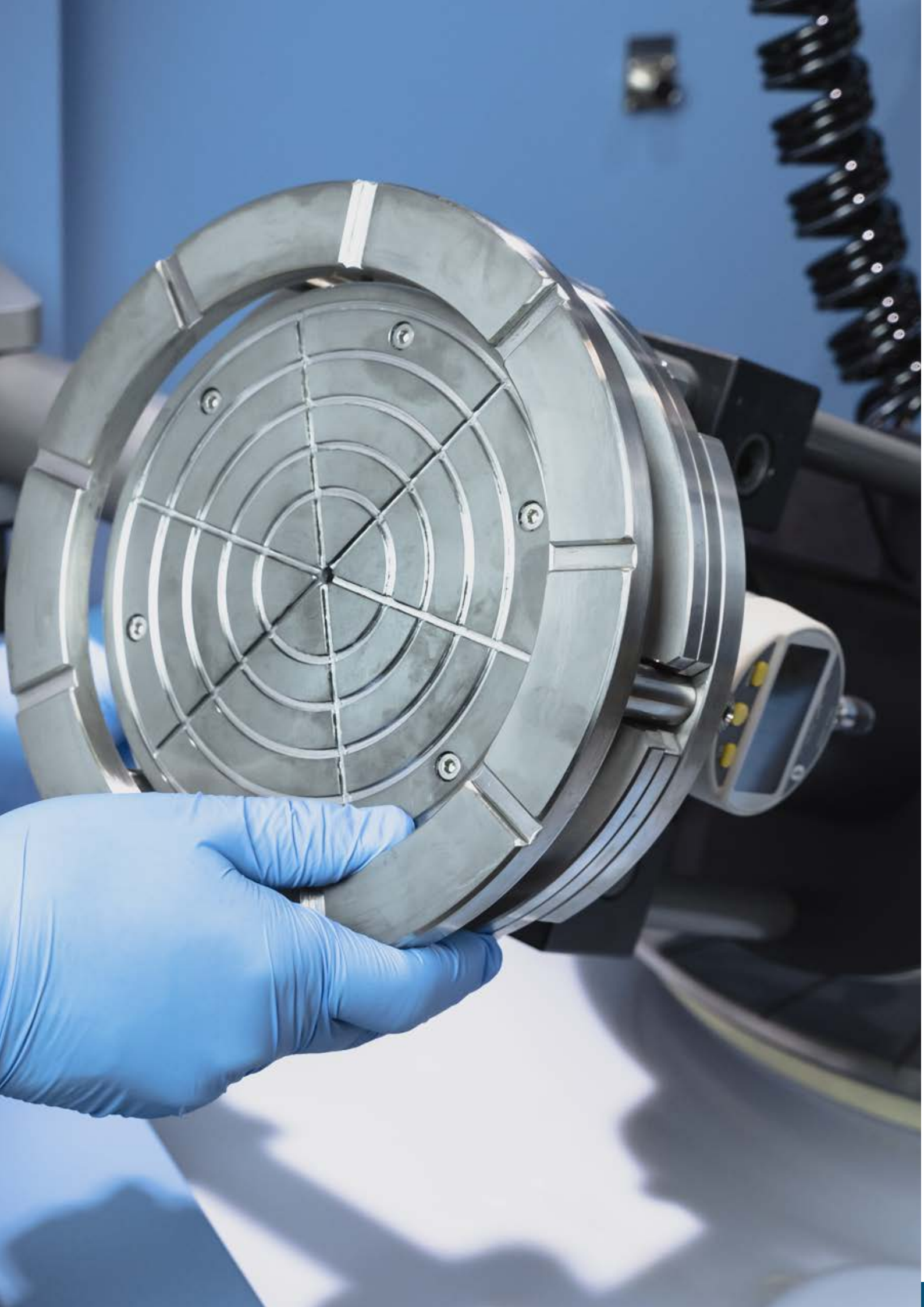




PRECISION JIGS RANGE

Logitech jigs are precision engineered to hold a diverse range of sample sizes across various applications throughout the lapping and polishing process



PRECISION

LAPPING

&

POLISHING

JIGS

Logitech's wide range of precision jigs are used to hold a diverse range of sample sizes and material types during lapping and / or polishing. These jigs allow precise control of the sample orientation and fine adjustment of the load applied during processing.

Logitech jigs are precision made and hand finished to ensure the highest levels of accuracy. Sample retention is possible through either mechanical fixing, direct wax mounting or vacuum.

Logitech jigs are also available for use with sodium hypochlorite based polishing solutions, such as Logitech 'Chemlox' solution.

Logitech precision jigs are the ideal solution for research and development work which usually involves the processing of small numbers of specimens, often differing in shape and size. Precision jigs enable specimens to be conveniently mounted for this type of work.

Precise control:
Logitech's wide range of precision jigs are used to hold a diverse range of sample sizes and materials during lapping & polishing processes

PP SERIES

PRECISION

JIGS



All Logitech PP series precision jigs have easy to read digital dial gauges with the option for Bluetooth capability. Bluetooth capabilities allow for the seamless pairing of the jigs to our range of precision lapping & polishing systems including the PM6 and LP70.

Utilising the Bluetooth micrometer jig gauge, a preset removal amount can be set on the system and the plate drive will automatically switch off when it receives the signal from the gauge that the removal amount has been reached. This offers the operator the option to leave the process running safely whilst unattended, therefore freeing the operator for additional activities boosting productivity.

The Bluetooth jig also continually feeds back real time data to the system, which can then be exported for external analysis. The Bluetooth jig can also be utilised for end point thickness control.

JIG SPECIFICATIONS

Jig with vacuum chuckface	PP5	PP6	PP8	PP9
Outside diameter of jig	127mm	152mm	210mm	260/270mm
Outside diameter of chuckface	83mm	112mm	160mm	210mm
Total thickness variation (TTV) of sample post process	+/- 1.5um	+/- 2um	+/- 3um	+/- 4um
Range of jig loads applied to samples	0.2 - 2.8kg	0.2 - 4.8kg	0.2 - 6.7kg	0.2 - 9.5kg
Angular adjustment range	+/- 1.5 °	+/- 1.5 °	+/- 1.5 °	N/A
Total jig mass	5.4kg	8.4kg	14.4kg	19.9kg

Jigs can be customisable for specific sample dimensions. PP5 and PP6 Jigs can be supplied with extended legs to accommodate thicker/longer samples. An extra load of 7kg can also be applied.

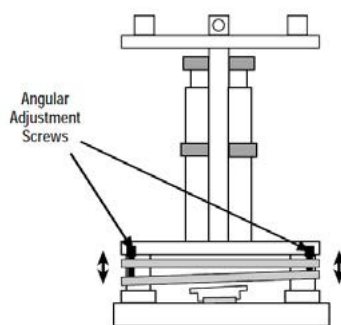
KEY JIG INFORMATION

Sample Alignment on Logitech Jigs

Once the sample has been successfully mounted on the jig, it is necessary to ensure that the sample is aligned with the jig's drive ring. The sample and drive ring must be aligned prior to starting the processing, to ensure the sample is not polished at an angle.

If the jig is being used with a vacuum system and has a vacuum chuckface mounted, the chuckface would be lapped parallel to the drive ring to ensure sample parallelism. If the sample is mounted to a fixture within the jig it would be aligned to the required angle utilising the Logitech LG2 Autocollimator to achieve the required angle.

PP series jigs are fitted or supplied with angular adjustment plates. This allows for the sample angle to be adjusted up to 3°. A custom made fixture can be provided for the adjustment of larger angles.



PP5 Precision Polishing Jig

Logitech developed a highly advanced precision jig for our highly automated, stand alone lapping & polishing system - DL81/82. The free rotational intelligent jig delivers the ultimate in sample preparation due to increase load capacity and accuracy of control. The jig load can be accurately set to meet the need of the application, in the range of 0.5kg - 14kg for the AJ100 (100mm jig), 0.5kg - 22kg for AJ150 (150mm jig), and 2-40kg for AJ200 (200mm jig).

The use of air pressure allows the maximum sample load to be increased, using the load mass of the full jig assembly. The load is controlled through the software interface and can be varied during the process to meet the needs of the most demanding applications.

The Bluetooth jig digital gauge provides real time feedback to the software system of the DL81/82, this can be exported for further analysis using standard analytical software packages. This highly valuable feature enables the operator to obtain accurate removal profiles during processing.

The Logitech AJ jigs are chemically resistant to standard chemicals used in CMP applications, including sodium hypochlorite (Na OCL).



AIR
DRIVEN
JIGS

JIG SPECIFICATIONS

Jig with vacuum chuckface	AJ100	AJ150	AJ200
Outside diameter of jig	152mm	210mm	260mm - drive ring 300mm - base plate
Outside diameter of chuckface	110mm	160mm	207mm
Total thickness variation (TTV) of sample post process	0 - 2um	0 - 3um	0 - 3um
Range of jig loads applied to samples	0.5 - 14kg	0.5 - 22kg	2 - 40kg 47kg option available
Total jig mass (<i>jig only</i>)	8kg	16.3kg	38kg

KEY JIG INFORMATION

Chemically Resistant

All Logitech jig’s come with the option to be chemically resistant to the standard chemicals used within CMP applications, including sodium hypochlorite (Na OCL).

This allows users within CMP applications to work safely with hazardous semiconductor materials without fear of corrosion or damage to the jig itself.

The AJ range jigs come chemically resistant as standard, as does their processing system DL81/82.

PLJ

LAPPING

JIGS



Logitech PLJ Precision Lapping Jigs are used to hold multiple “wafer geometry” or slide mounted specimens, while they are being processed on a Logitech lapping machine such as the PM6 or LP70.

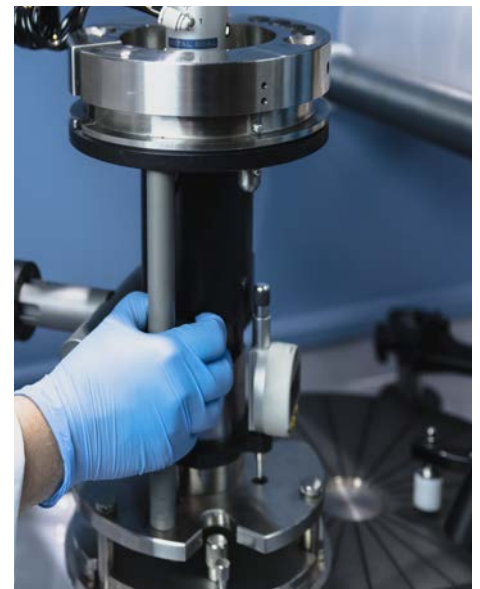
The jigs allow specimens to be lapped with a high degree of parallelism. The different jig chuckfaces enable you to hold a wide variety of specimen sizes, to meet the needs of your particular application.

PLJ2 and PLJ7 jigs can be used for a variety of applications where the requirement is to produce a highly uniform specimen with a precisely controlled final thickness. Due to their robust construction, they are suitable for both production and research environments.

Typical applications for the use of PLJ jig includes:

- Production of thin rock sections with PLJ2
- Production of large format thin sections with PLJ7 - can also be used for up to fourteen 28 x 28mm slides for production environments
- Backlapping of silicon wafers

PLJ jigs can also be used for routine lapping of optical components, polymers and calcified tissue sample preparation.



JIG SPECIFICATIONS

Jig with vacuum chuckface	PLJ2	PLJ7
Outside diameter of jig	127mm	189mm
Outside diameter of chuckface	103mm	169mm
Total thickness variation (TTV) of sample post process	+/- 2um	+/- 2um
Achievable parallelism	2um over 102mm (4")	4um over 152mm (6")
Total jig mass	5.5kg	12kg

Chuckfaces are not convertible. Specimen dimensions must be specified at time of order. Special chuckface patterns to suit for your own particular requirements may be supplied on request.

KEY JIG INFORMATION

Vacuum Chuck Mounting Blocks

These mounting blocks are ideal for holding samples for polishing, where no thickness control or angular adjustment is needed. Our precision engineered vacuum chucking facilities (VCB2 and VCB7) provide a choice of chuckface patterns. The supplied weights provide polishing speed control over a range of materials and polishing media.

Vacuum chuck mounting blocks are ideal for polishing thin sections such as soils, coals, rocks, concretes and wafer planarization.



Precision Engineered:
All of our jigs are
manufactured in-house
by our dedicated
engineers.





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