

BLACKOMAX™

MILLING PRODUCTS

Diameters
1.00" - 6.00"

Depth of Cut
.31

Insert Style
LSE324R045-S (neg/pos)

Insert Grades
IN4030, IN4040

Materials
Steel
Iron



SHEAR CLEAR

- GENIUS

Features & Benefits:

- Heavy Duty 45 degree lead Facemill series is ideally suited for massive chip-loads in forged steels, cast steels and irons
- Ingersoll's "Shear-Clear" combines an extremely strong insert with high axial shear, "a unique combination of insert strength and shear."
- High insert-to-pocket preload provides stable chip formation in the most demanding applications.
- Integral and ground wiping flats deliver exceptional surface finishes

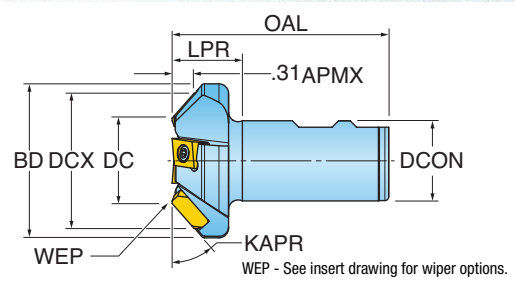




BLACKMAX™ SERIES 19N1A



45 DEGREE END MILL WITH 4 INDEXES



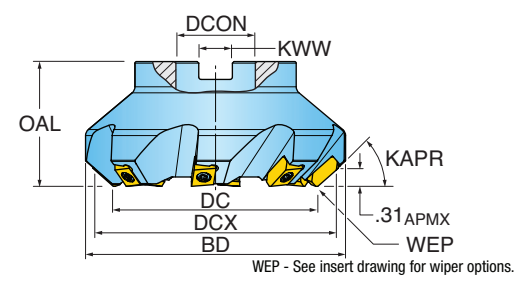
Part Number	DC Cutting Dia.	DCX Cutting Dia. Max.	KAPR Cutting Edge Angle	LPR Projection Length	OAL Overall Length	ZEFF Eff. Teeth	BD Body Dia.	DCON Shank Dia.
19N1A-1001180R01	1.000	1.560	48	1.13	3.38	4	1.840	1.000
19N1A-1501181R01	1.500	2.120	45	1.13	3.38	4	2.400	1.250
19N1A-2001181R01	2.000	2.640	44	1.13	3.38	6	2.900	1.250

Insert screw tightening torque: 30-35 in*lb.

BLACKMAX™ SERIES 9N6A



45 DEGREE FACE MILL WITH 4 INDEXES



Part Number	DC Cutting Dia.	DCX Cutting Dia. Max.	KAPR Cutting Edge Angle	OAL Overall Length	ZEFF Eff. Teeth	BD Body Dia.	DCON Bore Dia.	KWW Keyway
9N6A-02R01	2.000	2.640	44.1	1.750	4	2.900	0.750	0.312
9N6A-02R02	2.000	2.640	44.1	1.750	6	2.900	1.000	0.375
9N6A-03R01	3.000	3.660	43.3	1.750	6	3.950	1.000	0.375
9N6A-04R01	4.000	4.670	42.9	2.375	8	4.950	1.500	0.625
9N6A-06R01	6.000	6.680	42.5	2.375	8	7.000	1.500	0.625

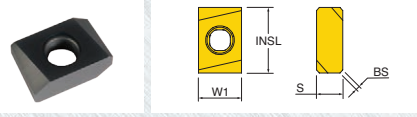
Insert screw tightening torque: 30-35 in*lb.



BLACKMAX™ INSERTS



LSE324R045-S



Part Number	Application	BS Wiper Length	INSL Insert Length	W1 Insert Width	S Thickness	NOI Number of Indexes	IH Insert Hand	Grade	IN4030	IN4040
LSE324R045-S	Multi-Purpose	0.038	0.625	0.410	0.25	4	Right		•	•

BLACKMAX™ HARDWARE



	Insert Screw	Driver Handle	Driver Bit	Retention Bolt	Torque Driver Handle	Preset Torque Bit	Torque Driver Bit
19N1A-1001180R01	SM40-140-R0	DS-A00T	DS-T156B	-	DS-A00-.25-T	DT-35-.25	DS-T15B
19N1A-1501181R01	SM40-140-R0	DS-A00T	DS-T156B	-	DS-A00-.25-T	DT-35-.25	DS-T15B
19N1A-2001181R01	SM40-140-R0	DS-A00T	DS-T156B	-	DS-A00-.25-T	DT-35-.25	DS-T15B
9N6A-02R01	SM40-140-R0	DS-A00T	DS-T156B	SD-06-46	DS-A00-.25-T	DT-35-.25	DS-T15B
9N6A-02R02	SM40-140-R0	DS-A00T	DS-T156B	SD-08-46	DS-A00-.25-T	DT-35-.25	DS-T15B
9N6A-03R01	SM40-140-R0	DS-A00T	DS-T156B	SD-08-46	DS-A00-.25-T	DT-35-.25	DS-T15B
9N6A-04R01	SM40-140-R0	DS-A00T	DS-T156B	SD-12-82	DS-A00-.25-T	DT-35-.25	DS-T15B
9N6A-06R01	SM40-140-R0	DS-A00T	DS-T156B	SD-12-01	DS-A00-.25-T	DT-35-.25	DS-T15B

BLACKMAX™ OPERATING GUIDELINES



MATERIALS				Vc Cutting Speed SFM	fz* Feed/Tooth (inch)	GRADES		Coolant
ISO	Mat'l Group #VDI 3323	Type	Examples			Harder <-----> Tougher		
						IN4040	IN4030	
P	1 - 5	Non-alloy Steel	1018, A36, 1045, A572, 1070	600 - 900	.004 - .020	1	2	NO
	6 - 9	Low-alloy Steel	4140, 4340, P20, 8620, 300M	300 - 700	.004 - .020	1	2	NO
	10 - 11	High-alloy Steel	H13, A2, D2, M2, T1	300 - 700	.004 - .020	1	2	NO
K	15 - 16	Gray Cast Iron	CLS. 20, 30, 45	600 - 1200	.004 - .020	1	2	NO
	17 - 18	Nodular Cast Iron	60-40-18, 100-70-03	500 - 900	.004 - .020	1	2	NO
H	38 - 39	Hardened Steel >48	A2, O1, D2	150 - 250	.002 - .004	1	2	NO

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.