

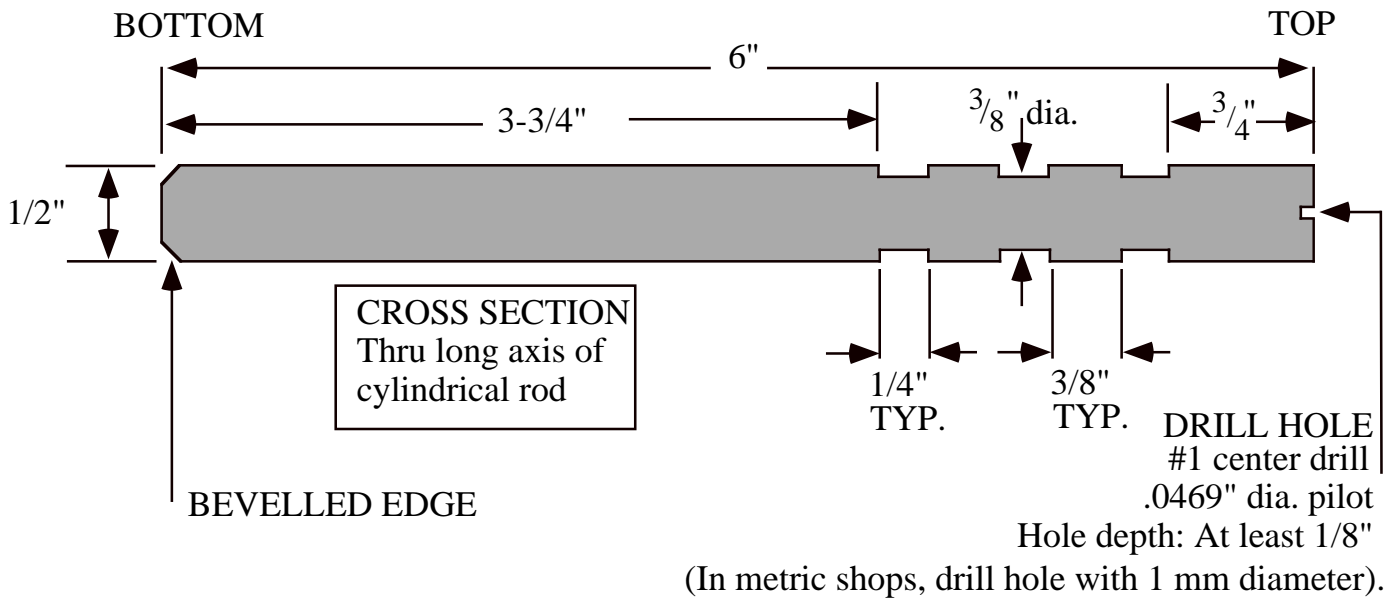
MACHINE SHOP SPECIFICATIONS

TOLERANCES: ALL DIMENSIONS $\pm 1/64$ " (Except drill hole diameter)

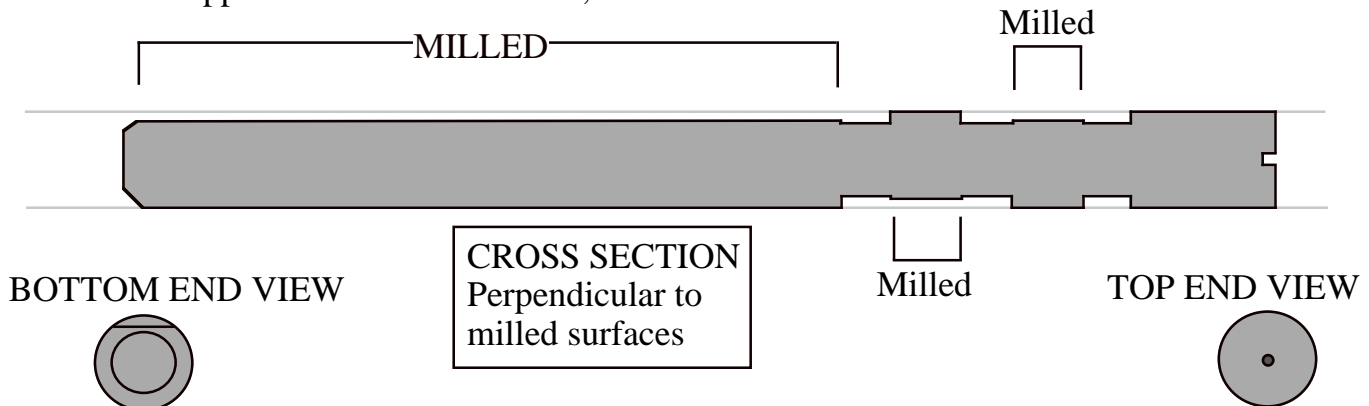
Use cylindrical stainless steel rod such as #304, which is reasonably machinable and highly corrosion resistant.

Cut the three grooves. We use a lathe tool $1/8$ " wide, and make two cuts per groove. Do not bother to make the base of the grooves really smooth. Use plenty of cutting oil to prevent chattering during groove cutting.

Cut a bevel on bottom (approx. 45°), and center drill the top end.



Next mill a flat surface onto the lower shank of the pin, and the top $3/8$ " notch, then rotate roughly 180° and mill the other notch. Mill down approx. $.055$ " in each case, as shown below.



**STAINLESS STEEL PIN FOR USE AS A GEODETIC
REFERENCE MARK. 6" x 1/2" Pin, Version 2**

design by Mike Bevis, NCSU April 1992
with suggestions from George Hade (Cornell)
Cash Johnson and Haywood Burnette (NCSU)
James Stowell (UNVACO) and Ken Hudnut (Caltech).

Note added in 1998: Tech 2000 now makes these pins with a slightly conical hole to optimize their use with the Tech 2000 GPS antenna mast (a fixed-height spike mount leveled under tension).