

SLF | SYNCHRONOUS LIFTING SYSTEM - FIXED SPEED DRIVE



Working pressure 700 bar

Control from 4 to 8 lifting points

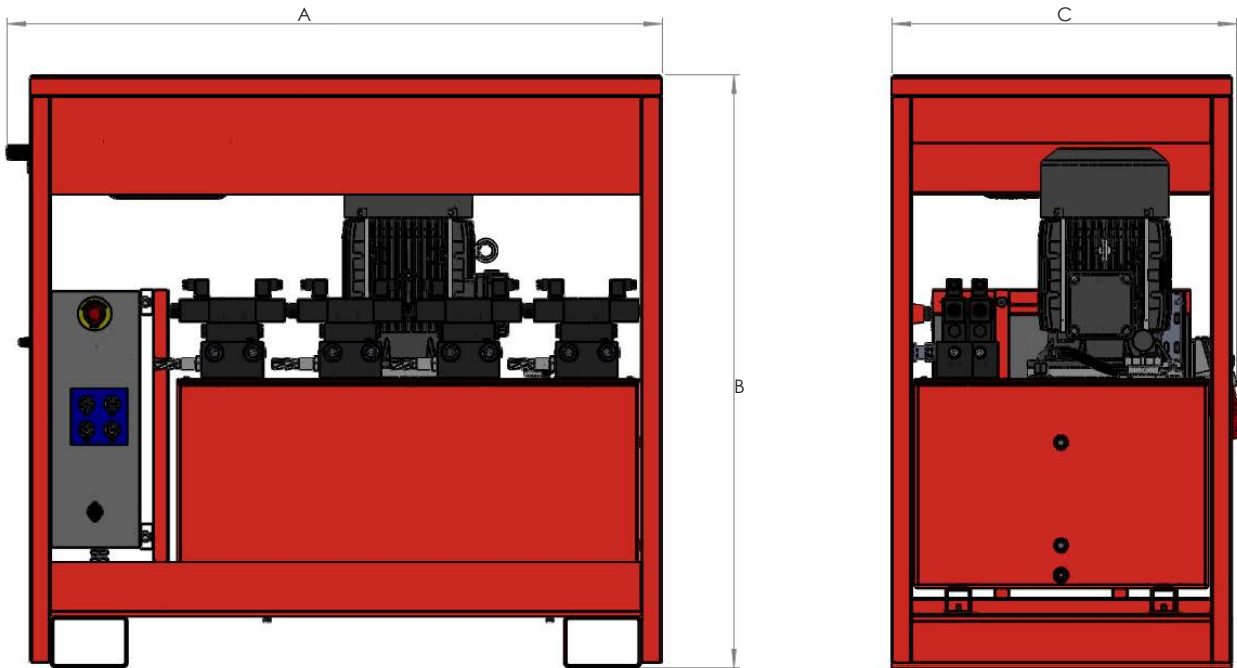
For use with standard single or double acting cylinders

Control unit complete with multiple screens (depending on configuration and monitoring requirements), supplied on a cable for remote operation.



- ▶ Designed for precise lifting and lowering of heavy loads using multiple synchronised hydraulic cylinders
- ▶ System comprises of heavy duty three phase electric motor, operator control panel to monitor up to 8 channels and a robust framework for transportation and storage of the entire system
- ▶ Selection of outlet valves ranging from 4-outlet pump to 8-outlet pump with options of 3-way and 4-way valve configurations
- ▶ 700 bar pressure transducers are fitted as standard on each outlet
- ▶ Reservoir capacity of 100 litres on the 4-outlet pump and 200 litres on the 6-outlet and 8-outlet pumps
- ▶ Intuitive touch screen controller with several display options including stroke, cylinder pressure, system pressure and indicative weight of load
- ▶ Specified for string pot displacement sensors as standard. Alternative sensor types available upon request.
- ▶ Operating modes for the SLF include Manual, Pre-load, Automatic control, Depressurisation and Indicative weighing
- ▶ System can be adapted to suit customer's special lifting requirements
- ▶ Customised systems can be tailored for unique application requirements

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Model number	Number of outlets	Oil capacity (litres)	Oil flow per outlet (litres/minute)	Motor voltage
SLF4S	4	100	1.1	400V 50 Hz/460V 60 Hz - 3Ph
SLF6S	6	200	0.9	400V 50 Hz/460V 60 Hz - 3Ph
SLF8S	8	200	0.9	400V 50 Hz/460V 60 Hz - 3Ph
SLF4D	4	100	1.1	400V 50 Hz/460V 60 Hz - 3Ph
SLF6D	6	200	0.9	400V 50 Hz/460V 60 Hz - 3Ph
SLF8D	8	200	0.9	400V 50 Hz/460V 60 Hz - 3Ph

Note: All models are suitable for operation at 50 Hz and 60 Hz. 60 Hz models deliver approximately 15-20% higher flow rate.

Model number	Dimensions (mm)		
	A	B	C
SLF4S	1275	1155	675
SLF6S	1550	1300	860
SLF8S	1550	1300	860
SLF4D	1275	1155	675
SLF6D	1550	1300	860
SLF8D	1550	1300	860

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Mounting kits to fit single and double acting cylinders are listed below.

Model number	Mounting kit type	Applicable cylinder	Increase in cylinder height (mm)
SLMK-1	1	HSS - 25T	+3,5
	1	HSS - 30T	+3,5
SLMK-2	2	HAS - 30T	+10
	2	HRA - 30T	+10
SLMK-3	3	HSS - 50T	+10
	3	HAS - 50T	+10
	3	HRA - 50T	+10
SLMK-4	4	HSS - 75T	+10
SLMK-5	5	HSS - 100T	+10
	5	HAS - 100T	+10
	5	HRA - 100T	+10
SLMK-6	6	HDA - 25T	+11
SLMK-7	7	HDA - 50T	+10
SLMK-8	8	HDA - 100T	+10
SLMK-9	9	HDA - 150T	+10
	9	HDA - 200T	+10
SLMK-10	10	HHS - 20T	+11
SLMK-11	11	HHS - 30T	+12
	11	HHR - 30T	+12
SLMK-12	12	HHS - 37T	+1
SLMK-13	13	HHA - 50T	+1
SLMK-14	14	HHS - 60T	+12
	14	HHR - 60T	+12
SLMK-15	15	HHS - 100T	+10
	15	HHR - 100T	+10
SLMK-16	16	HHR - 150T	+10
SLMK-17	17	HHR - 250T	+10
SLMK-18	18	HFA - 30T	0
SLMK-19	19	HFA - 50T	+8
SLMK-20	20	HFA - 100T	0
SLMK-21	20	HGG - 150T	0
	21	HDA - 300T	0
SLMK-22	22	HDA - 400T	0
	22	HDA - 500T	0
SLMK-23	23	HDA - 800T	0
	23	HDA - 1000T	0
	23	HFG - 800T	0
SLMK-24	24	HFL - 50T	+8
	24	HFG - 50T	+8
SLMK-25	25	HFG - 400T	0
	25	HFG - 500T	0
	25	HGG - 200T	0
	25	HSG - 200T	0
SLMK-26	26	HFL - 100T	+9
	26	HFG - 100T	+9
SLMK-27	27	HFL - 150T	+8
	27	HFG - 150T	+8
	27	HFG - 200T	+8
	27	HSG - 150T	+8
SLMK-28	28	HFG - 250T	0
	28	HFG - 300T	0
	28	HGG - 300T	0
SLMK-29	29	HSG - 300T	0
SLMK-30	30	HFL - 250T	+8
SLMK-31	31	HFL - 400T	+10
SLMK-32	32	HFL - 500T	+10
SLMK-33	33	HFG - 1000T	0

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The SLF system is designed for use with standard single and double acting cylinders. Below table lists the SLF model and cylinder type that can be used with it.

Model number	Applicable cylinder type	Applicable cylinder range	Cylinder stroke (mm)	Page reference
SLF4S SLF6S SLF8S	Single acting	HSS	51 - 457	10
	Single acting	HHS	25 - 152	11
	Single acting	HFL	45 - 51	14
	Single acting	HFG	50 - 152	15
	Single acting	HAS	51 - 305	16
	Single acting	HHA	51 - 105	17
	Single acting	HFA	51 - 305	18
	Single acting	HGG	155	20
	Single acting	HSG	152	21
SLF4D SLF6D SLF8D	Double acting	HHR	51 - 305	12
	Double acting	HDA	152 - 508	13
	Double acting	HRA	51 - 305	19

DISPLACEMENT SENSORS

- ▶ 635 mm (25 inches) string pot
- ▶ Provides stroke feedback to controls
- ▶ Includes magnet for mounting
- ▶ Each lifting point requires one sensor
- ▶ String pot displacement sensors as standard, other displacement sensors available on request

Model number	Type and stroke (mm)
SLDS650	650



SENSOR CABLES AND HOSES

- ▶ Each displacement sensor requires one cable
- ▶ Suitable hydraulic hoses available in lengths up to 100 meters

Cable model number	Hose model number	Length (m)
SLDC10	HC10C	10
SLDC25	HC25C	25
SLDC50	HC50C	50
SLDC75	HC75C	75
SLDC100	HC100C	100

SYNCHRONOUS LIFTING SYSTEM FEATURES

FEATURE	SLF	SLV
PRESSURE TRANSDUCERS SUPPLIED AS STANDARD	✓	✓
TOUCH SCREEN DISPLAY TO MONITOR STROKE AND PRESSURE	✓	✓
CONTROL UNIT COMPLETE WITH TOUCH SCREEN	✓	✓
USB PORT FOR SYSTEM DATA LOGGING	-	✓
FORKLIFT ACCESS GUIDE CHANNELS	✓	✓
INDIVIDUAL SELECTION OF CYLINDERS	✓	✓
ACCURACY RANGE ADJUSTABLE UP TO +/- 1 mm BETWEEN LEADING AND LAGGING CYLINDERS	✓	✓
FULL SYSTEM DIAGNOSTICS WITH CABLE UNPLUG DETECTION	✓	✓
CAN PROVIDE INDICATIVE WEIGHT OF LIFT	✓	✓
SYSTEM SUITABLE FOR PRELOADING	✓	✓
VARIABLE SPEED DRIVE FOR PRECISE FINE CONTROL	-	✓
TEMPERATURE MONITORING SYSTEM	-	✓
SYSTEM MOUNTED IN ENCLOSED FRAME WITH DOORS	-	✓
OIL COOLING SYSTEM	-	✓
CENTER OF GRAVITY INDICATION	-	✓
FOR USE WITH BOTH SINGLE AND DOUBLE ACTING CYLINDERS	Defined by model	✓
PUMP UNIT SPEC	Flow from 0.9 to 1.1 l/min per outlet up to 700 bar	Working pressure 700 bar two stage pump unit: 19.6 l/min total flow up to 100 bar, 4.8 l/min total flow up to 700 bar Option of reducing the flow rate using the variable speed drive controller, which offers an R.P.M. range from 200 to 1800
TANK CAPACITY	Up to 200L reservoir capacity	Up to 400L reservoir capacity
INDIVIDUAL CONTROLLABLE LIFTING POINTS	4 to 8	8 to 32
DISPLACEMENT SENSOR	String pot displacement sensors as standard. Other displacement sensors available on request.	String pot displacement sensors as standard. Other displacement sensors available on request.
SENSOR CABLES	Lengths up to 100 metres	Lengths up to 100 metres