

GTS1

Thin Section Cut-off and Trim Saw

The GTS1 Thin Section Cut-off and Trim Saw is ideal for geological application areas - cutting hard or soft rocks, concretes or cements with equally high efficiency. Its combination of automated user control and safety aspects makes it suitable for both research environments and production from initial bulk samples to high volume thin sections.

Fault free precision

In the production of geological thin sections, it is usual for a saw to be used for both cutting the bulk rock to size and for thinning the slide-mounted rock chips prior to final lapping. When cutting the mounted rock, there are two main considerations:

- The thinned rock sample should be as thin as possible, to reduce lapping time.
- The cut should be of the highest possible quality, to ensure that sub-surface damage is kept to a minimum.

Both cutting and precise thinning operations are easily accomplished on the GTS1 Saw.

The GTS1 offers a number of advantages over other saws. In particular, the variable speed linear drive system and feed rate monitor allow the operator to control the rate at which the samples move through the cutting process. This avoids many of the problems associated with gravity-fed systems, such as material shattering. Samples can be repeatedly trimmed to as thin as 200 microns, saving lapping time and increasing productivity.

Fully automatic and manual operational capability

The GTS1 is a compact, bench-top unit, made of cast aluminium and stainless steel throughout, ensuring a long working life cycle. The functional design of the machine also means that it is capable of allowing automatic operation during the cutting of bulk rocks and the thinning of mounted sections; it also allows cutting by hand to take place, should this be required.

The acrylic hood encloses the work area during automatic operation, eliminating splashing and reducing noise. If manual cutting operations are necessary, an acrylic splash shield and coolant deflector can be fitted. Bulk materials can be easily handled, by mounting on the sample table or fed through the blade by hand. For subsequent thinning operations, the vacuum chuckface is attached to the sample table.

This vacuum chuck slide holder accepts a variety of slide sizes and configurations. The maximum standard slide size is 102x76mm, of which two may be cut at one time. Twelve 28x48mm slides can also be accommodated. Special chuckfaces for sizes up to 150x100mm can be made to order.



- *Pre-thinning of slides to as thin as 200µm*
- *Flexibility of slide number and size options*
- *Feed rate monitor for optimum control*
- *Repeatable results with less blade strain*
- *Excellent cut quality and uniformity*

The slide holder passes parallel to the saw blade at a user adjustable distance allowing slide thickness variation and rock slice thickness. This distance can be accurately set by way of a dial gauge fitted to the sample table. The GTS1 also allows the pre-cutting of sections up to 125x100mm in size from bulk material.

Advanced user control ensuring precision results

The chuckface linear drive system feeds the samples through the saw blade controlled from the saw's user-friendly control panel. Using the feed rate monitor, the operator can set the optimum rate for the material being cut, ensuring that sub-surface damage is minimised whilst cutting the mounted sample. Equally, this reduces excessive wear on the blade, prolonging its life and making the saw even more economical.

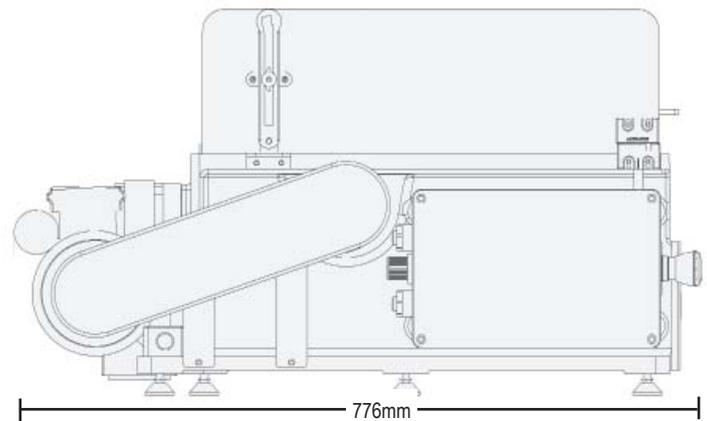
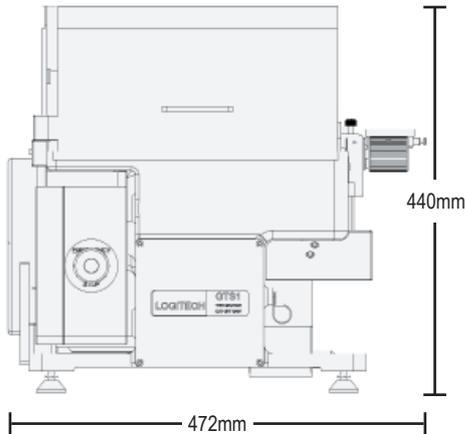
Additional flexibility ensures efficiency of use

For vacuum mounting of samples on the GTS1 chuckface, the VS2 Vacuum System comprises a single stage rotary vacuum pump, water trap, drain and air admittance valve, assembled together on a frame for wall or bench mounting.

A Coolant Recirculation Unit is also available if, to enable collection of cutting debris from the recycled coolant, ensuring a cleaner cutting operation.

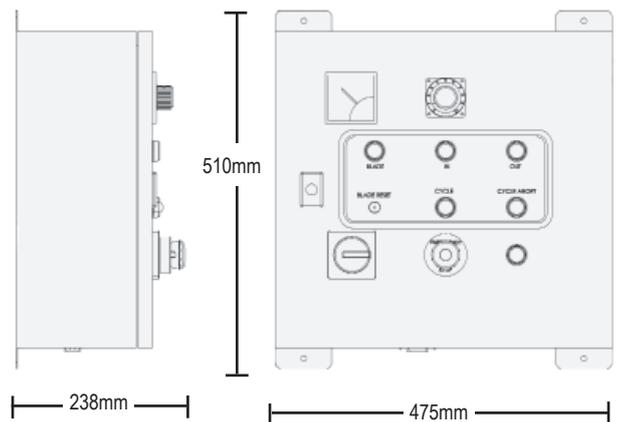
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Technical Specifications:

Power supply:	220/240V, 50-60Hz 110V, 50-60Hz
Main drive motor:	0.55kW
Saw	
Height:	440mm
Width:	472mm (15.8")
Length:	776mm (28.4")
Control Box:	
Height:	510mm
Width:	475mm
Length:	238mm
Net weight:	59.5kg approx.
Gross weight (packed):	85kg approx.
Diamond blade:	300mm diameter 2.0mm thick D181 Diamond grade /80/100 US Mesh
Standard slide capacities:	12 x (28 x 48mm) 10 x (30 x 45mm) 8 x (25 x 76mm) 4 x (51 x 76mm) 1 x (150 x 100mm)



Accessories, Components & Consumables

A comprehensive range of accessories, components and consumables are available to support this system, enabling optimum results and longevity of the machines. For further information please go to www.logitech.uk.com

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