



TRI TOOL INC.

TRI TOOL INTERNATIONAL INC.

3806 Security Park Drive, Rancho Cordova, CA 95742-6990 U.S.A. 916-351-0144, 800-345-5015 FAX 916-351-0372 ttcustserv@aol.com www.tritool.com

TRI TOOL INC.
TECHNICAL SPECIFICATION
MODEL 304 TUBE SQUARING MACHINE
SEPTEMBER, 1999

MODEL 304 TUBE SQUARING MACHINE

The Model 304 Tube Squaring Machine is a lightweight, portable machine designed for facing and squaring .25" (6.35mm) to 4.50" (114.30mm) outside diameter tubing up to .25" (6.35mm) wall thickness. The model 304 is available with an integral, dual range, variable speed 110VAC or 220VAC electric drive motor or a pneumatic drive motor. The Model 304 features quick change Saddle Sets (no tools required) and a .001" (.025 mm) graduated feed dial. The precision inside diameter saddles hold the tubing round to accurately square and face the tubing with minimum burr. The Machine accepts its own torque through the Saddle Clamping System. The cutting head allows installation up to three tool bits for squaring, beveling or special preps.

The Model 304 System comes complete with:

- | | | |
|----|------------------------|-------|
| a. | Model 304 Sub Assembly | 1 ea. |
| b. | Drive Motor Assembly | 1 ea. |
| c. | Wrench Kit | 1 ea. |
| d. | Carrying Case | 1 ea. |
| e. | Operator's manual | 1 ea. |

Optional Accessories:

- Electric Foot Pedal
- Short Perch Saddle Sets
- Tool Bits
- Air Caddy, FRL
- Collet Adaptor Kit (for use with 400 Series Collets)

Design and Operating Features:

1. The Model 304 accepts its own torque through the Saddle Clamping System.
2. The cutting head accepts squaring bits or combinations of squaring, beveling, counterboring or facing tool bits.
3. Three tool slots allow counterboring, beveling and squaring operations simultaneously.

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4. The Saddle Sets are made from stainless steel for durability and to avoid carbon contamination of high purity tubing.
5. All required wrenches for operation are supplied with the machine.
6. The Model 304 may be removed from the stand for use as a portable machine.

Specification:

1. Clearance and Dimensions: See Envelope Drawing 77-1605
2. Pipe Cutting Capacities:
 - a. Basic pipe sizes:

1/8" through 3/8" pipe:	All schedules
1/2" through 1 1/4" pipe:	Schedule 5 through schedule 160
1 1/2" through 2" pipe:	Schedule 5 through schedule 80
1 1/2" through 4" pipe:	Schedule 5 through schedule 40
 - b. Tubing:

.250" to 4.50" (6.35mm to 114.30mm) outside diameter with maximum wall thickness of .250" (6.35mm).
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 paragraph 2.
 - c. 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. Drive System:
 - a. A variable speed Electric Drive Motor.

Electric Drive Motor:	
Free Speed (low range):	1000 RPM
Free Speed (high range):	1900RPM
Cutting Head Speeds:	
Maximum Cutting Head speed:	75 RPM
Functional speed range:	0 to 70 RPM

- b. A variable speed Pneumatic Drive Motor

5. Power Supply:

- a. The electric drive motor requires: 120VAC, 50/60 Hz, 5.2 Amp.
220VAC, 50 Hz, 2.5 Amp.
- b. Pneumatic drive motor requires: 55 cfm at 90 psi (26 lt/sec at 621 kpa)

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

6. Speed Control:

- a. Dual range, variable speed electric drive motor.
- b. On / Off trigger and twist type air flow control valve pneumatic drive motor.

7. Mounting:

- a. Manual saddle clamping system.

8. Feed:

Manual feed handle is mounted at rear of tool, providing .560" (14.2mm) of axial feed.

- 9. Weight (machine with electric motor): 18.25lbs (8.28 kg)

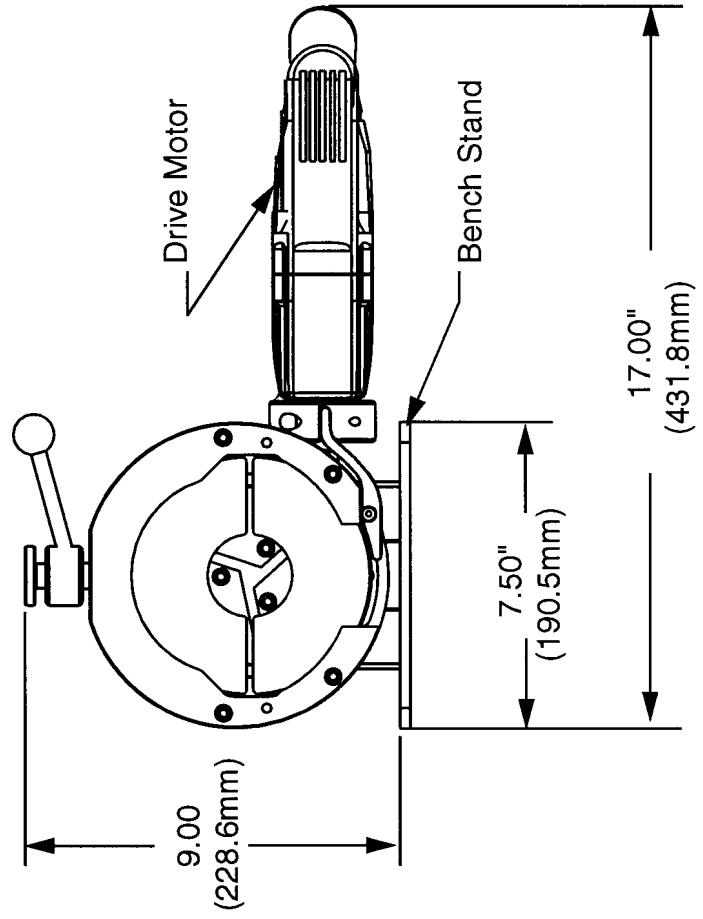
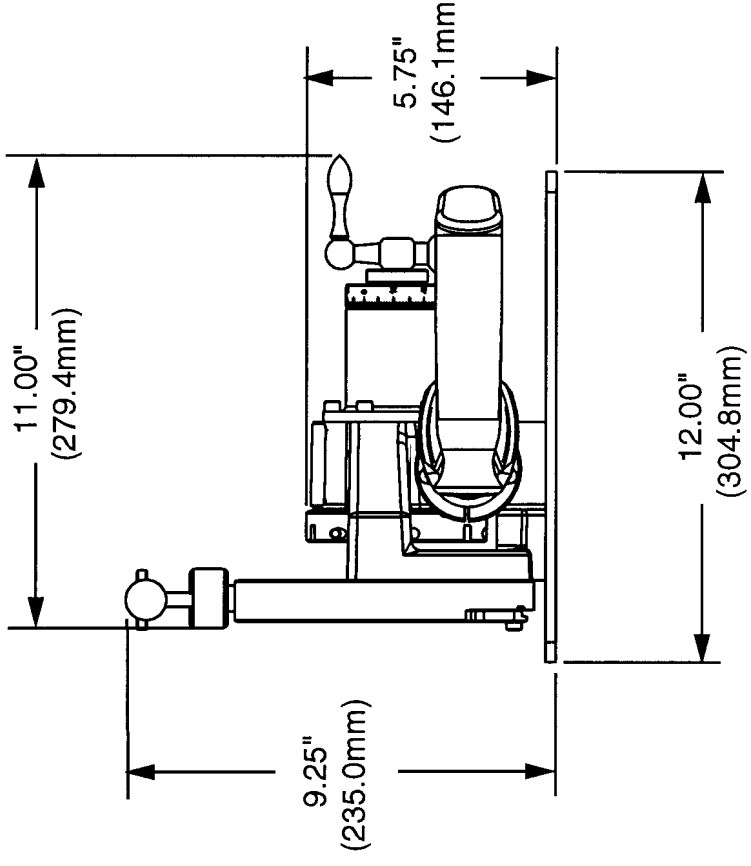
Spare parts and standard tool bits are available from stock.

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

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



CONTRACT NO.



TRI TOOL INC
 3608 SECURITY PARK DRIVE, RANCHO CORDOVA, CA 95742

APPROVALS	DATE
DRAWN J BROWN	092800
CHECKED	
ISSUED	

ENVELOPE DRAWING
304 Tube Squaring Machine

SIZE	SOLID WORKS	DWG. NO.	REV.
A	AVAILABLE	77-1605	
SCALE	CAD	MODEL	SHEET 1 OF 1

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