

Capacity Register



Whittaker Engineering (Stonehaven) Limited

FACILITIES		
Area	Size	Capacity
Overall Site (Stonehaven Facility)	Area: 14,161.5m ² (3.5 Acres)	
Main Fabrication Workshop	Area: 915m ² 61m (L) x 15m (W) (Includes welding bays - 84m ²)	Doors: 4.77m (H) x 7m (W); Height to Haunches: 6.87m
Clean Fabrication Shop	Area: 232m ² 20.70m (L) x 11.20 (W)	Front Door: 5m (H) x 5.35m (W)
Main Machine Workshop	Area: 826m ² 64m (L) x 12.9m (W)	Front Door: 3.86m (H) x 4.02m (W) Back Door: 4.10m (H) x 5.20m (W)
VTL Shed (Housing Bost, Poreba and Fitting Shop facilities)	Area: 1033m ² 63m (L) x 16.4m (W)	2 x Doors: 6.30m (H) x 5.40m (W) each
Mechanical/Hydraulic Assembly Shop Hydraulic Test Room	Area: 307m ² (30m x 13.9m at widest, 10.2m at narrowest) Area: 20m ²	Back Door: 5m (H) x 5.40m (W) Side Door: 3.90m (H) x 5.30m (W)
Research & Development Workshop R&D Office (upstairs)	Area: 452m ² 28.88m (L) x 15.66m (W) Area: 109m ² 15.40m (L) x 6.70m (W)	Front Door: 5m (H) x 5.35m (W)
Storage Shed	Area: 440m ² 28.62m (L) x 15.4m (W)	Front Door: 5m (H) x 5.35m (W)
Stores Rooms Middle Store	Area: 75m ² Lower floor + 75m ² Upper floor Area: 20m ² 15.2m (L) x 4.7m (W)	
Quayside Facility at Montrose Harbour (currently under construction)	Workshop Area: 1800m ² Offices: 960m ²	Access to Quayside Berthing

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FABRICATION & CLEAN FABRICATION SHOPS			
Machine Type	Manufacturer	Capacity	
CNC Profile Burner	Silhouette	3m x 3m x 500mm Thick	
CNC Profile Burner	Phantom	6m x 3m x 500mm Thick	
CNC Water Jet / Profiler	Farley	5m x 3m Bed Oxy/Propane 600mm Thick Mild Steel Waterjet 200mm Thick S/S and Aluminium	
CNC Water Jet / Profiler	Water Jet Sweden	3m x 1.5m Bed 200mm Thick Steel / Aluminium Cut	
Powered Pyramid Rolls	Morgan	4ft x 2mm Minimum Ø = Ø120mm	
Powered Pyramid Rolls	Morgan	2 Metre x 8mm Thick	
Power Rolls Initial Single Pinch	Morgan	2m x 2mm	
Power Rolls Initial Single Pinch	Biko	20mm Thick Plate x 3m Long x Ø3m Minimum Ø Rolling = Ø565mm	
Radial Drill	MAS-TOS	8ft Swing 10ft Height	
Radial Drilling Machine	Z J	4ft Swing 3ft Height	
Press Brake	Gasperini	320 Tonne 6.1m Bed, CNC 5.6m Between Frames	
Press Brake	Cincinatti	400 Tonne 2.95m Overall bed length, 2.25m between frames	
Bandsaw	Mega	600mm sq	
Bandsaw SH1-LR	Behringer	600mm sq	
Bandsaw	PEGAS	360mm x 500mm	
Pipe Prep Machine	Millhog	5.5in OD to 16in OD Pipe	
Weld Rotator/Positioner	Bode	Ø6ft x 10 tonne	
Induction Heating System (J023774-01)	IDEA Gmbh	150 kW	
Induction Heating System (J024655-01)	Ambrell	50 kW	
Pre-heating equipment	Thermal Solutions	4 off 50kVA	
Sub-arc Column & Boom / Welding Plant	Lincoln & TPS Weld Tech	1000 Amp 25mm to 100mm Weld thickness	
TPS Pulse MIG/MAG Welding Plant	Fronius	2 off 500 Amps	
MIG Welders	ESAB & Lincoln	1 off 200 Amps, 3 off 420 Amps	
MMA Welders	EWM, Kemppi & Newarc	3 off 220 Amps, 1 off 250 Amps, 1 off 300 Amps, 6 off 350 Amps, 20 off 400 Amps, 1 off 700 Amps	

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FABRICATION & CLEAN FABRICATION SHOPS			
Machine Type	Manufacturer	Capacity	
MMA Welder	Lincoln	1 off 500 Amps diesel portable welder	
MMA/MIG Welders	ESAB & Lorch	6 off 400 Amps, 10 off 500 Amps	
MMA/TIG Welders	ESAB, EWM, Kemppi, Lorch, Lincoln, Newarc & Tetrix	4 off 150 Amps, 2 off 180 Amps, 1 off 200 Amps, 2 off 220 Amps, 2 off 250 Amps, 1 off 270 Amps, 5 off 300 Amps, 4 off 400 Amps, 1 off 450 Amps	
Orbital Tig Welding Plant	Polysoude	Fitted with mechanised Orbital Tube to Tube Sheet Welding Head : 300A	
Overhead Crane - (GC01)	Street	10 Tonne	Max Height under Hook 5.560m
Overhead Crane - Fab shop (GC05)	Kone	10 Tonne	Max Height under Hook 5.560m
Overhead Crane - Clean welding shop (GC10)	Kone	10 Tonne	Max Height under Hook 5.560m

MACHINE SHOP				
Machine Type	Manufacturer	Capacity	Work Piece Size	Max Weight
Bost CNC Vertical Turning Lathe	Bost	<u>Machine Stroke</u> X-Axis = 3600mm Z-Axis = 3200mm	<u>Work Piece Size</u> Chuck = Ø3600mm <u>Max Workpiece Size</u> Chuck = Ø3600mm	25 Tonne
Integrex 1060	Mazak	<u>Machine Stroke</u> X-Axis = 1700mm Y-Axis = 1060mm Z-Axis = 1345mm	<u>Work Piece Size</u> Chuck = Ø1250mm <u>Max Workpiece Size</u> Ø1800mm	3 Tonne
Integrex E-670H2 Lathe (2 off)	Mazak	<u>Machine Stroke</u> X-Axis = 1000mm Y-Axis = 670mm Z-Axis = 4000mm	<u>Work Piece Size</u> Chuck = Ø800mm <u>Max Workpiece Size</u> Ø1070mm	Up to 6 tonne
Integrex 400-IV	Mazak	<u>Machine Stroke</u> X-Axis = 420mm Y-Axis = 400mm Z-Axis=1500mm	<u>Work Piece Size</u> Chuck = Ø310mm <u>Max Workpiece Size</u> Ø450mm	Up to 1.5 tonne
CNC SQT 10M Lathe	Mazak	<u>Machine Stroke</u> X-Axis = 220mm Z-Axis = 400mm	<u>Work Piece Size</u> Chuck = Ø150mm <u>Max Workpiece Size</u> Ø200mm	

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Machine Type	Manufacturer	Capacity	Work Piece Size	Max Weight
Mazak SQT 300	Mazak	Machine Stroke X-Axis = 380mm Z-Axis = 1000mm	Work Piece Size Chuck = Ø310mm Max Workpiece Size Ø450mm	
Integrex 200i	Mazak	Machine Stroke X-Axis = 1230mm Y-Axis = 250mm Z-Axis = 800mm	Work Piece Size Chuck = Ø250mm Max Workpiece Size Ø450mm	
Integrex 1-100 Bartac Lathe	Mazak	Machine Stroke X-Axis = 900mm Y-Axis = 210mm Z-Axis = 800mm	Work piece Size Main Chuck = 210mm Second Chuck = 170mm Distance between Chucks 900mm	
CNC Horizontal Borer	Doosan	Machine Stroke W-Axis = 700mm X-Axis = 3000mm Y-Axis = 2000mm Z-Axis = 1600mm	Work Piece Size Table = 1600 x 1800mm	15 Tonne
CNC Horizontal Borer	Doosan	Machine Stroke W-Axis = 500mm X-Axis = 2000mm Y-Axis = 1500mm Z-Axis = 1200mm	Work Piece Size Table = 1600 x 1400mm	7 Tonne
CNC Vertical Machining Centre - Nexus 510C-II	Mazak	Machine Stroke X-Axis = 1050mm Y-Axis = 510mm Z-Axis = 510mm	Work Piece Size Table = 1050 x 510mm	1200kg
CNC Machining Centre - MV 653	Mori Seiki	Machine Stroke X-Axis = 1525mm Y-Axis = 660mm Z-Axis = 650mm	Work Piece Size Table = 1525 x 660mm	2500kg
Vertical Machining Centre (Portal Frame) – FJV100/120	Mazak	Machine Stroke X-Axis = 3200mm Y-Axis = 2450mm Z-Axis = 585mm	Work Piece Size Table = 3000 x 2500mm Height = 660mm	5000kg
CNC Mill - Variaxis i-700T	Mazak	Machine Stroke X-Axis = 630mm Y-Axis = 1100mm Z-Axis = 600mm	Work Piece Size Table = Ø850mm max Height = 500mm	700kg

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Machine Type	Manufacturer	Capacity	Work Piece Size	Max Weight
Horizontal Lathe	Poreba	<u>Machine Stroke</u> X-Axis = 2000mm Z-Axis = 5000mm	<u>Work Piece Size</u> Chuck = Ø2000mm	7 Tonne
Vertical Borer	Webster & Bennet 72EM	<u>Machine Stroke</u> X-Axis = 1850mm Z-Axis = 1200mm	<u>Work Piece Size</u> Chuck = Ø 1850mm	1.5 Tonne
Vertical Mill (2 off)	Ajax (AJT1) & Bute	<u>Machine Stroke</u> X-Axis = 730mm Y-Axis = 300mm Z-Axis = 400mm	<u>Work Piece Size</u> Table = 1270 x 250mm	
Universal milling machine - MF1-1400	Bohner & Kohle	<u>Machine Stroke</u> X-Axis = 1400mm Y-Axis = 800mm Z-Axis = 300mm	<u>Work Piece Size</u> Table 1300 x 800mm	
TOS milling machine	TOS	<u>Machine Stroke</u> X-Axis = 445mm Y-Axis = 290mm Z-Axis = 280mm	<u>Work Piece Size</u> Table 600 x 300mm	
Slotting machine	Ormerod	Stroke = 8in, Chuck Ø20in		
Surface Grinder	Jones & Shipman	10in x 40in Bed	External grinding only	
Automatic Bandsaw	Danobat	Ø273mm		
Bandsaw - C 420NC	DoAll	Ø420mm		
Dynamic Balancer – Model Fc 5E-2n	Trebel	Speed: 250 and 550 rpm	Max major diameter 1400mm Max length 3600mm Max shaft diameter 160mm	4.5 Tonne
1 off Overhead Crane	De-Mag	25 Tonne – Max Hook Height 8.3m		
2 off Overhead Cranes	Kone	10 Tonne – Max Hook Height 6m		
1 off Overhead Crane	Kone	5 Tonne – Max Hook Height 6m		
1 off Overhead Crane	De-Mag	10 Tonne – Max Hook Height 6m		

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INSPECTION EQUIPMENT		
Machine Type	Manufacturer	Capacity
Articulated Arm Co-Ordinated Measuring Tool	Faro	1 off 650mm Reach Mobile Arm FO4 1 off 1250mm Reach Mobile Arm PO8
Faro Design ScanArm 2.5	Faro	2.5m reach, 7-axis, 0.075mm accuracy. Data collected at up to 600,000 points per second
Faro Laser Scanner	Faro Focus ^S 70	Range Accuracy of up to ±1mm. Range from 0.6m up to 70m per scan. Collects up to 165megapixel colour images in addition to point cloud data.
Positive Material Identification (PMI) X-Ray Fluorescence Gun	Oxford Instruments X-MET8000	Positive Material Identification: Non-ferrous Metals only.
Mobile Optical Spectrometer / Spark OES	Hitachi PMI Master Pro	Positive Material Identification: Ferrous & Non-ferrous Metals.
3D Laser Measurement System	Leica Geosystems TS16	Leica TS16 Instrument with AutoMet 3D Laser Measurement system
Flir E5 Infrared, Thermal Imaging Camera	FLIR	±2°C , Temperature Range – 20° to 250°C , 120 x 90 pixel IR Resolution, IP54 Rated
Xiris XVC-1000 Welding Camera	XIRIS (Through TPS)	Up to 55 FPS , 1280x1024 Pixels , 140+dB high dynamic range, Suitable for Tig, Mig, Plasma and Laser welding
Radiation Contamination Monitoring Equipment	Tracerco T401	Measure alpha, beta and gamma radiation

MECHANICAL FITTING SHOP		
Machine Type	Manufacturer	Capacity
Horizontal Lathe - Mastiff VS1400	Colchester	Ø400mm; 1400mm Long
Shear/press	Pirhana	90Te Punch; 1" Flat Bar Shear
Gantry Honing Machine FU 30-380-2A	Nagal	Ø450mm; 3800mm Travel
Rigid 300C PD CMPI 115V Pipe Threader	Rigid	½" to 2"
Magnum 110V Pipe Threader	Rems	½" to 2"
Portable line boring machine	Meccanica	62mm to 600mm Boring Diameter
316H Vertical Bandsaw	Startrite	36" Throat; 14" Height
Upstroking Circular Saw	Kaltenbach	Ø5in
2 off Tapping machines	CMA	M3 – M20; M3 – M45

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MECHANICAL FITTING SHOP		
Machine Type	Manufacturer	Capacity
2 off Air Compressors – GA 30 FF and GA 37 VSD FF	Atlas Copco	2 x 11 CFM; 7.5 Bar
Air Compressor (Floor Mounted Silenced Rotary Screw) c/w Integrated Refrigerant Air Dryer & Line Filters, Model GA55 VSD FF	Atlas Copco	375.5 CFM; 12.75 Bar
Standby generator	Rolls Royce	400KVA
BS20 Hydraulic Hose Crimp Machine	Banner	Range 1/8 to 1-1/4; Thermoplastic & Rubber; Skive Disc Incorporated
HPU Mech 01 (15KW 440v)	Northfield hydraulics	Zone 1 single output 30 LPM@ 210 Bar
HPU Mech 02 (15KW 440v)	Sparrows	Zone 1 single output 30 LPM@ 210 Bar
HPU Mech03 (55Kw 440V)	Whittaker	Zone 1 HPU dual outputs 150 LPM@ 210 Bar
HPU Mech 04 (15KW 440v)	Whittaker	Zone 1 triple output 56 LPM@ 210 Bar
HPU Mech 05 (22kWW 440V)	Whittaker	Zone 1 triple output 56 LPM@ 210 Bar
Digital Pressure Test Equipment - SDAS4 Multi-Channel SDAS	Scotia	1 off 7 Barg Transmitter; 1 off 35 Barg Transmitter; 1 off 350 Barg Transmitter; 1 off 700 Barg Transmitter; 1 off 1000 Barg Transmitter; 1 off PT100 Temperature Probe; Full Screen Display With Print & Save Option
Pressure Test Equipment - Resato BMS Test Unit	Resato	1 off USB transducer 2,000 bar and 1 off USB transducer 400 bar
Test tank for submerged gas testing	Whittaker	2,35m W x 2.35m L x 2.69m Height
Eurobond Acoustically Insulated Blast Room (2 off)	Eurobond	4.5m x 3m x 2.5m Booth c/w Barn Style Doors 1 End ; Rubber Lining to Internal Walls & Doors
1 off Overhead Crane Mech shop (GC06)	Kone	10 Tonne – Max Hook Height 6m

RESEARCH AND DEVELOPMENT SHOP		
Machine Type	Manufacturer	Capacity
1 off Overhead Crane R&D Shed (GC07)	Kone	10 Tonne – Max Hook Height 6m
“Bertie” - KUKA KR16 2010 6 Axis Robot, with KP2_SV500 2 Axis Positioner	KUKA	Positional Repeatability ±0.04mm Robot Reach 2013mm, Robot max payload 19.2Kg Positioner max payload 5 tonnes, 1.4mø, KRc4 Controller
RepRep Industrial 3D Printer	Kühling and Kühling	Maximum Print Size: 200mm x 180mm x 270mm
Form2 SLA 3D Printer	Formlabs	Maximum Print Size: 145mm x 145mm x 175mm
Automatic tube bender	Schwartze Wirtz	6mm – 20mm

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YARD CAPACITY		
Machine Type	Manufacturer	Capacity
CCH700 70 ton hydraulic crawler crane	IHI	70 Tonne at 13 Metres Rad – 70ft Boom 25 Tonne at 32 Metres Rad – 70ft Boom
D185 Forklift	Daewoo	1.75 Tonne at Rated Load Centre
Haulette access platform - Cherry Picker	Haulette	2 Man + 70Kgs
Yard Forklift	Kalmar	16 Tonne Max Lift 5m
2014 Manitou MLT634-120LSU Powershift C/w Pallet Forks	Manitou	Max Lift Capacity – 3.4 Tonne, Max Lift Height – 6m, Max Load at Max Height – 3.4 Tonne Max Forward Reach – 3.25m, Max Load at Max Reach – 1.5 Tonne
FDX25 fork lift truck - S.No X2T1534B	Nexus	2.5 Tonne
Manitou MSI 50 T Forklift C/w Full Cab 4 Metre 2 Stage Mast	Manitou	5 Tonne
Fork lift truck FD8-430	Toyota	1.5 Tonne