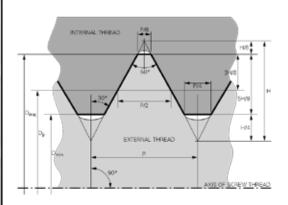
## TI/NI CUT TAPS

## Titanium and Ti-alloys Nickel and Ni-alloys

| Material group         | Approximate<br>Rc | Approximate<br>HB | Recommended SFM |        |          |        |               |        |
|------------------------|-------------------|-------------------|-----------------|--------|----------|--------|---------------|--------|
|                        |                   |                   | HSS-E           |        | HSS-E-PM |        | Solid carbide |        |
|                        |                   |                   | bright          | hard   | bright   | hard   | bright        | hard   |
|                        |                   |                   | finish          | coated | finish   | coated | finish        | coated |
| Titanium and Ti-alloys | -//               | 140-275           | /-              | -//    | _        | 20-30  | _             | _      |
|                        | _                 | 300-380           | -/              | _      | -        | 10-18  | 1             | _      |
| Nickel and Ni-alloys   | 7                 | 200-300           | -               | _      | -0       | 10-18  | -             | _      |
|                        |                   | >300              | 1               |        | <u> </u> | 6-12   | 4-            |        |

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.