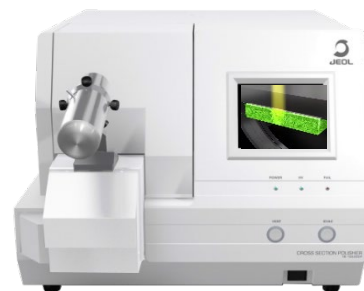


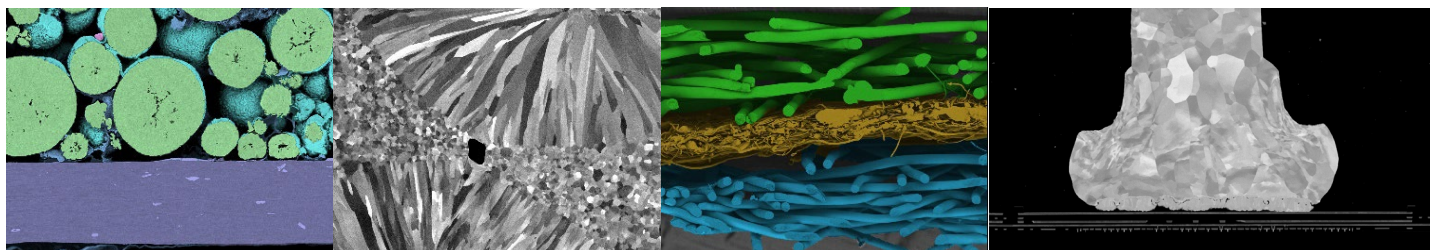
# CP (IB-19530CP) Holders and Supplies

JEOL Ion Beam Cross Section Polisher™ (CP) is a broad ion beam milling instrument for specimen preparation. The instrument generates a broad argon ion beam oriented perpendicular to a specimen that is placed under a shielding plate. The portion of the specimen that is exposed to the beam is milled away leaving a pristine cross section free of artifact or distortion.

The CP is widely used for preparing specimens for study using SEM, EBSD, EPMA and Auger.




Ion beam intensity can be varied up to 8kV for precise tuning to the material being prepared. Additional functions such as intermittent milling (duty cycle) and fine milling through reduction in accelerating voltage at the end provide both flexibility and further minimize artifacts in the prep. These features allow optimization for a variety of specimen types such as: polymers, paper, coatings, ceramics, superalloys, eutectic phases, semiconductor devices and even biological specimens etc.





Milling rates are fast, at  $\geq 500\mu\text{m}/\text{hour}$  (Si) and can be increased by 2.4X by adding the High Throughput Milling System option. Setup is easy through the touch panel interface and there is an 'Auto Start' function for unattended operation.

The CP includes a multipurpose specimen stage with a variety of holder options such as rotation holder for flat/planar surface milling. This guide lists the main options, holders, consumables and supplies compatible with our IB-19530CP Cross Section Polisher (CP).



## Standard CP Holder and CP Option

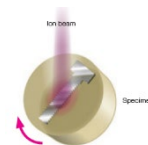
Part Number	Image	Description
<b>IB-11560MBSH</b> <b>Magnetic Specimen Holder</b>  Included with CP (Standard Holder)		Maximum Specimen Size: 11mm x 10mm x 2mm Protrusion: adjustable $\pm 1\text{mm}$  Specimens mount on Blocks Includes 5 Specimen Blocks (P/N: 804420734)  Uses Magnetic Shielding Plate, Mask (P/N: 804437742)
<b>IB-10500HMS</b> <b>High Throughput Milling System</b>		Optional - at time of purchase  Extends maximum accelerating voltage from 8 kV to 10kV. Increases milling speed from $500\mu\text{m}/\text{hr}$ to $\geq 1200\mu\text{m}/\text{hr}$ (Si)

### Holdings for Cross Section Milling

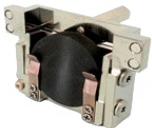

Part Number	Image	Description
<b>IB-11610NMSHA</b> Non-Magnetic Specimen Holder  Includes 1 Shielding Plate and Specimen Mounting Tool		Easy specimen mount via spring clip and compatible with BD mode  Maximum Specimen Size: 11mm x 8mm x 3mm Protrusion: adjustable $\pm 0.5$ mm  Uses Non-Magnetic Shielding Plate, Mask (P/N: 804448248)  Base Fits SEM Stages: JSM-IT800, JSM-IT700HR, JSM-IT510
<b>IB-11730LMH</b> Large Area Milling Holder  Includes 1 Shielding Plate		For Wide Area Milling up to 8mm (width)  Maximum Specimen Size: 25mm x 15mm x 10mm Protrusion: adjustable $\pm 1.5$ mm  Uses Magnetic Shielding Plate, Mask (P/N: 804437742)

### Holdings for Flat Surface and Rotation Milling

Part Number	Image	Description
<b>IB-11550LSRH</b> Large Specimen Rotation Holder		For Flat Surface/Planar milling  Maximum Specimen Size: 40mm (d) x 15mm (h)  Tilt Range: 0° to 90° Rotation Speed: ~3rpm
<b>IB-12540CKIT</b> Cross Section Kit Using Rotation Holder		For wire or powder specimens. Attach this accessory to the Large Specimen Rotation Holder (IB-11550LSRH), for preparing cross section while rotating specimen.  Maximum Specimen Size: 1mm (d) x 1mm (h)





### Holder Accessories for Carbon Coating

Part Number	Image	Description
<b>IB-12510CCH</b> Carbon Coating Holder  Includes 5 carbon targets.		For adding a conductive carbon coating to the specimen after milling.
<b>IB-12530CCA</b> Carbon Coating Adapter  Includes 5 carbon targets		Attach this accessory to the Large Specimen Rotation Holder (IB-11550LSRH), for adding a conductive carbon coating to the specimen after milling.
6001 54394 (5 pieces) Carbon Target		Carbon Target 25.4mm (d) x 5mm (h)





**Holders for Cross Section Milling**

Part Number	Image	Description
<b>IB-11570LSH</b> <b>Large Specimen Holder</b>  Includes 1 Shielding Plate		<p>Easy specimen mount via spring clip for larger specimen sizes.</p> <p>Maximum Specimen Size: 20mm x 7mm x 3mm  Protrusion: Fixed (100µm-default, 50µm-option)  Uses Magnetic Shielding Plate, Mask (P/N: 804437742)</p> <p>Requires Additional Base (P/N: IB-11620TVBA)  Specimen Mounting Tool (P/N: 804438668) Recommended</p> <p>Not Compatible with BD Mode or Semi-in-lens OL. Remove specimen from holder prior to imaging.</p>
<b>IB-11580MSH</b> <b>Magnetic Specimen Holder</b>  Includes 1 Shielding Plate		<p>Easy specimen mount via spring clip</p> <p>Maximum Specimen Size: 11mm x 8mm x 3mm  Protrusion: Fixed (100µm-default, 50µm-option)  Uses Magnetic Shielding Plate, Mask (P/N: 804437742)</p> <p>Requires Additional Base (P/N: IB-11620TVBA)  Specimen Mounting Tool (P/N: 804438668) Recommended</p> <p>Not Compatible with BD Mode or Semi-in-lens OL. Remove specimen from holder prior to imaging.</p>
<b>IB-11620TVBA</b>  Base Holder		<p>Base - for:  Magnetic Specimen Holder (IB-11580MSH)  Large Specimen Holder (IB-11570LSH)</p> <p>Base Fits SEM Stages: JSM-IT800, JSM-IT700HR, JSM-IT510</p>
<b>804438668</b> Specimen Mounting Tool		<p>Mounting tool for:  Magnetic Specimen Holder (IB-11580MSH)  Large Specimen Holder (IB-11570LSH)</p> <p>Supports setting specimen into holder.</p>
<b>IB-11590MSHA</b> <b>Magnetic Specimen Holder</b> Adjustable  Includes 1 Shielding Plate And Specimen Mounting Tool		<p>Easy specimen mount via spring clip</p> <p>Maximum Specimen Size: 11mm x 8mm x 3mm  Protrusion: adjustable <math>\pm 0.5</math>mm</p> <p>Uses Magnetic Shielding Plate, Mask (P/N: 804437742)</p> <p>Not Compatible with BD Mode or Semi-in-lens OL. Remove specimen from holder prior to imaging.</p> <p>Base Fits SEM Stages: JSM-IT800, JSM-IT700HR, JSM-IT510</p>



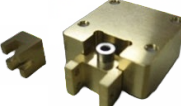
### Shielding Plates

Part Number	Image
Magnetic Shielding Plate 804437742	
Non-Magnetic Shielding Plate 804448248	

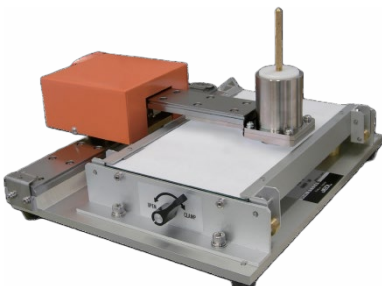




### Specimen Mounts and Consumables

Part Number	Image	Description
JU2006558 Specimen Mount, Block (Mo)  For Standard CP Holder (IB-11560MBSH)		Mo Specimen Mount (Pkg of 5) 11.5mm x 8mm x 6mm (h)  For Standard CP Holder (IB-11560MBSH)
JU2007996 Specimen Mount, Block (Brass)  For Standard CP Holder (IB-11560MBSH)		Brass Specimen Mount (Pkg of 5) 11.5mm x 8mm x 6mm (h)  For Standard CP Holder (IB-11560MBSH) Cost effective option versus JU2006558.
JU2012801 Specimen Mount, Block (Brass)  For IB-11730LMH Large Area Milling Holder		Brass Specimen Mount (Pkg of 5) 20mm x 12mm x 4mm (h)
JU2012802 Specimen Mount, Block (Brass)  For IB-11730LMH Large Area Milling Holder		Brass Specimen Mount (Pkg of 5) 20mm x 12mm x 7mm (h)





### Accessories for Specimen Preparation

Part Number	Image	Description
Epoxy (G2) GAT-601.07270		G2 Epoxy with Hardener for mounting Specimens.
Dicing (Wafer) Tape JU2012469		Backing tape useful for holding a specimen during cutting or polishing preparation
Sample Polishing Block JU2011470		Sample Polishing Block holds specimens steady during polishing/grinding. Fits specimen blocks JU2006558 and JU2007996.




### Accessories for Specimen Preparation

Part Number	Image	Description
Handy-Lap Polisher (HLA-2) SM-780157800		Manual polisher. For sizing and preparation of specimens prior to cross section milling.  Includes Polishing Rod and Vise (P/N 781113351) for holding specimen in place during polish
Vise for HLA-2, 90° (781113351)		Vise fits the Polishing Rod of the HLA-2 for holding specimens.
Vise for HLA-2, 45° (783108028)		Vise fits the Polishing Rod of the HLA-2 for holding specimens.  Designed to polish the edge with a tilt angle of 45°.
Vise for HLA-2, 30° (783108028)		Vise fits the Polishing Rod of the HLA-2 for holding specimens.  Designed to polish the edge with a tilt angle of 30°.
Vise for HLA-2, 90° (781114845)		Vise fits the Polishing Rod of the HLA-2 for holding a specimen mounted on CP Block.

### Accessories for Setting Protrusion Value

Part Number	Image	Description
IB-11640PTM100 Protrusion Amount Setting Tool, 100µm		Protrusion Amount Setting Tool for Magnetic Mask, Fix at 100µm
IB-11650PTM50 Protrusion Amount Setting Tool, 50µm		Protrusion Amount Setting Tool for Magnetic Mask, Fix at 50µm
IB-11660PTNM100 Protrusion Amount Setting Tool, 100µm		Protrusion Amount Setting Tool for Non-Magnetic Mask, Fix at 100µm
IB-11670PTNM50 Protrusion Amount Setting Tool, 50µm		Protrusion Amount Setting Tool for Non-Magnetic Mask, Fix at 50µm

Options for CP

Part Number	Image	Description
Precise Positioning Microscope (783120664)		Ex-situ optical system (Nikon) for aligning micron sized features. Positioning accuracy is ~3 µm.  Includes: Optical Microscope, Objective Lens, Vertical Fixing Holder, XY stage and White LED Illuminator.
Digital camera (783120974)		Digital camera for Microscope
IB-14510MCAM Milling Monitoring Camera		CCD Camera for monitoring the milling process in real-time. Magnification from 20X to 100X

Contact Sales for pricing and compatibility with your model CP.