

# S O V D A

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## Site Preparation Guide

### International

V1.4IN - 21 March 2022

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## INTRODUCTION

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

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

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

## OVERVIEW

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This document outlines how you should prepare your space prior to receiving your Sovda equipment. First and foremost, you should review your current workflow and imagine how that might change once your Sovda equipment is installed. Your Technical Ambassador is available to discuss workflow implications with you. Once that's settled, 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 Ambassador arrives on-site.

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## WORKFLOW

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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 a completely 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 have the ability to swivel or adjust the cooling tray outlet direction, 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 Ambassador to see what the possibilities are.
- **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 product. 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 important 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.

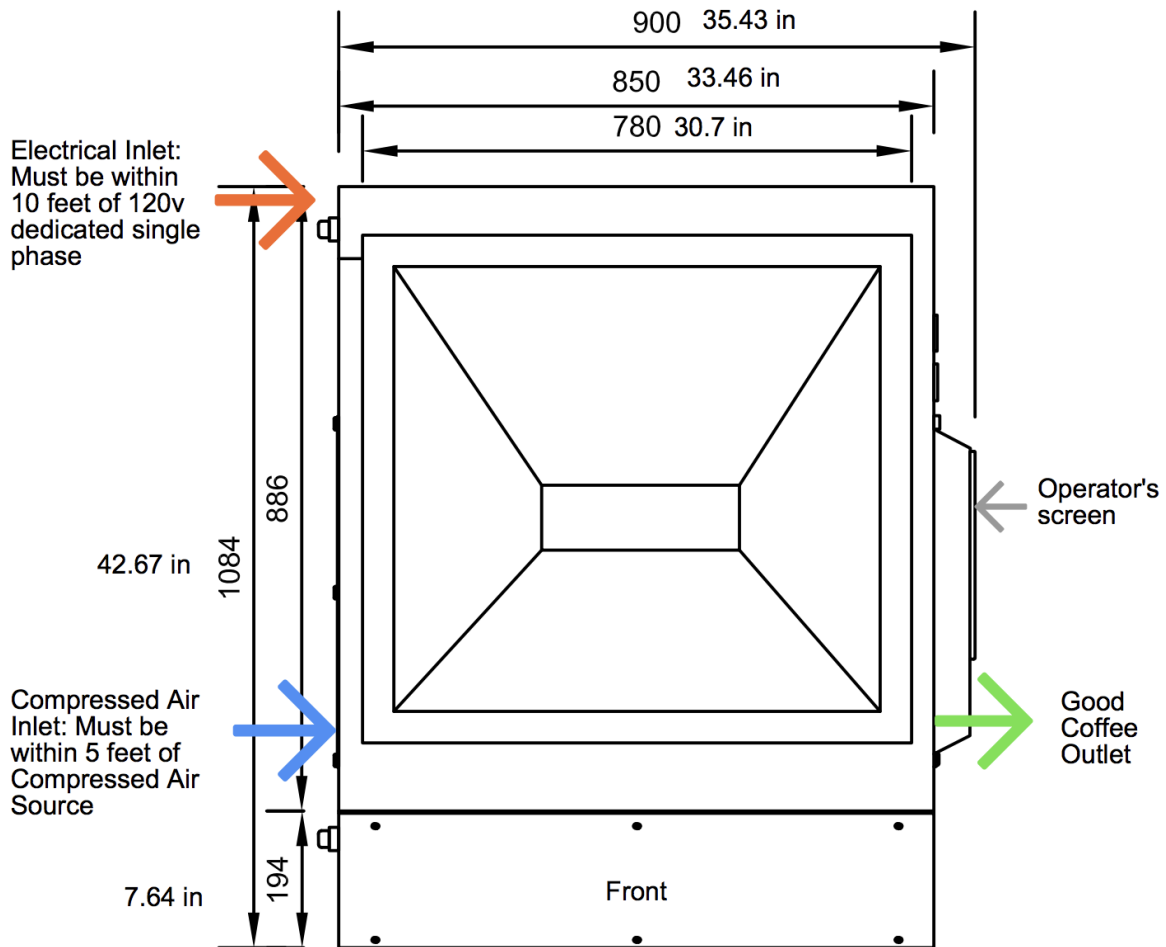
## LAYOUT

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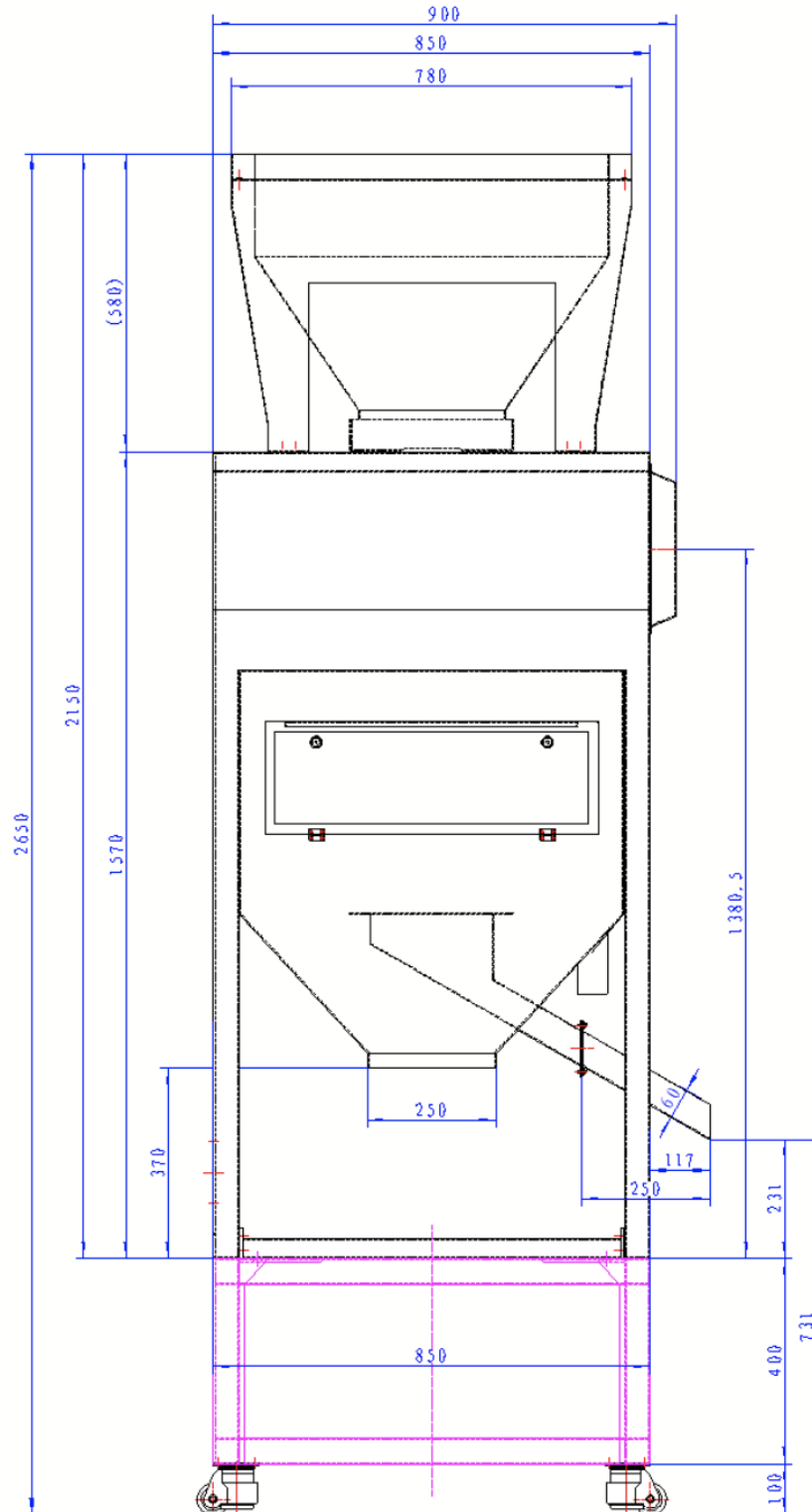
This section establishes the context for your site preparation. Please use these photos for equipment footprint and utility connection distances.

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

### Pearl Mini Layout (Top View)

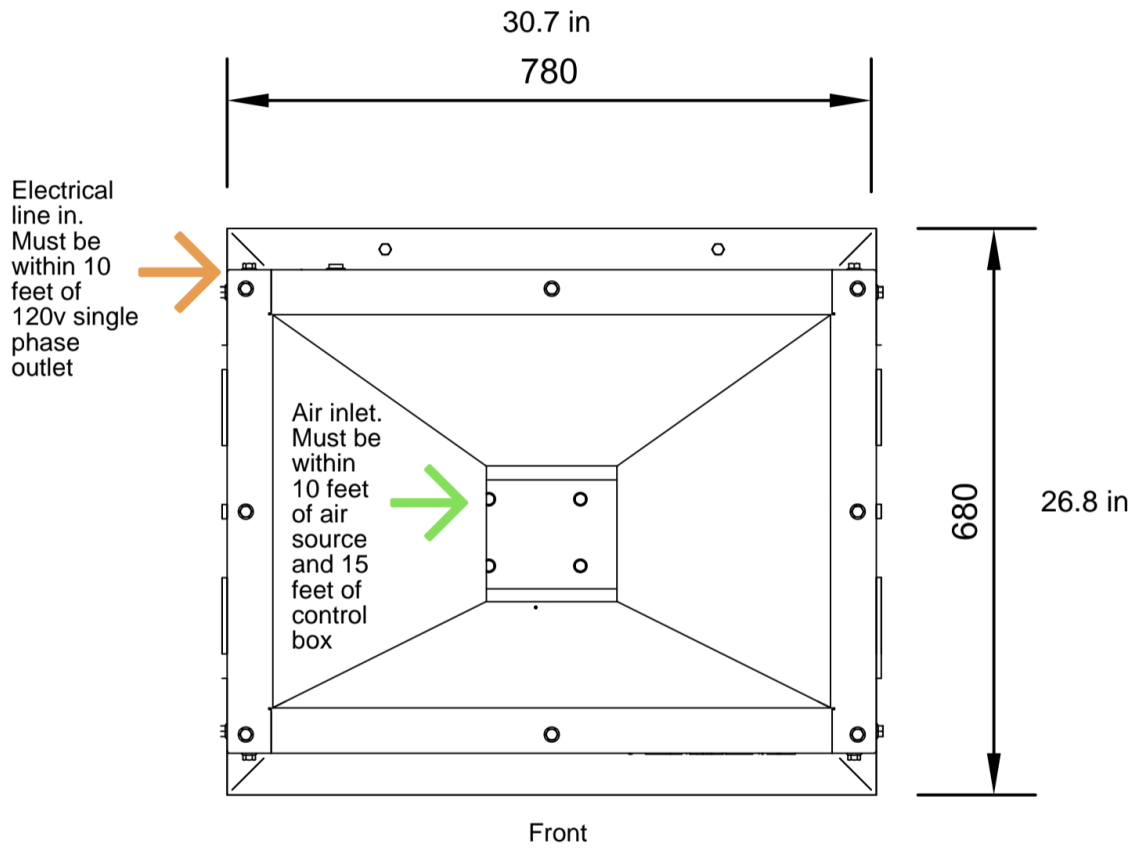


# PEARL MINI



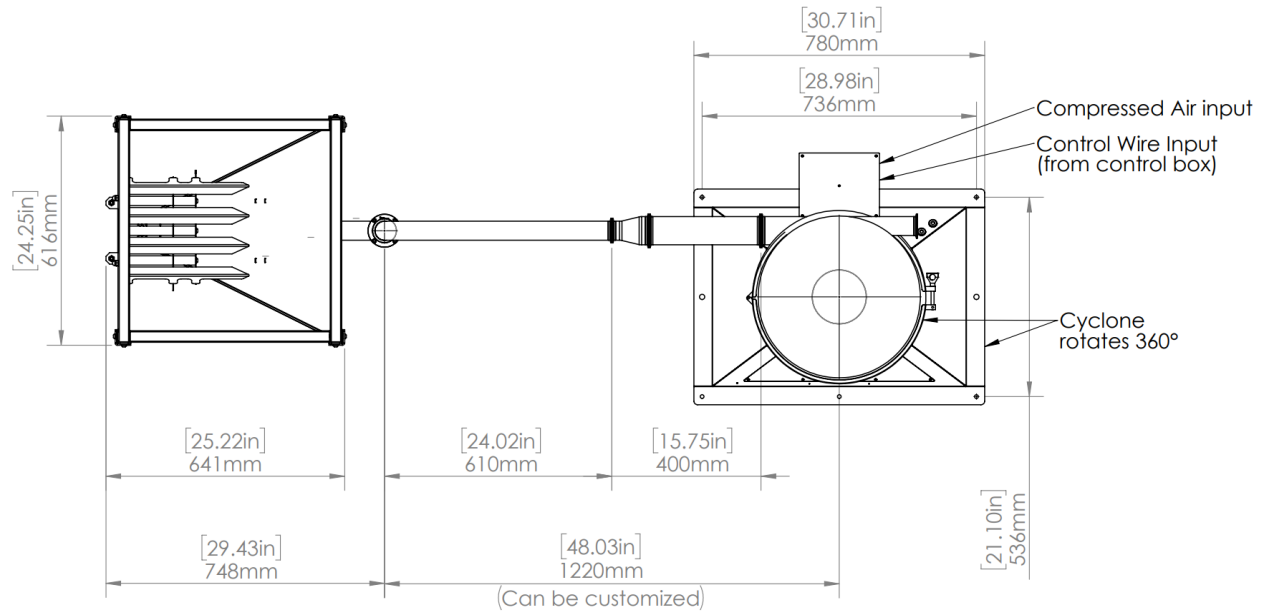
**Pearl Mini front view. Here on a 400mm basis (available in 250mm base, no base, or custom made) (i.e. in pink is the base)**

### Precision Fill Layout (Top View)



# PRECISION FILL

### Lift with Precision Fill Layout (Top View)



## LIFT

### 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 cyclone can be customized. Contact our sales team with your requirements and we can design a pipe configuration accordingly

### □ AR1: Send Layout to Technical 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 prior to your machine commissioning. Please note the electrical layout requirements are established in the Layout Images linked above. Service requirements are as follow:

1. **Lift with or without destoner** (one hopper into one machine ask us if you have variation)
  - a. X1 1500w operating current is 7amp, 220v outlet (for vacuum)
  - b. X1 500w operating current is 3 amp, 220v outlet (for control box)
2. **Precision Fill**
  - a. X1 1500w operating current is 7amp,, 220v outlet
3. **Pearl Mini**
  - a. X1 1000w, operating current is 5 amp, 220v outlet
  - b. X1 *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)

### 4.Voight Air Compressor

The air compressor is 5,500w here are the different electrical specifications we offer:

#### Three phases options

- c. 380V outlet, operating amp is 10 amp, we recommend an 20 amp breaker, 5 wire Neutral ,Ground, Hot 1 (L1), Hot 2 (,L2), Hot 3 (L3)

-or-

- d. 230v outlet, operating amp is 17 amp, we recommend an 25 amp breaker, (three phase, 5 wire N,G,L1,L2,L3)

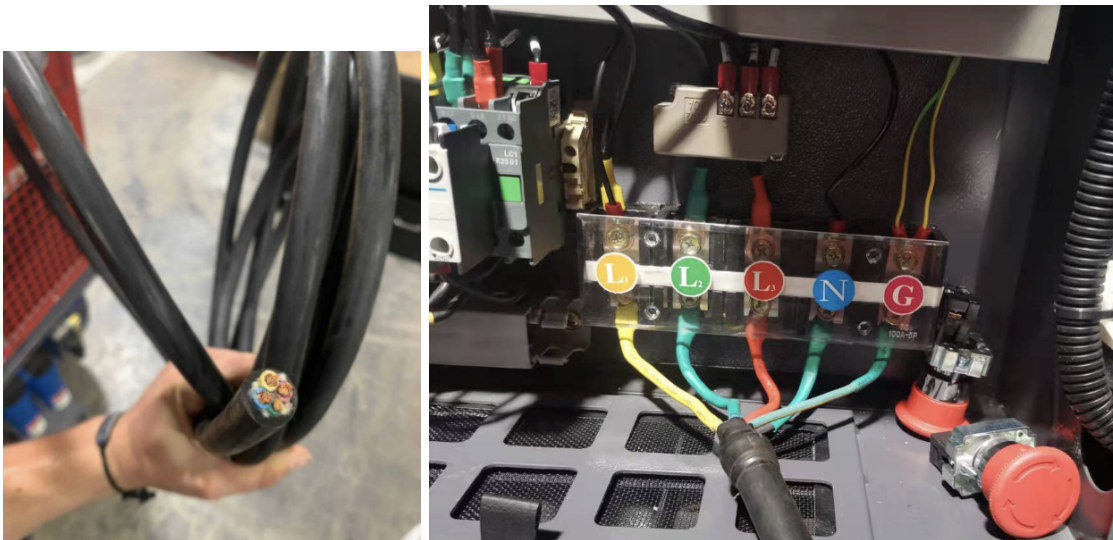
-or-

- e. 220v outlet, operating amp is 17 amp, we recommend an amp breaker 25 amp breaker, (three phase, 5 wire N,G,L1,L2,L3)

Single phase (North America only)

- f. 230/220v outlet, operating amp is 29 amp, we recommend a 40 amp breaker, (single phase 3 wire, N,G, L1,) for North America only.

The air compressor will be provided with whip as on the picture (5 wires on the picture)



Please take note of the following requirements:

- **All plugs must be grounded and have correct polarity.**
- **All electrical work must be installed in accordance with local laws.** Review your specific plug requirements with your Technical Ambassador if you have further questions.
- **Each machine 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. Total amperage should not exceed the amperage indicated on the circuit breaker.

□ **AR2: Send Electrical Information to Technical Ambassador.**

Electrical information includes all the following:

- Plug Selections;
- 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 prior to machine commissioning. Total distance between air compressor and furthest shutoff should not exceed 75 feet (22.8m). The total distance from the shutoff connection to the planned installation location should not exceed 10 feet (3m). 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 are using 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 are using 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 0.6Mpa at 0.006m<sup>3</sup>/hour 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 airline(s) from it.

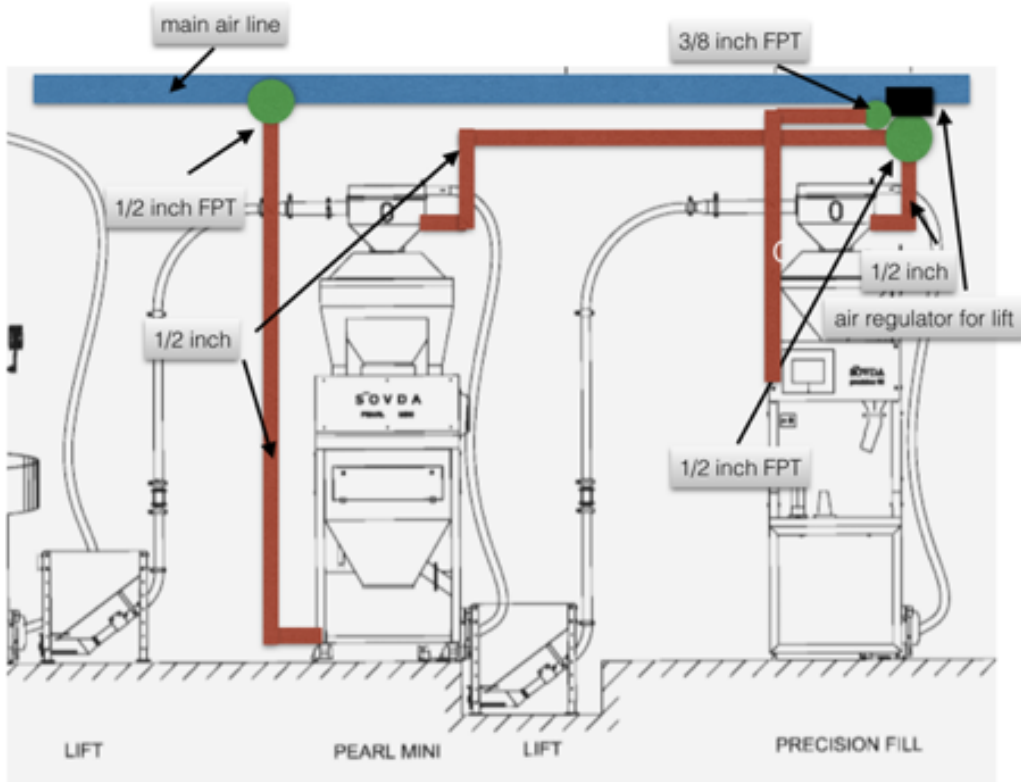
2. **Pearl Mini** Air requirement is 5.5 kw 7hp 23 cfm at 90 psi and 0.8m<sup>3</sup> at 0.3Mpa. You will need a screw or rotary air compressor with a refrigerator type dryer, tank and good filters (oil, dust and water can damage ejectors.) and an air tank of at least 100L.

### Service requirements are as follow:

1. **Lift:** One shutoff connection per lift, with shutoff connection located within 5-10 feet (1.5-3m) of the destination equipment.
2. **Precision Fill:** One shutoff located within 5-10 feet (1.5-3m) of the Precision Fill
3. **Pearl Mini:** One shutoff located within 5-10 feet (1.5-3m) of the Pearl Mini

Equipment	Max Distance from Compressor or reducer	Outlet Line Size	External air regulator required?
Pearl Mini	Less than 10 meters use 3/4 inches pipe (19mm)  10m-25m: use 1 inch pipe (25.4mm).	½ inch (12.7mm) FPT outlet (Female Pipe Thread) ideally would have a ball valve	NO (included in equipment)

Lift	Up to 10m ½ inch pipe (12.7mm)	1/2 inch (12.7mm) FPT outlet (Female Pipe Thread) ideally would have a ball valve	NO (included in equipment)
Precision Fill	Up to 10m of ½ inch pipe (12.7mm)	1/2 inch (12.7mm) FPT outlet (Female Pipe Thread) ideally would have a ball valve	NO (included in equipment)



□ **AR3: Send Air Service Information to Technical Ambassador**

Air service information includes all the following:

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

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## Ordering & Delivery

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QR Code for Electronic Checklist Submission:



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## ACTION REQUIRED CHECKLIST

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□ **AR1: Send Layout to Technical Ambassador.**

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□ **AR2: Send Electrical Information to Technical Ambassador.**

*Electrical information includes all the following:*

- *Photos or layout of plug locations;*
- *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.*

□ **AR3: Send Air Service Information to Technical Ambassador**

*Air service information includes all the following:*

- *Photos of installed air lines*
- *Photos of shutoff connections*