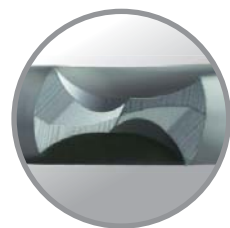


i-Center Indexable center insert

- NC 2033: K20F grade carbide insert and TiAlN coated for carbon steel, alloy steel, high alloy steel, cast iron and Al, Al-alloy, Cu, Cu-alloy.
- 2 cutting edges, high performance for center drilling.
- Metric sizes: DIN 332 A+B, DIN 332 R, Ø1~Ø10 mm
- Inch sizes: ANSI (BS) #2~10



2 cutting flutes

• DIN332 Form R



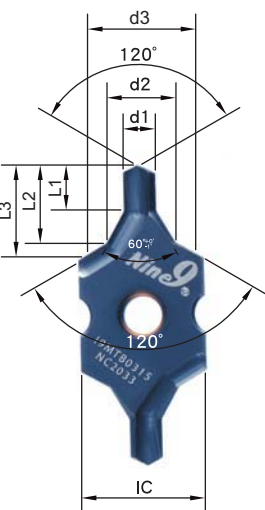
Code	Parts No.	d1	d2	L1	L2	R		IC
						min.	max.	
032201	I9MT08T1R0100-NC2033	1.00	3.15	3.0	4.44	2.5	3.15	08 Mini i-Center
032202	I9MT08T1R0125-NC2033	1.25	3.15	3.35	4.94	3.15	4.0	
032203	I9MT08T1R0160-NC2033	1.60	4.0	4.25	5.53	4.0	5.0	
032204	I9MT08T1R0200-NC2033	2.00	5.0	5.3	6.48	5.0	6.3	
033201	I9MT12T2R0200-NC2033	2.00	5.0	5.3	6.72	5.0	6.3	12
033202	I9MT12T2R0250-NC2033	2.50	6.3	6.7	8.29	6.3	8.0	
033203	I9MT12T2R0315-NC2033	3.15	8.0	8.5	9.94	8.0	10.0	16
034201	I9MT1603R0400-NC2033	4.00	10.0	10.6	12.84	10.0	12.5	
034202	I9MT1603R0500-NC2033	5.00	12.5	13.2	14.78	12.5	16.0	20
035201	I9MT2004R0630-NC2033	6.30	16.0	17.0	18.83	16.0	20.0	
035202	I9MT2004R0800-NC2033	8.00	20.0	21.2	21.2	20.0	25.0	25
036201	I9MT2506R1000-NC2033	10.00	25.0	26.5	26.5	25.0	31.5	



• DIN332 Form A+B



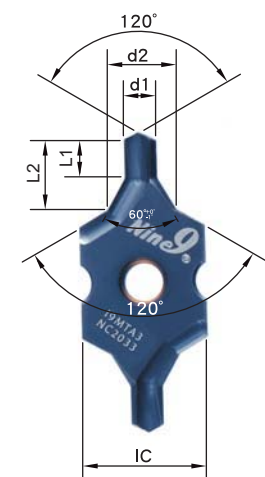
Code	Parts No.	d1	d2	d3	L1	L2	L3	IC
032002	I9MT08T1B0125-NC2033	1.25	2.65	8.0	1.6	3.05	4.60	
032003	I9MT08T1B0160-NC2033	1.60	3.35	8.0	2.0	3.86	5.20	
032004	I9MT08T1B0200-NC2033	2.00	4.25	8.0	2.5	4.79	5.87	
033001	I9MT12T2B0200-NC2033	2.00	4.25	6.3	2.5	4.3	4.9	12
033002	I9MT12T2B0250-NC2033	2.50	5.3	8	3.1	5.5	6.8	
033003	I9MT12T2B0315-NC2033	3.15	6.7	10	3.9	7.4	9.0	16
034001	I9MT1603B0400-NC2033	4.00	8.5	12.5	5.0	9.5	10.6	
034002	I9MT1603B0500-NC2033	5.00	10.6	16	6.3	11.7	13.3	20
035001	I9MT2004B0630-NC2033	6.30	13.2	18	8.0	14.6	15.9	
035002	I9MT2004B0800-NC2033	8.00	17.0	20	10.1	18.6	19.4	25
036001	I9MT2506B1000-NC2033	10.00	21.2	25	12.8	23.2	24.3	



• ANSI 60°



Code	Parts No.	Size	d1		d2		L1		L2	IC
			mm	mm	mm	mm				
033101	I9MT12T2A2-NC2033	#2	5/64	1.98	3/16	4.76	5/64	1.98	4.4	12
033102	I9MT12T2A3-NC2033	#3	7/64	2.78	1/4	6.35	7/64	2.78	5.9	
033103	I9MT12T2A4-NC2033	#4	1/8	3.18	5/16	7.94	1/8	3.18	7.3	16
034101	I9MT1603A5-NC2033	#5	3/16	4.76	7/16	11.11	3/16	4.76	10.3	
035101	I9MT2004A6-NC2033	#6	7/32	5.56	1/2	12.7	7/32	5.56	11.8	20
035102	I9MT2004A7-NC2033	#7	1/4	6.35	5/8	15.88	1/4	6.35	14.6	
035103	I9MT2004A8-NC2033	#8	5/16	7.94	3/4	19.05	5/16	7.94	17.6	25
036101	I9MT2506A10-NC2033	#10	3/8	9.53	0.98"	25.0	3/8	9.53	22.9	



i-Center Cutting data

Attention:

- For d1 < 4 mm or size #5, be sure the center misalignment is less than 0.05mm.
- If the misalignment of the turret center of the CNC lathe is above 0.15mm, please use the Center Height Adjusting Sleeve (see page 44).
- For low spindle speed special purpose machines or lathes, lower spindle speed is allowed but the feed rate should be maintained.



• Ø1~Ø4 (#2~#5)

Work piece material	Vc (m/min.)	d1	f (mm/rev.)					Cutting fluid
			IC08		IC12			
			Ø1~1.25	Ø1.6~2 (#2)	Ø2 (#2)	Ø2.5 (#3)	Ø3.15 (#4)	
Carbon steel C<0.3%	60-70-80		(S=17825 rpm) 0.02-0.03-0.05	(S=13930 rpm) 0.03-0.05-0.06	(S=11140 rpm) 0.04-0.06-0.08	(S=8912 rpm) 0.06-0.08-0.10	(S=7073 rpm) 0.08-0.10-0.12	emulsion
Carbon steel C>0.3%	50-60-70		(S=17825 rpm) 0.02-0.03-0.05	(S=11940 rpm) 0.03-0.04-0.05	(S=9549 rpm) 0.03-0.04-0.05	(S=7639 rpm) 0.06-0.08-0.10	(S=6063 rpm) 0.08-0.10-0.12	emulsion
Low alloy steel C<0.3%	45-55-65		(S=14005 rpm) 0.01-0.02-0.04	(S=10950 rpm) 0.02-0.03-0.05	(S=8753 rpm) 0.02-0.03-0.05	(S=7002 rpm) 0.04-0.06-0.08	(S=5557 rpm) 0.06-0.08-0.10	emulsion
High alloy steel C>0.3%	40-50-60		(S=12732 rpm) 0.01-0.02	(S=9950 rpm) 0.01-0.02-0.04	(S=7957 rpm) 0.01-0.02-0.04	(S=6366 rpm) 0.02-0.04-0.06	(S=5052 rpm) 0.04-0.06-0.08	emulsion
Stainless Steel	5-10-20		-	-	(S=1592 rpm) 0.01-0.02	(S=1270 rpm) 0.01-0.02-0.03	(S=1010 rpm) 0.02-0.03-0.05	emulsion internal ≥ 5 bar
Casting iron	50-60-70		(S=15278 rpm) 0.01-0.02-0.04	(S=11940 rpm) 0.02-0.04-0.06	(S=9549 rpm) 0.02-0.04-0.06	(S=7639 rpm) 0.04-0.06-0.08	(S=6063 rpm) 0.06-0.08-0.10	dry
Al, and non-ferrous metal	100-150 -200		(S=38197 rpm) 0.01-0.02-0.03	(S=29850 rpm) 0.01-0.02-0.04	(S=23873 rpm) 0.01-0.02-0.04	(S=19098 rpm) 0.02-0.03-0.05	(S=15157 rpm) 0.02-0.04-0.06	emulsion

• Ø5~Ø10 (#6~#10)

Work piece material	Vc (m/min.)	d1	f (mm/rev)					Cutting fluid
			IC16		IC20		IC25	
			Ø4 (#5)	Ø5	#6	Ø6.3 (#7)	Ø8 (#8)	
Carbon steel C<0.3%	60-70-80		(S=5570 rpm) 0.08-0.12-0.14	(S=4456 rpm) 0.10-0.12-0.16	(S=3536 rpm) 0.10-0.14-0.16	(S=2785 rpm) 0.12-0.15-0.18	(S=2228 rpm) 0.14-0.18-0.20	emulsion
Carbon steel C>0.3%	50-60-70		(S=4774 rpm) 0.08-0.12-0.14	(S=3819 rpm) 0.10-0.12-0.16	(S=3031 rpm) 0.10-0.14-0.16	(S=2387 rpm) 0.12-0.15-0.18	(S=1909 rpm) 0.14-0.18-0.20	emulsion
Low alloy steel C<0.3%	45-55-65		(S=4376 rpm) 0.06-0.08-0.10	(S=3501 rpm) 0.08-0.10-0.12	(S=2778 rpm) 0.08-0.12-0.14	(S=2188 rpm) 0.10-0.14-0.16	(S=1750 rpm) 0.12-0.16-0.20	emulsion
High alloy steel C>0.3%	40-50-60		(S=3978 rpm) 0.04-0.06-0.08	(S=3183 rpm) 0.06-0.08-0.10	(S=2526 rpm) 0.08-0.10-0.12	(S=1989 rpm) 0.10-0.14-0.16	(S=1591 rpm) 0.10-0.14-0.16	emulsion
Stainless Steel	10-15-25		(S=1194 rpm) 0.02-0.04-0.06	(S=955 rpm) 0.02-0.04-0.06	(S=758 rpm) 0.04-0.06-0.08	(S=597 rpm) 0.04-0.06-0.08	(S=477 rpm) 0.05-0.07-0.10	emulsion internal ≥ 5 bar
Casting iron	50-60-70		(S=4774 rpm) 0.06-0.08-0.10	(S=3819 rpm) 0.08-0.10-0.12	(S=3031 rpm) 0.08-0.12-0.14	(S=2387 rpm) 0.10-0.14-0.16	(S=1909 rpm) 0.12-0.16-0.18	dry
Al, and non-ferrous metal	100-150 -200		(S=11936 rpm) 0.02-0.04-0.06	(S=9549 rpm) 0.04-0.06-0.08	(S=7578 rpm) 0.04-0.06-0.08	(S=5968 rpm) 0.06-0.08-0.10	(S=4774 rpm) 0.06-0.08-0.10	emulsion

Disassemble

