

# RS-4605

## Material

- Material: aluminium alloy 6063-T6
- Nominal thickness: 1.52 mm for blades, 2.03 mm for head, cill and jamb frames, and for mullions
- Optional extras (at additional cost): bird/vermin guards, insect mesh, blanking plates, insulated blanking panels, cill pans and integrated glazing frames

## Test Summary

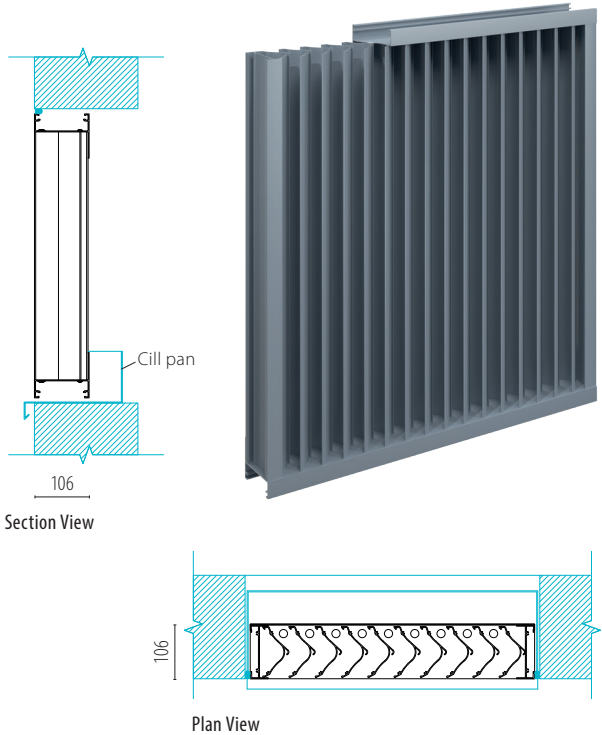
Tested with mill finish and no accessories.

For a 1220 mm x 1220 mm (4' x 4') unit.

- Free area = 0.79 m<sup>2</sup> (8.53 ft<sup>2</sup>)
- Percent free area = 53.3%
- Intake Pressure Drop at 4.57 m/s (900 FPM) free area velocity = 62.6 Pa (0.25 in. H<sub>2</sub>O)

For a unit with 1m<sup>2</sup> core area.

- To maintain a CLASS A (99%) effectiveness rating\* with:
  - a 13 m/s (29.1 mph) wind speed and rainfall rate of 75 mm/hr (3 in/hr)
    - Max. intake core velocity 3.97 m/s (781 FPM)
    - Max. intake free area velocity 6.68 m/s (1315 FPM)
- To maintain a CLASS A (99%) effectiveness rating\* with:
  - a 22.3 m/s (50 mph) wind speed and rainfall rate of 203 mm/hr (8 in/hr)
    - Max. intake core velocity 3.44 m/s (677 FPM)
    - Max. intake free area velocity 5.79 m/s (1140 FPM)



Construction Specialties UK Ltd certifies that the louvre model RS-4605 shown herein is licensed to bear the AMCA Seal.

The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified ratings Program. The AMCA Certified Ratings Seal applies to Wind Driven Rain, Water Penetration and Air Performance Ratings.

**Discharge Coefficient (C<sub>d</sub>)**  
Intake = 0.27 (Class 3), Exhaust = 0.28 (Class 3)  
AMCA certifies the coefficient class only

## Wind Driven Rain Performance

Tested with 1m<sup>2</sup> core area, mill finish and no accessories\*

13 m/s (29.1 mph) & 75 mm (3") rain per hour

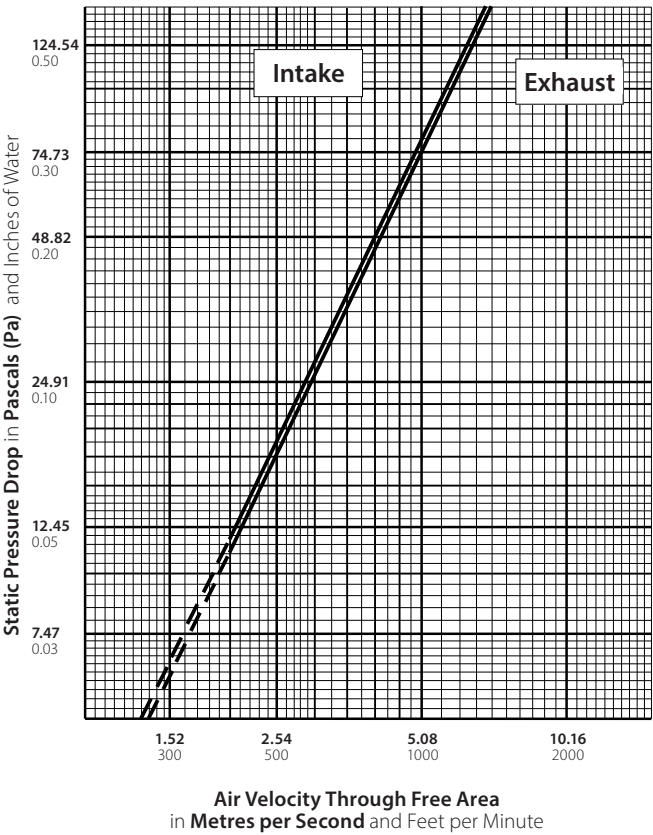
|                                                |     |      |      |      |      |      |      |      |      |      |      |
|------------------------------------------------|-----|------|------|------|------|------|------|------|------|------|------|
| Core Velocity Through Calibration Plate (m/s): | 0.0 | 0.5  | 1.0  | 1.5  | 2.0  | 2.5  | 3.0  | 3.5  | 4.0  | 4.5  | 5.0  |
| Free Area Velocity (m/s):                      | 0   | 1.13 | 1.69 | 2.45 | 3.25 | 4.04 | 5.02 | 5.82 | 6.68 | 7.36 | 8.51 |
| Rating Effectiveness:                          | A   | A    | A    | A    | A    | A    | A    | A    | A    | B    | B    |
| Effectiveness Ratio (%):                       |     |      |      |      |      |      | 99.8 | 99.8 | 99.6 | 98.5 | 96.1 |

22.3 m/s (50 mph) & 203 mm (8") rain per hour

|                                                |     |      |      |      |      |      |      |      |      |      |      |
|------------------------------------------------|-----|------|------|------|------|------|------|------|------|------|------|
| Core Velocity Through Calibration Plate (m/s): | 0.0 | 0.5  | 1.0  | 1.5  | 2.0  | 2.5  | 3.0  | 3.5  | 4.0  | 4.5  | 5.0  |
| Free Area Velocity (m/s):                      | 0   | 0.82 | 1.66 | 2.43 | 3.42 | 4.21 | 4.88 | 5.79 | 6.66 | 7.56 | 8.25 |
| Rating Effectiveness:                          | A   | A    | A    | A    | A    | A    | A    | A    | B    | B    | B    |
| Effectiveness Ratio (%):                       |     |      |      |      |      | 99.3 | 99.2 | 99.0 | 98.7 | 98.3 | 97.4 |

|                       |               |                   |                   |                |
|-----------------------|---------------|-------------------|-------------------|----------------|
| Effectiveness Rating: | A = 1 to 0.99 | B = 0.989 to 0.95 | C = 0.949 to 0.80 | D = Below 0.80 |
|-----------------------|---------------|-------------------|-------------------|----------------|

# RS-4605



Data corrected to standard air density.  
1220 mm x 1220 mm (48" x 48") louvre tested to figure 5.5.

## Free Area Table (Free area in sq. feet and sq. metres)

For additional sizes, please visit:

<https://www.c-sgroup.com/architectural-louvers/louvers-airflow-tool>

|     | Width in Inches and Metres |       |       |       |       |       |       |       |
|-----|----------------------------|-------|-------|-------|-------|-------|-------|-------|
|     | 18                         | 24    | 30    | 36    | 42    | 48    | 54    | 60    |
| 18  | 0.46                       | 0.61  | 0.76  | 0.91  | 1.07  | 1.22  | 1.37  | 1.52  |
|     | 0.82                       | 1.17  | 1.53  | 1.88  | 2.24  | 2.60  | 2.95  | 3.31  |
| 24  | 0.46                       | 0.08  | 0.11  | 0.14  | 0.18  | 0.21  | 0.24  | 0.27  |
|     | 0.61                       | 0.11  | 0.16  | 0.21  | 0.26  | 0.30  | 0.35  | 0.40  |
| 30  | 0.76                       | 1.56  | 2.24  | 2.93  | 3.61  | 4.29  | 4.97  | 5.65  |
|     | 0.15                       | 0.21  | 0.27  | 0.34  | 0.40  | 0.46  | 0.52  | 0.59  |
| 36  | 0.91                       | 1.94  | 2.78  | 3.62  | 4.47  | 5.31  | 6.15  | 7.00  |
|     | 0.18                       | 0.26  | 0.34  | 0.42  | 0.49  | 0.57  | 0.65  | 0.73  |
| 42  | 1.07                       | 2.31  | 3.32  | 4.32  | 5.33  | 6.33  | 7.34  | 8.35  |
|     | 0.21                       | 0.31  | 0.40  | 0.50  | 0.59  | 0.68  | 0.78  | 0.87  |
| 48  | 1.22                       | 2.68  | 3.85  | 5.02  | 6.19  | 7.36  | 8.53  | 9.70  |
|     | 0.25                       | 0.36  | 0.47  | 0.58  | 0.68  | 0.79  | 0.90  | 1.01  |
| 54  | 1.37                       | 3.06  | 4.39  | 5.72  | 7.05  | 8.38  | 9.71  | 11.05 |
|     | 0.28                       | 0.41  | 0.53  | 0.66  | 0.78  | 0.90  | 1.03  | 1.15  |
| 60  | 1.52                       | 3.43  | 4.92  | 6.42  | 7.91  | 9.41  | 10.90 | 12.39 |
|     | 0.32                       | 0.46  | 0.60  | 0.74  | 0.87  | 1.01  | 1.15  | 1.29  |
| 66  | 1.68                       | 3.80  | 5.46  | 7.12  | 8.77  | 10.43 | 12.09 | 13.74 |
|     | 0.35                       | 0.51  | 0.66  | 0.82  | 0.97  | 1.12  | 1.28  | 1.43  |
| 72  | 1.83                       | 4.18  | 6.00  | 7.82  | 9.63  | 11.45 | 13.27 | 15.09 |
|     | 0.39                       | 0.56  | 0.73  | 0.90  | 1.06  | 1.23  | 1.40  | 1.57  |
| 78  | 1.98                       | 4.55  | 6.53  | 8.51  | 10.50 | 12.48 | 14.46 | 16.42 |
|     | 0.42                       | 0.61  | 0.79  | 0.98  | 1.16  | 1.34  | 1.53  | 1.71  |
| 84  | 2.13                       | 4.92  | 7.07  | 9.21  | 11.36 | 13.50 | 15.65 | 17.79 |
|     | 0.46                       | 0.66  | 0.86  | 1.06  | 1.25  | 1.45  | 1.65  | 1.85  |
| 90  | 2.29                       | 5.06  | 7.27  | 9.47  | 11.68 | 13.89 | 16.09 | 18.30 |
|     | 0.47                       | 0.68  | 0.88  | 1.09  | 1.29  | 1.49  | 1.70  | 1.90  |
| 96  | 2.44                       | 5.44  | 7.81  | 10.17 | 12.54 | 14.91 | 17.28 | 19.64 |
|     | 0.51                       | 0.73  | 0.95  | 1.17  | 1.39  | 1.61  | 1.83  | 2.05  |
| 102 | 2.59                       | 5.81  | 8.34  | 10.87 | 13.40 | 15.93 | 18.46 | 20.99 |
|     | 0.54                       | 0.77  | 1.01  | 1.25  | 1.48  | 1.72  | 1.95  | 2.19  |
| 108 | 2.74                       | 6.18  | 8.88  | 11.57 | 14.26 | 16.96 | 19.65 | 22.34 |
|     | 0.57                       | 0.82  | 1.07  | 1.33  | 1.58  | 1.83  | 2.08  | 2.33  |
| 114 | 2.90                       | 6.56  | 9.41  | 12.27 | 15.12 | 17.98 | 20.84 | 23.69 |
|     | 0.61                       | 0.87  | 1.14  | 1.41  | 1.67  | 1.94  | 2.20  | 2.47  |
| 120 | 3.05                       | 6.93  | 9.95  | 12.97 | 15.99 | 19.00 | 22.02 | 25.04 |
|     | 0.64                       | 0.92  | 1.20  | 1.49  | 1.77  | 2.05  | 2.33  | 2.61  |
| 126 | 3.20                       | 7.30  | 10.49 | 13.67 | 16.85 | 20.03 | 23.21 | 26.39 |
|     | 0.68                       | 0.97  | 1.27  | 1.57  | 1.86  | 2.16  | 2.45  | 2.75  |
| 132 | 3.35                       | 7.68  | 11.02 | 14.37 | 17.71 | 21.05 | 24.40 | 27.74 |
|     | 0.71                       | 1.02  | 1.33  | 1.65  | 1.96  | 2.27  | 2.58  | 2.89  |
| 138 | 3.51                       | 8.05  | 11.56 | 15.06 | 18.57 | 22.08 | 25.58 | 29.09 |
|     | 0.75                       | 1.07  | 1.40  | 1.73  | 2.05  | 2.38  | 2.70  | 3.03  |
| 144 | 3.66                       | 8.43  | 12.09 | 15.76 | 19.43 | 23.10 | 26.77 | 30.44 |
|     | 0.78                       | 1.12  | 1.46  | 1.81  | 2.15  | 2.49  | 2.83  | 3.17  |
| 150 | 3.81                       | 8.80  | 12.63 | 16.46 | 20.29 | 24.12 | 27.95 | 31.79 |
|     | 0.82                       | 1.17  | 1.53  | 1.89  | 2.24  | 2.60  | 2.95  | 3.31  |
| 156 | 3.96                       | 9.17  | 13.17 | 17.16 | 21.15 | 25.15 | 29.14 | 33.14 |
|     | 0.85                       | 1.22  | 1.59  | 1.97  | 2.34  | 2.71  | 3.08  | 3.45  |
| 162 | 4.11                       | 9.55  | 13.70 | 17.86 | 22.01 | 26.17 | 30.33 | 34.48 |
|     | 0.89                       | 1.27  | 1.66  | 2.05  | 2.43  | 2.82  | 3.20  | 3.59  |
| 168 | 4.27                       | 9.92  | 14.24 | 18.56 | 22.88 | 27.19 | 31.51 | 35.83 |
|     | 0.92                       | 1.32  | 1.72  | 2.13  | 2.53  | 2.93  | 3.33  | 3.73  |
| 174 | 4.42                       | 10.06 | 14.44 | 18.82 | 23.20 | 27.58 | 31.96 | 36.34 |
|     | 0.93                       | 1.34  | 1.75  | 2.16  | 2.56  | 2.97  | 3.38  | 3.78  |
| 180 | 4.57                       | 10.43 | 14.97 | 19.52 | 24.06 | 28.60 | 33.15 | 37.69 |
|     | 0.97                       | 1.39  | 1.81  | 2.24  | 2.66  | 3.08  | 3.50  | 3.92  |
| 186 | 4.72                       | 10.81 | 15.51 | 20.22 | 24.92 | 29.63 | 34.33 | 39.04 |
|     | 1.00                       | 1.44  | 1.88  | 2.32  | 2.75  | 3.19  | 3.63  | 4.06  |
| 192 | 4.88                       | 11.18 | 16.05 | 20.91 | 25.78 | 30.65 | 35.52 | 40.39 |
|     | 1.04                       | 1.49  | 1.94  | 2.40  | 2.85  | 3.30  | 3.75  | 4.20  |
| 198 | 5.03                       | 11.55 | 16.58 | 21.61 | 26.64 | 31.67 | 36.70 | 41.73 |
|     | 1.07                       | 1.54  | 2.01  | 2.48  | 2.94  | 3.41  | 3.88  | 4.34  |

Upper Numerals Imperial Units/Lower Numerals Metric Units