

## SPECIAL TAPS ENGINEERING DATA

### ECCENTRICITY TOLERANCES OF TAP ELEMENTS WHEN TESTED ON DEAD CENTERS

(Ref. USCTI Table 317)

Applicable to Tables 302,303,303A,and 311

Element	Range			Ground Thread	
	Inch & Mach. Screw	Pipe	Metric	Eccentricity	t.i.v.*
Square (at central point)	#0 - 1/2"	1/16 - 1/8"	M1.6 - M12	.0030	.0060
	Over 1/2" thru 4"	1/4 - 4"	Over M12 Thru M100	.0040	.0080
Shank	#0 - 5/16"	1/16"	M1.6 - M8	.0005	.0010
	Over 5/16" thru 4"	1/8 - 4"	Over M8 thru M100	.0008	.0016
Major Diameter	#0 - 5/16"	1/16"	M1.6 - M8	.0005	.0010
	Over 5/16" thru 4"	1/8 - 4"	Over M8 thru M100	.0008	.0016
Pitch Diameter (at first full thread)	#0 - 1/2"	1/16"	M1.6 - M8	.0005	.0010
	Over 1/2" thru 4"	1/8 - 4"	Over M8 thru M100	.0008	.0016
Chamfer**	#0 - 1/2"	1/16 - 1/8"	M1.6 - M12	.0010	.0020
	Over 1/2" thru 4"	1/4 - 4"	Over M12 Thru M100	.0015	.0030

\* t.i.v. = Total indicator variation. Figures are given for both eccentricity and total indicator variation to avoid misunderstanding.

\*\*Chamfer should preferably be inspected by light projection to avoid errors due to indicator contact points dropping into the thread grooves.

## SURFACE TREATMENT ABBREVIATIONS

See page 88 for surface treatment recommendations.

CrC:	Chromium Carbide	TiAlN:	Titanium Aluminum Nitride
CrN:	Chromium Nitride	TiCN:	Titanium Carbonitride
N:	Nitride	TiN:	Titanium Nitride
N + O:	Nitride + Oxide	WC/C:	Tungsten Carbide/Carbon
O:	Steam Oxide	DLC:	Diamond-like Carbon
AlCrN:	Aluminum Chromium Nitride	AlTiN+PLC	Aluminum Titanium Nitride + PLC (Polymer-like Carbon)

