

# HORIZONTAL PIVOT STYLE BAND SAWS



**AHB**  
TOOLING & MACHINERY, INC.

COMPLETE METALWORKING SOLUTIONS  
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**HYDMECH**

# S-20

## CAST IRON SAW HEAD

Provides rigidity and less vibration when cutting. Ensures straight cuts and increases blade life!

## DIGITAL BAND TENSIONING DISPLAY

Manual mechanical tensioning allows for quick and simple blade changing. A LED display on the control console provides readout for proper tension setting.

## 3 HP DIRECT BLADE DRIVE

Heavy-duty 2-stage gearbox and motor is controlled by an AC inverter drive. Blade speed is easily adjusted with a wide range of band speeds. Less moving parts compared to belt and pulley drive machines.



Photos may show optional equipment.



The S-20 represents the first band saw to incorporate a swing head design for miter cutting. The innovative design saves operator set up time and shop space. These versatile machines provide exceptional miter cutting for light to medium duty applications.

## STANDARD FEATURES

- Easy swing, heavy duty cast iron saw head
- 3 HP true direct blade drive 36" material in-feed roller table and 19" out feed table
- Heavy duty sliding material vise(cam lock) jaw
- Mechanical band tensioning with digital readout
- Cast iron band wheels
- Swing away operator control panel
- Replaceable blade brush
- Robust steel base
- Easy to read angle scale with angle locking mechanism
- Cast iron guide arms. Idler side guide arm is adjustable and supported by linear rail
- Gravity head feed
- Replaceable carbide guide inserts
- Safety door interlocks
- Flood coolant with wash down hose
- Laser light
- Work light

## OPTIONAL FEATURES

- Mist lubrication
- Adjustable work stop
- Single phase
- Idler conveyor & accessories





## STANDARD FEATURES

- Easy swing, heavy duty cast iron saw head up to 60° one direction
- Full capacity, full stroking hydraulic vise
- 3 HP VFD. True direct blade drive - no belts/pulleys
- On-demand hydraulics save energy
- 36" material in-feed roller table and 19" out feed table
- Cast iron band wheels
- Semi-automatic control panel
- Replaceable blade brush
- Robust steel base
- Easy to read angle scale with angle locking mechanism
- Cast iron guide arms. Idler side guide arm is adjustable and supported by linear rail.

- Gravity head feed
- Mechanical band tensioning with digital readout
- Replaceable carbide guide inserts
- Safety door interlocks
- Flood coolant with wash down hose
- Laser light
- Work light

## OPTIONAL FEATURES

- Full capacity hydraulic overhead bundling
- Work stop
- Single phase - 220 v
- Remote operator console
- Mist lubrication
- Variable vise pressure
- Idler conveyors

# S-20P

## LASER LIGHT

This standard feature is ideal when manually marking your cut line and aligning that mark with the blade.

The laser light allows you to avoid joggling the blade downward while moving the part in and out.

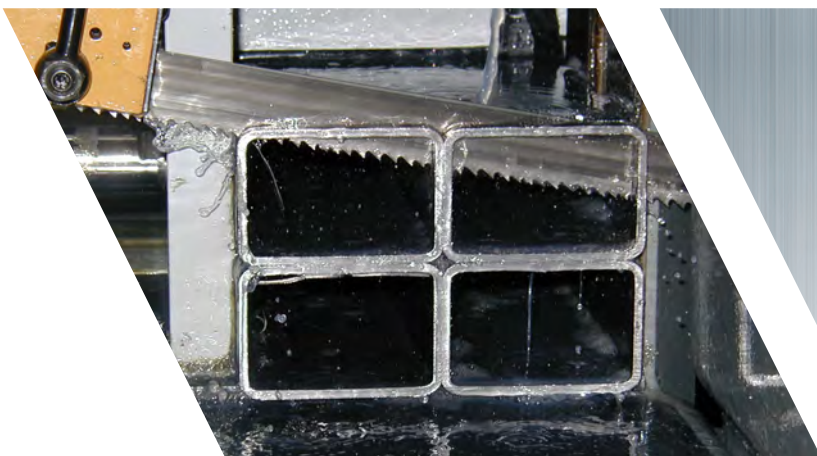
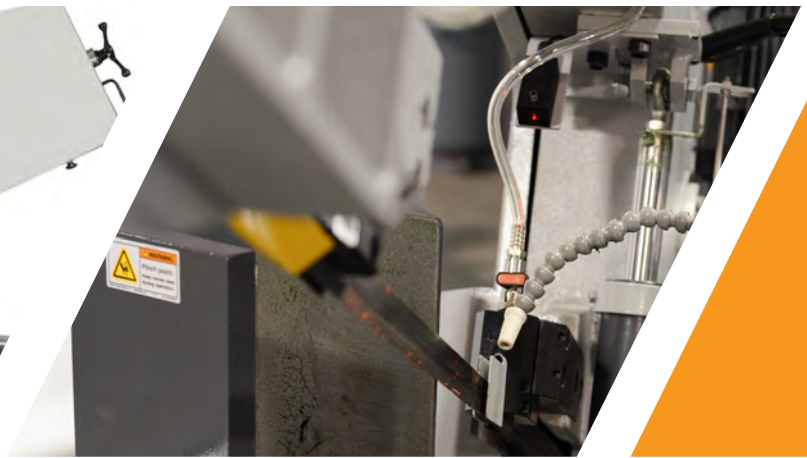
A great safety feature as the head stays up in a locked position. An on/off switch is provided.

## FULL CAPACITY HYDRAULIC VISE

Save time with the full capacity, full stroking hydraulic vise. Add the optional overhead clamp, which clamps material from above. This option is very effective, and necessary for bundle cutting various material shapes.

## SEMI-AUTOMATIC CONTROLLER

Equipped with a digital LCD display, control shows machine mode, pieces cut, blade speed, blade tension, amperage draw, cut duration, overall machine run time, and head position.



Photos may show optional equipment.

# S-20A

## BALL SCREW FEED SYSTEM

Improve cycle time! Automatic material indexing up to 27" in a single stroke. The shuttle vise is powered by a ball screw and stepper motor for fast, accurate indexing.

## AUTOMATIC PLC CONTROL

Automatic mode: displays blade speed, blade tension part length, quantity required, and piece count, job run time, total blade run time Machine will shut down when the required number of pieces have been cut.



Photos may show optional equipment.



## STANDARD FEATURES

- Easy swing, heavy duty cast iron saw head
- Cast iron shuttle features automatic multi-indexing up to 27" in a single stroke. Powered by ball screw and stepper motor.
- 5 HP VFD. True direct blade drive - no belts/pulleys
- On-demand hydraulics save energy
- Blade chamber separates material from cut part
- Cast iron band wheels
- Automatic PLC, touch screen control programmable up to 100 jobs with 20 in queue
- Replaceable blade brush
- Robust steel base
- Easy to read angle scale with angle locking mechanism
- Cast iron guide arms mounted on linear rails is adjustable for proper spacing.

- Easy access electrical panel
- Out of stock switch
- Mechanical band tensioning with digital readout
- Hydraulic positive down feed
- Replaceable carbide guide inserts
- Safety door interlocks
- Flood coolant with wash down hose
- Laser light & work light

## OPTIONAL FEATURES

- Full capacity hydraulic overhead bundling
- Mist lubrication
- Variable vise pressure
- Idler and powered conveyors



## STANDARD FEATURES

- Semi-automatic control
- 1-1/4" blade width
- Easy swing, heavy duty cast iron saw head provides durability, stiffness, and absorbs vibration that is created during the cutting process.
- Full capacity, full stroking hydraulic material vise
- 8.8 HP VFD True direct blade drive – no belts/pulleys.
- Infinitely variable blade speed and LED readout on control panel
- On-demand hydraulics save energy
- 20" out feed table
- Blade breakage switch
- Cast iron band wheels
- Replaceable blade brush
- Robust steel base
- Easy to read angle scale with angle locking mechanism
- Cast iron guide arms. Idler side guide arm is adjustable and supported by linear rail.
- Easy access electrical panel
- Hydraulic positive down feed provides easy adjustment of both feed rate and cutting pressure

- Mechanical band tensioning with digital readout
- Replaceable carbide guide inserts
- Safety door interlocks
- Flood coolant with wash down hose
- Laser light
- Work light

## OPTIONAL FEATURES

- Full capacity hydraulic overhead bundling moves down on the material from above. Timed with the opening and closing of the side vise, it is very effective for bundle cutting various material shapes & sizes.
- Mist lubrication
- Variable vise pressure
- Work stop
- Idler conveyors



# S-23P

## HYDRAULIC POSITIVE DOWNFEED

The DDF system (dual down feed system) has the capability of controlling both feed rate and feed force parameters to achieve optimum cutting results, and blade life.

## BUILT-IN COOLANT DRAWER

Base features a built in coolant drawer with centrifugal pump. The pump delivers ample coolant to the cutting area.

## SEMI-AUTOMATIC CONTROLLER

Equipped with a digital LCD display, control shows machine mode, pieces cut, blade speed, blade tension, amperage draw, cut duration, overall machine run time, and head position.

## MECHANICAL LOCKING MITER SCALE

The easy swing head frame, with counter balance springs has a scale for the head miter position in 1° increments. A cam lock brake provides reliable locking at the desired angle.



Photos may show optional equipment.

# S-23A

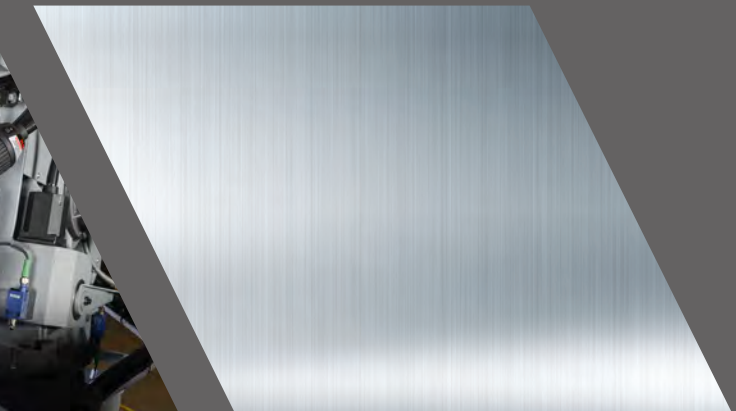
The S23A Horizontal Pivot Band Saw will increase flexibility and improve efficiency in any general purpose sawing application. This automatic machine is ideal for the small to medium fabricator or machine shop, looking to make extremely accurate, straight or miter cuts. The saw head swings 30 degrees in both semi-automatic and automatic. All of the saw blade guiding components are made of cast iron, making this machine highly durable and accurate. The S23A is a competitively priced machine combined with versatility and unmatched cost per cut.

## CAST IRON GUIDE ARMS

Premium cast iron, heavy duty guide arms mounted on linear rails come equipped with replaceable, pre-set carbide inserts (no adjustments needed) for accurate cutting.

## AUTOMATIC PLC CONTROL

Windows touch screen controller operates the automatic cycle but allows for manual operation as well. A variety of languages can be chosen for message screen display.



Photos may show optional equipment.



## STANDARD FEATURES

- Easy swing, heavy duty cast iron saw head
- Cast iron shuttle features automatic multi-indexing up to 29" in a single stroke. Powered by ball screw and stepper motor.
- 8.8 HP VFD. True direct blade drive - no belts/pulleys
- On-demand hydraulics save energy
- Blade chamber separates material from cut part
- Cast iron band wheels
- Automatic PLC, touch screen control programmable up to 100 jobs with 20 in queue
- Replaceable blade brush
- Robust steel base
- Easy to read angle scale with angle locking mechanism
- Cast iron guide arms mounted on linear rails is adjustable for proper spacing.
- Easy access electrical panel
- Out of stock switch
- Mechanical band tensioning with digital readout

- Hydraulic positive down feed has the capability of controlling both feed rate and feed force parameters to achieve optimum cutting results, and blade life.
- Replaceable carbide guide inserts
- Safety door interlocks
- Flood coolant with wash down hose
- Laser light
- Work light

## OPTIONAL FEATURES

- Full capacity hydraulic overhead bundling
- Remote console
- Mist lubrication
- Variable vise pressure
- Idler conveyors
- Powered conveyors



## BLADE CHAMBER

After completing a cut, the unique blade chamber feature prevents the blade from snagging by providing a wide path for the blade to retract through.

After finishing the cut, the head and saw blade stay in the down position. The shuttle vise then retracts the cutting stock.

The head retracts through created opening (chamber), and the shuttle will then advance the material to the desired length.

This feature allows the operator to run the machine unattended without the possibility of the blade catching on the material as the head retracts. Without this feature blade can be damaged including blade guard, saw table, and guides.

## CAST IRON SHUTTLE FEED

Heavy duty shuttle vise assembly mounted on reciprocating linear rails provide automatic multi-indexing of up to 29" in a single movement with a length accuracy of +/- .005" per stroke.

The shuttle vise is powered by a ball screw and stepper motor - fast and accurate!

The infeed rollers are 2 5/16" in diameter.

The floating shuttle adjusts for bent material.

The machine can operate in automatic and index with the head in 30° miter.



# S-23A

## OPTIONAL MIST LUBRICATION

An alternative to the standard flood coolant system, mist lubrication is an air mist system providing blade lubrication and cooling. No recovery is required as the mist dissipates.

## OPTIONAL VARIABLE VISE PRESSURE

Provides vise pressure adjustment on both vises when thin wall tubing and other light material are being cut. This minimizes application deformation potential.

## OPTIONAL OVERHEAD BUNDLING

A hydraulically powered overhead clamp moves down on the material. This option is very effective, and necessary for bundle cutting various material shapes & sizes.



Photos may show optional equipment.

# M SERIES



Photos may show optional equipment.

## GET UNMATCHED, HEAVY-DUTY MITERING WITH HYDMECH'S M SERIES SAWS.

Fully hydraulic, heavy-duty horizontal pivot machines that withstand the high demands of machine and fabrication shops, trailer and automotive manufacturers, and more. Easily cut tubing, channels, angles, solids, light to medium grade alloys, as well as non-ferrous and stainless materials

The M Series machines have powered, hydraulic saw heads for mitering with just the simple push of a

button! The powered head movement has an optimum range of up to 30° as well as indexing from 33" to 120" in a single stroke.

M-Series machines are available in semi-automatic and fully-automatic models with cutting capacities of up to 30".



## STANDARD FEATURES

- Built to withstand heavy fabricating environments
- Automatic programmable mitering with “go to” angle from 90° to 30°
- Automatic multi-indexing up to 33” in a single stroke
- Full capacity, full stroking hydraulic vises
- Guide arms mounted on linear rails. Hydraulically powered idler side guide arm is adjustable for proper spacing.
- 7.5 HP VFD. True direct blade drive - no belts/pulleys
- Hydraulic positive down feed
- Blade chamber separates material from cut part
- Cast iron band wheels
- Automatic PLC control programmable up to 99 jobs with 5 in queue.
- Replaceable blade brush
- Robust steel base
- Automatic chip removal auger
- Easy access electrical panel and hydraulics
- Blade breakage switch

- Hardened replaceable wear plates on material vises
- Hydraulic band tensioning
- Hydraulic carbide guide tensioning
- Safety door interlocks
- Flood coolant with wash down hose
- Laser light
- Work light

## OPTIONAL FEATURES

- Blade deviation monitor
- Full capacity hydraulic overhead bundling
- Remote console
- Chip bucket
- Mist lubrication
- Out of stock switch
- Variable vise pressure
- Vertical rollers
- Idler and powered conveyors



# M-16A

## “GO TO” ANGLE FUNCTIONALITY

The fully programmable PLC control allows the operator to enter two desired angles. The machine will automatically swing the head, alternating between two different programmed angles, producing parts with a different angle on each end.

## HYDRAULIC POWERED GUIDE ARM

The M-16A features guide arms mounted on linear rails. The hydraulically powered idler side guide arm is adjustable for proper guide arm spacing giving rigidity to the blade.

## EASY ACCESS HYDRAULICS

A 3 HP hydraulic pump supplies system pressure which controls all vising, head up/down, head swing, shuttle movement, and blade tension functions. Easy access for minimal downtime.



Photos may show optional equipment.

# M-20A

## CAST WHEELS & OVERSIZED PIVOT

Cast iron wheel and an oversized pivot point provide extra rigidity. A powered blade brush keeps the blade clean while chips are conveniently removed by the automatic chip auger.

## AUTOMATIC CHIP REMOVAL AUGER

Built into the base of all M Series saws, an auger screw pulls chips from the base and discharges at side of the machine for easy clean up.

## 10 HP DIRECT BLADE DRIVE

Powerful gearbox and motor assembly with a variable frequency drive system. A wide range of available band speeds allows for efficient cutting of many types of material.





## STANDARD FEATURES

- Automatic programmable mitering with “go to” angle from 90° to 30°
- Automatic multi-indexing up to 33” in a single stroke.
- Guide arms mounted on linear rails. Hydraulically powered idler side guide arm is adjustable for proper spacing.
- 10 HP VFD. True direct blade drive - no belts/pulleys
- Full capacity, full stroking hydraulic vises
- Hydraulic positive down feed
- Blade chamber separates material from cut part
- Cast iron band wheels
- Automatic PLC control programmable up to 99 jobs with 5 in queue.
- Replaceable blade brush
- Robust steel base
- Automatic chip removal auger
- Easy access electrical panel and hydraulics
- Blade breakage switch
- Hardened replaceable wear plates on material vises

- Hydraulic band and carbide guide tensioning
- Safety door interlocks
- Flood coolant with wash down hose
- Laser light
- Work light

## OPTIONAL FEATURES

- Blade deviation monitor
- Full capacity hydraulic overhead bundling
- Chip bucket
- Remote console
- Mist lubrication
- Out of stock switch
- Outboard vise
- Outboard vise with bundling
- Variable vise pressure



### STANDARD FEATURES:

- Automatic programmable mitering with “go to” angle from 90° to 30°
- Full capacity hydraulic overhead bundling
- 10’ bar feed
- Automatic multi-indexing up to 120” in a single stroke.
- Guide arms are mounted on linear rails. Hydraulically powered idler side guide arm is adjustable for proper spacing.
- 10 HP VFD. True direct blade drive - no belts/pulleys
- Full capacity, full stroking hydraulic material vises
- Hydraulic positive down feed
- Blade chamber separates material from cut part
- Cast iron band wheels
- Automatic PLC, touch screen control programmable up to 1000 jobs with 20 in queue.
- Replaceable blade brush
- Automatic chip removal auger
- Easy access electrical panel and hydraulics
- Blade breakage switch
- Hardened replaceable wear plates on material vises

- Hydraulic band and carbide guide tensioning
- Safety door interlocks
- Flood coolant with wash down hose
- Laser light
- Work light

### OPTIONAL FEATURES

- Blade deviation monitor
- Chip bucket
- Remote console
- Mist lubrication
- Out of stock switch
- Outboard vise
- Outboard vise with bundling
- Variable vise pressure
- Vertical rollers
- Idler & powered conveyors

# M-20A - 120

## 120" BAR FEED

Fast shuttle vise is capable of indexing up to 120" in a single stroke. Shuttle carriage moves on linear rails and is driven by rack & pinion mounted gear reducer/ servo motor assembly.

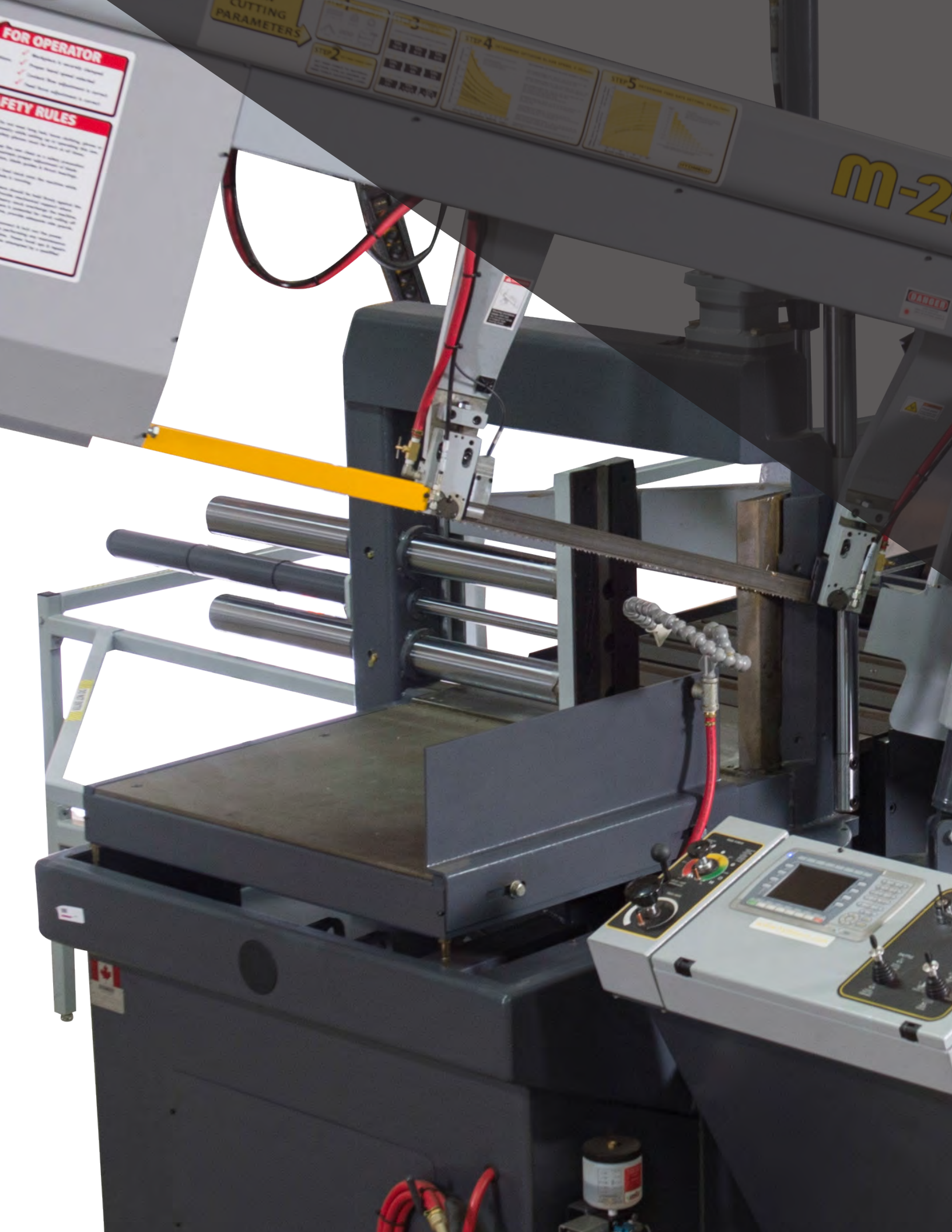


## HYDRAULIC OVERHEAD BUNDLING

Moves down on the material from above. Timed with the opening and closing of the side vise, it is very effective and necessary for bundle cutting various material shapes & sizes.



Photos may show optional equipment.



**FOR OPERATOR**

**SAFETY RULES**

SETTING PARAMETERS

STEP 1

STEP 2

STEP 3

STEP 4

STEP 5

m-2

GAMMAL

WARNING



# SPECIFICATIONS

		S-20	S-20P	S-20A	S-23P
Rectangular Capacity (h x w)	90°	13" x 18"	13" x 18"	13" x 18"	16" x 20"
	45°	13" x 10 3/4"	13" x 10 3/4"	13" x 10 3/4"	16" x 14"
	30°	13" x 7 3/4"	13" x 7 3/4"	13" x 7 3/4"	16" x 9 1/2"
Round Capacity	90°	13"	13"	13"	16"
	45°	12"	12"	12"	14"
	30°	8 1/2"	8 1/2"	8 1/2"	9 1/2"
Blade Drive		3 HP VFD	3 HP VFD	5 HP VFD	8.8 HP VFD
Blade Speed		45-330 SFM	45-330 SFM	75-350 SFM	75-350 SFM
Blade Size		1" x 14' 10"	1" x 14' 10"	1" x 14' 10"	1 1/4" x 16' 10"
Coolant Tank Capacity		6 Gal.	6 Gal.	12 Gal.	9 Gal.
Table Height		31"	31"	31"	33"
Voltages Available		208, 240, 480, 575 v	208, 240, 480, 575 v	208, 240, 480, 575 v	208, 240, 480, 575 v
Weight		2,200 lbs.	2,500 lbs.	3,800 lbs.	2,900 lbs.
Dimensions	Width	92"	92"	93"	96"
	Length	75"	75"	86"	56"
	Height	52"	52"	52"	56"
		S-23A	M-16A	M-20A	M-20A-120
Rectangular Capacity (h x w)	90°	16" x 20"	16" x 25"	20" x 30"	20" x 30"
	45°	16" x 14"	16" x 15"	20" x 19"	20" x 19"
	30°	16" x 8 1/2"	16" x 9"	20" x 12"	20" x 12"
Round Capacity	90°	16"	16"	20"	20"
	45°	14"	16"	20"	20"
	30°	8 1/2"	11"	14"	14"
Blade Drive		8.8 HP VFD	7.5 HP VFD	10 HP VFD	10 HP VFD
Blade Speed		75-350 SFM	50-350 SFM	50-350 SFM	50-350 SFM
Blade Size		1 1/4" x 16' 10"	1 1/4" x 18' 6"	1 1/2" x 20' 6"	1 1/2" x 20' 6"
Coolant Tank Capacity		12 Gal.	9 Gal.	9 Gal.	9 Gal.
Table Height		33"	32"	32"	35"
Voltages Available		208, 240, 480, 575 v	208, 240, 480, 575 v	208, 240, 480, 575 v	208, 240, 480, 575 v
Weight		4,200 lbs.	7,400 lbs.	7,700 lbs.	12,700 lbs.
Dimensions	Width	101"	132"	129"	129"
	Length	95"	90"	90"	210"
	Height	61"	66"	110"	110"

In line with HYDMECH's policy of on-going product improvement, we reserve the right to modify features and specifications.



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