

Model 3474 System Installation; Minimum Facility Requirements for Systems with Field Reversal, High Precision Systems and High Power Systems installed in North America

Floor Space:

- Magnet Floor Area: 830 x 830mm (33 x 33")
- Floor Capacity: 1800kg (3,980lb)
- Power Supply & Rack Floor Area: 700 x 900mm (28 x 36")
- Floor Capacity: 100kg (220lb)

An area for access to the Magnet and Power Supply must be provided. The total area for the system and comfortable operation is about 3 x 3m (10 x 10ft). The area should be clean and free from obstructions.

Electrical Service:

	High Precision System	System with Field Reversal
MPS Power:		
Power Supply:	Danfysik 853-160A/80V	Power10 P86C-100200
Voltage:	208Vac, Three Phase, 50 – 60Hz	208Vac, Three Phase, 50 – 60Hz
Current:	56 Amps per phase	74 Amps per phase
Circuit Breaker:	60 Amps minimum	80 Amps minimum
Power Cable:	4 Conductor, 4AWG Min.	4 Conductor, 3AWG Min.
Mains Outlet:	Nema 15-60R or equivalent	Hard-wired in to electrical panel
Mating Plug:	Nema 15-60P or equivalent	(no suitable plugs are available)
Auxiliary Power for Rack:		
Voltage:	115Vac, Single Phase	
Current:	15A	

Note: Due to liability and insurance reasons, the mains power installation and connections must be completed by the facility electrician.

Water Cooling:

- Water Temperature: 15°C to 20°C, non-condensing. Specifications given at 18°C
- Flow Rate: 15 liters / minute (4 US gpm)
- Pressure: 2 bar (30 PSID)
- Water Hose: 12.5mm I.D. (½"), rubber, 2 x 5m long minimum
- Plumbing Fittings: To connect 12.5mm hose to water source and drain. (It is recommended to have a 50 micron water filter to trap debris on the facility water source and shutoff valves on the water source and drain.)

System Computer (if required and not provided by GMW):

- Processor: Intel Pentium III, 500MHz PC or better
- Memory: 128MB RAM
- Free Drive Space: 500MB
- Interface: IEEE-488 (GIPB), National Instruments GPIB-PCII/IIA, P/N: 777158-01
- Monitor Resolution: 1024 x 768 or better
- Operating System: Windows ME / 2000 / XP pro / NT4

Equipment Rack (if required and not provided by GMW):

- Depth: 760mm (30")
- Free Space: 14U high (~24.5")

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Lifting Equipment for Installation:

Forktruck or other lifting device with minimum safe lifting capacity of 2000kg

Nylon Slings with minimum safe lifting capacity of 2000kg

General:

The Purchaser must provide all equipment and labor for delivering the equipment from the delivery dock to the installation site. You should have a User Manual for the Model 3474 250mm Electromagnet and for the magnet power supply. Please provide these to the person who will be responsible for the System installation. If you do not have the User Manual or need to discuss details of the installation please call GMW. If a GMW Engineer is to supervise the installation any delays caused by inadequate preparation may result in additional charges for Engineering Time.

If you are providing your own equipment rack, it must be a minimum of 760mm (30") deep.

Note: The weight of an assembled 3474 magnet system is just over 4300 lbs. It is not possible to rig and move this magnet by hand, so use of proper lifting equipment is required (either an appropriately rated lift truck or a traveling crane). It is the responsibility of the facility to provide the means to move and lift the magnet for assembly on to its base and move it to its final installed position. If the means to do this is not available in-house, the customer may be required to hire an outside rigging company to lift and move the magnet. Scheduling of the riggers is the responsibility of the customer. Should the installation time be extended due to problems with the rigger scheduling, GMW reserves the right to bill for additional time beyond the original contracted amount.

Important: Due to liability and insurance reasons, the mains power installation and connections must be completed by the facility electrician. The GMW engineer will not complete the mains power connection. Please ensure that the facility electrician is available to do this work.

Model 3474 System Installation; Check List

Site:

Floor space and work space cleared and ready for equipment installation.

Appropriate electrical services installed

Materials Required:

Power Plugs

Power Cable

Facility Electrician ready to make mains connections to power supply at the time of system install

Cooling water supply installed with shut-off valves

Materials Required:

12.5mm I.D. (1/2") water hose, 5m for source and 5m for drain

Water hose fittings appropriate for installed plumbing

Water hose clamps

Misc. Items (to be provided by facility):

Tools:

Power Drill with 5/16" socket (to open magnet crates)

24mm combination wrench (open and box end)

24 mm socket wrench (for attaching the angle brackets to the magnet)

3/4" socket wrench (for removal of magnet from shipping crate)

Nylon lifting slings, chains, cables and other rigging equipment suitable for lifting magnet.

Other Items:

4" x 4" x 3' wood blocks. (about 4 – 6 pieces)

3' x 3' 3/4" plywood

All required materials on this list are to be provided by the facility.