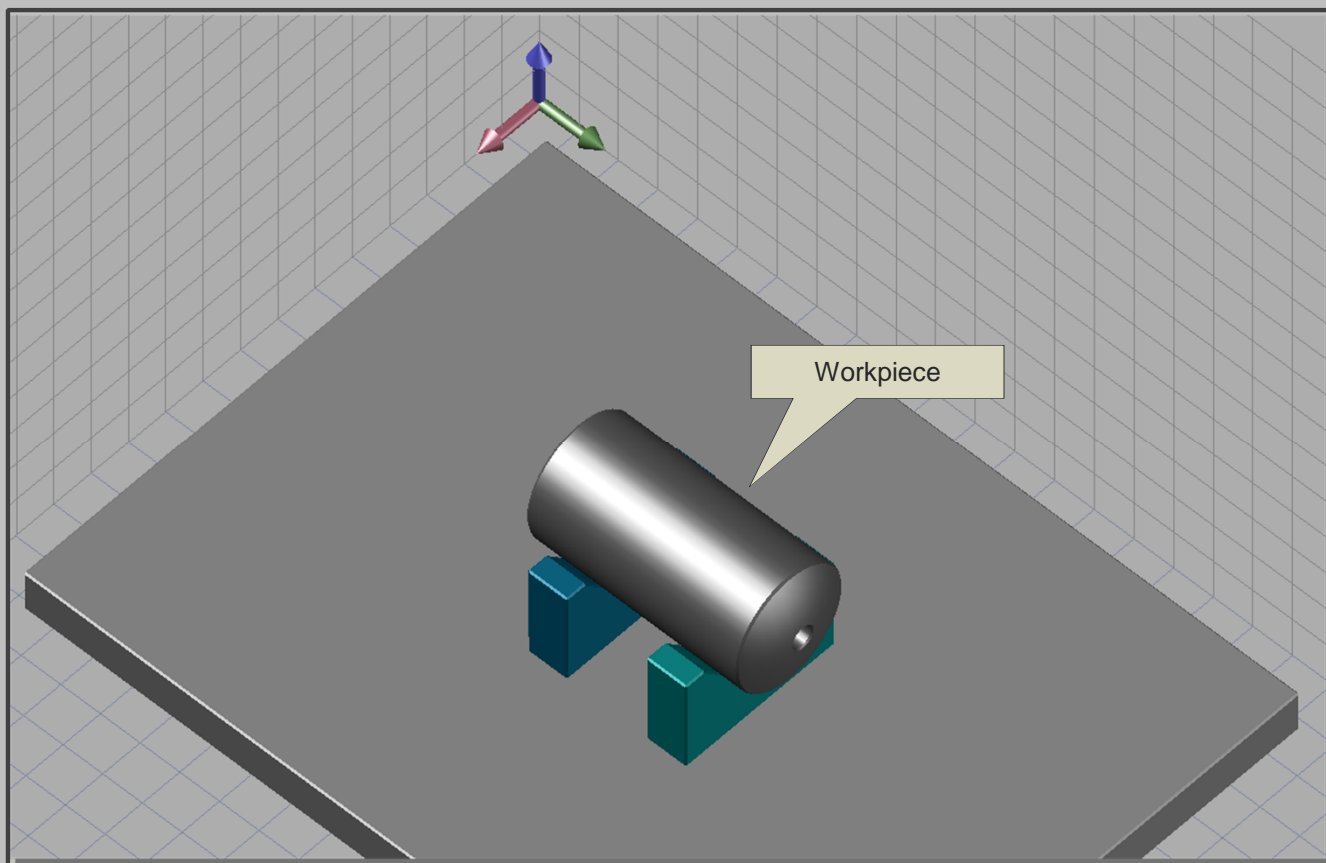
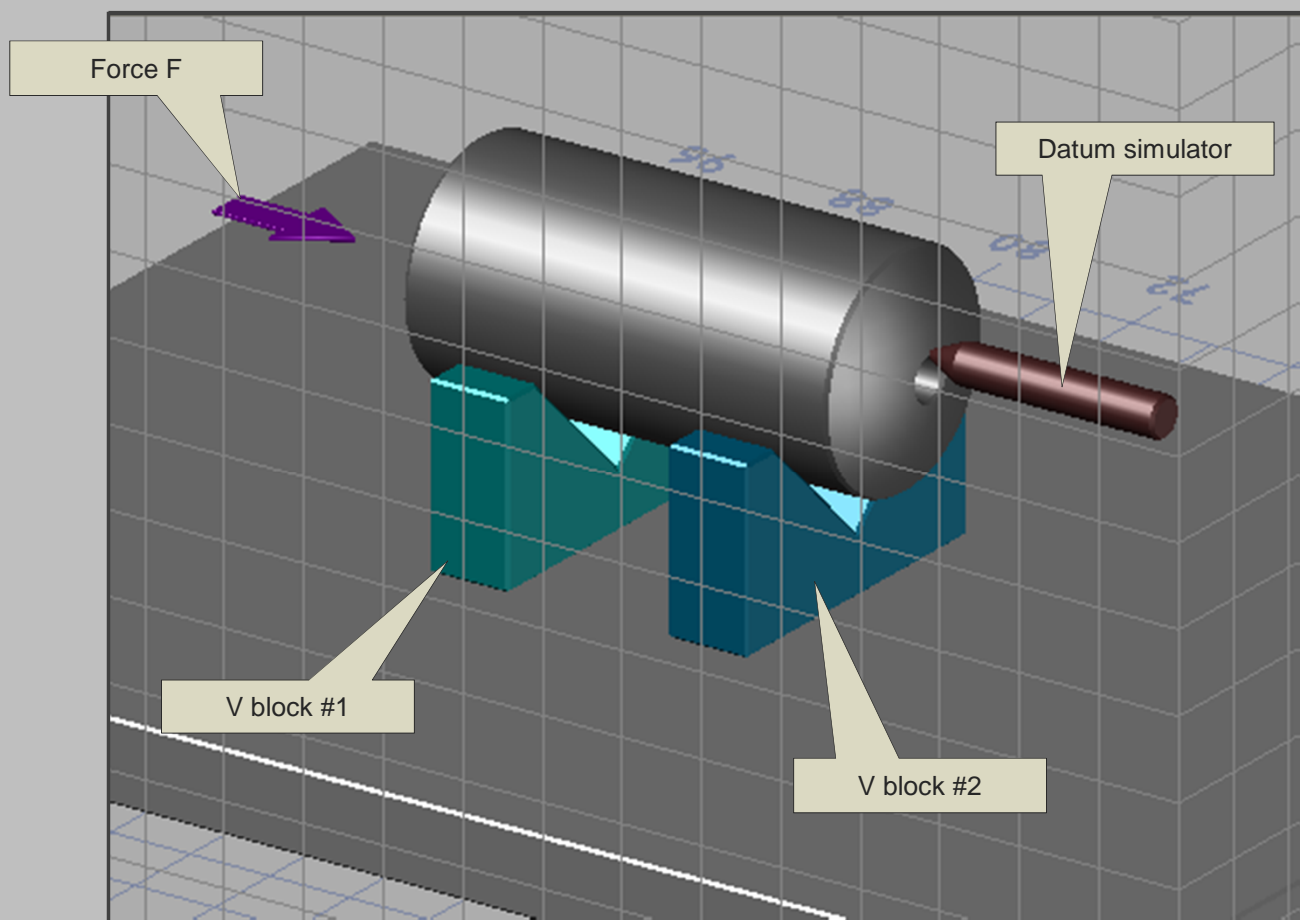
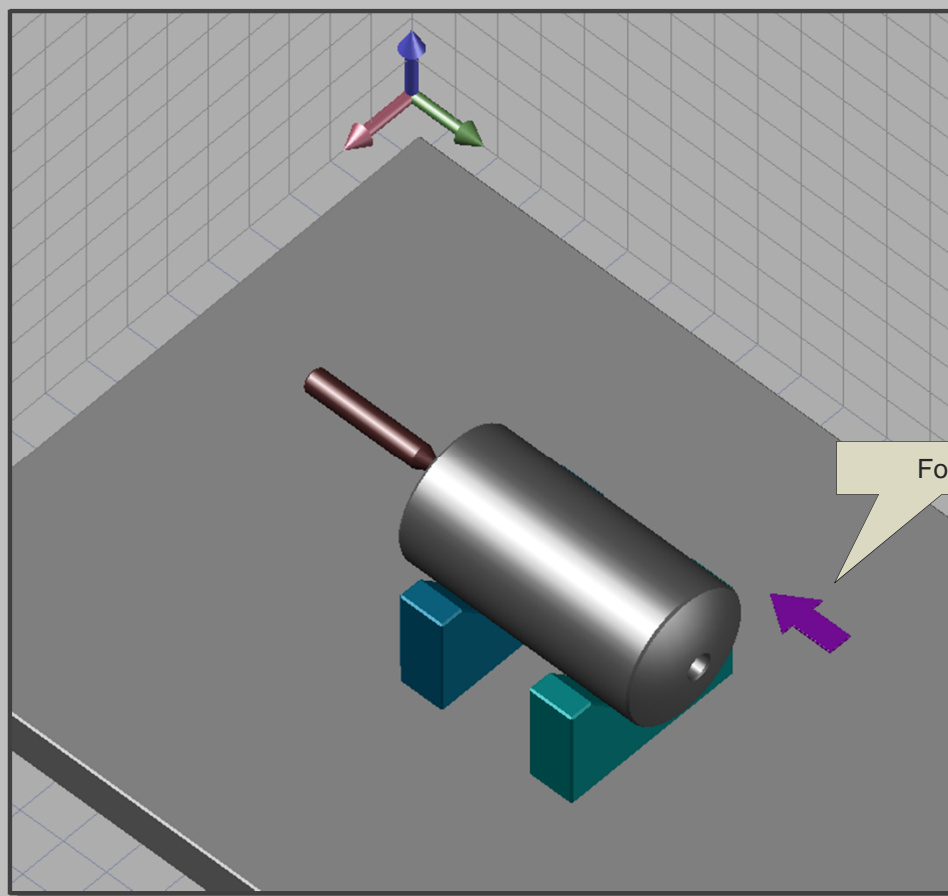


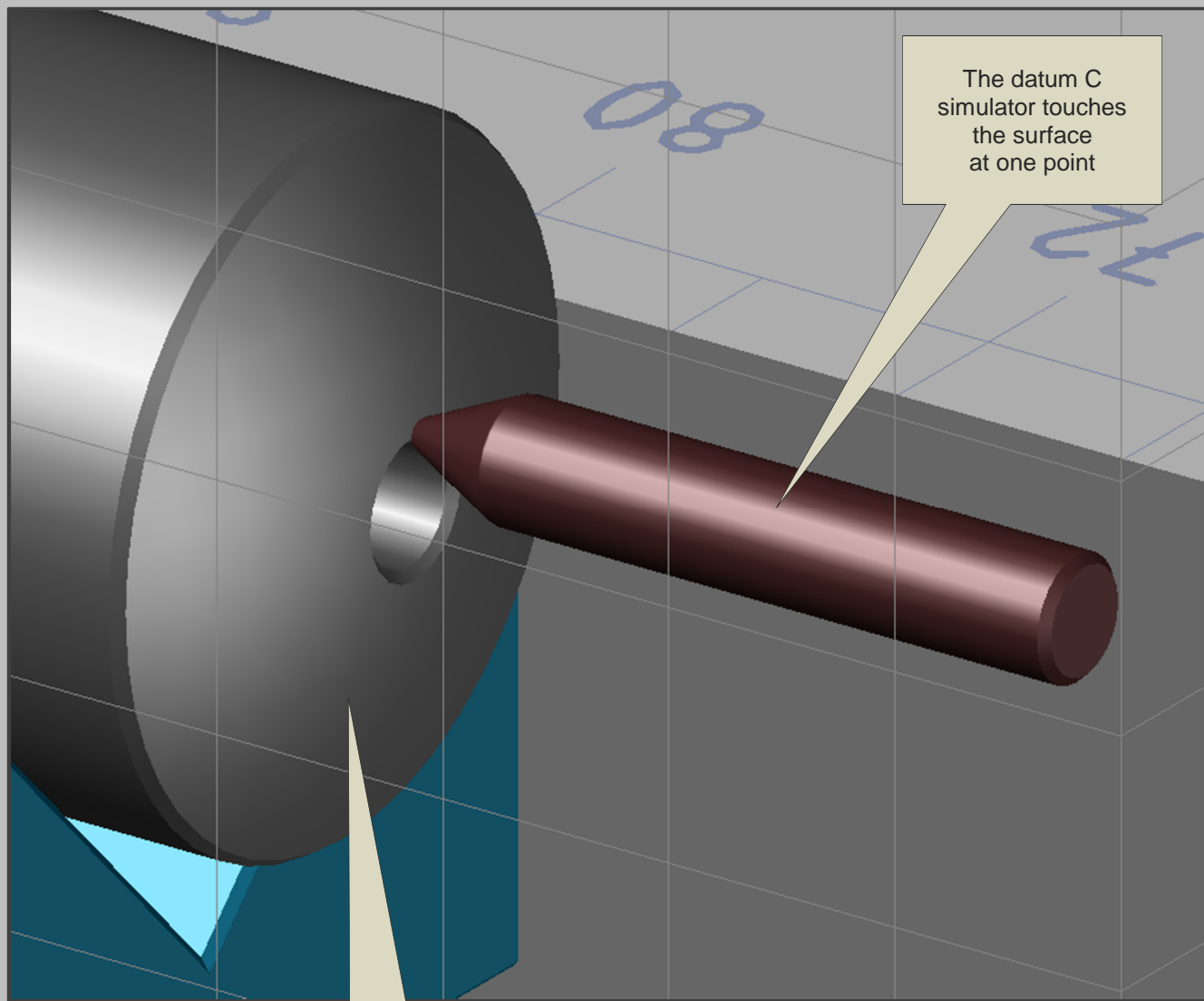
Runout A-BC



Runout A-BC



Runout A-BC

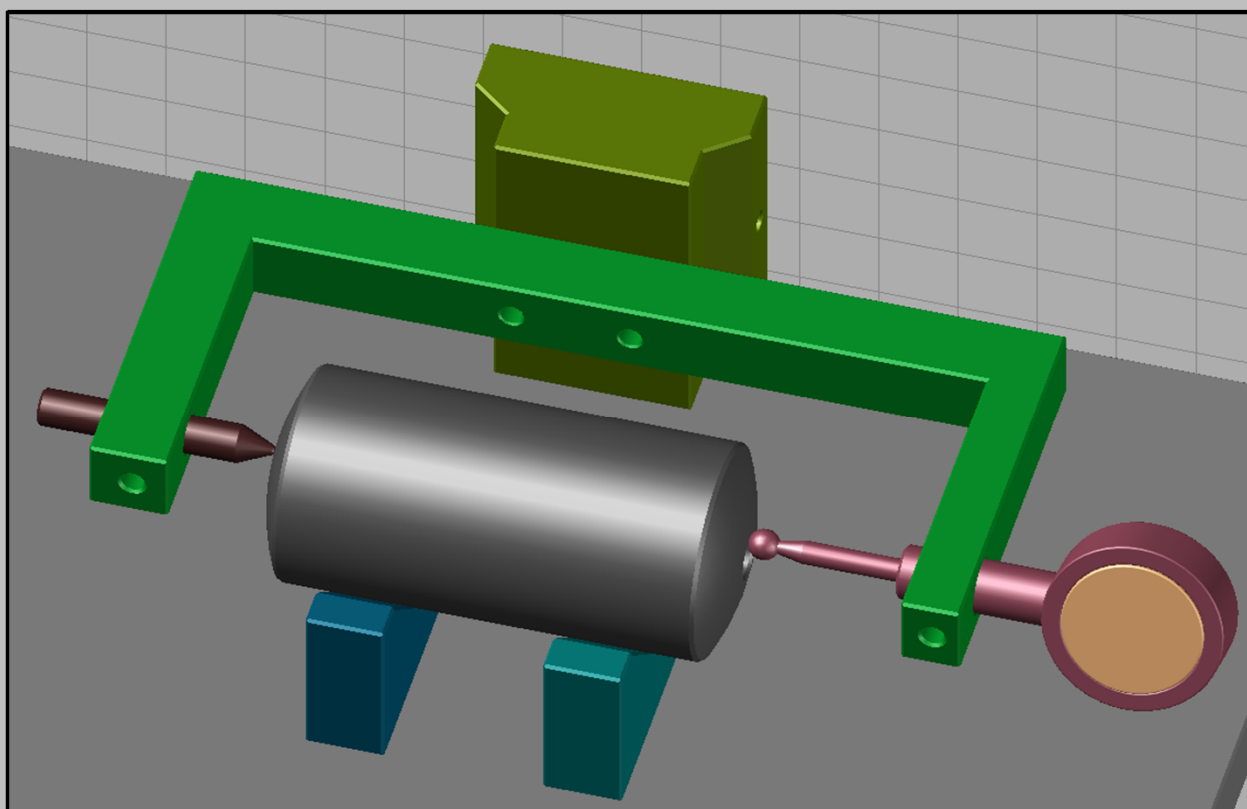
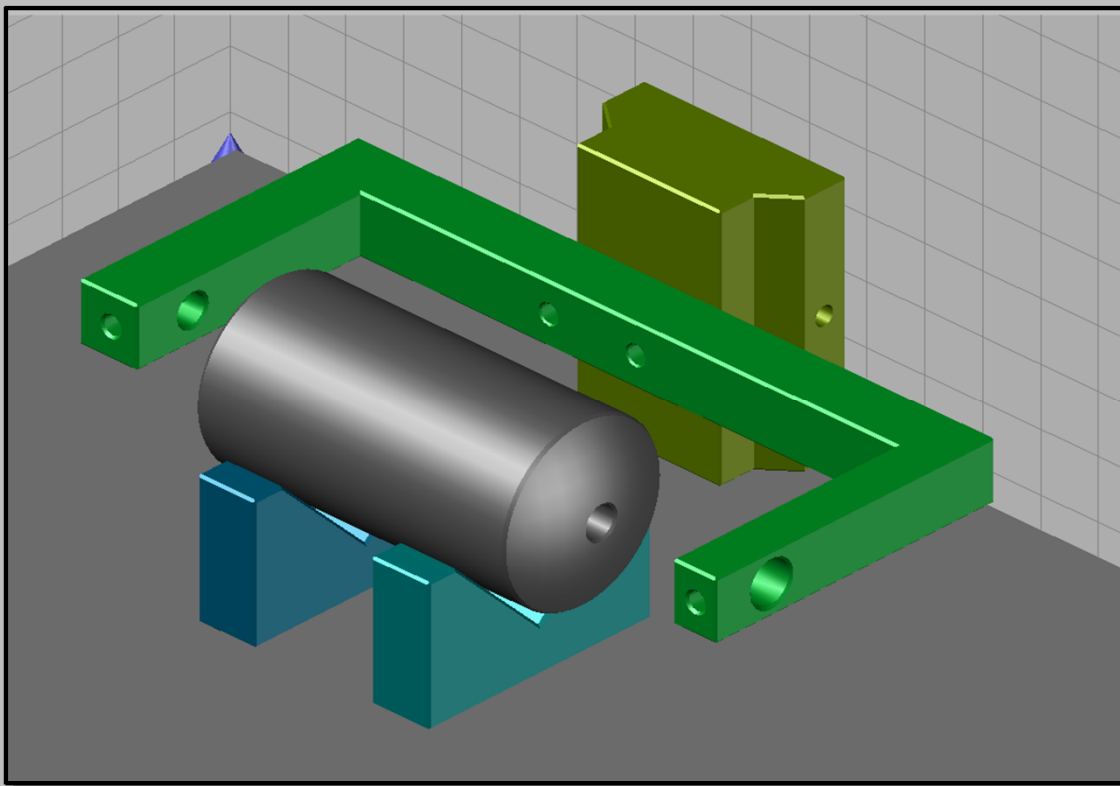


The datum C simulator touches the surface at one point

The surface of datum C

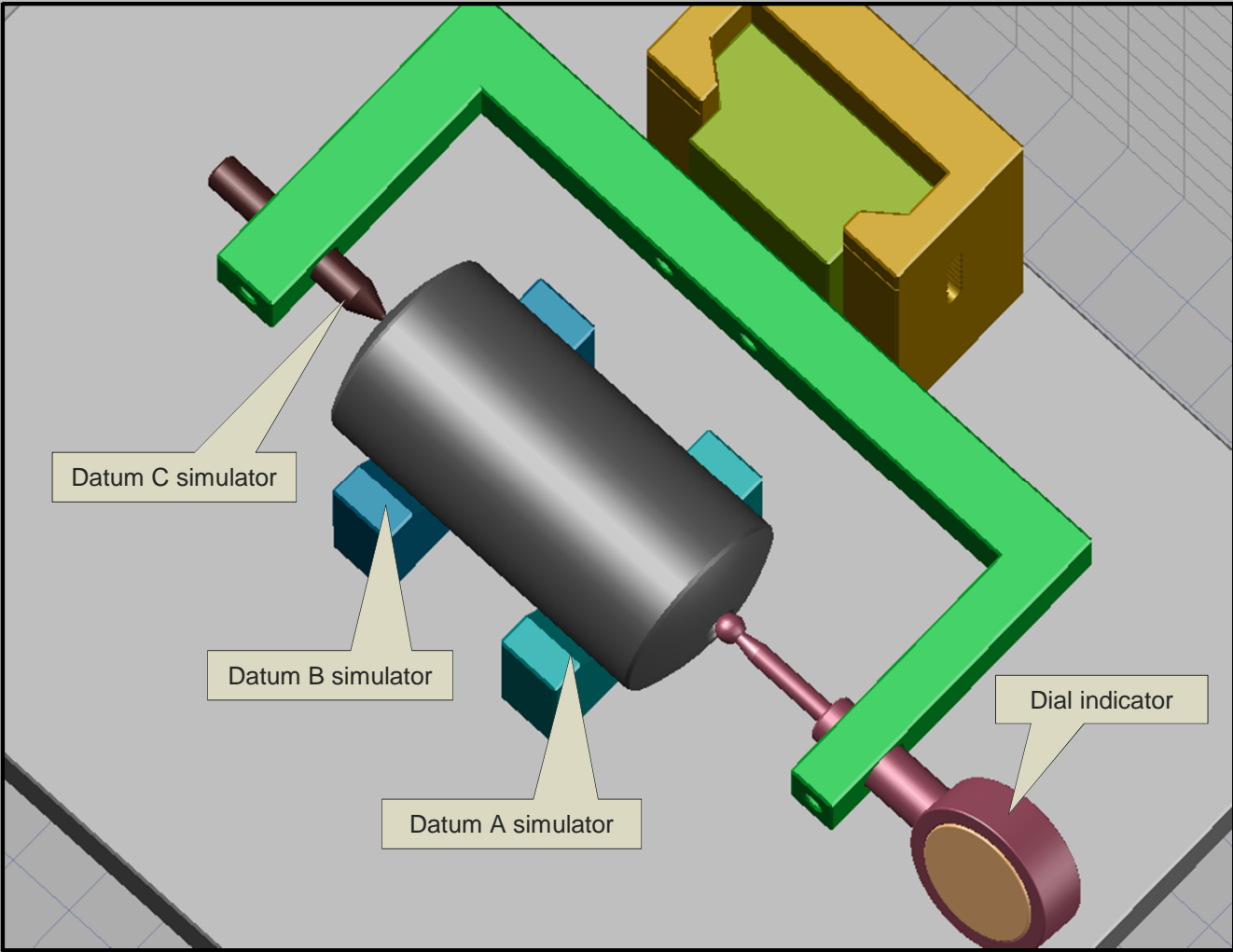
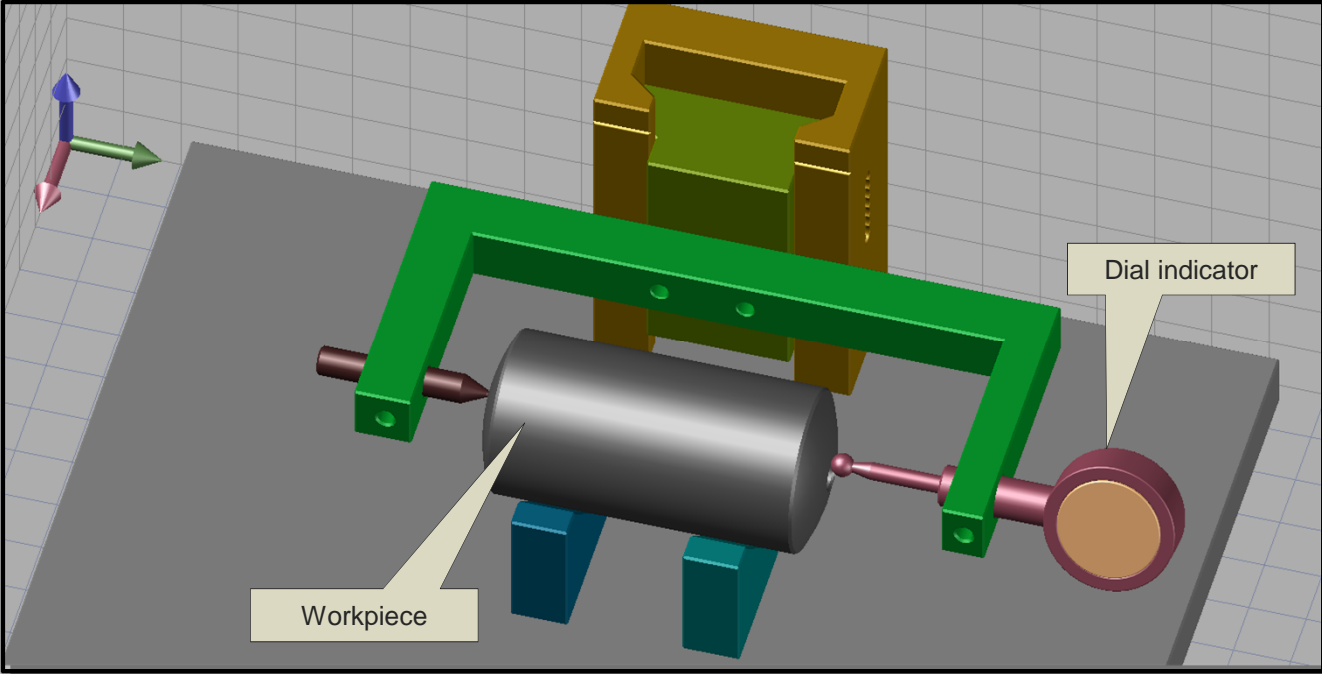
Runout A-BC

The probing system.



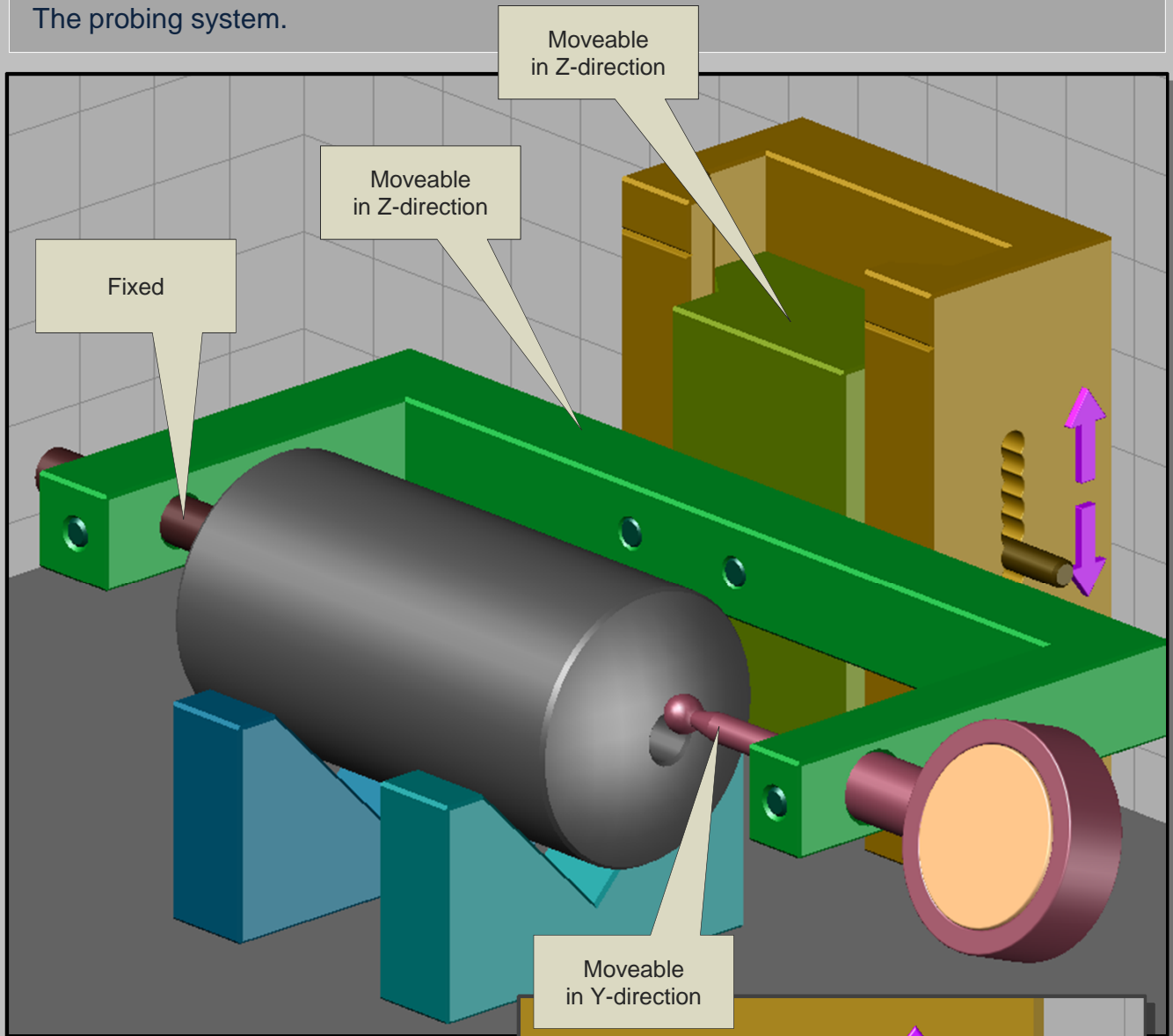
Runout A-BC

The probing system.



Runout A-BC

The probing system.



The "Pin-Bore"-system defines five zones on the feature that have to be measured for Planar Runout.

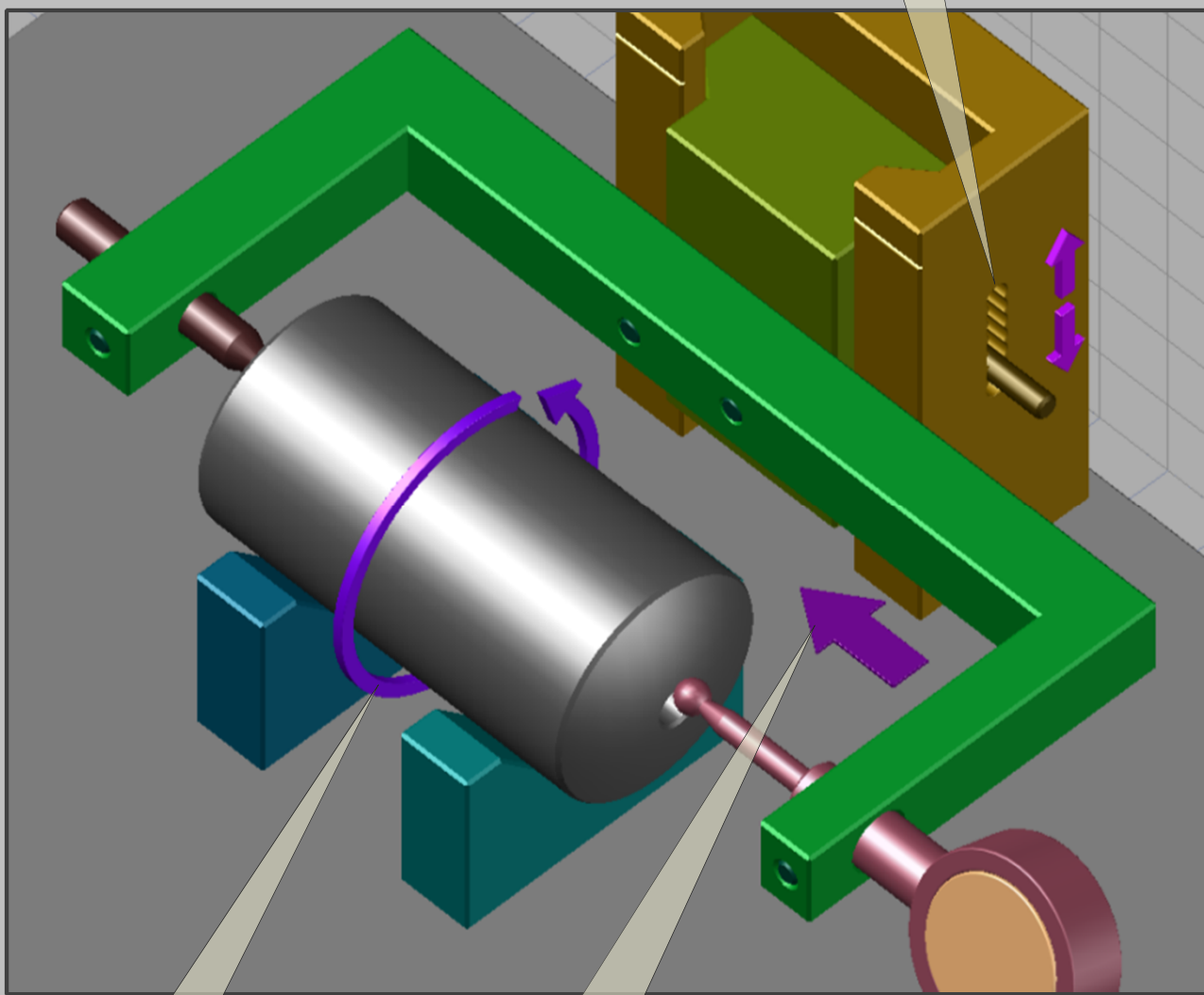
Pin for vertical positioning



Runout A-BC

Degrees of freedom.

Vertical shift
in order to
reach the
touching
zone

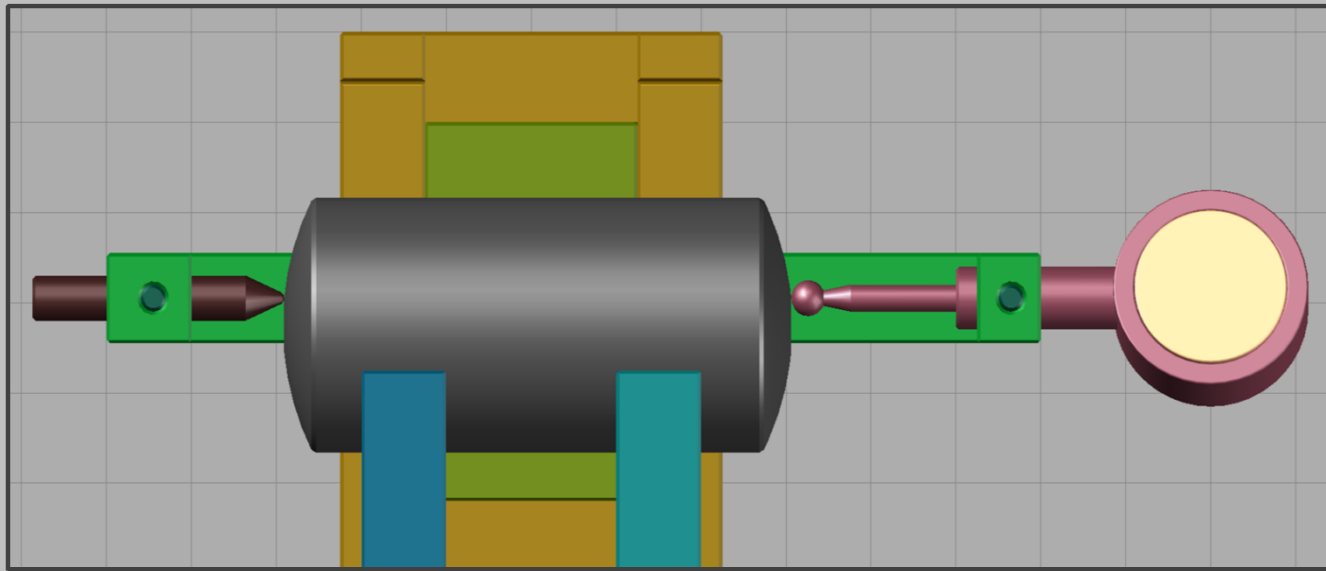


Rotation of
workpiece
0 to 360

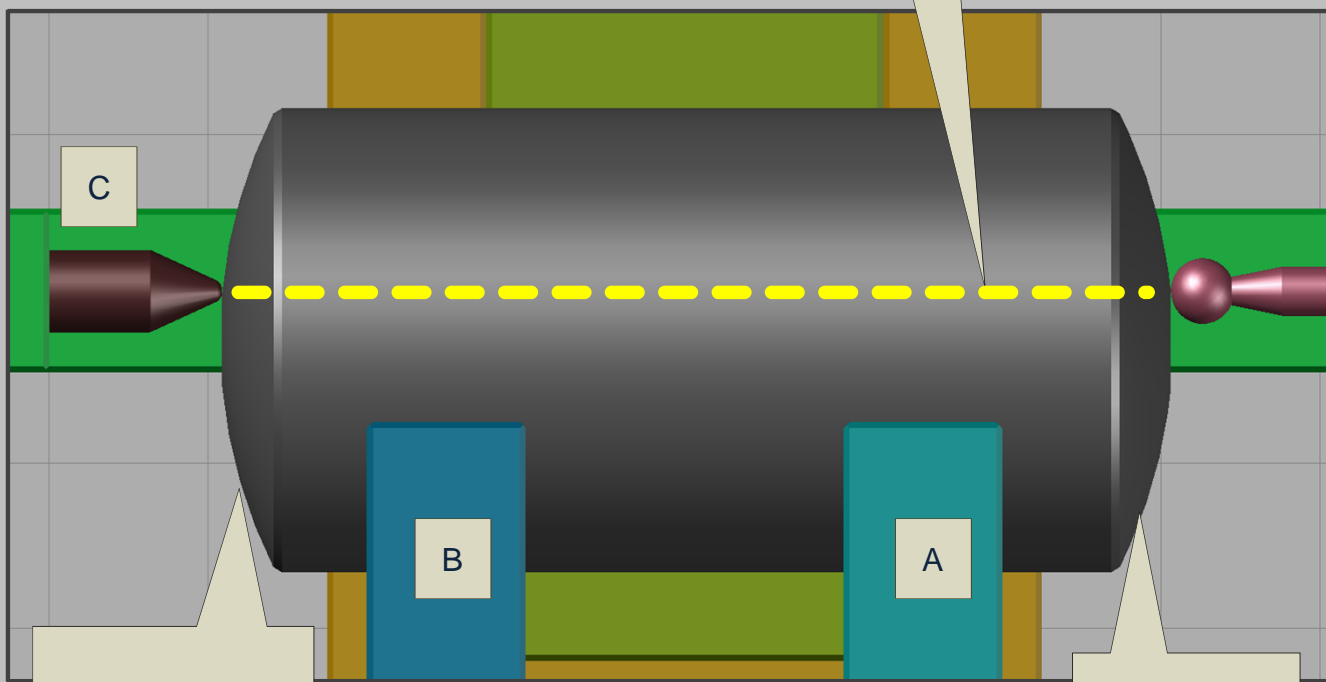
Always pushing
the workpiece
against datum C
while rotating

Runout A-BC

Touching zones left and right.



Two touching points always on the same height.

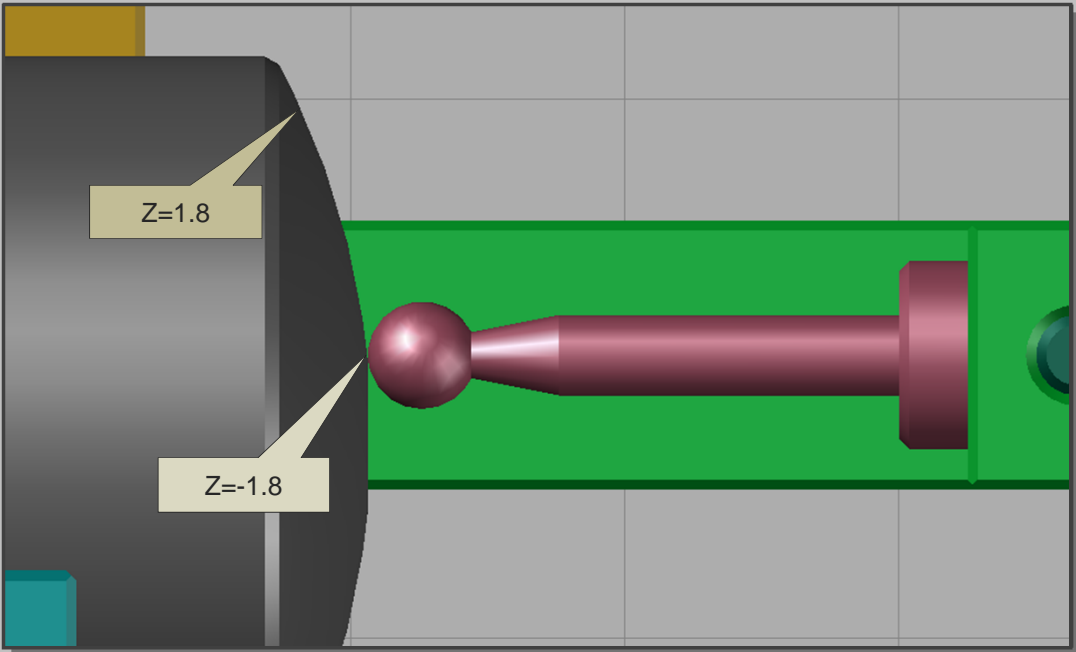
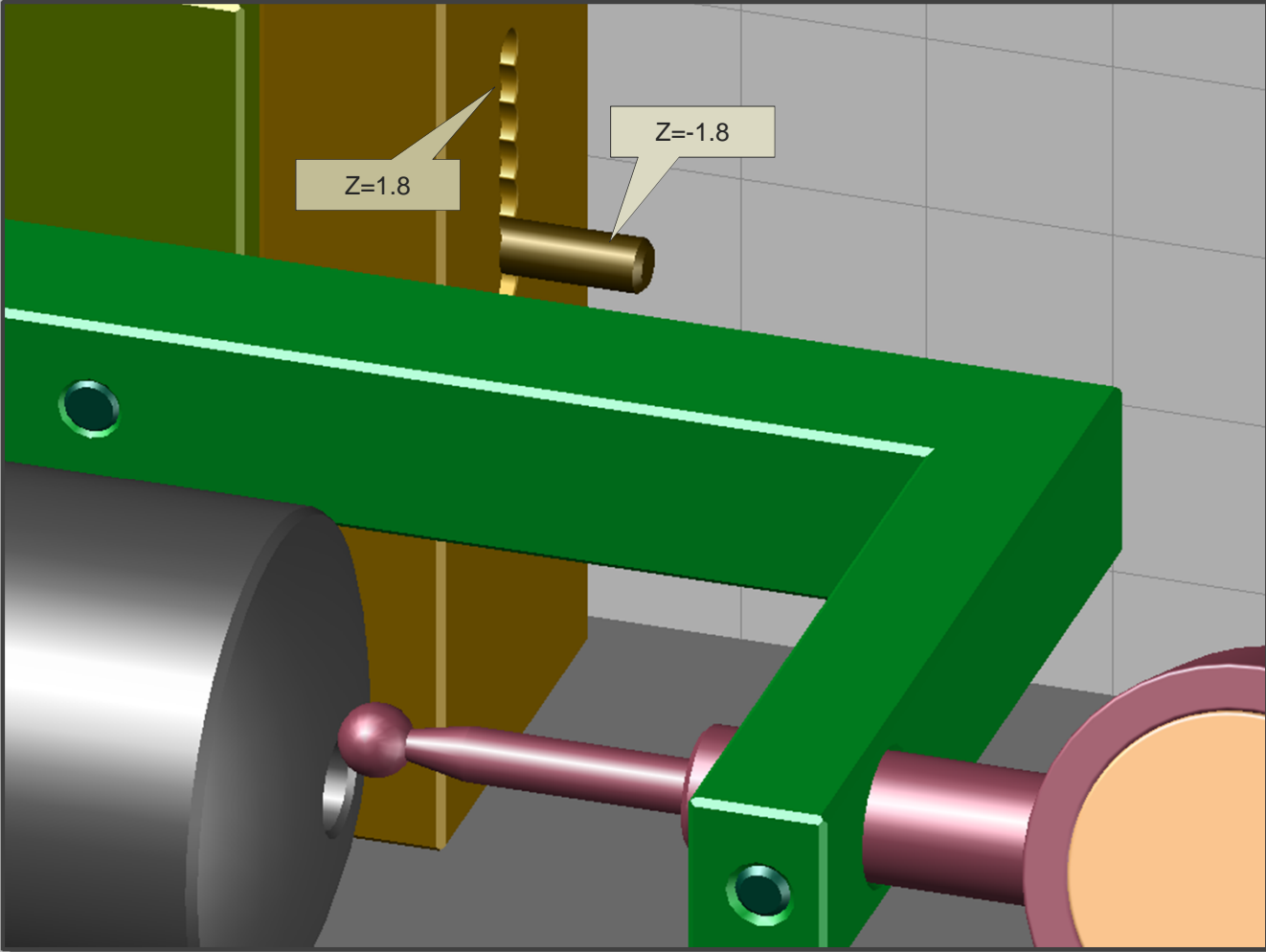


Deviations in form and direction here lead to additional peaks on the right side.

The right side that has to be probed.

Runout A-BC

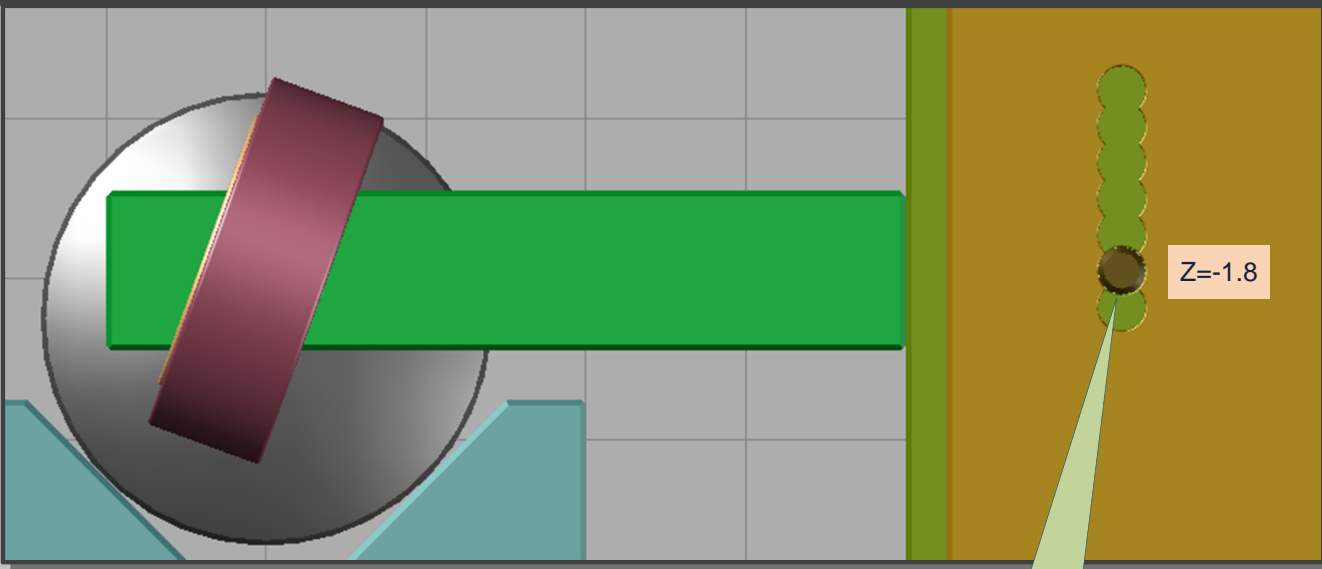
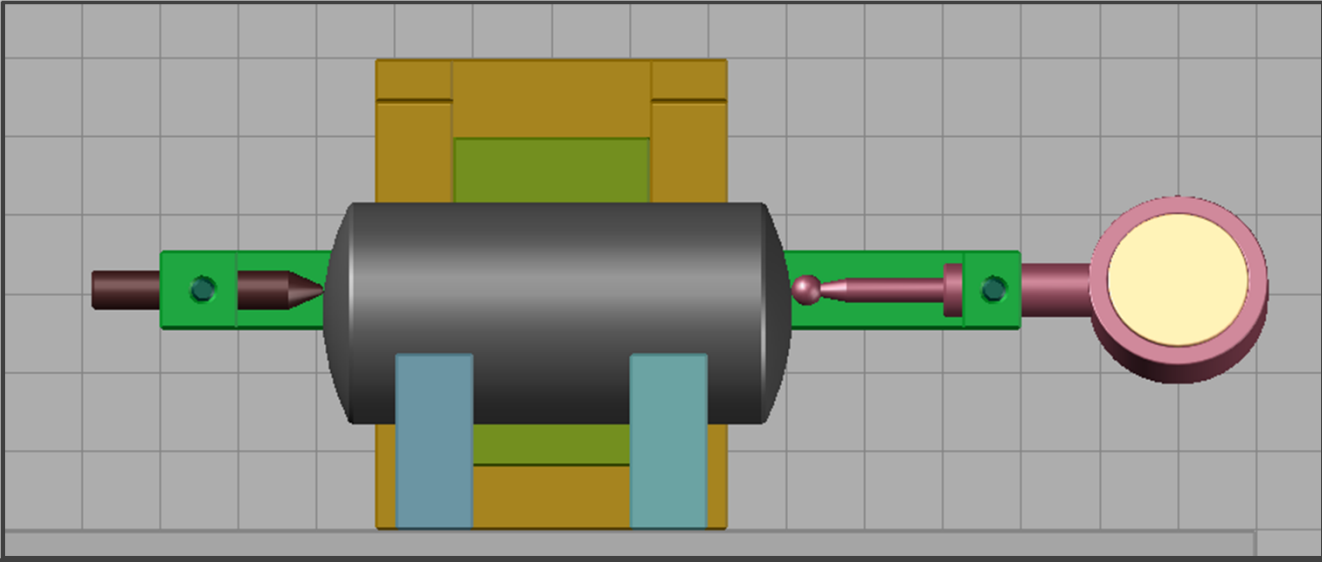
Five touching zones according "Inhouse Standard".



Runout A-BC

Five touching zones according "Inhouse Standard".

$Z=-1.8$

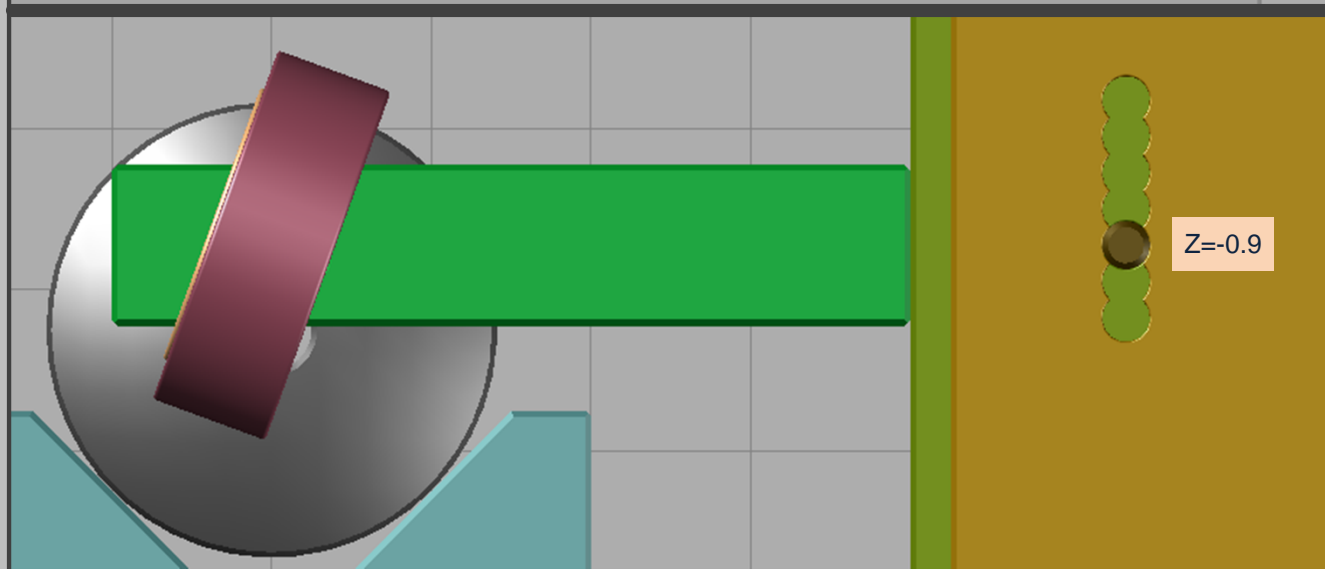
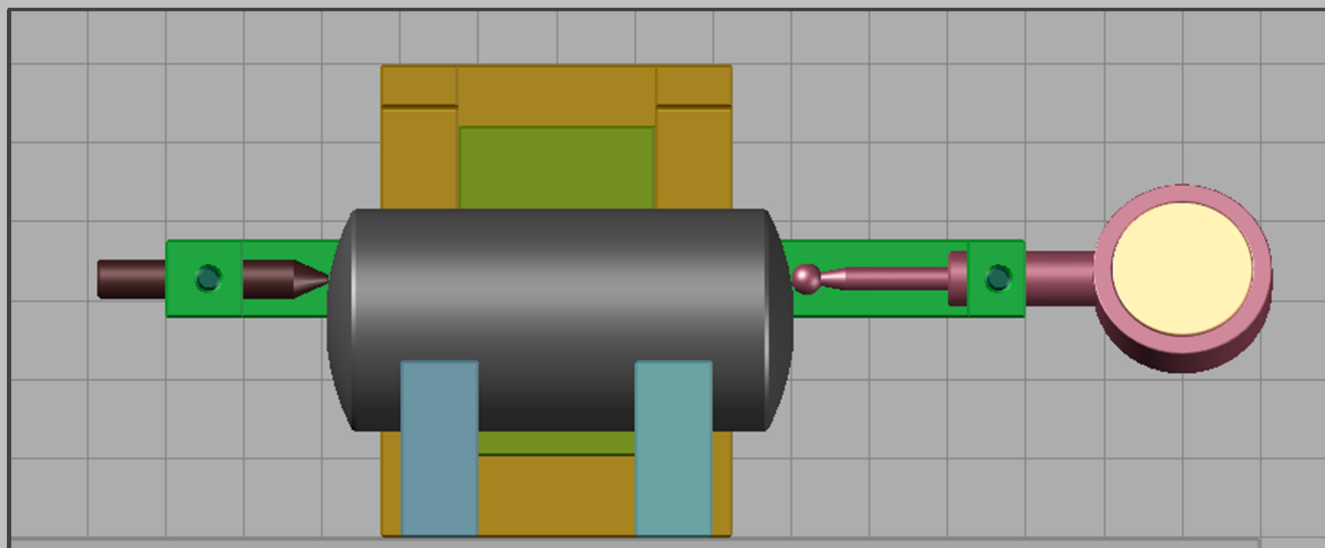


defining the size of the circle path on the feature and the datum

Runout A-BC

Five touching zones according "Inhouse Standard".

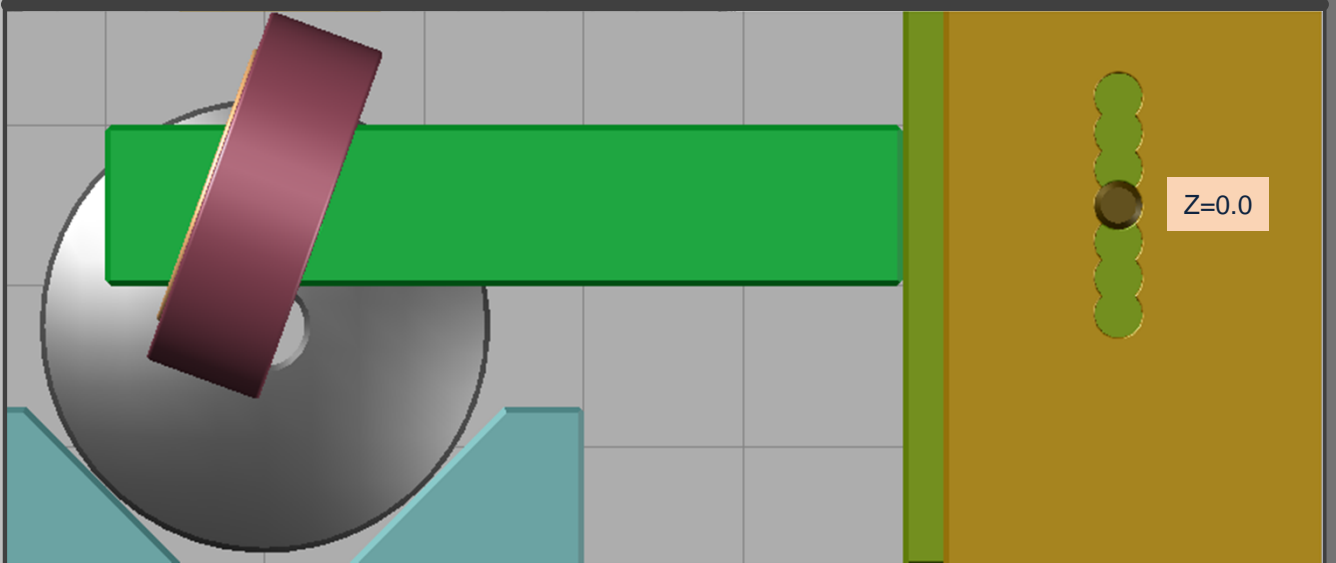
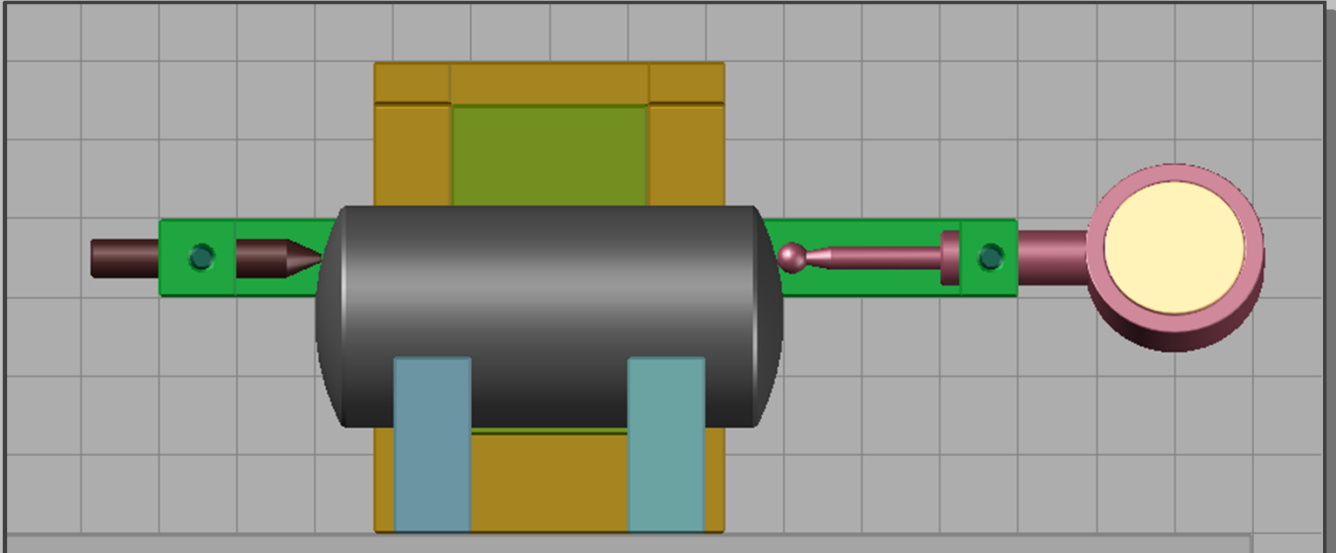
$Z=-0.9$



Runout A-BC

Five touching zones according "Inhouse Standard".

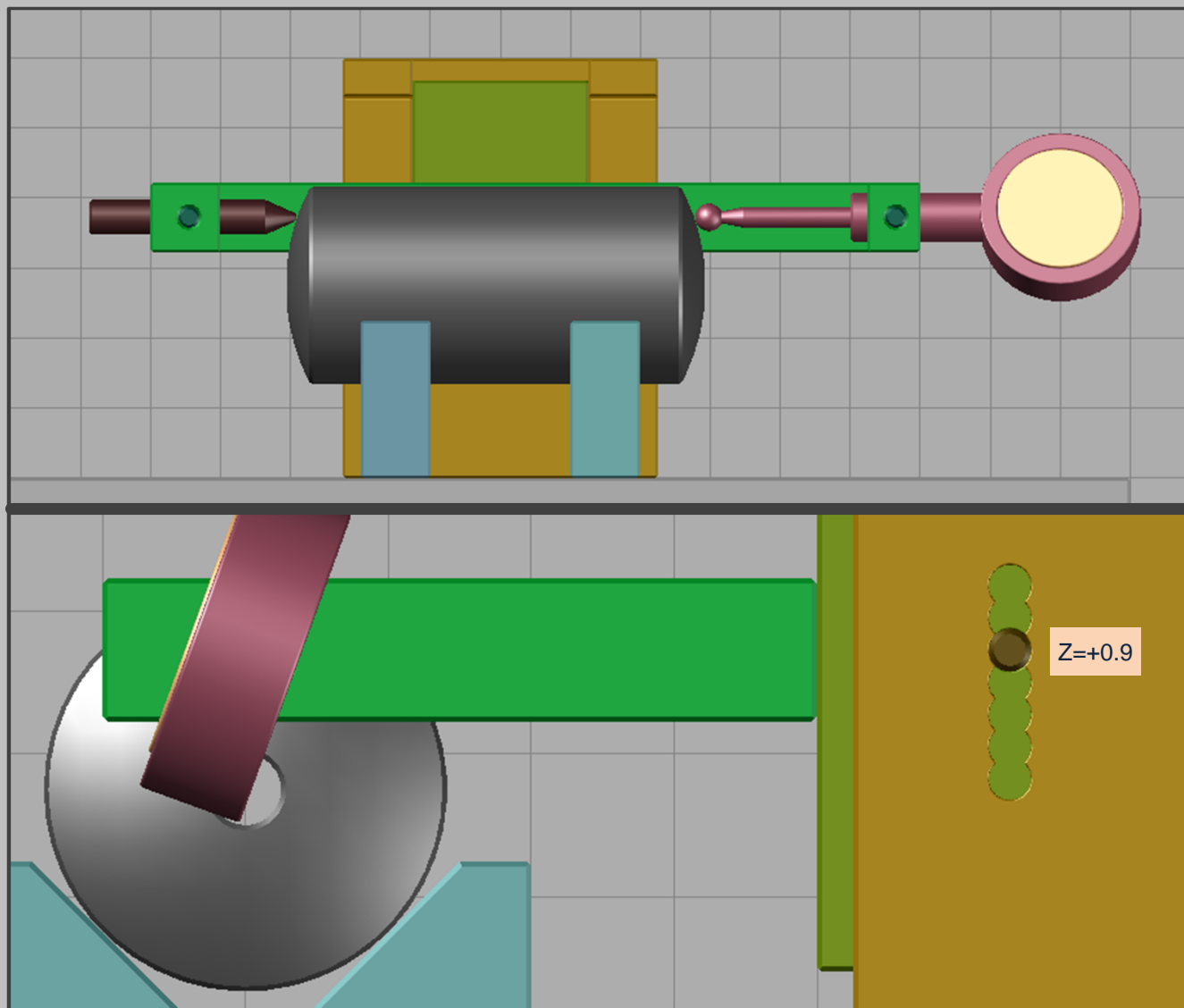
Z=0.0



Runout A-BC

Five touching zones according "Inhouse Standard".

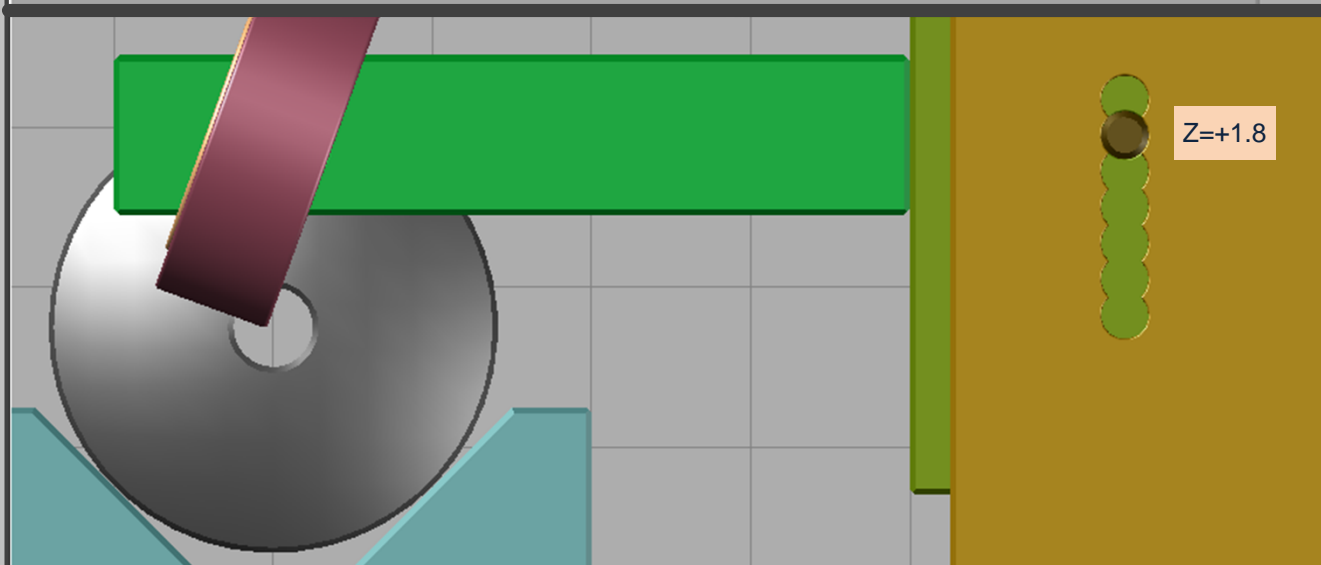
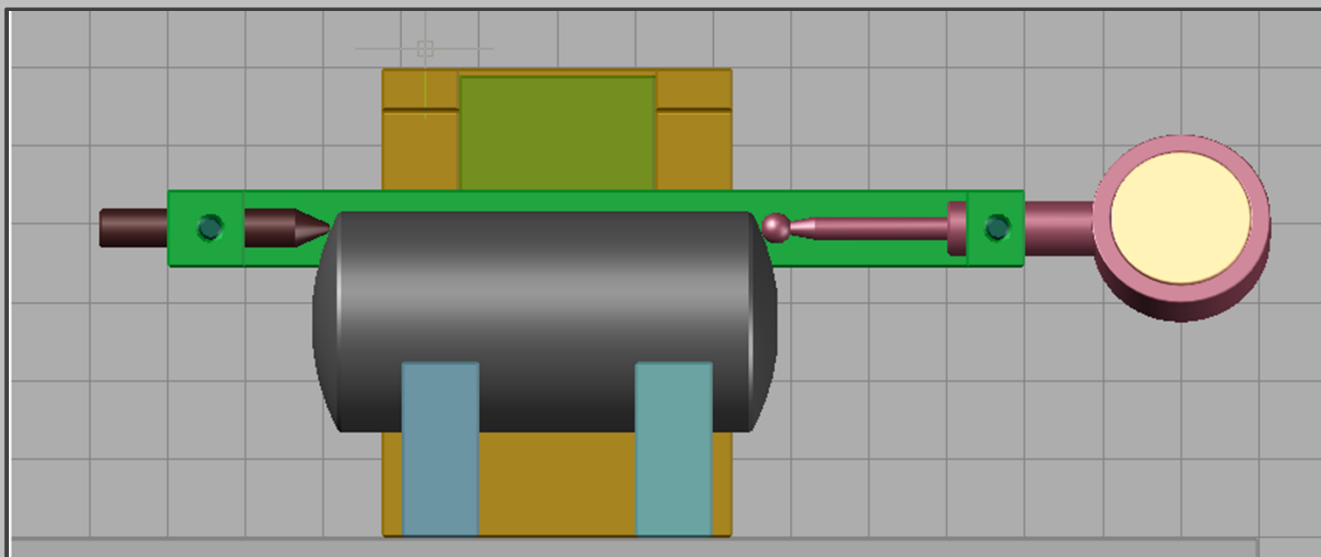
$Z=+0.9$



Runout A-BC

Five touching zones according "Inhouse Standard".

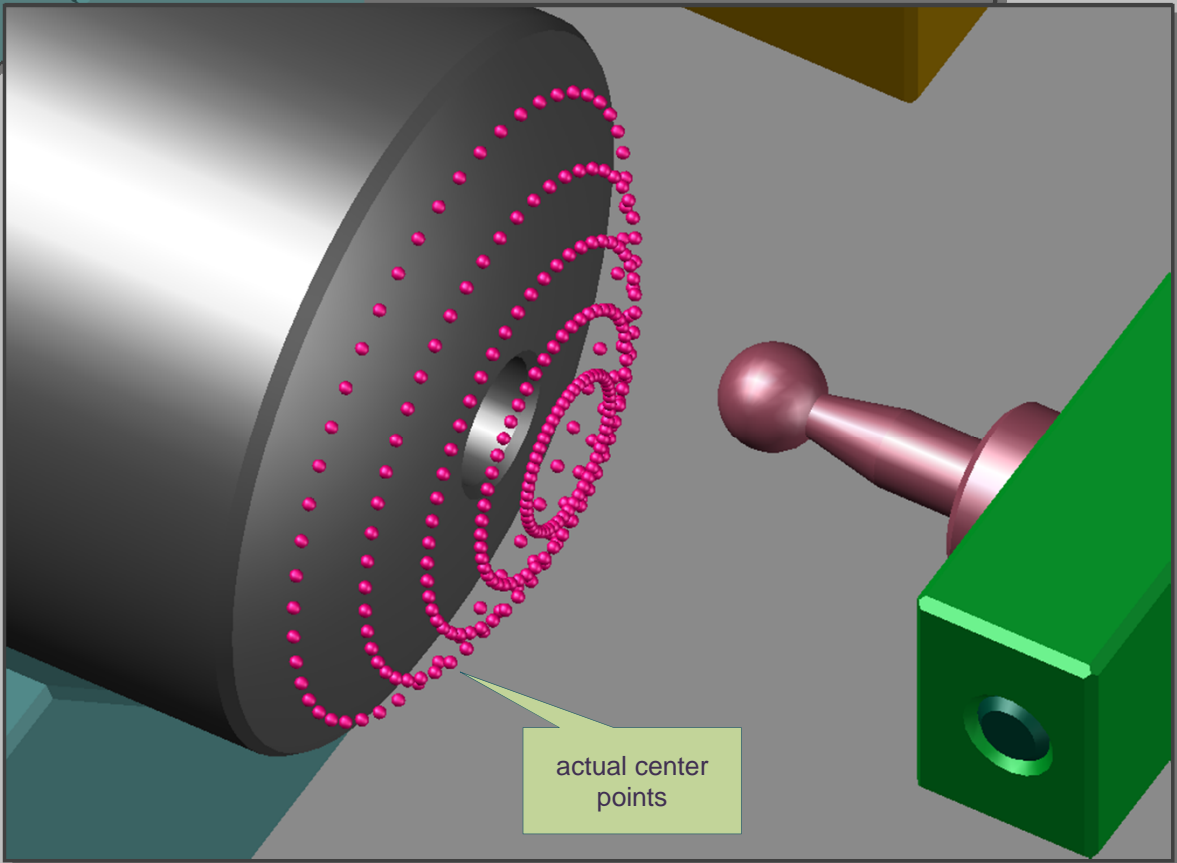
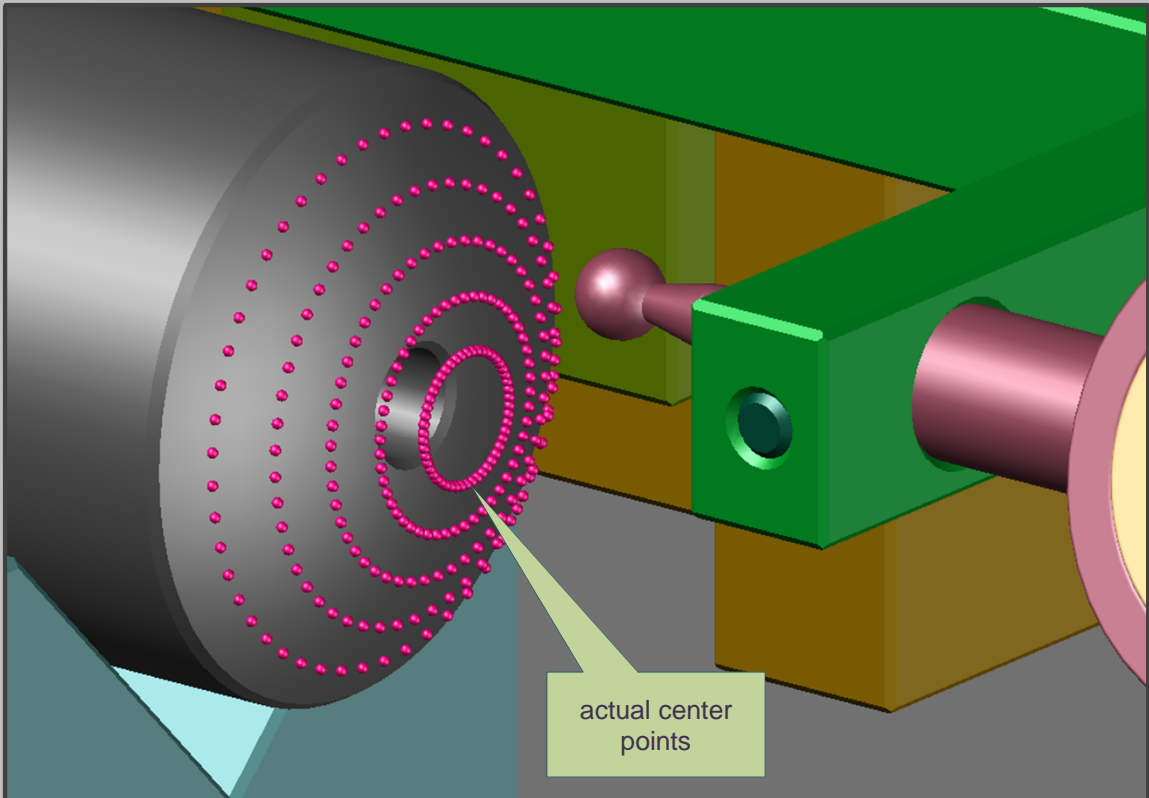
Z=+1.8



Runout A-BC

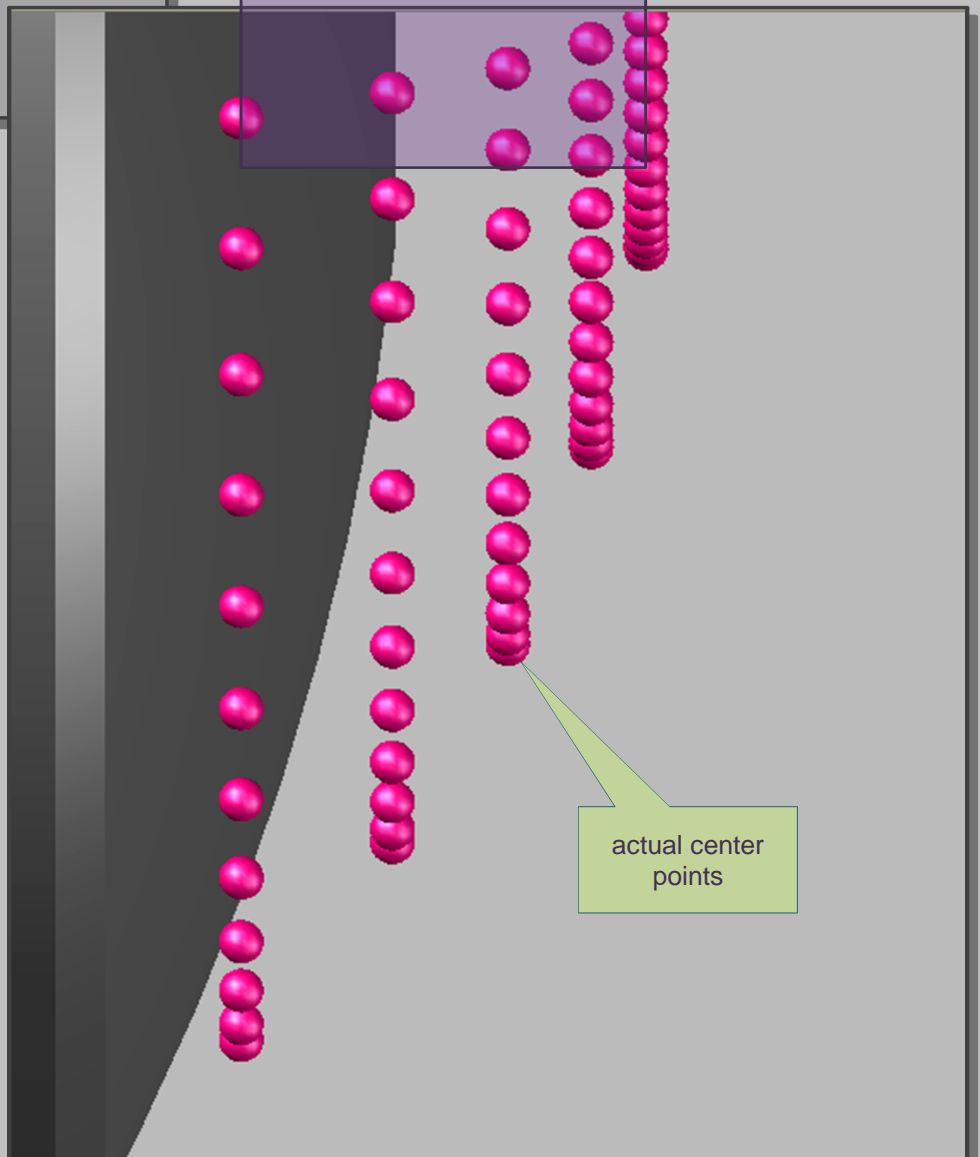
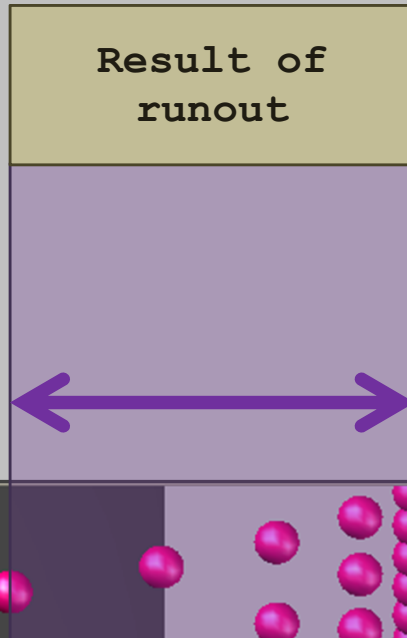
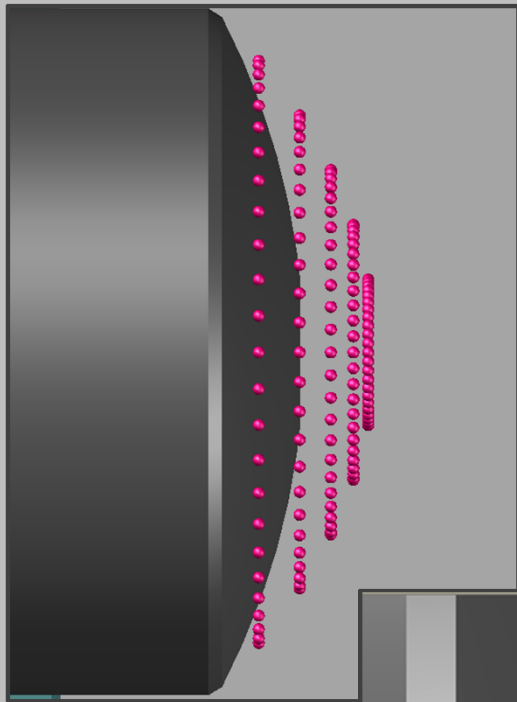
Fifty probe center points on each circle path.

Including deviations in form and direction.



Runout A-BC

Fifty probe center points on each circle path.



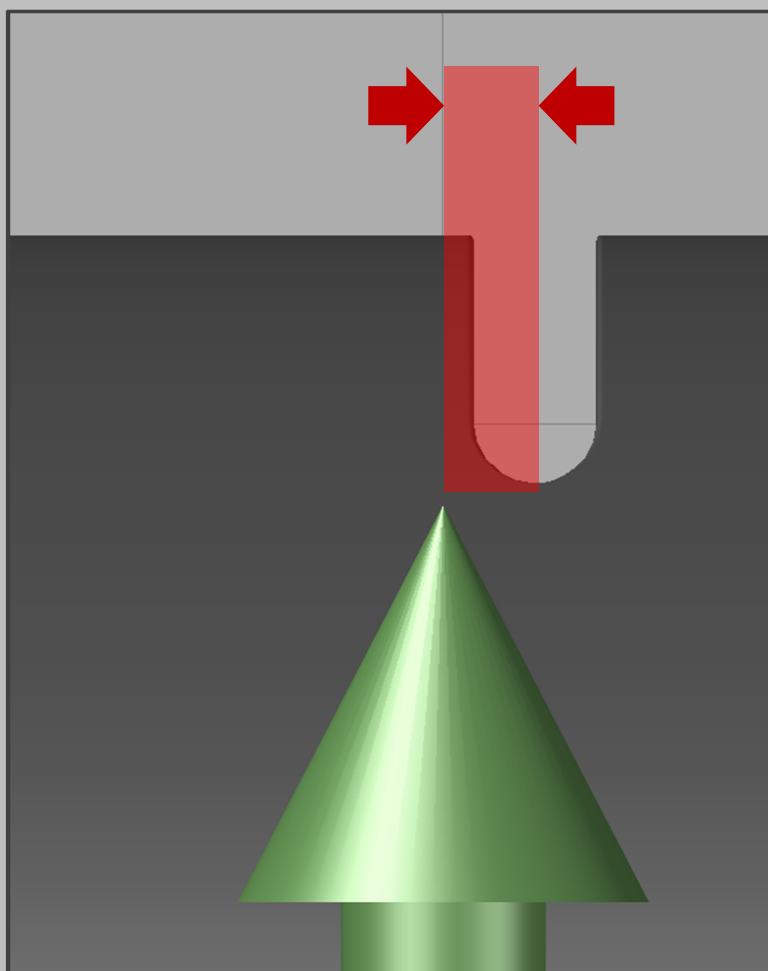
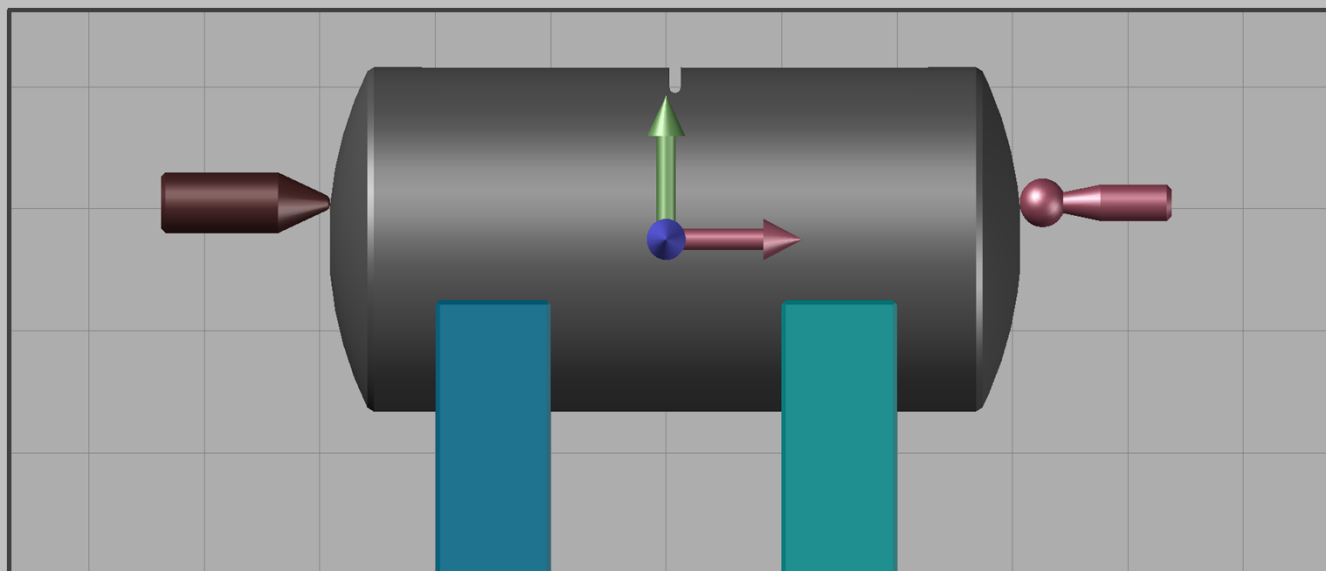
actual center points

Runout A-BC

The horizontal movement of the workpiece

$z = -1.8$

$x = 0.31$

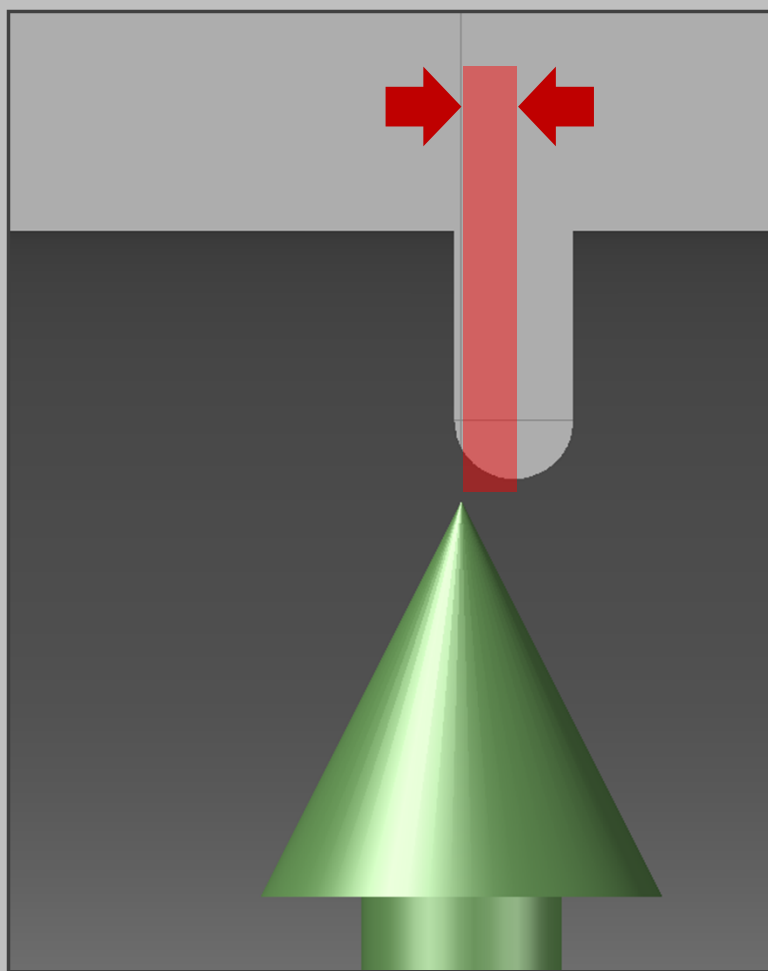
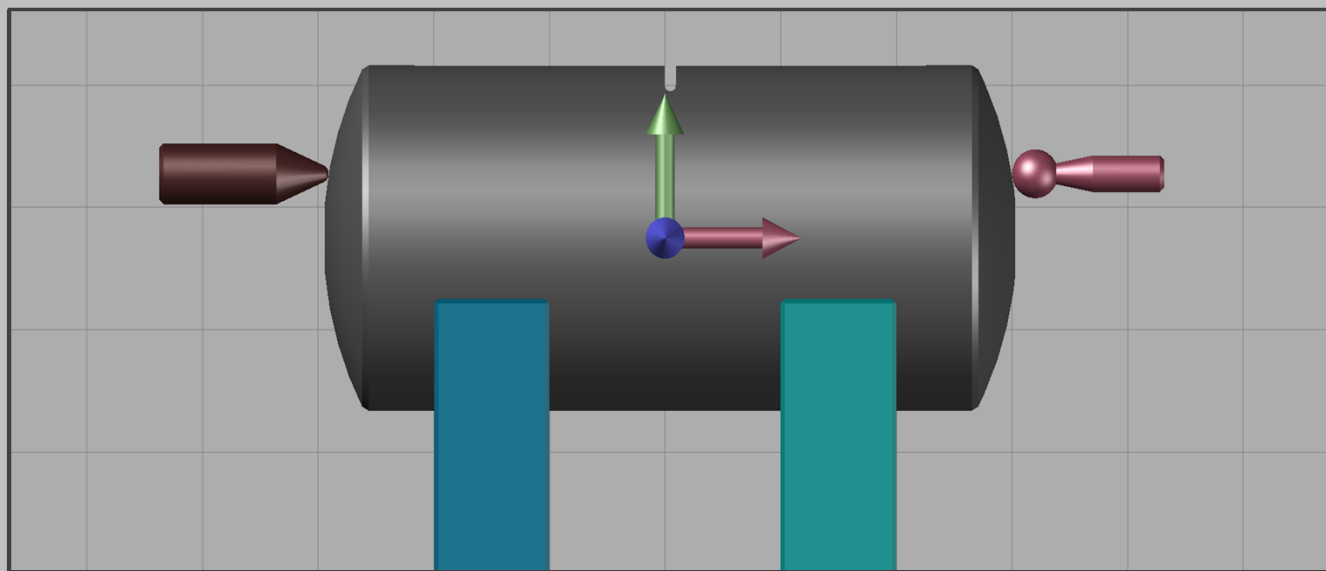


Runout A-BC

The horizontal movement of the workpiece

$z = -0.9$

$x = 0.19$

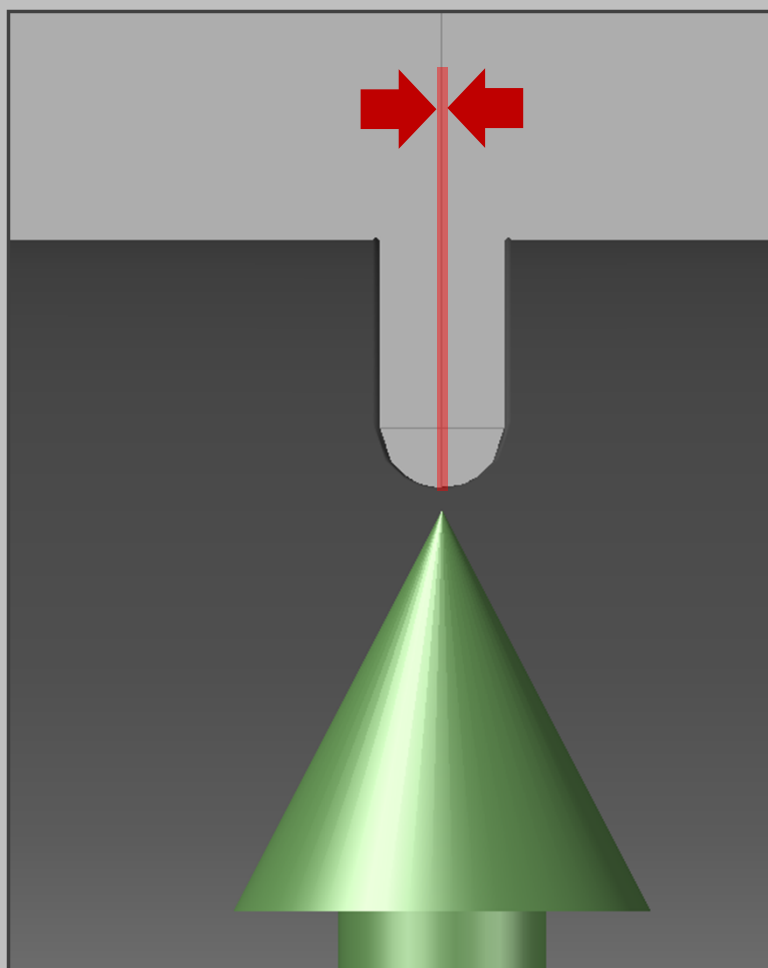
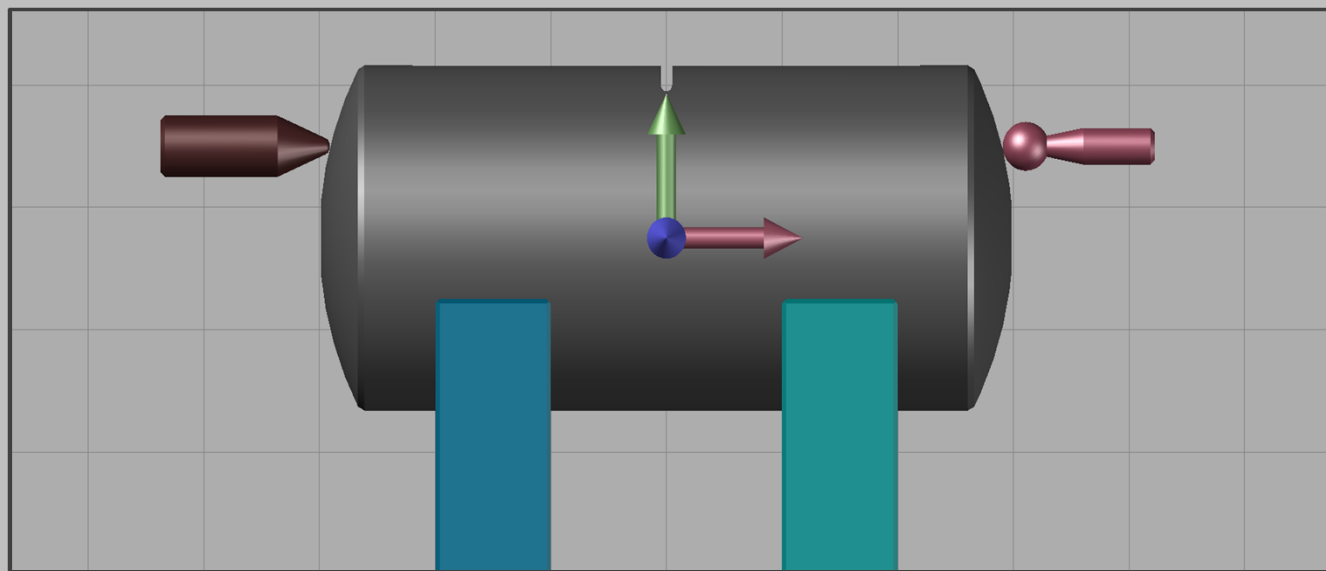


Runout A-BC

The horizontal movement of the workpiece

$z = 0.0$

$x = 0.00$

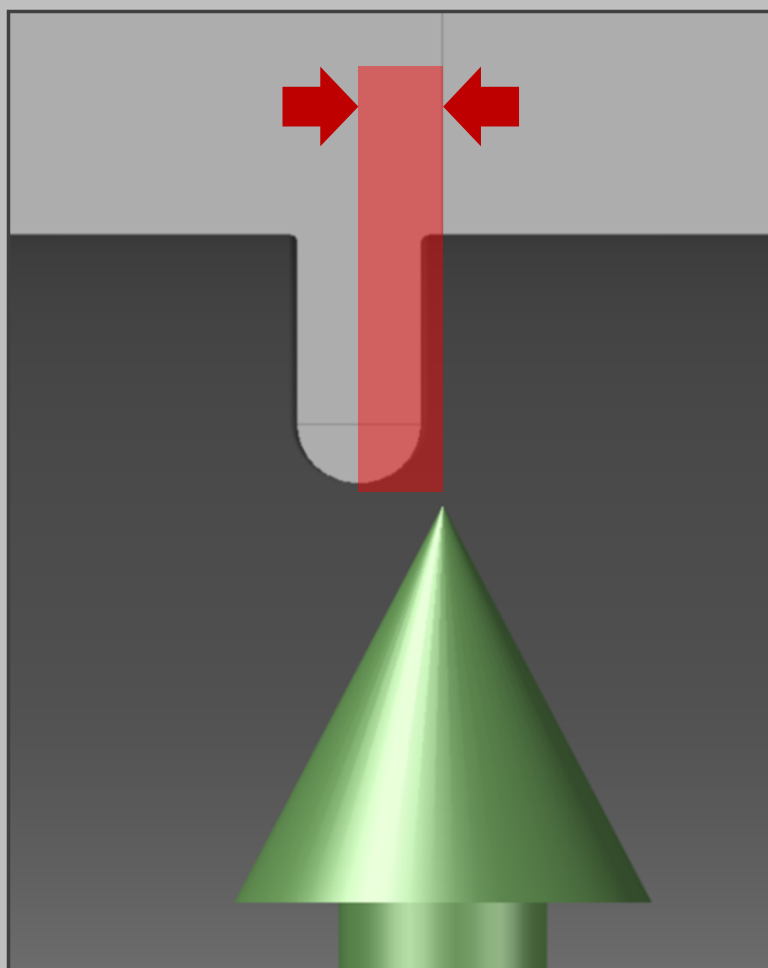
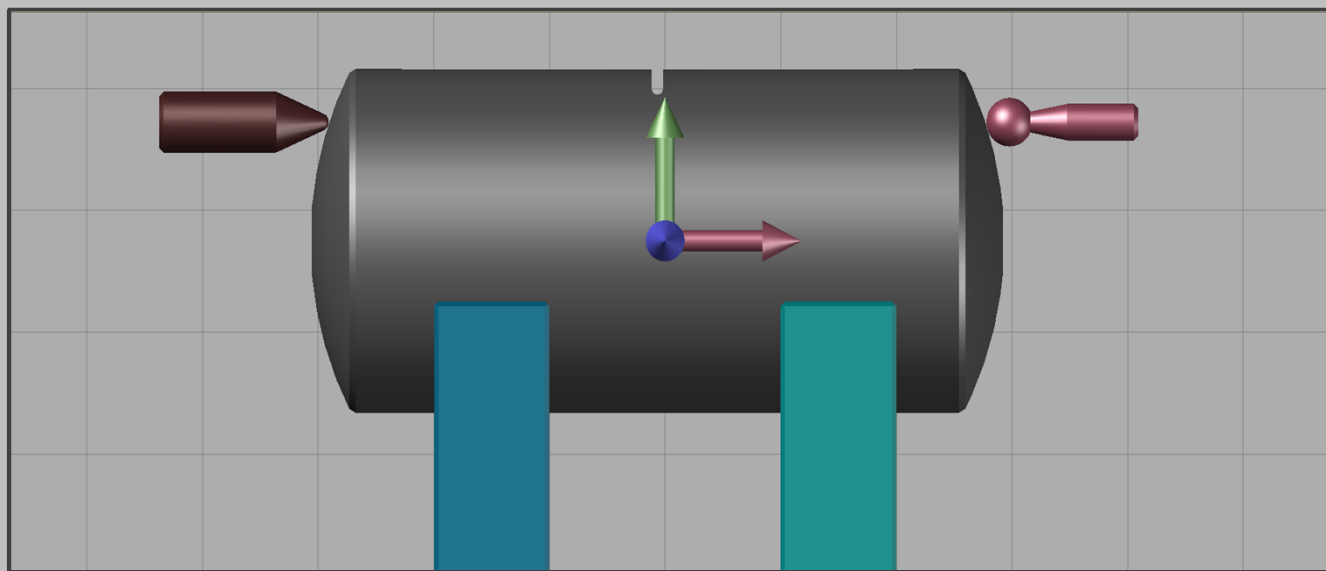


Runout A-BC

The horizontal movement of the workpiece

$z=+0.9$

$x=-0.28$



Runout A-BC

The horizontal movement of the workpiece

$z=+1.8$

$x=-0.61$

