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## Metal Stamping Formulas

Inch Tons Blanking

$$BE = T \times Mt \times 0.5$$

Inch Tons Drawing

$$DE = T \times Dl \times 0.63$$

Stripping Tonnage

$$P = 1.7 \times L \times Mt$$

Blanking Formula

$$T = \frac{L \times Mt \times Ss}{2000}$$

Blanking Diameter for Drawing

$$BD = \sqrt{d + (4 \times d \times h)}$$

Minimum Draw Diameter

$$MD = BD \times 0.6$$

Press Slide Velocity

$$V = 0.5233 \times SPM \times \sqrt{(Ps \times Ws) - Ws}$$

Inch Tons Energy Capacity

$$ITC = T \times PRP$$

Blank Holder Pressure

$$BHP = 0.20 \times T$$

Tonnage Round Hole

$$T = 3.14 \times d \times Mt \times Ms$$

*BD* = Blank Diameter  
*BE* = Blanking Energy (Inch Tons)  
*BHP* = Blank Holder Pressure  
*d* = diameter  
*DE* = Draw Energy (Inch Tons)  
*Dl* = Draw length  
*h* = height  
*ITC* = Inch Tons Capacity  
*L* = Length of Cut  
*MD* = Minimum Diameter  
*Mt* = Material Thickness  
*PRP* = Press Stroke Length  
*Ps* = Press Stroke Length  
*SPM* = Strokes Per Minute  
*Ss* = Material Shear Strength  
*St* = Stripping Tonnage  
*T* = Tonnage  
*V* = Press Slide Velocity  
*Ws* = Work Stroke Length