

FULLY AUTOMATIC OPERATION

Tandem Line



mm

BAND SAWING

DRILLING

MARKING



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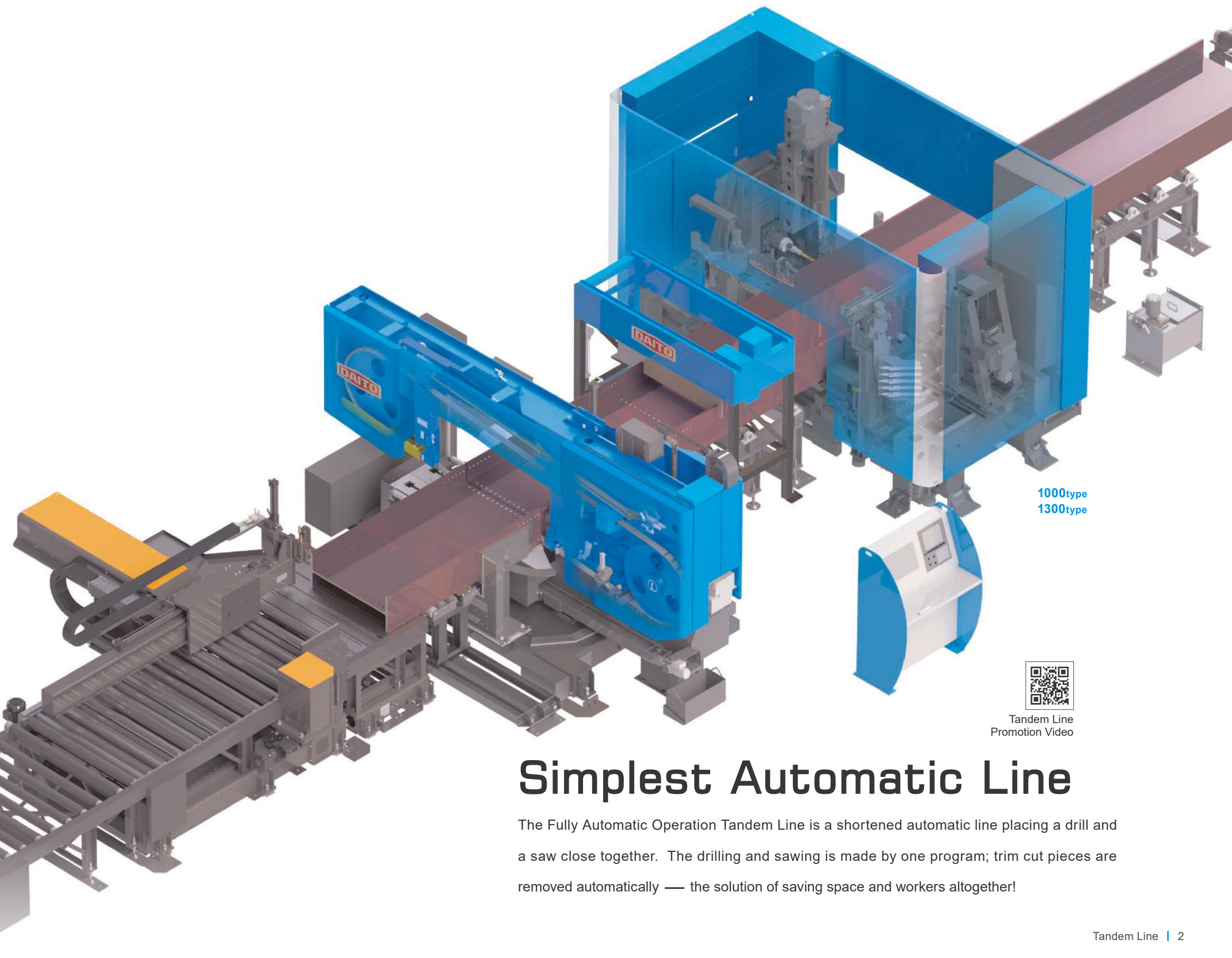


YouTube channel "DAITOSEIKI-en"

Contains various product movies
and company profiles. Please check.



FULLY AUTOMATIC OPERATION Tandem Line



1000type
1300type



Tandem Line
Promotion Video

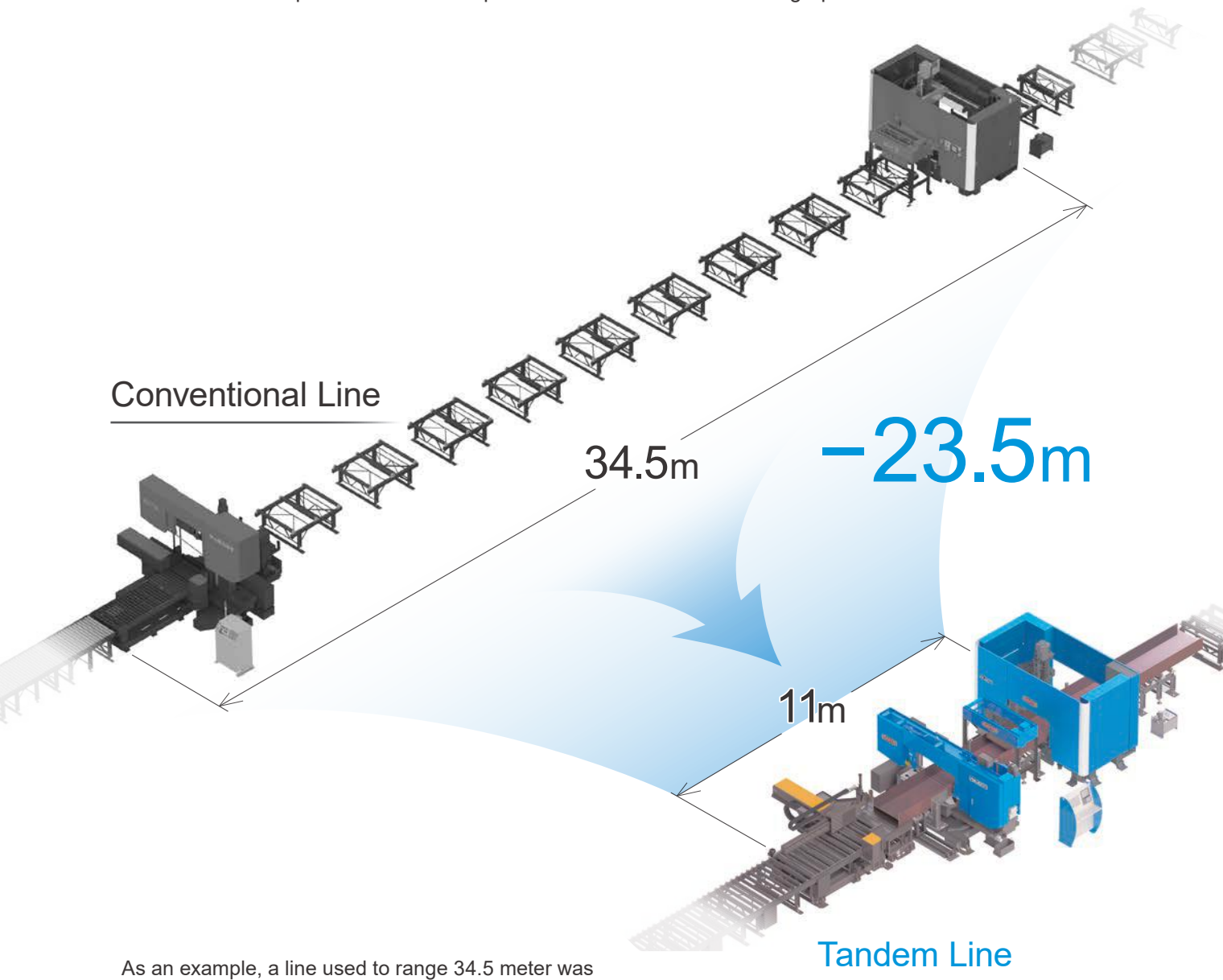
Simplest Automatic Line

The Fully Automatic Operation Tandem Line is a shortened automatic line placing a drill and a saw close together. The drilling and sawing is made by one program; trim cut pieces are removed automatically — the solution of saving space and workers altogether!

SPACE SAVING & LESS OPERATORS at One Time

SPACE SAVING

As the Drill and Saw are placed close together, the workshop space necessary for the line is minimal. This reduced footprint allows more space for fabrication and welding operations.

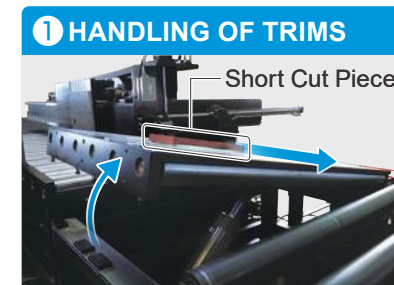


As an example, a line used to range 34.5 meter was sized down to 11 meter, shortened by 23.5 meter.

*An example of process line of 12m(length)-1m(width) beam.

LESS OPERATORS

Drilling and sawing are integrated to one program; each program is allocated drill and saw automatically. Trim cut pieces are also automatically removed while the machines are running.



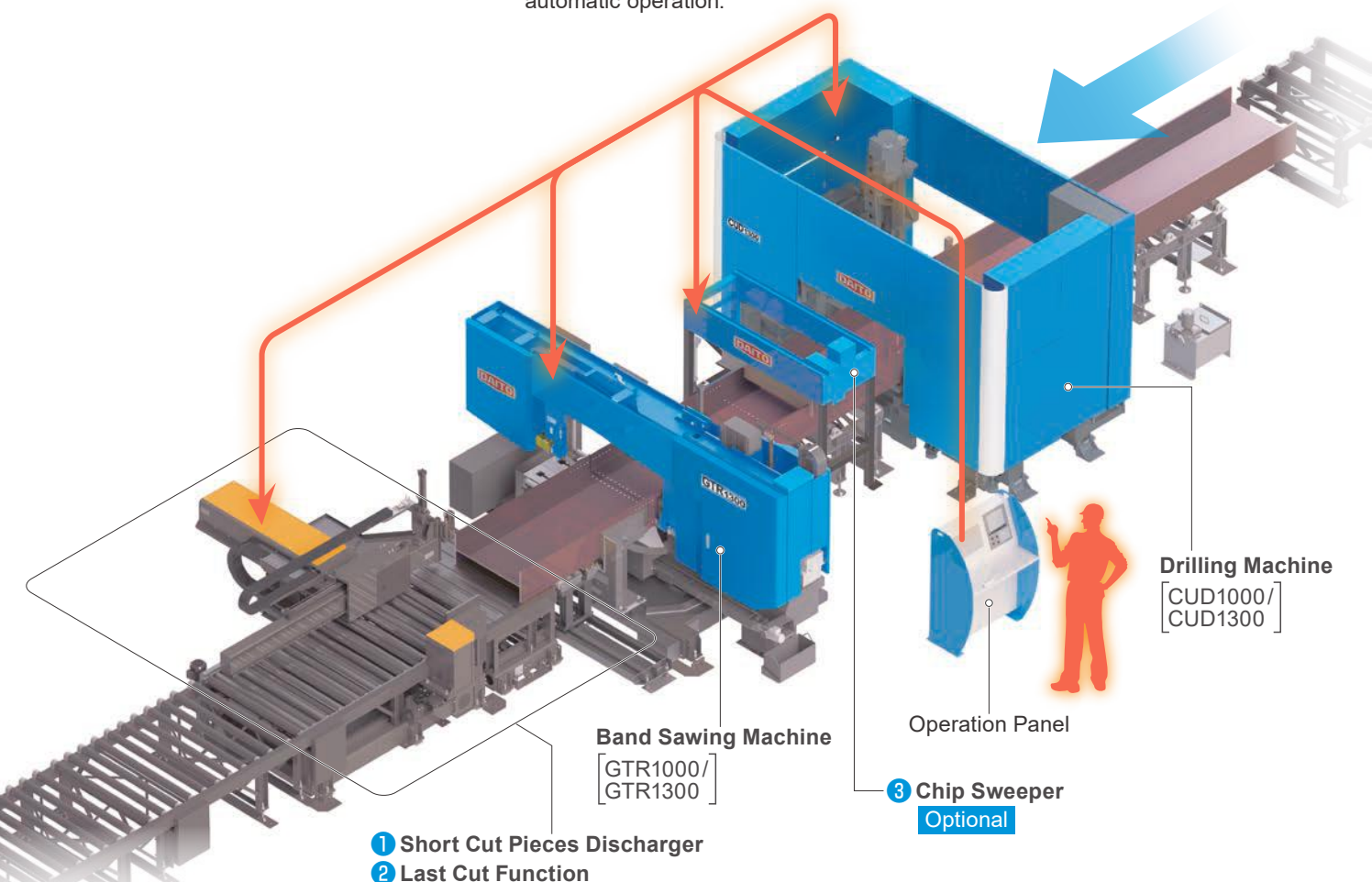
SHORT CUT PIECES DISCHARGER
Trimmed/short cut pieces are removed automatically from the line; no need to interrupt machine runs.



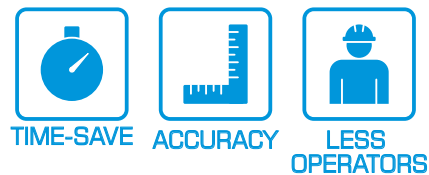
LAST CUT FUNCTION
The integrated gripper mechanism securely holds all types of trim cuts no matter size, weight or shape. This is integral to the success of fully automatic operation.



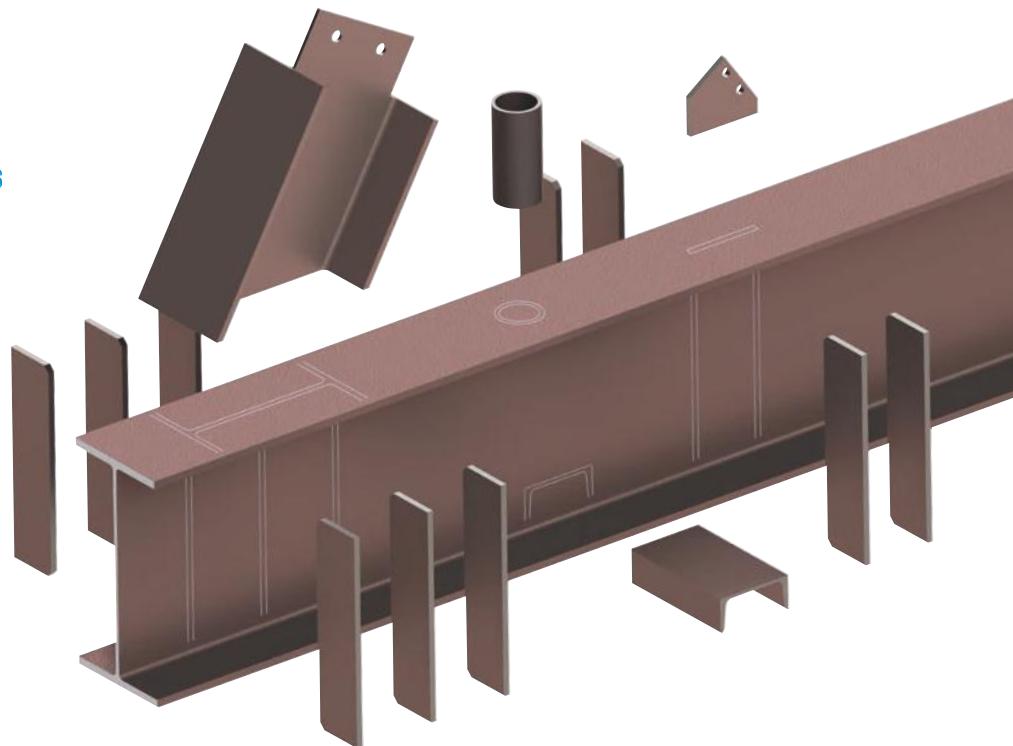
CHIP SWEEPER Optional
The chip sweeper removes the drilled chips left on workpiece which damage saw blade edges while cutting.



Layout Marking Automation

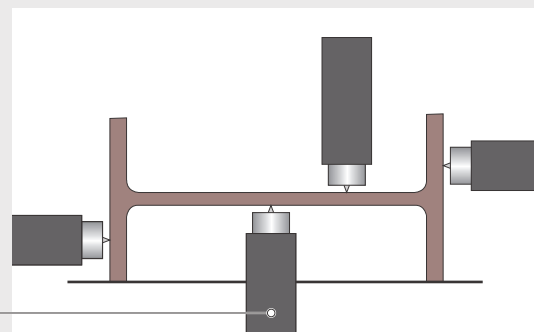


In addition to high performance carbide drilling, the CUD performs clean, fast and precise weld layout markings as illustrated below. This automation saves time and money all the while dramatically reducing human errors.



Optional Under-web Marking Unit Optional

Together with the optional under-web marking unit it's possible to mark welding lines and letters on all 4 sides of the work piece.



*The web bottom marking feature is optional.

For the welding layout marking, either scratching or scribing is available.
*Each tool is optional.



SCRATCHING

Shallow engravings for small letters and thin lines.



SCRIBING

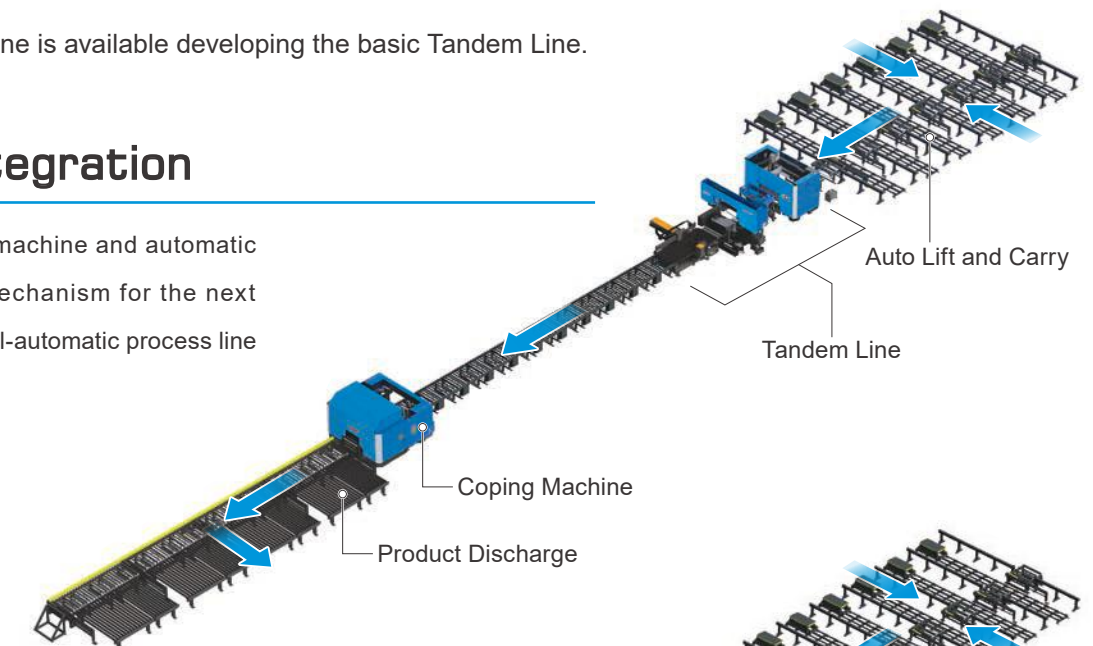
Letters and lines are marked by a rotating tool.

Applications of Tandem Line

A full scale beam line is available developing the basic Tandem Line.

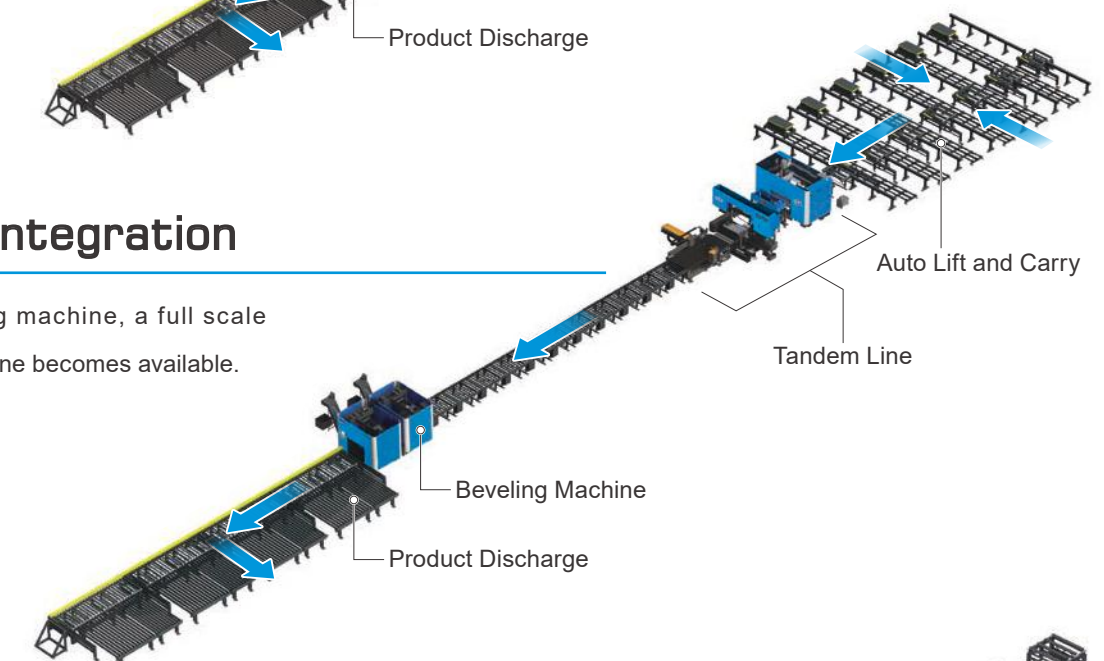
Coping Integration

Installing a coping machine and automatic in-feed/out-feed mechanism for the next process, versatile full-automatic process line becomes available.



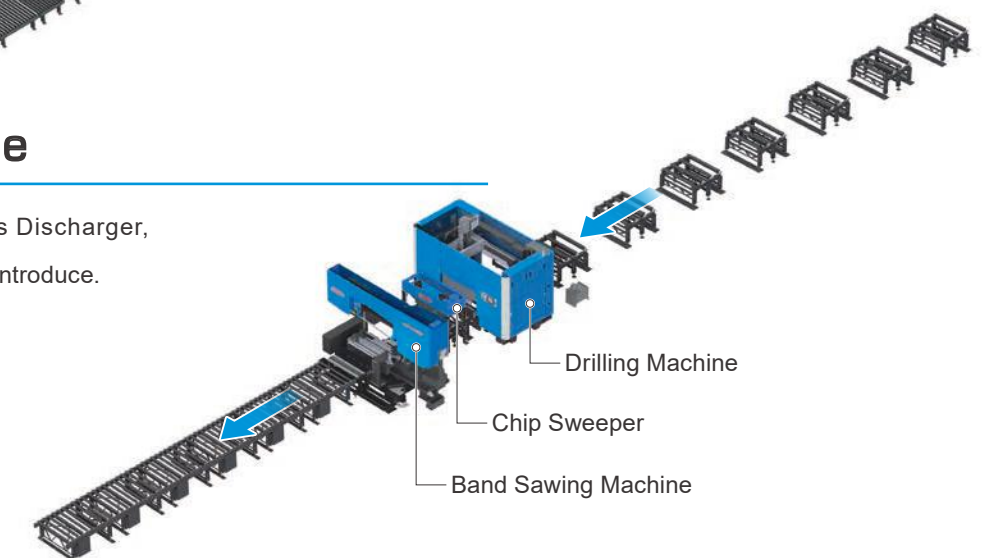
Beveling Integration

Installing beveling machine, a full scale pre-welding beam line becomes available.

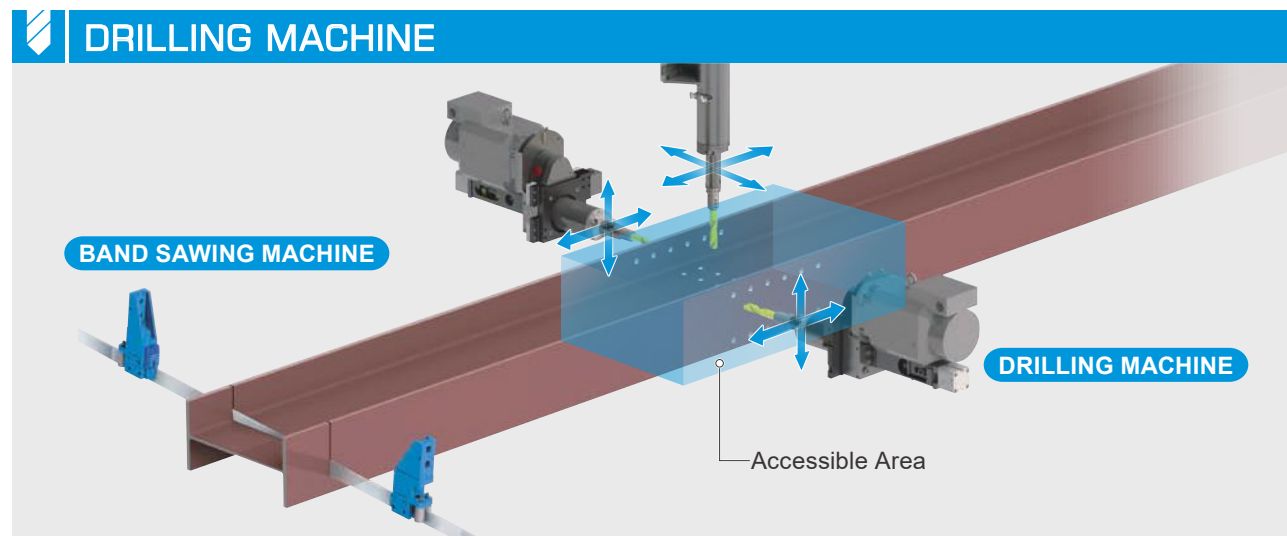


Economical Line

Without the Short Cut Pieces Discharger, the economical line is easy to introduce.

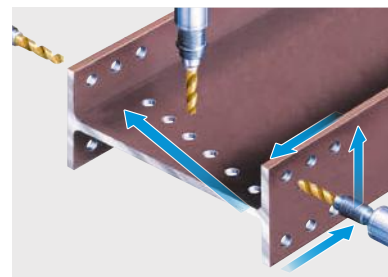


Variety of Features



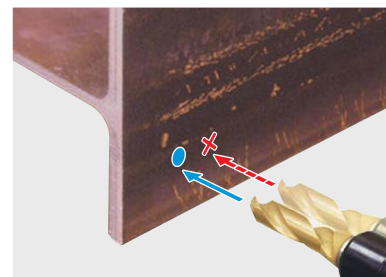
INDEPENDENT TRAVELING DRILL SPINDLES

Each of the 3 drill heads travel independently in all directions allowing all holes within range to be drilled without continually re-index and re-clamp the workpiece. Band sawing and drilling are simultaneous; drilling is going independently for its accessible area even when workpiece is stalled for cutting.



DRILL SPINDLE PRINCIPLE

The spindles travel all directions and this brings accuracy of hole to hole dimension and higher productivity.



POSITIONING COMPENSATION

The workpiece positioning error caused by inertia is compensated by the positioning of each drill.



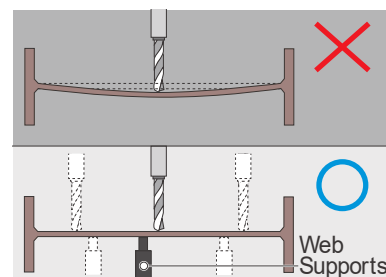
PINCH ROLLER SYSTEM

The workpiece is fed by powerful pinch rollers located on the in-feed / out-feed sides of the machine. Even the heaviest workpiece is fed efficiently and accurately.



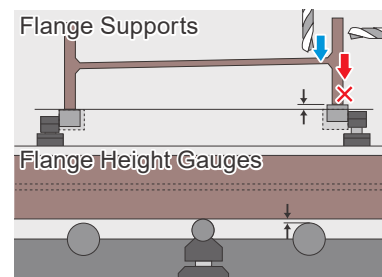
AUTO TOOL CHANGER (ATC) FOR EACH DRILL

Three (3) Independent tool changers of max. 5 tools is mounted by each of the top / left / right drill heads.



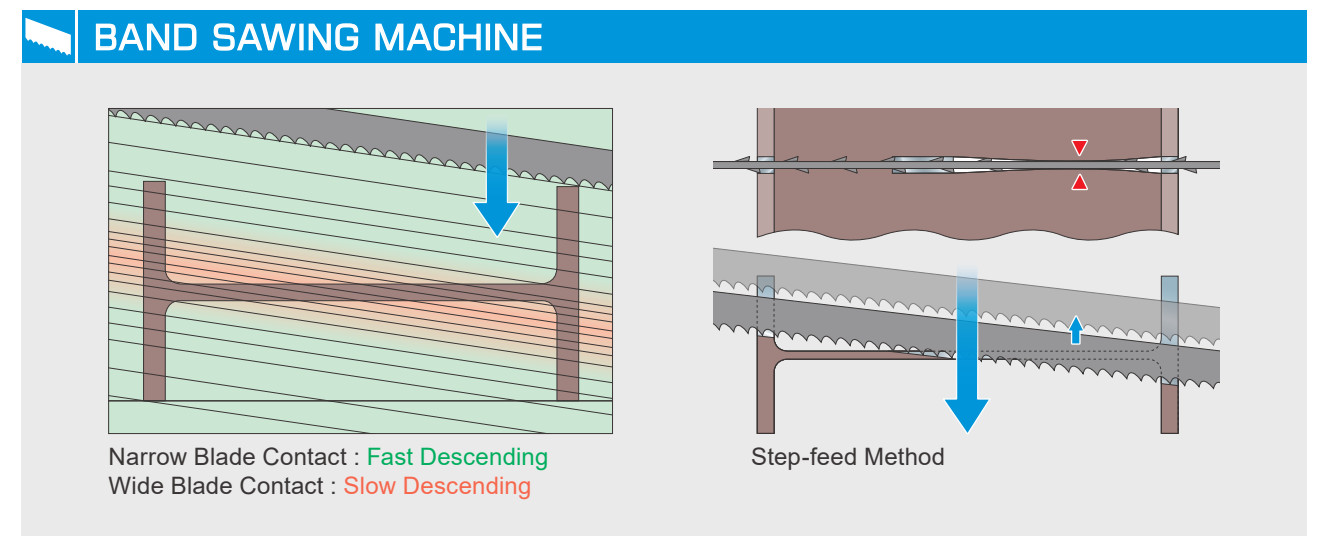
WEB SUPPORTS

Web supports prevent thinner webs from bending under the pressure of drilling. This feature reduces drill bit failure and improves hole quality.



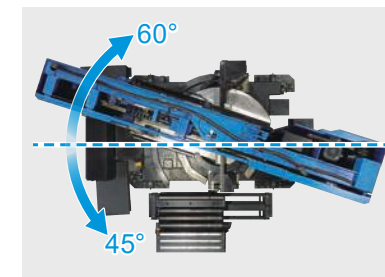
FLANGE SUPPORTS / HEIGHT GAUGES

The Flange height gauges not only support flanges, but also measure flange distortion that might remain after being vertically clamped.



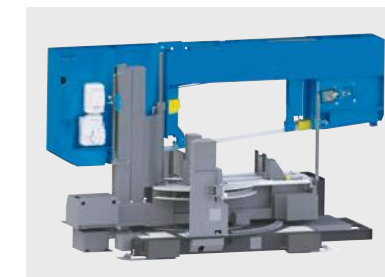
HIGH SPEED CUTTING WITH CNC

The CNC control with profile memory helps improve blade life and overall speed. Saw blade pinching due to beam inner stress is eliminated by DAITO's unique proactive step-feed method.



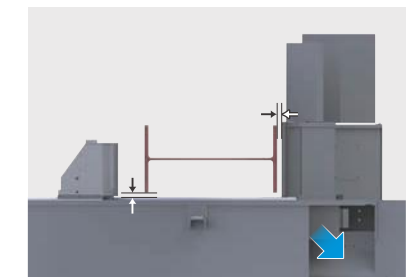
SWIVEL OF BOTH DIRECTIONS

For miter cuts, the saw frame swivels automatically: max. 60 degrees clockwise, max. 45 degrees anti-clockwise.



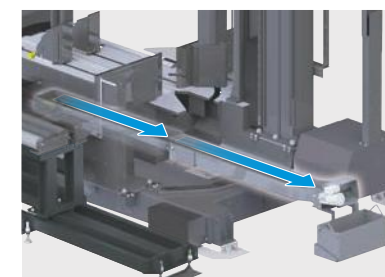
RIGID CONSTRUCTION

The saw frame and base are extremely heavy-duty ensuring a high level of accuracy, efficiency and maximum performance.



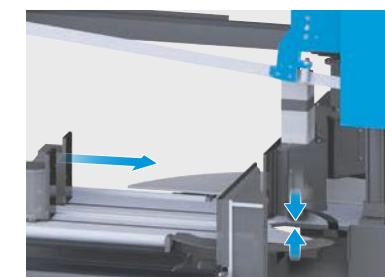
WORK FEED ESCAPE

Even the fixed side of the vise escapes slightly for trouble-free work feed.



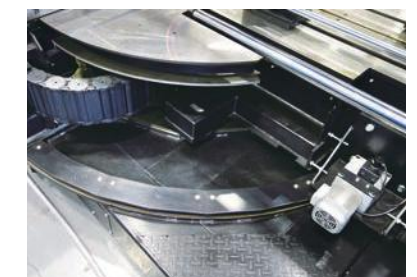
CHIP CONVEYOR

The raking type chip conveyor endlessly rakes chips out while allowing cutting fluid to drain back into the reservoir.



UNITIZED MAIN VISE AND BASE

DAITO patented unitize vise can clamp the workpiece with 1 ton of clamping pressure, this reduces vibration of the cutting and increases blade life.



ACCURATE SWIVELING

The saw frame swivel is driven by a geared motor and pin gears with little backlash; the swivel angle is always accurate.

■ Specifications

Tandem Line		1000type	1300type
Capacity* (mm)	0°	Max. 1,000 × 500	Max. 1,300 × 600
	15°	Max. 945 × 500	Max. 1,235 × 600
	30°	Max. 790 × 500	Max. 1,050 × 600
	45°	Max. 550 × 500	Max. 700 × 600
	60°	Max. 300 × 500	Max. 450 × 600
	-45°	Max. 550 × 500	Max. 700 × 600
Hole Dia.		Φ9 - 50	
Blade Size	Width × Thickness	54mm × 1.6mm	67mm × 1.6mm
	Length	9,350mm	9,840mm
Blade Speed		0m/min - 133m/min	
Drill Spindle	Axis	3 Axes Top / Left / Right	
	Spindle rpm	Max.3,000rpm	
No. of Drills in ATC (Each Unit)		Top, Left, Right 5	
Motor Output	Drilling Machine	63.2kW	
	Band Sawing Machine	13.5kW	
	Tandem Unit	3.5kW	
Power Source		AC200V	
Machine Weight	Drilling Machine	9,800kg	11,000kg
	Band Sawing Machine	5,500kg	6,000kg
	Tandem Unit	4,000kg	5,500kg

The specifications are subject to change without notice.

* A program which includes miter cuts needs to be interrupted depending on conditions. For details, contact us.

■ Overall Dimensions (mm) 1000type/1300type

〈 〉 : 1300type

