

Single Flute Countersinks High Speed Steel

- Designed for machine use and light, portable work
- Single flute construction and low controlled relief provide chatterless operation
- Best results obtained using high speeds and low feeds



Model No.				Size	Shank Dia.	OAL
60°	82°	90°	100°			
CSF60-3/16	CSF82-3/16	CSF90-3/16	CSF100-3/16	3/16	3/16	1-1/2
CSF60-1/4	CSF82-1/4	CSF90-1/4	CSF100-1/4	1/4	1/4	2
CSF60-5/16	CSF82-5/16	CSF90-5/16	CSF100-5/16	5/16	1/4	2
CSF60-3/8	CSF82-3/8	CSF90-3/8	CSF100-3/8	3/8	1/4	2
CSF60-1/2	CSF82-1/2	CSF90-1/2	CSF100-1/2	1/2	1/4	2
CSF60-5/8	CSF82-5/8	CSF90-5/8	CSF100-5/8	5/8	1/2	2-1/4
CSF60-3/4	CSF82-3/4	CSF90-3/4	CSF100-3/4	3/4	1/2	2-3/4
CSF60-7/8	CSF82-7/8	CSF90-7/8	CSF100-7/8	7/8	1/2	2-3/4
CSF60-1	CSF82-1	CSF90-1	CSF100-1	1	1/2	2-3/4
CSF60-1-1/4	CSF82-1-1/4	CSF90-1-1/4	CSF100-1-1/4	1-1/4	3/4	3
CSF60-1-1/2	CSF82-1-1/2	CSF90-1-1/2	CSF100-1-1/2	1-1/2	3/4	3-3/8
CSF60-2	CSF82-2	CSF90-2	CSF100-2	2	3/4	3-3/4

5 Piece Set include: 1/4,3/8,1/2,3/4 and 1"

Model No.			
60°	82°	90°	100°
CSFS-5/60	CSFS5/82	CSFS5/90	CSFS5/100

3-Flute Center Reamer High Speed Steel

- Use for countersinking holes for centers or for enlarging existing holes



Model No.				Size	Shank Dia.	OAL
60°	82°	90°	100°			
CTF60-1/4	CTF82-1/4	CTF90-1/4	CTF100-1/4	1/4	3/16	1-1/2
CTF60-3/8	CTF82-3/8	CTF90-3/8	CTF100-3/8	3/8	1/4	1-3/4
CTF60-1/2	CTF82-1/2	CTF90-1/2	CTF100-1/2	1/2	3/8	2
CTF60-5/8	CTF82-5/8	CTF90-5/8	CTF100-5/8	5/8	3/8	2-1/4
CTF60-3/4	CTF82-3/4	CTF90-3/4	CTF100-3/4	3/4	1/2	2-5/8
CTF60-1	CTF82-1	CTF90-1	CTF100-1	1	1/2	2-3/4
CTF60-1-1/4	CTF82-1-1/4	CTF90-1-1/4	CTF100-1-1/4	1-1/4	3/4	3-1/2
CTF60-1-1/2	CTF82-1-1/2	CTF90-1-1/2	CTF100-1-1/2	1-1/2	3/4	3-1/2
CTF60-2	CTF82-2	CTF90-2	CTF100-2	2	3/4	3-3/4

5 Piece Set include: 1/4,3/8,1/2,3/4 and 1"

Model No.			
60°	82°	90°	100°
CTFS-5/60	CTFS5/82	CTFS5/90	CTFS5/100

4-Flute Countersinks High Speed Steel



Model No.				Size	Shank Dia.	Overall Length
60°	82°	90°	100°			
CFF60-1/2	CFF82-1/2	CFF90-1/2	CFF100-1/2	1/2	1/2	3-7/8
CFF60-5/8	CFF82-5/8	CFF90-5/8	CFF100-5/8	5/8	1/2	4
CFF60-3/4	CFF82-3/4	CFF90-3/4	CFF100-3/4	3/4	1/2	4-1/8
CFF60-7/8	CFF82-7/8	CFF90-7/8	CFF100-7/8	7/8	1/2	4-1/4
CFF60-1	CFF82-1	CFF90-1	CFF100-1	1	1/2	4-1/4
CFF60-1-1/4	CFF82-1-1/4	CFF90-1-1/4	CFF100-1-1/4	1-1/4	1/2	4-3/8
CFF60-1-1/2	CFF82-1-1/2	CFF90-1-1/2	CFF100-1-1/2	1-1/2	1/2	4-1/2

6-Flute Chatterless Countersinks

- Use for economical, general purpose countersinking, chamfering or deburring
- Chatterless countersinks are designed to give you fast shearing cuts



Model No.			Size	Shank Dia.	OAL
60°	82°	90°			
C6F60-3/16	C6F82-3/16	C6F90-3/16	3/16	3/16	1-1/2
C6F60-1/4	C6F82-1/4	C6F90-1/4	1/4	1/4	2
C6F60-5/16	C6F82-5/16	C6F90-5/16	5/16	1/4	2
C6F60-3/8	C6F82-3/8	C6F90-3/8	3/8	1/4	2
C6F60-1/2	C6F82-1/2	C6F90-1/2	1/2	1/4	2
C6F60-5/8	C6F82-5/8	C6F90-5/8	5/8	1/2	2-3/4
C6F60-3/4	C6F82-3/4	C6F90-3/4	3/4	1/2	2-3/4
C6F60-7/8	C6F82-7/8	C6F90-7/8	7/8	1/2	2-3/4
C6F60-1	C6F82-1	C6F90-1	1	1/2	2-3/4
C6F60-1-1/4	C6F82-1-1/4	C6F90-1-1/4	1-1/4	3/4	3-3/8
C6F60-1-1/2	C6F82-1-1/2	C6F90-1-1/2	1-1/2	3/4	3-1/2
C6F60-3/4	C6F82-3/4	C6F90-3/4	1-3/4	1	4-1/4
C6F60-2	C6F82-2	C6F90-2	2	1	4-3/8

8 Piece Sets

Sets consist of 1 each: 1/4, 5/16, 3/8, 1/2, 5/8, 3/4, 7/8, and 1"

60°	82°	90°
Model No. C6FS-8/60	Model No. C6FS-8/82	Model No. C6FS-8/90



Zero Flute Countersink and Deburring Tools High Speed Steel

- Use for general purpose countersinking, chamfering and deburring
- Recommended for deburring steel and other ferrous materials



Model No.				Size	Range of Hole	Shank Diameter
60°	82°	90°	100°			
CS10-60	CS10-82	CS10-90	CS10-100	0 Double End	1/16-15/64	1/4
CS11-60	CS11-82	CS11-90	CS11-100	1 Single End	5/32-12/32	1/4
CS12-60	CS12-82	CS12-90	CS12-100	2 Single End	3/16-17/32	1/4
CS13-60	CS13-82	CS13-90	CS13-100	3 Single End	5/16-25/32	1/2
CS14-60	CS14-82	CS14-90	CS14-100	4 Single End	9/16-1-1/16	1/2
CS15-60	CS15-82	CS15-90	CS15-100	5 Single End	5/8-1-15/32	1/2
CS16-60	CS16-82	CS16-90	CS16-100	6 Single End	3/4-1-3/4	5/8
CS17-60	CS17-82	CS17-90	CS17-100	7 Single End	1-2	5/8
CS18-60	CS18-82	CS18-90	CS18-100	8 Single End	1-1/4-2-1/2	3/4

5 Piece Sets

Sets consist of 1 each: 1/16,5/32,3/16,5/16 and 9/16"

Set comes complete with wood stand

60°	82°	90°	100°
Model No. CS-5/60	Model No. CS-5/82	Model No. CS-5/90	Model No. CS-5/100



Counterbores High Speed Steel

- Use in counterboring and spot facing operations
- Use a wide range of interchangeable pilots to align the hole that is being machined
- End cutting
- The 3 and 5 flute counterbore reduces chatter and improves finish



Size	Shank Dia.	OAL	No. of Flutes	Pilot Shank Dia.	Range of Pilot Size	Straight Shank Model No.	Morse Taper Shank	Taper Shank Model No.
3/16	15/64	3"	3	3/32	1/8-3/16	CTBS-3/16	-	-
7/32	15/64	3"	3	3/32	1/8-7/32	CTBS-7/32	-	-
1/4	15/64	3-13/16	3	3/32	1/8-3/16	CTBS-1/4	1	CTB1-1/4
9/32	17/64	3-13/16	3	3/32	1/8-1/32	CTBS-9/32	1	CTB1-9/32
5/16	19/64	3-13/16	3	3/32	1/8-1/4	CTBS-5/16	1	CTB1-5/16
11/32	5/16	3-13/16	3	3/32	1/8-9/32	CTBS-11/32	1	CTB1-11/32
3/8	5/16	4-1/16	3	5/32	3/16-5/16	CTBS-3/8	1	CTB1-3/8
13/32	3/8	4-1/16	3	5/32	3/16-11/32	CTBS-13/32	1	CTB1-13/32
7/16	3/8	4-1/16	3	5/32	3/16-3/8	CTBS-7/16	1	CTB1-7/16
15/32	7/16	4-5/16	3	3/16	1/4-13/32	CTBS-15/32	1	CTB1-15/32
1/2	7/16	4-5/16	3	3/16	1/4-7/16	CTBS-1/2	1	CTB1-1/2
17/32	1/2	4-5/16	3	3/16	1/4-15/32	CTBS-17/32	1	CTB1-17/32
9/16	1/2	4-5/16	3	3/16	1/4-1/2	CTBS-9/16	1	CTB1-9/16
19/32	1/2	5-1/8	3	3/16	1/4-17/32	CTBS-19/32	2	CTB2-19/32
5/8	1/2	5-1/8	3	3/16	1/4-9/16	CTBS-5/8	2	CTB2-5/8
21/32	1/2	5-1/8	3	3/16	1/4-19/32	CTBS-21/32	2	CTB2-21/32
11/16	1/2	5-1/8	3	3/16	1/4-5/8	CTBS-11/16	2	CTB2-11/16
23/32	1/2	5-3/8	3	1/4	5/16-21/32	CTBS-23/32	2	CTB2-23/32
3/4	1/2	5-3/8	3	1/4	5/16-11/16	CTBS-3/4	2	CTB2-3/4
25/32	5/8	5-3/8	3	1/4	5/16-23/32	CTBS-25/32	2	CTB2-25/32
13/16	5/8	5-3/8	3	1/4	5/16-3/4	CTBS-13/16	2	CTB2-13/16
7/8	3/4	5-3/8	3	1/4	5/16-13/16	CTBS-7/8	2	CTB2-7/8
15/16	3/4	6-1/8	3	1/4	5/16-7/8	CTBS-15/16	3	CTB3-15/16
1"	3/4	6-3/8	3	5/16	3/8-15/16	CTBS-1"	3	CTB3-1"
1-1/16	3/4	6-3/8	3	5/16	3/8-1"	CTBS-1-1/16	3	CTB3-1-1/16
1-1/8	1"	6-3/8	3	5/16	3/8-1-1/16	CTBS-1-1/8	3	CTB3-1-1/8
1-3/16	1"	6-3/8	3	5/16	3/8-1-1/8	CTBS-1-3/16	3	CTB3-1-3/16
1-1/4	1"	6-5/8	3	3/8	7/16-1-3/16	CTBS-1-1/4	3	CTB3-1-1/4
1-5/16	1"	6-5/8	5	3/8	7/16-1-1/4	CTBS-1-5/16	3	CTB3-1-5/16
1-3/8	1"	6-5/8	5	3/8	7/16-1-5/16	CTBS-1-3/8	3	CTB3-1-3/8
1-7/16	1-1/4	7-7/8	5	3/8	7/16-1-3/8	CTBS-1-7/16	4	CTB4-1-7/16
1-1/2	1-1/4	7-7/8	5	3/8	7/16-1-7/16	CTBS-1-1/2	4	CTB4-1-1/2
1-9/16	1-1/4	8-1/8	5	7/16	1/2-1-1/2	CTBS-1-9/16	4	CTB4-1-9/16
1-5/8	1-1/4	8-1/8	5	7/16	1/2-1-9/16	CTBS-1-5/8	4	CTB4-1-5/8
1-11/16	1-1/4	8-1/8	5	7/16	1/2-1-5/8	CTBS-1-11/16	4	CTB4-1-11/16
1-3/4	1-1/4	8-1/8	5	7/16	1/2-1-11/16	CTBS-1-3/4	4	CTB4-1-3/4
1-13/16	1-1/2	8-1/8	5	7/16	1/2-1-3/4	CTBS-1-13/16	4	CTB4-1-13/16
1-7/8	1-1/2	8-1/8	5	7/16	1/2-1-13/16	CTBS-1-7/8	4	CTB4-1-7/8
1-15/16	1-1/2	8-1/8	5	7/16	1/2-1-7/8	CTBS-1-15/16	4	CTB4-1-15/16
2"	1-1/2	8-3/8	5	1/2	9/16-1-15/16	CTBS-2"	4	CTB4-2"
2-1/8	1-1/2	9-7/8	5	1/2	9/16-2-1/16	CTBS-2-1/8	5	CTB5-2-1/8
2-1/4	1-1/2	9-7/8	5	1/2	9/16-2-3/16	CTBS-2-1/4	5	CTB5-2-1/4
2-3/8	1-3/4	9-7/8	5	1/2	9/16-2-5/16	CTBS-2-3/8	5	CTB5-2-3/8
2-1/2	1-3/4	9-7/8	5	1/2	9/16-2-7/16	CTBS-2-1/2	5	CTB5-2-1/2
2-5/8	1-3/4	9-7/8	5	1/2	9/16-2-9/16	CTBS-2-5/8	5	CTB5-2-5/8
2-7/8	1-3/4	9-7/8	5	1/2	9/16-2-13/16	CTBS-2-7/8	5	CTB5-2-7/8
3"	1-3/4	9-7/8	5	1/2	9/16-2-15/16	CTBS-3"		