

HYDRA-CAPSULE

Heavy Duty Jacking Systems

- Flat Jacks
- Hydraulic Jacking
- Temporary Propping Systems
- Structural Monitoring
- Grout Bags
- Equipment Hire and Sales

Giving Construction Our Support



WELCOME TO HYDRA CAPSULE

Hydra-Capsule Ltd was established in 1987. We soon gained a reputation for quality, safety and innovative solutions for the heavy lifting and sliding of structures.

Using our own range of hydraulic jacks and specialist heavy lifting equipment developed from over 30 years of practical experience working on projects with the Highway Agency, Network Rail and London Underground to prestigious structures to become one of the UK leader jacking specialists within the civil and construction industry.

Hydra-Capsule carry a large stock of fully tested hydraulic bridge jacks and hydraulic jacks for a range of jacking operations, available for contract services, jack hire and sales at competitive rates.

Services, equipment and products include:

- Temporary or Permanent Grout Flat jacks
- Hydraulic Jacks – Service, Hire and Sales
- Bridge Jacking and Sliding Systems
- Hydraulic Jack Design, Testing and Manufacturing
- Temporary Propping Systems - Contract Services, Hire and Sales
- Monitoring Equipment for Jacking Operations and Structural Monitoring
- Grout bags and Associated Equipment
- Weighing and Load Testing
- Pre-stressing and Tensioning.

We always take pride in providing a professional and personal service to all our customers, maintaining good working relationships, giving helpful advice, technical support and on-site back up with all our products.

We have gradually gained a reputation for innovative solutions, quality and safety for the heavy lifting, sliding, hydraulic jacking and monitoring within the civil and construction industry.

Our services have developed from over 35 years of practical experience, such as, hydraulic jacking, consisting of hydraulic cylinders, flat jacks, heavy lifting and sliding to temporary propping and complex synchronised units and remote structural monitoring.

Hydra Capsule operate a complete contractual service, which is fully in-house, from the manufacturing of hydraulic cylinders and flat jacks, to bespoke jacking products and monitoring systems.

We offer complete products and services throughout the UK, Ireland and Europe with our own competent jacking Engineers for installation works for flat jacking to jacking and installation of temporary propping systems.

The company carry a large stock of fully tested hydraulic jacks, flat jacks and temporary propping for bridge bearing works, structural lifting and lowering, to pre-loading applications. Available for hire, sales and bespoke equipment systems.

In addition, we are able to offer and supply a comprehensive range of pumping and pressurising equipment which includes hoses, control manifolds, hydraulic accessories and pumps ranging from hand, electric and synchronised pump units.

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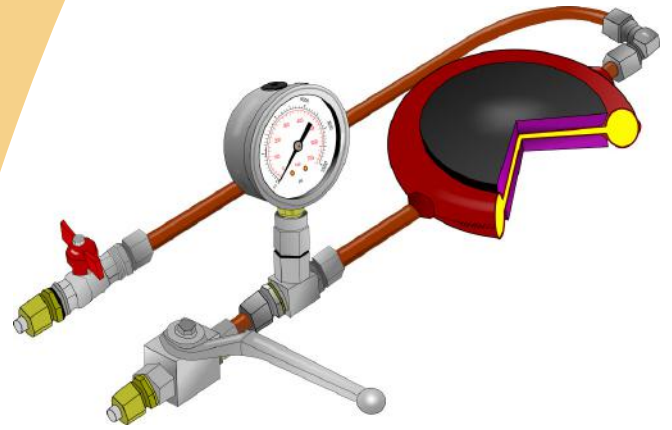
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FLAT JACKS

Hydra-Capsule low height flat jacks range from 8 to 860 tons capacity. The low height jack is capable of exerting extremely high thrust forces. They are normally used within the civil and construction industry for a multitude of applications, such as lifting heavy structures, stressing operations, transferring existing loads to temporary or permanent supports and permanently pre-loading buildings, structures and bridge bearings to seismic isolators.

All our Hydra Capsule flat jacks are designed, fully tested and in-housed manufactured within our purpose built facility.



PERMANENT FLAT JACKS

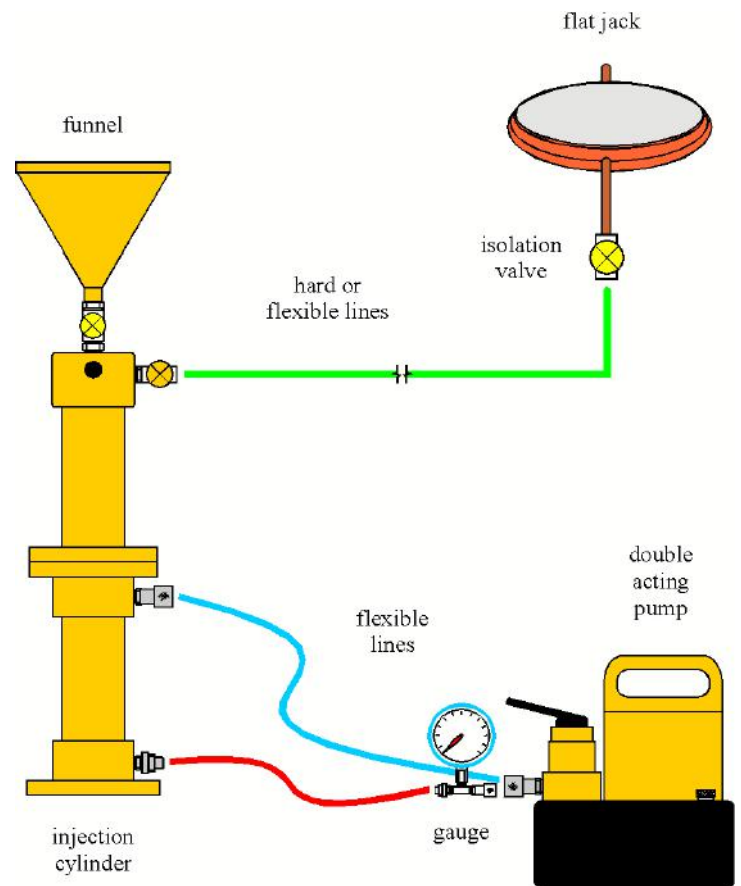
Where a permanent force/load is required to a structure, flat jacks are installed in-situ and inflated using a high pressure injection system, epoxy resin or cementitious grout can be injected.

This application is primarily implemented whilst carrying out works for pre-loading of structural steelwork or part of structural alterations, pre-stressing, underpinning and structural and bridge bearing pre-loading.

The benefits of permanent flat jacks:

- Permanent induced force
- Calculated induced thrust load
- Balance force loading on double-stack flat jack arrangement
- Access restraints for wedging and grouting of gap
- Less Support / Remedial works
- Pre-installed flat jacks into concrete blocks and structures for pre-stressing operations

Hydra Capsule provide a full design, in-house manufacturing and flat jacking installation service offered throughout the UK and Internationally.

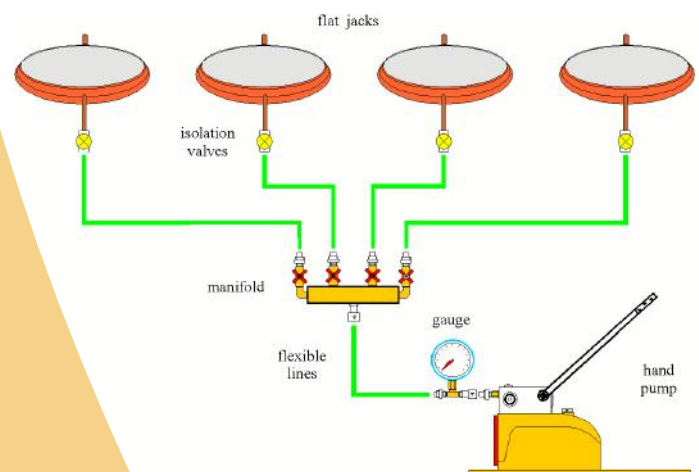


TEMPORARY FLAT JACKS

When Flat jacks are required for a temporary duration and then subsequently removed, this operation is usually carried out with water or hydraulic oil fluid.

The benefits of temporary flat jacks:

- Use as a load cell (pre-inflates), connected with a pressure gauge or digital transducer read-out
- Continuous load monitoring and adjustment
- Multiple flat jacks circuit
- Ability to transfuse from temporary to permanent application (epoxy resin or cementitious grout)



TRANSFUSION FLATJACKS

Single Flat Jack

Transfusion flat jacks are specially designed in-house, and manufactured by Hydra Capsule. These flat jacks have the ability to transfuse grout whilst under load, from a temporary to a permanent load. The design of the flat jacks allows for a balanced load and movement displacement throughout the grout transfusion operation.

Double-stack Flat Jacks

The same can be achieved as the double-stack flat jack arrangement. However, the transfusion method is inflating one flat jack, whilst the other flat jack is deflated and maintaining a constant balance load between both flat jacks.

Hydra Capsule Flat Jacks Table

JACK CODE	CAPACITY (tons)	CLOSED HEIGHT	OUTSIDE DIAMETER	THRUST DIAMETER	MAXIMUM STROKE	MAXIMUM PRESSURE	FLUID LITERS	WEIGHT (kgs)
FJ 12	8	28	120	75	25	150 bar	0.3	4
FJ 15	15	29	150	105	25	150 bar	0.5	8
FJ 17	20	29	170	125	25	150 bar	0.8	9
FJ 19	25	30	190	145	25	150 bar	1.1	10
FJ 22	40	30	220	175	25	150 bar	1.2	16
FJ 25	50	30	250	205	25	150 bar	1.3	19
FJ 27	60	31	270	225	25	150 bar	1.6	20
FJ 30	80	32	300	254	25	150 bar	1.9	23
FJ 35	100	34	350	304	25	150 bar	2.6	26
FJ 42	160	35	420	373	25	150 bar	3.6	29
FJ 45	180	36	450	403	25	150 bar	4.1	30
FJ 48	210	36	480	433	25	150 bar	4.7	32
FJ 52	265	36	520	473	25	150 bar	5.7	36
FJ 56	300	37	560	512	25	150 bar	6.2	38
FJ 60	345	38	600	553	25	150 bar	7.4	43
FJ 75	600	36	750	705	35	150 bar	12.4	89.5
FJ 87	764	40	870	825	35	150 bar	16.8	110.8
FJ 92	868	40	920	875	35	150 bar	18.7	126.4
FJ 102	1030	55	1020	940	40	150 bar	24.4	175.2

TYPICAL APPLICATIONS

Settlement compensation

Flat jacks are ideal for dealing with unwanted foundation settlement taking place during construction works or building alterations. The jacks are initially inflated with water and then at a later stage transfused to grout to make them permanent.

Lifting heavy structures

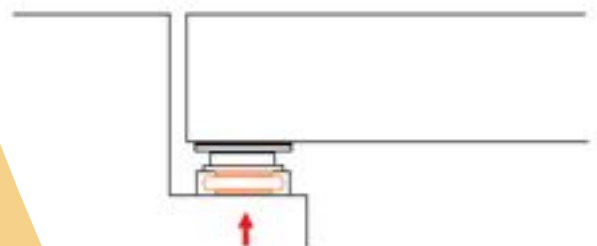
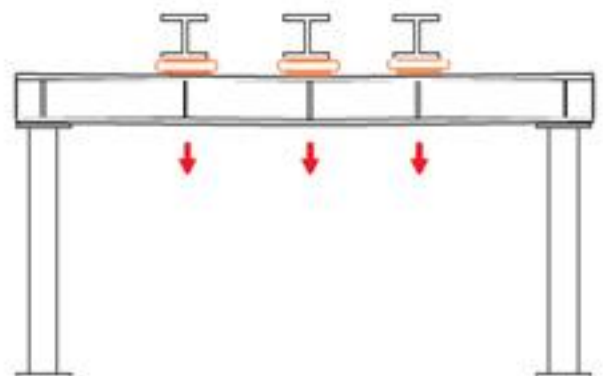
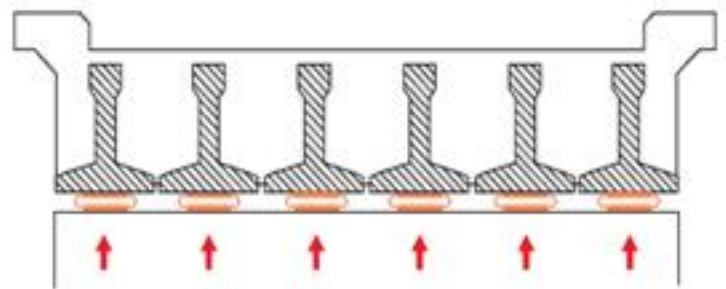
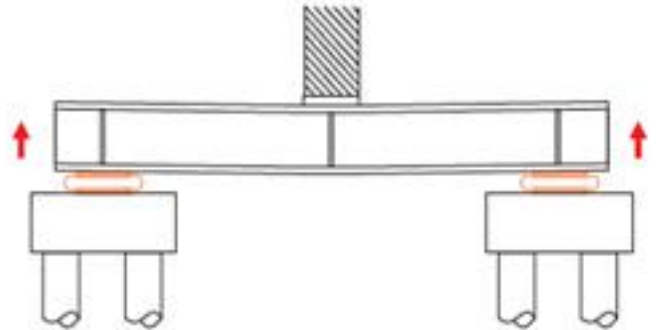
Flat jacks can be set-up in multiple groups to enable the lifting of very heavy structures, such as bridges to change the existing defective elastomeric bearings. The load and movements of each group can be monitored and controlled using our synchronous electronic control systems.

Pre-loading new steelworks

Flat jacks are used for pre-loading new steelworks to enable the forming of new openings with zero deflection after the stressing operation is completed. This arrangement can also be used for pre-stressing new strengthening beams fitted below weak structures.

Pre-loading new bridge bearings

Using grout filled flat jacks to pre-load replacement bridge bearings provides an effective method of loading individual bearings to a specific load or deflection. Once installed and loaded the flat jacks are normally encased within the grout pinth.



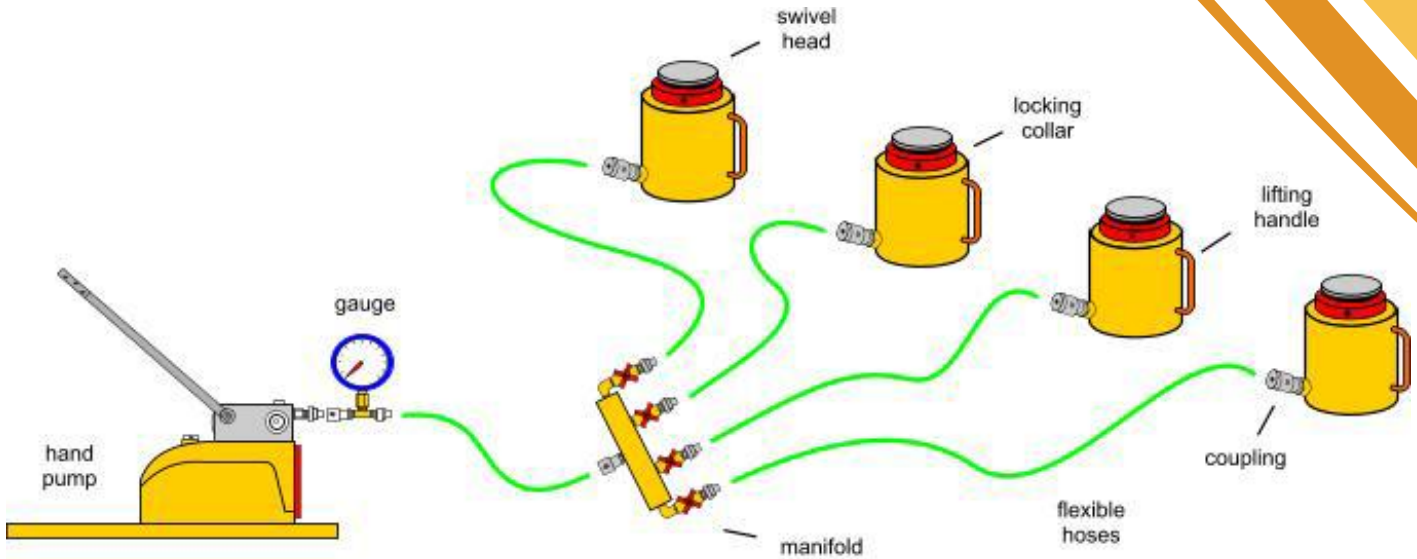
HYDRAULIC JACKING

HYDRA-CAPSULE

Contact us for prices
01885 490 405

We are able to provide standard hydraulic jacking systems; with hand-operated and electric pumps connected to control manifolds and pressure gauges (as below illustration). To complex professional synchronised pumps (single/double-acting) and computerised systems, offering from 4 up to 32 outlets, for precise control when bridge jacking, house jacking, structural loading and lifting/lowering to bridge sliding operations.

This includes a range of complicated computer electronic controlled hydraulic jacking, real-time movement sensors (linear displacement DTIs) and digital pressure monitoring to structural monitoring (with automated alarm systems).



All Hydra Capsule Limited hydraulic cylinder jacks are manufactured to BS 9001:2008 British Standards, and comply with ASME B30.1. This code will be recognised and accepted by the Highways Agency, Network Rail and Crossrail organisations.

Hydra Capsule prides itself on its thorough inspections and testing policy. By subjecting all our hydraulic cylinders and equipment to internal "in-house" maintenance and quality regime by our competent and experienced hydraulic technicians.

All the equipment is certified by our NAMAS certification test press (proof loading on request), allowing Hydra Capsule to exceed the necessary law requirement. As a result, supplying the highest quality of contract service and hired equipment throughout the UK industry for the last 30 years.

In addition, we offer the full hydraulic ancillaries; ranging from hydraulic hoses from 1 metre to 16 metres in length, pressure gauges (from 150 Bar to 700 Bar) and Manifolds (2, 4 and 6-Way) connected with manual needle valves and non-return valves for all jacking circuit applications.

Hydra capsule are able to provide a range of hydraulic jacks for all applications:

- Screw Ram Jacks (Load-Return)
- Low profile jacks
- Pad Jacks
- Plain Ram Single-Acting Cylinders
- Hollow Ram Cylinders
- Stressing Cylinders
- Double-Acting Cylinders
- Long-Stroke Cylinders (+300mm stroke)
- Bespoke manufactured hydraulic jacks

All Hydra Capsule products and services are available for supply of contract services, hydraulic jack hire and sales of all hydraulic jacks and hydraulic tools applicable to the jacking sector.



SCREW RAM CYLINDERS

Locking collar hydraulic jacks are manufactured to mechanically lock the ram after lifting, making them safe and reliable. Our jacks are designed and manufactured in-house to withstand the toughest of environments making them ideal for bridge jacking and many other holding applications.

We offer fifteen different models of screwed ram locking collar hydraulic jacks from 10 to 520 tons capacity. We continuously increase our hire stock to meet new load and stroke requirements for our customers, custom designs can be easily manufactured to suit your particular application. Cylinders are fitted with a spherical (tilting) head and/or fixed

central plate to ensure that the load is transmitted centrally through the jack's piston.

There are two basic designs, firstly the preferred gland-ed-type; which are fitted with a top cylinder end-stop to avoid accidental over-stroking and increasing the lateral restraint capacities of the hydraulic jack. The second is a pot-type used when the height of the jack needs to be reduced to a minimum. The disadvantage, is the cylinder is more vulnerable to damage, the piston has no end-stop and lateral restraint capacity is greatly reduced.

Screw Ram Cylinders Table

MODEL NUMBER	CAPACITY (tons)	HEIGHT (mm) H	OUTSIDE (mm) D2	PISTON (mm) D1	COLLAR (mm) D3	STROKE (mm)	OIL (litres)	WEIGHT (kgs)
HJ10-40	10	100	75	35	65	40	0.1	3.0
HJ25-150	25	315	100	50	90	150	0.7	23.0
HJ30-50	30	135	100	60	90	50	0.3	10.0
HJ50-50	50	170	120	80	110	50	0.5	15.0
HJ50-100	50	214	125	80	115	100	0.7	21.0
HJ50-150	50	264	125	80	115	150	1.1	31.0
HJ50-200	50	314	125	80	115	200	1.4	36.0
HJ50-300	50	470	125	80	115	300	2.1	46.0
HJ90-55	90	195	170	100	160	55	0.7	28.0
HJ100-150	100	287	165	80	155	150	2.1	54.0
HJ100-300	100	437	165	80	165	300	4.0	80.0
HJ150-15	150	115	200	160	190	15	0.4	26.0
HJ150-150	150	300	200	160	190	150	3.1	86.0
HJ180-40	180	195	230	160	220	40	1.1	53.0
HJ360-50	360	175	310	230	300	50	3.4	93.0
HJ360-100	360	250	310	230	300	100	5.3	196.0
HJ520-45	520	210	360	200	350	45	4.1	187.0

LOW PROFILE JACK

We offer six different standard models. Ranging from 10 to 145 tons in capacity. All our low profile hydraulic cylinders are fitted with end-stop glands to avoid accidental over-stroking occurring and provide additional piston guidance increasing the lateral restraint capacity of the low profile hydraulic jack.

MODEL NUMBER	CAPACITY (tons)	STROKE (mm)	HEIGHT (mm) H	DIAMETER (mm) D2	PLUNGER (mm) D1	OIL (litres)	WEIGHT (kgs)
LP10-38	10	38	89	70	38	0.10	2.5
LP20-44	20	44	99	92	51	0.20	5.1
LP30-62	30	62	117	102	64	0.30	6.8
LP45-60	45	60	122	124	70	0.40	9.9
LP90-57	90	57	141	165	90	0.70	20.6

PAD JACK CYLINDER

Hydraulic pad jacks with a very compact design for use within very low height spaces, all jacks are manufactured with a spring-return, for ease of the plunger return. We offer seven different models ranging from 10 to 90 tons capacity.



MODEL NUMBER	CAPACITY (tons)	MAX STROKE (mm)	CLOSED HEIGHT (mm) H	EXTERNAL DIA (mm) D2	PLUNGER DIA (mm) D1	ACROSS FLATS (mm) W	LITRES	WEIGHT (kgs)
PJ05-06	5	6	32	61	25	41	0.01	0.6
PJ05-16	5	16	43	60	25	40	0.01	1.3
PJ10-11	10	11	43	84	38	56	0.02	1.5
PJ20-11	22	11	51	102	51	76	0.03	2.7
PJ30-13	50	13	59	117	64	97	0.06	4.4
PJ45-16	50	16	67	140	70	114	0.11	6.7
PJ75-16	50	16	80	165	90	140	0.17	11.5
PJ90-16	50	16	86	177	90	152	0.21	14.3
PJ145-16	90	16	100	215	118	190	0.32	24.2

PLAIN RAM & PULL RAM CYLINDER

Pull cylinders are perfect for pulling and tensioning applications. Available for hire from 5 to 50 ton capacity. The return-spring automatically extends the rod when pressure is released, we offer 4 types of models.

Single-Acting Plain Ram Cylinders

Single-acting, spring return plain ram jacks are ideal for lifting and pressuring projects, from 15 to 100 ton capacity, collar threads enable use when upside-down.

MODEL NUMBER	CAPACITY (tons)	STROKE (mm)	CLOSED HEIGHT (mm)	MAXIMUM HEIGHT (mm)	WEIGHT (kg)
SA15-150	15	150	270	422	7.9
SA30-200	30	210	387	599	19.3
SA100-260	100	260	450	710	73.4

Pull Ram Cylinders

Pull cylinders are perfect for pulling and tensioning applications. Available for hire from 5 to 50 tons capacity.

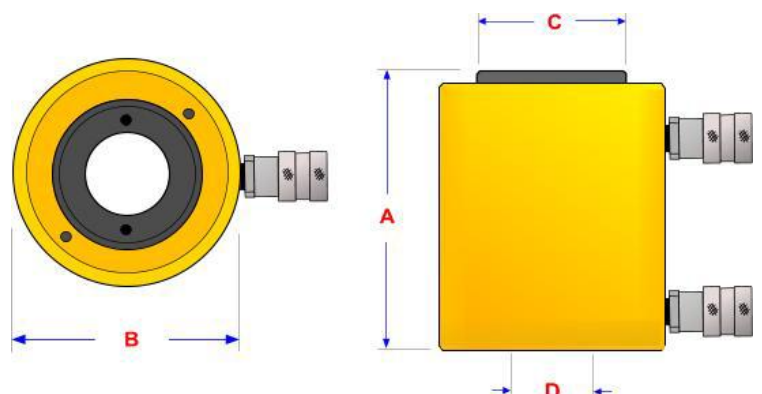
The return-spring automatically extends the rod when pressure is released, we offer 4 types of model.

MODEL NUMBER	CAPACITY (tons)	STROKE (mm)	CLOSED HEIGHT (mm)	MAXIMUM HEIGHT (mm)	WEIGHT (kgs)
PC05-140	5	140	303	444	4.3
PC10-150	10	150	299	450	9.8
PC30-150	30	150	695	847	31.0
PC50-150	50	150	820	970	51.8

Double Acting Cylinder

We carry a complete selection of double-acting cylinders ranging from plain-ram double-acting cylinders to double-acting hollow-ram cylinders used on our contractual services.

Please contact to discuss if double-acting cylinders are a requirement for your project works.



Hollow Ram Cylinder

Hollow ram hydraulic jacks (single-acting and double-acting) used with high tensile threaded / pulling bars systems for stressing and clamping operations, all jacks are manufactured from high quality steel. Hard chrome plated plungers combined with polyurethane ram wipers help prevent scratching or corrosion and extend the life of the jack.

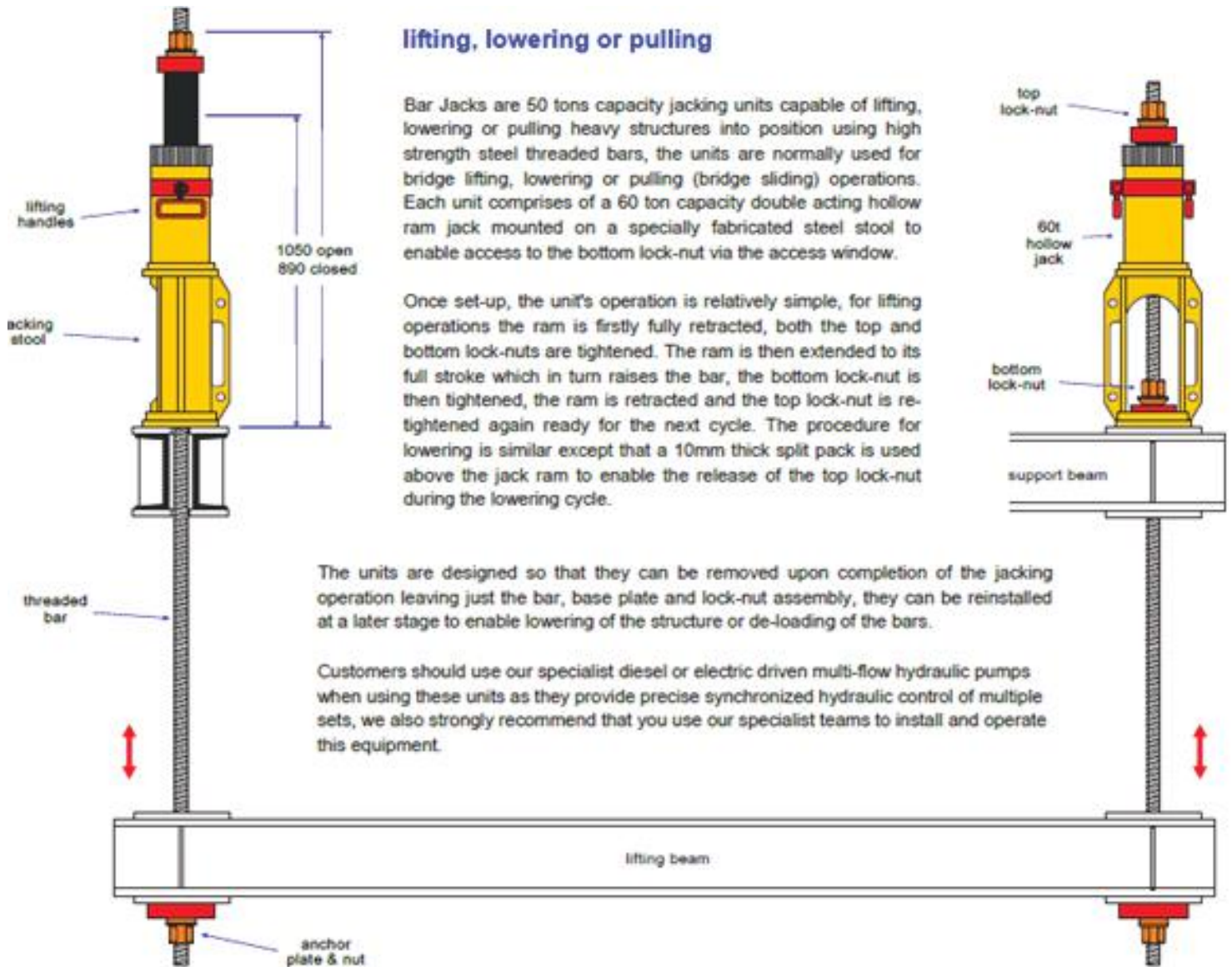
We offer nine different models of hollow ram jacks ranging from 10 to 100 tons in capacity. All our hollow ram jacks are fitted with a quick release input couplings and special retraction springs for easy plunger return.



MODEL NUMBER	CAPACITY (tons)	STROKE (mm)	CLOSED HEIGHT (mm)	EXTERNAL DIA (mm) D1	PLUNGER DIA (mm) D2	PLUNGER HOLE (mm) D3	LITRES	WEIGHT (kgs)
HR10-041	10	41	121	70	35	19	0.08	2.8
HR10-076	10	76	184	70	35	19	0.15	3.9
HR20-051	20	51	162	100	55	27	0.17	7.2
HR20-154	20	154	306	100	55	27	0.49	13.4
HR30-64	30	64	179	115	63	33	0.28	10.4
HR30-155	30	155	331	115	63	33	0.65	19.5
HR60-76	60	76	249	159	93	54	0.66	29.8
HR60-152	60	152	325	159	93	54	1.32	36.8
HR100-76	100	76	255	213	125	79	1.11	51.4

Lifting and Lowering Jack System

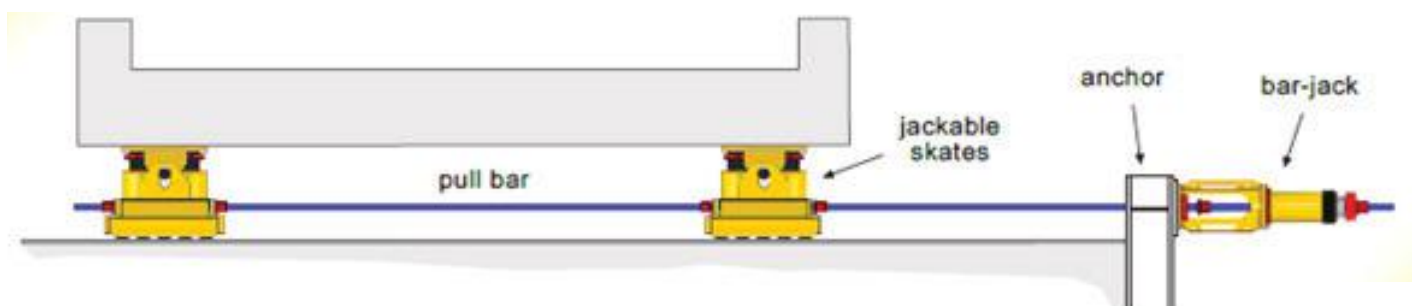
(Bar Jacking)



Bar Jacks can range from 10 to 100 ton 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,

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. 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.

typical pulling arrangement



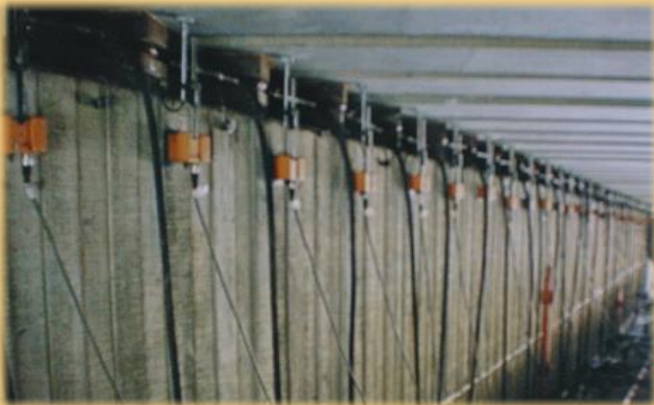
The vertical hydra-jacks are inter-linked into sets so that any variation in track levels can be compensated for by the hydraulic control system.



SYNCHRONISED LIFTING & BRIDGE JACKING

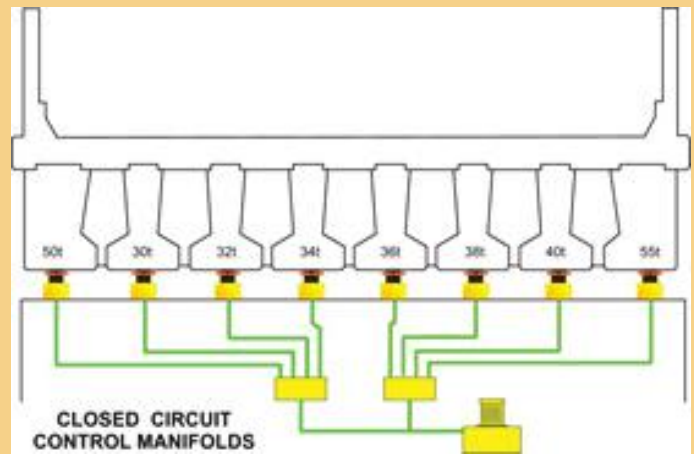
Lifting and Lowering Jack System

Hydra Capsule have developed their synchronised lifting system, which has the ability to use multi-input sensors to control lifting, lowering, weighing and positioning of heavy structure regardless of weight distribution. This enables real-time monitoring and the jacking system to remain within load and movement tolerance limits during the operation.



The system accommodates all our electronic instrumentation to be interlinked as one circuit to a central-control system, which formulates the computer control system to monitor each jacking position with movement stroke sensors, pressure transducers and electronic solenoid flow-control, regardless of the load and quantity of jacks within a circuit.

Hydra Capsule are able to adapt the control unit to use tilt inclinations, laser levelling sensors, linear variable digital transducers (LVDTs) and draw wire potentiometer for critical projects. Where structures have a high accurate and tolerance factor, to maintain a more uniform lift / lowering operation.



Bearing Replacement

In addition, we have a strong working relationship with bearing manufacturers and have over 25 years' experience within this market. Offering the below services.

Installation, Supply and Services:

- Elastomeric Bearings
- Fixed Bearings
- Pot Bearings
- Uni-Guided Bearings
- Spherical Bearings
- Rocker Bearings

Our service offers design, supply and installation of hydraulic jacking systems to allow for bearings to be installed, pre-loaded (flat jacks are ideal for this solution) and replaced to suit all applications.

In addition, Hydra Capsule are able to supply a elastomeric sliding pad to the hydraulic jacking head to reduce any potential vertical and horizontal movements while the operation is carried out.

SPECIALISED STRUCTURAL MONITORING

Hydra Capsule have built a comprehensive selection of professional and precision monitoring equipment. Using a combination of sophisticated in-house manufactured hydraulic jacking systems and monitoring equipment, we are one of the leading companies within the UK.

All the instrumentation is based on the theory to work as a complete circuit and system; hydraulic jacks, pressure sensors and displacement transducers all working in tandem and programmed from one central operation software control unit. This enables Hydra Capsule to offer the 'one-stop' solution, whether it's for hydraulic jacking, temporary propping and distance monitoring or combining all the solutions as one system.

Hydra Capsule have developed a number of monitoring instrumentation for the application of short, medium and long-term projects to measure the effects and health-check of the structure(s), of the surrounding works being carried out. This monitoring application allows in-depth assessments and reports to be produced based on the structure behavior and any underlying conditions that could have an effect on the structure.

Real-time instrumentation (laser levelling and LVDTs) and geodetic monitoring (Total Stations and Tilt Inclinometers) can be implemented to measure movement and/or displacements up to three axis.

All the information is stored within our sophisticated data-loggers that can identify and extract information to develop trend graphs, excel data and chart information. The system can be set in real-time or defined time periods to record data; which in turn, has trigger limits and alarms programmed to notify defined key personnel via SMS text message or alarm-emails.

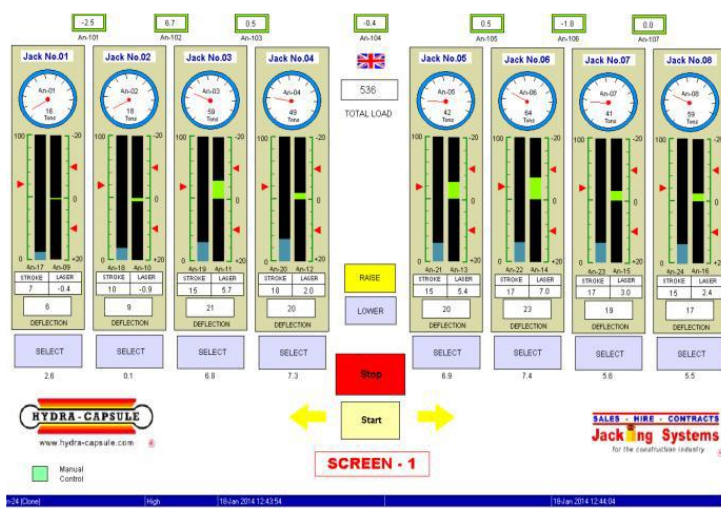
The current monitoring software allows all information to be transferred to a secure web-based viewer interface site. Which can be accessed remotely, by using the website IP address and password to access all the project monitoring data.

We are able to offer short or long term total stations that can monitor a range of applications and effects to existing structures, with an accuracy from +/- 0.1mm to +/- 1.0mm:

- Structural displacement monitoring
- Bridge and Bearing movement monitoring
- Temporary propping and support monitoring
- Ground or foundation monitoring
- Tunnel monitoring
- Differential between adjacent beams / supports
- Maintaining or achieving level structure, whilst carrying out a jacking operation and other operations
- Alignment applications

Benefits of precise levelling movement system:

- Real-time monitoring of structures movement
- Prevents structural damages for precise design requirements
- Compatible with Hydra Capsule's remote monitoring software; which allows monitoring data to be accessed
- via wireless connections and data logged.
- Widest range of applications.



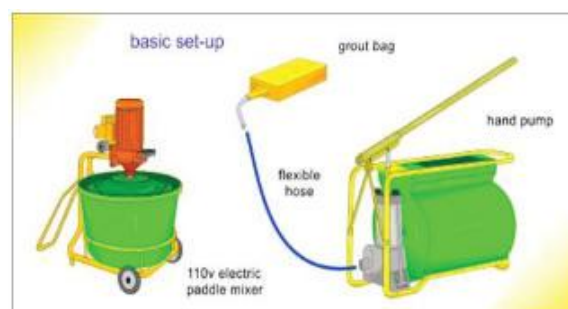
Monitoring of structures movement

GROUT BAGS

Hydra-Capsule's Grout bags are manufactured from a specially woven fabric which enables them to withstand relatively high pressures when inflated with grout. A simple yet practical device used when conventional shutters are impossible to fit. The grout bag can be adopted to provide a quick and easy solution.

Once pressurised the grout bags contact surfaces form a perfect bearing area regardless of shape. They are normally used for a multitude of applications, such as; underpinning foundations (systems), dry-packing alternative, support beam preloading device and temporary or permanent packs for supports.

We offer an extensive standard range of grout bags available off the shelf, these are listed below:



Rectangular Type

MODEL CODE	LIFTING CAPACITY (tons)	CURED CAPACITY (tons)	BAG DEPTH (mm)	BAG LENGTH (mm)	MAXIMUM HEIGHT (mm)	MAXIMUM PRESSURE	BAG VOLUME	FILLED WEIGHT
GB-101	0.7	30	150	250	50	4 bar	2.2 lts	4 kgs
GB-102	1.1	40	200	300	50	4 bar	3.5 lts	7 kgs
GB-103	1.6	50	250	350	75	4 bar	7.5 lts	14 kgs
GB-104	2.2	75	300	400	75	4 bar	10.5 lts	19 kgs
GB-105	2.7	100	350	450	100	4 bar	18.4 lts	34 kgs
GB-106	3.6	125	400	500	100	4 bar	23.4 lts	43 kgs
GB-107	4.5	150	450	550	125	4 bar	36.2 lts	66 kgs
GB-108	5.4	200	500	600	125	4 bar	43.9 lts	80 kgs
GB-109	6.5	250	550	650	150	4 bar	62.8 lts	114 kgs
GB-110	7.2	300	600	700	150	4 bar	73.7 lts	134 kgs

Beam Type

MODEL CODE	LIFTING CAPACITY (tons)	CURED CAPACITY (tons)	BAG DEPTH (mm)	BAG LENGTH (mm)	MAXIMUM HEIGHT (mm)	MAXIMUM PRESSURE	BAG VOLUME	FILLED WEIGHT
GB-201	0.8	25	100	500	50	4 bar	2.5 lts	7 kgs
GB-202	1.7	50	100	1000	50	4 bar	5.0 lts	12 kgs
GB-203	2.6	75	100	1500	50	4 bar	7.5 lts	16kgs
GB-204	3.5	100	100	2000	50	4 bar	10.0 lts	21 kgs
GB-205	4.4	125	100	2500	50	4 bar	12.5 lts	25 kgs
GB-206	7.8	160	150	3000	75	4 bar	33.8 lts	64 kgs
GB-207	9.2	250	150	3500	75	4 bar	39.4 lts	75 kgs
GB-208	10.5	300	150	4000	75	4 bar	45.0 lts	86 kgs
GB-209	11.2	350	150	4500	75	4 bar	50.6 lts	95 kgs
GB-210	13.1	400	150	5000	75	4 bar	56.6 lts	106 kgs
GB-211	19.3	500	200	5500	100	4 bar	110.2 lts	204 kgs
GB-212	21.1	600	200	6000	100	4 bar	120.1 lts	223 kgs
GB-213	22.7	700	200	6500	100	4 bar	130.2 lts	241 kgs
GB-214	25.0	800	200	7000	100	4 bar	140.1 lts	259 kgs
GB-215	26.7	900	200	7500	100	4 bar	150.3 lts	277 kgs



HYDRA-CAPSULE

Contact us for prices
01885 490 405

TEMPORARY PROPPING SECTION

Hydra-Capsule Limited offer light to heavy duty propping equipment for hire with integrated hydraulic jacking systems. As contractors we provide clients with a full design and installation service throughout the UK and Europe. We also offer the supply of complete bespoke solutions to accommodate any unforeseen problems and in most instances the best economical solution for your particular project.

Our area of expertise includes needle supports to enable the formation of new structural openings with zero deflection using our specialist flat jacking and electronic monitoring equipment. Many of our clients require their buildings to be altered to create additional floor space.

A lot of these works involve supporting load bearing walls and floor slabs to form new openings, once finished the value of

their properties are considerably increased due to the additional space creation. Other works include building facade retention to retain existing frontages and highway bridge propping works to enable bearing replacement or repairs to be carried out safely.

Hydra-Capsule Limited stock an extensive range of propping systems and accessories available for hire at competitive rates. We pride ourselves on giving customers a personal and professional service for all our contract projects nationwide, offering practical concept ideas, full design and rapid installation services. Our fully qualified and competent staff will work with your site managers and design Engineers in full partnership offering helpful advice throughout ensuring that your works are carried out safely and efficiently, from small contracts to the larger and more complex projects.

HEAVY DUTY PROPPING

Hydra Capsule can offer high capacity propping shoring systems, which have a capacity of 1000kNs per soldier sections, and grouped up as sets for a 4000 kNs mega-prop. Props can be used as individual supports and/or construction high-strength support towers.

Hydra Capsule have over 25 years practical experience with the use of temporary propping and shoring equipment and have built a strong relationship throughout the United Kingdom using this ultra-strong high duty modular propping system. Which is one the most competitive and market leading temporary support system available within the industry.

The temporary props and shoring vary in lengths and can be adapted to incorporate lateral and diagonal restraints where applicable. The ease of connection details allows a rigid and high strength support system to be constructed with the use of shoring components to design all configurations.

A complete range of heavy grillage support beams within a design, allows for the maximum capacity of the propping sections to be achieved and optimize applications, such as; bridge jacking, bearing replacement, heavy lifting, lowering, custom-built gantry, supporting of structures and moving / sliding of heavy structures.



Hydra Capsule have a large range of hydraulic jacks, purpose-built, which have the ability to be directly connected to all Megashor propping sections or use within the hydraulic jacking units.

Temporary Propping Applications Uses:

- Bridge Jacking Support Systems
- Bridge launching and bridge sliding
- Bearing Replacement
- Excavation Support
- Back Propping
- Heavy Slab / Structures Propping Supports
- Raking Struts
- Temporary Gantry

Hydra Capsule offers a complete in-house package for all applications, ranging for complete design, installation and jacking, to hire and sales of temporary propping.

Description	Weight (kg)
15mm End Plate Section	9
90mm Section	22
270mm Section	30
450mm Section	45
900mm Section	65
1800mm Section	112
2700mm Section	159

Description	Weight (kg)
Screw-Jack (410mm - 620mm)	59
Hydraulic Jack Unit	132
Jack Plate	26
Brace Plate	61
Rocking Head	46
Fixed Length Flat Brace	4.0 (per metre)
Adjustment Vernier Brace	5.0 - 12.0
Place Brace Cleat	15.00

Description	Weight (kg)
Megashore Header Beam 950mm	9
Megashore Header Beam 3300mm	22
Megashore Header Beam 3800mm	30
Megashore Header Beam 5000mm	45
Hardwood Sleepers 1000mm to 3600mm	65

LIGHT DUTY PROPPING

This proven, versatile and trusted product is ideal for all of your refurbishment requirements, such as lateral restraining to unstable buildings, the formation of structural openings (needling), back propping and transfer of load during column removal, and many more.

This product offers a high leg load to weight ratio; for example, used as a single prop this can accommodate loads up to 120kn at 3mtrs.

Description	Weight (kg)
10mm End Plate	3
90mm Soldier	7
360mm Soldier	12
540mm Soldier	15
720mm Soldier	19
900mm Soldier	22
1800mm Soldier	39
2700mm Soldier	55



With a comprehensive range of soldiers and accessories, the temporary propping system can be assembled into:

- Supporting structure(s) for pre-loading and remedial works
- Needling
- Temporary propping for steelwork installation
- Façade retention / Space frames
- Vertical and Raking shores
- Wall formwork panels
- Excavation supports
- Bridge cantilever edge and deck support
- Spanning beams and trusses
- Back propping

All the above can have Hydra Capsule's hydraulic jacking system incorporated for pre-loading and jacking of structures.

The shoring soldier is primary use for formwork, based on the versatility of its strength to weight ratio and range of accessories.

The robust and easily assembled internal beams of any length, the propping soldier can be re-used on sites, in numerous temporary works applications.

Description	Weight (kg)
Adjustment Base (365mm-515mm)	19
Prop Jacks (LH and RH)	15
Single / Double 6-way Connector	25.0 - 38.0
90 Degrees Corner	9
Anchor Base Plate	8
Tilt Plate	5
Prop Spade End Link & Pivot Tube	5
Pivot Clean Set	9

Description	Weight (kg)
High-Load Water Plate	7
Water Plate (90KN)	2
Slimshor Porthole Bearing	2
Dual Purpose Jack and Adaptor Tube	7
Superslim Rocking Head	5
Scaffolding Tube	Vary of Lengths
U-Shape Rapidshor Support	4
Slimshor Tube Clamp	1
Prop Bracking Coupler (Swivel Type)	2
Universal Clamp	1

ALUMINIUM SHORING

The shoring system has a maximum capacity of 100 to 120 kN per leg section, the simple arrangement of the integral bracing frames allow only three main components for design (inner or outer leg and ledger frame).

The aluminium prop is commonly used for shoring and back propping of:

- ✔ Industrial structures - tower structures with heavily loaded slabs
- ✔ Temporary support of structures during construction
- ✔ Residential and commercial concrete frame buildings

Advantages of aluminium shoring:

- ✔ Large volumes of false-work can be easily assembled because all the components are relatively light and can be quickly erected or dismantled manually by men
- ✔ Quick fastening and simple location of ledger frames
- ✔ Good strength to weight ratio
- ✔ Ledger frames can be located at any vertical position along the leg
- ✔ Connection detailing; which makes the system very adaptable and easy to assemble

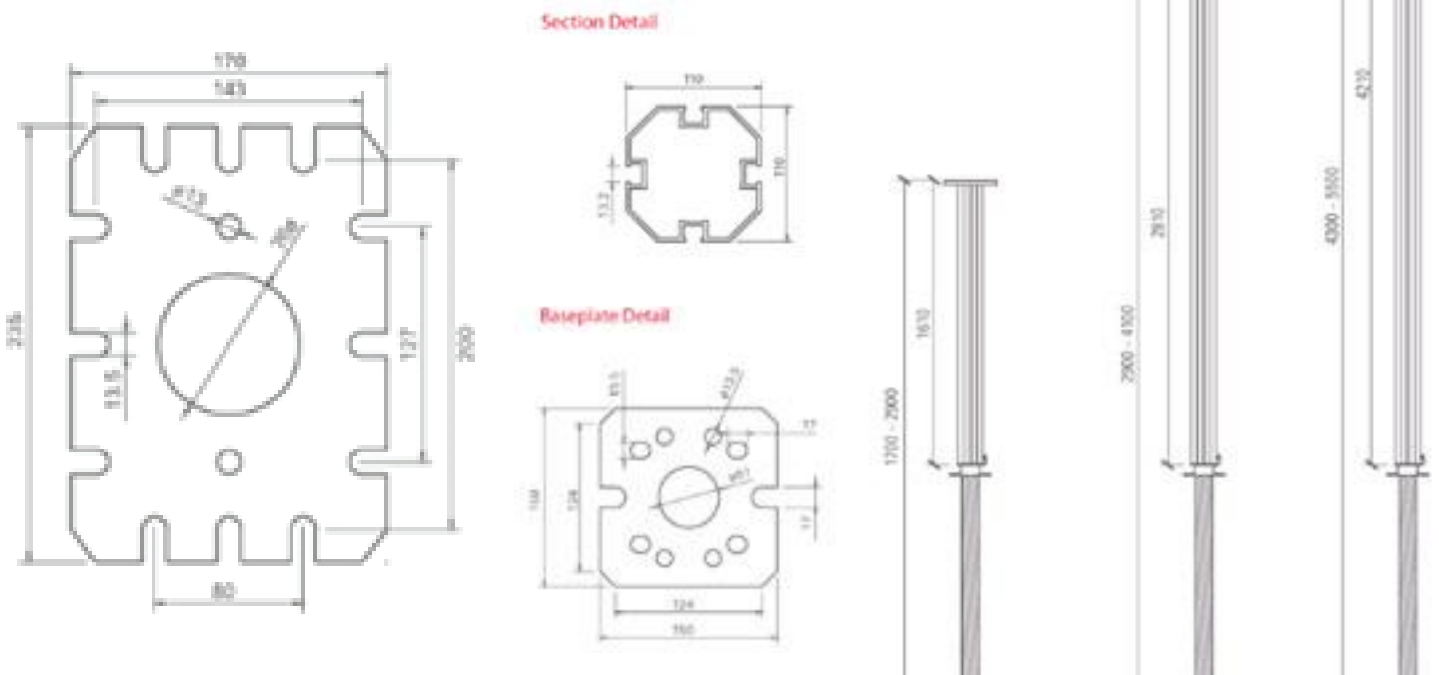
In essence, this unique lightweight shoring equipment requires a minimal number of components to provide a rigid temporary support system. This makes it quick and easy to erect as proven on many different types of construction projects.

Type	Description	Weight (kg)
BF 1	600mm Brace	6
BF2	900mm Brace	7
BF 3	1200mm Brace	8
BF 4	1600mm Brace	10
BF 5	1800mm Brace	11
BF 6	2400mm Brace	14
BF 7	3000mm Brace	16

Type	Description	Weight (kg)
MK 1	1610mm - 2540mm	16
MK 2	1700mm - 2900mm	18
MK 3	2900mm - 4100mm	23
MK 4	4300mm - 5500mm	29

The lightweight aluminium beams can be used to create a wide variety of beam configurations for soffit support, formwork and false work applications.

Hydra-Capsule Limited enjoys good working relationships with many distributors throughout the UK and are able to offer competitive rates for hire, sales or contract services for the design and installation of aluminium shoring systems throughout the UK and Europe.





Heavy Duty Jacking Systems

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