

# MA STEEL A M E R I C A C O R P .



## MASTEEL MANUFACTURING FACILITY



**Introducing >>>>>>>>>**  
**our four major product lines:**



Masteel CNC Hydraulic  
Swing Beam Shears



Masteel CNC  
Hydraulic Brakes



Masteel Radial  
Arm Drills



Masteel High Speed  
Precision Lathes

# MASTEEL CNC HYDRAULIC SWING BEAM SHEARS



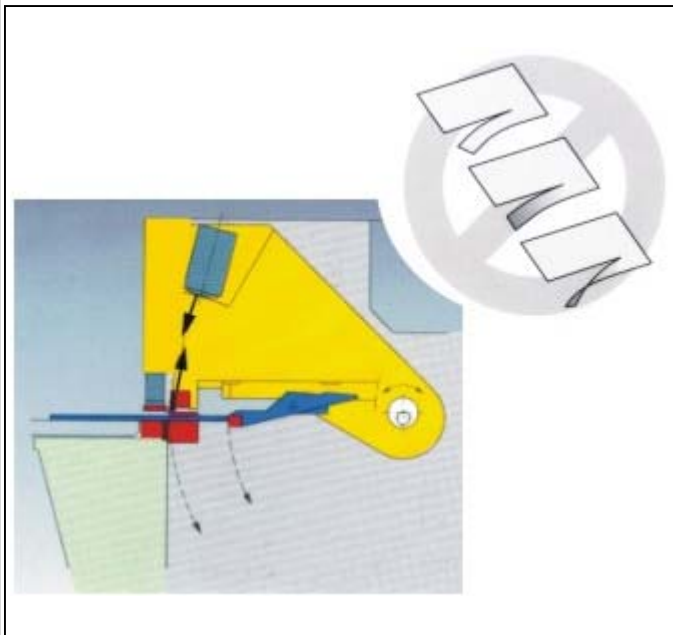
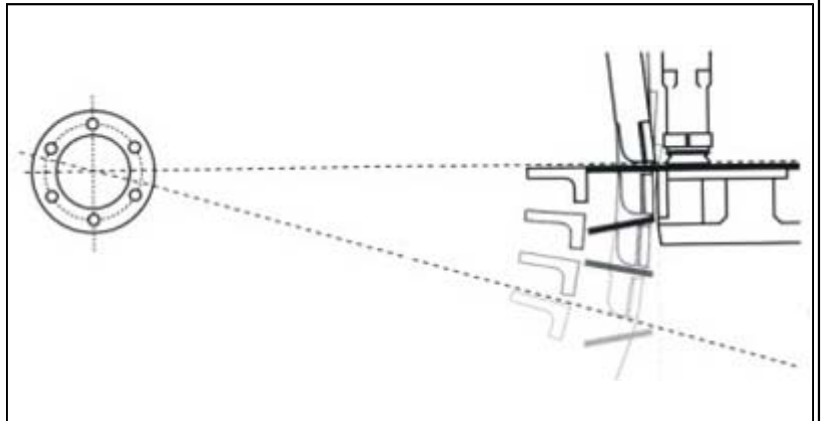
## **QUALITY COMPONENTS AND STRUCTURE DESIGN:**

- ▣ North-American made hydraulic & electrical system
- ▣ Standard SIEMENS single-axis CNC controller
- ▣ Swing beam design for consistent precise cutting quality and low maintenances
- ▣ Simple hydraulic and electric system for easy service
- ▣ Low-rake cutting angle for minimum distortion of material: 1 30' on 1/4", 3/8", 1/2" Shears
- ▣ Heavy-duty design, rigid stress relieved box construction

## THE GREAT ADVANTAGES OF MASTEEL SWING BEAM SHEAR:

### Accuracy

Top blade and back gauge with swing movement always have the cutting perpendicular to the material and bottom blade, then swing away from bottom blade. There is no jamming the material between the blades and backgauge. Top and down blade last longer to ensure quality cutting and less maintenance.



### Reliability and functionability

Masteel Swing beam shear doesn't require relieve angle. The cutting is always perpendicular to the material and bottom blade. And also the hydraulic force from cutting cylinder is applied directly against cutting load. There is no cutting load to change the blade clearance from blade deflection or blade beam mechanism. That allows Masteel shears cut strips narrower than the material thickness without damager to blade and machine.

### Quality and Heavy-duty structures

Monoblock type, welded frame and blade beam are optimized by computer-aided calculation to guarantee the maximum rigidity. Heavy-duty taper roller bearings are located on cutting lever and support blade beam rotational movement. It avoids cutting load transferred along blade beam rotational radius to the supporting bearings to ensure constant accurate blade clearance.



# MASTEEL with SIEMENS

BUILDS QUALITY, MORE CAPABILITY AND AFFORDABILITY

*Easy & Quick to do your work  
No extra charge for Masteel CNC control features*



## **STANDARD CONTROL FEATURES:**

- ▣ 36" SIEMENS Multi-step CNC back gauge: accuracy at  $\pm 0.002$ "
- ▣ 60 position pre-set backgauge memory for shearing heavy material or production process with no need of layout or holding material, then adjusting back gauge
- ▣ one-step go-to position control on backgauge
- ▣ Auto-swing up back gauge at full travel
- ▣ Programmable cutting width control
- ▣ Programmable cutting stroke control
- ▣ Easy operating control console:
  - Prompting instruction for easy operation and service
  - Running status display on control console
    - Manual/Auto mode                      Back gauge position
    - Cutting width                              Number of cutting strokes
  - Blade setup message at power on to prompt operator

## **OPERATING FUNCTION:**

- ▣ Rapid precision blade clearance adjustment
- ▣ Steady cutting speed and rapid back stroke for high efficient performance
- ▣ Multi - control mode
  - Pushbutton / Foot switch operation
  - Single cut/ continue cuts mode
  - Multi-backgauge position and multi-cuts automatic control mode
- ▣ Auto clamping pressure control on hold down feet auto-adjustable to various material
- ▣ Complete hydraulic, electric overload protection avoids operating fault

# MASTEEL with SIEMENS

BUILDS QUALITY, MORE CAPABILITY AND AFFORDABILITY

## STANDARD EQUIPMENT:

- ▣ Two square arm with stainless steel rule and disappearing stops
  - 7 Ft squaring arm on left to square long sheet material
  - 4 Ft squaring arm on right to provide even knife service life on both ends
- ▣ Front gauge with adjustable disappearing stops and stainless steel rule
- ▣ 4 Ft front support arms
- ▣ Ball transfers in table for easily handling heavy metal
- ▣ Ball transfers on front support arms, front gauge bar and right squaring arm
- ▣ Shadow light and line for positioning scribed line
- ▣ Cut-off material sliding tray for easy-collecting cutting material
- ▣ Safety guard

**SPECIFICATION:** [++ Specifications subject to change without notice. ++]

	Capacity Mild Steel	Cutting Length	Throat Depth	Back Gauge	Front Gauge	Rake Angle	Motor	Weight Lbs.	Dimensions L x W x H
<b>MSH-08250</b>	1/4"	8'4"	5-13/16"	36"	48"	1°30'	15 HP	14,200	122" x 64" x 65"
<b>MSH-10250</b>	1/4"	10'6"	5-13/16"	36"	48"	1°30'	15 HP	16,100	154" x 68" x 70"
<b>MSH-12250</b>	1/4"	12'	5-13/16"	36"	48"	1°30'	15 HP	22,000	175" x 70" x 71"
<b>MSH-10375</b>	3/8"	10'6"	4"	36"	48"	1°30'	25 HP	25,600	160" x 82" x 81"
<b>MSH-12375</b>	3/8"	12'	4"	36"	48"	1°30'	25 HP	28,500	194" x 82" x 81"
<b>MSH-10500</b>	1/2"	10'6"	8"	36"	48"	1°30'	25 HP	29,500	160" x 82" x 84"
<b>MSH-12500</b>	1/2"	12'	8"	36"	48"	1°30'	30 HP	35,200	194" x 96" x 84"
<b>MSH-14500</b>	1/2"	14'	8"	36"	48"	2°	30 HP	39,500	160" x 82" x 84"
<b>MSH-16500</b>	1/2"	16'	8"	36"	48"	2°	40 HP	61,600	235" x 104" x 100"
<b>MSH-10625</b>	5/8"	10'	8"	36"	48"	2°	50 HP	53,000	164" x 94" x 108"
<b>MSH-12625</b>	5/8"	12'	8"	36"	48"	2°	40 HP	46,600	196" x 86" x 86"
<b>MSH-10750</b>	3/4"	10'	8"	36"	48"	2°30'	50 HP	53,000	164" x 94" x 108"
<b>MSH-12750</b>	3/4"	12'	8"	36"	48"	2°30'	50 HP	61,000	196" x 96" x 111"

## MASTEEL QUALITY & VALUE STANDARD EQUIPMENTS:

### Siemens Compact Control System

- ▣ Siemens compact control system integrates CNC backgauge, hydraulics and electric control in one.
- ▣ Simple and less control components ensure years quality performance of Masteel Shears



### America-made hydraulics

- ▣ Simple hydraulic system for reliable performance
- ▣ Quality America-made components: Valves, pump, hoses and fittings

- ▣ 36" CNC Backgauge
- ▣ Slide tray for easy collect of cut-off strips
- ▣ Heavy-duty structure
- ▣ Precision leadscrew with integrated backlash compensation
- ▣ Backgauge bar swings up at full travel to allow longer material go through



## MASTEEL QUALITY & VALUE STANDARD EQUIPMENTS:



Precision variable position quick blade adjustment ensures proper blade clearance for various material thickness and properties and achieve quality cutting

Independent holddowns automatically adjust holddown-pressure to various material. More holddown-pressure for heavier cutting and less pressure for delicate thin material.



- ▣ Two square arm and one with stainless steel rule and disappearing stops
  - 7 Ft squaring arm on left to square long sheet material
  - 4 Ft squaring arm on right to provide even knife service life on both ends
- ▣ Front gauge with adjustable disappearing stops and stainless steel rule
- ▣ 3 Ft front support arms
- ▣ Ball transfers in table for easily handling heavy metal
- ▣ Ball transfers on front support arms, front gauge bar and right squaring arm
- ▣ Shadow light and line for positioning scribed line