

TRI TOOL INC.
TECHNICAL SPECIFICATION
MODEL 308E TUBE FACING AND SQUARING TOOL
JUNE, 1997

MODEL 308E TUBE FACING AND SQUARING TOOL

The Model 308E Tube Squaring Tool will face (square) 1.000" to 8.625" (25.4 mm to 219.1 mm) outside diameter tubing (pipe sizes 3/4" through 8") with wall thickness up to .250" (6.35 mm). The tool uses O.D. clamping collets or saddles for holding the tubing with minimum distortion and provides torque acceptance to the tool. One saddle clamp assembly or two ranges of collet adaptors and collets (400 and 800 series) are available for the basic machine to cover the full range. Speed control is provided with a dual range, variable speed electric drive. Feed is provided by a rear mounted feed handle.

The Model 308 System comes complete with:

A.	Model 308 Sub Assy.	1 ea.
B.	110V Electric Motor Assy.	1 ea.
C.	Wrench Kit	1 ea.
D.	Lathe Stand	1 ea.
E.	Operator's Manual	1 ea.

Optional Accessories:

220VAC Electric Motor Assy.
Electric Foot Pedal.
Variable Speed Transformer Control (20 VAC to 140 VAC Output).
Pneumatic Motor Assy.
Air Caddy, FRL.
400 Series Collet Adapter Kit.
800 Series Collet Adapter Kit.
Saddle Clamp Adapter Kit.
Air Clamp Adapter Kit.
400 Series Nylon Collets.

Design and Operating Features:

1. The tool accepts its own torque through the collet/saddle clamping system.
2. The tool bit cutting head accepts squaring bits or combinations of squaring, beveling, J-beveling, counterboring or I.D. deburring bits.

3. Three tool slots allow counter boring, beveling and squaring operations simultaneously.
4. 400 Series collets are made from Aluminum. Nylon collets are available as an option.
5. 800 Series collets are made from Aluminum.
6. Saddles clamps are made from Aluminum. Saddle sets require less straight length for mounting and provide faster clamping. Saddle sets are not recommended for beveling or chamfering tube / pipe because O.D. size variations can cause a loss of centering, which is **not** critical for squaring operations.
7. An Air Clamping Kit is available for the saddle clamps to increase the productivity of the machine.
8. All required wrenches for operation are supplied with the machine or accessory collet/saddle adaptor kits.
9. Model 308 may be removed from stand for use as a portable machine by suspending the machine using the hoist ring supplied.

Specifications:

1. Reference Envelope:

Drawing No. 77-1493 (110VAC Electric Drive).

2. Pipe Cutting Capacities:

- a. Basic pipe sizes:

3/4" through 1 1/4" pipe:	Schedule 5 through schedule 160.
1 1/2" through 2" pipe:	Schedule 5 through schedule 80.
2 1/2" through 5" pipe:	Schedule 5 through schedule 40.
6" pipe:	Schedule 5 through schedule 10.
8" pipe:	Schedule 5 through schedule 20.

- b. Tubing:

Outside Diameter 1.000" to 8.625" (25.4 mm to 219.1 mm) with maximum wall thickness of .250" (6.35mm).

- c. Outside Diameter Mounting Range:

400 series Collets 1.000" to 4.500" (25.4 mm to 114.3 mm) O.D.
800 series Collets 4.000" to 8.625" (101.6 mm to 219.1 mm) O.D.
Saddles Clamps 1.000" to 8.625" (25.4mm to 219.1 mm) O.D.

d. Counterboring Operations:

The tool will counterbore pipe and tubing with an I.D. range of .750" to 8.410" (19.1 mm to 213.6 mm).

3. Material Cutting Capabilities:

- a. Mild steels, chrome steels (Rc 35 max.), stainless steel, copper-nickel and aluminum without limitations other than size and wall thickness as specified in Paragraph 2.
- 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.

4. Clearances and Dimensions:

See reference Drawing No. 77-1493.

5. Drive System:

- a. A variable speed Electric Motor through a gear box.

b. Electric Motor:

Free Speed (low range):	1000 RPM
Free Speed (high range):	1900 RPM

c. Cutting Head Speeds:

Maximum cutting head speed:	35 RPM
Functional speed range:	0 to 35 RPM

6. Power Supply:

The electric motor requires: 120 VAC, 50/60 Hz, 5.2 Amp.

7. Speed Control:

- a. Dual range, variable speed drive motor.

8. Mounting options:

- a. Manually contracted 800 Series collets 4.000" to 8.625" (101.6 mm to 219.1 mm) O.D.
- b. Manually contracted 400 Series collets 1.000" to 4.500" (25.4 mm to 114.3 mm) O.D.
- c. Manually clamped saddles 1.000" to 8.625" (25.4 mm to 219.1 mm) O.D.
- d. Pneumatically clamped saddles 1.000" to 8.625" (25.4 mm to 219.1mm) O.D.

9. Feed:

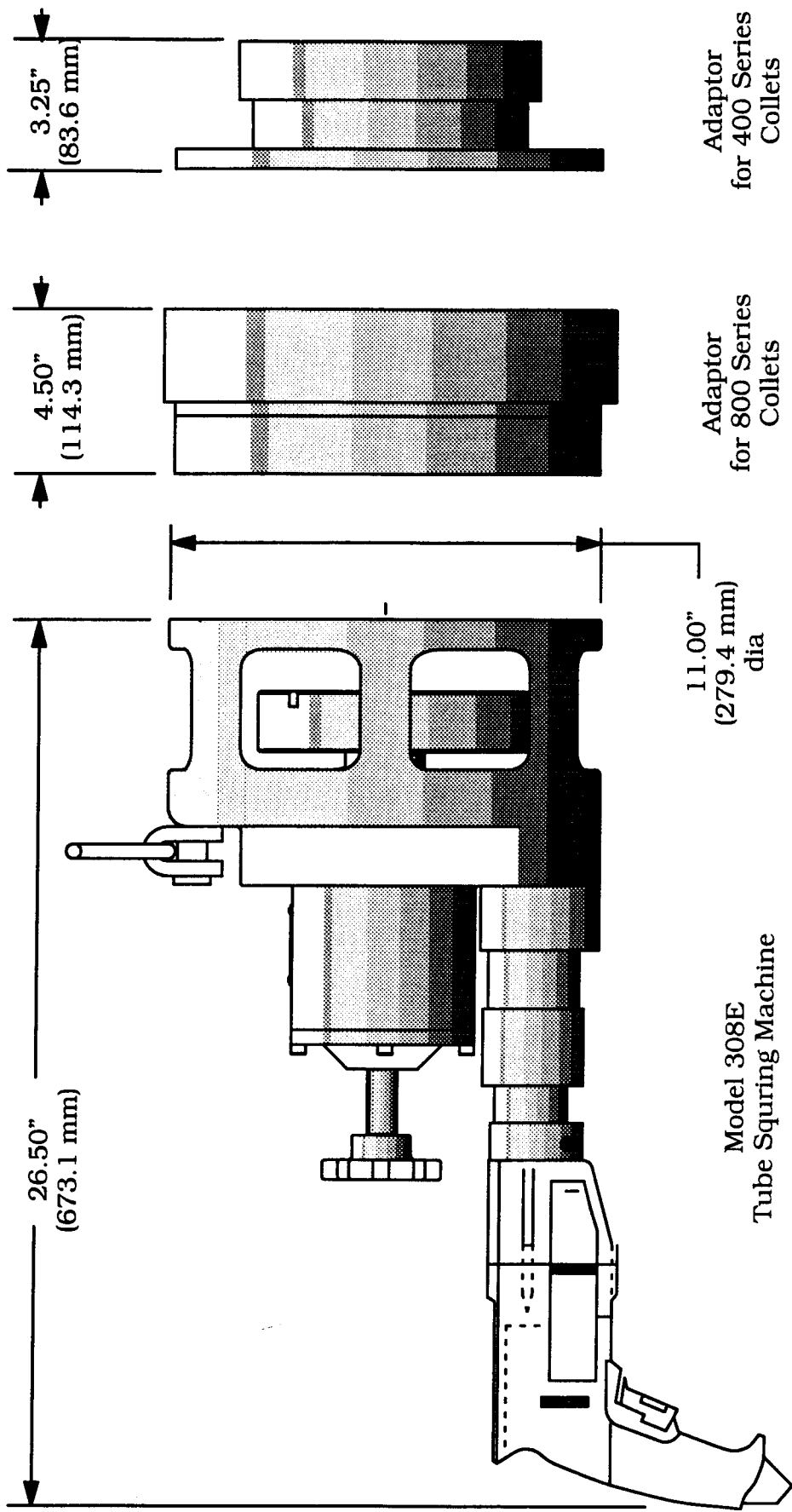
Manual - Feed handle is mounted at rear of tool, with 2.000" (50.8mm) available feed travel.

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 / or equipment are warranted against defects in material and workmanship for a period of one year from the date purchased. Full details supplied on request and /or tools.


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



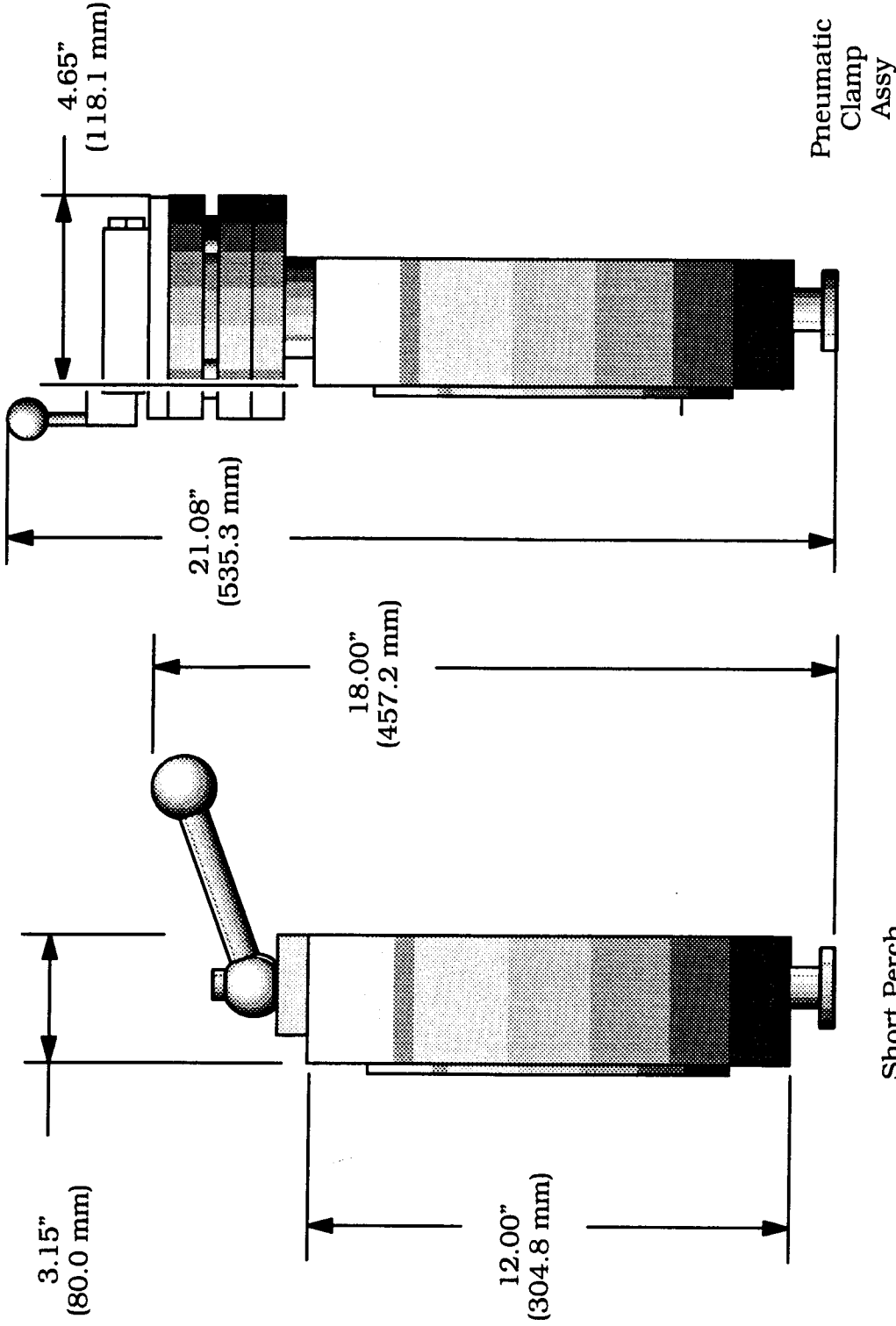
Model 308E
Tube Squaring Machine

Adaptor
for 800 Series
Collets

Adaptor
for 400 Series
Collets


CONTRACT NO.		 TRI TOOL Inc. 3806 SECURITY PARK DRIVE RANCHO CORDOVA, CA 95742-6890	
APPROVALS	DATE	Envelope Drawing	
DRAWN PFAFMAN	1/30/96	Model 308, Tube Squaring Machine	
CHECKED		SIZE A	DWG. NO. 77-1493
ISSUED		FSCM NO.	REV.
DO NOT SCALE DRAWING		SCALE None	SHEET 1 of 2

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Short Perch
Collet
Adaptor

Pneumatic
Clamp
Assy

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