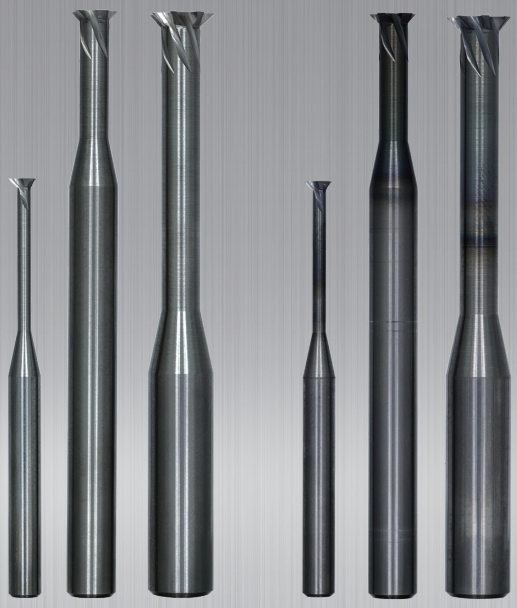
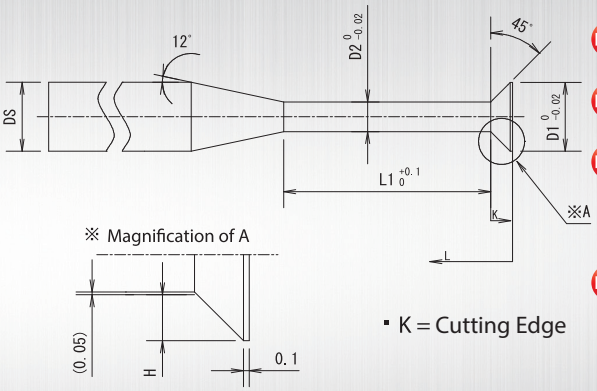
Carbide 45° Back Chamfering Cutter

BC / BCC



Uncoated　Coated



※ Magnification of A

▪ K = Cutting Edge

Carbide Back Chamfering Cutter　BC45 & BC45C Series

No.	Type	Model number: Uncoated	Model number: Coated	Tip diameter D1	Recess diameter D2	Recess length L1	Effective blade length H	Number of flutes	Shank diameter DS	Overall length L
1	S	BC45-0.75-0.35-3.5(#)		0.75	0.35	3.5	0.15	3	3	50
	L	BC45-0.75-0.35-5(#)				5				
2	S	BC45-0.85-0.35-3.5(#)		0.85	0.35	3.5	0.2	3	3	50
	L	BC45-0.85-0.35-5(#)				5				
3	S	BC45-1.05-0.35-3.5(*)		1.05	0.35	3.5	0.3	3	3	50
	L	BC45-1.05-0.35-5(*)				5				
4	S	BC45-1.2-0.45-3.5(*)	BC45C-1.2-0.45-3.5(*)	1.2	0.45	3.5	0.325	3	3	50
	L	BC45-1.2-0.45-5(*)	BC45C-1.2-0.45-5(*)			5				
5	S	BC45-1.3-0.5-3.5(*)	BC45C-1.3-0.5-3.5(*)	1.3	0.5	3.5	0.35	3	3	50
	L	BC45-1.3-0.5-5(*)	BC45C-1.3-0.5-5(*)			5				
6	S	BC45-1.4-0.55-3.5	BC45C-1.4-0.55-3.5	1.4	0.55	3.5	0.375	3	3	50
	L	BC45-1.4-0.55-5	BC45C-1.4-0.55-5			5				
7	S	BC45-1.6-0.65-5	BC45C-1.6-0.65-5	1.6	0.65	5	0.425	3	3	50
	L	BC45-1.6-0.65-10	BC45C-1.6-0.65-10			10				
8	S	BC45-1.8-0.8-5(*)	BC45C-1.8-0.8-5(*)	1.8	0.8	5	0.45	3	3	50
	L	BC45-1.8-0.8-10(*)	BC45C-1.8-0.8-10(*)			10				
9	S	BC45-2.0-0.85-5	BC45C-2.0-0.85-5	2	0.85	5	0.525	3	3	50
	L	BC45-2.0-0.85-10	BC45C-2.0-0.85-10			10				
10	S	BC45-2.2-0.9-5	BC45C-2.2-0.9-5	2.2	0.9	5	0.6	3	3	50
	L	BC45-2.2-0.9-10	BC45C-2.2-0.9-10			10				
11	S	BC45-2.4-1.0-5(*)	BC45C-2.4-1.0-5(*)	2.4	1	5	0.65	3	3	50
	L	BC45-2.4-1.0-10(*)	BC45C-2.4-1.0-10(*)			10				
12	S	BC45-2.6-1.1-7	BC45C-2.6-1.1-7	2.6	1.1	7	0.7	3	3	50
	L	BC45-2.6-1.1-12	BC45C-2.6-1.1-12			12				
13	S	BC45-2.8-1.2-7	BC45C-2.8-1.2-7	2.8	1.2	7	0.75	3	3	50
	L	BC45-2.8-1.2-12	BC45C-2.8-1.2-12			12				
14	S	BC45-3.0-1.3-9	BC45C-3.0-1.3-9	3	1.3	9	0.8	3	3	50
	L	BC45-3.0-1.3-15	BC45C-3.0-1.3-15			15				
NEW 15	S	BC45-3.3-1.5-9	BC45C-3.3-1.5-9	3.3	1.5	9	0.85	3	4	60
	L	BC45-3.3-1.5-15	BC45C-3.3-1.5-15			15				
16	S	BC45-3.5-1.6-9	BC45C-3.5-1.6-9	3.5	1.6	9	0.9	3	4	60
	L	BC45-3.5-1.6-15	BC45C-3.5-1.6-15			15				
NEW 17	S	BC45-3.8-1.85-10	BC45C-3.8-1.85-10	3.8	1.85	10	0.925	3	4	60
	L	BC45-3.8-1.85-17	BC45C-3.8-1.85-17			17				
18	S	BC45-4.0-2.0-10(*)	BC45C-4.0-2.0-10(*)	4	2	10	0.95	3	4	60
	L	BC45-4.0-2.0-17(*)	BC45C-4.0-2.0-17(*)			17				
NEW 19	S	BC45-4.3-2.15-10	BC45C-4.3-2.15-10	4.3	2.15	10	1.025	3	6	70
	L	BC45-4.3-2.15-17	BC45C-4.3-2.15-17			17				
NEW 20	S	BC45-4.8-2.4-10	BC45C-4.8-2.4-10	4.8	2.4	10	1.15	3	6	70
	L	BC45-4.8-2.4-17	BC45C-4.8-2.4-17			17				
NEW 21	S	BC45-5.3-2.65-14	BC45C-5.3-2.65-14	5.3	2.65	14	1.275	5	6	70
	L	BC45-5.3-2.65-24	BC45C-5.3-2.65-24			24				
22	S	BC45-5.8-3.6-14(*)	BC45C-5.8-3.6-14(*)	5.8	3.6	14	1.05	5	6	70
	L	BC45-5.8-3.6-24(*)	BC45C-5.8-3.6-24(*)			24				
NEW 23	S	BC45-6.8-4.2-14	BC45C-6.8-4.2-14	6.8	4.2	14	1.25	7	8	80
	L	BC45-6.8-4.2-24	BC45C-6.8-4.2-24			24				
24	S	BC45-8.0-4.8-14(*)	BC45C-8.0-4.8-14(*)	8	4.8	14	1.55	7	8	80
	M	BC45-8.0-4.8-24(*)	BC45C-8.0-4.8-24(*)			24				
	L	BC45-8.0-4.8-34(*)	BC45C-8.0-4.8-34(*)			34				
25	S	BC45-10.0-6.0-14	BC45C-10.0-6.0-14	10	6	14	1.95	9	10	90
	M	BC45-10.0-6.0-24	BC45C-10.0-6.0-24			24				
	L	BC45-10.0-6.0-39	BC45C-10.0-6.0-39			39				
26	S	BC45-12.0-7.6-19	BC45C-12.0-7.6-19	12	7.6	19	2.15	11	12	100
	M	BC45-12.0-7.6-29	BC45C-12.0-7.6-29			29				
	L	BC45-12.0-7.6-44	BC45C-12.0-7.6-44			44				

★Uncoated ⇒ Work material: aluminum alloy, titanium alloy, and resin

★Coated ⇒ Work material: stainless steel, general steel, and heat-resistant alloy

● Models with a D1 of Φ0.75 / Φ0.85 / Φ1.05 are applicable only to work made of aluminum alloy. These are all uncoated models.

● Models with a D1 of Φ0.75 / Φ0.85 are made to order. (Minimum order quantity: 2 pcs.)

Model number with (*)
⇒ Recommended size for screw chamfering.

- Φ1.05=M1.4
- Φ1.2 =M1.6 ~ M1.7
- Φ1.3 =M1.7 ~ M2.
- Φ1.8 =M2.3 ~ M2.6
- Φ2.4=M3. ~ M4.
- Φ4.0=M5. ~ M6.
- Φ5.8=M7. ~
- Φ8.0=M10. ~

Carbide 45° Back Chamfering Cutter

Recommended cutting conditions

Work materials (Verified material)	• Cutting speed (m/min) • Feed rate (mm/blade)											Recommended tool
	Φ0.75~Φ1.05	Φ1.2~Φ1.4	Φ1.6~Φ1.8	Φ2.0~Φ2.4	Φ2.6~Φ3.0	Φ3.3~Φ3.8	Φ4.0~Φ4.8	Φ5.3・Φ5.8	Φ6.8・Φ8.0	Φ10.0	Φ12.0	
Aluminum alloy	5~25	10~25	20~35	25~45	20~35	15~35	25~45	20~45	20~45	100~160	100~160	Uncoated
(A5052)	0.005~0.02	0.01~0.035	0.01~0.035	0.01~0.035	0.015~0.04	0.025~0.055	0.025~0.055	0.03~0.085	0.03~0.085	0.01~0.04	0.01~0.04	
General steel	×	5~20	10~25	10~25	10~25	15~35	25~45	20~35	20~35	140~160	140~160	Coated
(S50C)		0.025~0.055	0.025~0.055	0.025~0.055	0.025~0.055	0.025~0.055	0.03~0.06	0.04~0.07	0.03~0.06	0.01~0.04	0.01~0.04	
Stainless steel	×	5~20	10~25	10~25	10~25	10~25	10~35	10~35	10~35	140~160	140~160	Coated
(SUS304)		0.01~0.025	0.01~0.025	0.01~0.025	0.01~0.025	0.015~0.04	0.02~0.045	0.03~0.055	0.03~0.055	0.01~0.035	0.01~0.04	
Titanium alloy	×	5~20	10~25	10~25	10~25	10~25	15~30	15~30	15~30	150~160	140~160	Uncoated
(64 Titanium)		0.01~0.025	0.015~0.035	0.015~0.035	0.01~0.025	0.02~0.035	0.02~0.035	0.025~0.045	0.03~0.055	0.01~0.04	0.01~0.03	
Heat-resistant alloy	×	5~20	10~25	10~25	10~25	10~20	15~35	15~30	10~25	150~160	140~160	Coated
(ALLOY C276)		0.01~0.025	0.02~0.035	0.02~0.035	0.01~0.025	0.01~0.025	0.015~0.03	0.025~0.045	0.015~0.04	0.005~0.025	0.01~0.025	

※≪Resin≫ machining is possible under the recommended cutting conditions for aluminum alloy.

<Precautions>

※Recommended cut direction: downward

※The values listed in the recommended cutting conditions were calculated by TOYO Co., Ltd., so fine-tuning may be necessary depending on the material, processing machine, state of the work, or other factors.

※Depending on the material, processing machine, state of the work, or other factors, processing should be done by making several cuts.

※To improve the surface roughness, you can use a tool with lower values than those in the recommended cutting conditions, but the tool life might be shortened.

● Models with a D1 of Φ0.75 / Φ0.85 / Φ1.05 are applicable only to work made of aluminum alloy. These are all uncoated models.