



Quorum PP3000T/PP3010T shuttles and stubs

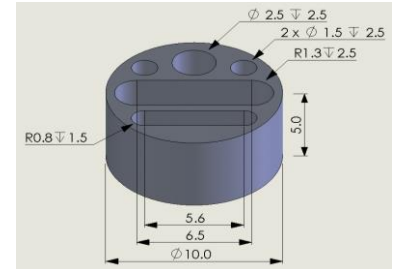
There are shuttles and stubs available for the PP3000T and PP3010T to meet most applications. Specific holders can be designed on request.

Note: all have bayonet fittings and are not compatible with old screw-fit transfer devices (some screw-fit shuttles are still available on request).



AL200077B

Specimen shuttle, two supplied as standard with the PP3010T. The locking screw allows different stubs to be used (shown with the 11541 universal stub).



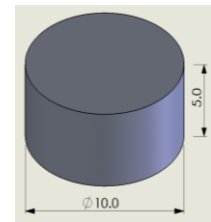
11541-5

Universal cryo stub. 10 mm \varnothing x 5 mm high. Packet of five supplied with the PP3010T. The holes can be used for liquids and the slots for cross-sectioning solid material which can be held in place by cryo glue (supplied with the PP3010T). The reverse side of the 11541 is smooth and suitable for mounting flat specimens.



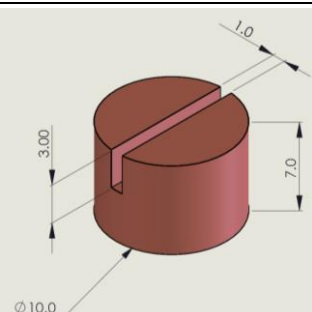
E7449-5

Universal cryo stubs. 10 mm diameter x 7.5 mm high. Packet of five supplied with the PP3010T. These taller stubs are useful if a closer working distance is required.



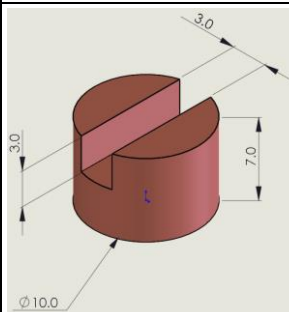
Blank specimen stub, 5 mm high.

E7402 = aluminium **E7403** = copper (Packet of 10). Packet of 10 supplied with the PP3010T. Note: users can modify these to suit requirements (drill holes, cut slots etc.)



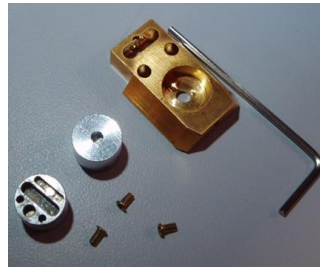
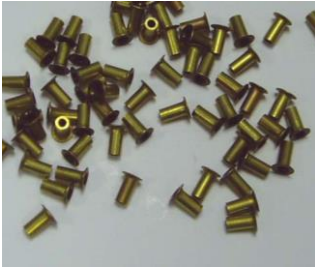
E7407

Copper stub with 1 mm wide x 3 mm deep slot. Packet of 5. For cross-fracturing flat specimens. The reverse side is blank.



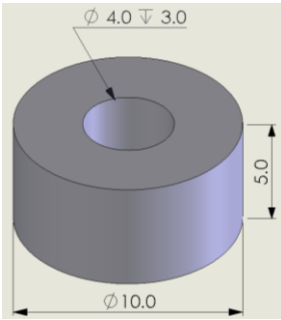
E7406

Copper stub with 3 mm wide x 3 mm deep slot. Packet of 5. For cross-fracturing flat specimens. The reverse side is blank.

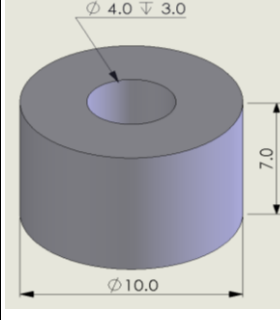


328116510 freezing rivets for liquids (Packet of 100). If mounted raised from the specimen stub can give faster freezing. Can be used singularly (with a liquid drop on the top) with the two rivets face-to-face (held together by glue or wax or by surface tension).

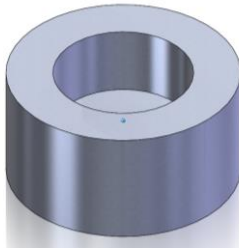
The rivets push fit into the small holes of the 11541 universal stub.



E7447
5mm high stub with single hole (4 mm ϕ x 5mm)



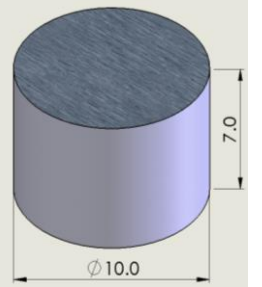
E7448
7 mm high stub with single hole (4 mm ϕ x 5 mm)



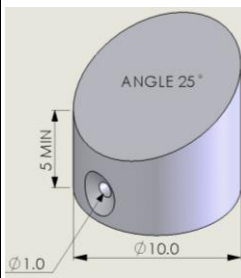
13736
"Ice cream" stub. Ideal for working with large pre-frozen specimens, such as ice cream. 5 mm high stub with single hole (6 mm ϕ x 3 mm deep).



E7405
Clamping stub. Useful for flat, hard specimens. Clamping can be from both sides (as above) from one side only (by removing one clamp)



12442
7 mm high stub with roughen surface. Allows better contact between cryo glues and the surface of the stub (note: other flat stubs can be abraded with Emery paper to give this effect)



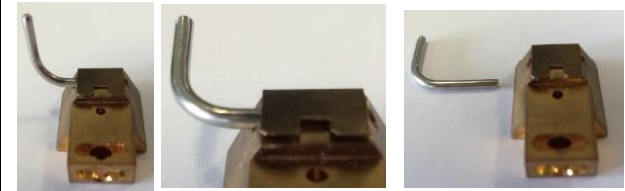
10694
Angled stub. For pre-tilting of specimens so that the cold stage does not need to be tilted. Note: normally (and always with FIB/SEM) the PP3010T is set up to allow tilt up to 60°.



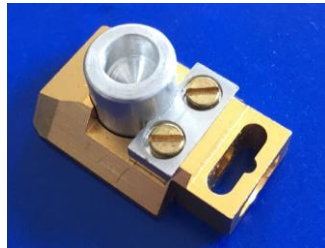
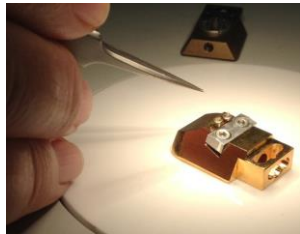
13054
Shuttle for high pressure freezer "top hat" (3 mm) specimen holders. Can also be used to clamp small

flat specimens of a similar size.

Note: holder for 6 mm high pressure freezer "top hats" is available on request



10245. Shuttle for Balzer-style freeze-fracture planchettes. Can also be used to clamp small flat specimens. The lever is removed before transfer.

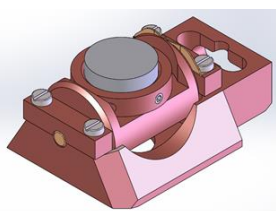
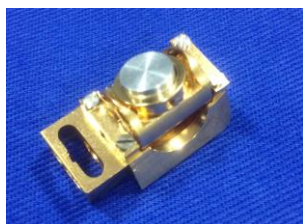


20530

Rivet shuttle for two 328116510 rivets. An alternative method to mounting in the universal stub (see: 328116510 above). Can be used to pre-freeze rivets and transfer under LN2. The clamp is sprung-loaded and secured by two hexagonal bolts.

20529

Shuttle for 10 mm stub. Similar to the AL200077B (see above), but the 10 mm Ø stub is locked into place from above using two hexagonal bolts. Useful for handling pre-frozen specimens mounted on 10 mm Ø stubs (shown with 13736 ice cream stub).

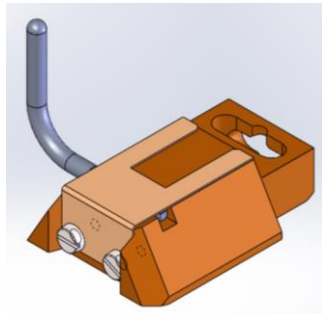


13419

Tilt-rotate shuttle. The angle of tilt and degree of rotation can be altered on the preparation chamber cold stage using PP3010T knife/probe as a lever. Useful for some FIB applications where the specimen needs to be rotated through 180°.

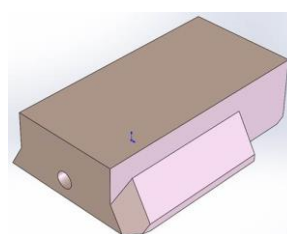
12434

Blank shuttle (useable area: 22 x 13 mm). Useful for large or multiple specimens. Can be tailored (e.g. holes drilled and slots cut) to suit specific specimens



12013

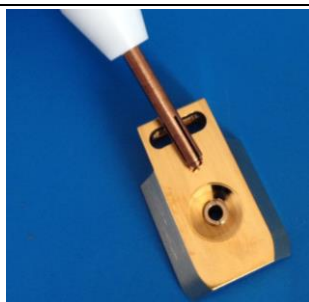
For clamping, large flat specimens (the lever is used to open and close the clamp, but is normally removed before transfer). Can also be used for pre-frozen specimens.



20718

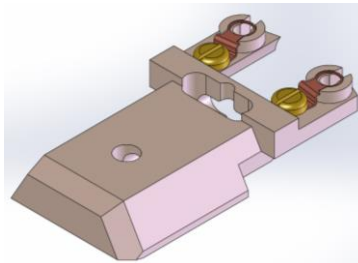
specimens.

Extended length blank shuttle 27 x 13 mm). Useful for large or flat specimens (e.g. plant leaves). Can be tailored by the user for specific



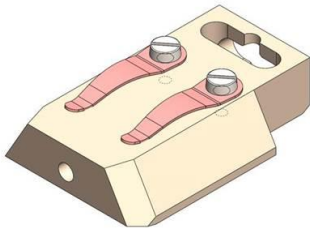
13359

Shuttle for holding a 3 mm TEM grid. Also for cryo-STEM – if detector is mounted below the SEM cold stage. (Shown with grid locating tool).

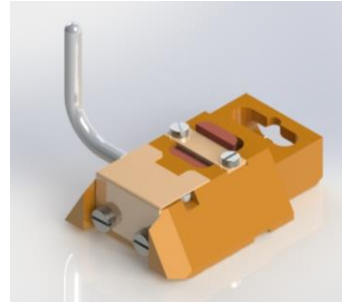


11477

Zeiss STEM shuttle for two 3 mm grids. Note: for use with older models (pre-2013) side-entry Zeiss STEM detectors only.

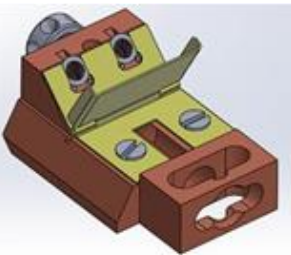


20720
Shuttle for large, hard, flat specimens (with light microscope-style stage clips).

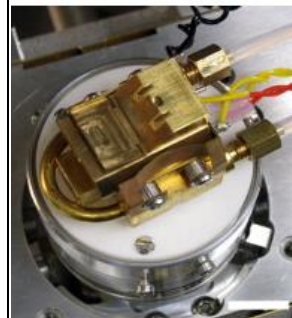


13524
Double clamping shuttle. For clamping hard, flat specimens. Suitable for flat mounting of specimens (front of shuttle shown with

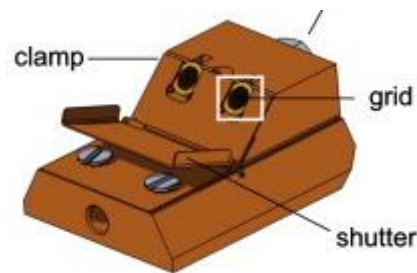
clamp lever) and cross-fracturing (sprung-loaded vice).



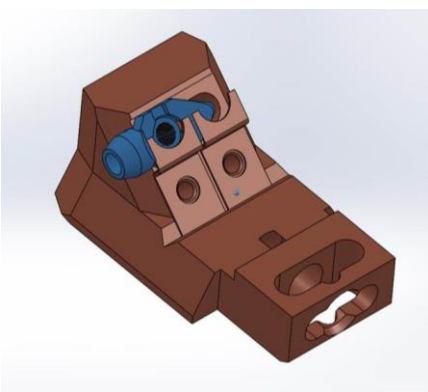
12406
Shuttle to hold two TEM autogrids™ for cryo-FIB/SEM applications. Includes cold shield (shutter) which is closed during transfer and then opened once in the microscope by briefly inverting the shuttle.
autogrids™ not supplied.



12406 shown mounted on the PP3000T /PP3010T cold stage.



12922
Cryo shuttle for FEI Polara™ cartridge only.



25276
Clamping shuttle for large, hard specimens. The jaws of the clamp are pushed against the specimen and held by tightening the locking screw

