



TOCLAMP^{ULTRA}™ HARDWARE

Part Number		
	Insert Extractor	Hub Set
TSC3.0631.000A	HZS.0012	-
TSC3.0871.000A	HZS.0012	-
TSC4.0631.000A	HZS.0012	-
TSC4.1221.000K	HZS.0012	FL-0002
TSC4.1881.000K	DR-0031	FL-0002
TSC5.1221.250K	HZS.0012	FL-0003
TSC5.1881.250K	DR-0031	FL-0003
TSC6.1221.500K	HZS.0012	FL-0004
TSC6.1881.500K	DR-0031	FL-0004
TSC6.2361.500K	DR-0031	FL-0004
TSC8.1221.500K	HZS.0012	FL-0004
TSC8.1881.500K	DR-0031	FL-0004
TSC8.2361.500K	DR-0031	FL-0004

TOCLAMP^{ULTRA}™ OPERATING GUIDELINES

Series TSC				Feed per Insert by Width Range				Grades			Coolant
	Material	Brinnell Hardness	SFM	0.063	.087-.094	.122-.161	.188-.250	TT6030	TT8020	TT9030	
Aluminum	6061-T6, 7075-T6, 2024	-	700 - 800	.001-.004	.002-.007	.002-.008	.003-.009	1			Yes
Cast Iron	Gray	150 - 250	300 - 600	.001-.004	.002-.006	.002-.007	.003-.008	1		2	No
	Nodular		250 - 500								
Steel	Low Carbon 1018, 8620	100 - 250	400 - 700	.001-.004	.002-.006	.002-.007	.003-.008		1	2	No
	High Carbon F-6180	250 - 400	300 - 600								
	Alloyed Steel 4140, 4340	150 - 300	300 - 500								
	Tool Steel A-6, D-1, D-2	Up to 300									
Stainless Steel	300 Series, 304, 316	-	300 - 500	.001-.004	.002-.006	.002-.006	.003-.006		1	2	May not be required at high speeds
	400 Series 15-5 PH	Up to 320	350 - 550								
	13-8 PH	-	200 - 400								
Nickel Alloys	Inconel, Hastelloy, Waspalloy	-	70-100	.001-.003	.002-.005	.002-.005	.002-.005		2	1	Yes
Titanium	6AL-4V	-	100 - 130	.001-.003	.002-.005	.002-.005	.002-.005		1	2	Yes