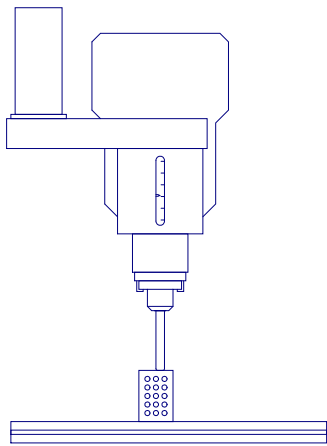


Reference Tool loaded in the spindle,  
Z axis at home (machine zero)

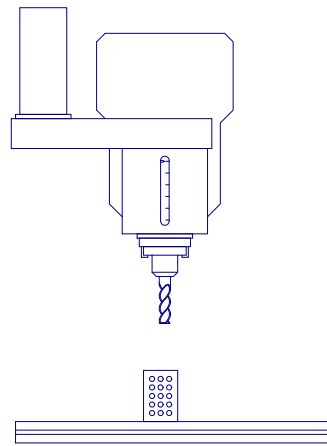
Z axis position displayed on DRO is  
measured from last Z axis Part Zero,  
and could be almost anything.  
For this example, suppose that the Z axis  
DRO position reads +1.500 when Z is at home.



Reference Tool brought down  
to touch tool-measuring surface

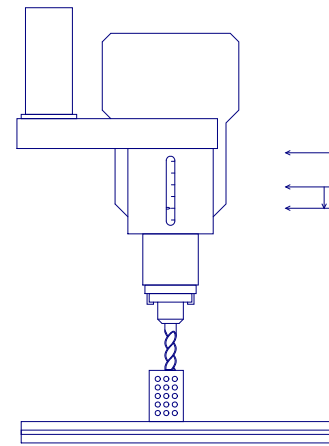
Use F1 to set Z Reference here

If the Z axis has moved down 2.9" to reach  
the surface, then the Z DRO will read -1.400  
here, and that is what will be shown on the  
screen as the Z Reference position.



Tool #1 loaded in the spindle

Z is again at home, and no offset is active,  
so the Z axis DRO position reads +1.500 again.

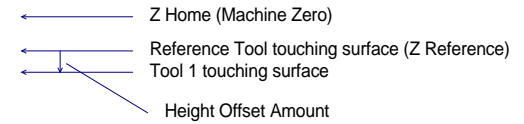


Tool #1 brought down to  
touch tool-measuring surface

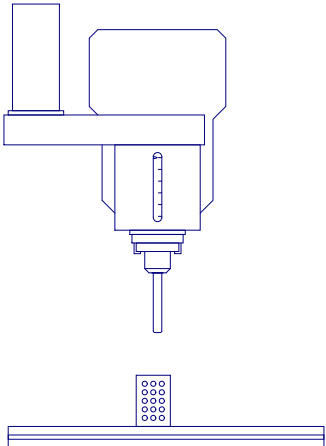
Use F2 to measure Height Offset H001 here

If the Z axis has moved down 4.0" to reach the surface  
with this tool, then the Z DRO will read -2.500 here.

-2.500 minus -1.400 equals -1.100  
Measured offset H001 is -1.100

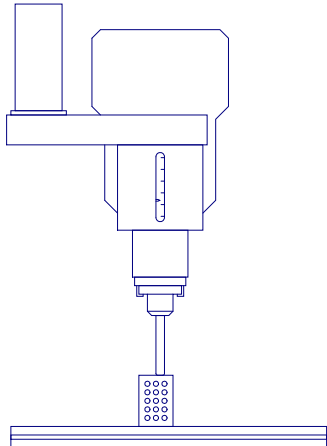


Now we move the knee down 0.8", and go to measure T1 again...



Reference Tool loaded in the spindle,  
Z axis at home (machine zero)

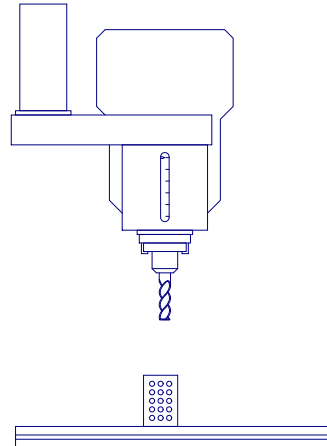
If we have not yet changed the Z axis  
Part Zero location, then the DRO will  
still read +1.500 here.



Reference Tool brought down  
to touch tool-measuring surface

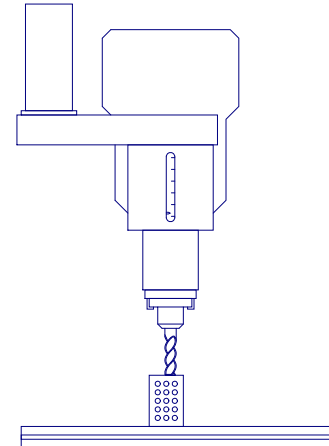
Use F1 to set Z Reference here

The Z axis has to move down 3.7" to reach  
the surface, so the Z DRO will read -2.200  
here, and that is what will be shown on the  
screen as the new Z Reference position.



Tool #1 loaded in the spindle

Z is again at home, and no offset is active,  
so the Z axis DRO position reads +1.500 again.



Tool #1 brought down to  
touch tool-measuring surface

Use F2 to measure Height Offset H001 here

The Z axis has moved down 4.8" to reach the  
surface with this tool, and the Z DRO will read -3.300

-3.300 minus -2.200 equals -1.100  
Measured offset H001 is -1.100