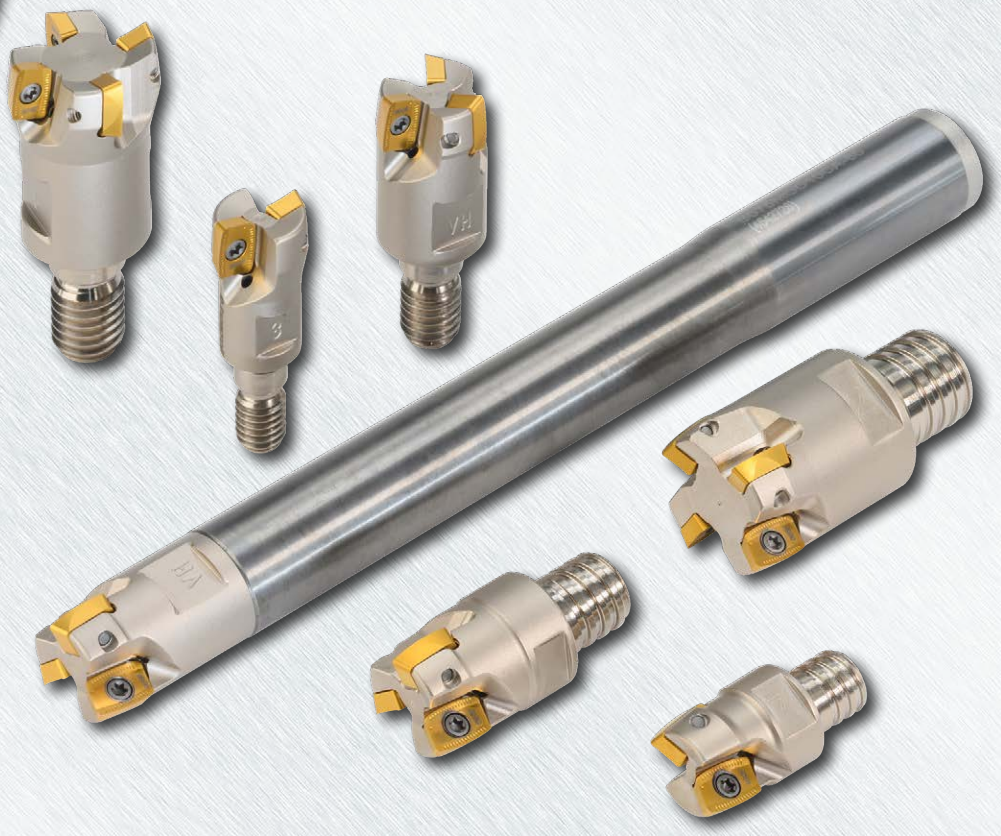
SFEEDUP™ HIGH SPEED & FEED

INDUSTRY 4.0 PRODUCT ANNOUNCEMENT UPDATE 2021

HIPOSPROB™

MILLING PRODUCTS



Cutter Series:
12L8J

Diameters:
.625", .750", 1.000"

Insert Series:
CDHT09

Grades:
IN2504 / IN2505
IN2530
IN05S / IN3004

Materials:
For finishing of all materials

Barrel-style Indexable End Mills for Fast and Pristine Finishing of Straight and Profiled Surfaces

Features & Benefits:

- Precisely crowned inserts decrease finishing time by allowing greater axial advance, "step-downs"
- The insert's seating surfaces are precisely ground to minimize run-out and improved surface finish, even at high feed rates
- Cutter diameters of .625", .750" and 1.00" are each available in our popular Top-On and ultra-precise Chip-Surfer adaptions
- Inclined inserts allow for the finishing of a larger range of stock conditions
- High shear insert geometry and keen cutting edges are ideal for semi-finish and finish milling

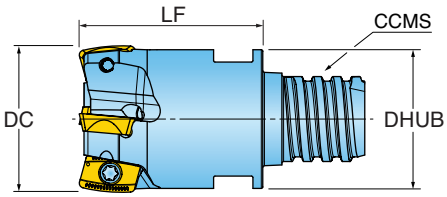
AHB TOOLING & MACHINERY
COMPLETE METALWORKING SOLUTIONS
(800) 991-4225 www.ahbinc.com
ISO Certified customerservice@ahbinc.com

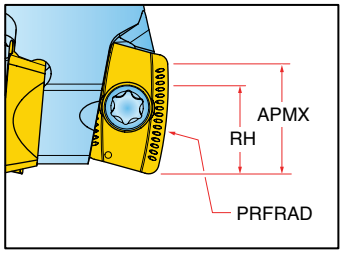
Member IMC Group Ingersoll Cutting Tools

HIPOSPROB™ SERIES 12L8J (CHIPSURFER STYLE)

INDEXABLE BARREL FORM, USING 20MM PROFILE RADIUS INSERT (CDHT090320R-M...)

Shoulder | Contouring | Coolant



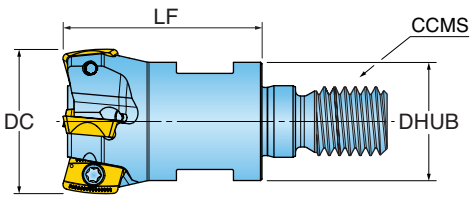


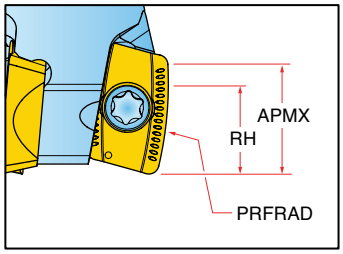
Part Number	DC Cutting Diameter	PRFRAD Profile Radius	PRFRAD_2 Profile Radius	PRFRAD_3 Profile Radius	RH Radius Height	APMX Depth of Cut Max.	LF Functional Length	ZEFF Effective Teeth	CCMS Connection Code	DHUB Hub Diameter
12L8J-06008TRR01	0.625	0.032	1.189	0.032	0.285	0.378	0.813	2	Chip Surfer T10	0.605
12L8J-07010TSR01	0.750	0.032	1.181	0.032	0.285	0.379	1.000	3	Chip Surfer T12	0.725
12L8J-10012TUR01	1.000	0.032	1.17	0.032	0.285	0.378	1.250	4	Chip Surfer T15	0.945

HIPOSPROB™ SERIES 12L8J (TOP•ON STYLE)

INDEXABLE BARREL FORM, USING 20MM PROFILE RADIUS INSERT (CDHT090320R-M...)

Shoulder | Contouring | Coolant



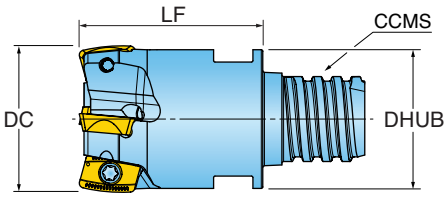


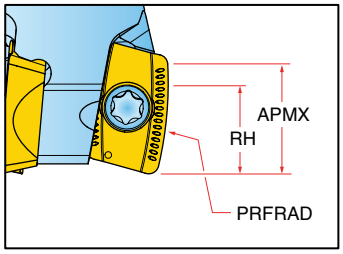
Part Number	DC Cutting Diameter	PRFRAD Profile Radius	PRFRAD_2 Profile Radius	PRFRAD_3 Profile Radius	RH Radius Height	APMX Depth of Cut Max.	LF Functional Length	ZEFF Effective Teeth	CCMS Connection Code	DHUB Hub Diameter
12L8J-06010X5R01	0.625	0.032	1.189	0.032	0.285	0.375	0.813	2	Top-On M8	0.605
12L8J-07011X6R01	0.750	0.032	1.1811	0.032	0.285	0.379	1.000	3	Top-On M10	0.725
12L8J-10013X7R01	1.000	0.032	1.17	0.032	0.285	0.378	1.250	4	Top-On M12	0.945

HIPOSPROB™ SERIES 12L8J (CHIPSURFER STYLE)

INDEXABLE BARREL FORM, USING 30MM PROFILE RADIUS INSERT (CDHT090330R-M...)

Shoulder | Contouring | Coolant



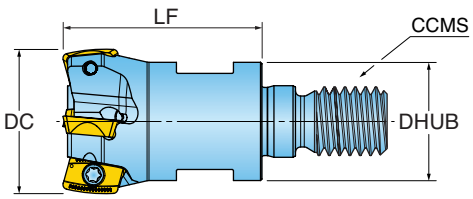


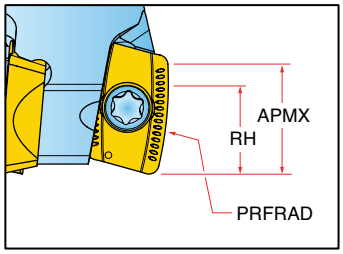
Part Number	DC Cutting Diameter	PRFRAD Profile Radius	RH Radius Height	APMX Depth of Cut Max.	LF Functional Length	ZEFF Effective Teeth	CCMS Connection Code	DHUB Hub Diameter
12L8J-06008TRR01	0.623	1.189	0.285	0.379	0.813	2	Chip Surfer T10	0.605
12L8J-07010TSR01	0.748	1.181	0.285	0.379	1.000	3	Chip Surfer T12	0.725
12L8J-10012TUR01	0.998	1.170	0.285	0.379	1.250	4	Chip Surfer T15	0.945

HIPOSPROB™ SERIES 12L8J (TOP•ON STYLE)

INDEXABLE BARREL FORM, USING 30MM PROFILE RADIUS INSERT (CDHT090330R-M...)

Shoulder | Contouring | Coolant



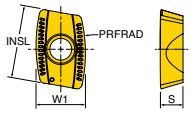


Part Number	DC Cutting Diameter	PRFRAD Profile Radius	RH Radius Height	APMX Depth of Cut Max.	LF Functional Length	ZEFF Effective Teeth	CCMS Connection Code	DHUB Hub Diameter
12L8J-06010X5R01	0.623	1.189	0.285	0.379	1.000	2	Top-On M8	0.502
12L8J-07011X6R01	0.748	1.181	0.285	0.379	1.125	3	Top-On M10	0.699
12L8J-10013X7R01	0.998	1.170	0.285	0.379	1.375	4	Top-On M12	0.817

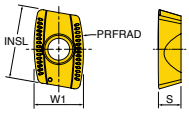
HIPOSPROB™ INSERTS

ML / MLP

CDHT09-ML



CDHT09-MLP



Part Number	Application	PRFRAD Profile Radius	INSL Insert Length	W1 Insert Width	S Thickness	IH Insert Hand	NOI Number of Indexes	Grade	IN2504	IN2505	IN2530	IN055	IN3004
CDHT090320R-ML	Finishing	.7874	0.375	0.256	0.118	Right	2		•	•	•		
CDHT090320R-MLP	Sharp-For Aluminum	.7874	0.375	0.256	0.118	Right	2					•	•
CDHT090330R-ML	Finishing	1.1811	0.375	0.256	0.118	Right	2		•	•	•		
CDHT090330R-MLP	Sharp-For Aluminum	1.1811	0.375	0.256	0.118	Right	2					•	•

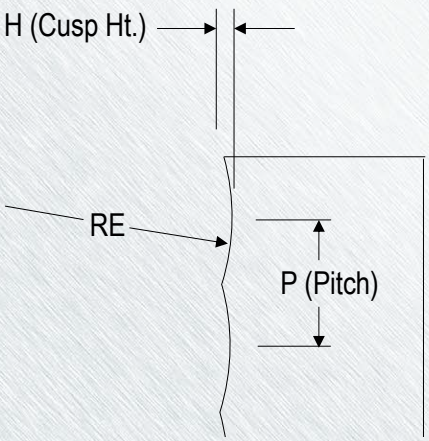
Note: PRFRAD varies with each size profile radius insert. See pages 2-3 for appropriate dimensions.

HIPOSPROB™ HARDWARE

	 Insert Screw	 Screw Driver	 **OPTIONAL** Torque Driver Handle	 **OPTIONAL** Preset Torque Bit	 **OPTIONAL** Torque Driver Bit
12L8J-06008TRR01	SE25-054-00	DS-T08W	DS-A00-.25S	DT-11-.25	DS-T08B
12L8J-07010TSR01	SE25-054-00	DS-T08W	DS-A00-.25S	DT-11-.25	DS-T08B
12L8J-10012TUR01	SE25-054-00	DS-T08W	DS-A00-.25S	DT-11-.25	DS-T08B
12L8J-06010X5R01	SE25-054-00	DS-T08W	DS-A00-.25S	DT-11-.25	DS-T08B
12L8J-07011X6R01	SE25-054-00	DS-T08W	DS-A00-.25S	DT-11-.25	DS-T08B
12L8J-10013X7R01	SE25-054-00	DS-T08W	DS-A00-.25S	DT-11-.25	DS-T08B

Note: Torque to 10.6 in-lbs.

HIPOSPROB™ BARREL CUTTER PROGRAMMING CONSIDERATIONS



To calculate P for a given cusp height use the formula:

$$P = 2\sqrt{2RE\,H + H^2}$$

EXAMPLE:
Calculate the Pitch to generate a cusp height of .001" when using a .750" dia. straight type barrel cutter with 30mm radius inserts.

$$P = 2\sqrt{2RE\,H + H^2}$$

$$P = 2\sqrt{2\,(1.181)\,(.001) + (.001^2)}$$

$$P = .097$$

HIPOSPROB™ OPERATING GUIDELINES

Materials				V_c Cutting Speed SFM	H_{ex} Max. Chip Thickness (inch)	Harder <----------> Tougher					Coolant	Geometry
ISO	Mat'l Group #VDI 3323	Type	Examples			IN3004	IN2504	IN2505	IN05S	IN2530		ML
P	1 thru 5	Non-alloy Steel	1018, A36, 1045, A572, 1070	400-650	.001-.005			1		2	NO	1
	6 thru 9	Low-alloy Steel	4140, 4340, P20, 8620, 300M	350-500	.001-.005			1		2	NO	1
	10, 11	High-alloy Steel	H13, A2, D2, M2, T1	250-500	.001-.005			1		2	NO	1
M	12 thru 13	Stainless Steel (Ferritic & Martensitic)	410, 416, 440	350-500	.001-.004			2		1	YES	1
	14	Stainless Steel (Austenitic)	303, 304, 316, 15-5, 17-4	300-500	.001-.004			2		1	YES	1
K	15 thru 16	Gray Cast Iron	CLS. 20, 30, 45	500-700	.001-.008		1	2		3	NO	1
	17 thru 20	Nodular Cast Iron	60-40-18, 100-70-03	400-650	.001-.005			1		2	NO	1
N	21 thru 30	Aluminum	7075, 6061	500+	.001-.008	1			2		YES	1
S	31 thru 35	High-Temp Alloys	Inconel, Hastelloy, Nimonic, Monel	60-130	.001-.004			2		1	YES	1
	36 thru 37	Titanium Alloys	6AL-4V, 5Al-5Mo-5V-3Cr	65-150	.001-.004			2		1	YES	1
H	38 thru 39	Hardened Steel >48	A2, 01, D2	150-400	.001-.003		1	2		3	NO	1

Note: Feed and speed recommendations are starting operating parameters. They are only guidelines from which further optimization should take place. Operating parameters are influenced by many machining variables. These variables may cause for reductions in feeds and speed or dramatic increases. Additionally, DOC and WOC may need to be revised to optimize the tools performance.

Typical radial cutting depth: 0.005-0.030".
Typical axial step: 0.010-0.100".
Actual parameters will be heavily dependent on surface finish requirements.