

The background of the entire page is a collage of high-contrast, close-up photographs of various metal parts, likely steel or aluminum. The parts show different textures, including machined surfaces, threads, and smooth finishes. The lighting is dramatic, with strong highlights and deep shadows, emphasizing the industrial nature of the components. The collage is divided into several rectangular sections by thin white lines.

PRE-TENSIONING SYSTEMS

SPECIALIZED ENGINEERING SOLUTIONS FOR STRUCTURES

www.cclint.com

CCL provides specialized construction techniques and engineering solutions for structures. The company's prestressing systems are used extensively in structures around the world including buildings, bridges, oil platforms, containment vessels and nuclear power stations.

CCL DESIGN

Delivering quality at every stage, CCL components are designed using the latest 3D parametric modelling and FEA software to ensure total product integrity. All new components are type-tested at external test facilities or within CCL's own premises. Full product traceability can be provided from the acceptance of raw materials, to final despatch to the end user.

CCL QUALITY

All CCL products are manufactured from specially selected materials, which are fully inspected throughout each process. Prior to despatch, the product is 100% inspected automatically to check dimensions and heat treatment. Sample components are also type tested for additional security. All CCL components are batch marked to ensure traceability.

All equipment is designed and tested to meet the appropriate CE Machinery Directives, which are statutory requirements for all factories in Europe, and good practice for those elsewhere.

CCL is an ISO registered company operating a quality management system compliant with ISO 9001:2008 for both the design and manufacture of its components. CCL holds ETA approval in line with ETAG 013, UK CARES approval for manufacture/supply, in line with BS: EN 13391 and holds an EC Certificate of Conformity which allows CE marking of products. It is also an active member of specialist international bodies, including the International Federation for Structural Concrete (fib), the Post-Tensioning Institute (PTI) and the National Precast Concrete Association (NPCA).

CCL COMMITMENT

Committed to providing a first-class service, CCL has teams of engineers and technicians helping clients select the most appropriate equipment to meet their requirements and provide advice on related product issues. CCL also offers full maintenance and calibration of its equipment.



CCL GRIPS

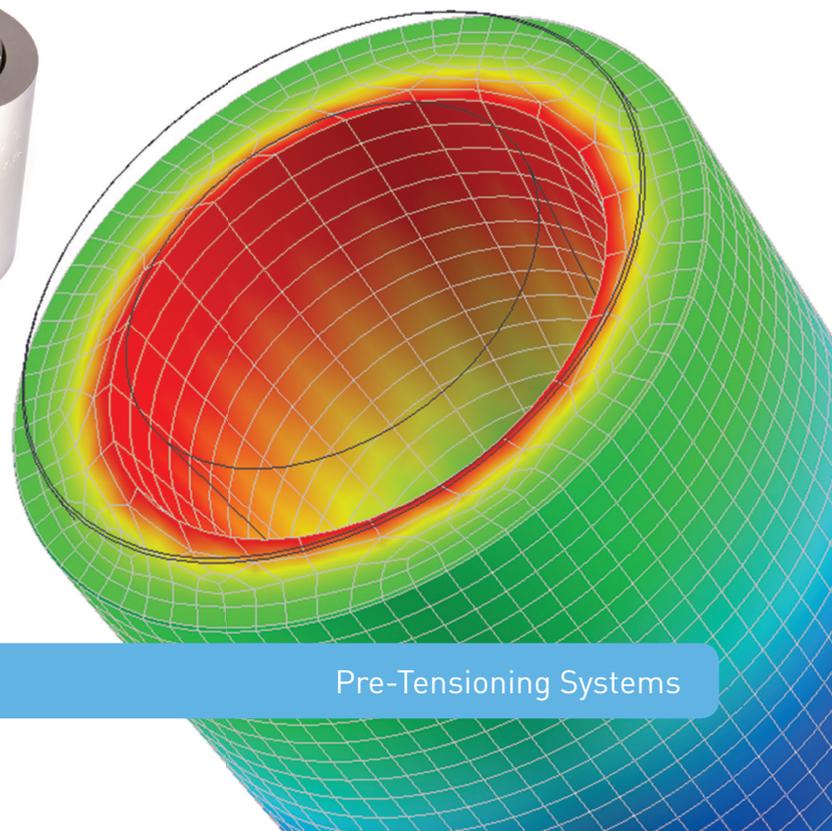
CCL grips are accepted as the industry standard and represent more than six decades of continuous development. They are designed and manufactured to the highest standards using the latest technologies.

WEDGES (JAWS)

- Counter bores to assist with fitting of grips and avoid wear on the teeth
- Thread lead-in to avoid strand/wire shearing
- Reverse buttress threads to prolong life and increase efficiency
- 100% batch marking for full traceability
- 100% visual/laser inspection on dimensions
- 100% laser inspection on threads
- 100% heat treatment inspection on wedges
- 100% certified raw material from European mills
- Counter bore for stress relief prolonging the life of the wedge

BARRELS (CHUCKS)

- 100% batch marking of components for full traceability
- Ultrasonic crack detection on barrel material prior to manufacture



04/05

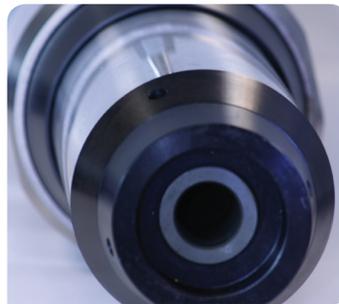
CCL JACKS

CCL stressing jacks combine advanced design with uncompromising quality to deliver the ultimate in high performance. Designed and assembled in the UK by CCL engineers, CCL jacks are easy to maintain and offer optimum safety. If serviced regularly, they can provide many years of reliable service.

The Stressomatic range delivers fast and consistent stressing forces of up to 67445lbs (300kN). Jacks incorporate power lock-off and internal oil transfer to avoid the dangers of external hydraulics during stressing.

CCL JACKS OFFER THE FOLLOWING UNIQUE FEATURES:

- Power lock-off to provide safe efficient seating of the wedge
- Anti-roll mechanism to prevent dangerous rotation of jack when strand twists during stressing
- Internal oil transfer to avoid external damage to the transfer mechanism
- Quick release connections eliminate the danger of dirt and damage to the threads on screw type couplings
- Male/female in/out couplers to avoid expensive mistakes by mixing connections
- Front mounted wedges to minimise strand usage
- Automatic power lock off for safe and efficient stressing
- Fast removal of jack wedges for rapid change over and ease of maintenance
- Readily available spares
- Exceptionally long life components using special CCL specification raw materials
- Remote stressing operation for safety through a hand control unit



CCL PUMPS

CCL pumps are designed and manufactured to work hard in the world's most challenging environments. Using the best hydraulic components on the market, CCL pumps are built at our UK facility to provide unrivalled performance and reliability.

CCL pumps deliver multiple pressures to speed up the stressing operation, while maintaining control for precise stressing when needed. State-of-the-art force control systems give accurate multiple input and allow downloading of output to computers for storage, analysis and printing. Remote push button control allows simple and safe operation. CCL offers both analogue and digital readouts for their pumps, subject to customer need.

CCL PUMPS OFFER PERFORMANCE AND SAFETY:

- Customized manifold systems to reduce risk of faults on complex pipe work
- Two-speed pump increases speed at low pressure and slows when accuracy is required upon reaching required load
- All steel pressure system for a quiet, robust, reliable operation
- Seated valves which allow a lighter/smaller oil reservoir and less heat generation
- Innovative integrated pump/motor giving smaller, more compact, lightweight designs
- Power lock-off to provide safe stressing operation
- High quality gauges accurate to 1% provide instant visual display
- EC thermoplastic pipes fitted with anti-kink springs for safety

CCL pumps are fully CE marked to meet European factory regulations whether supplied as separate units or as part of a system with the CCL jack. All CCL pumps come with the same high quality after-sales service as our jacks, and can also be calibrated to jacks before despatch. CCL pumps have a full technical record to prove equipment safety compliance requirements and are checked for traceability and tested for pressure before release to the customer. All pumps are EMC tested to ensure there is no electrical interference with the environment and they do not disrupt other electrical devices, such as meters or medical appliances.

CCL pumps are available in two ranges. SR3000 pumps are of a robust design and come complete with a protection frame as standard. The high build quality and specifications of the parts used ensure a high reliability and low maintenance life for the unit. SR3000 pumps offer rapid, reliable two speed stressing operations up to 18mm strand. The SRX pump is designed as a compact lightweight alternative to the SR3000 unit and is capable of delivering excellent performance on small strand diameters. Supplied in various voltages, it is ideal for site work or where pumps are regularly relocated within factories.

Both types of CCL pump come in various sizes and voltages and have many interchangeable features, providing a comprehensive drive unit for any jack.



CCL ACCESSORIES

LUBRICATION

The correct lubrication of jack wedges is essential to prolong life and ease dismantling of the grip after stressing. Two lubrication products are available. A molybdenum-based aerosol release agent dries to form a hard coating on the wedge around ten minutes after application, while Super Dippy lubricant remains in a fluid state after being liberally applied to the components of the grip.

CLEANING

A range of brushes is available for the cleaning of wedges and barrels. These are designed to fit standard drill chucks. The barrel brushes are specially tapered to effectively clean the inside body of the barrel.

FORCE CONTROL

Force control systems are available which allow the programming of the pump to automatically deliver accurate and consistent prestressing force. The units also allow for the download of data from the prestressing operation, for recording or analysis.

CALIBRATION UNITS

Digital calibration units can be supplied to allow jacks and pumps to be calibrated quickly and economically on site. They feature a clear digital readout, a rechargeable battery and mains operation. Calibration services can also be carried out by CCL at its premises in Leeds.

GRIP RELEASE TOOLS

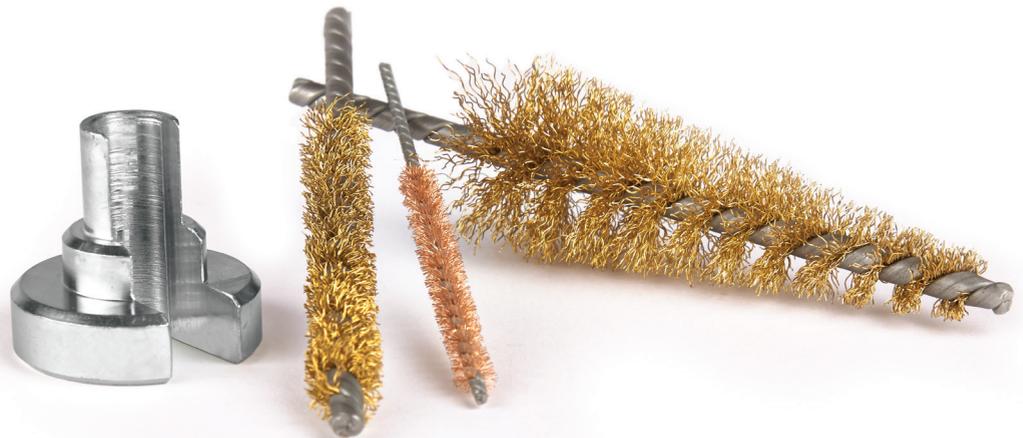
CCL grip release tools are precision-machined alloy products used to aid the release of wedges from barrels. The tool is inserted into the bearing end of the barrel until in contact with the wedge. A sharp hammer blow is then delivered to the tool to break the contact between the wedge and barrel without damaging either component.

REPLACEMENT PARTS

Approved spare parts and maintenance kits are available from CCL. In order to maintain equipment in good working order, CCL recommends the carrying of a small stock of CCL replacement parts such as jack wedges and seal spares kits. This also avoids interruption in the prestressing process when it becomes necessary to change a jack wedge and nose.

REPAIRS, FAULT FINDING AND AFTER-SALES SERVICE

CCL offers a comprehensive after-sales service covering repairs, fault finding, general advice and assistance. Highly experienced CCL engineers can help you keep CCL equipment in optimum working condition, prolonging its life and reducing the need to reinvest in new products and equipment.





CCL was established in 1935 to provide cutting-edge engineering solutions. Since then, the company has grown and diversified to become one of the world's leading global engineering companies specializing in prestressed concrete technology.

Every day, CCL products and services are used in prestigious building and civil engineering structures across the world. CCL's advanced solutions help engineers, planners and construction companies create visionary structures.

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