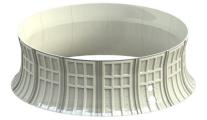
# PROOF IN PERFORMANCE

# MARLEY<sup>®</sup>

## **FAN CYLINDERS**

## THE COMPARISON



| 10' MARLEY REFLEX™  |                     | MIDWEST FAN STACKS  |
|---|---------------------|---|
| 1.7% more cooling capacity or 5% less power<br>needed compared to flared cylinder designs of<br>equal height*   | PERFORMANCE         | Flared cylinder design of same height is less<br>efficient and needs more horsepower; this<br>translates into increased energy costs (up to<br>\$6,535 annually)*   |
| Butt flange design is more rigid than lapped<br>flange design   | STRENGTH            | Lapped flange connection is less rigid which requires additional stiffening bars  |
| Smooth interior with no exposed hardware eliminates concerns of fan interference  | FAN INTERFERENCE    | Stiffening bars and bolt heads are located<br>within cylinder interior, including the throat area.<br>Impact with fan blade is a concern  |
| 10' tall Reflex shape has larger outlet area for<br>its height allowing for a reduction in overall<br>tower height while meeting performance of taller<br>14' height cylinders; shorter height means less<br>surface area for wind to catch, less weight, less<br>hardware, easier to handle in field | LOW PROFILE         | A 14' tall cylinder is needed to match the<br>performance of the Marley Reflex 10' tall<br>cylinder; taller height means more surface area<br>for wind to catch, more weight, more hardware,<br>harder to handle in field |
| Butt flange design allows bolt and nut<br>access from exterior of cylinder only, and<br>requires less hardware connections, thus<br>reducing labor  | EASE OF<br>ASSEMBLY | Lapped flange requires a person on both<br>the interior and exterior of the cylinder to<br>properly tighten all the hardware and install the<br>stiffening bars; 80% more fastener components<br>required**               |
| 35% larger access door area for easier<br>equipment removal**   | ACCESS DOOR         | Smaller access door is more difficult to utilize effectively  |

#### **REFERENCE:**

\*Based on 336" diameter x 10 ft. tall Midwest and Marley fan cylinders operating with 200 HP motor. Marley Reflex cylinder delivers the same air rate at 190 HP as an equivalent height Midwest stack does at 200 HP.

Annual energy savings of 10 HP is 7.46 kW x \$0.10 per kW/hr x 8,760 annual operating hours = \$6,535 in energy savings. \*\*Comparison of Marley Reflex 336" diameter x 10 ft. tall cylinder and Midwest 336" diameter x 10 ft. tall stack (Item # 2810-1-037). Quantity 232 bolts for Marley cylinder vs. 300 bolts + 45 stiffening bars for Midwest stack. 345 pieces / 232 pieces = 49% more pieces with Midwest design. NOTE: Midwest also uses 15 segments vs. Marley 14 segments. 75" door opening height x 39" width for Marley cylinder vs. 60" x 36" width at throat for Midwest stack access door. 20.3 square feet / 15.00 square feet = 35% larger access door with Marley design.



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