

Manhole Aeration Installation Manual

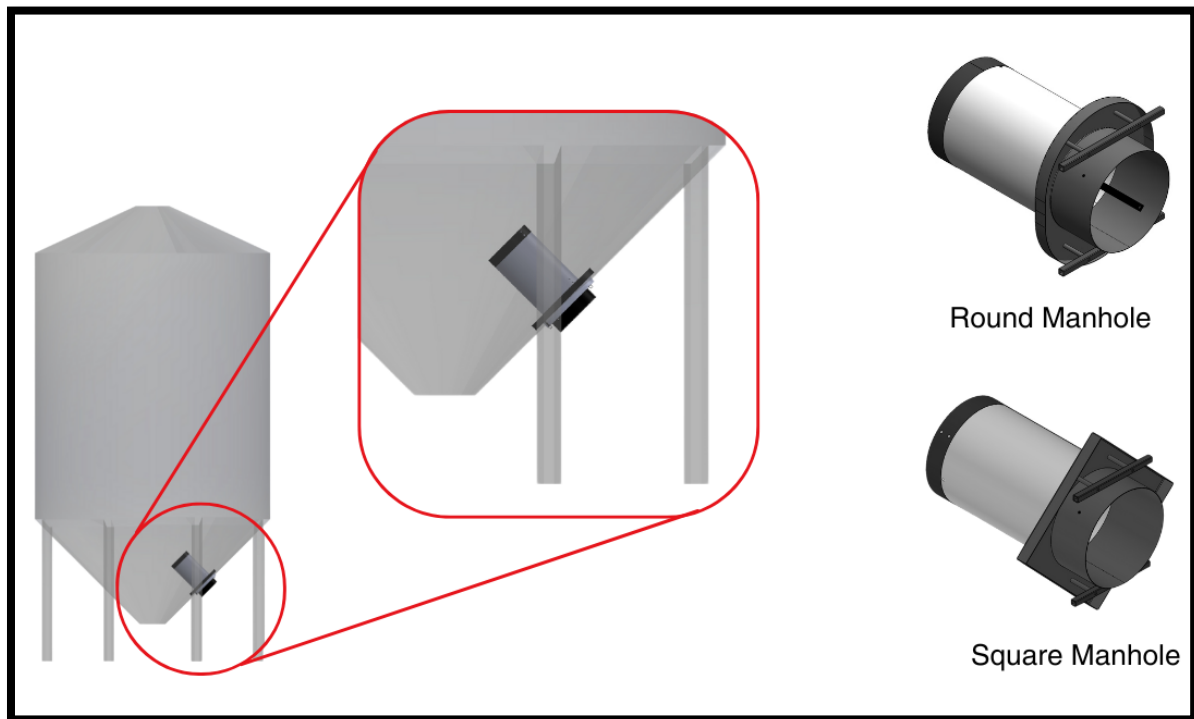


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Safety Precautions

- It is the equipment owner and the operator's responsibility to read and understand all safety instructions and manuals and follow them before assembling, operating or maintaining the equipment.
- Use this equipment for its intended purpose only.
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety, and could affect the life of the equipment. Any modification to the equipment voids the warranty.
- Have a first-aid kit available for use should the need arise and know how to use it.
- Wear appropriate personal protective equipment such as safety glasses, steel toed boots and safety gloves.
- When entering the bin, make sure someone knows where you are.
- When working inside the bin, make sure the bin lid is open to provide adequate ventilation.

Introduction

Thank you for purchasing Wavcor International's Manhole Aeration. Manhole Aeration offers a simple and cost-effective solution for adding aeration to hopper-bottom bins. The system uses a perforated cylinder that can be easily installed in the hopper bottom's manhole in a matter of minutes. Just install Wavcor's Manhole Cylinder and connect it to either Wavcor's Airblast fan or another brand of fan using an air sock. The cylinder can be used with fans that are 3 horsepower to 20 horsepower or more. When paired with a 20 horsepower fan, it can deliver airflows of up to 3000 cfm. No modifications to the bin are needed and the bin can be easily entered after installation by removing 4 bolts.

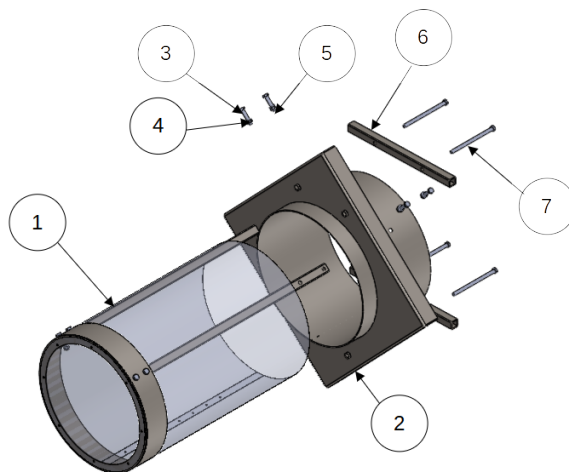
Cooling grain adds flexibility for farmers during harvest and ensures that grain quality is preserved. There are many use cases for this type of retrofit aeration including farmers who want to add aeration to existing hopper bottom bins or who want to repurpose fertilizer bins in the fall for grain storage.

Intended Use

The Manhole Aeration is designed solely for use for aerating grain inside hopper bottom bins. The Manhole Aeration is designed to install through an existing grain bin hopper manhole with an air sock connected between the Manhole Aeration and an aeration fan. Under no circumstances should a fan be mounted directly to the Manhole Aeration duct.

Any modifications made to the Manhole Aeration may relieve the manufacturer of liability for any resulting damage or injury.

Parts



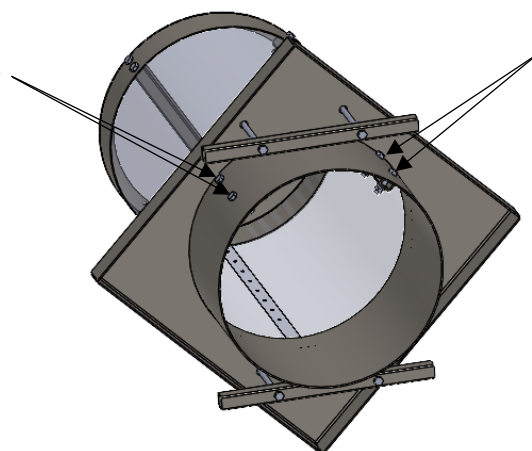
Item	Description	Qty
1	Perforated Tube Assembly	1
2	Manhole Cover Assembly*	1
3	3/8"-16x1.75" Hex Bolt	4
4	3/8" Spring Washer	4
5	3/8"-16 Hex Nut	4
6	Manhole Locking Bar	2
7	3/8"-16x6" Hex Bolt	4

* Will be square or oval, depending on the style of the bin's manhole.

Installation

1. To get the Manhole Aeration inside the bin, it must be split into two pieces. To do this, remove the 4 3/8 bolts, nuts and spring washers that go through the Manhole Cover Assembly.

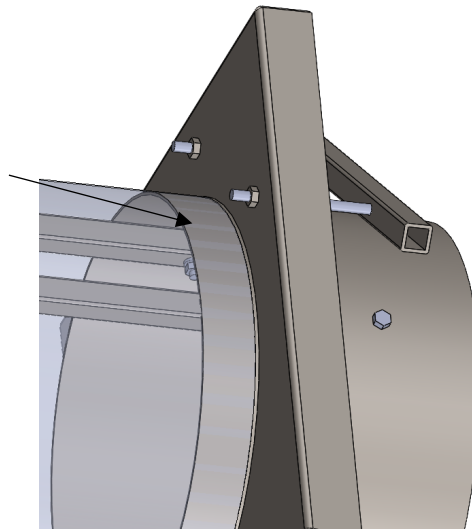
Remove these bolts to split the assembly into two pieces.



Remove these bolts to split the assembly into two pieces.

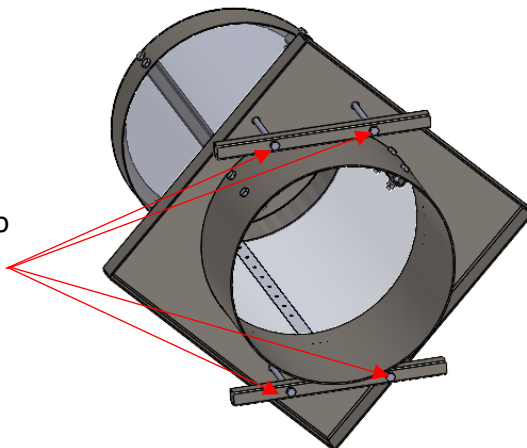
2. The two halves of the Manhole Aeration should now be able to be pulled apart. Pull them apart so that you have two separate pieces.
3. Insert the perforated tube assembly and the manhole cover assembly through the manhole on the bin and place them inside the hopper.
4. Stand the perforated tube assembly up vertically so that it is sitting at the bottom of the hopper with the open end facing up.
5. Slide the manhole cover assembly into the perforated tube assembly. The ring on the manhole cover assembly should slide between the perforated material and the 1x1 square tubes. When assembling the two together, it is the short end of the 16" tube that slides into the perforated assembly. Make sure the four holes are close to lining up when the pieces are slid together.

The short side of the tube goes between the perforated material and the 1x1 square tubes.



6. Rotate the tubes so the 4 bolts holes line up and the 3/8" bolts can be installed.
7. With the Manhole Aeration assembled, exit the bin and then position the Manhole Aeration over the manhole. The square 1x1 support tubes inside the perforated assembly must be positioned towards the top to provide adequate support for the assembly.
IMPORTANT: If the Manhole Aeration is installed upside down, with the 1x1 support tubes on the lower side of the cylinder, the tube will be crushed by grain when the bin is filled. The two 1x1 support tubes **MUST** be on the top side of the cylinder when the Manhole Aeration is installed. With the manhole aeration installed, the arrow must face up.
8. Install the two locking tubes using the 3/8"x6" bolts. Tighten the bolts so the locking tubes contact the manhole flange and secure the Manhole Aeration Duct in place.

Tighten these bolts to lock the Manhole Aeration in place.

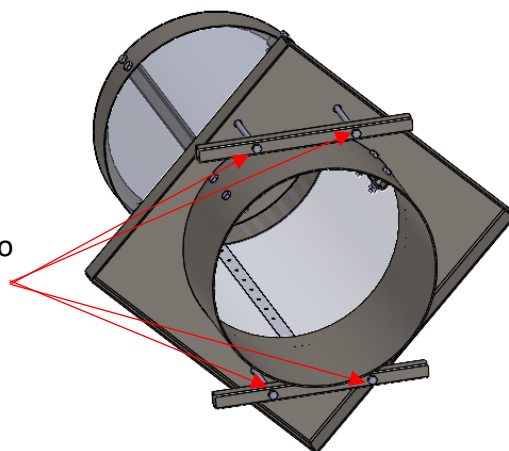


9. Attach an air sock over the end of the Manhole Aeration Duct that is protruding outside the hopper manhole.
10. Fasten the sock in place using whatever clamping method was supplied with the air sock.
11. Attach the other end of the air sock to the aeration fan and position the fan to minimize any kinks or bends in the air sock.
12. Turn the aeration fan on and check to make sure there aren't air leaks.
13. The Manhole Aeration Duct is now installed and ready for use.

Entering the Bin

After the Manhole Aeration is installed, the bin can be entered by removing the 4 bolts holding the locking bars in place. Once these are removed the Manhole Aeration can be rotated towards the bottom of the bin so that it is out of the way and a person can go in through the manhole.

Remove these bolts to enter the bin.



Statement of Limited Warranty

Wavcor International Inc., also known as Wavcor, warrants all equipment of its manufacture to be free of defects in material and workmanship for a period of one year. This warranty period is for a period of twelve months from the date the equipment is delivered by Wavcor or its authorized dealer to the purchaser. Items include parts manufactured by Wavcor. Auxiliary components not manufactured by Wavcor or Wavcor rebuilt parts are covered by a 90-day warranty.

Wavcor will repair free of charge items returned within the warranty period to one of Wavcor's authorized service centers. In countries where Wavcor maintains authorized service centers, freight will be paid one way and returned by the same carrier unless instructed differently. The purchaser is responsible that the item is properly packaged for shipment. Shipping damage is not covered under this warranty.

Wavcor or its authorized Service Center will repair or replace, at its option, any defective part or component at no cost to the purchaser during the Warranty period. If service in the field is required Wavcor will authorize on-site repairs at no charge for parts and labor. Travel time, travel costs and per diem expenses to and from the place where repairs are made, will not be covered by this warranty.

For the nearest Service Center visit our website at www.wavcor.ca or call +1 306 660 9282 or e-mail info@wavcor.ca

Any evidence of negligent or abnormal use, alteration of serial numbers, or repairs attempted by individuals other than Wavcor authorized personnel or not using Wavcor certified or recommended parts, automatically voids the warranty. Normal wear is not covered under this warranty.

Wavcor will not warranty any complaints relating to inadequate installation (unless the installation was performed by Wavcor), adjustments or calibration.

The forgoing states the entire liability of Wavcor regarding the purchase and use of its equipment. The purchaser agrees that Wavcor accepts no liability for any consequential loss or damage of any kind. The purchaser further agrees that the warranties contained herein are in lieu of all other warranties, expressed or implied, and, specifically Wavcor disclaims any implied warranty regarding merchantability or fitness for a particular purpose. This paragraph is of no force or effect in those jurisdictions, where the limitations of the type noted herein are prohibited by law.

To ensure warranty coverage the customer must register within 30 days of their purchase online at www.wavcor.ca.