ProPulse
Site Preparation Checklist

Thank you for purchasing an Agilent instrument. To get you started and to assure a successful and timely installation, please refer to this specification or set of requirements.

Correct site preparation is the key first step in ensuring that your instruments and software systems operate reliably over an extended lifetime. This document is an **information guide AND checklist** prepared for you that outlines the supplies, consumables, space and utility requirements for your equipment for your site.

For additional information about our solutions, please visit our web site at
http://www.chem.agilent.com/en-US/Pages/HomePage.aspx

Customer Responsibilities

Make sure your site meets the following **prior to the installation date using the checklist below. For details, see specific sections within this document**, including:

- ☐ The necessary **laboratory space is available.**
- ☐ The **environmental conditions for the lab** as well as laboratory gases, tubing,
- ☐ The **power requirements** related to the product (e.g. **number & location** of electrical outlets)
- ☐ The **required operating supplies** necessary for the product and installation
- ☐ Please consult **Other/Special Requirements** section below for other product-specific information
- ☐ **If Agilent is delivering installation and familiarization services, users of the instrument should be present throughout these services; otherwise, they will miss important operational, maintenance and safety information.**
- ☐ For more details, please consult the ProPulse Site Planning Guide

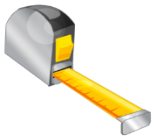
Important Customer Information

1. If you have questions or problems in providing anything described as a *Customer Responsibilities* above, please contact your local Agilent or partner support/service organization for assistance prior to delivery. In addition, Agilent and/or its partners reserve the right to reschedule the installation dependent upon the readiness of your laboratory.

2. Should your site not be ready for whatever reasons, please contact Agilent as soon as possible to re-arrange any services that have been purchased.

3. A user representative must be available during installation, calibration and acceptance.

4. Other optional services such as additional training, operational qualification (OQ) and consultation for user-specific applications may also be provided at the time of installation when ordered with the system, but should be contracted separately.



Selecting the MR Installation Site

Ensure the following factors have been taken into account for the MR system site selection:

- ❑ Verify the site configuration with an Agilent representative before designing the layout
- ❑ Consider the fringe field effects on the surroundings
  - Ensure that sensitive equipment, pace makers, ferromagnetic objects, etc., are outside the 5 gauss line
  - Consider the stray field effects on areas or floors above and below the magnet
  - Be mindful of safety hazards of large, unrestrained stationary ferromagnetic objects
  - Be mindful of homogeneity disturbances caused by
    - Moving ferromagnetic objects such as elevators, pallets, trams, etc.
    - Environmental magnetic fields
  - Ensure sufficient space layout so the console, workstation, and power bay (if present) will be outside the 5 gauss line.
  - Site construction materials affecting the magnetic field such as steel beams, steel studding, etc.
- ❑ Ensure site accessibility requirements have been met (pallet/forklift transport, cryogen dewars, emergency routes, system crates, etc.)
- ❑ Ensure system can be easily accessed for operation, maintenance, and cryogenic service
- ❑ Ensure the ceiling requirements have been met taking into account the system, magnet, and accessory dimensions, including any possible floor-plates.
- ❑ Ensure the following floor requirements are met:
  - Structural floor loading requirements for all system components during and after installation
  - Floor leveling and covering
  - Floor vibrations are within stated specs
- ❑ Ensure potential EMI requirements have been met taking into account power lines, transformers, elevators, local trams, etc.
- ❑ Ensure the site meets RF interference requirements
  - External sources such as TV, radio, cellular
  - Other NMR spectrometers operating at the same frequency
- ❑ Ensure ventilation requirements have been met

Special Notes:

1. Ensure all lab requirements are met before the “ship by” date on the order acknowledgment to prevent installation delays

Environmental Conditions

Operating your instrument within the recommended temperature ranges insures optimum instrument performance and lifetime.

- ❑ Ensure the site temperature requirements are met as stated below
- ❑ Ensure the site humidity requirements are met as stated below
- ❑ If needed, ensure stringent site stability requirements are met
- ❑ Ensure no direct sunlight falls on the any system component, especially the magnet
- ❑ Ensure ventilation requirements are met
    - If necessary, install recommended oxygen and air flow sensors
    - If required, ensure quench piping is installed

Special Notes:

1. Performance can be affected by sources of heat & cold e.g. direct sunlight, heating/cooling from air conditioning outlets, drafts and/or vibrations.
2. The site's ambient temperature conditions must be stable for optimum performance.

Instrument Description	Operating temp range °C (F)	Operating humidity range (%)	Heat Dissipation (BTU)
ProPulse NMR Console	17 – 24 (60 – 75)	20 – 80	+/- 1 (+/- 1.8)

Power Consumption

- ❑ Ensure the lab meets all AC power requirements

Instrument Description	Required Outlets	Electrical Requirements (Vac) (single phase at 50-60Hz)	Current Rating (A)
ProPulse NMR Console	1	90-132 180-264	10 5
Host PC and peripherals	3	120 240	15 7.5
7510 Autosampler	1	120 240	15 7.5
7620 Autosampler	1	120 240	15 7.5

Special Notes:
1. For details, consult the ProPulse Site Planning Guide

Laboratory Gas Supply Requirements

System configuration	Pressure psig (kPa)	Flow Rate lpm (scfh)
Normal operation	**80**	**65**
During Eject	**80**	**83**

- ❑ Ensure the supplied air has a dew point of -40 C min or -60 C min with an FTS chiller
- ❑ Consider using nitrogen gas for less-than-ambient temperature experiments
- ❑ Consider Air-dryers in high humidity areas
- ❑ For solids systems review special gas supply requirements
- ❑ Ensure holding tank meets requirements if using a portable compressor

Special Notes:

1. Air filter/ coalescing oil filter will be supplied with the console

Other/Special Requirements

Before the installation takes place:

- ❑ Ensure a moving crew is provided to move the crates from the dock to installation site
- ❑ If feasible, provide telephone and Internet access in the spectrometer lab
- ❑ Ensure precautions are taken against electrostatic discharges to prevent system damage.
- ❑ Provide the necessary network information as indicated in the planning guide.
- ❑ Ensure the required installation supplies and equipment are ready prior to the start of the install
    - Liquid helium and nitrogen
    - Gas helium and nitrogen
    - Face mask, gloves, heat gun, and non-ferromagnetic ladder
    - Hoist
- ❑ Check the SHIP BY date on the Agilent Order Acknowledgment form, and use this date as a target for completing installation preparations.
- ❑ Perform the post-delivery inspection and report any damage upon receipt of the system boxes and crates as indicated in the Site Planning Guide.
- ❑ Ensure all checks in this document and requirements in the Site Planning guide have been met prior to scheduling the installation

Once the magnet installation has begun, please ensure the following:

- ❑ Measure the stray magnetic field with a gauss meter after the magnet is fully energized
- ❑ Post the provided signs warning of magnetic field hazards

Document Control Logs

Revision Log:

Revision	Date	Reason For Update
A	23/11/2013	Released Version

Approval Log:

Revision	Approver(s)	Title of Approver
A	Dan Steele	Product Support