

# VENTURI AIR MOVERS



- TX-3AMS, TX-6AMS; Shorter galvanized sheet metal horns for use in limited space
- TX-3AM, TX-6AM, TX-8AM, TX-10AM; Galvanized sheet metal horns
- TX-3AMS-P, TX-3AM-P, TX-6AM-P, TX-8AM-P & TX-10AM-P; Electrically conductive
  polymer horns
- TX-3AMS-SH, TX-3AM-SH. TX-6AM-SH, TX-8AM-SH & TX-10AM-SH; Stainless steel horn and aluminum base
- TX-6AM-SS; All stainless steel horn and base; Only all stainless steel air mover on the market
- Field ready with ground wire and crow foot connector
- Air flow rates independently tested to AMCA Standard 210
- ◆ Made in USA

# www.airtools.com Email: tptinfo@airtools.com

TEXAS 1-800-231-9740 254-587-2533 (Int'l calls) NEVADA 1-800-858-1222

VIRGINIA 1-800-626-1091 MICHIGAN 1-877-575-5733

# AIR FILTRATION FOR OPTIMAL BREATHING

When workers are breathing air that has passed through the air movers, Texas Pneumatic has products to improve the environmental conditions. Filters can be used to remove contaminants, such as oil, coming from the compressed air source. The amount of oil may exceed 5 ppm. By using one of the high efficiency filter systems below, it ensures an air quality index of 0.15 ppm. The following coalescent filter systems are recommended:

**FC07504** for the TX3AMS & TX3AM air horns **FC09508** for the TX6AM air horn **FC11510** for the TX8AM & TX10AM air horns

These selections include the particulate and coalescing filters and are matched to the inlet NPT sizes and consumption rates of the air movers.

As a cautionary note, where any volatile or poisonous fumes are present, strict precautions are required which involve the use of any air mover in gas freeing, tank entry, tank cleaning, purging, and the prevention of tank collapse. Consult American Petroleum Institute (API) Publications and job site safety directors prior to performing any of these or other related activities.

# **OPERATION**

Compressed air or saturated steam is the power source for these air movers. They operate on the venturi principal that uses small volumes of high pressure air (from the compressed air source) which is ejected through the nozzle jets which are machined into the casting. The high pressure air creates a low pressure zone that induces large volumes of ambient air through the base and out the air diffuser (horn) of the air mover.

The use of a 1" hose is recommended for the compressed air supply. The size of the compressor can be determined by using the chart which shows air consumed at various inlet pressures. Operate these air movers on air or steam regulated to a maximum 150 psi.

# TOTAL AIR FLOW AND CONSUMED AIR AT VARIOUS INLET PRESSURES SAME FOR ALL AIR MOVERS

| INLET PRESSURE |                           |                           |                            |  |  |  |  |
|----------------|---------------------------|---------------------------|----------------------------|--|--|--|--|
|                | 60 PSIG<br>Total Air Flow | 80 PSIG<br>Total Air Flow | 100 PSIG<br>Total Air Flow |  |  |  |  |
| TX-3AMS        | 863 CFM                   | 1076 CFM                  | 1205 CFM                   |  |  |  |  |
| TX-3AM         | 1135 CFM                  | 1308 CFM                  | 1465 CFM                   |  |  |  |  |
| TX-6AM         | 2560 CFM                  | 3020 CFM                  | 3698 CFM                   |  |  |  |  |
| TX-8AM         | 4215 CFM                  | 4810 CFM                  | 5435 CFM                   |  |  |  |  |
| TX-10AM        | 6182 CFM                  | 7304 CFM                  | 8220 CFM                   |  |  |  |  |
|                | Air Consumed              | Air Consumed              | Air Consumed               |  |  |  |  |
| TX-3AMS        | 31 SCFM                   | 41 SCFM                   | 51 SCFM                    |  |  |  |  |
| TX-3AM         | 31 SCFM                   | 41 SCFM                   | 51 SCFM                    |  |  |  |  |
| TX-6AM         | 60 SCFM                   | 81 SCFM                   | 101 SCFM                   |  |  |  |  |
| TX-8AM         | 108 SCFM                  | 142 SCFM                  | 178 SCFM                   |  |  |  |  |
| TX-10AM        | 189 SCFM                  | 252 SCFM                  | 380 SCFM                   |  |  |  |  |

Texas Pneumatic air movers have been tested at an independent laboratory. The free flow ratings listed above are based on tests to AMCA Standard 210. Under identical testing situations, Texas Pneumatic air movers equaled or exceeded the air flow of all competitively manufactured air movers.

# FREE AIR INDUCTION RATIOS AT VARIOUS INLET PRESSURES

| Dividing total air flow discharged by amount of air consumed. |         |         |          |  |  |  |  |
|---|---------|---------|----------|--|--|--|--|
|   | 60 PSIG | 80 PSIG | 100 PSIG |  |  |  |  |
| TX-3AMS   | 27.84   | 26.24   | 23.64    |  |  |  |  |
| TX-3AM  | 36.61   | 31.90   | 28.73    |  |  |  |  |
| TX-6AM  | 42.67   | 37.28   | 36.61    |  |  |  |  |
| TX-8AM  | 39.03   | 33.87   | 30.53    |  |  |  |  |
| TX-10AM   | 32.71   | 28.98   | 21.63    |  |  |  |  |

The above free air induction ratio is a measure of efficiency. The ratio is determined by dividing the total air flow (CFM) by the amount of air consumed. The accuracy of the free air induction ratio figures is dependent on the accuracy of the testing method. All Texas Pneumatic air mover free flow ratings are based on AMCA Standard 210 tests.

|            | Overall<br>Length | Diameter<br>of Base | Diameter<br>Top of Horn | NPT<br>Size | Bolt Circle<br>Diameter | Base Slot<br>Diameter | Net<br>Weight | Boxed<br>Length | Boxed<br>Width | Boxed<br>Height | Net Shipping<br>Weight |
|------------|-------------------|---------------------|-------------------------|-------------|-------------------------|-----------------------|---------------|-----------------|----------------|-----------------|------------------------|
| TX-3AMS    | 16.50"            | 7.25"               | 6"                      | 1/2"        | 6.75"                   | 3/8"                  | 6.40 lbs      | 18.75"          | 7.75"          | 7.75"           | 8 lbs                  |
| TX-3AM     | 32"               | 7.25"               | 7"                      | 1/2"        | 6.75"                   | 3/8"                  | 9.60 lbs      | 32.50"          | 7.75"          | 7.75"           | 11 lbs                 |
| TX-6AMS    | 23.80"            | 11.25"              | 9.75"                   | 1"          | 10.5"                   | 7/16"                 | 16.90 lbs     | 26"             | 12.75"         | 13"             | 20 lbs                 |
| TX-6AM     | 44"               | 11.25"              | 12.5"                   | 1"          | 10.5"                   | 7/16"                 | 24.45 lbs     | 45.50"          | 12.75"         | 13"             | 29 lbs                 |
| TX-8AM     | 46.50"            | 14.25"              | 14.25"                  | 1"          | 13.5"                   | 1/2"                  | 36.25 lbs     | 47"             | 15.25"         | 15.25"          | 42 lbs                 |
| TX-10AM    | 48"               | 16.75"              | 15.75"                  | 1"          | 15.5"                   | 1"                    | 42.50 lbs     | 49.50"          | 18"            | 18.25"          | 49 lbs                 |
| TX-3AMS-P  | 16.50"            | 7.25"               | 6.25"                   | 1/2"        | 6.75"                   | 3/8"                  | 4.70 lbs      | 18.75"          | 7.75"          | 7.75"           | 6 lbs                  |
| TX-3AM-P   | 32"               | 7.25"               | 7.25"                   | 1/2"        | 6.75"                   | 3/8"                  | 6.30 lbs      | 32.50"          | 7.75"          | 7.75"           | 8 lbs                  |
| TX-6AM-P   | 44"               | 11.25"              | 12.25"                  | 1"          | 10.5"                   | 7/16"                 | 16.35 lbs     | 45.50"          | 12.75"         | 13"             | 21 lbs                 |
| TX-8AM-P   | 46.25"            | 14.25"              | 14.25"                  | 1"          | 13.5"                   | 1/2"                  | 25.65 lbs     | 47"             | 15.25"         | 15.25"          | 31 lbs                 |
| TX-10AM-P  | 48.25"            | 16.75"              | 15.75:                  | 1"          | 15.5"                   | 1"                    | 31.10 lbs     | 49.50"          | 18"            | 18.25"          | 38 lbs                 |
| TX-3AMS-SH | 16.50"            | 7.25"               | 6"                      | 1/2"        | 6.75"                   | 3/8"                  | 5.80 lbs      | 18.75"          | 7.75"          | 7.75"           | 7 lbs                  |
| TX-3AM-SH  | 32"               | 7.25"               | 7"                      | 1/2"        | 6.75"                   | 3/8"                  | 8.15 lbs      | 32.50"          | 7.75"          | 7.75"           | 10 lbs                 |
| TX-6AM-SH  | 44"               | 11.25"              | 12.50"                  | 1"          | 10.5"                   | 7/16"                 | 20.85 lbs     | 45.50"          | 12.75"         | 13"             | 25 lbs                 |
| TX-8AM-SH  | 46.50"            | 14.25"              | 14.25"                  | 1"          | 13.5"                   | 1/2"                  | 32.40 lbs     | 47"             | 15.25"         | 15.25"          | 38 lbs                 |
| TX-10AM-SH | 48.25"            | 16.75"              | 15.5"                   | 1"          | 15.5"                   | 1"                    | 38.75 lbs     | 49.50"          | 18"            | 18.25"          | 46 lbs                 |
| TX-6AM-SS  | 44"               | 11"                 | 12.50"                  | 1"          | 10.25"                  | 1/2"                  | 37.50 lbs     | 45.50"          | 12.75"         | 13"             | 42 lbs                 |

# **AIR MOVER USES**

#### Refineries and Chemical

Turnarounds or shutdowns are performed periodically to refurbish and overhaul units of both chemical plants and refineries. Furnes must be removed that are sometimes poisonous, explosive or noxious from process towers, tanks, large pipes, etc. before workers are allowed entry into these areas.

#### Cooling

Temperatures of heavy equipment in danger of overheating or in need of cooling prior to maintenance can be lowered quickly with the high volumes of air produced by air movers. In extremely hot work areas, air movers are used to supply air (similar to fans) to cool the environment or individual workers.

# Utilities & Cogeneration Units

Heavy-duty turbines, both steam and gas, induced draft fans and hot furnaces that may require emergency repairs can be cooled quickly with the use of air movers. To quickly cool this type machinery, an air mover is positioned both on the supply side and exhaust side of the unit.

#### Metal Fabrication of Tanks, Towers & Vessels

Welding in confined spaces such as these creates welding gases, smoke and fumes that must be removed for a safe, healthy working environment.

#### Paper & Pulp Plants

Digester rooms produce toxic gasses which must be removed prior to maintenance. Hot boilers with induced draft fans can be rapidly cooled prior to repair and maintenance.

#### Shipvards

Ship building requires extensive amounts of welding. As components are assembled, numerous confined spaces develop where smoke and welding fumes accumulate. Air movers and ducting are used to ventilate the confined spaces where workers are present.

#### Marine Industry

Tankers and fuel supply vessels must exhaust volatile fumes after emptying the cargo holds. Air movers can quickly and safely exhaust fumes from these areas. In the unfortunate event of a fire below deck, smoke can be purged from the affected areas with air movers and ducting.

# Steel Industry

Air movers are used to quickly and efficiently cool hot iron ladles and heavy equipment prior to repair and maintenance.

#### Manhole Operations

Methane and other heavy gases are commonly found in underground spaces. Prior to entering a manhole, the area must be ventilated to remove possible accumulation of gases. Air movers and ducting are used to supply or exhaust air from these spaces.

#### Underground Mines

As in manhole operations, gases can accumulate underground. The use of electricity for ventilation has the potential to cause an explosion. A compressed air powered air mover is intrinsically safe for this environment. The optional nickel plated bases are MSHA (Mining Safety & Health Administration) acceptable to encapsulate the aluminum housings for abrasion resistance to prevent aluminum smears. The nickel plated base with a polymer horn optimizes safety for all underground mining operations.

### SAFETY PRECAUTIONS

A grounding cable and clamp is attached to the base of all Texas Pneumatic air movers. Any time an air mover is used in a volatile atmosphere, it must be grounded to discharge any potential static electricity.

Texas Pneumatic air movers have no moving parts which make them ideal for ventilating hazardous areas. With the exception of the TX-6AM-SS, all bases are made from a high quality aluminum alloy. The TX-6AM-SS has a stainless steel base. Aluminum scraped across rusty steel can cause a smear. Take precautions not to drag the aluminum bases across steel. A heavy smear of aluminum on steel and being struck with some object can cause an incendiary spark. Our optional nickel plated bases add abrasion resistance which encapsulates the aluminum and reduces the possibility of an aluminum smear.

Care should be taken to prevent clogging of the nozzle jets. Clogged nozzle jets will affect the air flow at any pressure rating. A periodic cleaning with a pressure washer or steam cleaner is advised. Prior to using an air mover make sure all nozzle jets are open and operable.

An air mover must be secured prior to operation to avoid movement. The thrust of air being emitted will move the unit unless secured.

To Our Customers...

We wish to thank all of our customers for your support and patronage - from those of you who placed orders the first week we were in business to those of you who opened new accounts last week.

This company is founded on the following principles:

- 1. Quality Tools & Parts
- 2. Value Pricing
- 3. Fastest Response Time

By following these key principles, we strive to serve every customer as efficiently as possible, in the hope that you will know, without doubt, how much we appreciate your business.

#### THANKS AGAIN FROM ALL OF US AT TEXAS PNEUMATIC!



Polymer horns can be manipulated by hand back into shape if accidentally damaged due to crushing or bending.

