

YOUNG INDUSTRIES TRANSFLOW® AERATION PADS

Installation, Operation and Maintenance Manual

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TRANSFLOW® Aeration Pads

Installation, operation and maintenance instructions

WARNING:

These instructions must be read and understood completely by the installer, operator and plant safety director before installing, operating or performing maintenance upon this product. Copies of these instructions are supplied with each order to help ensure proper installation and operation. Contact The Young Industries, Inc. if you need additional copies of this instruction sheet.

Always observe confined space safety procedures when working inside storage vessels. Shut off, bleed and lock out compressed air or gas supply before working on air supply piping.

Installation:

Locate the first row of two to four TRANSFLOW® aeration pads as close as possible to the hopper outlet. The long dimension of the pads should be vertical. Vertical center distance between rows should be 12 to 15 inches. The number of pads per row and number of horizontal rows depend on the hopper angle and the flow properties of the bulk material placed in the hopper. Materials having poor flow properties require additional horizontal rows of air pads.

If you have any questions regarding the application of TRANSFLOW® aeration pads, please contact the engineering department at Young Industries, Inc. at 1-800-546-3165

Each TRANSFLOW® aeration pad requires one 0.44 inch (11 mm) diameter mounting hole. Pads are inserted from the inside of the vessel with the 1/8 inch nipple extending outward through the mounting hole. Attach the pad using the rubber washer, flat washer and hex nut as shown in Figure 1. Pads must be interconnected using properly-sized piping. The flow area of the piping to the first pad must include adequate flow area for all sequential pads. Excessive weight of the supply piping and vibration can damage the pad's 1/8" pipe inlet nipple. Supply piping weight must be minimized or additional supports must be provided. Piping kits are available from Young Industries.

Operation:

Each TRANSFLOW® aeration pad normally requires 3 to 11 SCFM (5.1 - 18.7 m³/hour) of clean and dry gas at 3 to 15 PSIG (0.21 - 1.03 bar gauge pressure). Refer to Figure 2 for flow rate vs. pressure. Adjust gas supply pressure until desired material flow is achieved. Aeration gas supply is required only during vessel discharging and cleaning. The maximum pad operating pressure is 50 psig. Maximum operating temperature will be dependent on the material of the elastomer washer used to seal the pad to the vessel. For the standard elastomer washer, the maximum operating temperature is 200°F (93C). Maximum operating temperature for the TRANSFLOW® pad itself is 500°F (260C).

Maintenance:

TRANSFLOW® aeration pads can be cleaned using water, steam, compressed air or chemicals. Gas supply to the pads must be on during cleaning to prevent material from entering the media. High pressure cleaning sprays must be directed parallel to the pad surface, not perpendicular. Continue gas flow after cleaning in order to dry the pads. *Pads must be thoroughly dried before turning off gas supply.*

CAUTION:

Do not exceed 50 psig (3.45 bar gauge pressure) supply pressure. Do not use sharp objects to scrape the pad surfaces. Do not strike the pad surfaces. The hopper in which TRANSFLOW® pads are installed must be adequately vented to prevent internal buildup of fluidizing gas pressure.

Warranty:

TRANSFLOW® aeration pads have a limited **lifetime replacement warranty**. Pads must be installed, operated and cleaned as described above to meet warranty requirements. Contact Young Industries for more information regarding warranty terms and conditions.



Specifications subject to change without notice.

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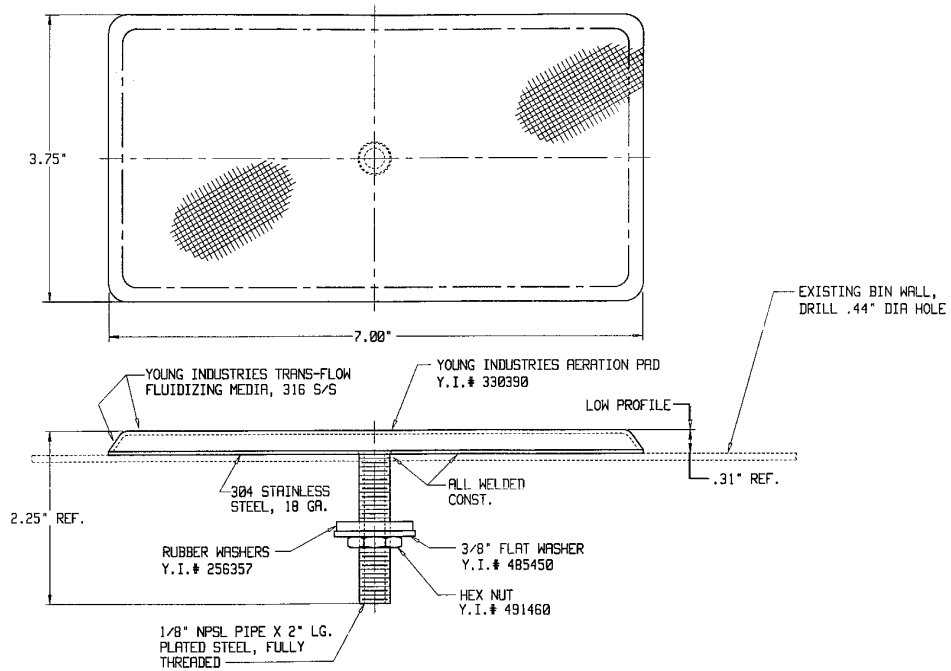


FIGURE 1

FREE APPLICATION HELP

For free technical assistance in applying and installing TRANSFLOW® aeration pads, call Young Industries' engineering department toll free at 1-800-546-3165.

**TRANSFLOW® AERATION PAD
SINGLE PAD FLOW RATE vs. PRESSURE**

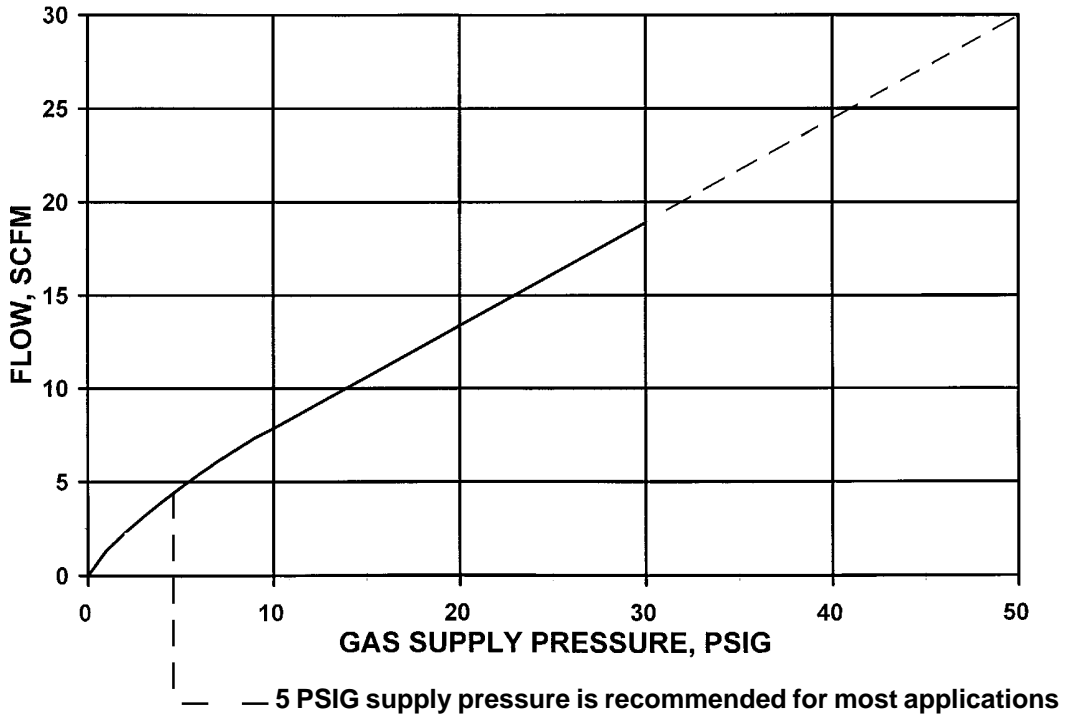


FIGURE 2