MB Century

WE DO ENERGY

MACHINE SHOP SERVICES

MB Century's Machine Shop complex was originally established to service the geothermal industry. It has since grown to service all aspects of hydro generation, down-hole measuring and general engineering.

MB Century has ISO 9001 and we pride ourselves on our efficient, effective and accurate maintenance procedures.

Advanced Equipment

MB Century has invested in significant machining technology. MB Century has the largest and most advanced machinery and equipment in the Central Plateau, New Zealand. Equipment includes CNC 4-axis Vertical machining centre, large capacity CNC Oil Country lathe, CNC Y-axis Mill/Turn lathe and a dedicated CAD/Cam programming office.

The Top Turn lathe is capable of machining up to 1500mm diameter and able to support 10 tons between centres. The racking platform also allows for up to 10-meter long sections of tubulars or material to be supported within rollers while being machined.

Workshop Facility

The facility covers an area of 400m^2 and is equipped with twin 2 ton gantry cranes servicing the total area of the workshop.

Along with a large variety of machining equipment, the workshop is equipped with a synchrowave welder and a gas-fired furnace (for stress relieving or heat treatment).

The Machine Shop incorporates a clean facility, constructed to allow the disassembly of precision assemblies eg. sealed bearing casings and mechanical seals.

Mobile mechanical team services are available with a well-equipped container to undertake all onsite mechanical repairs and overhauls.

Quality

MB Century's Machine Shop is certified to ISO 9001. Where required, Inspection Test Records and detailed reports can be provided to the customer with the finished component. In-house QA/QC procedures allow for confidence in the manufacturing process.

Personnel within the Machine Shop are fully trained and experienced in CNC programing and general machining.

MB Century is proud of the services that can be provided and the numerous complex components that have been manufactured for various industries for over 30 years.

CAPACITY AND EQUIPMENT				
Lathes	**Turning Length**	**Swing Over Saddle**	**Swing Over Bed**	**Spindle Bore Ø**
Top Turn – CNC Oil Country	4000mm	1000mm	1500mm (INT. Hold)	355mm (14”)
Hyundai – Wia CNC Yaxis (±55mm travel) Mill-turn	620mm	490mm	620mm	77mm (3”)
Colchester – Harrison Alpha 550T NC Teach	2000mm	370mm	554mm	104mm (4”)
Colchester Mastiff VS1800	1800mm	370mm	600mm	104mm (4”)
Colchester Master VS3250	1250mm	196mm	350mm	38.1mm (1.5”)
Dianichi – Oil Country w’ Taper Turning	2500mm	670mm	1000mm	407mm (16”)
Dean Smith & Grace w’ Taper Turning	3500mm	400mm	700mm	267mm (10.5”)
Milling Machines	**Axis Travels**	**Spindle Taper**	**Max Load on Table**	**Options**
Hartford – Vertical Machining Centre – 4 Axis	X=1000, Y=600, Z=630, 4th=360° (0.001° INC)	BT40 8000RPM	700kg	CTS 20bar, 24 Arm type tool changer, CADCAM & Manual Guide I Programming
TOS W9 – Horizontal Boring Mill	Cross=1000, Length=1200, Vertical=1500, Rotary=360°, Quill=700	MT5 1400RPM	3000kg	Thread Cutting, Line Boring & Milling
Pacific Mill 400	X=1400, Y=300, Z=350	NT50 1400RPM	500kg	Angular Dividing Head
Other Machines & Services	**Description**			
Pipe Threading Machine	Asada Astronic 4 – Metric threads to M32, Imperial threads to 4”.			
Vertical Slotting Machine	Yamage – Height under ram 595mm, long travel 346mm, cross travel 475mm, max stroke 310mm, index table Ø550mm.			
Bandsaw	Startrite – 250mm x 250mm max capacity.			
Surface Grinder	Churchill – 1900mm long travel, 250mm cross travel.			
Drilling Machines	MAS radial arm drill, geared head drill press and belt head drill press.			
Miller Synchrowave Welder	Materials – Stainless steel, aluminium & steel – TIG & ARC.			
NDT Crack Detection Equipment	Spray process.			
Gas Fired Furnace	Stress relieving or heat treatment – 2M long x 1M high capacity.			
Hardness and Surface Testing Equipment	Electronic impact tester and surface compariter.			
Overhead Gantry Cranes	2 x 2 Tonne full length and width.			
Metal Phosphatising Bath	Rust prevention.			
Hydrostatic Test Pump	Hydrostatic pressure testing for up to 10,000psi.			

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