

Installation & Operation Instructions

Bulk Bag Unloader

General Description

Metalfab Bulk Bag Unloaders are supplied in two (2) basic models. One is the vibrated unloader complete with bag support frame. In either case a bag rack is supplied.

The bag rack, as standard, is used to load bags using a forklift truck.

When a unit is purchased less the bag support frame, it is shipped skid mounted with all components installed and ready for operation. The isolators are bolted to brackets with pre-drilled mounting holes. The vibrator is mounted in place.

Installation

The unit should be removed from the skid and placed in its operating area. It should then be leveled and bolted firmly in place. Each mounting bracket has two (2) drilled holes for this purpose. Bolts and nuts are not supplied. There should be no stationary clearance between it and a receiver tube if utilized.

The vibrator can now be wired. Be sure the electrical wiring is flexible and capable of being vibrated. (See separate vibrator instructions for further information). Controls are by others.

When Bulk Bag Unloader is supplied complete with bag support frame, it is shipped fully assembled, but in a "laid down" horizontal position. The shipping skid is fabricated so that there is no loading of the isolators. When standing the unit upright, care should be taken not to harm the isolator. Once the unit is in operating position, the foot pads should be bolted down. (Hardware is by others). The vibrator can now be wired as explained above.

There are two (2) adjustable cross members on the vertical legs of the support frame. These are held in position with a bolted clamp device. These are used to support the bag rack. See operation instruction section for adjustment of these cross members.

Operation

All Bulk Bag Unloader units are provided with an access door in the exit chamber. The door is hinged at its base and it is held closed by two (2) quick clamps. The door is provided to allow access to the spout of the bulk bag.

Before loading the first bag, the bag rack should be adjusted to fit the bag and the forks of a forklift truck. The clamping bracket should be loosened to adjust the forks width. To adjust the opposite direction there are a series of holes in forklift tubes. The brackets may be moved in 5" increments. These adjustments are provided so that the rack may be adjusted to allow the bag strap to be as close to vertical as possible during the lifting of the bag.

Once the rack is adjusted and fitted to the forklift, the bag straps can be lifted over the vertical posts in the rack. The bag can now be lifted and put in place. The bag should now be raised high enough to clear the rub rail on the Bulk Bag Unloader. It should be entered on the unit and lowered fully until the entire weight of the bag rests on the vibrating Bulk Bag Unloader body.

The access door can now be opened to allow for undoing the ties on the bag spout.

After the spout is untied, it should be pulled downward through the outlet of the Bulk Bag Unloader. The door should now be closed and clamped.

The cross beams on the vertical legs of the frame can now be adjusted vertically so that the bag rack is supported by them. The forklift truck can now be moved. If the unit is supplied less a frame assembly, the forklift must remain in position to support the empty bag.

If "one way" bags are used, the bag may be cut through the access door. A knife cutting option is also available. When this is purchased it automatically cuts the bag as it is lowered in place. The exit chamber is normally eliminated in this case.

If a hoist is used to transport the bag, a special bag rack for this purpose can be purchased. The same procedure is followed as above for operation. The hoist must stay in position to support the empty bag when there is not a support stand.

The support stand for the hoist supplied units is provided with (16) 1/2" diameter holes for 5/8" dia. bolts. High strength bolts grade 5 or better must be used to mount stand to its support base.

The rating of the hoist and beam must never be exceeded. The hoist must only be used to raise the bag vertically. Never use the hoist to drag the bag in position. Once the bag is lifted, the trolley should be used to place the bag in position above the unloader.

The units are shipped with the vibrator set for the minimum force required to start flow of product. If flow is not achieved as required, the vibrator force should be increased. The increase should be in minimum amounts until flow is adequate. See separate vibrator instructions for these changes.

Warning: Vibrator must be electrically locked-out before any adjustment or maintenance can be performed.

When bags have plastic liners it is necessary to "tie off" the liner at the top side of bulk bag. An optional "tie hook" can be purchased for this requirement.

Caution should be taken when the Unloader is discharging to downstream equipment. Most important is interlocking the vibrator. The vibrator would be electrically interlocked with the downstream equipment so that it will only be energized when the equipment is operating. If a shut off gate or valve is utilized, its open switch should start the vibrator and its closed switch should shut it down. Also, care should be taken to assure the spout extension does not foul the downstream equipment.

Maintenance

The only moving part in the Unloader is the vibrator. See the vibrator instruction manual for maintenance requirements.

The only other parts that need some attention are the elastomer diaphragm seal and the isolators. The seal should be inspected periodically to check for tear or loss of elastic memory. If either of these are spotted, the seal should be replaced. To replace the seal, the bolts holding the side guides are removed. The side guides may

now be lifted vertically. The old seal can now be removed, a new seal (with pre-punched holes) put in place and the side guides reinstalled.

The isolators should give years of service before replacement is required. They should be inspected periodically for damage due to chemical attack or overloading. Other than damage, the isolators should be replaced every two to three years depending on use of the Unloader.

To replace the isolators, the nuts on the isolator studs should be removed. The Bulk Bag Unloader should be lifted vertically approximately 4", the old isolators removed and the new ones installed. Replacing the nuts completes the job.

All spare parts may be purchased directly from Metalfab, Inc.

Note: See attached schematic for part descriptions.

WHEN INQUIRING ABOUT ANY BULK BAG UNLOADER, ALWAYS REFER TO THE SERIAL NUMBER STAMPED ON THE METALFAB NAMEPLATE.

METALFAB SERVICE

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