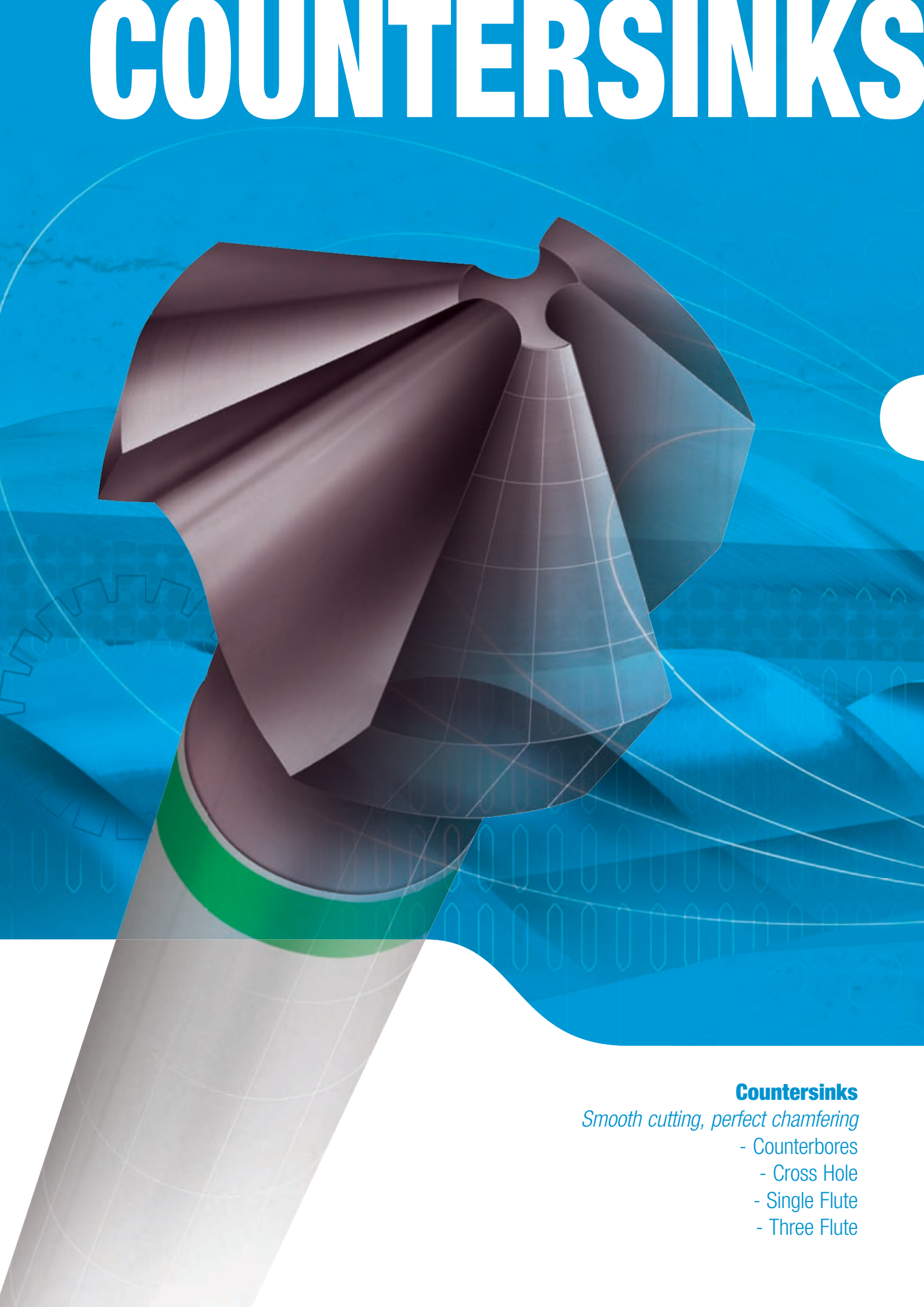
COUNTERSINKS



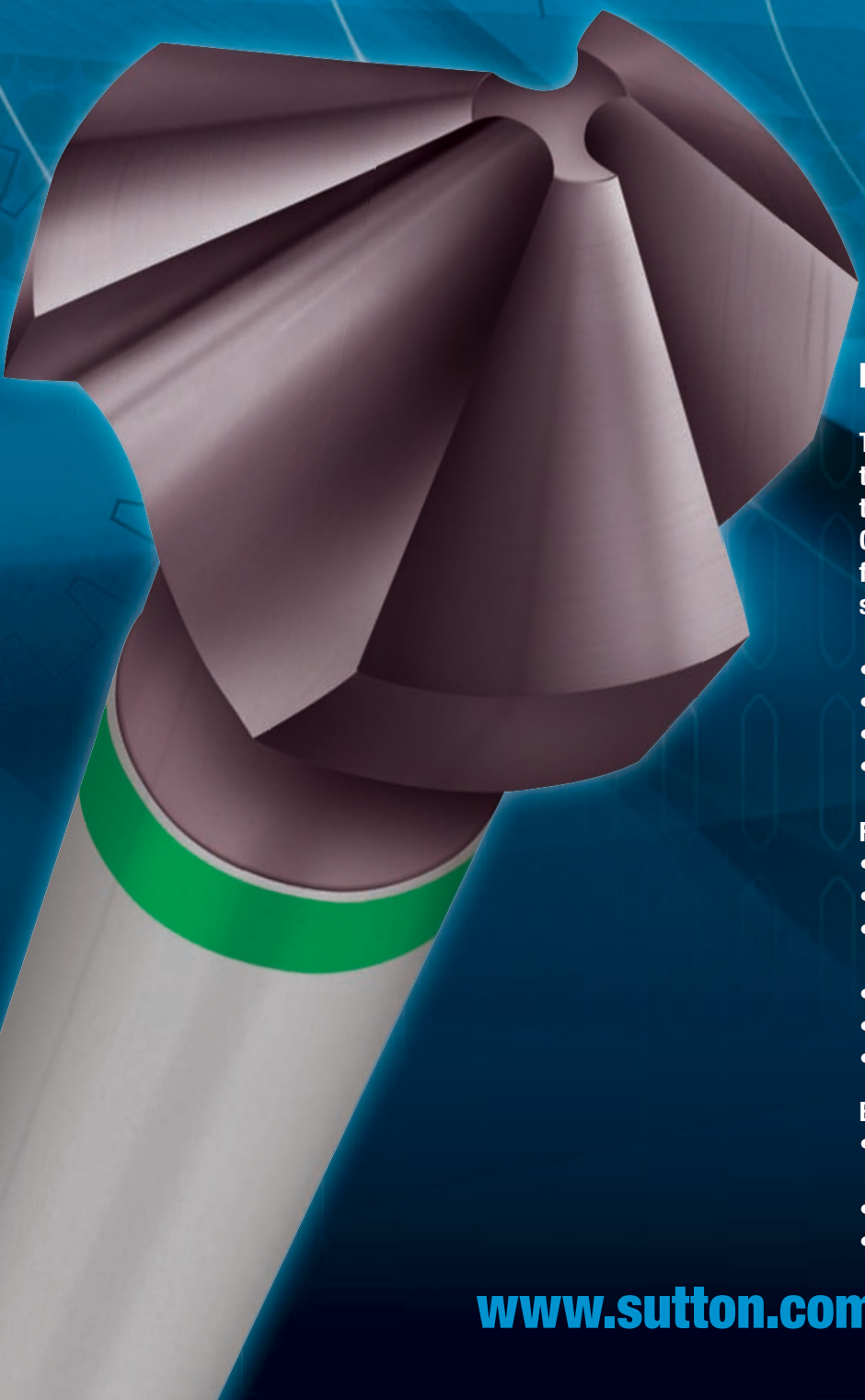
Countersinks

Smooth cutting, perfect chamfering

- Counterbores
- Cross Hole
- Single Flute
- Three Flute

smooth cutting...
perfect chamfering

COUNTERSINKS



Product 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

www.sutton.com.au

Countersink Finder

Sutton Tools

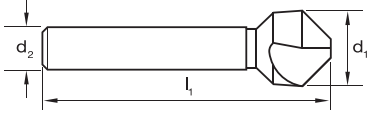
				Countersink Three Flute, 90° N	**Countersink** Three Flute, 90° UNI	**Countersink** Three Flute, 90°	**Countersink** Three Flute, 90°	**Countersink** Single Flute, 90°	**Countersink** Single Flute, 90°	**Deburring C'Sink** Cross Hole, 90°	**Deburring C'Sink** Cross Hole, 90°	**Counterbore**
			Page	144	144	145	145	146	146	147	147	148
												
			Catalogue Code	C107	C108	C105	C106	C103	C104	C101	C102	C100
			Material	HSS Co		HSS		HSS		HSS		HSS Co
			Surface Finish	*Brt*	*TiAlN*	*Brt*	*TiN*	*Brt*	*TiN*	*Brt*	*TiN*	*Brt*
			Colour Ring & Application	N	UNI	Machine Use		Hand Held		Deburring		
			Standard	DIN 335		-						DIN 373
			Depth of Cut	-	-	-	-	-	-	-	-	-
Material			**Shank Tolerance**	h9	h9	-	-	-	-	-	-	h6
1.0 Steels	HB	N/mm²	% Elong.									
1.1 Mild steels, magnetic soft steel	<200	>200 <400	10	●	●	○	●	●	●	●	●	●
1.2 Free cutting, structural, unalloyed	<200	>350 <700	30	●	●	○	●	○	●	○	●	●
1.3 Plain carbon, low alloyed	<300	>350 <850	20	●	●	○	●	○	●	○	●	○
1.4 Alloy steels harden. / tempered	<250	>500 <850	30	●	●	○	○	○	○	○	○	○
1.5 Alloy steels harden. / tempered	<350	>850 <1200	30	○	●	○	○	○	○	○	○	○
1.6 Hardened, heat treated, high tensile alloy	<420	>1500	12		○			○	○		○	○
1.7 Hardened Steel 45-50 Rc	<550		<12									
1.8 Hardened Steel 50-62 Rc	<700		<12									
2.0 Stainless Steels												
2.1 Free machining	<250	<850	25	●	●	○	●	○	●	○	●	○
2.2 Austenitic	<250	<850	20	●	●	○	○	○	○	○	○	○
2.3 Ferritic + martensitic	<250	<850	20	○	●				○		○	○
3.0 Cast Irons												
3.1 Lamellar graphite (Grey soft)	<150	<500	10	●	●	○	●	○	●	○	●	○
3.2 Lamellar graphite (Grey hard)	<300	<1000	10	●	●	○	○	○	○	○	○	○
3.3 Nodular (spheroidal) graphite & malleable	<200	<700	10		●		○		○		○	○
4.0 Titaniums												
4.1 Pure Titanium	<250	<850	20	○	○							
4.2 Titanium alloys	>250	>850	20	○	○							
5.0 Nickels												
5.1 Nickel alloys	<250	<850	25	○	○							
5.2 Nickel alloys	>250	>850	25	○	○							
6.0 Coppers												
6.1 Pure Copper (electrolytic Cu)	<120	<400	12	○	●	○	○	○	○	○		○
6.2 Short chip Brass, Phosphor Bronze, gun metal	<200	<700	12	○	●	○	○		○		○	
6.3 Long chip Brass, Bronze	<200	<700	12	●	●	○	●	○	●	○	●	○
7.0 Aluminiums												
7.1 Aluminium unalloyed	<100	<350	15	●	●	●	○	○	○	○	○	○
7.2 Magnesium unalloyed	<150	<350	15	●	●	●	○	○	○	○	○	○
7.3 Al Alloyed Si < 1.5 %	<120	<500	15	●	●	○	○	○	○	○	○	○
7.4 Al Alloyed 1.5 % < Si < 10%	<120	<400	10	●	●	○	●	○	●	○	●	○
7.5 Al Alloyed > 10% Si	-	<400	N	○	●							
7.6 Magnesium alloys	-	<400	N	○	○							
8.0 Plastics												
8.1 Plastics, Thermoplastics, Polyethylene	<340	<50	N	●	●			○	○	○	○	○

● **Optimal** ○ **Effective**

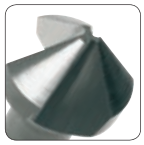
Countersinks Three Flute, 90º, DIN 335

Sutton Tools

- 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



Catalogue Code Size Ref.

C100 0100

Item #

	C107	C108
Catalogue Code		
Discount Group	A1106	A1108
Material	HSS Co	HSS Co
Surface Finish	*Brt*	*TiAlN*
Colour Ring & Application	N	UNI
Geometry	-	-
Point Type	90º	90º
Shank Tolerance	h9	h9

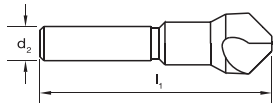
Size Ref.	d_1	Screw Head	l_1	d_2	Pieces	Item #	Item #
0430	4.3	M2	40	4		C107 0430	C108 0430
0530	5.3	M2.5	40	4		C107 0530	C108 0530
0630	6.3	M3	45	5		C107 0630	C108 0630
0730	7.3	M3.5	50	6		C107 0730	C108 0730
0800	8.0		50	6		C107 0800	C108 0800
0840	8.4	M4	50	6		C107 0840	C108 0840
0940	9.4	M5	50	6		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
	SETS		**Contents:**				
0004	4 Piece		6.3, 10.4, 16.5, 20.5		4	C107 0004	C108 0004

C107 0004

C108 0004

Countersinks Three Flute, 90°

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



Catalogue Code Size Ref.

C100 0100

Item #

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

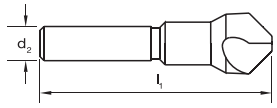
Size Ref.	Range	l_1	d_2	Pieces	Item #	Item #
	Three Flute (Countersinking)					
0901	4-10mm	43	1/4		C105 0901	C106 0901
0902	4-14mm	48	1/4		C105 0902	C106 0902
0903	5-20mm	67	1/2		C105 0903	C106 0903
0904	6-28mm	72	1/2		C105 0904	C106 0904
0905	6-37mm	89	1/2		C105 0905	C106 0905
	SETS		**Contents:**			
STF1	Three Flute (Countersinking)		0901, 0902, 0903, 0904	4	C105 STF1	
STF1T	Three Flute (Countersinking)		0901, 0902, 0903, 0904	4		C106 STF1T

C105 STF1

C106 STF1T

Countersinks Single Flute, 90º

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



Catalogue Code Size Ref.

C100 0100

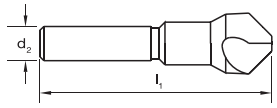
Item #

Catalogue Code	C103	C104
Discount Group	A1106	A1108
Material	HSS	HSS
Surface Finish	*Brt*	*TiN*
Colour Ring & Application	N	Tough Materials
Geometry	-	-
Point Type	90º	90º
Shank Tolerance	-	-

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

Countersinks Deburring Cross Hole, 90°

- Deburring tool
- Smooth cutting action



Catalogue Code Size Ref.

C100 0100

Item #

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

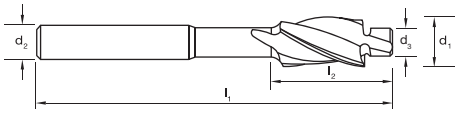
Size Ref.	Range	l_1	d_2	Weldon	Pieces	Item #	Item #
	Cross Hole (Deburring)						
0901	3-6mm	45	1/4	DB-8	Double Ended	C101 0901	C102 0901
0902	4-10mm	43	1/4	DB-14		C101 0902	C102 0902
0903	5-13mm	48	1/4	DB-18		C101 0903	C102 0903
0904	8-20mm	67	1/2	DB-26		C101 0904	C102 0904
0905	14-28mm	72	1/2	DB-36		C101 0905	C102 0905
0906	13-37mm	89	1/2	DB-48		C101 0906	C102 0906
	SETS		**Contents:**				
SC1	Cross Hole (Deburring)		0901, 0902, 0903, 0904, 0905		5	C101 SC1	
SC1T	Cross Hole (Deburring)		0901, 0902, 0903, 0904, 0905		5		C102 SC1T

C101 SC1

C102 SC1T

Countersinks Counterbore

- 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 Size Ref.

C100 0100

Item #

Catalogue Code	**C100**
Discount Group	B0709
Material	**HSS Co**
Surface Finish	***Brt***
Colour Ring & Application	**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
0350	**3.5**	3.7	6.5	71.0	14.0	5.0	C100 0350
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