Size φ1～φ12

C-CRS

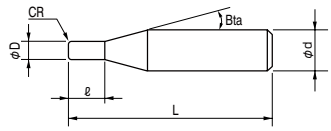
Super MG | UT COAT | 30° | R | R ±0.02 | Shank Dia 0/-0.005

Material Applications (☆ Highly Recommended ◎ Recommended ○ Suggested)

Work Material														
Carbon Steels S45C S55C	Alloy Steels SK / SCM SUS	Prehardened Steels NAK HPM	Hardened Steels ～55HRC	Hardened Steels ～60HRC	Hardened Steels ～70HRC	Cast Iron	Aluminum Alloys	Graphite	Copper	Plastics	Glass Filled Plastics	Titanium Alloys	Heat Resistant Alloys	Cemented Carbide	Hard Brittle (Non-Metallic) Materials
◎	◎	◎	◎			○			◎			○	○		

Features

Various range of Corner Radius.
Broad application range from Carbon Steels up to Hardened Steels (55HRC).



Total 46 models

Unit (mm)

Model Number	Outside Diameter φD	Corner Radius CR	Length of Cut ℓ	Shank Taper Angle Bta	Overall Length L	Shank Diameter φd	Price (¥)
C-CRS 2010-02	1	R0.2	2	16°	45	4	7,900
C-CRS 2010-03		R0.3			45	4	7,900
C-CRS 2015-02	1.5	R0.2	3	16°	45	4	7,900
C-CRS 2015-03		R0.3			45	4	7,900
C-CRS 2015-05		R0.5			45	4	7,900
C-CRS 2020-02	2	R0.2	4	16°	45	4	7,900
C-CRS 2020-03		R0.3			45	4	7,900
C-CRS 2020-05		R0.5			45	4	7,900
C-CRS 2025-02	2.5	R0.2	5	16°	45	4	7,900
C-CRS 2025-03		R0.3			45	4	7,900
C-CRS 2025-05		R0.5			45	4	8,600
C-CRS 2030-02	3	R0.2	10	16°	45	6	9,030
C-CRS 2030-03		R0.3			45	6	9,030
C-CRS 2030-05		R0.5			45	6	9,980
C-CRS 2030-10		R1			45	6	10,710

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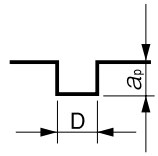
Unit (mm)

Model Number	Outside Diameter φD	Corner Radius CR	Length of Cut ℓ	Shank Taper Angle Bta	Overall Length L	Shank Diameter φd	Price (¥)
C-CRS 2040-02	4	R0.2	12	16°	45	6	9,140
C-CRS 2040-03		R0.3			45	6	9,140
C-CRS 2040-05		R0.5			45	6	10,080
C-CRS 2040-10		R1			45	6	10,820
C-CRS 2050-02	5	R0.2	15	16°	50	6	9,240
C-CRS 2050-03		R0.3			50	6	9,240
C-CRS 2050-05		R0.5			50	6	10,190
C-CRS 2050-10		R1			50	6	10,920
C-CRS 2060-02	6	R0.2	15	—	50	6	10,190
C-CRS 2060-03		R0.3			50	6	10,190
C-CRS 2060-05		R0.5			50	6	10,400
C-CRS 2060-10		R1			50	6	11,130
C-CRS 2060-15		R1.5			50	6	11,550
C-CRS 2060-20		R2			50	6	11,870
C-CRS 2080-05	8	R0.5	20	—	60	8	14,740
C-CRS 2080-10		R1			60	8	15,510
C-CRS 2080-15		R1.5			60	8	15,950
C-CRS 2080-20		R2			60	8	16,280
C-CRS 2080-25		R2.5			60	8	16,720
C-CRS 2100-05	10	R0.5	25	—	70	10	19,140
C-CRS 2100-10		R1			70	10	19,910
C-CRS 2100-15		R1.5			70	10	20,350
C-CRS 2100-20		R2			70	10	20,680
C-CRS 2100-25		R2.5			70	10	21,120
C-CRS 2100-30		R3			70	10	21,120
C-CRS 2120-05	12	R0.5	25	—	75	12	23,980
C-CRS 2120-10		R1			75	12	24,750
C-CRS 2120-15		R1.5			75	12	25,190
C-CRS 2120-20		R2			75	12	25,520
C-CRS 2120-25		R2.5			75	12	25,960
C-CRS 2120-30		R3			75	12	25,960

Milling Conditions for C-CRS

WORK MATERIAL		CARBON STEELS S45C / S50C (～225HB)		ALLOY STEELS SK / SCM / SUS (225～325HB)		PREHARDENED STEELS HARDENED STEELS NAK / SKD (30～45HRC)		HARDENED STEELS SKD11 / 61 / SKT (45～50HRC)	
Velocity		*Vc*=40～60m/min		*Vc*=30～40m/min		*Vc*=25～30m/min		*Vc*=15～25m/min	
Model Number	Outside Diameter (mm)	Spindle Speed (min^{-1})	Feed Rate (mm/min)	Spindle Speed (min^{-1})	Feed Rate (mm/min)	Spindle Speed (min^{-1})	Feed Rate (mm/min)	Spindle Speed (min^{-1})	Feed Rate (mm/min)
2010	**1**	16,000	340	12,700	120	9,550	65	5,580	22
2020	**2**	8,000	200	6,400	120	4,800	55	2,790	31
2025	**2.5**	6,300	200	5,100	120	3,800	55	2,250	31
2030	**3**	5,000	200	4,200	120	3,180	55	2,120	33
2040	**4**	4,000	240	3,200	150	2,390	65	1,590	39
2050	**5**	3,200	240	2,550	150	1,910	65	1,270	39
2060	**6**	2,650	240	2,120	150	1,590	65	1,060	39
2080	**8**	2,000	240	1,600	150	1,190	70	800	39
2100	**10**	1,600	240	1,270	150	950	70	640	39
2120	**12**	1,330	240	1,060	150	800	70	530	39

Milling Amount for Slotting (mm)
Lower than 45HRC
D＜φ3　a_p=0.25D
D≧φ3　a_p=0.5D
Higher than 45HRC
a_p=0.05D
D ：Outside Diameter (mm)
a_p ：Axial Depth (mm)



Note:
・Recommend water soluble or oil coolant.
・Recommend oil coolant for Titanium Alloys and Heat Resistant Alloys.