

Design, Maintenance, Operation and Installation Details

I trust the following will answer your questions in regards to the Cyclonaire VibraPad.

The VibraPad is best suited for use in silos, bins and hoppers that are storing dry, bulk, powdered material. Examples of such material are cement, flyash, starch, barite and clay. These types of materials flow well, but generally need some form of aeration or vibration to get moving after settled in a bin or hopper for a period of time. Cyclonaire Corporation designed the Vibra Pad (combination of aeration and vibration) to eliminate material bridging, hang up and flow problems.

Design

The soft pad of the Vibra Pad is made up of either silicone or neoprene.

Silicone Pad

- 40 durometer (very pliable and soft)
- 400° F high continuous temp. Rating
- 482° F intermittent (and low temp. of -140° F)
- Minimum of 5 PSI to operate-FDA permitted—Not Oil Resistant
- Titanium dioxide for coloring the white pads
- FDA-approved coloring practices" to maintain consistent construction
- P/N 22-0-0301-01

Neoprene Pad

- 60 durometer (less pliable and stiff)
- 212° F continuous temp. rating
- 250° F intermittent (and low temp. of -95° F)
- Minimum of 7 PSI to operate-FDA permitted— Oil resistant
- P/N 22-0-0301-02

Maintenance

None required if operating and temperature parameters are met. We recommend clean dry air to be used to operate the VibraPad.

Operation of the Cyclonaire VibraPad

The Cyclonaire VibraPad is a flow aid designed to ensure product movement. The special design of the VibraPad causes a vibration as the induced air flows between the pad's boot and the bin wall. The result of these two actions, aeration and vibration, provides a very efficient flow aid that can be used with all types of dry products.

Installation of the Cyclonaire VibraPad

To install the Cyclonaire VibraPad, drill a 3/4-inch hole in the hopper, bin, silo, etc. wall where material flow is a problem. From the inside, place the stainless steel shaft and silicone pad assembly through the walls. From the outside, slip on the sealing washer, 3/4" flat washer and 3/4" hex nut (note the sealing washer goes on the OUTSIDE of the bin wall). Tighten down until snug. The unique design of the Vibra Pad allows for the pad to be mounted on virtually any kind of surface and its built-in check valve eliminates material back flow into air source, but for best results, try and mount on a clean and smooth surface. The VibraPad's stainless steel shaft is internally threaded for 1/4" MNPT connectors for hookup to the supply air.

When operating four or fewer pads in series, we use ½" tubing to connect the pads. When using more than four Vibra Pads, we recommend that an air manifold be used to allow for equal distribution of air to each Vibra Pad. Manifold systems are generally made up of 1"-2" pipe with ½" tubing going from the manifold to the Vibra Pad and can be of varying configurations. Generally speaking, we manifold all of our Vibra Pad installations keeping Vibra Pad air supply lines fairly close to allow for efficient air supply to each Vibra Pad. Material flowability, moisture content, and material characteristics determine air required. The air consumption chart will help in determining air required. Please note that when using high pressure air, we suggest using on/off timed controls. We feel that at times it not only increases the effectiveness of the Vibra Pad, but decreases your overall air usage. A general guideline that we use is figure high pressure at 20 PSI and rotary blower air at 8-10 PSI. The following Vibra Pad literature and Vibra Pad aeration kit information may help you to better understand how we use the manifold Vibra Pads. We would suggest that customers purchase auxiliary items from Cyclonaire Corporation and/or allow us to design an aeration system to best meet your needs and to ensure proper effectiveness of the Vibra Pad.

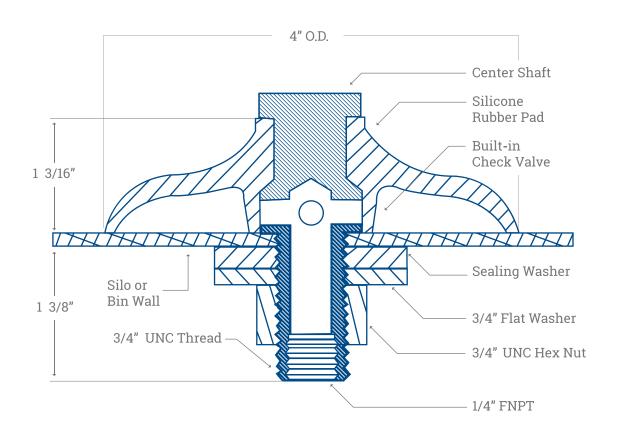
Cyclonaire Corporation Attn: Parts Department 2922 N. Division Ave. York, NE 68467

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VibraPad Price List

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ITEM	DESCRIPTION	PART NUMBER	PRICE EACH
	White Silicone VibraPad	22-0-0301-01	40.00
	White Neoprene VibraPad	22-0-0301-02	50.00
0	VIBRAPAD PARTS BREAKDOV	VN PRICE LIST	•
1	White Silicone Pad	22-3-0231-02	12.00
1A	White Neoprene Pad	22-3-0231-01	15.00
2	303 Stainless Steel Center Shaft	22-3-0215-00	20.00
3	White Sealing Washer	21-3-0561-01	4.00
4	Galvanzied 3/4" Flat Washer	900-10041	.50
5	Galvanized 3/4" UNC Hex Nut	900-05037	.75

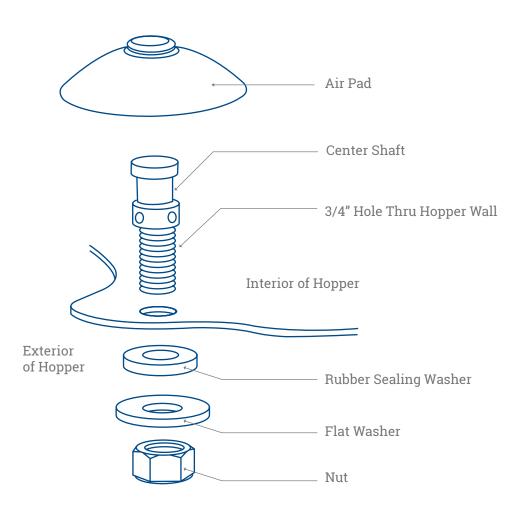


Material Construction of the Cyclonaire VibraPad

Each Cyclonaire VibraPad® assembly contains the following parts.

- 1. *White silicone pad rated to 400° (standard) or white neoprene pad rated to 250° (optional)
- 2. 303 stainless steel aeration stud
- 3. White rubber sealing washer
- 4. ¾" plated flat washer
- 5. ¾" plated hex nut

*NOTE: All pads are built to an ASTM standard and are acceptable in food grade applications as permitted by the FDA.



VibraPad Performance Guarantee

The CYCLONAIRE equipment described herein is warranted to perform in accordance with the conditions given to us by a customer. In the event that the Vibra Pad does not perform as quoted upon startup, CYCLONAIRE CORPORATION reserves the right to use its own personnel in conducting a performance test. If the warranted design performance of the Vibra Pad is not acceptable, CYCLONAIRE shall have the right to modify, repair, or replace the equipment as required to reach the design performance. Any deviation because of incorrect Vibra Pad air supply, installation or variation of parameters given to us shall not be considered a reason for non-acceptance of the system.

CYCLONAIRE CORPORATION makes no other performance guarantee of any kind whatever, expressed or implied, and all implied warranties of merchantability and fitness for a particular purpose that exceed the aforestated obligation are hereby disclaimed by CYCLONAIRE CORPORATION and excluded from this guarantee.

CYCLONAIRE CORPORATION neither assumes nor authorizes any person to assume for it any other obligation in connection with the performance guarantee of such equipment. This performance guarantee shall not apply to any equipment that has been repaired or altered outside the company's factory in any manner, so as, in Company's judgment, to affect its serviceability, or that has been subjected to misuse, negligence, or accident, or to equipment made by the Company that has been operated in a manner contrary to the Company's printed instructions. Under no circumstances shall CYCLONAIRE CORPORATION be liable for any loss, damage, cost of repair, or consequential damages of any kind in connection with the sale, use, or repair of any equipment purchased from us.

In the event any such equipment contains items purchased from other manufacturers by CYCLONAIRE CORPORATION, the warranty and performance on such items is limited to the terms of the warranty furnished by the sellers thereof to the said CYCLONAIRE CORPORATION.

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