

**【Question】**

Tell me about the "Taper" and "Taper angle" of the Japan PT Tapered pipe thread, an ISO R and Rc Tapered pipe thread and an American Tapered pipe thread (NPT・NPTF).

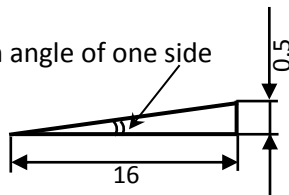
**【Answer】**

The Taper rate for PT, R, Rc and American tapered pipe threads is 1 in 16 or 3/4" inch taper per foot (62.5 millimeters per meter) measured by the change of diameter of the pipe thread over the length of the thread.

**【Improvement】**

The Taper rate of tapered pipe threads is 1 in 16.  
The angle between the taper and the center axis of the pipe is  $\tan^{-1}(1/32) = 1.7899^\circ$  or  $1^\circ 47' 24''$ .

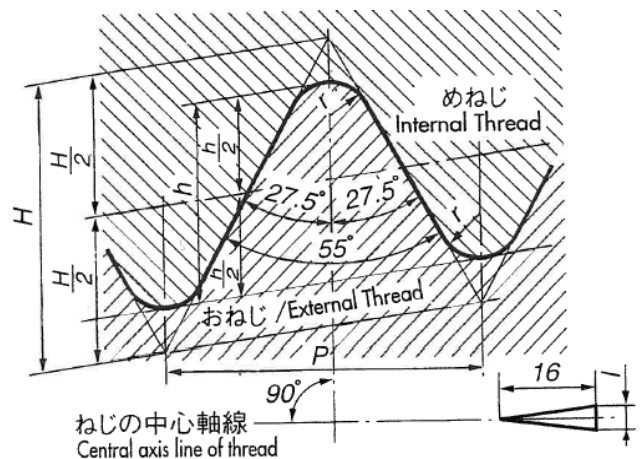
Inclination angle of one side



The pipe thread taper angle is double the inclination angle or  $3^\circ 34' 47''$ . That wasn't difficult was it?

$$\begin{aligned}
 H &= 0.960237P \\
 h &= 0.640327P & P &= 25.4/n \\
 r &= 0.137278P & n &= \text{山数} / \text{Threads per inch}
 \end{aligned}$$

Taper Pipe Threads: Basic profile of Rc threads.



Since the American Taper Pipe Threads NPT and NPTF have the same 1 in 16 taper rate, the taper angle of these threads is also  $3^\circ 34' 47''$ .