

ALUMINIUM PROFILE & PANEL PROCESSING MACHINERY



INO Machinery is manufacturing ALU Profile and Panel Processing Machinery for machining of architectural profiles used in windows doors and curtain walls, industrial profiles which are used in automotive, bus, aviation, furniture, home applience and similar sectors, and machining of ALU Composite Panels, HPL and Aluminium Panels. The machines produced are capable of machining various types of profiles up to 500 mm width and panels up to 2,500 mm width and 15 meters length.

INO lines currently concentrate on CNC machine production of 3-4-5 Axis CNC profile machining centers, CNC Cutting and Machining centers, big sized CNC double mitre saws, CNC automatic saws for the aluminium profiles, CNC Panel working machinery for ALU Composite Panels, HPL and Aluminium Panels.

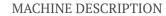


# XP 9000

### ALUMINIUM PROCESSING TECHNOLOGY

# 5-AXIS CNC PROFILE MACHINING CENTER





CNC PROFILE MACHINING CENTER equipped with X,Y, Z Axis and 0-180 degrees on the A axis and 0-360 degrees on the C axis. Complete 5 Axis are independently programmable with high speed spindle, automatic tool changer magazine, profile clamping devices, pneumatic referance pins and 3D programming software. Body: All machined metal profile structure. Thermally treated vibration free. Spindle: Birotary head 18,0 kW 24.000 rpm HSK F-63 high speed spindle. With ceramic bearings, liquid-cooled. It has 2 axis mounted on the spindle body.

Automatic Tool Changing Magazine: Placed on the bridge with 10 positions of standard tools. The 400 mm 5 Axis notching blade is also placed inside.

X-Axis: Brushless servo motors with gears moving on Helical Rack & Pinion and linear guides. V/max: 80 mt./min.

Y-Axis: Brushless servo motors with gears moving on Helical Rack & Pinion and linear guides. V/max: 65 mt./min.

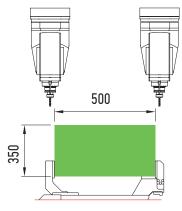
Z Axis: Servo motor with brake system, moving on ball screw. V/max: 25 mt./min. A Axis: +/- 185 degrees

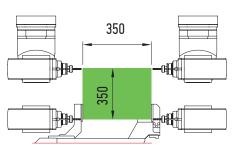
C Axis: +/- 320 degrees

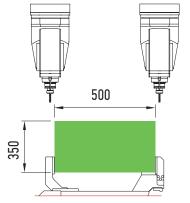
### Profile machining length: 7.500 mm.

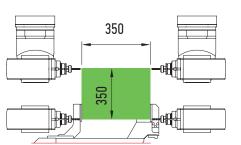
Profile machining dimension – from the top: 500 X 350 mm. Profile machining dimension - 5 Axis: 350 X 350 mm. Maximum tool length: 250 mm. Maximum tool diameter: 100 mm. Maximum disc cutter diameter: 400 mm. Total installed power: 30 kW / 60A / 400V / 50-60 Hz.

Air pressure and air consumption: 6-8 Bar. - 120 L/min.

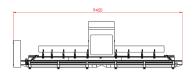






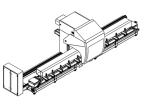








5500 kg



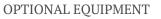
### STANDARD EQUIPMENT

Double station working capacity thanks to the pneumatic referance points placed at both sides of the machine.

Manually positioned 8 pieces of profile clamps. The width of the clamps are adjustable and they are also suitible for fixture connection.

18,0 kW 24.000 rpm HSK F-63 high speed spindle has an automatic tool changer magazine with 10 positions placed on the bridge.

Dust extraction conveyor Pulse spray mist coolant system. 3D CAD-CAM software. 21.5" TFT-LCD Screen. Laser safety barriers.



Automatic positioning of the clamps moved by the bridge. Tapping with compensation.

Extra sawblade tool with diameter 400 mm. Data import with barcode reader from production softwares.

Extention of net profile machining length up to 15 m.

Extra clamping unit manually positioned.

Extra clamping unit automatic positioned.

Additional angular head for processing from the below of the profile.

Air conditioning inside the electric panel.







# XP 8000

### ALUMINIUM PROCESSING TECHNOLOGY

# 4-AXIS CNC PROFILE MACHINING CENTER





Gantry axis CNC PROFILE MACHINING CENTER equipped with 0-180 degrees independently programmable high speed spindle, automatic tool changer magazine, 8 Profile clamping devices, pneumatic referance pins and 3D programming software.

Body: All machined metal profile structure. Thermally treated vibration free. Spindle: 7.5 kW 0 - 24.000 rpm adjustable ISO 30 with ceramic bearings, air-cooled. Tilting machine at any angle between 0°-180°.

Automatic Tool Changing Magazine: Placed on the machine cover, moving along with the machine body with 10 positions of standard tools. The tool changing time is minimized by carrying the tool changer magazine on the bridge. The 300 mm notching blade is also placed inside.

X-Axis: Real Gantry with 2 servo motors on both sides of the bridge. Brushless servo motors with gears moving on Helical Rack & Pinion and linear guides. V/max: 80 mt./min.

Y-Axis: Brushless servo motors with gears moving on Helical Rack & Pinion and linear guides. V/max: 60 mt./min.

Z Axis: Servo motor with brake system, moving on ball screw. V/max: 25 mt./min.

Profile machining length: 7.300 mm.

Profile machining length: 8.500 mm.

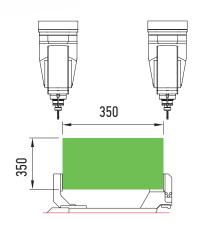
Profile machining dimension – from the top: 350 X 350 mm. Profile machining dimension - from the top+front+back: 350 X 350 mm.

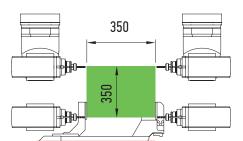
Maximum tool length: 300 mm.

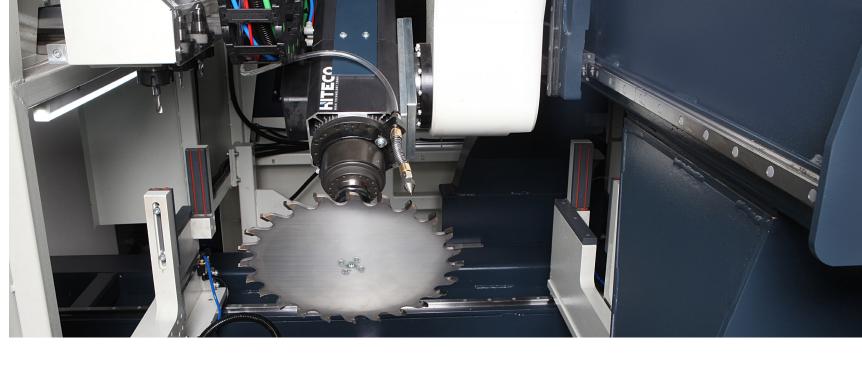
Maximum disc cutter diameter: 350 mm.

Total installed power: 22 kW / 50A / 400V / 50-60 Hz.

Air pressure and air consumption: 6-8 Bar. - 100 L/min.







### STANDARD EQUIPMENT

Double station working capacity thanks to the pneumatic referance points placed at both sides of the machine.

Manually positioned 8 pieces of profile clamps. The width of the clamps are adjustable and they are also suitible for fixture connection.

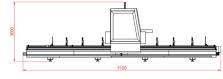
7,5 kw 24.000 rpm ISO 30 high speed spindle has an automatic tool changer magazine with 6 positions placed stable on the body of the machine.

NC controlled dust extraction conveyor.

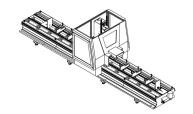
Pulse spray mist coolant system. 3D CAD-CAM software. 21.5" TFT-LCD Screen.

Laser safety barriers.





4500 kgs.



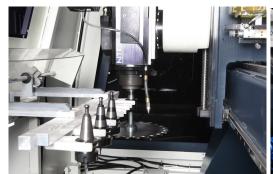
### OPTIONAL EQUIPMENT

Automatic positioning of the clamps moved by the bridge. Data import with barcode reader from production softwares. 12,0 kW 24.000 rpm HSK F63 Liquid cooled Spindle. Tapping with compensation up to 12 mm.

Disc cutter 300 mm. Extra clamping unit manually positioned.

Extra clamping unit automatic positioned. Double clamping.

Optinal Machining Length: 8.500 mm. Air conditioning inside the electric panel.



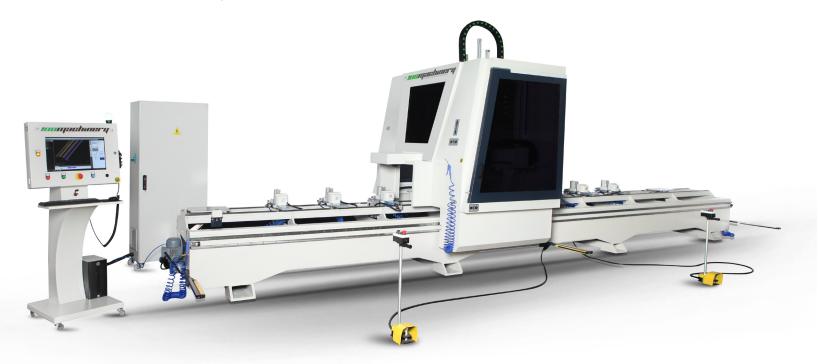




# CARRERA

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# 4-AXIS CNC PROFILE CUTTING & MACHINING CENTER



### MACHINE DESCRIPTION

Gantry axis CNC PROFILE CUTTING &MACHINING CENTER equipped with 0-180 degrees independently programmable high speed spindle, 45-90-135 degrees automatically tilting sawblade with 600 mm diameter, automatic tool changer magazine, 12 profile clamping devices, pneumatic referance pins and 3D programming software.

Body: All machined metal profile structure. Thermally treated vibration free.

Spindle: 7.5 kW 0 - 24.000 rpm adjustable ISO 30 with ceramic bearings, air-cooled.

Tilting at any angle between 0°-180°

Automatic Tool Changing Magazine: Placed on the machine bridge, moving along with the machine body with 10 positions of standard tools. The tool changing time is minimized by carrying the tool changer magazine on the bridge. The 300 mm notching blade is also placed inside.

#### Cutting unit:

3.0 kW 2.800 rpm A/C motor dirves the 600 mm sawblade without any vibration during stable radial move. The machine can cut 1 piece that is clamped by 2 pneumatic clamps at a time.

Axis Information:

X-Axis: Real Gantry with 2 servo motors on both sides of the bridge. Brushless servo motors with gears moving on Helical Rack & Pinion and linear guides. V/max: 80 mt./min.

Y-Axis: Brushless servo motors with gears moving on Helical Rack & Pinion and linear guides. V/max: 60 mt./min.

Z Axis: Servo motor with brake system, moving on ball screw. V/max: 25 mt./min.

#### Profile machining length: 8.500 mm.

Profile machining & cutting length with both sides 90°: 7.900 mm. Profile machining & cutting length with both sides 45°: 6.700 mm.

550 mm. x 200 mm. Profile cutting dimesion in 90° 550 mm. x 150 mm. Profile cutting dimesion in 45°

550 mm. x 350 mm. Profile processing from the top and back.

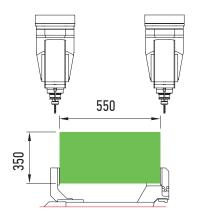
350 mm. x 350 mm. Profile processing in 4 Axis.

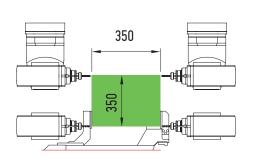
Maximum tool length: 300 mm.

Maximum disc cutter diameter: 350 mm.

Total installed power: 27 kW / 80A / 400V / 50-60 Hz.

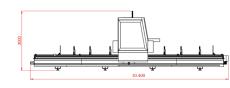
Air pressure and air consumption: 6-8 Bar. - 100 L/min.

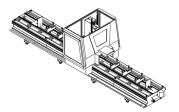














### STANDARD EQUIPMENT

Double station working capacity thanks to the pneumatic referance points placed at both sides of the machine.

Manually positioned 12 pieces of profile clamps. The width of the clamps are adjustable and they are also suitible for fixture connection.

45°-90°-135° automatic tilting radial moving sawblade with 600 mm diameter connected on a separate portal behind the bridge. The cutting portal moves together with the bridge. 7,5 kw 24.000 rpm ISO 30 high speed spindle has an automatic tool changer magazine with

10 positions placed stable on the body of the machine.

NC controlled dust extraction conveyor.

Pulse spray mist coolant system.

3D CAD-CAM software. 21.5" TFT-LCD Screen

Laser safety barriers.

### OPTIONAL EQUIPMENT

Automatic positioning of the clamps moved by the bridge. Data import with barcode reader from production softwares. 12,0 kW 24.000 rpm HSK F63 Liquid cooled Spindle. Tapping with compensation up to 12 mm. Disc cutter 300 mm. Extra clamping unit manually positioned.

Extra clamping unit automatic positioned. Air conditioning inside the electric panel.







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# XP 7000

# 3-AXIS CNC PROFILE MACHINING CENTER



#### MACHINE DESCRIPTION

XP 7000 - 3 AXIS CNC PROFILE MACHINING CENTER

Bridge type CNC Profile Machining Center equipped with 2 high speed spindles,

automatic tool changer magazine, profile clamping devices, pneumatic referance pins and 3D programming software.

Body: All machined metal profile structure. Thermally treated vibration free. Spindles: 7.5 kW 0 - 24.000 rpm adjustable ISO 30 + angular spindle head 3.0 kW 18.000 rpm ER20 High speed spindle. With ceramic bearings, air-cooled.

Automatic Tool Changing Magazine: Placed on the machine body at the middle with 8 positions of standard tools. The 350 mm notching blade is also placed inside.

X-Axis: Brushless servo motor with gear moving on Helical Rack & Pinion and linear guides.

V/max: 80 mt./min. Y-Axis: Brushless servo motor with gear moving on Helical Rack & Pinion and linear guides. V/max: 60 mt./min.

Z Axis: Servo motor with brake system, moving on ball screw. V/max: 25 mt./min. Profile machining length: 7.300 mm.

Profile machining dimension - from the top and front: 400 X 300 mm.

Profile machining dimension - from the top+front+back: 300 X 300 mm.

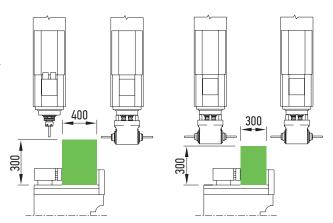
Maximum tool length: 200 mm.

Maximum tool diameter: 60 mm

Maximum disc cutter diameter: 350 mm.

Total installed power: 13 kW / 30A / 400V / 50-60 Hz.

Air pressure and air consumption: 6-8 Bar. - 50 L/min.







### STANDARD EOUIPMENT

Double station working capacity thanks to the pneumatic referance points placed at both sides of the machine.

Manually positioned 8 pieces of profile clamps. The width of the clamps are adjustable and they are also suitible for fixture connection.

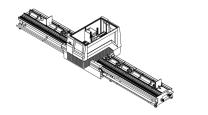
7,5 kw 24.000 rpm ISO 30 high speed spindle has an automatic tool changer magazine with 6 positions placed stable on the body of the machine.

3,0 kW 18.000 rpm ER 20 non tool changer spindle with two sides

Dust extraction conveyor. Pulse spray mist coolant system.

3D CAD-CAM software.

19" TFT-LCD TouchPanel Laser safety barriers.



### OPTIONAL EQUIPMENT

Automatic positioning of the clamps moved by the bridge. Data import with barcode reader from production softwares. 8.5 kW 24.000 rpm hsk f63 Air cooled Spindle. Tapping with compensation up to 12 mm.

Disc cutter 300 mm. Extra clamping unit manually positioned.

Extra clamping unit automatic positioned. Double clamping.

Air conditioning inside the electric panel.



3000 kg



# XC 3000/48

# 4-AXIS CNC PROFILE MACHINING CENTER



### MACHINE DESCRIPTION

Cabin type 4 Axis CNC Profile Machining Center equipped with a high speed spindle that can rotate between 0°-180° independent from the drive, automatic tool changer magazine, profile clamping

devices, pneumatic referance pins and 3D programming software. Body: All machined metal profile structure. Thermally treated vibration free.

Spindle: 7.5 kW 0 - 24.000 rpm adjustable ISO 30 with ceramic bearings, air-cooled.

Tilting at any angle between 0°-180°

Automatic Tool Changing Magazine: Placed on the machine body with 12 positions of standard tools.

The 200 mm notching blade is also placed inside.

Axis Information:

X-Axis: Brushless servo motor with gear moving on Helical Rack and Pinion and linear guides. V/max: 70 mt./min.

Y-Axis: Brushless servo motor with gear moving on Helical Rack and Pinion and linear guides. V/max: 60 mt./min.

Z Axis: Servo motor with brake system, moving on ball screw. V/max: 25 mt./min. A Axis: Servo motor moving on harmonic cycloid reducer with zero becklasch.

Profile machining length: 8.000 mm.

Profile machining dimension - top + front: 350 X 350 mm.

Profile machining dimension - top + front + back: 150 X 350 mm.

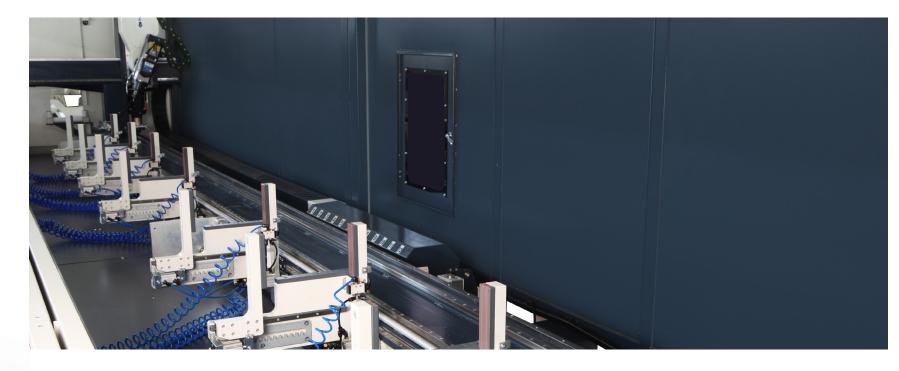
Maximum tool length: 120 mm.

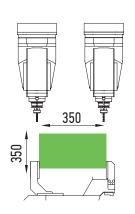
Maximum tool diameter: 30 mm.

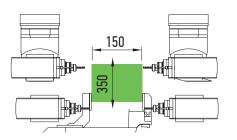
Maximum disc cutter diameter: 200 mm.

Total installed power: 13 kW / 30A / 400V / 50-60 Hz.

Air pressure and air consumption: 6-8 Bar. - 50 L/min.







### STANDARD EQUIPMENT

Thanks to the double door working mantality of the machine it is possible to process 2 different projects in 2 stations.

Manually positioned profile clamps. The number of the clamps are 8 or 12 depending on the size of the machine. The width of the clamps are adjustable and they are also suitible for fixture connection.

 $7.5\ kw\ 24.000\ rpm\ ISO\ 30\ high\ speed\ spindle\ has\ an\ automatic\ tool\ changer\ magazine$ with 6 positions placed linear at the end of the machine.

Machine enclosure moving up and down automatically following the work cycle.

Pulse spray mist coolant system.

3D CAD-CAM software.

Windows based PC and 21.5" TFT-LED Screen.

### **OPTIONAL EQUIPMENT**

10.000 mm. machining length. Automatic positioning of the clamps moved by the bridge.

Disc cutter 200 mm.

Extra clamping unit manually positioned.

Extra clamping unit automatic positioned.

Data import with barcode reader from window production softwares. Tapping with encoder on the spindle.

8.5 kW 24.000 rpm HSK F63 spindle. Air conditioning inside the electric panel.









# XC 2000/43

# 4-AXIS CNC PROFILE MACHINING CENTER



### MACHINE DESCRIPTION

Cabin type 4 Axis CNC Profile Machining Center equipped with a high speed spindle that can rotate between 0°-180° independent from the drive, automatic tool changer magazine, profile clamping devices, pneumatic referance pins and 3D programming software.

Body: All machined metal profile structure. Thermally treated vibration free. Spindle: 7.5 kW O - 24.000 rpm adjustable ISO 30 with ceramic bearings, air-cooled.

Tilting at any angle between 0°-180°

Automatic Tool Changing Magazine: Placed on the machine body with 6 positions of standard tools. The 200 mm notching blade is also placed inside.

Axis Information:

X-Axis: Brushless servo motor with gear moving on Helical Rack and Pinion and linear guides. V/max: 70 mt./min.

Y-Axis: Brushless servo motor with gear moving on Helical Rack and Pinion and linear guides. V/max: 60 mt./min.

Z Axis: Servo motor with brake system, moving on ball screw. V/max: 25 mt./min.

A Axis: Servo motor moving on harmonic cycloid reducer with zero becklasch.

Profile machining length: 3.200 mm.

Profile machining dimension - top + front: 230 X 300 mm.

Profile machining dimension - top + front + back: 150 X 300 mm.

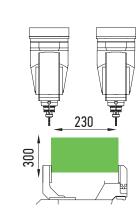
Maximum tool length: 120 mm.

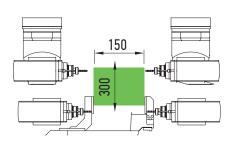
Maximum tool diameter: 30 mm.

Maximum disc cutter diameter: 180 mm.

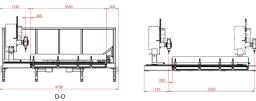
Total installed power: 13 kW / 30A / 400V / 50-60 Hz.

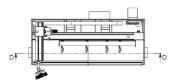
Air pressure and air consumption: 6-8 Bar. - 50 L/min.











### STANDARD EQUIPMENT

Thanks to the reference points placed at both sides of the machine, it is possible to process double the size of the net machining length.

Manually positioned profile clamps. The number of the clamps are 4.

The width of the clamps are adjustable and they are also suitible for fixture connection. 7,5 kw 24.000 rpm ISO 30 high speed spindle has an automatic tool changer magazine with 6 positions placed linear at the end of the machine.

Machine enclosure moving up and down automatically following the work cycle. Pulse spray mist coolant system.

3D CAD-CAM software. Windows based PC and 21.5" TFT-LED Screen.



### **OPTIONAL EQUIPMENT**

Automatic positioning of the clamps moved by the bridge. Disc cutter 200 mm.

Extra clamping unit manually positioned.

Extra clamping unit automatic positioned.

Data import with barcode reader from window production softwares.

Tapping with encoder on the spindle.

8.5 kW 24.000 rpm HSK F63 spindle

Air conditioning inside the electric panel.



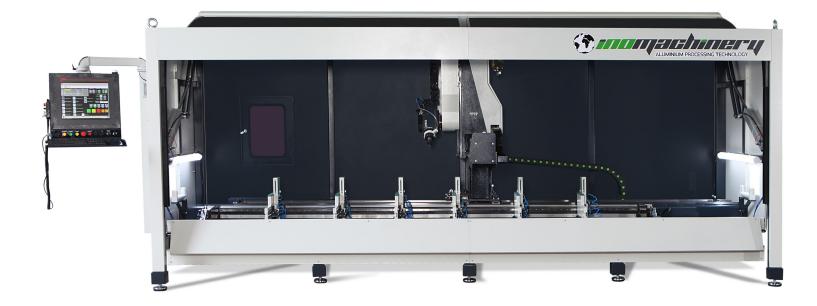




# CALIFORNIA

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# 4-AXIS CNC PROFILE MACHINING CENTER



### MACHINE DESCRIPTION

Cabin type 4 Axis CNC Profile Machining Center equipped with a high speed spindle that can rotate between 0°-180° independent from the drive, automatic tool changer magazine, profile clamping devices, pneumatic referance pins and 3D programming software.

Super-Ergonomic design for the use of operator.

Body: All machined metal profile structure. Thermally treated vibration free.

Spindle: 7.5 kW 0 - 24.000 rpm adjustable ISO 30 with ceramic bearings, air-cooled.

Tilting at any angle between 0°-180°

Automatic Tool Changing Magazine: Placed on the machine body with 7 positions of standard tools. The 200 mm notching blade is also placed inside.

Axis Information:

X-Axis: Brushless servo motor with gear moving on Helical Rack and Pinion and linear guides. V/max: 70 mt./min.

Y-Axis: Brushless servo motor with gear moving on Helical Rack and Pinion and linear guides. V/max: 60 mt./min.

Z Axis: Servo motor with brake system, moving on ball screw. V/max: 25 mt./min. A Axis: Servo motor moving on harmonic cycloid reducer with zero becklasch.

### Profile machining length: 4.200 mm

Profile machining dimension - top + front: 235 X 315 mm.

Profile machining dimension - top + front + back: 200 X 315 mm.

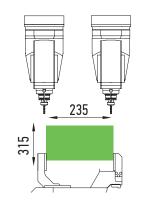
Maximum tool length: 120 mm.

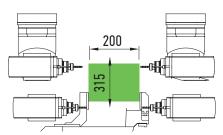
Maximum tool diameter: 30 mm.

Maximum disc cutter diameter: 180 mm.

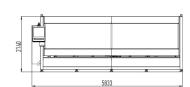
Total installed power: 13 kW / 30A / 400V / 50-60 Hz.

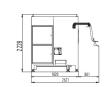
Air pressure and air consumption: 6-8 Bar. - 50 L/min.

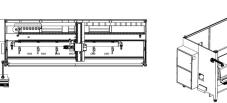












### STANDARD EQUIPMENT

Thanks to the referance points placed at both sides of the machine, it is possible to process double the size of the net machining length.

Manually positioned profile clamps. The number of the clamps are 6.

The width of the clamps are adjustable and they are also suitible for fixture connection. 7.5 kw 24.000 rpm ISO 30 high speed spindle has an automatic tool changer magazine with 7 positions placed linear at the end of the machine.

Machine enclosure moving up and down automatically following the work cycle.

Pulse spray mist coolant system. 3D CAD-CAM software.

Windows based PC and 21.5" TFT-LED Screen.

### **OPTIONAL EQUIPMENT**



Extra clamping unit manually positioned. Extra clamping unit automatic positioned.

Data import with barcode reader from window production softwares.

Tapping with encoder on the spindle.

Additional tool changer magazine with 7 positions.

8.5 kW 24.000 rpm HSK F63 spindle.

Air conditioning inside the electric panel.











# BOXTER

# 3+1AXIS CNC PROFILE MACHINING CENTER



### MACHINE DESCRIPTION

Cabin type CNC Profile Machining Center equipped with a double-sided angular type high speed spindle without a tool changer, magazine, profile clamping devices, pneumatic referance pins and 3D programming software.

Body: All machined metal profile structure. Thermally treated vibration free.

Spindle: 3.5 kW 12.000 rpm ER20 High speed spindle with ceramic bearings, air-cooled. Axis Information:

X-Axis: Brushless servo motor with gear moving on Helical Rack and Pinion and linear guides. V/max: 70 mt./min.

Y-Axis: Brushless servo motor with gear moving on Helical Rack and Pinion and linear guides. V/max: 60 mt./min.

Z Axis: Servo motor with brake system, moving on ball screw. V/max: 25 mt./min.

Profile machining length: 3.000 mm

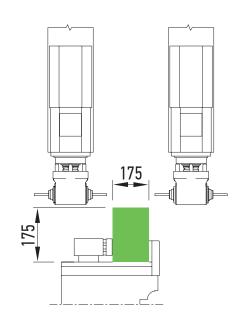
Profile machining dimension – top + front + back: 175 X 175 mm.

Maximum tool length: 80 mm.

Maximum tool diameter: 12 mm.

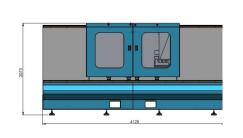
Total installed power: 8 kW / 16A / 400V / 50-60 Hz.

Air pressure and air consumption: 6-8 Bar. - 50 L/min.









### STANDARD EQUIPMENT

Thanks to the referance points placed at both sides of the machine, it is possible to process double the size of the net machining length.

Manually positioned profile clamps. The number of the clamps are 4. The width of the clamps are adjustable and they are also suitible for fixture connection. 3,5 kW 12.000 rpm ER 20 non tool changer spindle with two sides

Machine enclosure with horizontal covers moving manually right and left. Pulse spray mist coolant system.

3D CAD-CAM software.

Windows based PC and 21.5" TFT-LED Screen.



### **OPTIONAL EQUIPMENT**

Extra clamping unit manually positioned. Data import with barcode reader from window production softwares. Air conditioning inside the electric panel.









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# XT 1640/1665

### ALUMINIUM PROCESSING TECHNOLOGY

# CNC PANEL MACHINING CENTER



### MACHINE DESCRIPTION

Machining sizes:

1.600 X 4.000 mm.

1.600 X 6.500 mm.

2.100 X 4.500 mm.

2.100 X 6.500 mm.

Body:

All machined metal profile structure. Vibration free.

Main Milling Engine

High speed spindle. Ceramic bearing, air-cooled, adaptable to ISO 30 adapter. At the start up of the spindle, automatic warming up of the bearings.

Double spindle version - 4.0 kW / 18.000 rpm.

First tool grooves the panels, then the tool changer changes to the cutting tool and it cuts the panels. Thanks to the high speed spindle, any kind of panel is available to be machined.

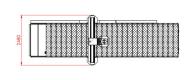
Auto tool changer spindle version –  $7.5\ kW$  /  $24.000\ rpm$ .

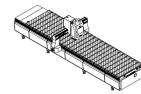
Spindle is changing the tools automatically from the tool changer magazine with 6 tools.













Axial Features

X-Axis: Gantry Double Engine Helical Rack and Pinion with geared servo motors 65 mt./min.

Y-Axis: Helical Rack and Pinion with geared servo motors 65 mt./min.

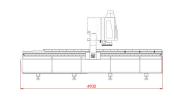
Z Axis: Ball screw type with servo motor brake system, 25 mt./min.

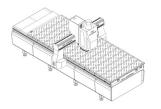
Materials that can be processed on the machine: Aluminum Composite Panel, Stainless Steel Composite Panel, compact laminate panel, pure aluminum panels up to 20 mm thick, acrylic panels, MDF, wood etc.

Smart vacuum table controls all vacuum chambers and referance pins automatically. Opeaarator mistakes are minimized.

The gantry that carries the milling head is moved by two geared servo motors at both ends. Its precision is 0.1mm./1m.







2500 kg

### **OPTIONAL EQUIPMENT**

Reference system:

Referance pins, placed at the beginning, in the middle and on the sides of the vacuum table.

CAD-CAM Program:

Cad-cam panel optimization software

Dust Extraction

Sytem capacity 3,500  $\rm m^3$  / hour with steel pipes, customized for customers (optional) Vacuum pump:

Sytem capacity 305 m<sup>3</sup> / hour (standard)

Machine working table:

Vacuum table working without gasket and MDF with Heavy Duty metal construction covered with polyester compound.

Multiple vacuum chambers controlled by the CNC controller, chambers are self-adjusted according to the size of the panel.

Specially modified vacuum table for processing small pieces.

Advantages of bigger vacuum table:

The possibility of change the panel while processing the other one thanks to twin working area. Optimization of loading and unloading time of the panels.











# XX 9700

### DOUBLE BRIDGE PANEL MACHINING CENTER







### MACHINE DESCRIPTION

Double Bridge Gantry CNC ROUTER equipped with vacuum table, vacuum pump, referance pins and dust extraction system. Machining sizes:

1.600 X 8.000 mm.

1.600 X 10.000 mm.

2.100 X 8.000 mm.

2.100 X 10.000 mm. Body

All machined metal profile structure. Vibration free.

High speed spindle. Ceramic bearing, air-cooled, adaptable to ISO 30 adapter. At the start up of the spindle, automatic warming up of the bearings. Double spindle version – 4.0 kW / 18.000 rpm.

First tool grooves the panels, then the tool changer changes to the cutting tool and it cuts the panels. Thanks to the high speed spindle, any kind of panel is available to be machined.

Auto tool changer spindle version – 7.5 kW / 24.000 rpm.

Spindle is changing the tools automatically from the tool changer magazine with 6 tools.

X-Axis: Gantry Double Engine Helical Rack and Pinion with geared servo motors 65 mt./min.

Y-Axis: Helical Rack and Pinion with geared servo motors 65 mt./min

Z Axis: Ball screw type with servo motor brake system, 25 mt./min.

Materials that can be processed on the machine: Aluminum Composite Panel, Stainless Steel Composite Panel, compact laminate panel, pure aluminum panels up to 20 mm thick, acrylic panels, MDF, wood etc.

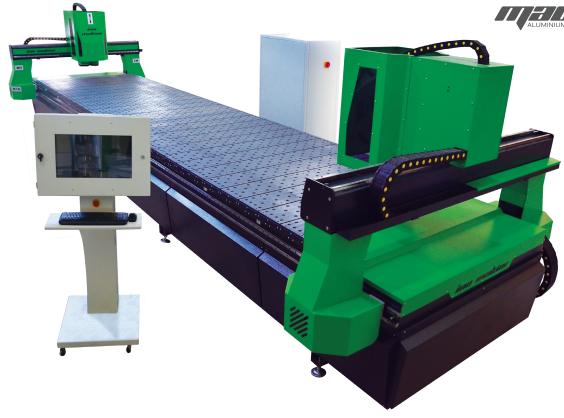
Smart vacuum table controls all vacuum chambers and referance pins automatically. Opeaarator mistakes are minimized.

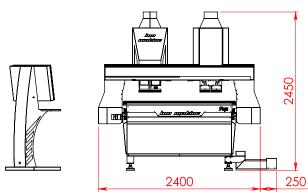
The gantry that carries the milling head is moved by two geared servo motors at both ends. Its precision is 0.1mm./1m.

Total installed power: 45 kW / 60A / 400 V/ 50-60 Hz. / 3Phase Air pressure and air consumption: 6-8 Bar. - 140 L/min.

Colored cables inside the electrical cabinet.

CE Certificate / Users' manual – English Language.





Referance pins, placed at the beginning, in the middle and on the sides of the vacuum

Cad-cam panel optimization software

Dust Extraction

Sytem capacity 3,500 m<sup>3</sup> / hour with steel pipes, customized for customers (optional)

Sytem capacity 305 m<sup>3</sup> / hour (standard)

compensate the production loss.

Machine working table:

·Vacuum table working without gasket and MDF with Heavy Duty metal construction covered with polyester compound.

·Multiple vacuum chambers controlled by the CNC controller, chambers are self-adjusted according to the size of the panel.

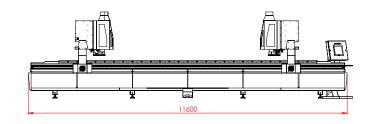
· Specially modified vacuum table for processing small pieces.

Advantages of double bridge machining center

2 separate machines work in 1 machine body. Compared to the standard double station machines, this machine takes only 1 meter more space and the capacity is 50% more.

2 bridges work on 2 standard sized workpieces separately; in case needed 2 bridges can work on 1 piece of 6 meter panel at the same time. When 1 of the bridges is on alarm, the second bridge can work in double station mode to







# TESLA 434

### ALUMINIUM PROCESSING TECHNOLOGY

### DOUBLE MITRE SAW



X (mm) /

325

232

188

200 -

150

100 -

100

200 250

Ĺ----**222** 



Automatic double mitre saw customized for aluminium profiles.

The 600 mm. sawblades maintain a perfect capability for the user to cut large section aluminium profiles with a perfect precision and cut clearence both in architectural and industrial segment. Electrowelded and machined ridig steel contruction.

Net cutting length of 6.000 mm. that can be extended to 11.500 mm with software support. Net cutting length of 4.000 mm. that can be extended to 7.500 mm with software support.

PC user interface with 15.6" TFT-LED Screen + Intel i3 PC with 8GB RAM 500GB HDD. Movable head is moving on crack mill with brushless servo motor and reducer through linear guides.

Hydro-Pneumatic feeding of the cutting saws. Pulse spray mist coolant system.

The saw-feed mechanism is moving with a cross-section way following a bow type path to clamp the profile better, to maintain the perfect cut surface and also protect the sawblade's lifetime.

Cutting heads tilting inside 45° outside 135° and 90° pneumatically through a cylinder and inbetween angles are adjusted manually.

Sawblade diameter 600 mm. / 3.0 kW 2.800 rpm motors

Maximum cutting width: 222 mm.

Maximum cutting height: 325 mm.

Minimum cut in 45° tilted inside: 779 mm

Minimum cut in 45° tilted inside with pneumtic feed option: 579 mm.

Minimum cut in 45° with short piece support: 320 mm.

Minimum cut from 22,5° to 90° tilted outside: 620 mm.

Optional "Mixed-cut" is for cutting profiles into 45 degrees automatically in any size.

Total installed power: 10 kW / 20A / 400 V / 50-60 Hz. / 3Phase

Air pressure and air consumption: 6-8 Bar. - 80 L/min.

Protection covers moving up and down automatically.

2 pieces of horizontal and 1 piece vertical clamping pistons for each head. Roller conveyor connected on the movable head.

Colored cables inside the electrical cabinet.

CE Certificate / Users' manual – English Language.





### OPTIONAL EQUIPMENT

Tilting both heads inside 45° to outside 22,5° all inbetween degrees automatic through servo motors and a 3

Data transfer package for working together with window production softwares. Importing data, label printing and transferring data to the CNC profile machining center via barcode.

Label printer.

Automatic profile height measurement system via pneumatic cylinder.

Mixed cut, for cutting different angles with different measurements automatically through a program that the operator can write using the control panel. The movable head feeds the profile bar and the stationary head

Pneumatic supports mounted along the machine; turning on/off automatically controlled by the PLC, according to the size of the profile with a protection hood.

Protection hood placed in front of the head, that has extra emergency & clamping buttons on. Short cut with pneumatic feed, through a pneumatic cylinder with 200 mm. stroke, mounted under the roller conveyor of the movable head, for cutting small pieces automatically, controlled by the PLC. Pneumatic short piece support for cutting short profiles into smaller sizes, controlled by the PLC.

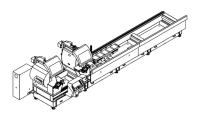
Pneumatic "Arrow Head" cutting stopper, customized for the UK market, controlled by the PLC.

Extended cut, for cutting profiles longer tahn the length of the machine.

Step by step cut for corner cleats.

Manual central supports.

Movable dust extraction drawers placed under the machine. Dust extractor 3.0 kW with steel and plastic pipes.













### ALUMINIUM PROCESSING TECHNOLOGY

# MITRE SAW



### MACHINE DESCRIPTION

Automatic double mitre saw for cutting aluminium and PVC profiles.

Electrowelded and machined ridig steel contruction.

Sawblade diameter 500 mm. / 3.0 kW 2.800 rpm motors .

Net cutting length of 4.000 mm that can be extended to 7.500 mm with software support.

10.0" TFT-LCD Touchpanel + PLC Controller.

Movable head is moving on crack mill with brushless servo motor and reducer through linear guides.

The saw-feed mechanism is moving with a cross-section way following a bow type path to clamp the profile better, to maintain the perfect cut surface and also protect the sawblade's lifetime.

Cutting heads tilting outside 45° to 90° pneumatically through a cylinder and inbetween angles are adjusted manually.

Maximum cutting width: 130 mm.

Maximum cutting height: 380 mm.

Minimum cut from 45° to 90° tilted outside: 220 mm.

Minimum cut in 45° tilted with pneumtic feed option: 120 mm.

Minimum cut in 45° with short piece support: 135 mm.

Total installed power: 9 kW / 18A / 400 V / 50-60 Hz. / 3Phase

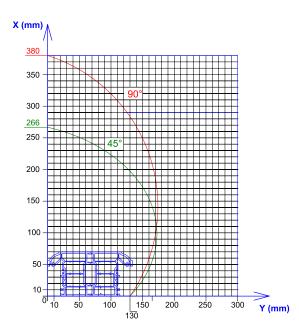
Air pressure and air consumption: 6-8 Bar. - 70 L/min.

Protection covers moving up and down automatically.

2 pieces of horizontal and 1 piece vertical clamping pistons for each head.

Roller conveyor connected on the movable head. Colored cables inside the electrical cabinet.

CE Certificate / Users' manual – English Language.

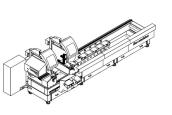








1700 KG





### OPTIONAL EQUIPMENT

Hydro-Pneumatic feeding of the cutting saws and pulse spray mist coolant system for aluminium. Data transfer package for working together with window production softwares. Importing data, label printing and transferring data to the CNC profile machining center via barcode.

PC user interface with 15.6\* TFT-LED Screen + Intel i3 PC with 8GB RAM 500GB HDD.

Automatic profile height measurement system via pneumatic cylinder.

Pneumatic supports mounted along the machine; turning on/off automatically controlled by the PLC,

according to the size of the profile with a protection hood.

Protection hood placed in front of the head, that has extra emergency & clamping buttons on. Short cut with pneumatic feed, through a pneumatic cylinder with 200 mm. stroke, mounted under the roller conveyor of the movable head, for cutting small pieces automatically, controlled by the PLC. Pneumatic short piece support for cutting short profiles into smaller sizes, controlled by the PLC. Pneumatic "Arrow Head" cutting stopper, customized for the UK market, controlled by the PLC. Extended cut, for cutting profiles longer than the length of the machine.

Step by step cut for corner cleats.

Manual central supports.

Movable dust extraction drawers placed under the machine. Dust extractor 3.0 kW with steel and plastic pipes.







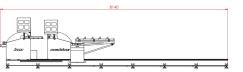


### ALUMINIUM PROCESSING TECHNOLOGY

### DOUBLE MITRE SAW









3700 kg



PC user interface with 15.6" TFT-LED Screen + Intel i3 PC with 8GB RAM 500GB HDD. Extended cut, for cutting profiles longer tahn the length of the machine. Step by step cut for corner cleats.

Manual central supports.

Dust extractor 3.0 kW with steel and plastic pipes.



### MACHINE DESCRIPTION

Automatic double mitre saw customized for aluminium profiles.

Huge cutting section thanks to the radial moving sawblade.

Electrowelded and machined ridig steel contruction. Sawblade diameter 600 mm. / 4.0 kW 2.800 rpm motors .

Net cutting length of 6.500 mm. that can be extended to 12.000 mm with software support.

10.0" TFT-LCD Touchpanel + PLC Controller.

Movable head is moving on crack mill with brushless servo motor and reducer through linear guides.

Hydro-Pneumatic feeding of the cutting saws.

Pulse spray mist coolant system.

The saw-feed mechanism is moving with radial mechanism on linear guides. Cutting heads tilting inside 45° to 90° pneumatically through a cylinder.

Maximum cutting section in 45°: 155 X 400 mm.

Maximum cutting section in 90°: 200 X 380 mm.

Minimum cut in 45° tilted inside: 500 mm.

Total installed power: 10 kW / 20A / 400 V / 50-60 Hz. / 3Phase Air pressure and air consumption: 6-8 Bar. - 70 L/min.

Protection covers moving up and down automatically.

2 pieces of horizontal and 1 piece vertical clamping pistons for each head.

Roller conveyor connected on the movable head.

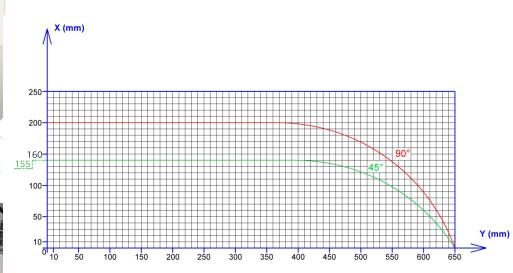
Colored cables inside the electrical cabinet.

CE Certificate / Users' manual – English Language.









### ALUMINIUM PROCESSING TECHNOLOGY

### DOUBLE MITRE SAW



### MACHINE DESCRIPTION

Automatic double mitre saw for cutting aluminium and PVC profiles.

Electrowelded and machined ridig steel contruction.

Sawblade diameter 500 mm. / 2.2 kW 2.800 rpm motors .

Net cutting length of 4.000 mm. that can be extended to 7.500 mm with software support.

10.0" TFT-LCD Touchpanel + PLC Controller.

Movable head is moving on crack mill with brushless servo motor and reducer through linear guides.

The saw-feed mechanism is frontal moving with a receding blade.

Cutting heads tilting inside 45° to 90° pneumatically through a cylinder and inbetween angles are adjusted manu-

Maximum cutting width: 174 mm.

Maximum cutting height: 250 mm.

Minimum cut from 45° to 90° tilted inside: 450 mm.

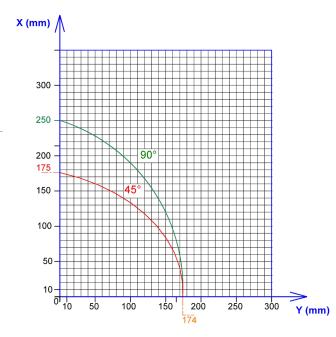
Minimum cut in 45° with short piece support: 250 mm.

Total installed power: 9 kW / 20A / 400 V / 50-60 Hz. / 3Phase

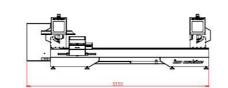
Air pressure and air consumption: 6-8 Bar. - 70 L/min. Protection covers moving up and down automatically.

2 pieces of horizontal clamping pistons for each head.

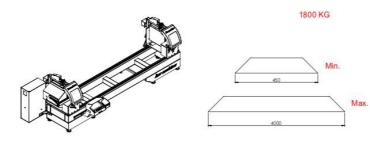
Roller conveyor connected on the movable head. Colored cables inside the electrical cabinet. CE Certificate / Users' manual – English Language.











### OPTIONAL EQUIPMENT

Hydro-Pneumatic feeding of the cutting saws and pulse spray mist coolant system for aluminium. Data transfer package for working together with window production softwares. Importing data, label printing and transferring data to the CNC profile machining center via barcode. Label printer.

PC user interface with 15.6" TFT-LED Screen + Intel i3 PC with 8GB RAM 500GB HDD. Vertical clampings. 1 piston for each head.

Pneumatic short piece support for cutting short profiles into smaller sizes, controlled by the PLC. Extended cut, for cutting profiles longer than the length of the machine.

Step by step cut for corner cleats.

Manual central supports.

Dust extractor 3.0 kW with steel and plastic pipes.







### ALUMINIUM PROCESSING TECHNOLOGY

# MITRE SAW





Automatic double mitre saw for cutting aluminium profiles.

Electrowelded and machined ridig steel contruction.

Sawblade diameter 500 mm. / 3.0 kW 2.800 rpm motors .

Net cutting length of 4.000 mm. that can be extended to 7.500 mm with software support.

10.0" TFT-LCD Touchpanel + PLC Controller.

Hydro-Pneumatic feeding of the cutting saws.

Pulse spray mist coolant system.

Movable head is moving on crack mill with brushless servo motor and reducer through linear guides.

The saw-feed mechanism is moving with a cross-section way following a bow type path to clamp the profile better, to maintain the perfect cut surface and also protect the sawblade's lifetime.

Cutting heads tilting outside 22.5°/45°/90° pneumatically through a cylinder and inbetween angles are adjusted

Maximum cutting width: 165 mm. Maximum cutting height: 300 mm.

Minimum cut from 45° to 90° tilted outside: 630 mm. Minimum cut in 45° tilted with pneumtic feed option: 430 mm.

Minimum cut in 45° with short piece support: 375 mm.

Total installed power: 9 kW / 18A / 400  $\dot{\rm V}$  / 50-60 Hz. / 3Phase

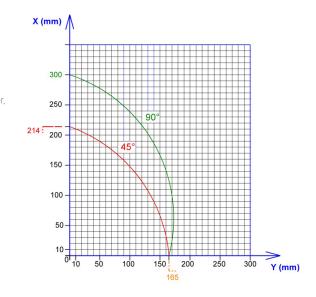
Air pressure and air consumption: 6-8 Bar. - 70 L/min.

Protection covers moving up and down automatically.

2 pieces of horizontal and 1 piece vertical clamping pistons for each head.

Roller conveyor connected on the movable head. Colored cables inside the electrical cabinet.

CE Certificate / Users' manual – English Language.

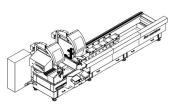








1700 KG



### OPTIONAL EQUIPMENT

Data transfer package for working together with window production softwares. Importing data, label printing and transferring data to the CNC profile machining center via barcode. Label printer.

PC user interface with 15.6" TFT-LED Screen + Intel i3 PC with 8GB RAM 500GB HDD.

Automatic profile height measurement system via pneumatic cylinder.

Pneumatic supports mounted along the machine; turning on/off automatically controlled by the PLC, according to the size of the profile with a protection hood.

Protection hood placed in front of the head, that has extra emergency & clamping buttons on. Short cut with pneumatic feed, through a pneumatic cylinder with 200 mm. stroke, mounted under the roller conveyor of the movable head, for cutting small pieces automatically, controlled by the PLC. Pneumatic short piece support for cutting short profiles into smaller sizes, controlled by the PLC.

Pneumatic "Arrow Head" cutting stopper, customized for the UK market, controlled by the PLC. Extended cut, for cutting profiles longer than the length of the machine. Step by step cut for corner cleats.

Manual central supports.

Movable dust extraction drawers placed under the machine.

Dust extractor 3.0 kW with steel and plastic pipes.







### 2-AXIS CNC PROFILE CUTTING MACHINE



### MACHINE DESCRIPTION

CNC Cutting machine with 1 axis on the profile feed and 1 axis on the sawblade feed.

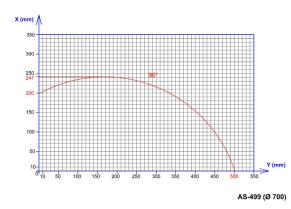
Automatic cutting of industrial heavy profiles in 90 degrees between 1 mm – 1.250 mm in one stroke and that can be extended infinite times thanks to the software support.

Electrowelded and machined ridig steel contruction of 3 tons.

The machine feeds the profile with brushless servo motor on screw mill system that is adjusted by the operator from the cnc controller.

The sawblade moves radially on the screw mill and brushless servo motors.

Sawblade power: 11 kW on belt driven reducer and the rpm can be adjusted via servo inverter. From the control panel, for each profile it is possible to adjust all the parameters as below:





### OPTIONAL EQUIPMENT

The sawblade maximum moving distance.

The park place of the sawblade.

The rotation speed of the motor between 0 to 4.000 rpm.

The feedrate of the sawfeed.

It is possible to connect different sizes of sawblades both in diameter and thickness and run them with different rpm and different feedrate to get the best cut quality on the cut surface and the best productivity.

For Example:

400 mm. sawblade – 3.500 rpm 500 mm. sawblade – 2.800 rpm

600 mm. sawblade - 2.200 rpm.

700 mm. sawblade – 1.500 rpm.

Thanks to the automatic table separation system, the cut piece is separated after the cutting finishes before the sawblade goes back and a superior cut surface is maintained.

Max. Loading weight of the profile: 250 kgs.

Max width of the profile to be cut: 500 mm. Max height of the prfoile to be cut: 241 mm.

10.0" TFT-LCD touchscreen

Sawblade diameter 700 mm. Accuracy: 0,05 mm.

The rest piece at the end is 60 mm.

Cutting list read up to 99999 profiles.

8 pieces of horizontal and vertical clamping pistons for perfect grip of the profile.

With the 3 meter motorized roller conveyor it is possible to push the heavy profiles inside the machine.





3500 kg







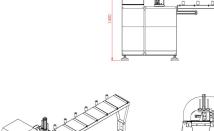


## AS 489S

### AUTOMATIC PROFILE









430 kg

### MACHINE DESCRIPTION

Automatic cutting of aluminium profiles in 90 degrees between 3 mm – 280 mm in one stroke and up to 1.000 mm. in 4 strokes that is adjusted via PLCand servo motor.

Focusing on all kinds of industrial profiles.

The machine feeds the profile via servo motor and a gear-box connected to the screw mill.

The cutting measures, complete profile bar size, cutting quantity and similar information is dialed on the PLC via 7" TouchPanel.

The sawblade moves from down to up with a hydraulic cylinder.

#### Sawblade diameter: 450 mm.

Sawblade power: 4,0 kW on belt driven system and cuts very smoothly with constant 2.800 rpm.

The machine has a customized clamping system that can clamp the profile bar and the cut piece at the same time and also helps to extract the swarf through its clamping hood.

The sawblade's cylinder that is moving the blade up, has a conneciton to the clamping hood and when the blade is moving up, it moves untill it cuts the piece and then when the piece is cut, from that distance the blade

It is possible to adjust the sawfeed speed through pneumatic valve. Max. Loading weight of the profile: 75 kgs.

Maximum cutting diameter: 147 mm.

Max width of the profile to be cut: 307 mm.

Max height of the prfoile to be cut: 127 mm.

The rest piece at the end is 80 mm.

2 pieces of horizontal and vertical clamping pistons for perfect grip of the profile. 1.5 meter roller conveyor.

















# AUTOMATIC PROFILE CUTTING MACHINE



### MACHINE DESCRIPTION

Automatic cutting of aluminium profiles in 90 degrees between 6 mm – 250 mm in one stroke.

Focusing on the windows and doors corner cleat profiles and standard industrial profiles.

The machine feeds the profile with pneumatic cylinder moving on guide rails thanks to the switch, that is adjusted by the operator manually over the ruler.

The sawblade moves from down to up with a hydraulic cylinder.

### Sawblade diameter: 450 mm.

Sawblade power: 4,0 kW on belt driven system and cuts very smoothly with constant 2.800 rpm.

The machine has a customized clamping system that can clamp the profile bar and the cut piece at the same time and also helps to extract the swarf through its clamping hood.

The sawblade's cylinder that is moving the blade up, has a conneciton to the clamping hood and when the blade is moving up, it moves untill it cuts the piece and then when the piece is cut, from that distance the blade goes back.

It is possible to adjust the sawfeed speed through pneumatic valve.

Max. Loading weight of the profile: 75 kgs.

Maximum cutting diameter: 147 mm.

Max width of the profile to be cut: 307 mm.

Max height of the prfoile to be cut: 127 mm.

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The rest piece at the end is 80 mm. 2 pieces of horizontal and vertical clamping pistons for perfect grip of the profile.













1.5 meter roller conveyor.

### SINGLE MITRE SAW



# MES 1500

ELECTRONIC MEASUREMENT SYSTEM





# X (mm) 250 200 180 150 150 100 50 100 100 150 200 250 300 346 431.5

### MACHINE DESCRIPTION

Single Mitre Saw customized for aluminium profiles.

#### Sawblade diameter 600 mm.

Aluminium profile cutting with Hydro-Pneumatic cylinder + Pulse spray mist coolant. Protection covers moving up and down automatically.

Rotating from 0° to 135° manually.

Movable back fence.

Fixed stops on 0°, 15°, 30°, 45°, 67.5° and 90°, and the remaining positions can be set using a scale via additional lock.

3.0 kW / 50 Hz. / 400V / 2.800 rpm motor.

Air consumtion: 50 L./min.

### MACHINE DESCRIPTION

Electronic Length Stop with a servo controlled axis + PLC and a TouchPanel.

Maximum cutting length variables: 3.000 / 4.500 / 6.000 / 7.500 mm.

PLC control + 7.0° TFT-LCD Touchpanel.

The stopper is moving with brushless servo motor to maintain the perfect accuracy of 0.05 mm. Profile moves on anodized aluminium rollers that prevent the profile from the scratches.



CNC Pusher modification adapted with the single mitre saw AS 425/426.

Customized fixture installation on the pusher unit for clamping non-rectengular profiles.

PLC modification for data transfer .csv or .txt files. via USB or LAN cable.

Label printer + the protected printer shelf.

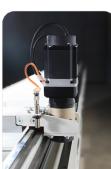








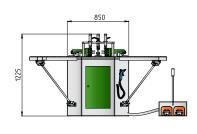






### CORNER CRIMPING







	FEATURES	-CDIII	0		O kg	FRONT			Kgp				21	
AS 136	TRIC	Hydropneumatic pressure Bar	Bar	Air consumption (lt/min)	Kg	H (mm)	W (mm)	D (mm)	Crimping force kg*f	Crimping tools stroke (mm)	Max. crimping height (mm)	Crimping tools ad. in cross directions (mm)	Profile baking block stroke (mm)	
	ME.	100-120	6-8	12	380	1225	850	900	3250	25	110	60	140	









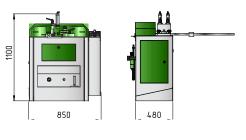






ALUMINIUM PROCESSING TECHNOLOGY

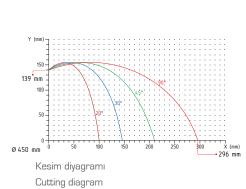
AS 411

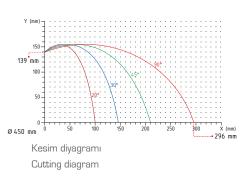


_	FEATURES					4		0		FRONT			**************************************				h	
411	METRIC	Hz	RPM	Kw	>	Kw	Bar	Air consumption (lt/min)	Kg	H (mm)	W (mm)	D (mm)	B max (mm)	A (mm)	n (1/min)	H max (mm)	h max (mm)	a max (mm)
		50	2810	1,1	380	1,1	6-8	10	110	1100	850	480	140	30	2810	90	90	90° : 120 45° : 90

# **AS 425** SINGLE MITRE



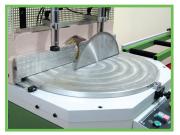




	FEATURES	4				1	0		G kg	FRONT			Ø:					L		B° B°	
425	TRIC	Hz	RPM	Kw	v	Kw	Bar	Air consumption (lt/min)	Kg	H (mm)	W (mm)	D (mm)	ØD (mm)	Ød (mm)	b (mm)	z	n (1/min)	L min (mm)	L max (mm)	Α°	B°
	WE	50	2810	1,5	380	1,5	6-8	41	150	1250	850 6900	900	450	30	4	120	3200	440	3300	0	180

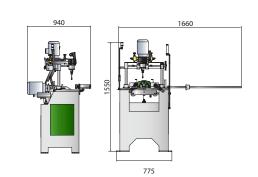


















# AS 445/455

# PROFILE NOTCHING







### 445 PROFILE NOTCHING SAW

- Specilally designed for aluminium curtain well profiles notehing operations and skylight & wihtergarden prodiction.
- Vertical saw 450 mm.+/- 45° tilting.
- Horizontal saw 400 mm.+/- 45° tilting.
- Table rotation +/- 45°.
- Vertical notching depth 160 mm.
- · Horizontal notehing width 135 mm.
- · Table herght adjustment
- · Table Depth adjustment
- Notching saw power 2.800 rpu / 2,2 kW.

### 455 PROFILE NOTCHING SAW

- Specilally designed for aluminium curtain well profiles notehing operations and skylight & wihtergarden prodiction.
- Vertical saw 550 mm.+/- 45° tilting.
- · Horizontal saw 500 mm.+/- 45° tilting.
- Table rotation +/- 45°.
- · Vertical notching depth 160 mm.
- Horizontal notehing width 135 mm.
- Table herght adjustment
- · Table Depth adjustment
- · Notching saw power 2.800 rpu / 2,2 kW.







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