Pneumatic Batch Blender/Transporter
pneumatic batch blending for the process industries

Whirl-Air Batch Blender/Transporters can handle a variety of dry materials in a wide range of particle sizes and densities. Pneumatic blending provides thorough, dust-free mixing with extremely low sheer and blend times of only two to five minutes. The unique Whirl-Air design uses dense phase pneumatic conveying to deliver the blended batch without segregation to one or more process areas. The Blender/Transporter combination also features the capability to deliver different batch weights to the multiple process areas.

Whirl-Air Batch Blender/Transporters can easily be mounted on a load cell weighing system to weigh ingredients or check weigh a batch. The controls system allows fully automatic operation.

Batch Blender/Transporter Features

- Five to 500 cu. ft. typical capacities
- Solid State blender controls
- Stainless or mild steel construction
- Designed to A.S.M.E. (if required)
- Shipped fully assembled for immediate installation

Typical Batch Blender/Transporter Product Applications

- Fiberglas Batch
- Cleansers/Detergents
- Ceramic Batch
- Tile Grouts
- Pigments
- Dry Cake Mix
- Pancake Mix
- Cake Mix
- Dry Powdered Cereals
- Soups (Dry Mix)
- Tire Pigments
- Pastry
- Battery Mix
- Plaster
- Clay Blends
- Pharmaceuticals
- Powder Drink Mix
- Powdered Metals

Batch Blender/Transporter Sequence of Operation

Filling - blender is filled by gravity from the batch/scale hopper above. Manual additions can be made using a Whirl-Air manual bag emptier.

Blending - products are homogeneously blended in cycles from two to five minutes using plant compressed air.

Conveying - blended product is pneumatically conveyed to process area. Gravity discharge models are also available.
typical configurations

Options

- **Liquid Addition** - for dust control, adding perfumes to soaps, etc. without balling or clumping.
- **Minor Addition** - can be hand added or weighed automatically for addition to batch prior to blending.
- **Check Scale System** - can be scale mounted to act as a check scale to ensure majors and minors are added to batch prior to blending.
- **Deliver To Multiple Stations** - capable of delivering different batch weights or formulas to multiple process areas.

Typical Materials Handled

- Alumina
- Bentonite
- Borax
- Boric Acid
- Calcium Carnoate
- Cements
- Clays
- Coal
- Cullet
- Silicon Metal
- Titanium Dioxide
- Gypsum
- Dolomite
- Feldspar
- Florspar
- Flavorings
- Flour
- Glass Beads
- Graphite
- Sand
- Soda Ash
- Zinc Oxide
- Diatomaceous Earth
- Iron Powder
- Lead Oxide
- Lead Pigment
- Lime, ground
- Phosphate
- Polyethylene powder
- Salt
- Sugar
- Animal Feeds

Typical Automatic System

Overhead storage silos feed product to weigh hopper by screw conveyor or other volumetric feeder. Blender receives weighed batch, blends and conveys mixed batch to process. Whirl-Air often supplies minor or micro ingredient systems to accurately add small weightments to each batch. Whirl-Air typically provides comprehensive systems to fully automate the entire process.

Typical Manual System

This self-standing system has a gravity discharge blender with manual filling inlet.
## engineering data & specifications

### Typical Capacities & Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>5 cu. ft.</td>
<td>3'-6&quot; OD</td>
<td>5'-1&quot;</td>
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<tr>
<td>100</td>
<td>10 cu. ft.</td>
<td>3'-6&quot; OD</td>
<td>5'-7&quot;</td>
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<tr>
<td>150</td>
<td>15 cu. ft.</td>
<td>3'-6&quot; OD</td>
<td>6'-8&quot;</td>
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<tr>
<td>200</td>
<td>20 cu. ft.</td>
<td>3'-6&quot; OD</td>
<td>7'-9&quot;</td>
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<tr>
<td>250</td>
<td>25 cu. ft.</td>
<td>3'-6&quot; OD</td>
<td>8'-10&quot;</td>
</tr>
<tr>
<td>300</td>
<td>30 cu. ft.</td>
<td>3'-6&quot; OD</td>
<td>9'-11&quot;</td>
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<tr>
<td>350</td>
<td>35 cu. ft.</td>
<td>5'-0&quot; OD</td>
<td>8'-2&quot;</td>
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<tr>
<td>400</td>
<td>40 cu. ft.</td>
<td>5'-0&quot; OD</td>
<td>8'-8&quot;</td>
</tr>
<tr>
<td>500</td>
<td>50 cu. ft.</td>
<td>5'-0&quot; OD</td>
<td>9'-8&quot;</td>
</tr>
<tr>
<td>600</td>
<td>60 cu. ft.</td>
<td>5'-0&quot; OD</td>
<td>10'-8&quot;</td>
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<tr>
<td>700</td>
<td>70 cu. ft.</td>
<td>6'-0&quot; OD</td>
<td>10'-3&quot;</td>
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<tr>
<td>800</td>
<td>80 cu. ft.</td>
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<td>11'-0&quot;</td>
</tr>
<tr>
<td>900</td>
<td>90 cu. ft.</td>
<td>6'-0&quot; OD</td>
<td>11'-9&quot;</td>
</tr>
<tr>
<td>1000</td>
<td>100 cu. ft.</td>
<td>6'-0&quot; OD</td>
<td>12'-6&quot;</td>
</tr>
<tr>
<td>1250</td>
<td>125 cu. ft.</td>
<td>6'-0&quot; OD</td>
<td>14'-3&quot;</td>
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<tr>
<td>1500</td>
<td>150 cu. ft.</td>
<td>6'-0&quot; OD</td>
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<tr>
<td>1750</td>
<td>175 cu. ft.</td>
<td>6'-0&quot; OD</td>
<td>17'-10&quot;</td>
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<tr>
<td>2000</td>
<td>200 cu. ft.</td>
<td>6'-0&quot; OD</td>
<td>19'-8&quot;</td>
</tr>
</tbody>
</table>

Whirl-Air Batch Blender/Transporters are custom built for each specific customer application. Actual dimensions may vary depending on capacity.

Whirl-Air Batch Blender/Transporters are shipped with full electrical wiring and compressed air piping factory installed to minimize installation time and expense.

*Whirl-Air-Flow reserves the right to change product specifications without notice.*