



*sutton*tools

# COUNTERSINKS

▪ Counterbores ▪ Cross Hole ▪ Single Flute ▪ Three Flute



# *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**

- 5% Cobalt grade High Speed Steel
- TiAlN 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

ISO	VDI	Material Group	Sutton
P	A	Steel	N
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.

For expert tooling recommendations, go to:  
[www.suttontools.com/expert-tool-selector](http://www.suttontools.com/expert-tool-selector)

Page	60	60	61	61	62	62	63
	C105	C106	C103	C104	C101	C102	C100
	HSS		HSS		HSS		HSS Co
	BrT		TiN		BrT		BrT
	N		N		N		N
	-		-		-		DIN 373
	-		-		-		-
	-		-		-		h6

Catalogue Code  
 Material  
 Surface Finish  
 Sutton Designation  
 Standard  
 Depth of Cut  
 Shank Tolerance

ISO	VDI <sup>3323</sup>	Material	Condition	HB	N/mm <sup>2</sup>							
P	1	Steel - Non-alloy, cast & free cutting	~ 0.15 %C	A	125	440	●	●	●	●	●	●
	2			A	190	640	●	●	●	●	●	●
	3		~ 0.75 %C	QT	250	840	○	●	○	●	○	○
	4			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									

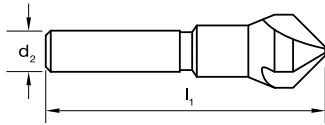
Condition: A (Annealed), AH (Age Hardened), C (Cast), HT (Hardened & Tempered), QT (Quenched & Tempered)

● Optimal ○ Effective

# Countersinks Three Flute, 90°

## suttontools

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



Catalogue Code  
Discount Group  
Material  
Surface Finish  
Sutton Designation  
Geometry  
Point Type  
Shank Tolerance

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

Size Ref.	Range	l <sub>1</sub>	d <sub>2</sub>	Pieces	Item #	List Price	Item #	List Price
0901	4-10mm	43	6.35 (1/4)		C105 0901	\$42.83	C106 0901	\$61.29
0902	4-14mm	48	6.35 (1/4)		C105 0902	\$57.28	C106 0902	\$77.38
0903	5-20mm	67	12.7 (1/2)		C105 0903	\$97.07	C106 0903	\$138.66
0904	6-28mm	72	12.7 (1/2)		C105 0904	\$168.82	C106 0904	\$222.50
0905	6-37mm	89	12.7 (1/2)		C105 0905	\$394.89	C106 0905	\$486.84

### Set

STF1	0901, 0902, 0903, 0904	4		C105 STF1	\$365.93			
STF1T	0901, 0902, 0903, 0904	4					C106 STF1T	\$461.05



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









