

Radius end mills for difficult to cut materials

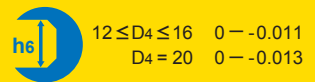
VF-MHVRB **MSMHDRB**

Additional line-up !
Large corner radius
end mills suitable for
aerospace and power
generation components.



VF-MHVRB

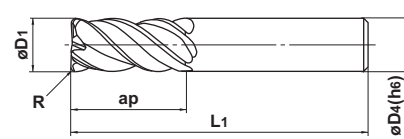
Corner radius, Medium cut length, Irregular helix flutes



Carbon Steel, Alloy Steel, Cast Iron (<30HRC)	Tool Steel, Pre-Hardened Steel, Hardened Steel (≤45HRC)	Hardened Steel (≤55HRC)	Hardened Steel (>55HRC)	Austenitic Stainless Steel	Titanium Alloy, Heat Resistant Alloy	Copper Alloy	Aluminium Alloy
○	○	○		◎	◎		



Helix angle



Type 1

● Impact Miracle end mills with irregular helix flutes ensures stable machining on difficult-to-cut materials and with long overhangs.

Unit : mm

Order Number	Dia. D1	Corner R R	Length of Cut ap	Overall Length L1	Shank Dia. D4	No. of Flutes N	Stock	Type
VFMHVRBD1600R100	16	1	35	90	16	4	●	1
D1600R200	16	2	35	90	16	4	●	1
D1600R300	16	3	35	90	16	4	●	1
NEW D1600R500	16	5	35	90	16	4	●	1
D2000R100	20	1	45	110	20	4	●	1
D2000R200	20	2	45	110	20	4	●	1
D2000R300	20	3	45	110	20	4	●	1
D2000R400	20	4	45	110	20	4	●	1
NEW D2000R500	20	5	45	110	20	4	●	1
NEW D2000R635	20	6.35	45	110	20	4	●	1

* Refer to general catalog for sizes in addition to notation.

● : Inventory maintained.

MSTAR END MILLS

MSMHDRB

High power, Corner radius, Medium cut length, 4 flute



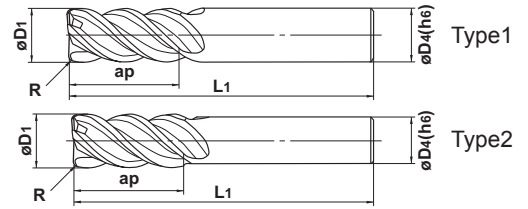
12 ≤ D4 ≤ 16 0 - -0.011
D4 = 20 0 - -0.013

Carbon Steel, Alloy Steel, Cast Iron (<30HRC)	Tool Steel, Pre-Hardened Steel, Hardened Steel (≤45HRC)	Hardened Steel (≤55HRC)	Hardened Steel (>55HRC)	Austenitic Stainless Steel	Titanium Alloy, Heat Resistant Alloy	Copper Alloy	Aluminium Alloy
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Helix angle

● 4 flute high power corner radius end mill.



Unit : mm

Order Number	Dia. D1	Corner R R	Length of Cut ap	Overall Length L1	Shank Dia. D4	No. of Flutes N	Stock	Type
MSMHDRBD1600R100	16	1	35	90	16	4	●	1
D1600R150	16	1.5	35	90	16	4	●	1
D1600R200	16	2	35	90	16	4	●	1
D1600R300	16	3	35	90	16	4	●	1
NEW D1600R500	16	5	35	90	16	4	●	1
D1800R100	18	1	40	100	16	4	●	2
D1800R150	18	1.5	40	100	16	4	●	2
D1800R200	18	2	40	100	16	4	●	2
D1800R300	18	3	40	100	16	4	●	2
D2000R100	20	1	45	110	20	4	●	1
D2000R150	20	1.5	45	110	20	4	●	1
D2000R200	20	2	45	110	20	4	●	1
NEW D2000R300	20	3	45	110	20	4	●	1
NEW D2000R500	20	5	45	110	20	4	●	1
NEW D2000R635	20	6.35	45	110	20	4	●	1

* Refer to general catalog for sizes in addition to notation.

● : Inventory maintained.

For Your Safety

● Don't handle inserts and chips without gloves. ● Please machine within the recommended application range and exchange expired tools with new ones in advance of breakage. ● Please use safety covers and wear safety glasses. ● When using compounded cutting oils, please take fire precautions. ● When attaching inserts or spare parts, please use only the correct wrench or spanner. ● When using rotating tools, please make a trial run to check run-out, vibration and abnormal sounds etc.

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