

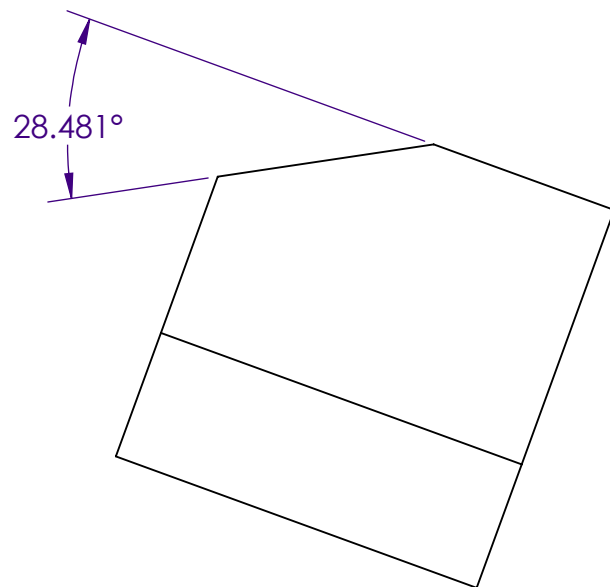
FORMULA:

$$\text{TAN } C = \text{COSA} * \text{TAN } B$$

$$A = 20^\circ$$

$$B = 30^\circ$$

$$C = 28.481^\circ$$



NOTES:

1. IN THIS EXAMPLE A MAGNETIC COMPOUND SINE PLATE WOULD BE INCLINED TO AN ANGLE OF 20° AND 28.481° TO PRODUCE A 30° ON THE FRONT SIDE.
2. SEE SHEET 2 FOR FORMULA DERIVATION.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES FOR BOTH SYSTEMS ARE:

ENGLISH:		METRIC:		ALL ANGLES
FRACTIONS	DECIMALS	DECIMALS	DECIMALS	
± 1/32	.XX ± .01	XX ± 0.1	X ± .1°	
	.XXX ± .002	X.X ± 0.01	.XX ± .05°	
	.XXXX ± .0002	X.XX ± 0.01		

Raystown Precision Tool

1822 Washington Street
Huntingdon, PA 16652

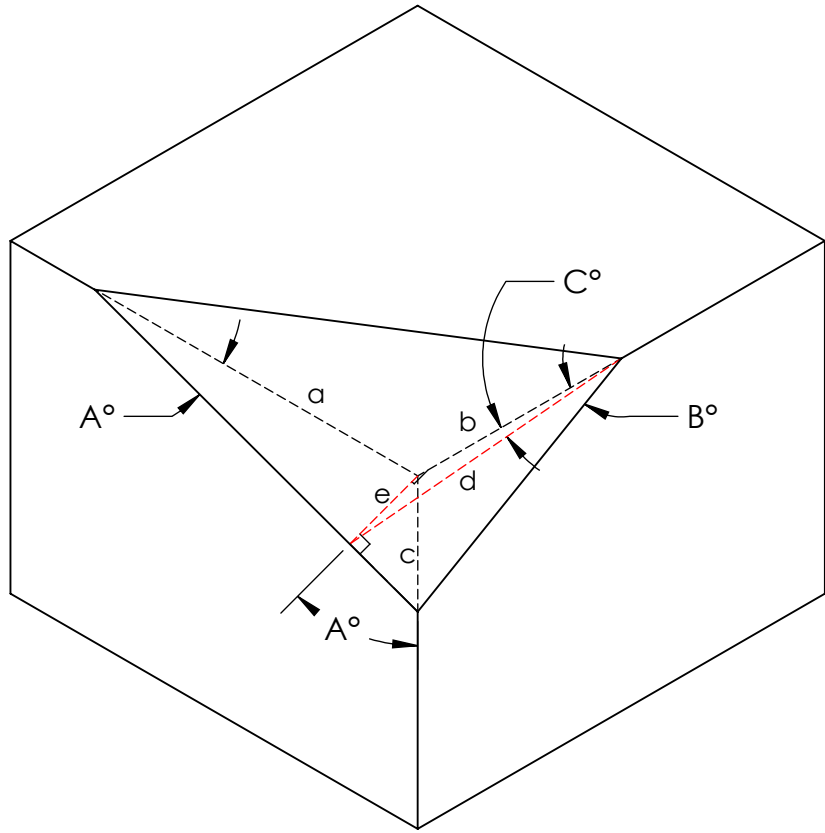
SIDE CHAMFER, COMPOUND ANGLE

PART #	REV #	ECN	CHANGE DESCRIPTION	REV. BY	ECN DATE	CHECKED
A			Initial Release	NWE	4/15/15	

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MATERIAL	XXXXXX
FINISH	√ 32
DRAWN BY	NWE
DATE	XX/XX/2015
APPROVED	
DATE	
DO NOT SCALE DRAWING	

SIZE	DWG. NO.	REV.
A	RPT2003	A
SCALE: XX	FILE:	SHEET 1 OF 2



DERIVING THE FORMULA:

$$\text{TAN } C^\circ = \text{COS } A^\circ * \text{TAN } B^\circ$$

1. Sketch a plane perpendicular to angle A as shown by red construct lines.
2. Label each line segment appropriately.
3. Common sides must be used to solve to find angle C.

$$\text{COS } A^\circ = e/c$$

$$\text{TAN } B^\circ = c/b$$

$$\text{TAN } C^\circ = e/b$$

$$\text{TAN } C = \frac{\text{COS } A * c}{c / \text{TAN } B} = \text{COS } A * \text{TAN } B$$

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES FOR BOTH SYSTEMS ARE:

ENGLISH:		METRIC:		ALL ANGLES
FRACTIONS	DECIMALS	DECIMALS	DECIMALS	
± 1/32	.XX ± .01	X.X ± 0.1	X.X ± 0.1	X ± .1°
	.XXX ± .002	X.XX ± 0.01		.XX ± .05°
	.XXXX ± .0002			

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MATERIAL **XXXXXX**

SIDE CHAMFER, COMPOUND ANGLE

FINISH $\sqrt{32}$ DRAWN BY NWE DATE XX/XX/2015

SIZE DWG. NO. REV. **A RPT2003 A**

DO NOT SCALE DRAWING APPROVED DATE

SCALE: XX FILE: SHEET **2** OF **2**

A			Initial Release	NWE	4/15/15	
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