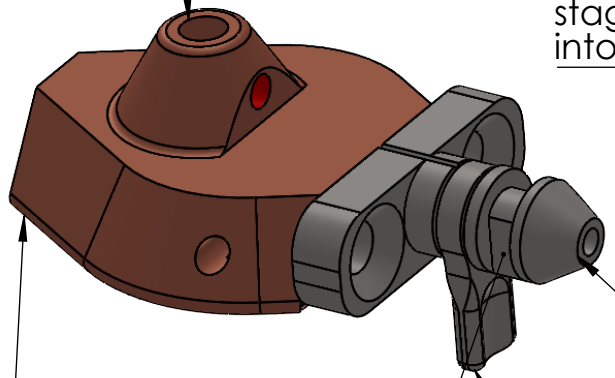


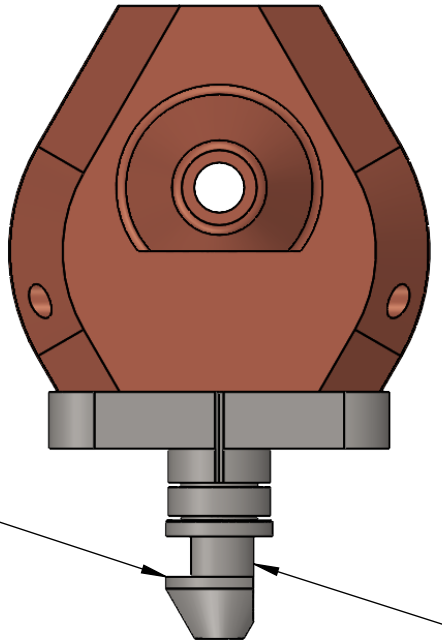
Sample is loaded into this hole

Puck

Stem

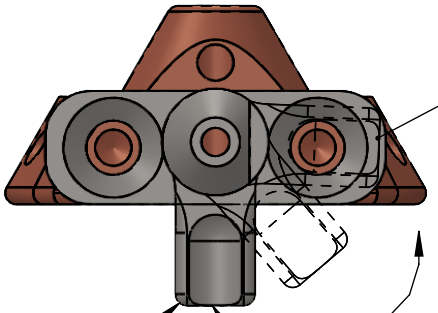
Flag

Grooves in stem to catch the latch on the puckulator



When puckulator is rotated to this position the flag is up, the puck is unlocked from stage and locked into puckulator

When puckulator is rotated to this position the flag is down, the puck is locked into stage, and unlocked from puckulator



Flag is up

This flag rotating is **CRITICAL** to the function of the puck and puckulator

Flag rotates to lock/unlock puck into stage

Flag is down

Please see other pages if confused

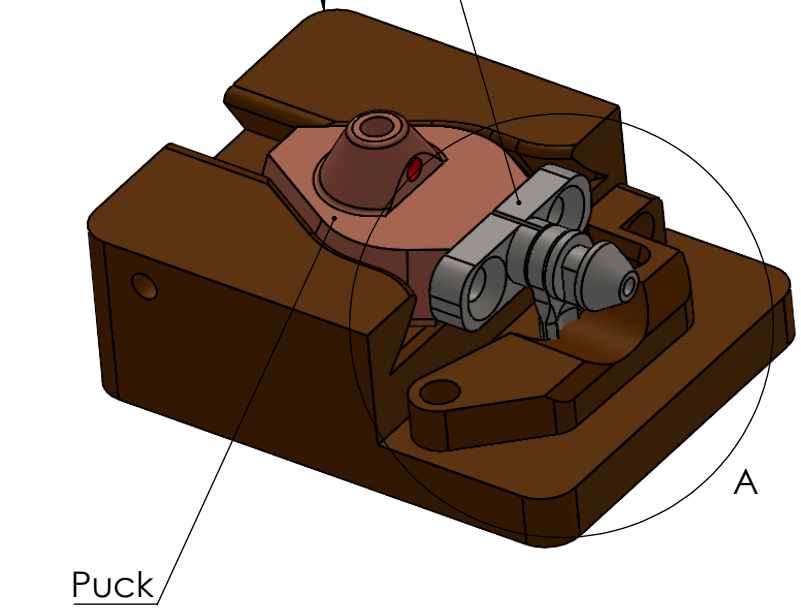
UNLESS OTHERWISE STATED, ALL DIMENSIONS ARE IN INCHES
X.X = ± 0.1
X.XX = ± .01
X.XX = ± .005

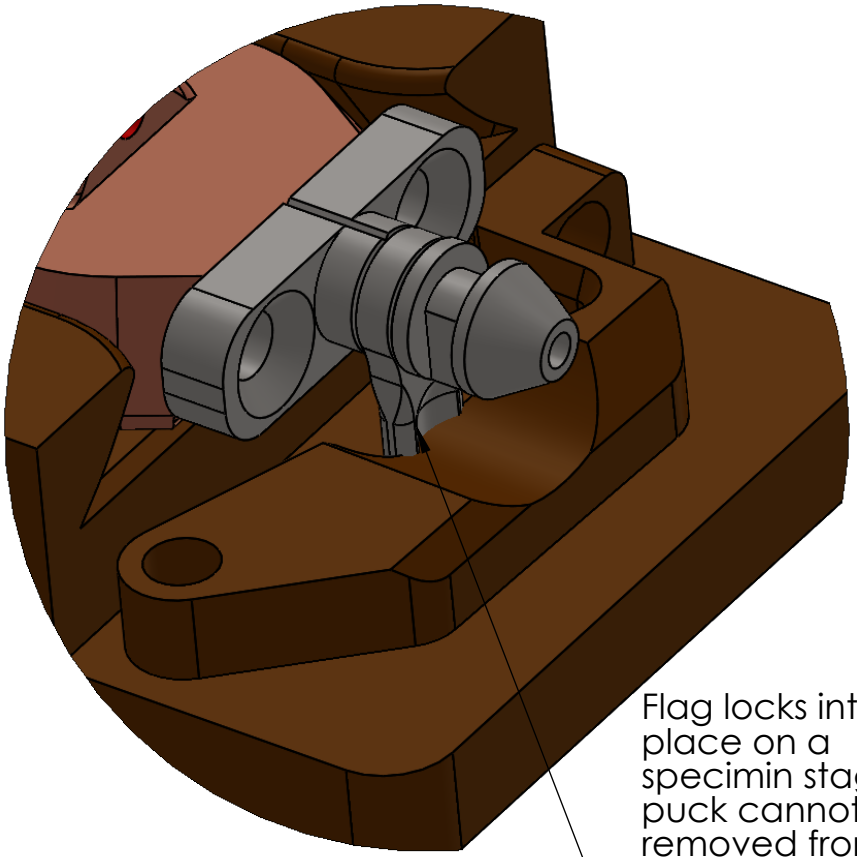
**PNNL** Designer: Alex Smith

Drawing Name:

**Puck in stage assembly**

SCALE: 1:1 | 4/24/2024 | SHEET 1 OF 7



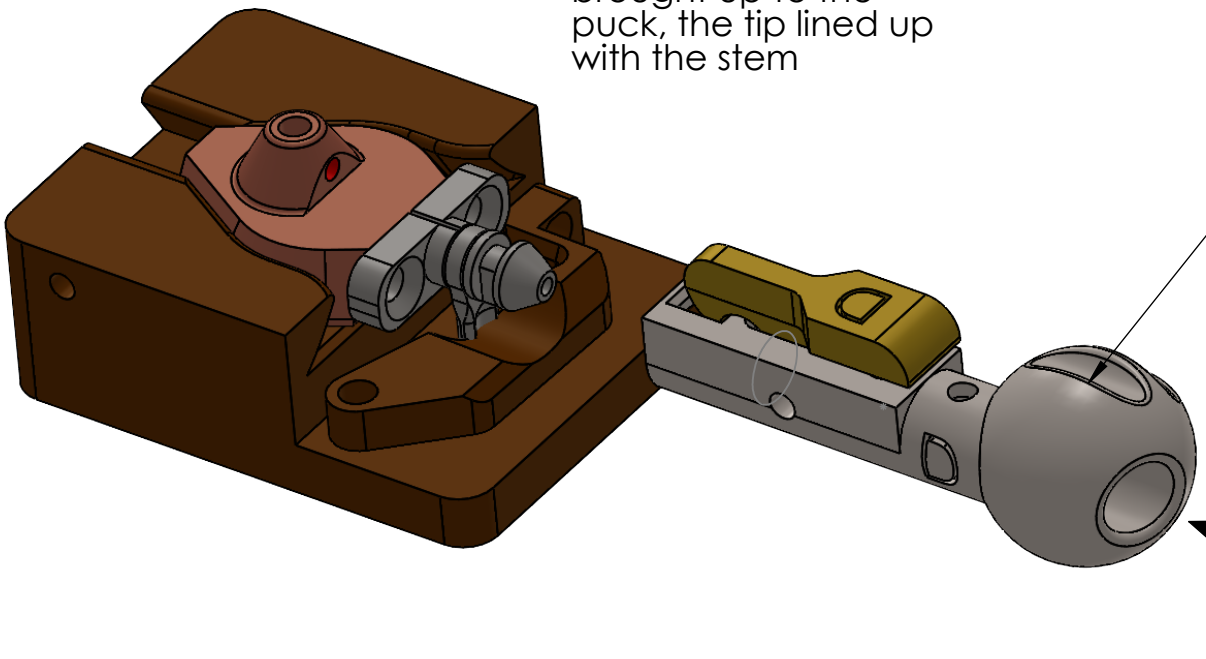



DETAIL A
SCALE 4 : 1

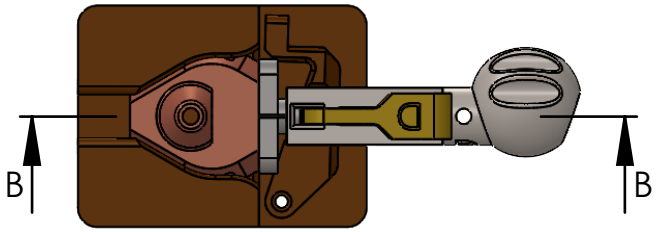
Flag locks into place on a specimin stage the puck cannot be removed from the stage unless the flag is rotated out of the way of the obsticle

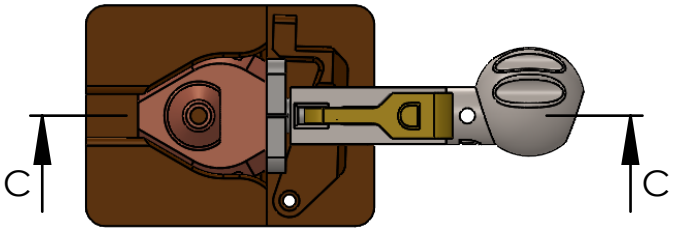
Specimin stages are usually located inside machines and loading a sample requires the use of a transfer rod with a puckulator.

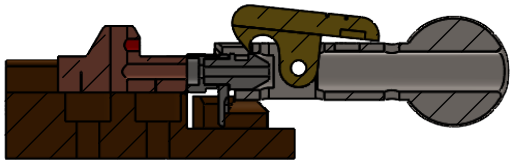
| | | |
|---|---|---|
| UNLESS OTHERWISE STATED, ALL DIMENSIONS ARE IN INCHES<br>X.X = ± 0.1<br>X.XX = ± .01<br>X.XX = ± .005 | **PNNL** Designer: Alex Smith<br>Drawing Name:<br>**Puck in stage assembly** | |
| | SCALE: 1:2 | 4/24/2024 SHEET 2 OF 7 |




| | | |
|---|---|---|
| UNLESS OTHERWISE STATED, ALL DIMENSIONS ARE IN INCHES<br>X.X = ± 0.1<br>X.XX = ± .01<br>X.XX = ± .005 | **PNNL** Designer: Alex Smith<br>Drawing Name:<br>**Puck in stage assembly** | |
| | SCALE: 1:1 | 4/24/2024 SHEET 3 OF 7 |

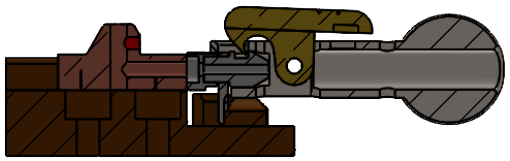


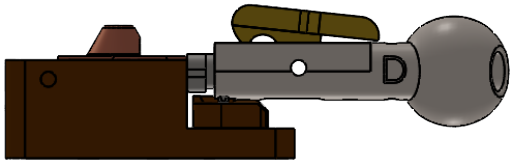



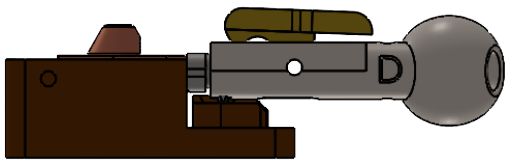
SECTION B-B

The clamp slides over the stem and locks into the notch. Holding it in place. the clamp is kept in tension with a spring (not shown in this view)

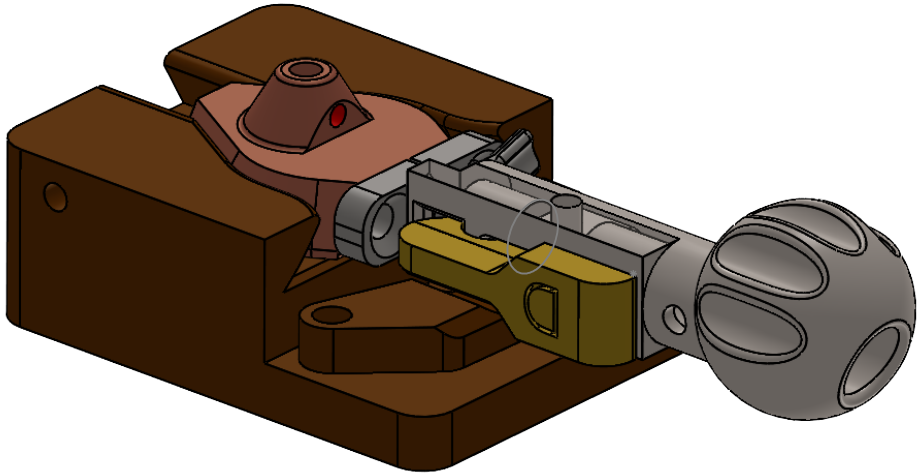


SECTION C-C




| | |
|---|---|
| UNLESS OTHERWISE STATED, ALL DIMENSIONS ARE IN INCHES<br>X.X = ± 0.1<br>X.XX = ± .01<br>X.XX = ± .005 | **PNNL** Designer: Alex Smith<br>Drawing Name:<br>**Puck in stage assembly**<br>SCALE: 1:1 \| 4/24/2024 \| SHEET 4 OF 7 |



The Puckulator is rotated counterclockwise which pushes the flag up, releasing it from the stage.

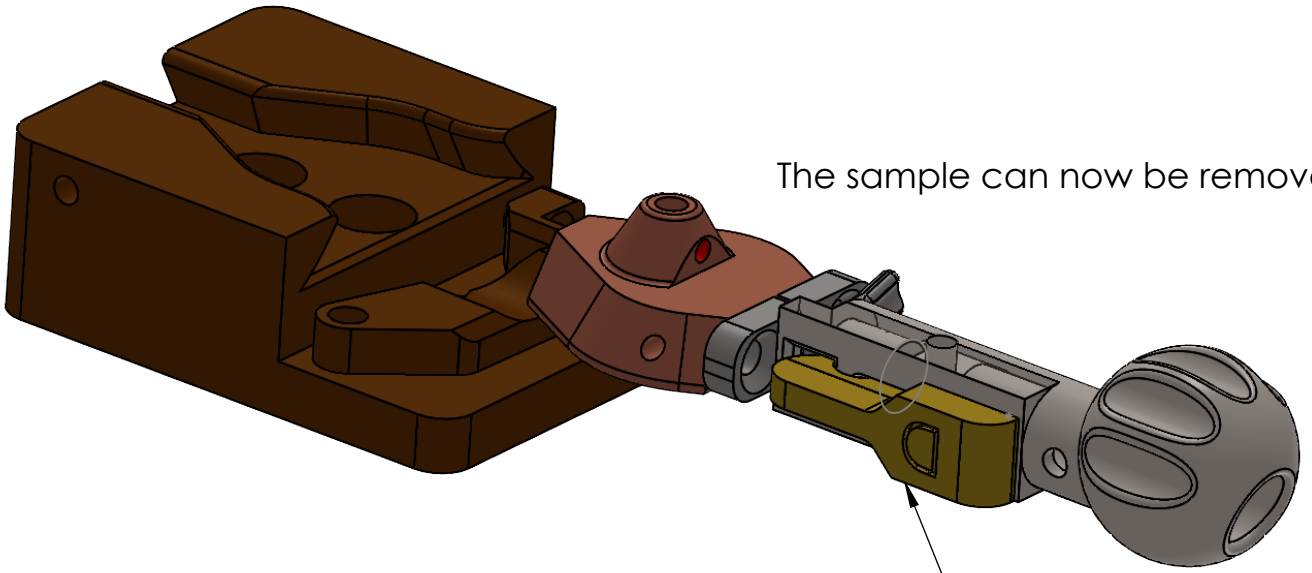
UNLESS OTHERWISE STATED, ALL DIMENSIONS ARE IN INCHES
X.X = ± 0.1
X.XX = ± .01
X.XX = ± .005

**PNNL** Designer: Alex Smith

Drawing Name:

**Puck in stage assembly**

SCALE: 2:1 | 4/24/2024 | SHEET 5 OF 7



The sample can now be removed from the machine

This clamp can then be pressed with a thumb to release the sample from the puckulator

UNLESS OTHERWISE STATED, ALL DIMENSIONS ARE IN INCHES
X.X = ± 0.1
X.XX = ± .01
X.XX = ± .005

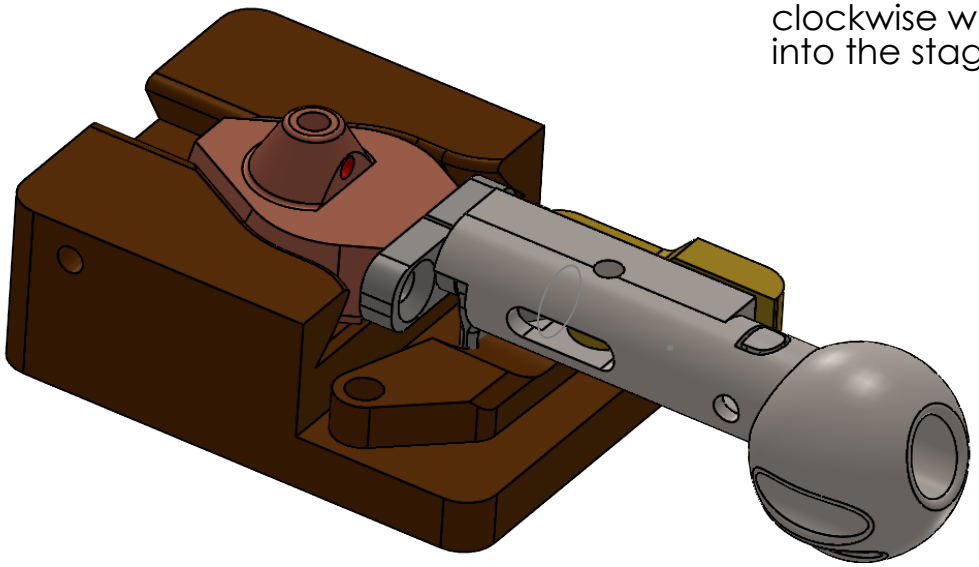
**PNNL** Designer: Alex Smith

Drawing Name:

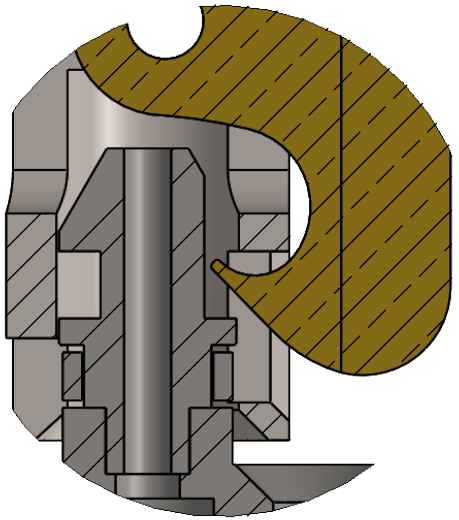
**Puck in stage assembly**

SCALE: 2:1 | 4/24/2024 | SHEET 6 OF 7

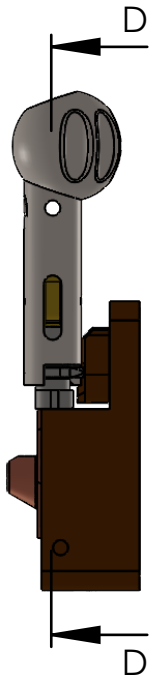
When inserting the sample, the puckulator is twisted clockwise which twists the flag back into place. Locking it into the stage

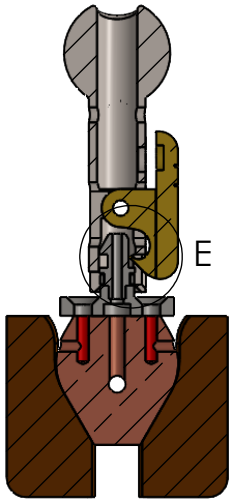


When the puckulator is clockwise, the clamp is no longer in the notch on the stem and the puckulator can be pulled away and out of the machine. leaving the puck in the stage.



DETAIL E
SCALE 5 : 1




SECTION D-D
SCALE 1 : 1

| | | |
|---|---|---|
| UNLESS OTHERWISE STATED, ALL DIMENSIONS ARE IN INCHES<br>X.X = ± 0.1<br>X.XX = ± .01<br>X.XX = ± .005 | **PNNL** Designer: Alex Smith<br>Drawing Name: **Puck in stage assembly** | |
| | SCALE: 2:1 | 4/24/2024 SHEET 7 OF 7 |