

Capacity Sheet



**Dawson
Shanahan**
Precision Engineering & Cold Forming

Section	Machine	Quantity	Capacity / Detail
CNC Turning	Citizen ABX 64 THY2	2	Ø 64 max. 5000 RPM max spindle speed, 3 Turret, 36 max revolving tools @ 10000rpm Auto bar feed.
	Citizen Cincom L32-X	1	Ø 32mm max. 8,000 RPM max spindle speed.
	Citizen Cincom L20-V111 LFV	1	Ø 20mm max. 10,000 RPM max spindle speed. Up to 37 tool capability.
	Citizen GN-3200W	2	2 Spindles, Ø 40mm max. 8,000 RPM max spindle speed.
	Citizen Miyano	1	ABX51/64 - Fixed Headstock Type CNC Automatic Lathe.
	Doosan LYNX 2600SY	2	Ø 81 max. 3500 RPM max spindle speed, Single turret 12 tools @ 5000rpm Auto bar feed
	Dugard Eagle 200	2	10 station turret. 250mm max turning dia., 500mm max turning length. One with 1.9m bar feed with 50mm Ø max bar capacity, 4,500 RPM.
	Dugard Eagle 100	1	10 station turret, Ø 40mm max, with 1.5m bar feed 6,000 RPM.
	Emag VL3	3	Verticle turning centre with Ø 150mm chuck. 290mm max swing. 12 station turret, 6,000 RPM 34kW spindle.
	Emag VSC200	2	Vertical turning centre with Ø 200mm chuck. 290mm max swing. 12 station turret, 6,000 RPM 34kW spindle. Two operation machining cell.
	Hardinge Cobra 42	1	12 station turret. 210mm max turning dia., 350mm max turning length, 5,000 RPM.
	Hwacheon Hi Tec 200B	1	250mm chuck, 10 station tooling, 300mm max swing, rapid 30m/m, 3,500 RPM.
	KEMT GH20	3	Ø 26 max. Single spindle 6000 RPM max spindle speed, Gang tools.
	KEMT GH20 Twin	5	Ø 26 max. Twin spindle 6000 RPM max spindle speed, Gang tools.
	KEMT GH20 Auto	1	Ø 26 max. Single spindle 6000 RPM max spindle speed, Pallet auto feed pick and place.
	Kummer Robotic Cell	1	Consists of 1 K90, 1 K250, 1 ABB Robot & EWAB Loader System. Ø 60mm max, 6,000 max RPM.
	Kummer K90 Blitz Alpha	2	High precision 2 operation machining cell, auto loading. Stroke 210 x 100 6,000 RPM.
	Kummer K90	2	High precision auto loading chucking machines with 6,000 RPM spindles, linear scales & temperature control.
	Kummer K20 CNC	8	Twin spindle Swiss CNC chucking auto 5,000 RPM.
	Kummer K20 Manual	1	Twin spindle Swiss chucking cam auto 4,000 RPM.
	Kitako MT4 120	1	4 head (2 machining + 2 load/unload), 120mm max Ø, 4,000 RPM.
	Nakamura-Tome WT-100	2	Twin spindle chucker, twin turret Mill-Turn centre, 150mm chuck, 4 axis 6,000 RPM.
	Takamaz XD8	1	Twin spindle CNC lathe, auto loading. Stroke 380 x 200, 8,000 RPM. Max turning dia 50mm.
	Takamaz X10i	2	Single spindle CNC lathe, auto loading. Stroke 230 x 120 6,000 RPM. 8 station turret.
	Takamaz X100i	1	Single spindle CNC lathe, auto loading. Stroke 230 x 120 6,000 RPM. 8 station turret.
	Takamaz XW 180	1	Twin spindle CNC lathe, auto loading stroke 210 x 120 3,500 RPM. 8 station turret.
	Takahashi TNC - L1 Microstar	4	Single spindle CNC lathe, gang type tooling. Stroke 300 x 150 6,000 RPM.
	Takahashi Microstar NIXII	2	Single spindle CNC lathe, gang type tooling. Stroke 200 x 120 5,000 RPM.
	Traub 32-9P	1	Twin spindle, Swiss and non-Swiss turning CNC lathe. Capable of simultaneous machining up to 32mm bar, main spindle capable of 8,000 RPM and a dual tool drive system up to 1,200 RPM, software includes tool break, wear monitoring and 3D interpolation.
	Yang Eagle 12	1	CNC lathe with gang tooling flat bed, 36mm max bar Ø, rapid 30mtrs/min, 3,000 RPM.

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CNC Milling	Anger HCS	1	11 spindle 36,000 RPM max, 4 axis machining centre. X=280MM, Y=1,450mm, Z=100mm, A=±180°
	Brother TC -31A Tapping centre	2	Twin Pallet 3 Axis vertical machining centre, 20000 RPM, 26 tool carousel.
	Brother TC32BN	1	Twin pallet 5 axis vertical machining centre with 16,000 RPM spindle and 32 tool carousel. 60mtrs/min.
	Dugard Eagle 1000	2	4 axis vertical machining centre with 8,000 RPM spindle. X=1,020mm, Y=510mm, Z=510mm. Max rapid speed = 30mtrs/min, 20 tool magazine.
	Dugard Eagle 660	2	Vertical machining centre 16,000 RPM max spindle speed. 4 axis, X=600mm, Y=450mm, Z=450mm. 35mtrs/min rapids, 24 tool magazine.
	Feeler TU510	1	4 axis vertical machining centre 15,000 RPM 20 tools. 60mtrs/min, X=510mm, Y=400mm, Z=400mm, hydraulic fixture capability.
	Heller MCI 16	1	Twin pallet 400 x 500mm cube, RPM 16,000, 40 tool magazine, X=630mm, Y=630mm, Z=630mm, 360 degree rotary feed table 0.001° increments, Sinumeric 840D control. 60mtrs/min.
	Mazak FH-4800	1	Twin pallet 40 tools, 25,000 RPM, 3 axis + indexer, Z=560mm, Y=660mm, X=560mm., max rapid speed = 50mtrs/min.
	Rotaflex DV25/10	1	10 station with B Axis, 9 (3 axis) twin spindle CNC modules (HSK-C40) 20000 RPM 2 vertical, 7 horizontal, Staubli TX60 robot.
	Rotaflex DV25/15	2	15 station with B Axis, 14 (3 axis) twin spindle CNC modules (HSK-C32) 20000 RPM.
	Stemoflex 32/3	2	8 station machine with 2 x 3 axis CNC horizontal 3300 modules (HSK-C32) and one 3 axis 3300 horizontal + vertical CNC module.
	Technica 4198-313	1	Rotary transfer machine six stations + CNC modules.
	Triflex	2	Machining centre/rotary transfer M/c with working range X=300/1,260mm, Y=400mm, Z=220mm CNC controlled with 5 simultaneous machining turrets. 10,500 RPM on spindle tooling heads.
	XYZ 710 VMC	1	Vertical machining centre with 8,000 RPM, working range X=710mm, Y=450mm, Z=500mm. 24 tool stations and 4th axis. Software Siemens ShopMill.
	XYZ OP2	1	Portable VMC, 6,000 RPM 8 tool stations with a working range. X=355mm, Y=305mm, Z=455mm. Software ProtoTRAK control.

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Section	Machine	Quantity	Capacity / Detail
Pressing & Heading	Chun-Zu	1	3 blow parts header. Up to 14oppm and Ø 16mm max wire size.
	Feinstanz	1	227 tonne hydraulic press with bottom and top ejection with vibratory bowl feed.
	Feinstanz	2	145 tonne hydraulic press with bottom and top ejection.
	Greenwood & Batley	1	2 blow parts header. 220ppm max.
	Hare	1	63 tonne hydraulic press.
	Hare	1	12 tonne hydraulic press.
	Hare	2	10 tonne hydraulic press.
	Hare	5	5 tonne hydraulic press.
	Headland	1	68 tonne hydraulic press.
	HEC	1	500 tonne hydraulic press with vibratory bowl feed.
	Hi-Ton	1	4 tonne hydraulic press.
	Komatsu	1	600 tonne vertical mechanical press with vibratory bowl feed.
	Locatelli T.200 4C	1	181 tonne hydraulic CNC press with bottom ejector.
	Locatelli T75 4C	1	68 tonne hydraulic CNC press with bottom ejector.
	Mills	1	317 tonne hydraulic press with bottom ejection.
	Mills	2	227 tonne hydraulic press with bottom ejection.
	Mills	2	w136 tonne hydraulic press with bottom ejection.
	Mills	2	30 tonne hydraulic press with bottom ejection.
	Mills	1	15 tonne hydraulic press with bottom ejection.
	Nakashimada Header MST-508	1	Five die, five blow, 10mm dia cut off coil fed heading machine.
	Nakashimada Header PF-860	1	2 die, three blow, 8mm dia cut off coil fed heading machine.
	National Formax FX54M Header	1	4 die, cut off 18mm dia max, 108mm max die kickout.
	Nu-Tap	1	Up to 18oppm. Single blow header.
	Rhodes	2	72 tonne knuckle mechanical press with vibratory bowl feed.
	Rhodes	1	68 tonne inclined mechanical press with vibratory bowl feed.
	Rhodes	1	30 tonne vertical mechanical press with strip or coil feed.
	Rhodes	5	20 tonne inclined mechanical press with vibratory bowl feed.
	Rhodes	1	20 tonne vertical mechanical press with strip or coil feed.
	Schmidt Press	2	4.5kN Pneumatic press.
	Schmidt Press	1	200T Orbital Forming press.
Sima P4	2	Up to 300ppm. Single blow header.	
Ward HF	1	200 tonne hydraulic press	
Waterbury Farrell	1	KLP6 Knurl/thread forming machine.	
Waterbury Farrell	1	KLP8 Kurl/thread forming machine.	

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CAD/CAM	Alphacam	2	Alphacam advanced mill, turn and wire.
	AutoCAD LT	2	2D CAD drawing package.
	Deform	1	Finite Element Analysis software.
	Fusion 360	2	3D CNC Mill Turn software.
	Solidworks Professional	4	3D CAD solid modelling.
Section	Machine	Quantity	Capacity / Detail
Tool Room	Agie Spark Eroder KOPF-20	1	CNC spark eroder EDM.
	Brazing hearth	1	
	Bridgeport	2	Vertical milling machine.
	Churchill	1	Rotary tabel grinder.
	Colchester Student Lathe	1	Tool room lathe.
	Colchester Triumph 2500	1	Gap bed lathe with DRO. \varnothing 400mm swing above bed, \varnothing 600mm swing in gap, 1,350mm b/c.
	Delapena Speedhone	1	\varnothing 2" max.
	Fanuc Robocut a-oc	1	CNC wire erosion machine EDM. High speed non-electrolysis cutting in X, Y, U, and V axis. AI conversational programming with AI corner control function.
	Fanuc Tape Cut Mate	1	CNC wire eroder.
	Hardinge	1	Collet lathe. \varnothing 135 x 450mm b/c.
	Heat treatment oven	1	
	Holbrook H Lathe	1	Tool room lathe.
	Jones & Shipman 15-700	1	Format 15 700 CNC cylindrical grinder.
	Jones & Shipman 1314	1	Universal grinder.
	Jones & Shipman 1311	1	Cylindrical grinder.
	Jones & Shipman 1400X	1	Surface grinder.
	Jones & Shipman 540	1	Surface grinder.
	Meddings Pedestal Drill	1	Small vertical drilling machine.
	Ramsell Furnace	1	Small tool muffle furnace.
	Studer S36	1	CNC universal grinder.
Top-Mill	1	Vertical milling machine with DRO.	
XYZ SLX 425 x1.25 Lathe	1	Tool room CNC lathe.	
XYZ 1600 Lathe	1	Gap bed lathe with DRO. \varnothing 420mm swing above bed, \varnothing 560mm swing in gap, 1,150mm b/c.	
Tool & Cutter Grinding	Anca	1	CNC tool & cutter grinder.
	Oerlikon	2	Tool & cutter grinder \varnothing 12mm max.
	Christen	1	Drill grinder.
	Avyac	1	Drill grinder. 3 to 26mm dia.
	Mario Mason Mestre	1	Flute grinder.
	Agathon	1	Lathe tool grinder.
	Accu-Finish	3	Tool lapper.
	Hommel	1	Tool & cutter grinder.
	Wickman O.P.G.	1	Optical profile grinder.
	Agathon Cutter Grinder	1	Tool cutter grinder.
	Christen Cutter Grinder	1	Tool cutter grinder.

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Section	Machine	Quantity	Capacity / Detail
Inspection	Avery Rockwell Hardness Tester	2	Hardness tester.
	Baty R14XL Projector	1	Shadowgraph.
	Electronic flatness unit	1	Flatness measurement.
	Keyence	1	Image Dimension Measuring System (Automatic Projector) – IM6125.
	Misawa Seiki Seisakusho	1	Hardness tester.
	Mitutoyo	1	Portable surface tester.
	Mitutoyo AE112 CMM	1	Co-ordinate measuring machine with Mitutoyo Geopak software. X=400, Y=300, Z=300.
	Mitutoyo CMM	1	Manual co-ordinate measuring machine range 505 x 405 x 405mm.
	Mitutoyo Contracer CV-3100	2	Contour measuring machine.
	Mitutoyo Crysta-Apex S CNC CMM	1	Co-ordinate measuring machine with Mitutoyo Geopak software. X=500, Y=700, Z=400 CNC.
	Mitutoyo Laser Scan Micrometer	1	Laser micrometer.
	Mitutoyo LH-600 Height Gauge	1	Electronic digital height gauge & QM Data 100 unit.
	Mitutoyo Micro Hardness Tester	1	Hardness tester.
	Mitutoyo PJ-A3000 Profile Projector	1	Profile projector & QM Data 200 unit.
	Mitutoyo Profile Projector P5300	1	Profile projector.
	Mitutoyo QM-350 Height Gauge	1	Electronic digital height gauge.
	Mitutoyo Roundtest	1	Roundness tester.
	Mitutoyo Surftest SV-400	1	Surface roughness measuring machine.
	Mitutoyo Surftest SV-3100	1	Surface roughness measuring machine.
	Nikon Measurescope	1	Measuring microscope.
	Nikon Profile Projector V-16A	1	Profile projector.
	Pressure Tester	2	Pressure testing of castings.
	Sigmascope 937	1	Shadowgraph.
	Taylor Hobson Form Talysurf	1	Surface flatness and roughness measuring machine.
	Vickers Hardness Tester	1	Hardness tester.
	Gagetrak	1	Gauge calibration software, inclusive of Gauge R&R.
Measurelink	4	Real time SPC software.	
Checkmaster	1	Universal gauge.	
Miscellaneous	N/A	Various sets of: slip gauges, pin gauges, micrometers, digital callipers, thread gauges & gap gauges.	
Laboratory Equipment	Abrasive Cutting Machine	1	Abrasive disc cutting machine.
	Buehler Hand Grinder	1	Grinder for laboratory.
	Struers Presto Press	1	Laboratory preparation press.
	Metaserv Polisher	1	Laboratory polisher.

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Section	Machine	Quantity	Capacity / Detail
Miscellaneous	EZset 400	2	Tool pre-setter.
	Messma - Kelch	2	Tool pre-setter.
	Flo Cropper	1	Auto bar feed cropper 40 dia max bar capacity.
	Fastener Wire Drawer	2	Wire Drawing Machine.
	Wagner	1	Automatic circular cut-off saw. Ø 97mm max.
	Kaltenbach SKL400	1	Up-cut circular cut-off saw for non-ferrous materials.
	Karl Roll	1	Modified alcohol degreaser.
	Pero	1	Percoethylene degreaser.
	Multimatic Degreaser	1	Auto degreasing plant.
	Technowash	1	Washing plant.
	Rofin Basel	1	Laser marker.
	Seny thread roller	2	Ø 40mm x 3mm pitch max.
	Ingramatic GR2 Thread Roller	1	Auto rotary thread roller 3/8" max capacity with vibratory bowl feed.
	EWN Flat Die Thread Roller GW62	1	Auto flat die thread roller capacity M8 x 60 long, vibratory bowl feed.
	Reed A22 Thread Roller	1	Hand operated horizontal thread roller 82mm max dia x 76mm long thread.
	DS Cam Miller	1	Kummer K20 cam milling.
	Adcock & Shipley	1	Horizontal slotter.
	Hardinge DSM59R	2	Manual lathe with c/slide and turret.
	Various Drilling Machines	4	Manual pillar drilling machines.
	Norton	1	Hand fly press.
	Peter Wolters	1	Double sided lapper.
	Hahn & Zolb ZL800H	1	Double sided lapper.
	Flexibox Mark 4	1	Single sided lapper.
	Cetema	1	Vibratory, abrasive media deburring.
	Guyson	2	Manual bead blast cabinets.
	Guyson	1	Automatic bead blast cabinets.
	Barrel Machines	3	Cruickshank type barrels.
	Carbolite Electric Furnace	1	Electric muffle furnace.
	8" BTU Furnace	1	8" wide continuous belt hydrogen furnace.
	6" BTU Furnace	2	6" wide continuous belt hydrogen furnace with vibratory bowl feed.
	Swarf Baler	1	Swarf baling machine.
	Centrifuge	1	Swarf oil residue spinning machine.