Air Movers and Air Amplifiers- E 2100 SERIES
Pneumatically driven- fumes, dust and fine solids exhauster

The Primetech venturi air mover is an effective device for

- evacuating fumes, smoke and air.
- conveying light particles such as resins and powders.
- Rapid cooling down of products, castings or work place.

**Working philosophy: The Coanda Effect**

Named after the aerodynamic pioneer Henri Coanda, this effect illustrates the tendency of a jet fluid to stay attached to an adjacent curved surface that is very well shaped.

Air movers are “pressure energy converters” converting higher pressure of compressed air to a high exhaust flow rate at low pressure. Compressed air enters the annular ring nozzle (A) and exits in the coanda profile which creates a vacuum in the upstream of the device. This causes an entrainment (B) which exits the device in (D). At the exit further entrainment of downstream air occurs (C).

**Features**

- Can be used as blower/exhauster.
- No electricity required. Can be used in hazardous areas.
- Light Weight & Portable
- Increasing the inlet pressure increases the exhaust flow.
- Low noise levels in air flow
- Easy to control– Can be started/stopped instantly.
- No maintainence required when used with an effective filter on the motive air side.
- No moving parts
- Low compressed air consumption.

Air Movers or air horns are pneumatically driven ventilators used to exhaust noxious fumes from critical areas to improve worker safety.

Figure 1. Working principle

![Figure 1](image1)

Air amplifiers are pneumatically driven devices used for the extraction of dust and fine solids and for cooling applications.

Figure 2 : 1 1/2” Air mover

![Figure 2](image2)

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Figure 3: 6” Air Mover

![Figure 3](image3)
Air Mover/Amplifier - E 2100 SERIES

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Applications

Exhaustion and conveying:
- Removal of poisonous, explosive or noxious fumes from tanks, towers, pipes etc. so as to make the work environment viable for men who work.
- Removal of dust, fine powders, small textile fibers using air amplifiers.
- Paper & pulp industries produce toxic gases in the digester which can be removed using air movers.
- To remove welding fumes & volatile gases in marine cargo holds, shipyards, power plants, manufacturing units etc.
- Removing grinding dust in metal working.

Cooling:
- Cooling heavy machineries such as turbines, furnaces which face the problem of overheating frequently.
- Cool down iron ladles faster thereby reducing time required for cleaning & maintenance.
- Cooling in molds and ovens.

Fresh Air Supply:
- Air Movers circulate fresh air or pull out poisonous gas /fumes from manholes.
- Air movers used for supplying fresh air to personnel working in confined area such as underground mines.

Drying:
- Drying water and enamel based paints.
- Quick drying of wet surfaces.

Industries served:

<table>
<thead>
<tr>
<th>Marine and shipping</th>
<th>Automobile</th>
<th>Textile</th>
<th>Metal working</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil and gas</td>
<td>Metal foundries</td>
<td>Pulp and paper</td>
<td>Process Industry</td>
</tr>
</tbody>
</table>
# Air Mover/Ampifier - E 2100 SERIES

Pneumatically driven - fumes, dust and fibres exhauster

## Technical data: Primetech Air mover

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Air consumption at 80 Psig (SCFM)</th>
<th>Exhaust volume (SCFM)</th>
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</thead>
<tbody>
<tr>
<td>PT-E-2101-C</td>
<td>0.164</td>
<td>0.886</td>
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<tr>
<td>PT-E-2101.5-C</td>
<td>0.286</td>
<td>3.681</td>
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<td>PT-E-2102-C</td>
<td>0.631</td>
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<tr>
<td>PT-E-2102.5-C</td>
<td>0.555</td>
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<tr>
<td>PT-E-2104.5-C</td>
<td>1.133</td>
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<tr>
<td>PT-E-2106</td>
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<td>1000</td>
</tr>
<tr>
<td>PT-E-2107</td>
<td>70</td>
<td>1400</td>
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<tr>
<td>PT-E-2112.5</td>
<td>125</td>
<td>3200</td>
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<tr>
<td>PT-E-2114</td>
<td>200</td>
<td>5000</td>
</tr>
<tr>
<td>PT-E-2115</td>
<td>280</td>
<td>7100</td>
</tr>
</tbody>
</table>

Smaller sizes 2", 3" and 4" are custom made and delivered within 4 weeks of order placement.

## Model Specifications

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Horn diameter (Inches)</th>
<th>Overall length (Inches)</th>
<th>Base diameter (Inches)</th>
<th>Compressed air inlet size (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT-E-2106</td>
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<tr>
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<td>14.4</td>
<td>1&quot;</td>
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<tr>
<td>PT-E-2115</td>
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<td>50</td>
<td>17</td>
<td>1&quot;</td>
</tr>
</tbody>
</table>

## Materials of construction

- **Base**: Carbon steel / SS316
- **Horn**: Carbon steel / SS316 / FRP
- **Compressed air port thread**: NPT