TB120 (Rev1) - Rotary Axis Converting inches (mm)/minute to degrees/minute

Overview

This document gives the formulas for calculating the feed for a rotary axis. The feed rate for rotary axis on a Centroid Control is in degrees per minute.

Formulas for Converting inches (millimeters) per minute to degrees per minute.

Degrees per minute = Inches per minute / Diameter * 114.5916

Degrees per minute = Millimeters per minute / Diameter * 114.5916

Example #1: 20 inches per minute, Cutting 3 inch diameter

Degrees per minute = 20/3*114.5916

Degrees per minute = 6.6667*114.5916

Degrees per minute = 763.9478

Example #2: 508 millimeters per minute, Cutting 76.2 millimeter diameter

Degrees per minute = 508/76.2*114.5916

Degrees per minute = 6.6667*114.5916

Degrees per minute = 763.9478

Formulas for Converting Degrees per minute to inches (millimeters) per minute.

Inches per minute = Degrees per minute * Diameter / 114.5916

Millimeters per minute = Degrees per minute * Diameter / 114.5916

Example #3: 4000 Degrees per minute, Cutting 2 Inch Diameter

Inches per minute = 2000 * 2 / 114.5916

Inches per minute = 4000 / 114.5916

Inches per minute = 34.907

Example #4: 4000 Degrees per minute, Cutting 50 millimeter diameter

Millimeter per minute = 4000 * 50 / 114.5916

Millimeter per minute = 200000 / 114.5916

Millimeter per minute = 1745.329

Document History

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