Updated 7/31/2024

TECHNICAL SPECIFICATION
MODEL PFM 1632 PIPEMASTER™ SYSTEM

The Model PFM 1632 PIPEMASTER™ System is a portable ID mount machine tool for beveling and facing 16” through 32” pipe. The tool is configured with twin hydraulic motor drives that power helical drive gears attached to the main spindle for smoother power delivery and optimal surface finish. A set of hydraulic cylinders with rapid and slow feed control, advance and feed the cutting head into the pipe. A large diameter mandrel shaft is provided for optimum stability during heavy cutting operations. One hydraulically actuated mandrel head with extended mounting ring assemblies and mounting pads covers the complete mounting range of the tool. The lifting frame does not require removal or separate lay down stands. The tool can be lifted for mounting in horizontal, vertical-up, or vertical-down positions for prepping on site pipes.

The Model PFM 1632 PIPEMASTER™ System comes complete with:

• Model PFM 1632 Sub-Assembly	1 ea.
• ID Tracking Tool Module Assembly	5 ea.
• Mandrel Head Assembly	1 ea.
• Hydraulically Powered Mandrel Head Shaft Assembly 16-24	1 ea.
• Lathe Lifting Frame Assembly	1 ea.
• Drive Motor Assembly	2 ea.
• Wrench Kit	1 ea.
• Operator’s Manual	1 ea.
• Mandrel Head Extension for 24-32	2 ea.

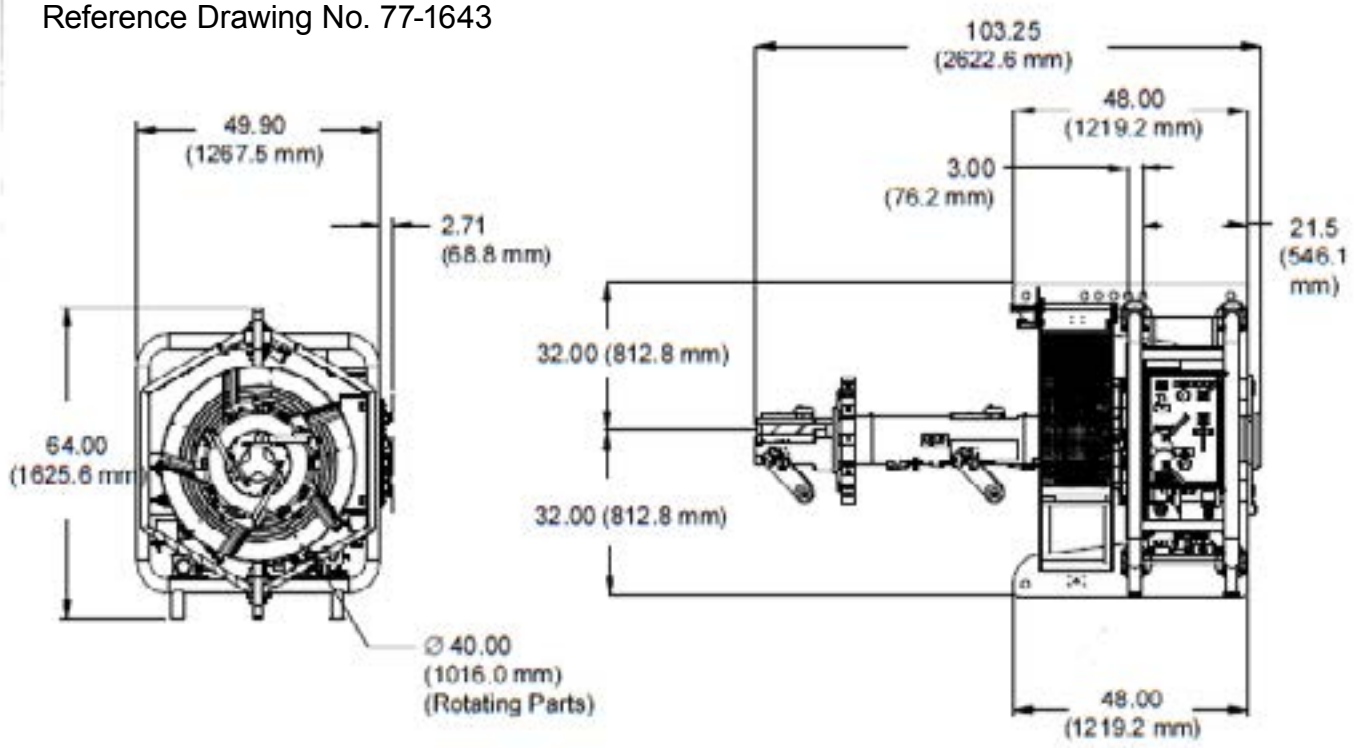
Design and Operating Features

- The tool accepts its own torque through the mandrel.
- The expanding mandrel provides fast, accurate self-centering and alignment.
- All wrenches needed for operation (less Tool Bits) are provided with the system.
- The lathe is provided with a combination lifting frame and stand.
- The mandrel head provides a maximum of 75,400 lbs. of clamping force (2000 PSI Hydraulic Pressure).
- The mandrel head and adapters cover the full mounting range of the tool (16” to 32”).
- The lathe has a large diameter mandrel shaft for optimum rigidity.
- Five and one-half inches (5.5”) of feed travel allows easier and more forgiving axial positioning.
- Five (5) ID tracking tool modules allow distributing the cutting load to more tool bits to handle greater wall thickness.

- Two (2) torque acceptance bars insure greater torque handling and better-balanced load for accurate end facing.
- Twin hydraulic drive system delivers optimal torque at the lower RPM required for the larger pipe diameters.
- A chip guard with a Shut-Off switch is supplied for the safety of the operator.
- A patented interlocking safety mechanism is supplied to avoid unclamping the mandrel while the headstock is rotating.
- A ‘Jog’ switch is supplied to rotate the cutting head for set up.

Specifications

Reference Drawing No. 77-1643



Weight

5200 lbs. (approximate)

Clearance and Dimensions

Maximum Rotating Head DIA	40.00” (1016.0 mm)
Length (parallel to axis of pipe)	103.25” (2622.6 mm)
Available Feed Travel	5.5” (139.7 mm)

Pipe Cutting Capacities

Basic Pipe Sizes

Most schedules of 16” through 32” pipe.

Basic Tube Sizes

Up to 1.88” (47.8 mm) wall tubing with a maximum OD of 32.00” (812.8 mm) and a minimum ID of 13.90” (353.1 mm) may be beveled with the standard mandrel.

Wall Thickness Capacity (Limitations)

Wall thickness of standard pipe schedules with wall thicknesses up to 1.88” (47.8 mm) in the range listed. Tubing or pipe with greater wall thickness may be handled provided the ID is equal or greater than 13.90” (353.1 mm) and the OD is equal or less than 32.00” (812.8 mm). Contact Tri Tool Technologies for heavier wall procedures.

Material Cutting Capabilities

Mild steels, chrome steels (Rc 35 max), API X42 through X85, stainless steel, copper-nickel alloys and aluminum without limitations except size and wall thickness as specified in the above paragraphs.

Inconel and some other high temperature alloys may require special procedures as function of wall thickness and type of end preparations. Contact Tri Tool Technologies’ Engineering Department for details.

Cutting Head Speeds

Dual Hydraulic Drive	42 RPM (maximum cutting head speed)

Drive System

Dual Hydraulic Drive Motor for 16” to 32” Pipe

Requires a separate hydraulic power supply. (Ref: TRI TOOL Inc. HPU 75-60/5)

Power Requirements

60 GPM at 2000 PSI

5 GPM at 2000 PSI.

Feed

Dual hydraulic powered cylinders with rapid positioning in both directions and fine adjustment feed for cutting.

Mounting

Hydraulically actuated cylinder expands mandrel pins and jaw blocks.

Accessories

- Short Perch Mandrel Head Kit for restricted axial mounting
- Electric 60 GPM Power Unit
- Diesel 60 GPM Power Unit

Note To The Customer

Spare Parts and Standard Tool Bits are available from stock. Engineering design services for custom tool bits and special function modifications are available from the factory.

All Tri Tool Technologies and allied equipment products are subject to design improvements and specification changes at any time with no obligation to units already sold.

Warranty (limited): Parts and equipment are warranted against defects in material and workmanship for a period of one (1) year from date of purchase. Full details supplied on request and/or with the tools.

www.tritool.com
@tritooltechnologies
@tritooltech
@tritooltechnologies

SCAN OR CLICK

3041 Sunrise Blvd
Rancho Cordova, CA 95742
+916-288-6100
+1-800-345-5015
Fax 916-288-6160

Copyright © Proprietary property of Tri Tool Technologies. No reproduction, use or duplication of the information shown hereon is permitted without the express written consent of Tri Tool Technologies.