

## I N K C U P S

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# HELIX® ONE SITE PREPARATION GUIDE

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This guide is valid for the Helix® ONE



# Site Preparation Guide

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## INTRODUCTION

This Site Preparation Guide is intended to be used by our customers to identify requirements needed on-site prior to the arrival, setup, and installation of a new Helix® ONE. It is mandatory to fully complete and honestly respond to all questions within this document so that the Inkcups Field Engineer can ensure that the installation of your new Helix® ONE product can be completed within the agreed upon time frame. Please read this guide and then complete the customer checklist on page 8. When complete, send the completed checklist to your salesperson two weeks prior to the installation date.

## MACHINE SPECIFICATIONS

### Uncrated Dimensions

Height: 37.4 inches (0.95 meters)

Width: 32.5 inches (0.83 meters)

Length: 48.3 inches (1.23 meters)

Weight\*: 650 lbs. (295kg)

### Crated Dimensions

Height: 45 inches (1.15 meters)

Width: 43.5 inches (1.11 meters)

Length: 51.5 inches (1.31 meters)

Weight\*: 762 lbs. (346 kg)

*\*Weight may vary slightly  $\pm 50$  lbs. (23 kg) based on various accessories and possible configurations.*

## INCLUDED COMPONENTS

- Chiller: 12" (305 mm) W x 17" (432 mm) D x 8.5" (216 mm) H – Powered by the Helix® ONE, requires distilled water (1 gallons available for installation).
- PC, Monitor, Mouse, Keyboard with Onyx RIP software
- RJ45 Cat-6 ethernet cable connect PC to Helix® ONE

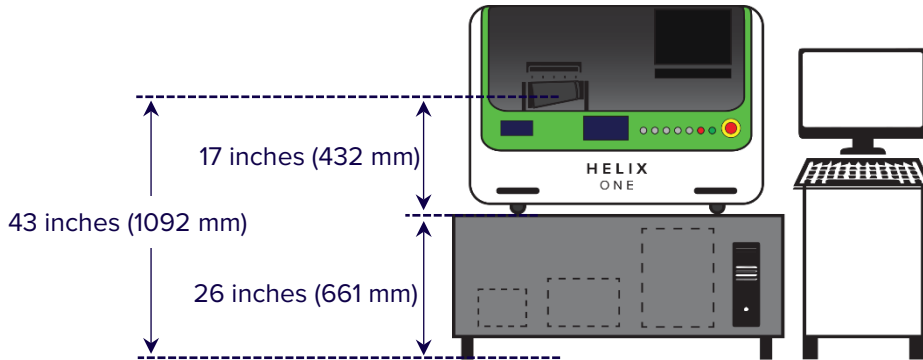
## OPTIONAL ACCESSORIES

- Mist Extraction Unit: (11.42" (290 mm) W x 10.63 (270 mm) D x 16.54" (420 mm) H
- Helix® ONE companion work surface with storage and monitor mount (*pictured above*)
- Transformer 120v to 220v: 8" (203 mm) W x 8" (203 mm) D x 6" (153 mm) H

### WORK SURFACE REQUIREMENTS

The Helix® ONE needs to operate on an elevated surface that must be sturdy and level. The part is loaded 17" (432 mm) from the bottom of the feet of the Helix®ONE. If choosing not to purchase the Inkcups Helix®ONE companion work surface the following attributes are required:

- Work surface must support a minimum of 700 lbs. (318 kgs)
- The table must be at least 54.3 inches x 33 inches (1380mm x 840mm)
- Work surface should be approx. 26 inches (661 mm) high for optimum loading comfort. Part loading would be 43" (1092 mm) from the ground.



### ELECTRICAL HOOKUP REQUIREMENTS

The Helix® ONE requires electrical cabling routed to the rear side of the machine. The customer is to supply all installation requirements according to local regulations and bylaws. The machine requires a flexible or rigid hookup between the machine electrical cabinet and the electrical panel.

*NOTE: All wiring is to be done by qualified personnel according to local electric code.*

**CAUTION!** If there are any voltage fluctuations from the main power supply, it is highly recommended to use an uninterruptible power supply (UPS) and a voltage stabilizer to prevent any damage to the printer and its components.

Inkcups recommends all machine installations have a fused disconnect within 10 feet (3.05 meters) from the machine installation.

Connect to 220V with grounding otherwise transformer required.

The following are the electrical hookup specifications:

Helix ONE	
AC Voltage	220 VAC*
Electrical Receptacle	NEMA 5-15R
Frequency Range	50/60 Hz
Current Max	15A
Cable length	10-foot (3 m)

\* Optional transformer available to change the supply voltage from 110 VAC to 220 VAC.



### Accessories Electrical Requirements

- PC and monitor both require power and are supplied with a 5 feet (1.8 m) 15A, 14 AWG (NEMA 5-15P to IEC-320-C13). A plug adaptor or alternate cables, if necessary, must be supplied by the customer.



- Mist Extraction unit (*optional*)

<b>Mist Extraction RX3</b>	
<b>AC Voltage</b>	115-230 VAC
<b>Electrical Receptacle*</b>	NEMA 5-15
<b>Frequency Range</b>	50/60 Hz Auto Switching
<b>Power Max</b>	135w
<b>Full load Current 115V / 230V</b>	1.2A / 0.9A
<b>Cable Length</b>	5-foot (1.5 m)

\*Alternate receptacle style can be requested.

- Transformer (*optional*) - The step-up voltage converter raises the 110 VAC from the wall to the 220 VAC required by the Helix®ONE.

<b>Transformer (<i>optional</i>)</b>	
<b>Current convert range</b>	100-125 VAC ⇔ 220-240
<b>Input Electrical Receptacle</b>	Accepts N. American 3-Prong and Euro Plugs
<b>Output Electrical Receptacle</b>	NEMA 5-15
<b>Max Power</b>	
<b>Cable Length</b>	5-foot (1.5 m)

## ENVIRONMENTAL REQUIREMENTS

Ambient Temperature: 65 to 86°F (18 to 30°C)

Relative Humidity: 35-65% Non-Condensing

Atmosphere:

- The Helix® ONE should be installed in an area that has little to no dust and is ventilated.
- The Helix® ONE should be operated in areas located between 0 feet and 6500 feet above sea level.
- The floor in which the Helix® ONE is placed should be sturdy, level, and even.
- The device is also very sensitive to vibrations and oscillating motions, so such areas should also be avoided.
- The Helix® ONE should not be placed in a location in which it might be exposed to direct wind from fans, air conditioners, outside windows, or other sources.
- The Helix® ONE should not be placed near any source of direct sunlight, or other UV light, as doing so may cause the ink located in the storage tank, and even ink in the print head to prematurely cure.

### NETWORK INSTALLATION REQUIREMENTS

The machine requires a network cable connected to the PC Controller. A gigabit network is the minimum.

- The IP range of printer is 192.168.1.1 – 192.168.1.126, 192.168.1.128 – 192.168.1.254. A value in this range must be available on the network for the printer to function without any conflicts.

**CAUTION:** DO NOT CHANGE THE LANGUAGE OF THE PC – This will cause the programs and machine to malfunction that could cause damage.

### SAFETY REQUIREMENTS

All Safety Data Sheets (SDS) should be referenced that pertain to each unique install and take precedence over any general recommendations. All Inkcups SDS sheets can be found on the web site:

[Inkcups Learning Center - Articles, Brochures, FAQs](#)

In general, the operator should have access to:

- Safety eyewear with the ability to filter UV light
- Safety eyewear to avoid exposure to liquid splashes
- Smock, coat, or other form of protective clothing
- Nitrile gloves
- Eye wash station (not more than 23 feet (7 meters) from the machine)
- Sink with running water and cleaning agents

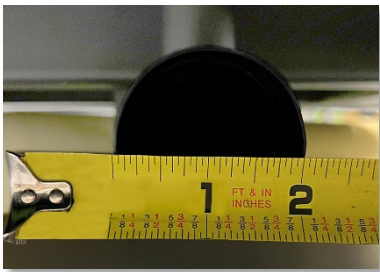
### VENTILATION REQUIREMENTS

Ventilation is highly recommended for the Helix®ONE for optimum performance. To properly remove ink mist and dust from the working area and machine, it is suggested to install a suitable extraction system. There is a 2" (50.8mm) ventilation connection port in the back of the Helix®ONE. It can be connected to one of the following options:

- Mist extraction unit purchased from Inkcups – specifically selected as the most appropriate option for the Helix®ONE application.  
*(Contains both HEPA and carbon filters for appropriate inside ventilation)*

Or

- External exhaust powered 106 CFM blower vented to the outside.



It is the responsibility of the operator to provide proper exhaust to the system that complies with environmental, company, local, state, and federal occupational safety standards. Check with your local Environmental, Health and Safety advisor for permissible limits.

### MINIMUM ROOM OPERATING/SERVICE REQUIREMENTS

The machine requires a room with enough space around it so operators can easily load/unload vessels and perform maintenance duties. For service 3 feet (0.92 meter) on all sides of the machine and 24 inches from the highest point (all covers open).

The minimum room requirements are:

- Width: 9.3 feet (2.83 meters)
- Length: 10.6 feet (3.23 meters)
- Height: 8 feet (2.5 meters)
- Review Figure 1 for the recommended installation wall-to-machine requirements and minimum ware loading breakover.

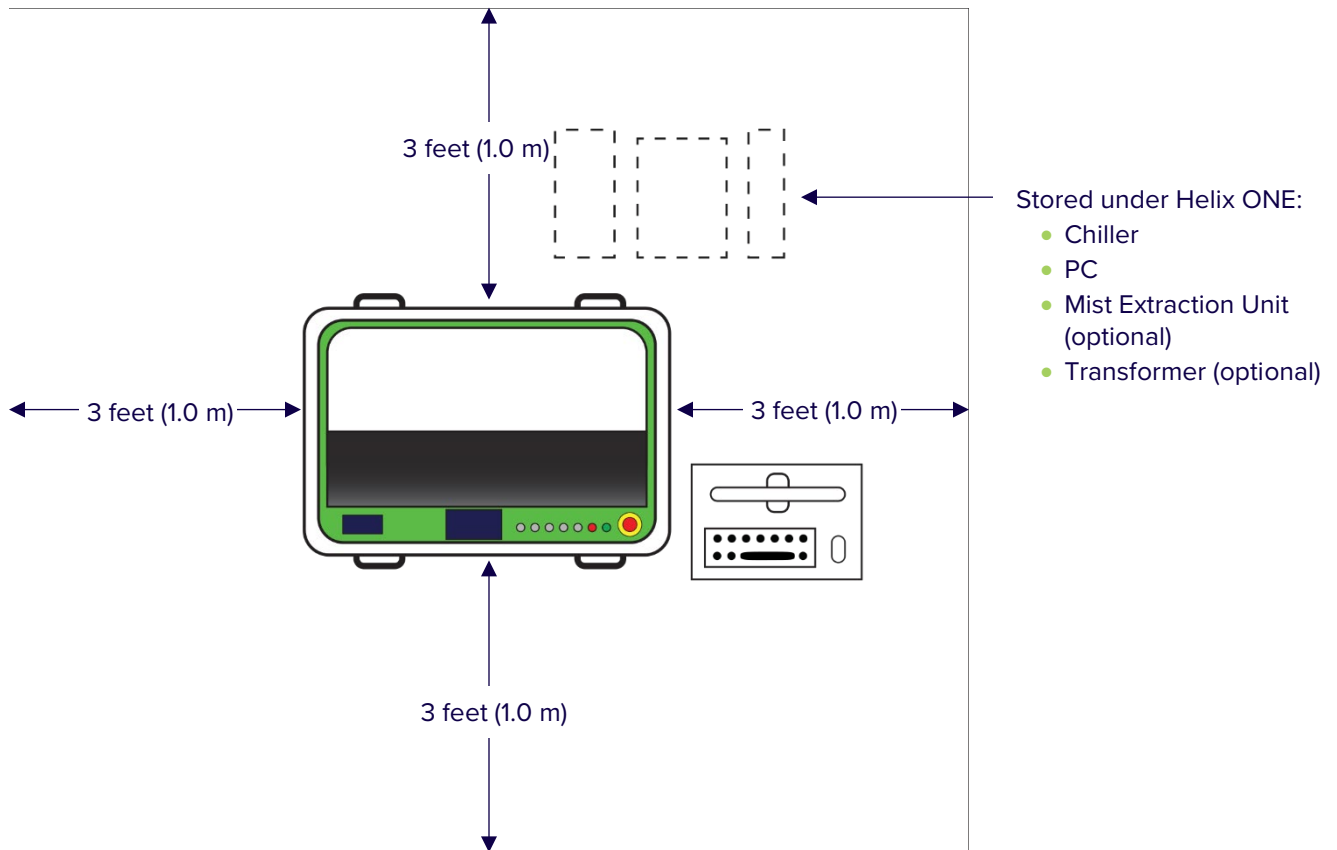


Figure 1: Minimum Room Operating Requirements

## PHYSICAL PLANT REQUIREMENTS

Review the physical plant requirements below for all necessary resources during installation.

- A rigging team (personnel) must be present to aid in the receiving of the machine crate from the transport truck into the facility floor.
- A forklift with the lifting capacity of the machine (762 lbs. (346 kg)) is required.
- The forklift must have forks that are at least 48 inches (1.22 meters) in length.
- A forklift capable of lifting the Helix® ONE onto the elevated worksurface 30 inches (0.76 m) from the ground.
- The loading area must be compliant with the transport truck. The client is responsible to contact the freight company in advance to determine additional resources necessary for extraordinary transport variables.
- There must be a clear path between the receiving area and the installation room so that the machine can be moved into position.
- The receiving area must have enough room to accommodate the crate length so that the crate can be opened, and the machine removed from the palette.

All doors and openings must be large enough to accommodate the machine width.

## Customer Checklist

The following checklist is required prior to the installation. The customer is responsible for all items on the checklist and must report any deficiencies to the sales representative to avoid delays during installation.

The machine should only be uncrated under the supervision of an Inkcups certified technician.

<b>Company Name:</b> _____	<b>Customer Contact</b>
	<b>Name:</b> _____
<b>Street Name and Number:</b> _____	<b>Position:</b> _____
<b>City:</b> _____	<b>Phone:</b> _____
<b>Province/State:</b> _____	<b>Email:</b> _____
<b>Country:</b> _____	<b>Target Installation Date:</b> _____

Is a forklift [with a lifting capacity of 762 lbs. (346 kg)] and a forklift operator available to lift the machine from the base palette to the work surface 30 inches (0.76 m) above the floor?	<input type="checkbox"/>
Has a rigging team (personnel) been arranged to aid in the receiving of the machine crate from the transport truck on to the facility floor.	<input type="checkbox"/>
The forklift has forks that are at least 48 inches (1.22 meters) in length.	<input type="checkbox"/>
The loading area is compliant with the transport truck.	<input type="checkbox"/>
There is a clear path between the receiving area and the installation room so the machine may be moved into position.	<input type="checkbox"/>
The receiving area has enough room to accommodate the crate length, 51.5 inches (1.31 meters)	<input type="checkbox"/>
All doors and openings are large enough to accommodate the machine width, 43.5 inches (1.11 meters)	<input type="checkbox"/>
All doors and openings are large enough to accommodate the machine height, 45 inches (1.15 meters)	<input type="checkbox"/>
Is the supply voltage (220 VAC) Single Phase, 50/60 Hz 15A correct? Or transformer for 110 VAC included on quote?	<input type="checkbox"/>
Power/receptacle correct for the PC, monitor, and optional mist extraction unit or convertors available?	<input type="checkbox"/>
Is the atmosphere low dust and ventilated?	<input type="checkbox"/>
Does the ambient temperature [65 to 86°F (18 to 30°C)] meet the machine requirements?	<input type="checkbox"/>
Does the relative humidity (35-65%) meet the machine requirements?	<input type="checkbox"/>
Is the network connectivity installed and ready to connect to the machine?	<input type="checkbox"/>
A valid IP address available in the required range? 192.168.1.1 – 192.168.1.126, 192.168.1.128 – 192.168.1.254	<input type="checkbox"/>
Does the room size meet the minimum requirements [9.3 feet (2.83 m), 10.6 feet (3.23 m), 7 feet (2.1 m)]?	<input type="checkbox"/>
1 gallon distilled water available for the chiller?	<input type="checkbox"/>
Has media/ink been arranged through the sales representative to be present at time of machine arrival?	<input type="checkbox"/>

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Customer Signature