

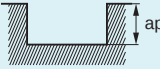
VQ END MILLS

VQXL **NEW**

End mill, Short cut length, 4 flute, Long neck

CARBIDE

Slotting

Work material		Carbon steel, Alloy steel, Mild steel, Alloy tool steel, Austenitic stainless steels, Titanium alloys, Cobalt chromium alloy, Copper, Copper alloy				Heat resistant alloys, Pre-hardened steel, Hardened steel			
		Ck45, 41CrMo4, 36CrNiMo4, X5CrNi189, X5CrNiMo1810, X2CrNiN1810, X2CrNiMoN1813				Inconel 718, NAK, X36CrMo17, X40CrMoV51, 55NiCrMoV6, X46Cr13			
Dia. (mm)	Neck Length (mm)	Cutting speed (m/min)	Revolution (min ⁻¹)	Feed rate (mm/min)	Depth of cut ap (mm)	Cutting speed (m/min)	Revolution (min ⁻¹)	Feed rate (mm/min)	Depth of cut ap (mm)
0.2	0.6	20	30000	270	0.03	15	24000	220	0.03
0.3	0.9	30	30000	360	0.04	14	15000	180	0.04
0.3	1.5	30	30000	270	0.04	14	15000	140	0.04
0.4	1.2	40	30000	600	0.06	15	12000	240	0.06
0.4	2	40	30000	420	0.06	15	12000	170	0.06
0.5	1.5	45	28000	670	0.07	15	9500	230	0.07
0.5	2.5	45	28000	450	0.07	15	9500	150	0.07
0.5	3	45	28000	390	0.07	15	9500	130	0.07
0.6	3	45	24000	480	0.09	15	7800	160	0.09
0.7	3.5	45	20000	480	0.1	15	6800	140	0.1
0.8	2.4	45	18000	720	0.1	15	6000	190	0.1
0.8	3	45	18000	650	0.1	15	6000	170	0.1
0.8	4	45	18000	500	0.1	15	6000	140	0.1
1	5	45	15000	600	0.1	15	4800	150	0.1
Depth of cut									

- 1) VQ coating has less electrical conductivity; therefore an external contact type (electrically transmitted) tool setter may not work. When measuring the tool length, please use an internal contact type (non-electrical type) tool setter or a laser type tool setter.
- 2) Effective cutting of stainless steel, titanium alloys and heat-resistant alloys etc. can be achieved with the use of emulsion coolant.
- 3) Chattering can still occur if the machine rigidity and clamping method are insufficient. In these cases the feed and speed should be reduced proportionately.