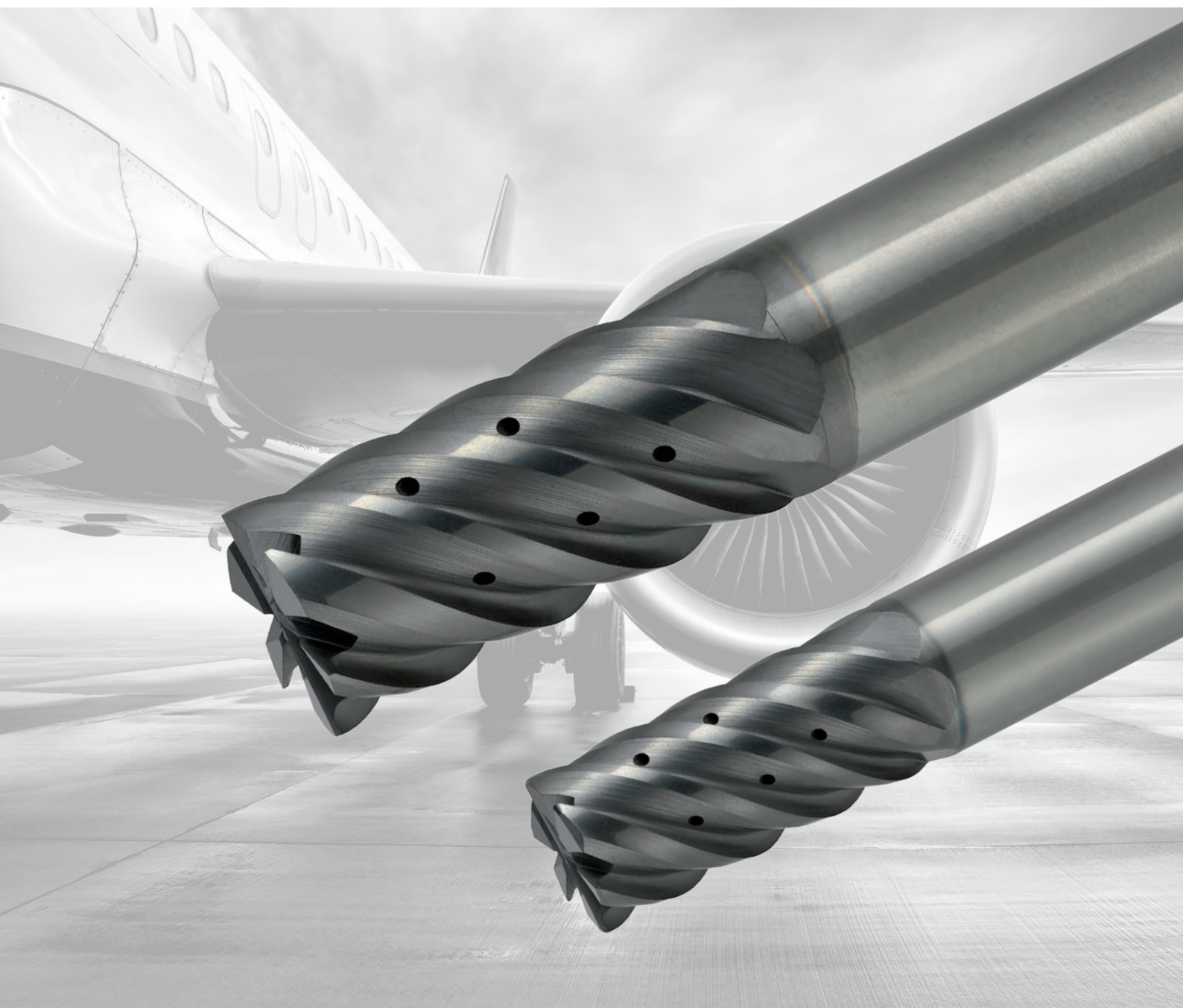


VQ COOLSTAR

END MILL SERIES WITH MULTIPLE INTERNAL
THROUGH COOLANT HOLES FOR HIGH EFFICIENCY
MACHINING OF DIFFICULT-TO-CUT MATERIALS



DIAEDGE

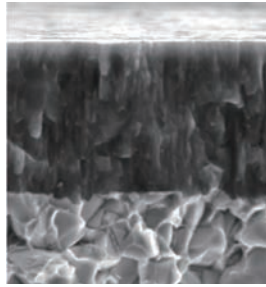
 **MITSUBISHI MATERIALS**

COOLSTAR SERIES

EFFECTIVE FOR MACHINING TITANIUM AND
STAINLESS STEEL COMPONENTS



COATING TECHNOLOGY



Smooth surface technology
"ZERO- μ Surface"

Newly developed
(Al, Cr)N group coating

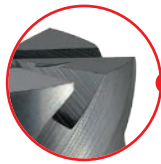
Super-fine-particle,
super-hard substrate material

MULTIPLE INTERNAL COOLANT HOLES

The multiple internal through coolant hole system is effective for improved welding resistance.

The spiral arrangement of the coolant holes enables a wide range of machining applications.

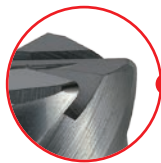
Especially suitable for machining difficult-to-cut materials, and offers a stable and secure machining process.



VQ6MHVCH

DC 10 – 20mm

End mill, medium cut length,
6 flute, irregular helix flutes,
with multiple internal through coolant holes



VQ6MHVRBCH

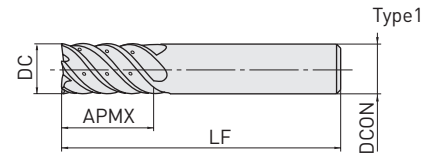
DC 10 – 20mm
RE 0.5 – 4mm

Corner radius end mill, medium cut length,
6 flute, irregular helix flutes,
with multiple internal through coolant holes

VQ6MHVCH



M S



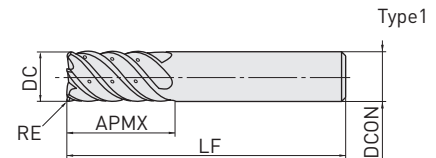
	DC ≤ 12	DC > 12		
	0	0		
	DC ≤ 10	DC ≤ 12	DC ≤ 16	DC ≤ 20
	0	0	0	0
	-0.009	-0.011	-0.011	-0.013

Order Number	DC	APMX	LF	DCON	Flutes	Stock	Type
VQ6MHVCHD1000	10	22	70	10	6	●	1
VQ6MHVCHD1200	12	26	75	12	6	●	1
VQ6MHVCHD1600	16	32	90	16	6	●	1
VQ6MHVCHD2000	20	38	100	20	6	●	1

VQ6MHVRBCH



M S



	0.5 ≤ RE ≤ 4			
	±0.015			
	DC ≤ 12	DC > 12		
	0	0		
	DC ≤ 10	DC ≤ 12	DC ≤ 16	DC ≤ 20
	0	0	0	0
	-0.009	-0.011	-0.011	-0.013

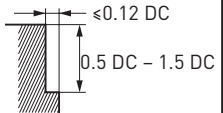
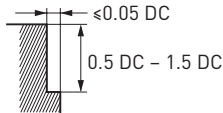
Order Number	DC	RE	APMX	LF	DCON	Flutes	Stock	Type
VQ6MHVRBCHD1000R050	10	0.5	22	70	10	6	●	1
VQ6MHVRBCHD1000R100	10	1	22	70	10	6	●	1
VQ6MHVRBCHD1200R050	12	0.5	26	75	12	6	●	1
VQ6MHVRBCHD1200R100	12	1	26	75	12	6	●	1
VQ6MHVRBCHD1600R100	16	1	32	90	16	6	●	1
VQ6MHVRBCHD1600R300	16	3	32	90	16	6	●	1
VQ6MHVRBCHD1600R400	16	4	32	90	16	6	●	1
VQ6MHVRBCHD2000R100	20	1	38	100	20	6	●	1
VQ6MHVRBCHD2000R300	20	3	38	100	20	6	●	1
VQ6MHVRBCHD2000R400	20	4	38	100	20	6	●	1

●: Inventory maintained.

RECOMMENDED CUTTING CONDITIONS

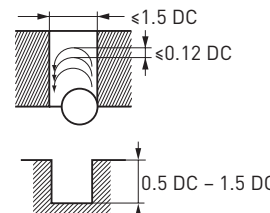
Shoulder Milling

Material	M		S	
	n (min ⁻¹)	Vf (mm/min)	n (min ⁻¹)	Vf (mm/min)
Austenitic Stainless Steel (<200HB), Titanium Alloy DIN X5CrNi189, DIN X5CrNiMo1810, Ti-6Al-4V			Heat Resistant Alloys Inconel 718	
DC				
10	4800	2000	1300	260
12	4000	2000	1100	230
16	3000	1600	800	180
20	2400	1400	640	150

	
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Trochoidal Milling

Material	M	
	n (min ⁻¹)	Vf (mm/min)
Austenitic Stainless Steel (<200HB), Titanium Alloy DIN X5CrNi189, DIN X5CrNiMo1810, Ti-6Al-4V		
DC		
10	4800	1400
12	4000	1200
16	3000	1100
20	2400	900


--

1. If the depth of cut is shallow, the revolution and feed rate can be increased.
2. The irregular helix flute end mill has a larger effect on controlling vibration when compared to standard end mills. However, if the rigidity of the machine or the workpiece installation is very low, then vibration can occur. In this case, please reduce the revolution and feed rate proportionately.



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