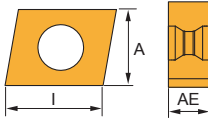


CNGX Inserts



Tolerances (mm)

I=±0.025 AE=±0.025 A=±0.025

Dimensions (mm)			
Insert Code	AE	I	A
1005	5.4	10.0	10
1305		12.7	
1605		16.0	

Inserts	Order Code	Grades										
		Carbide					Cermet	Uncoated				
		B100	C200	C250	F20	F30	CE100	CE60		K10		CE
	CNGX 1005-E											
	CNGX 1305-E											
	CNGX 1605-E											
	CNGX 1005-ME	☉										
	CNGX 1305-ME	☉										
	CNGX 1605-ME	☉										
	CNGX 1005T-M											
	CNGX 1305T-M											
	CNGX 1605T-M											

Inserts 10 PCS / Box

- Steel Stainless Steel Steel/Stainless Steel /Super alloy Cast Iron Aluminum Steel/Cast Iron
- ☉ Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: CNGX 1005-E,F20

Recommendation-LNGT Inserts

LNGT Insert Grade Selection

Material group	Recom. fz (mm/tooth)	Inserts			
		LNGT ... M	LNGT...ME	LNGT...EE	
1	0.04-0.12	B100	B100	-	-
2	0.04-0.10	B100	B100	-	-
3	0.04-0.10	B100	B100	-	-
4	0.04-0.10	B100	B100	-	-
5	0.04-0.08	B100	B100	-	-
6	0.04-0.07	B100	B100	-	-
7	0.03-0.06	-	B100	-	-
8	0.04-0.12	-	B100	-	-
9	0.04-0.10	-	B100	-	-
10	0.04-0.09	-	B100	-	-
11	0.04-0.08	-	B100	-	-
12	0.04-0.12	-	F20	-	-
13	0.04-0.12	-	F20	-	-
14	0.04-0.11	-	F20	-	-
15	0.04-0.10	-	F20	-	-
16	0.06-0.13	-	-	F20	-
17	0.06-0.12	-	-	F20	-
18	0.06-0.11	-	-	F20	-
19	0.06-0.09	-	B100	-	-
20	0.06-0.08	-	B100	-	-
21	0.04-0.06	-	B100	-	-
22	0.04-0.07	-	B100	-	-

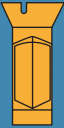


Recommendation-LNGT Inserts

• LNGT Insert Recommended Cutting speed, Vc(m/min)

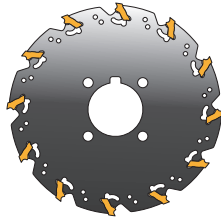
Material group	Grades						
	B100	C250	F20	CE60	CE	K10	F30
	fz (mm/tooth)						
	0.03 0.05 0.08		0.05 0.09 0.13				
Cutting speed, Vc (m/min)							
1	215 195 168	-	-	-	-	-	-
2	168 151 135	-	-	-	-	-	-
3	151 135 122	-	-	-	-	-	-
4	134 122 109	-	-	-	-	-	-
5	121 109 97	-	-	-	-	-	-
6	109 - -	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	160 - 80	-	-	-	-	-	-
9	160 - 80	-	-	-	-	-	-
10	80 - 50	-	-	-	-	-	-
11	80 - 50	-	-	-	-	-	-
12	-	-	168 142 126	-	-	-	-
13	-	-	151 126 117	-	-	-	-
14	-	-	134 117 109	-	-	-	-
15	-	-	105 97 -	-	-	-	-
16	-	-	1150 950 850	-	-	-	-
17	-	-	950 780 700	-	-	-	-
18	-	-	950 780 700	-	-	-	-
19	50 45 -	-	-	-	-	-	-
20	50 45 -	-	-	-	-	-	-
21	35 40 -	-	-	-	-	-	-
22	50 45 -	-	-	-	-	-	-

• Type Of Inserts

	Insert Code	Width of slot (mm)
	1414	1.4
	2020	2.0
	2525	2.5
	3030	3.0
	4040	4.0
	5050	5.0


Recommendation-LNGT Inserts

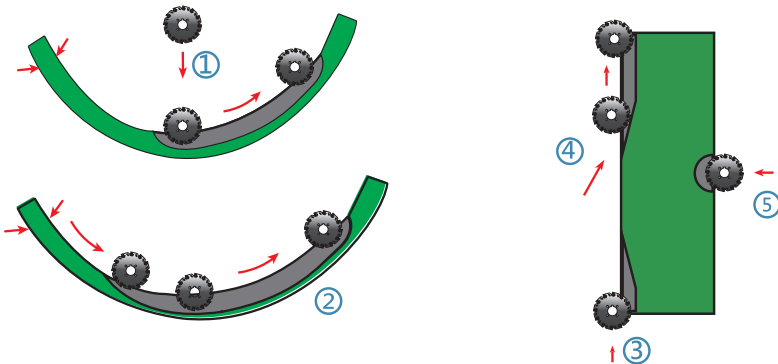
f_z (mm / thoooh)



Insert

• f_z (mm/tooth)

 AE	f_z (mm/tooth)					
	Material group					
	1 2 3 4	5 6	8 9 10 11	12 13 14 15	16 17 18	19 20 21 22
1.4-1.7 mm	0.02-0.03	0.015-0.025	0.03-0.04	0.02-0.04	0.02-0.04	0.015-0.025
1.8-2.2 mm	0.03-0.05	0.03-0.04	0.03-0.04	0.03-0.06	0.03-0.08	0.02-0.03
2.5-3.0 mm	0.03-0.06	0.03-0.05	0.02-0.03	0.03-0.08	0.03-0.1	0.03-0.04
3.0-3.5 mm	0.04-0.08	0.03-0.06	0.03-0.06	0.04-0.1	0.04-0.1	0.03-0.05
4.0-4.5 mm						
5.0-5.5 mm	0.05-0.1	0.04-0.08	0.04-0.07	0.05-0.12	0.05-0.17	0.04-0.06



- ① Plunging to mill : F_z reduce to 50%
- ② Ramping to mill : F_z remain 100%
- ③ Mill : F_z remain 100%
- ④ Ramping : F_z remain 100%
- ⑤ Plunging to mill : F_z reduce to 50%



Recommendation-SNGX / SNGW Inserts

• SNGX / SNGW Insert Grade Selection

Material group	Recom. fz (mm/tooth)	Inserts			
		SNGX ... M SNGW ...M	SNGX ... ME SNGW ... ME	SNGX ... EE SNGW ... EE	
1	0.14-0.30	C250/B100	B100	-	-
2	0.14-0.25	C250/B100	B100	-	-
3	0.14-0.22	C250/B100	B100	-	-
4	0.14-0.22	C250/B100	B100	-	-
5	0.14-0.20	C250/B100	B100	-	-
6	0.10-0.15	C250/B100	B100	-	-
7	0.10-0.13	C250/B100	B100	-	-
8	0.14-0.25	-	B100	-	-
9	0.14-0.22	-	B100	-	-
10	0.14-0.20	-	B100	-	-
11	0.10-0.15	-	B100	-	-
12	0.14-0.30	-	F30	-	-
13	0.14-0.22	-	F30	-	-
14	0.14-0.20	-	F30	-	-
15	0.10-0.15	-	F30	-	-
16	0.16-0.30	-	-	F20	-
17	0.16-0.25	-	-	F20	-
18	0.16-0.20	-	-	F20	-
19	0.14-0.20	-	B100	-	-
20	0.14-0.18	-	B100	-	-
21	0.10-0.13	-	B100	-	-
22	0.14-0.20	-	B100	-	-

Recommendation-SNGX / SNGW Inserts

• Recommended Cutting Speed, Vc(m/min)

Material group	Grades														
	B100			C250			F20			CE60	CE	K10	F30		
	fz (mm/tooth)														
	0.1	0.2	0.3	0.1	0.2	0.3	0.1	0.2	0.3				0.1	0.2	0.3
Cutting Speed, Vc (m/min)															
1	186	166	150	166	146	130	-	-	-	-	-	-	-	-	
2	168	150	135	148	130	115	-	-	-	-	-	-	-	-	
3	151	136	122	131	116	102	-	-	-	-	-	-	-	-	
4	136	122	110	116	102	90	-	-	-	-	-	-	-	-	
5	120	110	99	100	90	79	-	-	-	-	-	-	-	-	
6	92	78	-	72	58	-	-	-	-	-	-	-	-	-	
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8	160	-	80	-	-	-	-	-	-	-	-	-	-	-	
9	160	-	80	-	-	-	-	-	-	-	-	-	-	-	
10	80	-	50	-	-	-	-	-	-	-	-	-	-	-	
11	80	-	50	-	-	-	-	-	-	-	-	-	-	-	
12	-	-	-	-	-	-	-	-	-	-	-	140	119	105	
13	-	-	-	-	-	-	-	-	-	-	-	126	105	98	
14	-	-	-	-	-	-	-	-	-	-	-	119	98	91	
15	-	-	-	-	-	-	-	-	-	-	-	91	88	-	
16	-	-	-	-	-	-	1150	950	850	-	-	-	-	-	
17	-	-	-	-	-	-	950	780	700	-	-	-	-	-	
18	-	-	-	-	-	-	950	780	700	-	-	-	-	-	
19	55	45	-	-	-	-	-	-	-	-	-	-	-	-	
20	55	45	-	-	-	-	-	-	-	-	-	-	-	-	
21	46	38	-	-	-	-	-	-	-	-	-	-	-	-	
22	55	45	-	-	-	-	-	-	-	-	-	-	-	-	

• Type Of Inserts

Insert Code	Width of slot (mm)
1203	6
1204	7
12045	8
1205	10
1207	12



Recommendation - CNGX Inserts

• CNGX Insert Grade Selection


Material group	Recom. fz (mm/tooth)	Inserts			
		CNGX ... M	CNGX...ME	CNGX...E	
1	0.2-0.4	C250/B100	B100	-	-
2		C250/B100	B100	-	-
3	0.2-0.35	C250/B100	B100	-	-
4		C250/B100	B100	-	-
5	0.2-0.32	C250/B100	B100	-	-
6		C250/B100	B100	-	-
7	0.15-0.3	C250/B100	B100	-	-
8	0.2-0.4	-	B100	-	-
9		-	B100	-	-
10	0.2-0.33	-	B100	-	-
11		-	B100	-	-
12	0.22-0.4	-	F30	-	-
13		-	F30	-	-
14	0.2-0.35	-	F30	-	-
15		-	F30	-	-
16	0.22-0.42	-	-	F20	-
17		-	-	F20	-
18		-	-	F20	-
19	0.2-0.3	-	B100	-	-
20		-	B100	-	-
21	0.15-0.25	-	B100	-	-
22	0.2-0.25	-	B100	-	-

• Recommended Cutting Speed, Vc(m/min)

Material group	Grades									
	B100		C250		F20		CE60	CE	K10	F30
	fz (mm/tooth)									
	0.1 0.2 0.3		0.1 0.2 0.3		0.1 0.2 0.3					
Cutting Speed, Vc (m/min)										
1	162	140	123	162	140	123	-	-	-	-
2	146	123	105	146	123	105	-	-	-	-
3	120	101	92	120	101	92	-	-	-	-
4	109	92	84	109	92	84	-	-	-	-
5	90	78	70	90	78	70	-	-	-	-
6	63	56	-	64	56	-	-	-	-	-
7	-	-	-	28	-	-	-	-	-	-
8	160	-	70	-	-	-	-	-	-	-
9	160	-	70	-	-	-	-	-	-	-
10	80	-	50	-	-	-	-	-	-	-
11	80	-	50	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	140 119 105
14	-	-	-	-	-	-	-	-	-	126 105 98
15	-	-	-	-	-	-	-	-	-	119 98 91
16	-	-	-	-	-	-	-	-	-	91 84 -
17	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-
19	40	37	-	-	-	-	-	-	-	-
20	40	37	-	-	-	-	-	-	-	-
21	35	30	-	-	-	-	-	-	-	-
22	40	37	-	-	-	-	-	-	-	-

Insert

• Type Of Inserts

	Insert Code	Width of slot (mm)
	1005	14-16
	1305	18-24
	1605	25-30

