

**VIEW A-A**

FORMULA:  
 $TAN C = TAN A * COS B$

A = 30°  
 B = 20°  
 C = 28.481°  
 C x 2 = 56.962°

NOTES:  
 1. SEE SHEET 2 FOR FORMULA DERIVATION.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES  
 TOLERANCES FOR BOTH SYSTEMS ARE:  
 ENGLISH: FRACTIONS ± 1/32 DECIMALS .XX ± .01 .XXX ± .002 .XXXX ± .0002  
 METRIC: DECIMALS X.X ± 0.1 X.XX ± 0.01  
 ALL ANGLES X ± .1° .XX ± .05°

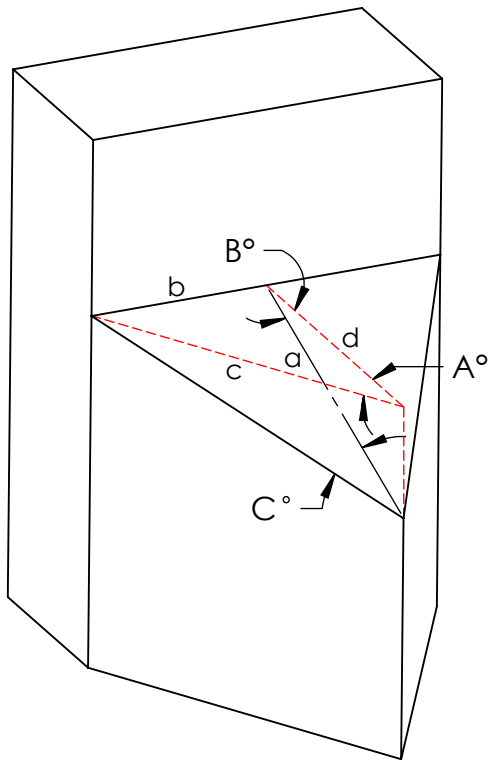
**Raystown Precision Tool**  
 1822 Washington Street  
 Huntingdon, PA 16652

MATERIAL: **XXXXXX**  
 FINISH:  $\sqrt{32}$   
 DRAWN BY: NWE  
 DATE: XX/XX/2015  
 APPROVED: \_\_\_\_\_  
 DO NOT SCALE DRAWING

**SIDE SLICE, COMPOUND ANGLE**  
 SIZE: **A** DWG. NO.: **RPT2002** REV. **A**  
 SCALE: XX FILE: SHEET 1 OF 2

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

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DERIVING THE FORMULA:

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

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

$$\text{COS } B^\circ = d/a$$

$$\text{TAN } A^\circ = b/d$$

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

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

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

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

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MATERIAL **XXXXXX**

SIDE SLICE, COMPOUND ANGLE

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

SIZE DWG. NO. REV.  
**A** RPT2002 **A**

DO NOT SCALE DRAWING APPROVED DATE

SCALE: XX FILE: SHEET 2 OF 2

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