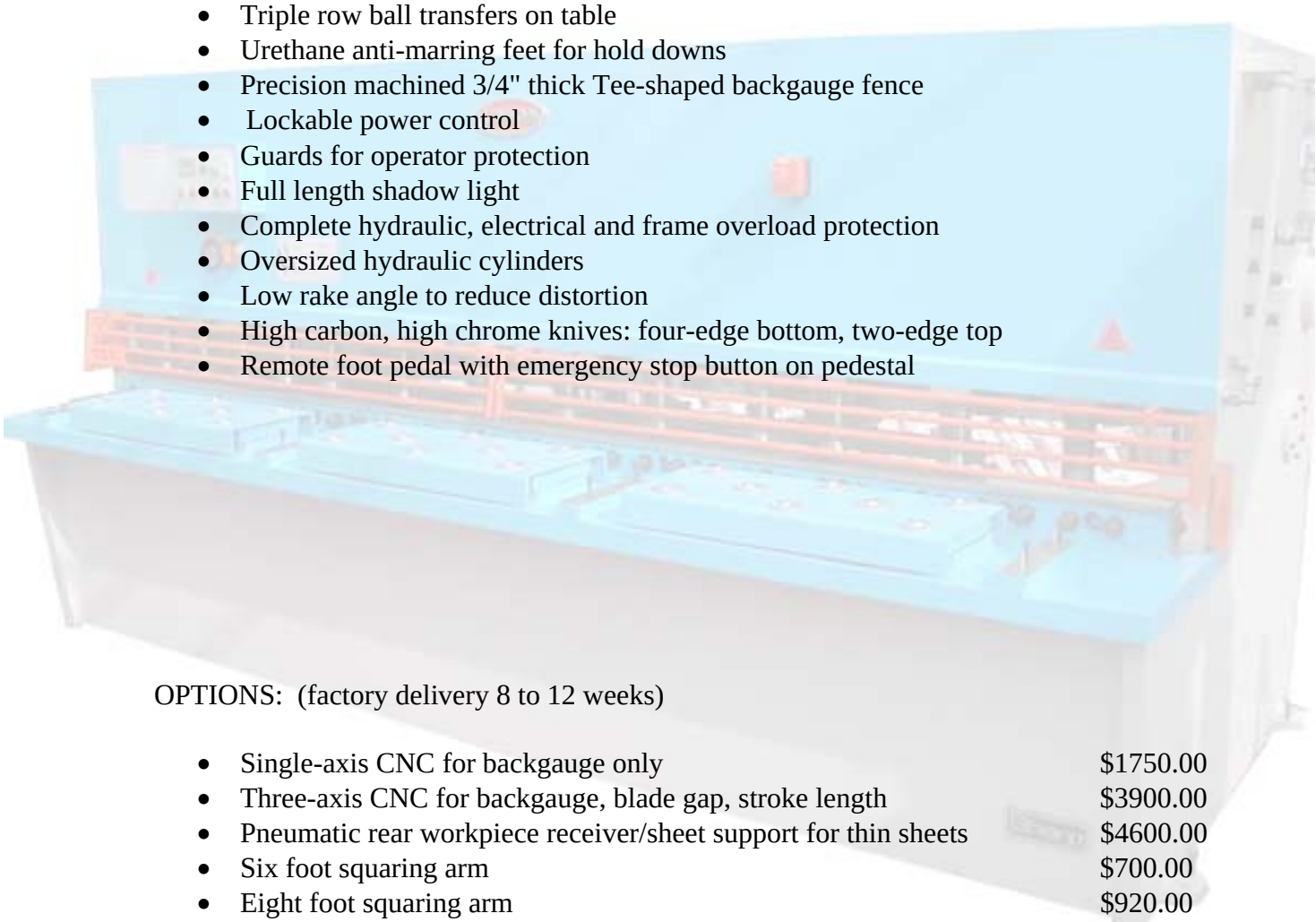
UNION Swing Beam Hydraulic Shears

- Continuously variable quick gap adjustment for perfect, burr-free edges in 26Ga. to 1/2" sheet
- Rear workpiece receiving slide with ball transfers
- Front controlled motorized backgauge (38”) with digital readout
- Automatic retracting backgauge allows cutting to unlimited depth past 38”
- Heavy duty machined squaring arms with stainless steel scales and disappearing stops
- Electronic stroke length adjustment
- Nitrogen charged return of blade ensures blade will rise in case of power failure
- Generous throat depth for shearing to unlimited length
- Triple row ball transfers on table
- Urethane anti-marring feet for hold downs
- Precision machined 3/4" thick Tee-shaped backgauge fence
- Lockable power control
- Guards for operator protection
- Full length shadow light
- Complete hydraulic, electrical and frame overload protection
- Oversized hydraulic cylinders
- Low rake angle to reduce distortion
- High carbon, high chrome knives: four-edge bottom, two-edge top
- Remote foot pedal with emergency stop button on pedestal



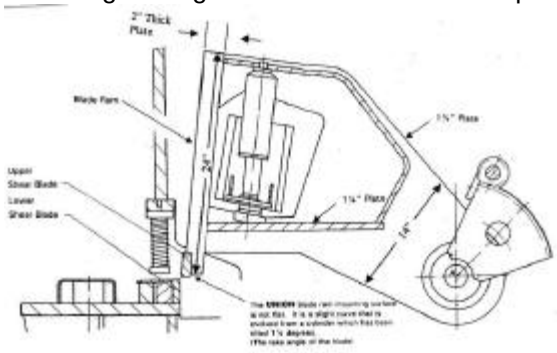
OPTIONS: (factory delivery 8 to 12 weeks)

• Single-axis CNC for backgauge only	$1750.00
• Three-axis CNC for backgauge, blade gap, stroke length	$3900.00
• Pneumatic rear workpiece receiver/sheet support for thin sheets	$4600.00
• Six foot squaring arm	$700.00
• Eight foot squaring arm	$920.00
• Ten foot squaring arm	$1200.00

Fixed CE standard front finger guards in lieu of flip-up guards available

-High Performance, High Value, Precise Control

The UNION hydraulic shears feature a direct, twin cylinder swing beam design which is the most power-efficient design possible. Since guides and slide ways are eliminated, far less horsepower is required. Guillotine type shears use end-mounted guides and slide ways for ram guiding and have relatively little lateral support in the middle of the ram. Consequently, under load, the clearance gap in the centre of the cut becomes wider than at the ends, resulting in poor quality cuts and shortened blade life. The UNION swing beam design has massive lateral support to eliminate sideways deflection at the centre of the cut. Even the smallest UNION shears have a massive 1 1/4" x 24" lateral support plate placed at a 90 degree angle to the 2" thick x 24" deep ram.



Because the UNION blade ram is part of the swing beam and because its pivot point is at table height on the side frames above the table. Thus, all models feature a generous throat depth that is not possible with conventional slideway machines without massively increasing the size of frame members.

UNION Hydraulic Shears are designed and constructed to provide high-speed shearing of blanks with clean, square edges, and to exacting working tolerances.

All UNION Hydraulic Shears feature the swing beam design ensuring consistently accurate parts while providing smooth, quiet operation. These cost efficient, quality shears are available in capacities from 1/4" - 3/4" (6mm-20mm) and 98" - 194" (2m-5m) cutting length. Unitized box construction provides for maximum rigidity and strength.

This simple design with swing beam upper blade, strong rigid frames, and constant minimum rake angle assures that the sheared blanks are precisely cut with a minimum of bow twist or camber.

UNION Hydraulic Plate Shears are equipped with the productive features and safety devices for optimum, accurate shearing performance found on more expensive units. Feature for feature, UNION Hydraulic Shears are a smart, economical choice for plate shearing.

SWING BEAM DESIGN

The beam holding the upper knife pivots on large spherical roller bearings, while hydraulic cylinders mounted into the side frames generate the cutting pressure at the end of each cutting stroke, the hydraulic pressure is released and return cyliinders move the beam to the top of stroke, the back gauge design and its interconnection with the swing beam gives immediate clearance to the sheared material, allowing it to drop away without jamming the lower blade and back gauge. Less maintenance is required with the swing beam design, since guides and slideways are eliminated.

RUGGED CONSTRUCTION

Stress-relieved, unitized box construction of the table and extra thick, rolled steel frames provide maximum resistance to deflection and torsional force. Increased throat depth in the side frames allows for progressive slitting of strips longer than the blades. Due to swing beam design, there is no deflection at the throat area of the shear.

MINIMUM RAKE ANGLE

Due to strong, rigid construction, swing beam design and powerful hydraulics, hydraulic shears feature a constant minimum rake angle for consistent, quality shearing, at full capacity,

with the least amount of distortion.

BLADE GAP ADJUSTMENT

A conveniently located adjustment lever enables the operator to accurately adjust the blade clearance on both sides of the machine simultaneously. Optional motorized adjustment is available.

SQUARING ARM

All shears are equipped with a heavy-duty squaring arm which is mounted at precisely 90 degrees to the shear blades. The squaring arm has a recessed stainless steel rule in inch/metric. The shear is also equipped with ball transfers to facilitate even the heaviest jobs.

MODERN BLOCK HYDRAULICS

The hydraulic system is comprised of long life, heavy-duty components mounted on a common block. Tubes and connections are minimized, and access and serviceability are made easy. The plunger pump is quiet and extremely reliable. The large capacity oil reservoir eliminates the need for oil cooler. A factory preset relief valve prevents overloading mechanical parts and hydraulic circuit.

ELECTRONIC STROKE ADJUSTMENT

For faster stroke rates, the operator can quickly adjust the stroke length to suit the job. Smaller blanks require less stroke length, thus providing faster cycling of the beam.

OPERATOR CONTROL CONSOLE

The control console is conveniently located on the front of the shear for easy accessibility. The control includes a back gauge mechanical readout, in .001" increments, and a stroke counter.

FRONT-CONTROLLED POWER BACK GAUGE

The standard heavy duty, motorized back gauge is front operated and adjusted through the operator's control console. The precision back gauge is two position - "down" for positioning and shearing and "up" for clearance. The gauge automatic "retract" position allows for shearing pieces longer than the extended range of the back gauge.

HINGED INTER-LOCKED BARRIER GUARDS

The UNION Shear has a unique inter-locked barrier guard. This allows the operator to safely pickup one side of the guard in order to work short pieces. Lifting the guard disconnects power to the foot pedal. The shear will not operate until the guard is lowered into the down position.

SHADOW LIGHTING

For fast, visual positioning of sheets with scribed lines or punched marks, an intense light is provided. The light source casts a precise shadow line for accurate positioning and shearing.

HYDRAULIC CYLINDERS

The separate, nitrogen-filled, return cylinders are mounted below the hydraulic cylinders. The return cylinders, independent from the hydraulic cylinders, automatically retract the blade to the top of stroke position during power shut down, emergency, or after the cutting stroke is completed.

BLADE CLEARANCE ADJUSTMENT

Proper blade clearance can be adjusted easy to assure clean, square edges on every part.

QUALITY BLADES

Shears are equipped with high carbon, high chrome blades.

Standard Features

·Front controlled motorized retractable back gauge with digital readout
·Heavy duty squaring arms with stainless steel scales and disappearing stops
·Electronic stroke length adjustment
·Generous throat depth for shearing to unlimited length
·Triple row ball transfers on table
·Piano wire shadow line gauging
·Urethane anti-marring feet for hold downs
·Automatic counter control

·Multi-position precision blade clearance adjustment
·Precise, front-controlled, motorized, retractable backgauge with precision digital readout
·Electronic stroke adjustment
·Stroke counter
·Ball transfers
·Emergency stop
·Lockable power control
·Heavy duty 40" squaring arm and stainless steel scale
·Guards for operator protection
·Full length shadow light
·Modern block and cartridge hydraulics
·Electrical system 220/380/440/575 volts, 60/50 hz
·Complete hydraulic, electrical and frame overload protection
·Oversized hydraulic cylinders
·Low rake angle to reduce distortion

Models -->	1/4"/80"	1/4"/102"	1/4"/127"	1/4"/160"
Material Thickness	1/4"	1/4"	1/4"	1/4"
Length of Cut	80"	102"	127"	160"
Rake Angle	1.30°	1.30°	1.30°	1.30°
Back Gauge Travel	36"	36"	36"	36"
Motor	15 hp	15 hp	15 hp	15 hp
Hyd. Oil Cap.	56 gal.	56 gal.	67 gal.	76 gal.
Approx. Weight	11000 lbs.	12100 lbs.	14300 lbs.	15400 lbs.
Strokes/min. @ full length	22	18	14	10
# of hold-downs	12	12	13	14
# of front sheet supports	3	3	4	4
Length of Standard Squaring Arms	39"	39"	39"	39"