

# PICTURE FRAMING JOINERS

by Jim Burke

To review what underpinners, v-nail machines, and frame joiners are available on the market for joining picture frames, I have broken down all the products discussed here into three levels of machines. The basic level consists of foot-operated ma-

chines, and some of the same models with pneumatics. The advanced level contains pneumatic machines without electrical controls, and the production level encompasses those joiners with memory computer capabilities and which require an electrical connection.

---

## BASIC LEVEL MACHINES

---

**Cassese Model CS1 Cart** is a foot-operated machine that uses standard Cassese wedges in cartridges, while the new Model CS1 Uni uses strips of wedges glued together. The new Uni machines are black in color versus the original red Cassese machines to differentiate their use of glued wedge strips. These units replace the CS88 model which is discontinued. They both



Cassese Model CS1

feature the new stainless steel top plate and tubular aluminum frame. With a longer 6" stroke of the fence, they can join wider mouldings up to 4" wide by 4" tall. The frame and fence move between two preset stop for unlimited positioning to drive wedges into the frame. There is no frontal clamp.

.....  
**Cassese Model CS2 Cart** is a pneumatic machine that uses standard Cassese wedges in cartridges while the Model CS2 UNI is the air operated version of the CS1 Uni for use with glued wedge strips. These units replace the CS89 which is discontinued. The frame and fence move between two preset stop to insert wedges anywhere along the corner seam. With new stainless steel top plates and tubular aluminum frame, these units are light but rigid and strong. They have a new quick adjust top clamp with magnetic pads and have a longer 6" stroke for wider mouldings up to 4". There is no front horizontal clamping.

.....  
**Inmes Model IM-2** has a foot-operated joiner that uses cartridge

v-nails for quick nail size changes. The model 2 has a lightweight tubular frame. The foot pedal is operated from the front or back of the machine. The frame moves to different positions to insert nails in any positions between two stops, and can handle mouldings up to 4 3/4" wide x 3 3/8" tall. There is no frontal clamp.



Inmes Model IM-3 SE

**AMP/Fletcher Model U-200** is a foot-operated unit which can handle



AMP Model U-200

up to 7" wide x 3 7/8" tall moulding and accepts all five sizes of v-nails available, from 5 to 15mm. The frame and fence move between two preset stops for inserting nails in unlimited positions. The new lightweight chassis allows for front or rear operation of the foot pedal as well as a tilt feature for the machine top. A new "positive placement" clamping feature improves top clamp adjusting for quick changes in moulding height. This is a double post top clamp machine with a robust driver system that eliminates frequent blade changes. There is no frontal clamp on this unit.

**A-Plus Automation Model A1-M-XL** is a foot-operated mechanical frame joiner on a fixed height stand. The frame and fence move between two preset stops for inserting nails in unlimited positions. It can join frames with profiles up to 3 1/4" high x 4 3/4" wide. It comes standard with three sizes of nail heads for 7, 10, and 15mm wedges. The use of 3, 5, or 12mm wedges is optional with extra heads.

## ADVANCED LEVEL MACHINES



Universal Arquati Model DY-104

**Universal Arquati Model DY-104** is a double post pneumatic machine with a front clamp and hand lever operated movement of the driver assembly between two preset stops. It operates similar to an AMP U-300P or INMES IM-5P. It is a tabletop machine that will drive four sizes of v-nails from 7 to 15mm by exchanging the die block for each size. A frontal clamp keeps the moulding held to

the back adjustable fences while joining.

**Inmes Model IM-4P** is a pneumatic machine which has a single post top clamp that moves with the driver below, controlled by a hand lever on the side. This is similar to the Cassese CS200 and the AMP U-400 in operation. It can handle five v-nail sizes from 5 to 15mm. The moulding is held fast while the top clamp and nail driver below, move together to insert nails in unlimited positions between two preset stops. It uses glued strip nails that can be changed in size using no tools, because of rotating v-nail chamber. The machine is mounted to an adjustable tilting base and can handle mouldings that are 5 7/8" wide x 4 1/2" tall.

**Cassese Model CS20 Cart** is a pneumatic machine that only uses Cassese cartridges and it includes

a front clamp to securely hold the moulding against the back fence while joining. These machines use the Cassese cartridge wedges in five sizes from 5 to 15mm. It has patented self-adjusting fences and a patented dual action front clamp for handling mouldings up to 4" wide x 3 1/2" tall. The new cast aluminum top clamp arm has the quick-adjust post with magnetic chevron pad.

**Cassese Model CS200 Cart** is a heavy-duty air-powered joiner that is flexible enough for the custom framer and tough enough for volume assembly. It uses Ultra Clamps and Joystick control for a super tight joint. It features the new EZ adjustable top hold down. It will join mouldings up to 6" wide by 4" tall and has quick and easy nail positioning. It uses only Cassese cartridges for quick wedge size changes.

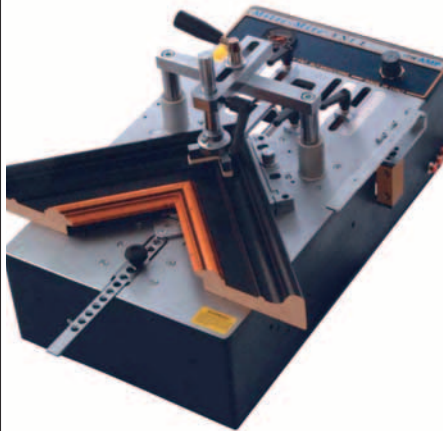


Cassese Model CS200 Cart

**Cassese Model CS199M XL** is a heavy-duty air powered joiner using the “Ultra Clamp System” for tight corners. The carriage locks in position during insertion of nails to allow for consistent stacking. It has built in extension arms for large frames and the new XL adjustable top clamp for quick positioning and magnetic pads. It uses the Cassese wedges in cartridges for all five sizes from 5 to 15mm and will join mouldings 6" wide x 3 3/16" tall. This is a purely pneumatic machine requiring no electricity.

**Cassese Model CS299M XL2** is a heavy-duty air powered joiner using the new retractable Ultra Clamp system making it easier to handle large frames. The carriage locks in position during insertion of nails for consistent stacking. It has built in extension arms for large frames and the new XL adjustable top clamp and magnetic pads. It uses the Cassese wedges in cartridges for quick changing of the five sizes from 5 to 15mm, and will join mouldings up to 6" wide x 3 1/2" tall. This is a purely pneumatic machine requiring no electricity.

**AMP/Fletcher Model U-300** is a pneumatic unit previously known as a VN2+1. This is a table top machine that can be mounted on a base that also allows tilting for cramped spaces. It is a two stage machine in operation with “Soft Clamp” for better corners, and can use all five sizes of AMP v-nails from 5 to 15mm in height. It uses twin posts for the top clamp and the frame moves with the fence to insert nails in unlimited positions. A frontal clamp engages the frame for tight corners, while the AFC (auto fence clamp) holds the fence for each nail position.



AMP/Fletcher Model U-300P

**AMP/Fletcher Model U-300P** is a pneumatic machine previously known as a VN4L. It is a veteran machine that uses twin post for the top clamp and the driver is moved below with air cylinders to control up to three nail positions, using a finger lever on the top of the machine. This is a tabletop machine with an optional stand that allows tilting the machine in tight spaces. It uses all five sizes of v-nails and has an optional double hydraulic top clamp for wide mouldings. Although this is a two-stage machine it is equipped with “Soft Clamp” for control of the down force on the top clamp during initial clamping.

**AMP/Fletcher Model U-400** is a pneumatic machine controlled by an air pedal and previously known as a VN-144S. This is a single post top clamp that moves with the driver below via a hand lever on the side of the machine. It has an optional height adjustable base that allows for the machine to work level or tilted back for confined spaces. The moulding is held fast while the top clamp and driver move together to insert nails in unlimited positions between two preset stops. This machine can use all five sizes of v-nails and can switch between sizes without using tools with the new interchangeable size magazine. It will join mouldings up to 5 1/2" wide x 3 1/4" tall, and can stack v-nails anywhere along the frame joint. This is a two stage machine with “Soft Clamp” for good tight corners.

**A-Plus Automation Model A3-P** is a table-top machine that can be mounted on an optional base. It features a quick-adjust top clamp post, linear ball-bearings in the movable fence guides and an auto fence clamp located inside the machine. It uses twin posts for the top clamp. The moulding moves with the fence to insert nails in unlimited positions between two preset stops. A frontal clamp engages the frame for tight corners, while the auto fence clamp holds the movable fence rigid for each nail position for stacking if desired.

**A-Plus Automation Model A42-P** is a single post machine with a fixed height floor stand and hand lever operation to move the undercarriage and insert the wedges with a two-step thumb button. Wedges are in-

serted anywhere between two preset positions adjusted by the operator. It can join profiles up to 3 ¼" tall x 4 ¾" wide. This machine does not tilt, but operates easily from the front or rear of the machine. A new "Power Grip" hold down for the top clamp rod is standard.

**A-Plus Automation Models A44-P/ A45-P** are single post machines designed for wider mouldings. The top tilts if wanted and can be operated



*A-Plus Automation Models A45-P*

easily from the front or rear of the machine. A two-stage hand lever is used to position the wedges between two preset stops, and to insert wedges in unlimited positions between the two stops. The A44-P will handle profiles up to 3 ½" high x 4 ¾" wide while the A45-P will handle profiles up to 3 ½" high x 6 ⅜" wide. These machines both have the new "Power Grip" hold downs on the top clamp rod as standard.

## PRODUCTION LEVEL MACHINES

### **Universal Arquati Model DY-102**

is a computer-controlled single channel joiner with double-post top clamp and motor-driven driver that moves underneath to deliver the v-nails. This is a floor model on a stand that can be programmed for nail positions and count for each position for programmed moulding profiles similar to the AMP U-500 machines. An upgraded computer control is now available for 2018, using a more sophisticated control panel and computer. Memory and programs can now be accessed with a USB interface and programs loaded or downloaded through these connections.

**Cassese Model MACH 1 UNI** is a computerized model that can program up to five nail positions and run in Auto or Semi-Auto mode. Easy-to-use display panel allows quick programming. Will handle profiles that are up to 6" wide and 4 ½" tall. It also features the new "Smart Nail Drive System" that does not require top clamp positioning or air pressure adjustments between hard or soft woods.

**Cassese Model MACH 1 CART** is a computerized model that can program up to five nail positions and run in Auto or Semi-Auto mode. Easy-to-use display panel allows quick programming. This machine uses wedges in cartridges for quick changing of the five sizes from 5 to 15mm.



*Cassese Model MACH 4 CART*

**Cassese Model MACH 4 CART** is another new programmable computer machine at the production level. It can program up to nine nail positions with up to nine nails high in each position. It can store up to

3,000 profiles and can cycle 3,300 corners per hour (two nails inserted/corner is just over 1 second). It also features the new "Smart Nail Drive System" and can join profiles 4 ½" tall by 6" wide. It has the retractable Ultra Clamp system for tight corners in large frames.

**Cassese Model CS4008 XL** is the top-of-the-line, high-speed, programmable computerized joiner for Cassese. It has all the previously mentioned features plus more speed. The CS4008 XL is the Cassese machine for the 21st century. Fast performance and heavy duty design for high production, programmable memory with touch-screen interface for ease of use. The touch-screen tells the operator which wedge size and accessories to use. Stores up to 3,000 profiles in memory. Unlimited profiles if the full parameter barcode and scanner is used. Thanks to its memory, the 4008XL makes it easy to change from a small photo frame to a large moulding within a few seconds. Up to 3,360 corners per hour (two positions per corner).



AMP Model U-500

**AMP/Fletcher Model U-500** is an electronic unit and was previously the VN4E-MP series using a single v-nail channel and controlled by computer for repetition of nail spacing and counting. Programmable up to nine nail positions and nine nails stacked in each position. Touch-screen panel makes it easy to program. The top clamp pads now have replaceable rubber pads with different color coding for various hardness of the material being joined. The touch-screen

allows access to 5,000 different frame profiles, which can be accessed by hand or by optional bar code scanner. There is a new add-on fence system coming which will allow the U-500 to do butt joints and will be totally adjustable for width of boards.

**AMP/Fletcher Model U-600** is the other machine with computer control and a multi-channel nail system. This retains five channels of v-nails of various sizes or all one size to quickly insert any combination of height in a profile without stopping to change nails. Excellent for high-speed production needs. All specs are the same as the U-500 with the addition of the five channel delivery system for v-nails.

**A-Plus Automation Model A6-Me-moTS+** is a high-speed, five-channel electronic assembly machine. Featuring adjustable tilt fences with special "frame tightening" device and digital pressure gauge. The newly enhanced control panel can be updated by the operator or by downloading from a PC. Selecting one of thousands of

programs can be done by the touch screen or by scanning with an optional bar code scanner. The machine comes standard with a single quick-adjust top post and a double hydraulic hold-down system. It includes three nail head sizes standard with three other sizes optional (3, 5, and 12mm). The machine is equipped with a touch-screen using Windows CE, and allows you to store an almost endless number of programs.

For further information about any of the products listed here, contact the respective manufacturers or framing distributors.



**Jim Burke**

Jim owns Machines Etc., a sales and consulting company based in New Bedford, MA. He started in the picture framing industry with Arquati Moulding in Cleveland as general manager. For the past 25 years he has sold and serviced all types of machinery for cutting and joining frames and cutting mats. He has also sold web control machinery to paper mills, tire cord manufacturing, textiles, plastic film extrusion, and paper converting companies throughout the Midwest.