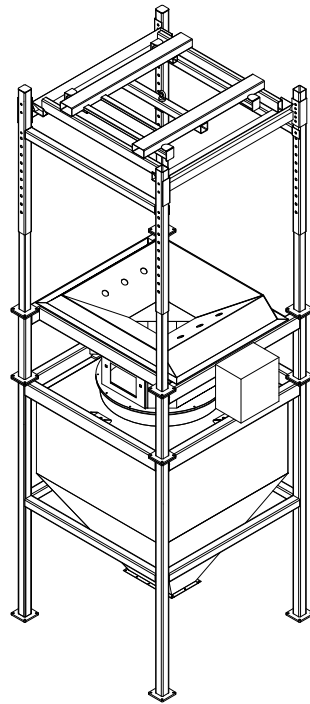




Web-Tech Australia Pty Ltd

Bulk Bag Unloader Installation, Operation and Maintenance Manual



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!WARNING!

It is the owner's responsibility to maintain the safety features included with this equipment. The safety features may include, but are not necessarily limited to: guards, access doors and covers, warning decals, caution decals, and advisory decals.

***DO NOT* attempt to operate this equipment until you have read and understand the contents of this manual. If you do not understand the contents of the manual bring it to the attention of your supervisor. This manual contains important safety instructions concerning the maintenance, use and operation of this product. Failure to follow these instructions may result in serious injury or death.**

GENERAL INTRODUCTION

Congratulations on your selection of a Web-Tech Bulk Bag Unloader. As the owner/operator of this unit you have an important responsibility to see that it is operated and maintained in a safe manner. The unit will require very little attention to keep it in good operating condition. This manual has been prepared to aid you in that effort.

Throughout this manual, reference may be made to various components that may or may not be part of your particular system. They are included in the interest of fully describing typical Bulk Bag Unloading systems.

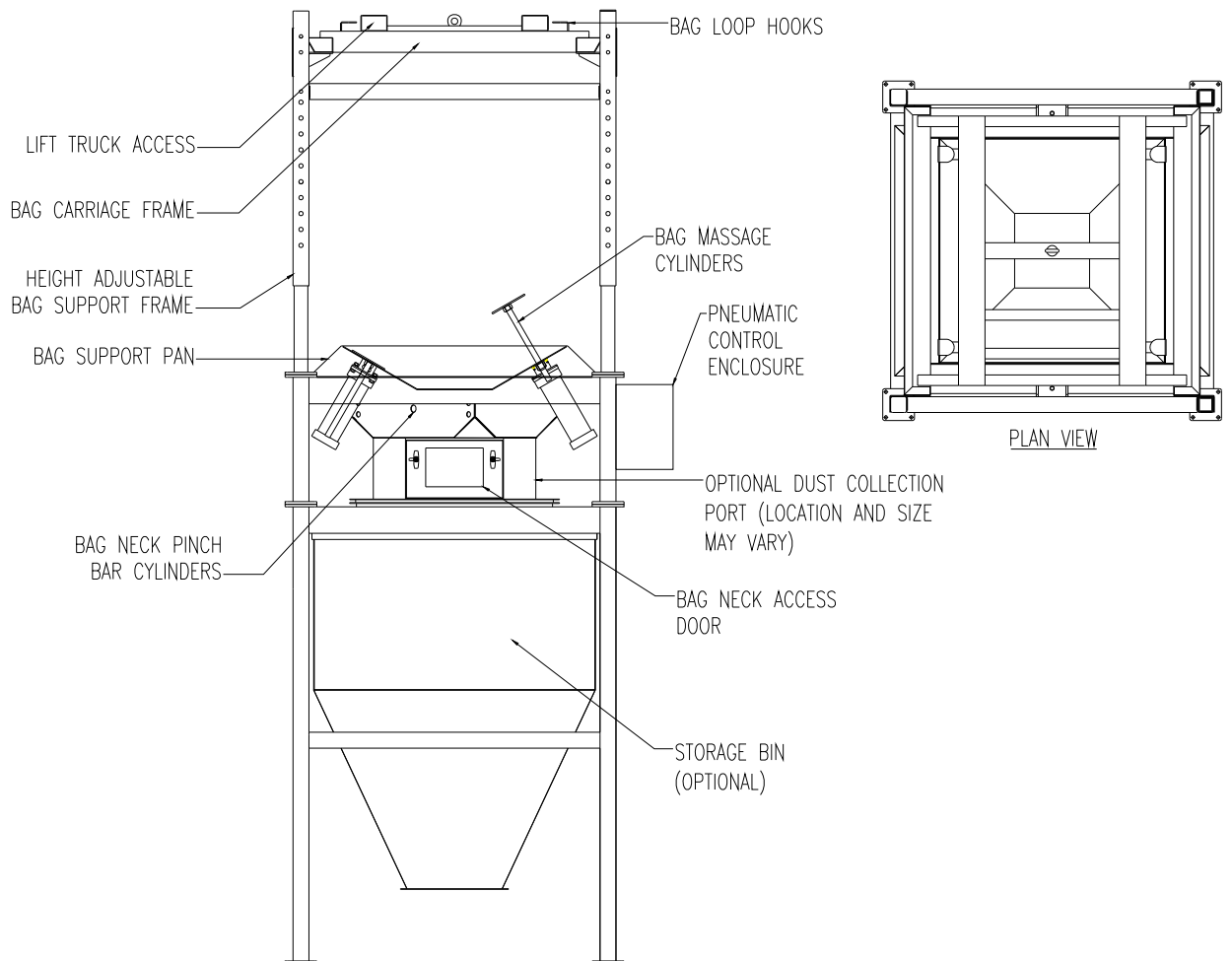


Figure 1-1

RECEIVING YOUR EQUIPMENT

As soon as the equipment is received, it should be carefully inspected to make certain the unit is in good condition and all items on the packing list are received. Even though the equipment is mounted on heavy shipping skids at the factory, it is possible for it to be damaged in shipment. All damages or shortages should be noted on the Bill of Lading. The purchaser must take immediate steps to file reports and damage claims with the carrier. All damages incurred to the unit in transit are the responsibility of the common carrier since it is the policy of Web-Tech to make shipment FOB from its factory. Ownership passes to purchaser when the unit is loaded and accepted by the carrier. Any claims for in transit damage or shortage must be brought against the carrier by the purchaser.

If the unit is not going to be assembled and installed soon after arrival, it should be stored in a warm, dry location to protect against corrosion or weather damage.

SAFETY CONSIDERATIONS

This piece of equipment has two major pinch hazard locations. The first location is at the interface of the massage cylinder/bag support pan. The second location is inside the bag neck access door at the apex of the pinch bar closure (ref. Figure 1-1).

It is imperative that the owner/operator read and understand the procedure for operation of this equipment so as to be aware of any hazards and how to avoid injury. Any questions regarding the operation of this equipment should be immediately addressed to Web-Tech at +61-7-3841 2844.

This piece of equipment may contain one or more safety guards and labels to protect the operator(s) from injury. It is the owner/operator's responsibility to maintain the integrity of these guards and ensure that they are in place when equipment is in operation.

!WARNING!

DO NOT attempt to operate this equipment with any guard removed. Replace damaged parts immediately or before continuing operation.

DO NOT operate, inspect or service this equipment unless a minimum of the following safety precautions are in effect:

- The equipment has been wired and grounded in accordance with all applicable codes.
- If the material being handled is toxic, all necessary precautions to protect personnel must be taken.
- The pneumatic control panel should be kept closed except as necessary for service or adjustment.
- Please ensure the work area is clean and orderly, free of debris, materials, tools, etc.
- Operating personnel should be equipped with the proper ear, eye and respiratory protection.

Failure to follow these instructions may result in death, personal injury and/or property damage.

PRINCIPLE OF OPERATION

The factory assembled Web-Tech Bulk Bag Unloader is designed to quickly and completely discharge the contents of a bulk bag in a safe and dust free manner when used in conjunction with an approved dust collection system.

Once loaded into the unit, the bulk bag may be safely untied and discharged to the next step in the process. The unit provides bag bottom massaging to ensure that material moves towards the primary channel of flow.

The Web-Tech Bulk Bag Discharge System provides a simple, robust, modular design, which ensures excellent dust containment and a trouble free operation. The bulk bag sits on a welded support dish providing the first level of dust protection by creating a seal from its own weight. The mass flow designed receiving hopper is integral to the support dish, thereby eliminating other areas, which can leak dust.

The multi-tier system can easily be changed from forklift loading to hoist and trolley. The modular design, with a round hopper transition, lends itself to tremendous flexibility when conditions warrant a change in outlet position or hopper configurations. All Web-Tech equipment is manufactured in-house, to ensure timely delivery and consistent quality.

All systems are designed to provide reliable flow of material, once out of the bag. This eliminates bridging and ratholing which contributes to material degradation and flow problems.

OPTIONS

Massage System – The massage system features powerful air cylinders with a calculated stroke to provide vigorous agitation for sluggish materials. Each massager incorporates sturdy guide rods, to keep the paddles from twisting during use. Ports for connection to an existing dust collector system or an integrated dust collector are available.

Pinch Bars – The pneumatically operated pinch bars are used to close and seal the bag spout while being untied. The pinch bars should not be energized until the access door is closed providing complete safety during operation.

!WARNING!

NEVER operate the pinch bars without first closing the bag neck access door.

INSTALLATION

The Web-Tech Bulk Bag Unloader is typically shipped factory assembled. Other components may be shipped loose and require field assembly.

Location

Locate the Web-Tech Bulk Bag Unloader in a clear area away from normal personnel traffic on a flat and solids concrete or steel surface. Provide sufficient space for accessing the unit with a lift truck and maintaining the unit.

Foundation

The bulk bag unloader requires an adequate foundation, designed by a qualified structural engineer. Refer to the general arrangement drawings of your system for footpad layout and weights. When calculating the loading for the foundation, the weight of the bulk bag unloader, bulk bag, material contained in the bulk bag, any surge capacity and auxiliary equipment (such as a lift truck) must be considered together with snow, wind and seismic loads.

To install the support frame:

1. Review the components of the support structure. The legs must be in the proper position to orient the load side of the structure with the designated lift truck access path.
2. Loosely assemble the structure. Do not tighten any bolts until all assembly is complete.
3. Set anchor bolts in the foundation according to the drawing plan. Position legs on the anchor bolts.

Setting In Place

It is recommended that a crane be used for unloading the unit and setting it in place.

!WARNING!

Spreader bars are recommended to distribute the load evenly while lifting the unit. Use lifting slings and clevises. Connect to at least four lifting lugs.

Ductwork and Accessories

Connect dust collection system to optional dust collection port on bag neck access enclosure.

Electrical and Pneumatic Connections

!WARNING!

Only trained and authorized persons should be permitted to service or maintain electrical components. It is the buyer's/installer's responsibility to ensure that all applicable electrical codes are met.

Make electrical connections to the solenoid valves and any auxiliary equipment such as screw conveyors, airlocks, etc. Refer to the connection diagram provided with your specific unit. Verify that all motors are rotating in the proper direction.

For most applications, compressed air at 80-100 psig is adequate for operation of the bag neck pinch bars and bag massagers. Supply air pressure below 80 or above 100 psig should be reviewed with Web-Tech. Trouble free, maintenance free operation is largely dependent on providing clean, dry, oil free compressed air. The importance of clean, dry, oil free compressed air cannot be over emphasized. Dirt, rust and scale can prevent air cylinders from operating properly. Moisture can cause valves and cylinders to freeze in cold weather. Moisture and oil can cause deterioration of valve and cylinder seals. Simple precautions such as drip legs, filters, moisture and oil traps should be utilized to ensure clean, dry, oil free air is provided to the unit. Air piping for multiple units should be sized in relation to air consumption.

OPERATION

The following generic procedure applies to most Web-Tech Bulk Bag Unloading units:

1. Adjust the bag support frame to an appropriate height for the bulk bag being utilized. The bottom of the bulk bag should rest slightly on the bag support pan with the majority of the weight being supported by the bag carriage frame/bag support frame.
2. Using a lift truck or other lifting mechanism, lift the bag carriage frame from floor level to a level just over bulk bag that will allow operator to easily slip the bag loops over the bag loop hooks of the bag carriage frame.

!WARNING!

It is the owner/operator's responsibility to ensure that the lifting device is adequate to safely lift and transport the maximum dead load of the bulk bag.

3. Lift the bag carriage frame/bulk bag and carefully maneuver the bag carriage frame onto the bag support frame. Operator should take care to ensure the center of the bulk bag is in line with the opening in the bag support pan.
4. Initiate any dust collection process.
5. Open the bag neck access door and untie the first tie allowing the bag neck to drop down between the pinch bars.

!WARNING!

Bag neck pinch bars should never be actuated with the bag neck access door open.

6. Close bag neck access door and actuate pinch bars to closed position.
7. Open bag neck access door and untie bag neck.
8. Close bag neck access door.
9. Actuate pinch bars to open position, allowing material to free flow into surge bin or device below.
10. If at any time during the emptying process the material bridges over the opening of the bag neck, actuate the bag massagers to break the bridge and re-establish material flow.

!WARNING!

Bag massagers are a potential pinch point hazard. Operators and plant personnel should be well clear of bag massager pan before actuating massagers.

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11. When bag is deemed empty either by visual inspection or auxiliary indication, Operator may actuate bag massagers to empty any residual material as required.
 12. Open bag neck access door and tie off the bag neck to prevent any loose material from contaminating the environment.
 13. Use appropriate lifting equipment to remove the bag carriage frame with empty bulk bag from bag support frame.
 14. Lower to comfortable Operator access height to remove empty bulk bag from bag carriage frame and attach new bag per step 2 above and repeat steps 3 through 14 as required.

MAINTENANCE

It is recommended that one individual be assigned to monitor the operation of the bulk bag unloading system. The individual assigned should have maintenance manuals and manufacturer's documentation for all components readily available.

The individual responsible for the system should follow a regular schedule of inspection and maintenance. The exact schedule will depend on the particular system and the number of hours it operates as well as the corrosiveness or abrasiveness of the material being handled. A typical maintenance schedule is shown below.

!WARNING!

Disconnect the electrical and pneumatic service before performing any maintenance or service procedures on the unit.

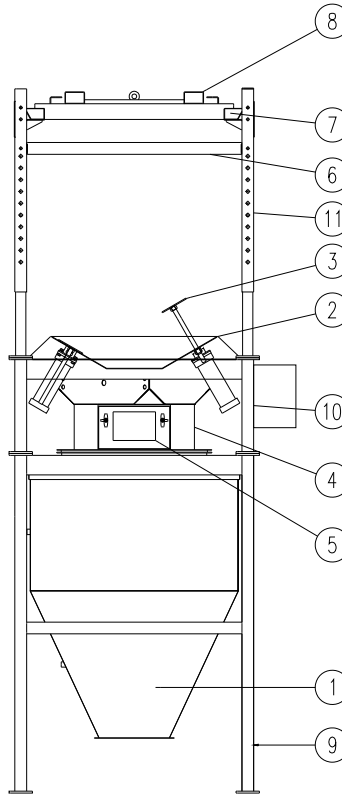
WEEKLY

1. Check for smooth operation of the bag massage paddles.
2. Check for smooth operation of the bag neck pinch bars.
3. Inspect bag carriage frame for cracks or wear.
4. Inspect dust tight seals on bag neck access door and discharge.
5. Check the dust collection hook up and the dust collector if connected.
6. Check the compressed air dryer and filter for proper operation.


MONTHLY

1. Check operation of solenoid valves.
2. Wipe down interior surfaces of bag neck enclosure and remove any material buildup if necessary.

GENERIC BOM



ITEM	DRAWING NO.	SIZE	DESCRIPTION
11	22280023	A1	ADJUSTABLE POST DETAILS
10	22280022	A1	ACCESS BIN FRAME
9	22280021	A1	HOPPER SUPPORT FRAME
8	22280020	A1	CARRIER FRAME
7	22280019	A1	CLEAT CARRIER
6	22280018	A1	BRACE FRAME
5	22280017	A1	ACCESS DOOR
4	22280015	A1	ACCESS BIN
3	22280013	A1	PADDLE DETAILS
2	22280011	A1	MESSAGE TABLE ASSEMBLY
1	22280010	A1	1.25 TONNE HOPPER

REVISIONS	DRAWN	TONY BERNARDI	 <p>WEB-TECH AUSTRALIA PTY. LTD. <small>A.C.N. 010 764 431 11 ELECTRONICS STREET EIGHT MILE PLAINS, QUEENSLAND, 4113, AUSTRALIA P.O. BOX 4006 EIGHT MILE PLAINS, QUEENSLAND, 4113, AUSTRALIA Phone +61-7-3841 2844 Fax +61-7-3841 0005</small></p>	SIZE	DRAWING No.		
	CHECKED	LANCE HARTLEY		A1	NUMBER	REV.	
	APPROVED	LANCE HARTLEY			22280001	A	
	DATE APP'D	13/12/01		TITLE	CUSTOMER		
	SCALE	1:15		BULK BAG UNLOADER C/W 1.25 TONNE HOPPER GENERIC BOM	PROCESS SYSTEMS SERVICES P/L		
	DO NOT SCALE IF IN DOUBT ASK	ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SPECIFIED	PROJECT LAFARGE PLASTERBOARD CAD FILE 22280001				
			<small>This drawing and any information or descriptive matter set out hereon are the confidential and copyright property of WEB-TECH AUSTRALIA PTY. LTD. (G) and must not be disclosed, loaned, copied or used for manufacturing / tendering or for any other purpose without their written permission.</small>				

SPARE PARTS

Contact web tech spares department for assistance with spare parts on

07 3841 2844