

## Installation Instructions for the Abrasive Transfer Hopper & Stand

The AHB Tooling & Machinery 4,400-pound transfer hopper and stand is recommended for use with all mesh sizes of garnet abrasive.

The following items will be used during the installation:

- all applicable personal protective equipment (PPE) including safety glasses, gloves, dust mask, and hearing protection.
  - drill with ½" diameter concrete bit
  - adjustable wrench
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### INSTALLATION

1. Center the stand over the top of the pressure pot. The installation area must have adequate ceiling height so the hopper can be placed on and taken off the top of the stand with a forklift. The installation area must be free of low hanging pipes, wires, or other obstructions which could interfere with repeated removal or installation of the hopper. The installation area should be away from areas with an elevated level of forklift traffic.
2. Mark areas on the concrete to bolt all four legs of the stand to the floor.
3. Using a ½" concrete drill, drill four holes approximately 4" deep.
4. Clean any concrete dust from inside the holes (i.e. vacuum). Avoid inhaling any concrete dust.
5. Remove the nut and washer from the supplied vibration resistant stud anchor.
6. Using a mallet, insert one stud anchor in each hole so only the threaded portion of the stud is visible.
7. Place the stand onto the four studs.
8. Install one washer on each of the studs.
9. Install one nut on each stud turning clockwise until finger tight.
10. Using an adjustable wrench, turn nuts clockwise until snug. Do not overtighten. If the stud, washer or nut is damaged, replace it before proceeding to place the hopper on the stand.
11. Follow the instructions in the next section for placing the hopper on the stand.

## Usage Instructions

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- Use an appropriately rated forklift (with a minimum 7,000-pound lifting capacity) and a fork width (the inside dimension between the forks) of 29.75" when moving the hopper.
  - The hopper must be taken off the stand and placed on the ground before loading.
  - The hopper must be empty before filling.
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### FILLING THE HOPPER

1. Confirm that the valve at the bottom of the hopper is closed.
2. Remove the lid from the hopper. To avoid injury, removal as well as any other substantial manipulation of the lid should be done with two people.
3. Using a forklift, lift the 2,200 or 4,400-pound bulk bag of garnet abrasive over the top of the hopper. Carefully follow FIBC Bulk Bag Handling Guidelines in handling the bulk bag. The following link provides detailed information regarding the safe handling of bulk bags, <http://fibca.com/>.

If you are sensitive to dust or abrasive materials, use appropriate personal protective equipment (PPE) including respiratory protection. Review the Safety Data Sheet (SDS) for proper PPE and safe handling recommendations.

4. Untie the outer duffle on the bottom of the bulk bag, and pull the release cord on the spout to empty the entire contents of the bulk bag in the hopper. Stand to the side of the bulk bag and be careful to avoid falling material released from the bag.
5. Place the lid back on top of the hopper (the lid should be lifted by two people to avoid injury).

### Placing the hopper on the stand:

1. Place the forks of the forklift inside both fork pockets on the bottom of the hopper. The forks should extend to, or near, the end of the fork pockets.
2. Lift the hopper slowly until the hopper is slightly higher than the top of the stand (approximately 60").
3. Center the hopper over the top of the stand ensuring the hopper is placed evenly between the outer lip of the sides of the stand. The hopper should be placed all the way to the back stop of the stand.
4. Ensure the hopper is level before lowering the hopper onto the stand.
5. Lower the hopper slowly onto the stand.

6. Ensure the hopper is placed correctly on the stand before backing away from the hopper.
7. Connect the hopper to the stand by installing the two 5/8" x 8.5" hitch pins through the slots in each side of the stand, making sure that the pin goes completely through the fork pocket.
8. Install the lynch pins in the hole at the end of each 5/8" x 8.5" hitch pins.

#### **Filling the pressure pot:**

1. Shut down the waterjet and depressurize the pressure pot (this step can be eliminated if you have a newer style pressure pot that does not require depressurization prior to filling).
2. Ensure that the blue 2" flexible abrasive fill tube on the bottom of the hopper is centered over the top of the pressure pot.
3. Pull the lever on the 2" ball valve downward to release the abrasive from the hopper into the pressure pot.
4. When the pressure pot is full, close the valve by lifting the valve handle upward until it is firmly in the closed position.
5. Pressurize the pressure pot.

#### **Removing the empty hopper from the stand:**

1. Ensure that the hopper is empty and the fill tube connecting the hopper to the pressure pot is disconnected.
2. Remove the two 5/8" x 8.5" hitch pins that secure the hopper to the stand prior to lifting the hopper from the stand.
3. Raise the forks of the forklift and ensure that the forks are level and at the correct width to fit into both fork pockets.
4. Drive forward into fork pockets until the top of the hopper is near the boom. The forks should extend to, or near, the end of fork pockets.
5. Lift the hopper upwards until it has cleared the top of the stand by at least several inches.
6. Backup slowly away from the stand.
7. Lower the hopper slowly and carefully to the ground.

## Safety Precautions

### To Avoid Severe Injury or Damage:

- Do not exceed the maximum load capacity of 4,400 pounds. Do not overfill. To ensure compliance, make sure the hopper is empty before filling with a 4,400-pound bag or two 2,200-pound bags of garnet.
- Regularly inspect the stand installation and floor bolts. Once a month, check the tightness of the floor bolts, the stand balance and overall integrity.
- Do not attempt to remove the hopper from the stand without first removing the two 5/8" x 8.5" hitch pins that connect the hopper to the stand. Inspect the hitch pins for signs of wear, and replace if necessary.
- The stand and hopper are heavy, even when the hopper is empty. Always use a forklift to manipulate or move the hopper, the stand, or the pressure pot.
- The hopper lid is heavy. Always use two people to install, remove or substantially move the lid.
- Keep to the side of the hopper during the filling process. Be careful to avoid falling material released from the bag. Never stand under a suspended load.
- Keep hands and fingers away from the bottom of the hopper and the top of the stand when either is being moved or manipulated.
- Do not stand on top of the stand or on top of the hopper lid. Do not reach inside the hopper.
- Do not attempt to climb on the stand or hopper. Use the sight glass to check the garnet abrasive level in the hopper.

If you are sensitive to dust or abrasive materials, use appropriate personal protective equipment (PPE) including respiratory protection. Review the Safety Data Sheet (SDS) for proper PPE and safe handling recommendations.

