



**ALPINE**  
AUTOMATION INC.

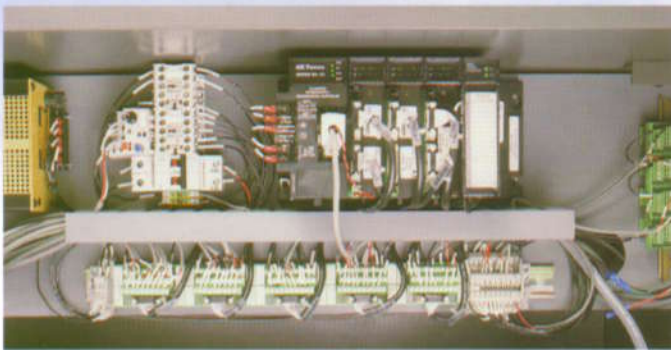
**HYDRODYNAMIC BARFEED SYSTEMS**

A stylized graphic of the American flag, showing the stars and stripes, is positioned in the bottom left corner of the advertisement.

**100% DESIGNED AND MANUFACTURED IN THE USA**

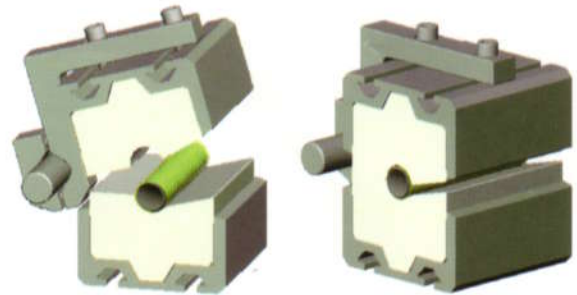
# TORNADO

The Tornado is a magazine style, hydrodynamic automatic bar feeder for machine tools. It can feed random lengths of up to 12 feet long. The bars are loaded on a rack on one side of the bar feeder then automatically loaded into the lathe to provide continuous, unmanned operation. The Tornado has been designed to work on sliding headstock lathes. Remnant retract is standard. Headstock synchronization is available to allow compatibility with fast moving, sliding headstock machines and prevent bending bars.

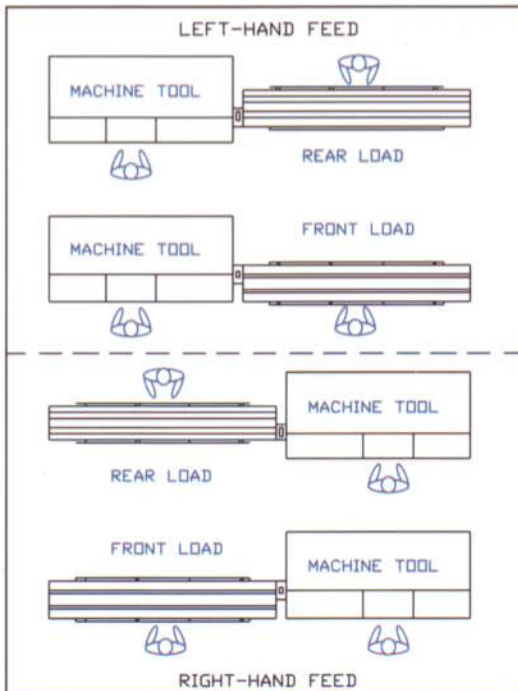


Alpine Automation has utilized the reliability of GE Fanuc PLC's to control the bar feeder and interface with the lathe. Diagnostics are incorporated in all aspects of bar feeder control to ensure long running, trouble free operation.

The bar feeder is operated using a hand held controller with a 2 line display to constantly inform the operator of bar feeder status. Operation is greatly simplified as the controller guides the operator through all functions.



The channel is filled with oil to create a hydrodynamic effect which suspends the bar in the channel as it rotates. This provides quiet, vibration-free operation.



Front and rear loading available for left and right feed lathes.

## Tornado Features

- 30% less floor space when compared to conventional barfeeders
- Smallest footprint of any 12 ft barfeeder – only 13 feet long
- Includes remnant retract as a standard feature
- Automatic bar length detection and positioning is standard
- Available with headstock synchronization for use with Swiss style sliding headstock lathes
- Loads and feeds random lengths of 12 foot bar stock automatically
- Loads bar diameters from 5mm to 42mm
- Quick-change feed channels – only 5 minutes
- **Dual pusher system reduces overall barfeeder length**

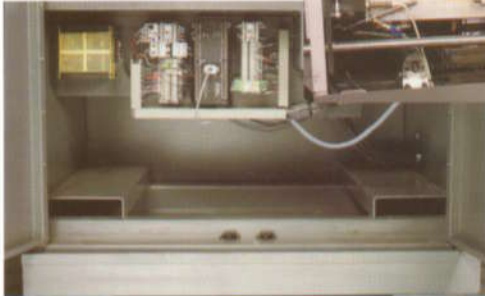
# CYCLONE & BULLET

The Cyclone and Bullet are designed specifically for use on fixed headstock machines. They utilize the hydrodynamic effect to ensure quiet, vibration free operation. The Cyclone can load random length bar stock up to 12 feet long. Where shop space is limited, the Bullet offers a short design while still being able to load 6 foot bars.

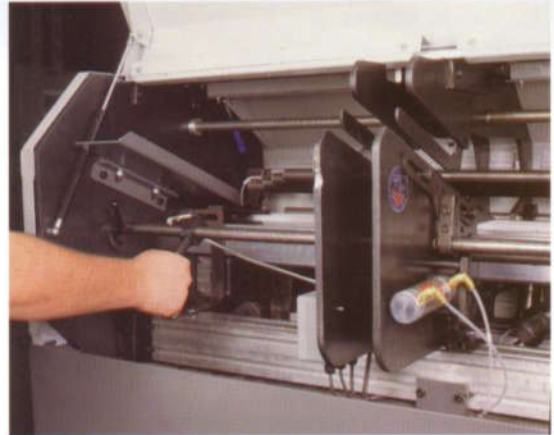
**The Bullet is the only short bar feeder that has the ability to load a 6 foot bar without having to cut the stock to the length of the spindle.** These bar feeders deliver extremely fast bar change times with the capability to begin the bar change while the last part is being machined. This virtually eliminates the bar change time. The heavy, robust construction provides a long life of reliable operation.



Hinged hooded doors on the front and back help protect and keep the units clean and still allow for easy access.



Forklift tubes inside the center cabinet provide a secure and convenient method of moving the units.



Setup time is decreased as one handle adjusts for different size bars. Other manufacturers require multiple individual adjustments.

## Cyclone Features

- Shortest 12 foot capacity magazine barfeed system in the industry
- 30% less floor space when compared to conventional barfeeders
- Smallest footprint of any 12 foot capacity barfeeder – only 26.0 x 157.0 inches
- Automatic bar length detection and positioning is standard
- Loads and feeds random lengths of 12 foot bar stock automatically
- Reduces waste - shorter remnants than collect fed systems
- **Fastest bar change available – next bar can be loaded and operating in 5 seconds – others take a minimum of 25 seconds, an 80% decrease**
- Loads bar diameters from 1/4" to 1-5/8"

## Bullet Features

- Shortest bar feed system in the industry
- 60% less floor space when compared to conventional barfeeders
- Smallest footprint of any magazine barfeeder – only 26.0 x 85.0 inches
- Automatic bar length detection and positioning is standard
- Loads and feeds random lengths of 6 foot bar stock automatically into any lathe regardless of spindle length
- **Eliminates cutting bar stock to length of spindle! Only short style magazine barfeeder with this capability**
- Reduces waste – fewer remnants than any other short bar feeder! Save money by producing up to 66% less remnants than other machines
- Fastest bar change available – can have next bar loaded and operating in 5 seconds
- Loads bar diameters from 1/4" to 2-1/2"

# Technical Data

## Machine Control

GE Fanuc PLC (see photo)

## Operator Interface

Hand held portable programmer, NEMA 4, 12 rated (see photo)

## Control Voltage

24 VDC

## Bar Rack Loading

Front or rear loading available (see illustration)

## Loader Position to Lathe

Left or right side feeding available (see illustration)

## Oil Viscosity

68-100 cSt @ 40 deg. C (ISO VG 68 - ISO VG 100)

## Compressed Air Supply

6 Bar (80-90 psi)

## Operating Voltage

220/230 VAC, single phase, 50/60 Hz, 600W (.8 Hp)

## Pusher Drive System

Radial piston air motor

## Spindle Height

32 3/4" - 51"

## Material Diameter Adjustment

One handle adjusts all

## Pusher System

Dual pusher system reduces overall length

## Tornado

### Bar Capacity

1/4" to 1-5/8"

Max bar length: 12' 1-1/4"

### Bar change time

25 seconds

### Oil Capacity

110L (30 gal)

### Dimensions L,W,H (mm/in)

3960/156, 655/25.8, 1085/42.6

### Weight

1500 kg (3200lb.) without oil

## Cyclone

### Bar Capacity

1/4" to 1-5/8"

Max bar length: 12' 1-1/4"

### Bar change time

5 seconds

### Oil Capacity

110L (30 gal)

### Dimensions L,W,H (mm/in)

3960/156, 655/25.8, 1085/42.6

### Weight

1500 kg (3200lb.) without oil

## Bullet

### Bar Capacity

1/4" to 2-1/2"

Max bar length: 6' 1-3/4"

### Bar change time

5 seconds

### Oil Capacity

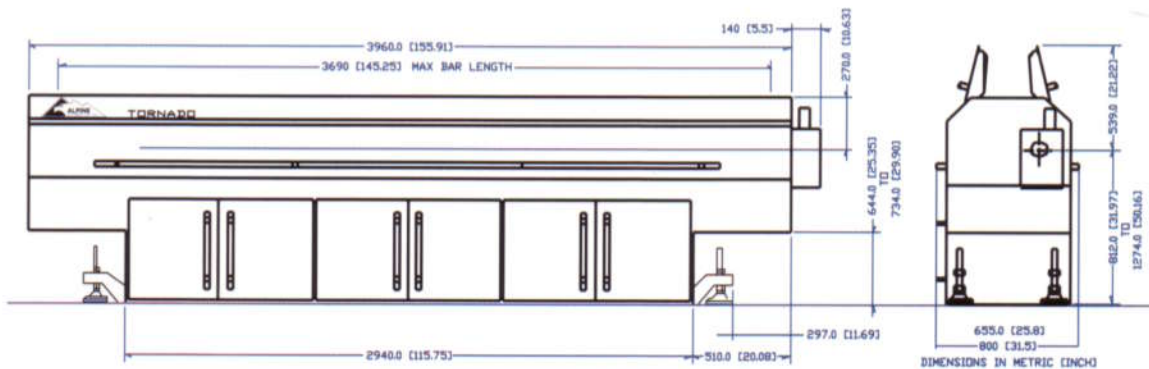
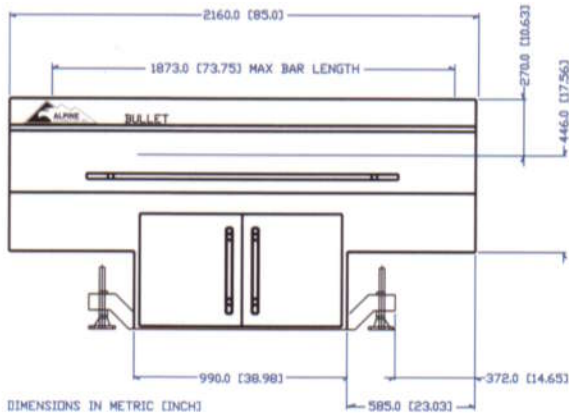
45L (15 gal)

### Dimensions L,W,H (mm/in)

2160/85, 655/25.8, 1085/42.6

### Weight

900kg (2000lb.) without oil



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