# ElectroForce® 3300 Series III

## Site Preparation Guide

Revision B  Issued April 2025

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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.

Distance from the wall: 0.15 m (0.5 ft) min.

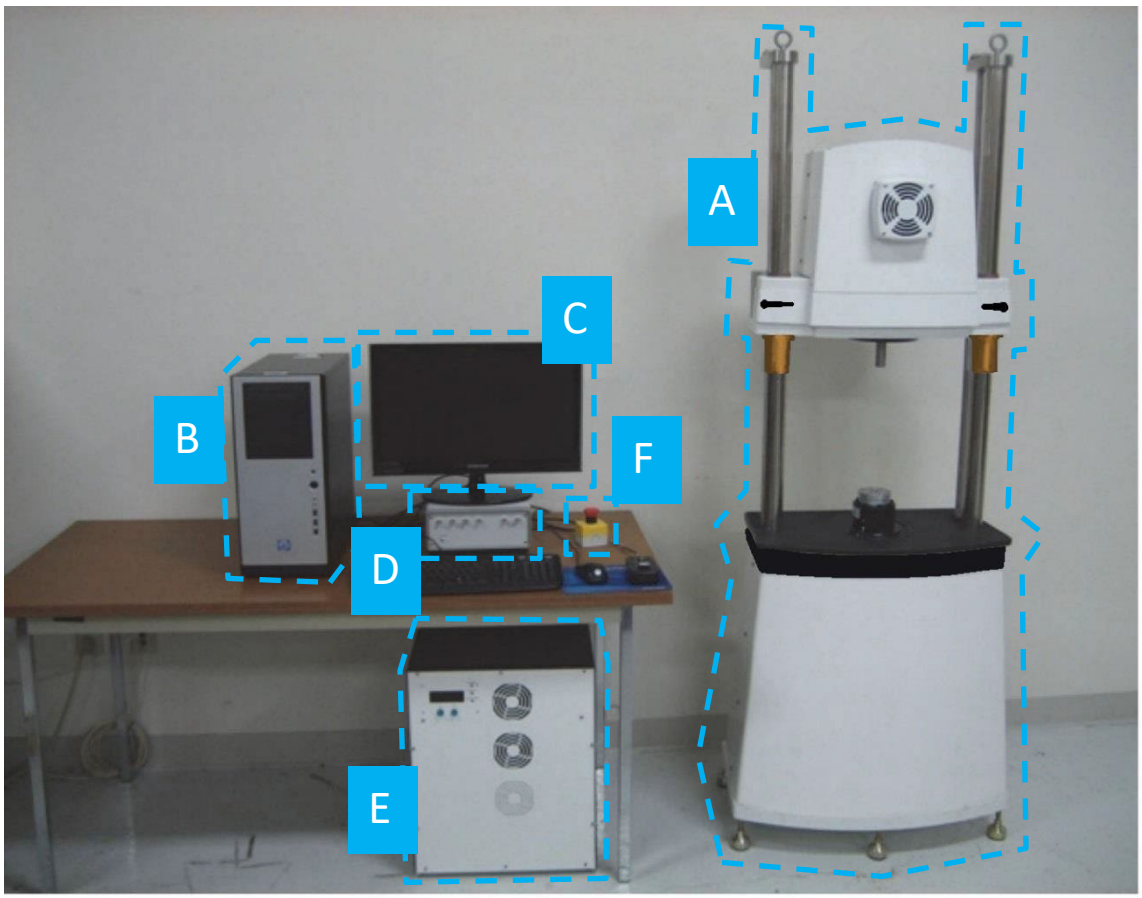
Table width: 1.5 m (5 ft)

Table depth: 1.2 m (4 ft)

Floor space: 91.44 cm x 91.44 cm (3 ft x 3 ft)

# System Components

## MAIN SYSTEM COMPONENTS




| | | | |
|---|---|---|---|
| **A.** | **Test Instrument** | **E.** | **Power Supply (Axial)** |
| **B.** | **Computer Tower** | **F.** | **Emergency Stop** |
| **C.** | **Computer Monitor** | | |
| **D.** | **PCI Electronics Box** | | |

# Instrument Measurements

## 3300 SERIES III – FLOOR STANDING FRAME

Height: 1854 mm (73 in)

Width: 579 mm (22.8 in)

Depth: 518 cm (20.4 in)

Weight: 279 kg (615 lbs)

## 3300 SERIES III – BENCHTOP

Height: 1232 mm (48.5 in)

Width: 579 mm (22.8 in)

Depth: 518 cm (20.4 in)

Weight: 172 kg (381 lbs)

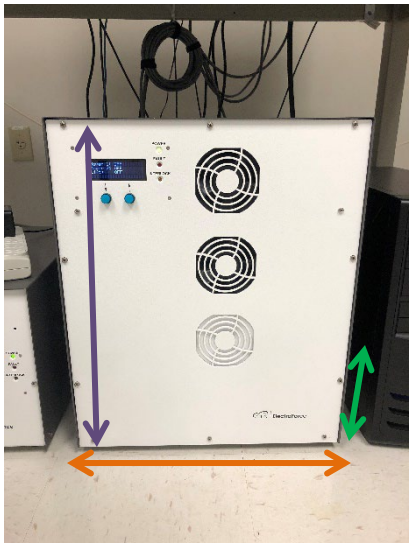
# Instrument Measurements

## POWER SUPPLY FOR 3330

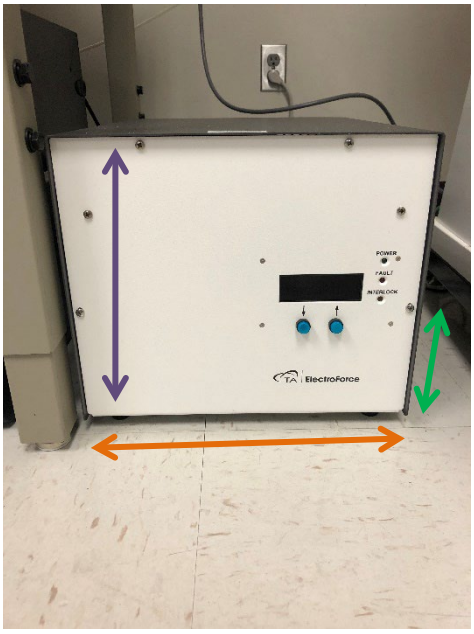
Height: 53.34 cm (21 in)

Width: 43.18 cm (17 in)

Depth: 40.64 cm (16 in)



## POWER SUPPLY FOR 3310




Height: 30.48 cm (12 in)

Width: 34.29 cm (13.5 in)

Depth: 40.64 cm (16 in)

# Utility Requirements

## POWER

| Item | Requirement |
|---|---|
| Instrument Power | • 200V, 50–60 Hz, 15A<br>• 230V, 50–60 Hz, 13A<br>• Neutral to Ground (NG) voltage max 0.5 volt<br>• Safety ground per local regulation |
| PCI Box Power | • 104–120V, 50–60 Hz Hz, 1.2 A<br>• 207–230V, 50–60 Hz Hz, 0.6 A |
| Torsion Power Supply | • 208–230V, 50–60 Hz Hz, 2A<br>• If the Torsion power supply is integrated into the Axial power supply, rather than separate, the system usage rises to 12A |
| Hot/Cold Chamber | • 230V, 50–60 Hz Hz,9.6A/2200W, 1 ph |
| Saline Bath | • 207–230V, 50–60 Hz Hz, 3A |
| Multiple Sample Fatigue Saline Chamber | • 207–230V, 50–60 Hz Hz, 2.7A |
| Thermoelectric Cooled Grips | • 100–240V, 50–60 Hz Hz, 2.85–1.19A<br>• Chiller: 115–230V, 50–60 Hz, 4.5–2.3A |
| Power cords provided | • 6-20P plug for 230V systems<br>• International: Line power cord provided is based on country<br>  <br>6-20P |

CAUTION **Use power cords with plugs appropriate for your circuit.**

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

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

CAUTION 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

## GAS

| Item | Requirement |
|---|---|
| Purge gas | Air |
| Pressure | 413–515 kPa (60–80 psig) |
| Flow | 8.5 L/min (0.3 CFM) |
| Connections | ¼-inch push-to-connect or ¼-inch NPT female to filter/dryer/regulator with ¼-inch push-to-connect removed[1] |
| Conditions | |

| | ISO8573-1:2010 Class | Solid Particulate | | | | Water | | Oil |
|---|---|---|---|---|---|---|---|---|
| | | Maximum number of particles per $m^3$ | | | Concentration | Vapor | Liquid | Total oil (aerosol, liquid, & vapor) |
| | | 0.1 – 0.5 micron | 0.5 – 1 micron | 1 – 5 micron | $mg/m^3$ | Pressure dewpoint | $g/m^3$ | ppm ($mg/m^3$) |
| | 1 | ≤ 20,000 | ≤ 400 | ≤ 10 | - | ≤ -94°F (-70°C) | - | 0.008 (0.01) |
| | 2 | ≤ 400,000 | ≤ 6,000 | ≤ 100 | - | ≤ -40°F (-40°C) | - | 0.08 (0.1) |
| Recommended → | 3 | - | ≤ 90,000 | ≤ 1,000 | - | ≤ -4°F (-20°C) | - | 0.83 (1) |
| Minimum Specs → | 4 | - | | ≤ 10,000 | - | ≤ +37°F (3°C) | - | 4.2 (5) |
| | 5 | - | | ≤ 100,000 | - | ≤ +45°F (7°C) | - | - |
| | 6 | - | - | - | ≤ 5 | ≤ +50°F (10°C) | - | - |

[1] Interconnection between the system and the supplied filter/regulator equipment is via ¼-inch push-to-connect fittings; use supplied tubing.

## HOT/COLD CHAMBER

| Item | Requirement |
|---|---|
| Gas | Liquid nitrogen |
| Pressure | 152–345 kPa (22–50 psig) |
| Connections | ½ -inch SAE, 45 degree flare fitting |

# Site Preparation Checklist

## ElectroForce 3300 Series III

| | |
|---|---|
|  | Enough bench/floor space for instrument and computer<br>☐ Table width: 1.5 m (5 ft)<br>☐ Table depth: 1.2 m (4 ft)<br>☐ Floor space (for floor standing frame): 91.44 cm x 91.44 cm (3 ft x 3 ft) |
|  | Instrument power is<br>☐ 200V, 50–60 Hz, 15A<br>☐ 230V, 50–60 Hz, 13A |
|  | Purge gas<br>☐ Air: 413–515 kPa (60–80 psig), 8.5 L/m (0.3 CFM)<br>☐ 5 µm filtered<br>☐ Dew point ≤ 10°C |
|  | Hot/Cold Chamber:<br>☐ Gas: Liquid nitrogen<br>☐ Pressure: 152–345 kPa (22–50 psig) |
|  | ☐ 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 acknowledge that all utility requirements have been met per the checklist above and that they will be ready at the agreed time of installation.

**<u>If all utility requirements are not met at the agreed time of installation, additional charges may be incurred for a return Service trip.</u>**

_____ ____/____/____

*Customer* *DD* *MM* *YYYY*

_____ _____ _____ _____

*Company* *City* *State* *Country*

Please send a signed copy of the completed checklist to your local Service representative.

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