

Do not use Flat Heads on 18ga or thinner material. See Standards for alternate methods.

Only use C'sink if absolutely necessary - Use C'bore if possible

Button Head in a C'bore is good alternative to C'Sinks, Similar head height and hex key size



Standard DMI CounterSink Holes for FHSCS

English (ASTM F835)

(A) C'sink Dia with Head Clearance

CounterSink Diameter

16, 14, 12, 10ga
(.059" to .135")

14ga
Dimple

7ga & thicker

C'SINK DIA
(+/- .010")
3pl Decimal

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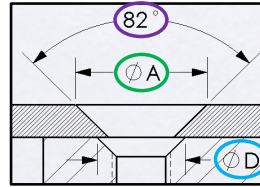
C'SINK DIA
(+/- .03")
2pl Decimal

.12

Standard:
DMI Inch (includes head clearance)

Type:
FHSCS

Options
 Head clearance



Options

With thread callout

Thread class 2B

Near side countersink

0.4200in

82deg

See C'Bore Chart for STD Thru hole size if needed

(D) Near Side, Mating Part C'sink

+/- .03" .12

	16ga	14ga & Dimple	12ga	10ga	7ga	Reduced Holding Capability (approx.) Based on Bolt Strength		
# 4	0.275	0.309	0.31	# 4 0.22	0.19		NA	NA
# 6	0.325	0.361	0.36	# 6 0.27	0.24	0.20	NA	NA
# 8	0.375	0.413	0.41	# 8 0.32	0.29	0.24	NA	NA
# 10	0.430*	0.465	0.47	# 10 Don't use	0.35	0.30	0.24	0.22
1/4	0.550*	0.585	0.59	1/4 Don't use	0.47	0.42	0.36	0.34
5/16	Don't use		0.71	5/16 Don't use	Don't use	Don't use	0.54	0.45
3/8	Don't use		0.84	3/8 Don't use	Don't use	Don't use	Don't use	0.58
1/2	Don't use		1.00	1/2 Don't use	Don't use	Don't use	Don't use	0.74
5/8	Don't use		1.27*	5/8 Don't use	Don't use	Don't use	Don't use	Don't use
3/4	Don't use		1.52*	3/4 Don't use	Don't use	Don't use	Don't use	Don't use

* Do not use in certain thickness material, see Mating Part C'Sink chart for combinations that say don't use

Metric (DIN 7991)

(A) C'sink Dia with Head Clearance

CounterSink Diameter

16, 14, 12ga
(.059" to .12")

10ga (3.5mm)
& thicker &
14ga dimple

C'SINK DIA
+/- .25mm
(+/- .010")

.123 (Document)

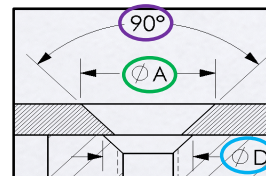
C'SINK DIA
+/- .75mm
(+/- .03")

.12

Standard:
DMI Metric (includes head clearance)

Type:
FHSCS

Options
 Head clearance



Options

With thread callout

Thread class

Near side countersink

9.000mm

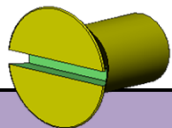
90deg

See C'Bore Chart for STD Thru hole size if needed

(D) Near Side, Mating Part C'sink

+/- .75mm (+/- .03") .12

	16ga/1.5mm	14ga&Dimple/2mm	12ga/2.5mm	10ga/3.5mm	7ga/5mm	Reduced Holding Capability (approx.) Based on Bolt Strength	
M3	7.00 mm (.276")	8.0 mm (.31")	M3 5.5 mm (.22")	4.5 mm (.18")	NA		NA
M4	9.10 mm (.358")	10.0 mm (.39")	M4 7.5 mm (.30")	6.5 mm (.26")	5.0 mm (.20")	5.0 mm (.20")	NA
M5	11.20 mm (.441")	12.0 mm (.47")	M5 9.5 mm (.37")	8.5 mm (.33")	7.0 mm (.28")	7.0 mm (.28")	NA
M6	13.10 mm (.516")	14.0 mm (.55")	M6 11.5 mm (.45")	11.0 mm (.43")	9.0 mm (.35")	9.0 mm (.35")	NA
M8	Don't use	18.0 mm (.71")	M8 Don't use	Don't use	Don't use	13.0 mm (.51")	11.0 mm (.43")
M10	Don't use	23.0 mm (.91")	M10 Don't use	Don't use	Don't use	18.0 mm (.71")	15.5 mm (.61")
M12	Don't use	27.0 mm (1.06")*	M12 Don't use	Don't use	Don't use	Don't use	19.5 mm (.77")
M16	Don't use	33.0 mm (1.30")*	M16 Don't use	Don't use	Don't use	Don't use	Don't use
M20	Don't use	39.0 mm (1.54")*	M20 Don't use	Don't use	Don't use	Don't use	Don't use
M24	Don't use	44.0 mm (1.73") 60°*	M24 Don't use	Don't use	Don't use	Don't use	Don't use



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Button Head in a C'bore is good alternative to C'Sinks, Similar head height and hex key size



Standard DMI CounterSink Holes for SLOTTED - FHCS

English (ANSI B18.6.3)

(A) C'sink Dia with Head Clearance

CounterSink Diameter

16, 14, 12, 10ga
(.059" to .135")

14ga
Dimple

7ga & thicker

C'SINK DIA
+/- .010"
3pl Decimal

C'SINK DIA
+/- .03"
2pl Decimal

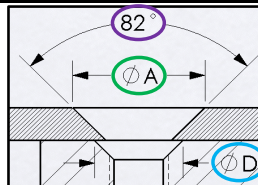
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Standard:
DMI Inch (includes head clearance)

Type:
SLOTTED - FHCS

Options
 Head clearance



Options

With thread callout

Thread class 2B

Near side countersink

0.4200in

82deg

See C'Bore Chart for STD Thru hole size if needed

(D) Near Side, Mating Part C'sink

+/- .03"

.12

	16ga	14ga & Dimple	12ga	10ga	7ga	Reduced Holding Capability (approx.) Based on Bolt Strength
# 4	0.230	0.266	0.27	# 4 0.16	NA	
# 6	0.280	0.316	0.32	# 6 0.22	NA	
# 8	0.330	0.366	0.37	# 8 0.27	NA	
# 10	0.380	0.416	0.42	# 10 Don't use	0.30	Alum or SS 1/4 Strength
1/4	0.495*	0.531	0.53	1/4 Don't use	0.42	
5/16	Don't use	0.65	0.65	5/16 Don't use	0.44	
3/8	Don't use	0.77	0.77	3/8 Don't use	0.48	Steel 1/2 Strength
1/2	Don't use	0.88	0.88	1/2 Don't use	0.59	
5/8	Don't use	1.13*	1.13*	5/8 Don't use	Don't use	
3/4	Don't use	1.37*	1.37*	3/4 Don't use	Don't use	

* Do not use in certain thickness material, see Mating Part C'Sink chart for combinations that say don't use

Metric (DIN 963)

(A) C'sink Dia with Head Clearance

CounterSink Diameter

16, 14, 12ga
(.059" to .12")
1.5 to 2.5mm

10ga (3.5mm)
& thicker &
14ga dimple

C'SINK DIA
+/- .25mm
(+/- .010")

C'SINK DIA
+/- .75mm
(+/- .03")

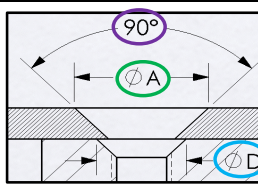
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.12

Standard:
DMI Metric (includes head clearance)

Type:
SLOTTED - FHCS METRIC

Options
 Head clearance



Options

With thread callout

Thread class

Near side countersink

9.000mm

90deg

See C'Bore Chart for STD Thru hole size if needed

(D) Near Side, Mating Part C'sink

+/- .75mm (+/- .03")

.12

	16ga/1.5mm	14ga&Dimple/2mm	12ga/2.5mm	10ga/3.5mm	7ga/5mm	Reduced Holding Capability (approx.) Based on Bolt Strength
M3	6.90 mm (.271")	8.0 mm (.32")	M3 5.0 mm (.20")	4.5 mm (.18")	NA	
M4	9.00 mm (.354")	10.0 mm (.39")	M4 7.5 mm (.30")	6.5 mm (.26")	NA	
M5	10.60 mm (.417")	11.5 mm (.45")	M5 9.0 mm (.35")	8.0 mm (.31")	NA	
M6	12.50 mm (.492")	13.5 mm (.53")	M6 11.0 mm (.43")	10.0 mm (.39")	8.5 mm (.33")	Alum or SS 1/4 Strength
M8	Don't use	18.0 mm (.71")	M8 Don't use	Don't use	13.5 mm (.53")	
M10	Don't use	22.0 mm (.87")	M10 Don't use	Don't use	17.5 mm (.69")	
M12	Don't use	26.0 mm (1.02")*	M12 Don't use	Don't use	18.5 mm (.73")	Steel 1/2 Strength
M16	Don't use	34.0 mm (1.34")*	M16 Don't use	Don't use	Don't use	
M20	Don't use	42.0 mm (1.65")*	M20 Don't use	Don't use	Don't use	
M24	NOT AVAILABLE					