

API AIRTECH FACILITIES

**ISO 9001**

**CERTIFIED**

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**API AIRTECH  
AFTERCOOLERS**



**API Heat Transfer**

*...world leaders in heat transfer technology*

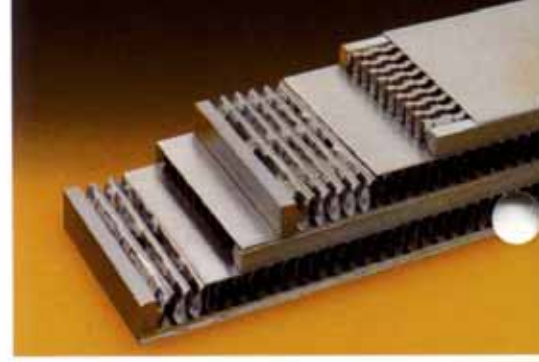
# Compact, high efficiency aftercoolers for maximum cooling and dependability at minimum cost.

Air Technologies Aftercoolers are designed for virtually any compressor application to lower the air temperature and to significantly reduce the moisture present in compressed air. The state-of-the-art, computer created fin design creates high turbulence to maximize heat transfer efficiency and minimize power cost and pressure drop.

The all aluminum, vacuum brazed construction is rugged, resulting in dependable, trouble-free operation. Fin spacing is designed to minimize dirt build-up and simplify cleaning to maintain efficiency. The aftercoolers provide dependable, low cost air cooling and eliminate costly water and sewage charges.

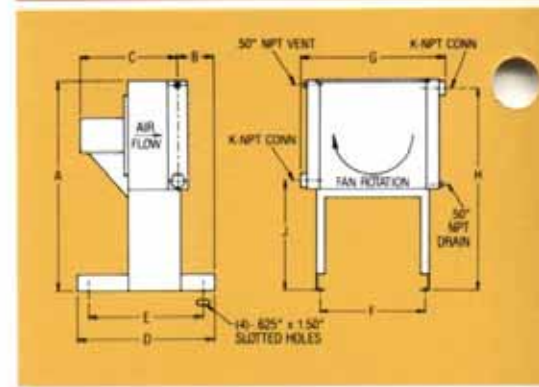
## General specifications and features

- Horizontal or vertical designs – capacities up to 2410 SCFM.
- Flexible design simplifies water cooled to air cooled retrofit.
- Cool compressed air to within 5, 10, 15 or 20° of the ambient temperature to produce clean, dry compressed air.
- Minimal pressure drop (less than 2 PSI @ 250 PSIG).
- Standard design operating pressure up to 250 PSIG at 400° F.
- All weather construction.
- UL approved. Meets OSHA standards.

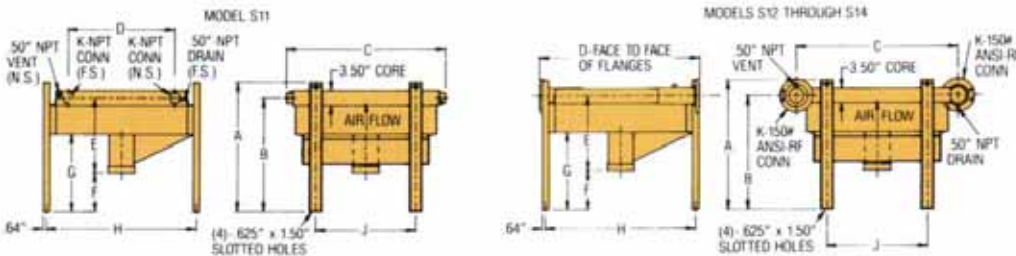


## AFTERCOOLER MODELS S01 THROUGH S10 (HORIZONTAL)

| MODEL NUMBER | DRY WT. | MOTOR H.P. | VOLTAGE | A      | B     | C      | D      | E      | F      | G      | H      | J      | K     |
|--------------|---------|------------|---------|--------|-------|--------|--------|--------|--------|--------|--------|--------|-------|
| S010AC1H     | 56#     | 1/20       | 115     | 23.18" | 4.53" | 13.51" | 16.00" | 13.00" | 8.75"  | 15.82" | 22.12" | 14.00" | 7.5"  |
| S020AC1H     | 59#     | 1/20       | 115     | 23.18" | 3.90" | 14.13" | 16.00" | 13.00" | 8.75"  | 16.81" | 22.12" | 14.00" | 7.5"  |
| S030AC1H     | 84#     | 1/6        | 115     | 28.68" | 5.78" | 16.58" | 24.00" | 20.00" | 11.75" | 19.20" | 27.52" | 17.00" | 1.00" |
| S040AC1H     | 88#     | 1/6        | 115     | 28.68" | 5.15" | 17.20" | 24.00" | 20.00" | 11.75" | 20.20" | 27.52" | 17.00" | 1.00" |
| S050AC1H     | 115#    | 1/6        | 115     | 37.06" | 7.03" | 16.45" | 24.00" | 20.00" | 18.00" | 26.19" | 35.38" | 19.50" | 2.00" |
| S060AC1H     | 125#    | 1/6        | 115     | 37.06" | 6.40" | 17.07" | 24.00" | 20.00" | 18.00" | 27.19" | 35.38" | 19.50" | 2.00" |
| S070AC1H     | 160#    | 1/6        | 115     | 47.50" | 6.53" | 17.61" | 24.00" | 20.00" | 24.27" | 32.44" | 45.82" | 24.00" | 2.00" |
| S080AC1H     | 176#    | 1/6        | 115     | 47.50" | 5.90" | 18.23" | 24.00" | 20.00" | 24.27" | 33.76" | 45.56" | 24.25" | 2.50" |
| S090AC1H     | 162#    | 3/4        | 230/460 | 47.50" | 6.53" | 18.31" | 24.00" | 20.00" | 24.27" | 32.44" | 45.82" | 24.00" | 2.00" |
| S100AC1H     | 178#    | 3/4        | 230/460 | 47.50" | 5.90" | 18.93" | 24.00" | 20.00" | 24.27" | 33.76" | 45.56" | 24.25" | 2.50" |



## AFTERCOOLER MODELS S11 THROUGH S14 (VERTICAL)



| MODEL NUMBER | DRY WT. | MOTOR H.P. | VOLTAGE | A      | B      | C      | D      | E      | F     | G      | H      | J      | K     |
|--------------|---------|------------|---------|--------|--------|--------|--------|--------|-------|--------|--------|--------|-------|
| S110AC1V     | 210#    | 1.0        | 230/460 | 31.25" | 27.50" | 40.01" | 26.42" | 18.24" | 9.26" | 18.75" | 36.25" | 23.50" | 2.50" |
| S120AC1V     | 270#    | 1.0        | 230/460 | 31.25" | 27.50" | 45.75" | 46.50" | 19.12" | 8.38" | 18.75" | 42.62" | 29.75" | 4.00" |
| S130AC1V     | 330#    | 3.0        | 230/460 | 31.25" | 27.50" | 45.75" | 46.50" | 24.72" | 2.78" | 18.75" | 42.62" | 29.75" | 4.00" |
| S140AC1V     | 390#    | 3.0        | 230/460 | 36.25" | 32.50" | 52.00" | 52.00" | 24.22" | 8.28" | 23.75" | 49.00" | 36.00" | 4.00" |



## STANDARD UNIT DATA

## HORIZONTAL

## VERTICAL

| MODEL        | S010  | S020  | S030  | S040  | S050   | S060   | S070  | S080  | S090    | S100    | S110    | S120    | S130    | S140    |
|--------------|-------|-------|-------|-------|--------|--------|-------|-------|---------|---------|---------|---------|---------|---------|
| WEIGHT       | 56#   | 59#   | 84#   | 88#   | 115#   | 125#   | 160#  | 176#  | 162#    | 178#    | 210#    | 270#    | 330#    | 390#    |
| CORE HEIGHT  | 10.1" | 10.1" | 12.8" | 12.8" | 19.1"  | 19.1"  | 25.0" | 25.0" | 25.0"   | 25.0"   | 31.4"   | 37.8"   | 37.8"   | 44.2"   |
| CORE WIDTH   | 9.38" | 9.38" | 12.5" | 12.5" | 18.75" | 18.75" | 25.0" | 25.0" | 25.0"   | 25.0"   | 31.25"  | 37.5"   | 37.5"   | 43.75"  |
| CORE DEPTH   | 2.25" | 3.50" | 2.25" | 3.50" | 2.25"  | 3.50"  | 2.25" | 3.50" | 2.25"   | 3.50"   | 3.50"   | 3.50"   | 3.50"   | 3.50"   |
| AC CONN SIZE | .75"  | .75"  | 1"    | 1"    | 2"     | 2"     | 2"    | 2.5"  | 2"      | 2.5"    | 2.5"    | 4"      | 4"      | 4"      |
| NOM FAN DIA  | 8"    | 8"    | 10"   | 10"   | 16"    | 16"    | 22"   | 22"   | 22"     | 22"     | V24"    | V30"    | V30"    | V36"    |
| MOTOR HP     | 1/20  | 1/20  | 1/6   | 1/6   | 1/6    | 1/6    | 1/6   | 1/6   | 3/4     | 3/4     | 1       | 1       | 3       | 3       |
| MOTOR RPM    | 3000  | 3000  | 1800  | 1800  | 1800   | 1800   | 1200  | 1200  | 1800    | 1800    | 1800    | 1200    | 1200    | 1200    |
| VOLTAGE      | 110   | 110   | 110   | 110   | 110    | 110    | 110   | 110   | 230-460 | 230-460 | 230-460 | 230-460 | 230-460 | 230-460 |
| PHASE/CYCLE  | 1/60  | 1/60  | 1/60  | 1/60  | 1/60   | 1/60   | 1/60  | 1/60  | 3/60    | 3/60    | 3/60    | 3/60    | 3/60    | 3/60    |

**Design Notes:** A/C internal design pressure to 250 PSIG at 400°F □ Connections not designed to support external piping □ Separator installation should be self-supporting □ S010 & S020 have aluminum fan blades. All other designs have grey painted steel blades □ Motor enclosure is the TEFC NEMA-B. Models 01 and 02 not recommended for outdoor use □ All structural members are galvanized steel □ Aluminum exchanger is supplied with a coating of corrosion-resistant protective primer

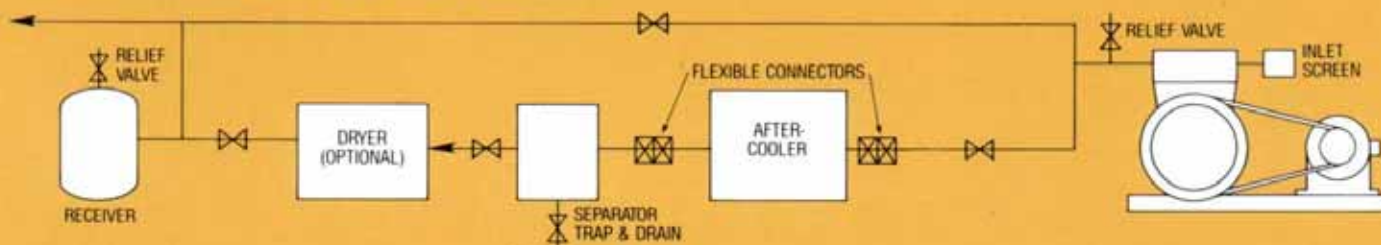
## AIR-COOLED AFTERCOOLER FLOW CAPACITIES

| INLET TEMP. DEG. F | APPROACH TEMP. DEG. F | FLOW CAPACITY (SCFM) 80 TO 125 PSIG |     |     |     |     |     |     |      |      |      |      |      |      |      |
|--------------------|-----------------------|-------------------------------------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
|                    |                       | AFTERCOOLER MODEL NUMBER            |     |     |     |     |     |     |      |      |      |      |      |      |      |
|                    |                       | S01                                 | S02 | S03 | S04 | S05 | S06 | S07 | S08  | S09  | S10  | S11  | S12  | S13  | S14  |
| 150                | 5                     | 49                                  | 60  | 77  | 95  | 213 | 272 | 363 | 454  | 497  | 649  | 965  | 1452 | 1722 | 2079 |
|                    | 10                    | 75                                  | 91  | 112 | 137 | 305 | 383 | 511 | 629  | 707  | 912  | 1338 | 2000 | 2390 | 2853 |
|                    | 15                    | 101                                 | 122 | 149 | 179 | 400 | 497 | 662 | 805  | 923  | 1180 | 1715 | 2553 | 3064 | 3634 |
|                    | 20                    | 132                                 | 158 | 190 | 228 | 507 | 626 | 833 | 1004 | 1169 | 1434 | 2140 | 3178 | 3827 | 4513 |
| 200                | 5                     | 42                                  | 50  | 67  | 83  | 188 | 241 | 323 | 407  | 440  | 578  | 865  | 1305 | 1545 | 1872 |
|                    | 10                    | 61                                  | 74  | 93  | 114 | 256 | 324 | 432 | 537  | 594  | 773  | 1142 | 1713 | 2040 | 2450 |
|                    | 15                    | 78                                  | 95  | 117 | 143 | 318 | 401 | 533 | 657  | 738  | 953  | 1397 | 2088 | 2494 | 2977 |
|                    | 20                    | 96                                  | 117 | 142 | 172 | 383 | 479 | 637 | 779  | 886  | 1137 | 1658 | 2470 | 2960 | 3516 |
| 250                | 5                     | 37                                  | 44  | 61  | 75  | 172 | 222 | 298 | 377  | 404  | 533  | 801  | 1212 | 1432 | 1742 |
|                    | 10                    | 53                                  | 65  | 82  | 102 | 228 | 291 | 388 | 486  | 531  | 695  | 1032 | 1552 | 1843 | 2222 |
|                    | 15                    | 67                                  | 82  | 101 | 124 | 277 | 352 | 468 | 580  | 644  | 837  | 1233 | 1848 | 2202 | 2640 |
|                    | 20                    | 80                                  | 98  | 120 | 146 | 326 | 410 | 546 | 673  | 755  | 975  | 1430 | 2137 | 2552 | 3047 |
| 300                | 5                     | 34                                  | 40  | 57  | 69  | 162 | 209 | 280 | 356  | 379  | 501  | 756  | 1145 | 1352 | 1643 |
|                    | 10                    | 43                                  | 58  | 75  | 94  | 210 | 269 | 359 | 451  | 490  | 643  | 958  | 1443 | 1711 | 2069 |
|                    | 15                    | 59                                  | 73  | 91  | 113 | 252 | 320 | 426 | 532  | 585  | 763  | 1129 | 1695 | 2015 | 2424 |
|                    | 20                    | 70                                  | 86  | 106 | 131 | 291 | 369 | 490 | 608  | 675  | 877  | 1291 | 1933 | 2303 | 2759 |
| 350                | 5                     | 31                                  | 37  | 53  | 65  | 153 | 199 | 267 | 340  | 359  | 477  | 722  | 1095 | 1290 | 1575 |
|                    | 10                    | 44                                  | 53  | 70  | 87  | 197 | 253 | 338 | 426  | 459  | 605  | 904  | 1363 | 1614 | 1956 |
|                    | 15                    | 54                                  | 66  | 84  | 104 | 233 | 298 | 397 | 497  | 543  | 710  | 1055 | 1586 | 1882 | 2270 |
|                    | 20                    | 64                                  | 78  | 97  | 120 | 267 | 340 | 452 | 563  | 621  | 809  | 1194 | 1791 | 2131 | 2560 |
| 400                | 5                     | 29                                  | 35  | 50  | 61  | 147 | 191 | 256 | 327  | 344  | 458  | 694  | 1053 | 1240 | 1518 |
|                    | 10                    | 41                                  | 49  | 66  | 82  | 187 | 240 | 321 | 406  | 436  | 575  | 862  | 1301 | 1538 | 1867 |
|                    | 15                    | 51                                  | 61  | 79  | 98  | 219 | 281 | 374 | 470  | 511  | 671  | 998  | 1502 | 1781 | 2152 |
|                    | 20                    | 59                                  | 72  | 90  | 112 | 250 | 318 | 423 | 529  | 580  | 758  | 1123 | 1685 | 2003 | 2410 |

**Notes:** (1) Above capacities are based on Air @ 68 Deg. F, 14.7 PSIA & 36% RH at compressor suction. (2) Compressed Air pressure drop will be less than 2 PSI at rated capacity.

**Selection Procedure:** (1) Enter chart on left side at appropriate Air Inlet Temperature and desired approach temperature. (2) Read across to an equal or higher rated flow in CFM and up to proper Model Number.

## RECOMMENDED TYPICAL INSTALLATION



**NOTES:** Flexible connectors must be properly installed to avoid stressing aftercooler manifold □ Piping and separator must be properly supported to avoid stressing system components

# API Airtech

*American Precision*

*Industries Inc.*

## API Airtech Inc.

*Air Cooled Aluminum Heat Exchangers*

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## API Basco Inc.

*Basco® Shell and Tube Heat Exchangers*

2777 Walden Avenue  
Buffalo, New York 14225  
(716) 684-6700 • Fax: (716) 684-2129

## API Ketema Inc.

*Acme® Refrigeration Equipment*

*Whitlock® Shell and Tube Heat Exchangers*

2300 West Marshall Drive  
Grand Prairie, Texas 75051  
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## API Schmidt-Bretten Inc.

*Plate Heat Exchangers*

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**API Heat Transfer**

# API Heat Transfer Products

## Standard 500 & HT Series



Available for off-the-shelf delivery, these standard units reflect the latest in heat exchanger technology and state-of-the-art manufacturing facilities. Design and material options are available. Shells range from 2" (5.08 cm) to 12" (30.48 cm).

## Pipeline Aftercoolers



Efficient, straight tube, counterflow aftercoolers designed to yield cool, dry compressed air. Available with or without accompanying moisture separators and constructed to a wide variety of design codes. Shell diameters from 6" (15.24 cm) to 42" (106.68 cm).

## Extended Surface



Unique, patented compact plate fin design for centrifugal or axial compressor intercooler and aftercooler applications. Capable of cooling large volumes of air or nitrogen at minimal pressure loss. ASME code design is standard and shell diameters range from 22" (55.88 cm) to 120" (304.8 cm).

## Refrigeration Equipment



Packaged chillers, chiller barrels and condensers available. Water and air cooled packaged chillers used as process water chillers, tank chillers, ice rink chillers, anodizing chillers, brine and glycol chillers. Standard and custom chiller barrels, condensers and marine condensers available to 1000 tons. Industrial refrigeration and HVAC applications.

## TEMA Shell & Tube



A wide variety of shell and tube exchangers including all TEMA types are available using pre-engineered or custom engineered designs. Shell diameters from 6" (15.24 cm) to 60" (152.4 cm). ASME, TEMA, API, ABS, TUV, ISPEL and other code constructions available.

## OptiDesign®



Straight tube, removable bundle exchangers fabricated from standard components for common liquid and air applications. Exclusive floating tubesheet design provides for seal leak detection and easy maintenance. Shell diameters from 6" (15.24 cm) to 42" (106.68 cm). ASME, TEMA, API, ABS and other code constructions available.

## Air Cooled Heat Exchangers



High efficiency, brazed aluminum coolers for cooling a wide variety of liquids and gases with ambient air. Capable of cooling multiple fluids or fluid circuits in a single brazed unit. All units can be supplied with or without a separate cooling fan and a variety of power drives.

## Plate Heat Exchangers



Compact units provide excellent heat transfer. Plates are pressed in stainless steel, titanium or other alloys. Sealing gaskets of nitrile, EPDM, and Viton are used. Compressed fiber or Teflon for harsher service. Welded design options for gasket-free requirements.