



**HYDRA CAPSULE
LIMITED**

HYDRAULIC JACKING, MONITORING & SYNCHRONISED LIFTING SYSTEM

OUR SERVICES

- Hydraulic Jacking & Monitoring
- Structure Lifting & Lowering
- Load Cells and Weighing
- Synchronised Multi-Point Control
- Heavy Lifting Jack up to 1,600 Tonne



+44 (0)1885 490405



sales@hydra-capsule.com



www.hydra-capsule.com

HYDRA-CAPSULE LIMITED - GIVING CONSTRUCTION OUR SUPPORT

CONTENTS



01 HYDRAULIC JACKING OVERVIEW

02 APPLICATIONS

03 HYDRAULIC CYLINDER SPECIFICATIONS

04 SYNCHRONISED LIFTING SYSTEM

05 EQUIPMENT & SERVICES

06 CONTACT

01 HYDRAULIC JACKING OVERVIEW



Hydra-Capsule Limited provides hydraulic jacking systems for bridge jacking, bridge bearing replacement / concrete repair to lifting, lowering, preloading of steelwork and temporary propping across the UK and internationally.

KEY CAPABILITIES

5,000+

HYDRAULIC
JACKS IN STOCK

1,600T

MAX CAPACITY
PER UNIT

±1mm

SYNCHRONISED
ACCURACY



ADVANTAGES

- ✓ Prevents structural distortion during lifting operations
- ✓ Maintains even load distribution across all jacking points
- ✓ Touchscreen HMI control with automatic stop at pre-defined loads
- ✓ Simultaneous control of 2-142 lifting points



**STRUCTURAL
PROTECTION**



**±1mm
ACCURACY**



**HMI TOUCH
CONTROL**



**MULTI-POINT
LIFTING**



**UP TO
1600 BAR**



**LARGEST RANGE
IN THE UK**



**40+ YEARS
OPERATING**



**INSTALL
SERVICES**

02 APPLICATIONS



Bridge bearing replacement



Temporary propping & preloading



Structure Lifting



Building Jacking & Levelling



Sliding, Skidding & Skating Systems



Bolt Tensioning & Pre-stressing

CASE STUDY: M6 BRIDGE BEARING REPLACEMENT

Synchronised lifting of 3,500-tonne bridge deck using 16 jacking points with $\pm 1\text{mm}$ accuracy for complete bearing replacement programme.



03 HYDRAULIC CYLINDER SPECIFICATIONS



MODEL	CAPACITY (Tonnes)	CLOSED HEIGHT RANGE (mm)	OUTER DIAMETER (mm)	STROKE (mm)	SWL PRESSURE (Bar)
HJ-10/25	10 - 25	100 - 315	75 - 150	45 - 150	700
HJ-30	30	150 - 325	100	50 - 200	700
HJ-50	50	125 - 470	135 - 140	50 - 300	700
HJ-60	60	125	140	50	700
HJ-80	80	200	152	100	700
HJ-100	90 - 130	137 - 445	175 - 200	45 - 300	700
HJ-150	150 - 180	115 - 465	200 - 230	15 - 300	700
HJ-200	200	300 - 350	240 - 260	100 - 150	700
HJ-250	250	159 - 380	275 - 290	45 - 200	700
HJ-300	300 - 360	175 - 625	290 - 330	50 - 300	700
HJ-400	400 - 500	175 - 920	310 - 370	45 - 300	700
HJ-520	520	195 - 520	400 - 420	45 - 300	700
HJ-650	650	470	460	200	700
HJ-800	800	275	460	45	700
HJ-1600	1,600	275	460	40	1600



All hydraulic cylinders feature lock-nut capability and are rated to 350 upto 1,600 bar operating pressure. Available with plain ram, low-height / low-profile, pull-cylinder clevis ram to hollow ram, high-tonnage and aluminium / mechanical operated jacks for all operations.

We supply all ancillary equipment from pressure gauges (standard and digital), hydraulic manifolds, manual and electric hydraulic pumps to hydraulic hoses upto 50 metre per/unit

04 SYNCHRONISED LIFTING SYSTEM



MODEL	LIFTING POINTS	CAPACITY (TONNES)	ACCURACY (mm)	STROKE (mm)	CONTROL TYPE
SLS-2	2	200	±1.0	150	HMI
SLS-4	4	400	±1.0	200	HMI
SLS-8	8	800	±1.0	250	HMI
SLS-12	12	1200	±1.0	300	HMI
SLS-16	16	2400	±1.0	300	HMI
SLS-24	24	3600	±1.0	350	HMI
SLS-32	32	4800	±1.0	400	HMI
SLS-48	48	7200	±1.0	400	PLC
SLS-64	64	9600	±1.0	400	PLC
SLS-80	80	12000	±1.0	500	PLC
SLS-100	100	15000	±1.0	500	PLC
SLS-Custom	100+	Custom	±0.5	Custom	PLC
SLS-Custom+	200+	Custom	±0.5	Custom	PLC
SLS-Skid	N/A	1000	±1.0	Continuous	PLC

SYSTEM FEATURES

- ✓ Touchscreen HMI control interface
- ✓ Automatic stop for loads/displacements
- ✓ Real-time position monitoring to ±1mm
- ✓ Integration with hydraulic skidding systems
- ✓ Push-pull units and low-friction pads



SYNCHRONISED
LIFTING



HYDRAULIC
CYLINDERS / JACKS



CONTROL
SYSTEM



MULTI-POINT
LIFTING



±1mm
ACCURACY

05 HYDRAULIC EQUIPMENT & JACKING SERVICES

HYDRA-CAPSULE

HYDRAULIC JACKING EQUIPMENT

Hydra-Capsule holds over 5,000 hydraulic jacks and flat jacks in stock, with equipment capacities up to 1,500 tonnes per unit for heavy lifting, sliding and skidding operations.

- ✓ Screw Ram / Lock-nut cylinders
- ✓ High Tonnage Cylinders
- ✓ Bolt Tensioning Load Cells
- ✓ Single & Double-Acting Cylinders
- ✓ Climbing Jacks
- ✓ Hollow Ram Cylinders
- ✓ Low-Profile & Pad Jack Cylinders
- ✓ Pull Ram and Wedge Spreader Jacks
- ✓ Post-Tensioning / Anchor Test Units
- ✓ Stressing Jacks (Single / Multi-strand)
- ✓ Hand, Battery, Electric & Petrol Pumps
- ✓ Full Monitoring Systems (Load, Movement & Real-time Data-Logging)



SERVICE OPTIONS

Full contractual services including supply, hire & fix, temporary works design, and on-site technical support for all heavy lifting, propping and jacking operations.

- ✓ Supply, Hire & Fix contracts
- ✓ Equipment Supply / Sales & Hire
- ✓ Installation Services
- ✓ Temporary Works design
- ✓ Consultancy and Demonstrations
- ✓ On-site technical support



40+ YEARS EXPERIENCE: Hydra-Capsule has over four decades of heavy-lifting, temporary propping, flat jacking to hydraulic jacking & monitoring experience within highways, rail and major infrastructure projects across the UK.

06 CONTACT US



HYDRA-CAPSULE LIMITED

Hydra House
Bishops Frome
Worcestershire
WR6 5BP
United Kingdom

-  +44 (0)1885 490405
-  sales@hydra-capsule.com
-  www.hydra-capsule.com

OUR SERVICES

- ✓ Hydraulic Jacking & Tensioning Systems (5-50,000 Tonnes)
- ✓ Synchronised Lifting Systems ($\pm 1\text{mm}$ accuracy)
- ✓ Bridge Bearing Replacement
- ✓ Hydraulic Sliding, Skidding & Skating Systems
- ✓ Temporary Bridge Propping, Lifting & Pre-loading
- ✓ Contractual Service + Equipment Hire & Sales

