ElectroForce[®] DuraPulse[™] SGT



Site Preparation Guide



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Ideal Setup



IDEAL PLACEMENT AND BENCH MEASUREMENTS

Select a location with adequate floor and ceiling space and a rigid laboratory bench that is level and is in a vibration-free environment. Bench must be rated to support several hundred pounds.







System Components



MAIN SYSTEM COMPONENTS



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- A. Pump
- B. Computer Monitor
- C. PCA (Optional)
- D. Test Instrument
- E. Optical Micrometer (Optional)
- F. Optical Micrometer Controller

- Emergency Stop
- PCA Power Supply
 - PCI Electronics Box
 - Heater Controller
- K. Power Supply (Axial)
- L. Computer Tower
- M. UPS



Instrument Measurements



DURAPULSE[™] SGT – 12 TUBE



- Height: 724 mm (28.5 in)
- Width: 1033 mm (41 in)
- Depth: 511 mm (20.1 in)
- Weight: 57 kg (124 lbs)



DURAPULSE SGT – 8 TUBE

| Height: 724 mm (28.5 in) |
|--------------------------|
| Width: 1211 mm (47.7 in) |
| Depth: 512 mm (20.1 in) |
| Weight: 57 kg (124 lbs) |





Instrument Measurements



DURAPULSE™ SGT – 6 TUBE



Height: 724 mm (28.5 in)

Width: 1236 mm (48.7 in)

Depth: 485 mm (20.1 in)

Weight: 57 kg (124 lbs)



DURAPULSE SGT – 4 TUBE

Height: 724 mm (28.5 in)

Width: 1211 mm (47.7 in)

Depth: 512 cm (20.1 in)

Weight: 57 kg (124 lbs)





Instrument Measurements



POWER SUPPLY

Height: 229 mm (9 in)

Width: 381 mm (15 in)

Depth: 381 mm (15 in)

Weight: 23 kg (50 lbs)





Utility Requirements



POWER

| Item | Requirement |
|----------------------------------|--|
| Instrument Power | 104–132V, 50/60 Hz, 15A 207–250V 50/60 Hz, 10A Neutral to Ground (NG) voltage max 0.5 volt Safety ground per local regulation |
| PCI Box Power | 104–120V, 50–60 Hz Hz, 1.2A 207–230V, 50–60 Hz Hz, 0.6A |
| PCA Power Supply (Optional) | 104–120V, 50–60 Hz, 1A 207–230V, 50–60 Hz Hz, 0.5A |
| Heater Controller | 104–120V, 50–60 Hz, 5.2A 207–230V, 50–60 Hz Hz, 3A |
| Power cords provided | 5-15 plug for 120V systems 6-20P plug for 230V systems International: Line power cord provided is based on country |
| CAUTION Use power cords with plu | 5-15 6-20P |



Use power cords with plugs appropriate for your circuit



Supply voltages lower than indicated may result in a degradation of performance.



Ensure that the mains assigned do not also supply power to noise generating equipment nearby, such as motors, welders, transformers, etc.



An independent heavy GROUND wire must be provided through the power hookup. Improper grounding may cause severe damage for which the supplier will not accept responsibility. All power strips must be fully grounded and carry the ground through to the sockets into which the computer is plugged.



Utility Requirements



TEMPERATURE CONTROL

| Item | Requirement |
|---|--|
| Temp Range | Ambient to 40°C (104°F) |
| Max. Rate of Change (Full of Fluid) | 0.5°C/min (no active cooling) 0.5 °C/min typical for system with flow, 0.3°C per min without flow |
| Accuracy of Temp.* | ±0.2°C at 37°C at point of measurement |

* Temperature variation throughout the system can be minimized with the PCA option with flow but the temperature at any specific point within the system is dependent on many variables and could fluctuate significantly due to flow restrictions, thermal loss, frequency of operation, pump flow rate, and displacement amplitude.



| ltem | Requirement |
|-------|---|
| Fluid | Deionized (DI) water or PBS (phosphate buffered saline) If saline is used, 0.7–0.9% w/v phosphate buffered saline solution is recommended. Other solutions or concentrations may not be suitable for long-term use. |



Static Fluid Reservoir Tank







Accessories



SERVO-CONTROLLED PRESSURE CONTROL ACCESSORY (PCA)(OPTIONAL)

| Item | Requirement |
|----------|--|
| Location | On the same table as the DuraPulse [™] SGT Never locate the PCA at a level below the instrument. This will cause the fluid to back up into the PCA when air pressure is removed and may drain out into the laboratory. |
| Pressure | 65–100 PSI source maximum Set the regulator to 65 PSI External pressure channel (ExtPress): -12mmHg minimum – 150mmHg maximum |
| Fluid | See <u>Fluid</u> |





Site Preparation Checklist

ElectroForce[®] DuraPulse[™] SGT

| | Enough bench/floor space for instrument and computer Table width: 1.5 m (5 ft) Table depth: 1.2 m (4 ft) |
|------------------------|--|
| * | Instrument power is 104–132V, 50/60 Hz, 15A 207–250V 50/60 Hz, 10A |
| ē | □ PCA air pressure: 65–100 PSI |
| 393 | Deionized (DI) water PBS (phosphate buffered saline) |
| 1 | The Customer assumes responsibility for any damage that occurs when the instrument is moved by someone other than a trained TA Instruments Service Representative. |
| I hereby will be re | acknowledge that all utility requirements have been met per the checklist above and that they eady at the agreed time of installation. |

If all utility requirements are not met at the agreed time of installation, additional charges may be

| Tustomer | / | | |
|----------|------|-------|-------------|
| | | | |
| | City | State | Country |





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