



# Cool-Line CRL



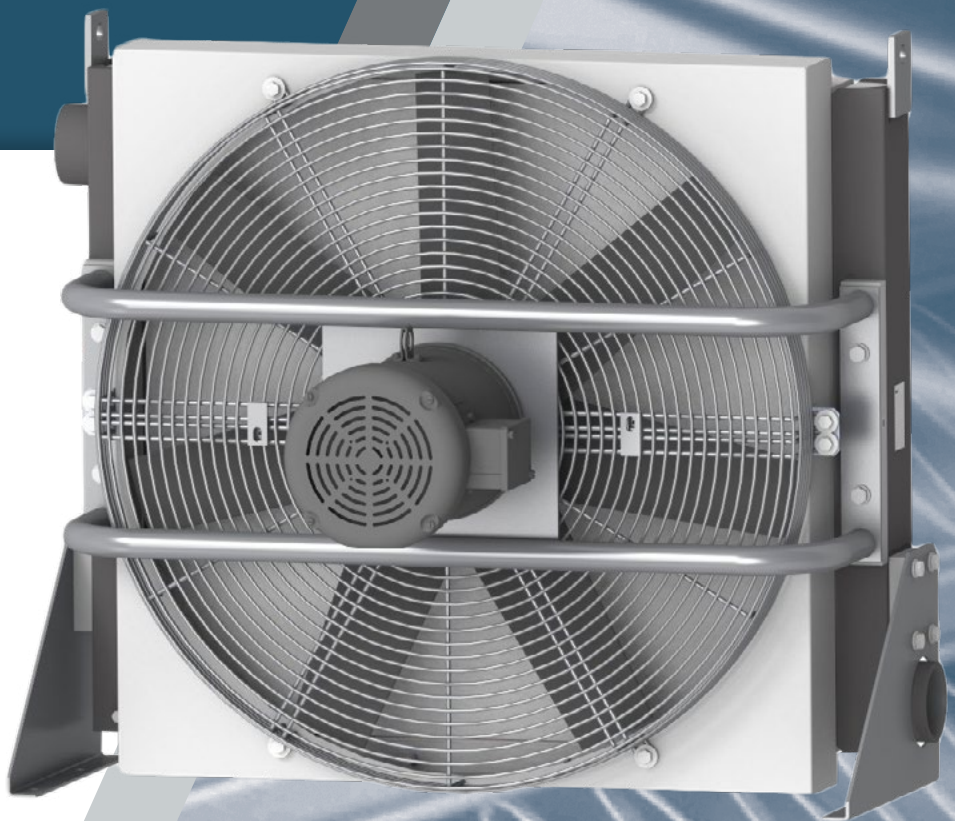
## CR SERIES FEATURES

- Bar and Plate Aluminum Design
- High Efficiency & Low Fouling
- Three-Phase, Single Phase, Class 1, Division 2, 575-Volt Three Phase & Three-Phase Explosion Proof & Pneumatic Air Motor Options
- Low Noise Motor

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The **CRL Series** is a complete aftercooler package specifically designed for cooling compressed air for most rotary compressors. The rugged bar and plate aluminum design features an optimized design construction for high efficiency heat transfer and minimal pressure drop.

## Capacity Selection Chart Maximum SCFM @ 5°F, 10°F and 15°F Approach

| Model Number | Inlet Temperature | 150°F                |       |       | 200°F |       |       | 250°F |       |       |
|--------------|-------------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
|              |                   | Approach Temperature | 5°F   | 10°F  | 15°F  | 5°F   | 10°F  | 15°F  | 5°F   | 10°F  |
| CRL50        | SCFM              | 36                   | 75    | 121   | 23    | 37    | 54    | 18    | 28    | 38    |
| CR75         | SCFM              | 50                   | 110   | 190   | 30    | 50    | 75    | 21    | 35    | 47    |
| CRL150       | SCFM              | 108                  | 234   | 310   | 73    | 110   | 151   | 57    | 88    | 111   |
| CR200        | SCFM              | 135                  | 255   | 400   | 85    | 135   | 190   | 70    | 105   | 135   |
| CRL425       | SCFM              | 323                  | 542   | 795   | 227   | 325   | 426   | 187   | 260   | 324   |
| CR550        | SCFM              | 415                  | 715   | 1,065 | 290   | 415   | 560   | 235   | 335   | 415   |
| CRL600       | SCFM              | 500                  | 805   | 1,165 | 344   | 490   | 637   | 287   | 398   | 489   |
| CR800        | SCFM              | 600                  | 1,015 | 1,500 | 425   | 605   | 800   | 350   | 495   | 605   |
| CRL1075      | SCFM              | 850                  | 1,346 | 1,887 | 617   | 850   | 1,075 | 508   | 694   | 839   |
| CR1400       | SCFM              | 1,100                | 1,800 | 2,550 | 800   | 1,130 | 1,425 | 670   | 950   | 1,130 |
| CRL1800      | SCFM              | 1,454                | 2,300 | 3,200 | 1,438 | 1,438 | 1,810 | 870   | 1,180 | 1,426 |
| CR2350       | SCFM              | 1,850                | 3,000 | 4,250 | 1,325 | 1,875 | 2,375 | 1,100 | 1,525 | 1,850 |

All flow rates based on less than 4-PSI pressure drop @ 120-PSI operating and 100°F ambient with 50% relative humidity.

| Materials |  |
|-----------|--|
| Cooler    | Aluminum   |
| Shroud    | CRL50 – CR800 Composite / CRL1075 – CR2350 Steel |
| Fan Guard | Zinc Plated Steel                                |
| Fan Blade | Polypropylene Blades, Aluminum Hub               |

| Specifications              |         |
|-----------------------------|---------|
| Maximum Working Pressure    | 205 psi |
| Maximum Working Temperature | 250 °F  |

## Water Separators

| Separator | Separator Maximum Capacity (SCFM) | Inlet & Outlet | Approx. Weight (Lbs.) |
|-----------|-----------------------------------|----------------|-----------------------|
| WS85S     | 70                                | ½" NPT         | 3.7                   |
| WS125     | 125                               | ¾" NPT         | 4.4                   |
| WS175     | 175                               | 1.0 NPT        | 4.4                   |
| WS300G    | 325                               | 1 ½" NPT       | 6.6                   |
| WS750H    | 700                               | 2.0" NPT       | 12.1                  |
| WS1700J   | 850                               | 2-1/2" NPT     | 23.1                  |
| WS1700K   | 1,500                             | 3.0" NPT       | 27.6                  |



- Aftercoolers and water separators work hand-in-hand to cool and remove damaging water from compressed air systems.
- AKG Thermal System Water Separators will maintain 98% efficiency all the way down to 50% of the rated flow capacity.

## THREE PHASE ELECTRIC MOTOR DATA

| Model Number | Approx. CFM | Approx. Sound dB(A) @ 1-Meter | HP    | Voltage | Full Load Amps 230V | RPM  | Frame | Approx. Shipping Weight (lbs.) |
|--------------|-------------|-------------------------------|-------|---------|---------------------|------|-------|--------------------------------|
| CRL50        | 725         | 68                            | 1/3   | 230/460 | 1.3                 | 1800 | 56C   | 46                             |
| CR75         | 1,380       | 83                            | 1/2   | 230/460 | 2.0                 | 3600 | 56C   |                                |
| CRL150       | 1,770       | 66                            | 1/2   | 230/460 | 2.4                 | 1200 | 56C   | 67                             |
| CR200        | 2,520       | 75                            | 1/2   | 230/460 | 2.0                 | 1800 | 56C   |                                |
| CRL425       | 2,820       | 70                            | 1/2   | 230/460 | 2.4                 | 1200 | 56C   | 137                            |
| CR550        | 4,130       | 79                            | 1.0   | 230/460 | 1.6                 | 1800 | 56C   |                                |
| CRL600       | 4,270       | 75                            | 3/4   | 230/460 | 1.5                 | 1200 | 56C   | 205                            |
| CR800        | 6,210       | 84                            | 2.0   | 230/460 | 2.9                 | 1800 | 56C   |                                |
| CRL1075      | 5,490       | 81                            | 1.0   | 230/460 | 3.6                 | 1200 | 56C   | 277                            |
| CR1400       | 8,020       | 90                            | 3.0   | 230/460 | 7.8                 | 1800 | 182C  |                                |
| CRL1800      | 8,400       | 89                            | 1-1/2 | 230/460 | 5.0                 | 1200 | 182C  | 414                            |
| CR2350       | 12,300      | 98                            | 5.0   | 230/460 | 6.3                 | 1800 | 182C  |                                |

## SINGLE PHASE ELECTRIC MOTOR DATA

| Model Number | Approx. CFM | Approx. Sound dB(A) @ 1-Meter | HP    | Voltage     | Full Load Amps 230V | RPM             | Frame           | Approx. Shipping Weight (lbs.) |
|--------------|-------------|-------------------------------|-------|-------------|---------------------|-----------------|-----------------|--------------------------------|
| CRL50        | 725         | 68                            | 1/3   | 115/208-230 | 6.0                 | 1800            | 56C             | 46                             |
| CR75         | 1,380       | 83                            | 1/2   | 115/208-230 | 7.0                 | 3600            | 56C             |                                |
| CRL150       | 1,770       | 66                            | 1/2   | 115/208-230 | 6.4                 | 1200            | 56C             | 67                             |
| CR200        | 2,520       | 75                            | 1/2   | 115/208-230 | 8.0                 | 1800            | 56C             |                                |
| CRL425       | 2,820       | 70                            | 1/2   | 115/208-230 | 6.4                 | 1200            | 56C             | 137                            |
| CR550        | 4,130       | 79                            | 1.0   | 115/208-230 | 13.6                | 1800            | 56C             |                                |
| CRL600       | 4,270       | 75                            | 3/4   | 115/208-230 | 9.4                 | 1200            | 56C             | 205                            |
| CR800        | 6,210       | 84                            | 2.0   | 115/208-230 | 20.0                | 1800            | 143/145TC       |                                |
| CRL1075      | 5,490       | 81                            | 1.0   | 115/208-230 | Consult Factory     | Consult Factory | Consult Factory | 277                            |
| CR1400       | 8,020       | 90                            | 3.0   | 115/208-230 | 33.6                | 1800            | 184TC           |                                |
| CRL1800      | 8,400       | 89                            | 1-1/2 | 115/208-230 | Consult Factory     | Consult Factory | Consult Factory | 414                            |
| CR2350       | 12,300      | 98                            | 5.0   | 115/208-230 | Consult Factory     | 1800            | 184TC           |                                |

- Electric motors are TEFC.
- Actual ratings may vary with motor brand. Check nameplate for actual ratings.
- Motor RPM is reduced by 1/6 for 50Hz service.
- Sound ratings are for fan only, under laboratory conditions. Fan noise is influenced by many factors, including inlet geometry, proximity of walls, sheet metal vibrations, and obstructions in the air stream.

## Three Phase Explosion Proof Motors (Class I, Grp. D & Class II)

| Model Number | Approx. CFM | Approx. Sound dB(A) @ 1-Meter | HP    | Voltage | Full Load Amps 230V | RPM  | Frame           | Approx. Shipping Weight (lbs.) |
|--------------|-------------|-------------------------------|-------|---------|---------------------|------|-----------------|--------------------------------|
| CRL50        | 725         | 68                            | 1/3   | 230/460 | 1.2                 | 1800 | Consult Factory | 46                             |
| CR75         | 1,380       | 83                            | 1/2   | 230/460 | 1.7                 | 3600 | 56C             |                                |
| CRL150       | 1,770       | 66                            | 1/2   | 230/460 | 2.0                 | 1200 | Consult Factory | 67                             |
| CR200        | 2,520       | 75                            | 1/2   | 230/460 | 2.9                 | 1800 | 56C             |                                |
| CRL425       | 2,820       | 70                            | 1/2   | 230/460 | 2.0                 | 1200 | 145TC           | 137                            |
| CR550        | 4,130       | 79                            | 1.0   | 230/460 | 5.6                 | 1800 | 143/145TC       |                                |
| CRL600       | 4,270       | 75                            | 3/4   | 230/460 | 2.7                 | 1200 | Consult Factory | 205                            |
| CR800        | 6,210       | 84                            | 2.0   | 230/460 | 5.6                 | 1800 | 143/145TC       |                                |
| CRL1075      | 5,490       | 81                            | 1.0   | 230/460 | 3.3                 | 1200 | 143/145TC       | 277                            |
| CR1400       | 8,020       | 90                            | 3.0   | 230/460 | 7.8                 | 1800 | 182/184TC       |                                |
| CRL1800      | 8,400       | 89                            | 1-1/2 | 230/460 | 4.6                 | 1200 | 182/184TC       | 414                            |
| CR2350       | 12,300      | 98                            | 5.0   | 230/460 | 13.1                | 1800 | 182/184TC       |                                |

All data based at nominal speed

## Pneumatic Air Motor Data

| Model Number | Approx. CFM | Approx. Sound dB(A) @ 1-Meter | Air Pressure to Motor (PSI) | Motor Air Consumption (CFM) | Air Motor Connection Size | RPM   | Approx. Shipping Weight (lbs.) |
|--------------|-------------|-------------------------------|-----------------------------|-----------------------------|---------------------------|-------|--------------------------------|
| CRL50        | 725         | 68                            | 10                          | 5                           | 1/4" NPT                  | 1,800 | 46                             |
| CR75         | 1,125       | 83                            | 40                          | 35                          | 1/4" NPT                  | 3,000 |                                |
| CRL150       | 1,770       | 66                            | 15                          | 5                           | 1/4" NPT                  | 1,200 | 67                             |
| CR200        | 2,520       | 75                            | 30                          | 15                          | 1/4" NPT                  | 1,800 |                                |
| CRL425       | 2,820       | 70                            | 40                          | 20                          | 1/4" NPT                  | 1,200 | 137                            |
| CR550        | 4,130       | 79                            | 60                          | 30                          | 1/4" NPT                  | 1,800 |                                |
| CRL600       | 4,270       | 75                            | 50                          | 25                          | 1/4" NPT                  | 1,200 | 205                            |
| CR800        | 6,210       | 84                            | 60                          | 50                          | 1/2" NPT                  | 1,800 |                                |
| CRL1075      | 5,490       | 81                            | 60                          | 25                          | 1/4" NPT                  | 1,200 | 277                            |
| CR1400       | 8,020       | 90                            | 70                          | 70                          | 1/2" NPT                  | 1,800 |                                |
| CRL1800      | 8,400       | 89                            | 80                          | 60                          | 1/2" NPT                  | 1,200 | 414                            |
| CR2350       | 11,070      | 98                            | 100                         | 75                          | 1/2" NPT                  | 1,650 |                                |

All data based at nominal speed

- ▶ Air pressure to motor MUST be regulated and lubricated.
- ▶ Do not exceed fan RPM listed above.
- ▶ Muffler are included with all pneumatic air motors.

- ▶ Sound ratings are for fan only, under laboratory conditions. Fan noise is influenced by many factors, including inlet geometry, proximity of walls, sheet metal vibrations, and obstructions in the air stream.

**NOTE:** CRL50 & CR2350 have approximately 10% reduced performance with air motors due to RPM restrictions.

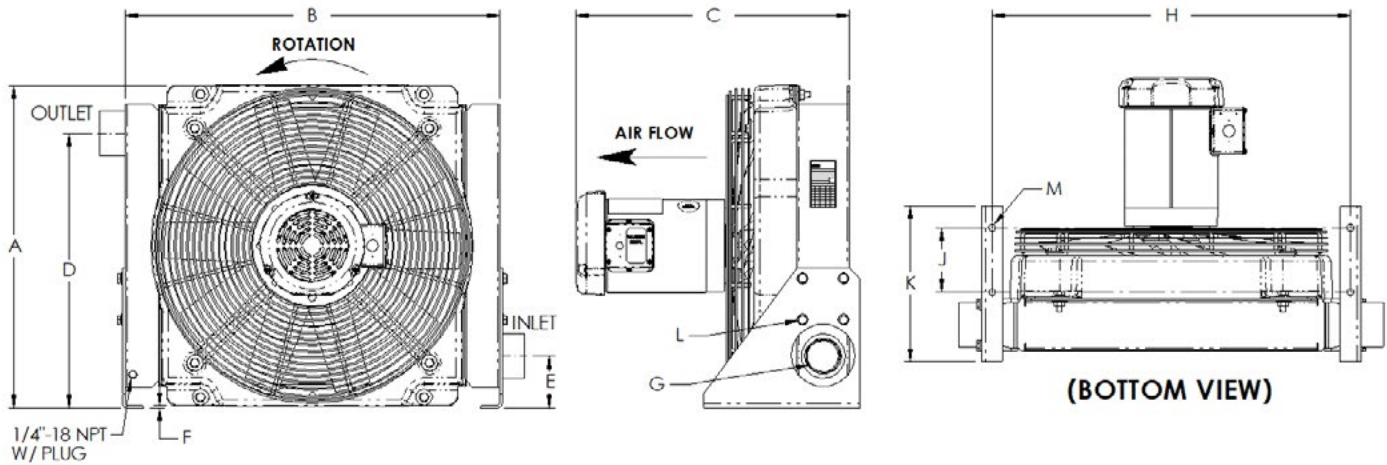
## CR SERIES DIMENSION CR/CRL

| Model Number       | A    | B    | C<br>(Approx.<br>+/- 2.0") | D    | E   | F   | G                     | H    | J   | K    | L                               | M      |
|--------------------|------|------|----------------------------|------|-----|-----|-----------------------|------|-----|------|---------------------------------|--------|
| CRL50/<br>CR75     | 14.3 | 15.8 | 15.9                       | 11.4 | 3.2 | 0.1 | 1"-11.5 NPT<br>PORT   | 14.5 | 3.5 | 8.2  | M8-1.25 • X16MM<br>Bolt (8 PL)  | Ø 0.53 |
| CRL150/<br>CR200   | 18.7 | 21.7 | 16.8                       | 15.4 | 3.6 | 0.1 | 1.5"-11.5 NPT<br>PORT | 20.4 | 3.5 | 8.2  | M8-1.25 • X16MM<br>Bolt (8 PL)  | Ø 0.55 |
| CRL425/<br>CR550   | 22.7 | 26.4 | 19.2                       | 19.3 | 3.6 | 0.1 | 2"-11.5 NPT<br>PORT   | 25.2 | 4.5 | 11.0 | M10-1.5 • X16MM<br>Bolt (8 PL)  | Ø 0.55 |
| CRL600/<br>CR800   | 25.1 | 30.3 | 20.2                       | 21.5 | 3.7 | 0.1 | 2"-11.5 NPT<br>PORT   | 29.2 | 4.5 | 11.0 | M10-1.5 • X16MM<br>Bolt (8 PL)  | Ø 0.55 |
| CRL1075/<br>CR1400 | 29.2 | 37.0 | 23.0                       | 25.2 | 4.4 | 0.6 | 2.5"-8 NPT<br>PORT    | 37.8 | 7.9 | 16.0 | M12-1.75 • X30MM<br>Bolt (8 PL) | Ø 0.55 |
| CR1800/<br>CR2350  | 37.4 | 40.9 | 25.1                       | 30.8 | 4.3 | 0.4 | 3"-8 NPT<br>PORT      | 41.8 | 7.9 | 16.0 | M12-1.75 • X30MM<br>Bolt (8 PL) | Ø 0.55 |

\*All Dimensions are in Inches

\*Dimensions are for general information only; all critical dimensions should be verified by requesting a certified print.

## COOLER DIMENSIONS CR/CRL



## ORDERING INFORMATION

SERIES CODE: MODEL SIZE:

MOTOR CODE:

CUSTOM FEATURE CODE:





**SERIES:** CR = Standard, CRL = Low Noise

**MODEL SIZE:** Select (50-2300)

**MOTOR CODE:** 0 = No Motor, C = Core Only, 1 = Single Phase, 2 = Pneumatic Air Motor, 3 = Three Phase,

575 = 575 Volt, C1D2 = Class I, Division 2 3-phase, 3EXP = 3 Phase Explosion-Proof

**CUSTOM FEATURE CODE:** B = Blowing Fan, H = Heresite Coated Core