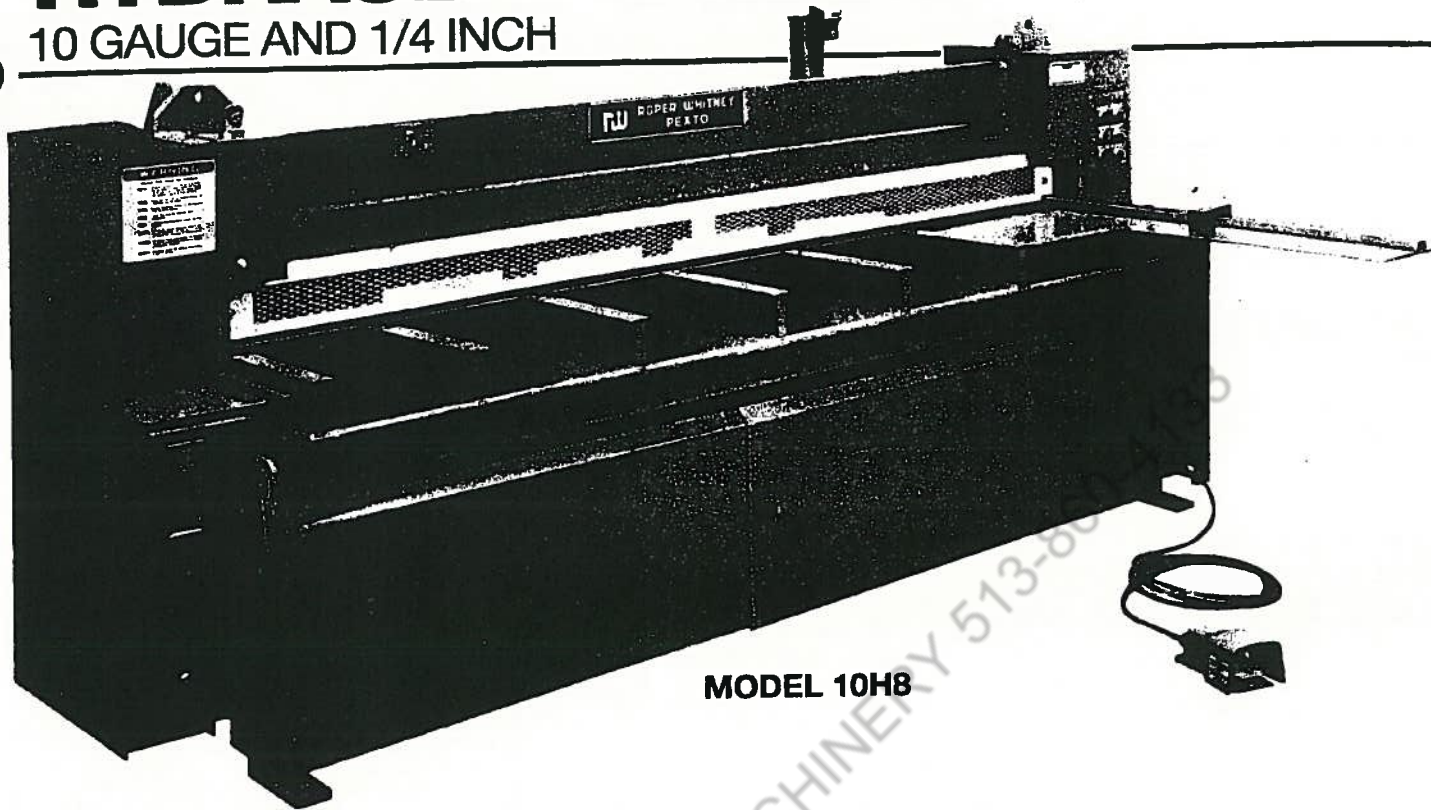


# HYDRAULIC SHEARS

## 10 GAUGE AND 1/4 INCH



**MODEL 10H8**

- Heavy-duty welded frame and removable front panels allow units to be moved by forklift plus lift rings on top of units for hoisting shears with slings.
- Standard electric motor and hydraulic pump system assures reliable performance and convenient maintenance.
- Hinged front and side panels open for easy access to motor/pump systems.
- Variable speed back gauge has an easy-to-reach push button control on the front side of the shear for more efficient operation.
- Adjustable rake eliminates curl and twist in cutting.
- 4' side-squaring arm with recessed scale and fixed stop. Optional swing stop available.
- Four-edge HCHC blades produce clean, true cuts.
- Optional overhead light beam for precise shearing on scribed line.
- Fully guarded foot switch on 10" cord for remote operation (can be unplugged).
- "Safety yellow" finger guard on front and see through guard on top for maximum operator safety.
- Electrical disconnect and controls meet ANSI standards.

### 10 GAUGE SPECIFICATIONS/14 GA. STAINLESS STEEL

*Common to all models*

Maximum cutting capacity (mild steel)-10 gauge  
 Back gauge extension-36"  
 Front to back dimension with gauging-96"  
 Height-54"  
 Table Height-32"  
 Strokes per minute-20 (Maximum rake angle and full stroke)  
 Working pressure-2,200 p.s.i.  
 Voltage-Standard 230v, 3 phase, 60Hz (with 110V control circuit)-Optional 208 or 440V, 3 phase

	5'	6'	8'	10'	12'
Cut Length	5'	6'	8'	10'	12'
Length (overall)	7'	8'	10'	12'	14'
Est. ship wt. (lbs.)	4,700	6,700	7,700	8,750	13,000
Horsepower	5	10	10	10	10

### 1/4" SPECIFICATIONS/8 GA. STAINLESS STEEL

*Common to all models*

Maximum cutting capacity (mild steel)-1/4 inch  
 Back gauge extension-36"  
 Front to back dimension with gauging-132"  
 Height-63"  
 Table Height-32"  
 Strokes per minute-4'-20, 6'-18, 8'-17 and 10'-15  
 Working pressure-2,250 p.s.i.  
 Voltage-Standard 230v, 3 phase, 60Hz (with 110V control circuit)-Optional 208 or 440V, 3 phase

	4'	6'	8'	10'
Cut Length	4'	6'	8'	10'
Length (overall)	78"	102"	126"	150"
Est. ship wt. (lbs.)	7,500	8,400	9,500	11,000
Horsepower	15	15	15	15



# HYDRAULIC SHEARS

## 10 GAUGE AND 1/4 INCH



### FRAME & BASE

Side frames are welded to table base assembly as a closed end type which is standard. With gap end option, base of end housings have provisions to anchor machines to flat surface. The upper knife is provided with means of adjustment for obtaining and maintaining clearance adjustment between upper and lower knives.

### TABLE

The table is constructed of fabricated steel which is flat to  $\pm 0.005$  inch per linear foot. Standard table is solid for first 24 inches on right side with support beams 16 inches on center for balance of machine.

OPTIONS: 1. Replace top of beams with a steel plate.

Hand slots are also optional where specified.

2. Machined top.

3. Ball transfers in any of three table type patterns can be specified.

### HYDRAULIC SYSTEM

The hydraulic system is designed for the capacity of the rated machine to JIC standards. The hydraulic system has safety overload protection. Hoses, tubes and fittings are capable of withstanding not less than 150% of rated working pressure.

### RAM HYDRAULIC CYLINDER DRIVE

There are two direct acting hydraulic cylinders for directing the ram. The ram hydraulic cylinder drive has double acting piston type ball sockets and self-aligning joints.

### HYDRAULIC HOLDDOWN SYSTEM

Hydraulic clamp assembly is self-compensating spring plunger bar with two direct acting double action cylinders. Self-compensating spring plunger bar assembly has spring plungers every 4 inches for first 24 inches with spring plungers 8 inches on center for remainder of bar. The hydraulic holddown system automatically secures workpiece during ram down stroke and releases it on return stroke. Optional individual control is available for holddown. Refer to chart for number of plungers.

## RESERVOIR

Reservoir is provided with level gauge and cleanable filter system capable of removing particles 10 microns in size.

## RAM

The ram is guided through the shearing stroke by a bronze slide assembly and a steel assembly. The assemblies guide the ram on a vertical shearing plane with 2 angular degrees off the shearing plane of the stationary knife. Optional non-metallic slide assembly is available to replace bronze. Bronze slides have large surface area to dissipate pressure per square inch. In slides, PSI is low in comparison to machines that use swings or have many pins that have a lot of pressure and little area to dissipate the pressure. Other types of bearing material is also available.

## SHEAR KNIVES

Knives are made of a shock resistant grade of high carbon, high chrome with four edges. With optional harder grade of high carbon, high chrome available.

## CONTROL

- Controls include:
1. Pull to start, push to stop.
  2. Jog (inch) - Single stroke-run/optional continuous stroke
  3. Single palm buttons for stroke.

Single stroke position ram will go down and stay down as long as pedal is held down. In continuous jog, when pedal is held down machine will cycle up and down. In jog, depress pedal to bring down to position wanted, release pedal and ram stops. If pedal is released in run or continuous modes, ram automatically returns to open no matter where it is in the cycle.

## RAKE ANGLE AND RAKE ANGLE ADJUSTMENT

Power rake angle adjustment is standard. Angle is maintained throughout cutting cycle, when rake angle is adjusted to required angle. Refer to chart.

Increased rake angle is standard on 1/8" and 1/4" machines, to allow for the cutting of harder and heavier materials. Increased rake angle is standard on some machines.

## ELECTRICAL SYSTEM

The electrical systems meets NFPA79 standards. All machines have disconnect switches, magnetic starters, 110/120v controls. 230/460 voltages. others optional.

## **MOTORS**

Motors are open drip with sealed and permanent lubricated bearings.

## **CONTROL CIRCUIT VOLTAGE**

Circuit voltage is 110/120v supplied by a transformer.

## **BACKGAUGE**

36" manual operated backgauge is standard with power being optional. When power is used controls are located on front of the machines. Controls include electric switches for FORWARD-REVERSE and HIGH-LOW. There are three types of readouts available 1-mechanical digital (hundredth)

2 - LED (.001)

3 - LED (inch-metric)

Optional 48-60" backgauge is available.

## **FRONT SUPPORT ARMS (OPTION)**

Front support arms without scales. Front gauge/support arms with scales.

## **SQUARING GAUGE**

4' squaring arm on right side with scale. Left side squaring arm and longer gauges are optional.

## **ANGLE GAUGE (OPTION)**

Angle gauge marked in 1/2° increments.

## **SLITTING GAUGE (OPTION)**

This is an option only with gap type machines.

## **LIGHT BEAM SHEARING GAUGE (OPTION)**

Shearing gauge utilizes light beam shadow as shearing line. Optional shearing cable is available.

## **CAPACITY**

Machines are based on 60,000 pounds per square inch. Other options available upon request.

## SHEARING ACCURACY

OUR HYDRAULIC shear will meet or exceed shearing accuracy of 1/8" material ranging up to the full width capacity of the machine to precision tolerances as follows:

- a. Dimensions: The width of the sheared workpiece shall be within  $\pm 0.005$  inch of the backgauge setting.
- b. Parallelism: The sheared cut shall be parallel to the sheared edge positioned against the backgauge within  $\pm 0.002$  inch per linear foot of work piece width.
- c. Squareness: The sheared cut shall be square with a sheared edge positioned against either side gauge with  $\pm 0.002$  inch per linear foot of work piece width.

These are according to the requirements of government specifications.

## SAFETY FEATURES

OUR hydraulic shears are built to B11.4 ANSI standards. Some of the safety features of the Betenbender shear:

Finger guards for holddown  
110/120v control  
Guarded foot pedal  
Hydraulic pressure 2500 PSI

**SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE**

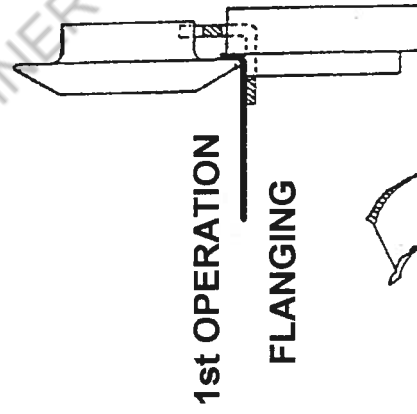
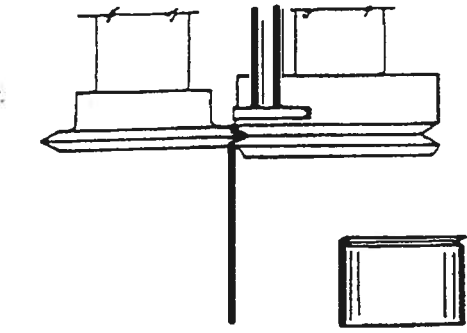
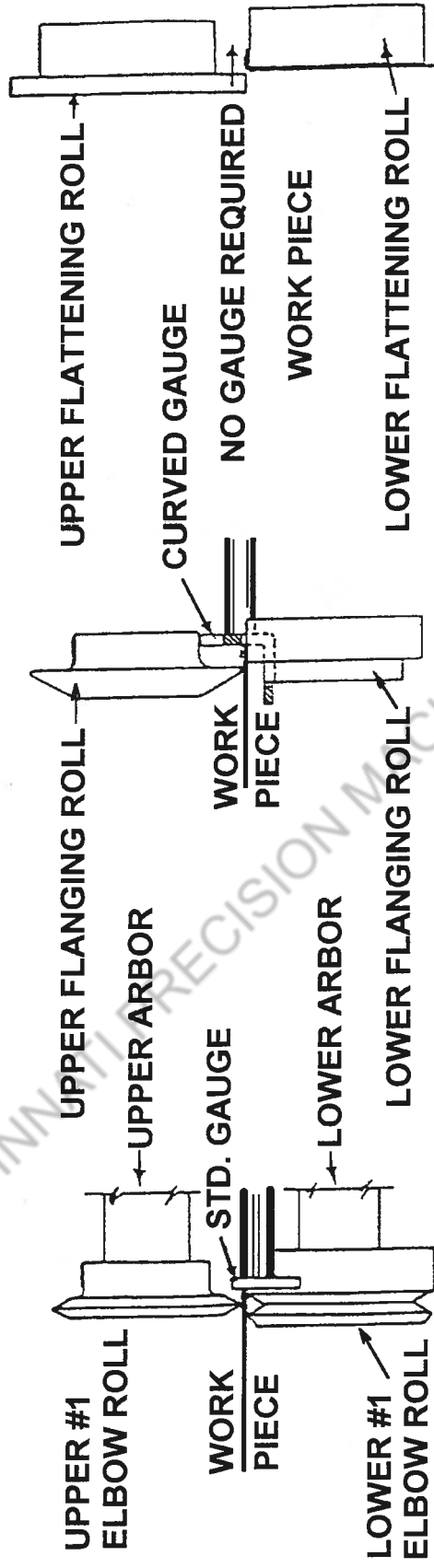
## OSHA STATEMENT

We believe our hydraulic shears and ~~press brakes~~ would meet the OSHA standards as they are written today. However, regulations are so numerous and vague that it is impossible for us to warranty compliance.

Compliance with OSHA requirements is the legal responsibility of the user and is subject to the local inspectors interpretation of existing standards.

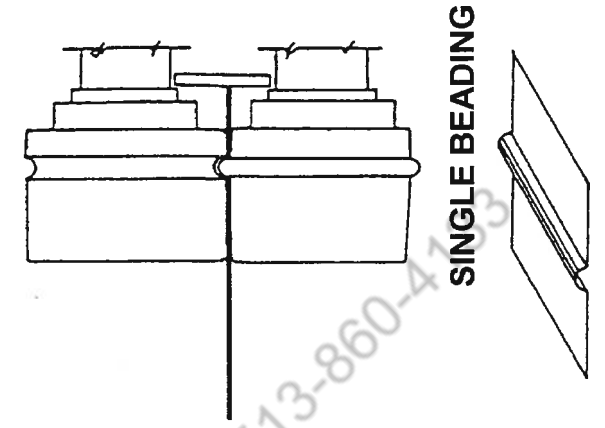
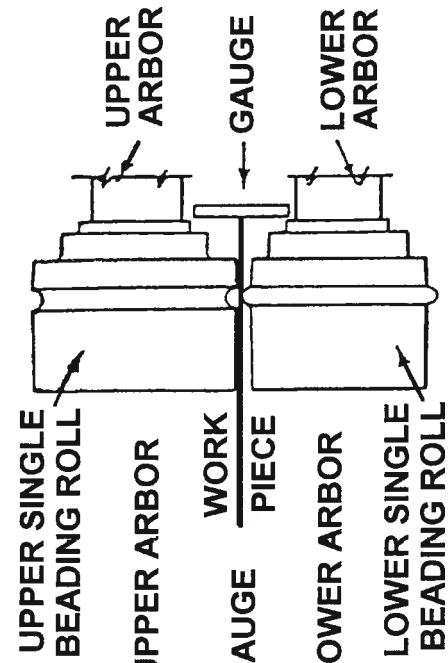
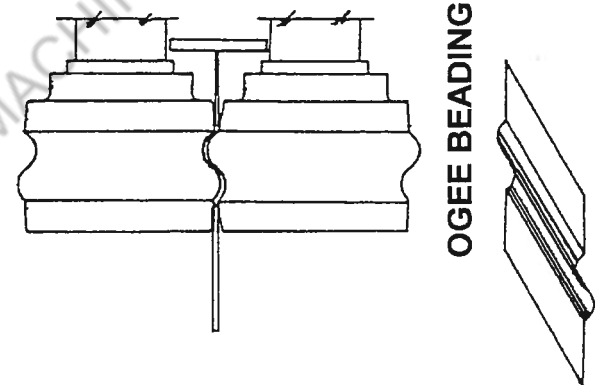
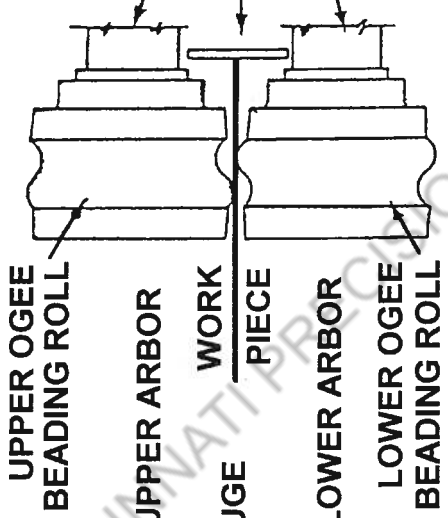
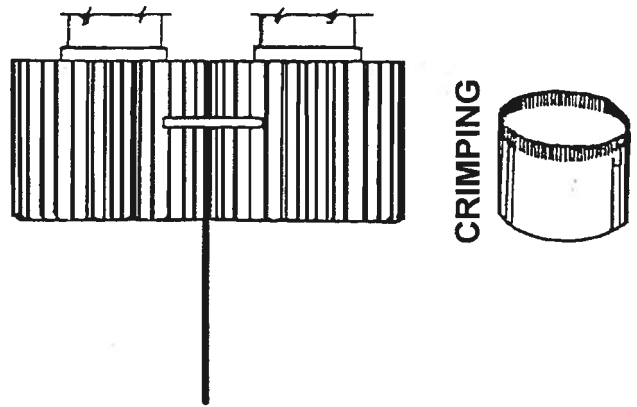
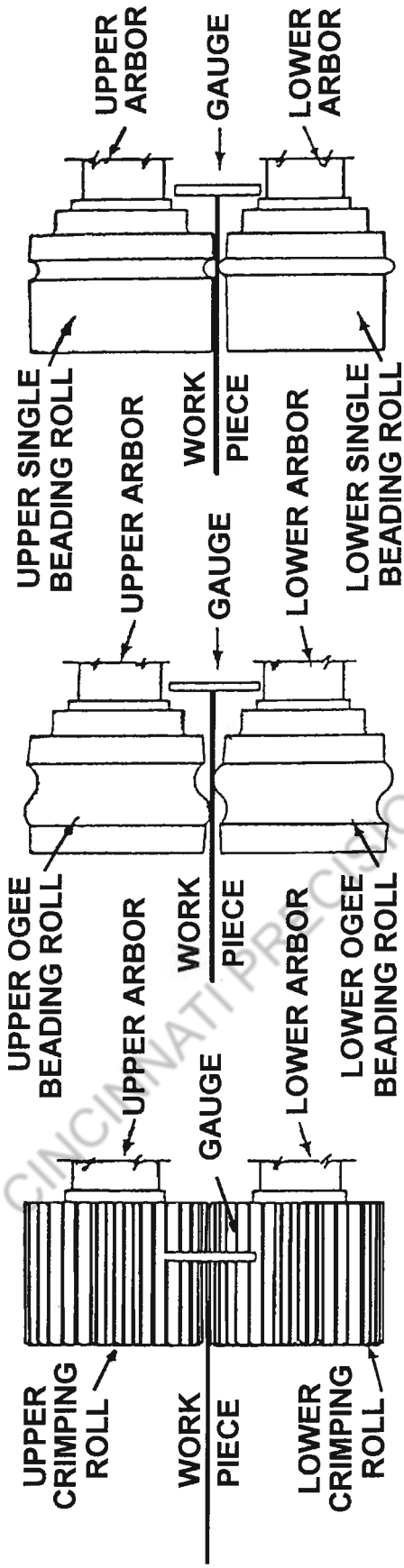
OUR shears are built to meet B11.4 ANSI standards.

# ROLLS FOR COMBINATION ROTARY MACHINES THROATLESS AND DEEP THROAT



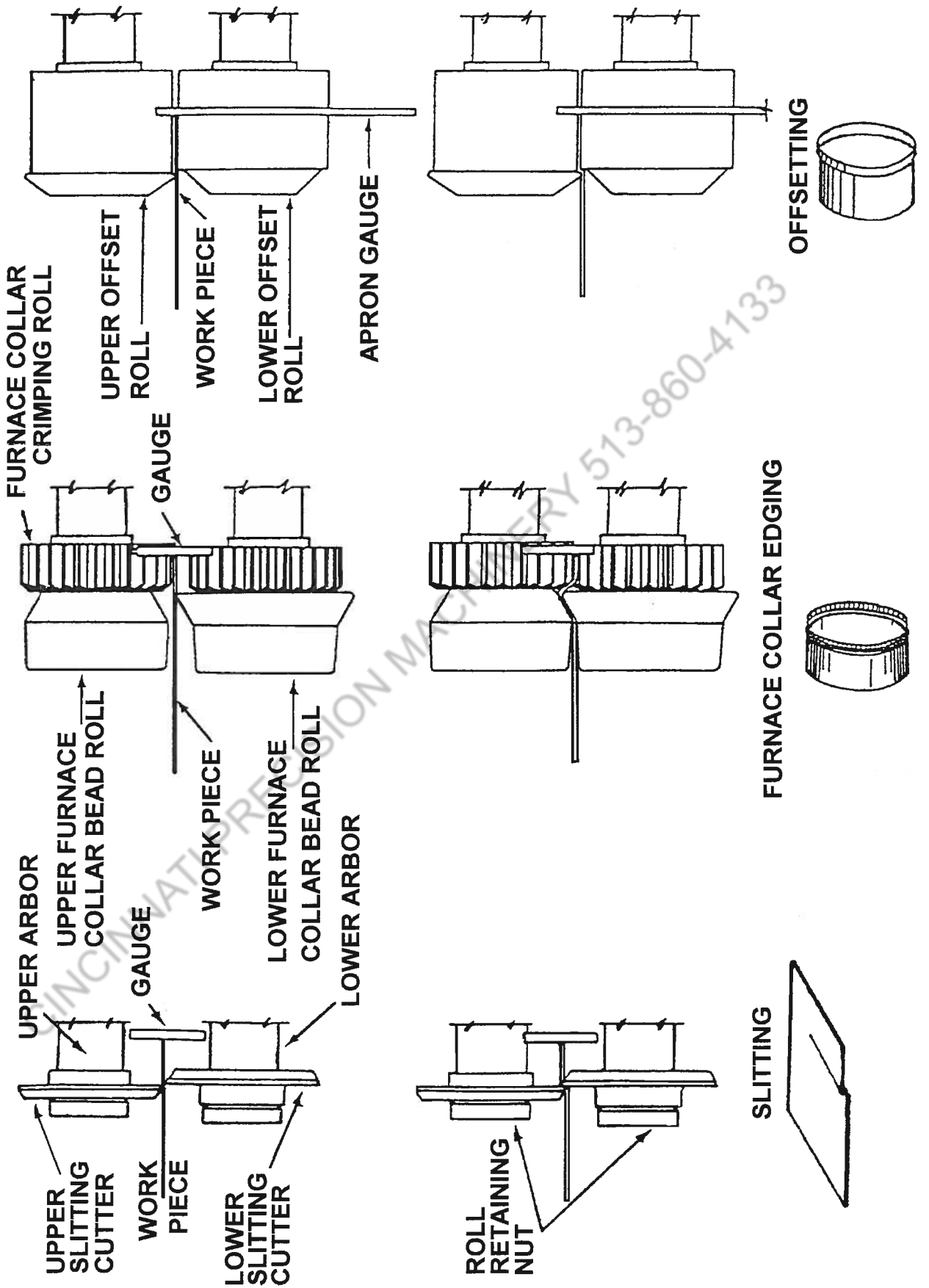
CINCINNATI PRECISION MACHINERY 513-860-4133

# ROLLS FOR COMBINATION ROTARY MACHINE, DEEP THROAT



CINCINNATI PRECISION MACHINERY 513-860-4733

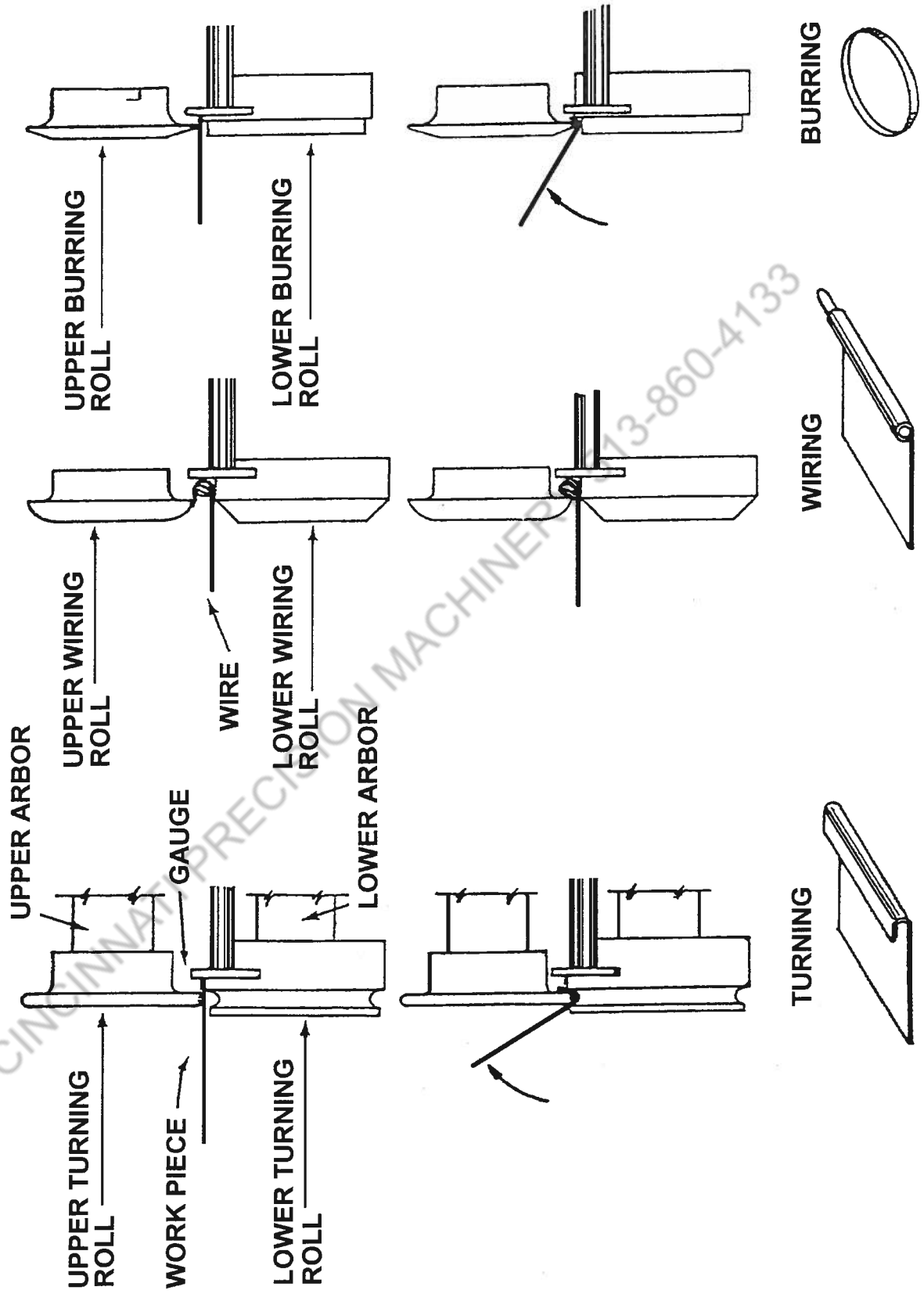
# ROLLS FOR COMBINATION ROTARY MACHINE, DEEP THROAT



SINCMAT PRECISION MACHINERY 513-860-4133



# ROLLS FOR COMBINATION ROTARY MACHINES THROATLESS AND DEEP THROAT



**ADJUSTABLE, POWER-OPERATED RAKE ANGLE**

Push button operation allows setting an optimum rake angle to minimize off-cut distortion of materials less than capacity thickness. Positioning is variable throughout the adjustment range.

**UNIVERSAL BLADE CLEARANCE**

Only one universal setting is required for a broad range of material thickness. In addition to the time-saving advantage of this feature, the probability of folding or wedging material between improperly set blades is virtually eliminated. Make no mistake, however, this shear is rated to cut full capacity with minimum blade clearance.

*\*28ga to 10ga or 24ga to 1/4" with NO GAP change required.*

Blade parallelism is maintained by a single point ram adjustment, deleting time-consuming short-span adjustments common to other manufacturers' design.

**BED RAILS**

Front-to-back, top bed rails allow support for cutting material narrower than the bed.

**HYDRAULIC HOLDDOWNS**

Individual holddown feet are self-compensating for varying material thickness and provide pressure to hold material firmly in direct proportion to the shearing load. Six to eight holddown feet are closely spaced at the right end of the shear to allow cutting narrow strips of material. All others are spaced on eight inch centers.

A chute at the rear of the bed deflects offcuts from under the ram.

The rigidity of frame eliminated the need for a special foundation. Only a solid floor is required. Machine has holes drilled and tapped in feet for leveling screws if required.

Distributed By:  
**CINCINNATI Precision Machinery**  
 9083 Sulton Place  
 Hamilton, OH 45011

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ATTENTION: Ron FROM: Kimberly X-222

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MESSAGE:

Hopefully this helps.

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