

<u>GENERAL SPECIFICATIONS</u>	<u>METRIC</u>	<u>ENGLISH</u>
X, Y Axis Travel.....	450 mm x 300 mm	17.7" x 11.8"
Z Axis Travel	320mm.....	12.6"
Rapid Traverse	5,000 mm/min.....	196"/min
Maximum Workpiece Weight	800 kg	1,764 lbs.
Worktable Size	600 mm x 450 mm	23.6" x 17.7"
Table Surface height	890 mm	35.04"
Table T-Slot (W xQ'ty)	10 mm x 4	.4" x 4
Worktank Inside Dimensions (LxDxH)	800 mm x 550 mm x 350 mm.....	31.5" x 21.6" x 13.8"
Maximum Fluid Level	300 mm	11.8"
Maximum Electrode Weight.....	50 kg*	110 lbs*
Through Spindle Flushing	Manual or by M-Code	
Linear Positioning Accuracy - (with proper foundation and environmental control):		
X, Y and Z-Axes	± 0.002 mm	± 0.000079"
Repeatability:		
X, Y and Z-Axes	± 0.001 mm	± 0.000039"

BUILT-IN MR "C" AXIS WORK-HEAD (FACTORY INSTALLED OPTION)

	<u>MR Head</u>
Positioning Accuracy	±15 Arc Sec
Max. Current While in a fixed Position	60 Amps
Max. Current (Positioning/Rotation)	60 Amps
Max Weight of Electrode during Rotation	
Symmetrical Load and Centered	5 kg / 11 lbs
Rotation (Number of Speeds / Speed Range)	10 / 0 - 10 rpm
Max Electrode Weight	20 kg / 44 lbs
Minimum Command Value	MR Heads ±0.001°
Positioning (Divisions)	360,000
Through Spindle Flushing	Standard
Tooling Chucks	Erowa (ITS or Compact-Combi), 3R (Macro or Macro-Combi), Hirschmann (System 5000)
Holder Repeatability	±0.002 mm
Clamping Method	Manual or Automatic via Air Pressure
Cooling Method	Temp. Controlled Oil

*Note: Machining with heavy electrodes requires use of the optional C-Axis Cover.

AUTOMATIC TOOL CHANGERS

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Number of Tools..... 8

Maximum electrode size (incl. holder)

8-electrode ATC

8-electrode 80mm Ø

3.15" Ø

4-electrode 200mm× 80mm

7.87" x 3.15"

Max Length of Electrode/Holder

EROWA ITS.....250 mm 9.8"

System 3R Macro230 mm 9.1"

Hirschmann System 5000.....230 mm 9.1"

Max Weight of Electrode/Holder by ATC.....5 kg 11 lbs

Max Weight of Electrode/Holder by Hand 10 kg 22 lbs

Tool SelectRandom or Sequential

Tool Change Time60 Sec (Average)

Tool Magazine DriveElectric Drive Motor

POWER SUPPLY SPECIFICATIONS

Maximum Average Current..... 60 Amps (80 Peak Current Amps)

Best Surface Finish0.3 µmRa (appx 12 µinch)

(Copper to Steel)

Dual Voltage OutputYes, Independent

Minimum Electrode Wear Wave Ramping 0.01%

PolaritySwitchable by Program or Manual Operation

MACHINE CONTROL SPECIFICATIONS

Control Version.....	Makino MGH6
Display System.....	15 inch TFT Color LCD Touch Screen
Control Interface	Conversational GUI
Machine Times.....	Automatic Reporting
Multi-Function LED Display Handbox.....	Standard (FPB2 Handbox)
Control Input Method	FPB2 Handbox, Keyboard, Touch Screen
Control Interface	Conversational GUI
On-Board Electronic Manuals (s-Manuals)	Standard
On-Board Training System (e-Learning)	Standard
Control Software System	Windows CE
Main Processor.....	Intel Celeron, Operating Speed 1.2 GHz (or faster)
Program Storage Capacity	472 k bytes (472,000 characters)
	3,940 ft / 1,200 meters
Average Length of Program.....	< 100 characters
Average Number of Programs in Memory	More than 4,700 programs
Program Language	Standard G & M code NC Data
Program Data Input/Output	Network or USB Flash Drive
Network Connection	Standard (Ethernet 10/100BASE-TX)
Electronics Cabinet Filtration.....	None Required (Sealed Cabinet)
Electronics Cabinet Cooling.....	Forced Air Cooling / Heat Exchanger
Number of Axis.....	4 (X, Y, Z, C)
Optional Programming Method.....	Off-line using EDCam CAD/CAM System
Program/Movement Resolution.....	5 Place Inch / 4 Place Metric Decimal

DIELECTRIC SUPPLY

METRIC

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Work Tank.....	Programmable Rise & Fall Work Tank	
Dielectric Refrigeration (Standard)	5~40°C	41 - 104°F
Tank Capacity	140 L	37 Gallons
Total Capacity	380 L	101 Gallons
Number of Pumps		2
Filter Quantity		2
Micron Size of Filter		8 Micron
Fire Extinguisher		Automatic
Flushing -Pressure / Vacuum (2 Ports).....	0~0.1MPa / 0~300mm Hg	0-15 psi / 0~24” Hg

INSTALLATION INFORMATION

METRIC

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Machine Size (WxDxH)1,950 mm x 2,100 mm x 2,330 mm76.8" x 82.7" x 91.7"
 Power SupplyIncluded
 Dielectric Supply.....Included
 Machine Tool Weight 5,000 kg..... 11,024 lbs

Transportation The EDGE3 is Shipped FOB Port of Entry in One Container.
 Air Ride Transportation is recommended.

Electrical 3 Phase Power is required with a ground of 100 ohms or less. Voltage of 200 to 480 at (-0 to +10%) must be maintained. If not, an Automatic Voltage Regulator should be used.

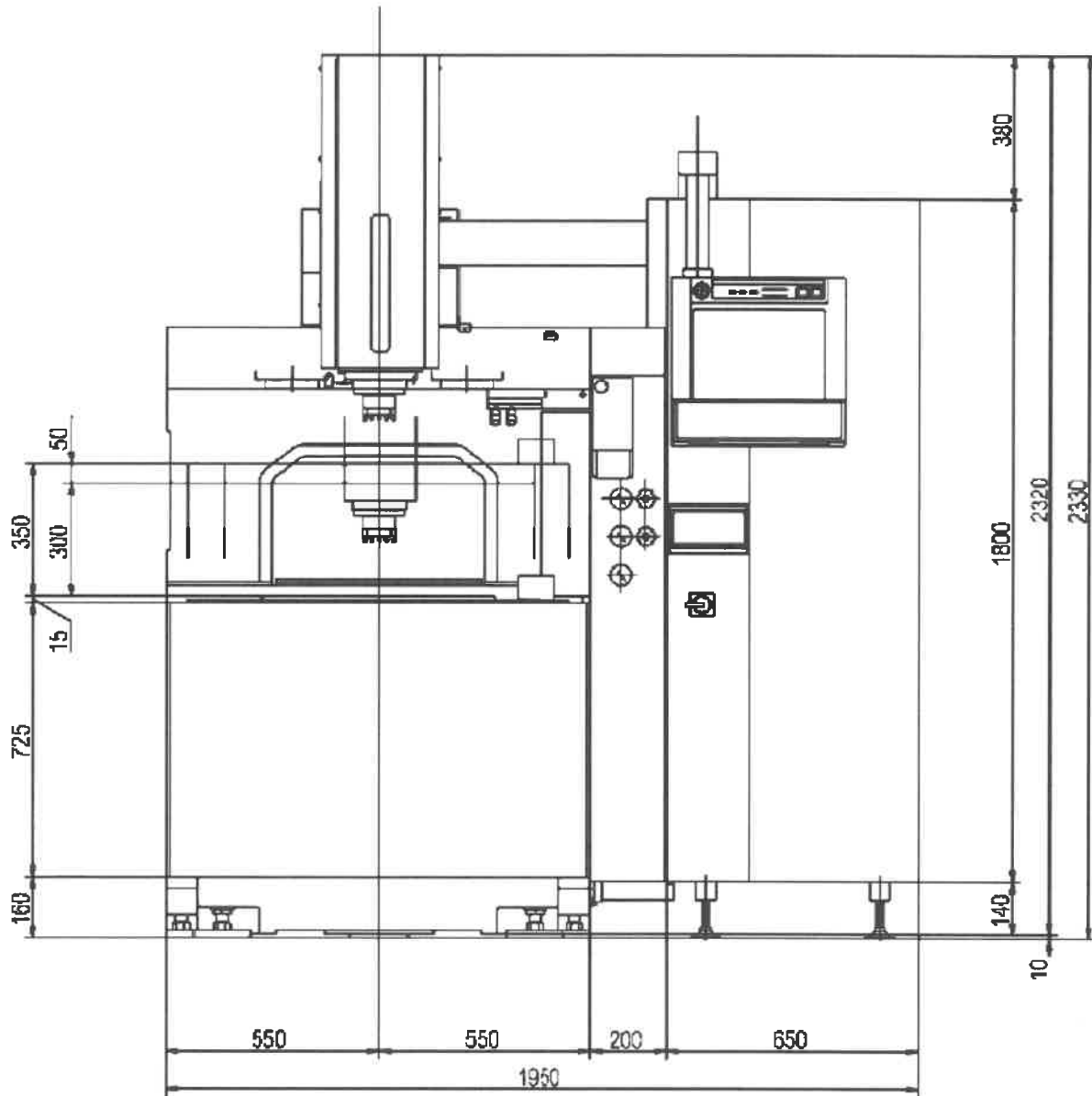
Machine Amperage – 60A kVA – 12.5 (Machine, ATC 8, MR C-Axis)

EDGE3 Power Requirements		
Breaker	Specification	kVA
50A	Standard Machine (80A peak)	12
	INC ATC 8	+0.3
	MR Head	+0.2

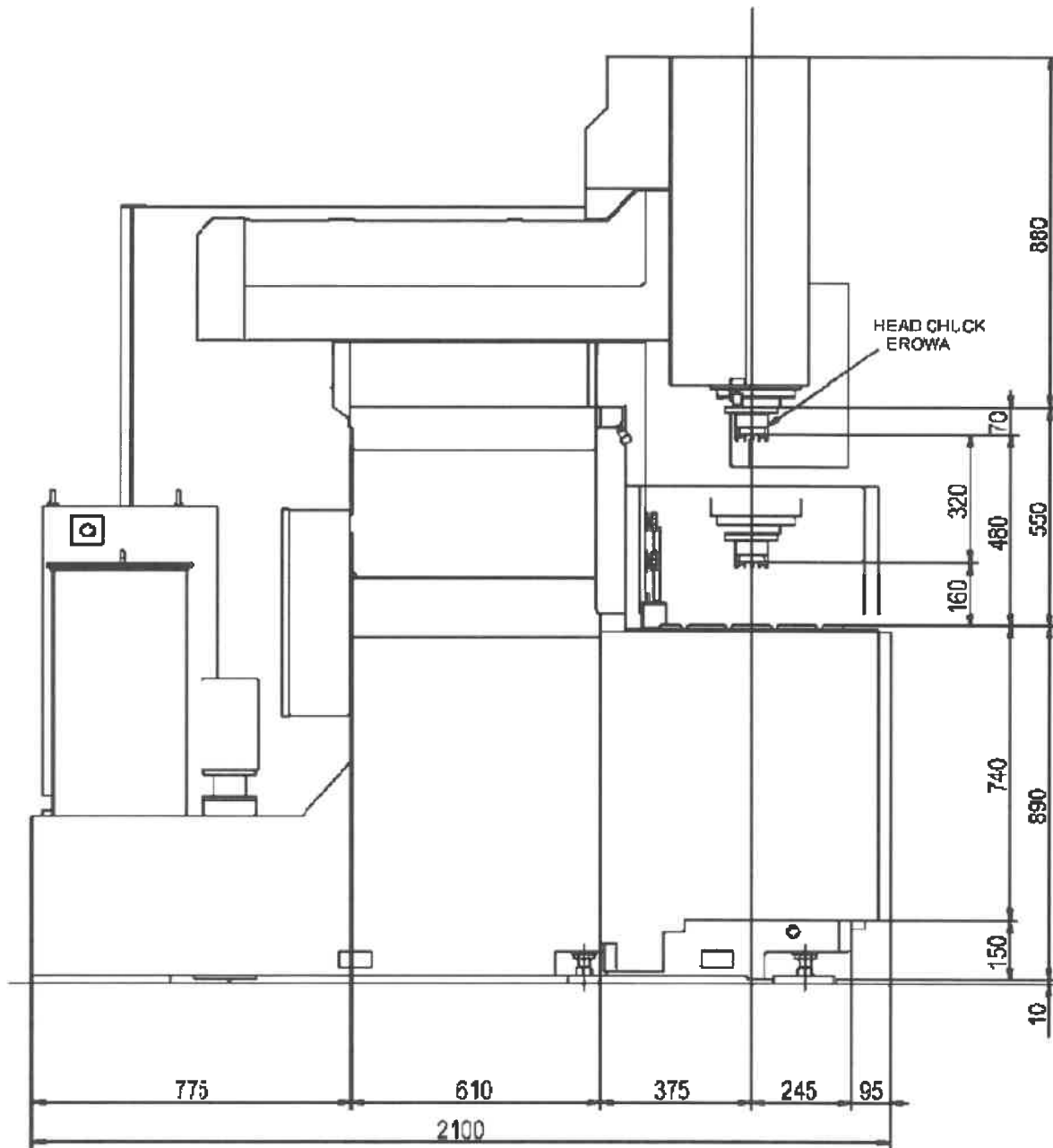
Dielectric Oil 101 gallons of EDM Dielectric Fluid similar to Commonwealth 244, Commonwealth Supreme, or Hirschmann Iono Plus is required for installation.

Air Clean, Dry Compressed Air of 70 psi. must be available.

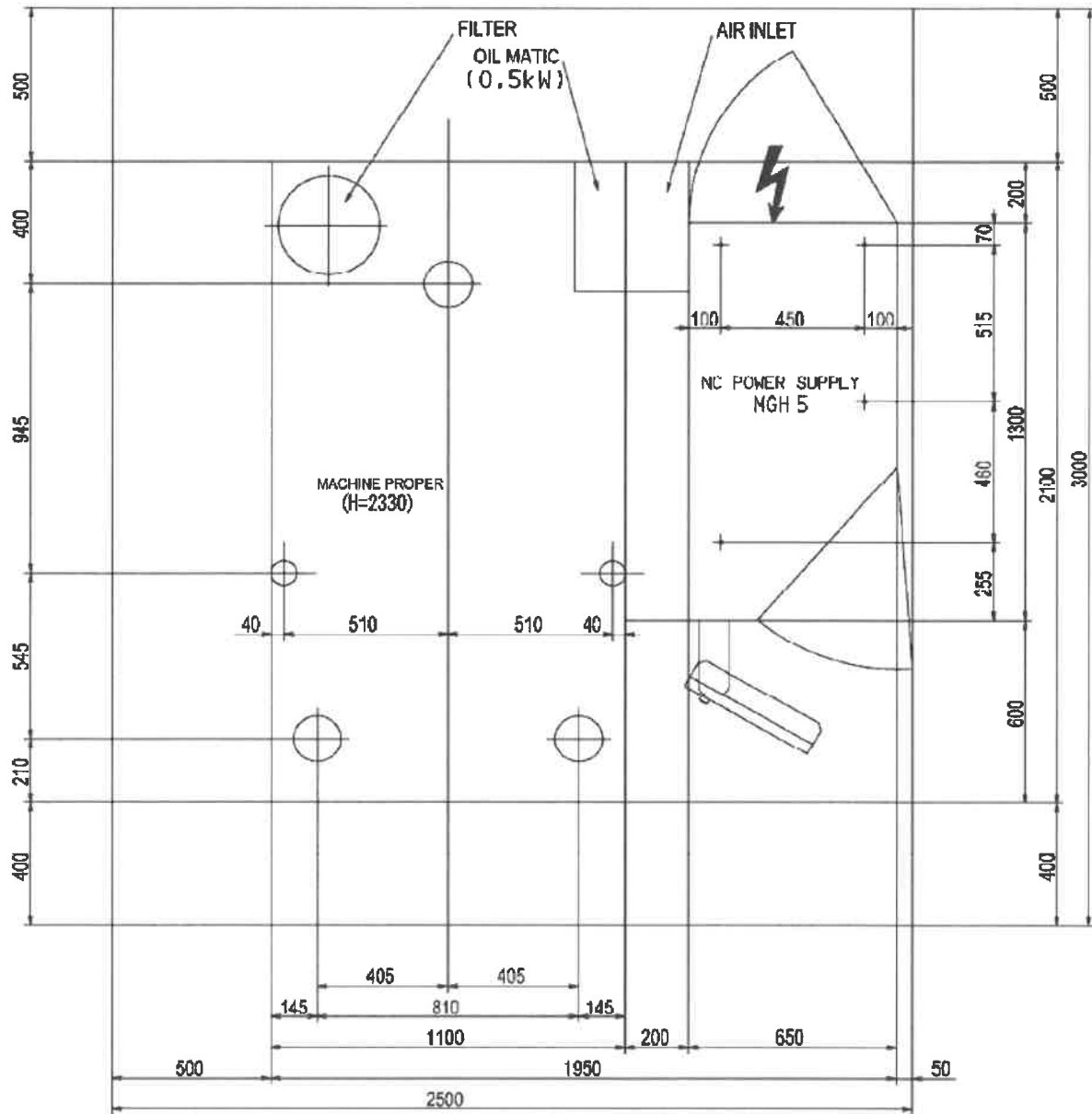
GENERAL MACHINE LAYOUT: Front View



GENERAL MACHINE LAYOUT: Side View



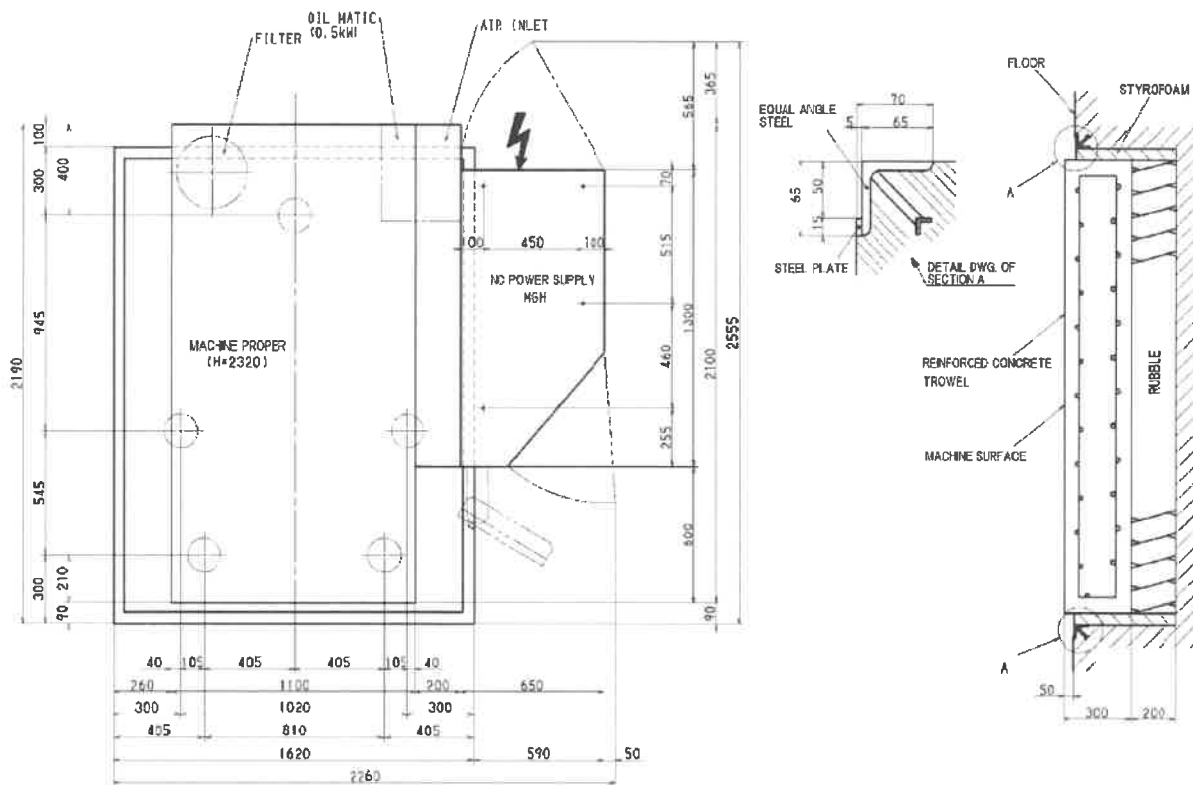
GENERAL MACHINE LAYOUT: Top View



FOUNDATION RECOMMENDATIONS:

Pad Size:

- Metric: 1,620mm x 2,090mm x 300mm
- Inch: 63.8" x 82.3" x 11.8"
- Has 50mm (1.97") gap all around pad filled with Styrofoam for isolation



Note: Specifications may change without prior notice to incorporate improvements resulting from ongoing R&D programs. Cover machine photo may be equipped with optional features.