



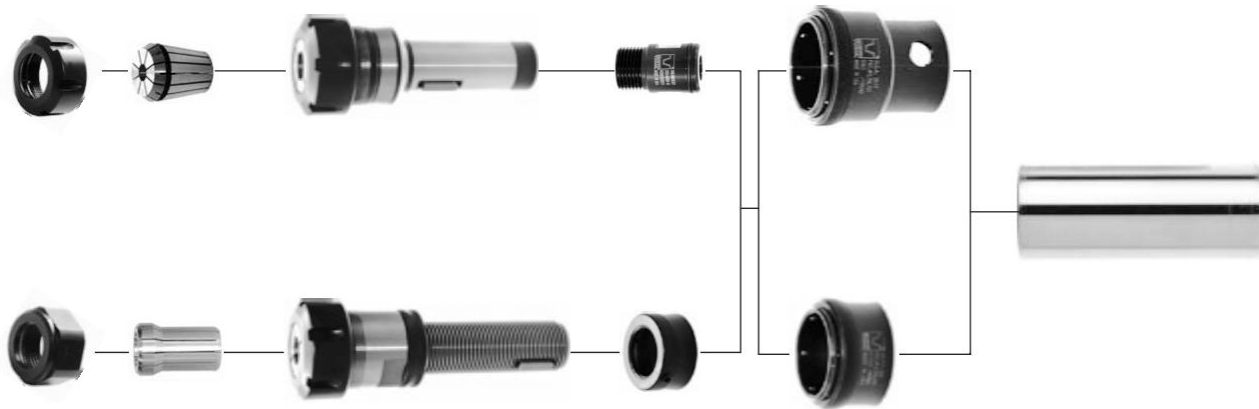
T.M. SMITH TOOL
INTERNATIONAL CORPORATION

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(586) 468-1465 • (800) 521-4894
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BALL-LOCK™

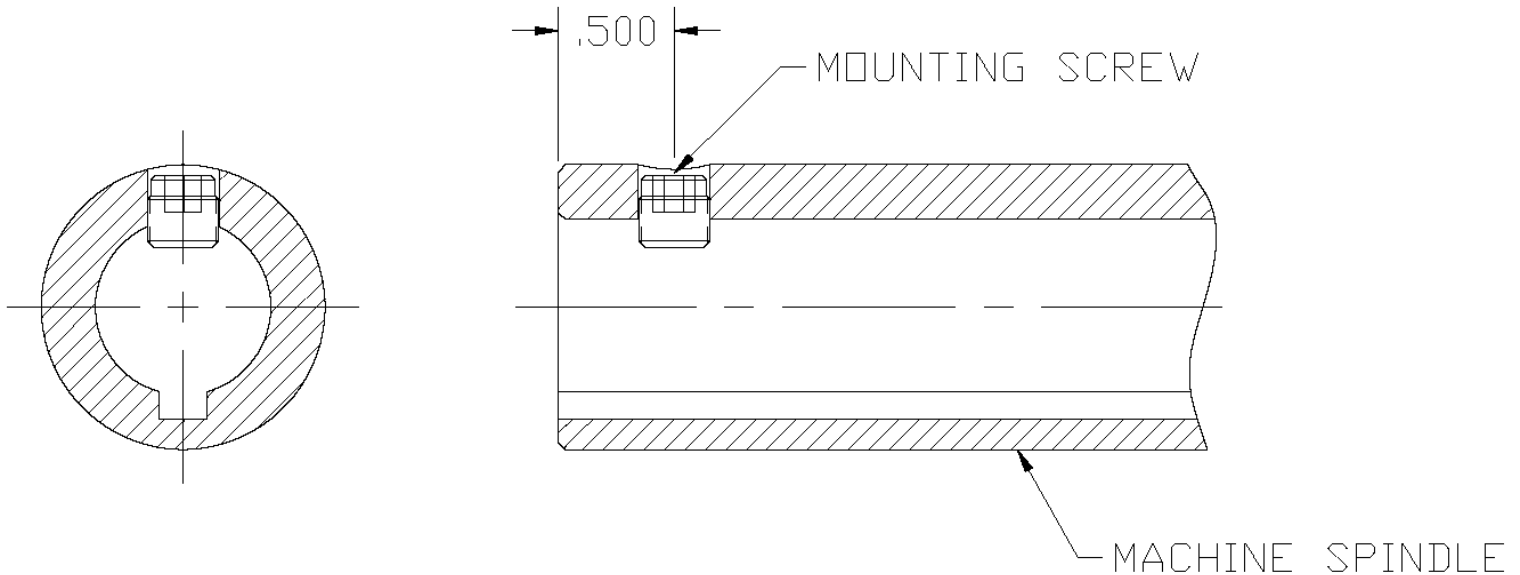
QUICK CHANGE DRILLING SYSTEM

USAGE AND DIRECTIONS



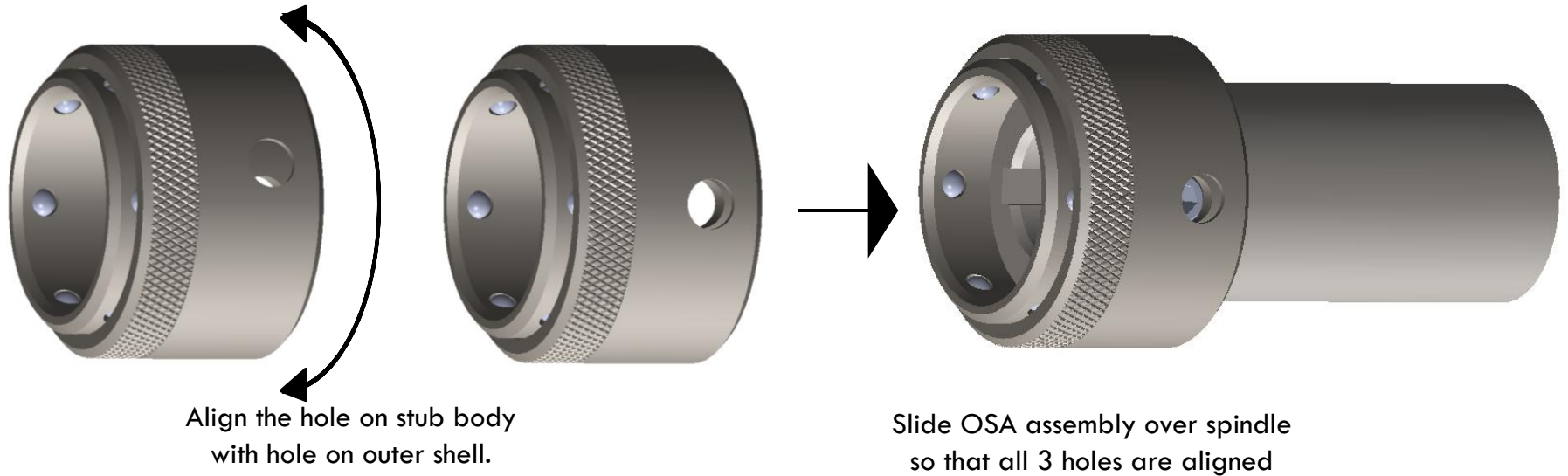
OSA Ball-LockTM Stub Series

Spindle Mounting Screw is .500 back from spindle face



Without the tool holder inserted, install the mounting screw with an Allen wrench so that it is below the O.D. of spindle, as shown...

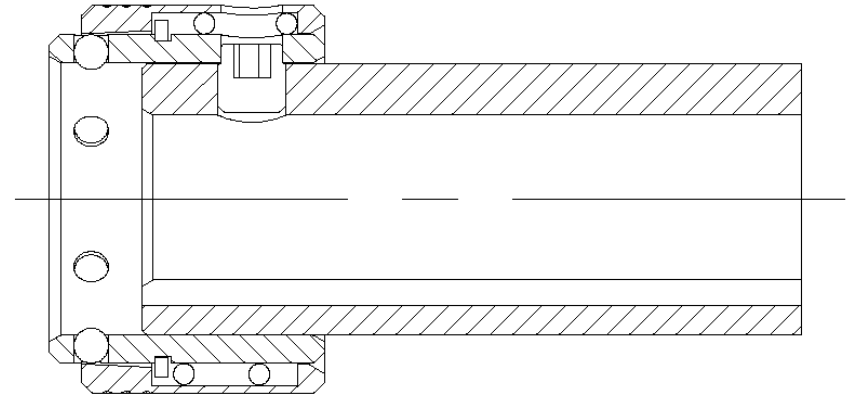
Align the hole on the stub body with the hole on the outer shell. Slide the OSA assembly over the spindle so that holes are aligned with the tapped hole in the spindle.



Locking OSA assembly to Spindle

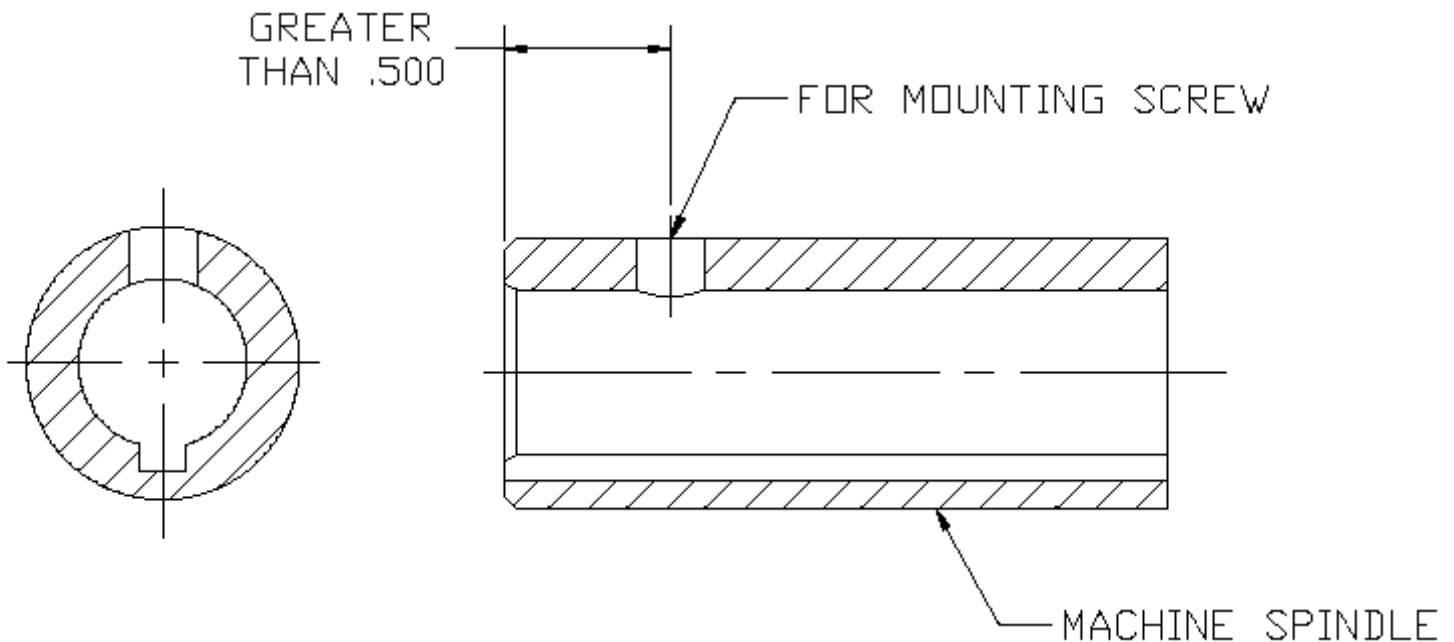


Access the mounting screw through the aligned holes with an Allen wrench. Back screw the out until it stops, clearing the spindle I.D. and locking the OSA assembly in place, as shown.



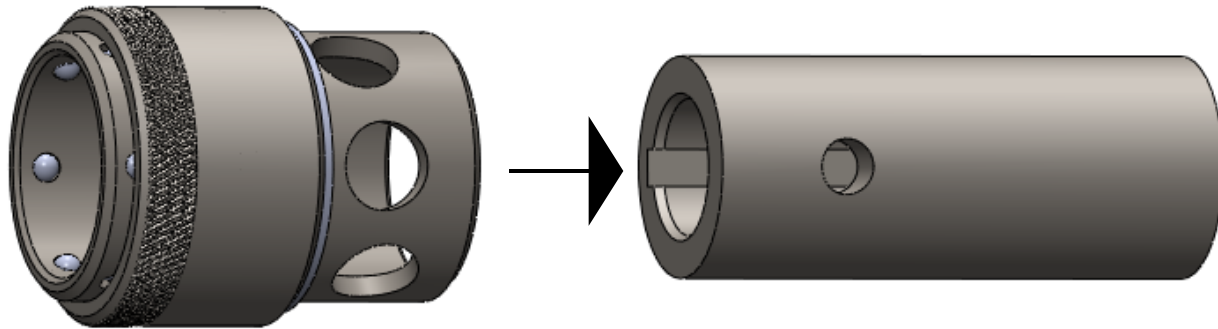
OSA Ball-Lock™ Standard Series

Spindle Mounting Screw is Greater than .500 back from spindle face

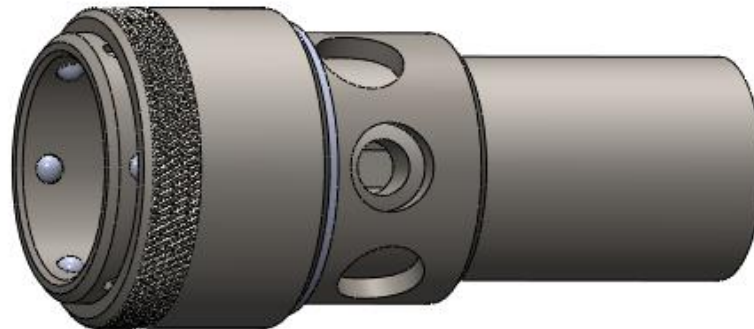


OSA Ball-Lock™ Standard Series

Spindle Mounting Screw is Greater than .500 back from spindle face



Slide the OSA over the spindle, aligning one of the 3 mounting holes with the tapped hole in the spindle.

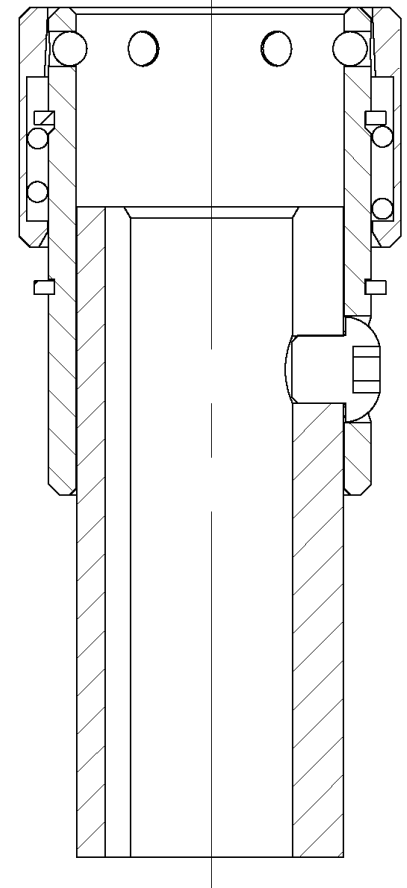


Mounting Hole Options

Note the (3) possible mounting holes in the OSA assembly.
The OSA should be mounted on the spindle using the hole that allow the outer and inner shell of OSA to be flush when tool holder is inserted and locked in place.



Forward Locking Position



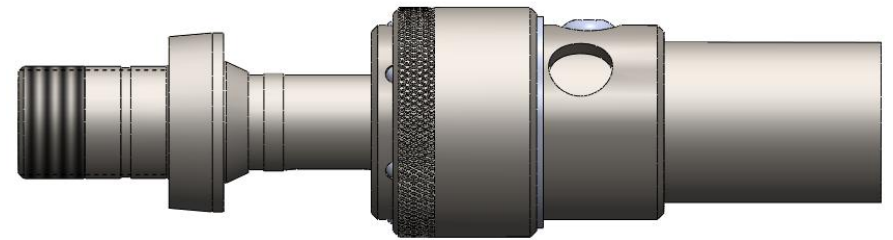
Mounting OSA to Spindle



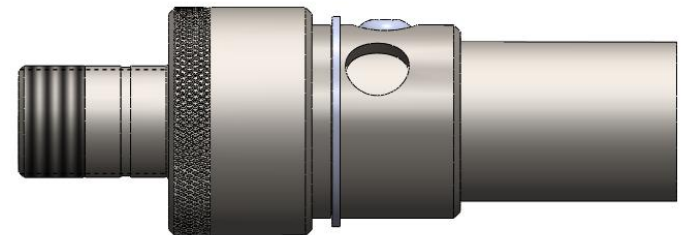
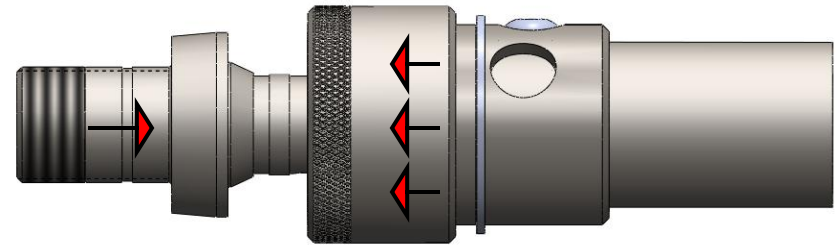
Install curved washer over mounting hole, followed by button-head screw , as shown



Inserting Tool Holder for both, Stub and Standard, Ball-Lock™ OSA's

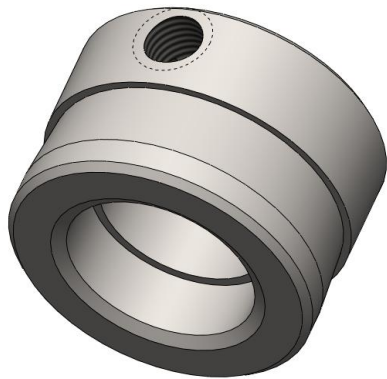


With the outer shell pulled forward, insert the tool holder into the spindle, once fully inserted, release the OSA outer shell, allowing it to fall into the locked position, securing the tool holder in place.




Ball-Lock™ Conversion Nut

OSA Ball-Lock™ Conversion Nuts can be used on standard ACME shank tooling.



Replace the ACME adjustment nut with the Ball-Lock™ conversion nut and follow Instructions on previous pages.



**For additional information,
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