

## 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**

- 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
H	H	Hard Materials (≥ 45 HRC)	H

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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		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









