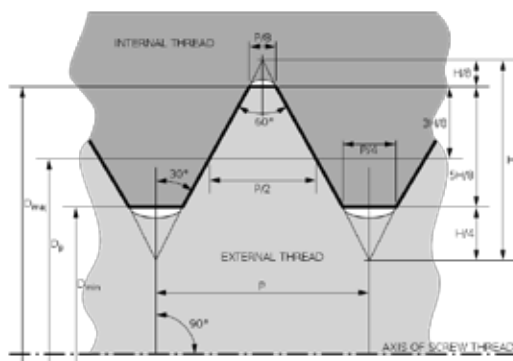


# TI / NI CUT TAPS

Titanium and Ti-alloys  
Nickel and Ni-alloys

Material group	Approximate Rc	Approximate HB	Recommended SFM					
			HSS-E		HSS-E-PM		Solid carbide	
			bright finish	hard coated	bright finish	hard coated	bright finish	hard coated
Titanium and Ti-alloys	—	140-275	—	—	—	20-30	—	—
	—	300-380	—	—	—	10-18	—	—
Nickel and Ni-alloys	—	200-300	—	—	—	10-18	—	—
	—	>300	—	—	—	6-12	—	—

If you have customers who are suppliers to the aerospace or military Industries, you will encounter “J” or “Controlled root radius” thread requirements.



The differences between these and UNC or UNF threads are as follows:

The external thread is manufactured with radii in the root of the thread for added strength, and to extend the integrity of the threading tool.

The internal thread is manufactured to 3B class of fit tolerancing for the pitch diameter, and will need to use a larger drill for the minor diameter to accommodate the root radius in the bolt.

ANY UN-3B tap will produce a legitimate “UNJ” internal thread.