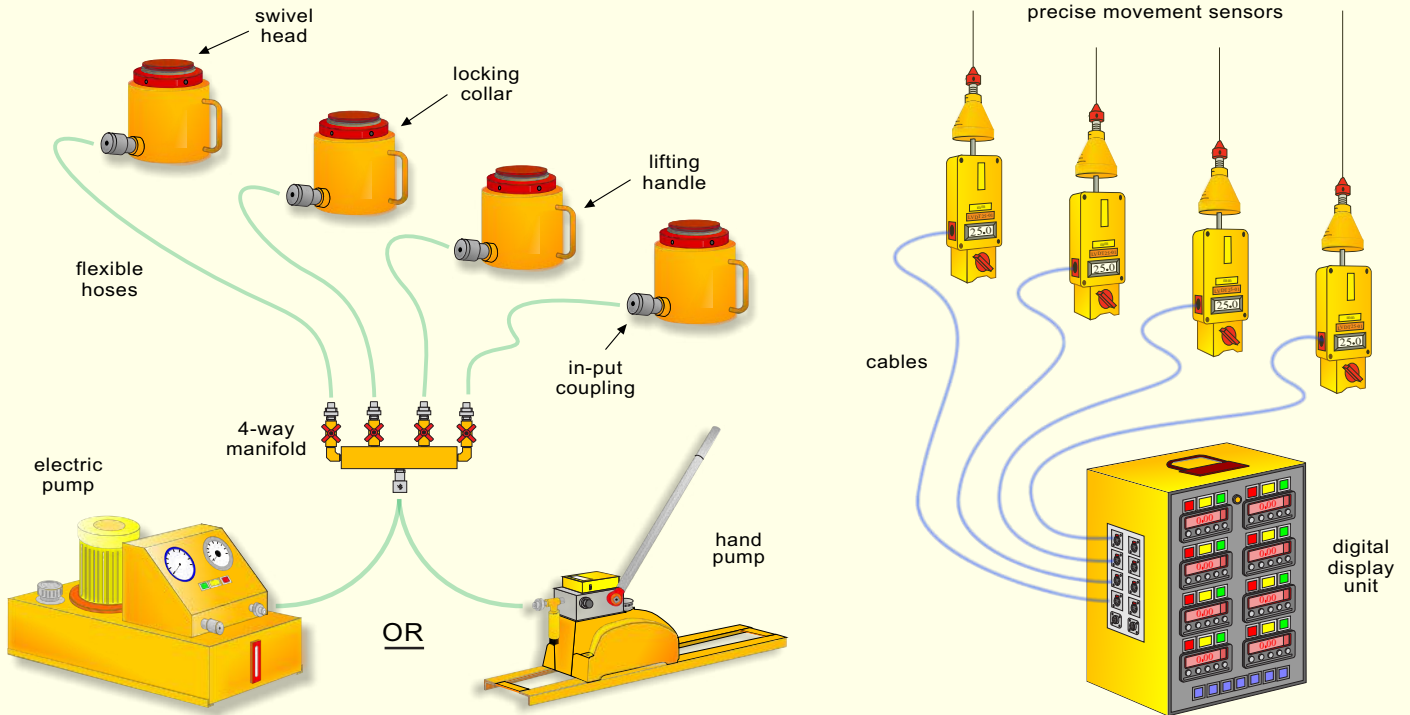


We are able to offer a full range of standard hydraulic jacking systems, either with hand operated or electric pumps connected to control manifolds and pressure gauges (as illustrated below). We also supply more complex and professional synchronised pumping or computerised systems currently offering up to 32 outputs. This provides precise control and monitoring of multiple jacks when bridge jacking, structural loading, lifting or lowering operations are required.



All of Hydra-Capsule's hydraulic cylinder jacks are manufactured in accordance with BS 9001:2008 British Standards and comply with ASME B30.1 codes making them acceptable by the Highways Agency, Network Rail, Crossrail and London Underground.

Hydra-Capsule prides itself on its thorough inspections and testing policy by subjecting all our hydraulic jacks and accessory equipment to a rigorous quality regime totally carry-out in-house by competent and experienced technicians.

All our testing equipment is independently calibrated annually and is NAMAS traceable ensuring accurate testing and reliable calibration results.

We are continuously improving our range of hydraulic jacking systems and monitoring equipment using the latest technology to meet all our customers ever changing requirements.

Our bespoke design and manufacturing facilities enable us to provide customers with unique and innovative solutions specially built to suit your particular project or contract.

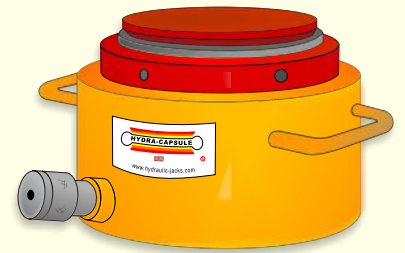
Hydra-Capsule Ltd provide a full range of hydraulic jacks which are used for a multitude of applications:

- Locking Collar Hydraulic Jacks.
- Low Profile Hydraulic Jacks.
- Hydraulic Pad Jacks.
- Plain Ram Single Acting Jacks.
- Plain Ram Double Acting Jacks.
- Hollow Ram Hydraulic Jacks.
- Hydraulic Bar Stressing Jacks.
- Long Stroke Hydraulic Jacks.
- Bespoke Design and Manufacturing.

Hydra-Capsule Limited also offer a full range of accessory equipment, such as, pumps, manifolds, gauges and valves.

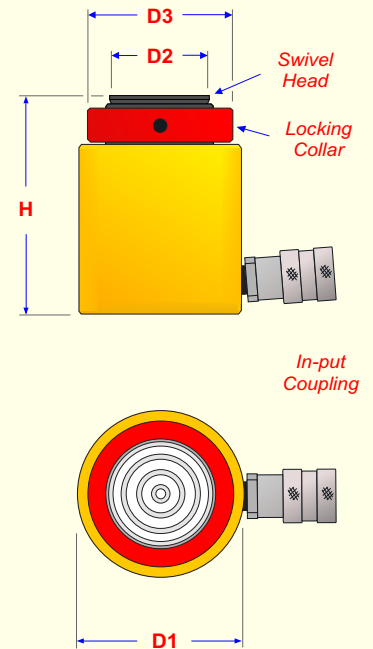


Locking collar hydraulic jacks are designed to mechanically lock-off the ram after lifting, making them safe during critical hydraulic jacking operations. Our jacks are designed and manufactured in-house to withstand the toughest of environments making them ideal for bridge jacking and many other lifting or holding applications. We offer seventeen different models of locking collar jacks from 10 tons to 520 tons in capacity with strokes ranging from 15mm to 300mm. We are continuously increasing our stock to meet customers requirements and bespoke designs can be easily manufactured to suit your particular project. We offer two basic designs, firstly 'glanded' where the cylinder is fitted with an end-stop which avoids accidental over-stroking of the ram occurring, provides additional piston guidance and increased lateral restraint capacity of the hydraulic cylinder. The second type is 'pot design' used when the overall height of the unit needs to be reduced to a minimum, the disadvantage is that the cylinder is more vulnerable to damage, the piston has no end-stop and the lateral restraint capacity is greatly reduced. Both types are normally fitted with spherical swivel heads to ensure that the load is transmitted centrally through the hydraulic jacks ram regardless of any slight misalignment between the top and bottom bearing surfaces.



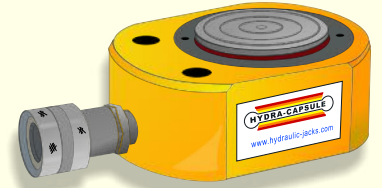
## from 10 to 520 tons capacity

JACK CODE	CAPACITY (tons)	CLOSED HEIGHT (H)	OUTSIDE DIAMETER (D1)	PISTON DIAMETER (D2)	COLLAR DIAMETER (D3)	MAXIMUM STROKE (mm)	MAXIMUM PRESSURE (Bar)	FLUID LITRES	WEIGHT (KGS)
HJ10-40	10	100	75	35	65	40	700	0.1	3
HJ25-150	25	315	150x150	100x100	90	150	700	0.7	23
HJ30-50	30	135	100	60	90	50	690	0.3	10
HJ50-50	50	175	130	80	110	50	640	0.5	15
HJ50-100	50	215	135	80	115	100	670	0.8	21
HJ50-150	50	265	135	80	115	150	670	1.3	32
HJ50-200	50	315	135	80	115	200	670	1.4	36
HJ50-300	50	470	135	80	115	300	670	2.1	46
HJ90-55	90	195	170	100	160	55	710	0.7	28
HJ100-150	100	290	165	80	155	150	670	2.1	54
HJ100-300	100	440	165	80	155	300	670	4.2	80
HJ150-15	150	115	200	160	190	15	700	0.4	26
HJ150-150	150	300	210	160	190	15	700	3.1	86
HJ180-40	180	195	230	160	220	40	690	1.1	53
HJ360-50	360	175	310	230	300	50	680	3.4	94
HJ360-100	360	250	320	230	300	100	680	5.3	196
HJ520-40	520	210	360	200	360	40	700	4.1	187



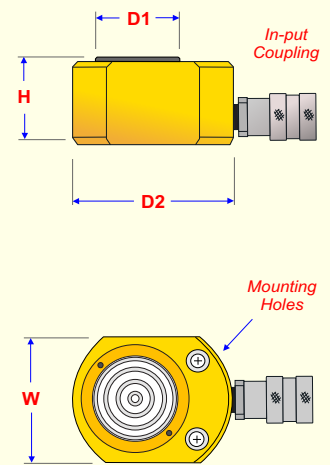


Hydraulic pad jacks with an extremely compact design for use within narrow and low height spaces, all or pad jacks are manufactured from high strength steel. The hard chrome plated rams combined with polyurethane wipers help prevent scratching or corrosion and extend the life of the jack. We offer nine different models ranging from 5 to 145 tons in capacity. All our jacks are fitted with standard female quick release couplings and special retraction springs for easy plunger return, the PJ75, PJ90 and PJ145 models are fitted a lifting handle. The cylinders body has two mounting holes which enable fixing to machinery such as, fixtures, clamping jigs, spreader plates, etc., the rams load contact area is also grooved to increase its horizontal grip, we recommend that you use a thin plywood packer between ram and load contact area. The jack should only be installed between parallel surfaces, if this is not the case then use a steel tapered shim which must cover the full plunger area or install and level a steel bedded plate on a high strength mortar or grout.



## from 5 to 145 tons capacity

JACK CODE	CAPACITY (tons)	CLOSED HEIGHT (H)	OUTSIDE DIAMETER (D1)	PISTON DIAMETER (D2)	CYLINDER WIDTH (W)	MAXIMUM STROKE (mm)	MAXIMUM PRESSURE (Bar)	FLUID LITRES	WEIGHT (KGS)
PJ05-06	5	32	61	25	41	6	700	0.01	0.6
PJ05-16	5	43	60	25	40	16	700	0.02	1.3
PJ10-11	10	43	84	38	56	11	700	0.04	1.5
PJ20-11	20	51	102	51	76	11	700	0.05	2.7
PJ30-13	30	59	117	64	97	13	700	0.07	4.4
PJ45-16	45	67	140	70	114	16	700	0.11	6.7
PJ75-16	75	80	165	90	140	16	700	0.17	11.5
PJ90-16	90	86	177	90	152	16	700	0.21	14.3
PJ145-16	145	100	215	118	190	16	700	0.32	24.2

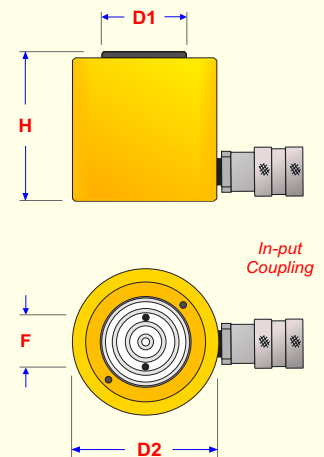


Low profile hydraulic jacks with a compact design for use within low height spaces, all jacks are manufactured from high strength steel. The hard chrome plated rams combined with polyurethane wipers help prevent scratching or corrosion and extend the life of the jack. We offer six different models of low profile jacks ranging from 10 to 145 tons in capacity. All our low profile hydraulic cylinders are fitted with standard quick release female couplings and special retraction springs for easy piston return, the LP90 and LP145 models are fitted with a lifting handle. The cylinder body has two mounting holes which enable fixing to machinery such as, fixtures, clamping jags, spreader plates, etc., the rams contact area is also grooved to increase its horizontal grip, we recommend that customers use a thin plywood packer between the ram and load contact area. The jack should only be operated between parallel surfaces, if this isn't the case then use of a taper shim which must cover the full ram area or install and level a steel plate bedded on a high strength mortar or grout.



## from 10 to 145 tons capacity

JACK CODE	CAPACITY (tons)	CLOSED HEIGHT (H)	OUTSIDE DIAMETER (D1)	PISTON DIAMETER (D2)	MAXIMUM STROKE (mm)	MAXIMUM PRESSURE (Bar)	FLUID LITRES	WEIGHT (KGS)
LP10-38	10	89	70	38	38	700	0.1	2.5
LP20-44	20	99	92	51	44	700	0.2	5.1
LP30-62	30	117	102	64	62	700	0.3	6.8
LP45-60	45	122	124	70	60	700	0.4	9.9
LP90-47	90	141	165	90	47	700	0.7	20.6
LP145-60	145	162	216	120	60	700	1.2	48.3



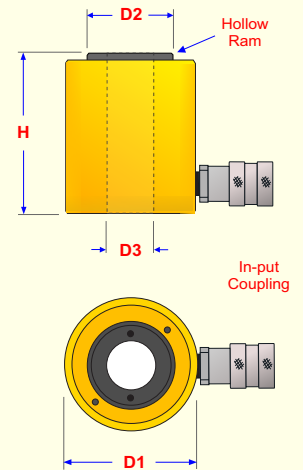


Hollow ram hydraulic jacks used with high tensile pulling bars for lifting, stressing and clamping operations, all jacks are manufactured from high quality steel. Hard chrome plated hollow rams combined with polyurethane wipers help prevent scratching or corrosion and extend the life of the jack. We offer nine different models of hollow ram jacks ranging from 10 to 100 tons in capacity. All hollow ram jacks are fitted with standard female quick release input couplings and special retractions springs for easy plunger return, the HR60 and HR100 are fitted with two lifting handles.

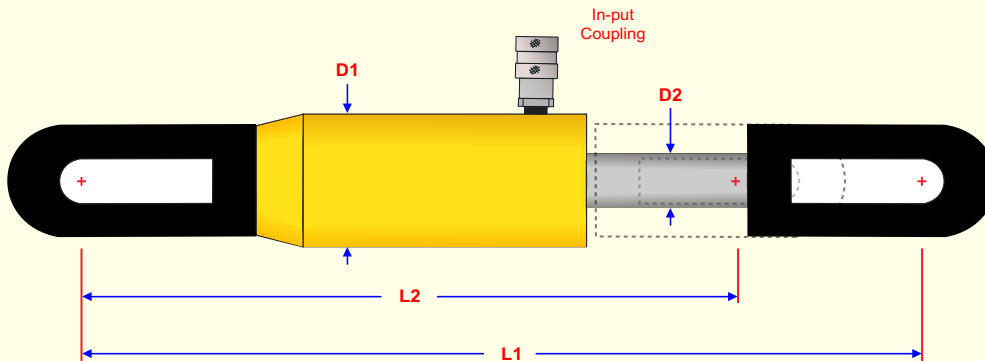


## from 10 to 100 tons capacity

JACK CODE	CAPACITY (tons)	CLOSED HEIGHT (H)	OUTSIDE DIAMETER (D1)	PISTON DIAMETER (D2)	PISTON HOLE (D3)	MAXIMUM STROKE (mm)	MAXIMUM PRESSURE (Bar)	FLUID LITRES	WEIGHT (KGS)
HR10-41	10	121	70	35	19	41	700	0.08	2.8
HR10-76	10	184	70	35	19	76	700	0.15	3.9
HR20-51	20	162	100	55	27	51	700	0.17	7.2
HR20-154	20	306	100	55	27	154	700	0.49	13.4
HR30-64	30	179	115	63	33	64	700	0.28	10.4
HR30-155	30	331	115	63	33	155	700	0.65	19.5
HR60-76	60	249	159	93	54	76	700	0.66	29.8
HR60-152	60	325	159	93	54	152	700	1.32	36.8
HR100-76	100	255	213	125	79	76	700	1.11	51.4

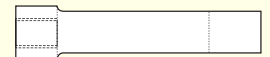
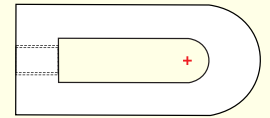


Our PC rams are mainly used for short pulling operations which can be precisely controlled using standard hand or electric hydraulic operated pumps, all models have a maximum working pressure of 700 bar and feature a spring assisted return facility. We offer both male or female clevis pulling eyes for either the piston or cylinder which can be easily changed, all components are manufactured from high quality steel. Hard chrome plated pistons combined with polyurethane wipers help prevent scratching or corrosion and extend the life of the pulling cylinder.

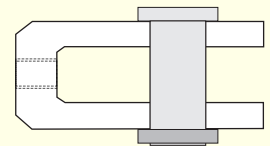
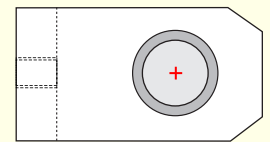


### end clevis options

male



female



### from 5 to 50 tons capacity

PULL CYLINDER CODE	CAPACITY (tons)	EXTENDED CENTRES (L1)	RETRACTED CENTRES (L2)	CYLINDER DIAMETER (D1)	PISTON DIAMETER (D2)	MAXIMUM STROKE (mm)	MAXIMUM PRESSURE (Bar)	FLUID LITRES	WEIGHT (KGS)
PC05-140	5	740	600	57	19	140	700	0.4	9
PC10-150	10	850	700	85	32	150	700	0.9	17
PC30-150	30	950	800	125	50	150	700	1.8	34
PC50-200	50	1100	900	155	70	200	700	2.3	76



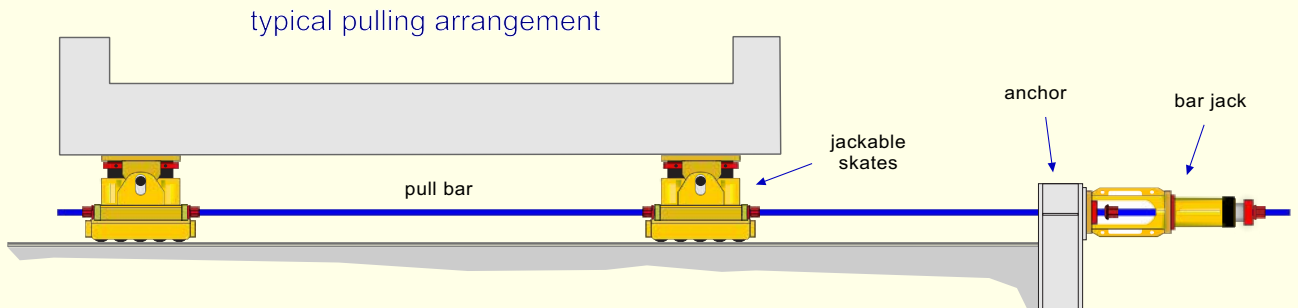
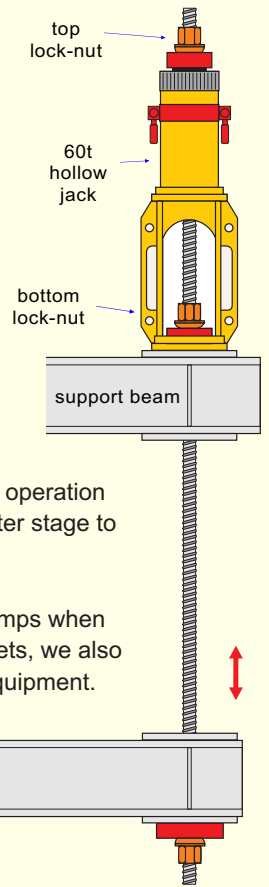
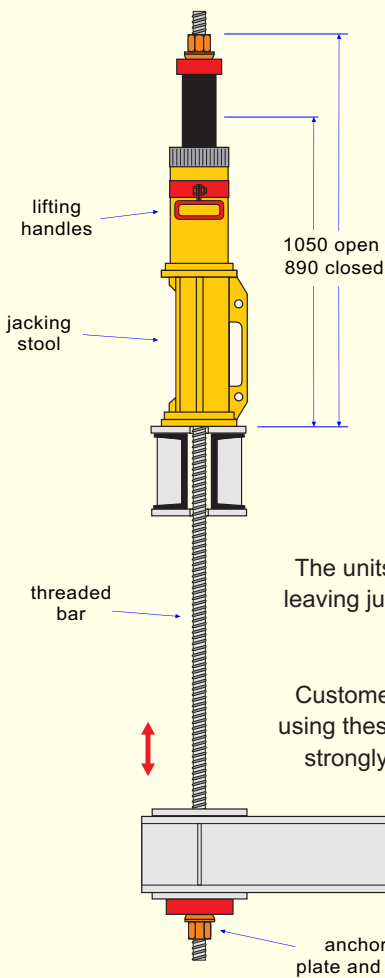


Bar Jacks are 50 tons capacity jacking units capable of lifting, lowering or pulling heavy structures into position using high strength steel threaded bars, the units are normally used for bridge lifting, lowering or pulling (bridge sliding) operations. Each unit comprises of a 60 ton capacity double acting hollow ram jack mounted on a specially fabricated steel stool to enable access to the bottom lock-nut via the access window.

Once set-up, the unit's operation is relatively simple, for lifting operations the ram is firstly fully retracted, both the top and bottom lock-nuts are tightened. The ram is then extended to its full stroke which in turn raises the bar, the bottom lock-nut is then tightened, the ram is retracted and the top lock-nut is re-tightened again ready for the next cycle. The procedure for lowering is similar except that a 10mm thick split pack is used above the jack ram to enable the release of the top lock-nut during the lowering cycle.

The units are designed so that they can be removed upon completion of the jacking operation leaving just the bar, base plate and lock-nut assembly, they can be reinstalled at a later stage to enable lowering of the structure or de-loading of the bars.

Customers should use our specialist diesel or electric driven multi-flow hydraulic pumps when using these units as they provide precise synchronised hydraulic control of multiple sets, we also strongly recommend that you use our specialist teams to install and operate this equipment.



Bar-Jacks can also be used horizontally in conjunction with our hydra-skates to enable the movement of large heavy structures by pulling them into position, typical examples are, culvert sections, railway bridges or buildings. The hydra-skates are normally connected together using the actual pulling bar and additional lock-nuts, this distributes the pulling forces evenly between the hydra-skates. The vertical hydra-jacks are inter-linked into sets so that any variation in track levels can be compensated for by the hydraulic control system.