MITSUBISHI
MITSUBISHI MATERIALS

E222E

End Mill Series for Dental-Workpiece Materials

DENTAL

High performance end mills for machining dental workpiece materials such as zirconium oxide, titanium alloys, plastics and cobalt/chrome

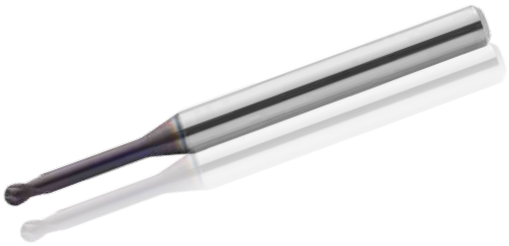
END MILL SERIES FOR DENTAL WORKPIECE MATERIALS

MSTAR / CRN / DF

Features

1 MSTAR Solid Carbide End Mill Series

PVD-coated end mills for general machining. The innovative coating and cutting edge geometry allows secure and reliable machining of dental workpiece materials such as cobalt/chrome and titanium alloys.



2 CRN Solid Carbide End Mill Series

CRN-coated end mills for general machining of zirconium oxide and plastics. The extremely smooth coating combined with long tool life and high cutting edge sharpness guarantees burr free machining of blanks.

3 DF Solid Carbide End Mill Series

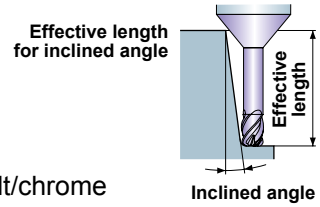
DF-Diamond coated end mills for machining zirconium oxide. The newly developed diamond coating offers long tool life compared to conventionally coated tools.

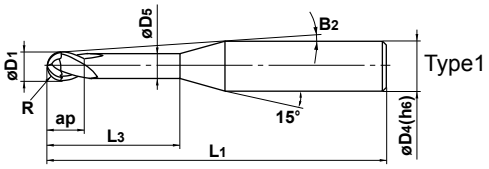
MSTAR END MILLS

MS2XLB

2 flutes, Ball nose, Long Neck

R ±0.01 | 0 −0.02 h6 | 0 −0.008





Ball nose end mill with PVD-coating for cobalt/chrome and titanium alloys

Order Number	Radius of Ball Nose R	Dia. D1	Length of Cut ap	Neck Length L3	Neck Dia. D5	Cutting Edge to Shank Angle B2	Overall Length L1	Shank Dia. D4	No. of Flutes N	Stock	Type	Effective length for inclined angle 30'	1°	2°	3°
MS2XLBR00500N050	0.5	1	1	5	0.94	8.2°	50	4	2	●	1	5.3	5.5	6	6.4
R0050N050S06	0.5	1	1	5	0.94	10.1°	50	6	2	●	1	5.3	5.5	6	6.4
R050N080	0.5	1	1	8	0.94	6.4°	50	4	2	●	1	8.4	8.8	9.4	10.2
R050N080S06	0.5	1	1	8	0.94	8.3°	50	6	2	●	1	8.4	8.8	9.4	10.2
R0050N100	0.5	1	1	10	0.94	5.6°	50	4	2	●	1	10.5	10.9	11.7	12.6
R0050N100S06	0.5	1	1	10	0.94	7.5°	50	6	2	●	1	10.5	10.9	11.7	12.6
R0050N120	0.5	1	1	12	0.94	5°	50	4	2	●	1	12.6	13.1	14	15.1
R0050N120S06	0.5	1	1	12	0.94	6.8°	55	6	2	●	1	12.6	13.1	14	15.1
R0050N140	0.5	1	1	14	0.94	4.5°	50	4	2	●	1	14.7	15.2	16.3	17.6
R0050N160	0.5	1	1	16	0.94	4.1°	55	4	2	●	1	16.8	17.4	18.6	20.1
R0050N160S06	0.5	1	1	16	0.94	5.7°	60	6	2	●	1	16.8	17.4	18.6	20.1
R0100N100	1	2	2	10	1.9	4.5°	50	4	2	●	1	10.4	10.8	11.5	12.4
R0100N100S06	1	2	2	10	1.9	6.9°	50	6	2	●	1	10.4	10.8	11.5	12.4
R0100N120	1	2	2	12	1.9	3.9°	50	4	2	●	1	12.5	12.9	13.8	14.9
R0100N120S06	1	2	2	12	1.9	6.1°	55	6	2	●	1	12.5	12.9	13.8	14.9
R0100N140	1	2	2	14	1.9	3.4°	50	4	2	●	1	14.6	15.1	16.1	17.4
R0100N140S06	1	2	2	14	1.9	5.6°	55	6	2	●	1	14.6	15.1	16.1	17.4
R0100N160	1	2	2	16	1.9	3.1°	55	4	2	●	1	16.7	17.2	18.4	19.9
R0100N160S06	1	2	2	16	1.9	5.1°	60	6	2	●	1	16.7	17.2	18.4	19.9
R0100N180	1	2	2	18	1.9	2.8°	55	4	2	●	1	18.7	19.4	20.7	*
R0100N180S06	1	2	2	18	1.9	4.7°	60	6	2	●	1	18.7	19.4	20.7	22.3
R0100N200	1	2	2	20	1.9	2.5°	60	4	2	●	1	20.8	21.5	23	*
R0100N200S06	1	2	2	20	1.9	4.3°	60	6	2	●	1	20.8	21.5	23	24.8
R0125N100S06	1.25	2.5	2.5	10	2.4	6.5°	50	6	2	●	1	10.4	10.8	11.5	12.3
R0125N125S06	1.25	2.5	2.5	12.5	2.4	5.6°	50	6	2	●	1	13	13.5	14.4	15.4
R0125N160S06	1.25	2.5	2.5	16	2.4	4.7°	60	6	2	●	1	16.7	17.2	18.4	19.8
R0125N200S06	1.25	2.5	2.5	20	2.4	4°	60	6	2	●	1	20.8	21.5	23	24.8
R0150N100	1.5	3	3	10	2.9	6°	60	6	2	●	1	10.4	10.8	11.5	12.3
R0150N120	1.5	3	3	12	2.9	5.3°	60	6	2	●	1	12.5	12.9	13.8	14.8
R0150N140	1.5	3	3	14	2.9	4.7°	60	6	2	●	1	14.6	15	16.1	17.3
R0150N160	1.5	3	3	16	2.9	4.3°	60	6	2	●	1	16.6	17.2	18.4	19.7
R0150N200	1.5	3	3	20	2.9	3.6°	70	6	2	●	1	20.8	21.5	23	24.7

* No interference

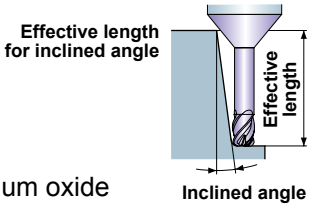
● : Inventory maintained.

CRN END MILLS

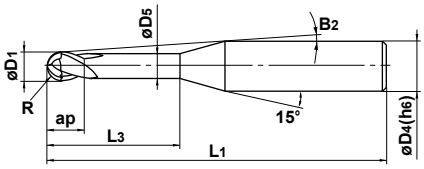
CRN2XLB

2 flutes, Ball nose, Long Neck

R ±0.01 | 0 −0.02 h6 | 0 −0.008



Type1



Ball nose end mill with CrN-coating for zirconium oxide and plastics

Order Number	Radius of Ball Nose R	Dia. D1	Length of Cut ap	Neck Length L3	Neck Dia. D5	Cutting Edge to Shank Angle B2	Overall Length L1	Shank Dia. D4	No. of Flutes N	Stock	Type	Effective length for inclined angle 30'	1°	2°	3°
CRN2XLBR0050N100S04	0.5	1	1	10	0.94	5.6°	50	4	2	●	1	10.5	10.9	11.7	12.6
R0050N100S06	0.5	1	1	10	0.94	7.5°	50	6	2	●	1	10.5	10.9	11.7	12.6
R0050N120S04	0.5	1	1	12	0.94	5°	50	4	2	●	1	12.6	13.1	14	15.1
R0050N120S06	0.5	1	1	12	0.94	6.8°	50	6	2	●	1	12.6	13.1	14	15.1
R0050N140S04	0.5	1	1	14	0.94	4.5°	50	4	2	●	1	14.7	15.2	16.3	17.6
R0050N140S06	0.5	1	1	14	0.94	6.2°	55	6	2	●	1	14.7	15.2	16.3	17.6
R0050N160S04	0.5	1	1	16	0.94	4.1°	55	4	2	●	1	16.8	17.4	18.6	20.1
R0050N160S06	0.5	1	1	16	0.94	5.7°	55	6	2	●	1	16.8	17.4	18.6	20.1
R0100N100S04	1	2	2	10	1.90	4.5°	50	4	2	●	1	18.8	19.5	20.9	22.5
R0100N100S06	1	2	2	10	1.90	6.9°	50	6	2	●	1	18.8	19.5	20.9	22.5
R0100N120S04	1	2	2	12	1.90	3.9°	50	4	2	●	1	20.9	21.6	23.2	*
R0100N120S06	1	2	2	12	1.90	6.1°	50	6	2	●	1	20.9	21.6	23.2	25
R0100N140S04	1	2	2	14	1.90	3.4°	50	4	2	●	1	8.3	8.7	9.2	9.9
R0100N140S06	1	2	2	14	1.90	5.6°	55	6	2	●	1	8.3	8.7	9.2	9.9
R0100N160S04	1	2	2	16	1.90	3.1°	55	4	2	●	1	10.4	10.8	11.5	12.4
R0100N160S06	1	2	2	16	1.90	5.1°	55	6	2	●	1	10.4	10.8	11.5	12.4
R0100N200S04	1	2	2	20	1.90	2.5°	60	4	2	●	1	12.5	12.9	13.8	14.9
R0100N200S06	1	2	2	20	1.90	4.3°	60	6	2	●	1	12.5	12.9	13.8	14.9
R0150N160S06	1.5	3	3	16	2.90	4.3°	60	6	2	●	1	16.7	17.2	18.4	19.9
R0150N250S06	1.5	3	3	25	2.90	3°	70	6	2	●	1	16.7	17.2	18.4	19.9

* No interference

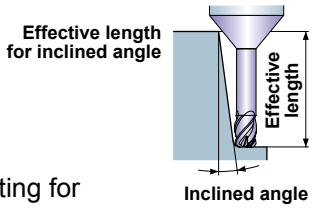
● : Inventory maintained.

DF END MILLS

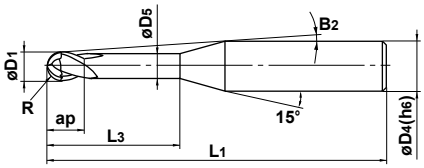
DF2XLB

2 flutes, Ball nose, Long Neck

R ±0.01 | 0 −0.02 | h6 | 0 −0.008



Type1



Ball nose end mill with CVD DF-Diamond coating for zirconium.

Order Number	Radius of Ball Nose R	Dia. D1	Length of Cut ap	Neck Length L3	Neck Dia. D5	Cutting Edge to Shank Angle B2	Overall Length L1	Shank Dia. D4	No. of Flutes N	Stock	Type	Effective length for inclined angle 30'	1°	2°	3°
DF2XLBR0050N100	0.5	1	1.5	10	0.94	5.2°	60	4	2	●	1	10.5	11	12	13.3
R0050N120	0.5	1	1.5	12	0.94	4.6°	60	4	2	●	1	12.6	13.2	14.4	15.9
R0050N200	0.5	1	1.5	20	0.94	3.3°	80	4	2	●	1	21	21.9	24	26.6
R0100N100	1	2	3	10	1.9	4.2°	60	4	2	●	1	10.4	10.9	11.8	13
R0100N120	1	2	3	12	1.9	3.7°	60	4	2	●	1	12.5	13	14.2	15.7
R0100N160	1	2	3	16	1.9	2.9°	80	4	2	●	1	16.7	17.4	19	*
R0100N200	1	2	3	20	1.9	2.5°	80	4	2	●	1	20.9	21.8	23.8	*
R0150N160	1.5	3	4.5	16	2.9	1.7°	80	4	2	●	1	16.7	17.3	*	*
R0150N250	1.5	3	4.5	25	2.9	1.2°	80	4	2	●	1	26.1	27.2	*	*

* No interference

● : Inventory maintained.