

Installation & Start-Up Responsibilities

CUSTOMER RESPONSIBILITY

Material Requirements

- Conduit, cable troughs, junction boxes and pull boxes
- Power cable & Power distribution panels
- Power conditioning equipment
- Type J thermocouple wire
- Cable between Thermo Scientific devices and customer equipment
- Idler rolls to control sheet flutter
- Process interface (tachometer gearing, signal isolators and conditioners)
- System, hardware mounting (frame, console and tachometers)
- Air and ducts for purging, if necessary
- Interface relays, if necessary to meet loading requirements
- Condensation drain

Activity Requirements

1. Run all conduit or cable trough
2. Install Ethernet coaxial cable with terminators and boots
3. Perform continuity test of installed coaxial cable per installation manual
4. Pull and label all system cables
5. Terminate all wire from Thermo Scientific devices to customer equipment including tachometers and motorized potentiometers
6. Terminate all power wiring
7. Provide clean isolated power as specified
8. Install console air conditioner (if applicable)
9. Install air and ducts for purged systems
10. Complete "System Ready" check list

11. Provide secure storage area for spare parts, if required
12. Provide sufficient line downtime for Thermo Scientific certification testing of system. (Estimated to be a minimum of four hours).



THERMO SCIENTIFIC RESPONSIBILITY

Material Requirements

- Tachometers
- Motorized potentiometers
- Signal interconnection cable (Thermo Scientific device to Thermo Scientific device) up to 1000 feet of 22-gauge, 2-shielded, twisted pair
- Ethernet coax, barrel connectors, terminators, insulating boots

Activity Requirements

1. Install computers and touch screen in Console and Operator Stations
2. Inspect and test all cabling
3. Test the electrical power
4. Test all communications
5. Test all process I/O (if applicable)
6. Perform certification tests on system