



FORMING TOOL ORDER GUIDE

- CARD GUIDE
- COUNTERSINK
- EMBOSS
- EXTRUSION
- KNOCKOUT
- LANCE AND FORM
- LOUVER
- SHEARBUTTON





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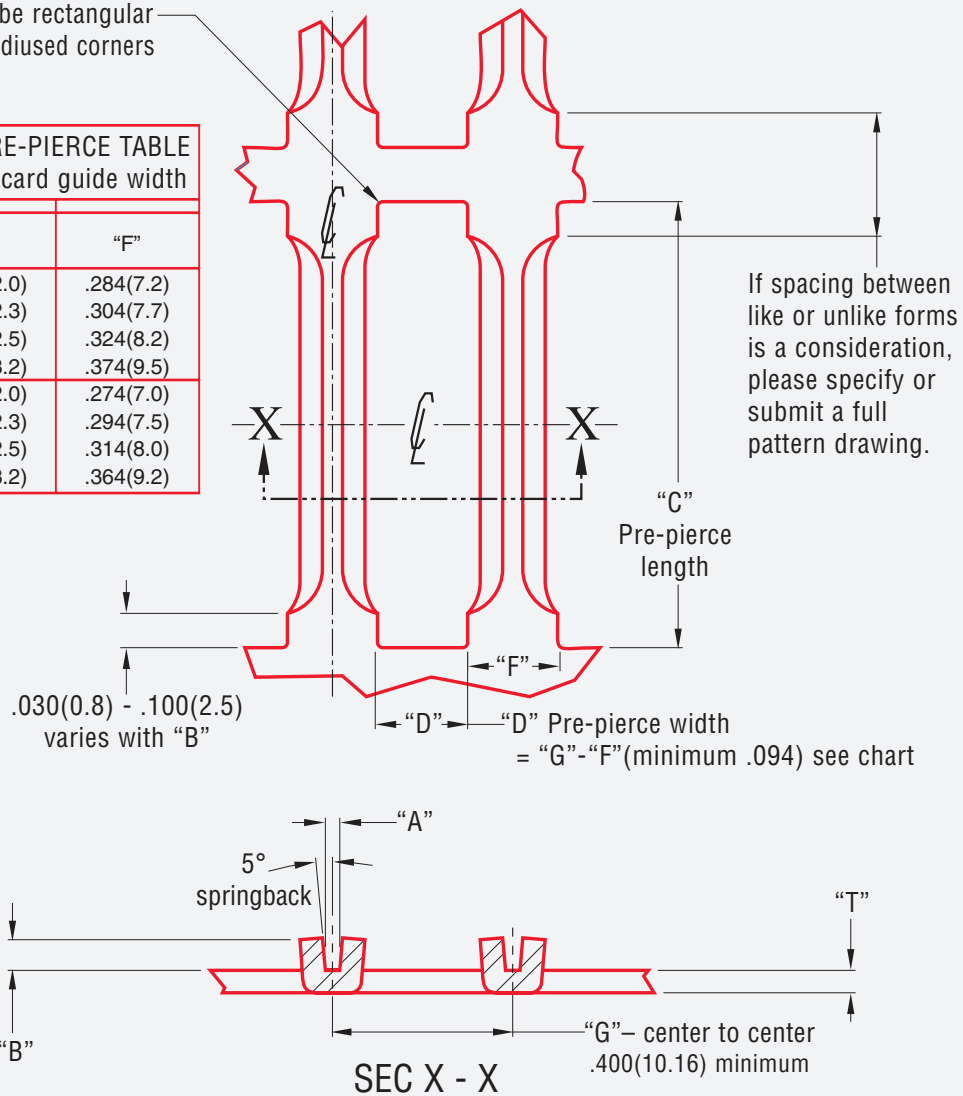
CARD GUIDE

TOOL CODE A0

Pre-pierce ends can be rectangular or rectangular with radiused corners

RECOMMENDED PRE-PIERCE TABLE
Based on .076(1.9) card guide width

Material Thickness	"B"	"F"
.059(1.5)	.080(2.0)	.284(7.2)
	.090(2.3)	.304(7.7)
	.100(2.5)	.324(8.2)
	.125(3.2)	.374(9.5)
.048(1.2)	.080(2.0)	.274(7.0)
	.090(2.3)	.294(7.5)
	.100(2.5)	.314(8.0)
	.125(3.2)	.364(9.2)



TOOL INFORMATION

To manufacture a tool to your specifications please provide the following dimensions.

A _____ G _____

B _____

C _____

D _____

F _____

* If not specified, determined by MATE

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

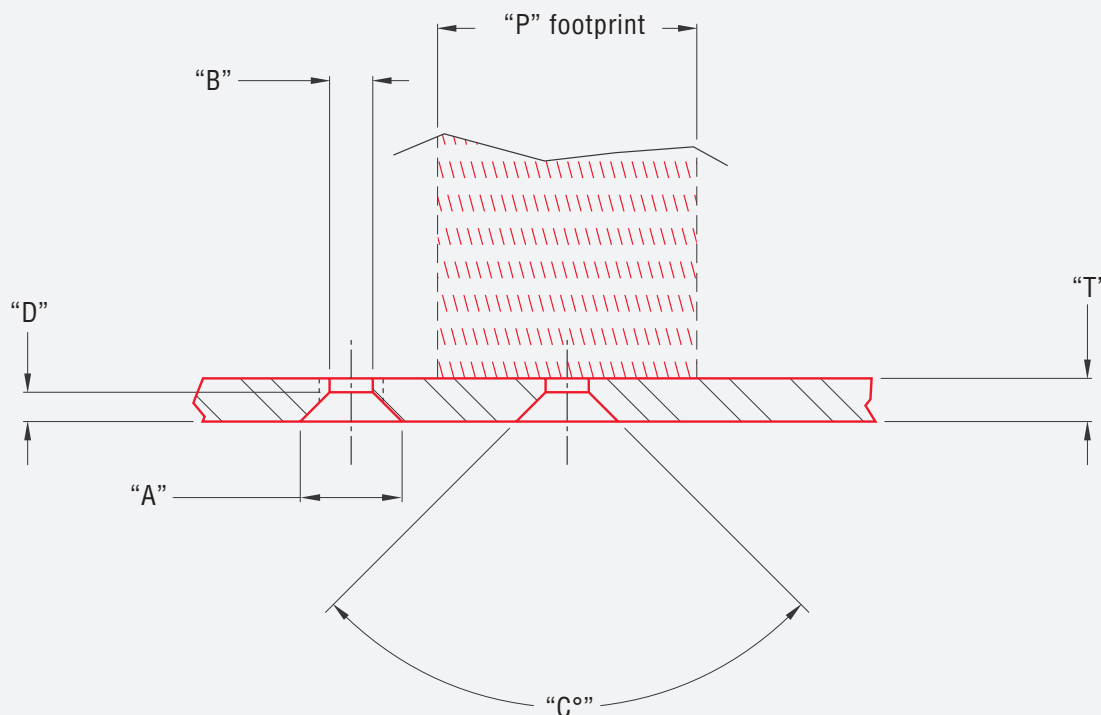
Dimensions in inches (millimeters)



COUNTERSINK DEDICATED ROUND UP

TOOL CODE B1

Material Type	Thickness "T"	Maximum % Depth "D"
mild steel	$\geq .047(1.2)$ to $< .121(3.1)$	85%
	$\geq .121(3.1)$ to $< .197(5.0)$	60%
	$\geq .197(5.0)$	50%
aluminum	$\geq .047(1.2)$	85%
stainless steel	$\geq .047(1.2)$ to $< .077(2.0)$	85%
	$\geq .077(2.0)$ to $< .118(3.0)$	60%
	$\geq .118(3.0)$	50%



TOOL INFORMATION

To manufacture a tool to your specifications please provide data for either :

- 1) "A" and "C" dimensions, or
- 2) "A", "B" and "C" dimensions, or
- 3) "A", "C" and "D" dimensions

AØ _____ D _____

BØ _____

C° _____

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

° indicates DEGREES
Ø indicates DIAMETER



Dimensions in inches (millimeters)

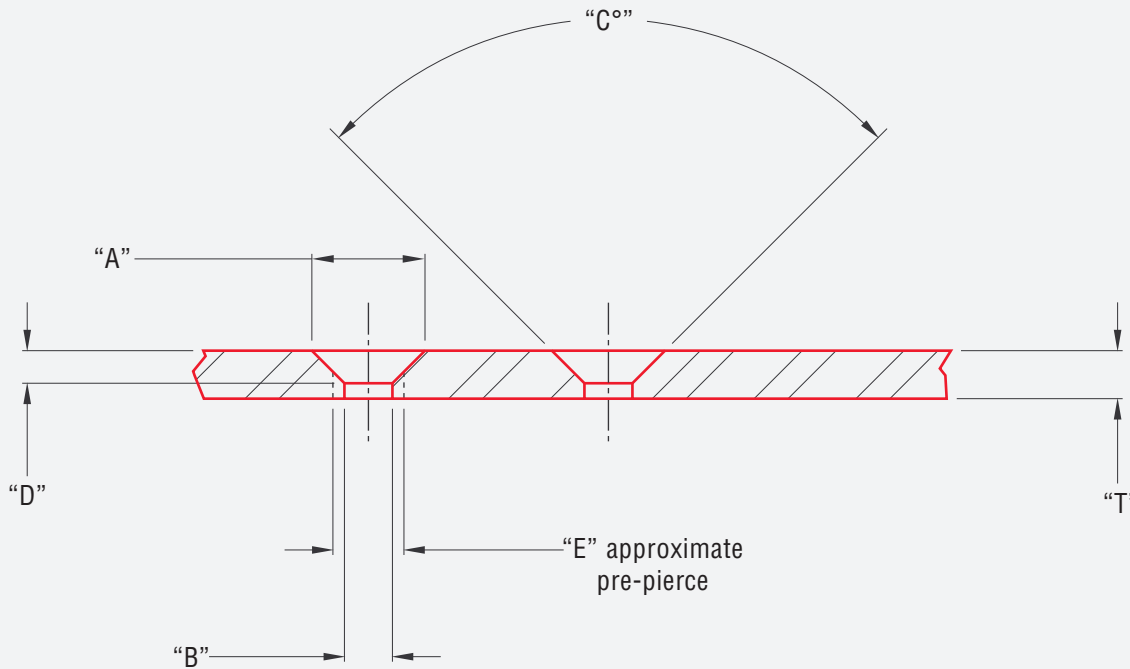
COUNTERSINK DEDICATED ROUND DOWN

TOOL CODE B3

4

ORDERING SPECIFICATIONS

Material Type	Thickness "T"	Maximum % Depth "D"
mild steel	≥ .047(1.2) to < .121(3.1)	85%
	≥ .121(3.1) to < .197(5.0)	60%
	≥ .197(5.0)	50%
aluminum	≥ .047(1.2)	85%
stainless steel	≥ .047(1.2) to < .077(2.0)	85%
	≥ .077(2.0) to < .118(3.0)	60%
	≥ .118(3.0)	50%



TOOL INFORMATION

To manufacture a tool to your specifications please provide data for either :

- 1) "A" and "C" dimensions, or
- 2) "A", "B" and "C" dimensions, or
- 3) "A", "C" and "D" dimensions

AØ _____ D _____

BØ _____ EØ _____

C° _____

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

° indicates DEGREES

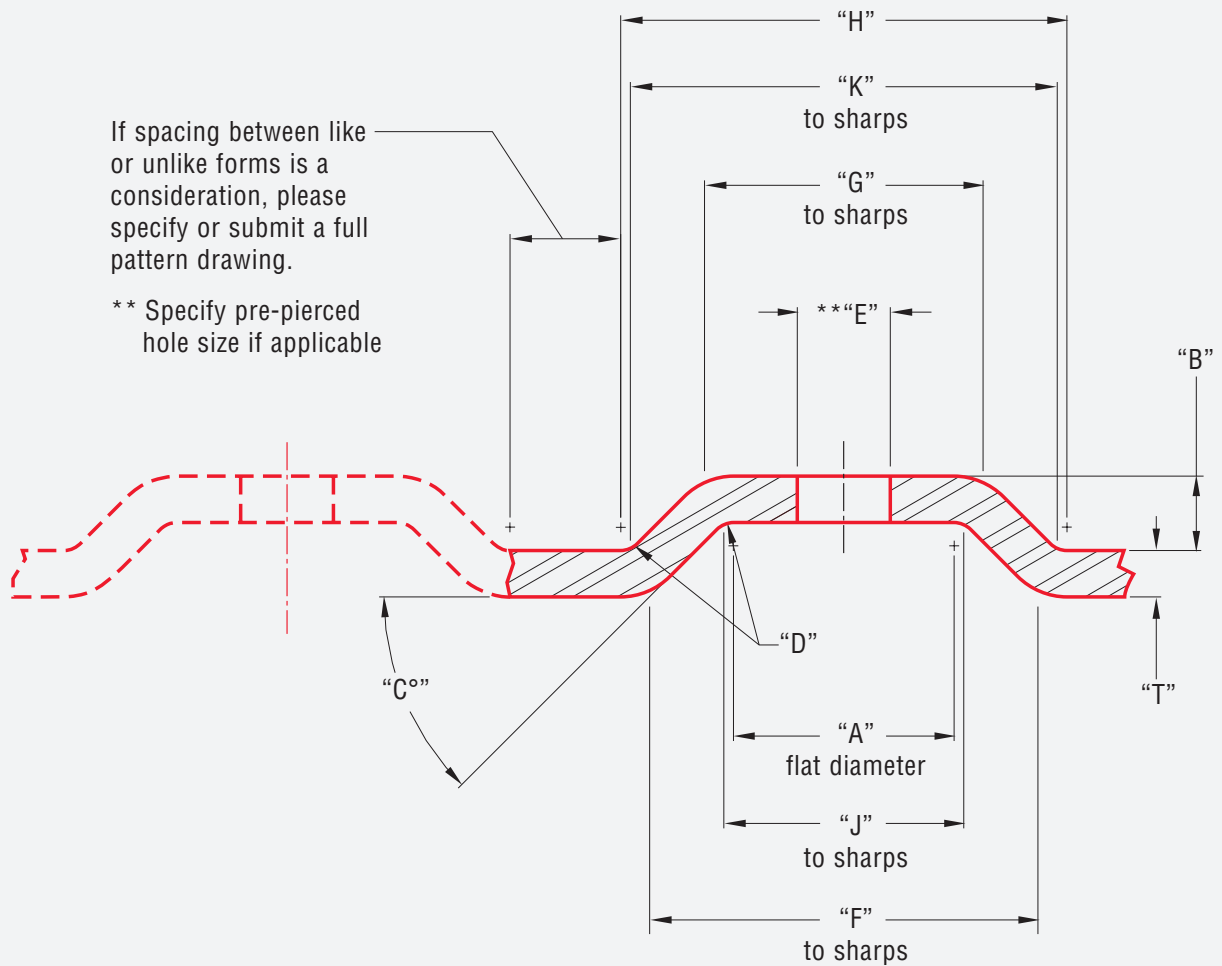
Ø indicates DIAMETER

Dimensions in inches (millimeters)



EMBOSS ROUND UP

TOOL CODE E1



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

AØ _____ FØ _____

B _____ GØ _____

C° _____ HØ _____

D _____ JØ _____

EØ _____ KØ _____

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

° indicates DEGREES
Ø indicates DIAMETER

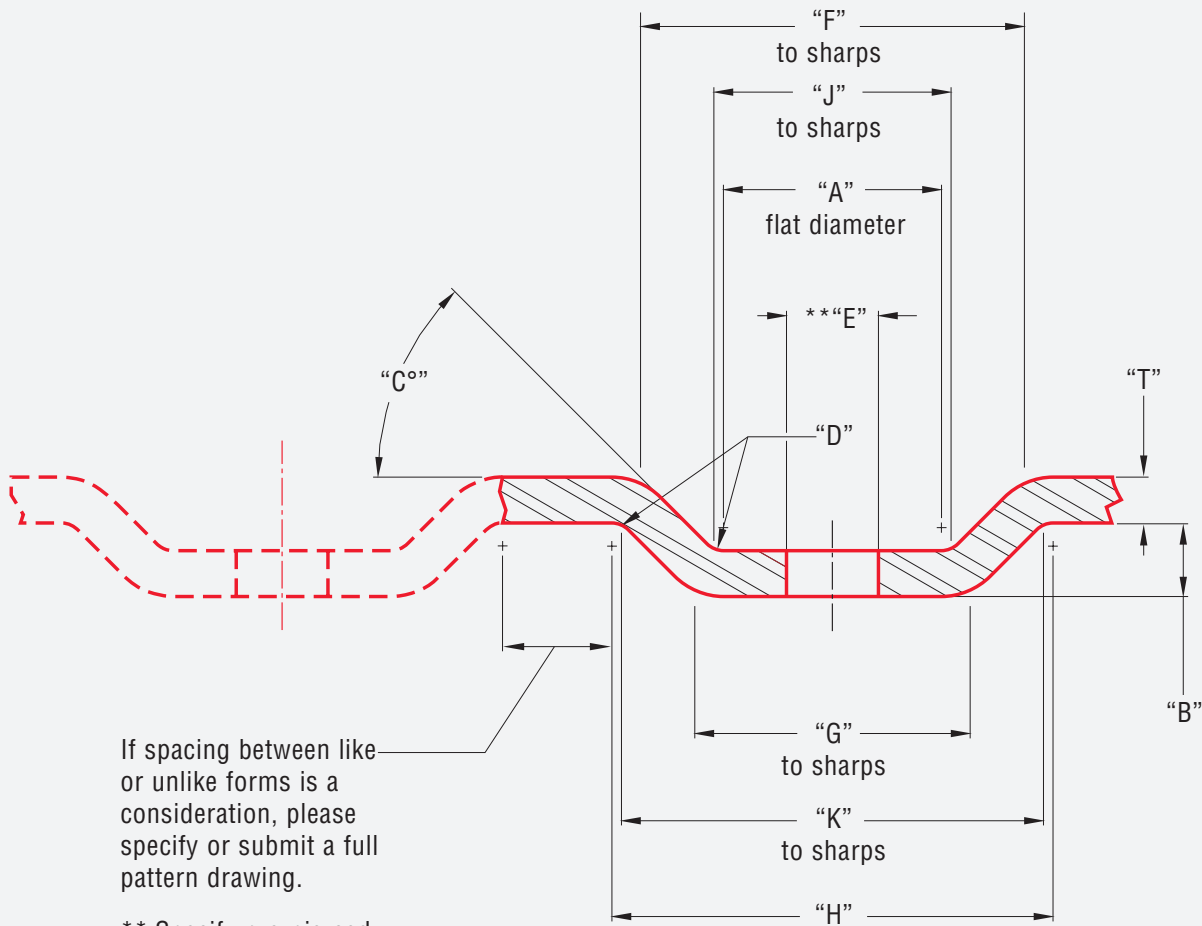


EMBOSS ROUND DOWN

TOOL CODE E2

6

ORDERING SPECIFICATIONS



If spacing between like or unlike forms is a consideration, please specify or submit a full pattern drawing.

** Specify pre-pierced hole size if applicable

TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

AØ _____ FØ _____

B _____ GØ _____

C° _____ HØ _____

D _____ JØ _____

EØ _____ KØ _____

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

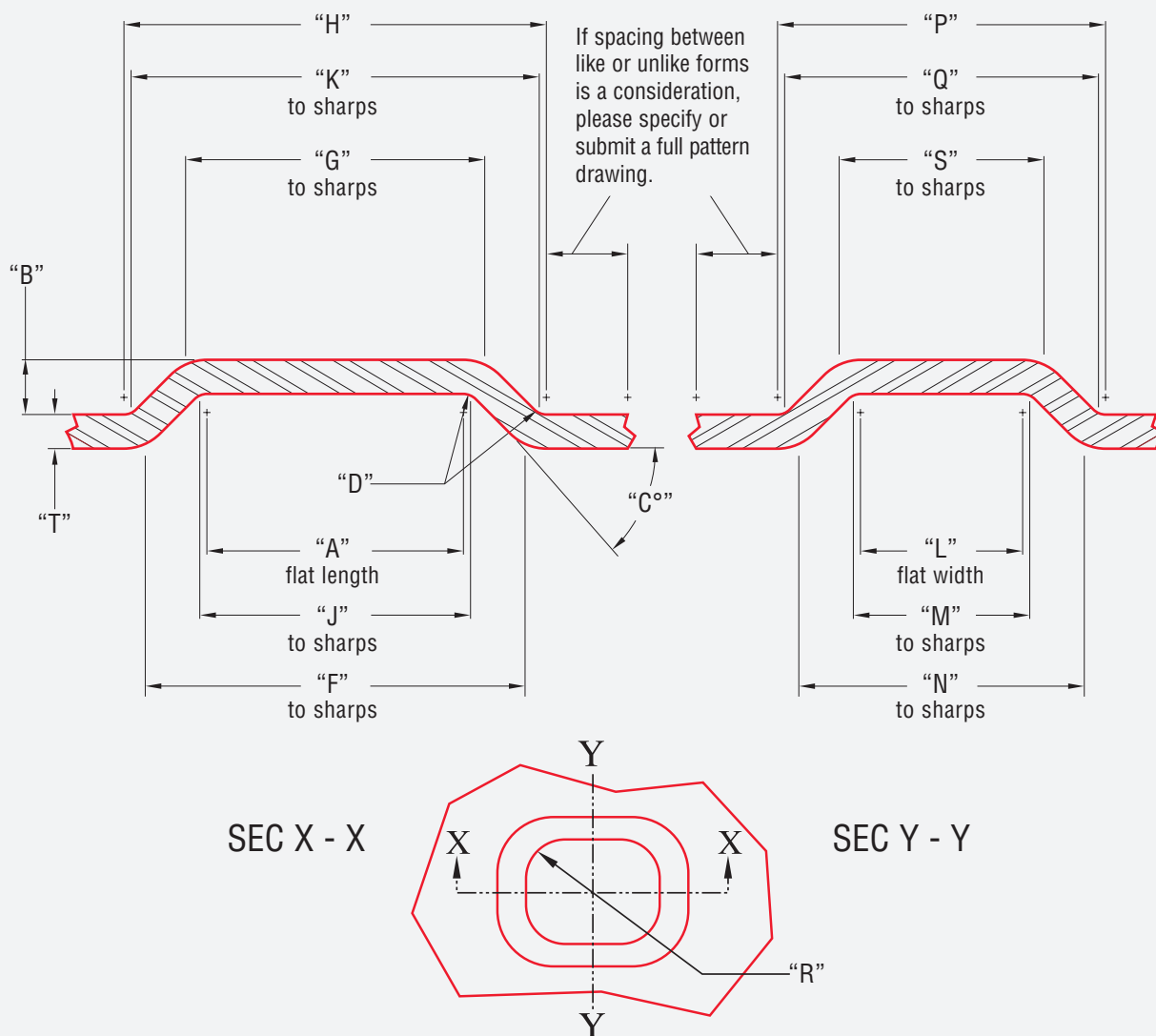
° indicates DEGREES

Ø indicates DIAMETER



EMBOSS SHAPE UP

TOOL CODE E3



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

A _____	H _____	P _____
B _____	J _____	Q _____
C° _____	K _____	R _____
D _____	L _____	S _____
F _____	M _____	
G _____	N _____	

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

° indicates DEGREES

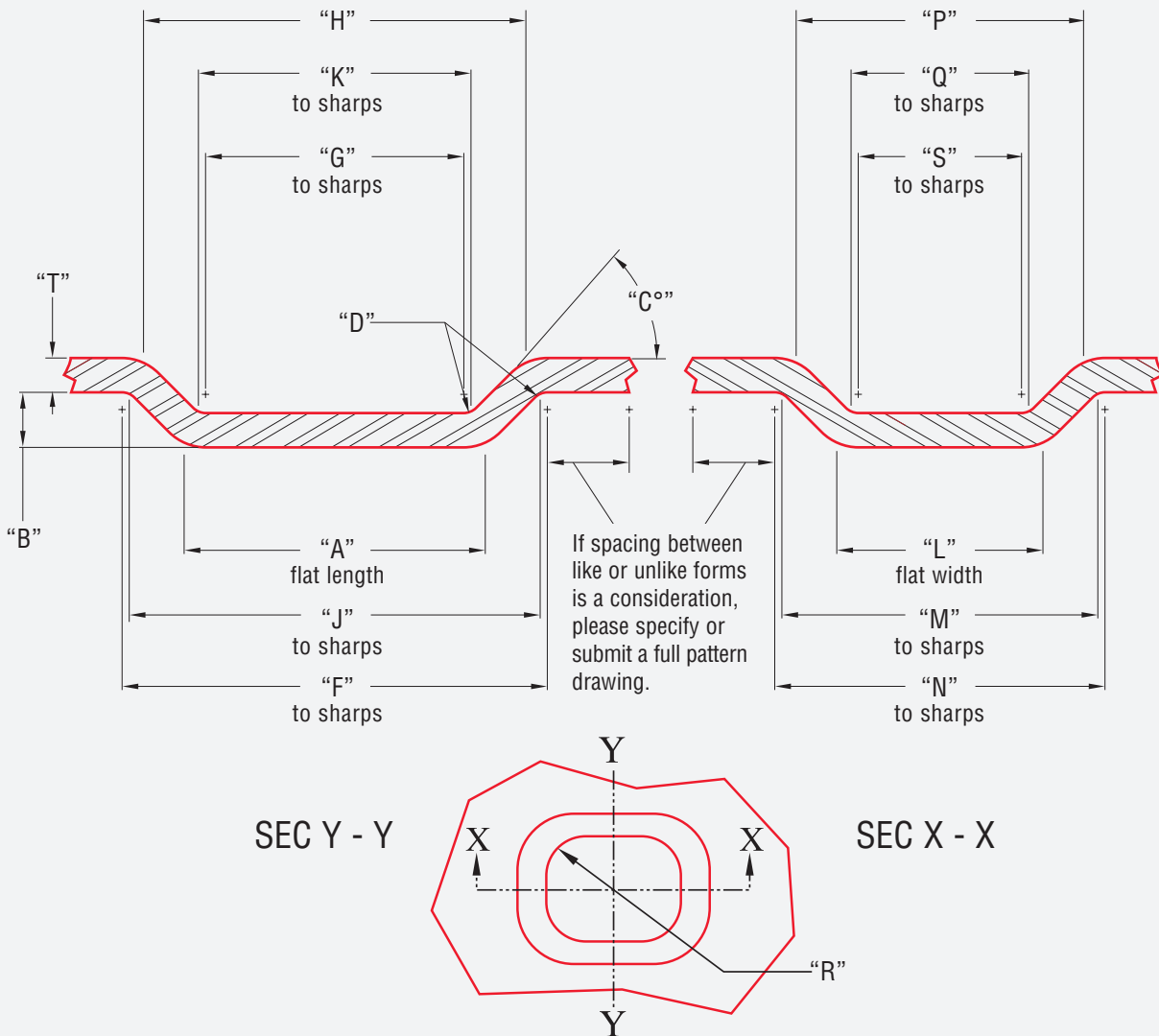


EMBOSS SHAPE DOWN

TOOL CODE E4

8

ORDERING SPECIFICATIONS



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

A _____	H _____	P _____
B _____	J _____	Q _____
C° _____	K _____	R _____
D _____	L _____	S _____
F _____	M _____	
G _____	N _____	

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

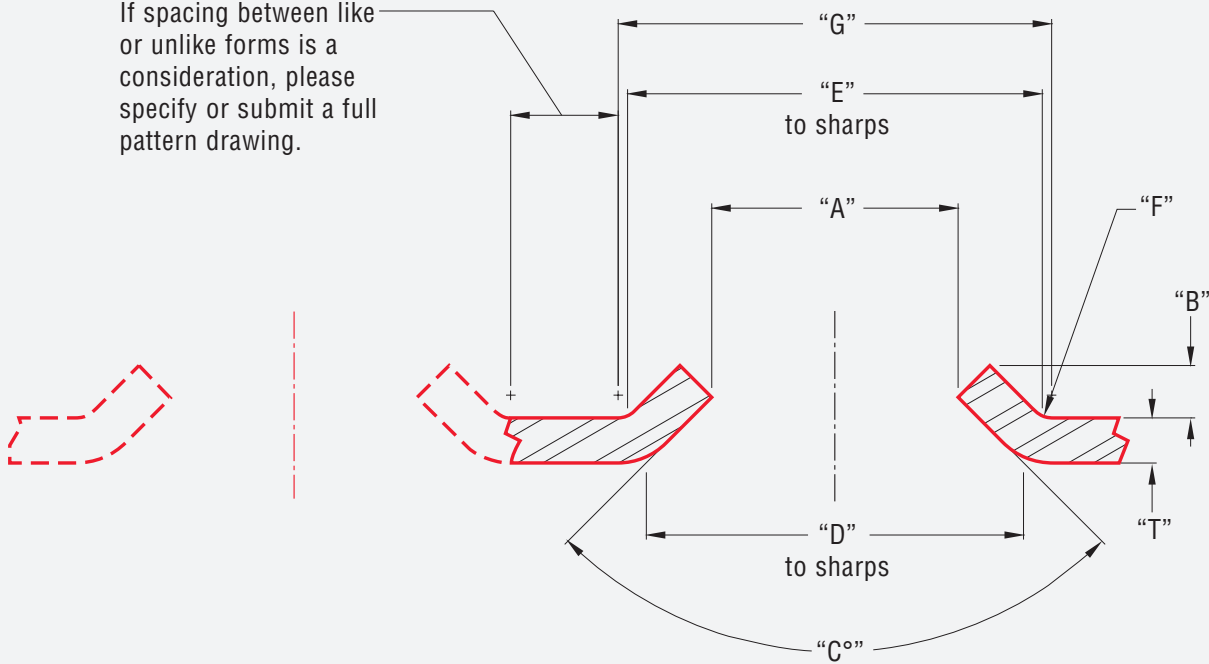
° indicates DEGREES



EMBOSS COUNTERSINK ROUND UP

TOOL CODE E9

If spacing between like or unlike forms is a consideration, please specify or submit a full pattern drawing.



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

AØ _____ F _____

B _____ GØ _____

C° _____

DØ _____

EØ _____

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

° indicates DEGREES
Ø indicates DIAMETER

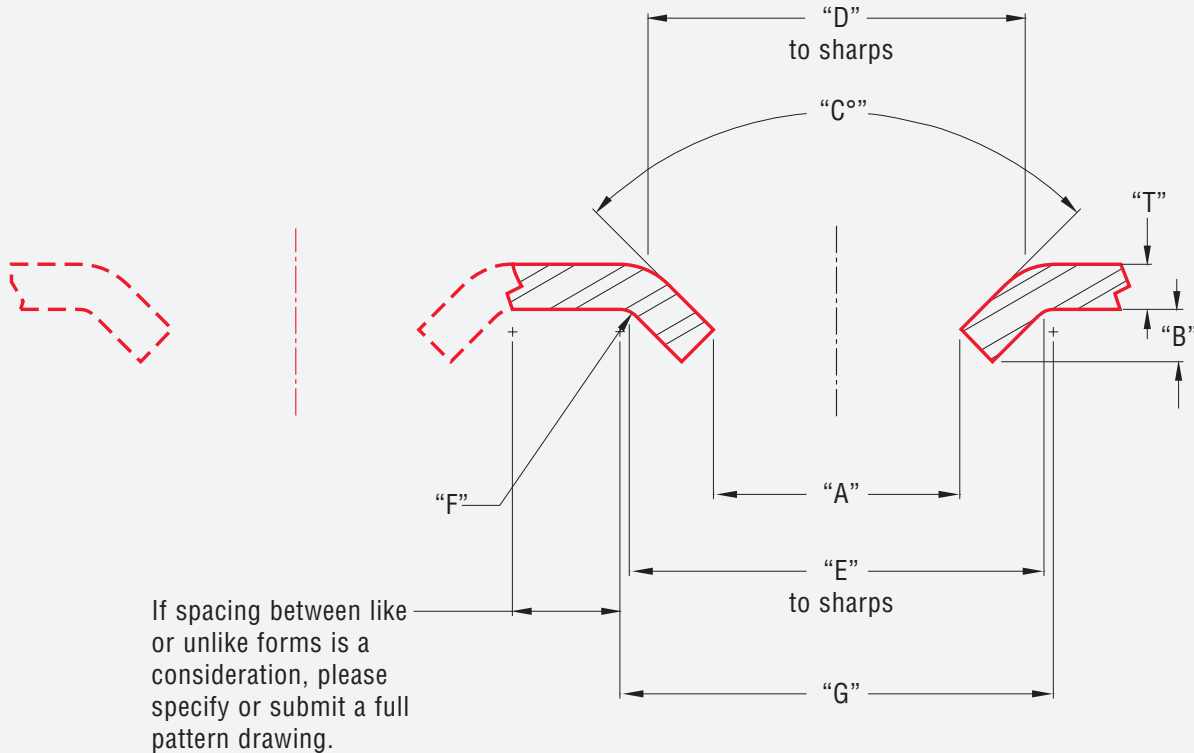


EMBOSS COUNTERSINK ROUND DOWN

TOOL CODE EA

10

ORDERING SPECIFICATIONS



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

AØ _____ F _____

B _____ GØ _____

C° _____

DØ _____

EØ _____

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

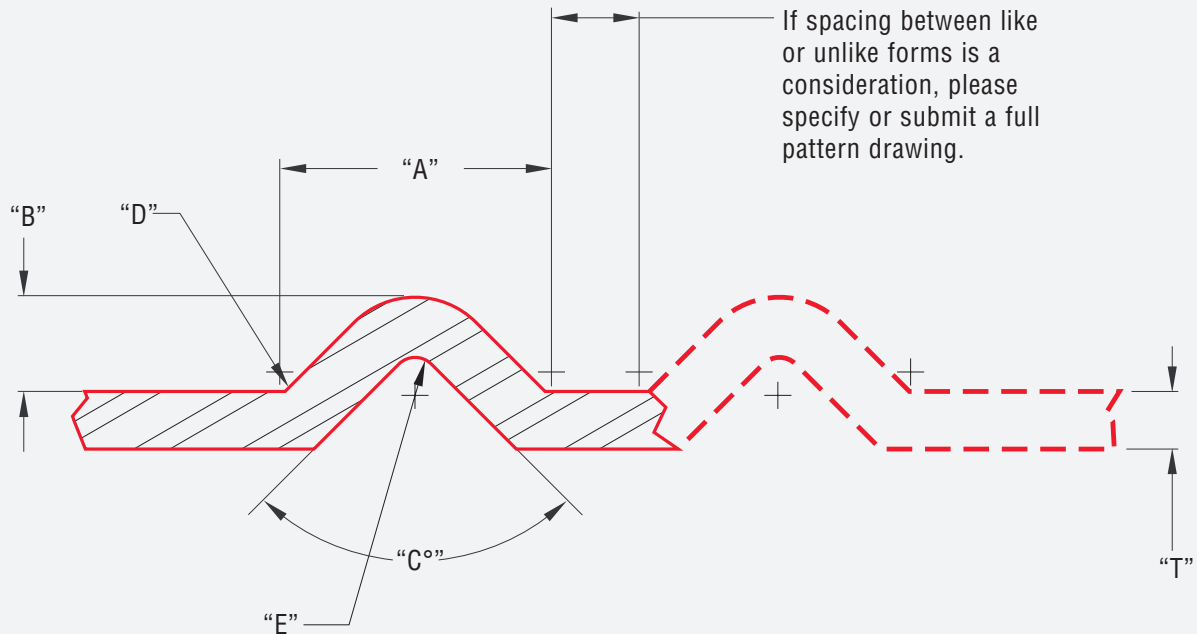
° indicates DEGREES
Ø indicates DIAMETER



EMBOSS CONTINUOUS BEAD

TOOL CODE BT

ORDERING SPECIFICATIONS



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

A _____

B _____

C° _____

D _____

E _____

* If not specified, determined by MATE

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

° indicates DEGREES

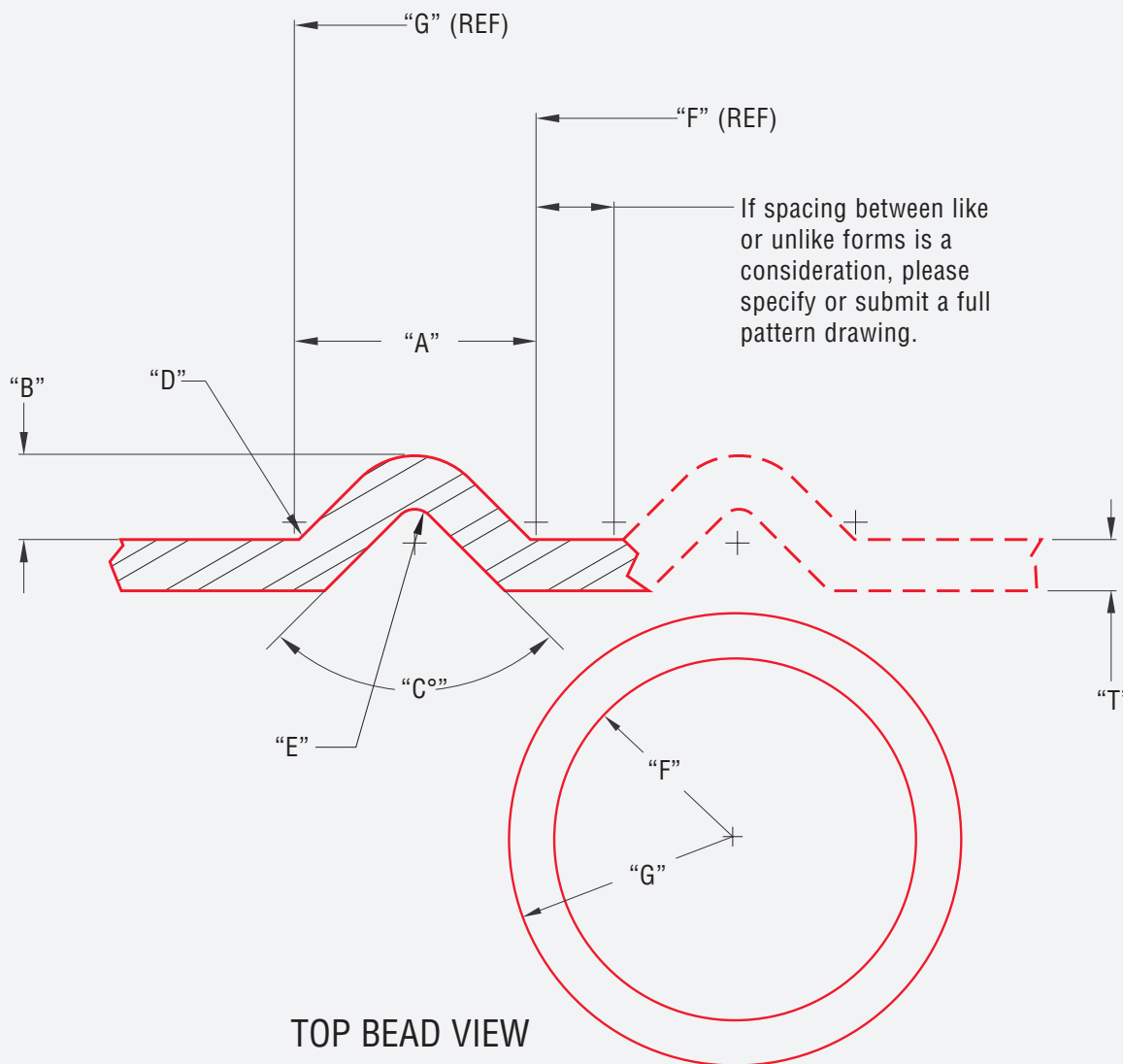


EMBOSS CONTINUOUS CURVED BEAD

TOOL CODE BC

12

ORDERING SPECIFICATIONS



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

A _____ F _____
 B _____ G _____
 C° _____
 D _____
 E _____

GENERAL INFORMATION

Material Type _____
 Material Thickness "T" _____
 Machine Type _____
 Tooling Style _____
 Tooling Station _____
 Dimensions filled in by _____
 Approved By _____

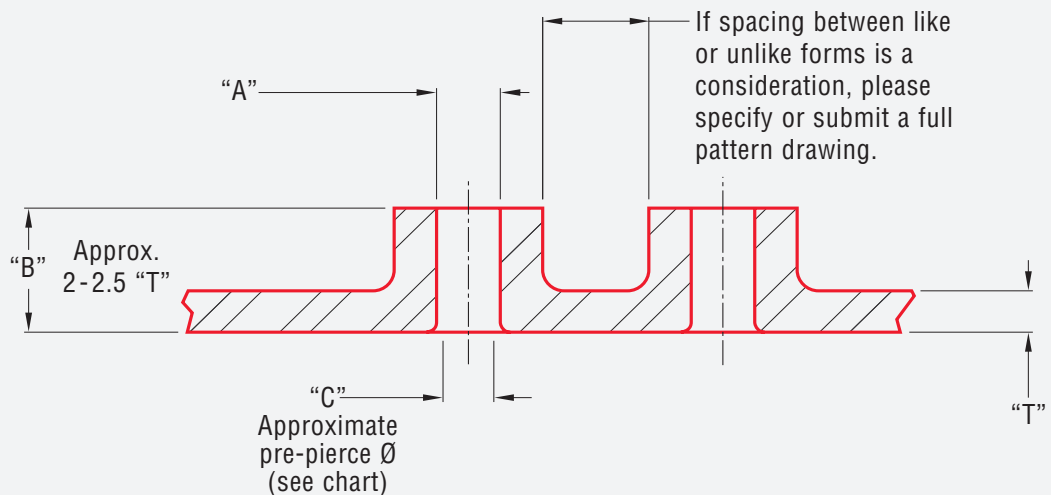
° indicates DEGREES



EXTRUSION TAPPING ROUND UP

TOOL CODE D1

EXTRUSION AND PRE-PIERCE DIAMETERS											
TAP OR SCREW SIZE	EXTRUSION I.D.		PRE-PIERCE DIAMETER		MAXIMUM MATERIAL THICKNESS	TAP OR SCREW SIZE	EXTRUSION I.D.		PRE-PIERCE DIAMETER		MAXIMUM MATERIAL THICKNESS
	CUT THREAD	ROLLED THREAD	CUT THREAD	ROLLED THREAD			CUT THREAD	ROLLED THREAD	CUT THREAD	ROLLED THREAD	
	ENGLISH SIZES						METRIC SIZES				
#4-40	.089(2.3)	.100(2.5)	.050(1.3)	.060(1.5)	.048(1.2)	M3	.098(2.5)	.108(2.7)	.059(1.5)	.065(1.6)	.060(1.5)
#5-40	.100(2.5)	.112(2.8)	.060(1.5)	.072(1.8)	.060(1.5)	M4	.130(3.3)	.146(3.7)	.078(2.0)	.088(2.2)	.075(1.9)
#6-32	.107(2.7)	.120(3.0)	.070(1.8)	.076(1.9)	.075(1.9)	M5	.165(4.2)	.183(4.6)	.099(2.5)	.110(2.8)	.090(2.3)
#8-32	.136(3.5)	.150(3.8)	.085(2.2)	.093(2.4)	.075(1.9)	M6	.197(5.0)	.216(5.5)	.118(3.0)	.130(3.3)	.105(2.7)
#10-24	.150(3.8)	.167(4.2)	.090(2.3)	.100(2.5)	.090(2.3)	M8	.266(6.8)	.293(7.4)	.160(4.1)	.176(4.5)	.105(2.7)
#10-32	.159(4.0)	.174(4.4)	.095(2.4)	.104(2.6)	.090(2.3)	M10	.334(8.5)	.369(9.4)	.200(5.1)	.221(5.6)	.105(2.7)
#12-24	.173(4.4)	.194(4.9)	.104(2.6)	.116(2.9)	.090(2.3)						
1/4-20	.201(5.1)	.219(5.6)	.121(3.1)	.131(3.3)	.105(2.7)						
1/4-28	.218(5.5)	.235(6.0)	.131(3.3)	.141(3.6)	.105(2.7)						
5/16-18	.257(6.5)	.275(7.0)	.154(3.9)	.165(4.2)	.105(2.7)						
5/16-24	.272(6.9)	.288(7.3)	.163(4.1)	.172(4.4)	.105(2.7)						
3/8-16	.312(7.9)	.343(8.7)	.187(4.8)	.206(5.2)	.105(2.7)						
3/8-24	.332(8.4)	.343(8.7)	.199(5.1)	.206(5.2)	.105(2.7)						



TOOL INFORMATION

Fill out only one (1) of the following combinations for either :

- 1) "A" dimension, or
- 2) "X" screw size (from chart) if using screw size, or
- 3) Check cut thread or rolled thread

AØ _____

B _____

CØ _____

X _____

CUT THREAD

OR

ROLLED THREAD



GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

Ø indicates DIAMETER



Dimensions in inches (millimeters)

EXTRUSION TAPPING ROUND DOWN

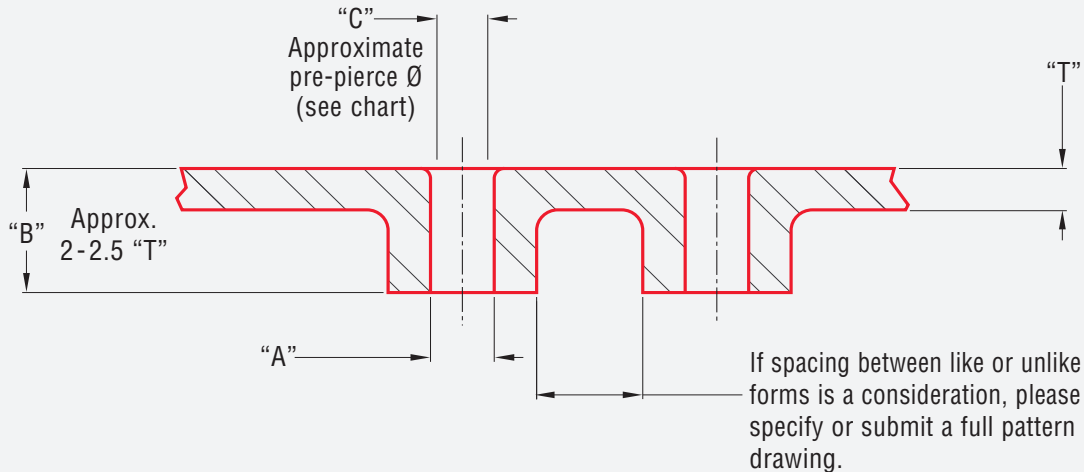
TOOL CODE D2

14

ORDERING SPECIFICATIONS

EXTRUSION AND PRE-PIERCE DIAMETERS

TAP OR SCREW SIZE	EXTRUSION I.D.		PRE-PIERCE DIAMETER		MAXIMUM MATERIAL THICKNESS	TAP OR SCREW SIZE	EXTRUSION I.D.		PRE-PIERCE DIAMETER		MAXIMUM MATERIAL THICKNESS
	CUT THREAD	ROLLED THREAD	CUT THREAD	ROLLED THREAD			CUT THREAD	ROLLED THREAD	CUT THREAD	ROLLED THREAD	
	ENGLISH SIZES						METRIC SIZES				
#4-40	.089(2.3)	.100(2.5)	.050(1.3)	.060(1.5)	.048(1.2)	M3	.098(2.5)	.108(2.7)	.059(1.5)	.065(1.6)	.060(1.5)
#5-40	.100(2.5)	.112(2.8)	.060(1.5)	.072(1.8)	.060(1.5)	M4	.130(3.3)	.146(3.7)	.078(2.0)	.088(2.2)	.075(1.9)
#6-32	.107(2.7)	.120(3.0)	.070(1.8)	.076(1.9)	.075(1.9)	M5	.165(4.2)	.183(4.6)	.099(2.5)	.110(2.8)	.090(2.3)
#8-32	.136(3.5)	.150(3.8)	.085(2.2)	.093(2.4)	.075(1.9)	M6	.197(5.0)	.216(5.5)	.118(3.0)	.130(3.3)	.105(2.7)
#10-24	.150(3.8)	.167(4.2)	.090(2.3)	.100(2.5)	.090(2.3)	M8	.266(6.8)	.293(7.4)	.160(4.1)	.176(4.5)	.105(2.7)
#10-32	.159(4.0)	.174(4.4)	.095(2.4)	.104(2.6)	.090(2.3)	M10	.334(8.5)	.369(9.4)	.200(5.1)	.221(5.6)	.105(2.7)
#12-24	.173(4.4)	.194(4.9)	.104(2.6)	.116(2.9)	.090(2.3)						
1/4-20	.201(5.1)	.219(5.6)	.121(3.1)	.131(3.3)	.105(2.7)						
1/4-28	.218(5.5)	.235(6.0)	.131(3.3)	.141(3.6)	.105(2.7)						
5/16-18	.257(6.5)	.275(7.0)	.154(3.9)	.165(4.2)	.105(2.7)						
5/16-24	.272(6.9)	.288(7.3)	.163(4.1)	.172(4.4)	.105(2.7)						
3/8-16	.312(7.9)	.343(8.7)	.187(4.8)	.206(5.2)	.105(2.7)						
3/8-24	.332(8.4)	.343(8.7)	.199(5.1)	.206(5.2)	.105(2.7)						



TOOL INFORMATION

Fill out only one (1) of the following combinations for either :

- 1) "A" dimension, or
- 2) "X" screw size (from chart) if using screw size, or
- 3) Check cut thread or rolled thread

AØ_____

B_____

CØ_____

X_____

CUT THREAD

OR

ROLLED THREAD



GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

Ø indicates DIAMETER

Dimensions in inches (millimeters)



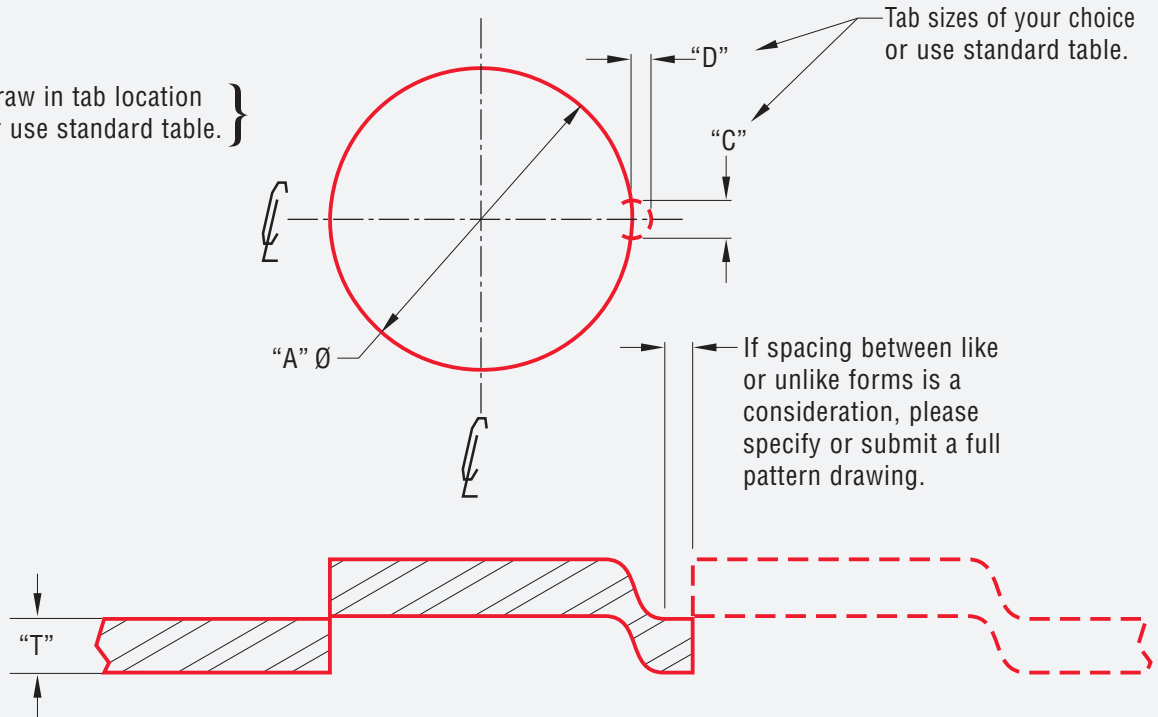
KNOCKOUT SINGLE DIAMETER UP

TOOL CODE K1

STANDARD HOLDING TABS

"A" Ø	"E" QUANTITY	LOCATION		MATERIAL THICKNESS	"C"	"D"
		LOWER	UPPER			
.000 - .313 (0.00 - 7.95)	(1) TAB IN UPPER INVERTED DIE ONLY			.020 - .045(0.51 - 1.14)	.060(1.52)	.030(0.76)
.314 - 1.374 (7.97 - 34.90)	(1) TAB IN UPPER AND LOWER ASSEMBLY			.046 - .070(1.16 - 1.78)	.090(2.29)	.050(1.27)
1.375 - MAXIMUM (34.93 - MAXIMUM)	(2) TABS IN UPPER AND LOWER ASSEMBLY @ 180°			.071 - .097(1.80 - 2.46)	.120(3.05)	.060(1.52)
				.098 - .127(2.49 - 3.23)	.180(4.57)	.090(2.29)
				.128 - .179(3.25 - 4.55)	.250(6.35)	.125(3.18)

Draw in tab location
or use standard table. }



TOOL INFORMATION

Select "A" Ø from standard table. Fill in "C", "D" and "E" only if not MATE standard.

AØ _____

C _____

D _____

E _____

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

Ø indicates DIAMETER



Dimensions in inches (millimeters)

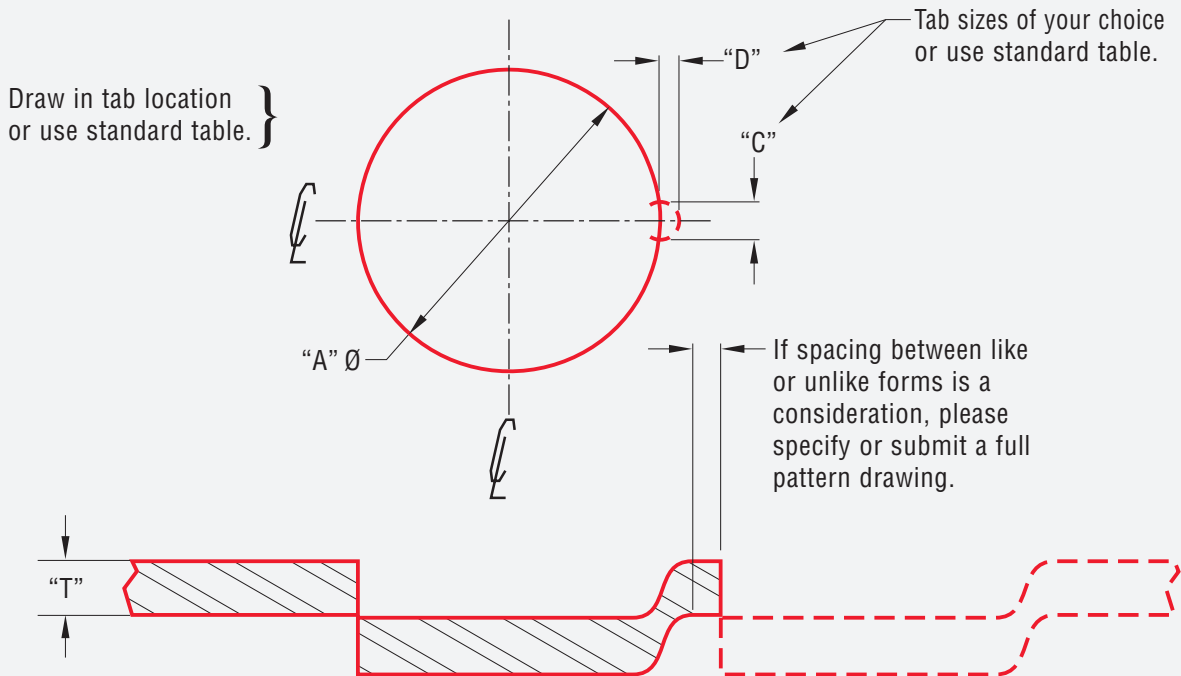
KNOCKOUT SINGLE DIAMETER DOWN

TOOL CODE K2

16

STANDARD HOLDING TABS

"A" Ø	"E" QUANTITY	LOCATION		MATERIAL THICKNESS	"C"	"D"
		LOWER	UPPER			
.000 - .313 (0.00 - 7.95)	(1) TAB IN UPPER INVERTED DIE ONLY			.020 - .045(0.51 - 1.14)	.060(1.52)	.030(0.76)
				.046 - .070(1.16 - 1.78)	.090(2.29)	.050(1.27)
.314 - 1.374 (7.97 - 34.90)	(1) TAB IN UPPER AND LOWER ASSEMBLY			.071 - .097(1.80 - 2.46)	.120(3.05)	.060(1.52)
				.098 - .127(2.49 - 3.23)	.180(4.57)	.090(2.29)
1.375 - MAXIMUM (34.93 - MAXIMUM)	(2) TABS IN UPPER AND LOWER ASSEMBLY @ 180°			.128 - .179(3.25 - 4.55)	.250(6.35)	.125(3.18)



TOOL INFORMATION

Select "A"Ø from standard table. Fill in "C", "D" and "E" only if not MATE standard.

AØ _____
C _____
D _____
E _____

GENERAL INFORMATION

Material Type _____
Material Thickness "T" _____
Machine Type _____
Tooling Style _____
Tooling Station _____
Dimensions filled in by _____
Approved By _____

Ø indicates DIAMETER

Dimensions in inches (millimeters)

ORDERING SPECIFICATIONS



KNOCKOUT DOUBLE DIAMETER UP

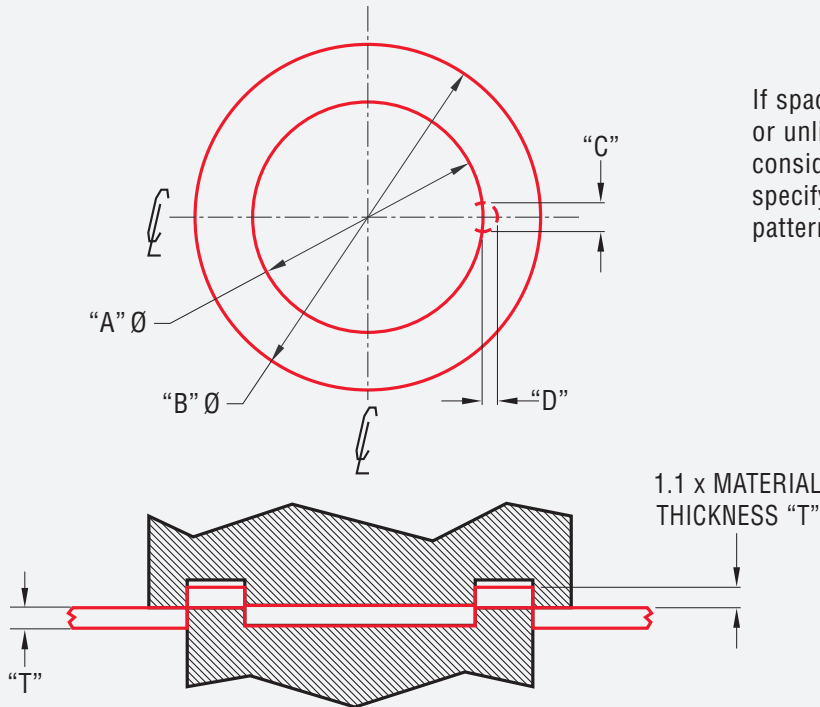
TOOL CODE K4

STANDARD TAB DIMENSIONS

MATERIAL THICKNESS	"C"	"D"
.020 - .045(0.51 - 1.14)	.060(1.52)	.030(0.76)
.046 - .070(1.16 - 1.78)	.090(2.29)	.050(1.27)
.071 - .097(1.80 - 2.46)	.120(3.05)	.060(1.52)
.098 - .127(2.49 - 3.23)	.180(4.57)	.090(2.29)
.128 - .179(3.25 - 4.55)	.250(6.35)	.125(3.18)

STANDARD TAB LOCATIONS

"A" Ø or "B" Ø	LOCATION	
	LOWER	UPPER
0 - 1.374 (0.00 - 34.90)		
1.375 - MAXIMUM (34.93 - MAXIMUM)		



If spacing between like or unlike forms is a consideration, please specify or submit a full pattern drawing.

TOOL INFORMATION

Select "A" Ø and "B" Ø from standard table. Fill in "C" and "D" only if not MATE standard.

AØ _____
 BØ _____
 C _____
 D _____

GENERAL INFORMATION

Material Type _____
 Material Thickness "T" _____
 Machine Type _____
 Tooling Style _____
 Tooling Station _____
 Dimensions filled in by _____
 Approved By _____

Ø indicates DIAMETER



Dimensions in inches (millimeters)

KNOCKOUT DOUBLE DIAMETER DOWN

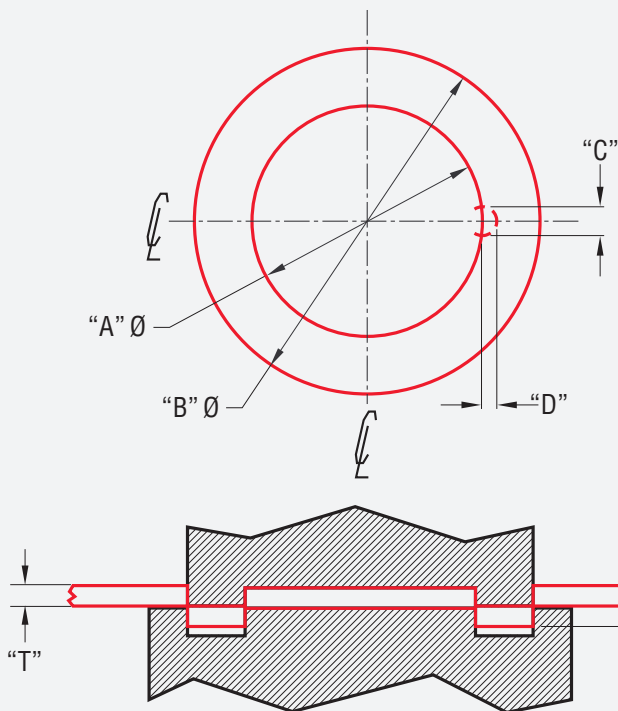
TOOL CODE K8

18

ORDERING SPECIFICATIONS

STANDARD TAB DIMENSIONS		
MATERIAL THICKNESS	"C"	"D"
.020 - .045(0.51 - 1.14)	.060(1.52)	.030(0.76)
.046 - .070(1.16 - 1.78)	.090(2.29)	.050(1.27)
.071 - .097(1.80 - 2.46)	.120(3.05)	.060(1.52)
.098 - .127(2.49 - 3.23)	.180(4.57)	.090(2.29)
.128 - .179(3.25 - 4.55)	.250(6.35)	.125(3.18)

STANDARD TAB LOCATIONS		
"A" Ø or "B" Ø	LOCATION	
	LOWER	UPPER
0 - 1.374 (0.00 - 34.90)		
1.375 - MAXIMUM (34.93 - MAXIMUM)		



If spacing between like or unlike forms is a consideration, please specify or submit a full pattern drawing.

TOOL INFORMATION

Select "A" Ø and "B" Ø from standard table. Fill in "C" and "D" only if not MATE standard.

AØ _____
BØ _____
C _____
D _____

GENERAL INFORMATION

Material Type _____
Material Thickness "T" _____
Machine Type _____
Tooling Style _____
Tooling Station _____
Dimensions filled in by _____
Approved By _____

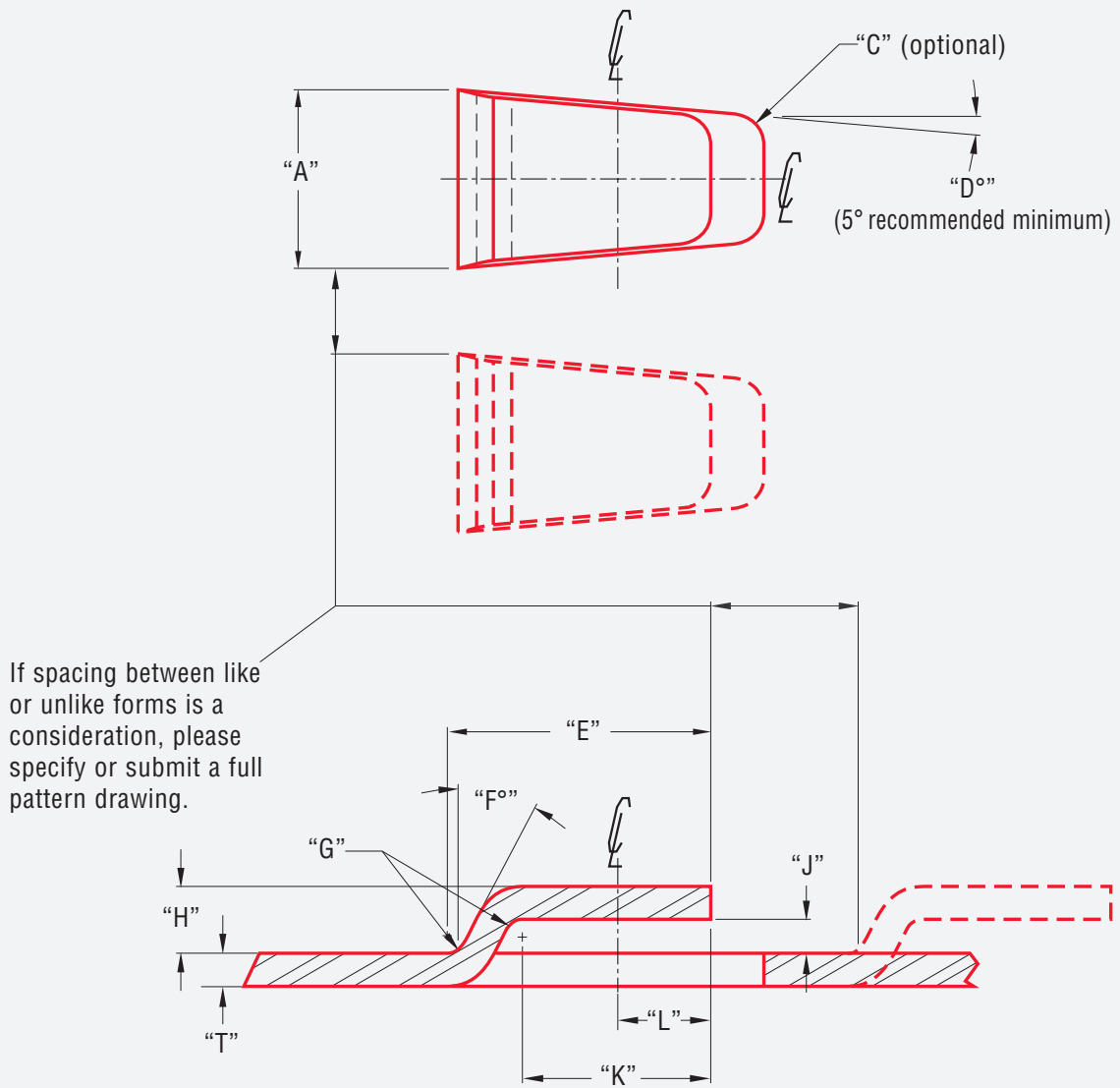
Ø indicates DIAMETER

Dimensions in inches (millimeters)



LANCER AND FORM SHELF CLIP

TOOL CODE F2



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

A _____ G _____

C _____ H _____

D° _____ J _____

E _____ K _____

F° _____ *L _____

* If not specified, determined by MATE

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

° indicates DEGREES

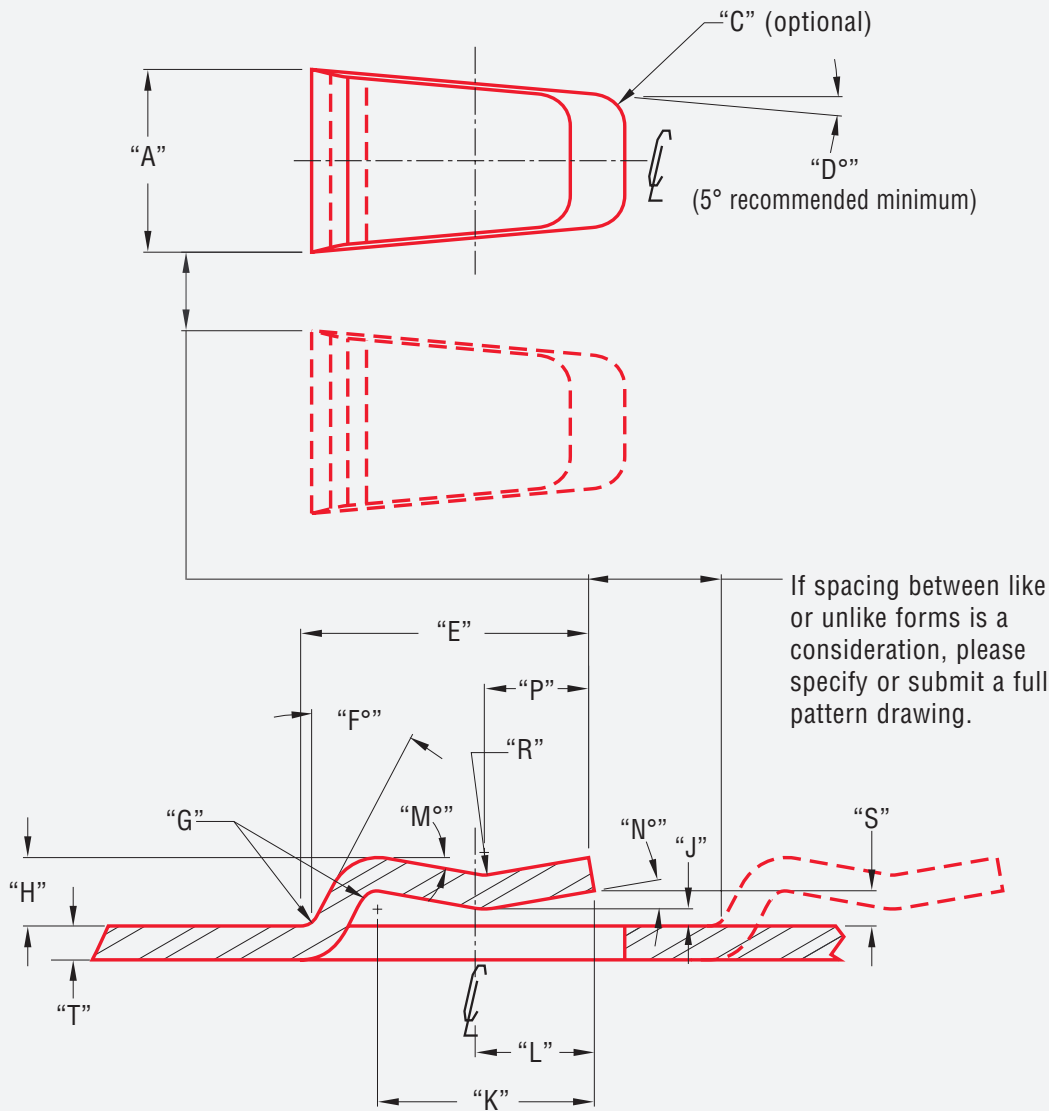


LANCE AND FORM SPRING CLIP

TOOL CODE FU

20

ORDERING SPECIFICATIONS



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

A _____ G _____ M° _____
 C _____ H _____ N° _____
 D° _____ J _____ P _____
 E _____ K _____ R _____
 F° _____ *L _____ S _____

* If not specified, determined by MATE

GENERAL INFORMATION

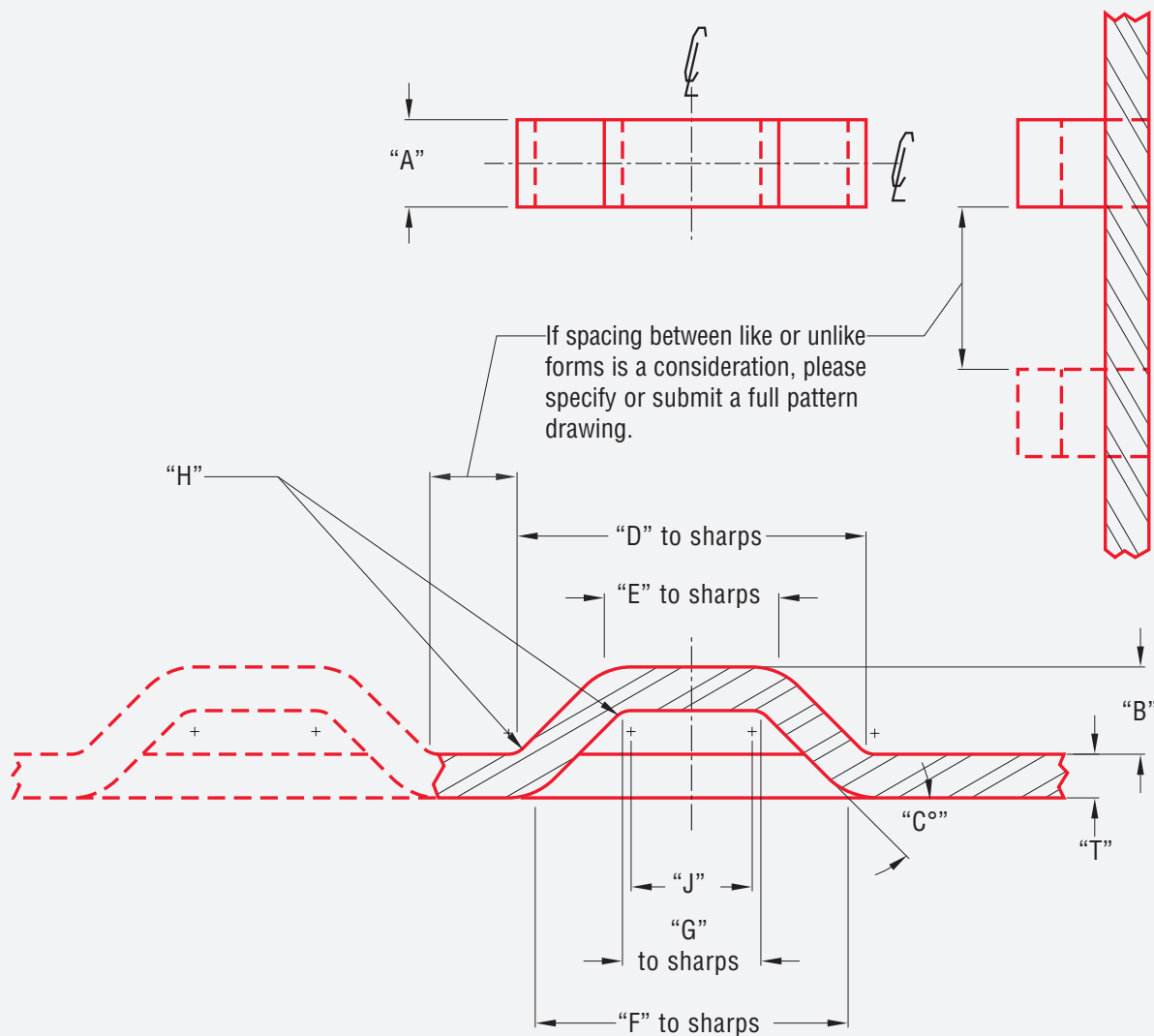
Material Type _____
 Material Thickness "T" _____
 Machine Type _____
 Tooling Style _____
 Tooling Station _____
 Dimensions filled in by _____
 Approved By _____

° indicates DEGREES



LANCE AND FORM SINGLE BRIDGE (CABLE CLAMP)

TOOL CODE F4



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

A _____ F _____
 B _____ G _____
 C° _____ H _____
 D _____ J _____
 E _____

GENERAL INFORMATION

Material Type _____
 Material Thickness "T" _____
 Machine Type _____
 Tooling Style _____
 Tooling Station _____
 Dimensions filled in by _____
 Approved By _____

° indicates DEGREES

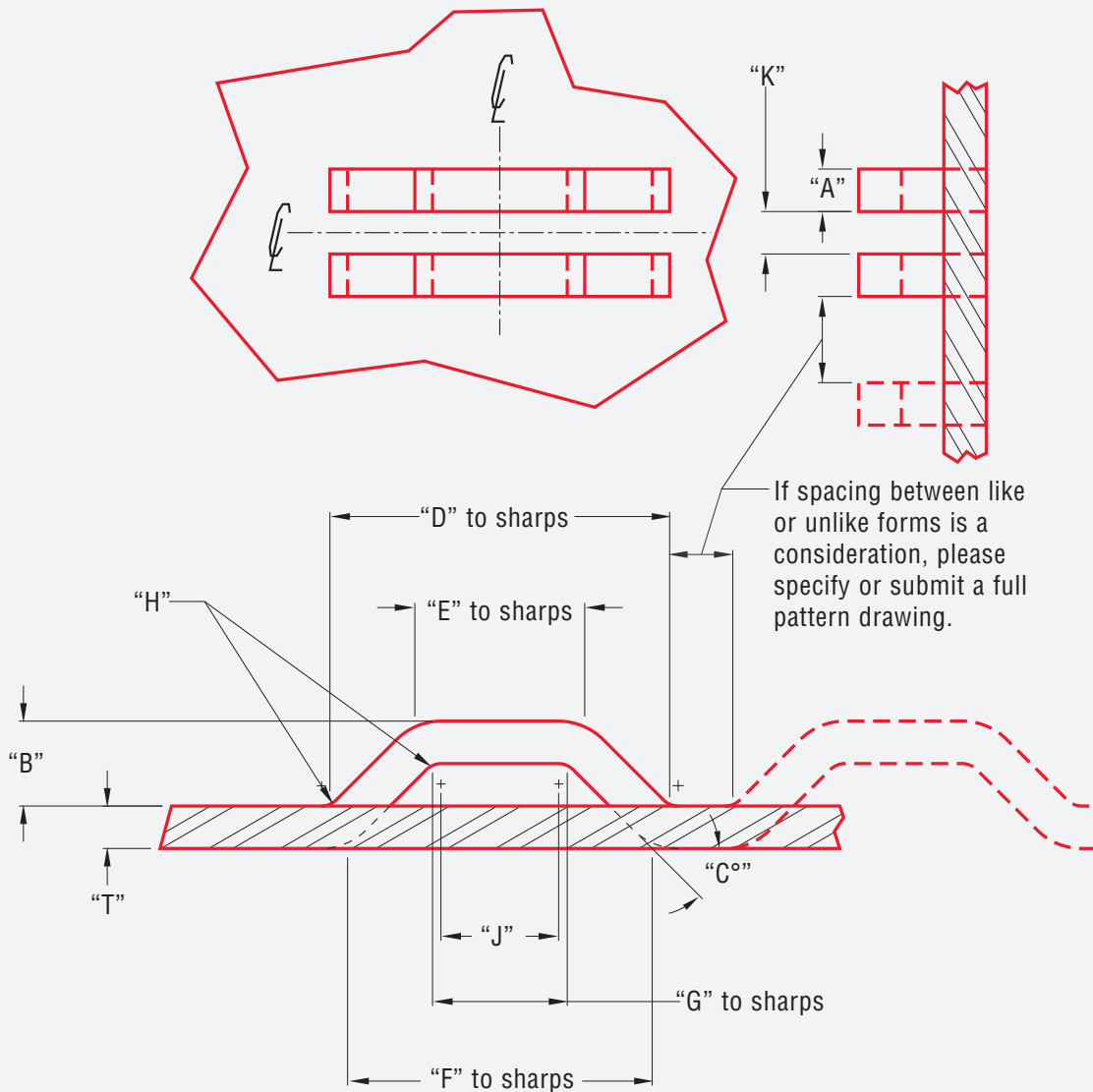


LANCE AND FORM DOUBLE BRIDGE (CARD GUIDE)

TOOL CODE FB

22

ORDERING SPECIFICATIONS



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

A _____ F _____

B _____ G _____

C° _____ H _____

D _____ J _____

E _____ K _____

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

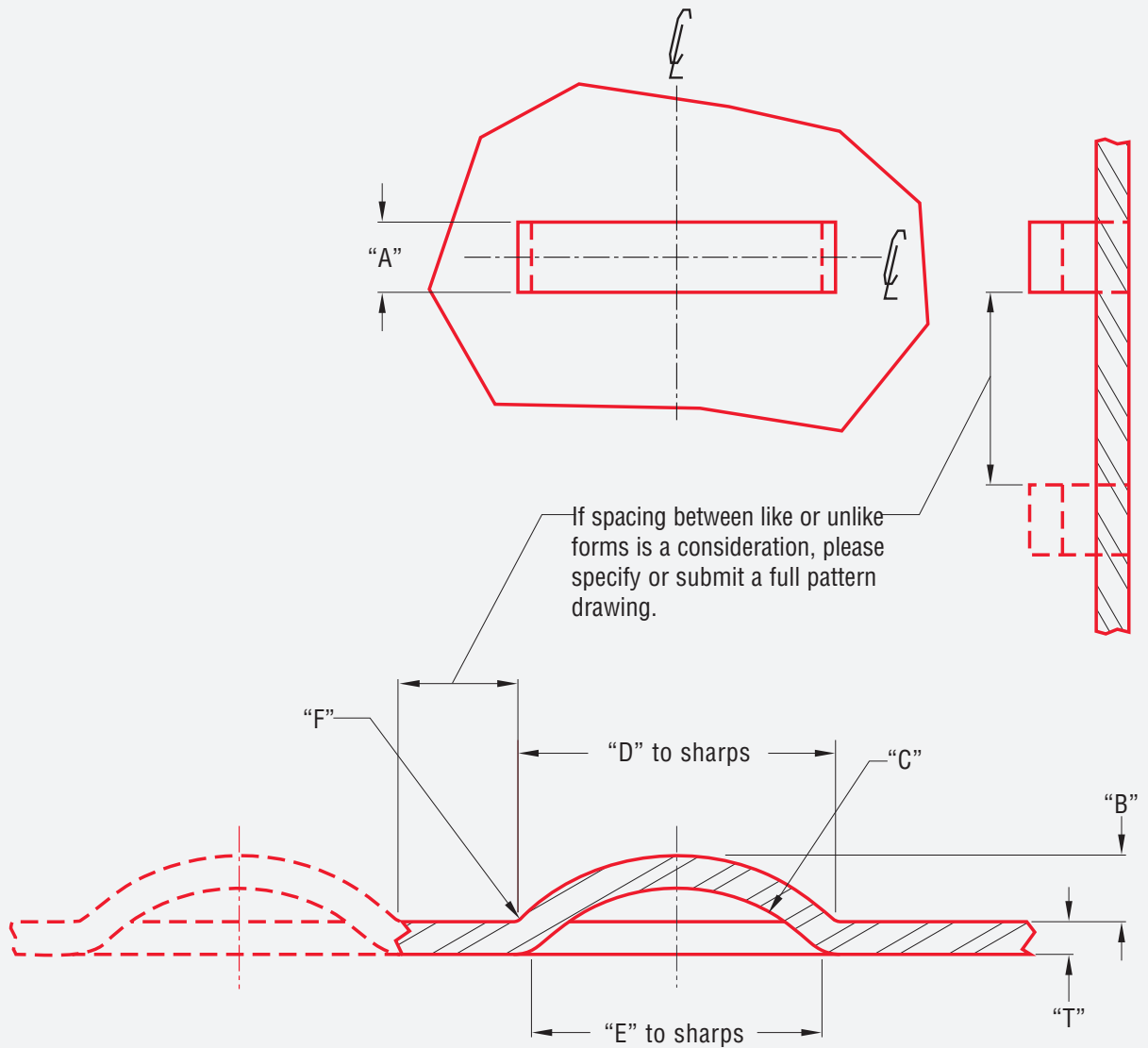
Approved By _____

° indicates DEGREES



LANCE AND FORM SINGLE BRIDGE (SPRING CLAMP)

TOOL CODE F5



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

A _____ F _____

B _____

C _____

D _____

E _____

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

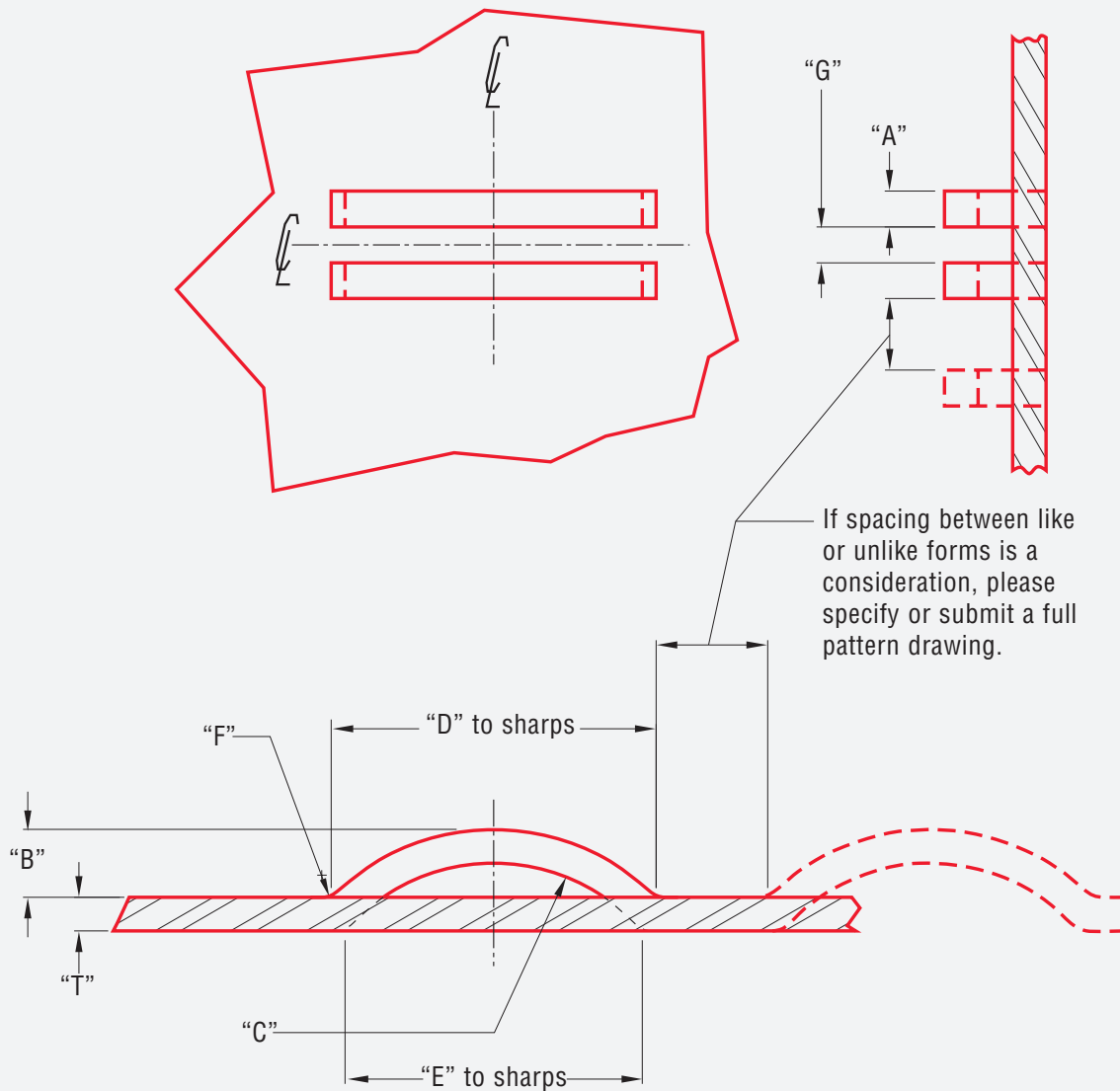


LANCE AND FORM DOUBLE BRIDGE RADIUS (CARD GUIDE)

TOOL CODE FV

24

ORDERING SPECIFICATIONS



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

A _____ F _____
 B _____ G _____
 C _____
 D _____
 E _____

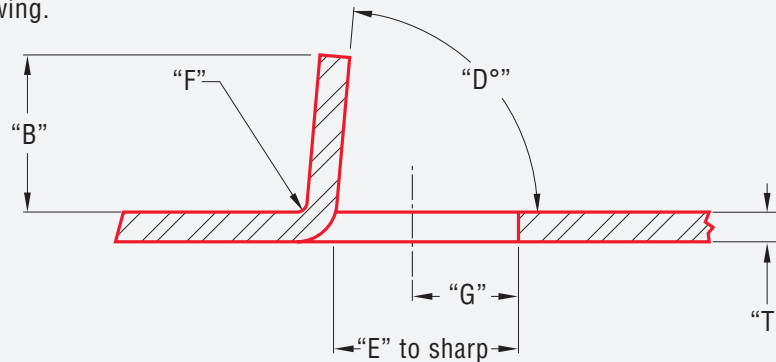
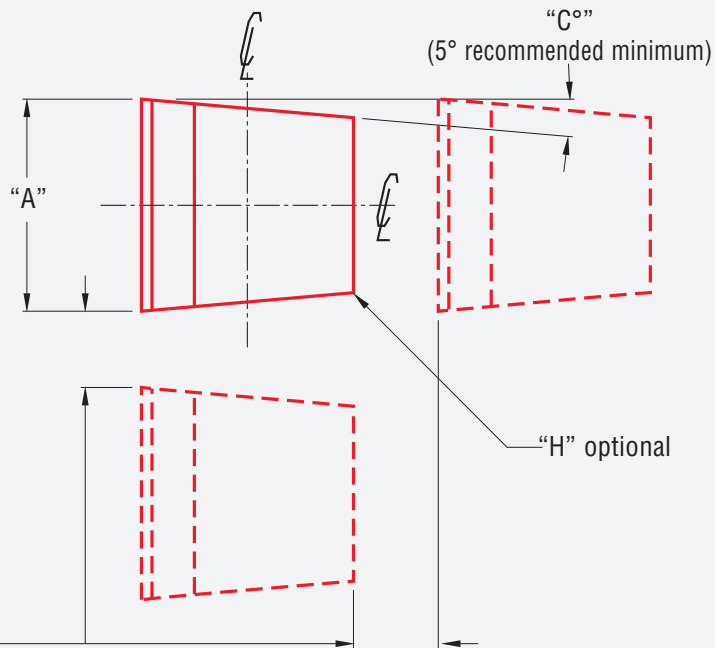
GENERAL INFORMATION

Material Type _____
 Material Thickness "T" _____
 Machine Type _____
 Tooling Style _____
 Tooling Station _____
 Dimensions filled in by _____
 Approved By _____



LANCE AND FORM VERTICAL TAB

TOOL CODE FS



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

A _____ F _____
 B _____ G _____
 C° _____ H _____
 D° _____
 E _____

GENERAL INFORMATION

Material Type _____
 Material Thickness "T" _____
 Machine Type _____
 Tooling Style _____
 Tooling Station _____
 Dimensions filled in by _____
 Approved By _____

° indicates DEGREES

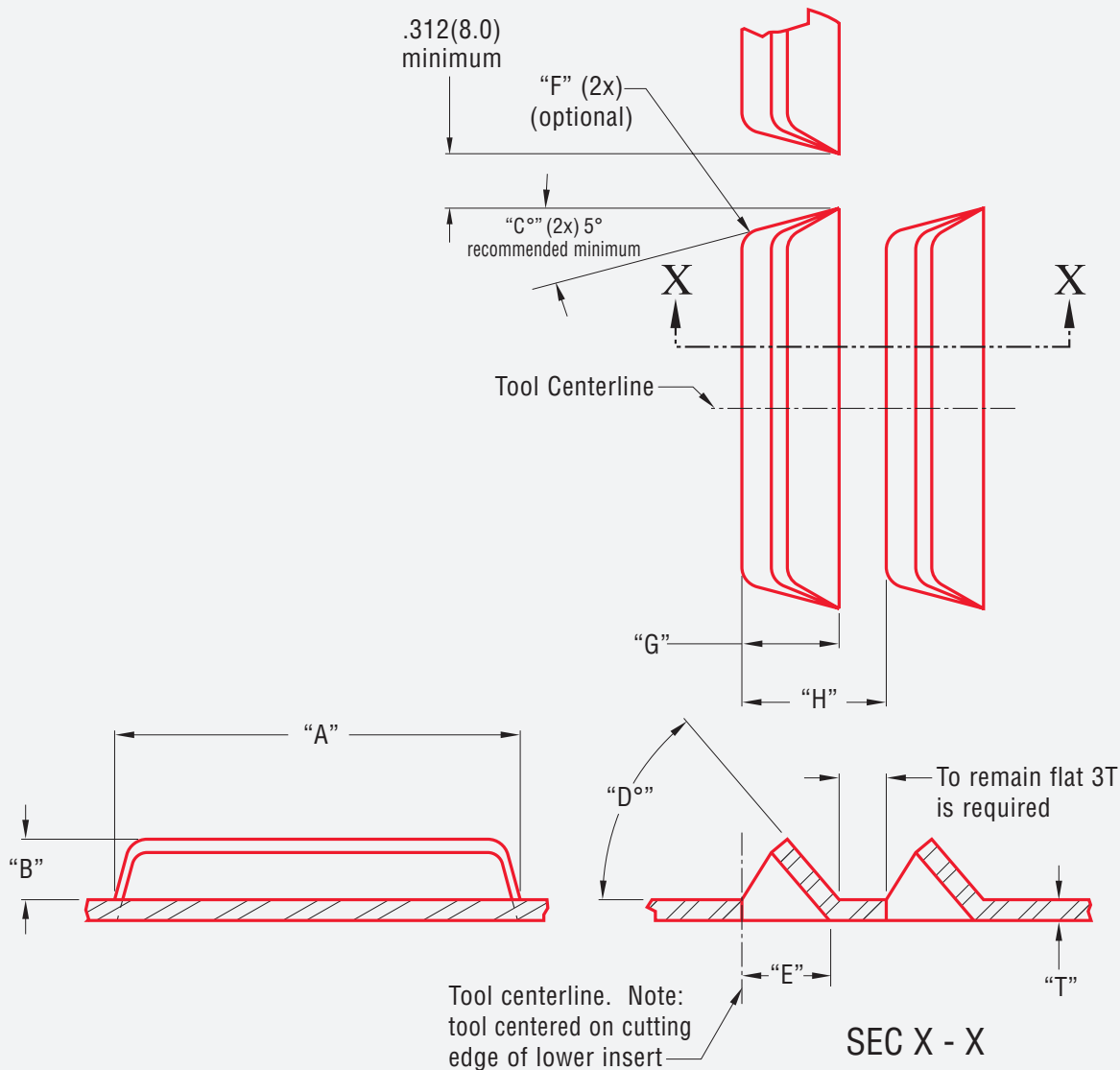


LOUVER OPEN END

TOOL CODE LØ

26

ORDERING SPECIFICATIONS



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

A _____ F _____
 B _____ G _____
 C° _____ H _____
 D° _____
 E _____

GENERAL INFORMATION

Material Type _____
 Material Thickness "T" _____
 Machine Type _____
 Tooling Style _____
 Tooling Station _____
 Dimensions filled in by _____
 Approved By _____

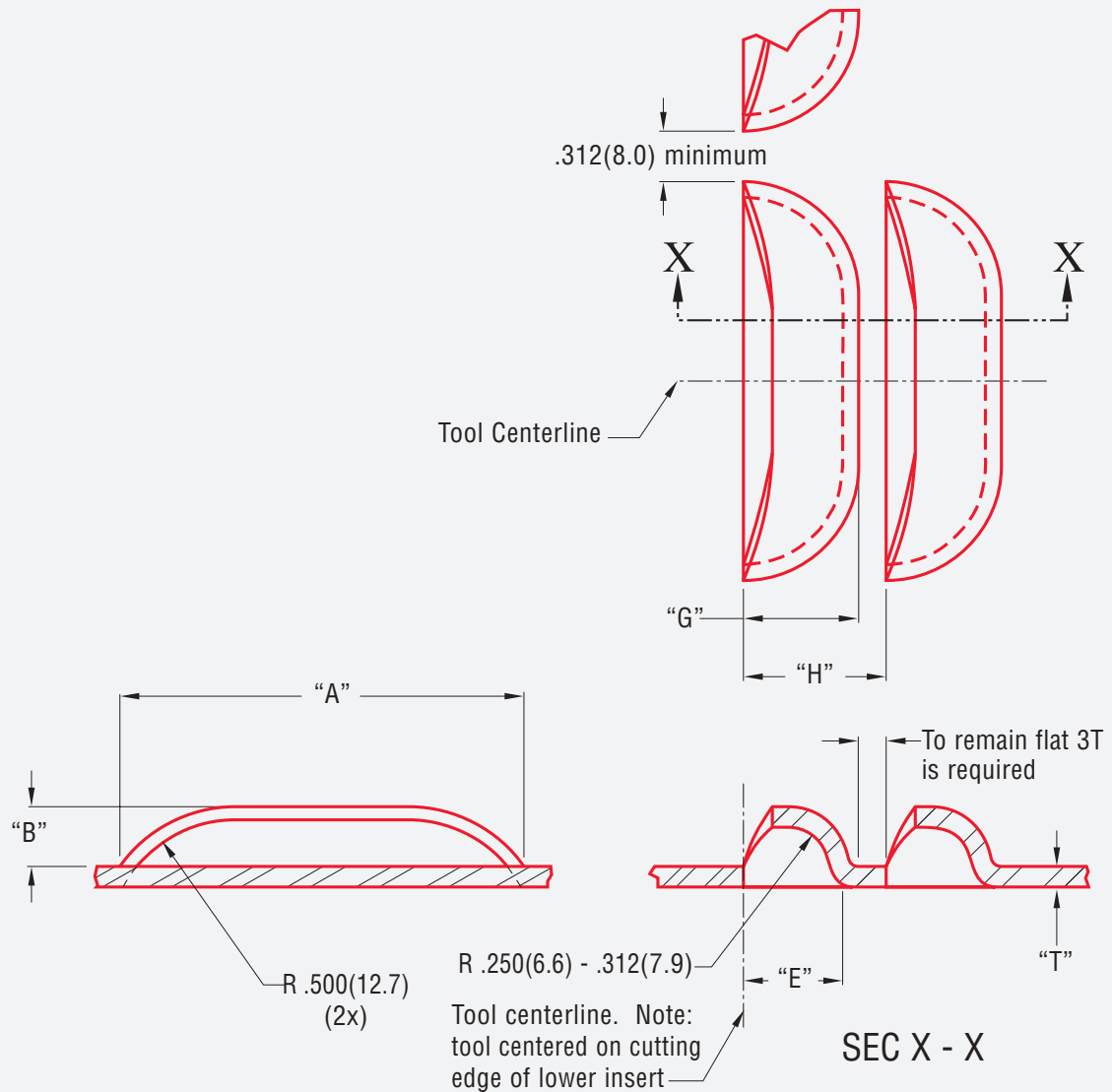
° indicates DEGREES

Dimensions in inches (millimeters)



LOUVER CLOSED END RADIUS BACK

TOOL CODE LC



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

A _____

B _____

E _____

G _____

H _____

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____



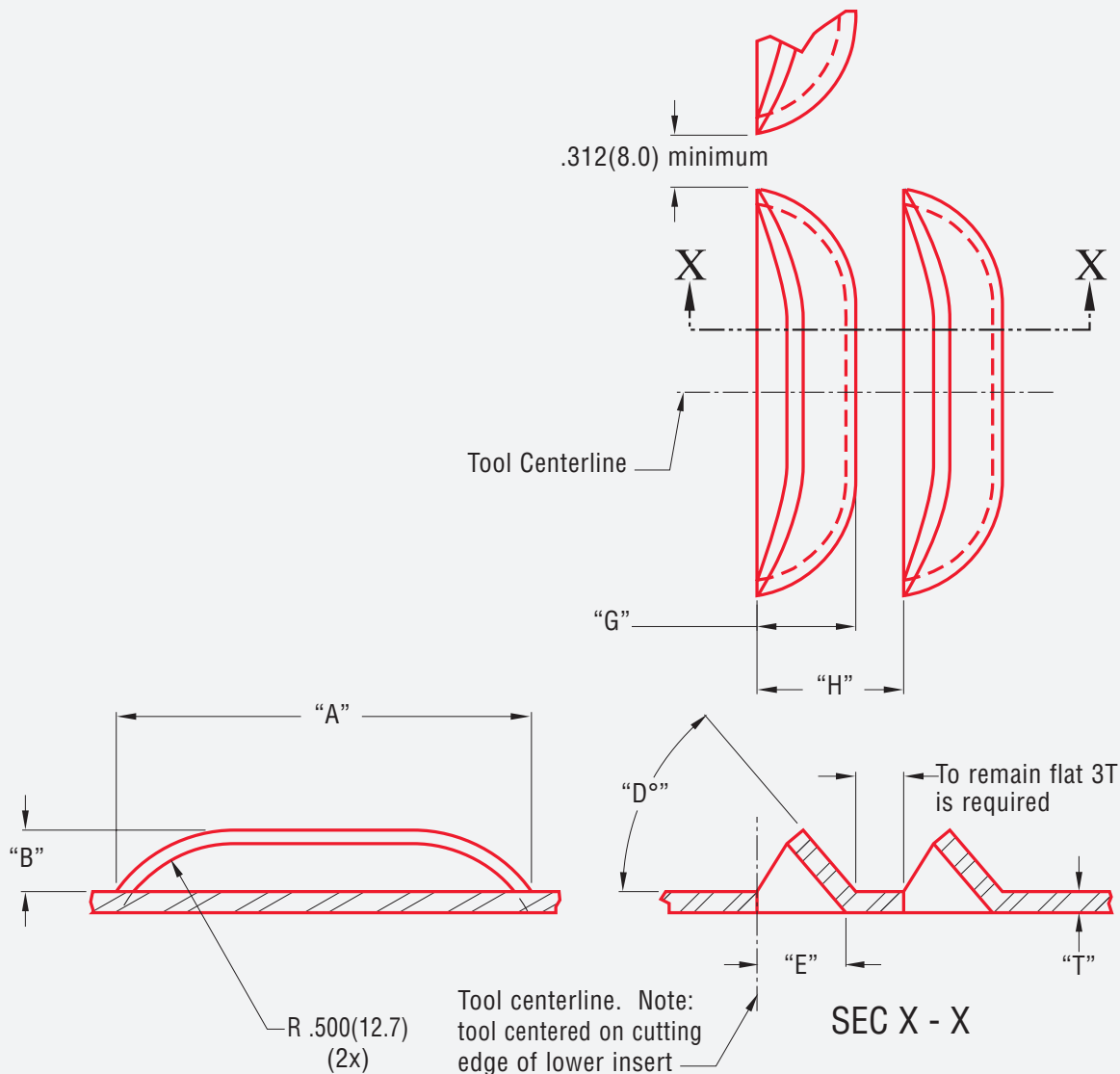
Dimensions in inches (millimeters)

LOUVER CLOSED END STRAIGHT BACK

TOOL CODE LD

28

ORDERING SPECIFICATIONS



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

A _____ H _____

B _____

D° _____

E _____

G _____

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

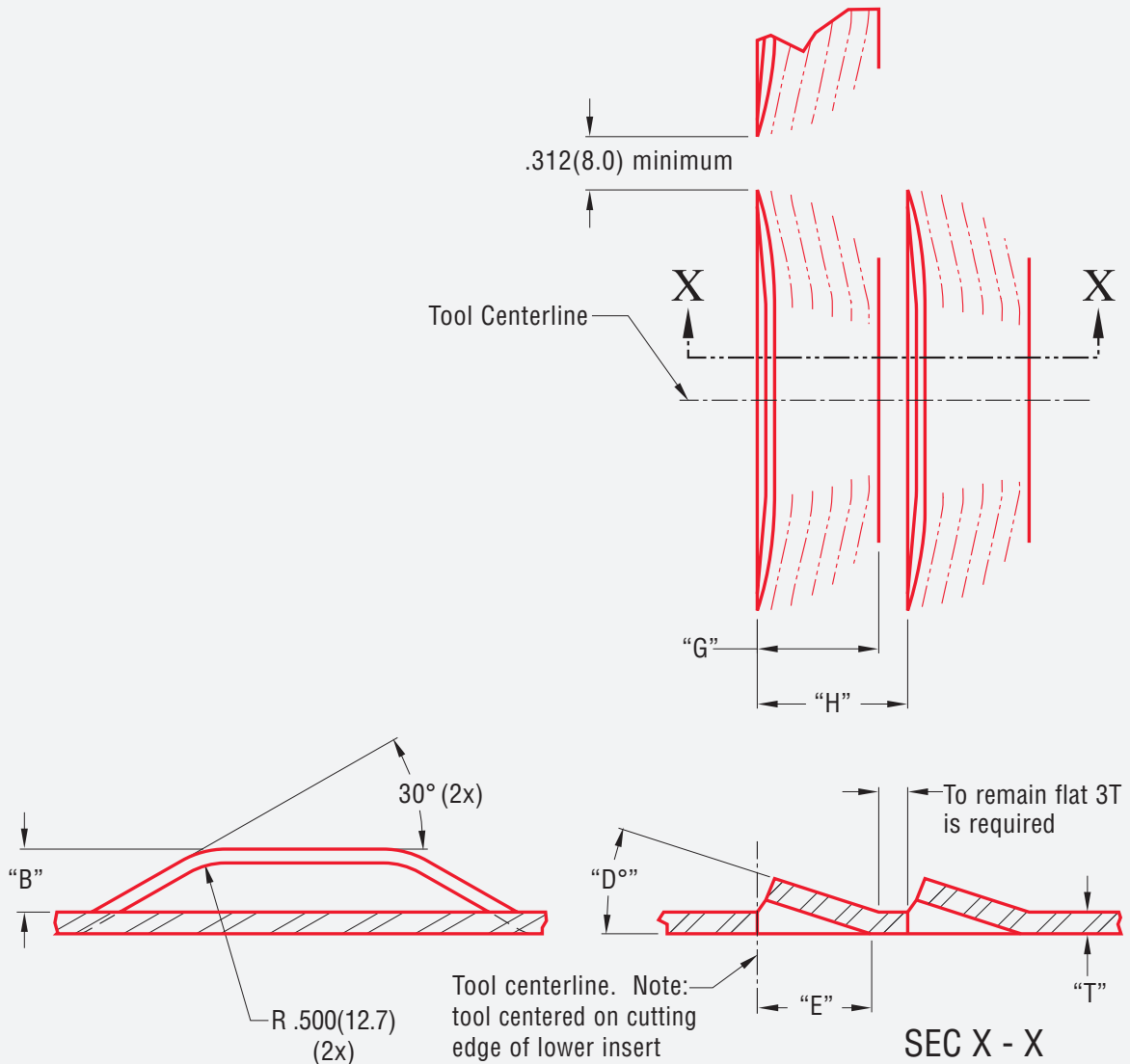
° indicates DEGREES

Dimensions in inches (millimeters)



LOUVER CONTINUOUS

TOOL CODE LL



TOOL INFORMATION

Not all of the dimensions shown below are required. Fill in the critical dimensions and a Mate representative will contact you if more information is required.

B _____

D° _____

E _____

G _____

H _____

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

° indicates DEGREES



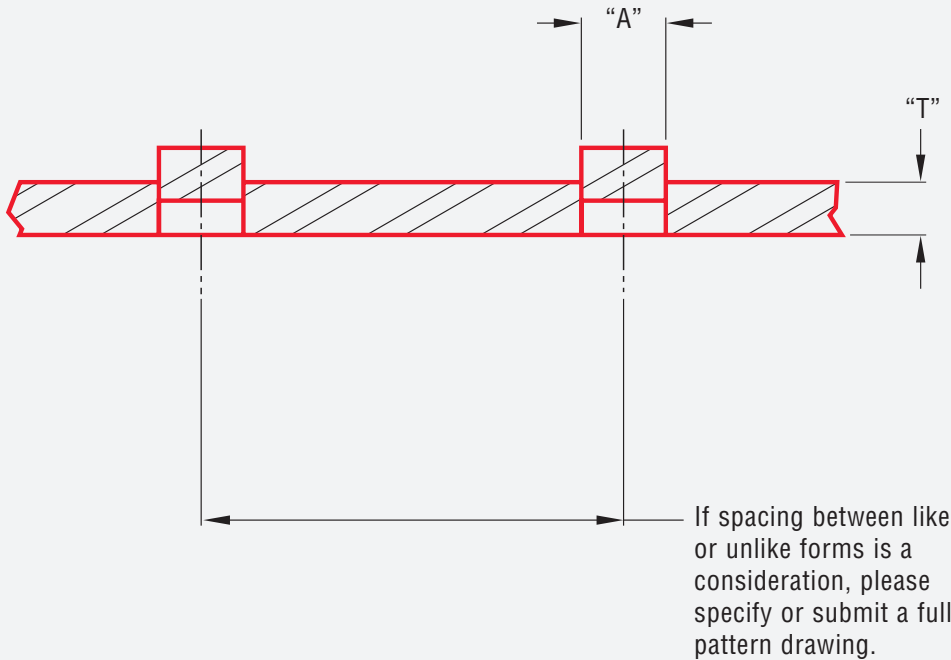
Dimensions in inches (millimeters)

SHEARBUTTON

TOOL CODE S1

30

ORDERING SPECIFICATIONS



TOOL INFORMATION

AØ_____

GENERAL INFORMATION

Material Type _____

Material Thickness "T" _____

Machine Type _____

Tooling Style _____

Tooling Station _____

Dimensions filled in by _____

Approved By _____

Ø indicates DIAMETER





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