

# ***PRECI-SHEAR***



MS-25-5 HYDRAULIC GUILLOTINE SHEAR



# PRECISHEAR



## MS-25-5 HYDRAULIC GUILLOTINE SHEAR

### STANDARD FEATURES

- ✓ Low speed electric motor & low hydraulic working pressure ensures long life.
- ✓ If the remote foot-pedal control is released anywhere in the stroke the ram returns to "up" position.
- ✓ Two overload protection systems are regulated by limiting hydraulic pressure & electrical amp draw.
- ✓ Blades consist of D2 High Carbon premium quality tool steel.
- ✓ Low rake angle to minimize work piece distortion.
- ✓ 48" squaring arm with measurement indicator.
- ✓ For easy handling of material our four support arms are rounded, also preventing damage while loading.
- ✓ Rack & pinion parallel-driven manual back-gauge with 26" travel.
- ✓ Fully enclosed control panel with low voltage controls.
- ✓ All hydraulic and mechanical parts are standard in the industry, and available throughout North America.

### SPECIFICATIONS

#### MS-25-5

Cutting capacity (Rated 80,000 PSI Tensile)	1/4" MS - 3/16" SS
Cutting length	60.375"
Rake angle	0.250 per ft.
Strokes per minute	16 full strokes
Number of hold-down cylinders	10
Motor	10 HP 1760 RPM
Voltages available	230 / 460 / 575 3 PH. 60 HZ.
Table depth to blade	31.125"
Table working height	35.500"
Footprint	83" long x 42" wide
Weight (approx.)	7,000 lbs.
Hydraulic fluid	160 liters / 42 US Gal. AW 68 or equivalent.

### OPTIONS

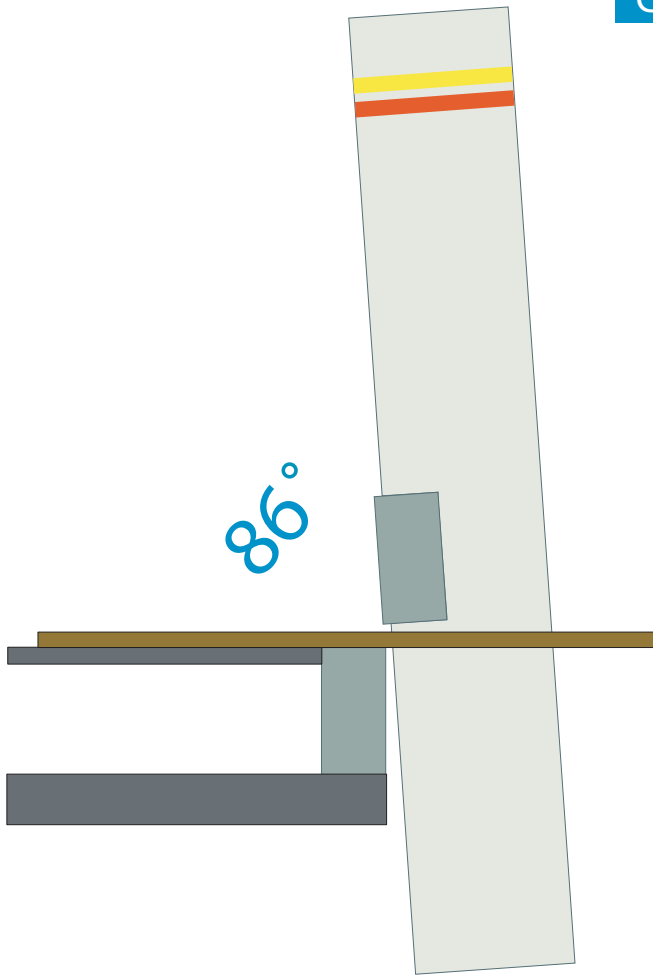
SIEMENS NC FRONT-OPERATED BACK GAUGE.  
10 HP 230 VOLTS 1 PHASE 41 AMPS.

# PRECISHEAR

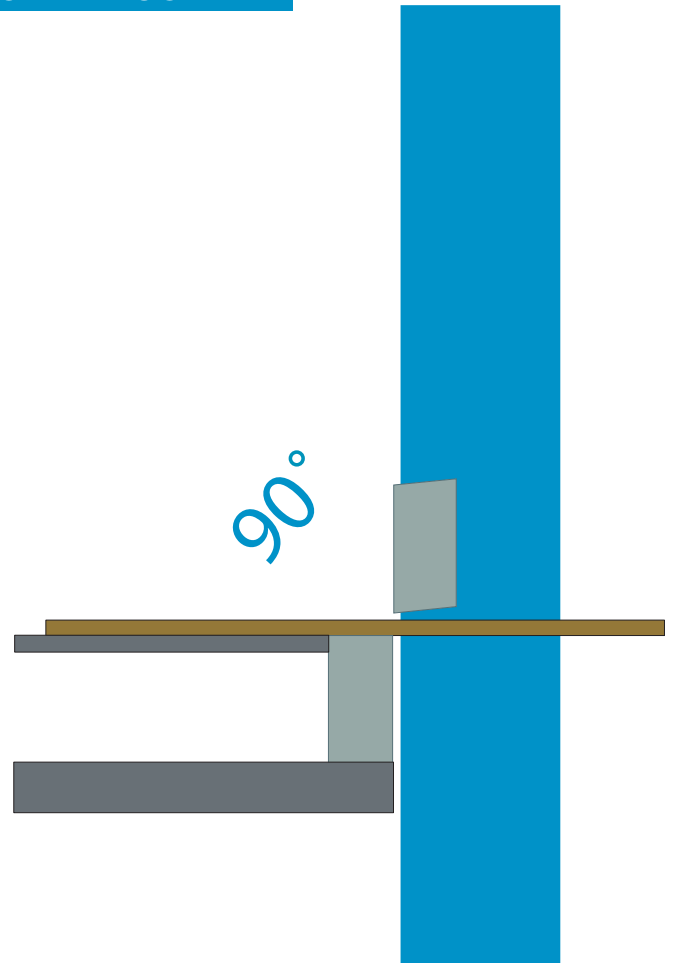


MS-25-5 & MS-25-10  
HYDRAULIC GUILLOTINE SHEAR

## CUT COMPARISON



Steel cut at 86 °



Steel cut at 90 °

### MOST OTHERS

THE RAM & BLADE COMES DOWN  
AT A FIXED RELIEF ANGLE.  
THE RESULT IS AN OFFSET CUT  
EQUAL TO THE RELIEF ANGLE.

### PRECISHEAR

THE RAM & BLADE COMES DOWN AT 90°  
TO GIVE YOU A STRAIGHT 90° CUT.  
OUR TOP BLADE HAS A 5° BACK-BEVEL  
TO ENSURE A CLEAN CUT.

# PRECISHEAR



MS-25-5 & MS-25-10 HYDRAULIC GUILLOTINE SHEAR

## FEATURES

Large bore cylinders run at low operating pressure, assuring long life on all hydraulic components.

The ram & two cylinders are connected together using two hardened micro-finished link pins. The two pivot points use maintenance-free bearings that require no lubrication.

Equal pressure & equal rake-angle are maintained throughout the full stroke of the ram.

Trouble-free hold-downs will never leak oil and will probably never require service.

Hold-downs have large pressure pads to protect sensitive work pieces.

Two hold-downs on left side are installed closer together to cut small plates.



See-thru guard allows operator to see exactly where cut is being made.



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## **FEATURES**

Our four extremely large gibs (3.750" wide x 20.000" long) located front & back guide the ram and solidly contain the shearing forces well below the bottom cutting edge. This system allows the ram to follow thru well below the bottom blade. This guiding system gives the ram the precision required to make the finest cut. In addition two gibs are installed on the back side of the ram to limit lateral movement. All six gibs have full length feed lines for grease to disperse evenly.



# ***PRECI-SHEAR***



MS-25-5 & MS-25-10 HYDRAULIC GUILLOTINE SHEAR

## **FEATURES**

Our side frames are milled from 2.250" steel plate.  
We mill the inside and outside of the frame, then  
the contour of the frame is milled.



# ***PRECI-SHEAR***

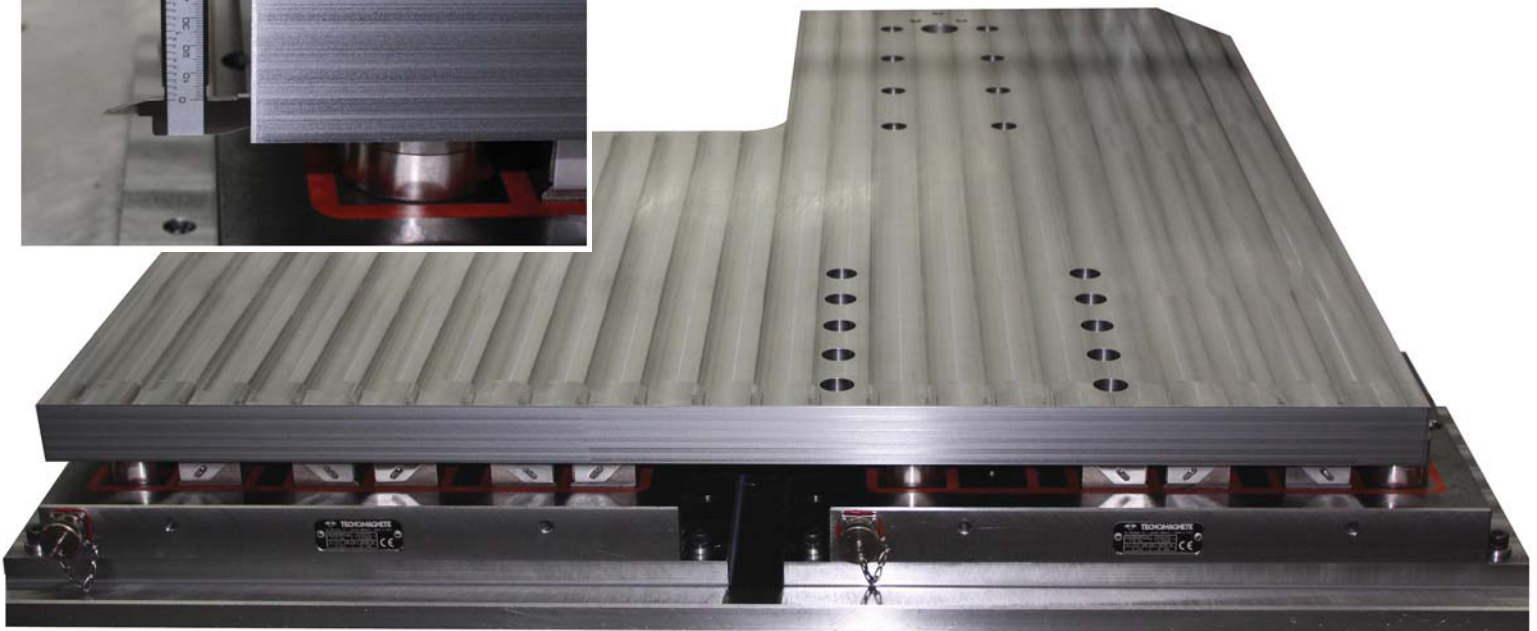


MS-25-5 & MS-25-10 HYDRAULIC GUILLOTINE SHEAR

## **FEATURES**

Our side frames are milled on all six sides. All major components of our shear are precision milled as you would expect a machine tool to be made.

Precision milled parts and massive structure ensures the performance of our shear and it's quiet operation.



# PRECISHEAR

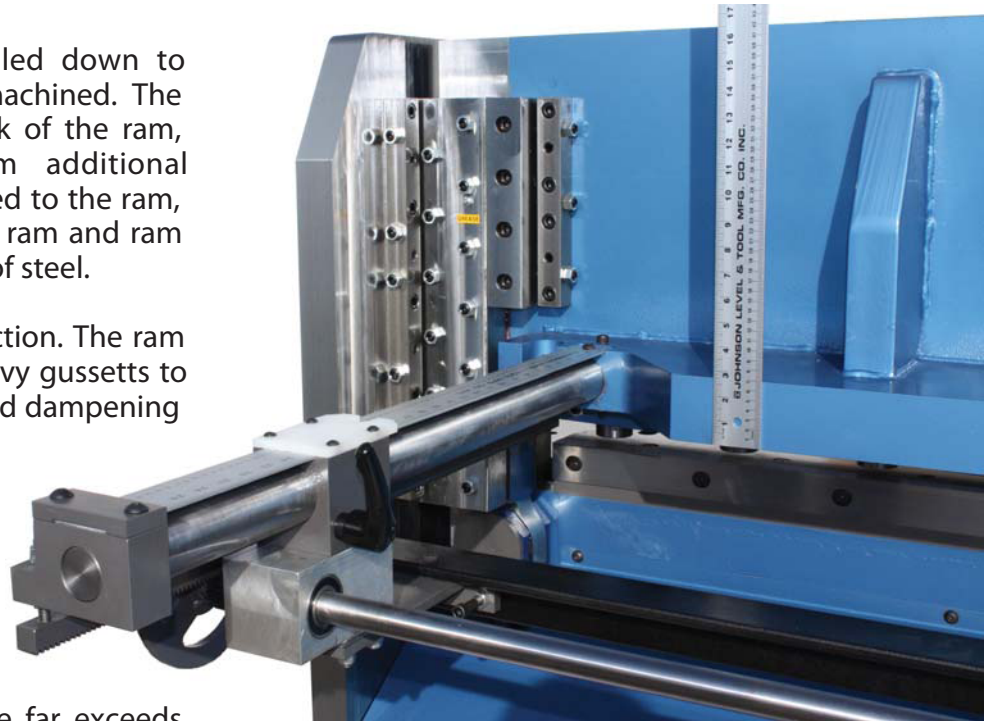


MS-25-5 & MS-25-10 HYDRAULIC GUILLOTINE SHEAR

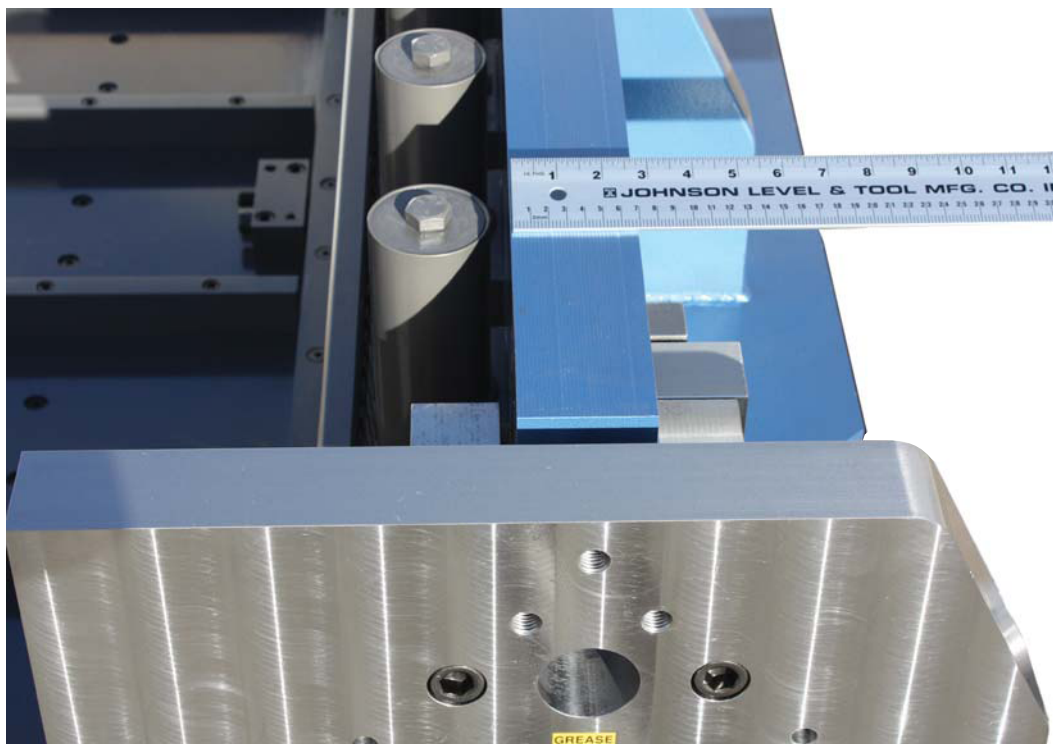
## FEATURES

The ram & ram brace are milled down to 2.750" thick, all six sides are machined. The ram brace is bolted to the back of the ram, giving the 2.750" thick ram additional support. Then the brace is welded to the ram, then gussetts are welded to the ram and ram brace - making this a solid mass of steel.

Massive design eliminates deflection. The ram is reinforced with numerous heavy gussetts to deliver the ultimate in rigidity and dampening while cutting.



The yield structure of our frame far exceeds the tensile strength of the material being cut.





# PRECISHEAR



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## FEATURES

Our frame design is based on a 50 year old technology, placing RK Machinery ahead of the competition today. Machinery manufactured years ago had a tremendous amount of material (cast iron & steel). Frame assemblies did not deflect. The massive 1/4" shears manufactured by reputable North American companies 50 years ago did not require a blade-gap adjustment or rake-angle adjustment. Blade-gap & rake-angle were fixed. These old shears cut anything from (thick to thin). Today most manufacturers of 1/4" shears require blade-gap adjustment (manual or CNC) and/or rake-angle adjustment (CNC) to compensate for their lighter & weaker frame assemblies.

Blade-gap adjustment will create a problem if someone cuts 1/4" thickness, then someone else forgets to re-adjust the blade-gap to cut light gauge. This will most likely fold the material and will probably require you to re-adjust your blades.

Because of our massive structure (frame, ram & gibs) RK Machinery uses a fixed blade-gap setting (0.002 / 0.003) & fixed rake-angle setting (0.250 per ft.).

**NO MESSING WITH BLADE-GAP & RAKE-ANGLE ADJUSTMENTS.**

This allows the operator to cut 1/4" thick down to thin gauge material without having to worry about folding the material.



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## **FEATURES**

Blades consist of D2 High Carbon premium quality tool steel, most other manufactures offer this quality as an option. In the event of blade damage, our top and bottom blades are sectional 30.5" long. Most shears have blades 10 feet long that would require you to surface grind the full length by someone who has the capacity to surface grind 10 feet. These people are few and it will be expensive.

Our 30.5" sectional blades can be surface ground at most local shops that have a standard 32.0" long surface grinder. This is more practical, and the cost is considerably less.

To purchase a single 30.5" sectional blade is far more cost effective than having to purchase a 10 foot blade. Easy blade replacement & adjustment requires only one person.

Through testing we conclude that sectional blades will produce as high a quality cut as a full length blade.



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## **FEATURES**

Rack & pinion parallel-driven manual back-gauge with 26" travel.



## **OPTION**

SIEMENS NC FRONT-OPERATED BACK GAUGE.