

# Applied Computer Systems (Australia)

registered trade name of

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## ACS-CNC Multifunction Machine

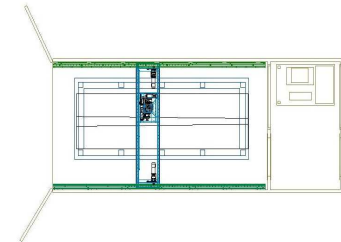
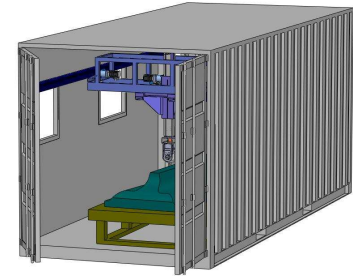
### Machine in a container

These machines are designed for many functions. Gantry type of design allows multiple locations in its working space where each can be dedicated to specific operations. Relatively heavy items can be machined since the item is not moving but the head moves. The head can be easily changed to allow different operations:-

- cutting or drilling or slotting very long round or rectangular pipes & tubes
- general CNC milling with 2.5 or 3 axis and even with 4 axis - rotary table
- pattern making of large 3D items in light materials with fast 5 axis router
- routing plates with high speed spindle or profile cutting with plasma head
- trimming or drilling of large 3D items with heavy duty 5 axis head.

These machines are built in standard containers, which stay within ISO shipping & transport configuration, to maintain ease of transportation and quick relocation with resumption of operation. The containers are fully sealed to provide easy containment to noise and dust. If necessary these containers can be thermally insulated and air-conditioning can be provided, either for the operator's compartment, or for whole of the machine. External finish can be customized with options of windows with or without shutters and army type of camouflage color scheme.

The modular configuration of the machine parts provides economical solution for machines with up to 10.5m x 2.35m x 0.85m working space. Maximum machine travel for each container size is shown below (these can be custom changed). Each machine has a small compartment for the computer, which controls the machine. This can be shut off from the main operating space giving the operator a safe and comfortable location for control of the machine. It can also incorporate CAD/CAM system for 3D design, CNC code programming and reverse engineering.



Container size, internal working space & max. machine travel			
Container Size	Working Length	Mach. Travel in X	Computer room
10 ft (3m)	2.0m	1.5m	0.9m wide
20 ft (6m)	4.8m	4.3m	1.0m wide
40 ft (12m)	10.5m	10m	1.2m wide
Container Width	Working Width	Mach. Travel in Y	
Standard	2.35m	1.7m	2.35m long
Container Height	Working Height	Mach. Travel in Z	
Standard	0.8m	0.50m	2.4m high
9ft6"	0.85m	0.65m	2.7m high

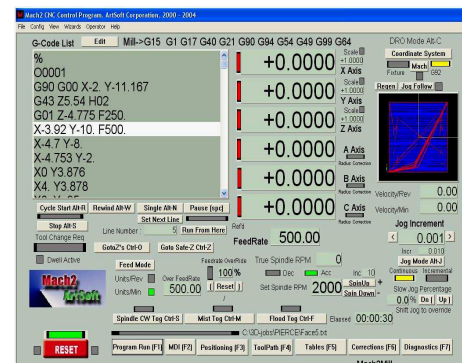
### PC Based Controller –

The controller provides the latest computer technology in the world of multi-axis CNC control, at economical prices. Sophisticated PC based software is used, which is easy to customize and is capable of controlling machines with up to six axes. It is easy to slave two axes together, for longitudinal travel and still have control over the head which moves in X,Y,Z and tilts the tool in additional two axes, B & C, giving full simultaneous 5 axis machining.

### Laser Measuring Probe –



Reversed engineering is assisted with an optional laser probe and software for 3D surface scanning. We offer also the ability to conveniently manually trace a shape in 3D, following the path, with the assistance of a PC camera to locate the reference beam from the laser-measuring probe and with a joystick to easily control the positioning of the head in all the coordinates. This is recorded in a file, which then can be used for the trimming operation.

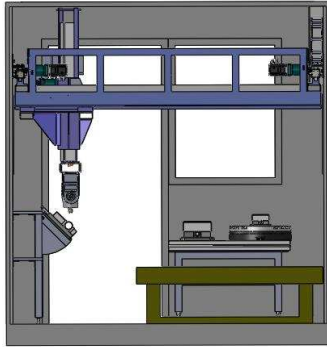


## Camworks CAD/CAM –

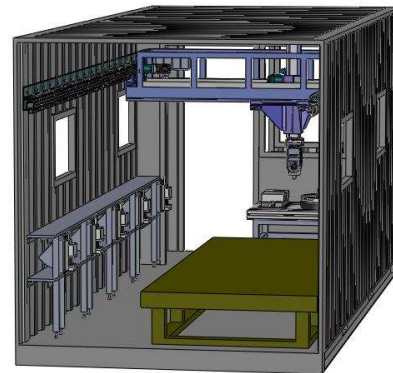
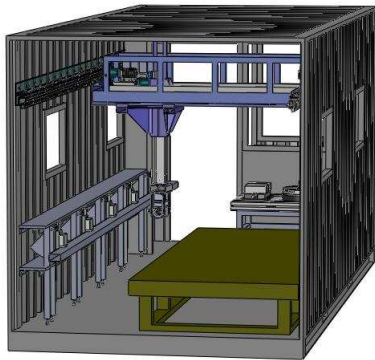
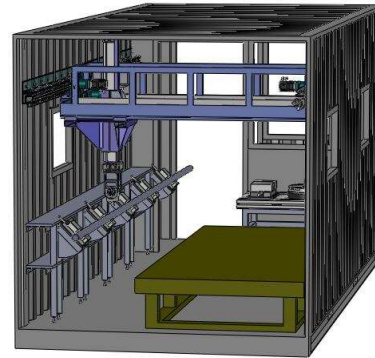
Integration with **Solidworks** 3D solid modeling CAD and **Camworks** with 5 axis capabilities is possible, allowing simultaneous modeling, design and CNC program generation while the machine is operating.



## Multi Function Machine

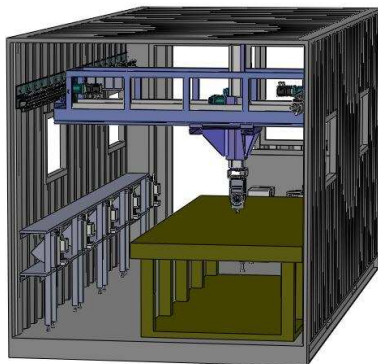


- 1) – Long round pipes – drilling & slot milling. Extra long pipes can be drilled in sections & repositioned. Side table with a number of vices can swing out into a V position for easy location of round pipes.



- 2) – Long rectangular tubes & profiles facing vertically, for drilling & slot milling with horizontal head.

- 3) – General Engineering bench, with rotary table for machining with 2.5 or 3 or 4 or 5 axis.



- 4) – Large sheet mounted high for accurate profile cutting, drilling and slot milling.

- 5) – Large 3D object out of light materials shaped with a high speed router by the 5 axis head.

## Benefits of ACS-CNC Multi Function Machine

This complete package offers an economical solution for general engineering, on-site construction, rapid prototyping, pattern and mould making and reverse engineering. It is also useful for vacuum forming or rotary molding industry, comparing favorably with other 5 axis machines, but at a much smaller cost.

It is particularly suitable for repair or reconstruction in locations of natural disasters due to its advantages of being in a container, which makes it easy for transportation, relocation and quick resumption of operation.