Drawing on 40 years of blower and manufacturing experience, Republic Blower Systems are designed to outperform any blower on the market. Providing the ideal combination of powerful air movement, maximum control and easy equipment maintenance, the Republic RB Series Centrifugal Blower was developed to provide a highly effective stream of air for your air or gas handling requirements.

The RB Series was specifically engineered to combine a robust blower design that is both efficient and, at the same time, easy to maintain. This field-proven design generates a high velocity stream of air that can be easily controlled by adjusting the aluminum or stainless steel air knife attachment, depending on the application. The permanently grease-packed ceramic-hybrid ball bearings require no maintenance, while the bearing assembly itself is easy to access.

The Republic Blower System is made from the highest quality materials, starting with the precision-ground steel shaft and continuing through to the cast 356-T6 aluminum blower housing. The motor pulley is made from zinc plated steel and the blower pulley is built with wear-resistant stainless steel. The PTFE multi-lip seal provides a more effective seal area to the bearing housing.

The small footprint works well for low profile applications such as PC board washer/dryer units or the base of machine/part cleaners.

With operating speeds from 9,000 to 20,000 rpm, the RB 500, RB 800 RB 1200, RB 2000, RB 2400 and RB 4000 can be powered with a 3 hp to 75 hp motor. The mounting plate contains a belt tensioner arm that self adjusts to maintain the proper belt tension and wrap around the blower pulley. The RB 1200 is capable of handling 1200 CFM (RB 500 = 500 CFM, RB 800 = 800 CFM, RB 2000 = 2000 CFM, RB 2400 = 2400 CFM, RB 4000 = 4000 CFM) of air or gas at pressures up to 3.5 psi, and every blower is 100% operationally tested to meet the quoted performance statement.

Applications:
- Air Knife Drying of:
  - Bottles/Cans
  - PC Boards and Electrical Components
  - Conveyor Belt Cleaning/Drying
  - Parts Conveying
  - Packaged Meat, Fish and Poultry Products
  - Produce/Fruit/Vegetables
  - Extrusions, Hose, Plastics and Film
  - Wire/Cable
  - Coiled Steel
  - Batteries
  - Confectionery/Food Toppings
  - Medicine Vials
  - Stampings, Forgings, Machined Parts
  - Textiles, Carpeting
  - Plastics Sheet/Film/Wire
Republic Centrifugal Blower

Technical Data

RB 500

Dimensions

<table>
<thead>
<tr>
<th>HP</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>WT (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 (182T)</td>
<td>17.42</td>
<td>7 1/4</td>
<td>4 1/2</td>
<td>20 1/8</td>
<td>7 1/2</td>
<td>10 1/4</td>
<td>5/8</td>
<td>7 1/2</td>
<td>128</td>
</tr>
<tr>
<td>5 (184T)</td>
<td>18.41</td>
<td>7 1/4</td>
<td>5 1/2</td>
<td>20 1/8</td>
<td>7 1/2</td>
<td>10 1/4</td>
<td>5/5</td>
<td>7 1/2</td>
<td>142</td>
</tr>
<tr>
<td>7 1/2 (213T)</td>
<td>20</td>
<td>8</td>
<td>5 1/2</td>
<td>20 7/8</td>
<td>8 1/2</td>
<td>11 3/4</td>
<td>1/8</td>
<td>8 1/4</td>
<td>163</td>
</tr>
</tbody>
</table>
Republic Centrifugal Blower

Performance Curves

RB 500/3-7.5 HP

Pressure vs. CFM

Vacuum vs. CFM

Standard cubic feet per minute, air at 14.7 psia, 68°F, 36% R.H.

1" H₂O = .074" Hg = .036 PSIG = .57 oz = 25.4 mm H₂O

RB 500-3 HP  RB 500-5 HP  RB 500-7.5 HP
Republic Centrifugal Blower

RB 800

Technical Data

Dimensions

<table>
<thead>
<tr>
<th>HP</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>WT (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 (182T)</td>
<td>17.39</td>
<td>7 1/4</td>
<td>4 1/2</td>
<td>23 1/8</td>
<td>7 1/2</td>
<td>10 3/8</td>
<td>1 1/4</td>
<td>7 1/2</td>
<td>128</td>
</tr>
<tr>
<td>5 (184T)</td>
<td>18.38</td>
<td>7 1/4</td>
<td>8 1/2</td>
<td>23 1/8</td>
<td>7 1/2</td>
<td>10 7/8</td>
<td>1 1/4</td>
<td>7 1/2</td>
<td>142</td>
</tr>
<tr>
<td>7 1/2 (213T)</td>
<td>20</td>
<td>5 1/2</td>
<td>23 7/8</td>
<td>8 1/2</td>
<td>12 3/8</td>
<td>3/4</td>
<td>8 1/4</td>
<td>163</td>
<td></td>
</tr>
<tr>
<td>10 (215T)</td>
<td>21.5</td>
<td>8</td>
<td>7</td>
<td>23 7/8</td>
<td>9 1/2</td>
<td>12 3/8</td>
<td>3/4</td>
<td>8 1/4</td>
<td>193</td>
</tr>
<tr>
<td>15 (254T)</td>
<td>26.06</td>
<td>8 3/4</td>
<td>8 1/4</td>
<td>24 7/8</td>
<td>10</td>
<td>15 3/4</td>
<td>0</td>
<td>9 1/4</td>
<td>233</td>
</tr>
</tbody>
</table>
Republic Centrifugal Blower

Performance Curves

RB 800/5-15 HP

Pressure vs. CFM

Vacuum vs. CFM

Standard cubic feet per minute, air at 14.7 psia, 68°F, 36% R.H.
1"H₂O = .074" Hg = .036 PSIG = .57 oz = 25.4 mm H₂O
### Technical Data

**Republic Centrifugal Blower**

**RB 1200HC**

#### Dimensions

<table>
<thead>
<tr>
<th>HP</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>WT (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 (184T)</td>
<td>18.38</td>
<td>7 1/4</td>
<td>5 1/2</td>
<td>23 1/8</td>
<td>7 1/2</td>
<td>11 7/8</td>
<td>2 1/4</td>
<td>5 1/4</td>
<td>154</td>
</tr>
<tr>
<td>7 1/2 (213T)</td>
<td>20</td>
<td>8</td>
<td>5 1/2</td>
<td>23 3/8</td>
<td>8 1/2</td>
<td>13 3/8</td>
<td>1 3/4</td>
<td>6</td>
<td>175</td>
</tr>
<tr>
<td>10 (215T)</td>
<td>21.44</td>
<td>8</td>
<td>7</td>
<td>23 7/8</td>
<td>8 1/2</td>
<td>13 3/8</td>
<td>1 3/4</td>
<td>6</td>
<td>205</td>
</tr>
<tr>
<td>15 (254T)</td>
<td>26.06</td>
<td>8 3/4</td>
<td>8 1/4</td>
<td>24 7/8</td>
<td>10</td>
<td>16 3/4</td>
<td>1</td>
<td>7</td>
<td>245</td>
</tr>
<tr>
<td>20 (256T)</td>
<td>26.06</td>
<td>8 3/4</td>
<td>10</td>
<td>24 7/8</td>
<td>10</td>
<td>16 3/4</td>
<td>1</td>
<td>7</td>
<td>348</td>
</tr>
<tr>
<td>25 (284T)</td>
<td>28.42</td>
<td>9 1/4</td>
<td>9 1/2</td>
<td>24 7/8</td>
<td>11</td>
<td>18 7/8</td>
<td>1/4</td>
<td>7</td>
<td>440</td>
</tr>
</tbody>
</table>
Republic Centrifugal Blower

Performance Curves

RB 1200HC/5-25 HP

Pressure vs. CFM

Vacuum vs. CFM

Standard cubic feet per minute, air at 14.7 psia, 68°F, 36% R.H.

1"H₂O = .074"Hg = .016 PSIG = .57 oz = 25.4 mm H₂O

www.republicsales.com
# Republic Centrifugal Blower

## Technical Data

### RB 2000

<table>
<thead>
<tr>
<th>HP</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>WT (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 (256TC)</td>
<td>24.13</td>
<td>8 3/4</td>
<td>10</td>
<td>24 7/8</td>
<td>10</td>
<td>15 5/8</td>
<td>1</td>
<td>7</td>
<td>348</td>
</tr>
<tr>
<td>25 (284TSC)</td>
<td>26.23</td>
<td>9 1/4</td>
<td>9 1/2</td>
<td>24 7/8</td>
<td>10</td>
<td>19 1/8</td>
<td>1/2</td>
<td>7</td>
<td>440</td>
</tr>
<tr>
<td>30 (286TSC)</td>
<td>30.13</td>
<td>10 7/8</td>
<td>11</td>
<td>25 1/2</td>
<td>11</td>
<td>18 1/4</td>
<td>3/4</td>
<td>7</td>
<td>440</td>
</tr>
</tbody>
</table>

*This used on 20HP ONLY*

*View Shown w/out Filter A*
**Republic Centrifugal Blower**

**Performance Curves**

**RB 2000/20-30 HP**

**Pressure vs. CFM**

**Vacuum vs. CFM**

Standard cubic feet per minute, air at 14.7 psia, 68°F, 36% R.H.

1"H₂O = .074" Hg = .036 PSIG = .57 ft = 25.4 mm H₂O

- **Yellow** for RB 2000-20 HP
- **Purple** for RB 2000-25 HP
- **Blue** for RB 2000-30 HP
Republic Centrifugal Blower

Technical Data

RB 2400

<table>
<thead>
<tr>
<th>HP</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>WT (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 (284TSC)</td>
<td>29.77</td>
<td>11 3/8</td>
<td>11</td>
<td>27 3/8</td>
<td>20 7/8</td>
<td>8 1/2</td>
<td>25 31/32</td>
<td>19 15/32</td>
<td>13 1/8</td>
<td>5 1/2</td>
<td>11</td>
<td>513</td>
</tr>
<tr>
<td>30 (286TSC)</td>
<td>29.77</td>
<td>11 3/8</td>
<td>11</td>
<td>27 3/8</td>
<td>20 7/8</td>
<td>8 1/2</td>
<td>25 31/32</td>
<td>19 15/32</td>
<td>13 1/8</td>
<td>5 1/2</td>
<td>11</td>
<td>513</td>
</tr>
<tr>
<td>40 (324TSC)</td>
<td>31.66</td>
<td>11 3/8</td>
<td>12</td>
<td>28 3/8</td>
<td>21 7/8</td>
<td>9 1/2</td>
<td>26 31/32</td>
<td>20 15/32</td>
<td>14 5/8</td>
<td>6 1/4</td>
<td>12 1/2</td>
<td>615</td>
</tr>
<tr>
<td>50 (326TSC)</td>
<td>31.66</td>
<td>11 3/8</td>
<td>12</td>
<td>28 3/8</td>
<td>21 7/8</td>
<td>9 1/2</td>
<td>26 31/32</td>
<td>20 15/32</td>
<td>14 5/8</td>
<td>6 1/4</td>
<td>12 1/2</td>
<td>725</td>
</tr>
</tbody>
</table>
Republic Centrifugal Blower

Performance Curves

RB 2400/10-50 HP

Pressure vs. CFM

Vacuum vs. CFM

Standard cubic feet per minute, air at 14.7 psia, 68°F, 36% R.H.

\[1\text{''H}_2\text{O} = .074\text{''} \times .936\text{''} = .070\text{''} \times .57 = 25.4 \text{ mm H}_2\text{O}\]
### Republic Centrifugal Blower

#### Technical Data

**RB 4000**

<table>
<thead>
<tr>
<th>HP</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>WT (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 (286TSC)</td>
<td>29.76</td>
<td>11.31</td>
<td>11</td>
<td>37.25</td>
<td>11</td>
<td>22.12</td>
<td>3.5</td>
<td>7</td>
<td>834</td>
</tr>
<tr>
<td>40 (324TSC)</td>
<td>31.65</td>
<td>11.34</td>
<td>10.5</td>
<td>36.75</td>
<td>12.5</td>
<td>23.62</td>
<td>2.75</td>
<td>8</td>
<td>1018</td>
</tr>
<tr>
<td>50 (326TSC)</td>
<td>31.65</td>
<td>11.88</td>
<td>12</td>
<td>36.75</td>
<td>12.5</td>
<td>23.62</td>
<td>2.75</td>
<td>8</td>
<td>1004</td>
</tr>
<tr>
<td>60 (364TSC)</td>
<td>33.34</td>
<td>11.88</td>
<td>12</td>
<td>37.75</td>
<td>14</td>
<td>24.12</td>
<td>2</td>
<td>9</td>
<td>1265</td>
</tr>
<tr>
<td>75 (365TSC)</td>
<td>33.34</td>
<td>12.5</td>
<td>12.25</td>
<td>37.75</td>
<td>14</td>
<td>24.12</td>
<td>2</td>
<td>9</td>
<td>1331</td>
</tr>
</tbody>
</table>
Republic Centrifugal Blower

Performance Curves

RB 4000/40-75 HP

Pressure vs. CFM

Standard cubic feet per minute, air at 14.7 psia, 68 °F, 36% R.H.

1\text{''H}_2\text{O} = .074'' \text{Hg} = .036 \text{PSIG} = .57 \text{ oz} = 23.4 \text{ mm} \text{ H}_2\text{O}

- Red: RB 4000-40 HP
- Green: RB 4000-50 HP
- Yellow: RB 4000-60 HP
- Blue: RB 4000-75 HP
Republic Centrifugal Blower
System Drawings

Wheel Drying

Parts Drying

Sheet Conveying
Other Blower Applications:

- Debris/Dust/Liquid Blow Off
- Vapor Recovery
- Vacuum Hold Down and Conveying
- Concrete Slurry Containment and Grindng Systems
- Industrial Vacuum Systems
- Coating Control of Primers, Glue, Adhesives and Ink
- Static Control
- Landfill Gas Recovery
- Aeration Systems
- Air Sampling Systems
- Fume Exhausting
- Cooling

Advantages:

- Low Energy Consumption
- Provides a Dry, Clean and Oil-free Air Stream
- Inlet Side of the Blower is Filtered to Prevent Particle Contamination
- Safe - Low Pressure (4.0 psi), Unlike Compressed Air Systems
- Allows for Increased Production Speeds or Levels, Thus a Quick Payback
- Capable of Drying Products at Several Times the Distance of a Slotted Tube Air Knife
- Reduced Sound Levels Compared to a Compressed Air Nozzle or a Round Tube Design

Air Knife Drying System Design & Construction

- Standard Finishes: Clear Anodized Aluminum
- Electroless Nickel Plated Aluminum
- 316 Stainless Steel
- Dimensions: 3-1/2” x 4-3/4”
- Mounting Hole: 5/16-18 PEM Nut for Additional Support and Strength
- Uninterrupted Air Slot Across the Entire Length - Gap: .001-.125
- Available with Middle or Offset Inlets
- Custom Designs Available

To arrange a demonstration test or to further discuss your particular application please contact one of our application engineers or local business partners.

Accessories

- Stainless Steel Nozzles
- Stainless Steel HEPA Filters for Clean Room Environments
- Stainless Steel Y-Branches, Elbows, Hose Clamps, and Piping
- Stainless Steel Air Knife Support Brackets
- Stainless Steel 3, 4, 5 and 6 Outlet Manifolds
- Air Knife and Blower/Motor Enclosures Available in Powder Coated or Stainless Steel Design