

# **Forward Curved Centrifugal Wheels**

## **Key Rivet Design - Single Inlet**

5.24 inch (133 mm) Diameter

Key Rivet<sup>™</sup> blower wheels (also known as Fergas wheels) outperform competitors' tab-lock design by using a unique "key rivet" manufacturing technique that results in a wheel which is lighter and five times stronger than those made by traditional tab-lock methods.

The Key Rivet wheel, compared to a similar size tab-lock wheel, provides higher performance with a quieter and more efficient operation.

This wheel diameter is manufactured at Beckett Air. Existing tooling is available for several other diameters and widths.



### **Specifications**

| Configuration<br>Number | Dia. "D" |     | Width "W" |     | No. of Blades | Max Rivet<br>Hgt. "H" |     | Blade-to-Blade<br>I.D. "K" |     | App. Wt. Steel |      | Max<br>RPM |
|-------------------------|----------|-----|-----------|-----|---------------|-----------------------|-----|----------------------------|-----|----------------|------|------------|
|                         | in.      | mm  | in.       | mm  | biaues        | in                    | mm  | in.                        | mm  | Lbs.           | kg   | nrivi      |
| F133-25S                | 5.24     | 133 | 0.98      | 25  | 38            | 0.04                  | 1.1 | 4.32                       | 110 | 0.31           | 0.14 | 5800       |
| F133-34S                |          |     | 1.34      | 34  |               |                       |     |                            |     | 0.35           | 0.16 | 5800       |
| F133-42S                |          |     | 1.65      | 42  |               |                       |     |                            |     | 0.37           | 0.17 | 5800       |
| F133-52S                |          |     | 2.04      | 52  |               |                       |     |                            |     | 0.41           | 0.19 | 5800       |
| F133-62S                |          |     | 2.44      | 62  |               |                       |     |                            |     | 0.48           | 0.22 | 5100       |
| F133-72S                |          |     | 2.83      | 72  |               |                       |     |                            |     | 0.50           | 0.23 | 4700       |
| F133-85S                |          |     | 3.35      | 85  |               |                       |     |                            |     | 0.54           | 0.24 | 3800       |
| F133-102S               |          |     | 4.02      | 102 |               |                       |     |                            |     | 0.62           | 0.28 | 3100       |

Maximum RPM is based on stationary installations and ambient operating temperatures. Please contact Beckett Air for information regarding applications outside these parameters

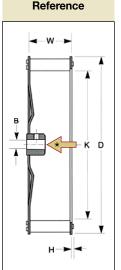
### **Options**

| Rotation <sup>1</sup> | Wheel N          | Secondary<br>Coatings <sup>3</sup> |                                  | Hub<br>s "B" <sup>4</sup>    | Hub Material                 | Other <sup>5,6,7</sup>   |                                       |
|-----------------------|------------------|------------------------------------|----------------------------------|------------------------------|------------------------------|--|---------------------------------------|
|                       |                  | Coatings                           | ln.                              | mm                           |                              |  |                                       |
|                       | Aluminum         | Standard Option                    |                                  | 1/4,<br>5/16,<br>3/8,<br>1/2 | 6.4,<br>7.9,<br>9.5,<br>12.7 |  | Housings,<br>Backplates,<br>Balancing |
| CW,<br>CCW            | Aluminized Steel | Standard Option                    | Paint, E-coating, Nickel Plating |                              |                              | Aluminum,<br>Nickel-Plated Steel,<br>Plain Steel,<br>Zinc-Plated |                                       |
|                       | Galvanized Steel | Standard Option                    |                                  |                              |                              |  |                                       |
|                       | Galvalume        | Custom Option                      |                                  |                              |                              |  |                                       |
|                       | Galvanneal       | Custom Option                      |                                  |                              |                              |  |                                       |
|                       | Plain Steel      | Custom Option                      |                                  |                              |                              |  |                                       |

#### Notes

- 1 Rotation is defined by note on dimensional reference drawings.
- 2 Materials listed as Standard Option are most commonly used in Key Rivet wheels but other materials listed as Custom Option are available.
- 3 Secondary coatings are applied to fully assembled wheel.
- 4 Standard hub has one set screw. Hubs with two screws and/or metric bore sizes are also available.
- For quoting purposes, Beckett Air will quote a standard housing for the wheel that is selected if required. Customers can also submit a specific engineered design for a final quotation.
- 6 Backplates used on the wheels listed in this category are flat but concave backplates are available in some diameters.
- 7 Rotating static balance to .040 ounce-inch (standard). Dynamic (two plane) balance and/or reduced static balance tolerances (optional).



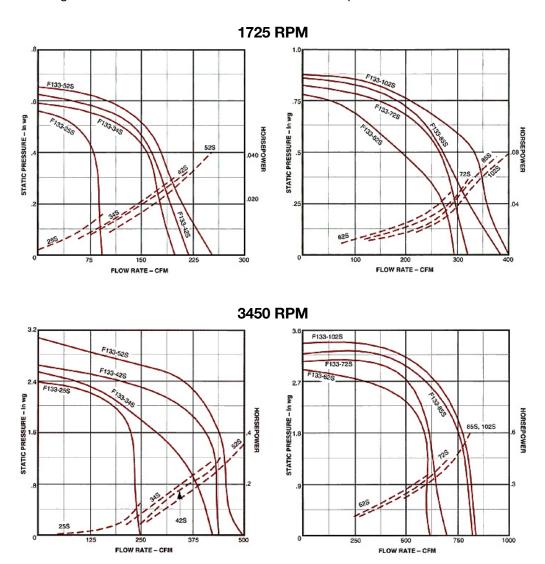


**Dimensional** 

\*Rotation for single-inlet blower wheels is determined by viewing the open end (inlet side).

#### **Airflow Characteristics**

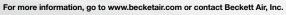
Performance charts below are for reference only. Actual airflow, static pressure and horsepower characteristics are dependent on application, motor used, inlet/outlet dimensions and other factors. Beckett Air can provide samples of wheels or perform testing on blower wheels as installed to confirm actual performance characteristics.

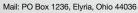


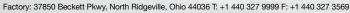
# **Typical Applications**

| HVAC                 | Household<br>Appliances | Commercial Food<br>Preparation | Electronics<br>Cooling | Commercial<br>Applications | Transportation Cooling/Heating |
|----------------------|-------------------------|--------------------------------|------------------------|----------------------------|--------------------------------|
| Central Heating      | Water Heaters           | Warming Cabinets               | Server Enclosures      | Air Doors / Curtains       | Train                          |
| Air Conditioning     | Bathroom Ventilation    | Convection Ovens               | Medical Devices        | Clean Technology           | Bus                            |
| Commercial Fan Coils | Range Hoods             | Combi Ovens                    | Business Machines      | Process Cooling & Drying   | Truck                          |
| Exhaust Fans         |                         | Counter Top Ovens              |                        | De-Dusting Systems         | Off Road                       |
| Hearth Products      |                         | Induction Cooktops             |                        | Elevator Exhaust Fan       | Auto Vent & Heater             |
| Convection Heaters   |                         | Ventilation Systems            |                        | Motor Cooling              |                                |
| Radiant Heaters      |                         |                                |                        |                            | _                              |

All data listed in this informational sheet is subject to change without notice.









Ref. KR133S (12/2020)