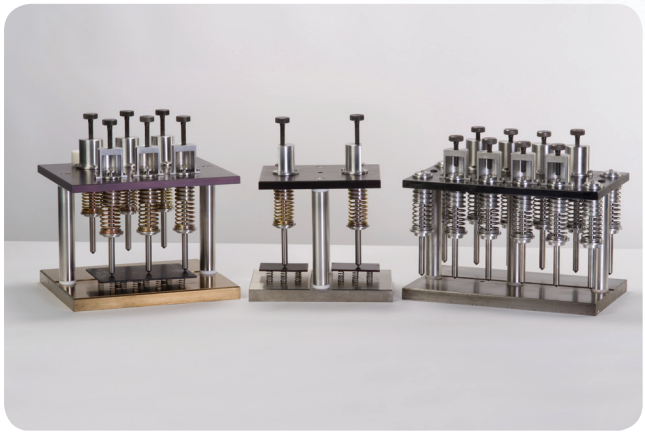
Thin Section Bonding Jigs

The production of thin and ultra thin sections of materials requires the sample material to be fixed to a substrate (e.g. glass microscope slide) for support during processing. In particular, when using an automated thin section production system, it is important that the orientation of the sample-bond-substrate is controlled for achieving optimal sample thickness control and parallelism.



- *Effective "zero bonding"*
- *Controlled thickness bonding*
- *Precise bond orientation*
- *Large or multiple sample capacity*
- *Bonding jigs available for large or small scale operations*

Zero Bonding

"Zero bonding" and "controlled thickness bonding" are two important techniques developed by Logitech to enable bond orientation and thickness to be controlled easily and with great precision.

BJ12, BJ9, BJ6 and BJ2. Each is ideally suited to different bonding requirements, yet all have the same basic design.

Operating Principle

In the basic jig design, an upper plate is attached by pillars to a rigid base plate on which the specimens are placed. Through this upper plate, pass a number of spring loaded pistons, which by the use of load spreading blocks apply pressure to the specimens.

BJ12:

The twelve position BJ12 "zero bonding" has two sets of six loading pistons on either side of the central line to enable the jig to accept larger sections if required. Powerful spring-loading (7.5kg/16.5lbs when fully compressed) allows effective zero-bonding of samples mounted on standard microscope slides. 12 PTFE load spreaders are supplied with every jig.

Four boding stations are equipped with a large section facility which comprises a large area spreader. A screw attachment forces compression of the loader spreader, a process which ensures an effective bond over the entire area of the specimen is achieved. The BJ12 will bond 50x76mm (2x3") or 76x110mm (3x4") sections or similar. It will also bond smaller sample sizes including 28x48mm (1.10x1.89"). Thw jig is generally used withtwo or three workstation rock section lapping systems.

BJ9:

The six position BJ9 "zero-bonding" jig features two bonding stations. Using two load spreaders, it is particularly suitable for simultaneously bonding two large format 102x152mm (4x6") geological thin sections.

BJ6:

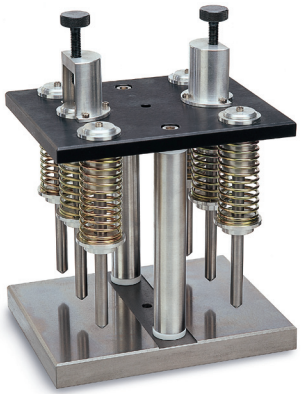
The BJ6 is a six position "zero-bonding" jig identical to the BJ12 but with just six pistons. Only two bonding stations are equipped with the large section facility. Six PTFE load spreaders are supplied with every jig. This jig is typically used in single workstation geological sample preparation systems or for the bonding of semiconductor wafers etc.

BJ2:

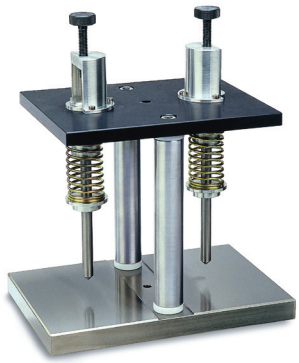
This bonding jig is a two piston version of the BJ2. Both BJ2 bonding stations can accomodate up to 101mm (4") diameter samples as standard. It is ideal for bonding $LiNb0_3$ stacks/wafers for subsequent edge lapping and polishing. The BJ2 includes an aluminium block, which when placed between the sample and bonding jig clamp, ensures the bonding resin is evenly spread.

BJ12

BJ6



BJ2



Technical Specifications:

Dimensions and Net Weight:

BJ12: 307X180X240mm
12kg

BJ9: 260x220x240mm
9kg (19.85lbs)

BJ6: 152x184x240mm
6kg (13.23lbs)

BJ2: 152x220x240mm
6kg (13.23lbs)

Capacity:

BJ12: 12slides 28x48mm
OR 12 at 35x45mm
OR 8 at 50x76mm
OR 4 at 76x110mm

BJ9: 6 slides 28x48mm
OR 6 at 26x76mm
OR 2 at 76x110mm
OR 2 at 102x152mm

BJ6: 6 slides 28x48mm
OR 2 at 50x76mm
OR 2 at 76x110mm
OR 2 at 26x76mm

Accessories, Components & Consumables

A comprehensive range of accessories, components and c onsumables are available to support Logitech systems, enabling optimum results and longevity of the machines. Further information can be found at **www.logitech.uk.com**

Logitech Limited

Erskine Ferry Road, Old Kilpatrick,
Glasgow G60 5EU, Scotland, U.K.

Tel: +44 (0) 1389 875444
Fax: +44 (0) 1389 890956
e-mail: info@logitech.uk.com

www.logitech.uk.com

Certificate No. FM12025