FlexBus Central Conveying System Components

Technical Information

EXPANDABLE CENTRAL CONVEYING SYSTEM TO MEET YOUR NEEDS

OVERVIEW
Overview of our Maguire FlexBus Central Conveying Components

FEATURES
Key Benefits and Features of the Maguire FlexBus Receivers and Pumps

TECHNICAL DATA
Capacities, Dimensions and Throughput Data for our Receivers and Pumps

CONTACT
Find out where your regional head office is located

MAGUIRE
Intelligent Simplicity
FLEXBUS CENTRAL CONVEYING SYSTEM TECHNICAL INFORMATION

OVERVIEW

Expandable to meet your needs
Maguire’s MLS FlexBus System can operate with up to 5 vacuum pumps and 240 receivers using a single central FlexBus control.

Add as you grow
Allowing you to avoid the guesswork associated with central conveying systems, our systems use a single wire to connect all receivers (48 per pump) in the system to expand to meet your needs.

Two steps to easy operation
1. Determine the number of receivers to be included in your system and confirm conveying rates and efficiency with your Maguire representative.
2. Determine cable lengths, allowing for normal routing between the loading stations, around obstructions, wire paths, etc.

Central vacuum system efficiency
Utilizing a high vacuum pump to supply multiple vacuum receivers is much more efficient that using separate vacuum loaders.

Easy installation
Install a single wire and conveniently located drops to connect the control to all receivers and pumps.

System grows with your needs
Each FlexBus central control allows addition of up to 5 pumps and up to 48 receivers per pump for a total of 240 receivers.

FEATURES

Wide choice of receivers
Maguire offers a wide choice of receivers for various applications, from 2 liters up to 100 liters, for both free flowing granules and poor flowing, low density flake and regrind.

Full featured control
Adjustable load, unload, priority, proportioning, purge, blowback and alarm settings.

System compatibility
The Maguire FlexBus central conveying system integrates with the existing range of Maguire conveying equipment, but can easily integrate with many other manufacturer equipment. This allows users to benefit from the latest technologies that allow the equipment and expand your Maguire Conveying as required.

Expandable to meet your needs
Maguire’s three phase FlexBus System can operate with up to 5 vacuum pumps and 240 receivers using a single central FlexBus control. With intuitive touchscreen, 5 year warranty on the control system and 1 year warranty on the hardware, the system is flexible to meet your operating needs.

Receiver features

Wide choice of receivers
Our range of receivers is a robust design and is easy to access.

Robust mesh filter
The filter has a robust design and is easy to access.

Control box position
The control box is easily repositioned so as not to obstruct other receivers.

High material inlet
The material inlet is positioned high up in the body of the receiver to allow you to maximize on the liter capacity of the receiver.

Easy to open lid
With side mounting of the vacuum break valve, the operator can easily open the lid without obstruction from things such as the vacuum line.

Vacuum inlet
The vacuum inlet can easily be changed to different diameter line sizes according to the pump size. This ensures cleaner installations and minimizes the opportunity for vacuum leaks or vacuum losses, ensuring an efficient system.

Simple cleaning
Equipped with a coarse filter, filters are able to pass easily through to the central filter where it can be conveniently cleaned as and when required.

Simple wiring interface
With no wiring required, you can simply plug-in and run.

No wiring required, simply plug-in and run.
Easy filter access

The lid is free of attached elements allowing for easy filter access.

Wide range of single and twin pumps

Our vacuum pumps are available in a wide variety of single and twin stage pumps; our smallest (0.85kW/1.14Hp) is capable of achieving 750 kg/h at just 20 meters, providing energy costs per kilo conveyed versus using a 2kW or 3kW pump. Our pumps range from 0.85kW/1.14 Hp up to 11kW/14.5Hp and are efficient, compact and emit low noise.

Filter cleaning by implosion

Cleaning by implosion, the valve opens and lets fresh air into the filter, freeing any fines and moving them into the fines collector.

Cyclonic filtration

The filter chamber is designed for cyclonic filtration so that fines cannot collect on the filter and are removed to the fines collector. This method is very efficient at fines removal and results in the filter needing less cleaning and maintenance intervention.

Double filter option

The pressure differential on our double filter automatically switches to filter number 2 when full, to ensure no downtime during cleaning and the choice of more compact systems.

Easy access for dust and fines collector

The dust and fines collector is easy to remove, enabling the operator to quickly clean the bin free of any dust and fines collected through conveying.

"Achieve low energy costs per kilo conveyed with our 0.85kW pump that can reach up to 750kg/h over 20 meters."

TECHNICAL DATA

Material Receivers

<table>
<thead>
<tr>
<th>Volume Capacity</th>
<th>2</th>
<th>4</th>
<th>6</th>
<th>10</th>
<th>25</th>
<th>50</th>
<th>100</th>
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<tbody>
<tr>
<td>Material &amp; Vacuum Connections</td>
<td>30mm</td>
<td>40mm</td>
<td>30mm</td>
<td>40mm</td>
<td>40mm</td>
<td>40mm</td>
<td>40mm</td>
</tr>
<tr>
<td>Pneumatic Flap Version</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Pneumatic Flap Material Collector</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>150</td>
<td>150</td>
<td>300</td>
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</table>

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Maguire offers a 5-year warranty on the control system and 1-year warranty on the hardware, excluding consumables.
### FlexBus Three Phase Vacuum Pumps with Central Cyclonic Filtration – Single Stage

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Vacuum Power kW</th>
<th>Noise Level dBA</th>
<th>Maximum Static Vacuum mbar</th>
<th>Air Flow m³/h</th>
<th>Vacuum Line Diameter mm</th>
<th>Filters Available</th>
<th>Filter Surface m²</th>
<th>Filter Micron µ</th>
<th>Voltage / Frequency V/Hz</th>
<th>Weight Kg</th>
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</thead>
<tbody>
<tr>
<td>#11-51</td>
<td>0.85</td>
<td>&lt;70</td>
<td>165</td>
<td>140</td>
<td>30 or 40</td>
<td>DR2 DR4 DR8</td>
<td>6.7</td>
<td>8</td>
<td>400/50-60</td>
<td>90</td>
</tr>
<tr>
<td>#21-51</td>
<td>1.3</td>
<td>&lt;80</td>
<td>180</td>
<td>180</td>
<td>30 or 40</td>
<td>2xDR2 DR4 DR8</td>
<td>6.7</td>
<td>8</td>
<td>400/50-60</td>
<td>90</td>
</tr>
<tr>
<td>#31-51</td>
<td>2.2</td>
<td>&lt;80</td>
<td>225</td>
<td>210</td>
<td>40</td>
<td>2xDR2 DR4</td>
<td>6.7</td>
<td>8</td>
<td>400/50-60</td>
<td>100</td>
</tr>
<tr>
<td>#41-51</td>
<td>2.2</td>
<td>&lt;80</td>
<td>185</td>
<td>315</td>
<td>50</td>
<td>2xDR2 DR4</td>
<td>6.7</td>
<td>8</td>
<td>400/50-60</td>
<td>100</td>
</tr>
<tr>
<td>#41-51</td>
<td>2.2</td>
<td>&lt;80</td>
<td>185</td>
<td>315</td>
<td>50</td>
<td>2xDR2 DR4</td>
<td>6.7</td>
<td>8</td>
<td>400/50-60</td>
<td>100</td>
</tr>
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<td>#51-51</td>
<td>3.0</td>
<td>&lt;80</td>
<td>225</td>
<td>415</td>
<td>60</td>
<td>2xDR2 DR4 DR8</td>
<td>6.7</td>
<td>8</td>
<td>400/50-60</td>
<td>100</td>
</tr>
<tr>
<td>#61-51</td>
<td>5.5</td>
<td>&lt;80</td>
<td>300</td>
<td>520</td>
<td>70</td>
<td>2xDR2 DR4 DR8</td>
<td>6.7</td>
<td>8</td>
<td>400/50-60</td>
<td>140</td>
</tr>
</tbody>
</table>

**Filter Options**

- **VBR#** #11 #21 #31 #41 #41 #41 #41 #51 #51 #51 #51 #61 #61 #61
- **Vacuum Power kW** 0.85 1.3 2.2 2.2 2.2 2.2 2.2 3.0 3.0 3.0 3.0 5.5 5.5 5.5
- **DR2 Filter**
- **DR4 Filter**
- **DR8 Filter**

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Pumps are available in Single or Double Cyclonic Filters for efficient fines removal.
## Technical Data

### FlexBus Three Phase Vacuum Pumps with Central Cyclonic Filtration – Twin Stage

<table>
<thead>
<tr>
<th>VBR#</th>
<th>Vacuum Power kW</th>
<th>Noise Level dBa</th>
<th>Vacuum Line Diameter mm</th>
<th>Filters Available</th>
<th>Filter Surface m²</th>
<th>Filter Micron mµ</th>
<th>Filter Cleaning Method</th>
<th>Voltage / Frequency V/Hz</th>
<th>Weight Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>#12</td>
<td>2.2</td>
<td>&lt;80</td>
<td>30 or 40</td>
<td>DR2</td>
<td>6.7</td>
<td>8</td>
<td>Implosion</td>
<td>400/50-60</td>
<td>100</td>
</tr>
<tr>
<td>#32</td>
<td>4.0</td>
<td>&lt;80</td>
<td>40 or 50</td>
<td>2xDR2</td>
<td>6.7 each</td>
<td>8</td>
<td>Implosion</td>
<td>400/50-60</td>
<td>140</td>
</tr>
<tr>
<td>#32</td>
<td>5.5</td>
<td>&lt;80</td>
<td>50</td>
<td>DR4</td>
<td>6.7 each</td>
<td>8</td>
<td>Implosion</td>
<td>400/50-60</td>
<td>150</td>
</tr>
<tr>
<td>#42</td>
<td>7.5</td>
<td>&lt;80</td>
<td>60</td>
<td>2xDR4</td>
<td>6.7 each</td>
<td>8</td>
<td>Implosion</td>
<td>400/50-60</td>
<td>170</td>
</tr>
<tr>
<td>#42</td>
<td>7.5</td>
<td>&lt;80</td>
<td>70</td>
<td>DR8</td>
<td>6.7 each</td>
<td>8</td>
<td>Implosion</td>
<td>400/50-60</td>
<td>250</td>
</tr>
<tr>
<td>#42</td>
<td>11.0</td>
<td>&lt;80</td>
<td>70</td>
<td>2xDR8</td>
<td>6.7 each</td>
<td>8</td>
<td>Implosion</td>
<td>400/50-60</td>
<td>270</td>
</tr>
</tbody>
</table>

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FlexBus Three Phase Vacuum Pumps, with Central Cyclonic Filtration – Single Stage

- 5.5kW Ø60 #61
- 3.0kW Ø50 #51
- 2.2kW Ø50 #41
- 2.2kW Ø40 #31
- 1.3kW Ø40 #21
- 0.85kW Ø30 #11

FlexBus Three Phase Vacuum Pumps, with Central Cyclonic Filtration – Twin Stage

- 11.0kW Ø70 #72
- 7.5kW Ø70 #62
- 7.5kW Ø60 #62
- 5.5kW Ø50 #42
- 4.0kW Ø50 #32
- 4.0kW Ø40 #32
- 2.2kW Ø30 #12

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