



SERIES

Compressed Air Aftercoolers

- ▶ Advanced Technology Design Provides Compact Cooling
- ▶ Electric, or Air Motors Available from Stock
- ▶ Canadian Registry Numbers Available



Moisture Separators

- ▶ 99% Efficient Over a Wide Range of Air Flow
- ▶ Low Pressure Drop
- ▶ Light Weight All Aluminum Construction



 **AKG**[®] THERMAL SYSTEMS, INC.

BULLETIN CCB-3

Performance

AFTERCOOLERS

The CC Series is a complete aftercooler package designed to work on most models of rotary and piston air compressors. To select the appropriate model, simply determine compressor horsepower, and select the model from the chart.

Rotary Compressor

| <u>Air Compressor Horsepower</u> | <u>Internal Airflow Maximum CFM</u> | <u>Recommended CC Series Model Number</u> |
|--------------------------------------|---|---|
| 20 HP | 113 | CC100 |
| 25-40 HP | 245 | CC200 |
| 50-75 HP | 539 | CC450 |
| 100-125 HP | 785 | CC600 |
| 150-200 HP | 1,569 | CC1000 |
| 225-350 HP | 2,300 | CC1600 |
| 400-500 HP | 3,016 | CC2000 |
| 550-700 HP | 4,316 | CC2500 |
| 750-1000 HP | 4,800 | CC3500 |

Piston Compressor

| <u>Air Compressor Horsepower</u> | <u>Internal Airflow Maximum CFM</u> | <u>Recommended CC Series Model Number</u> |
|--------------------------------------|---|---|
| 20 HP | 83 | CC100 |
| 25-30 HP | 181 | CC200 |
| 40-70 HP | 432 | CC450 |
| 75-100 HP | 638 | CC600 |
| 125-200 HP | 1,256 | CC1000 |
| 225-300 HP | 2,133 | CC1600 |
| 350-400 HP | 2,400 | CC2000 |
| 500-600 HP | 3,458 | CC2500 |
| 700-850 HP | 4,800 | CC3500 |

Sizing Notes, Recommendations Are Based On The Following:

Heat Removal: Aftercooler=Compressor horsepower x 1.15 (motor service factor) x .17 (this assumes 17% of input horsepower is rejected to heat)

15°F Approach Temperature: Compressor air outlet temperature - ambient air temperature

Temperatures: Ambient Air Temperature + 15° F = Compressed Air Outlet Temperature

Flows: Compressor Horsepower x 4.5 = SCFM Air Flow

All flow rates are based on less than a 4 PSI pressure drop @ 100 PSI operating & 100° F ambient and 50% relative humidity

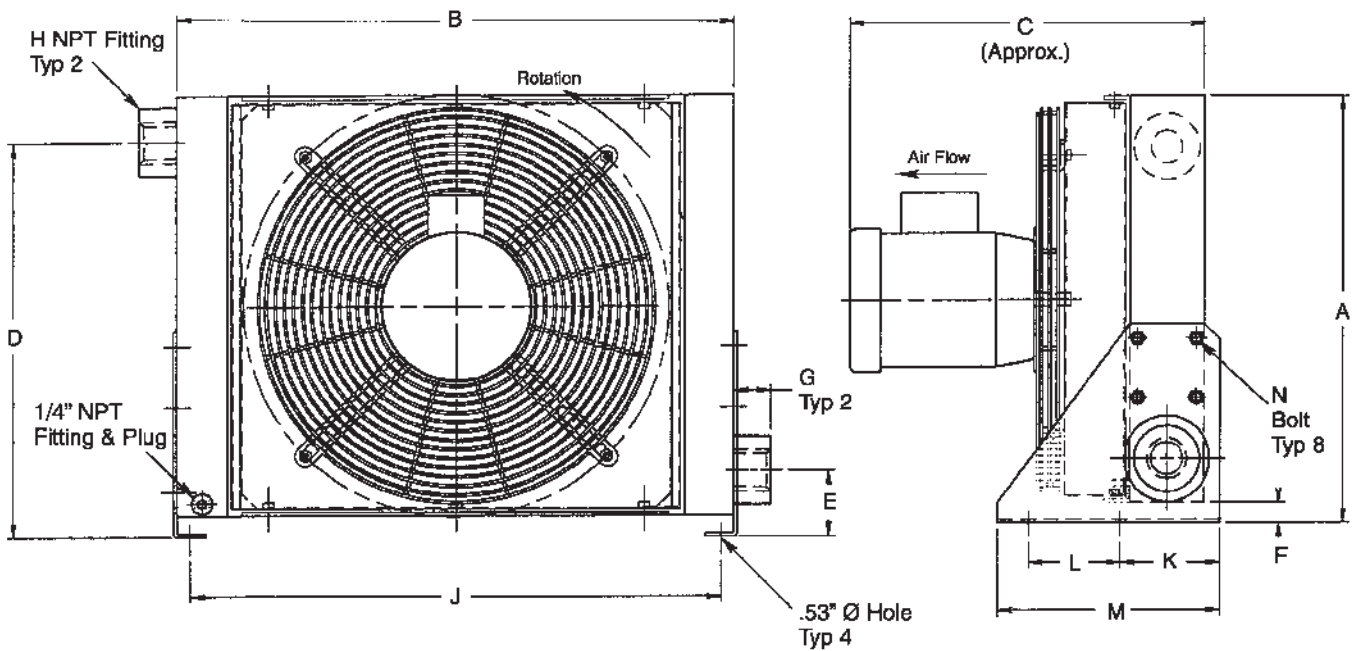
SEPARATORS

| <u>Aftercooler</u> | <u>Separator</u> | <u>Separator Maximum Capacity</u> |
|--------------------|------------------|-----------------------------------|
| CC100 | MS300E | 375 CFM |
| CC200 | MS300G | 375 CFM |
| CC450 | MS750H | 925 CFM |
| CC600 | MS750H | 925 CFM |
| CC1000 | MS1700I | 2100 CFM |
| CC1600 | MS1700J | 2100 CFM |
| CC2000 | CONSULT FACTORY | |
| CC2500 | CONSULT FACTORY | |
| CC3500 | CONSULT FACTORY | |

Pressure drop is 1.0 PSI at the above flow rates. Reference Bulletin #MSB-2 For additional details.

Dimensions

AFTERCOOLERS

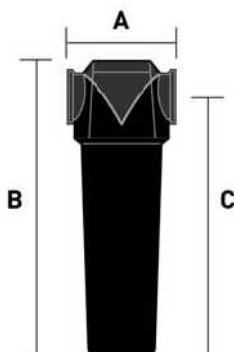


| MODEL SIZE | A | B | C Approx. | D | E | F | G | H (NPT) | J | K | L | M | N | Approx. NET | Weights Shipping |
|------------|-------|-------|-----------|-------|-------|------|------|---------|-------|------|-------|-------|----------------|-------------|------------------|
| CC100 | 12.64 | 15.94 | 14.72 | 10.86 | 2.52 | 0.75 | 1.18 | 1.00 | 14.65 | 3.94 | 3.50 | 8.19 | M8x10 Bolt | 30 | 40 |
| CC200 | 16.30 | 19.88 | 15.59 | 14.53 | 2.52 | 0.75 | 1.77 | 1.50 | 18.66 | 3.94 | 3.50 | 8.19 | M8x10 Bolt | 50 | 60 |
| CC450 | 21.00 | 26.38 | 17.75 | 18.81 | 3.15 | 1.00 | 1.77 | 2.00 | 25.19 | 4.92 | 4.53 | 10.98 | M10x20 Bolt | 95 | 137 |
| CC600 | 23.19 | 30.31 | 18.74 | 21.02 | 3.15 | 1.00 | 1.77 | 2.00 | 29.13 | 4.92 | 4.53 | 10.98 | M10x20 Bolt | 125 | 163 |
| CC1000 | 27.72 | 37.00 | 22.60 | 25.23 | 4.33 | 1.85 | 1.77 | 2.50 | 37.80 | 5.91 | 7.87 | 16.00 | M12x20 Bolt | 195 | 240 |
| CC1600 | 35.90 | 40.94 | 24.76 | 30.83 | 4.33 | 1.85 | 1.77 | 3.00 | 37.80 | 5.91 | 7.87 | 16.00 | M12x20 Bolt | 296 | 350 |
| CC2000 | 37.44 | 42.91 | 29.84 | 30.55 | 10.91 | 2.08 | 1.77 | 4.00 | 43.62 | 5.39 | 7.87 | 15.47 | M12x20 Bolt | 320 | 380 |
| CC2500 | 44.25 | 48.82 | 30.28 | 34.25 | 11.57 | 1.57 | 1.77 | 4.00 | 49.29 | 5.39 | 7.87 | 15.47 | M12x20 Bolt | 440 | 505 |
| CC3500 | 57.87 | 52.76 | 33.82 | 43.98 | 17.56 | 3.35 | 2 | 4.00* | 50.55 | 7.80 | 10.00 | 20.00 | 3/4x1 1/2 Bolt | 550 | 645 |

* SAE 4-BOLT FLANGES MAY BE CONVERTED TO NPT BY ADDING "- AD" TO THE END OF THE MODEL CODE

* Dimensions in inches. *Weights in pounds. * Air connections may be reversed. * We reserve the right to make reasonable changes without notice.

Moisture Separators



| MODEL | PIPE SIZE | A | B | C | WEIGHTS (LBS) |
|----------|------------|-----|------|------|---------------|
| MS 85C | 1/2" NPT | 3.8 | 9.3 | 7.9 | 3 |
| MS 900D | 3/4" NPT | 5.1 | 10.8 | 9.2 | 7 |
| MS 900E | 1" NPT | | | | |
| MS 900G | 1 1/2" NPT | | | | |
| MS 750H | 2" NPT | 6.7 | 17 | 15 | 15 |
| MS 1700I | 2 1/2" NPT | 8.1 | 19.9 | 17.5 | 25 |
| MS 1700J | 3" NPT | | | | |

- Dimensions are in inches.
- We reserve the right to make reasonable design changes without notice.

Motor Specifications

ELECTRIC MOTOR DATA

| Model Size | HP RPM | Motor Frame | SINGLE PHASE | | | THREE PHASE | | |
|------------|-------------|-------------|--------------------|----|----------------------|------------------------|----------|-----------------------|
| | | | Voltage | Hz | Full Load Amps 230 V | Voltage | Hz | Full Load Amps 230 V. |
| CC100 | 1/3 3450 | IEC 63 | 115/230 | 60 | 2.6 | 208-230/460 190/380 | 60 50 | 1.1 |
| CC200 | 1/2 3450 | IEC 71 | | | 3.5 | 208-230/460 190/380 | 60 50 | 1.6 |
| CC450 | 1/2 1725 | NEMA 56C | 115-230/460 | 60 | 4.0 | 208-230/460 | 60* | 2.0 |
| CC600 | 1 1725 | NEMA 56C | 115-230/460 | 60 | 6.4 | 208-230/460 | 60* | 3.8 |
| CC1000 | 2 1725 | NEMA 56C | 115/230 | 60 | 9.2 | 208-230/460 | 60* | 6.2 |
| CC1600 | 5 1725 | NEMA 184TC | 230 | 60 | 23 | 208-230/460 | 60* | 13.2 |
| CC2000 | 7.5 1725 | NEMA 213TC | CONSULT FACTORY | | | 208-230/460 | 60* | 19.6 |
| CC2500 | 7.5 1725 | NEMA 213TC | | | | 208-230/460 | 60* | 19.6 |
| CC3500 | 10 1725 | NEMA 213TC | | | | 208-230/460 | 60* | 26.0 |

*Electric motors are TEFC and are not thermally protected.

*Actual rating may vary with motor brand. Check motor nameplate for actual rating.

*Motor RPM is reduced by 1/6 for 50 Hz service.

* - 3 Phase motors available in 50 Hz.

AIR MOTOR DATA

| Model Number | Air Pressure To Motor (PSI) | Motor Air Consumption (CFM) | Air Motor Connection Size | FAN RPM |
|--------------|-----------------------------|-----------------------------|---------------------------|---------|
| CC100 | 30 | 10 | 1/4" NPT | 3450 |
| CC200 | 60 | 17 | 1/4" NPT | 3450 |
| CC450 | 40 | 25 | 1/4" NPT | 1725 |
| CC600 | 40 | 25 | 1/4" NPT | 1725 |
| CC1000 | 50 | 70 | 1/2" NPT | 1725 |
| CC1600 | 60 | 150 | 1 1/4" NPT | 1725 |
| CC2000 | 80 | 200 | 1 1/4" NPT | 1725 |
| CC2500 | 80 | 200 | 1 1/4" NPT | 1725 |
| CC3500 | 100 | 240 | 1 1/4" NPT | 1725 |

*Air pressure to motor **Must** be regulated and lubricated.

*Do Not Exceed fan RPM listed above.

*Mufflers are included with all motors.

