Sound Levels

for Paxton PX-series Blowers with NEMA blowers measured with and without Polypropylene Enclosures

Paxton PX-series blowers are designed for industrial manufacturing environments. As with all industrial machinery, the blower and its electric motor generate sound, with the sound level for the motor increasing with its horsepower, and the sound level of the blower increasing based on the volume of air that it is moving.

Additionally, the configuration of the blower and its air delivery devices will impact sound levels, including the following factors:

- The type, material, and length of piping
- > The type and size of air delivery devices
- The room height, size, and construction materials where the blower is located
- The motor brand and type

Sound levels can be mitigated through several methods:

- The use of a high-quality Paxton filter with silencer will reduce the sound levels by 3 dBA on average.
- The use of a Paxton polypropylene blower enclosure, specifically designed to reduce noise levels, provide additional reductions of 9 dBA.

The following table compares the sounds levels for a Paxton blower equipped with a filter and silencer, then the same blower system within a polypropylene enclosure.

Typical sound levels, measured in an isolated production environment with uninsulated 4" PVC Sch.40 plastic pipe Listed sound levels do not include air delivery devices.

| Paxton Blower (460V/3/60Hz) | HP | Blower with Filter and Silencer Sound Level (dBA) | Blower in Polypropylene Enclosure Sound Level (dBA) |
|--------------------------------|-----|---------------------------------------------------------|--------------------------------------------------------------|
| PX-200 | 2 | 83 | 74 |
| PX-300 | 3 | 84 | 75 |
| PX-500 | 5 | 85 | 76 |
| PX-750 | 7.5 | 87 | 78 |
| PX-1000 | 10 | 89 | 80 |
| PX1500 | 15 | 91 | 82 |
| PX-1550 | 15 | 91 | 82 |
| PX-2000 | 20 | 93 | 84 |

As you can see, there is a significant sound reduction when a blower enclosure is used. The blower enclosure not only reduces the sound levels by an average of 9 dBA (which based on its log scale is 10%), but also protects the blower from dust, dirt and washdown chemicals, thus extending the life of the blower and its filtration system.



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