# Controlled Automation

Steel and Metal Fabricating Machinery & Controls

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You want a machine that lasts, not to mention one made to process the heaviest steel members, jumbos and columns out there. Capabilities of independant length positioning of each spindle also enable you the highest production drilling in the industry.



#### Available Machine Specifications Layout marking Fully automatic saw & miter saw integration Patented precision material measurement 20 HP variable AC standard Stencil part marking Optional Minimum width 4" (102mm) 44" (1.1m) Maximum width Maximum hole size 2-1/8" (73mm) Machine weight 38,000lb (17,252kg) Drilling pattern window 24" (610mm) along material length Spindle type #4 morse taper Variable spindle RPM 200 - 1,600 RPM Variable feeds 1 - 40 IPM (25-1,000 mm/minute) 1,000lb per foot Maximum material weight (1, 190 kg/m)

Controlled Automation



With three independent travelling spindles, you can drill an entire hole pattern without moving material.



#### **Available Machine Specifications**

- Layout marking and stencil part marking
- Patented precision material measurement
- 20 HP variable AC standard
- Maximum width
- Maximum hole size
  2-1
- Machine weight
- 48" (1.2m) 2-1/4" (57mm)
- 30,000lb (13,620kg)

- Spindle type
- Variable spindle RPM
- Variable feeds
- Maximum material weight 1,000lb per foot (1,190kg/m)
- \* Non-Automatic Tool Changer version also available

CAT40

1 - 40 IPM

100 - 2,100 RPM



Solutions to producing a wide range of products relies heavily on your flexibility as a fabricator. Having multiple tools in your arsenal opens your capabilities to handle a variety of production that is not always the same every day.





There's a saying we have about processing steel. You drill when you have to, you punch when you can. Fabricators realize that holes and slots being punched is faster than any plasma or drilled process as well as more economicalon tooling. An automated beam punch line provides you with more value than any single-spindle drill by punching holes on all sides and automating your material handling for practically the same costs as a singlespindle machine. You, as a fabricator, know the big advantage over your competition when you are capable of inexpensive fast automation. Punch for profit!

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- 5 frames to punch and mark all sides of a beam
- Layout marking and stencil character part marking
- Fully automatic saw & miter saw integration
- Dual-gag (two punches) per face to punch two hole and/or slot sizes
- Automated material handling
- Flange & Web capacity
- Maximum width
- Maximum thickness
- Web throat depth
- Positioning speed

- 115 tons
- 36" (914mm)
- 1" (25mm)
- 1 (2511111)
- 30" (762mm) 0 to 183ft/min (56m/min)

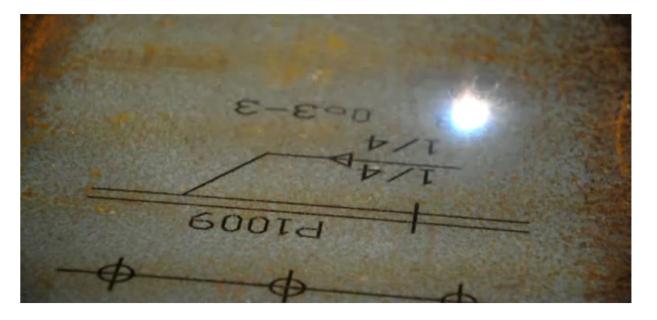


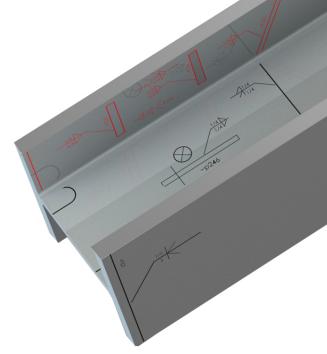


"Your time is money." The reason the laser layout printer is a game changer is simple: It gives you, the fabricator, more time (and more money) by automating fitting and welding. Take laying out by hand out of the equation by marking everything from the CAD model, heat numbers and weld information directly on the material. You can eliminate the slow and inacurate process of pulling tape and marking hand. Finally you have the solution to mark components produced even for DOT and seismic work that does not allow for plasma marking and other thermal processes.



- Four independent rotating 100w fiber laser units mark all sides of a beam
- Model import from AceCad, DSTV, SDS2 / Design Data, Tekla and others seemliness using SICAM software
- Marks through cutting oil, water, rust, mill scale and others with ease
- Extremely fast marking 6 characters per second and lines at 400 inches per minute
- Eliminates manual layout on main members
- Allows for easy inspection of hole locations









## **Revolution** Thermal Processing Coping & Marking

The Revolution by Controlled Automation is the only system capable of processing copes, cut-to-length, AISC approved bolt-hole connections, marking, scribing, and fully cutting shapes up to 48" (1.2m) wide and capacities up to 1,000lb per foot. The Controlled Automation Revolution machine comes standard with laser scanning to provide more than 60% faster processing than probing machines. For even greater productivity, the Revolution also has an automatic tool-changer to switch from high definition plasma to an oxy-fuel torch station to process thicker material beyond plasma capabilities. This is the ONE machine manufactured for steel and metal fabricators to process all of your structural shapes.

# **Revolution**

- Material cutting window
  Cutting process
- Cutting process
- Marking
- Plasma thickness
- Oxy-fuel thickness
- Machine weight
- Measuring system
- Maximum material weight
- Plasma gas control

48" x 24" (1.25m x .6m) Plasma & Oxy-fuel with automatic tool change Plasma scribing & marking (optional stencil part marking) 2" (51mm) 6" (152mm) 16,000lb (7,264kg) Combination laser and rack & pinion probe 1,000lb per foot (1,190kg/m) Fully automatic with Hypertherm True Hole

Optional bottom side processing



# Signature Edition

The ABL-100HS Signature Edition is the most versatile, and fastest large angle and flat bar punching and shearing machine on the market today. The high speed servo motor, continuous probing, continuous clamping, and valve positioning software make it not only fast but very accurate. The ABL-100HS Signature Edition is offered by Controlled Automation with 143 ton triple gag punches, a single and double cut shear, length measurement probe as well as optional part marking and stenciling..

The pushing probe is mounted on the In-feed side of the machine and the probe pushes the material through the machine all the way to the shear, providing length measurement data to the computer during production. This is the most accurate type of positioning system available by any machine manufacturer, due to the rack and pinion measurement system used.



- Maximum angle
- Minimum angle
- Maximum flat bar
- Minimum flat bar
- Punch capacity
- Maximum hole size
- Punch frame

8" x 8" x 1" (203mm x 203mm x 25.5mm) 1-1/2" x 1-1/2" x 3/16" (38mm x 38mm x 4.7mm) 12" x 1" (305mm x 25.5mm) 2" x 1/4" (50.5mm x 6.3mm) 143 ton 1-9/16" (40mm) triple gag punches per frame

\*Custom ABL-100HS machines also available





The ABL-86T is an extremely fast punching and shearing machine for processing angle and flat bar. It has a top positioning speed of 375 ft/min. It can be supplied with three different measuring options of your choice depending on your routine part production. This machine is capable of shearing 6" x 6" x 5/8" angle and 6" x 5/8" flat bar. Dual-punching per angle leg and automated part marking is also available.

#### MAX MATERIAL

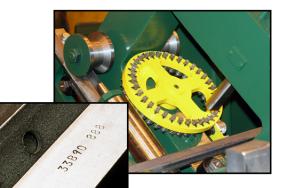
Angle: 6" x 6" x 5/8" (7" x 4" optional) (152mm x 152mm x 16mm) Flat Bar: 6" x 5/8" (152mm x 16mm)

#### LOTS OF OPTIONS

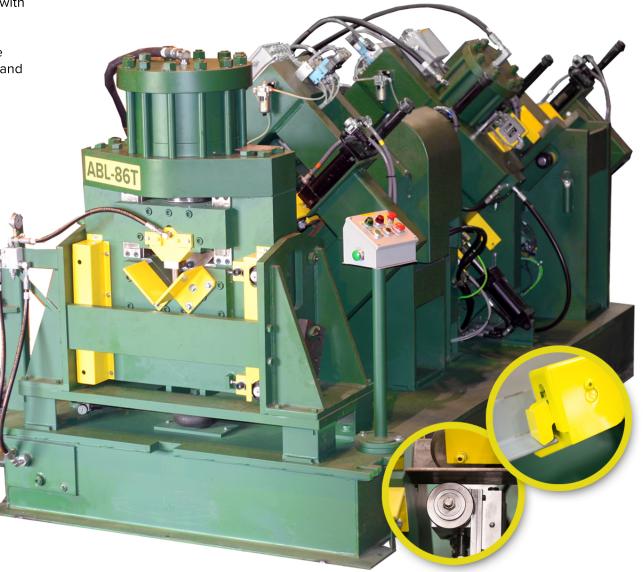
If you need an ultra-fast wheel-measure clip machine or a highly accurate probe-style measuring, the ABL-86T comes in many combinations to accomodate your needs.

#### **USA MADE**

We proudly manufacture our machines in their entirety in the USA as well as our software and controls.











High volume angle and flat bar production can be achieved without "drops" in your material. even on our entry-level ABL-74P angle line. This high speed, high accuracy machine offers what few others do at higher prices: ZERO kerf, singlecut shear, and punching on both legs. With our  $6 \times 6 \times 1/2$  capacity single-cut shear, you do not have a material loss (slug) for each shear process - saving you money every time you cut. For affordable tooling, the ABL-74P uses inexpensive punches and dies from Cleveland Punch & Die which last longer and process much faster than more expensive drill tooling. The ABL-74P uses all of your material right up to the last inch using our highly accurate pushing probemeasure system positioning all the way to the shear. The ABL-74P is made with quality and pride for years of production and years of profit.

#### MAX MATERIAL

Angle 6" x 6" x 1/2" (152mm x 152mm x 12,7mm) Flat Bar: 1/2" x 6" (12,7mm x 152mm)

#### ACCURACY

Highly accurate push probe measuring system for greater tolerance than any wheel-measure system. Processes long parts as well as clips.

#### LOWEST COST TO RUN

With a single-cut shear and inexpensive tooling on both sides of angle, the ABL-74P is the least expensive machine to produce angle and flat bar

\* Wheel-Measure model also available



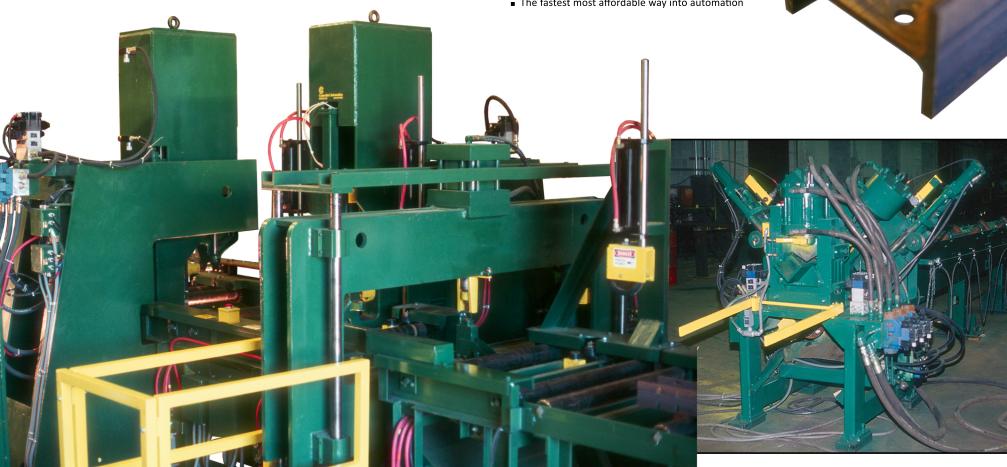
# Remanufactured

You need experience when you are looking for retrofitted and remanufactured equipment. Controlled Automation has been the leader in retrofit controls and remanufacturing machines since its inception. Today we still pride ourselves with the same use of loyal service and build quality on rebuilt machines just like our new Controlled Automation equipment.



Remanufactured Angle, Beam Punch, & Drill Lines

- Full automation for manual process machines
- Latest SICAM software and controls
- Higher precision with the latest measuring
- New machine warranty
- Some with faster processing than when new
- The fastest most affordable way into automation







Large jobs requiring you to process angle and flat bar beyond the capacities of punching and shearing are a slow tedious one unless, of course, you are equipped with an ADPL. No longer are you constrained to a manual process for angle iron over an inch (25mm) in thickness.

- Simultaneous drilling of both legs
- Plasma or Saw cut to length process
- High speed drill with mist thru-spindle coolant
- Rack and pinion probe measuring
- Maximum angle ——— 8″ x 8″ x 1-1/2"
- Maximum hole size 2-1/8" (73mm)



# **Detail Line**

Pre-engineered building production requires adaptation to a variety of flange and detail parts for producing any size beam that comes your way. You need a machine that can do both flanges and base plates without limiting you on speedy production.



Dual Punch



- High speed production model with partial retract punches
- Single and/or dual punch
- Stencil character wheel
- Weld station for continuous material flow
- Large variety of material handling options
- Punch capacity 143 ton single punch (optional 215 ton) and/or 215 ton dual punch (250 optional)
- Shearing capacity ——— 360 ton single cut
- Maximum bar size 12" x 1" (304.8mm x 25.4mm)
- Minimum bar size \_\_\_\_\_1/4" x 2-1/2" (6.3mm x 63.5mm)





The Gantry Plate Drill and burn gives fabricators high performance drilling in the largest work envelope. The GPD-144 and GPD+ has the rigidity and precision normally found only in high-end machining centers. Complemented with a powerful ram style headstock and coolant through the spindle, this drill achieves high metal removal rates for maximum productivity. The user friendly SICAM Windows control system is packed with features to help make quick work of even the largest drilling jobs.

- Carbide drilling with thru-spindle mist or flood coolant
- Fully automated tool changer
- Dual side independent rail axis drive package
- Automatic gas control with Hypertherm True Hole
- SICAM advanded plate nesting software
- Air conditioned Windows controller
- Processing parameters for drill, plasma and oxyfuel operations set automatically



- Spindle type \_\_\_\_\_CAT 50
- Horsepower 30 HP variable AC standard
- Variable spindle RPM 0 2,400 RPM
- Plasma system Hypertherm HPR400XD
- Oxy-fuel system 6" (152mm) automatic gas





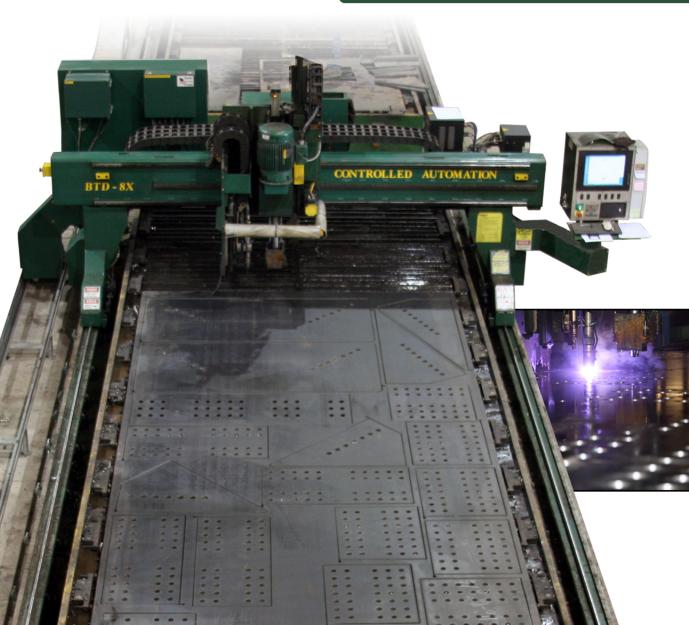
The BTD-8X is a combined drill and plasma plate processing machine. Each machine is supplied in 8' (2.5m) working width and the length can be anything up to 124' (38m). Drilling operations are performed using a 10 hp spindle with our own proven drilling technology. A high definition plasma torch cuts material up to 2-1/2" (63.5mm) thick and a standard automated oxy-fuel torch cuts material up to 4" (101mm).

#### **Available Machine Specifications**

- Carbide drilling with thru-spindle mist or flood coolant
- Dual side independent rail axis drive package
- Automatic gas control with **Hypertherm True Hole**
- SICAM advanded plate nesting software
- Air conditioned Windows controller
- Processing parameters for drill, plasma and oxyfuel operations set automatically
- Max drill size \_\_\_\_\_ 1-9/16" (40mm)
- Spindle type #4 morse taper
- Horsepower ——10 HP variable AC standard
- Variable spindle RPM 200 1,600 RPM
- Plasma system ——— Hypertherm XPR300
- Oxy-fuel system 4" (101mm) automatic gas



BTD-8X combination plasma drill and burn





The GPF-10X is our latest plate production machine to process 10' (3m) wide material. This machine is capable of drilling holes up to 2-1/4" (57mm) diameter and cutting steel plate up to 6" (152mm) thickness. The system includes a 20 hp CAT 40 drill spindle with optional automatic 10-position tool changer, 400 amp plasma system with auto-gas control, oxy-fuel torch station with auto-gas control, and our own advanced SICAM plate nesting software.

- Carbide drilling with thru-spindle mist coolant
- Fully automated 10-position tool changer
- Dual side independent rail axis drive package
- Automatic gas control with Hypertherm True Hole
- SICAM advanded plate nesting software
- Air conditioned Windows controller
- Processing parameters for drill, plasma and oxyfuel operations set automatically
- Helical drive racks for high strength & smooth cuts



- Max drill size \_\_\_\_\_2-1/4" (57mm)
- Horsepower 20 HP variable AC standard
- Variable spindle RPM 100 2,100 RPM
- Oxy-fuel system 6" (152mm) automatic gas





#### **Available Machine Specifications**

- Rigidly constructed, fully machined, high speed aluminum gantry
- Dual side independent rail axis drive package
- Automatic gas control with Hypertherm True Hole
- SICAM advanded plate nesting software
- Air conditioned Windows controller
- Processing parameters for plasma and oxyfuel operations set automatically
- Machine advance speed up to 1,400" (36m) per minute
- Automatic height control and crash detection



- Material length 4' to 30' (1.2m to 9.2m)

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PlasMAX

Maximum thickness — 4" (102mm)

PlasMAX High definiton plasma

The PlasMAX is supplied in 6' (1.8m) or 8' (2.5m) wide capacity and usually with one auto-gas high definition plasma. The table travel length can be manufactured up to 30' (9.2m). This machine incorporates dual side drives. The machine and cutting surface are unitized allowing for easier installation making the PlasMAX ideal for the manufacturing industry. An oxy-fuel torch system, air downdraft, and water type cutting surfaces are also available.





**MultiMAX** Signature Edition plasma and oxy-fuel

MultiMAX Signature .

Controlled Automation proudly introduces the Signature Edition of our best-selling MultiMAX plate system. This machine has been custom designed with all the most popular features specific to the Structural Steel Fabricator for an unbelievable price and delivery.

MultiMAX Signature Edition Features:

- > 10' x 20' plate capacity
- > Hypertherm's revolutionary XPR300<sup>®</sup> plasma system
- > Autogas Oxyfuel
- > Warranty up to 5 years

\*Custom MultiMAX machines also available



#### **Available Machine Specifications**

- Rigidly constructed, fully machined tubular steel gantry
- Self-contained water or down draft cutting surface
- Automatic gas control with Hypertherm True Hole
- SICAM advanded plate nesting software
- Precision linear guideways for high rigidity
- Processing parameters for plasma and oxyfuel operations set automatically
- Machine advance speed up to 1,200" (30.5m) per minute
- Automatic height control and crash detection
- Material width ——— 6' to 8' (1.8m to 2.5m)
- Material length Up to 12' (3.6m)
- Maximum thickness——4" (102mm)
- Plasma gas control ——Automatic with HPRxd





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The ProMAX is our entry level single side drive machine. It is supplied in 6' (1.8m) or 8' (2.5m) widths, to 12' (3.6m) cutting lengths. Controls use our advanced SICAM Nesting software on the Windows operating system. An oxy-fuel torch is also available for this model.



#### **Available Machine Specifications**

- High performance carbide, spade or twist bit drilling
- Vertical or Horizontal models available
- 25 HP variable speed spindles
- 100-1,200 variable spindle RPM
- Brushless AC servo / ball screw feed
- Dual-side rack and pinion rail axis drive package
- Thru-spindle air mist coolant system
- Liveline safety perimeter
- Laser pointer to skew hole patterns and find start
- Quick disconnect for controller and power
- Air conditioned Windows controller with SICAM
- Wireless operator's pendant

The Girder Drill is a portable gantry style drilling machine, designed to provide fast and accurate multi-ply drilling of structural girders without the use of pre-drilled templates. The machine is offered in both a vertical or horizontal spindle drilling model. The vertical can be mounted to optional leg and wheel assemblies making it easy to reposition along any length after each drilling operation is completed or left stationary to drill plate components.

- Standard window——8' x 14' (2.4m to 4.3m)
- Spindle stroke length—24" (609mm)
- Max hole size 2-1/2" (63.5mm)
- Spindle type #4 morse taper

Girder Drill Vertical or Horizontal

A 4 1

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The **2AT-175 Plate Punch** is a powerful plate punching machine. Its large table, powerful grippers, and high punch capacity allow it to handle your largest plate needs. The 2AT-175 is capable of punching 1-1/2" (38mm) holes through 1-1/2" (38mm) mild steel. This machine is now supplied with SICAM software.



Controlled Automation is bringing the best solution for straightening cambered Tees. The **Tee Straightener** provides a quick and easy pass-through method of taking out the bow in Tees up to 9/16" (171mm) thick and at any length. This machine is very easy to set-up and does the work in minutes.

# **BSP-2000**

The **BeamSplitter** splits beams and channels by riding along their flanges without the use of a guide track. This beamsplitter operates from 120VAC, with user controlled variable speed for the use of both gas and plasma torches (not included). Constructed mostly of aluminum, the BSP-2000 is lightweight allowing the operator easy transport throughout the work area. This beam splitter is designed for quality cuts while remaining fast and easy to operate.

#### **Available Machine Specifications**

- Punch capacity 175 ton or 215 ton
- Max hole size \_\_\_\_\_2-5/16" (58.75mm)
- Punch throat \_\_\_\_\_\_ 30" (762mm)
- Max plate material \_\_\_\_\_\_ 30" x 60" (762mm x 1,524mm)
- Max material thickness—1-1/2" (38mm)
- Minimum angle size 3" x 3" (76mm x 76mm)

#### **Available Machine Specifications**

- Straighten camber / sweep from any direction
- Manual operator controls
- Maximum material thickness 13/16" (20.6mm)
- Maximum material length —— unlimited
- Maximum capacity 14" x 37"

(355mm x 940mm) 7" MAX Stem length

- Flange guided, no guide tracks required
- Operates from 120VAC
- Speed variability: 0 to 140" (3.5m) per minute
- Splits beams up to 44" (1.1m) wide
- May also be used for a track torch and beveling
- Includes both torch and plasma attachments
- Light weight for portability



## SW-4020S 40" Straight Cut

Max Capacity	26" Round (660 mm)
Blade <b>Speeds</b>	66-330 fpm (20-100 m/min)
Saw Blade Size	315" x 2" x 0.063 (8000L x 54W x 1.6T mm)
Tension	Hydraulic
Motor Output	10 HP (Saw Blade)
Machine Weight	11,440 lbs (5200 kgs)

### **SW-4020DM**



Max Capacity	26" Round (660 mm)
Blade	49-295 fpm
Speeds	(15-90 m/min)
Saw Blade	326.8" x 2" x 0.063
Size	(8300L x 54W x 1.6T mm)
Tension	Hydraulic
Motor Output	10 HP (Saw Blade)
Machine	9,460 lbs
Weight	(4300 kgs)

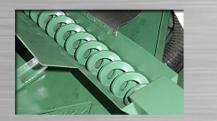
# SW-5120S

Straight Cut	
90° Capacity	20.5" x 51.2" (520mm x 1300mm)
Blade <b>Speeds</b>	50 - 330 fpm (15-100 m/min)
Saw Blade Size	2-5/8" x 421" (67mm x 10,700mm)
Vise	Hydraulic Full Stroke Cylinder
Motor Output	20 HP
Machine Weight	14,500 lbs



## **SW-5120DM**

90° Capacity	20.5" x 51.2" (520mm x 1300mm)
± 45° Capacity	20.5" x 33.5" (520mm x 850mm)
± 60° Capacity	20.5" x 19.7" (520mm x 500mm)
Blade Speeds	50 - 330 fpm (15-100 m/min)
Saw Blade Size	2-5/8" x 421" (67mm x 10,700mm)
Vise	Hydraulic Full Stroke Cylinder
Motor Output	20 HP
Machine Weight	18,000 lbs



## Chip Auger

Standard on all Controlled Automation model saws, the Chip Auger removes chips from the cutting area into an easy-to-empty container.

## Shadow Light

Standard on a Controlled Automation saw is the shadow-light system for operator assisted allignment or as an option, the laser line system.



#### Gear Box

Our specially designed planetary gearbox provides smooth and powerful cutting through the heaviest of materials.



Controlled Automation designs and manufactures custom material handling for a variety of systems. All roll conveyors and transfers are tailored to meet your needs.

#### Conveyors

- All conveyors are designed to fit new or existing equipment
- Weight capacities from 300lb/ft (446kg/m) to 1,000lb/ft (1,190kg/m)

#### **Air-Lift Transfers**

- Air-Lift Transfers are leak-free with no hydaulics
- 3,000lb per (1,589kg) model or 7,200lb per line (3,270kg) models

#### **Drag-Style Transfers**

- Drag-Style Transfers are the most economical
- Built primarily for lighter systems

#### **Chain-Arm Transfers**

- The fastest system of transfers
- Quiet operation and heavy capacity

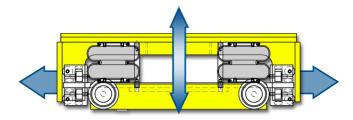
#### Single-Chain Lift-Arm Transfers

- Economical solution for quiet operation
- Simple solution to load from one side



## Material Handling Conveyors, transfers & storage











#### **Controlled Automation**

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www.controlledautomation.com

Controlled Automation specializes in the manufacture of automated structural steel drilling, punching, and shape cutting machinery. We also build material handling systems to complement each type of machine we offer. As well as new machinery, we are the industry leader in retrofitting control systems and remanufacturing existing structural steel fabricating machinery. All software is developed and supported in the United States of America.