



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 103 REP™ BEVELER
JULY 15, 1991

MODEL 103 REP™ BEVELER

A pneumatically powered Rapid End Prep (REP) machine for beveling pipe or tube in the range of .70" O.D. through 3.25" O.D. Facing or I.D. chamfering may be accomplished on pipe or tube down to an inside diameter of .42". Wall capacity is .45" over 1.75" O.D. and .35" below 1.75" O.D. The tool uses high speed cutting heads with carbide inserts and simple plug in I.D. pilots for extremely rapid end preparations with typical tube to tube cycle rates of less than 10 seconds.

Design and Operating Features

1. Cutting Head Spindle offset from motor to allow installation and cutting boiler tubes in a water wall panel.
2. Dry cutting, no lubricant required.
3. High speed, low torque cutting function requires minimum torque restraint by the operator.
4. "Dead Man" type safety trigger.
5. Preparation geometry built into the heads.
6. Chip deflection shield.
7. Lightweight, only 9 to 15 lbs. Depending on head and pilot size.
8. I.D. Pilot Mandrels available in .015" increments from 0.42" to 3.16" diameters.
9. Eight (8) cutting heads for optimum size selection, cover an O.D. range of .70" through 3.25".
10. External Grease Fitting.

Specifications

1. Pipe and Tube Cutting Capacities

A. Wall Thickness Capacity

- i. .35" with #1 and #2 cutter heads.
- ii. .45" with #3 through #8 cutter heads.

B. Minimum Beveling Diameter

- i. .70"

C. Minimum Facing Diameter

- i. .42"

D. Maximum Cutting Diameter

- i. 3.25"

2. Material Cutting Capabilities

- A. Mild steels, chrome steels (Rc 35 max.), stainless steel, copper-nickel and aluminum with limitations other than size and wall thickness as specified in Paragraph 1.
- B. Inconel and some other high temperature alloys may require special procedures as a function of wall thickness and type of end preparation.

3. Clearances and Dimensions

- A. Reference Envelope Drawing No. 77-0613. (Attached)

4. Drive System

- A. The tool is fitted with an integral high RPM pneumatic motor.

5. Power Supply (Compressed Air)

- A. The pneumatic motor requires 75 CFM air supply at 90 PSI for maximum HP delivery.

6. Cutting Head Speeds

- A. Greater than 5,000 RPM – Actual operating speed is dependent on cutting head size.

7. Single Controls

A. Deadman-type on/off control lever.

8. Sales Configuration

A. P/N: 01-1117

i. Basic REP™ Tool (Accessories purchase separately)

B. P/N: 05-0115

i. REP™ System – complete with basic tool, carrying case, safety kit, operator tool kit, and operator’s manual. (Cutting heads and pilot mandrels must be purchased separately.)

Accessories

1. Pilot Mandrels .420” DIA to 3.160” DIA in increments of .015”.

2. Cutting head (37 1/2° beveling).

Size	Assembly Part Number	Actual Diameter	Cutting Range		Insert Part Number
			Min. DIA	Max. DIA	
#1	05-0107	1.85	.70	1.50	30-0784
#2	05-0108	2.10	1.00	1.75	30-0784
#3	05-0109	2.35	1.00	1.95	30-0785
#4	05-0110	2.60	1.25	2.20	30-0785
#5	05-0111	2.85	1.50	2.44	30-0785
#6	05-0112	3.10	1.75	2.70	30-0785
#7	05-0113	3.35	2.00	2.94	30-0785
#8	05-0114	3.60	2.25	3.25	30-0785

See attached chart for additional data to select cutter heads and pilot mandrels.

3. Cutting Inserts

A. 3 each required per cutting head.

i. P/N: 30-0784 for head sizes 1 & 2 (1/2”).

- ii. P/N: 30-0785 for head sizes 3 through 8 (5/8").
- 4. Carrying Case
 - A. P/N: 86-0075
- 5. Air Caddy
 - A. P/N: 75-0115
- 6. REP™ Adapter Assembly
 - A. P/N: 27-0254
 - B. This adapter provides for use of a Model 103 REP™ in a mounted mode, with a rack and pinion feed system and an adjustable depth stop to generate beveled water wall tube ends at a controlled height for perfect fit-up to replacement panels. The adapter must be used in conjunction with a Model 512A1, 64" Track Assembly (P/N: 66-0077) and Cross Track Assembly (P/N: 66-0070).

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.

DWG. NO.	SH	REV.		
REVISIONS		DATE	APPROVED	
REV.	DESCRIPTION			

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.
 3805 SECURITY PARK DRIVE, RANCHO CORDOVA, CA 95742

COPYRIGHT TRI TOOL INC.

Model 103 REP™

64 In Track

Cross Track Assy

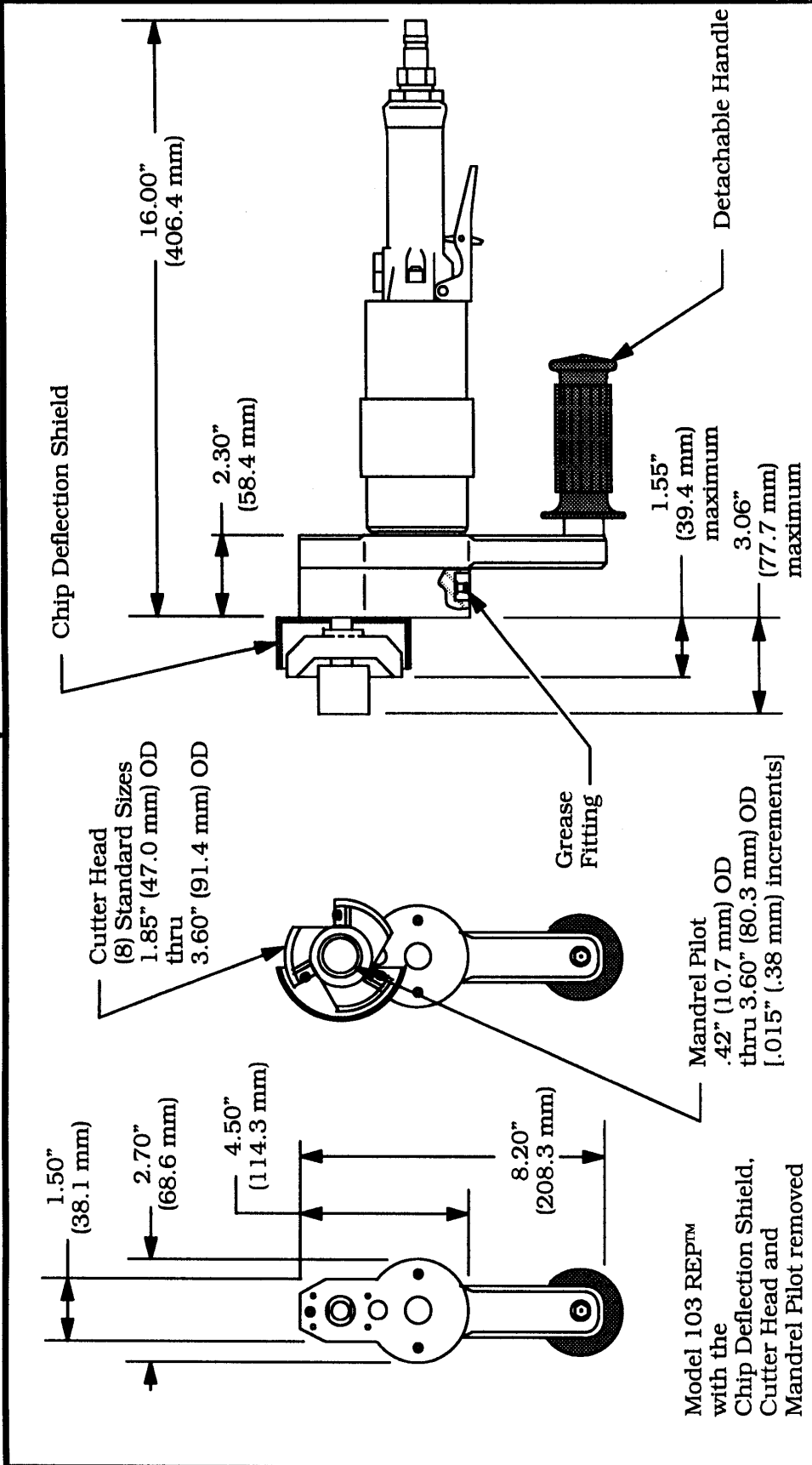
REP Adaptor Assy


6.10 In

NOMENCLATURE OR DESCRIPTION		MATERIAL SPECIFICATION	
PARTS LIST			
CONTRACT NO.		DATE	
APPROVALS	DATE		
DRAWN PFAFMAN	9/24/88		
CHECKED <i>J. Silbe</i>	8-25-88		
ISSUED			
TOLERANCES ARE IN INCHES		ANGLES	
FRACTIONS	DECIMALS	°	
2	.XX	.XX	
MATERIAL		FINISH	
		USED ON	
NEXT ASSY		APPLICATION	
		DO NOT SCALE DRAWING	

TRI TOOL INC.		TUBE END PREP SYSTEM	
3805 SECURITY PARK DRIVE, RANCHO CORDOVA, CA 95770		DWG. NO. 77-0701	
SIZE	FSCM NO.	REV.	
A		77-0701	
SCALE		SHEET 1 of 1	

DWG. NO. **77-0613** SH REV.



 <p>TRI TOOL INC. 3806 SECURITY PARK DRIVE, RANCHO CORDOVA, CA 95742-6890</p>		Envelope Drawing	
		Model 103 REPTM Beveler	
CONTRACT NO.	APPROVALS	DATE	REV.
	DRAWN PFAFMAN	8/26/93	
	CHECKED		
	ISSUED		
	SIZE A	FSCM NO.	DWG. NO. 77-0613
DO NOT SCALE DRAWING			SHEET 1 of 1

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 95742-6890
 TRI TOOL INC.
 COPYRIGHT