

VB

11/ 16

CARBIDE INSERTS

VBMT



168

CBN INSERTS

VBGW CBN



171

MATCH THE RIGHT SIZE (example)

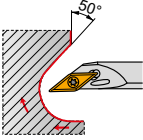
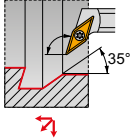
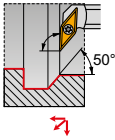
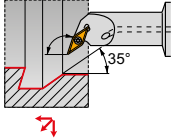
Insert	Tool Holder
VBMT 160408E-FM	SVHCR 2020 K 16-M-A

ISO TURNING – EXTERNAL

SVHB(C)(RL) EXT 107°30' 16×16 25×25 172 168 – 171 186 – 192	VB, VC.. 11 13 16 168 – 171 186 – 192
SVJB(C)(RL) EXT 93° 12×12 32×25 173 168 – 171 186 – 192	VB, VC.. 11 13 16 168 – 171 186 – 192
SVPB(C)(RL) EXT 117°30' 16×16 32×25 174 168 – 171 186 – 192	VB, VC.. 11 13 16 168 – 171 186 – 192
SVVB(C)N EXT 72°30' 12×12 32×25 175 168 – 171 186 – 192	VB, VC.. 11 13 16 168 – 171 186 – 192
SVXB(C)(RL) EXT 98° 12×12 32×25 176 168 – 171 186 – 192	VB, VC.. 11 13 16 168 – 171 186 – 192
C.-SVHB(RL) EXT 107°30' C4 C6 177 168 – 171 186 – 192	VB, VC.. 16 168 – 171 186 – 192
C.-SVJB(RL) EXT 93° C3 C6 178 168 – 171 186 – 192	VB, VC.. 11 13 16 168 – 171 186 – 192
C.-SVVBN EXT 72°30' C4 C6 179 168 – 171 186 – 192	VB, VC.. 16 168 – 171 186 – 192



ISO TURNING – INTERNAL

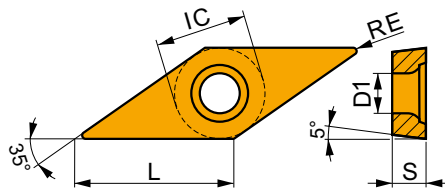
SVJB(RL) INT		SVQB(C)(RL) INT		SVUB(C)(RL) INT		C.-SVQB(C)(RL) INT	
93°	VB, VC.. 11	107°30′	VB, VC.. 11 13 16	93°	VB, VC.. 11 13 16	108°	VB, VC.. 16
							
	$\frac{25}{32}$		$\frac{20}{50}$		$\frac{20}{50}$		33
 180	 168 – 171 186 – 192	 181	 168 – 171 186 – 192	 182	 168 – 171 186 – 192	 183	 168 – 171 186 – 192



VBMT

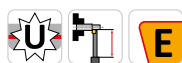
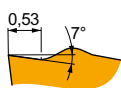


	IC	D1	L	S
	[mm]	[mm]	[mm]	[mm]
1102	6.350	2.80	11.10	2.38
1103	6.350	2.80	11.10	3.18
1604	9.525	4.40	16.60	4.76



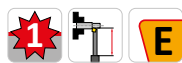
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product	RE	P			M			K			N			S			H		
		vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]



FF2 geometry with positive design for fine-finish to finish machining, and continuous to slightly interrupted cuts.

VBMT 160404E-FF2	T7325	0.4	145	0.12	0.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	T8330	0.4	125	0.12	0.8	—	—	—	115	0.12	0.8	—	—	—	—	—	—	—	—
	T8430	0.4	150	0.12	0.8	—	—	—	125	0.12	0.8	—	—	—	—	—	—	—	—
	T9315	0.4	215	0.12	0.8	—	—	—	200	0.12	0.8	—	—	—	—	—	—	—	—
	T9325	0.4	190	0.12	0.8	—	—	—	180	0.12	0.8	—	—	—	—	—	—	—	—
	T9335	0.4	160	0.12	0.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—



FM geometry for finish to semi-rough machining, and continuous to slightly interrupted cuts.

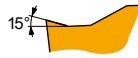
VBMT 110302E-FM	T7325	0.2	160	0.10	0.8	120	0.09	0.8	—	—	—	—	—	—	—	—	—	—	—
	T8315	0.2	145	0.10	0.8	85	0.09	0.8	135	0.10	0.8	435	0.12	0.8	—	—	—	—	—
	T8330	0.2	135	0.10	0.8	80	0.09	0.8	125	0.10	0.8	405	0.12	0.8	—	—	—	—	—
	T8430	0.2	170	0.10	0.8	90	0.09	0.8	135	0.10	0.8	465	0.12	0.8	—	—	—	—	—
	T9325	0.2	210	0.10	0.8	125	0.09	0.8	195	0.10	0.8	—	—	—	—	—	—	—	—
	T9335	0.2	175	0.10	0.8	105	0.09	0.8	—	—	—	—	—	—	—	—	—	—	—
VBMT 110304E-FM	T7325	0.4	140	0.19	0.8	105	0.17	0.8	—	—	—	—	—	—	—	—	—	—	—
	T7335	0.4	135	0.19	0.8	105	0.17	0.8	—	—	—	—	—	—	—	—	—	—	—
	T8315	0.4	145	0.12	0.8	85	0.11	0.8	135	0.12	0.8	435	0.14	0.8	—	—	—	—	—
	T8330	0.4	140	0.12	0.8	80	0.11	0.8	130	0.12	0.8	420	0.14	0.8	—	—	—	—	—
	T8430	0.4	170	0.12	0.8	90	0.11	0.8	135	0.12	0.8	465	0.14	0.8	—	—	—	—	—
	T9315	0.4	235	0.12	0.8	—	—	—	220	0.12	0.8	—	—	—	—	—	—	—	—
VBMT 110308E-FM	T7325	0.8	170	0.17	0.8	130	0.15	0.8	—	—	—	—	—	—	—	—	—	—	—
	T8330	0.8	150	0.17	0.8	90	0.15	0.8	140	0.17	0.8	450	0.20	0.8	—	—	—	—	—
	T8430	0.8	175	0.17	0.8	95	0.15	0.8	140	0.17	0.8	480	0.20	0.8	—	—	—	—	—
	T9315	0.8	240	0.17	0.8	—	—	—	225	0.17	0.8	—	—	—	—	—	—	—	—
	T9325	0.8	215	0.17	0.8	125	0.15	0.8	200	0.17	0.8	—	—	—	—	—	—	—	—
	T9335	0.8	175	0.17	0.8	105	0.15	0.8	165	0.17	0.8	—	—	—	—	—	—	—	—
VBMT 160402E-FM	T7325	0.2	150	0.10	1.2	115	0.09	1.2	—	—	—	—	—	—	—	—	—	—	—
	T8330	0.2	130	0.10	1.2	75	0.09	1.2	120	0.10	1.2	390	0.12	1.2	—	—	—	—	—
	T8430	0.2	165	0.10	1.2	90	0.09	1.2	135	0.10	1.2	450	0.12	1.2	—	—	—	—	—
	T9315	0.2	230	0.10	1.2	—	—	—	215	0.10	1.2	—	—	—	—	—	—	—	—
	T9325	0.2	205	0.10	1.2	120	0.09	1.2	190	0.10	1.2	—	—	—	—	—	—	—	—
	T9335	0.2	175	0.10	1.2	105	0.09	1.2	165	0.10	1.2	—	—	—	—	—	—	—	—
VBMT 160404E-FM	T5315	0.4	225	0.12	1.2	—	—	—	210	0.12	1.2	—	—	—	—	—	—	—	—
	T7325	0.4	130	0.19	1.2	100	0.17	1.2	—	—	—	—	—	—	—	—	—	—	—
	T7335	0.4	130	0.19	1.2	100	0.17	1.2	—	—	—	—	—	—	—	—	—	—	—
	T8315	0.4	140	0.12	1.2	80	0.11	1.2	130	0.12	1.2	420	0.14	1.2	—	—	—	—	—
	T8330	0.4	135	0.12	1.2	80	0.11	1.2	125	0.12	1.2	405	0.14	1.2	—	—	—	—	—
	T8430	0.4	165	0.12	1.2	90	0.11	1.2	135	0.12	1.2	450	0.14	1.2	—	—	—	—	—
	T9315	0.4	225	0.12	1.2	—	—	—	210	0.12	1.2	—	—	—	—	—	—	—	—
	T9325	0.4	165	0.19	1.2	95	0.17	1.2	155	0.19	1.2	—	—	—	—	—	—	—	—
	T9335	0.4	165	0.19	1.2	95	0.17	1.2	155	0.19	1.2	—	—	—	—	—	—	—	—
	T9335	0.4	165	0.19	1.2	95	0.17	1.2	155	0.19	1.2	—	—	—	—	—	—	—	—

CC	CP	DC	EC	EP	RC	SC	SP	TC	TP	VB	VC	WC
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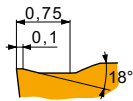
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE [mm]	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
			[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]



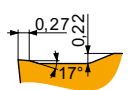
FM geometry for finish to semi-rough machining, and continuous to slightly interrupted cuts.

VBMT 160408E-FM	T5315	0.8	235	0.17	1.2	—	—	—	220	0.17	1.2	—	—	—	—	—	—	—	—	—
	T7325	0.8	165	0.17	1.2	125	0.15	1.2	—	—	—	—	—	—	—	—	—	—	—	—
	T7335	0.8	160	0.17	1.2	120	0.15	1.2	—	—	—	—	—	—	—	—	—	—	—	—
	T8315	0.8	150	0.17	1.2	90	0.15	1.2	140	0.17	1.2	450	0.20	1.2	—	—	—	—	—	—
	T8330	0.8	145	0.17	1.2	85	0.15	1.2	135	0.17	1.2	435	0.20	1.2	—	—	—	—	—	—
	T8430	0.8	170	0.17	1.2	90	0.15	1.2	135	0.17	1.2	465	0.20	1.2	—	—	—	—	—	—
	T9310	0.8	255	0.17	1.2	—	—	—	240	0.17	1.2	—	—	—	—	—	—	—	—	—
	T9315	0.8	230	0.17	1.2	—	—	—	215	0.17	1.2	—	—	—	—	—	—	—	—	—
	T9325	0.8	205	0.17	1.2	120	0.15	1.2	190	0.17	1.2	—	—	—	—	—	—	—	—	—
VBMT 160412E-FM	T7325	1.2	160	0.22	1.2	120	0.22	1.2	—	—	—	—	—	—	—	—	—	—	—	—
	T8330	1.2	140	0.22	1.2	80	0.22	1.2	130	0.22	1.2	420	0.26	1.2	—	—	—	—	—	—
	T8430	1.2	155	0.22	1.2	85	0.22	1.2	130	0.22	1.2	435	0.26	1.2	—	—	—	—	—	—
	T9315	1.2	215	0.22	1.2	—	—	—	200	0.22	1.2	—	—	—	—	—	—	—	—	—
	T9325	1.2	195	0.22	1.2	115	0.22	1.2	185	0.22	1.2	—	—	—	—	—	—	—	—	—



FM2 geometry for finish to medium machining, and continuous to interrupted cuts.

VBMT 160404E-FM2	T6310	0.4	120	0.12	1.2	85	0.11	1.2	95	0.12	1.2	—	—	—	—	—	—	—	—	—
	T7325	0.4	140	0.12	1.2	105	0.11	1.2	—	—	—	—	—	—	—	—	—	—	—	—
	T8330	0.4	125	0.12	1.2	75	0.11	1.2	115	0.12	1.2	—	—	—	—	—	—	—	—	—
	T8430	0.4	145	0.12	1.2	80	0.11	1.2	120	0.12	1.2	—	—	—	—	—	—	—	—	—
	T9315	0.4	200	0.12	1.2	—	—	—	190	0.12	1.2	—	—	—	—	—	—	—	—	—
	T9325	0.4	185	0.12	1.2	110	0.11	1.2	175	0.12	1.2	—	—	—	—	—	—	—	—	—
VBMT 160408E-FM2	T9335	0.4	155	0.12	1.2	90	0.11	1.2	—	—	—	—	—	—	—	—	—	—	—	—
	T6310	0.8	125	0.20	1.2	90	0.18	1.2	100	0.20	1.2	—	—	—	—	—	—	—	—	—
	T7325	0.8	145	0.20	1.2	110	0.18	1.2	—	—	—	—	—	—	—	—	—	—	—	—
	T8330	0.8	125	0.20	1.2	75	0.18	1.2	115	0.20	1.2	—	—	—	—	—	—	—	—	—
	T8430	0.8	140	0.20	1.2	75	0.18	1.2	115	0.20	1.2	—	—	—	—	—	—	—	—	—
	T9315	0.8	195	0.20	1.2	—	—	—	185	0.20	1.2	—	—	—	—	—	—	—	—	—
VBMT 160412E-FM2	T9325	0.8	175	0.20	1.2	105	0.18	1.2	165	0.20	1.2	—	—	—	—	—	—	—	—	—
	T9335	0.8	150	0.20	1.2	90	0.18	1.2	—	—	—	—	—	—	—	—	—	—	—	—
	T8430	1.2	145	0.22	1.2	80	0.20	1.2	120	0.22	1.2	—	—	—	—	—	—	—	—	—
	T9315	1.2	195	0.22	1.2	—	—	—	185	0.22	1.2	—	—	—	—	—	—	—	—	—
	T9325	1.2	175	0.22	1.2	105	0.20	1.2	165	0.22	1.2	—	—	—	—	—	—	—	—	—



RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.

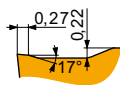
VBMT 160404E-RM	T5305	0.4	270	0.12	1.2	—	—	—	255	0.12	1.2	—	—	—	—	—	—	50	0.15	1.0
	T5315	0.4	235	0.12	1.2	—	—	—	220	0.12	1.2	—	—	—	—	—	—	45	0.15	1.0
	T7335	0.4	140	0.18	1.2	105	0.16	1.2	—	—	—	45	0.16	1.0	—	—	—	—	—	—
	T8330	0.4	140	0.12	1.2	80	0.11	1.2	130	0.12	1.2	—	—	—	35	0.11	1.0	25	0.15	1.0
	T8430	0.4	170	0.12	1.2	90	0.11	1.2	135	0.12	1.2	—	—	—	35	0.11	1.0	25	0.15	1.0
	T9315	0.4	235	0.12	1.2	—	—	—	220	0.12	1.2	—	—	—	—	—	—	45	0.15	1.0
	T9325	0.4	170	0.20	1.2	100	0.18	1.2	160	0.20	1.2	—	—	—	35	0.18	1.0	—	—	—
VBMT 160408E-RM	T5305	0.8	285	0.17	1.2	—	—	—	270	0.17	1.2	—	—	—	—	—	—	55	0.15	1.0
	T5315	0.8	250	0.17	1.2	—	—	—	235	0.17	1.2	—	—	—	—	—	—	50	0.15	1.0
	T7335	0.8	155	0.20	1.2	120	0.18	1.2	—	—	—	50	0.18	1.0	—	—	—	—	—	—
	T8330	0.8	150	0.17	1.2	90	0.15	1.2	140	0.17	1.2	—	—	—	35	0.12	1.0	30	0.15	1.0
	T8430	0.8	175	0.17	1.2	95	0.15	1.2	140	0.17	1.2	—	—	—	35	0.12	1.0	30	0.15	1.0
	T9315	0.8	240	0.17	1.2	—	—	—	225	0.17	1.2	—	—	—	—	—	—	45	0.15	1.0
	T9325	0.8	200	0.20	1.2	120	0.18	1.2	190	0.20	1.2	—	—	—	45	0.18	1.0	—	—	—

CC	CP	DC	EC	EP	RC	SC	SP	TC	TP	VB	VC	WC
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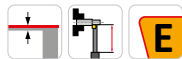
Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product		RE (mm)	P			M			K			N			S			H		
			vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
			[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]



RM geometry for semi-rough to rough machining, and continuous to interrupted cuts.

VBMT 160412E-RM	T7335	1.2	150	0.27	1.2	115	0.24	1.2	—	—	—	—	—	—	45	0.19	1.0	—	—	—
	T8330	1.2	140	0.27	1.2	80	0.24	1.2	130	0.27	1.2	—	—	—	35	0.19	1.0	25	0.15	1.0
	T8430	1.2	155	0.27	1.2	85	0.24	1.2	130	0.27	1.2	—	—	—	30	0.19	1.0	25	0.15	1.0
	T9315	1.2	210	0.27	1.2	—	—	—	195	0.27	1.2	—	—	—	—	—	—	40	0.15	1.0
	T9325	1.2	185	0.27	1.2	110	0.24	1.2	175	0.27	1.2	—	—	—	40	0.19	1.0	—	—	—



UR geometry for fine to finish machining, and continuous to slightly interrupted cuts.

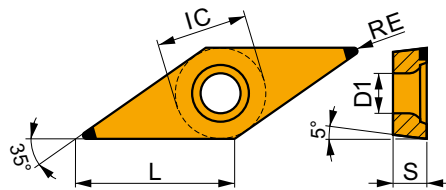
VBMT 110202E-UR	TT310	0.2	195	0.10	0.8	115	0.09	0.8	—	—	—	—	—	—	—	—	—	—	—	—
VBMT 110204E-UR	T7325	0.4	120	0.19	0.8	90	0.17	0.8	—	—	—	—	—	—	—	—	—	—	—	—
	T8330	0.4	120	0.12	0.8	70	0.11	0.8	110	0.12	0.8	—	—	—	—	—	—	—	—	—
	T8430	0.4	145	0.12	0.8	80	0.11	0.8	120	0.12	0.8	—	—	—	—	—	—	—	—	—
	T9315	0.4	200	0.12	0.8	—	—	—	190	0.12	0.8	—	—	—	—	—	—	—	—	—
	T9325	0.4	150	0.19	0.8	90	0.17	0.8	140	0.19	0.8	—	—	—	—	—	—	—	—	—
VBMT 160402E-UR	TT310	0.4	195	0.12	0.8	115	0.11	0.8	—	—	—	—	—	—	—	—	—	—	—	—
	T8330	0.2	115	0.10	1.2	65	0.09	1.2	105	0.10	1.2	—	—	—	—	—	—	—	—	—
	T8430	0.2	140	0.10	1.2	75	0.09	1.2	115	0.10	1.2	—	—	—	—	—	—	—	—	—
	T5315	0.4	195	0.12	1.2	—	—	—	185	0.12	1.2	—	—	—	—	—	—	—	—	—
	T7325	0.4	115	0.19	1.2	85	0.17	1.2	—	—	—	—	—	—	—	—	—	—	—	—
VBMT 160404E-UR	T8330	0.4	115	0.12	1.2	65	0.11	1.2	105	0.12	1.2	—	—	—	—	—	—	—	—	—
	T8430	0.4	140	0.12	1.2	75	0.11	1.2	115	0.12	1.2	—	—	—	—	—	—	—	—	—
	T9310	0.4	215	0.12	1.2	—	—	—	200	0.12	1.2	—	—	—	—	—	—	—	—	—
	T9315	0.4	190	0.12	1.2	—	—	—	180	0.12	1.2	—	—	—	—	—	—	—	—	—
	T9325	0.4	145	0.18	1.2	85	0.16	1.2	135	0.18	1.2	—	—	—	—	—	—	—	—	—
	TT310	0.4	185	0.12	1.2	110	0.11	1.2	—	—	—	—	—	—	—	—	—	—	—	—
	T5315	0.8	205	0.17	1.2	—	—	—	190	0.17	1.2	—	—	—	—	—	—	—	—	—
	T7325	0.8	140	0.17	1.2	105	0.15	1.2	—	—	—	—	—	—	—	—	—	—	—	—
	T8330	0.8	125	0.17	1.2	75	0.15	1.2	115	0.17	1.2	—	—	—	—	—	—	—	—	—
	T8430	0.8	145	0.17	1.2	80	0.15	1.2	120	0.17	1.2	—	—	—	—	—	—	—	—	—
VBMT 160408E-UR	T9310	0.8	220	0.17	1.2	—	—	—	205	0.17	1.2	—	—	—	—	—	—	—	—	—
	T9315	0.8	200	0.17	1.2	—	—	—	190	0.17	1.2	—	—	—	—	—	—	—	—	—
	T9325	0.8	180	0.17	1.2	105	0.15	1.2	170	0.17	1.2	—	—	—	—	—	—	—	—	—
	TT310	0.8	200	0.17	1.2	120	0.15	1.2	—	—	—	—	—	—	—	—	—	—	—	—
	T7325	1.2	135	0.22	1.2	105	0.20	1.2	—	—	—	—	—	—	—	—	—	—	—	—
	T8330	1.2	120	0.22	1.2	70	0.20	1.2	110	0.22	1.2	—	—	—	—	—	—	—	—	—
	T8430	1.2	135	0.22	1.2	75	0.20	1.2	110	0.22	1.2	—	—	—	—	—	—	—	—	—
VBMT 160412E-UR	T9310	1.2	205	0.22	1.2	—	—	—	190	0.22	1.2	—	—	—	—	—	—	—	—	—
	T9315	1.2	185	0.22	1.2	—	—	—	175	0.22	1.2	—	—	—	—	—	—	—	—	—
	T9325	1.2	170	0.22	1.2	100	0.20	1.2	160	0.22	1.2	—	—	—	—	—	—	—	—	—



VBGW CBN

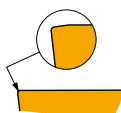


	IC	D1	L	S
	(mm)	(mm)	(mm)	(mm)
1604	9.525	4.50	16.00	4.76



Suitability and starting values for cutting speed (vc), feed (f) and depth of cut (ap). Refer to our Machining Calculator app for further calculations.

Product	RE	P			M			K			N			S			H		
		vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap	vc	f	ap
	(mm)	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]	[m/min]	[mm/rev]	[mm]



For finish machining and continuous cuts.

VBGW 160404S01020B	TB310	0.4	—	—	—	—	—	—	340	0.10	0.4	—	—	—	90	0.07	0.3	70	0.15	1.0
VBGW 160408S01020B	TB310	0.8	—	—	—	—	—	—	350	0.15	0.6	—	—	—	90	0.11	0.5	70	0.15	1.0