

S O V D A

Site Preparation Guide

North America

V1.1 US - 10 November 2022

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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 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 Brand 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 Brand Ambassador. We recommend reading through the document prior to beginning your Site Preparation so you are familiar with the process and ready to fulfill those AR's.

OVERVIEW

This document outlines how to prepare your space prior to 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 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 Brand 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.

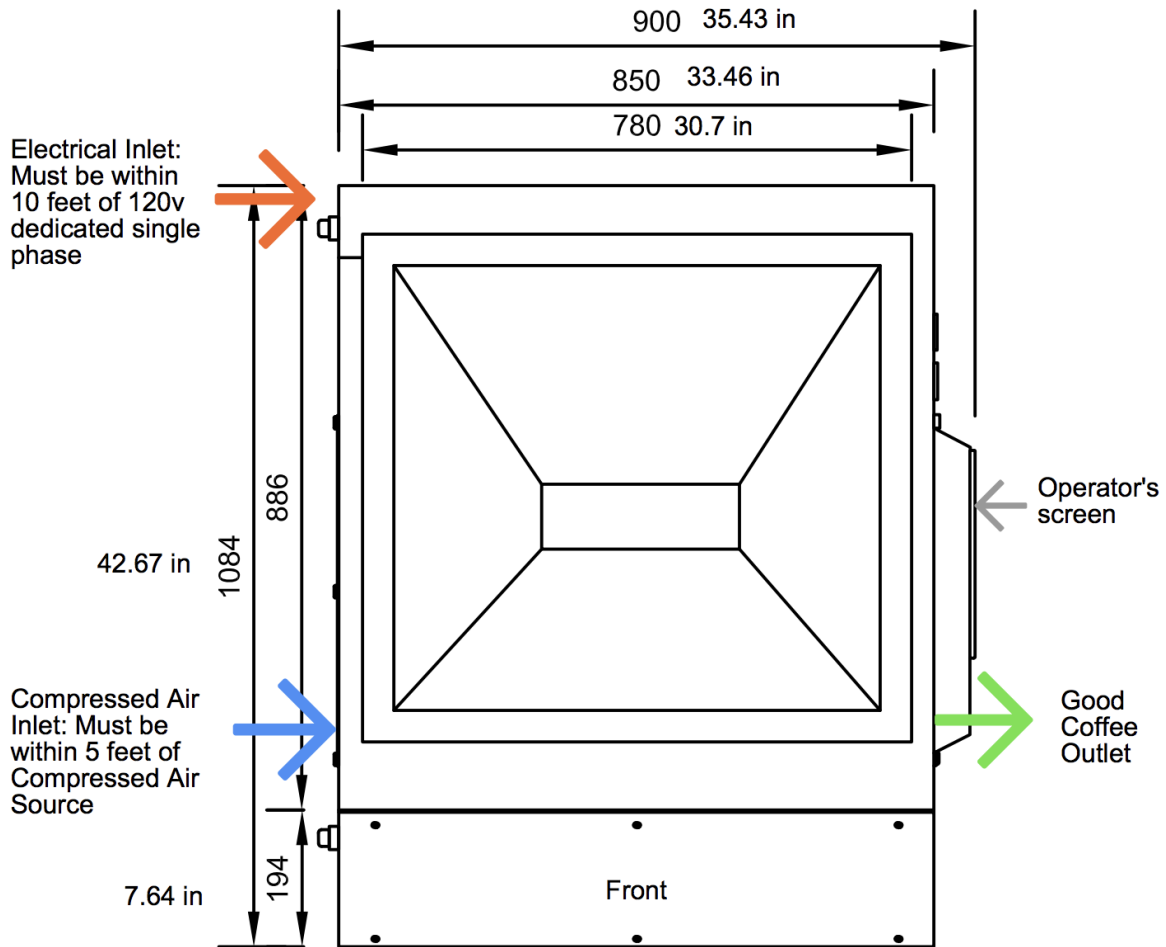
Once you have a solid concept of how your workflow will look after your Sovda implementation, you're ready to dial in the details with a site layout.

LAYOUT

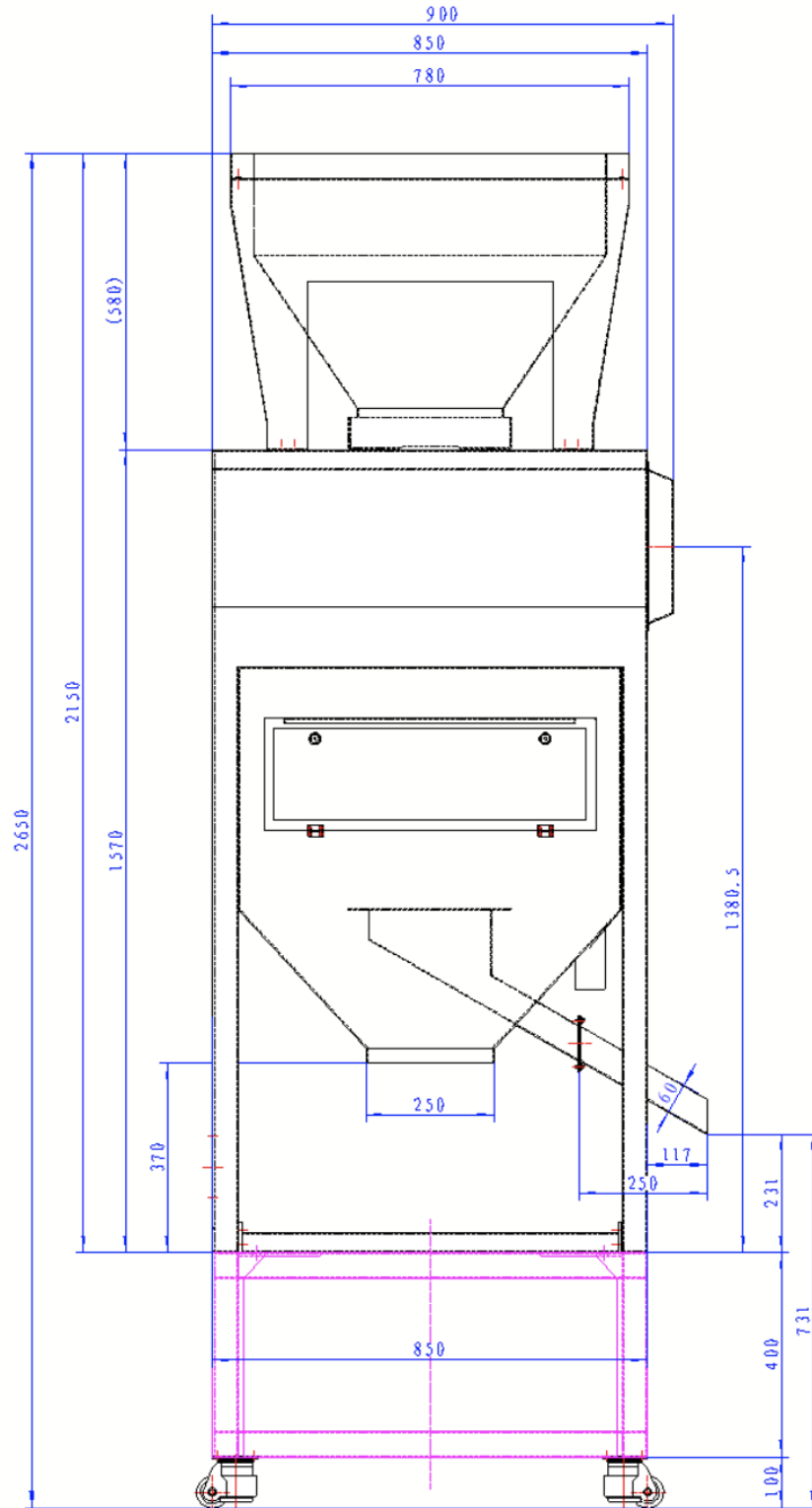
This section establishes the context for your site preparation. Please use these photos for equipment footprint and utility connection distances.

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

Pearl Mini Layout (Top View)

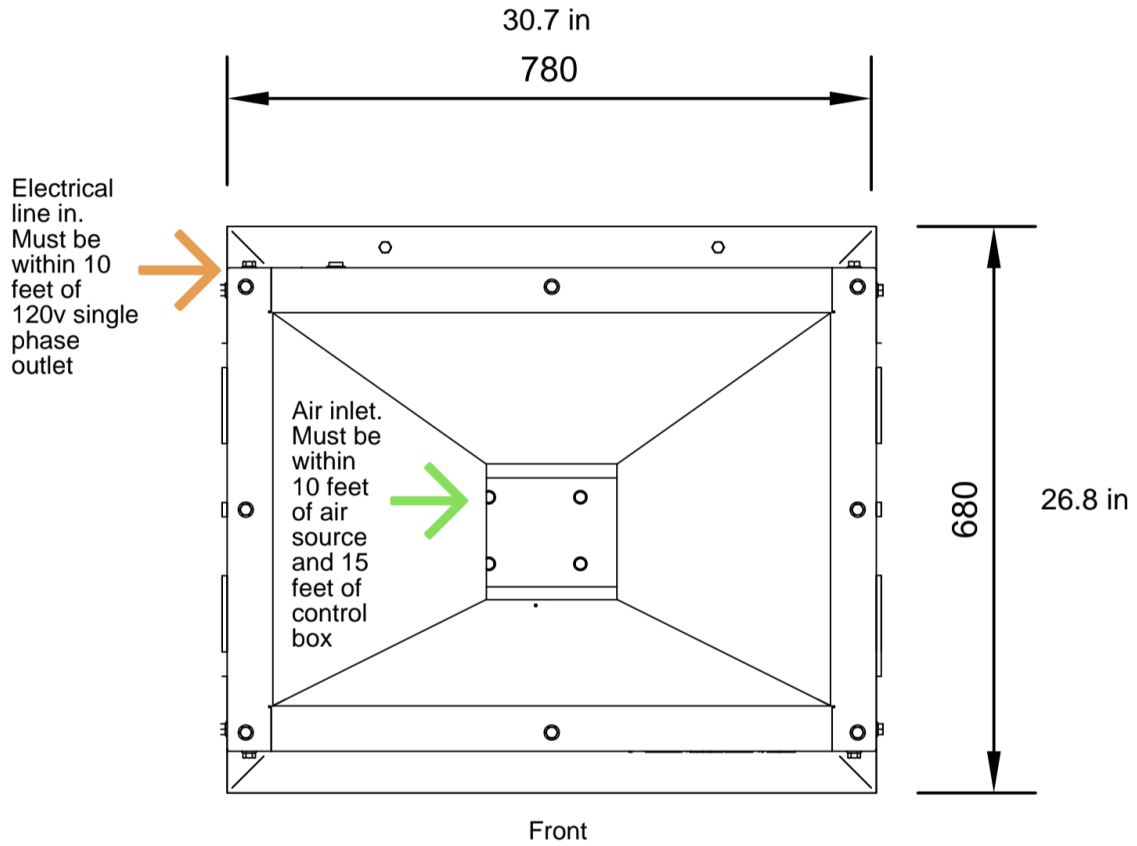


PEARL MINI



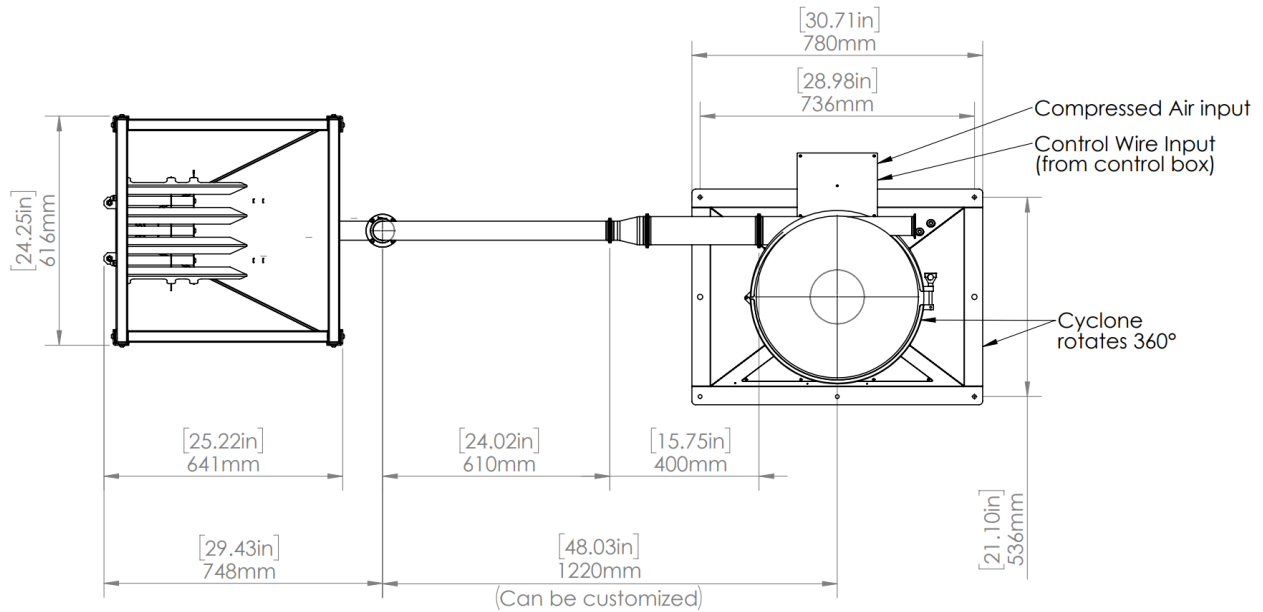
Pearl Mini front view - On a 400mm Base (available in 250mm Base, no Base, or custom made) - Base in Pink

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 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 prior to your machine commissioning.

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

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, 110v outlet

or

- b. **Vacuum Box Option:** operating current is 15 amps, 20 amp breaker recommended, 110v outlet (high current spike at start hence 20 amp breaker)

Control Box:

- a. Peak operating current is 3 amps, 110v outlet (common to any lift)

2. Precision Fill

- a. Peak operating current is 2 amp 110v 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)

4. Voight Air Compressor

The air compressor is 5500w with different electrical specifications we offer for North America:

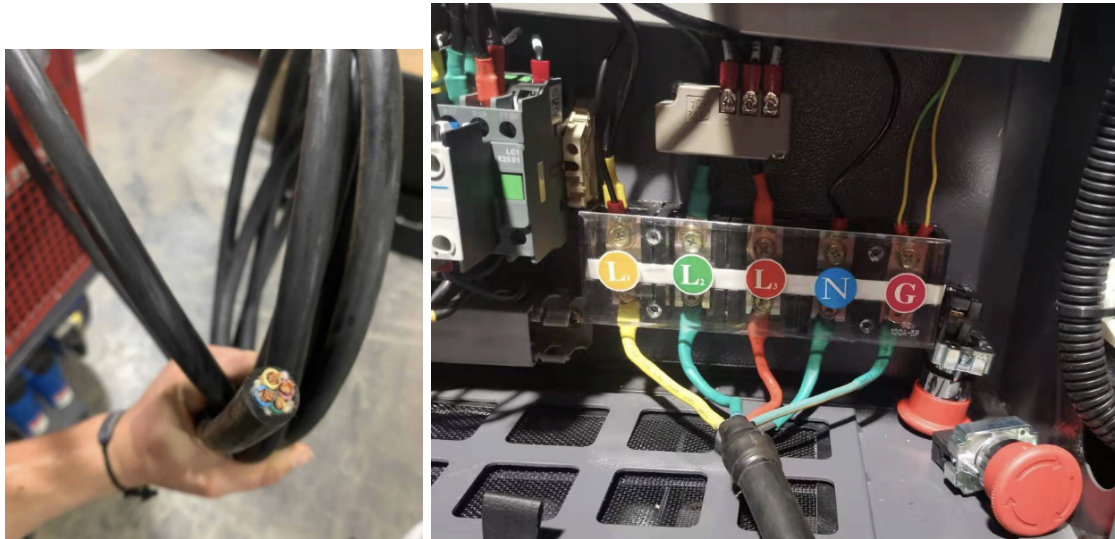
Three phases

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

Single phase

- b) 230/220v outlet , operating current is 29 amps, 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 must be installed to NEMA standards and in accordance with local laws.
 - All 110v 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. Total amperage should not exceed the amperage indicated on the circuit breaker.

□ AR2: Send Electrical Information to Technical Brand Ambassador.

Electrical information includes all 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 prior to machine commissioning. Total distance between air compressor and 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 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 0.006m³/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 air line(s) from it.
2. **Pearl Mini** Air requirement is 5.5 kw 7hp 23 cfm at 90 psi and 0.8m³ 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:

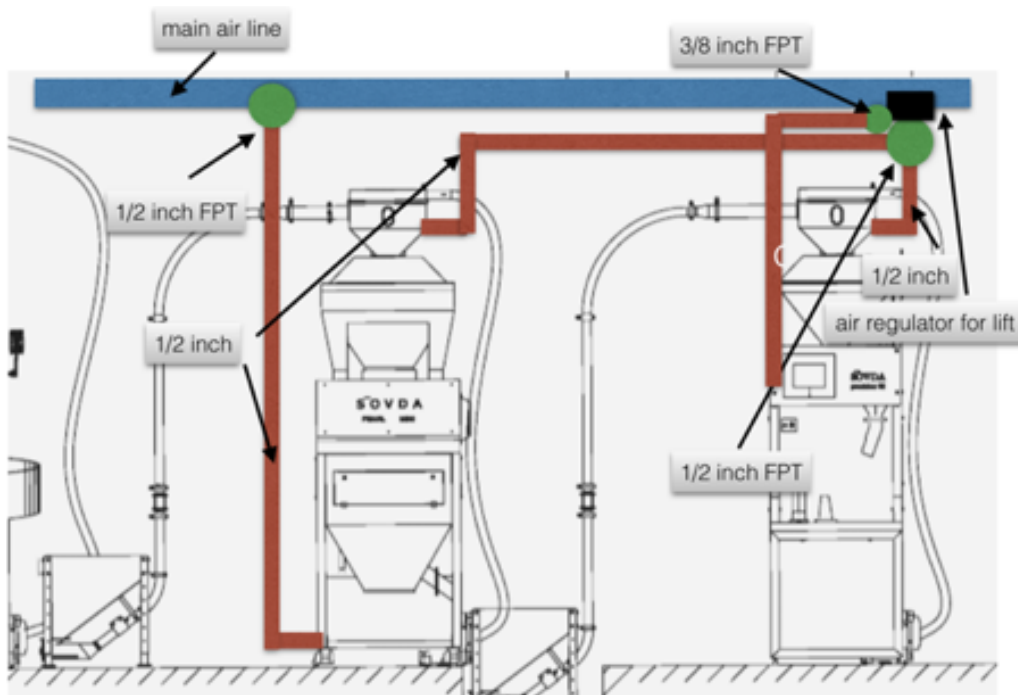
1. **Lift:** One shutoff connection per lift, with shutoff connection located within 5-10 feet of the destination equipment
2. **Precision Fill:** One shutoff located within 5-10 feet of the Precision Fill
3. **Pearl Mini:** One shutoff located within 5-10 feet of the Pearl Mini

Equipment	Max Distance from Compressor or reducer	Outlet Line 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).	½ inch FPT outlet (Female Pipe Thread) ideally would have a ball valve	NO (included in equipment)
Lift	Up to 25 feet of ½ inch pipe	½ inch FPT outlet (Female Pipe Thread) ideally would have a ball valve	NO (included in equipment)
Precision Fill	Up to 25 feet of ½ inch pipe	½ inch FPT outlet (Female Pipe Thread) ideally would have a ball valve	NO (included in equipment)
Soft Blend	Up to 25 feet of ½ inch pipe	½ inch FPT outlet (Female Pipe Thread) ideally would have a ball valve	NO (included in equipment)

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

Air service information includes all 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 those information

[Checklist Site Preparation](#)

□ AR1: Send Layout to Technical Brand Ambassador.

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Electrical information includes all the following:

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□ AR3: Send Air Service Information to Technical Brand Ambassador

Air service information includes all the following:

- *Photos of installed air lines*
- *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.*