



**TAN PHUOC DONG**  
**MECHANICS AND AUTOMATON**

# PRODUCT BROCHURE



**OPTIMAL DESIGN AND AUTOMATION**

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**Tan Phuoc Dong Mechanics and Automation Co.,Ltd.**, founded in 2012, is one of the leading companies in manufacturing wood sawmill and woodworking machines. Our primary goal is to develop cutting-edge mechanical solutions that enhance productivity and streamline operations for our clients across various industries. We strive to create automated systems that not only improve accuracy and reduce labor costs but also contribute to sustainability by minimizing waste and energy consumption. Through a collaborative approach, we aim to understand our clients' unique challenges and tailor our designs to meet their specific needs

## Awards and Certificates



**Pham Hong Thom**  
Founder & CEO

## CEO Biography

**Date of birth** : 05/28/1984  
**Place of birth** : Tien Giang Province  
**Qualification** : Master degree (Pukyong National University - South Korea);  
 Bachelor Degree (Hochiminh University of Technology - Vietnam)  
**Major** : Mechanical Design and Manufacturing; Automatic Control  
**Research topics**: Machine design; Machine manufacturing; Electrical circuit design;  
 Robust control; Machine condition monitoring, Machine vibration...  
**Publications** : <https://www.researchgate.net/scientific-contributions/Hong-Thom-Pham-70404129>

# PRODUCTS

- 1 HORIZONTAL WOOD SAWMILL
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# Horizontal Wood Sawmill



**Model:** DSM-160M

**Power:** Diesel Engine 50Hp

**Max Log Dia.:** 140cm

**Band wheel Dia.:** 96cm

**Blade length - width:** 840cm-12cm

**Blade Tension:** Screw - Visme

**Head Up/Down:** Gear chain system

**Head Forward/Reverse:** Gear chain system



**Model:** EDSM-160M

**Power:** - Control system: Single Phase 220VAC

- Sawmill: Diesel Engine 50Hp

**Max Log Dia.:** 140cm

**Band wheel Dia.:** 96cm

**Blade length - width:** 840cm-12cm

**Blade Tension:** Automatic hydraulic System

**Head Up/Down:** Automatic Control (Induction motor + Encoder)

**Display:** LCD screen

**Up/Down Resolution:** 1mm



# Horizontal Wood Sawmill



**Model:** AHT-1200-HS

**Power:** 25Hp, three phase 380VAC

**Max Log Dia.:** 95cm

**Band wheel Dia.:** 85cm

**Blade length - width:** 640cm - 12cm

**Blade Tension:** Automatic hydraulic System

**Head Up/Down:** Automatic Control (Induction motor + Encoder)

**Display:** LCD screen

**Up/Down Resolution:** 1mm



**Model:** AHT-1600-HS

**Power:** 40Hp, three phase 380VAC

**Max Log Dia.:** 135cm

**Band wheel Dia.:** 106cm

**Blade length - width:** 840cm - 12cm

**Blade Tension:** Automatic hydraulic System

**Head Up/Down:** Automatic Control (Induction motor + Encoder)

**Display:** LCD screen

**Up/Down Resolution:** 1mm

# Horizontal Wood Sawmill



**Model:** AHT-2200-HS

**Power:** 50Hp, three phase 380VAC

**Max Log Dia.:** 195cm (76.7")

**Band wheel Dia.:** 120cm (47.2")

**Blade length - width:** 980cm - 12cm (385.8" - 4.7")

**Blade Tension:** Automatic hydraulic System

**Head Up/Down:** Automatic Control (Induction motor + Encoder)

**Head Forward/Reverse:** Variable speed control

**Display:** LCD screen

**Up/Down Resolution:** 1mm



**Model:** AHT-1200-FSV

**Power:** 25Hp, three phase 380VAC

**Max Log Dia.:** 65cm

**Band wheel Dia.:** 85cm

**Blade length - width:** 640cm - 13.5cm

**Blade Tension:** Automatic hydraulic System

**Head Up/Down:** AC Servo motor control (Resolution: 0.1mm)

**Head Forward/Reverse:** AC servo motor control (Double cut)

**Display:** HMI touch screen

**Log process:** Fully



# Vertical Wood Sawmill



**Model:** VWS-1100AT-01

**Power:** 40Hp, three phase 380VAC

**Max Log Dia.:** 65cm (25.5")

**Band wheel Dia.:** 110cm (43.3")

**Blade length - width:** 840cm - 14cm (330.7" - 5.5")

**Blade Tension:** Automatic hydraulic System

**Head blocks:** AC Servo motor control (Resolution: 0.1mm)

**Head Forward/Reverse:** Variable speed control (Double cut)

**Display:** 10" HMI touch screen

**Log process:** Fully



**Model:** VWS-1100AT-02

**Power:** 40Hp, three phase 380VAC

**Max Log Dia.:** 65cm

**Band wheel Dia.:** 110cm

**Blade length - width:** 840cm - 14cm

**Blade Tension:** Automatic hydraulic System

**Head Up/Down:** AC Servo motor control (Resolution: 0.1mm)

**Head Forward/Reverse:** AC servo motor control (Double cut)

**Display:** 7" HMI touch screen

**Log process:** Fully

# Crossties Production Line (Twin Vertical Sawmill)



**Model:** TVWS-900AT

**Power:** 25Hp x 2, Three phase 208VAC

**Max Log Dia.:** 50cm (19.6")

**Band wheel Dia.:** 85cm (33.4")

**Blade length - width:** 640cm - 12cm (330.7" - 4.7")

**Blade Tension:** Automatic hydraulic System

**Head In/Out:** AC Servo motor control (Resolution: 0.1mm)

**Log Forward/Reverse:** AC servo motor control

**Display:** 7" HMI touch screen

**Log process:** Fully



# Automatic Board Edger



**Model:** TPD-350Z

**Power:** 11Hp x 2, Three phase 380VAC

**Capacity:** 55cm (21.6") width x 10cm (3.9")

**Blade Diameter:** 35cm (13.7")

**Feed Speed:** Electrically adjustable up to 50 MPM (165 FPM)

**Blade Adjustment:** 50 to 500 mm (1.96" to 19.6")

**Display:** 7" HMI touch screen

**Cutting Edge:** Manual



**Model:** AED-350Z

**Power:** 11Hp x 2, Three phase 380VAC

**Capacity:** 55cm width x 10cm thickness

**Blade Diameter:** 35cm

**Feed Speed:** Electrically adjustable up to 50 MPM (165 FPM)

**Blade Adjustment:** 50 to 500 mm

**Display:** 7" HMI touch screen

**Cutting Edge:** Automatically Detection

# BANDSAW BLADE SHARPENER



**Model:** SBS-01

**Power:** 1Hp, single phase 220VAC

**Blade Tooth Spacing Range:** 16mm to 45mm (0.63" to 1.8")

**Blade Width Range:** 20mm-150mm (0.78" - 5.9")

**Max Feed Speed:** 80 teeth per minute

**Preset Blade Angle Range:** 0 to 45 degree

**Display:** 7 segment LED

**Blade type:** Swaging, Carbide, Stellite (Single Side)



**Model:** SBS-02

**Power:** 1Hp, single phase 220VAC

**Blade Tooth Spacing Range:** 30mm to 45mm

**Blade Width Range:** 90mm-150mm

**Max Feed Speed:** 80 teeth per minute

**Preset Blade Angle Range:** 0 to 45 degree

**Display:** 7 segment LED

**Blade type:** Swaging, Carbide, Stellite (Double Side)



# CIRCULAR SAWBLADE SHARPENER



**Model:** CNC-TRB-01

**CNC Axis Number:** 3

**Grinding Motor Power:** 1Hp, single phase 220VAC

**Blade Diameter Range:** 180mm to 450mm (7.1" to 17.7")

**Grinding wheel Diameter:** 150mm (5.9")

**Grinding Wheel Angle:** Auto-control (-30 to 30 degree)

**Blade Pattern Memories:** over 100

**Display:** 7" HMI Touch Screen



**Model:** CSG-600

**CNC Axis Number:** 4

**Grinding Motor Power:** 1Hp, single phase 220VAC

**Blade Diameter Range:** 180mm to 600mm

**Grinding wheel Diameter:** 150mm

**Grinding Wheel Angle:** Auto-control (-30 to 30 degree)

**Blade Pattern Memories:** over 100

**Display:** 7" HMI Touch Screen

# NARROW BANDSAW BLADE SETTER AND SHARPENER



**Model:** BWS-01

**Overall Size (LxWxH):** 600x400x600 mm

**Power:** 1Hp, single phase 220VAC

**Blade Tooth Spacing Range:** 8mm to 16mm (0.31" to 0.63")

**Blade Width Range:** 10mm-30mm (0.4" - 1.2")

**Max Feed Speed:** 480 teeth per minute

**Display:** 7 segment LED



**Model:** BBS-01

**Overall Size (LxWxH):** 600x450x700 mm

**Grinding Motor Power:** 1Hp, single phase 220VAC

**Blade Tooth Spacing Range:** 8mm to 16mm

**Blade Width Range:** 10mm-30mm

**Max Feed Speed:** 120 teeth per minute

**Preset Blade Angle Range:** 0 to 30 degree

**Display:** 7 segment LED



# WOOD CNC ROUTER



**Model:** CRT-2500

**X,Y, Z Axis Travel:** 1200x2500x200 mm

**Spindle Type:** 2.2kw water cooling spindle, 24000 rpm, ER20

**Control system:** XC609M

**Driving system:** 750W Leadshine hybrid servo motor

**Travel Speed:** 40m/min

**Working speed:** 0 to 25 m/min

**System resolution:** 0.01mm

**Working Voltage:** 220V 1PH 50HZ/60HZ



**Model:** CRT-3000

**X,Y, Z Axis Travel:** 3000x3000x200 mm

**Spindle Type:** 2.2kw water cooling spindle, 24000 rpm, ER20

**Control system:** Computer - NC STUDIO SOFTWARE

**Driving system:** 1000W Leadshine hybrid servo motor

**Travel Speed:** 40m/min

**Working speed:** 0 to 25 m/min

**System resolution:** 0.01mm

**Working Voltage:** 220V 1PH 50HZ/60HZ

# WOOD CNC LATHE



**Model:** WCL-2200

**X, Z Axis Travel:** 2200x500 mm

**Spindle Type:** 3.7kw water cooling spindle, 24000 rpm, ER3

**Control system:** Computer - NC STUDIO SOFTWARE

**Driving system:** 1500W AC servo motor

**Travel Speed:** 40m/min

**Working speed:** 0 to 25 m/min

**System resolution:** 0.01mm

**Working Voltage:** 380V 3PH 50HZ/60HZ



**Model:** WCL-7000

**X, Z Axis Travel:** 7000x300 mm

**Spindle Type:** 3.7kw, 2800 rpm

**Control system:** Computer - NC STUDIO SOFTWARE

**Driving system:** 1000W Leadshine hybrid servo motor

**Travel Speed:** 40m/min

**Working speed:** 0 to 25 m/min

**System resolution:** 0.01mm

**Working Voltage:** 380V 3PH 50HZ/60HZ



# BAND WHEEL LATHE



**Model:** BWL-1200

**Overall Size (LxWxH):** 1500x400x600mm

**Blade driving motor power:** 2.2kw

**Feed motor power:** 750kw

**Band wheel size range:** 600 to 1200 mm

**Knife travel:** 150mm

**Operation mode:** profile copy

**Working Voltage:** 220V 1PH 50HZ/60HZ

# SINGLE BLADE EDGER



**Model:** WCL-7000

**Blade Motor Power:** 380V 3PH 50/60HZ, 3.7kw

**Max board size:** 6000x500x100mm

**Max Feed Speed:** 60m/min

**System resolution:** 0.1mm

**Display:** 7 segment LED

# BANDSAW BLADE WELDING MACHINE



Model: BWM-01

Overall Size (LxWxH): 1000x700x1200 mm

Weight: 90kg

Power: 1Hp, single phase 220VAC

Blade Width Range: 16mm to 150mm

Blade Thickness Range: 0.6mm-1.5mm

Welder: TIG/MIG

Post Weld Heat Treatment: High frequency induction heater

Display: 7 segment LED

# BANDSAW BLADE LEVELING MACHINE



Model: BRM-01

Overall Size (LxWxH): 2000x700x1200 mm

Weight: 100kg

Power: 1Hp, single phase 220VAC

Blade Width Range: 60mm-150mm

Rolling Speed: 12 meter per minute



# SINGLE AND DOUBLE SIDE STELLITE TIPPED BANDSAW BLADE



**Model:** STMB-01

No.	Length(mm)	Width(mm)	Cutting Kerf (mm)
1	6400	105	2.2-2.6
2	7300	105	2.2-2.6
3	8400	105	2.2-2.6



**Model:** STMB-02

No.	Length(mm)	Width(mm)	Cutting Kerf (mm)
1	6400	135-150	2.2-2.8
2	7300	135-150	2.2-2.8
3	8400	135-150	2.2-2.8

*Our company provides stelliting services both for new band saw blades and used blades with worn stellite layer.*



**We are always with you!**