

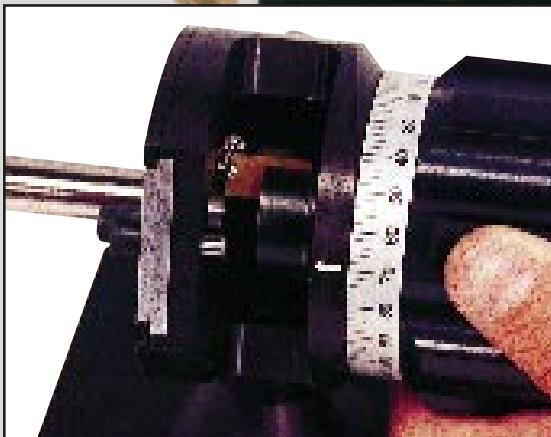
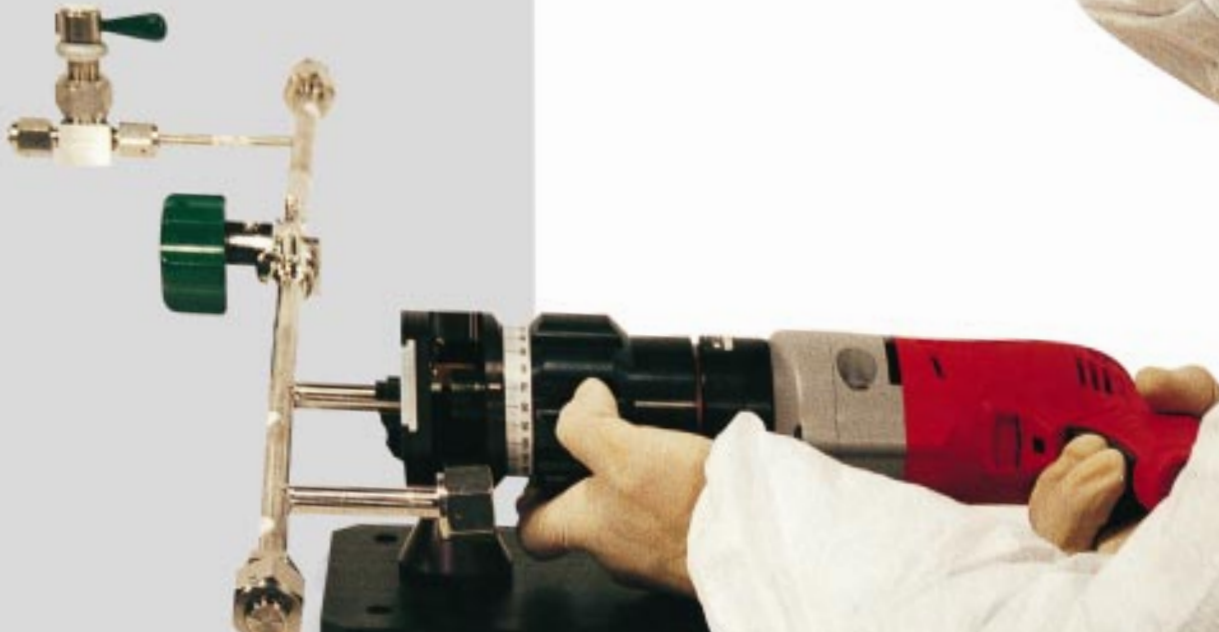


# FSE

US Patent #'s  
5,605,084 5,619,893 5,692,422

## 1.0 FITTING SQUARING MACHINE FOR A PRECISE END PREP . . . WHERE EVERY PERFECT WELD BEGINS

- *A PORTABLE ELECTRIC TOOL FOR PRECISE END FINISHING ON FITTINGS AND TUBES IN SECONDS*
- *SQUARE BURR FREE END PREPS FROM 1/8" (3.175 MM) THROUGH 1" (25.4 MM) O.D.*
- *IDEAL FOR HIGH PURITY TUBE FABRICATION WHERE AUTOMATIC WELDING IS USED*
- *UNIQUE MICROFITTING AND TUBE CLAMPING SYSTEM CENTERS AND SQUARES AUTOMATICALLY ON AS LITTLE AS .165" (4.19 MM) PERCH LENGTH WITHOUT TUBE DEFORMATION*



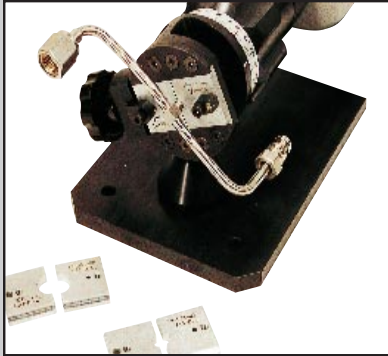
"CUTTER WINDOW" PROVIDES A CLEAR VIEW DURING CUTTING OPERATION

### SPECIAL FEATURES...

- **"Micrometer Index Gauge"** for precise machining to exact lengths.
- **"180° Cutter Window"** provides a clear view of the cut during operation.
- **"Exclusive Tooling Design"** channels chips away from electropolished tube I.D.
- **"Bench Mount System Standard"** quickly removable for in-line applications such as congested tube racks.

## CLAMPING SYSTEM

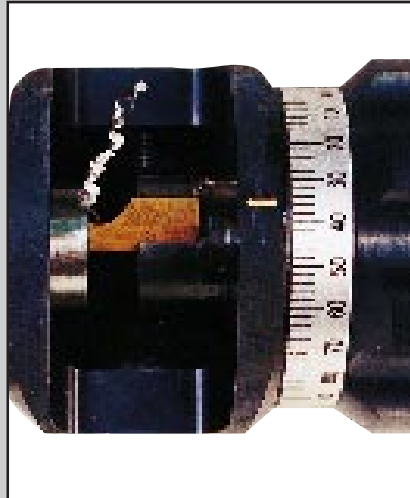
- Quick lock down and release system, ideal for volume applications.
- .250" ( 1.58 mm) "Clamp Shoe" perch length - .165" ( 4.19 mm) perch length optional.
- O.D. mount prevents contact damage to the electro polished tube I.D.



- "Clamp Shoes" design grips firmly without deforming tube.
- SAE or METRIC "Clamp Shoe Sizes" available from 1/8" (3.175 mm) to 1" (25.4 mm), each clearly marked for easy identification.

## MICROMETER INDEX GAUGE

- Allows for fast, precise machining to exact cut length with lathe-like accuracy.  $\pm .002"$
- Simply determine the amount of tube to be removed and monitor its removal using the index gauge.



- Index gauge gives the operator precise control when exact tube length dimensions must be maintained.

## TOOLING

- Standard tool bits are available for a complete range of tubing materials, including soft alloys and all grades of STAINLESS STEEL, TITANIUM and INCONEL.
- Tool bit adjustment and change out is quick and easy.
- Long tool bit life and smooth, burr free cuts are assured with Wachs premium quality tooling.

## BENCH MOUNT



- FSE system can be used as a bench mounted system or hand held for in-line work.

## SPECIFICATIONS

|                             |   |
|-----------------------------|---|
| <b>MACHINING CAPACITY:</b>  | 1/8" (3.18 mm) THROUGH 1" (25.4) O.D. TUBE  |
| <b>MACHINING FUNCTION:</b>  | BURR FREE SQUARING, FACING  |
| <b>MACHINING MATERIALS:</b> | ALL   |
| <b>WALL THICKNESS:</b>      | .010" (.25 mm) THROUGH .250" (6.35 mm)  |
| <b>CLAMPING SYSTEM:</b>     | 2 CLAMP SHOES WITH HAND RETRACTABLE LOCKING KNOB  |
| <b>CLAMPING AREA:</b>       | .250" (6.35 mm) STANDARD - .165" (4.19 mm) OPTIONAL   |
| <b>CLEARANCE RADIUS:</b>    | 1-1/2" (38.1 mm) FROM CENTERLINE  |
| <b>TOOL ADVANCE:</b>        | HAND ADVANCEABLE & RETRACTABLE SPINDLE WITH INDICE GAUGE .245" (6.22 mm) PER REV.   |
| <b>CONTROLS:</b>            | ON - OFF VARIABLE SPEED TRIGGER SWITCH  |
| <b>TOOLING:</b>             | PREMIUM QUALITY FORM TOOLS  |
| <b>TOOL RPM:</b>            | 0 TO 600 VARIABLE   |
| <b>AXIAL FEED:</b>          | .400" (10.16 mm) MAXIMUM  |
| <b>WEIGHT:</b>              | 8 LBS. (3.62 kg.)   |
| <b>FINISH:</b>              | HARD-ANODIZED AND OXIDED  |
| <b>DIMENSIONS:</b>          | LENGTH 15" (381 mm), HEIGHT 7" (177.8 mm) & 3" (76.2 mm) WIDTH  |
| <b>STANDARD EQUIPMENT:</b>  | <ul style="list-style-type: none"> <li>• ELECTRIC FSE MACHINE WITH STAND (110 v 60 htz ) or (220 v 50 htz )</li> <li>• OPERATING TOOLS AND MANUAL</li> </ul>  |
| <b>OPTIONAL EQUIPMENT:</b>  | <ul style="list-style-type: none"> <li>• CLAMP SHOES: (SAE) 1/8"-3/16"-1/4"-3/8"-1/2"-5/8"-3/4"-1" (METRIC) 6mm-8mm-10mm-12mm 14mm 16mm 18mm 20mm 25mm. .250" (6.35mm) OR .165 (4.19mm) PERCH LENGTH</li> <li>• TOOL BITS FOR VARIOUS APPLICATIONS</li> <li>• STORAGE CASE</li> <li>• CORDLESS RECHARGEABLE ELECTRIC DRIVE MOTOR</li> <li>• RIGHT ANGLE ADAPTOR ( SHORTENS LENGTH TO 10" )</li> </ul> |

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