

FL-03-3

3 Meters Jointing Capacity

Fully Auto Finger Jointing Line

CKM[®]
Quality & Service

CHENG KUANG WOOD MACHINERY WORKS CO., LTD.

■ NO.387, Shoei Yuan Rd., Feng Yuan, Taichung, Taiwan.
Tel: 886-4-2524 1105~7 Fax: 886-4-2527 5507

■ NO.6-10, Shen Chin Rd., Ching Shui, Taichung County, Taiwan.
Tel: 886-4-2620 1763 Fax: 886-4-2620 3763

<http://www.ckmtw.com.tw> E-mail: ckmmail@ckmtw.com.tw



Ideal for Both Long and Short Wood

- Long wood 3 meters.
- Short wood 150 mm.



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Fully Auto Finger Jointing Line

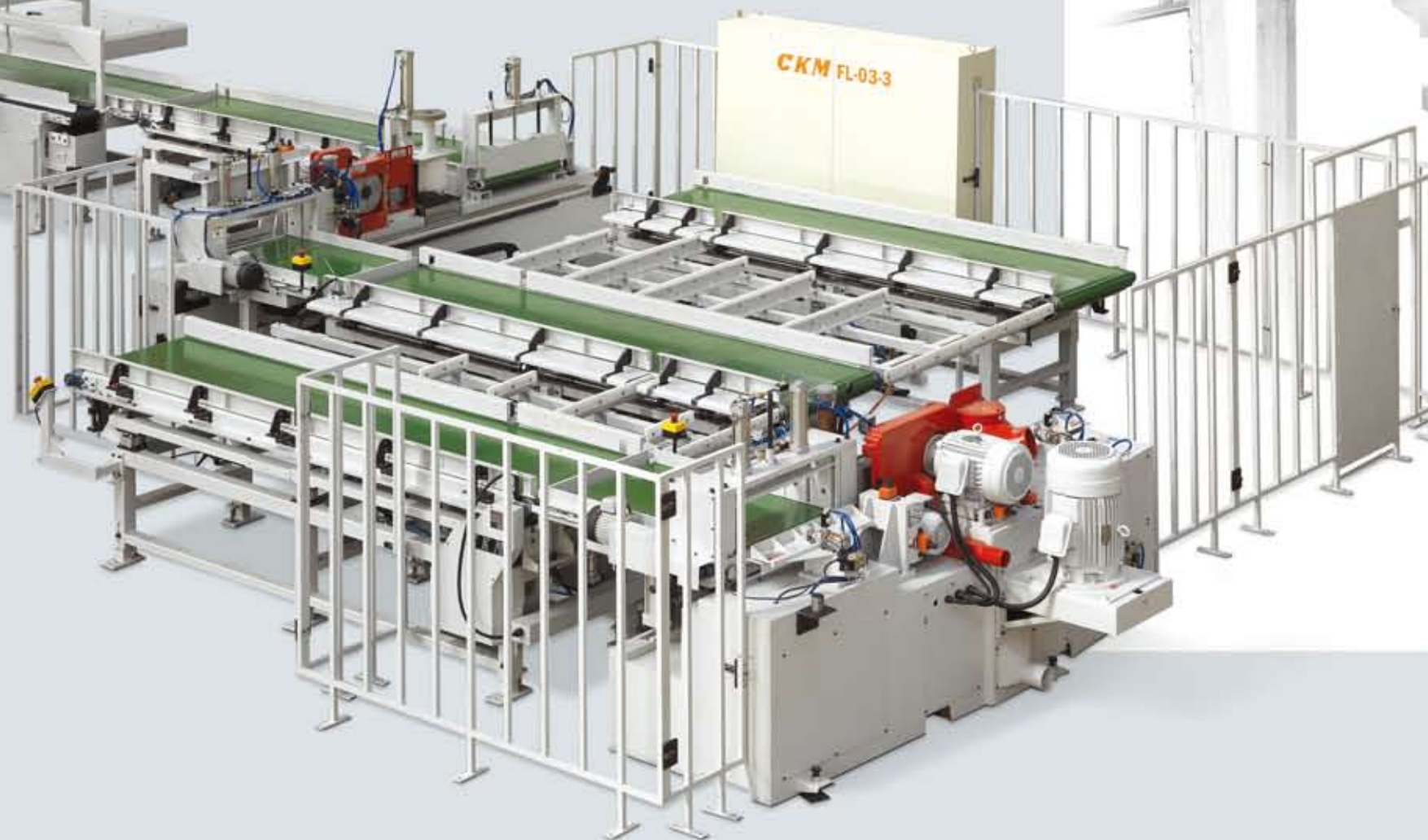
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Perfectly Designed to Optimize Finger Jointing Efficiency.

See how CKM FL-03-3 provides users with significantly great cutting capacity, increased efficiency and better jointing quality.

The newly developed FL-03-3 Fully Auto Finger Jointing Line from CKM is specially designed for jointing long and short wood. The entire jointing line enhances high speed operation and operational convenience that help customers to greatly increase throughput and create profits.

The CKM FL-03-3 is ruggedly constructed throughout., providing maximum stability during high speed operations. The feed system on the right and left finger shaper is driven by servo motor that greatly increase efficiency. Built with CKM's traditional high quality reputation, the CKM FL-03-3 will deliver the jointing performance you've come to expect.



FL-03-3

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PRODUCTION FLOW CHART

PRODUCTION FLOW CHART :

1 Automatic initial infeeding of workpieces.

3 F-C05 right finger shaper performs scoring, trimming, and shaping on right end of workpiece.

5 F-C06 left finger shaper performs scoring, trimming, shaping and gluing on left end of workpiece.

7 Workpiece feed one by one automatically.

9 Workpieces travel forward for cutting-to-length.

11 Final product out-feed on staging platform.

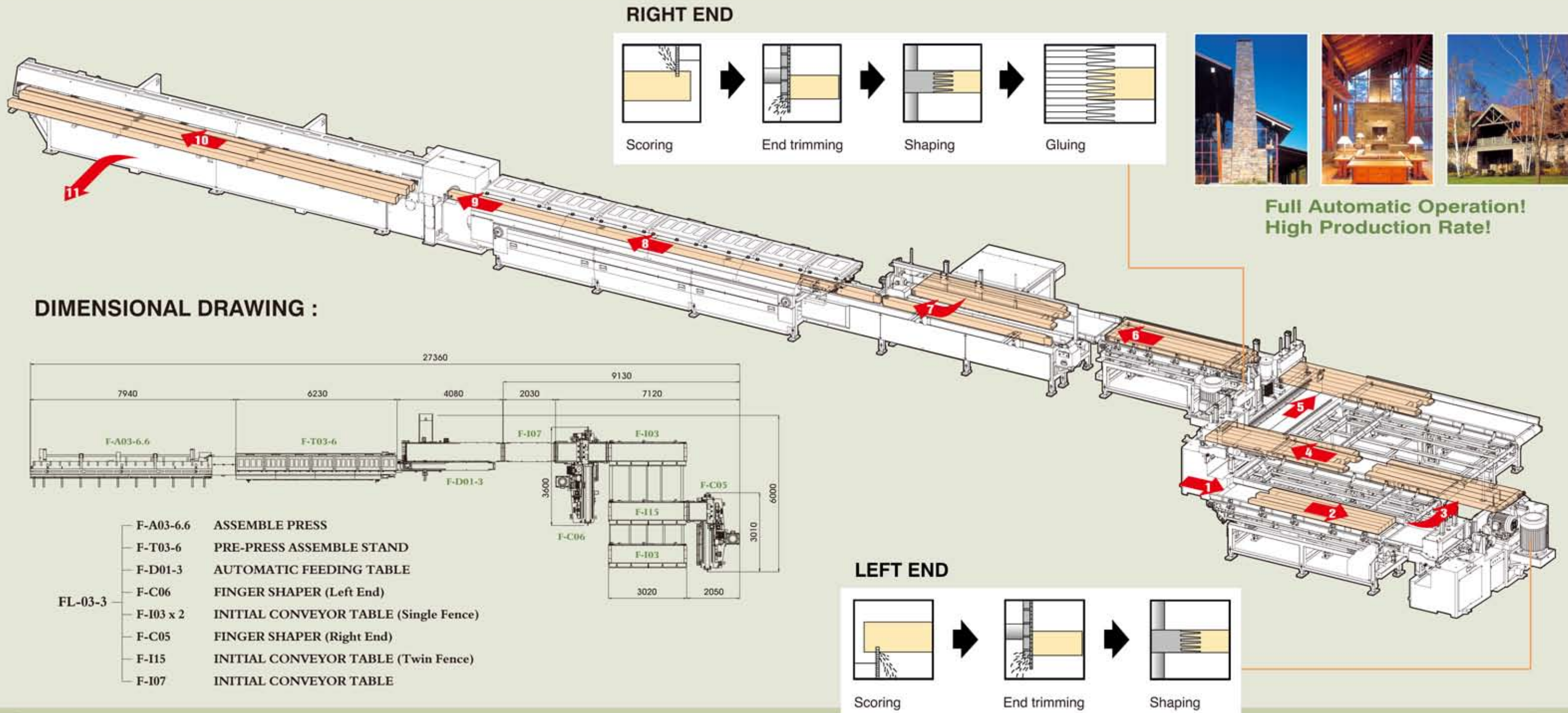
2 Automatic feed table.

4 Workpieces automatically travel into left finger shaper.

6 Workpieces travel onto the standby conveyor, then feed forward onto automatic feeding table.

8 Work pieces automatically feed to pre-press assemble stand.

10 Finger assembly is performed by a powerful hydraulic system.



F-I03 SINGLE FENCE

INITIAL CONVEYOR TABLE

- The initial infeed tables allow for continuous infeed of workpiece.
- The conveyor tables are raised by air cylinder.



F-I15 TWIN FENCE

INITIAL CONVEYOR TABLE

- The initial infeed tables allow for continuous infeed of workpiece.
- The conveyor tables are raised by air cylinder.



F-C05

FINGER SHAPER (Right End)

- It combines three functions - scoring, trimming, shaping in a unit on right end of the workpiece.



SERVO MOTOR DRIVE

- The feed system on the right and left finger shaper is driven by servo motor, providing high speed feed and increased efficiency.
- The table on the right and left finger shaper moves on precision linear guide ways for extra smooth movement.



RIGHT SHAPING MECHANISM

The mechanism performs scoring, trimming, shaping operations on right end of the workpiece. Scoring blade in front of trimming blade cuts bottom edge to give tearing-free finish. Finger cutters produce smooth finger shape, cutting capacity 6 1/4" thick.

PRODUCTION RATE

- 2-4 cycles/min. (Long wood)
- 4-6 cycles/min. (Short wood)



ACCURATE SAWBLADE ADJUSTMENT

The trimming and scoring sawblade position are adjusted on the precision rod guides, which are hard chrome plated for maximum wear resistance. Micrometers are also provided for accurate indication for adjustment, ensuring superior jointing quality.

F-C06

FINGER SHAPER (Left End)

- It combines four functions-trimming, scoring, shaping and gluing on left end of the workpiece.



CUTTER PRESETTER

A cutter presetter is built on the right shaper for convenient cutter assembly.

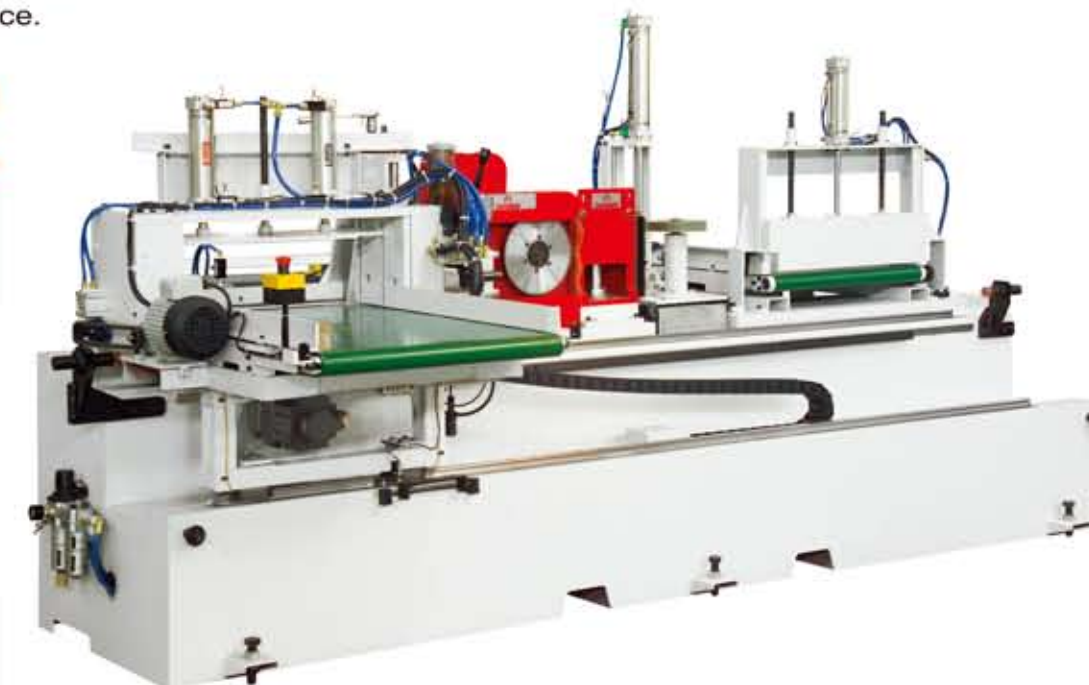


LEFT SHAPING MECHANISM

The mechanism performs scoring, trimming, shaping and gluing operation on left end of the workpiece. Scoring blades cut top and bottom edges to prevent tear-out.

PRODUCTION RATE

- 2-4 cycles/min. (Long wood)
- 4-6 cycles/min. (Short wood)



SERVO MOTOR DRIVE

- The feed system on the right and left finger shaper is driven by servo motor, providing high speed feed and increased efficiency.
- The table on the right and left finger shaper moves on precision linear guide ways for extra smooth movement.

F-I07

INITIAL CONVEYOR TABLE

- The initial infeed table allows for continuous infeed of workpiece.



F-T03-6

F-T03-6 CHAIN TYPE PRE-PRESS ASSEMBLE STAND (LESS INFEEED CONVEYOR TABLE)

- The pre-press assemble stand employs chain feed, and provides 3 and 6 meters of length to choose from.
- This assemble stand provides pre-pressed board ready to be cut to length, and ensures accurate vertical and horizontal alignment of finger joint. The pre-press is fully synchronized with cut-to-length process.



F-D01-3

AUTOMATIC FEEDING TABLE 3 METERS LONG

- Located in front of pre-press assemble stand, this automatic feeding table allows workpieces to feed, one by one, eliminating operator's efforts.
- Workpieces turn-over are made by a steel brush roller.
- Feed is driven by a servo motor.



F-A03-6.6

ASSEMBLE PRESS

- The assemble press employs two hydraulic cylinder at front and rear, providing more powerful and faster jointing performance. This special design also assure extremely consistent jointing effect on the entire wood.
- The assemble press joints short stock to produce long board length up to 6800mm.
- A synchronized 2-step process allows the back of the press to continue jointing and cutting to length while the front of the press is performing pressing and outfeed motions.
- Times of cut are controlled by limit switches, which permits for maximum 4 times of cut setting.



SPECIFICATIONS

INITIAL CONVEYOR TABLE F-I03

MODEL	2M	3M
Table width	650mm	650mm
Table length	3000mm	3000mm
Conveyor table motor	2HP	2HP
Machine length	2050mm	3050mm
Machine width	1020mm	1020mm
Machine height	1060mm	1060mm
Packing dimensions (L x H x W)(mm)	2180x1175x1120	3180x1175x1120

INITIAL CONVEYOR TABLE F-I15

MODEL	2M	3M
Table width	650mm	650mm
Table length	2000mm	3000mm
Conveyor table motor	2HP	2HP
Machine length	2050mm	3050mm
Machine width	1080mm	1080mm
Machine height	1060mm	1060mm
Machine width (With auxiliary support)	3140mm	3140mm
Packing dimensions (L x H x W)(mm)	2180x1175x1120	3180x1175x1120

INITIAL CONVEYOR TABLE F-I07

MODEL	2M
Table width	650mm
Table length	3000mm
Conveyor table motor	2HP
Machine length	2050mm
Machine width	1020mm
Machine height	1060mm
Packing dimensions (L x H x W)(mm)	2180x1175x1120

ASSEMBLE PRESS F-A03

MODEL	6M	6.6M
Available length of product	6200 mm	6800 mm
Available thickness of product	15-60 mm	15-60 mm
Available width of product	15-160mm	15-160mm
Feeding speed	80m/min	80m/min
Production rate	5pcs	5pcs
POWER REQUIRED		
Feed motor	2HP	2HP
Max. assembly pressure	0~150Kg/cm ²	0~150Kg/cm ²
Hydraulic power unit	5HP	5HP
Cut-off saw	5HP	5HP
Dust hood outlet diameter	4" (101.6mm)	4" (101.6mm)
Machine dimensions (L x H x W)(mm)	7400x1400x1380	7800x1400x1380
Noise Value	84 dB	84 dB
Packing dimensions (L x H x W)(mm)	7500x1500x1060	7900x1500x1060

FINGER SHAPER (RIGHT END) F-C05

Max. available width working table	650 mm
Range of workpiece length	150-1000 mm
Range of workpiece height	30-160 mm
Table moving speed	6 carts/min.
Trimming saw speed	2800 rpm (50hz), 3400rpm (60hz)
Finger cutter speed	5000 rpm
Scoring saw speed	2800 rpm (50hz), 3400rpm (60hz)
POWER REQUIRED	
Table-drive servo motor	1.0 kw
For conveyor motor	1/2HP
Scoring saw motor	1HP
Trim saw motor	10HP
Shaper cutter motor	20HP
Dia of Cutter (in/out)	ø70 / ø160mm
Main Sawblade (Trim saw)	3t x ø255
Auxi Sawblade (Trim saw)	12t x ø240
Dust hood outlet diameter	6"x1, 4"x2
Machine dimensions (L x H x W)	3010x1370x2020 mm
Noise Value	88.2 dB
Packing dimensions (L x H x W)	3120x1470x2150 mm

FINGER SHAPER (LEFT END) F-C06

Max. available width working table	650 mm
Range of workpiece length	150-1000 mm
Range of workpiece height	30-160 mm
Table moving speed	6 carts/min.
Trimming saw speed	2800 rpm (50hz), 3400rpm (60hz)
Finger cutter speed	5000 rpm
Scoring saw speed	2800 rpm (50hz), 3400rpm (60hz)
POWER REQUIRED	
Table-drive servo motor	1.0 kw
For conveyor motor	1/2HPx2
Scoring saw motor	1HPx2
Trim saw motor	10HP
Shaper cutter motor	20HP
Dia of Cutter (in/out)	ø70 / ø160mm
Main Sawblade (Trim saw)	4t x ø255
Auxi Sawblade (Trim saw)	12t x ø240
Dust hood outlet diameter	6"x1, 4"x2
Machine dimensions (L x H x W)	3600x1640x2100 mm
Noise Value	88.2 dB
Packing dimensions (L x H x W)	3710x1760x2220 mm

★ NOTE: ø50mm Clamping collars with various thickness for finger cutter and optional accessories to be ordered.

★ NOTE: ø50mm Clamping collars with various thickness for finger cutter and optional accessories to be ordered.

AUTOMATIC FEEDING TABLE F-D01-3

MODEL	1M	3M
Auto feeding table	650 mm	650 mm
Range of material length	100-1000 mm	100-3000 mm
Range of material width	30-160 mm	30-160 mm
Infeed motor	1HP	2HP
Feed drive motor	2HP	3HP
Brush wheel drive motor	1/8HP	1/8HP
Machine dimensions (L x H x W)(mm)	2830x1560x2590	4830x1560x2590
Packing dimensions (L x H x W)(mm)	2980x1670x2700	4980x1670x2700

CHAIN TYPE PRE-PRESS ASSEMBLE STAND (LESS INFEEED CONVEYOR TABLE) F-T03

MODEL	6M
Range of workpiece height	15-100 mm
Range of workpiece width	25-200 mm
Feed speed	140 m/mim
Feed drive motor	2HPx2
Machine length	6290 mm
Machine width	1140 mm
Machine height	1110 mm
Packing dimensions (L x H x W)	6400x1200x1220 mm