

Discover SP-D 80™ and Explorer System Site Preparation Guide

The Discover SP-D 80 system may be installed directly on a laboratory bench when using the fume cabinet that has been properly vented or in a laboratory fume hood. To install a Discover SP-D 80 system, the user will need to provide the following services and space:

Choose a location that:

- provides at least 8 in. (20 cm) of open space on each side and 6 in. (15 cm) of open space in the rear of the instrument for ventilation
- allows free access to the microwave access port and provides clear visual access to the display of the system
- provides adequate space for sample handling (and additional space for laptop placement)
- permits the system to be connected to dedicated, grounded 120 VAC outlets. The System should be operated on a stabilized, constant voltage AC power supply. To operate properly, the voltage must be within $\pm 10\%$ of the specified level.

The system has overall dimensions of:

- Discover SP-D 80 with Exhaust Blower: 23"(w) x 18"(d) x 10"(h)
- Discover SP-D 80 with Explorer and Fume Cabinet: 22"(w) x 23"(d) x 35"(h)

The system peripherals have overall dimensions of:

- CEM laptop - *to be located within ten (10) ft. of the system*: 13"(w) x 10"(d) x 11"(h) (Requires own outlet)
- CEM HF scrubber system: 7"(w) x 20"(d) x 9"(h)

The System has electrical requirements of:

- 100/120 VAC, 60Hz, 10 Amp at 120 VAC
- 240 VAC, 50Hz, 5 Amp at 240 VAC
- 2 outlets required (for unit and computer)

The system requires:

- 35 psi minimum continuous, clean, dry compressed air or nitrogen (3.0 scfm rated flow)
- 60 psi maximum continuous, clean, dry compressed air or nitrogen (3.0 scfm rated flow)
- a CEM supplied regulator (provided in accessory kit) with associated tubing [8'(l) x 1/4"(O.D.)], quick fittings and adapters [1/4", 3/8", and 1/2"] to administer the proper flow of the compressed gas source to the system

HF Users:

- are required to place system in a fume hood that achieves an average face velocity of 80 - 120 ft./minute following the ANSI/ASHRAE Standard 110-1995.
- are required to assemble the scrubber system as follows:
 - set up bottle #1 with 500mL 4% boric acid solution
 - set up bottle #2 with 500mL 25% sodium hydroxide
 - set up bottle #3 with 500mL deionized water

The laptop:

- (Base Unit) Pentium M 1.6GHz or higher, (Memory) 1G, (Hard Drive) 40GB, (Operating System) Windows XP or later, English version.
- Connects and communicates with the system via Ethernet cable, cannot be installed wirelessly, cannot control multiple systems simultaneously, and is not to be placed in the fume hood