Countersinks

Smooth cutting, perfect chamfering

- Counterbores
- Cross Hole
- Single Flute
- Three Flute

COUNTERSINKS

Smooth Cutting...
Perfect Chamfering

Catalogue Code: C108
This new generation of countersink applies the three most important areas for optimal tool life in its design.

Constant rake angle along the entire cutting face, latest developments in coating & superior tool material.

- De-burring
- Countersinking / Counterboring screw holes
- Chamfering of tapping holes
- For use in machine applications

Features
- Cobalt grade High Speed Steel
- Ti 1 Futura coated
- Constant flute rake along entire cutting face
- Axial and radial adjusted relief
- Higher dimensional precision
- Improved and sharper cutting edge

Benefits
- Chatter-free countersinking and de-burring
- Longer lasting
- Excellent chip flow

suttontools

ISO	VDI	Material Group	Sutton	
P	A	Steel	N	UNI
M	R	Stainless Steel	VA	
K	F	Cast Iron	GG	
N	N	Non-Ferrous Metals, Aluminiums & Coppers	Al / W	
S	S	Titaniums & Super Alloys	Ti	Ni
H	H	Hard Materials (≥ 45 HRC)	H	

^ VDI 3323 material groups can also be determined by referring to the material cross reference listing in the application guide at the back of this catalogue.

Page	126	126	127	127	128	128	129	129	130
									
Catalogue Code	C107	C108	C105	C106	C103	C104	C101	C102	C100
Material	HSS Co		HSS						HSS Co
Surface Finish	Brt	TiAlN	Brt	TiN	Brt	TiN	Brt	TiN	Brt
Sutton Designation	N	UNI	N		N		N		N
Standard	DIN 335		-		-		-		DIN 373
Depth of Cut	-		-		-		-		-
Shank Tolerance	h9		-		-		-		h6

ISO	VDI^ 3323	Material		Condition	HB	N/mm²								
P	1	Steel - Non-alloy, cast & free cutting	~ 0.15 %C	A	125	440	●	●	●	●	●	●	●	●	●
	2		~ 0.45 %C	A	190	640	●	●	●	●	●	●	●	●	●
	3			QT	250	840	●	●	○	●	○	●	○	●	○
	4		~ 0.75 %C	A	270	910	●	●	○	●	○	●	○	●	○
	5			QT	300	1010	○	●		○		○		○	○
	6	Steel - Low alloy & cast < 5%of alloying elements		A	180	610	●	●	●	●	○	●	●	●	●
	7			QT	275	930	●	●	○	●	○	●	○	●	○
	8			QT	300	1010	○	●		○		○		○	○
	9			QT	350	1180		○				○		○	○
	10	Steel - High alloy, cast & tool		A	200	680	○	●	○	●	○	●	○	●	○
	11			HT	325	1100		○				○		○	○
	12	Steel - Corrosion resistant & cast	Ferritic / Martensitic	A	200	680	○	●				○		○	○
	13		Martensitic	QT	240	810		●				○		○	○
M	14.1	Stainless Steel	Austenitic	AH	180	610	●	●		●		●		●	○
	14.2		Duplex		250	840	●	●		●		●		●	○
	14.3		Precipitation Hardening		250	840	○	●		○		○		○	○
K	15	Cast Iron - Grey (GG)	Ferritic / Pearlitic		180	610	●	●	●	●	●	●	●	●	●
	16		Pearlitic		260	880	○	●	○	○	○	○	○	○	○
	17	Cast Iron - Nodular (GGG)	Ferritic		160	570	●	●	○	●	○	●	○	●	○
	18		Pearlitic		250	840	●	●	○	○	○	○	○	○	○
	19	Cast Iron - Malleable	Ferritic		130	460	○	●	○	●	○	●	○	●	○
	20		Pearlitic		230	780		●		○		○		○	○
N	21	Aluminum & Magnesium - wrought alloy	Non Heat Treatable		60	210	●	○	●	○	●	○	●	○	○
	22		Heat Treatable	AH	100	360	●	○	●	○	●	○	●	○	○
	23	Aluminum & Magnesium - cast alloy ≤12%Si	Non Heat Treatable		75	270	●	●	○	●	○	●	○	●	○
	24		Heat Treatable	AH	90	320	●	●	○	●	○	●	○	●	○
	25	Al & Mg - cast alloy >12%Si	Non Heat Treatable		130	460	○	●							
	26	Copper & Cu alloys (Brass/Bronze)	Free cutting, Pb > 1%		110	390	●	●	○	●	○	●	○	●	○
	27		Brass (CuZn, CuSnZn)		90	320	○	●	○	○		○		○	
	28		Bronze (CuSn)		100	360	○	●	○	○	○	○	○		○
	29	Non-metallic - Thermosetting & fiber-reinforced plastics					○	○							
	30	Non-metallic - Hard rubber, wood etc.													
S	31	High temp. alloys	Fe based	A	200	680	○	○							
	32			AH	280	950	○	○							
	33		Ni / Co based	A	250	840	○	○							
	34			AH	350	1180		○							
	35			C	320	1080		○							
	36	Titanium & Ti alloys	CP Titanium		400 MPa		○	○							
	37.1		Alpha alloys		860 MPa		○	○							
	37.2		Alpha / Beta alloys	A	960 MPa		○	○							
	37.3			AH	1170 MPa			○							
	37.4		Beta alloys	A	830 MPa		○	○							
	37.5			AH	1400 MPa			○							
H	38.1	Hardened steel		HT	45 HRC										
	38.2			HT	55 HRC										
	39.1			HT	58 HRC										
	39.2			HT	62 HRC										
	40	Cast Iron	Chilled	C	400	1350	●	●	○	○	○	○	○	○	○
	41			HT	55 HRC										

Condition: A (Annealed), AH (Age Hardened), C (Cast), HT (Hardened & Tempered), QT (Quenched & Tempered)

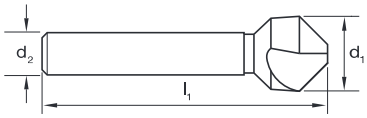
● Optimal ○ Effective

Countersinks Three Flute, 90°, DIN 335

suttontools

- De-burring
- Countersinking / Counterboring screw holes
- For Countersunk screws acc. to DIN 963, 964, 965, 966, 7513, 7516
- For Countersunk screws acc. to ISO 2009, 2010, 7046-1, 7046-2, 7047
- Chamfering of tapping holes
- For use in machine applications. Type N - For non-ferrous, Type UNI - For difficult to machine materials

DIN 335



	C107	C108
Catalogue Code	C107	C108
Discount Group	A1106	A1108
Material	HSS Co	HSS Co
Surface Finish	Brt	TiAlN
Sutton Designation	N	UNI
Geometry	-	-
Point Type	90°	90°
Shank Tolerance	h9	h9

Size Ref.	d_1	Screw Head	l_1	d_2	Pieces	Item #	Item #
0430	4.3	M2	40	4		C107 0430	C108 0430
0530	5.3	M2.5	40	4		C107 0530	C108 0530
0630	6.3	M3	45	5		C107 0630	C108 0630
0730	7.3	M3.5	50	6		C107 0730	C108 0730
0800	8.0		50	6		C107 0800	C108 0800
0840	8.4	M4	50	6		C107 0840	C108 0840
0940	9.4	M5	50	6		C107 0940	C108 0940
1000	10.0		50	6		C107 1000	C108 1000
1040	10.4		50	6		C107 1040	C108 1040
1150	11.5	M6	56	8		C107 1150	C108 1150
1240	12.4		56	8		C107 1240	C108 1240
1340	13.4		56	8		C107 1340	C108 1340
1500	15.0		60	10		C107 1500	C108 1500
1650	16.5	M8	60	10		C107 1650	C108 1650
1900	19.0	M10	63	10		C107 1900	C108 1900
2050	20.5		63	10		C107 2050	C108 2050
2300	23.0		67	10		C107 2300	C108 2300
2500	25.0		67	10		C107 2500	C108 2500
3000	30.0		71	12		C107 3000	C108 3000
3100	31.0		71	12		C107 3100	C108 3100
	Set						
0004	6.3, 10.4, 16.5, 20.5				4	C107 0004	C108 0004

C107 0004

C108 0004

ISO	P												M			K						N										S												H					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41
C107	●	●	●	●	○	●	●	○		○		○		●	●	○	●	○	●	●	○		●	●	●	●	○	●	○	○	●		○	○	○			○	○	○		○						●	
C108	●	●	●	●	●	●	●	●	○	●	○	●	●	●	●	●	●	●	●	●	●	○	○	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○					●	

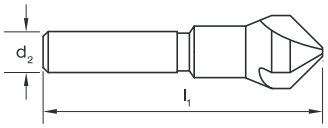
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

Countersinks Three Flute, 90°

suttontools

- Countersinking tool
- For machine use
- For use on most materials including plastics, non-ferrous & ferrous metals



	C105	C106
Catalogue Code	C105	C106
Discount Group	A1106	A1108
Material	HSS	HSS
Surface Finish	Brt	TiN
Sutton Designation	N	Tough Materials
Geometry	-	-
Point Type	90°	90°
Shank Tolerance	-	-

Size Ref.	Range	l_1	d_2	Pieces	Item #	Item #
0901	4-10mm	43	6.35 (1/4)		C105 0901	C106 0901
0902	4-14mm	48	6.35 (1/4)		C105 0902	C106 0902
0903	5-20mm	67	12.7 (1/2)		C105 0903	C106 0903
0904	6-28mm	72	12.7 (1/2)		C105 0904	C106 0904
0905	6-37mm	89	12.7 (1/2)		C105 0905	C106 0905
	Set					
STF1	0901, 0902, 0903, 0904			4	C105 STF1	
STF1T	0901, 0902, 0903, 0904			4		C106 STF1T

C105 STF1

C106 STF1T

ISO	P													M			K						N								S													H					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41
C105	◕	◕	○	○		◕	○			○							◕	○	○	○	○		◕	◕	○	○		○	○	○																		○	
C106	◕	◕	◕	◕	○	◕	◕	○		◕				◕	◕	○	◕	○	◕	○	◕	○	○	○	◕	○		◕	○	○																		○	

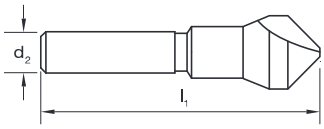
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ◕ Effective

suttontools

- Countersinking tool
- For use in portable drills or drilling machines
- For use on most materials including plastics, non-ferrous & ferrous metals

	C103	C104
Catalogue Code	C103	C104
Discount Group	A1106	A1108
Material	HSS	HSS
Surface Finish	Brt	TiN
Sutton Designation	N	Tough Materials
Geometry	-	-
Point Type	90°	90°
Shank Tolerance	-	-



Size Ref.	d_1	Range	l_1	d_2	Item #	Item #
0901	SF901	1 – 10mm	43	6.35 (1/4)	C103 0901	C104 0901
0902	SF902	2 – 14mm	48	6.35 (1/4)	C103 0902	C104 0902
0903	SF903	2 – 20mm	67	12.7 (1/2)	C103 0903	C104 0903
0904	SF904	3 – 28mm	72	12.7 (1/2)	C103 0904	C104 0904

ISO	P													M			K						N									S														H				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41
C103	◕	◕	◕	◕		◕	◕			◕							◕	◕	◕	◕	◕		◕	◕	◕	◕		◕		◕																		◕	
C104	◕	◕	◕	◕	◕	◕	◕	◕	◕	◕	◕	◕	◕	◕	◕	◕	◕	◕	◕	◕	◕	◕	◕	◕	◕	◕		◕	◕	◕																		◕	

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

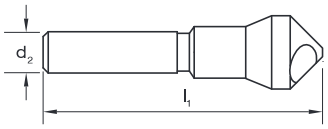
◕ Optimal ◕ Effective

Countersinks Deburring Cross Hole, 90°

suttontools

- Deburring tool
- Smooth cutting action

	C101	C102
Catalogue Code	C101	C102
Discount Group	A1106	A1108
Material	HSS	HSS
Surface Finish	Brt	TiN
Sutton Designation	N	Tough Materials
Geometry	-	-
Point Type	90°	90°
Shank Tolerance	-	-



Size Ref.	Range	l_1	d_2	Pieces	Item #	Item #
0901	3-6mm	45	6.35 (1/4)	Double Ended	C101 0901	C102 0901
0902	4-10mm	43	6.35 (1/4)		C101 0902	C102 0902
0903	5-13mm	48	6.35 (1/4)		C101 0903	C102 0903
0904	8-20mm	67	12.7 (1/2)		C101 0904	C102 0904
0905	14-28mm	72	12.7 (1/2)		C101 0905	C102 0905
0906	13-37mm	89	12.7 (1/2)		C101 0906	C102 0906
	Set					
SC1	0901, 0902, 0903, 0904, 0905			5	C101 SC1	
SC1T	0901, 0902, 0903, 0904, 0905			5		C102 SC1T

C101 SC1

C102 SC1T

ISO	P													M			K						N								S													H					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41
C101	◕	◕	○	○		◕	○			○							◕	○	○	○	○		◕	◕	○	○		○		○																		○	
C102	◕	◕	◕	◕	○	◕	◕	○	○	◕	○	○	○	◕	◕	○	◕	○	◕	○	◕	○	○	◕	◕	◕		◕	○																		○	

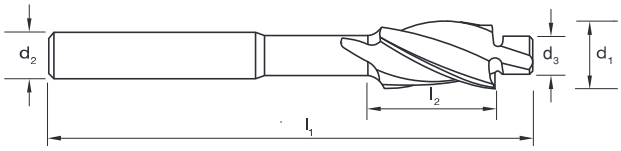
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ◕ Effective

suttontools

- Solid pilot style
- 3 flute design
- Right-hand cutting
- Nominal size to suit metric socket head cap screws
- Cobalt High Speed Steel enables counterboring in high alloy steels

DIN 373



Catalogue Code	C100
Discount Group	B0709
Material	HSS Co
Surface Finish	Brt
Sutton Designation	N
Geometry	-
Point Type	-
Shank Tolerance	h6

Size Ref.	Size	d_3	d_1	l_1	l_2	d_2	Item #
0300	3.0	3.2	6.0	71.0	14.0	5.0	C100 0300
0400	4.0	4.3	8.0	71.0	14.0	5.0	C100 0400
0500	5.0	5.3	10.0	80.0	18.0	8.0	C100 0500
0600	6.0	6.4	11.0	80.0	18.0	8.0	C100 0600
0800	8.0	8.4	15.0	100.0	22.0	12.5	C100 0800
1000	10.0	10.5	18.0	100.0	22.0	12.5	C100 1000
1200	12.0	13.0	20.0	100.0	22.0	12.5	C100 1200

ISO	P													M			K						N									S													H					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41
C100	◕	◕	○	○	○	◕	○	○	○	○	○	○	○	○	○	○	◕	○	○	○	○	○	○	○	○	○		○		◕																			○	

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

◕ Optimal ○ Effective