WE SAW THE FUTURE
www.cosen.com

▶ Direct Sales Points

Cosen Headquarter (Hsinchu, Taiwan)
+886-3-5519700 / service@cosen.com.tw
Cosen North America (Charlotte, NC)
+1-704-943-1030 / info@cosensaws.com

Please contact Cosen for distributors near you.

▶ Brand Defined

"Co" means "Pinnacle" in Mandarin, perfectly portrays the company' s endless pursuit of excellence. All Coseneer are mountaineers at work, continuously aiming for innovation and improvement, setting a higher goal and conquering mountain tops one at a time.

"Sen" is derived from the word "sacred" and symbolizes the Olympic flame. Cosen embodies that spirit in its commitment to integrity and expertise in the production of great machines. From production of machines to delivery of promises, all Coseneers protect our promises to customers like the Olympic flame with integrity, care and professionalism.

▶ Corporate Philosophy

For mountaineers, endurance is essential to reaching that mountain top and the next peak after it. As for machines, durability is the evidence of the quality components and craftsmanship put together.
Cosen believes in providing precise, durable machines for customers to keep their production going is crucial for the profitability of their business and at the same time, the key to Cosen' s sustainability. Knowing the importance and embracing the responsibility, Cosen' s corporate philosophy is defined as follows:

- Machines. We build ours to last.
- The Company. We grow it to sustain.

cosen SINCE 1976 | MECHALOGIX

FIND SAW & PARTS
sawselector.com
cosenparts.com

- **Cosen Taiwan** : No. 106-2, Ln. 175, Xinxi St., Zhubei City, Hsinchu County 30243
  +886-3-5519700 / www.cosen.com / service@cosen.com.tw / LINE ID : @cosen
- **Cosen North America** : 4527 Dwight Evans Road Charlotte, NC 28217
  info@cosensaws.com

Find Us: App Store | Google play 「Sawlogix」

save materials, save tools, save time !

cosen since 1976

ISO 9001 certified | CE | DESIGN AWARD | TAIWAN EXCELLENCE SILVER AWARD 2021 Everyday Excellence

Smart Beam Line Structural Steel Fabrication

High-Efficiency Multispindle Drilling Machine & Double Miter-Cutting Bandsaw

WE SAW THE FUTURE
www.cosen.com

Cosen Smart Drill and Saw Line for Structural Steel

Cosen integrates sensor data from the three major components on a beam line – bandsaw machine, drilling machine, and infeeding/outfeeding system. We upload these key data to Cosen remote service platform to achieve failure prediction and diversified production. Through algorithm, machine learning, and data collecting, we develop advanced applications including machine health assessment and self-adjustment mechanism to further upgrade this smart factory with maximum utilization.

- Heavy duty designed specifically for cutting structural steel, including angles, channels, tubes, H-beams, etc. at the maximized cutting conditions
- With automatic in-feeding/out-feeding system, our CNC miter-cutting bandsaw helps you achieve automatic manufacturing and management
- Equipped with advanced industrial computer, CNC controller, and programing software which is capable of importing and exporting DSTV files
- Standard with network connection and remote monitoring module for better maintenance and program optimization

「Sawlogix」

Save materials, save tools, and save time!

1

Industry 4.0 Solution – Combined with Cosen bandsaw, multispindle drilling machine, and intelligent control system ·

Technical Characteristics

Main Technical Features

- **High-Standard CNC Controller**

Equipped with the latest CPU, our CNC controller contributes to smooth performance and short reaction time of multi-spindle machine.

- **Automatic Tool Changer**

Our servo-driven tool changer allows automatic, fast, and smooth tool changing directly via the HMI screen.

- **Control Panel with 14" Color Touchscreen**

IPC-compatible touchscreen as your standard accessory

- **SSS Control (Super Smooth Surface)**

This function suppresses the vibrations of the tool, enabling higher machining stability, higher production accuracy, and better product quality.

- **3D Programming Software**

This 3D programming software allows you to import CAD/CAM files to automatically generate drilling layouts with optimized accuracy, efficiency, and productivity.

- **In-the-moment Prevention and Alarm Notification**

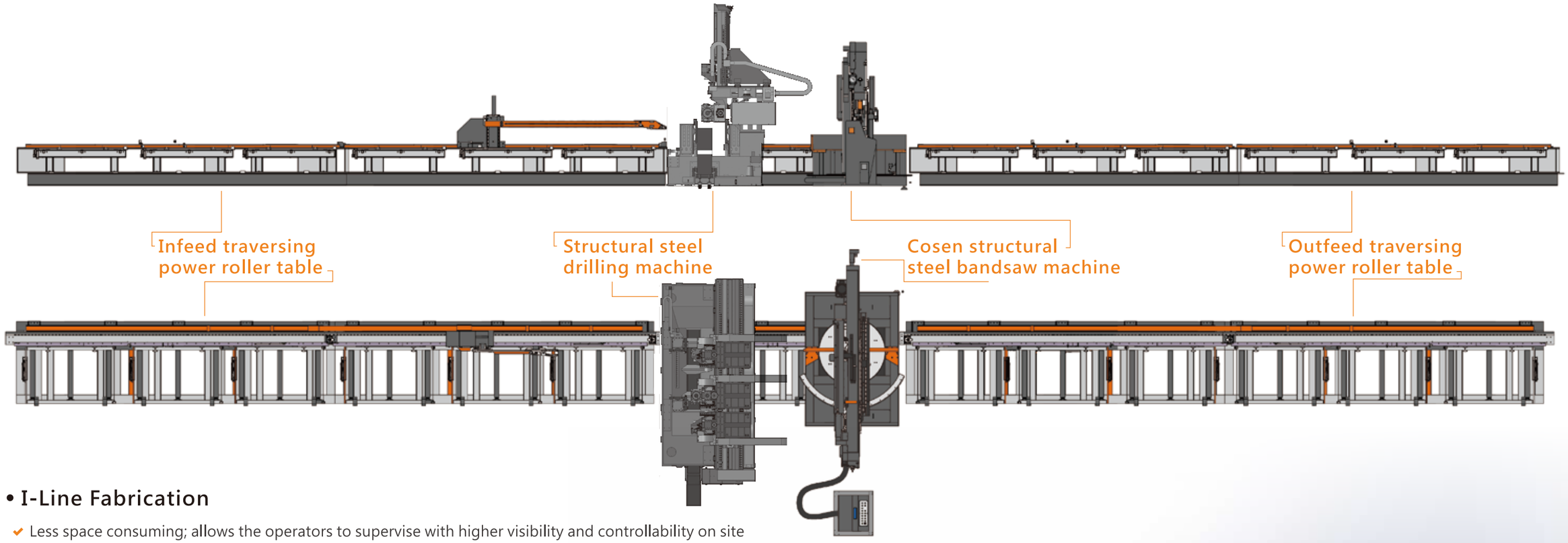
Our remote monitoring system improves your production management, including maintenance schedule, program optimization, troubleshooting, and processing time countdown.

- **Program Customization Service**

Our professional programmers can continuously upgrade the program according to customer needs.

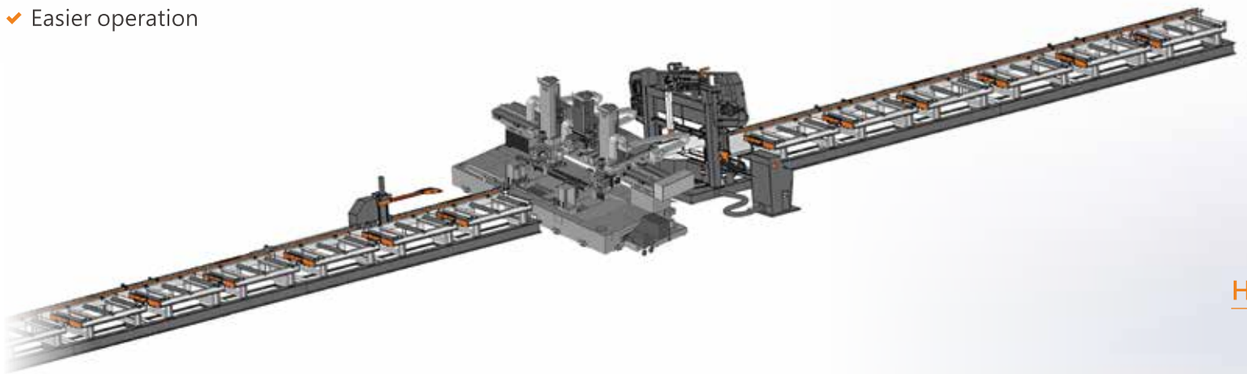
Drill and Saw Line

Production Line Layout



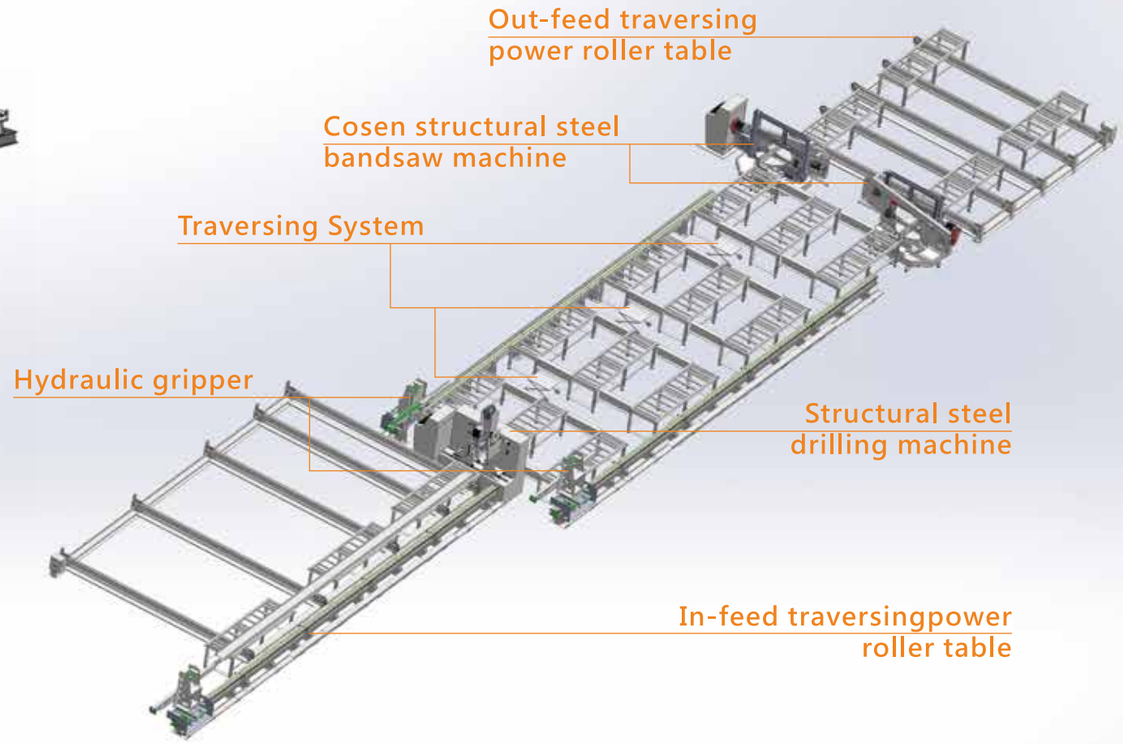
• I-Line Fabrication

- ✔ Less space consuming; allows the operators to supervise with higher visibility and controllability on site
- ✔ No need for second time cross traveling; in-feeding with higher precision and accuracy
- ✔ Drilling and sawing in line to reduce operating time
- ✔ Automatic manufacturing process to avoid additional labor and manual positioning
- ✔ Easier operation



• Y-Line Fabrication

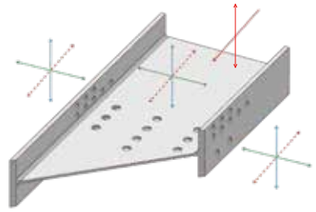
- ✔ Able to process materials with varying cross-sectional areas at once
- ✔ Increased efficiency when mass-producing materials of varying cross-sectional areas
- ✔ The production line does not need to be stopped if one of the machines needs to be maintained or replaced.
- ✔ Hydraulic gripper system for more accurate positioning (optional accessory)



Drill and Saw Line

▶ Structural Steel Drilling Machine

- Simultaneous control of 4 mechanisms without interruptions
- Hydraulic grippers delivering the workpiece directly to the bandsaw machine
- Format conversion and control of DSTV files
- 9+2 CNC-controlled axes (the three spindles can independently travel on X, Y, and Z-axes in a certain range according to processing needs)



▶ MechaLogix CPC – Cosen Predictive Cloud

- Spindle health assessment
- Machine utilization management
- Progress measurement and management
- Automatic failure notification
- Operation log history

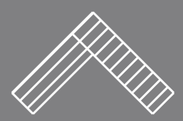
▶ Structural Steel Bandsaw Machine

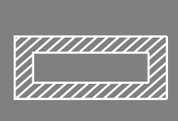
- Double mitering ±60°
- Reduce vibration by 30 %
- Increase cutting rate by 30%
- Blade life prediction

D13

Industry 4.0 Solution – Combined with Cosen bandsaw, multispindle drilling machine, and intelligent control system ·

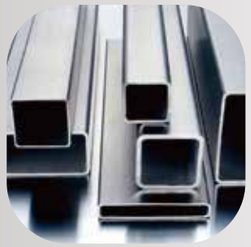
Drill and Saw Line

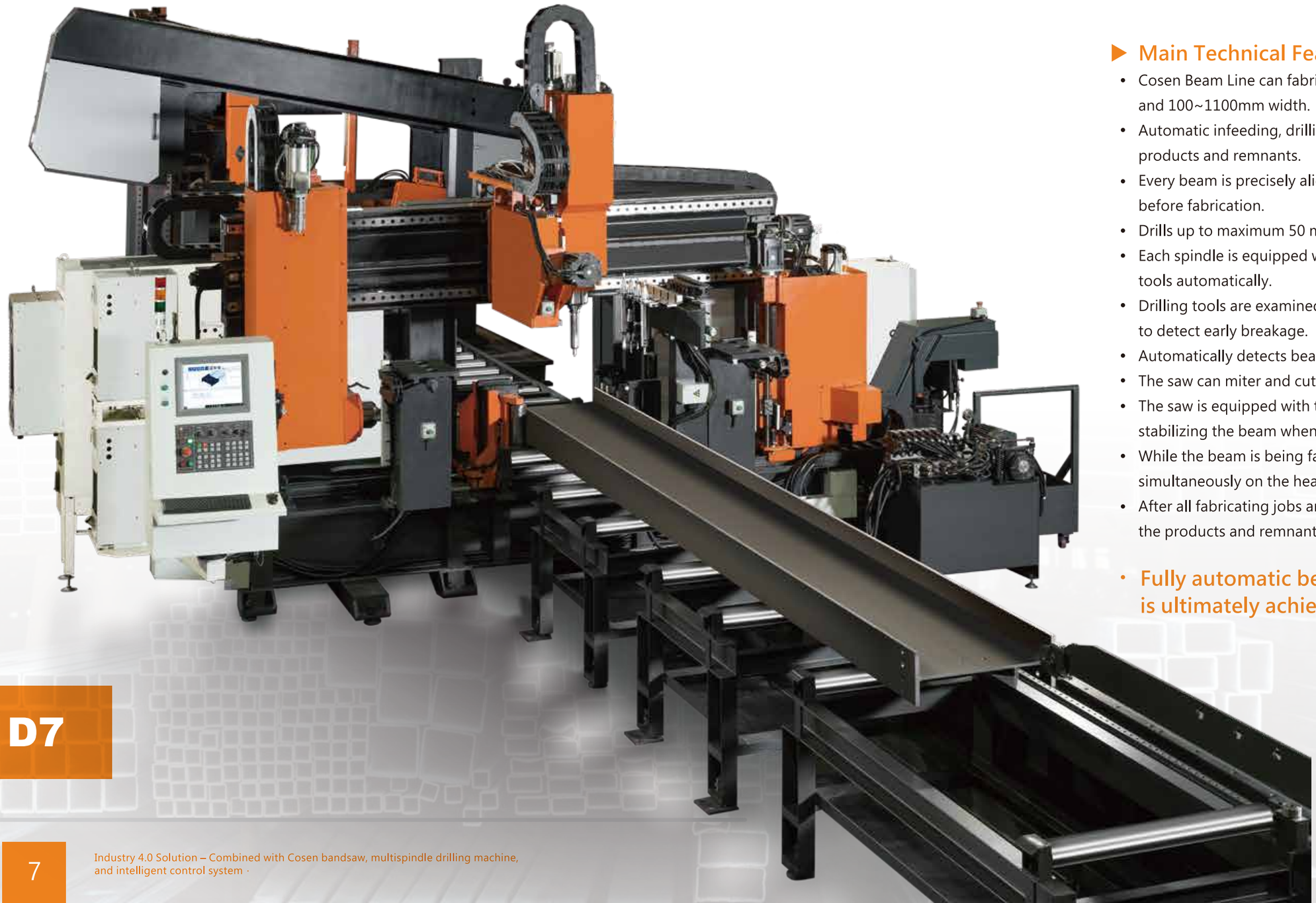

angle iron


rectangle tube


I-beam


channel





▶ Main Technical Features

- Cosen Beam Line can fabricate beams of 6~20M length and 100~1100mm width.
- Automatic infeeding, drilling, sawing, and sorting finished products and remnants.
- Every beam is precisely aligned along the base line before fabrication.
- Drills up to maximum 50 mm and taps up to M24.
- Each spindle is equipped with six tools, and changes tools automatically.
- Drilling tools are examined after every fabricating job to detect early breakage.
- Automatically detects beam width and Flange height
- The saw can miter and cut to 60 degree both sides.
- The saw is equipped with top clamping system, stabilizing the beam when cutting.
- While the beam is being fabricated, trim cuts can be made simultaneously on the head/end.
- After all fabricating jobs are completed on a beam, the products and remnants are automatically sorted away.

- **Fully automatic beam production line is ultimately achieved!**

D7

Industry 4.0 Solution – Combined with Cosen bandsaw, multispindle drilling machine, and intelligent control system ·

Drill and Saw Line

Characteristics	D7	D11	D13
Minimum capacities	100 x 75 mm (3.94”x2.95”)	100 x 100 mm (3.94”x3.94”)	300 x 300 mm (11.81”x11.81”)
Maximum capacities	700 x 400 mm (27.55”x15.75”)	1100 x 500 mm (43.31”x19.69”)	1300 x 600 mm (51.18”x 23.62”)
Tools per spindle SP1(L); SP2(V); SP3(R)	5 ; 5 ; 5	6 ; 6 ; 6	6 ; 5 ; 6
Number of Ø per spindles SP1(L); SP2(V); SP3(R)	3	3	3
Spindle type	BT40	BT40	BT40
Rotation speed	6000 RPM	6000 RPM	6000 RPM
Maximum diameter	32 mm (1.26”)	50 mm (1.97”)	40 mm (1.57”)
Spindle power	18 kW	18 kW	18 kW
Spindle max. position speed	12 m/min	12 m/min	12 m/min
Carriage maximum speed	40 m/min	40 m/min	40 m/min
Number of axes CNC controlled	2 + 3 + 2	2 + 2 + 2	3 + 3 + 3
Working height	800 mm	800 mm	850 mm

Technical Specifications

Equipment	D7	D11	D13
Motorized carriage gripper vertical adjustment	●	●	●
Video on carriage	☐	☐	☐
Tool changing system	●	●	●
Threaded holes	16 mm (0.63”)	24 mm (0.97”)	20 mm (0.79”)
Internal spraying	☐	●	●
Spindle oil coolant	●	●	●
DSTV file import	☐	●	●
Tele-maintenance	☐	☐	☐
Chips conveyor	☐	☐	☐
Lateral storage and loading/ unloading system	☐	☐	☐
COSEN saw in line or in parallel	☐	☐	☐

*Design and specifications are subject to change without notice and obligation.
*Machines may be shown with some options.

● Standard ☐ Optional

making your miter-cutting jobs QUICK and SIMPLE !

- **Fast & accurate mitering via automatic angle positioning**
  Key in your desired cutting angle via the HMI touchscreen, and the saw frame will automatically swivel, first quickly then finely positioning to the exact angle with an accuracy of 0.1°.
- **Saw bow linear guides**
  The hydraulically driven saw frame travels along two linear guides, which allow for a smooth and pulse-free up-down movement and durability for long term use.
- **Guide arm in sync with full stroke hydraulic vise**
  The guide arm travels along one linear guide and moves in sync with the full stroke hydraulic vise to always minimize blade vibration when cutting.
- **Full stroke top clamp**
  The optional full stroke top clamp also moves in sync with the vise, allowing the material, regardless of size and shape, to always be securely held down during a cut.

CL-7D

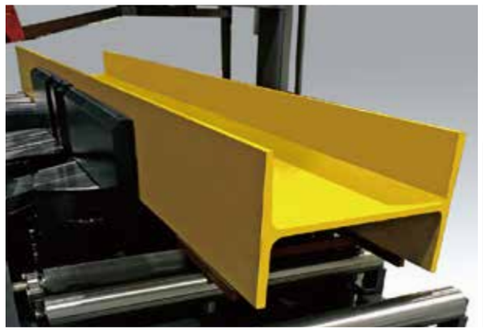
Standard Features

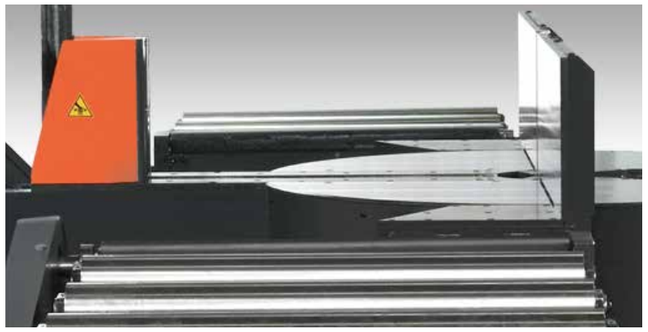
10º blade cant for cutting large structural material
Rigid linear-guide square columns design
Power gear driven rotating mechanism
Hydraulic angle lock-down
Specially designed heavy-duty gearbox
Inverter-controlled blade speed
Hydraulic clamping vise
7" HMI touch screen with error code feedback
Instant readout on blade speed, blade life and miter angle
Precision feed rate and feed pressure valve
Adjustable control panel at waist level

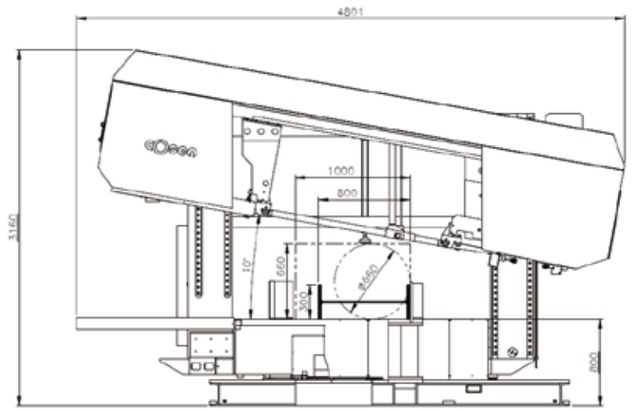
Optional Accessories

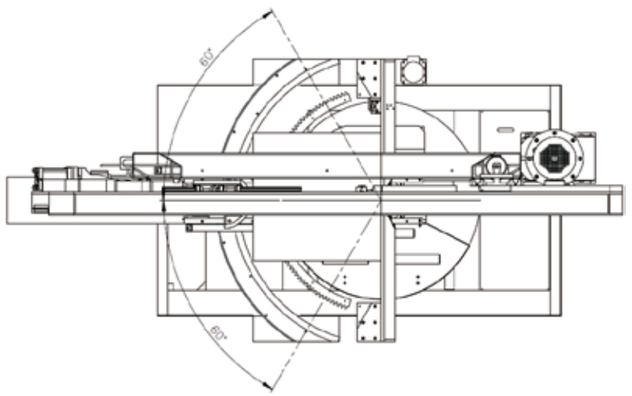
Independent control station
Mist coolant spray system
Vibration damper
Hydraulic top clamp
Infeed/outfeed side-shift roller tables

Semi-Automatic Double Miter-Cutting Horizontal Bandsaw









	CL-7D		
Angle	0°	±45°	±60°
Capacity Round	470 mm (18.5")	420 mm (16.5")	300 mm (11.8")
Capacity Rectangle (H x W)	420 x 710 mm (16.5" x 27.9")	420 x 450 mm (16.5" x 17.7")	420 x 300 mm (16.5" x 11.8")
Blade Speed	23.5-166.5 m/min (78-546 fpm)		
Blade Size	6540 x 41 x 1.3 (257" x 1½" x 0.05")		
Blade Tension	Hydraulic		
Blade Motor	7.5 HP (5.5 kW)		
Hydraulic Motor	1 HP (0.75 kW)		
Coolant Motor	1/8 HP (0.09 kW)		
Workbed Height	755 mm (29.7")		
Gross Weight	2900 kgs (6393 lbs)		
Floor Space (L x W x H)	3250 x 3200 x 1920 mm (127" x 125" x 75")		

*Design and specifications are subject to change without notice and obligation.
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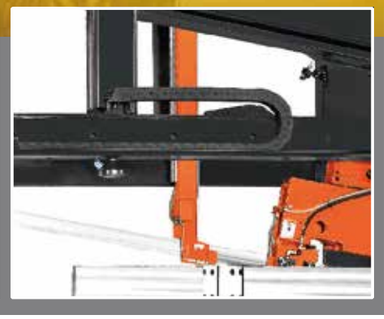
Canted Frame Heavy Duty Double Miter-Cutting Horizontal Bandsaw

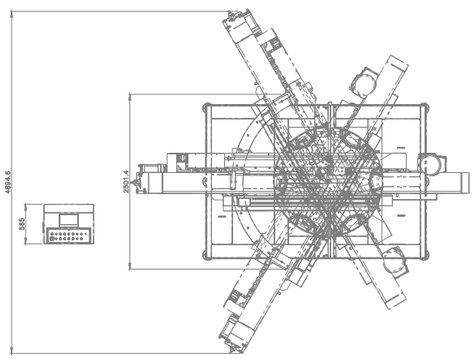
Powerful, smooth and precise! Your IDEAL large capacity miter cutting is here.

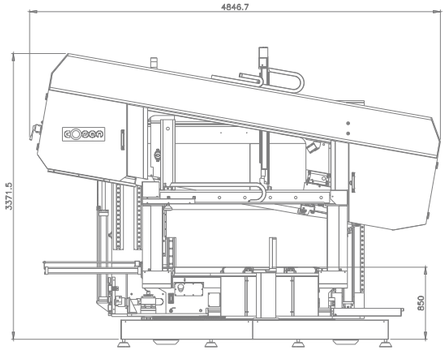
COSEN's miter-cutting band saw series is the perfect choice for fabricators pursuing precise, efficient and reliable cutting on mid to large-sized structural material.

Heavy-duty canted saw frame and the dual column plus cross link design (on models greater than 800 mm) together provide unsurpassed rigidity and the smoothest cutting throughout the cutting cycle. Double-sided mitering and the specially designed infeed lift rollers greatly save you time and efforts in material feeding and cutting.

CL-11D
CL-13D







	CL-11D			CL-13D		
Angle	0°	±45°	±60°	0°	±45°	±60°
Capacity Round	660 mm (25.9")	660 mm (25.9")	400 mm (15.7")	660 mm (25.9")	660 mm (25.9")	495 mm (19.4")
Capacity Rectangle (H x W)	660 x 1100 mm (25.9" x 43.3")	660 x 700 mm (25.9" x 27.5")	660 x 400 mm (25.9" x 15.7")	660 x 1300 mm (25.9" x 51.1")	660 x 820 mm (25.9" x 32.2")	660 x 495 mm (25.9" x 19.4")
Blade Speed	15-125 m/min (50-410 ft/min)			15-120 m/min (50-393 ft/min)		
Blade Size	10120 x 67 x 1.6 mm (398" x 2⅝" x 0.06")			10530 x 67 x 1.6 mm (414" x 2⅝" x 0.063")		
Blade Cant	10°			10°		
Blade Tension	Hydraulic			Hydraulic		
Blade Motor	15 HP (11 KW)			20 HP (15 KW)		
Hydraulic Motor	3 HP (2.2 KW)			3 HP (2.2 KW)		
Coolant Motor	1/2 HP (0.37 KW)			1/2 HP (0.37 KW)		
Workbed Height	855 mm (33.6")			855 mm (33.6")		
Gross Weight	11000 kgs (24250 lb)			12500 kgs (27500 lb)		
Floor Space (L x W x H)	4850 x 4900 x 3400 mm (190"x192"x 133")			5500 x 5210 x 2912 mm (216" x 205" x 114")		

*Design and specifications are subject to change without notice and obligation.
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Industry 4.0 Solution – Combined with Cosen bandsaw, multispindle drilling machine, and intelligent control system ·

Cosen bandsaw lets you cut worry-free!
Access to real time performance data via SawLogix mobile app!

MECHALOGIX™

Useful Tool for Operator to Run Everything Better!

Value Added Benefits

- Optimize Utilization
- Anticipate The Causes
- Automatic Reporting Service
- Preventive Maintenance Reminder
- Extract Maximum Usage From A Saw Blade
- Real Time Alarm Notification
- Overall KPI Review
- Cost Per Cut Analysis

CPC-100

CPC-Go

CPC-Go2

CPC SAWLOGIX - CPC Cosen Predictive Computing

Optimized Utilization

Mechalogix is able to increase +50 hours saw uptime. It shows the progress of the cutting process of blade speed / feed speed / tracking data to provide the user with the best use of the decision parameters. Also, the overall component status of the machine about preventive maintenance which decrease over 33% downtime.

Labor Saving

Mechalogix is able to reduce 30% labor cost. Previously, your overall productivity was impacted by inadequate manpower and the lack of on-site experience. Now, Mechalogix provides you low cost and help optimize the output & profit margins for customer's facility from a 24-hour full-time useful information service.

Accurate Data Input

Mechalogix, which coordinates with QR code scanning function is able to reach 100% accuracy of the all input information. Also, the data will be filled in your HMI automatically. It improves operational efficiency, ensures the accuracy of the information, and also leads to increase flexibility in manufacturing.

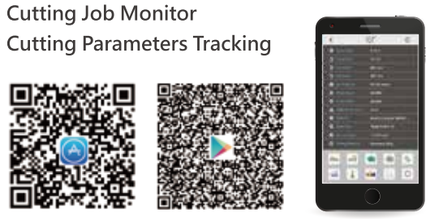
VT

Data Center Bridging

MechaLogix cloud enables data center bridging service and professional interface customization.

Remote Monitoring Service

- Machine Status Monitor
- Utilization Tracking
- Blade Usage Tracking
- Blade Health Assessment
- Blade Life Prediction
- Machine Alarm Notification to Mobile Device
- Cutting Job Monitor
- Cutting Parameters Tracking



More Equipped with:

TV Box (Android system embedded)

Display Screen

*Recommended : 40'' UHD TV

TAIWAN EXCELLENCE SILVER AWARD 2021

CPC SAWLOGIX

We saw the future.