



# TRI TOOL INC.

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## TRI TOOL INC. TECHNICAL SPECIFICATION MODEL 214B BEVELMASTER® OCTOBER 2010

### Model 214B BEVELMASTER®

The Model 214B BEVELMASTER® is a portable I.D. mount machine tool for beveling, facing and counterboring 4" through 14" pipe. The tool is configured with an in-line feed knob and pneumatic drive motor at a right angle to the lathe head.

The Model 214B BEVELMASTER® System comes complete with:

- |                                   |       |
|-----------------------------------|-------|
| ▪ Model 214B Sub-Assembly         | 1 ea. |
| ▪ Tool Holder Assembly (aluminum) | 2 ea. |
| ▪ Tool Holder Assembly (steel)    | 1 ea. |
| ▪ Mandrel Assembly                | 1 ea. |
| ▪ Air Motor Assembly              | 1 ea. |
| ▪ Wrench Kit                      | 1 set |
| ▪ Carrying Case                   | 1 ea. |
| ▪ Operator's Manual               | 1 ea. |

### Design and Operating Features

1. The lathe accepts its own torque through the mandrel.
2. The expanding mandrel provides fast, accurate self-centering and alignment.
3. All tools needed for operation (less tool bits) are provided with the system.
4. The lathe, provided with a convenient handle, is lightweight at less than 80 lbs. (36.3 Kg.) and easily handled by one operator.

## Specifications

1. Reference Envelope Drawing No.: 77-1717
2. Weight
  - A. 80 lbs (36.3 kg)
3. Clearances and Dimensions
  - A. Maximum Rotating Head Dia.
    - i. 15.35" (389.9 mm)
  - B. Length over motor
    - i. 31.00" (787.4 mm)
  - C. Length (parallel to axis of pipe)
    - i. 21.25" (539.8 mm)
4. Cutting Capacities
  - A. Basic Pipe Sizes
    - i. 4" Pipe - Schedule 5 through 160
    - ii. 5" through 14" pipe - All schedules
  - B. Basic Tube Sizes
    - i. Up to 1.32" (33.4 mm) wall tubing with a maximum O.D. of 14.00" (355.6 mm) and a minimum I.D. of 3.44" (87.4 mm) may be beveled with standard mandrel.
  - C. Wall Thickness Capacity
    - i. Wall thickness of all standard pipe schedules 1.32" (33.4 mm) maximum in the range listed. Tubing with greater wall thickness may be handled provided the I.D. is greater than 3.44" (87.4 mm) and the O.D. is less than 14.00" (355.6 mm). Contact Tri Tool for heavier wall procedures.

D. Counterboring Operations

- i. The tool will counterbore pipe and tubing with an I.D. range of 3.44" (87.4 mm) to 13.75" (330.2 mm).

5. Material Cutting Capability

- A. Mild steels, chrome steels (Rc 35 max), stainless steel, copper-nickel alloys and aluminum without limitations except size and wall thickness as specified.
- B. Inconel and some other high temperature alloys may require special procedures as a function of wall thickness and type of end preparation. Contact Tri Tool's Engineering Department for details.

Note: Air supply must have a filter/regulator/lubricator (FRL) system to protect the warranty on the air motor.

6. Cutting Head Speeds

- A. Maximum cutting head speed
  - i. 20 rpm
- B. Cutting head speed @ maximum H.P.
  - i. 10 rpm
- C. Functional speed range
  - i. 5 -20 rpm
- D. RPM at 200 surface inches per minute
  - i. 14.00" (355.6 mm) diameter
    - a. 5 rpm
  - ii. 4.00" (101.6 mm) diameter
    - a. 16 rpm

7. Speed Control

- A. On/off safety lever valve and twist-type air flow control valve.

- 8. Feed
  - A. Manual-Feed handle is in-line at the back of the machine.
  - B. Feed rate
    - i. .083" (2.1 mm) per revolution of the feed handle.
  - C. Maximum available feed travel
    - i. 2.00" (50.8 mm).
- 9. Mounting
  - A. Manually actuated draw rod expands mandrel ramps and jaw blocks.
- 10. Drive System
  - A. Gear Driven
  - B. Pneumatic Motor
    - i. Free Speed
      - a. 310 RPM
    - ii. Maximum H.P. Speed
      - a. 155 RPM
  - C. 110V and 220V Electric Drive and Hydraulic Motor Drive are also available.
- 11. Power Supply
  - A. Pneumatic motor requires 85 cfm (40 L/s) air supply at 90 psi (621 kPa) for maximum horsepower delivery.

Accessories (Optional)

1. Portable Air Caddy
2. Elbow Mandrel Kit
3. Elbow Mandrel Pointer Kit
4. Flange Facer Kit
5. Sleeve Mandrel Kit, 4" - 12" pipe
6. Sleeve Mandrel Kit, 8" - 12" pipe
7. Miter Mandrel Kit
8. Dial Indicator Kit
9. ID Tracking Module Kit
10. Single Point Kit

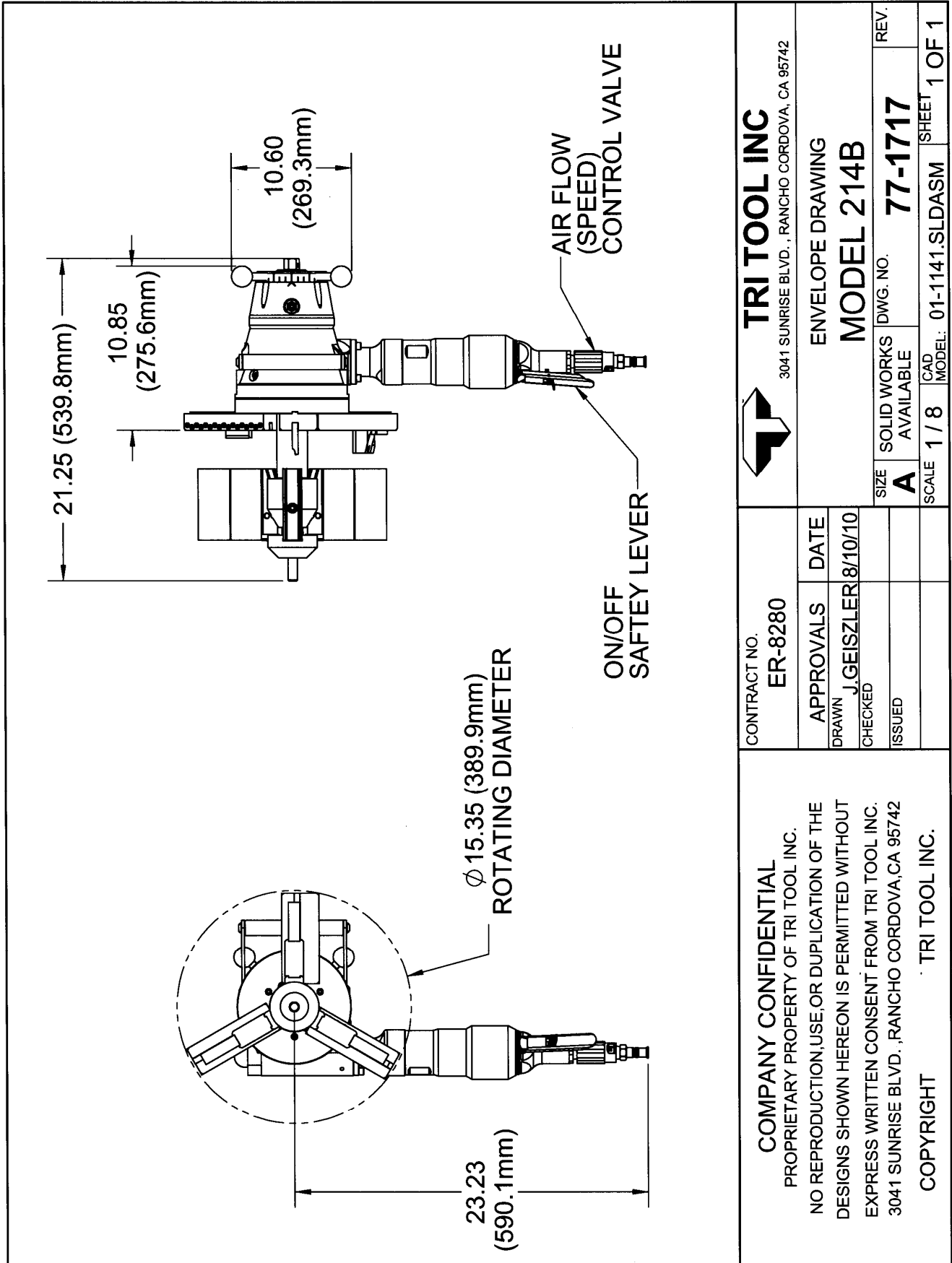
Note To The Customer


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 Inc. 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.

Filter, regulator and lubricator are required to protect the warranty on air powered tools.



 <b>TRI TOOL INC</b> 3041 SUNRISE BLVD., RANCHO CORDOVA, CA 95742		ENVELOPE DRAWING <b>MODEL 214B</b>		SIZE <b>A</b> SOLID WORKS AVAILABLE	DWG. NO. <b>77-1717</b>	REV.
CONTRACT NO. <b>ER-8280</b>	APPROVALS DRAWN <b>J.GEISZLER</b>	DATE <b>8/10/10</b>	SCALE <b>1 / 8</b> CAD MODEL: 01-1141.SLDASM SHEET <b>1 OF 1</b>			
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