



Size R0.05~R6

CSEB

Super
MG

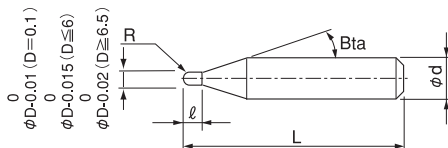
UT
COAT

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					Cast Iron	Aluminum Alloys	Graphite	Copper	Plastics	Glass Filled Plastics	Titanium Alloys	Heat Resistant Alloys	Cemented Carbide	Hard Brittle (Non-Metallic) Materials
			~ 50HRC	~ 55HRC	~ 60HRC	~ 65HRC	~ 70HRC										
●	●	●	●	●				○	●		●			○	○		

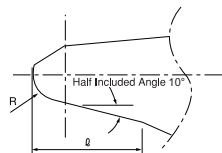
Features



The shank taper angle shown is not an exact value and to avoid contact with the work piece, we recommend the user controls the precise value of this angle. Shank taper angle should not make contact with the work piece.

ATTENTION

CSEB 1001-0020-6 is a taper ball end mill with half included angle 10° (See the right drawing).



Radius of Ball Nose	Diameter Tolerance	Radius Accuracy	Helix Angle	Number of Flutes
R0.05	0/-0.01	±0.002	0°	2 Flutes *
R0.1 ~ R3	0/-0.015	±0.005	30°	
R3.25 ~ R6	0/-0.02	±0.007		

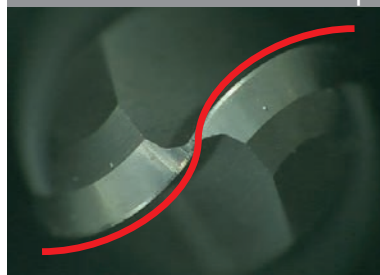
* Only CSEB 1001-0020-6 has single flute.
R accuracy and diameter tolerance is the same as R0.1.

3 Features of CSEB

Reduce cutting resistance and designed to require surface quality.

Recommended for milling on hardened steels (55HRC) - sticky materials, materials that prone to chatter marks.

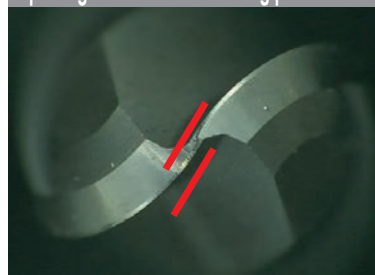
Less resistance on curved surface shape



Small relief surface



Tip design with excellent cutting performance



Total 78 models

Unit (mm)

2 Flutes

Model Number	Radius of Ball Nose R	Length of Cut ℓ	Shank Taper Angle B α	Overall Length L	Shank Diameter ϕd	Suggested Retail Price ¥
CSEB 1001-0020-6	RO.05	0.2	11°	50	6	13,320
CSEB 2001-0010	RO.05	0.1	11°	50	4	12,120
CSEB 2002-0020-6	RO.1	0.2	11°	50	6	9,840
CSEB 2002-0030		0.3		50	4	8,520
CSEB 2003-0030	RO.15	0.3	11°	50	4	6,960
CSEB 2003-0030-6		0.3		50	6	8,400
CSEB 2003-0045		0.45		50	4	6,960
CSEB 2004-0040	RO.2	0.4	11°	50	4	4,680
CSEB 2004-0040-6		0.4		50	6	6,120
CSEB 2004-0060		0.6		50	4	4,680
CSEB 2005-0050	RO.25	0.5	11°	50	4	4,320
CSEB 2005-0050-6		0.5		50	6	5,760
CSEB 2005-0075		0.75		50	4	4,320
CSEB 2006-0060	RO.3	0.6	11°	50	4	4,200
CSEB 2006-0060-6		0.6		50	6	5,520
CSEB 2006-0090		0.9		50	4	4,200
CSEB 2007-0100	RO.35	1	11°	50	4	8,000
CSEB 2008-0080	RO.4	0.8	11°	50	4	4,200
CSEB 2008-0080-6		0.8		50	6	5,520
CSEB 2008-0120		1.2		50	4	4,200
CSEB 2009-0130	RO.45	1.3	11°	50	4	8,000
CSEB 2010-0100	RO.5	1	11°	50	4	3,840
CSEB 2010-0100-6		1		50	6	5,160
CSEB 2010-0150		1.5		50	4	3,840
CSEB 2010-0250		2.5		50	4	3,840
CSEB 2011-0160	RO.55	1.6	11°	50	4	9,280
CSEB 2012-0180	RO.6	1.8	11°	50	4	5,400
CSEB 2013-0190	RO.65	1.9	11°	50	4	9,280
CSEB 2014-0210	RO.7	2.1	11°	50	4	5,400
CSEB 2015-0150	RO.75	1.5	11°	50	4	4,680
CSEB 2015-0150-6		1.5		50	6	6,000
CSEB 2015-0200		2		50	4	4,680
CSEB 2015-0225		2.25		50	4	4,680
CSEB 2015-0400		4		50	4	4,680
CSEB 2016-0240	RO.8	2.4	11°	50	4	5,400
CSEB 2017-0250	RO.85	2.5	11°	50	4	9,280
CSEB 2018-0270	RO.9	2.7	11°	50	4	8,000
CSEB 2019-0280	RO.95	2.8	11°	50	4	9,280
CSEB 2020-0200	R1	2	11°	50	4	3,480
CSEB 2020-0200-6		2		60	6	4,680
CSEB 2020-0300		3		60	4	3,480
CSEB 2020-0600		6		60	4	3,480
CSEB 2025-0250	R1.25	2.5	11°	50	4	5,950
CSEB 2025-0250-6		2.5		60	6	7,200
CSEB 2025-0375		3.75		50	4	5,950
CSEB 2025-0600		6		60	4	5,950
CSEB 2030-0300	R1.5	3	11°	50	6	4,200
CSEB 2030-0450		4.5		70	6	4,200
CSEB 2030-0800		8		70	6	4,200
CSEB 2035-0520	R1.75	5.2	11°	70	6	7,800
CSEB 2040-0400	R2	4	11°	50	6	4,800
CSEB 2040-0600-4		6	—	70	4	4,300
CSEB 2040-0600		6	11°	70	6	4,800
CSEB 2040-0800		8		70	6	4,800

3mm Shank
V SeriesUDC-PCD
SeriesCBN
Series

Square

Long Neck
Square

Radius

Long Neck
RadiusTaper Neck
RadiusBall / Long
Shank BallLong Neck
BallTaper Neck
Ball

Taper

Barrel

Spiral
V Cutter

Drill

Technical Data

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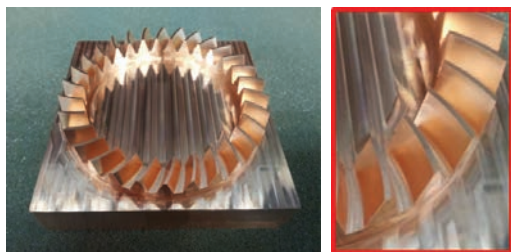
433

Unit (mm)

Model Number	Radius of Ball Nose R	Length of Cut ℓ	Shank Taper Angle β	Overall Length L	Shank Diameter ϕd	Suggested Retail Price ¥
CSEB 2045-0670	R2.25	6.7	11°	70	6	10,610
CSEB 2050-0500	R2.5	5	11°	50	6	5,710
CSEB 2050-0750		7.5		80	6	5,760
CSEB 2050-0800		8		80	6	5,760
CSEB 2050-1200		12		80	6	5,760
CSEB 2055-0820	R2.75	8.2	11°	80	6	11,660
CSEB 2060-0600	R3	6	—	50	6	5,940
CSEB 2060-0900		9		80	6	6,000
CSEB 2060-1200		12		80	6	6,000
CSEB 2065-0970	R3.25	9.7	11°	90	8	13,200
CSEB 2070-1050	R3.5	10.5	11°	90	8	10,560
CSEB 2075-1120	R3.75	11.2	11°	90	8	13,200
CSEB 2080-0800	R4	8	—	60	8	9,270
CSEB 2080-1200		12		90	8	9,360
CSEB 2080-1400		14		90	8	9,360
CSEB 2085-1270	R4.25	12.7	11°	100	10	14,630
CSEB 2090-1350	R4.5	13.5	11°	100	10	14,630
CSEB 2100-1000	R5	10	—	70	10	12,110
CSEB 2100-1500		15		100	10	12,240
CSEB 2100-1800		18		100	10	12,240
CSEB 2110-1650	R5.5	16.5	11°	110	12	24,420
CSEB 2120-1200	R6	12	—	75	12	20,580
CSEB 2120-1800		18		110	12	20,790
CSEB 2120-2200		22		110	12	20,790

Copper Milling

C1100



Work Size 100 × 100 × 30 mm
Coolant Oil Mist

Size R0.05~R6

CSEB

Super MG

UT COAT

Sharp Dia 0-0.005



Size R0.05~R3

CSELB

Super MG

UT COAT

Sharp Dia 0-0.005

Back Taper Control


Size $\phi 1 \sim \phi 20$
C-CES4000

Super MG

UT COAT

30°

Flatland

Sharp Dia 0-0.005



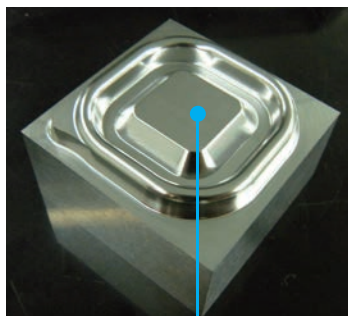
Tool	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	a_p (mm)	a_e (mm)	Cycle Time (h:m:s)
C-CES 4 Flute Square $\phi 6 \times L13$	12,000	3,600	0.35	4	0:52:51
CSELB 2 Flute Long Neck Ball R1.5 × EL16	16,000	1,200	0.27	0.45	1:04:57
C-CES 4 Flute Square $\phi 6 \times L13$	16,000	500	0.1	3.5	0:15:54
C-CES 4 Flute Square $\phi 6 \times L13$	6,000	200 ~ 500	11	0.05	0:03:42
CSEB 2 Flute Ball R0.5	18,000	1,800	0.3	0.3	2:34:10
C-CES 4 Flute Square $\phi 1.5 \times L3.75$	15,000	1,200	—	0.03	0:08:14

4:59:48

Milling example of plastic mold

HPM38 (53HRC)

◆Optimized Ball Tip Effect



CSEB 2040-0600



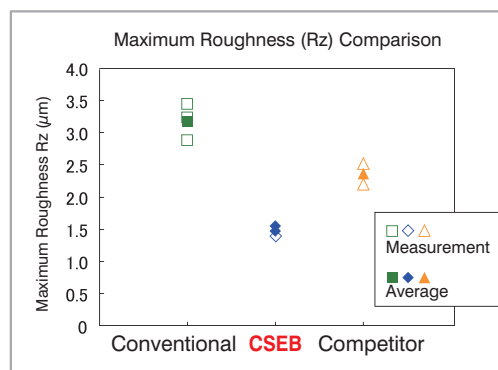
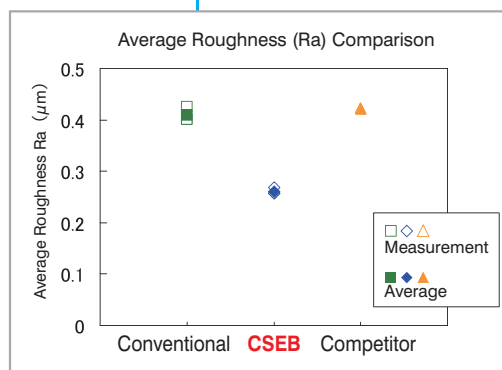
CSEB 2020-0300



CSEB 2010-0150



Work Size
50 × 50 × 30 mm



Optimized ball tip offers outstandingly nano-smooth surface on finishing.

No	Milling Process	Tool (Radius of Ball Nose × Length of Cut)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	a_p (mm)	a_e (mm)	Overhang Length (mm)	Cycle Time (h:m:s)	Coolant
1	Roughing	CSEB 2040-0600 (R2×6)	11,000	2,000	0.34	1	15	0:31:21	Air Blow
2	Semi-finishing	CSEB 2020-0300 (R1×3)	16,000	1,300	0.17	0.5	13	0:03:10	Air Blow
3			16,000	1,300	0.1	0.1	13	0:16:47	Air Blow
4			16,000	1,300	0.01	0.1	13	0:37:00	Oil Mist
5	Finishing	CSEB 2010-0150 (R0.5×1.5)	22,000	1,300	0.04	0.18	12	0:05:06	Oil Mist
6			22,000	700	0.05	0.05	12	0:59:36	Oil Mist
7			22,000	700	0.01	0.05	12	0:30:43	Oil Mist

φ3mm Shank
V Series

UDC-PCD
Series

CBN
Series

Square

Square
Long Neck
Square

Radius

Radius
Long Neck
Radius
Taper Neck
Radius

Ball

Ball / Long
Shank Ball
Long Neck
Ball
Taper Neck
Ball

Taper

Taper

Barrel

Spiral
V Cutter

Drill

Technical Data

Milling Conditions for CSEB

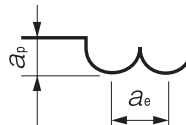
WORK MATERIAL			COPPER / ALUMINUM ALLOYS				CARBON STEELS / ALLOY STEELS S45C / S50C / SK / SCM (~325HB)				PREHARDENED STEELS NAK80 / STAVAX / HPM38 (30~45HRC)				HARDENED STEELS STAVAX / HPM38 / SKD61 (45~55HRC)			
Model Number	Radius of Ball Nose (mm)	Length of Cut (mm)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	a _p Axial Depth (mm)	a _e Radial Depth (mm)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	a _p Axial Depth (mm)	a _e Radial Depth (mm)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	a _p Axial Depth (mm)	a _e Radial Depth (mm)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	a _p Axial Depth (mm)	a _e Radial Depth (mm)
1001-0020-6	R0.05	0.2	30,000	30	0.002 or below	0.02	30,000	30	0.002 or below	0.02	30,000	30	0.002 or below	0.02	30,000	30	0.002 or below	0.02
2001-0010		0.1	30,000	200	0.004 or below	0.04	30,000	200	0.004 or below	0.04	30,000	200	0.004 or below	0.04	30,000	200	0.004 or below	0.04
2002-0020-6	R0.1	0.2	60,000	350	0.008	0.024	60,000	350	0.008	0.016	60,000	300	0.008	0.024	60,000	300	0.006	0.018
2002-0030		0.3	60,000	350	0.008	0.024	60,000	350	0.008	0.016	60,000	300	0.008	0.024	60,000	300	0.006	0.018
2003-0030(-6)	R0.15	0.3	43,000	500	0.012	0.036	43,000	500	0.012	0.024	54,000	450	0.012	0.036	43,000	450	0.008	0.024
2003-0045		0.45	43,000	500	0.012	0.036	43,000	500	0.012	0.024	54,000	450	0.012	0.036	43,000	450	0.008	0.024
2004-0040(-6)	R0.2	0.4	35,000	1,200	0.03	0.09	35,000	1,200	0.02	0.04	50,000	650	0.025	0.075	35,000	650	0.015	0.045
2004-0060		0.6	35,000	1,200	0.03	0.09	35,000	1,200	0.02	0.04	50,000	650	0.025	0.075	35,000	650	0.015	0.045
2005-0050(-6)	R0.25	0.5	34,000	1,300	0.035	0.105	34,000	1,300	0.03	0.06	45,000	900	0.03	0.09	32,000	900	0.02	0.06
2005-0075		0.75	34,000	1,300	0.035	0.105	34,000	1,300	0.03	0.06	45,000	900	0.03	0.09	32,000	900	0.02	0.06
2006-0060(-6)	R0.3	0.6	33,000	1,500	0.05	0.15	33,000	1,500	0.04	0.08	40,000	1,300	0.045	0.09	30,000	1,300	0.04	0.06
2006-0090		0.9	33,000	1,500	0.05	0.15	33,000	1,500	0.04	0.08	40,000	1,300	0.045	0.09	30,000	1,300	0.04	0.06
2007-0100	R0.35	1	32,000	1,800	0.07	0.21	32,000	1,600	0.05	0.1	38,000	1,600	0.06	0.12	28,000	1,600	0.05	0.075
2008-0080(-6)	R0.4	0.8	30,000	2,200	0.1	0.3	30,000	1,800	0.06	0.12	35,000	1,800	0.07	0.14	25,000	1,700	0.07	0.1
2008-0120		1.2	30,000	2,200	0.1	0.3	30,000	1,800	0.06	0.12	35,000	1,800	0.07	0.14	25,000	1,700	0.07	0.1
2009-0130	R0.45	1.3	30,000	2,100	0.11	0.33	30,000	1,600	0.07	0.14	33,000	1,700	0.08	0.16	24,000	1,600	0.08	0.12
2010-0100(-6)	R0.5	1	30,000	2,000	0.12	0.36	30,000	1,600	0.08	0.16	30,000	1,600	0.09	0.18	22,000	1,600	0.09	0.13
2010-0150		1.5	30,000	2,000	0.12	0.36	30,000	1,600	0.08	0.16	30,000	1,500	0.09	0.18	22,000	1,600	0.09	0.13
2010-0250		2.5	30,000	1,700	0.09	0.27	24,000	1,400	0.06	0.12	30,000	1,300	0.075	0.15	21,500	1,300	0.075	0.1
2011-0160	R0.55	1.6	30,000	2,000	0.12	0.36	30,000	1,600	0.08	0.16	30,000	1,600	0.09	0.18	20,000	1,600	0.09	0.13
2012-0180	R0.6	1.8	30,000	2,000	0.13	0.39	30,000	1,600	0.09	0.18	30,000	1,600	0.1	0.2	18,000	1,600	0.1	0.15
2013-0190	R0.65	1.9	30,000	2,000	0.13	0.39	30,000	1,600	0.09	0.18	30,000	1,700	0.1	0.2	18,000	1,500	0.1	0.15
2014-0210	R0.7	2.1	30,000	2,000	0.14	0.42	30,000	1,500	0.1	0.2	30,000	1,700	0.11	0.2	18,000	1,500	0.11	0.16
2015-0150(-6)	R0.75	1.5	30,000	2,000	0.15	0.45	30,000	1,600	0.12	0.24	30,000	1,700	0.12	0.24	18,000	1,500	0.12	0.18
2015-0200		2	30,000	2,000	0.15	0.45	30,000	1,600	0.12	0.24	30,000	1,700	0.12	0.24	18,000	1,500	0.12	0.18
2015-0225		2.25	30,000	2,000	0.15	0.45	30,000	1,600	0.12	0.24	30,000	1,700	0.12	0.24	18,000	1,500	0.12	0.18
2015-0400		4	30,000	1,800	0.12	0.36	23,000	1,200	0.08	0.16	30,000	1,400	0.1	0.2	15,000	1,200	0.09	0.13
2016-0240	R0.8	2.4	30,000	2,000	0.16	0.48	30,000	1,600	0.12	0.24	30,000	1,800	0.12	0.36	18,000	1,400	0.1	0.2
2017-0250	R0.85	2.5	30,000	2,000	0.17	0.51	30,000	1,700	0.14	0.28	30,000	1,800	0.14	0.42	18,000	1,400	0.12	0.24
2018-0270	R0.9	2.7	30,000	2,000	0.18	0.54	30,000	1,800	0.16	0.32	30,000	1,900	0.16	0.48	16,000	1,300	0.14	0.28
2019-0280	R0.95	2.8	30,000	2,000	0.19	0.57	30,000	1,900	0.18	0.36	30,000	1,900	0.18	0.54	16,000	1,300	0.16	0.32
2020-0200(-6)	R1	2	30,000	2,000	0.2	0.6	30,000	2,000	0.21	0.42	30,000	2,000	0.2	0.6	16,000	1,300	0.17	0.5
2020-0300		3	30,000	2,000	0.2	0.6	30,000	2,000	0.21	0.42	30,000	2,000	0.2	0.6	16,000	1,300	0.17	0.5
2020-0600		6	30,000	2,000	0.2	0.6	30,000	2,000	0.14	0.42	30,000	2,000	0.13	0.45	10,800	850	0.1	0.4

Milling Conditions for CSEB

WORK MATERIAL			COPPER / ALUMINUM ALLOYS				CARBON STEELS / ALLOY STEELS S45C / S50C / SK / SCM (~325HB)				PREHARDENED STEELS NAK80 / STAVAX / HPM38 (30~45HRC)				HARDENED STEELS STAVAX / HPM38 / SKD61 (45~55HRC)			
Model Number	Radius of Ball Nose (mm)	Length of Cut (mm)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	a_p Axial Depth (mm)	a_e Radial Depth (mm)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	a_p Axial Depth (mm)	a_e Radial Depth (mm)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	a_p Axial Depth (mm)	a_e Radial Depth (mm)	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	a_p Axial Depth (mm)	a_e Radial Depth (mm)
2025-0250(-6)	R1.25	2.5	27,000	2,300	0.28	0.75	27,000	2,300	0.25	0.5	27,000	2,300	0.25	0.75	13,000	1,100	0.21	0.63
2025-0375		3.75	27,000	2,300	0.28	0.75	27,000	2,300	0.25	0.5	27,000	2,300	0.25	0.75	13,000	1,100	0.21	0.63
2025-0600	R1.5	6	25,000	2,100	0.26	0.67	25,000	2,100	0.23	0.46	24,000	2,000	0.2	0.65	11,000	930	0.14	0.44
2030-0300		3	24,000	2,500	0.32	0.9	24,000	2,500	0.32	0.9	24,000	2,500	0.3	0.9	14,000	1,400	0.25	0.76
2030-0450		4.5	24,000	2,500	0.32	0.9	24,000	2,500	0.32	0.9	24,000	2,500	0.3	0.9	14,000	1,400	0.25	0.76
2030-0800	R1.75	8	22,000	2,300	0.28	0.7	22,000	2,300	0.28	0.7	20,000	2,000	0.2	0.65	10,700	1,000	0.18	0.54
2035-0520		5.2	24,000	2,700	0.35	1	24,000	2,700	0.35	1	21,000	2,400	0.35	1	12,000	1,700	0.3	0.9
2040-0400	R2	4	24,000	2,900	0.4	1.2	24,000	2,900	0.4	1.2	18,000	2,400	0.4	1.2	11,000	2,000	0.34	1
2040-0600(-4)		6	24,000	2,900	0.4	1.2	24,000	2,900	0.4	1.2	18,000	2,400	0.4	1.2	11,000	2,000	0.34	1
2040-0800		8	24,000	2,900	0.4	1.2	24,000	2,900	0.4	1.2	18,000	2,400	0.4	1.2	11,000	2,000	0.34	1
2045-0670	R2.25	6.7	21,000	3,000	0.45	1.3	21,000	3,000	0.45	1.3	16,000	2,400	0.42	1.2	10,000	1,900	0.38	1.1
2050-0500	R2.5	5	18,000	3,000	0.5	1.5	18,000	3,000	0.5	1.5	13,000	2,400	0.45	1.4	9,000	1,800	0.42	1.2
2050-0750		7.5	18,000	3,000	0.5	1.5	18,000	3,000	0.5	1.5	13,000	2,400	0.45	1.4	9,000	1,800	0.42	1.2
2050-0800		8	18,000	3,000	0.5	1.5	18,000	3,000	0.5	1.5	13,000	2,400	0.45	1.4	9,000	1,800	0.42	1.2
2050-1200	R2.75	12	18,000	3,000	0.5	1.5	18,000	3,000	0.5	1.5	13,000	2,400	0.45	1.4	9,000	1,800	0.42	1.2
2055-0820		8.2	17,000	3,000	0.55	1.6	17,000	3,000	0.55	1.6	12,000	2,400	0.5	1.5	8,500	1,800	0.45	1.3
2060-0600	R3	6	16,000	3,100	0.6	1.8	16,000	3,100	0.6	1.8	11,000	2,310	0.55	1.7	7,500	1,800	0.5	1.5
2060-0900		9	16,000	3,100	0.6	1.8	16,000	3,100	0.6	1.8	11,000	2,310	0.55	1.7	7,500	1,800	0.5	1.5
2060-1200		12	16,000	3,100	0.6	1.8	16,000	3,100	0.6	1.8	11,000	2,310	0.55	1.7	7,500	1,800	0.5	1.5
2065-0970	R3.25	9.7	15,000	3,100	0.65	1.95	15,000	3,100	0.65	1.95	10,000	2,200	0.59	1.8	7,000	1,800	0.54	1.6
2070-1050	R3.5	10.5	14,000	3,200	0.7	2.1	14,000	3,200	0.7	2.1	9,000	2,100	0.63	1.9	6,500	1,800	0.57	1.7
2075-1120	R3.75	11.2	13,000	3,300	0.75	2.25	13,000	3,300	0.75	2.25	8,200	2,000	0.67	2	6,000	1,800	0.6	1.8
2080-0800	R4	8	12,000	3,300	0.8	2.4	12,000	3,300	0.8	2.4	7,400	1,900	0.72	2.2	5,700	1,800	0.65	2
2080-1200		12	12,000	3,300	0.8	2.4	12,000	3,300	0.8	2.4	7,400	1,900	0.72	2.2	5,700	1,800	0.65	2
2080-1400		14	12,000	3,300	0.8	2.4	12,000	3,300	0.8	2.4	7,400	1,900	0.72	2.2	5,700	1,800	0.65	2
2085-1270	R4.25	12.7	12,000	3,300	0.85	2.55	12,000	3,300	0.85	2.55	6,800	1,800	0.75	2.3	5,400	1,700	0.7	2.1
2090-1350	R4.5	13.5	11,000	3,400	0.9	2.7	11,000	3,400	0.9	2.7	6,300	1,700	0.8	2.4	5,100	1,600	0.75	2.2
2100-1000	R5	10	10,000	3,500	1	3	10,000	3,500	1	3	5,200	1,650	0.9	2.7	4,600	1,500	0.85	2.5
2100-1500		15	10,000	3,500	1	3	10,000	3,500	1	3	5,200	1,650	0.9	2.7	4,600	1,500	0.85	2.5
2100-1800		18	10,000	3,500	1	3	10,000	3,500	1	3	5,200	1,650	0.9	2.7	4,600	1,500	0.85	2.5
2110-1650	R5.5	16.5	9,000	3,400	1.1	3.3	9,000	3,400	1.1	3.3	4,700	1,500	1	3	4,200	1,350	0.9	2.7
2120-1200	R6	12	8,400	3,300	1.2	3.6	8,400	3,300	1.2	3.6	4,300	1,350	1.1	3.2	3,800	1,250	1	3
2120-1800		18	8,400	3,300	1.2	3.6	8,400	3,300	1.2	3.6	4,300	1,350	1.1	3.2	3,800	1,250	1	3
2120-2200		22	8,400	3,300	1.2	3.6	8,400	3,300	1.2	3.6	4,300	1,350	1.1	3.2	3,800	1,250	1	3

Note:

- Decrease the feed rate more than 50% from the milling parameters when slot milling.
- Decrease both spindle speed and feed rate proportionally when the milling parameters exceed the machines maximum speed, or when the tool is chattering and heats up to a red color.
- Recommend oil coolant for Stainless Steels and Heat Resistant Alloys.
- Recommend wet coolant for Copper.

3mm Shank
V SeriesUDC-PCD
SeriesCBN
Series

Square

Long Neck
Square

Radius

Long Neck
RadiusTaper Neck
RadiusBall / Long
Shank BallLong Neck
BallTaper Neck
Ball

Taper

Barrel

Spiral
V Cutter

Drill

Technical Data