



TRI TOOL INC.

3806 Security Park Drive, Rancho Cordova, CA 95742-6990 USA • (916) 351-0144 • (888) TRI TOOL • FAX (916) 351-0372
www.tritool.com customer.service@tritool.com

TRI TOOL INC.
TECHNICAL SPECIFICATION
MODEL 204BE – 115V BEVELMASTER™ SYSTEM
NOVEMBER 12, 2004

MODEL 204BE – 115v BEVELMASTER™ PORTABLE LATHE SYSTEM

The Model 204BS - 115V BEVELMASTER™ is a portable ID mounting weld end preparation machine tool for light duty beveling, facing and counterboring of pipe or tubing ends in preparation for welding.

The Model 204BE – 115V BEVELMASTER™ System comes complete with:

- Model 204B Sub-Assembly 1 ea.
- Head Kit, Cutting, 4" DIA. w/cam 1 ea.
- Electric Motor Assembly (3/4" HP) 1 ea.
- Mandrel Assembly 1 ea.
- Jaw Block Set 1 ea.
- Wrench Kit 1 ea.
- Carrying Case 1 ea.
- Operator's Manual 1 ea.

Special Features

- Mandrel shaft heat treated to Rc 50 for optimum strength and hardness minimum wear.
- Heavy duty tapered mandrel and spindle bearings.
- Mandrel shaft seal to keep coolants out of the gears.
- Heat-treated mandrel mounting blocks for maximum life and secure mounting.

- Heavy duty gear reduction for optimum performance.
- Cutting Head with Facing Bit Cam for ease of Land thickness adjustment.

The Model 204B BEVELMASTER™ will secure to pipe and tubing having an inside diameter ranging from 1.25" (31.8mm) through 4.33" (110.0mm).

Design and Operating Features

1. The lathe accepts it's own torque through the mandrel.
2. The expanding mandrel provides fast, accurate self-centering and alignment.
3. All wrenches needed for operation (less Tool Bits) are provided with the system.
4. The lathe is lightweight, at less then 18 lbs. (8.16 Kg). Easily handled by one operator.

Specifications

1. Reference Envelope Drawing No. 77-1666
2. Pipe Cutting Capacities
 - A. Basic Pipe Sizes
 - i. 1" Pipe
 - a. Schedule 40 (Small Mandrel required to mount in 1" schedule 80 and above.)
 - ii. 1 1/4" through 2 1/2" Pipe
 - a. Up to Schedule 80
 - iii. 3" through 4" Pipe
 - a. Up to Schedule 40

* Some Schedules may require optional equipment.

B. Basic Tube Sizes

- i. Up to .250" (6.4 mm) wall tubing with a maximum OD of 4.50" (114.3 mm) and a minimum ID of 1.25" (31.7 mm) may be beveled with standard mandrel.

C. Wall Thickness Capacity (Limitations)

- i. Wall thickness of schedules listed, .276" (7 mm) maximum, in the range listed can be machined without limitations.
- ii. Wall thicknesses greater than .276" (7 mm) require special procedures and are subject to Duty Cycle limitations to prevent motor damage. Contact Tri Tool Inc. for heavier wall procedures.

D. Counterboring Operations

- i. The tool will counterbore pipe and tubing with an ID of 1.50" (38.1 mm) to 4.33" (110.2 mm).

E. Duty Cycle

- i. The 204BE with an electric motor (P/N 58-0147 or equivalent) duty cycle on high cutting load applications (see above), is limited to 50% 'On' time with a maximum of five (5) minutes continuous 'On' time.

3. Material Cutting Capabilities

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

4. Clearance and Dimensions

A. Rotating Head DIA.

- i. 4.00" (101.6 mm)

B. Length

- i. 8.97" (227.8 mm)

C. Length Over Motor

- i. 20.25" (514.35 mm)

D. Available Feed Travel

- i. 1.50" (38.1 mm)

5. Drive System

A. Final Drive

- i. Gear Driven

B. Electric Motor - 2 speed Ranges & 6:1 Gear Reduction:

i. Free speed

a. Low Range

- (i) 168 rpm

b. High Range

- (i) 316 rpm

ii. Max. HP Speed

a. Low Range

- (i) 112 rpm

b. High range

- (i) 210 rpm

6. Power Requirements

- A. 115 VAC, 5.25 Amps, 28 to 60 Hz.

7. Cutting Head Speeds

A. Max. Cutting Head Speed

i. Low Range

- a. 84 rpm

ii. High Range

- a. 156 rpm

B. Cutting Head Speed @ Max. H.P.

- i. Low Range
 - a. 56 rpm
- ii. High Range
 - a. 105 rpm

C. Functional Speed Range

- i. 20 to 100 rpm

8. Speed Control

- A. On/Off Trigger control with Variable Speed.

9. Mounting

- A. Manually actuated draw rod expands mandrel ramps and jaw blocks.

10. Feed

- A. Manual-Feed Handle is in line at the back of the machine. Feed rate is .100" (2.5mm) per revolution of the feed handle.

Accessories

1. Mandrel Assembly, Reduced DIA., 1.00" (25.4 mm) to 1.25" (31.8 mm) range.
2. Mandrel Assembly, Reduced DIA., .610" (15.5 mm) to 1.00" (25.4 mm) range.
3. Flange Facer Kit
4. Elbow Mandrel Kit
5. Elbow Mandrel Squaring Plate
6. Elbow Mandrel Adjustable Pin Kit
7. Pointer Kit, Elbow Mandrel
8. Mandrel Assembly, Small Elbows

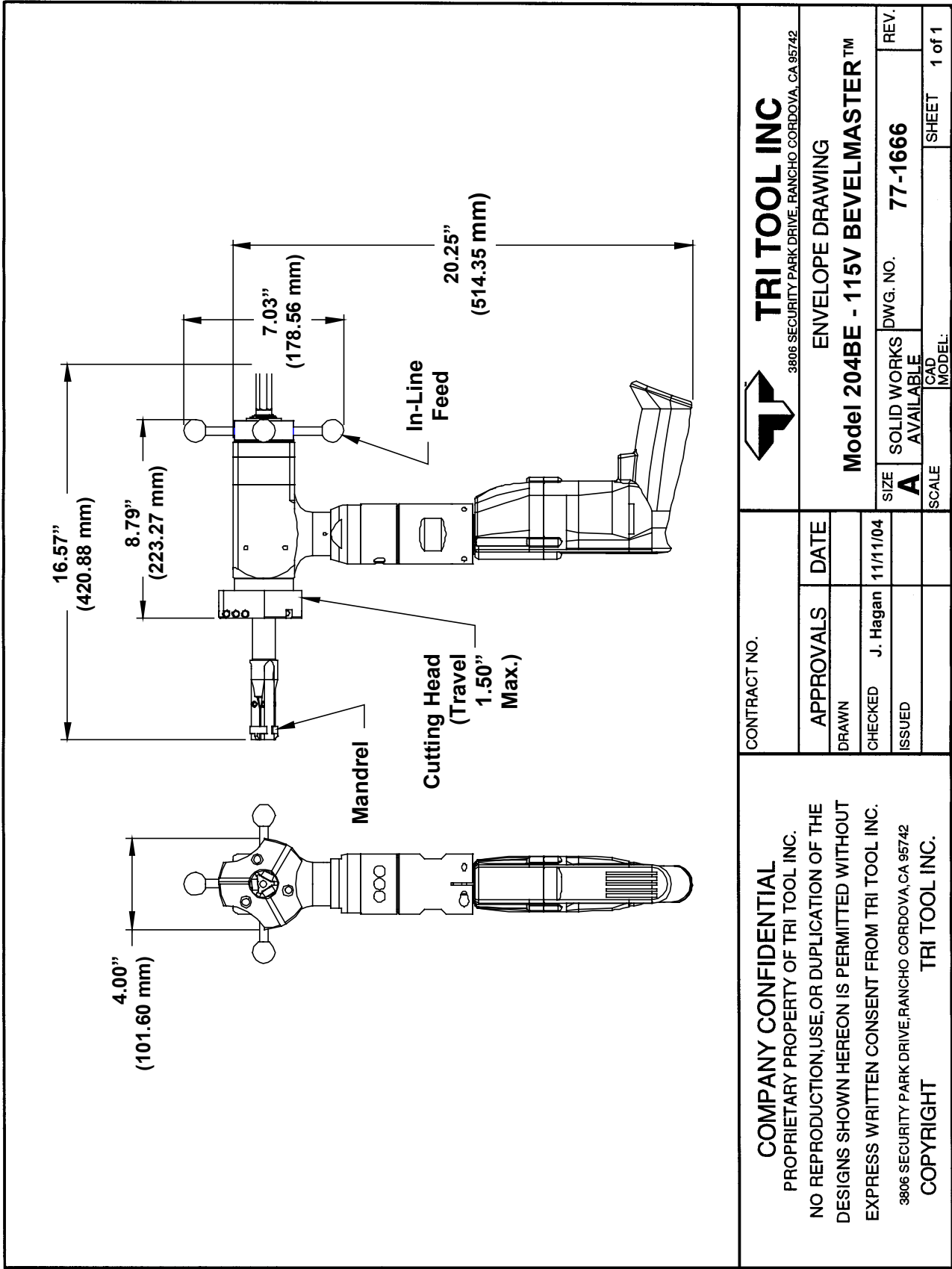
Note To The Customer


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 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.



 TRI TOOL INC <small>3806 SECURITY PARK DRIVE, RANCHO CORDOVA, CA 95742</small>		ENVELOPE DRAWING	
		Model 204BE - 115V BEVELMASTER™	
SIZE	SOLID WORKS	DWG. NO.	REV.
A	AVAILABLE	77-1666	
SCALE	CAD MODEL:	SHEET 1 of 1	

CONTRACT NO.		APPROVALS	DATE
		DRAWN	
		CHECKED	11/11/04
		ISSUED	
		J. Hagan	

COMPANY CONFIDENTIAL
 PROPRIETARY PROPERTY OF TRI TOOL INC.
 NO REPRODUCTION, USE, OR DUPLICATION OF THE
 DESIGNS SHOWN HEREON IS PERMITTED WITHOUT
 EXPRESS WRITTEN CONSENT FROM TRI TOOL INC.
3806 SECURITY PARK DRIVE, RANCHO CORDOVA, CA 95742
COPYRIGHT TRI TOOL INC.