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Objet Desktop WaterJet
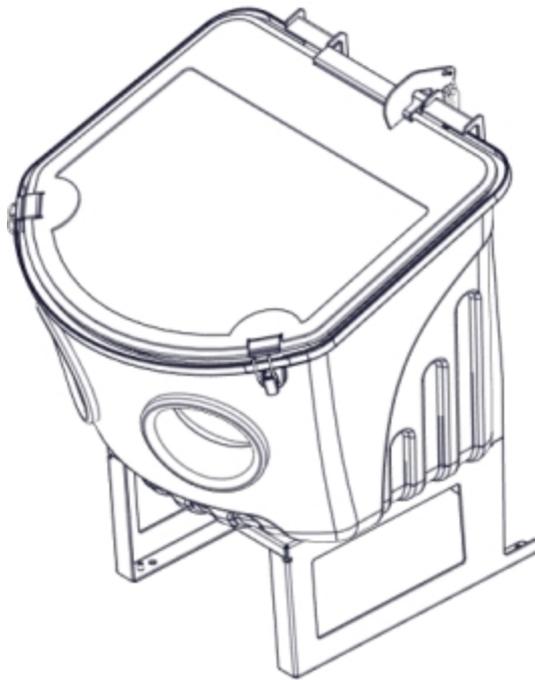
DOC-01405 Rev. B

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Trademarks

Equipment Recycling

In the European Union, this symbol indicates that when the last user wishes to discard a product, it must be sent to appropriate facilities for recovery and recycling. For information about proper disposal, check your purchase contract, or contact the supplier of the equipment.

Limitation of Liability

Contents

Introduction

This document provides site-preparation information and requirements for the Objet Desktop WaterJet cleaning unit, to ensure proper installation and operation. The customer is responsible for preparing the installation site according to the instructions and guidelines described in this document.

The following topics are covered in this guide:

• Physical description

• Site requirements

Important:
Since preparation of the site must be completed before the installation date, you must submit the checklist at the end of this document to your local Stratasys representative after carrying out the tasks described in this guide. After the checklist is reviewed, a date will be set for installation.

For More Information

If you have any questions about preparing your site, contact your Stratasys representative.

If you have any comments or suggestions for future editions of this document, please send a message to c-support@stratasys.com.

Shipment and Delivery

Shipping Responsibility and Information

Stratasys Ltd. will arrange shipment to the customer's facility, as specified in the price quote. It is the customer's responsibility to provide Stratasys with detailed delivery instructions. The customer is also responsible for transporting the system to a suitably prepared installation site and moving it to its final location.

> **Important:**
> Equipment should be unpacked and installed in the presence of an authorized Stratasys representative.

Shipping Pallets

The system is delivered to the site on a wooden pallet. The size and weight of the pallet are shown in Table 1.

Table 1 Shipping pallet size and weight

W x H x D (cm)	W x H x D (in.)	Weight*
75 x 73 x 115	29.5 x 29 x 45	45 kg/ 99 lb.

*Weight—gross weight of the packed crate

Physical Description

The WaterJet cleaning unit consists of following main components:

a.   WaterJet unit (cabinet and stand)

b.   water pressure pump

Figure 1   Objet Desktop WaterJet components

a   b
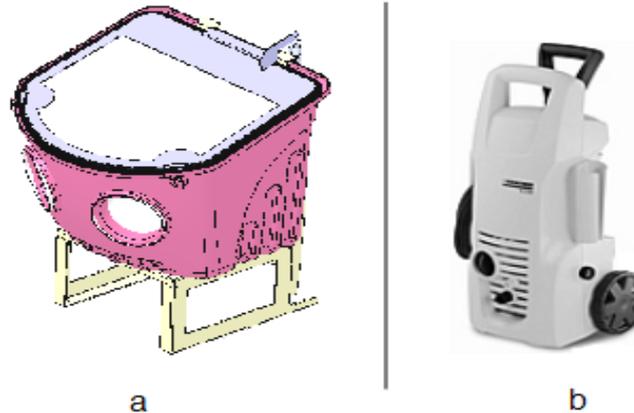
> **Note:**
>
> The water pressure pump supplied might differ from the water pressure pump shown above.

Size and Weight

The following table shows the size and weight of the WaterJet and the water pressure pump.

Table 2 WaterJet and water pressure pump dimensions and weights*

Unit		W × H × D (cm)	W × H × D (in.)	Weight
WaterJet unit		58 × 74 × 56	22.8 × 29.1 × 22	18 kg/39.6 lb
Water Pressure Pump	220-240 V	29.5 × 55.6 × 24	11.6 × 21.9 × 9.4	9 kg / 19.8 lb
	110-120 V	31.8 × 57.2 × 22.9	12.5 × 22.5 × 9	7 kg / 15.4 lb
	100 V	22.9 × 58.4 × 35.6	9 × 23 × 14	7.3 kg / 16 lb

* When the cover is open, the effective height of the WaterJet unit increases by 25 centimeters (9.8 inches).

The following figure shows the WaterJet unit installed on a table.

Figure 2   WaterJet unit installed on a table
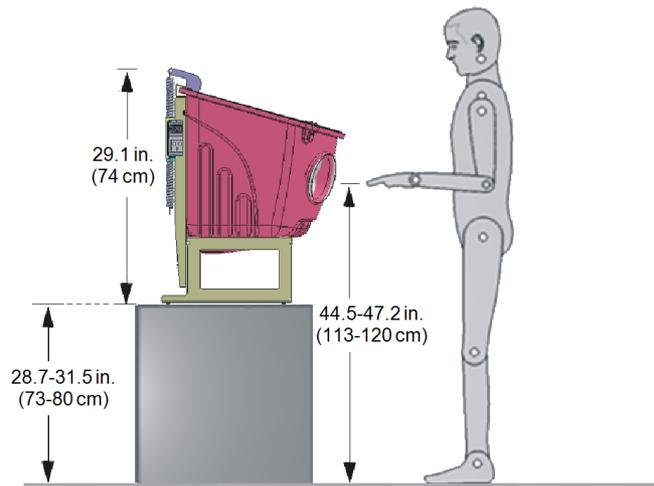
Model Capacity

The Objet Desktop WaterJet can clean models that have the following maximum dimensions:

Table 3 Maximum model dimensions

W × H × D (cm)	W × H × D (in.)
30 × 25 × 20	11.8 × 9.8 × 7.9

Some Stratasys printers are capable of printing models whose dimensions are greater than those specified above. The Objet Desktop WaterJet is *not* suitable for cleaning very large models.

Site Requirements

Ensure that the system is installed—

- near the printer, but at least 5 meters (16.5 feet) away from it (to avoid water damage to the printer)

- close to an area where models can be soaked in caustic soda (sodium hydroxide), and where they can dry after cleaning

The following figure shows a suggested room configuration.

Figure 3   Suggested room configuration
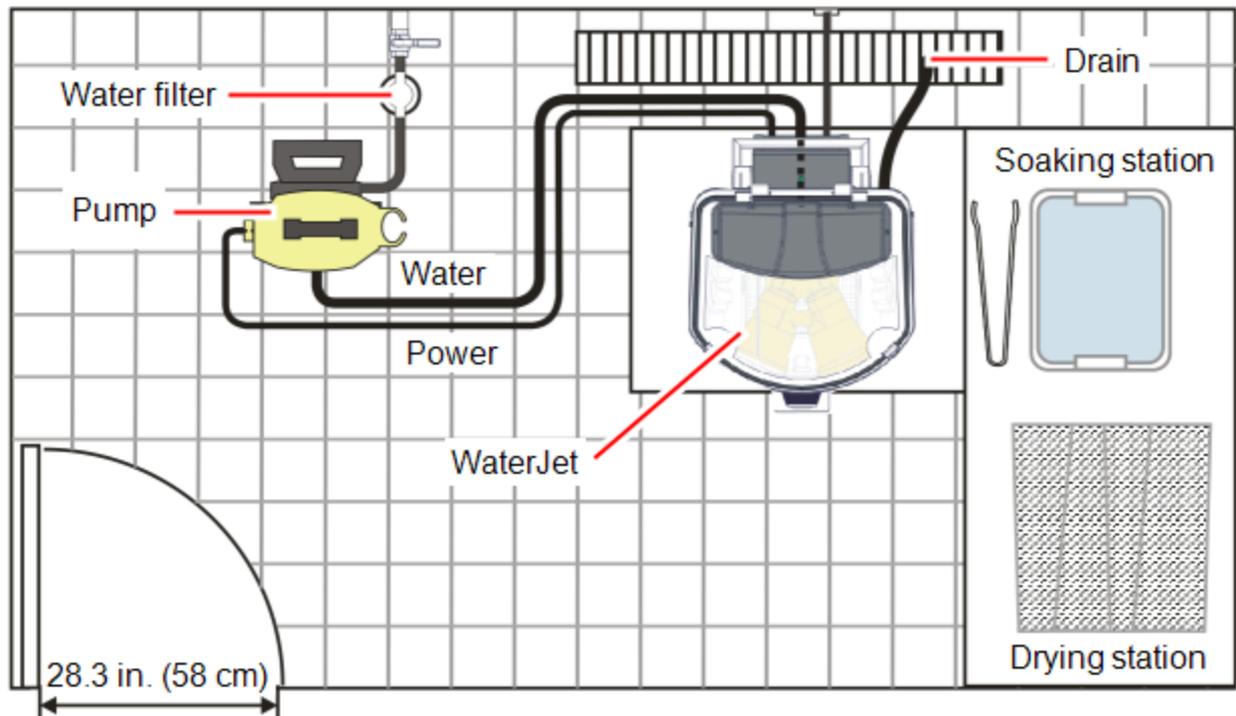
WaterJet Table Specifications

The recommended height of the table or counter is 80 cm (31 inches). This establishes a height of 120 cm (47.2 inches), arm level for the average person.

The surface must be capable of carrying a load of at least 30 kg (66 lb), and it must be level.

> ⚠ **Warning: Lifting Hazard.**
> Two people are required to lift the WaterJet unit onto the table.

Water Supply

A connection to the regular water supply is required. The water tap should be located next to or behind the water pump.

A water filter is recommended to protect the pump (see "Water Filter" below).

Stratasys supplies a 3 meter (10 foot) "washing machine" hose, with adapters, to connect the WaterJet unit to the pump.

Figure 4   "Washing machine" hose, hose adapters and hose clamps

The water pressure pump can be placed up to 3 meters (10 feet) from the water tap. If you need to place the water pressure pump farther away from the water tap, a longer hose (not supplied) is necessary.

Using the supplied pressure hose (and electrical cable), you can place the pump up to 3 meters (10 feet) from the WaterJet unit.

> **Caution:**
> The water pressure supplied to the pump should be at least 2 bars while delivering 8 liters of water per minute. A water flow and pressure that is less than this can damage the pump.

Water Filter

It is recommended that you install a 100-micron filter between the water tap and the hose. When installed, the water filter should be accessible for maintenance.

> **Note:**
> Replace the filter element as required to ensure sufficient water pressure to the pump.

Drain

The waste water from the WaterJet unit typically empties into the building's drainage system. It is recommended that the drain pipe is behind the WaterJet unit.

A drain hose, approximately 3 meters (10 feet) in length is supplied. You can connect the hose to a standard drain pipe that has an internal diameter of 40 mm (1.5 inches). You can connect an extension to the WaterJet drain hose, if necessary.

Figure 5   Drain configurations (examples)
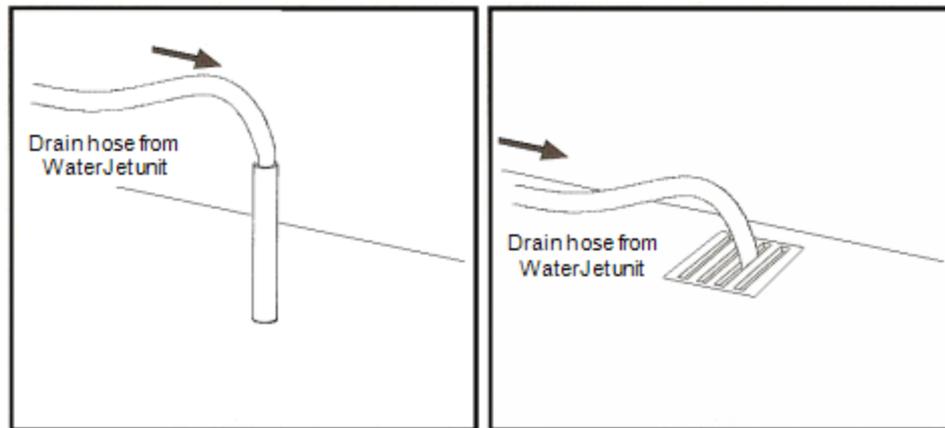
Floor

The floor around the cleaning unit should have a non-slip surface.

Electrical Requirements

It is the customer's responsibility to ensure that all tasks described in this section are carried out by qualified personnel.

Power

- Facilities power socket
  The power socket should be in back of the unit, to reduce the chances of water spraying on the outlet. The socket must be connected to a residual current device (RCD).

- Power cable

  - For North America and Japan, this power cable is supplied:
    IEC 320 (C13 to 5–15P) 15A/120 V

  - For other countries, the distributor or customer must supply this power cable:
    IEC 320 (C13) 10A/100–230 V

Figure 6   Power cable for North America and Japan (example)

Circuit breaker

The electrical circuit must be protected by a circuit breaker with the following specifications.

Table 4 Circuit breaker specifications

Voltage	Circuit Breaker
100 VAC	15 Amps
110–120 VAC	15 Amps
220–240 VAC	10 Amps

Ground

The system is grounded through the AC plug. Make sure that the wall outlet is grounded in accordance with local electrical codes.

Summary

The following table summarizes the site requirements.

Water Supply	
Water intake	Standard water tap with hose connection–DN15 ½" Filter—100 microns
Minimum intake water pressure	2 bars
Minimum intake water flow	8 liters/min.
Maximum intake water temperature	40 °C (104 °F)
Drain	Standard sink drain pipe–40 mm (1.5 inches)
Electric	
Rating	220–240 volt, 50 Hz, 10A 110–120 volt, 60 Hz, 15 A maximum or— 100 volt, 50/60 Hz, 15 A maximum
Environment	
Acoustic protection	Noise level (including pump): 85–88 dB

Site Preparation Checklist

After preparing your site for the installation of the Objet Desktop WaterJet, complete the customer information and the checklist below, and submit it to your Stratasys representative.

Consult with your representative if you have any questions related to site preparation and the checklist.

This form must be received and approved before installation and training are scheduled, and before Stratasys service personnel are sent to your site.

Customer Information

Company Name: _____

Address: _____

_____

Phone No.: _____ Fax No. (optional): _____

E-mail: _____

Item	Completed according to specification		Notes
	Yes	No	
Water supply	☐	☐	
Water filter (optional)	☐	☐	
Drain	☐	☐	
Electrical power supply	☐	☐	
Circuit breaker and RCD	☐	☐	
Grounding protection	☐	☐	
IEC 320 power cable (if not supplied)	☐	☐	

Customer's full name: _____

Customer's signature: _____ Date: _____

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