

This document is intended to act as a guide to ensure that your facility is ready to accept your new laser system and to facilitate a seamless installation. This document provides a list of requirements that must be completed or verified before the installation of your laser system to avoid any delays during installation or additional charges.

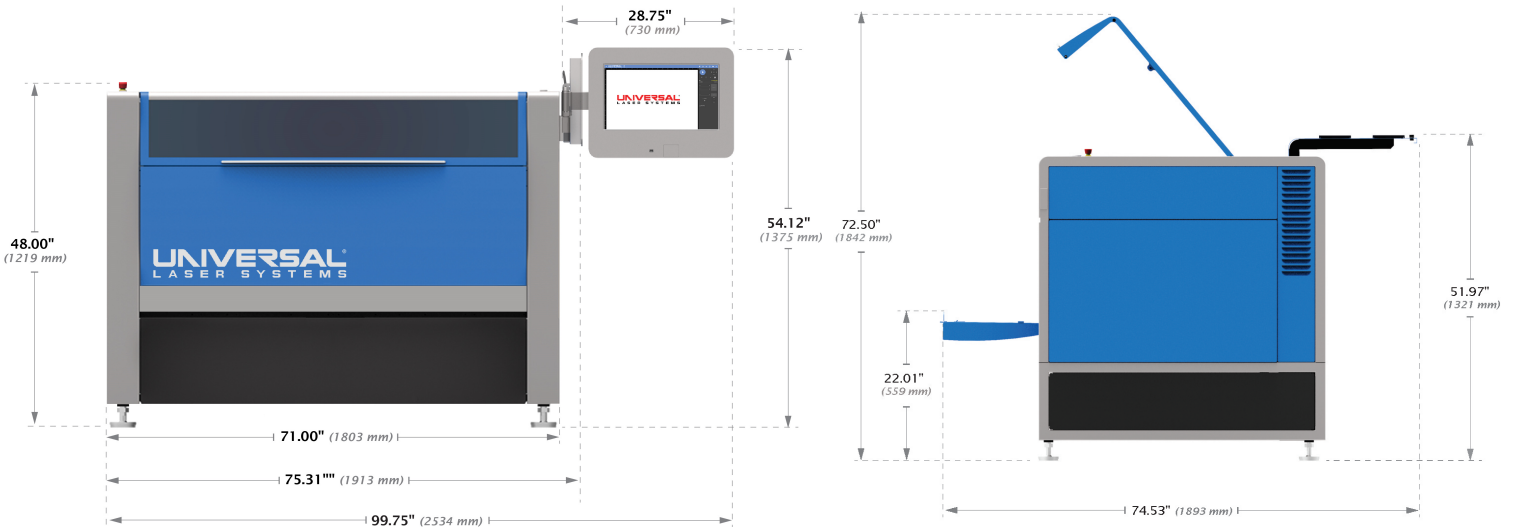
This document must be fully completed, signed, and returned to [sitesurvey@ulsinc.com](mailto:sitesurvey@ulsinc.com) to schedule an installation date.

If you have any questions or concerns regarding this document, please contact us at [sitesurvey@ulsinc.com](mailto:sitesurvey@ulsinc.com) or contact your ULS Representative.

## PART A - Operational Considerations & Requirements

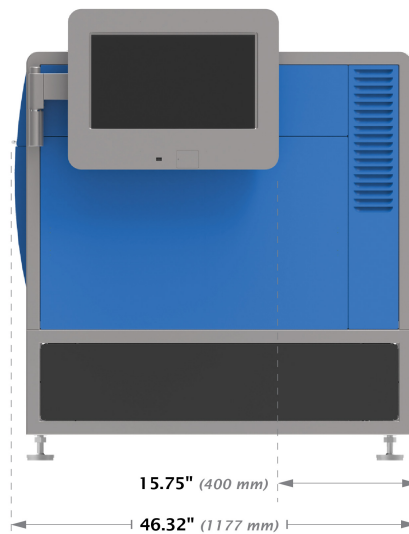
### FLOOR SPACE UTILIZATION

System dimensional drawings:



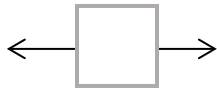
FRONT VIEW WITH AVAILABLE TOUCH SCREEN CONTROL PANEL

SIDE VIEW DOORS OPEN WITHOUT CONTROL PANEL



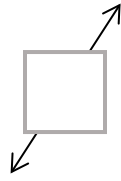
SIDE VIEW WITH AVAILABLE TOUCH SCREEN CONTROL PANEL FOLDED

When considering placement, ensure the location has a minimum clearance of 2' (610 mm) on each side and above the system as shown below:

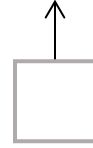


Width 148"  
(3760 mm)

(119" (3023 mm) without control panel)



Depth 123"  
(3125 mm)



Height 97"  
(2464 mm)

## ENVIRONMENTAL REQUIREMENTS

The ULTRA R9000 system requires a well-ventilated environment with a noncondensing humidity level between the temperatures of 50° F (10° C) to 95° F (35° C). An optimal temperature range of 73° F (22° C) to 77° F (25° C) is recommended for peak performance.

**Does your facility meet the environmental requirements?**     YES     NO\*

*\*If NO, provide date requirements will be met:* \_\_\_\_\_

## EXHAUST REQUIREMENTS

An exhaust blower or air filtration system is required.

If a UAC 4000 air filtration system will be installed ensure a separate 220 VAC power receptacle is available. The UAC 4000 is specifically designed for integration with ULTRA laser processing systems. If a third-party filtration system is used consult the manufacturer for recommendations.

If an exhaust blower will be used, it must be capable of moving, at minimum, 700 cubic feet per minute (CFM) of air at 6 inches of static pressure (1190 m<sup>3</sup>/hour at 1.5 kPa) through a 6-inch (152.4 mm) duct or flexible hose where it connects to the ULTRA R9000 system. When planning an exhaust system, it is essential to consider the length of the duct/flexible hose from the exhaust blower to reach the laser system without tension while also accounting for pressure loss over a long distance.

All exhaust solutions must meet local codes and regulations. Consult registered local contractors or exhaust experts if necessary.

**Does your facility meet the exhaust requirements?**     YES     NO\*

*\*If NO, provide date requirements will be met:* \_\_\_\_\_

## ADDITIONAL REQUIREMENTS (USER SUPPLIED)

- If facility compressed air will be utilized, a regulator will be required. Air should be instrument quality, must be filtered, dry, and oil-free. Air requirement is 50 psi max pressure and 3 CFM free airflow (3.4 bar and 5 cubic meters/hour). Connection is a quick-release fitting that accepts ¼ inch NPT connection.
- If a compressed gas (must be a non-flammable gas such as Nitrogen) is to be used, a regulator will be required to supply gas at 100 psi max (6.8 bar). Connection is a quick-release fitting that accepts ¼ inch NPT connection.

- Minimum computer requirements (if not configured with available 21" Touch Screen Control Panel) are as follows: Intel I3 processor (or equivalent) with at least 8 Gb (16 Gb recommended) of memory, Windows 10 or Mac 10.15 (Catalina) operating system, and connection to laser system with USB cable.
- Avoid placing the laser system under direct lighting, if possible. Glare from lighting can adversely affect camera registration results.

**Will the system be placed under direct lighting?**     YES\*     NO

*\*If YES, please describe:*

**Does your facility meet these additional requirements?**     YES     NO\*

*\*If NO, provide date requirements will be met:* \_\_\_\_\_

## CLASS 4 SAFETY NOTICE

There are specific legal regulations that must be adhered to when operating in Class 4 mode. You must provide interlocked entrances and illuminated indicator signs outside the room, appoint and train a laser safety officer (LSO), and register your laser system with the appropriate agencies.

If the Class 4 Conversion Module for Pass-Through was purchased, you must read the Class 4 Acknowledgement thoroughly, then sign and return it to ULS before receiving an installation date.

## POWER REQUIREMENTS

The system location requires the following facility power receptacles:

### A. ULTRA R9000

- **Standard Configuration** - 208/230 VAC, 16 A, 50/60 Hz single-phase dedicated circuit (a dedicated 20 or 30 A outlet recommended)
- **High Power Configuration (dual 150-watt laser sources)** - 208/230 VAC, 25 A, 50/60 Hz single-phase dedicated circuit (a dedicated 30 A outlet recommended)

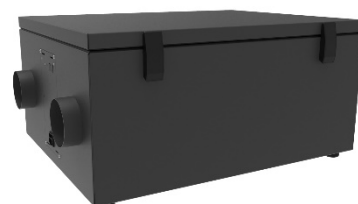


SHOWN WITH AVAILABLE TOUCH SCREEN CONTROL PANEL

**B. ULS Compressed Air Source\*** – 110 VAC @ 10 A or 220 VAC @ 5 A

Please select:  110 VAC  220 VAC

**C. Vacuum Booster\*** – 110 VAC @ 10 A or 220 VAC @ 5 A; auto-switching



*\*Available feature*

Note, you must supply appropriate plugs for all 220 VAC facility power receptacles (for example L6-30 plug). The service technician will connect the plug(s) to the equipment cable(s) during installation.

Does your facility meet the power requirements?  YES  NO\*

*\*If NO, provide date requirements will be met: \_\_\_\_\_*

## PART B - System Receiving and Transport Considerations

### SYSTEM CRATE AND TRANSPORT

The ULTRA R9000 system will arrive in a crate with dimensions of 86.5" x 74.5" x 60" (2198 x 1893 x 1524 mm) and will weigh as much as 1,300 lbs. (590 kg). Please indicate in the following questionnaire if you have a receiving dock or if a liftgate will be required on the delivery truck.

A forklift with extensions is recommended to remove the ULTRA R9000 system from the crate and move it through your facilities. If a forklift is not available, you should consider a rigging company to remove and relocate the laser system. A pallet jack can also be used to move the laser system through your facility.

### SYSTEM RECEIVING

1. Will a rigging company be utilized?  YES\*  NO

*\*If yes, please supply the company name, contact, phone number, and email address.*

RIGGING COMPANY NAME

CONTACT NAME

PHONE NUMBER

EMAIL ADDRESS

2. Is a lift gate needed on the delivery truck?  YES  NO

3. Does the facility have a forklift with a minimum of 5' (152 cm) forks? (Extension forks may be required.)

YES  NO\*

*\*If no, please describe options for removal of the system from the base of the crate.*

4. Will a pallet jack be available?  YES  NO

## PATHWAY TO FINAL POSITION

As a reminder, the minimum dimensions to consider when moving the uncrated system (with available touch screen control panel folded in) to the final position are as follows: width of 75.5" (1918 mm), depth of 46.5" (1182 mm), and height of 54.5" (1385 mm).

**1. How will the system be transported through the facility (forklift, heavy equipment casters, etc.)?**

**2. Are steps present in the pathway?**     YES\*     NO

*\*If yes, how many steps, are they ascending (up) or descending (down), and where are they located? What are the dimensions of the stairway (width, depth, and height)?*

*IF STEPS ARE PRESENT, A RIGGING COMPANY MAY BE REQUIRED.*

**3. Will placement require an elevator?**     YES\*     NO

*\*If yes, what are the dimensions of the elevator door (height and width) and elevator interior (width, depth, and height)?*

**4. Door(s) to pass through?**     YES\*     NO

*\*If yes, how many and what are the dimensions (width and height) of each door?*

**5. Are there other obstacles that might impede movement and placement of the system?**     YES\*     NO

*\*If yes, what are they, and what is proposed to bypass them?*

## PART C - Customer Site Survey & Readiness Requirements Acknowledgement

### CUSTOMER ACKNOWLEDGEMENT

I acknowledge that I understand the requirements and that the facility meets all requirements or will meet all requirements for system installation by the latest date listed above.

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PRINTED NAME

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TITLE

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SIGNATURE

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DATE