor starts when remote control button is pushed, solenoid valve closes. - The connected hydraulic tool advances as long as the button is pushed. - For retracting release the button, motor switches off, valve is set to „open“, tool becomes pressureless or is retracted by spring.

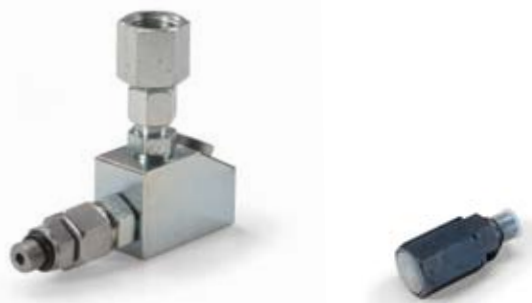


Hydraulic diagram

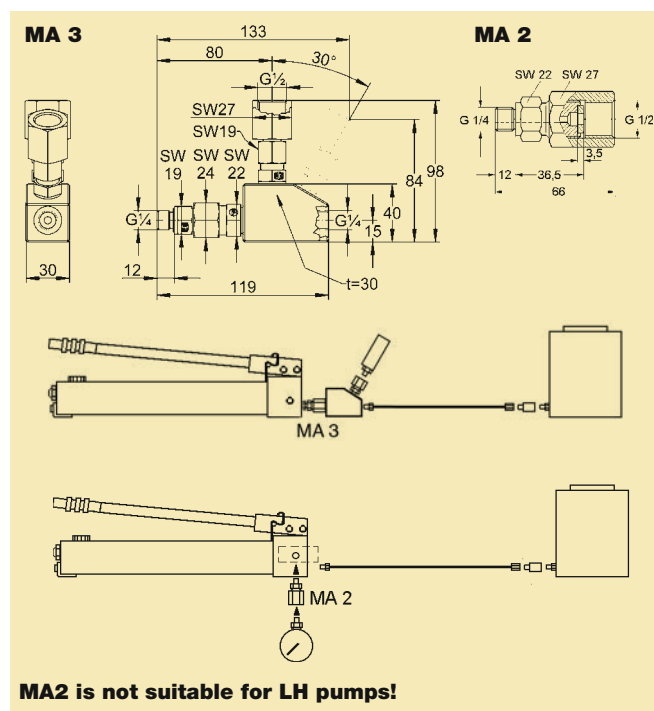


700 bar

Pressure gauge connectors



The **MA 3 pressure gauge adapter** allows pressure gauges to be mounted vertically or at a 30° angle. The installation position can be adjusted and so the pressure gauge can be put at the optimal angle for being read off. The MA 3 can be fitted to all LUKAS hand pumps. The **MA 2** is used for mounting the pressure gauge laterally on pump heads of ZPH pumps.



Pressure gauge connectors for hand pumps

type	order no.	weight
MA 3	84126/5232	0,8 kg
MA 2	84126/5231	0,15 kg



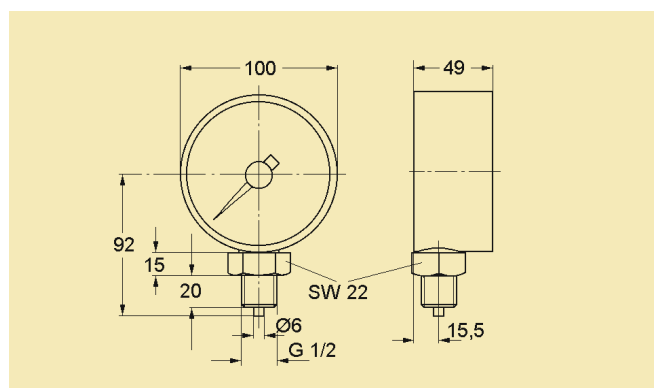
Pressure gauges



Pressure gauges with scale indicating pressure up to 100 MPa (1000 bar)

The gauges are meant for visual reading of the pressure prevailing in a hydraulic system. They can be connected to a LUKAS hydraulic pump via pressure gauge adaptor.

type		order no.	weight
M 210		KT1493 76188	0,6 kg
M 210G	filled with liquid	KT1493 76189	1,2 kg



Pressure gauges with scale indicating forces

These pressure gauges are meant for visual reading of the **force** of a hydraulic cylinder. Each gauge model is **calibrated to match specific cylinders depending on their individual piston diameter**. The gauges are connected to a hand pump via pressure gauge adaptors MA 3 or MA 2.

type	order no.	for cylinder	weight
M 210E-0050	KT 1493 76150	LSC 5/...	
M 210E-0100	KT 1493 76151	LSC 10/...	
M 210E-0150	KT 1493 76152	LSC 15/...	
M 210E-0250	KT 1493 76153	LSC 23/...	
M 210E-0500	KT 1493 76154	LSC 50/...	0,6 kg
M 210E-0750	KT 1493 76155	LSC 75/...	
M 210E-1000	KT 1493 76156	LSC 100/...	
M 210E-0090	KT 1493 76281	AC 10/...	
M 210E-0220	KT 1493 76283	AC 25/...	
M 210E-0560	KT 1493 76285	AC 63/...	

Pressure gauge units MEG and MEL



MEG



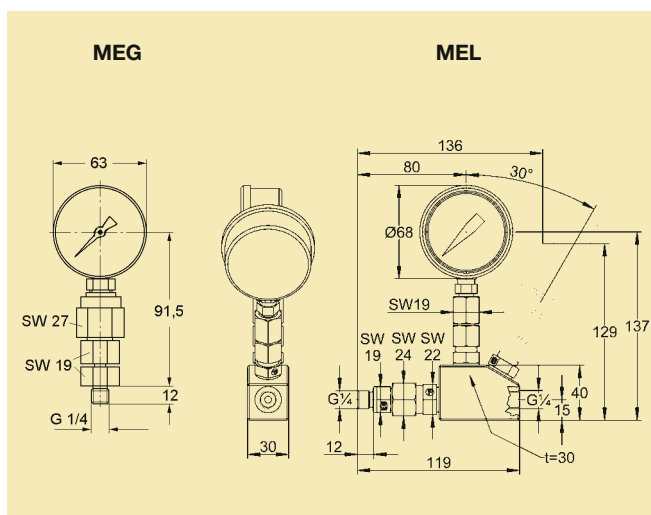
MEL



The **MEL pressure gauge unit** allows pressure gauges to be mounted vertically or at a 30° angle. The installation position can be adjusted and so the pressure gauge can be put at the optimal angle for being read off.

The MEL can be fitted to the most LUKAS hydraulic pumps. PO6-1D / PO6S-1D can be used only with **MEG**.

type	order no	weight
MEL 700 N	84112/0109	1,0 kg
MEG 700	84112/0105	0,6 kg



PO6-1D/PO6S-1D



Screw couplers System 700 bar



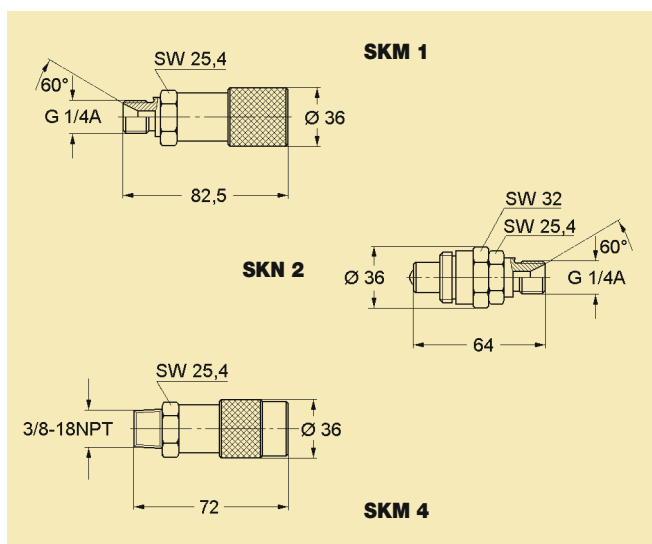
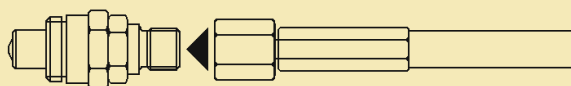
LUKAS screw couplers provide maximum oil flow up to 20 l/min. They allow safe and easy connection and disconnection of hydraulic hoses.

Female screw couplers are standard with all single- and double-acting LUKAS 700 cylinders. The male coupler is to be fitted to the hydraulic hose and must be ordered separately.

(Double acting LUKAS cylinders have built-in safety valve to prevent accidental over-pressurization.)

type	order no.	name	weight
SKM 1	84053/3510	socket	0,4 kg
SKM 4	HR 1495 39393	socket	0,4 kg
SKN 2	84053/3520	plug	0,2 kg

LUKAS 700 bar Cylinders can be mounted with comfortable LUKAS Quick Couplers.



Hoses, System 700 bar Screw connectors



length	order no.	weight
500 mm	KT 1495 36280	0,32 kg
2000 mm	KT 1495 36283	0,81 kg
5000 mm	KT 1495 36285	1,8 kg

Safety factor 4:1

The flexible and bending-resistant **LUKAS high-pressure hoses** offer highest safety due to their superior quality.

They are rated at 70 MPA (700 bar) working pressure. Internal diameter: 6,3 mm, colour: black.

Hose and threads:

One end retaining nut G 1/4 with 60° sealing cone for LUKAS screw coupler, other end firmly mounted with G 1/4 screw nipple with cutting edge for connection to a LUKAS pump.

Non standard lengths are available on request.

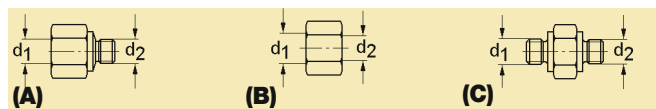
Screw Connectors

They are used for permanent connections between hydraulic hoses or devices. They can also be used for transition between different connection thread sizes or sealing modes.



Connection pieces (A)

d1 internal thread	d2 external thread	order no.	weight
M 18 x 1,5	M 14 x 1,5 ²⁾	84126/5206-01	0,1 kg
M 18 x 1,5	ø 12	84071/54	0,18 kg
G 1/4	M 1,4 x 1,5 ²⁾	84126/5206-08	0,1 kg
M 18 x 1,5	G 1/4A ¹⁾	84126/5206-23	0,1 kg
G 1/4	G 3/8A ¹⁾	84126/5207-01	0,08 kg
M 14 x 1,5	G 1/4A	84126/5230	0,1 kg
G 1/4	M 14 ¹⁾	84071/3320-02	0,1 kg
M 18 x 1,5	G 3/8A	84126/5227	0,15 kg
G 1/4	3/8-18 NPT	84126/5225-01	0,1 kg

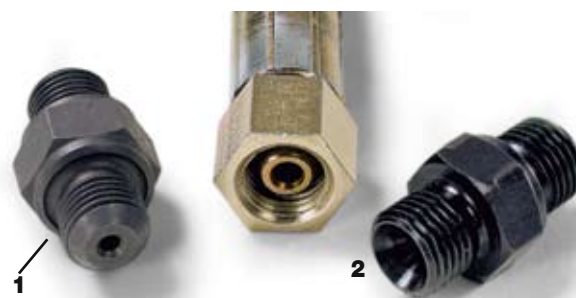


Connection sockets (B)

d1	d2	order no.	weight
G 1/4	M 18 x 1,5	84071/79	0,12 kg

Connection plugs (C)

d1 internal thread	d2 external thread	order no.	Masse
G 1/4 A ¹⁾	M 14 x 1,5 ²⁾	84071/23380	0,05 kg
M 14 ¹⁾	M 14 x 1,5 ²⁾	84126/5102-15	0,05 kg
M 14 x 1,5 ²⁾	ø 12	84071/53	0,04 kg
G 3/8A	M 14 x 1,5 ²⁾	84126/5119	0,1 kg
M 18 x 1,5	M 14	84071/80	0,01 kg



¹⁾ cutting edge seal

²⁾ 60° sealing cone
(hose connection)

700 bar

Distributor Valves



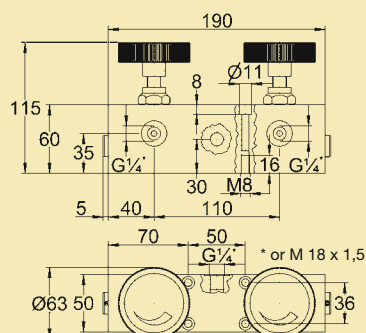
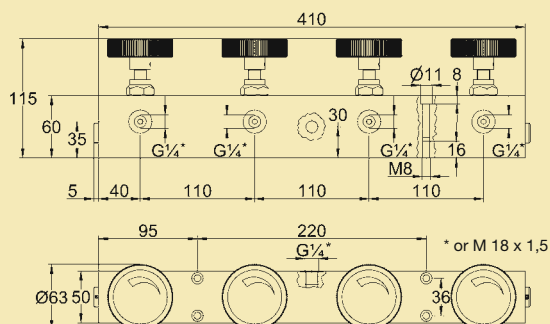
Distributor valves make it possible to divide up one oil flow into several flows which can be individually regulated. By opening or closing the valve, the lifting or lowering speed of several cylinders can be regulated separately and each individual oil flow can be closed.

4-way distributor valve to regulate and close up to four oil flows individually.

2-way distributor valve to regulate and close up to four oil flows individually.

6-way and 8-way distributor valves are available on demand.

type	order no.	Operating pressure max.	Connection thread	Weight
Two-way distributor valve	84112/0722	70 MPa (700 bar)	M 18 x 1,5	4,5 kg
Two-way distributor valve	84112/0720	70 MPa (700 bar)	G 1/4	4,5 kg
Four-way distributor valve	84112/0723	70 MPa (700 bar)	M 18 x 1,5	9,75 kg
Four-way distributor valve	84112/0721	70 MPa (700 bar)	G 1/4	9,75 kg
Fluid	Mineral oil acc. to DIN 51524			
Temperature range of fluid	-30° up to +85° C			
Range of viscosity	2 up to 600 cSt			



Throttle Check Valve ADV-1

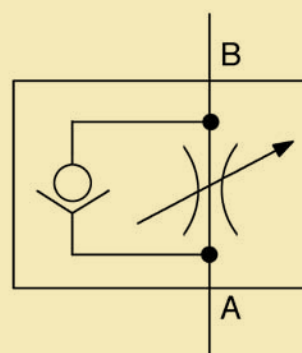
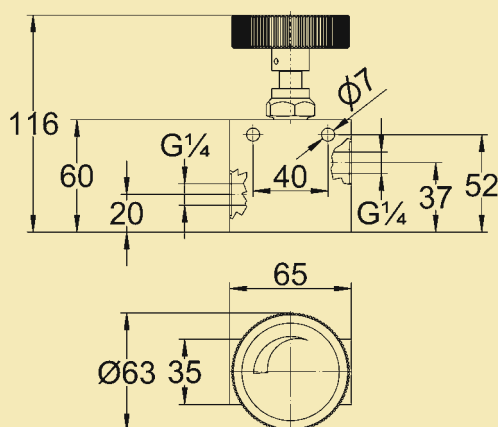


A needle valve to close and regulate an oil flow in one flow direction. Depending on the direction of the installation it regulates the out-flow speed or the in-flow speed in a cylinder. This, for example, makes it possible to regulate the speed at which the load is lowered while the out-flow speed remains constant.

Order no. 84148/9914

Oil flow up to 12 l/min
Weight 1,1 kg

Includes hydraulic connectors for mounting on LUKAS hydraulic pumps.



700 bar

Mini cutter set LSH 4



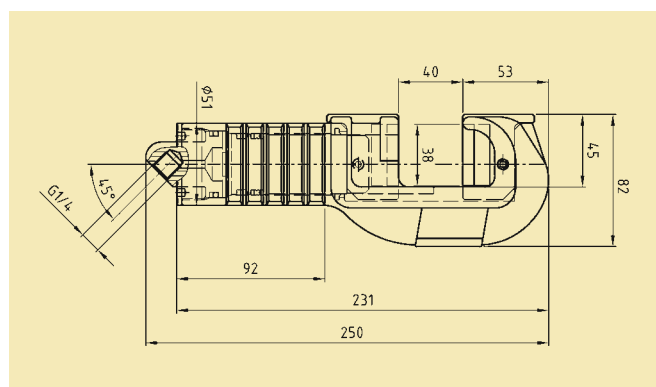
LUKAS Mini Cutter

The tool is available as a **cutter set LSH 4** (70 MPa working pressure) consisting of:
 mini cutter, hand pump LH 1/0,5, 2 m hydraulic hose with screw couplers and sheet transport case.

The small and light cutter offers very high cutting force. It is used for cutting e.g. steel parts, cables or ropes. The single-acting device has a piston spring retraction. For operation only LUKAS hand pumps must be used due to safety reason; the use of motor pumps is not permitted.

LSH 4 Cutter Set

order no.	cutting force	operating press.	weight
84150/6468	75 kN	70 MPa (700bar)	8,8 kg



LC 75 Mini Cutter

(with screw coupler)

order no.	cutting force	operating pressure	oil cap.	weight
84150/6431	75 kN	70 MPa (700 bar)	24 cm ³	2,8 kg

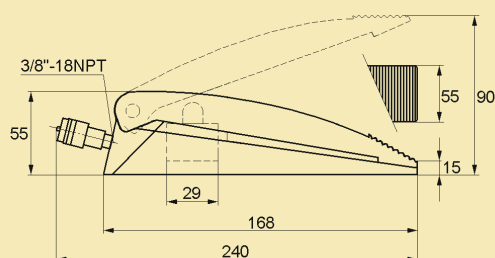
Spreading wedge SP 91



Due to its small size combined with large tip opening model **SP 91** is the ideal tool for working in confined space. It is used e.g. for spreading, displacing and wedging. The spreading wedge is closed automatically by spring return.

For operation we recommend **LUKAS hand pump LH 1**. Of course all other **LUKAS 70 MPa hand pumps** can be used as well.

order no.	max. spread. cap.	oil capacity	weight
84190/1310	9,8 kN	0,01 l	2 kg



Connection scheme



700 bar

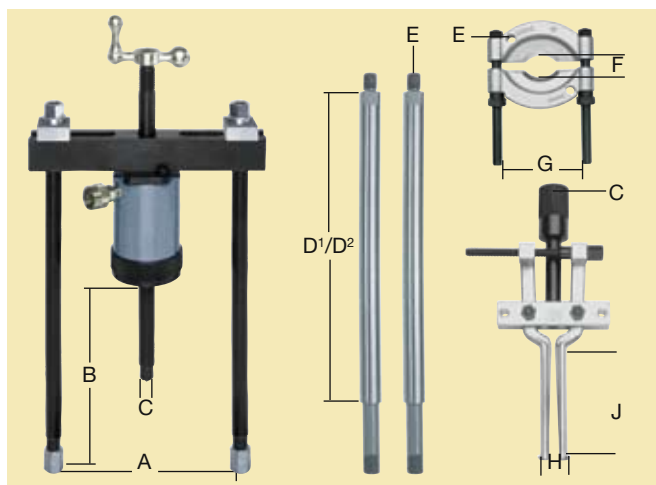
The **spreading wedge** can be mounted with LUKAS quick couplers so that they can also be integrated into existing LUKAS 50 MPa systems.

Please order quick coupler **StNi 62 (order no. 84053/16)** separately and change it against the standard coupler.

Yoke puller sets



Shown with recommended hydraulic equipment.



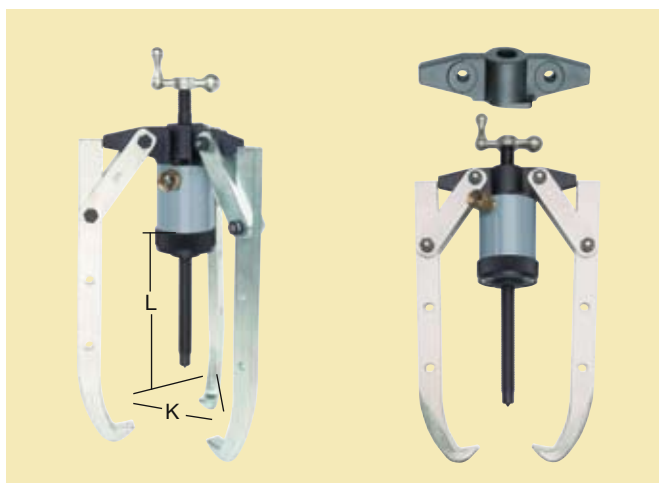
LUKAS yoke puller sets can be used with all kind of maintenance and for dismounting of e.g. gears, disks, bearings, bushings or guide rings.

The necessary hydraulic power is supplied by **LUKAS hollow piston cylinders**. Cylinder, hand pump and further hydraulic components must be ordered separately. The recommended hydraulic equipment can be stored in the transport case of the respective puller set.

Yoke puller sets without hydraulics order no.	ASH 2011 (20 t)	ASH 3011 (30 t)	ASH 5011 (50 t)
	84148/9986	84148/9987	84148/9988
Puller unit *)			
A span width:	135 - 300 mm	180 - 420 mm	235 - 540 mm
B span depth up to:	300 mm	330 mm	400 mm
C thread dimensions	1" - 8	1¼" - 7	1⅝" - 5½
2 Pulling rods			
D¹ length:	240 mm	205 mm	865 mm
2 Pulling rods			
D² length:	420 mm	460 mm	610 mm
2 Pulling rods			
D³ length:	570 mm	710 mm	-
E thread dimensions	⅝" - 18	1" - 14	1¼" - 12
Separating device			
F span width:	25 - 155 mm	30 - 250 mm	75 - 330 mm
G span depth up to:	152 mm	250 mm	330 mm
E thread dimensions:	⅝" - 18	1" - 14	1¼" - 12
Bearing cup puller			
H span width:	30 - 180 mm	75 - 230 mm	75 - 230 mm
J span depth up to:	140 mm	150 mm	150 mm
C thread dimensions	1" - 8	1¼" - 7	1⅝" - 5½
Sheet steel case	810 x 410 x 230 mm	910 x 590 x 275 mm	1140 x 730 x 280 mm
total weight (without hydraulics)	40 kg	102 kg	168 kg

*) The puller unit includes all accessories required in practice: spindle, crank, quick-adjust nut, one of each pressure piece with and without thread, 2 pulling rod connection nuts, 2 support nuts for pulling rods, 2 cylinder fixing screws.

Three-arm pullers



The **LUKAS three-arm pullers** can be used as separate tools with independent hydraulic equipment. They are also an ideal complement of the yoke puller sets. An additional crosshead for two-arm pulling increases the versatility with various applications.

The 3-arm puller includes also: 1 two-arm crosshead, 1 spindle, 1 crank, 1 pressure piece with thread, 2 cylinder fixing screws.

Three-arm pullers with add. two-arm crosshead	AV 20 (20 t)	AV 30 (30 t)	AV 50 (50 t)
order no.	84148/9965	84148/9966	84148/9967
K span width:	500 mm	900 mm	1200 mm
L span depth up to:	300 mm	520 mm	700 mm
total weight (without hydraulic)	21 kg	48 kg	96 kg

Maximum permissible load of the yoke and 3-arm pullers

with nominal forces	20 t	30 t	50 t
three-arm puller	20 t	30 t	50 t
two-arm puller	15 t	25 t	45 t
puller only with pulling rods	15 t	25 t	35 t
puller with separating device	15 t	20 t	30 t
puller with bearing cup puller	10 t	20 t	25 t

Recommended hydraulic equipment

recommended hydraulic equipment for	ASH 2011 AV 20	ASH 3011 AV 30	ASH 5011 AV 50
hollow piston cylinder	LHC 22/50	LHC 30/50	LHC 60/75
hand pump	LH 1	LH 1	ZPH 1AF/1 / LH 2
hydraulic hose	2 m	2 m	2 m
screw coupler	SKN 2	SKN 2	SKN 2
pressure gauge	M 210	M 210	M 210
pressure gauge connector	MA 3	MA 3	MA 3

Workshop presses



LUKAS workshop presses are operated by hand or motor pumps. Presses with hand pumps are equipped with single acting cylinders, presses with motor pumps are equipped with double acting cylinders. Motor pumps are delivered with a 230/400 V – 50 Hz 3-phase electric motor. Maximum pressure safety valves are standard with each motor pump. The press force can directly be read on the pressure gauge.

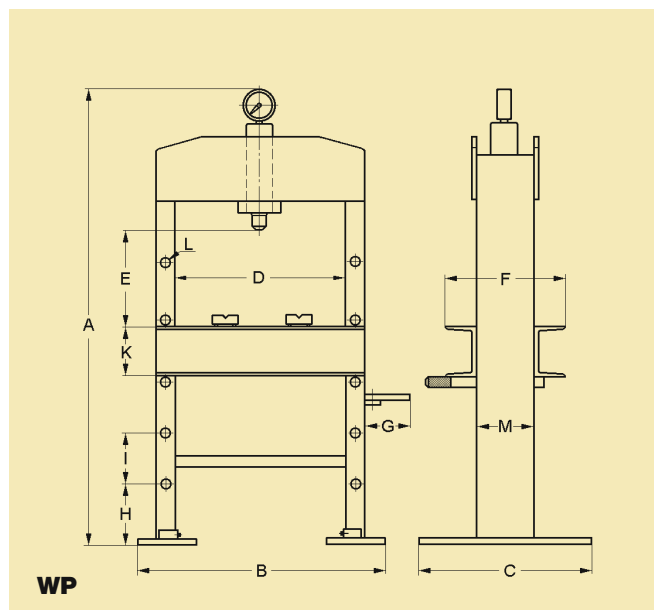
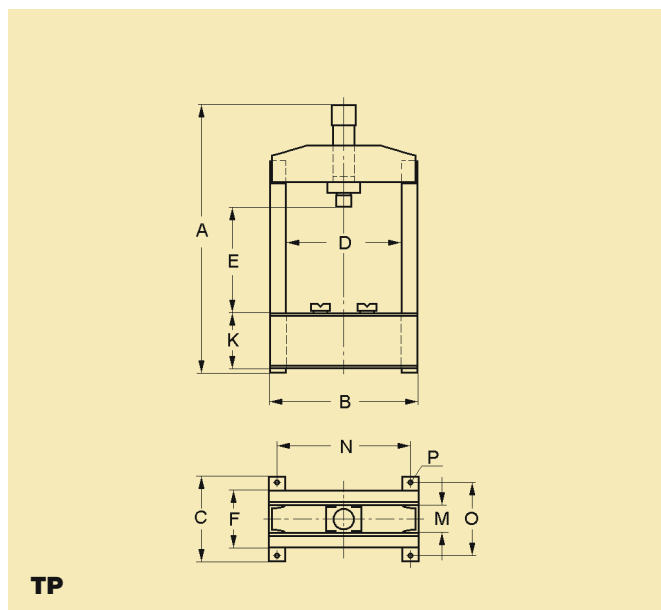
All models with motor pump are equipped with remote control for motor on/off switching.

The 50 t and 120 t presses are fitted with an extra winch for lifting and lowering the table. With the 250 t model the table is lifted with the built-in cylinder and additional chains and ropes. The V-blocks are included with all models.

LUKAS bench presses are completely equipped with single acting rams, pressure gauge indicating pressing forces, hand pumps and hoses with coupler. Two V-blocks are also included.



Workshop presses



type	order no.	pressing capacity	type of pump		stroke	weight	extension speed	
			hand	electric			without load	with load
					mm	kg		
TP 10 M	84128/1810	100 kN	X		130	40	2	2
TP 20 M	84128/1820	200 kN	X		130	85	0,7	0,7
WP 30 M	84128/1840	300 kN	X		125	111	3	0,5
WP 30 EEC	84128/1855	300 kN		X	160	135	11	2
WP 60 M	84128/1860	600 kN	X		180	426	1,5	0,25
WP 60 EEC	84128/1875	600 kN		X	180	426	5,7	1
WP 120 EEC	84128/1885	1200 kN		X	180	720	3	0,5
WP 250 EEC	84128/1890	2500 kN		X	300	2100	1,7	1

*) Hand pumps mm/stroke, Electric pumps mm/sec.

type	A	B	C	D	E _{max}	E _{min}	F	G	H	I	K	L	M	N	O	P
TP 10 M	714	440	220	350	352	--	170	-	-	-	80	--	80	400	198	12
TP 20 M	785	610	325	500	350	--	240	-	-	-	140	--	120	570	285	12
WP 30 M	1780	698	650	500	930	30	245	120	275	150	140	27	120	--	--	--
WP 30 EEC	1780	698	650	500	930	30	245	275	275	165	140	27	120	--	--	--
WP 60 M	1967	1150	800	860	940	110	386	150	237	165	260	41	200	--	--	--
WP 60 EEC	1967	1150	800	860	940	110	386	275	237	165	260	41	200	--	--	--
WP 120 EEC	2010	1240	800	880	900	260	508	275	265	165	300	51	308	--	--	--
WP 250 EEC	2256	1640	1000	1080	1022	124	486	-	130	225	487	80	318	--	--	--

700 bar

A steel giant resting on four „tiny“ LUKAS cylinders



As the deadline was very close only the front part of the ship's body has been welded by one of the most modern Baltic Sea dockyards. After an unusual journey through the Baltic Sea it has been combined with the rear part in Finland.