



BEL Engineering Plant List

June 2016



Horizontal Boring Mill

Skoda HCW2 Floor Boring Mill



Quantity	1
Envelope	X10000 x Y4000 x Z3000
Table 1	3000 x 3000 – 40,000 kg
Table 2	2500 x 2000 – 20,000 kg
Tool holder	ISO 60
Facing heads	IWD 700 and CH16
<ul style="list-style-type: none"> • Fully Programmable 'B' Axis on each table (0.001°) • 1300mm Ram Travel (450mm Square) • 1200mm Quill Travel (Ø200mm) • Skoda IWD700 turning attachment • Skoda IFVW101 Right Angled milling head (2.5° Increment with ISO 60 spindle) • 80 Tool Magazine • Renishaw Probing • Prepared for ITS Out Feed Bars • Tables can be synchronised & used as one fixed table 	

Giddings and Lewis RT1600



Quantity	1
Envelope	X2500 x Y1965 x Z2500
Table	2000 x 1600 – 25,000 kg
Tool holder	ISO50 taper
Facing heads	CH8 – CH16
<ul style="list-style-type: none"> • Fully Programmable 'B' Axis (0.001°) • 1250mm Quill Travel (Ø155mm) • Giddings and Lewis 51.5" and 39.5" Right Angled milling heads (Manual Increment with ISO 50 QC spindle) • Giddings and Lewis spindle support • 60 Tool Magazine • Renishaw Probing • ITS Out Feed Bars (S12, S20, S40, S70) 	

Giddings and Lewis RT1250



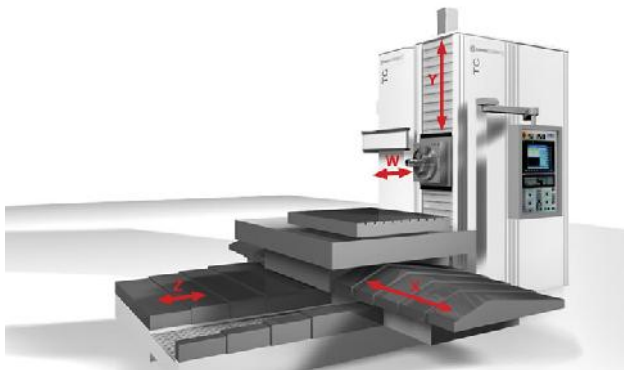
Quantity	3
Envelope	X2500 x Y2000 x Z1500
Table	2000 x 1600 – 15,000 kg
Tool holder	ISO50 taper
Facing heads	CH8 – CH16
<ul style="list-style-type: none"> • Fully Programmable 'B' Axis (0.001°) • 1250mm Quill Travel (Ø155mm) • 60 Tool Magazine • Renishaw Probing • ITS Out Feed Bars (S12, S20, S40) 	

Giddings and Lewis G50



Quantity	1
Envelope	X2440 x Y1695 x Z1500
Table 1	2500 x 1525 – Plain Table – 15,000kg
Table 2	1220 x 915 – Manual Rotary Table – 5,000kg
Tool holder	ISO50
Facing heads	CH8 - CH16
<ul style="list-style-type: none"> • Fully Programmable 'A' axis (0.001°) Ø550mm rotary attachment with tailstock • 1000mm Quill Travel (Ø125mm) • Renishaw Probing 	

Union TC130



Quantity	1
Envelope	X2000 x Y2000 x Z1500
Table	1600 x 1250 – 10,000kg
Tool holder	ISO50
Facing head	CH16
<ul style="list-style-type: none"> • Fully Programmable 'B' Axis (0.001°) • 750mm Quill Travel (Ø130mm) • Centreline Right Angled milling heads (Manual Increment with ER16-ER40 spindles) • Renishaw Probing 	

Horizontal Machining Centre

Mazak FH10800



Quantity	1
Envelope	X1700 x Y1500 x Z1400
Table	1000 x 1000 (Twin Pallet) – 3,000kg
Tool holder	ISO50
D'Andrea head	TA-C200 x 2
<ul style="list-style-type: none">• Fully Programmable 'B' Axis (0.001°)• 120 Tool Magazine• Renishaw Probing	

Mazak FH6800



Quantity	1
Envelope	X1050 x Y900 x Z880
Table	630 x 630 (Twin Pallet) – 1,500kg
Tool holder	ISO50
D’Andrea head	UH-180 x 2
<ul style="list-style-type: none"> • Programmable ‘B’ axis (1° Increment) • 40 Tool Magazine • Renishaw Probing 	

Okuma MB8000H



Quantity	1
Envelope	X1300 x Y1100 x Z1200
Table	800 x 800 (Twin Pallet) – 2,000kg
Tool holder	ISO50
<ul style="list-style-type: none"> • Fully Programmable 'B' Axis (0.001°) • Fully Programmable 'A' axis (0.001°) Ø450mm rotary attachment • 81 Tool Magazine • Renishaw Probing 	

Okuma MA600-H



Quantity	1
Envelope	X1000 x Y900 x Z100
Table	630 x 630 (Twin Pallet) – 1,200kg
Tool holder	ISO50
<ul style="list-style-type: none"> • Programmable 'B' axis (1°) • 171 Tool Magazine • Renishaw Probing • Okuma turn cut capability (orbital turning) 	

Vertical Machining Centre

Mazak Vortex



Quantity	1
Envelope	X2000 x Y1400 x Z610
Table	2240 x 1250 – 4,000kg
Tool holder	ISO50
<ul style="list-style-type: none"> • ‘A’ and ‘B’ five axis simultaneous capability within 30° cone • 30 Tool Magazine 	

Mori Seiki NVX7000



Quantity	1
Envelope	X1540 x Y750 x Z660
Table	1700 x 760 – 2,000kg
Tool holder	ISO50
<ul style="list-style-type: none"> • 30 Tool Magazine • Renishaw Probing 	

Mori Seiki NV5000



Quantity	1
Envelope	X800 x Y510 x Z590
Table	1200 x 600 – 1,000kg
Tool holder	ISO50
<ul style="list-style-type: none"> • 30 Tool Magazine • Renishaw Probing 	

Mori Seiki NVX5100



Quantity	1
Envelope	X1050 x Y531 x Z605
Table	1000 x 600 – 1,200kg
Tool holder	ISO40
<ul style="list-style-type: none"> • Nikken twin indexer Ø100 chucks with tailstocks • 30 Tool Magazine • Renishaw Probing 	

Mazak VTC200



Quantity	1
Envelope	X1660 x Y510 x Z690
Table	2000 x 510 – 1,000kg
Tool holder	ISO40
<ul style="list-style-type: none"> • 30 Tool Magazine • Optional table centre partition to create two working areas 	

Hurco VM20



Quantity	1
Envelope	X1000 x Y510 x Z510
Table	1000 x 510 - 900kg
Tool holder	ISO40
<ul style="list-style-type: none"> • Fully Programmable 'A' axis (0.001°) Ø200mm rotary attachment with tailstock • 20 Tool Magazine 	

Vertical Turning Centre

Toshulin Forceturn 3000



Quantity	1
Envelope	Ø 3600 x 3500
Chuck	Ø 3000 4 jaw chuck – 30,000kg
RAM travel	2500
Tooling type	Capto C10
<ul style="list-style-type: none"> • Programmable Crossrail position • 40 Tool Magazine • Renishaw Probing 	

Giddings and Lewis VTC2000



Quantity	1
Envelope	Ø 2400 x 2500
Chuck	Ø 2000 4 jaw chuck – 30,000kg
RAM travel	1750
Tooling type	KM80
<ul style="list-style-type: none"> • Programmable Crossrail position • 25 Tool Magazine • Renishaw Probing 	

Giddings and Lewis VTC1000



Quantity	1
Envelope	Ø 1320 x 1220
Chuck	Ø 1000 4 jaw chuck – 7,500kg
RAM travel	1000
Tooling type	KM80
<ul style="list-style-type: none"> • 25 Tool Magazine • Renishaw Probing 	

Procast VTC1250



Quantity	1
Envelope	Ø 1950 x 1450
Chuck	Ø 1450 4 jaw chuck
RAM travel	1000
Tooling type	Capto C8
<ul style="list-style-type: none"> • Programmable Crossrail position • 12 Tool Magazine 	

Okuma 2SPV80



Quantity	1
Envelope	Ø 1080 x 860 (With 4 Jaw mounted)
	Ø 1080 x 838 (With 3 jaw mounted)
Chuck	Ø 800 4 jaw chuck – 800kg
	Ø 812 3 jaw chuck – 800kg
<ul style="list-style-type: none"> • Twin Chuck • Twin Turret – 12 Stations Each • Independently Operated 	

Vertical Multi-Tasking

Toshulin Powerturn 1600APC



Quantity	1
Envelope	Ø 2000 x 1645
Chuck	Ø 1600 4 jaw chuck (Twin Pallet) – 6,000kg
RAM travel	1800
D'Andrea Head	UC-360 x 2
Tooling type	Capto C8 / C6

- Radial mount driven spindle attachment
- Radial mount driven spindle 'Y' axis attachment +/- 200mm
- Radial mount D'Andrea U-tronic 360 contouring head
- Axial mount driven spindle attachment
- Programmable Crossrail Position
- 95 Tool Magazine
- Renishaw Probing

CNC Lathe

Mazak ST60



Quantity	1
Envelope	Ø 560 x 2000
Chuck	Ø 610 4 jaw chuck
	Ø 560 x 400 chucking
	Ø 560 x 2000 with tailstock
Max swing	Ø 915
Tooling type	Capto C8
<ul style="list-style-type: none"> • Programmable steady attachment Ø85 to Ø350 • Programmable tailstock • 20 tool turret 	

Mazak ST50



Quantity	1
Envelope	Ø 585 x 955
Chuck	Ø 610 4 jaw chuck
	Ø 585 x 450
Max swing	Ø 760
Tooling type	Capto C8
<ul style="list-style-type: none"> • 20 tool turret 	

Mori Seiki NZX4000



Quantity	1
Envelope	Ø 660 x 2140
Chuck	Ø 450 4 jaw chuck
Max swing	Ø 660
Tooling type	Capto C6
<ul style="list-style-type: none"> • Max length of 300mm above Ø245mm • Max length of 2140mm below Ø245mm • Lower turret with balanced turning capability • Programmable tailstock • Programmable steady attachment Ø 30 to Ø 245 • 12 Tool Upper Turret • 8 Tool Lower Turret 	

Mori Seiki SL603



Quantity	1
Envelope	Ø 660 x 3150
Chuck	Ø 610 4 jaw chuck
Max swing	Ø 965
Tooling type	Capto C8
<ul style="list-style-type: none"> • Programmable steady attachment Ø 76 to Ø 457 • Programmable tailstock • 10 tool turret 	

Haco CNC Centre Lathe



Quantity	1
Envelope	Ø 355 x 840
Chuck	Ø 305 4 jaw chuck
Max swing	Ø 660
Tooling type	VDI
<ul style="list-style-type: none"> • Manual tailstock • 8 tool turret + manual front tool post 	

Mori Seiki NL3000



Quantity	1
Envelope	Ø 290 x 1250
Chuck	Ø 381 3 jaw chuck
Max swing	Ø 600
Tooling type	Capto C6
<ul style="list-style-type: none"> • Steady attachment Ø 20 to Ø 170 • Programmable tailstock • 12 tool turret 	

Mori Seiki NL2500



Quantity	2
Envelope	Ø 200 x 800
Chuck	Ø 250 3 jaw chuck
Max swing	Ø 500
Tooling type	Capto C4
<ul style="list-style-type: none"> • 12 tool turret • Programmable tailstock 	

Mori Seiki NL3000Y



Quantity	1
Envelope	Ø 250 x 800
Chuck	Ø 305 3 jaw chuck
Max swing	Ø 600
Tooling type	Capto C6
<ul style="list-style-type: none"> • Driven tooling with C & Y axis • Programmable tailstock • 12 tool turret 	

Mori Seiki NL2500Y



Quantity	1
Envelope	Ø 200 x 800
Chuck	Ø 250 3 jaw chuck
Max swing	Ø 500
Tooling type	Capto C4
<ul style="list-style-type: none"> • Driven tooling with C & Y axis • Programmable tailstock • 12 tool turret 	

Mori Seiki SL2500



Quantity	2
Envelope	Ø 200 x 700
Chuck	Ø 250 3 jaw chuck
Max swing	Ø 500
Tooling type	Capto C4
<ul style="list-style-type: none"> • Driven tooling with C & Y axis • Programmable steady attachment Ø 10 to Ø 105 • Programmable tailstock • Benz Lina Broaching Attachment • 12 tool turret 	

CMZ TC35



Quantity	1
Envelope	Ø 550 x 1350
Chuck	Ø 390 3 jaw chuck
Max swing	Ø 745
Tooling type	Standard Block Tooling
<ul style="list-style-type: none"> • 12 tool turret • Manual Hydraulic tailstock 	

Mill Turn

Mazak Integrex E650



Quantity	1
Envelope	Ø 790 x 2000
	Ø 710 x 2000
Chuck	Ø 800 4 jaw chuck
	Ø 610 3 jaw chuck
Max swing	Ø 860
Tooling type	Capto C8
<ul style="list-style-type: none"> • Five axis capability with 650mm Y axis travel • Programmable Tailstock • 80 Tool Magazine 	

Mazak Integrex 400IIIST (twin spindle)



Quantity	1
Envelope	Ø 315 x 1600
Chuck	Ø 315 3 jaw main chuck
	Ø 350 3 jaw sub chuck
Max swing	Ø 685
<ul style="list-style-type: none"> • Five axis capability with 230mm Y axis travel • Lower turret with balanced turning capability • 40 Tool Magazine for upper turret • 9 Tool lower turret 	

Mazak Integrex 200IIIST (twin spindle)



Quantity	3
Envelope	Ø 240 x 1100
Chuck	Ø 230 3 jaw main chuck
	Ø 3 jaw sub chuck
Max swing	Ø 420
<ul style="list-style-type: none"> • Five axis capability with Y axis travel • Lower turret with balanced turning capability on one machine • 40 Tool Magazine for upper turret • 9 Tool lower turret 	

Grinding Machines

Stöckel FD 30/15 NC-T Surface Grinder



Quantity	1
Envelope	X3250 x Y1500 x Z700
Table	3000 x 1500
Max load	7000kg
<ul style="list-style-type: none"> Accuracy to 0.001mm high stability granite table 	

Stöckel FD 1060 NC-T Surface Grinder



Quantity	1
Envelope	X1200 x Y600 x Z500
Table	1000 x 600
Max load	750kg
<ul style="list-style-type: none"> Accuracy to 0.001mm high stability granite table 	

Schautd PF81 Cylindrical Grinder



Quantity	1
Envelope	Ø 1000 x 3000
<ul style="list-style-type: none"> • Diatronic in cycle measurement • Twin Wheel Head • Capable of contouring • Small slotting attachment for splines etc. 	

Studer S33 Cylindrical Grinder



Quantity	1
Envelope	Ø 330 x 1000
<ul style="list-style-type: none"> • Thread grinding capability • Part probing for set up 	

Studer Favorit Cylindrical Grinder



Quantity	1
Envelope	Ø 381 x 700
Swivel range	-15° to 195° (2.5° Increments)
<ul style="list-style-type: none"> • Part probing for set up 	

Taiyo Koki Vertical Grinder



Quantity	1
Envelope	Ø 850 x 600
Faceplate	Ø 750
Max load	700kg
Internal	Ø 50 – 800 x 485
External	Ø 800 x 500
<ul style="list-style-type: none"> • 12 Tool Magazine • Internal and External Grinding 	

Safop Ballmatic 24 Spherical Ball Grinder



Quantity	1
Envelope	Ø 150-914 x 1800
Max load	6000kg
<ul style="list-style-type: none"> • Automatic Cup Change • Renishaw Probing 	

Sunnen SV210 Vertical Bore Hone



Quantity	1
Envelope	X1400 x Y700 x Z500
Limits	X730 x Y730 x Z508
Bore	Ø 19 - Ø 200
Max load	680kg

EDM

Mitsubishi FA20V EDM Wire Erosion



Quantity	2
Envelope	X1050 x Y800 x Z295
Limits	X500 x Y350 x Z300
Table	780 x 630
<ul style="list-style-type: none"> Independently controlled upper and lower heads for tapered profiles 	

Mitsubishi EA12 EDM



Quantity	1
Envelope	X1000 x Y650 x Z350
Limits	X400 x Y300 x Z300
Max load	1000kg
<ul style="list-style-type: none"> 3 tool magazine rack 	

Lapping Machines

Cleveland

Quantity	1
Table	Ø 2000
	Ø 790 bore conditioning rings
<ul style="list-style-type: none"> • Automatic dispensing of lapping fluid 	

Kemet 56



Quantity	1
Table	Ø 1420
	Ø 585 bore conditioning rings
<ul style="list-style-type: none"> • Automatic dispensing of lapping fluid 	

Kemet 24



Quantity	1
Table	Ø 310
	Ø 240 bore conditioning rings
<ul style="list-style-type: none"> • Automatic dispensing of lapping fluid 	

Co-ordinate Measurement Machine

Nikon LK V 20.15.15



Quantity	1
Envelope	X2030 x Y1524 x Z1524
Table	1740 x 2250 – 5,000kg
<ul style="list-style-type: none"> • Able to scan profiles • 18 stylus magazine • Pneumatic anti-vibration mounts 	