

TRI TOOL INC.  
TECHNICAL SPECIFICATION  
MODEL 616SB LOW PROFILE CLAMSHELL  
MARCH,1997

MODEL 616SB Low Profile Clamshell

Description: The 616SB Low Profile Clamshell is a split-frame pipe lathe for severing and beveling in-line pipe with a range of 12" through 16" nominal diameter with minimal radial and axial clearances.

Design and Operating Features

1. Easily adjustable precision bearing surfaces preload and stabilize the rotating head to provide long life, low maintenance, stability and precision.
2. The Clamshell splits into two halves for mounting on closed looped systems. All parts are secured to the two halves to avoid loss of parts and provide maximum ease of handling.
3. The machine is equipped with adjustable mounting pads for out-of-round pipe conditions.
4. Dual tool modules with auto-feed sprockets and adjustable slide ways provide maximum maintainability, life and operator safety with minimum operator training.
5. The auto-feed star sprockets provide .004" ( .10mm ) of radial feed per revolution for a controlled depth of cut.
6. Drive gears and bearing surfaces are covered for operator safety and sealed to prevent cutting chip damage.
7. Operator controls are away from the rotating head for operator safety.
8. Modular design concepts provide quick, easy maintenance and maximum versatility in drive and tooling options.
9. System may be configured with pneumatic or hydraulic drive motors.

## Specifications

1. Reference Envelope Drawing No. 77-0409, 77-0912.
2. Cutting capacities\* on 12" through 16" pipe with standard tool modules:
  - a. Severing with standard procedures 2.50" ( 63.5mm ) wall
  - b. Severing and single beveling 1.25" ( 31.8mm ) wall
  - c. Severing and double beveling 1.25" ( 31.8mm ) wall
  - b. Severing and single beveling w/ special procedures 2.00" ( 50.8mm ) wall
  - e. Severing and double beveling w/ special procedures 2.00" ( 50.8mm ) wall

\* Materials include, but are not limited to: carbon steel , low alloy steel, chrome steel (20% max. ), chrome / molly alloys ( Rc 32 max. ), austenitic stainless steel, inconel, copper, aluminum and copper nickel alloys.

3. Clearances:
  - a. Rotating parts diameter 29.10" ( 739.1mm )
  - b. Main frame diameter 24.00" ( 609.6mm )
  - c. Axial clearance required relative to center line of cut  
( with standard tool modules )  
Mounting side 6.93" ( 176.0mm )  
Side opposite frame 1.56" ( 39.6mm )
  - d. Rotating parts radial clearance over pipe:  
16" pipe 6.55" ( 166.4mm )  
14" pipe 6.55" ( 166.4mm )  
12" pipe 6.18" ( 157.0mm )

4. Drive Options:
  - a. Dual right angle air motors  
Air requirements @ 90 PSI ( 6.3 kg/cm<sup>2</sup> ) 150 CFM ( 71 lt/sec )  
Head Speed @ maximum horsepower 6 RPM
  - b. Dual In-line hydraulic motors  
( Requires separate hydraulic power supply. Ref: 765RCV technical specifications )

5. Tool Modules:
  - a. Working diameter 12" - 16" pipe
  - b. Travel per side 2.50" (63.5mm )
  - c. Feed rate .004" ( .10mm )/rev.

- 6. Mounting
  - a. 4 fully adjustable mounting pads with 6 additional mounting jackscrews for 12", 14" and 16" pipe.

7. Weight:

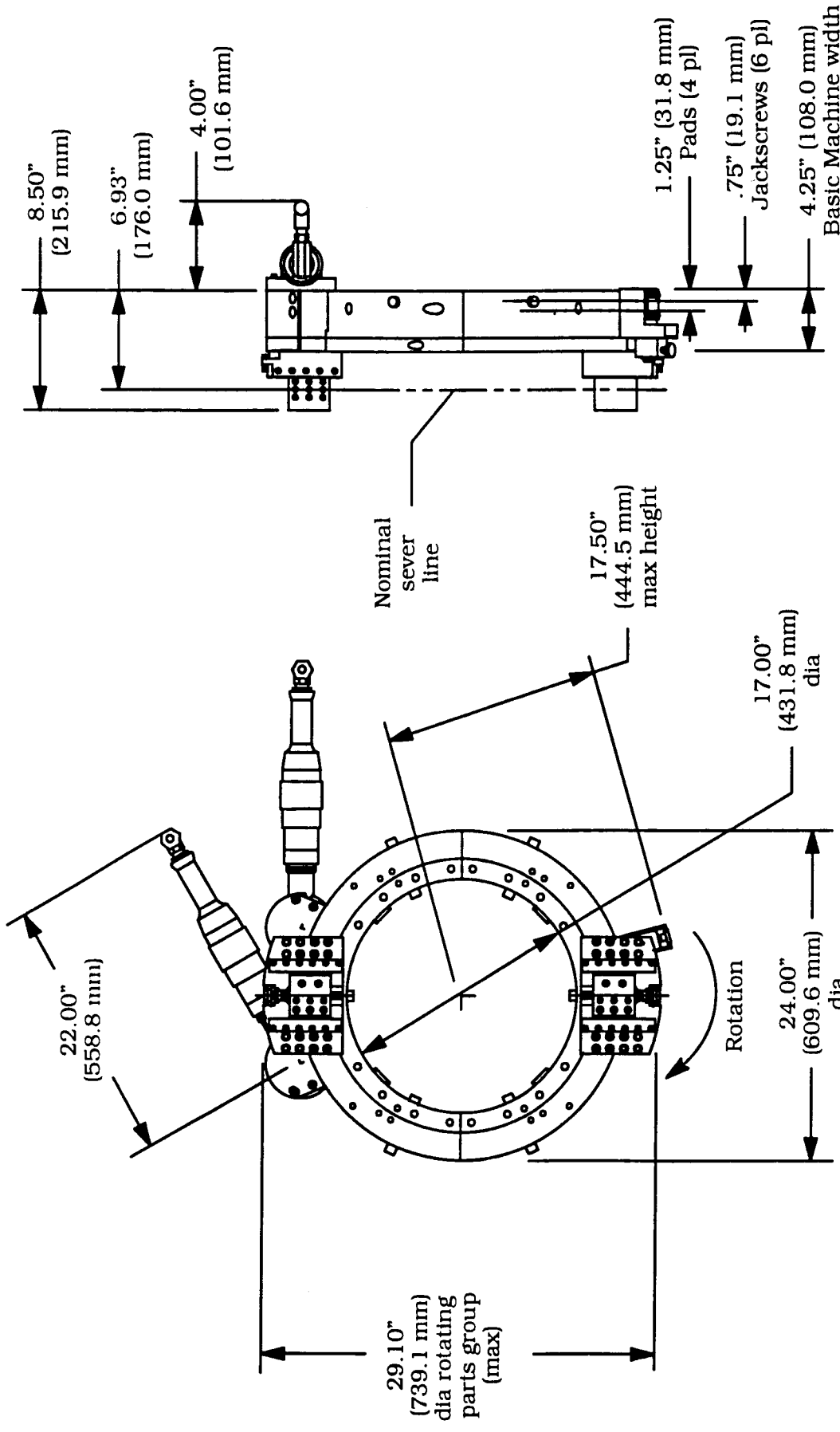
Basic machine with 2 drive housings	170 lbs. ( 77.2 Kg )
Standard tool modules	15 lbs. ( 6.9 Kg )/module
Air motors	20 lbs. ( 9.1 Kg ) ea.
Hydraulic motors	34 lbs. ( 15.4 Kg ) ea.

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.



**TRI TOOL INC.**  
3806 SECURITY PARK DRIVE RANCHO CORDOVA, CA 95742-6990

Envelope Drawing  
**Model 616SB Clamshell, Air**

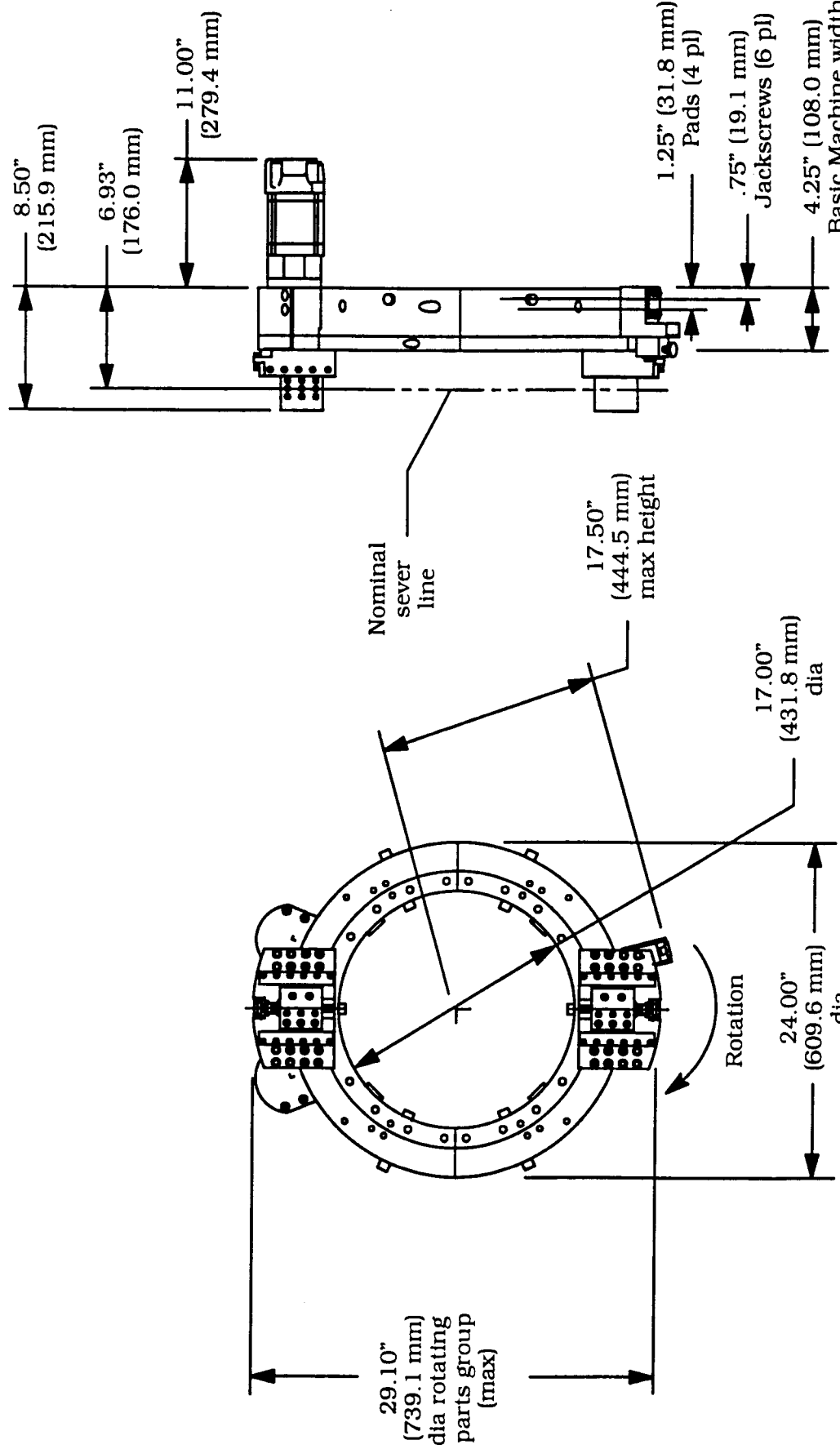
SIZE	DWG. NO.	REV.
<b>A</b>	<b>77-0409</b>	
FSCM NO.		

SCALE None SHEET 1 of 1

CONTRACT NO.	DATE
	6/23/93
APPROVALS	
DRAWN PFAFMAN	
CHECKED BP	3/19/97
ISSUED	

**DO NOT SCALE DRAWING**

**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 95742-6990  
 COPYRIGHT TRI TOOL INC.



**TRI TOOL INC.**  
 3806 SECURITY PARK DRIVE, RANCHO CORDOVA, CA 95742-6990

Envelope Drawing	
Model 616SB Clamshell, Hyd	
SIZE	DWG. NO. 77-0912
FSCM NO.	REV.
<b>A</b>	
SCALE None	SHEET 1 of 1

CONTRACT NO.	DATE
	6/23/93
APPROVALS	
DRAWN PFAFMAN	
CHECKED <i>DB</i>	3/19/97
ISSUED	

**DO NOT SCALE DRAWING**

**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 95742-6990  
 COPYRIGHT TRI TOOL INC.