



**Morbidelli Universal 3615 C Preset**  
**5' X 12' CNC Router**  
(R000401 - R014401)



Photo may include optional equipment

QUOTE:

DATE:

PRESENTED TO:

CONTACT:

PHONE:



## About SCM GROUP

Founded in 1952 in Rimini, Italy, SCM Group S.p.A is the leading designer, manufacturer and distributor of innovative and technologically advanced solutions for woodworking, glass, stone, plastic, metals and composite materials. SCM Group's line of products range from the "Classic" entry-level manual equipment to the turnkey fully-automated "Industrial" solution, and all products use the best Italian components possessing the renowned "Made in Italy" high level of quality and control. With headquarters in Rimini, SCM Group operates through 18 production facilities located throughout Italy and 19 foreign subsidiaries with a total workforce of 3.100 employees. Using an extensive distribution network, SCM Group exports over 80% of its production, covering 120 countries through subsidiaries, distributors and agents..



## Morbidelli Universal 3615 C Preset – CNC Router

### (52.33.57) Base Design and Construction

The Morbidelli Universal 3615 owes its rigidity to the design and weight of its reinforced base and innovative one-piece frame. All portions of the base are of heavy gauge steel and are normalized after welding, a process which ensures that all stress in the base is removed before it is machined and drilled for the guides.

Today's machining centers are being asked to perform a wide variety of operations (sawing, routing, and drilling) in both the vertical and horizontal planes at the highest speeds possible while, at the same time, maintaining a high quality of cut. Micro-vibrations are created around all types of CNC machining centers where there is head positioning, drilling, and high speed routing taking place on the machine base. Morbidelli solves the problem of deadening vibration as well as offering rigidity by employing heavy gauge steel members for the base of the machine. This weight, coupled with the one-piece frame offers the best combination of rigidity and balanced strength on a bridge design. . Movement along the X is high precision rack and pinion while the Y & Z-axis is driven by a ball screw.

### High Precision, High Load Prismatic Bearing Guides

Morbidelli uses prismatic guides for support in all axes. Due to their added weight load capability (approximately 4 times that of conventional round guides), prismatic type guides can permit accurate head positioning at high speeds.

### A.C. Servo motors in all three axes

A.C. servomotors, or A.C. brushless motors as they are sometimes called, are the latest in electronic linear motion technology. A.C. servomotors use less power and produce a more even output (drive) throughout the power band. The ability to maintain a constant torque setting when going from an idle setting into a heavy rout produces cleaner cuts and longer tool life. These motors are controlled by digital supply cards that offer the reliability and precision fine tuning associated with solid state electronics.

### Solid State Inverter Controls Router Rpm

Solid State frequency inverters support the programmable router spindle speeds (S functions). By utilizing digital inverter technology, the programmer can select the correct cutter RPM and match it to the correct linear/rotational feed speed for the specific application and/or material being cut. This will give optimum quality of cut while greatly extending tool life. The inverter also acts as an electronic brake, stopping the router spindle motor in microseconds if an emergency signal is given.

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## Remote Diagnostics

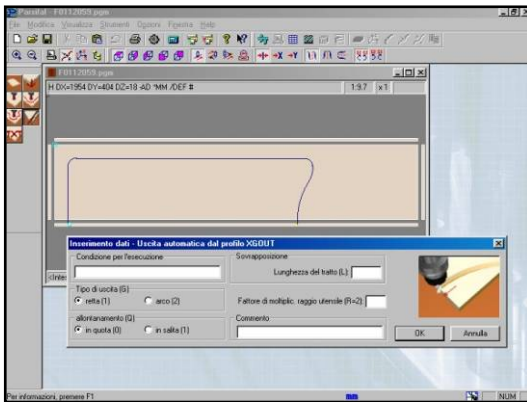
Through the use of remote, real-time diagnostics can be provided from SCM's facility in Duluth, Ga. The PC control is service over the internet. The customer is responsible for providing internet to the machine

## Software:

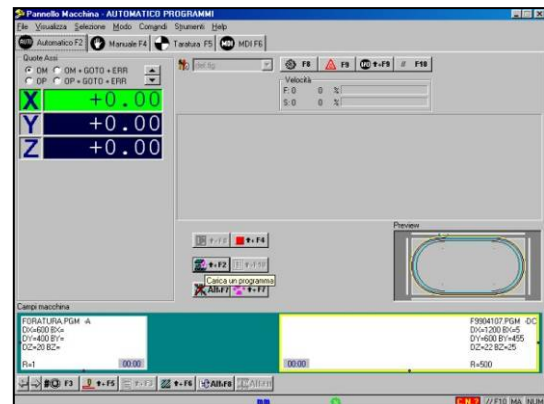
### General features of the Machine Panel and Xilog Plus Programming software

XILOG PLUS is the SCM workstation management software developed as a highly flexible, powerful and user-friendly programming system.

- The beginner will immediately find himself at ease in front of the intuitive XILOG PLUS interface. There are many graphic aids that eliminate the need to learn particular instructions or programming language.
- The more experienced computer user will also find himself at ease in a Windows® based operating environment, including all the features that this implies (i.e., cut and paste, multiple opening of files, etc.).
- Those already familiar with previous SCM programs will be able to choose whether to manage the machine in the new graphic environment or to continue with the traditional input of programming instructions with the alphanumeric keyboard. Moving quickly from one environment to the other is very simple.



*Graphic programming interface operation interface*



*Machine*

XILOG PLUS has two applications – to aid in programming and to allow operation of the machine.

### Graphic programming interface

This application is a powerful graphic/text editor that aids in programming. It manages program file as well as tooling information. Especially helpful are the built-in macros, shortcuts that are used in performing repetitive tasks (routing arcs, drilling shelf holes, etc.). Users can also customize macros for their own particular needs.

### Machine Operation Interface

This application allows the operator to recall programs and run them on the machine. It tells the operator basic information about the program such as the working field, part size, etc. It also has a very powerful machine diagnostic section with photos and troubleshooting aids.

### Additional XILOG PLUS features:

- Controlled acceleration and deceleration
- Linear and circular interpolation
- Self-diagnostics through error messages
- Dynamic tool correction via PLC due to active wear concerning space and time.
- Subroutine programming (canned cycle) with library
- Specular programming: Allows writing of programs two different multiple reference points. For example the Left or Right corner of a panel.
- Parametric scaling of programs through use of template type programs that the operator creates and stores in memory. Part programs can then be proportionally scaled up or down in size without the need to re-write the entire program.
- Programs can be viewed from all 5 faces
- Built in macros for simple, widely used programs
- On board cycle optimization

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## Configuration

- Machining Head graphic configuration;
- double override which allows to adjust the operating unit positioning speed;
- Machining Speed selection;
- SCM CNC - JERK function management for dynamic control of acceleration/deceleration.

### Office PC Based Controller

The Morbidelli Universal 3615 uses an office PC for the operator interface. This Windows 7 based platform utilizes a CN unit to communicate with the machine.



### Control panel with lengthened cables

It allows the cables lengthening from 2,5 mt to 6 mt.

### (63.03.73) Remote Control Pendant

This remote control pendant allows the operator to freely move around the machine and control the machines functions without being restricted to the computer console.



### (63.01.27) Electric cabinet with Air Conditioning device

It maintains temperature of approx. 65°F inside the electric cabinet.



### 16.5 HP (S6) Electrospindle Routing Unit

The routing unit is equipped with a power electro spindle and automatic tool changer. The unit is mounted directly to the machine mobile upright.

It includes:

- HSK F 63 quick release tool-holder
- 1500-24000 rpm spindle speed
- (S1/S6) 8,5 /12 kW (11,5/16.5hp) constant motor power from 12000 to 18.000 rpm
- Right and left rotation
- Static inverter for continuous speed and rapid shutdown of rotation
- Cooling by coaxial air flow
- Exhaust hood around whole perimeter (200 mm diameter)



### (52.24.48) Air tool blower

- Keep the tool cooler, thus increasing the life of the cutter.
- Helps to remove the sawdust from the cutting grooves in the nest.

### Touch Probe

- Allows to automatically measure and update tool Length



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### Panel Thickness Measurement Device

- Measure and detect top of the material



### (52.33.75) Rear Tool Changer HSK63 with 20 Positions

#### Features and Specifications:

- Maximum number of tools that can be installed: 20
- Tool attachment: HSK 63F
- Max. Tool Diameter: 120mm (4.7")



### (52.35.30) F26L Spindle Drilling Unit

The vertical spindles are spaced on a 32 mm center-to-center distance. Each spindle can be independently programmed and actuated. The spindles are arranged as follows:

- No. 18 independent vertical spindles (9 right and 9 left)
- Attachment for bits: 10 mm diameter
- Center-to-center distance between axes: 32 mm
- No. 4 double horizontal boring heads (1+1), 2 in X and 2 in Y (attachment for bits:10 mm diameter )
- Rotation speed: 4.500 rpm (8.000 rpm max. with inverter)
- 1 integrated blade in X (125 mm max. diameter)
- 5.500 rpm rotating blade speed (10.000 rpm max. with inverter)
- 2,2 kW motor power
- Vertical pneumatic ON/OFF stroke of each spindle: 60 mm
- Vertical pneumatic ON/OFF stroke of each horizontal spindle: 75 mm
- Exhaust hood around whole perimeter (150 mm diameter)



### RPM Adjustment of the Boring Head with Standard Inverter

- It allows the rotating speed programming up to 8.000 rpm maximum for the drilling bits and 10.000rpm for the blade, exploiting the same inverter of the electrospindle.

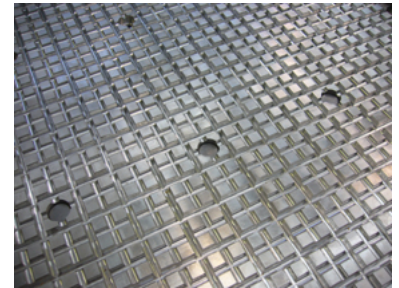
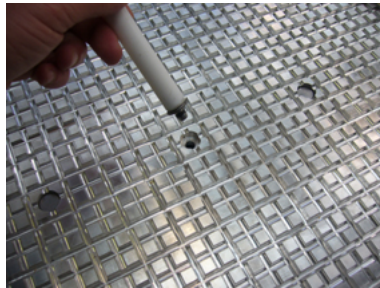
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**Aluminum Solid worktable for Component Nesting**

The aluminum multi-function worktable has an answer to most component clamping and nesting scenarios. The table is designed of high tensile strength aircraft aluminum, and is slotted both transversely and longitudinally to accept many different fixturing devices.

In addition to nesting full sheets, the Universal 3615 can also be used for routing smaller components. For work on the face of the component, rubber gasketing material can be used to isolate the vacuum for part hold-down. This eliminates the need for special fixturing devices as is necessary on many machines. When machining the edges of parts, the patented MODULSET system raises the component so work can take place without damage to the worktable. The magnetic system for opening and closing the vacuum passages allows for an extremely quick table set up when the vacuum is only required in a portion of the table. With a dedicated tool (supplied) it is a matter of seconds to perform the set up with no need for a screw driver. PATENTED



**4 Left stops for "A" field of which no. 1 Side Stop and no. 3 Rear Stops**

**8 Vacuum Areas Controlled By Electronic Switches**

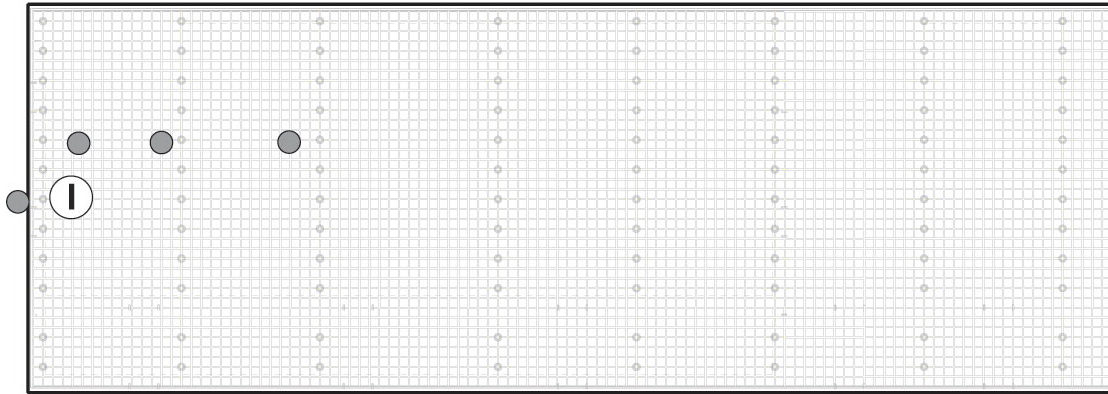
The working table is divided in 8 vacuum sub-areas which can be activated (open) or deactivated (closed) with pneumatic valves, to concentrate the vacuum in a specific worktable area

**(63.02.34) Working field "I"**

**No.1 side stop and no. 3 middle stops. N.B. The machine has a single working field.**

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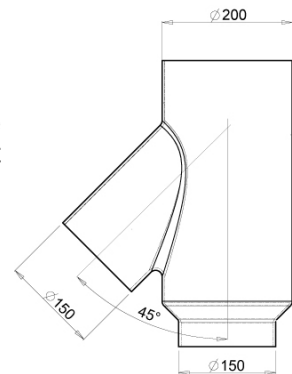
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**Preset for Automatic Loading and Unloading Device**

**Central Optimized Dust Collection System**

It provides a single dust collection point for the electrospindle and Drilling unit allowing in this way to use the Dust Collection system more efficiently. Inside the main dust collector there are pneumatic cylinders that control automatically the opening/closing of each exhaust outlet when the operating unit is switched on/off.  
 Dust Outlet – (1) 200mm



**Two (2) 300 Cubic Meter/Hour Vacuum Pump**

The vacuum hold-down system features a 300 cubic meter/hour vacuum pump. It offers the reliability of a substantial increase in vacuum power and allows the use of spoil boards for nesting full sheets.



**(63.03.39) Prearranged for Second Vacuum Pump**

**Photocell barrier safety system**

The Universal 3615 is equipped with photocells and a safety fence. This system includes barriers on three sides of the machine combined with photocells on the front side, which allows access to the work area.

The photocells stop the work cycle in the operational field of the machine; the barriers prevent physical access to the machine. This system is called active because it prevents any contact between the moving parts of the machine and the operator.

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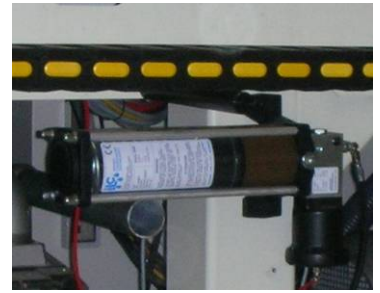


**(63.03.43) Autotransformer**

Autotransformer allows the choice of KVA 35, 208 / 230 or 460 volt, 3-phase, 60 cycle

**Automatic Lubrication**

Automatically controlled lubrication to guides, bearing blocks, and the Y and Z axes ball screws. Some locations require manual intervention.



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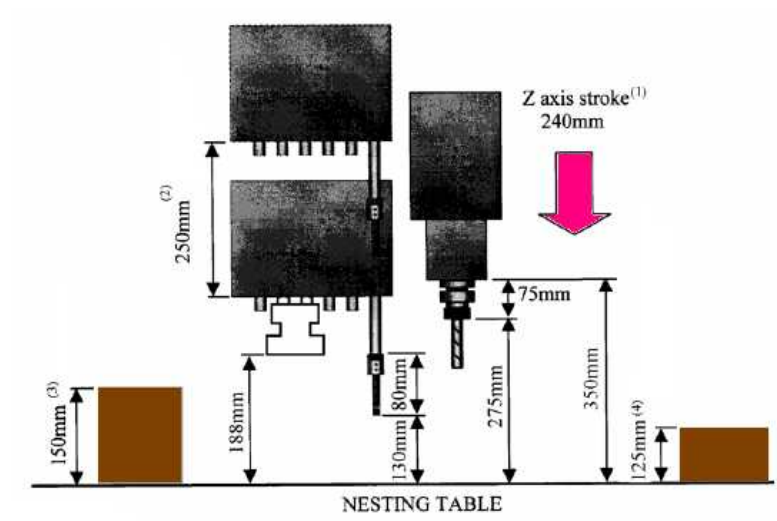
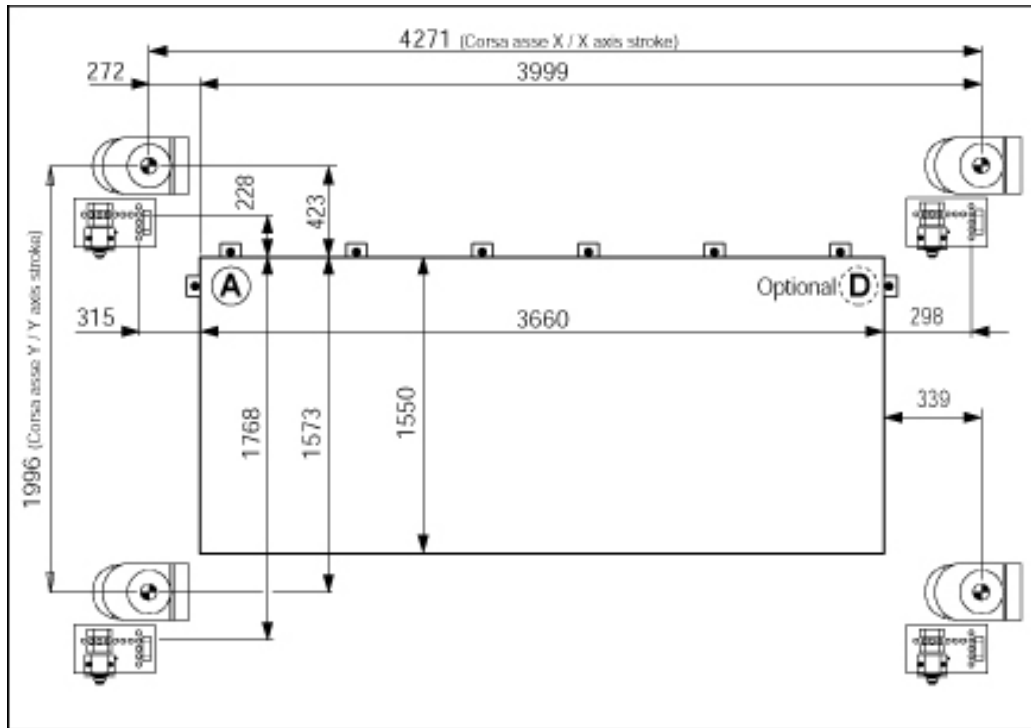
**Technical Specifications:**

Worktable dimensions: Length Width	3660 mm (144.09") 1550 mm (61.02")
Spindle (main) motor: Power (26 spindles) Spindle rotation speed	3 HP 4500 - 8000 RPM
Electrospindle	12 HP S1 Duty / 16.5HP S6 Duty Air cooled
Tool Changer Positions Attachment	20 position - Rear attached to machine base HSK 63
Drilling Unit No. of vertical spindles No. of horizontal spindles Grooving Saw	10 in X-axis , 8 in Y-axis 2+2 in X & 2+2 in Y X Axis
Maximum positioning speeds: X Axis Y Axis Maximum vectorial speeds: X & Y Axis	70 meters/minute (229 feet/minute) 75 meters/minute (245 feet/minute)  106 meters/minute (347 feet/minute)
Z axis Stroke Panel passage	240mm (9.44') 150mm (5.90") – without Off Loading System 130mm (5.11") – with Off Loading System
Dust extraction required Working Units	200 mm (7.9") 1570 CFM
Operating air pressure (3/4" I.D. hose)	7 ATM (102 psi)
Installed power (dependent upon options)	35 kW
Electrics:	208/230/460 volts, 3-phase balanced, 60 cycles
Tooling included (4) 1036237408A HSK63F Toolholder (1) 0000410126D ER32 Collets 1/2" (1) 0000410123G ER32 Collets 3/8" (1) 0000410133H ER32 Collets 3/4" (1) 0000410120A ER32 Collets 1/4"	
PC Specifications: Operating system Monitor	Windows 7 17" Display

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Illustrations may include optional equipment

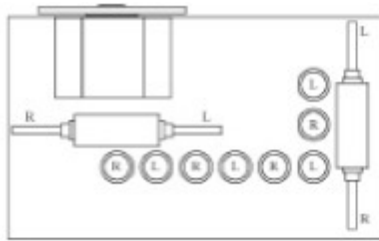


- (1) "Z" axis stroke
- (2) Pneumatic stroke for boring head
- (3) Panel clearance: with the automatic unloading device the panel clearance is reduced to 130 mm
- (4) Maximum panel thickness for boring machining

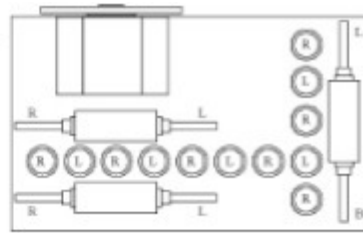
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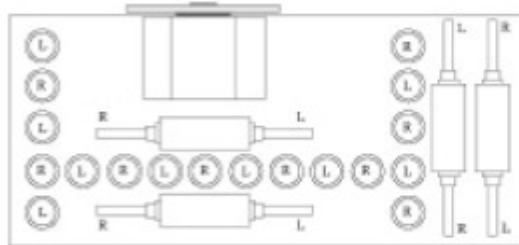
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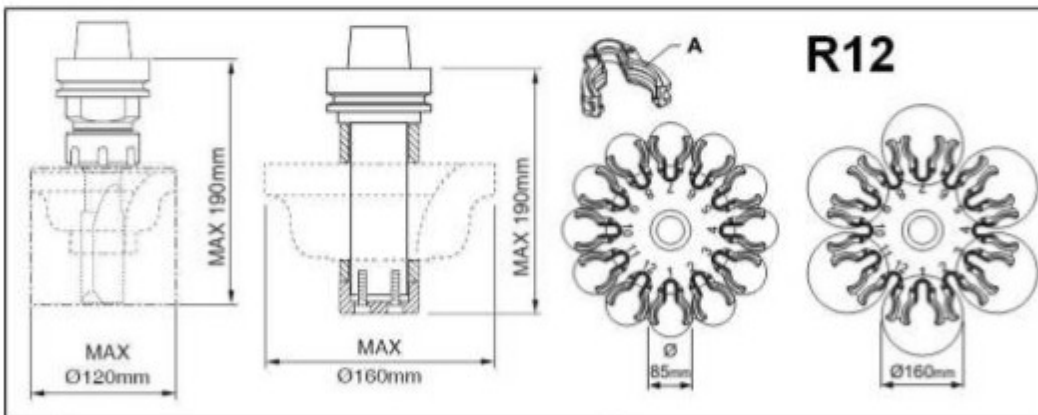
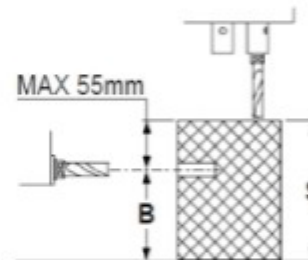
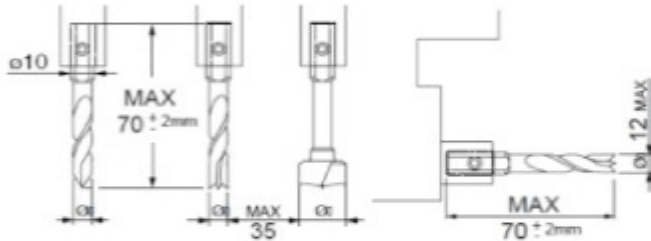
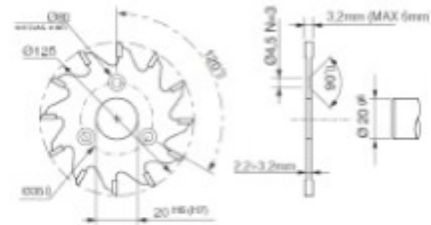
F12L



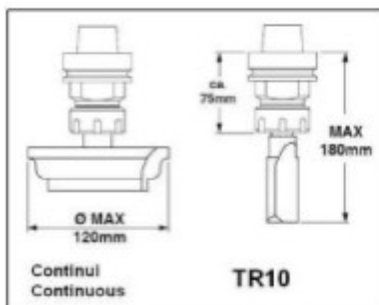
F18L



F26L



R12



TR10

**PRICE**

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**Machine Price:** \$

**Delivery :** FOB Duluth, GA

**Installation:** Included

**OPTIONAL ITEMS:**

**Options: (63.00.51) Additional 300 Cubic Meter/Hour Vacuum Pump \$**



**(52.08.56) Automatic lifting table for Universal 3615 \$**

It is capable to lift the panel stack up to the machine worktable height, allowing the suction cups to grip the upper panel. This function also foresses the peripheral safety enclosures length, including the lifting stack positioning on the relevant stops grants the correct postion in X & Y.

Panel stack specifications:

- Max panel stack height: 600 mm (23.62")
- Max panel stack weight: 4000 kg 8,800 lbs
- Max panel stack misalignment: X=30mm (1.18"), Y=5mm (.19")



**(52.26.40) Panel alignment device along the Y axis \$**

It allows the automatic panel alignment to the end stops of the lifting table. It consists of no. 3 suction cups which, when the machine is working, automatically align the work piece for the entry into the machine.



**(52.23.05) Workpiece Loading Unit with Suction Cups for Universal 3615 \$**

Device mounted on the machine upright with suction cups able to grip the upper panel of the stack on the machine right side and move it up to the machine table support stops. This device includes a detecting system positioned on the machine table left end for a correct panel positioning during loading operation.

- Max weight of single workpiece to be loaded: 200kg
- Max panel thickness: 30 mm (1.18")
- Min panel thickness: 10 mm (.39")
- No. 3 loading suction cups
- Min workpiece to be loaded 900x1600 mm



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**(52.23.06) Workpiece outfeed pusher on the left side for Universal 3615**      \$

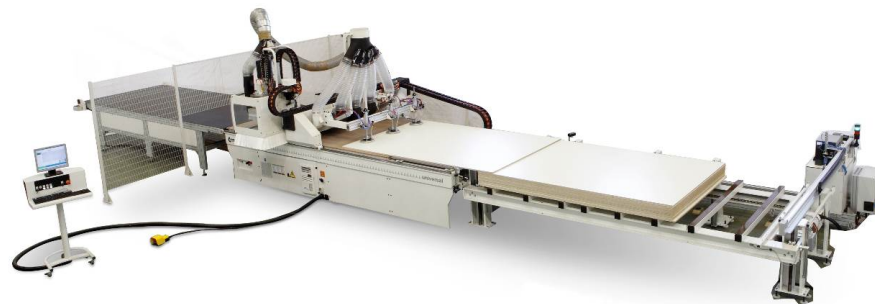
Device mounted on the machine upright that moves the workpieces towards the unloading area on the machine left side. This device cleans the spoil board while it unloads the components. The Conveyor is equipped with automatic valves which are opened during the cleaning operation.

- Exhaust outlet diameter: 300 mm (11.81") 3535 CFM
- Exhaust air speed: 30mt/sec
- Exhaust air consumption: 7600 m3/h



**(52.08.92) Outfeed Belt on Left Side for Universal 3615**      \$

Powered belt capable of moving components from the machine table to the unloading position. This position is equipped with photocell automatic detecting system for the belt start/stop and pushbutton for the belt manual speed.



**Terms of Payment:**

Terms of payment offered, or any terms agreed upon, are subject to credit approval.

This offer is subject to SCM GROUP NORTH AMERICA General Terms and Conditions of Sale.

Offer is subject to prior sale of the equipment. Quote is valid 30 days.

Price quoted is for the machine as described above and is subject to change if the Specifications for the machine are changed at the request of the buyer.

**Shipment:**

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Shipment is subject to delay should changes be made to meet the requirements of purchaser from manufacturer's design specifications stated herein.

**Tooling:**

Tooling is not included. Upon request, we can supply a quotation on the most suitable tools required for use on this machine.

**Installation, Training, Service Rates and Conditions:**

Installation, when purchased, will be performed by an SCM factory trained service technician or Certified Dealer Technician. Installation is to be understood as the assembly of the machine to the 'ready-to-run' state; it does not include floor, masonry work, the running of electrical, pneumatic or dust extraction services to the site. Training will be conducted on site by the service technician after installation has been completed.

This machine includes a 5 day installation including travel. (depending upon selected options.)

**Warranty:**

SCM warrants that the Machinery will be free of defects in workmanship and materials for a period of one (1) year beginning on the date the Machinery is accepted by the customer. This warranty includes belts, bearings, and common electrical parts, which carry a six-month warranty. This warranty does not include parts consumed during normal operation (wearable items) or maintenance required in the ordinary course of operation.

Presented By: Rob Howell  
Product Manager

Date:

SCM Group NORTH AMERICA Inc. invites the Customer to carefully read this Price Quotation. Kindly make sure that SCM has not inadvertently omitted any portion or feature requested by the Customer and agreed with the SCM sales personnel. Should the Customer have any questions or require any clarification about this Price Quotation, kindly direct these questions or inquiries to:

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E-Mail: [rhowell@scmgroup.com](mailto:rhowell@scmgroup.com)

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For any other inquiry, please feel free to contact:

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Carson, CA 90746

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# Equipment Finance Application

Company Name: \_\_\_\_\_ Email Address: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Years in Business: \_\_\_\_\_

Address of Equipment location: \_\_\_\_\_

Company Website: \_\_\_\_\_ Tax Exempt  Yes  No Fed ID #: \_\_\_\_\_

Check One:  Corp.  LLC  Partnership  Sole Prop. State of Incorpor: \_\_\_\_\_

**Bank: Include copy of first page of Company's most recent 3 months bank statements**

Vendor Name: \_\_\_\_\_ Contact: \_\_\_\_\_ Equipment Cost: \_\_\_\_\_

Equipment Description (attach sales order if available): \_\_\_\_\_

**Please complete the following information, and signature, of each officer:**

1) Owner's Name: \_\_\_\_\_ Title: \_\_\_\_\_

Social Security Number: \_\_\_\_\_ % Owner: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

2) Owner's Name: \_\_\_\_\_ Title: \_\_\_\_\_

Social Security Number: \_\_\_\_\_ % Owner: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

3) Owner's Name: \_\_\_\_\_ Title: \_\_\_\_\_

Social Security Number: \_\_\_\_\_ % Owner: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

I hereby certify that the information contained in the lease application is true and accurate and I hereby authorize our banks, trade references and financial institutions the right to release credit information. In states where permissible, I hereby authorize the filing and recording of UCC financing statements showing the Secured Party's interest in the equipment and grant the Secured Party's right to execute lessee's/debtors name thereto. A photocopy of this authorization shall be as valid as the original.

Signature: \_\_\_\_\_ Title: \_\_\_\_\_

**Please fill out the information and submit to:** SCM Group Equipment Finance  
2475 Satellite Blvd  
Duluth, GA 30096

Phone: 800.292.1837  
Fax: 770.813.8263  
[financing@scmgroup.com](mailto:financing@scmgroup.com)

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