

- Mid-low hardened steels (~HRc42), Mild steels, Cast irons, SUS
- HR coating reduces stress of flute and enhances wear resistance.
- 45° helix design is suitable for high speed machining.

**TR** Contact Trucut Tools to order  
[sales@trucuttools.co.uk](mailto:sales@trucuttools.co.uk)  
 Tel. 01202 717 110

6

**WC**

**HR**  
Coating

**R**  
± 0.005  
R0.5

**R**  
± 0.01  
R1 ~ 1.5

**R**  
± 0.015  
R2 ~ 3

**45°**  
Helix Angle

Condition	D Size	D Tolerance	Condition	D Size	D Tolerance
ØD ≠ Ød	Ø 6 ~ 20	+0 ~ -0.01mm	ØD = Ød	Ø 6 ~ 12	-0.005 ~ -0.015mm
				Ø 14 ~ 20	-0.01 ~ -0.02mm

:mm

Order Number	Diameter D×R	Length of cut L1	Overall Length L	Shank Dia d
6VSC 060 005 S06	6 X R0.5	15	60	6
6VSC 060 010 S06	6 X R1	15	60	6
New 6VSC 060 015 S06	6 X R1.5	15	60	6
6VSC 080 005 S08	8 X R0.5	20	70	8
6VSC 080 010 S08	8 X R1	20	70	8
New 6VSC 080 020 S08	8 X R2	20	70	8
6VSC 100 005 S10	10 X R0.5	25	75	10
6VSC 100 010 S10	10 X R1	25	75	10
6VSC 100 015 S10	10 X R1.5	25	75	10
6VSC 100 020 S10	10 X R2	25	75	10
New 6VSC 100 030 S10	10 X R3	25	75	10
6VSC 120 005 S12	12 X R0.5	30	80	12
6VSC 120 010 S12	12 X R1	30	80	12
6VSC 120 015 S12	12 X R1.5	30	80	12
6VSC 120 020 S12	12 X R2	30	80	12
6VSC 120 030 S12	12 X R3	30	80	12
New 6VSC 120 040 S12	12 X R4	30	80	12
New 6VSC 140 005 S14	14 X R0.5	36	90	14
New 6VSC 140 010 S14	14 X R1	36	90	14
New 6VSC 140 020 S14	14 X R2	36	90	14
New 6VSC 140 030 S14	14 X R3	36	90	14
New 6VSC 140 040 S14	14 X R4	36	90	14
New 6VSC 160 005 S16	16 X R0.5	40	100	16
6VSC 160 010 S16	16 X R1	40	100	16
6VSC 160 015 S16	16 X R1.5	40	100	16
6VSC 160 020 S16	16 X R2	40	100	16
6VSC 160 030 S16	16 X R3	40	100	16
New 6VSC 160 040 S16	16 X R4	40	100	16
New 6VSC 160 050 S16	16 X R5	40	100	16
New 6VSC 200 005 S20	20 X R0.5	45	100	20
6VSC 200 010 S20	20 X R1	45	100	20
6VSC 200 015 S20	20 X R1.5	45	100	20
6VSC 200 020 S20	20 X R2	45	100	20
6VSC 200 030 S20	20 X R3	45	100	20
New 6VSC 200 040 S20	20 X R4	45	100	20
New 6VSC 200 050 S20	20 X R5	45	100	20

Order Number	Diameter D×R	Length of cut L1	Overall Length L	Shank Dia d

# 4VSE/4VCC/4VSC

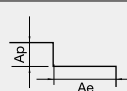
## Cutting Condition

• RPM : rev./min • Feed : mm/min

Material	Structural steels / Carbon Steels / Gray cast irons SS/SC/FC				Tool steels / Mold steels SCM/HPM				Titanium alloy steels Ti6A				Heat Resistance Alloys				Stainless Steels SUS304 / SUS316			
	~30HRc				30 ~ 40HRc				-				-				-			
mm Outside Diameter	RPM	FEED	Ap Axial	Ae Radial	RPM	FEED	Ap Axial	Ae Radial	RPM	FEED	Ap Axial	Ae Radial	RPM	FEED	Ap Axial	Ae Radial	RPM	FEED	Ap Axial	Ae Radial
Ø1	41,400	800	1.50	0.50	38,000	690	1.50	0.50	22,920	150	1.00	0.30	10,800	100	1.00	0.20	31,900	380	1.50	0.35
Ø1.2	34,500	700	3.00	0.60	32,000	600	1.80	0.60	19,104	120	1.20	0.36	8,951	80	1.20	0.24	26,500	300	1.80	0.42
Ø1.5	27,600	550	2.25	0.75	25,600	450	2.25	0.75	15,360	100	1.50	0.45	7,155	65	1.50	0.30	21,200	250	2.25	0.53
Ø2	20,700	400	3.00	1.00	19,100	330	3.00	1.00	11,460	80	2.00	0.60	5,400	65	2.00	0.40	15,600	200	3.00	0.70
Ø2.5	16,500	330	3.75	1.25	15,300	270	3.75	1.25	9,120	70	2.50	0.75	4,293	50	2.50	0.50	12,800	150	3.75	0.88
Ø3	13,800	330	4.50	1.50	12,740	240	4.50	1.50	7,644	100	3.00	0.90	3,578	50	3.00	0.60	10,600	210	4.50	1.05
Ø4	10,350	410	6.00	2.00	9,560	405	6.00	2.00	5,736	160	4.00	1.20	2,700	40	4.00	0.80	8,000	150	6.00	1.40
Ø5	8,280	430	7.50	2.50	7,600	450	7.50	2.50	4,584	230	5.00	1.50	2,160	60	5.00	1.00	6,380	250	7.50	1.75
Ø6	6,900	550	9.00	3.00	6,400	450	9.00	3.00	3,840	250	6.00	1.80	1,782	116	6.00	1.20	5,300	420	9.00	2.10
Ø8	5,180	600	12.00	4.00	4,780	420	12.00	4.00	2,868	320	8.00	2.40	1,350	116	8.00	1.60	4,000	180	12.00	2.80
Ø10	4,140	780	15.00	5.00	4,140	600	15.00	5.00	2,400	380	10.00	3.00	1,080	131	10.00	2.00	3,180	510	15.00	3.50
Ø12	3,450	800	18.00	6.00	3,440	600	18.00	6.00	1,920	400	12.00	3.60	891	145	12.00	2.40	2,650	530	18.00	4.20
Ø16	2,600	700	24.00	8.00	2,600	600	24.00	8.00	1,440	350	16.00	4.80	675	131	16.00	3.20	2,000	400	24.00	5.60
Ø20	2,000	700	30.00	10.00	2,000	540	30.00	10.00	1,200	320	20.00	6.00	540	116	20.00	4.00	1,600	320	30.00	7.00

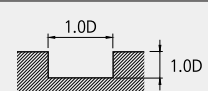
Depth of Cut

- Ap : Axial Depth
- Ae : Radial Depth



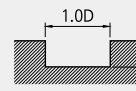
Side Milling

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- When entering the tool to the workpiece, enter the tool from outside to the workpiece.
- If the diameter or effective length of your tool are not on the table, adjust it compared similarity value on the table.
- The edge the flute precisely grinded. If you want to measure the tool, and to avoid damaging on the flutes, use non-contact measuring method.
- Use this table for your reference. Adjust the parameters depending on your machining geometry, machining purpose and CNC.
- If the table over the maximum RPM and feed of your machine, or found red heat on the material, adjust RPM and feed in the same proportion.
- Use a machine with low vibration and good rigidity (1 or less, the vibration tolerance management should be within 5µm)
- Air blow or mist coolants are recommended and note for chip emission, heat, or ignition.

# 6VSE/6VSC

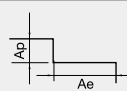
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Ø3	21,000	5,200	6.0	0.20	18,500	2,000	6.0	0.20	7,400	900	4.5	0.2	2,860	280	4.5	0.2	5,600	1,350	6.0	0.20
Ø4	18,000	5,750	8.0	0.20	16,000	2,410	8.0	0.20	6,850	930	6.0	0.2	2,100	300	6.0	0.2	5,950	1,650	8.0	0.20
Ø5	15,200	6,100	10.0	0.30	13,500	2,850	10.0	0.30	6,100	1,050	7.5	0.3	1,850	360	7.5	0.3	6,300	1,800	10.0	0.30
Ø6	14,500	6,300	12.0	0.30	12,000	3,100	12.0	0.30	5,800	1,150	9.0	0.3	1,700	385	9.0	0.3	6,800	2,000	12.0	0.30
Ø8	12,000	8,150	14.0	0.40	8,500	3,900	14.0	0.40	4,350	1,350	10.5	0.4	1,450	420	10.5	0.4	5,400	2,300	14.0	0.40
Ø10	9,500	7,950	20.0	0.50	7,250	4,100	20.0	0.50	3,400	1,500	15.0	0.5	1,000	460	15.0	0.5	4,850	2,400	20.0	0.50
Ø12	8,200	7,800	24.0	0.60	5,900	4,250	24.0	0.60	2,850	1,650	18.0	0.6	900	490	18.0	0.6	3,900	2,600	24.0	0.60
Ø16	6,200	6,800	32.0	0.80	4,250	3,950	32.0	0.80	2,450	1,350	24.0	0.8	750	400	24.0	0.8	2,800	2,000	32.0	0.80
Ø20	4,850	6,650	40.0	1.00	3,650	3,650	40.0	1.00	1,950	1,200	30.0	1.0	580	360	30.0	1.0	2,650	1,700	40.0	1.00

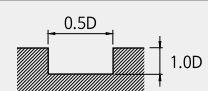
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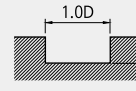
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