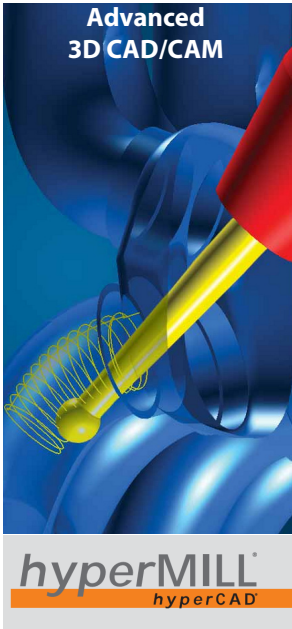


Rapid Functional Metal Parts

The Cybaman Replicator is a fully automatic computer controlled component manipulation system which employs both subtractive or additive rapid manufacturing processes.



Subtractive

Developed specifically for high speed machining of 3D metal components, it presents each facet of a workpiece, to the cutting tool in an automatic sequence. Toolpaths are generated using hyperMill CAD/CAM software and then converted into machine movement with the cybaman postprocessor.

Additive

The cybaman laser machine can be supplied with a laser powder desposition head for rapidly building metal parts directly from a CAD model.

Multiple CAD Formats

Accepts all current data exchange formats dxf, dwg, iges, sat, vda, STEP, STL.

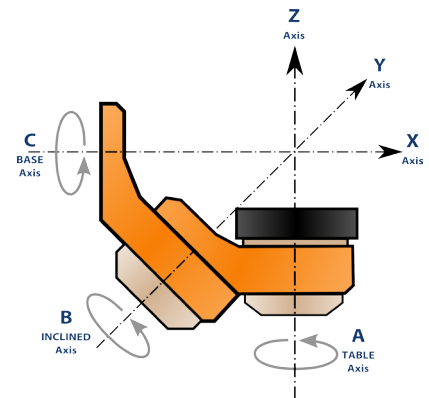


Reverse Engineering

Using the optional scanning system, parts can be imported into the CAD for subsequent replication with the cybaman system.

System Components

- Cybaman 6 Axes 3D Manipulation System
 - 2KW 50Krpm Milling Spindle or Laser & Deposition Nozzle
 - hyperMill 3D CAD/CAM Machining software
 - Cybaman Postprocessor
 - 3D Graphical Machine Control Interface
- options:
- 3D Optical Scanning System
 - 6 or 12 Station Auto Tool Changer



Patented System

Benefits

Rapid Functional Parts
Full 3D in One Hit
Small Footprint : Part Size
Eliminates Fixtures
CAD to Part in minutes
Precision Parts

Applications

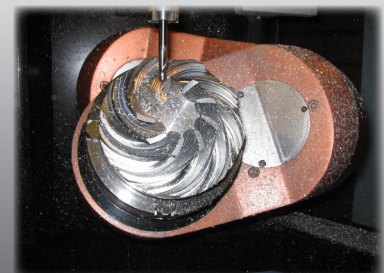
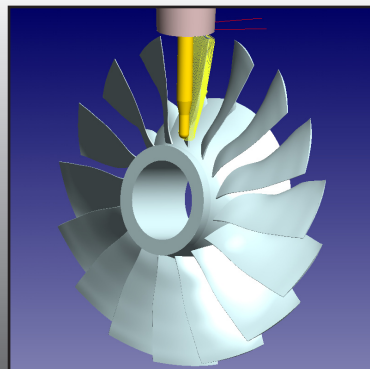
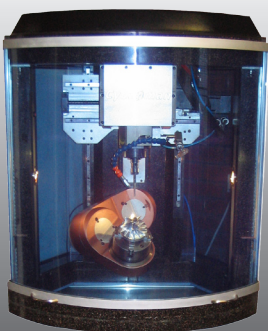
Machining
Grinding
Welding
Optical Inspection
Laser Cutting
Laser Deposition

Industries

Rapid Manufacturing
Prototyping
Aerospace
Medical
Dental
Jewellery

Materials

Aluminium
Steel
Titanium
Gold, Silver, Platinum
Aerospace Alloys
Plastics / Wood





Aerospace
Turbo Compressor



Motorsport
Oil Can Replicas

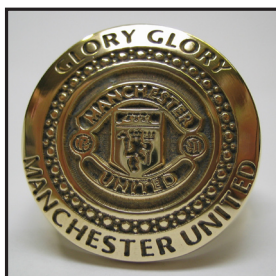


Musical Instruments
Violin Parts



Aerospace
Fuel Mixer/Swirlers

SPECIFICATION	Cybaman 6 Axes CNC Positioning System	
Machinable Materials	Wood, Plastic , Aluminium , Brass, Steel, Titanium, Nickel Based Alloys, Gold, Silver , Platinum	
Control System	PC Based, 6 Axes Digital AC Servo Drives, Brushless DC Motors 400W	
Linear Axes Travel	X -150mm Y - 150mm Z - 200mm	X - 240mm Y - 270mm Z - 350mm
Rotary Axes	Chuck A - 360 continuous, B - +/- 180 C - +/- 180	
Machine frame	Epoxy Resin Rose and Black Granite in natural colour	
Machine Frame Envelope	800mm x 760mm x 760 mm high	
Weight	150 kgs	
Table size	ø125mm or ø150mm dia. - 4 Jaw Chuck	
Maximum cutting feed rate	15m/min	
Lead-screw type	c3 or c5 Precision Ground Ball-screw	
Servo motors	Brushless Servo 400W	
Type of ways	Linear Rails & Carriages	
System Accuracy	+/- 12 µm	
Resolutions Rotary	0.0005 degrees	
Resolutions Linear	1 µm	
Repeatability	Linear +/- 2µ	
3D Datum point accuracy	+/- 6µm	
Max table load	15kg	
Spindle Speed & type	40 or 50K rpm – High-Freq, Water cooled, Pneumatic drawbar	
Spindle power	2.2 KW Option for 4KW	
ATC option	6 & 12 Position Auto Tool Changer, HSK E25 tooling	
Coolant	"Unilube" Mineral Oil Lubricating and Coolant Mist	
Compressed Air Supply	Miniature 50 litres/min air compressor 24 litre receiver	
Cabinet Stand	850 x 750 x 800 swarf tray. Controller, coolant	



Jewellery
Signet Ring



Cutlery
Spoon



Titanium Dental
Bridge



Jewellery
Celtic Ring

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