

**Cutter Series:**  
1TJ1C, TJ1C

**Insert Series:**  
ENHU05 (90°)  
UNHU05 (Hi-Feed)

**Diameters:**  
.500" - 2.00"

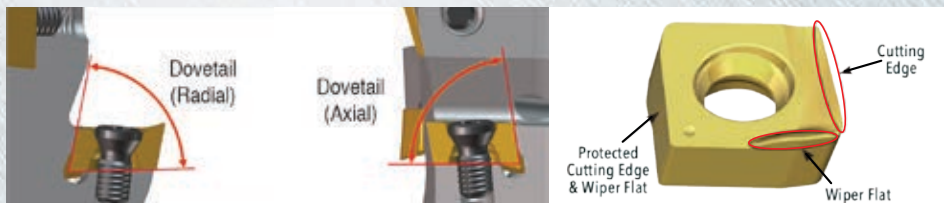
**Materials:**  
Cast Iron, Steel, Stainless Steel,  
Hardened Steel, High-Temp Alloys

**Depth of Cut:**  
90°: .186"  
Hi-Feed: .019"

## Easy-Loading 5mm I.C. Micro Insert That Runs At Maximum Feed Rates

### Features & Benefits:

- Double dovetail pockets allow for easy insert indexing - Insert clamps in pocket while affixing the screw.
- Double dovetail pocket along with strong M2.0 insert screw promotes ultra stable insert mounting - To be run at high feed rates!
- Double positive insert geometry offers .18" axial depth of cut capability with 2 indexes.
- Integrated wiper flats produce surface finishes as good as Ra 32
- Equipped with fine pitched densities for high productivity machining
- This multi-functional tool does everything - Ramps, Plunges, Interpolates - and does them aggressively!



**PRODUCT  
ANNOUNCEMENT**

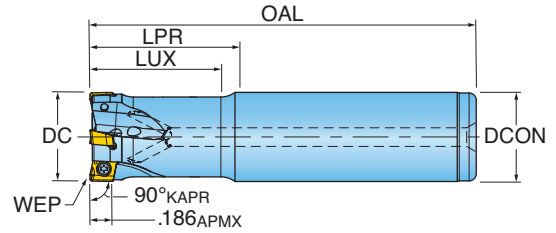
**UPDATE**

**2019**



## SERIES 1TJ1C (CYLINDRICAL STYLE) (5MM)

90° END MILL WITH 2 INDEXES

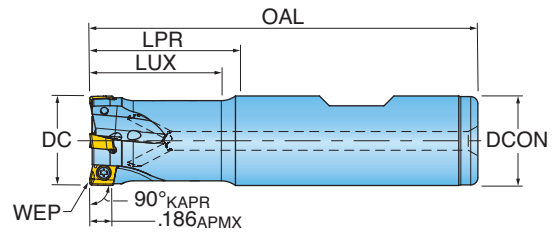


WEP - See insert drawing for wiper options.

Part Number	DC Cutting Dia.	LUX Usable Length Max.	LPR Protruding Length	OAL Overall Length	ZEFF Effective Teeth	DCON Shank Dia.	RMPX Ramp Angle Max.
1TJ1C-05012S4R01	0.500	0.75	1.22	3.00	2	0.500	6.9
1TJ1C-06020S6R01	0.625	1.25	2.09	4.00	3	0.625	4.4
1TJ1C-07030S7R01	0.750	1.25	3.00	5.00	4	0.750	3.3
1TJ1C-10037S1R01	1.000	1.25	3.75	6.00	5	1.000	2.2

## SERIES 1TJ1C (WELDON STYLE) (5MM)

90° END MILL WITH 2 INDEXES



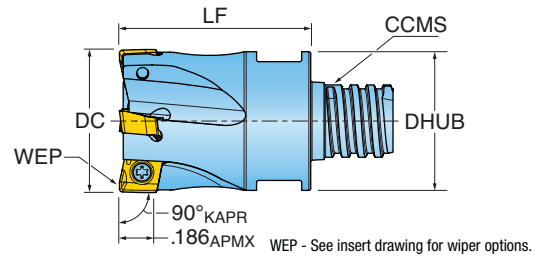
WEP - See insert drawing for wiper options.

Part Number	DC Cutting Dia.	LUX Usable Length Max.	LPR Protruding Length	OAL Overall Length	ZEFF Effective Teeth	DCON Shank Dia.	RMPX Ramp Angle Max.
1TJ1C-0600779R01	0.625	0.72	0.75	2.66	3	0.625	4.4
1TJ1C-0701284R01	0.750	1.22	1.25	3.25	4	0.750	3.3
1TJ1C-1001780R01	1.000	1.72	1.75	4.00	6	1.000	2.2
1TJ1C-1001784R01	1.000	1.75	1.75	3.75	5	0.750	2.2



## SERIES 1TJ1C (T-ADAPTION STYLE) (5MM)

90° MODULAR END MILL WITH 2 INDEXES

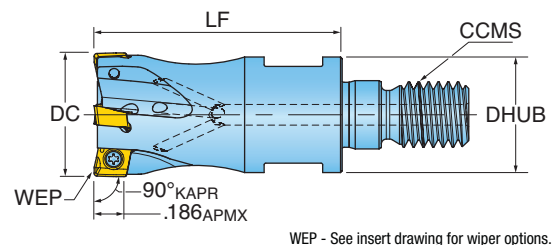


Part Number	DC Cutting Dia.	LF Functional Length	ZEFF Effective Teeth	CCMS Connection Code	DHUB Hub Dia.	CSP Coolant	RMPX Ramp Angle Max.
1TJ1C-05006T8R01	0.500	0.65	2	Chip Surfer T08	.48	Yes	6.9
1TJ1C-06008TRR01	0.625	0.80	3	Chip Surfer T10	.60	Yes	4.4
1TJ1C-07007T8R01*	0.750	0.75	4	Chip Surfer T08	.48	No	3.3
1TJ1C-07010TSR01	0.750	1.00	4	Chip Surfer T12	.72	Yes	3.3
1TJ1C-10007T8R01*	1.000	0.75	5	Chip Surfer T08	.48	No	2.2
1TJ1C-10012TUR01	1.000	1.25	5	Chip Surfer T15	.94	Yes	2.2

\* Ideal for Swiss Machines. Recommend with SERIES ER16T08SA shanks.

## SERIES 1TJ1C (M-ADAPTION STYLE) (5MM)

90° MODULAR END MILL WITH 2 INDEXES

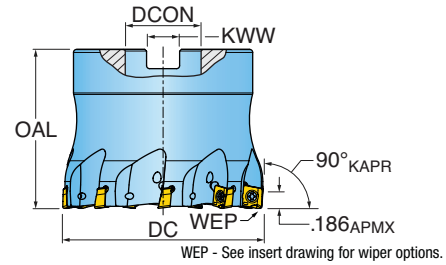


Part Number	DC Cutting Dia.	LF Functional Length	ZEFF Effective Teeth	CCMS Connection Code	DHUB Hub Dia.	RMPX Ramp Angle Max.
1TJ1C-06010X5R01	0.625	1.00	3	TopOn M08	0.50	4.4
1TJ1C-07015X6R01	0.750	1.50	4	TopOn M10	0.69	3.3
1TJ1C-10015X7R01	1.000	1.50	5	TopOn M12	0.81	2.1



## SERIES TJ1C (5MM)

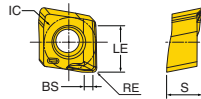
90° FACE MILL WITH 2 INDEXES



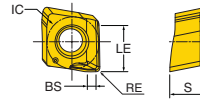
Part Number	DC Cutting Dia.	OAL Overall Length	ZEFF Effective Teeth	DCON Shank Dia.	KWW Keyway	RMPX Ramp Angle Max.
TJ1C-15R01	1.500	1.57	8	0.500	0.250	1.3
TJ1C-20R01	2.000	1.57	9	0.750	0.312	.9

## INSERTS & HARDWARE (5MM)

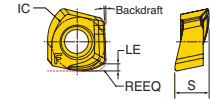
ENHU05\_R



ENHU05\_R-PH



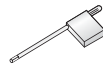
UNHU05



Part Number	Application	RE/BCH Corner Rad./ Chamfer	REEQ Prog. Rad. Equivalent	BS Wiper Length	LE Cutting Edge Length	IC Inscribed Circle Dia.	S Thickness	NOI No. of Indexes	IH Insert Hand	Grade					
										IN2504	IN2505	IN2510	IN2530	IN6515	IN7035
ENHU050302R	Multi-Purpose	0.008	-	0.030	0.180	0.203	0.133	2	Right		•		•		
ENHU050304R	Multi-Purpose	0.015	-	0.030	0.180	0.203	0.133	2	Right	•	•	•	•	•	
ENHU050304R-PH	SS/Hi-Temp/Ti	0.015	-	0.030	0.180	0.203	0.133	2	Right				•		•
ENHU050308R	Multi-Purpose	0.031	-	0.015	0.180	0.203	0.133	2	Right	•	•	•	•	•	
ENHU050308R-PH	SS/Hi-Temp/Ti	0.031	-	0.015	0.180	0.203	0.133	2	Right				•		•
ENHU050316R	Multi-Purpose	0.062	-	0.015	0.180	0.203	0.133	2	Right	•	•		•		
UNHU0503TR	Hi-Feed	-	0.035	-	0.019	0.203	0.126	2	Right				•		•



Screw



Driver



Retention Bolt



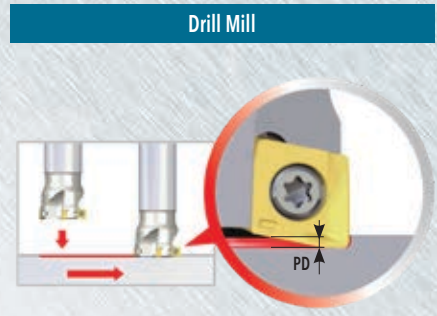
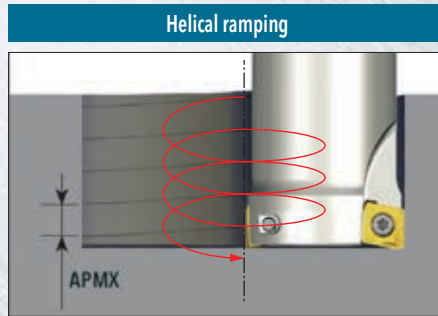
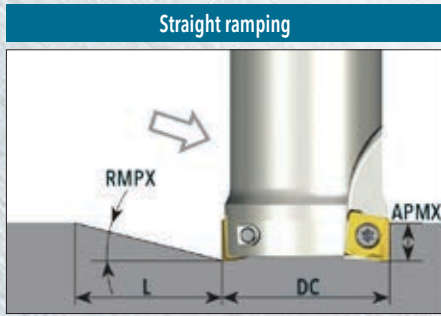
Optional Torque Driver Handle



Optional Bit

1TJ1C	SM20-043-00	DS-TP06S-NEU	-	DTN005S	DS-TP06TB
TJ1C-15R01	SM20-043-00	DS-TP06S-NEU	SD-04-46	DTN005S	DS-TP06TB
TJ1C-20R01	SM20-043-00	DS-TP06S-NEU	SD-06-46	DTN005S	DS-TP06TB





## RAMP DATA USING SERIES ENHU (90°)

DC Cutting Dia.	Straight Ramp			Helical Ramp			PD Plunge Depth
	RMPX Ramp Angle	L	APMX	Min. Dia. Milled Hole	Max. Dia. Milled Hole	APMX / Rev	
0.50	6.9	1.5	0.18	0.61	-	0.041	0.027
				-	1.00	0.180	
0.62	4.4	2.3	0.18	0.86	-	0.057	0.027
				-	1.25	0.150	
0.75	3.3	3.1	0.18	1.11	-	0.065	0.027
				-	1.50	0.135	
1.00	2.2	4.7	0.18	1.60	-	0.072	0.027
				-	2.00	0.120	
1.50	1.3	7.9	0.18	2.60	-	0.078	0.027
				-	3.00	0.180	
2.00	0.9	11.5	0.18	3.60	-	0.078	0.027
				-	4.00	0.098	

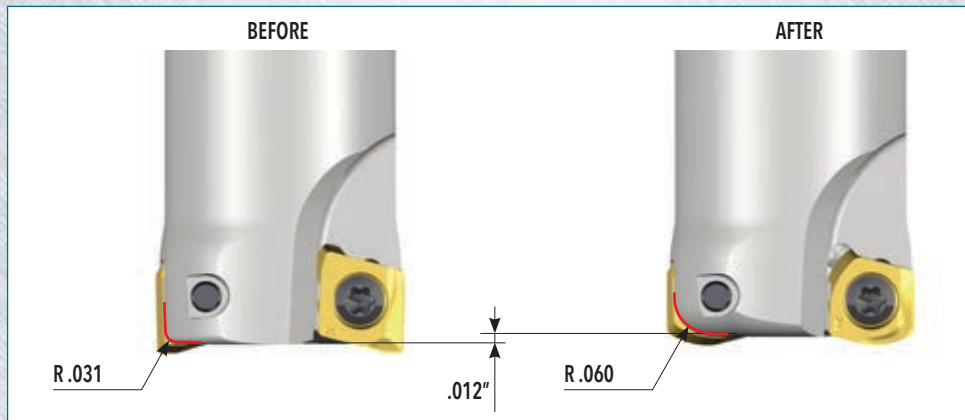
## RAMP DATA USING SERIES UNHU (HI-FEED)

DC Cutting Dia.	Straight Ramp			Helical Ramp			PD Plunge Depth
	RMPX Ramp Angle	L	APMX	Min. Dia. Milled Hole	Max. Dia. Milled Hole	APMX / Rev	
0.50	5.0	0.2	0.019	0.77	-	0.019	0.015
				-	1.00	0.019	
0.62	2.7	0.4	0.019	1.02	-	0.019	0.015
				-	1.25	0.019	
0.75	1.7	0.6	0.019	1.27	-	0.019	0.015
				-	1.50	0.019	
1.00	1.2	0.9	0.019	1.77	-	0.019	0.015
				-	2.00	0.019	
1.50	0.6	1.8	0.019	2.77	-	0.019	0.015
				-	3.00	0.019	
2.00	0.2	5.4	0.019	3.77	-	0.019	0.015
				-	4.00	0.019	

## HI-FEED INSERT TECHNICAL DATA


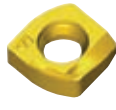

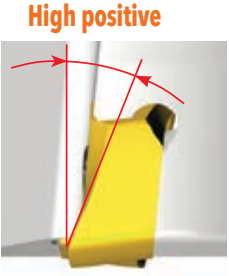
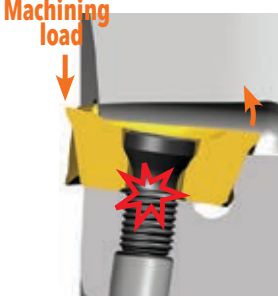
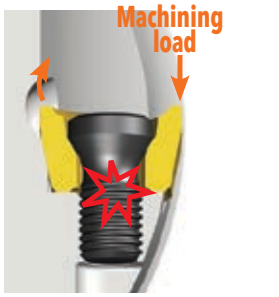
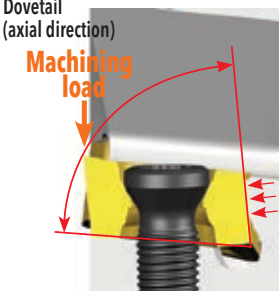
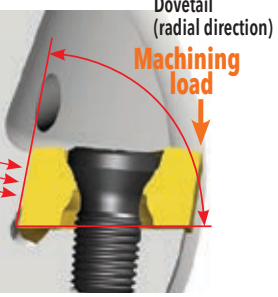
### Housing Modification for Hi-Feed Insert

When using the new UNHU0503TR Hi-Feed insert, check to ensure the cutter body does not protrude beyond the trailing edge of the Hi-Feed Insert. If it does, the housing corner can be modified on a lathe or grinder by removing .012" off the face and enlarging the corner radius to R.060 (illustrated below).



### Double Dovetail Pocket Advantage

With single-side inserts, the insert screw bears most of the machining load, which frequently causes breakage. The UNHU05 insert's double dovetail structure supports the machining load for more stable machining.

Competitor's mini 90 degree high feed insert		UNHN0503TR	
			
Single sided, 2 corners		Double-sided, 2 corners (Double-dovetail)	
M1.8 screw		M2.0 screw	
			
			



## OPERATING GUIDELINES

DiPos TETRA - Series 1TJ1C, TJ1C						IN7035	IN2504	IN2505	IN2510	IN2530	IN6515	Coolant
Material	Brinnell Hardness	SFM	ENHU Feed per Insert	UNHU Feed per Insert								
Cast Iron	Gray	150 - 250	300 - 1000	.003 - .007	.020 - .040				1	2	No	
	Nodular		300 - 600						2	1		
Steel	Low Carbon 1018, 8620	100 - 250	400 - 1000	.003 - .007	.020 - .040						No	
	High Carbon F-6180	250 - 400	350 - 500									
	Alloyed Steel 4140, 4340	150 - 300	300 - 700									
	Tool Steel A-6, D-1, D-2	Up to 300										
Stainless Steel	300 Series, 304, 316	-	300 - 550	.002 - .005	.020 - .030						May not be required at high speeds	
	400 Series 15-5 PH	Up to 320	350 - 600			1	3	2				
	13-8 PH	-	200 - 400						Yes			
Nickel Alloys	Inconel, Hastelloy, Waspalloy	-	75-120	.002 - .005	.020 - .030	1	3	2			Yes	
Titanium	6AL-4V	-	100 - 150	.002 - .005	.020 - .030	1	3	2			Yes	
Hardened Steel	All	-	165 - 360	.002 - .005	.020 - .030		1	2			No	