

BLS-Series, Stage-Lift Cylinders

▼ Shown: **BLS-1006**



- **Double-acting cylinder**
- **Swivel saddle for load adjustment**
- **Large footprint for stability**
- **Anti-rotation device**
- **Built-in overload protection.**

▼ **Synchronous Stage Lifting:** 48 double-acting jacks (25 and 50 ton) are networked in to a 16 points synchronous system to lift this 50 metres long, 1000 ton building up to a height of 2,5 metres to construct a new floor level.



A Simple Solution to Incremental Lifting



Lifting Height

Stage-lift cylinders overcome the usual limitation of lift height imposed by the cylinder's plunger stroke length. Large objects, such as oil tanks, can be lifted, held and lowered for maintenance without sending for a crane.



Split-Flow Pumps

SFP-Series Pumps with multiple outlets with equal oil flow. For lifting applications on multiple points Split-Flow

Pumps are a far better alternative than using separate operated pumps.

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EVO-Series, Synchronous Lifting Systems

The EVO-system is the ideal system for stage lifting, powering interlinked

hydraulic cylinders – single or double-acting, push or pull, stage lift, hollow plunger or lock nut cylinders. The EVO-system has 9 work modes including the stage lift work mode.

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Cylinder Capacity	Stroke	Model Number	Max. Cylinder Capacity (kN)	
			Push	Pull
ton	(mm)			
50	150	BLS-506	498	103
95	161	BLS-1006	933	435
140	151	BLS-1506	1386	668
200	151	BLS-2006	1995	1017

Double-Acting Stage-Lift Cylinders



◀ Typical stage-lift application using a custom built Enerpac system to lift the 360 ton Akkerwinde wooden bridge in the Netherlands.

BLS Series



Capacity per Lifting Point:

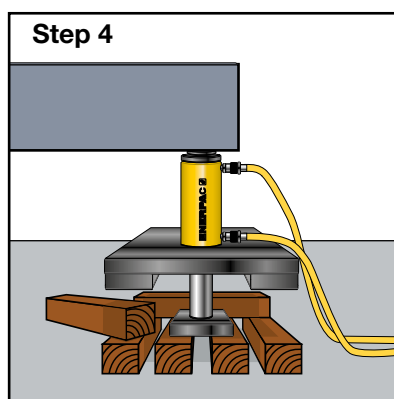
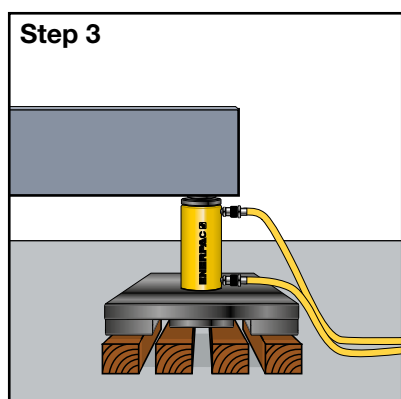
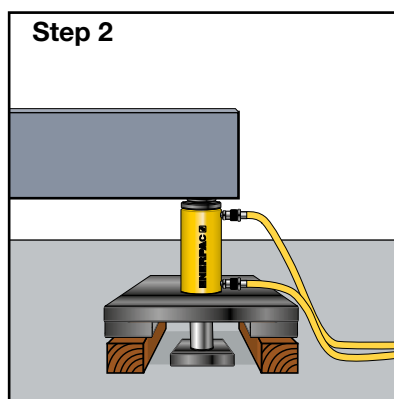
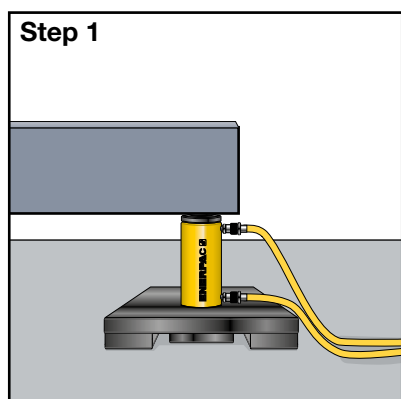
50 - 200 ton

Stroke per Stage:

150 - 161 mm

Maximum Operating Pressure:

700 bar



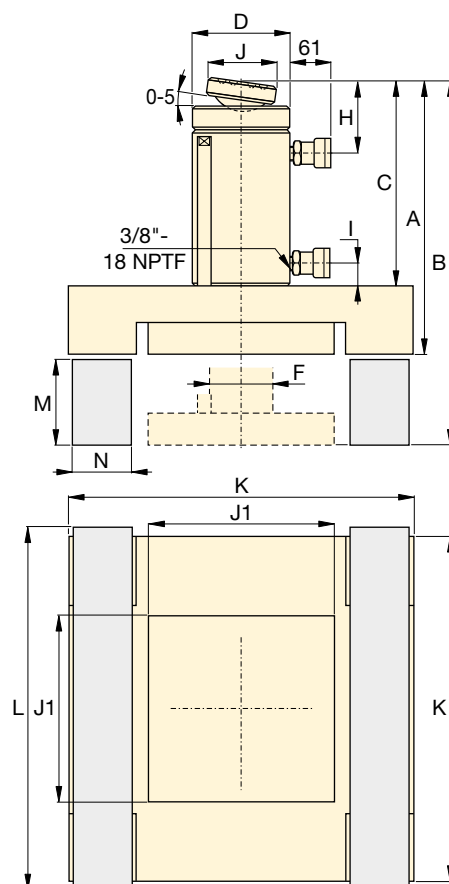
▲ Stage Lifting Sequence

Step 1: The Stage Lift cylinder is placed on a solid support under the load (retracted plunger).

Step 2: Plunger extends, lifting the load and giving clearance to insert two outer blocks under the spreading plate.

Step 3: Plunger retracts, giving clearance to position the central blocks which will support the plunger plate for the next extension.

Step 4: Plunger extends, lifting the load, giving clearance to insert two new blocks, placed crosswise under the spreading plate.



Cylinder Effective Area (cm²)		Oil Capacity (cm³)		Stage Lift Cylinder Dimensions (mm)											Support Blocks * and Dimensions (mm)					Model Number
Push	Pull	Push	Pull	A	B	C	D	F	H	I	J	J1	K	T	Material	L	M	N	(kg)	
71,2	21,5	1111	335	406	556	318	127	79	57	36	50	240	515	90	Azobe Wood	565	140	120	170	BLS-506
133,3	62,2	2238	1045	445	606	343	177	95	76	24	71	330	670	82		720	150	160	315	BLS-1006
198,1	95,4	3090	1488	473	624	370	624	114	94	39	130	230	475	85	Solid	500	140	115	322	BLS-1506
285,6	145,6	4332	2209	510	661	387	248	133	102	37	130	270	550	70	Aluminium	575	140	135	373	BLS-2006

* Support blocks are not supplied by Enerpac.