



Grinder System Application

# Fuel Metering Valves

## Description

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Production grinding of metering valves for diesel fuel injector systems

## Application

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Fuel metering valves used in off-road construction equipment and other diesel applications

Features ground include: helical slots, tapered slots, grooves and flats from a solid bank

Typical outside diameter range: .24" to .31" (6mm to 8mm)

Typical length range: 1.97" to 2.95" (50mm to 75mm)

## Process

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Part loading is manual or available with an automatic load/unload system

Tolerances: part runout held to 0.0001"-0.0002" (0.0025mm-0.005mm)

## Cycle Time

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30 seconds for a part with features as shown

Ninety (90) seconds for the most complicated to date

## Machine Features and Benefits

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Five axes under CNC control (three linear and two rotary axes)

Scale feedback on all axes

Wheels: 150mm diameter, CBN, resin bond

Wheel shapes vary depending upon part geometry

Coolant: Oil, 35gpm at 100psi

Temperature controlled coolant (optional)

Precision air chuck or solid tool holders with integral stops to control part length

