

Compact 50: Thin Section Preparation System

The compact 50 thin section preparation system is designed to produce high quality thin sections with a minimum of capital investment.

This complete system has been built for ease and efficiency across a wide range of materials.

Complete system

The complete Logitech system includes a range of complimentary machines, accessories and consumables to cover the complete process route.

The complete system includes:

- Compact Lapping machine
- Compact precision lapping jig
- Compact Polishing machine
- Compact bonding unit and Hotplate
- Trim saw
- CitoVac vacuum impregnation unit
- Vacuum pump and water separator
- Gauging and conditioning accessories
- Relevant process consumables

The *Compact 50 system* offers a complete solution, whilst its modular nature allows it to be tailored to the operator's own particular needs. Further information on these products can be found at www.logitech.uk.com

Applications

This system is ideal for use in research or education environments, typically in the areas of: Geology, Mineralogy, Petrology, Concrete Technology, Archaeology, Palaeontology or in technology areas such as Fibre Optics.

Process Route

Impregnation: The *CitoVac vacuum impregnation unit* provides superior results and trouble-free operation, through a spacious vacuum chamber and user-friendly display. The *CitoVac unit* is ideal for porous materials such as sandstones, soils, agglomerates, schists and concrete.

The large vacuum chamber enables several specimens to be impregnated at the same time for example: 10 x 30mm diameter moulds or 8 x 40mm diameter moulds.

Trimming: Bulk specimens need to be trimmed prior to first face lapping. The *CS30 Trim Saw* is a versatile yet robust saw which is capable of trimming a wide range of materials such as; rock, concrete, fossils and bone with its 200mm diameter diamond blade.

The *CS30 Trim Saw* can thin slide-mounted specimens down to 500µm, ready for second face lapping.

First Face Lapping: A standard thin section of 30µm thick will require lapping to achieve a flat reference surface for slide bonding. The *CL50 Lapping Machine* provides a compact yet robust facility with plate speeds of 12-120rpm. This machine has been designed for convenience, with an easy lift-off lapping plate and abrasive autofeed system.



- *High quality polished thin sections*
- *Cost effective solution*
- *Easy to use*
- *Ideal for teaching and student use*

Bonding: The success of a thin section in terms of flatness and thickness uniformity is highly dependent on the specimen being correctly mounted. The Logitech *CB30 Bonding Unit* and *CH30 Hotplate* ensure that a successful bond between specimen and slide is made every time without compromising either flatness or thickness. The CB30 unit accepts two standard glass slides of 28x48mm, 26x46mm or 26x76mm at a time.

The *CH30* hotplate enables operators to set different temperature zones, with the central section of the hotplate emanating a maximum temperature of 450 °C. This ensures samples are quickly and evenly cured.

Lapping specimens to a final thickness: The thinned bonded specimens can now be mounted on to the *CJ30 Precision Lapping Jig* and lapped to the final desired thickness - 30µm for a standard thin section and 40µm if the section is to be polished.

The *CJ30 Jig* consistently produces accurate thin sections. Being light and compact it is easy to handle without compromising performance. The vacuum chuckface holds two standard slides in place, making mounting and demounting of specimens quick and trouble free.

Polishing (if required): The *CP50 Polishing System* provides an ideal solution for small scale polishing requirements. This single station machine is designed for use with thin rock, metallurgical specimens, ore mounts or similar samples.

The motor-driven polishing head (*WG4*) is constructed of corrosion-resistant materials and has a rotational speed up to 120rpm, depending on the load applied, against the rotation of the polishing plate. Up to three samples can be mounted onto the polishing plate. The *CP50* drive plate has speeds of 12-120rpm, giving greater control over the polishing process.

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Technical Specifications:

	CL50	CP50	WG4	CitoVac	CS30 Trim Saw	CB30 Bonding Unit	CH30 Hotplate
System Capacity	28mm x 48mm 26mm x 76mm	28mm x 48mm 26mm x 76mm	28mm x 48mm 26mm x 76mm	-	28mm x 48mm 26mm x 46mm	28mm x 48mm 26mm x 76mm	-
Power Supply	200-240v	200-240v	-	100-240v	240v & 110v	-	220-240v & 110v
Fuse rating	12.5A	12.5A	-	-	5A	15A	5A
Plate speed	12 - 120 rpm	12-120 rpm	120rpm	-	-	-	-
Height	320mm	600mm	320mm	190mm	300mm	220mm	110mm
Depth	610mm	360mm	-	370mm	240mm	285mm	300mm
Width	410mm	250mm	150mm	380mm	530mm	105mm	190mm
Gross Weight	27kg approx	22kg	9.5kg	9.5kg	48kg	1.0kg	2.5kg

Additional equipment: The *Compact 50 Thin Preparation System* also includes gauging and conditioning equipment for controlling plate flatness and subsequent specimen flatness. The system can also be provided with a suitable vacuum pump and water separator.

Customer Support

Customer support is provided by Logitech trained staff on a global basis. This provides a high level of localised service which is supported by a technical service centre based in Scotland.

Every Logitech machine system is sold with a 12 month warranty. During the warranty period, should the need arise, replacement parts are provided and repairs carried out free of charge.

Technology Transfer

Logitech is committed to assisting all of its customers to produce high quality thin sections on their Compact 50 systems. Logitech has considerable experience in preparation techniques which is shared with customers, so that they themselves can achieve the best results.



Accessories, Components & Consumables

A comprehensive range of accessories, such as gauging and conditioning equipment, components and consumables are available to support these systems, enabling optimum results and longevity of the machines. A selection of supporting products can be found below, for a more comprehensive listing please go to www.logitech.uk.com

Accessories & Components

- Large range of lapping and polishing plates
- Precision lapping jigs
- Lapping gauge
- Mounting cup holders
- Vacuum systems

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