SOVDA

Site Preparation Guide

North America

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INTRODUCTION



Thank you for choosing Sovda for your Specialty Coffee processing needs! This document establishes specific site requirements and will guide you through the steps necessary to complete them before the installation and commissioning of your equipment.

While this document should provide useful information and resources to help you through this process, please contact your Technical Brand Ambassador if you have any questions.

Note: Throughout this document, specific Action Required (ARS) will prompt you to send information to your Technical Brand Ambassador. We recommend reading through the document before beginning your Site Preparation so you are familiar with the process and ready to fulfill those ARs.

OVERVIEW

This document outlines how to prepare your space before receiving your Sovda equipment. First and foremost, you should review your current workflow and imagine how it will change once your Sovda equipment is installed. Your Technical Brand Ambassador is available to discuss workflow implications with you. Next, you will establish your equipment layout and ensure all utilities are positioned correctly and have sufficient supply. Finally, the AR prompts will ensure everything's good to go when your Technical Brand Ambassador arrives on-site.

WORKFLOW



While you likely chose Sovda for specific workflow improvements, it's important to take a moment to visualize how your equipment will integrate with your current operations. Even if you're building out an entirely new space, pondering your multiple workflow options will optimize each moment you or your employees spend working production. Some things to consider:

- Roaster Cooling Tray Outlet Some coffee roasters can swivel or adjust the cooling tray outlet direction, while some do not.
- **Space Restrictions** Sovda equipment is fairly modular, so if you have interesting challenges--such as support pillars or walls--connect with your Technical Brand Ambassador to see the possibilities.
- Roasting Space vs. Packaging Space While this depends on your specific equipment, Sovda packaging line products are designed to offer a streamlined operation from green coffee to packaged products. Eliminating areas of manual product movement by integrating your roasting and packaging spaces saves lots of time and money.
- Travel Corridors For safety and efficiency, it's essential to have clear areas of travel.

Once you have a solid concept of how your workflow will look after your Sovda implementation, you're ready to dial in the details with a site layout.

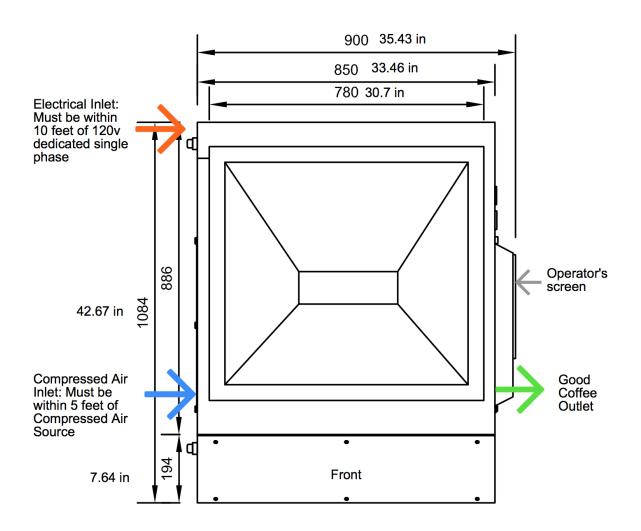
LAYOUT

This section establishes the context for your site preparation. Please use these photos for equipment footprint and utility connection distances.

Note: Ceilings must be at least 10ft (3.3m).

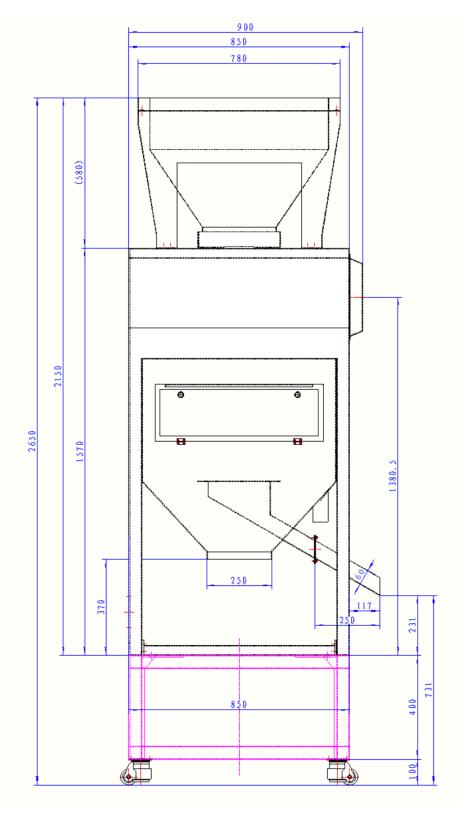


Pearl Mini Layout (Top View)



PEARL MINI

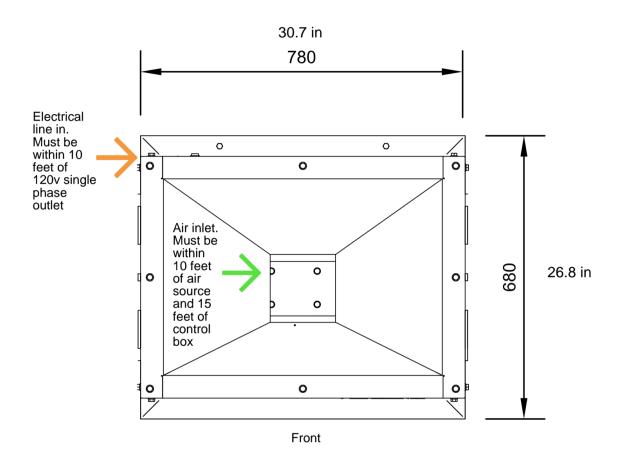




Pearl Mini front view - On a 400mm Base (available in 250mm Base, no Base, or custom made) - Base in Pink



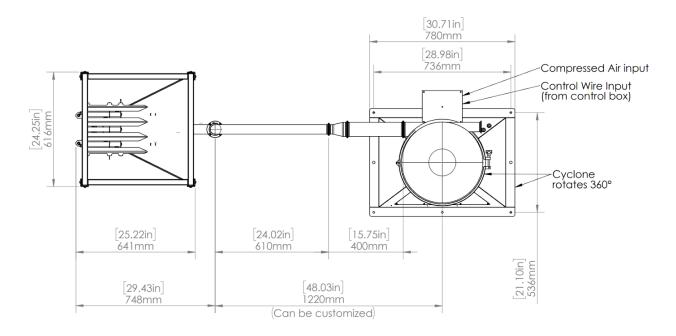
Precision Fill Layout (Top View)



PRECISION FILL



Lift Layout (Top View)



Notes:

- Compressed air inlet must be within 1.5 meters (5') feet of a compressed air outlet.
- The accompanying control box should be mounted within 4.5 meters (15') of an electrical outlet and 4.5 meters (15') of the control wire input.
- The distance between the hopper and the cyclone can be customized. Contact our sales team with your requirements, and we can design a pipe configuration accordingly.



☐ AR1: Send Layout to Technical Brand Ambassador.

Your layout may consist of any of the following:

- A scale drawing of your space and the equipment orientation
- A photo of the equipment locations marked out with masking tape in your actual space
- A photo of your space with machine locations digitally added/"painted" on
- Any other image/document that effectively communicates machine positioning in your workspace

ELECTRICAL REQUIREMENTS

All electrical service must be installed before your machine commissioning.

Note: The electrical layout requirements are established in the Layout Images linked above. Service requirements are:

1. Lift (with or without destoner option) - one hopper into one machine. Reach out to us if you have a different configuration.

2 outlets are needed: one for the vacuum system and one for the control box.

Vacuum System:

a. **Standard vacuum system:** operating current is 13 amps, 15 amp breaker recommended, 120v outlet

or

b. Vacuum Box Option: operating current is 15 amps, 15 amp breaker recommended, 240v outlet. The recommended receptacle is NEMA L6–15R.

Control Box:

a. Peak operating current is 3 amps, 120v outlet (common to any lift)



2. Precision Fill

a. Peak operating current is 2 amp 120v outlet

3. Pearl Mini

Two (2) outlets are needed

- a. One (1) operating current is 7 amps 220v outlet for the Pearl Mini
- b. One (1) regular plug (for a router used during commissioning only or permanently if you decide to have access remotely to your pearl mini on a different screen via VNC viewer)

Please take note of the following requirements:

- All plugs must be grounded and have the correct polarity.
- All electrical must be installed to NEMA standards and in accordance with local laws.
 - All 120v 15 amp or lower equipment will use a standard NEMA 5-15 plug configuration.
- Plugs should be on separate circuits. If plugs share a circuit, an electrician must verify
 peak current draw is 80% of the breaker rating and will not damage the circuit or trip the
 breaker. Normal circuits will not provide enough current to run multiple pieces of
 equipment.

Note: Peak current draw on a circuit can be calculated by adding up the amperage (listed above) of all equipment serviced by that circuit. The total amperage should not exceed the amperage indicated on the circuit breaker.

☐ AR2: Send Electrical Information to Technical Brand Ambassador.

Electrical information includes <u>all</u> the following:

- Photos or layout of plug locations and each breaker
- Written confirmation that the total circuit demand does not exceed circuit capacity
- Written confirmation that all plugs are grounded, have correct voltage, and have correct polarity



COMPRESSED AIR REQUIREMENTS

Air lines with shutoff connections must be installed before machine commissioning. The total distance between the air compressor and the furthest shutoff should not exceed 75 feet. The total distance from the shutoff connection to the planned installation location should not exceed 10 feet. The main air line can be for pex or metal pipe and can be hung from the ceiling above the machines or on the wall behind the machines.

Note: The connection for the Lift air line is on the cyclone, i.e., the portion that drops coffee into the destination equipment. If you use the Lift to convey coffee into the Precision Fill or Pearl Mini, the shutoff connection points should be located next to each other. If you use the Lift to load green into a coffee roaster, the shutoff connection should be located next to the roaster.

- 1. Lift (any variation) / Precision Fill: Air requirement is .5cfm @90psi for the Precision Fill and any type of Lift. Any air compressor will be able to provide this. The one hooked to your roaster, if you have one, will work, and you can just run an extra air line(s) from it.
- 2. **Pearl Mini:** Your air compressor meets these requirements and, if connected to several pieces of equipment, has enough pressure and flow available to provide:
 - a. Your air compressor should be able to support the following output:

Pressure	Psi	90	105	120
	mpa	0,60	0,70	0,8
	Bar	6,00	7,00	8,0
Flow (or volume)required at this pressure	Cfm	14	12	10,5
	M3/hour	0,40	0,34	0,3

- b. Screw or rotary air compressor with a refrigerator-type dryer,
- c. tank, good filters (oil, dust, and water can damage ejectors), and an air tank of at least 100L.
- B. Share the volume of your tank, pressure, and flow in cfm / psi or m3 / Mpa.
- C. For Precision Fill requirements:



- D. Your air compressor meets these requirements and, if connected to several pieces of equipment, has enough pressure and flow available to provide:
 - a. 1.5kw 1.25 cfm at 50 psi or,
 - b. 0.34m3 at 0.35mpa

Service requirements are as follows:

- 1. **Lift:** One shutoff connection per lift, with the shutoff connection located within 5-10 feet of the destination equipment.
- 2. **Precision Fill:** One shutoff located within 5-10 feet of the Precision Fill, plus any lifts.
- 3. **Pearl Mini:** One shutoff located within 5-10 feet of the Pearl Mini, plus any lifts.

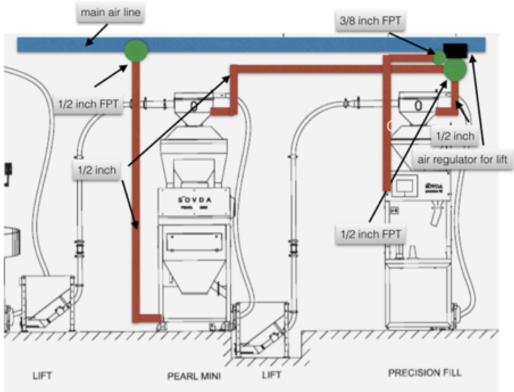


Equipment	Max Distance from Compressor or reducer	Machine Air Inlet Size	External air regulator required?
Pearl Mini	Less than 30 feet using ¾ inch pipe. 30 feet - 75 feet using 1-inch pipe (25.4mm).	1/2 inch OD push connect (16mm)	NO (included in equipment)
Lift	Up to 25 feet of ½ inch pipe	½ inch OD push connect (16mm)	NO (included in equipment)
Precision Fill	Up to 25 feet of ½ inch pipe	8mm push connect, comes with adapters to ½ OD push connect	NO (included in equipment)

□ AR3: Send Air Service Information to Technical Brand Ambassador

Air service information includes <u>all</u> the following:

- Photos of installed air lines
- Photos of installed shutoff valves with correct outlet size





QR Code for Electronic Checklist Submission:





ACTION REQUIRED CHECKLIST

Use the checklist link here to share that information.

Checklist Site Preparation

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- Photos of installed shutoff valves with correct outlet size

If you chose self-assembly for your equipment:

Photos of the air regulator with the pressure set up at 0.4MPa for Pearl Mini,
 Precision Fill, and Lift. This means you have the air line connected to a functioning air compressor, and there is no leakage.