TAP COATINGS / Optiuni acoperire pentru tarozi functie de aplicatie

Recommended Tap Coating Based on Material Types	
Coating Description	**Designator**
Titanium Carbon Nitride	TiCN
Titanium Nitride	TiN
Chromium Nitride	CrN
Chrome Plating	KF1-B
Steam Oxide	J100
Nitride Oxide	NQ5
No Treat	No Treat

A=Best B=Good C=Fair Shaded=Not Recommended						
Material/Coatings:	**TiCN**	**TiN**	**CrN**	**KF1-B**	**J100**	**Hard Lube**
Cold Roll Steel	B	A				
Hot Roll Steel	B	A				
Pre-Plated	C	B	A			
Electro-galvanized	C	B	A			
Aluminum		C	B		A	A
Stainless Steel	A	B				
Copper			A		B	C
Brass			B	A	C	A

Consider H Factor for Tweaking Tap Size	
2B or 6H Fit	First choice in most cases
Undersize	Used if no/go gauge goes through the material
Oversize	Used if the threads are too tight after part has been plated
H or D Factor	Every H or D Factor (1 - 10) = .0005 bigger or smaller size tap than 2B or 6H size

TITANIUM CARBONITRIDE (TiCN)- is a special PVD coating, which includes titanium nitride. TiCN hardens the surface to approximately 90 Rockwell C and has a lower coefficient of friction than TiN. TiCN works particularly well in abrasive and gummy materials and in high speed, high production applications.

TITANIUM NITRIDING (TiN)- provides a layer of titanium, which is applied to the tap surface with the PVD method. This treatment reduces the coefficient of friction and hardens the surface to 80-85 Rockwell C. The TiN treatment is ideal for the majority of forming applications. This treatment is not recommended for tapping titanium and has performed poorly in high nickel alloys, brass and galvanized steels. Titanium Nitride is the standard treatment on all Stub Jarflo taps.

CHROMIUM NITRIDE (CrN)- provides a coating applied with the physical vapor deposition method (PVD). CrN coating has a hardness of 75-80 Rockwell C. This treatment is designed for titanium and high nickel alloys and has worked well in galvanized steel applications.

CHROME PLATING (KF1-B)- provides a layer of hard chrome which is electrochemically deposited on the surface of the tool. This treatment reduces the coefficient of friction and helps prevent galling. This treatment works well in brass applications.

STEAM-OXIDING (J-100)- provides a diamond blue/black finish that stress relieves the microstructure of the tap and provides an oxide film that reduces galling.

NITRIDING (NQ-5)- case hardens the cutting tool surface to 66-68 Rockwell C and provides increased wear resistance with a black surface finish that acts as lubricant to reduce frictional heat and galling.

BRIGHT- provides no surface treatment. This condition has been used in brass applications with some success.