

FL-03

Fully Auto Finger Jointing Line

FL-05

Auto Finger Jointing Line

- Three initial infeed tables.
- Automatic feed to pre-press assemble stand.



CHENG KUANG WOOD MACHINERY WORKS CO., LTD.

CKM[®]
Quality & Service

Auto Finger Jointing Line

CKM[®]
Quality & Service

Turn your wood waste into valuable material and create added profits with CKM FL-05 Auto Finger Jointing Line.

**Performance-Proven
reliability to give you the
best value in high speed
finger jointing.**

When you need fast, automated and efficient finger jointing, consider the advantages created by CKM FL-05 Auto Finger Jointing Line. The entire production line is also ruggedly constructed throughout, featuring maximum stability during high speed production.

Maximum dependability of operational performance is guaranteed, which is backed by the CKM'S rich experience in the field of finger shaping and jointing technology.



FL-05

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PRODUCTION FLOW CHART

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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.

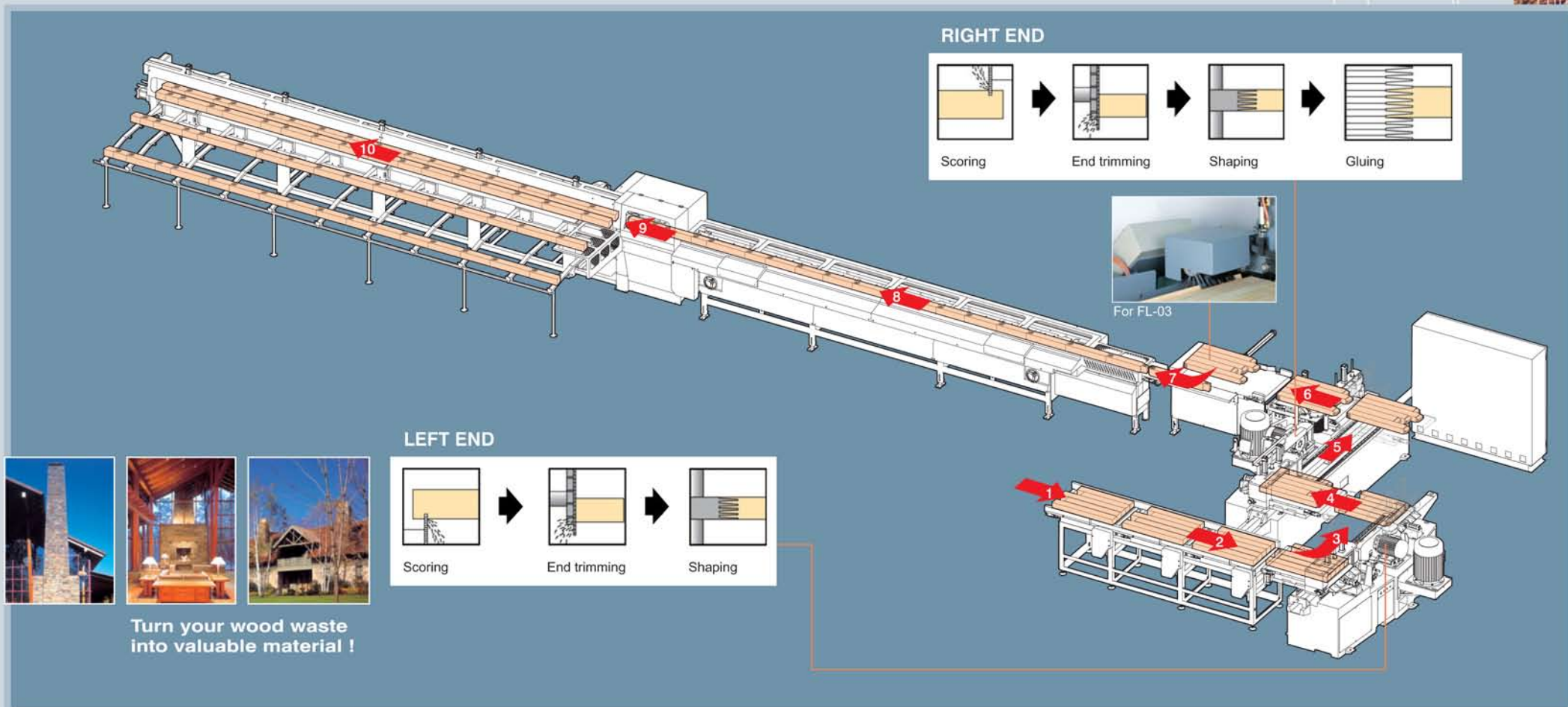
2 Automatic feed table.

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.

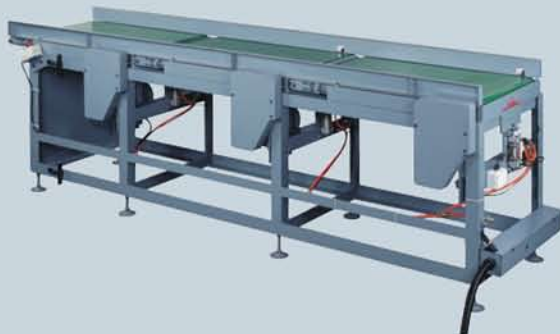
10 Finger assembly is performed by a powerful hydraulic system.



F-I01

MULTI-STAGE INITIAL CONVEYOR TABLE

- The three initial infeed tables allows for continuous infeed of workpiece.



F-C05

FINGER SHAPER (Right End)

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



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 splinter-free finish. Finger cutters produce smooth finger shape, cutting capacity 6 1/4" thick.



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.



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.



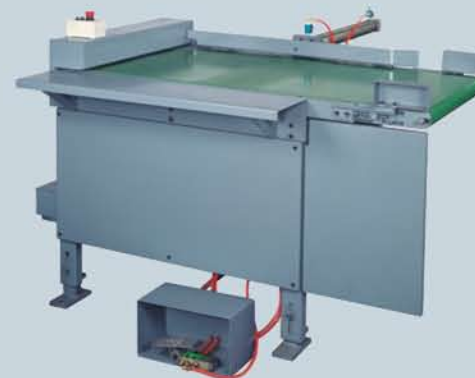
CUTTER PRESETTER

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

F-D11

(ON MODEL FL-05) MANUAL WORKPIECE TURN-OVER

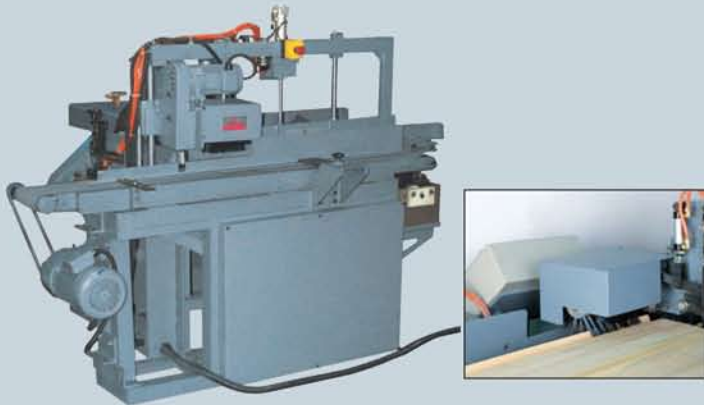
- The workpieces are turned-over before feeding to automatic feeding table.
- At this station, the operator may inspect cutting quality produced by finger shapers.



F-D01

AUTOMATIC FEEDING TABLE (ON MODEL FL-03)

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

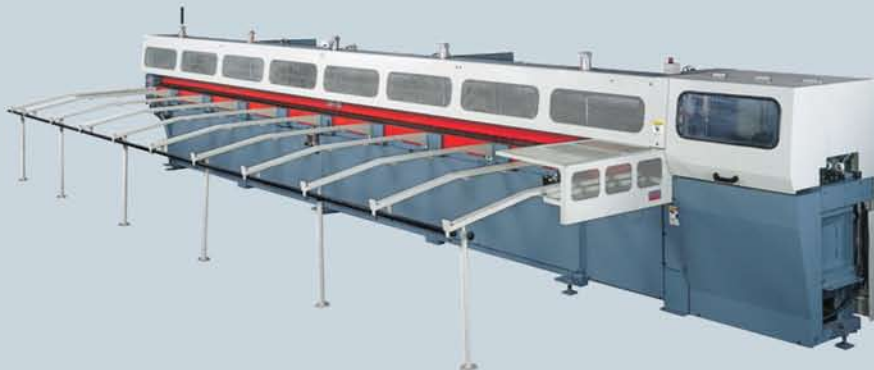


F-A03

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 stoch to produce long board length up to 6200mm.
- 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.



F-T03 / F-T05

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

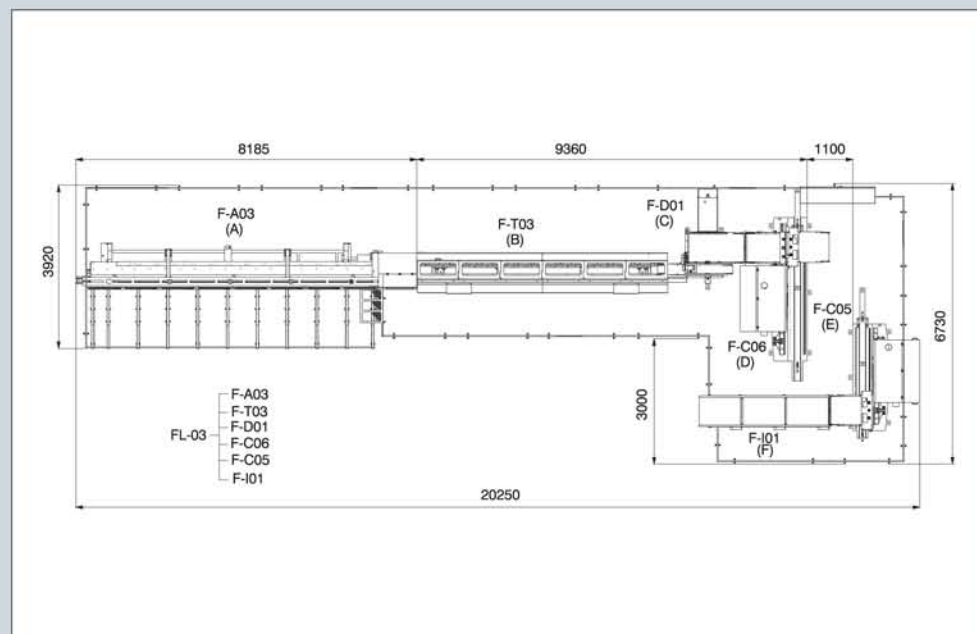
F-T05 CHAIN TYPE PRE-PRESS ASSEMBLE STAND

- 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.



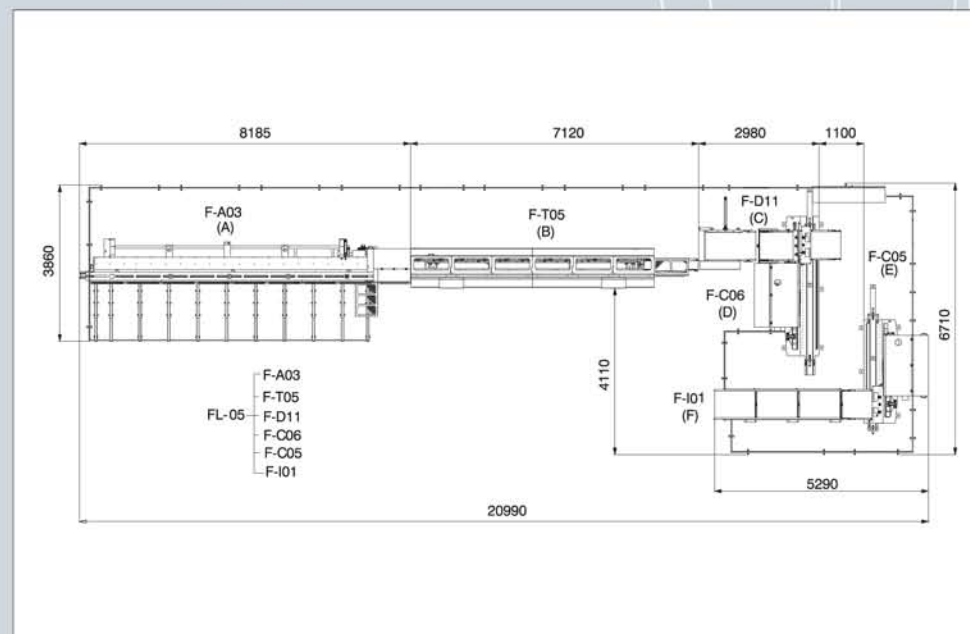
DIMENSIONAL DRAWING

FL-03



FL-03 —	F-I01	THREE INITIAL INFEED TABLES
	F-C05	FINGER SHAPER (Right End)
	F-C06	FINGER SHAPER (Left End)
	F-D01	AUTOMATIC FEEDING TABLE (on model FL-03)
	F-T03	PRE-PRESS ASSEMBLE STAND
	F-A03	ASSEMBLE PRESS

FL-05



FL-05 —	F-I01	THREE INITIAL INFEED TABLES
	F-C05	FINGER SHAPER (Right End)
	F-C06	FINGER SHAPER (Left End)
	F-D11	MANUAL WORKPIECE TURN- (on model FL-05)
OVER	F-T05	CHAIN DRIVE PRE-PRESS ASSEMBLY STAND

SPECIFICATIONS

MULTI-STAGE INITIAL CONUEYOR TABLE	F-I01
Conveyor table width	650mm
Table height	860mm
Feed drive motor	1HPx3
Overall length	3250mm
Overall width	860mm
Overall height	960mm
Packing dimensions (L x H x W)	3350x1175x960mm
Combined packing dimensions (L x H x W)	4190x1175x1780mm

FINGER SHAPER (RIGHT END)	F-C05
Max. working width	650mm
Range of material length	150-1000mm
Range of material height	30-160mm
Table feed speed (Air/hydraulic combiluation cylinder)	0~20m/mim
Trim saw speed	2800 rpm (50hz), 3400rpm (60hz)
Finger cutter speed	5000rpm
Scoring saw speed	2800 rpm (50hz), 3400rpm (60hz)
MOTOR HORS	
For table drive	1/2HP
For scoring saw	1HP
For trimming saw	10HP
For finger cutter spindle	20HP
Finger cutter spindle dia.	ø50mm
Finger cutter specif. (I.D./Max.O.D.)	ø70/ø160mm
Dust outlet diameter	6"x2
Machine dimensions (L x H x W)	3670x1905x2155mm
Noise level	88.2 Db
Packing dimensions (L x H x W)	3810x2120x2270mm

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

FINGER SHAPER (LEFT END)	F-C06
Max, working width	650mm
Range of material length	150-1000mm
Range of material height	30-160mm
Table feed speed (Air/hydraulic)	0~20m/mim
Trim saw speed	2800 rpm (50hz), 3400rpm (60hz)
Finger cutter speed	5000rpm
Upper scoring saw speed	2800 rpm (50hz), 3400rpm (60hz)
Lower scoring saw speed	2800 rpm (50hz), 3400rpm (60hz)
MOTOR HORSEPOWER	
For table drive	1/2HPx2
For upper scoring saw	1HP
For lower scoring saw	1HP
For trim saw	10HP
For finger cutter spindle	20HP
Finger cutter specif. (I.D./Max.O.D.)	Ø70/Ø160mm
Dust outlet diameter	6"x2
Machine dimensions (L x H x W)	4160x1905x2155mm
Noise level	88.2 Db
Packing dimensions (L x H x W)	4855x2120x2270mm

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

PNEUMATIC FEEDING TABLE	F-D11
Conveyor table width	650mm
Table height	860mm
Feed drive motor	1HP
Overall length	1420mm
Overall width	1790mm
Overall height	975mm

AUTOMATIC FEEDING TABLE	F-D01
Conveyor table width	650mm
Table height	860mm
Range of material length	100-1000mm
Range of material height	30-160mm
MOTOR HORSEPOWER	
Feed drive motor	1HP
Outfeed drive motor	2HP
Brush roller drive motor	1/8HP
Overall length	1540mm
Overall width	1545mm
Overall height	2450mm

CHAIN DRIVE PRE-RESS ASSEMBLY STAND	F-T03
Max. pre-press length	6000mm
Range of workpiece width	15-200mm
Range of workpiece height	15-100mm
Feed speed	80m/mim
MOTOR HORSEPOWER	
For left transmission	2HP
For right transmission	2HP
Machine dimensions (L x H x W)	6035x1060x1000mm
Noise level	70 Db
Packing dimensions (L x H x W)	6070x1275x1120mm

SPECIFICATIONS

ASSEMBLE PRESS (DOUBLE SIDES PRESSING)

F-A03

MODEL	6M	6.8M
Max. product length	6200mm	6800mm
Range of material width	15-160mm	15-160mm
Range of material height	15-60mm	15-60mm
Feed speed	80m/mim	80m/mim
Range of pressing pressure	0~150Kgs/ cm ²	0~150Kgs/ cm ²
Production rate	5pcs/mim	5pcs/mim
MOTOR HORSEPOWER		
For feeding	2HP	2HP
For hydraulic pump	7-1/2HP	7-1/2HP
For sizing	5HP	5HP
Saw arbor diameter	ø1" (ø25.4mm)	ø1" (ø25.4mm)
Dust outlet diameter	4" (101.6mm)	4" (101.6mm)
Machine dimensions (L x H x W)	7670 x 1370 x 1510mm	8270 x 1370 x 1510mm
Noise level	84Db	84Db
Packing dimensions (L x H x W)	7745 x 1585 x 1150mm	8345 x 1585 x 1150mm

CHAIN DRIVE PRE-PRESS ASSEMBLY STAND

F-T05

MODEL	3M	6M
Max. pre-press length	3000mm	6000mm
Range of workpiece width	15-200mm	15-200mm
Range of workpiece height	15-100mm	15-100mm
Feed speed	80m/mim	80m/mim
MOTOR HORSEPOWER		
For table drive	2HP	2HP
For left transmission	2HP	2HP
For right transmission	2HP	2HP
Machine dimensions (L x H x W)	4130x1060x1000mm	7130x1060x1000mm
Noise level	70 Db	70 Db
Packing dimensions (L x H x W)	4230x1160x1100mm	7162x1275x1120mm



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