OMAX/MAXIEM/GLOBALMAX/OPTIMAX Utility Requirements

OMAX Corporation Document #401674

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Facility Requirements

Environment

Requirement	Limits
Temperature	50-90 °F (10-32 °C) ambient temperature with 95% or less humidity
Humidity	≤ 95%
Floor	In good condition
• *Flatness*	Floor below machine needs to be flat within one (1) inch over the span of the catcher tank
• *Slab*	Four (4) inch (10.2 cm) minimum slab thickness, 3000 PSI (20.7 MPa) steel reinforced concrete

Air Supply

Requirement	Limits
Pressure	Table requires 75 psi (517 kPa) minimum for operation and as much as 120 psi (827 kPa) depending on accessories; 125-145 psi (871-1000 kPa) is *recommended* pressure available from customer's compressor.
Flow	≥ 2.0 scfm (28 L/m)
• *Rapid Control*	≥ 16.0 scfm (224 L/m) for Rapid Water Level Control
Volume	As necessary
Quality	Clean, Dry, Oil Free

Water

Water Supply

Requirement	Limits
Temperature	45-70° F (7-21° C)
Pressure	≥ 20 psi (138 kPa)
• *w/ NF*	≥ 50 psi (345 kPa)
Flow	≥ 3.2 gpm (12.1 L/m)
• *w/ NF*	≥ 5.0 gpm (20 L/m)

NOTE: For larger systems 100Hp+ (75KW+) Please contact OMAX to quantify flow requirements.

Water Quality

Quality Indicator	Desired Level(s)
Total Dissolved Solids (TDS)	25 ppm to 250 ppm
Calcium	< 17 ppm
Magnesium	< 6 ppm
Iron	< .3 ppm
Manganese	< .05 ppm
Chlorine	< 100 ppm
Sulfate	< 200 ppm
Silicon (Silica)	< 10 ppm
pH	6.5 to 8.5
Total Suspended Solids (TSS)	< 1.0 ppm
Turbidity	< 0.05 NTU

NOTE: OMAX will test the water quality and recommend any Water Treatment Options if the water quality is not within desired levels.

Drain Flow

Requirement	Limits
Flow	≥ 5 gpm (19 L/m)

NOTE: No Drain is required with Water Recycling System

Electrical Requirements

Three Phase Power (480VAC – 380VAC, 50/60Hz)

All system components requiring three (3) phase electrical are shipped from OMAX with no means to connect them to the customer's electrical source.

Customer is responsible to supply and install all electrical wiring, disconnect, etc. to include the final connection at the component per local requirements.

All three (3) phase electrical requirements need to be roughed in within 20ft (6m) of the component and will need to be completed prior to OMAX technician(s) arrival for installation.

If facility power supply is not as recommended (e.g. 230V, 208V), OMAX can recommend a step-up transformer. However, OMAX technicians are not permitted to work on three (3) phase electricity.

Pumps

All OMAX/MAXIEM pumps require 480V-380V three (3) phase power.

MAXIEM	**Full Load Amps (FLA)**		**Overcurrent Protection (Amps)**
Pump	**480VAC (60Hz)**	**380VAC (50Hz)**	**480VAC (60Hz)**
GM1030	14	18	25
M20/GM20	27	31	40
M30/GM30	38	42	60
M40	49	57	80

EnduroMAX	**Full Load Amps (FLA)**		**Overcurrent Protection (Amps)**
Pump	**480VAC (60Hz)**	**380VAC (50Hz)**	**480VAC (60Hz)**
3060V	42	51	60
4060V	55	66	80
5060V	65	79	100
10060V	125	142	200
530	42	51	60
540	55	66	80
550	65	79	90

Optional Components

Accessories

	Full Load Amps (FLA)		**Overcurrent Protection (Amps)**
	480VAC (60Hz)	**380VvAC (50Hz)**	**480VAC (60Hz)**
LSRS	4.8	5.7	15
WRS	6		10

Chillers

	Rated Load Amps (RLA)		Overcurrent Protection (Amps)
	480VAC (60Hz)	380VAC (50Hz)	480VAC (60Hz)
2 Ton	11		15
3 Ton	9		15
5 Ton	11		15
7.5 Ton	17		20
10 Ton	23		30
12 Ton	28		30
15 Ton	31		40

Single Phase Power (230VAC – 115VAC, 50/60Hz)

System

- The machine is equipped with an electric cord designed with an equipment-grounding conductor (ECG)
- The cord must be provisioned with an appropriate industrial grade plug and connected to a grounded outlet with an in accordance with local codes and ordinances
- Items supplied from OMAX with single-phase power cord may be supplied with NEMA three (3) prong plug. Customer is responsible to supply an appropriate receptacle for which to plug cord.

MAXIEM Only	Full Load Amps (FLA)			Overcurrent Protection (Amps)	
	230VAC (60Hz)	208VAC (60Hz)	115VAC (60Hz)	230/208VAC (60Hz)	115VAC (60Hz)
Table Controller	6	6.6	12	10	15
Charge Pump	5	5.5	10	10	10

OptiMAX	Full Load Amps (FLA)			Overcurrent Protection (Amps)	
	240VAC (50/60Hz)	208VAC (60Hz)	100VAC (50/60Hz)	230/208VAC (60Hz)	115VAC (50/60Hz)
Table Controller	6	6.6	12	10	16 (15A with NEMA 5-15P Plug Installed)

- SCCR 5 kA rms symmetrical @ 100 -240V

Accessories

	Full Load Amps (FLA)			Overcurrent Protection (Amps)	
	230VAC (60Hz)	208VAC (60Hz)	115VAC (60Hz)	230/208VAC (60Hz)	115VAC (60Hz)
VS-SRS	10	11.1		15	
NF System	10	11.1	20	15	20
Water Softener			10		10
Laminar Filter	5	5.5	10	10	10

Grounding

The OMAX/MAXIEM/OptiMAX Waterjet Machining Center components require connection to a suitable service grounding/protective earthing conductor (G/PE) for fault current protection in accordance with local codes and ordinances

Facility Lifting Capacity

Refer to the individual Table Specifications documents for each machine's requirements.