

HSS



Being the best through innovation








COUNTERSINK

SENKER

- Deburring, Chamfering, Countersinking, HSS & 8% Cobalt
- Entgraten und anfasen. HSS und HSSE-Co8

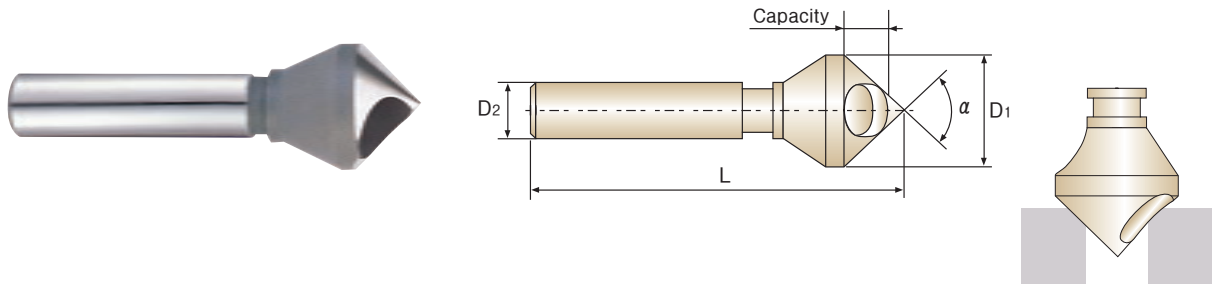
SELECTION GUIDE

ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
C1109 C3109		HSS, DEBURRING TOOL with HOLE HSS, QUERLOCHSENKER	D10.0	D50.0	1331
C1119 C3119		HSS, SINGLE FLUTE CHAMFERING CUTTERS HSS, EINSCHNEIDEN KEGELSENKER	D10.0	D50.0	1332
C1136 C3136		HSS, THREE FLUTE COUNTERSINKS (60°) HSS, DREISCHNEIDEN KEGELSENKER (60°)	D6.3	D25.0	1333
C1139 C3139		HSS, THREE FLUTE COUNTERSINKS (90°) HSS, DREISCHNEIDEN KEGELSENKER (90°)	D4.3	D31.0	1334
C1132 C3132		HSS, THREE FLUTE COUNTERSINKS (120°) HSS, DREISCHNEIDEN KEGELSENKER (120°)	D8.0	D25.0	1335
RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN					1336

HSS, DEBURRING TOOL with HOLE
HSS, QUERLOCHSENKER

- ▶ For light metals and plastics.
- ▶ For deburring and small chamfers.
- ▶ Best surface finish.
- ▶ Works without vibrations.

- ▶ Für Leichtmetall und Plastik
- ▶ Zum Entgraten und Abfasen
- ▶ Bestes Oberflächenfinish
- ▶ Arbeitet ohne Vibration



Unit : mm

EDP No. (uncoating)		Angle	Nominal Diameter	Shank Diameter	Overall Length	Capacity
HSSCo8	HSS	$\alpha (-1^\circ)$	D1	D2	L (± 1)	min/max
C1109100	C3109100	90°	10.0	6	45	2 - 5
C1109150	C3109150	90°	15.0	8	55	6 - 14
C1109200	C3109200	90°	20.0	10	65	8 - 18
C1109250	C3109250	90°	25.0	12	78	10 - 23
C1109300	C3109300	90°	30.0	12	88	12 - 28
C1109350	C3109350	90°	35.0	16	110	14 - 33
C1109400	C3109400	90°	40.0	16	115	16 - 38
C1109450	C3109450	90°	45.0	16	120	18 - 43
C1109500	C3109500	90°	50.0	16	130	20 - 48

▶ TiN & TiCN coating are available on your request.

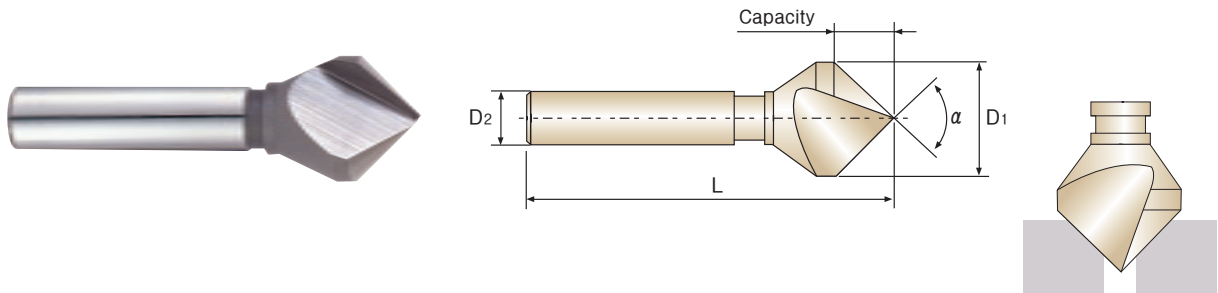
Nominal Dia. Tolerance(mm)	Shank Dia. Tolerance(mm)
+0.3	h9

HSS, SINGLE FLUTE CHAMFERING CUTTERS

HSS, EINSCHNEIDEN KEGELSENKER

- ▶ For wood and hard plastics.
- ▶ Can drill in sheet materials.
- ▶ Easy to resharpen.
- ▶ Works without vibrations.

- ▶ Für Holz und Hartplastik
- ▶ Kann in Bleche bohren
- ▶ Leicht nachzuschärfen
- ▶ Arbeitet ohne Vibration



Unit : mm

EDP No. (uncoating)		Angle	Nominal Diameter	Shank Diameter	Overall Length	Capacity
HSSCo8	HSS	α (-1°)	D1	D2	L(±1)	min/max
C1119100	C3119100	90°	10.0	6	45	1 - 10
C1119150	C3119150	90°	15.0	8	55	2 - 15
C1119200	C3119200	90°	20.0	10	65	2 - 20
C1119250	C3119250	90°	25.0	12	78	3 - 25
C1119300	C3119300	90°	30.0	12	88	3 - 30
C1119350	C3119350	90°	35.0	16	110	4 - 35
C1119400	C3119400	90°	40.0	16	115	5 - 40
C1119450	C3119450	90°	45.0	16	120	10 - 45
C1119500	C3119500	90°	50.0	16	130	12 - 50

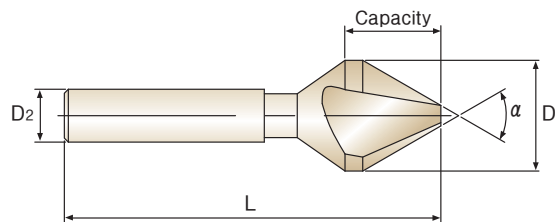
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Nominal Dia Tolerance(mm)	Shank Dia. Tolerance(mm)
+0.3	h9

HSS, THREE FLUTE COUNTERSINKS (60°)
HSS, DREISCHNEIDEN KEGELSENKER (60°)

- ▶ Self-centering(3 flutes)
- ▶ For deburring, chamfering and countersinking
- ▶ Hand using
- ▶ Longitudinal chamfers and contouring
- ▶ Works without vibrations

- ▶ Selbstzentrierend
- ▶ Zum Entgraten, Abfasen und Senkkopfschrauben
- ▶ Manueller Einsatz möglich
- ▶ Zum Entgraten von Längs- und Profilkanten
- ▶ Arbeitet ohne Vibration


DIN 334 C

Unit : mm

EDP No. (uncoating)		Angle	Nominal Diameter	Shank Diameter	Overall Length	Capacity
HSSCo8	HSS	$\alpha (-1^\circ)$	D1	D2	L (± 1)	min/max
C1136063	C3136063	60°	6.3	5	45	1.6~6.3
C1136080	C3136080	60°	8	6	50	2.0~8.0
C1136100	C3136100	60°	10	6	50	2.5~10.0
C1136125	C3136125	60°	12.5	8	56	3.2~12.5
C1136160	C3136160	60°	16	10	63	4.0~16.0
C1136200	C3136200	60°	20	10	67	5.0~20.0
C1136250	C3136250	60°	25	10	71	6.3~25.0

▶ TiN & TiCN coating are available on your request.

Nominal Dia Tolerance(mm)	Shank Dia. Tolerance(mm)
±0.05	h9

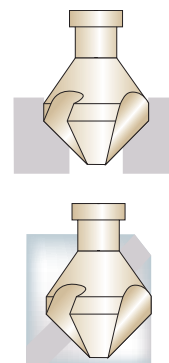
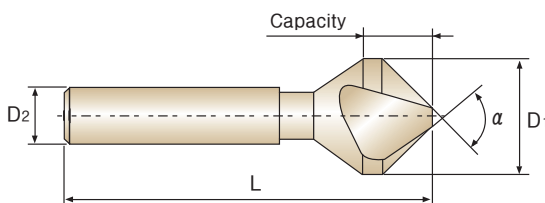


HSS, THREE FLUTE COUNTERSINKS (90°)

HSS, DREISCHNEIDEN KEGELSENKER (90°)

- ▶ Self-centering(3 flutes).
- ▶ Designed for 90° capscrews countersinking.
- ▶ Hand using.
- ▶ Longitudinal chamfers and contouring.
- ▶ Works without vibrations

- ▶ Selbstzentrierend
- ▶ Besonders geeignet zum 90° Ansenken für Senkkopfschrauben
- ▶ Manueller Einsatz möglich
- ▶ Zum Entgraten von Längs- und Profilkanten
- ▶ Arbeitet ohne Vibration

DIN
335 C

Unit : mm

EDP No. (uncoating)		Angle	Nominal Diameter	Shank Diameter	Overall Length	Capacity
HSSCo8	HSS	α (-1°)	D1	D2	L (± 1)	min/max
C1139043	C3139043	90°	4.3	4	40	1.3 - 4.3
C1139050	C3139050	90°	5.0	4	40	1.5 - 5
C1139060	C3139060	90°	6.0	5	45	1.5 - 6
C1139063	C3139063	90°	6.3	5	45	1.5 - 6.3
C1139070	C3139070	90°	7.0	6	50	1.8 - 7
C1139080	C3139080	90°	8.0	6	50	2 - 8
C1139083	C3139083	90°	8.3	6	50	2 - 8.3
C1139100	C3139100	90°	10.0	6	50	2.5 - 10
C1139104	C3139104	90°	10.4	6	50	2.5 - 10.4
C1139115	C3139115	90°	11.5	8	56	2.8 - 11.5
C1139124	C3139124	90°	12.4	8	56	2.8 - 12.4
C1139150	C3139150	90°	15.0	10	60	3.2 - 15
C1139165	C3139165	90°	16.5	10	60	3.2 - 16.5
C1139190	C3139190	90°	19.0	10	63	3.5 - 19
C1139205	C3139205	90°	20.5	10	63	3.5 - 20.5
C1139230	C3139230	90°	23.0	10	67	3.8 - 23
C1139250	C3139250	90°	25.0	10	67	3.8 - 25
C1139300	C3139300	90°	30.0	12	71	4.2 - 30
C1139310	C3139310	90°	31.0	12	71	4.2 - 31

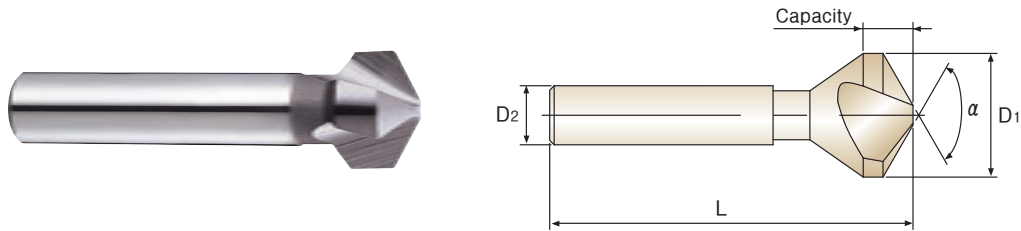
▶ TiN & TiCN coating are available on your request.

Nominal Dia. Tolerance(mm)	Shank Dia. Tolerance(mm)
± 0.05	h9

HSS, THREE FLUTE COUNTERSINKS (120°)
HSS, DREISCHNEIDEN KEGELSENKER (120°)

- ▶ Self-centering(3 flutes)
- ▶ For deburring, chamfering and countersinking
- ▶ Hand using
- ▶ Longitudinal chamfers and contouring
- ▶ Works without vibrations

- ▶ Selbstzentrierend
- ▶ Zum Entgraten, Abfasen und Senkkopfschrauben
- ▶ Manueller Einsatz möglich
- ▶ Zum Entgraten von Längs- und Profilkanten
- ▶ Arbeitet ohne Vibration

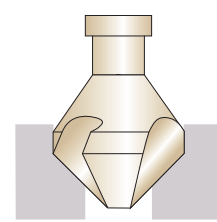
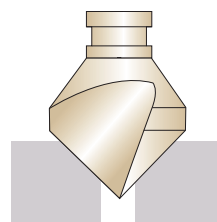
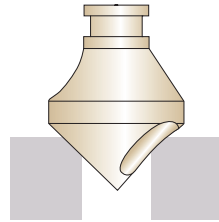


Unit : mm

EDP No. (uncoating)		Angle	Nominal Diameter	Shank Diameter	Overall Length	Capacity
HSSCo8	HSS	$\alpha (-1^\circ)$	D1	D2	L (± 1)	min/max
C1132080	C3132080	120°	8	6	49	2.0~8.0
C1132125	C3132125	120°	12.5	8	54	2.8~12.5
C1132160	C3132160	120°	16	10	57	3.2~16.0
C1132200	C3132200	120°	20	10	59	3.5~20.0
C1132250	C3132250	120°	25	10	65	3.8~25.0

▶ TiN & TiCN coating are available on your request.

Nominal Dia Tolerance(mm)	Shank Dia. Tolerance(mm)
±0.05	h9



Material	V	S			V	S			V	S		
		∅ ≤ 10	∅ ≤ 20	∅ ≤ 30		∅ ≤ 10	∅ ≤ 20	∅ ≤ 30		∅ ≤ 10	∅ ≤ 20	∅ ≤ 30
STEELS ≤ 500N/mm ²	35-45	0.20	0.22	0.24	35-45	0.20	0.22	0.24	17-22	0.30	0.32	0.36
STEELS 500~800N/mm ²	20-30	0.14	0.17	0.20	20-30	0.14	0.17	0.20	10-15	0.28	0.30	0.31
STEELS 800~1000N/mm ²	15-20	0.11	0.12	0.14	15-20	0.11	0.12	0.14	8-12	0.24	0.26	0.28
STEELS-STAINLESS STEEL 1000~1300N/mm ²	12-15	0.10	0.12	0.15	12-15	0.10	0.12	0.15	6-8	0.20	0.20	0.22
STAINLESS STEELS	6-8	0.07	0.08	0.09	6-8	0.07	0.08	0.09	4-6	0.08	0.09	0.10
CAST IRON	20-40	0.15	0.24	0.28	20-40	0.15	0.24	0.28	15-25	0.13	0.19	0.24
ALUMINUM	50-60	0.22	0.25	0.27	50-60	0.22	0.25	0.27	35-45	0.27	0.30	0.35
BRASS-BRONZE	30-40	0.23	0.25	0.28	30-40	0.23	0.25	0.28	20-30	0.30	0.30	0.31
COPPER	20-30	0.22	0.25	0.27	20-30	0.22	0.25	0.27	10-15	0.29	0.30	0.31
PLASTICS	50-100	0.50	0.60	0.65	50-100	0.50	0.60	0.65	35-70	0.40	0.45	0.50

V : Cutting Speed(mm/min)

S : Feed per Revolution(mm/rev)