



Refrigeration dryers

With our refrigeration dryers too, we let you choose between investment cost and lifecycle cost.

Pneumatech's COOL range is our robust, no-frills drying solution, meant for basic condensate removal in your compressed air system. With the AD dryers we guarantee dry air through real-time PDP monitoring, while also reducing power consumption and compressed air losses. Our premium AC dryers optimize the energy consumption based on the actual compressed air demand, through energy saving algorithms or variable speed technology.

Cool 12 - 272 - Non-cycling refrigeration dryers

Features & Benefits

- ▶ Solid performance & strong reliability
 - Stable pressure dew point as low as 5°C/41°F ensuring ISO 8573-1 class 5 quality
- ▶ Compact & easy to install
 - Simple vertical design
 - Plug- and play mechanical & electrical connections
- ▶ Super cost saver
 - Low initial investment
 - Efficient cooling system ensures low energy costs
 - Increased lifetime of tools and equipment
- ▶ Easy maintenance at low cost
 - Long service intervals
 - Easy access to key components

General Specifications

- ▶ Non-cycling refrigeration dryers
- ▶ Operating pressure: 4-16 barg/58-232 psig (4-13 barg/ 58-189 psig from COOL 145 onwards)
- ▶ Max. ambient temperature: 50°C / 122°F
- ▶ Flow rate: 21 to 462 m³/hr (12-272 cfm)⁽¹⁾
- ▶ Pressure dew point: 5°C / 41°F (ISO 8573-1:2010 class 5)
- ▶ Power supply: 230VAC 50 Hz (60Hz version on request)
- ▶ Refrigerant: R134a (COOL 12-106) or R452A (COOL 127-272)



Applications



Pneumatic tools and equipment



Pneumatic control systems



Painting



Injection moulding



Car shops



Tire inflations

¹ Flow is measured at reference conditions: ambient pressure of 1 bara and 25°C at operating pressure of 7 barg, inlet temperature 35°C .



The compressed air coming out of the compressor is always saturated. Pneumatech's reliable and robust COOL refrigeration dryers are an efficient solution to lower the presence of moisture and the resultant corrosion in your compressed air system. COOL dryers can act as a second line of defence after water separators and aftercoolers giving you a stable dew point as low as 5°C / 41°F, maintaining the ISO 8573-1 class 5 air quality.

Designed to work up to 16 barg/232 psig, COOL dryers deliver stable performance thanks to the efficient refrigerant gas and carefully selected components. The simple vertical design and small foot print make COOL dryers the easy-to-use drying solution in various industrial applications such as car shops, spray painting, injection moulding, tire inflation and many more.

| Technical specifications for COOL 12-272 50 Hz | | | | | | | | | | | | | |
|--|--------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Pneumatech Variants → | Units | COOL 12 | COOL 21 | COOL 30 | COOL 42 | COOL 64 | COOL 76 | COOL 106 | COOL 127 | COOL 145 | COOL 184 | COOL 230 | COOL 272 |
| Specifications ↓ | | | | | | | | | | | | | |
| Flow ⁽¹⁾ | l/s | 5.8 | 10.0 | 14.2 | 20.0 | 30.4 | 35.8 | 50.0 | 60.0 | 68.3 | 86.7 | 108.3 | 128.3 |
| | m ³ /hr | 21 | 36 | 51 | 72 | 110 | 129 | 180 | 216 | 246 | 312 | 390 | 462 |
| Nominal electric power | kW | 0.13 | 0.13 | 0.16 | 0.28 | 0.32 | 0.30 | 0.42 | 0.66 | 0.77 | 1.87 | 1.03 | 1.24 |
| Power Supply Voltage / Phase | | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 |
| Max Operating Pressure | barg | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 13 | 13 | 13 | 13 |
| | psig | 232 | 232 | 232 | 232 | 232 | 232 | 232 | 232 | 188 | 188 | 188 | 188 |
| Refrigerant Gas | | R134a | R134a | R134a | R134a | R134a | R134a | R134a | R452A | R452A | R452A | R452A | R452A |
| Inlet and Outlet Connections | G Threads | 1/2" F | 1/2" F | 1/2" F | 1/2" F | 1/2" F | 3/4" F | 1" F | 1" F | 1 1/2" F | 1 1/2" F | 1 1/2" F | 1 1/2" F |
| Dimensions | L (mm) | 233 | 233 | 233 | 233 | 233 | 233 | 233 | 310 | 310 | 310 | 310 | 310 |
| | L (inch) | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 12.2 | 12.2 | 12.2 | 12.2 | 12.2 |
| | W (mm) | 550 | 550 | 550 | 550 | 550 | 550 | 559 | 706 | 706 | 706 | 706 | 706 |
| | W (inch) | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 27.8 | 27.8 | 27.8 | 27.8 | 27.8 |
| | H (mm) | 561 | 561 | 561 | 561 | 561 | 561 | 561 | 994 | 994 | 994 | 994 | 994 |
| | H (inch) | 22.1 | 22.1 | 22.1 | 22.1 | 22.1 | 22.1 | 22.1 | 39.1 | 39.1 | 39.1 | 39.1 | 39.1 |
| Weight | kg | 19 | 19 | 19 | 20 | 25 | 27 | 30 | 52 | 57 | 59 | 80 | 80 |
| | lb | 42 | 42 | 42 | 44 | 55 | 59 | 66 | 114 | 125 | 130 | 176 | 176 |

1.Flow is measured at reference conditions: ambient pressure of 1 bara and 25°C at operating pressure of 7 barg, inlet temperature 35°C.

| Correction factors for ambient temperature | | | | | |
|--|----------|----|------|------|-----|
| Ambient temperature | °C | 25 | 30 | 35 | 40 |
| | °F | 77 | 86 | 95 | 104 |
| Temperature correction factor | Kt (amb) | 1 | 0.92 | 0.84 | 0.8 |

| Correction factors for compressed air inlet temperature | | | | | | |
|---|----|------|----|-----|------|------|
| Inlet temperature | °C | 30 | 35 | 40 | 45 | 50 |
| | °F | 86 | 95 | 104 | 113 | 122 |
| Temperature correction factor | Kt | 1.24 | 1 | 0.8 | 0.69 | 0.54 |



| Correction factors for compressed air inlet pressure | | | | | | | | | | | | | |
|--|------|-----|------|-----|------|------|------|-----|------|------|------|------|------|
| Operating pressure | barg | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| | psig | 73 | 87 | 101 | 116 | 131 | 145 | 159 | 174 | 188 | 203 | 218 | 232 |
| Pressure correction factor | Kp | 0.9 | 0.96 | 1 | 1.03 | 1.06 | 1.08 | 1.1 | 1.12 | 1.13 | 1.15 | 1.16 | 1.17 |

AD 10 - 3000 - Non-cycling refrigeration dryers

General specifications

- ▶ Non-cycling refrigeration dryers
- ▶ Operating Pressure:
 - AD10 - 50: 4-16 barg / 60-232 psig
 - AD75 - 3000: 4-13 barg/60-188 psig
- ▶ Max. inlet temperature: 55°C / 113°F
- ▶ Flow rate: 21 - 5040 m³/hr / 12-2966 cfm⁽¹⁾
- ▶ Pressure dew point: 3°C / 37°F (ISO 8573 - 1:2010 class 4)
- ▶ Power supply:
 - AD10 - 250: 230VAC 50/60 Hz
 - AD300 - 3000: 400V/50Hz; 380V/60Hz; 460V/60Hz
- ▶ Refrigerant: R134a (AD10 - 50); R410A (AD125 - 1250) & R452A (AD75 - 100 & AD1600 - 3000)

Refrigeration Dryers: AD Series (10-3000) Non cycling

| AD 10-50 | AD 75-100 |
|--|---|
|  |  |
| Features & Benefits | Features & Benefits |
| <ul style="list-style-type: none"> • Stable performance and guaranteed dew point of 3°C/37°F • Ingeniously designed components to ensure maximum performance <ul style="list-style-type: none"> • Hot gas bypass valve to prevent freezing at lower loads • Zero-loss electronic drain to prevent loss of valuable compressed air • Brazed plate heat exchanger with integrated water separator and air-to-air heat exchange • R134a refrigerant gas: low global warming impact, zero ozone depletion • Digital display with real-time PDP monitoring • Easy plug-and-play installation | <ul style="list-style-type: none"> • Stable performance and guaranteed dew point of 3°C/37°F • Ingeniously designed components to ensure maximum performance <ul style="list-style-type: none"> • Hot gas bypass valve to prevent freezing at lower loads • Zero-loss electronic drain to prevent loss of valuable compressed air • Aluminium block heat exchanger with integrated water separator and air-to-air heat exchange • Environmental safe refrigerant gases R452A • Digital display with real-time PDP monitoring • Easy plug-and-play installation |

¹ Flow is measured at reference conditions: ambient pressure of 1 bara and 25°C at operating pressure of 7 barg, inlet temperature 35°C .

Pneumatech's AD 10-3000 non-cycling refrigeration dryers are designed to protect your compressed air system by lowering the presence of moisture in the compressed air. With a stable dew point as low as 3°C/37°F these dryers provide a highly efficient and reliable solution for your drying needs. Thanks to the new controller with digital display, real time PDP monitoring is possible. The zero-loss electronic drains avoid compressed air losses. The well-designed heat exchangers ensure maximum cooling efficiency, making the AD dryers a genuine air drying solution in industrial applications.

The AD125-1250 range is equipped with the winning combination: rotary compressors and R410A refrigerant. This combination is up to 30% more energy efficient, requires 19% less refrigerant gas and is 100% compliant with European regulation EU No 517 / 2014, hereby significantly reducing the ecological footprint of these dryers. Rotary compressors are moreover very reliable thanks to the low vibration levels and limited mechanical load. R410A guarantees stable evaporation, which makes the pressure dew point of 3°C /37°F possible.

| AD 125-250 | AD 300-1250 | AD1600 - 3000 |
|--|---|--|
|  |  |  |
| <p align="center">Features & Benefits</p> | <p align="center">Features & Benefits</p> | <p align="center">Features & Benefits</p> |
| <ul style="list-style-type: none"> • Stable performance and guaranteed dew point of 3°C/37°F • Rotary compressors and R410A refrigerant: the winning combination <ul style="list-style-type: none"> • 30% more energy efficient • Requires 19% less refrigerant gas • Extremely reliable: low vibration levels and limited mechanical load • Ingeniously designed components to ensure maximum performance <ul style="list-style-type: none"> • Hot gas bypass valve to prevent freezing at lower loads • Zero-loss electronic drain to prevent loss of valuable compressed air • Aluminium block heat exchanger with integrated water separator and air-to-air heat exchange • Digital display with real-time PDP monitoring and voltage-free contact for remote alarm • Easy plug-and-play installation | <ul style="list-style-type: none"> • Stable performance and guaranteed dew point of 3°C/37°F • Rotary compressors and R410A refrigerant: the winning combination <ul style="list-style-type: none"> • 30% more energy efficient • Requires 19% less refrigerant gas • Extremely reliable: low vibration levels and limited mechanical load • Ingeniously designed components to ensure maximum performance <ul style="list-style-type: none"> • Hot gas bypass valve to prevent freezing at lower loads • Zero-loss electronic drain to prevent loss of valuable compressed air • Aluminium block heat exchanger with integrated water separator and air-to-air heat exchange • Advanced controlling and monitoring thanks to the controller installed <ul style="list-style-type: none"> • Digital PDP display • Remote start/stop • Voltage-free contact for general alarm • Easy plug-and-play installation | <ul style="list-style-type: none"> • Stable performance and guaranteed dew point of 3°C/37°F. • Ingeniously designed components to ensure maximum performance <ul style="list-style-type: none"> • Hot gas bypass valve to prevent freezing at lower loads • Zero-loss electronic drain to prevent loss of valuable compressed air • Aluminium block heat exchanger with integrated water separator and air-to-air heat exchange • Environmental safe refrigerant gases R452A • Advanced controlling and monitoring <ul style="list-style-type: none"> • Digital PDP display • Remote start/stop • Voltage-free contact for general alarm • Easy plug-and-play installation |

Options



Filter Support



Bypass Valve

AD 10 - 3000 - Non-cycling refrigeration dryers

| Technical specifications for AD 10-3000 50Hz | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Pneumatech Variants → Specifications ↓ | | AD 10 | AD 15 | AD 25 | AD 35 | AD 50 | AD 75 | AD 100 | AD 125 | AD 150 | AD 175 | AD 200 | AD 250 | AD 300 | AD 360 | AD 500 | AD 600 | AD 750 | AD 1000 | AD 1250 | AD 1600 | AD 1800 | AD 2500 | AD 3000 |
| Flow ⁽¹⁾ | l/s | 6 | 10 | 14 | 20 | 31 | 39 | 50 | 60 | 68 | 87 | 108 | 128 | 167 | 200 | 250 | 300 | 400 | 500 | 583 | 750 | 833 | 1167 | 1400 |
| | m ³ /hr | 21 | 36 | 51 | 72 | 110 | 141 | 180 | 216 | 246 | 312 | 390 | 462 | 600 | 720 | 900 | 1080 | 1440 | 1800 | 2100 | 2700 | 3000 | 4200 | 5040 |
| Nominal electric power | kW | 0.13 | 0.16 | 0.19 | 0.27 | 0.28 | 0.61 | 0.67 | 0.65 | 0.66 | 0.83 | 1.01 | 1.09 | 1.32 | 1.63 | 1.89 | 2.11 | 3.26 | 3.89 | 4.75 | 6.71 | 6.80 | 10.20 | 12.30 |
| Power Supply / Voltage / Phase | | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 | 230/50/1 | 400/50/3 | 400/50/3 | 400/50/3 | 400/50/3 | 400/50/3 | 400/50/3 | 400/50/3 | 400/50/3 | 400/50/3 | 400/50/3 | 400/50/3 |
| Max Operating Pressure | barg | 16 | 16 | 16 | 16 | 16 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| | psig | 232 | 232 | 232 | 232 | 232 | 188 | 188 | 188 | 188 | 188 | 188 | 188 | 188 | 188 | 188 | 188 | 188 | 188 | 188 | 188 | 188 | 188 | 188 |
| Refrigerant Gas | | R134a | R134a | R134a | R134a | R134a | R452A | R452A | R410A | R410A | R410A | R410A | R410A | R410A | R410A | R410A | R410A | R410A | R410A | R452A | R452A | R452A | R452A | R452A |
| Inlet and Outlet Connections | inches / DIN | R3/4" | R3/4" | R3/4" | R3/4" | R3/4" | R1" | R1" | R1 1/2" | R1 1/2" | R1 1/2" | R1 1/2" | R1 1/2" | R2" | R2" | R2" | R2" | R3" | R3" | R3" | DIN 125 | DIN 125 | DIN 125 | DIN 125 |
| Dimensions | L (mm) | 350 | 350 | 350 | 350 | 350 | 370 | 370 | 460 | 460 | 460 | 580 | 580 | 735 | 735 | 735 | 735 | 1020 | 1020 | 1020 | 1020 | 1020 | 1020 | 1020 |
| | L (inch) | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 16.6 | 16.6 | 18.1 | 18.1 | 18.1 | 22.8 | 22.8 | 28.9 | 28.9 | 28.9 | 28.9 | 40.2 | 40.2 | 40.2 | 40.2 | 40.2 | 40.2 | 40.2 |
| | W (mm) | 511 | 511 | 511 | 511 | 511 | 515 | 515 | 575 | 575 | 575 | 604 | 604 | 952 | 952 | 952 | 952 | 1082 | 1082 | 1082 | 1123 | 2099 | 2099 | 2099 |
| | W (inch) | 20.1 | 20.1 | 20.1 | 20.1 | 20.1 | 20.3 | 20.3 | 22.6 | 22.6 | 22.6 | 23.8 | 23.8 | 37.5 | 37.5 | 37.5 | 37.5 | 42.6 | 42.6 | 42.6 | 44.2 | 42.6 | 42.6 | 42.6 |
| | H (mm) | 484 | 484 | 484 | 484 | 484 | 764 | 764 | 789 | 789 | 789 | 899 | 899 | 1012 | 1012 | 1012 | 1012 | 1535 | 1535 | 1535 | 1551 | 1560 | 1560 | 1560 |
| | H (inch) | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 30 | 30 | 31.1 | 31.1 | 31.1 | 35.4 | 35.4 | 39.8 | 39.8 | 39.8 | 39.8 | 60.4 | 60.4 | 60.4 | 61.1 | 61.4 | 61.4 | 61.4 |
| Weight | kg | 19 | 19 | 20 | 25 | 27 | 44 | 44 | 53 | 60 | 65 | 80 | 80 | 128 | 146 | 158 | 165 | 325 | 335 | 350 | 380 | 550 | 600 | 650 |
| | Lbs | 42 | 42 | 44 | 55 | 60 | 97 | 97 | 117 | 132 | 143 | 176 | 176 | 282 | 322 | 348 | 364 | 716 | 738 | 771 | 838 | 1212 | 1322 | 1433 |

- Flow is measured at reference conditions: ambient pressure of 1 bara and 25°C at operating pressure of 7 barg, inlet temperature 35°C .
- 380V/60Hz and 460V/60Hz variants are also available for the AD300-3000 range. Please refer to the datasheets or consult Pneumatech for technical data.

| Correction factors for ambient temperature | | | | | | | |
|--|------|------|------|------|------|------|---------------|
| Ambient temperature | °C | 25 | 30 | 35 | 40 | 45 | |
| | Ktmb | 1.00 | 0.92 | 0.84 | 0.80 | 0.74 | (AD 10-250) |
| | | 1.00 | 0.91 | 0.81 | 0.72 | 0.62 | (AD 300-3000) |

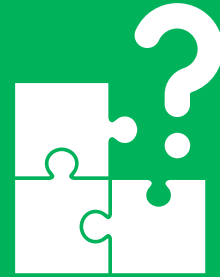
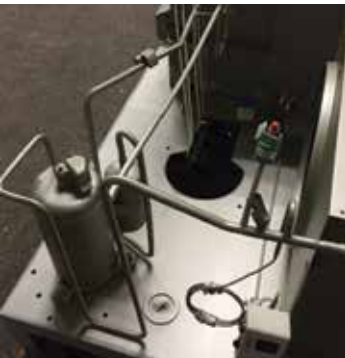
| Correction factors for compressed air inlet temperature | | | | | | | | |
|---|----|------|------|------|------|------|------|---------------|
| Inlet temperature | °C | 30 | 35 | 40 | 45 | 50 | 55 | |
| | Kt | 1.24 | 1.00 | 0.82 | 0.69 | 0.58 | 0.45 | (AD 10-250) |
| | | 1.00 | 1.00 | 0.82 | 0.69 | 0.58 | 0.49 | (AD 300-3000) |

| Correction factors for compressed air inlet pressure | | | | | | | | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|---------------|
| Operating pressure | barg | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | | |
| | Kp | 0.80 | 0.90 | 0.96 | 1.00 | 1.03 | 1.06 | 1.08 | 1.10 | 1.12 | 1.13 | 1.15 | 1.16 | 1.15 | | (AD 10-250) |
| | | 0.80 | 0.90 | 0.97 | 1.00 | 1.03 | 1.05 | 1.07 | 1.09 | 1.11 | 1.12 | - | - | - | | (AD 300-3000) |

Anti-corrosion treatment (available for all refrigerant dryers)

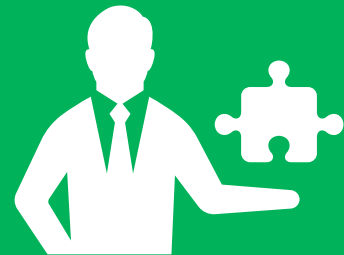
| Technical specifications | |
|---------------------------------------|--------------------------------------|
| Coating type | Aluminum pigmented polyurethane |
| Color | Champagne |
| Pretreatment | Degreasing |
| Temperature Range (dry) | -20 to 150°C (-4° to 302°F) |
| Substrates | Aluminum and Copper |
| ASTM B117 | 4000+ hours(neutral-salt spray test) |
| Kesternich (2.0 ltr SO ₂) | 80 cycles |
| Layer Thickness | 25-30 µm (1 mil) |
| UV Resistance | Excellent |
| Adhesion (cross hatch) | 0 (European) 5b (USA) |
| Chemical Resistance | Excellent |

| Coating resistance of some typical corrosive gas vapors (based on exposure temperature of 20°C/68°F) – maximum concentrations | | | |
|--|---------|----------------|---------|
| Chlorine | 64 ppm | Ethanol | 320 ppm |
| Ammonia | 160 ppm | Sulphuric acid | 320 ppm |
| Phosphoric acid | 320 ppm | Seawater | 640 ppm |



Problem

Refrigerant dryers can be subjected to severe corrosion when placed in environments rich of e.g ammonia and sulfurs, or close to the seaside. In these cases incompatible metals like copper will be affected since the condenser-fan is blowing a high volume of polluted air through the dryer. Corrosion and pollution of condensers will directly impact the dryer performance. Corrosion can even lead to leaks in the condenser and refrigeration piping.



Solution

Pneumatech offers a long-lasting corrosion protection to the condenser and the refrigerant piping without affecting heat transfer and pressure drop. The heat conductive pigmentation in the coating is oriented in such a way that it creates a very high chemical resistance at a low layer thickness. Therefore it is considered the best available option to prevent refrigeration dryer failure and unnecessary energy consumption.

AC 15 - 600 - Cycling refrigeration dryers

Features & Benefits

- ▶ Premium energy efficiency
 - Energy-saving & flow control: adapt energy consumption to the real load
 - Lowest pressure drop over heat exchanger and air piping
 - Zero-loss drains
- ▶ Strong performance & reliability
 - Stable pressure dew point as low as 3°C
 - Guaranteed drying performance in wide range of ambient temperatures
- ▶ Optimal control and monitoring
 - Energy-saving control
 - Voltage-free contact for remote alarm
 - Auto-restart after voltage-failure
 - Communication via industrial protocols like Modbus, Profibus or Ethernet/IP (for AC250-600 only)
- ▶ Easy installation and maintenance at low cost
 - Pipe connections on top
 - Long service intervals
 - Easy access to key components



General Specifications

- ▶ AC refrigeration dryers: cycling type
- ▶ Operating pressure: 4-16 barg/58-232 psig (4-14 barg/ 58-189 psig from AC 125 onwards)
- ▶ Max. inlet temperature: 60°C / 140°F
- ▶ Flow rate : 22-1026 m³/hr (13-604 cfm)⁽¹⁾
- ▶ Pressure dew point: 3°C / 37°F (ISO 8573-1:2010 class 4)
- ▶ Power supply: 115/230VAC 50/60 Hz
- ▶ Refrigerant: R134a (AC 15-100), R410a (AC 125-600)

Options



Integrated high efficiency line filters



Electric panel protection IP 54

¹ Flow is measured at reference conditions: ambient pressure of 1 bara and 25°C at operating pressure of 7 barg, inlet temperature 35°C .



Pneumatech's AC range offers premium refrigeration drying technology at the lowest operational costs. All AC dryers are equipped with our proprietary energy saving algorithm, which adapts the energy consumption to the real load by continuously monitoring the ambient temperature and the pressure dewpoint. In this way, the risk of downstream corrosion is reduced to zero at all times. When there is less cooling needed, the refrigerant compressor stops and power consumption is significantly reduced, with savings up to 50%.

AC250-600 dryers are also equipped with a flow switch which detects whether there is flow going through the dryer; and shuts down the refrigerant compressor when there is no flow

(even if the energy saving algorithm would not be activated). To make these energy saving functionalities work, the AC range makes use of advanced controllers, which communicate through voltage-free contacts (for AC15-200) or industrial protocols like Modbus, Profibus or Ethernet/IP (for AC250-600).

Premium energy efficiency is also guaranteed thanks to low pressure drops over the heat exchangers, zero-loss drains and our winning combination: rotary compressors and R410A refrigerant on AC125-600. This combination is up to 30% more energy efficient, requires 19% less refrigerant gas and is 100% compliant with European regulation EU No 517 / 2014.

| Technical specifications for AC 15-600 50Hz Aircooled | | | | | | | | | | | | | | | | | | |
|---|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------|-------------|-------------|-------------|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Pneumatech Variant → Specifications ↓ | Units | AC-15 | AC-20 | AC-30 | AC-40 | AC-50 | AC-65 | AC-85 | AC-100 | AC-125 | AC-150 | AC-200 | AC-250 | AC-300 | AC-350 | AC-450 | AC-500 | AC-600 |
| Flow ⁽¹⁾ | l/s | 6 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 95 | 120 | 150 | 185 | 220 | 245 | 285 |
| | m ³ /hr | 22 | 36 | 54 | 72 | 90 | 108 | 144 | 180 | 216 | 252 | 342 | 432 | 540 | 666 | 792 | 882 | 1026 |
| Power consumption | kW | 0.2 | 0.2 | 0.33 | 0.41 | 0.41 | 0.41 | 0.6 | 0.5 | 0.7 | 0.7 | 0.89 | 1 | 1 | 1.4 | 1.9 | 1.9 | 2.2 |
| | hp | 0.27 | 0.27 | 0.44 | 0.55 | 0.55 | 0.55 | 0.80 | 0.67 | 0.94 | 0.94 | 1.19 | 1.34 | 1.34 | 1.88 | 2.55 | 2.55 | 2.95 |
| Pressure drop over dryer | barg | 0.07 | 0.11 | 0.12 | 0.12 | 0.17 | 0.25 | 0.2 | 0.2 | 0.21 | 0.28 | 0.25 | 0.11 | 0.15 | 0.22 | 0.12 | 0.18 | 0.22 |
| | psig | 1.02 | 1.60 | 1.74 | 1.74 | 2.47 | 3.63 | 2.90 | 2.90 | 3.05 | 4.06 | 3.63 | 1.59 | 2.18 | 3.19 | 1.74 | 2.61 | 3.19 |
| Refrigerant type | | R134a | R134a | R134a | R134a | R134a | R134a | R134a | R134a | R410A | R410A | R410A | R410A | R410A | R410A | R410A | R410A | R410A |
| Dimensions | L (mm) | 496 | 496 | 496 | 496 | 496 | 496 | 716 | 716 | 792 | 792 | 792 | 882 | 882 | 948 | 948 | 948 | 948 |
| | L (inch) | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 28.2 | 28.2 | 31.2 | 31.2 | 31.2 | 34.7 | 34.7 | 37.3 | 37.3 | 37.3 | 37.3 |
| | W (mm) | 377 | 377 | 377 | 377 | 377 | 377 | 380 | 380 | 500 | 500 | 500 | 661 | 661 | 802 | 802 | 802 | 802 |
| | W (inch) | 14.8 | 14.8 | 14.8 | 14.8 | 14.8 | 14.8 | 15.0 | 15.0 | 19.7 | 19.7 | 19.7 | 26.0 | 26.0 | 31.6 | 31.6 | 31.6 | 31.6 |
| | H (mm) | 461 | 461 | 461 | 461 | 461 | 461 | 676 | 676 | 680 | 680 | 680 | 1015 | 1015 | 1026 | 1026 | 1026 | 1026 |
| | H (inch) | 18.1 | 18.1 | 18.1 | 18.1 | 18.1 | 18.1 | 26.6 | 26.6 | 26.8 | 26.8 | 26.8 | 40.0 | 40.0 | 40.4 | 40.4 | 40.4 | 40.4 |
| Inlet and Outlet Connections | | ISO7-R3/4"(m) | ISO7-R3/4"(m) | ISO7-R3/4"(m) | ISO7-R3/4"(m) | ISO7-R3/4"(m) | ISO7-R3/4"(m) | ISO7-R1"(m) | ISO7-R1"(m) | ISO7-R1"(m) | ISO7-R1"(m) | ISO7-R1"(m) | ISO7-R1 1/2"(m) | ISO7-R1 1/2"(m) | ISO7-R2 1/2"(m) | ISO7-R2 1/2"(m) | ISO7-R2 1/2"(m) | ISO7-R2 1/2"(m) |
| Weight | kg | 27 | 27 | 32 | 34 | 34 | 34 | 56 | 57 | 82.4 | 82.4 | 109.4 | 170 | 170 | 185 | 197 | 197 | 197 |
| | lbs | 60 | 60 | 71 | 75 | 75 | 75 | 123 | 126 | 182 | 182 | 241 | 375 | 375 | 408 | 434 | 434 | 434 |

1. Flow is measured at reference conditions: ambient pressure of 1 bara and 25°C at operating pressure of 7 barg, inlet temperature 35°C .

| K1 Flow correction factors due to compressed air inlet temperature and/or pressure dewpoint (PDP) - 50Hz units | | | | | | | | | | |
|--|-------------|------|------|------|------|------|------|------|------|--|
| Temperature | °C | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | |
| | °F | 77 | 86 | 95 | 104 | 113 | 122 | 131 | 140 | |
| PDP | 3°C / 37°F | 1,2 | 1,1 | 1 | 0,85 | 0,72 | 0,6 | 0,49 | 0,37 | |
| | 5°C / 41°F | 1,35 | 1,23 | 1,11 | 0,94 | 0,8 | 0,67 | 0,55 | 0,42 | |
| | 7°C / 45°F | 1,5 | 1,35 | 1,22 | 1,02 | 0,88 | 0,75 | 0,61 | 0,47 | |
| | 10°C / 50°F | 1,72 | 1,54 | 1,38 | 1,15 | 1 | 0,86 | 0,7 | 0,54 | |
| | 15°C / 59°F | 2,11 | 1,89 | 1,68 | 1,43 | 1,23 | 1,03 | 0,83 | 0,62 | |

| K1 Flow correction factors due to compressed air inlet temperature and/or pressure dewpoint (PDP) - 60Hz units | | | | | | | | | | |
|--|-------------|------|------|------|------|------|------|------|------|--|
| Temperature | °C | 25 | 30 | 35 | 38 | 45 | 50 | 55 | 60 | |
| | °F | 77 | 86 | 95 | 100 | 113 | 122 | 131 | 140 | |
| PDP | 4°C / 39°F | 1,14 | 1,09 | 1,03 | 1 | 0,8 | 0,67 | 0,53 | 0,4 | |
| | 7°C / 45°F | 1,27 | 1,22 | 1,14 | 1,09 | 0,88 | 0,74 | 0,59 | 0,44 | |
| | 10°C / 50°F | 1,4 | 1,35 | 1,24 | 1,18 | 0,96 | 0,8 | 0,65 | 0,49 | |
| | 15°C / 59°F | 1,63 | 1,55 | 1,41 | 1,32 | 1,08 | 0,91 | 0,74 | 0,56 | |

| K2 Flow correction factors due to compressed air inlet pressure (g) | | | | | | | | | | |
|---|------|------|------|------|-----|------|------|------|------|------|
| Air inlet pressure | barg | 4 | 5 | 6 | 7 | 8 | 10 | 12 | 14 | 16 |
| | psig | 58 | 72 | 87 | 101 | 116 | 145 | 174 | 203 | 232 |
| | | 0,74 | 0,84 | 0,92 | 1 | 1,05 | 1,15 | 1,25 | 1,31 | 1,35 |

| Flow correction factor due to ambient temperature - 50Hz units | | | | | | | |
|--|----|------|------|------|------|------|------|
| Temperature | °C | 25 | 30 | 35 | 40 | 45 | 50 |
| | °F | 77 | 86 | 95 | 104 | 113 | 122 |
| | | 1,00 | 0,95 | 0,88 | 0,81 | 0,74 | 0,67 |

| Flow correction factor due to ambient temperature - 60Hz units | | | | | | | |
|--|----|------|------|------|------|------|------|
| Temperature | °C | 25 | 30 | 35 | 38 | 45 | 50 |
| | °F | 77 | 86 | 95 | 100 | 113 | 122 |
| | | 1,10 | 1,06 | 1,02 | 1,00 | 0,93 | 0,88 |

AC 650 - 2100 - Large cycling refrigeration dryers (including VSD solutions)

Features & Benefits

- ▶ Premium energy efficiency
 - Energy-saving & flow control: adapt energy consumption to the real load
 - Variable speed range: exact match between energy consumption and actual demand (available for AC 1600-2100)
 - Lowest pressure drop over heat exchanger and air piping
 - Zero-loss drains
- ▶ Strong performance & reliability
 - Stable pressure dew point as low as 3°C
 - Rotary refrigerant compressors: limited mechanical load & low vibrations
 - Guaranteed drying performance in wide range of ambient temperatures
 - Refrigeration cycle optimized in all conditions thanks to automatic expansion valve & electronic hot gas bypass valve
- ▶ Air-cooled as well as water-cooled versions available
- ▶ Optimal control and monitoring thanks to the Purelogic™ controller
 - Communication via industrial protocols like Modbus, Profibus or Ethernet/IP
 - Internet-based visualization
- ▶ Easy maintenance at low cost
 - Pipe connections on top
 - Long service intervals
 - Easy access to key components



General Specifications

- ▶ AC refrigeration dryers: cycling type including VSD option (only for AC 1600-2100)
- ▶ Operating Pressure: 4-14 barg/ 58-189 psig
- ▶ Max. temperature: 50°C / 122°F
- ▶ Flow rate: 1116-3636 m³/hr (657-2141 cfm)⁽¹⁾
- ▶ Pressure dew point: 3°C / 37°F
- ▶ Power supply: 400V/50Hz; 380V/60Hz; 400-460V/60Hz
- ▶ Refrigerant: R410a
- ▶ Cooling type: Air-cooled and water-cooled

Options



IP 54 protection
(only for 650-1050;
standard on AC1250-2100)

¹ Flow is measured at reference conditions: ambient pressure of 1 bara and 25°C at operating pressure of 7 barg, inlet temperature 35°C .



AC 650-2100 is Pneumatech's premium refrigeration dryer range at higher flows: from 1120 up to 3636 m³/hr (657-2141 cfm).

As in the small AC range, operating costs are significantly reduced thanks to the energy saving and flow switch algorithms, the zero-loss drains, the low pressure drop over the heat exchangers and the combination of rotary compressors and R410A refrigerant. The refrigeration cycle is further optimized in all working conditions by making use of the automatic expansion valve & electronic hot gas bypass valve.

From AC1600 onwards, dedicated variable speed (VSD) variants have been added to the range. The VSD controller incorporated

in these dryers matches the energy consumption to the actual compressed air demand. This reduces energy used by as much as 70%, compared to conventional dryers. It works by varying the speed of the compressor, hereby ensuring a stable dew point.

The Purelogic™ is installed as standard on all dryers: it ensures maximum reliability by monitoring the most important parameters of the dryer and offers impressive control and monitoring capabilities, like internet-based visualization.

The entire range is available in both air-cooled and water-cooled versions.

Technical specifications for AC650-2100

| | | Air Cooled (including VSD) | | | | | | | | | | Water Cooled (including VSD) | | | | | | | | | |
|--|--------------------|----------------------------|--------|---------|---------|---------|-------------|---------|-------------|---------|-------------|------------------------------|--------|---------|---------|---------|-------------|---------|-------------|---------|-------------|
| Pneumatech Variants → Specifications ↓ | Units | AC 650 | AC 850 | AC 1050 | AC 1250 | AC 1600 | AC 1600 VSD | AC 1800 | AC 1800 VSD | AC 2100 | AC 2100 VSD | AC 650 | AC 850 | AC 1050 | AC 1250 | AC 1600 | AC 1600 VSD | AC 1800 | AC 1800 VSD | AC 2100 | AC 2100 VSD |
| Flow ⁽¹⁾ | l/s | 310 | 410 | 510 | 610 | 760 | 760 | 870 | 870 | 1010 | 1010 | 310 | 410 | 510 | 610 | 760 | 760 | 870 | 870 | 1010 | 1010 |
| | m ³ /hr | 1116 | 1476 | 1836 | 2196 | 2736 | 2736 | 3132 | 3132 | 3636 | 3636 | 1116 | 1476 | 1837 | 2196 | 2736 | 2736 | 3132 | 3132 | 3636 | 3636 |
| Power consumption | kW | 2.80 | 3 | 4.5 | 4.80 | 5.30 | 5.30 | 6.60 | 5.8 | 7.40 | 6.6 | 2 | 2.4 | 4.1 | 3.10 | 3.60 | 3.3 | 4.50 | 4.2 | 5.10 | 5.6 |
| | hp | 3.75 | 4.02 | 6.03 | 6.40 | 7.10 | 7.10 | 8.80 | 7.8 | 9.90 | 8.8 | 2.68 | 3.22 | 5.5 | 4.20 | 4.80 | 4.4 | 6.00 | 5.6 | 6.80 | 7.5 |
| Pressure drop over dryer | mBar | 230 | 210 | 200 | 170 | 170 | 170 | 140 | 140 | 170 | 170 | 230 | 210 | 200 | 170 | 170 | 90 | 140 | 120 | 170 | 170 |
| | psig | 3.3 | 3.0 | 2.9 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 2.5 | 2.5 | 3.3 | 3 | 2.9 | 2.5 | 2.5 | 131 | 2.0 | 174 | 2.5 | 2.5 |
| Refrigerant type | kg | R410a | R410a | R410a | R410a | R410a | R410a | R410a | R410a | R410a | R410a | R410a | R410a | R410a | R410a | R410a | R410a | R410a | R410a | R410a | R410a |
| Inlet and Outlet Connections | Inch/DN | G3" | G3" | G3" | DN100 | DN100 | DN100 | DN150 | DN150 | DN150 | DN150 | G3" | G3" | G3" | DN100 | DN100 | DN100 | DN150 | DN150 | DN150 | DN150 |
| Dimensions | L (mm) | 986 | 1250 | 1525 | 1040 | 1245 | 1245 | 1245 | 1245 | 1580 | 1580 | 986 | 1250 | 1250 | 1245 | 1245 | 1580 | 1245 | 1580 | 1245 | 1580 |
| | L (inch) | 38.9 | 49.2 | 60.0 | 40.9 | 49.0 | 49.0 | 49.0 | 49.0 | 62.2 | 62.2 | 38.9 | 49.2 | 49.2 | 49.0 | 49.0 | 62.2 | 49.0 | 62.2 | 49.0 | 62.2 |
| | W (mm) | 850 | 850 | 850 | 1060 | 1060 | 1060 | 1060 | 1060 | 1060 | 1060 | 850 | 850 | 850 | 1060 | 1060 | 1060 | 1060 | 1060 | 1060 | 1060 |
| | W (inch) | 33.5 | 33.5 | 33.5 | 41.7 | 41.7 | 41.7 | 41.7 | 41.7 | 41.7 | 41.7 | 33.5 | 33.5 | 33.5 | 41.7 | 41.7 | 41.7 | 41.7 | 41.7 | 41.7 | 41.7 |
| | H (mm) | 1190 | 1375 | 1375 | 1580 | 1580 | 1580 | 1580 | 1580 | 1580 | 1580 | 1190 | 1375 | 1375 | 1580 | 1580 | 1580 | 1580 | 1580 | 1580 | 1580 |
| | H (inch) | 46.9 | 54.1 | 54.1 | 62.2 | 62.2 | 62.2 | 62.2 | 62.2 | 62.2 | 62.2 | 46.9 | 54.1 | 54.1 | 62.2 | 62.2 | 62.2 | 62.2 | 62.2 | 62.2 | 62.2 |
| Weight | kg | 200 | 240 | 310 | 320 | 380 | 380 | 400 | 400 | 460 | 460 | 180 | 240 | 260 | 350 | 360 | 410 | 370 | 410 | 380 | 410 |
| | lbs | 441 | 529 | 683 | 705 | 838 | 838 | 882 | 882 | 1014 | 1014 | 397 | 529 | 573 | 772 | 794 | 904 | 816 | 904 | 838 | 904 |

1. Flow is measured at reference conditions: ambient pressure of 1 bara and 25°C at operating pressure of 7 barg, inlet temperature 35°C.
2. Power consumption of the units are specified for max ambient temperature of 40°C. In case of higher ambient temperatures contact Pneumatech.

| K1 Flow correction factors due to compressed air inlet temperature and/or pressure dewpoint (PDP) - 50Hz units | | | | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|------|------|--|--|
| Temperature | °C | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | | | |
| | °F | 77 | 86 | 95 | 104 | 113 | 122 | 131 | 140 | | | |
| PDP | 3°C | 37°F | 1,2 | 1,1 | 1 | 0,85 | 0,72 | 0,6 | 0,49 | 0,37 | | |
| | 5°C | 41°F | 1,35 | 1,23 | 1,11 | 0,94 | 0,8 | 0,67 | 0,55 | 0,42 | | |
| | 7°C | 45°F | 1,5 | 1,35 | 1,22 | 1,02 | 0,88 | 0,75 | 0,61 | 0,47 | | |
| | 10°C | 50°F | 1,72 | 1,54 | 1,38 | 1,15 | 1 | 0,86 | 0,7 | 0,54 | | |
| | 15°C | 59°F | 2,11 | 1,89 | 1,68 | 1,43 | 1,23 | 1,03 | 0,83 | 0,62 | | |

| K1 Flow correction factors due to compressed air inlet temperature and/or pressure dewpoint (PDP) - 60Hz units | | | | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|------|------|--|--|
| Temperature | °C | 25 | 30 | 35 | 38 | 45 | 50 | 55 | 60 | | | |
| | °F | 77 | 86 | 95 | 100 | 113 | 122 | 131 | 140 | | | |
| PDP | 4°C | 39°F | 1,14 | 1,09 | 1,03 | 1 | 0,8 | 0,67 | 0,53 | 0,4 | | |
| | 7°C | 45°F | 1,27 | 1,22 | 1,14 | 1,09 | 0,88 | 0,74 | 0,59 | 0,44 | | |
| | 10°C | 50°F | 1,4 | 1,35 | 1,24 | 1,18 | 0,96 | 0,8 | 0,65 | 0,49 | | |
| | 15°C | 59°F | 1,63 | 1,55 | 1,41 | 1,32 | 1,08 | 0,91 | 0,74 | 0,56 | | |

| K2 Flow correction factor due to compressed air inlet pressure (g) | | | | | | | | | | | |
|--|------|------|------|------|-----|------|------|------|------|--|--|
| Air inlet pressure | barg | 4 | 5 | 6 | 7 | 8 | 10 | 12 | 14 | | |
| | psig | 58 | 72 | 87 | 101 | 116 | 145 | 174 | 203 | | |
| | | 0,74 | 0,84 | 0,92 | 1 | 1,05 | 1,15 | 1,25 | 1,31 | | |

| Flow correction factor due to ambient temperature or cooling water temperature - 50Hz units | | | | | | | |
|---|----|------|------|------|------|------|------|
| Temperature | °C | 25 | 30 | 35 | 40 | 45 | 50 |
| | °F | 77 | 86 | 95 | 104 | 113 | 122 |
| | | 1,00 | 0,95 | 0,88 | 0,81 | 0,74 | 0,67 |

| Flow correction factor due to ambient temperature or cooling water temperature - 60Hz units | | | | | | | |
|---|----|------|------|------|------|------|------|
| Temperature | °C | 25 | 30 | 35 | 38 | 45 | 50 |
| | °F | 77 | 86 | 95 | 100 | 113 | 122 |
| | | 1,10 | 1,06 | 1,02 | 1,00 | 0,93 | 0,88 |

AC HP 20 - 2120 - High-pressure refrigeration dryers

Features & Benefits

- ▶ Unique, mono block heat exchanger
 - Heavy duty steel construction makes heat exchangers reliable and long lasting for high pressure applications
 - Specially designed louvered copper plates to deliver state-of-art performance and great cooling efficiency
 - Compact design
- ▶ Premium energy efficiency
 - Low pressure drops resulting in energy cost savings
 - Air/air economizer reduces the energy requirements by 58 %
- ▶ Efficient integrated water separator
 - Prevents re-evaporation of water after separation
 - Guaranteed separation up to 150% of the nominal flow
- ▶ Reliable and safe operation thanks to carefully chosen regulation instruments
 - Thermostatic expansion valve eliminates risk of liquid knock in the refrigerant compressor
 - Hot gas bypass valve keeps evaporation pressure steady
 - Thermo and pressure switches guarantee reliable and efficient working



General Specifications

- ▶ High pressure refrigeration dryers
- ▶ Max. pressure: 50 barg / 725 psig
Pressure up to 350 barg / 5075 psig available on request
- ▶ Max. temperature: 45°C / 113°F
- ▶ Flow rate: 33 to 3600 m³/hr (19-2120 cfm)⁽¹⁾
- ▶ Pressure dew point: 3°C/37°F (ISO 8573-1:2010 class 4)
- ▶ Power supply: 230/400VAC 50Hz (60Hz version on request)
- ▶ Refrigerant: R134a (ACHP 20-1100) or R404a (ACHP 1360-2120)
- ▶ Cooling variants: Air-cooled (standard) or water-cooled (option)

Options



Water cooled condenser



**Potential contact
Thermostatic warning**

¹ Flow is measured at reference conditions: ambient pressure of 1 bara and 25°C at operating pressure of 7 barg, inlet temperature 35°C .



Pneumatech offers an extensive standard range of high-pressure refrigeration dryers (AC HP 20-2120) for applications up to 50 barg / 725 psig. Higher pressures are available on request. We make the difference through our state-of-the-art mono block heat exchanger with its heavy-duty steel construction and specially designed louvered copper plates, resulting in robustness and excellent cooling efficiency.

Offered in both air- and water-cooled variants, the AC HP covers

a flow range from 33 m³/hr (19 cfm) up to 3600 m³/hr (2120 cfm). The refrigeration cycle is optimized in all conditions thanks to the use of rigorously chosen control and regulating instruments such as thermostatic expansion valves, thermal switches and pressure transmitters.

AC HP dryers are the most cost-effective solutions for high pressure applications, and are typically used in bottling plants, mining and textile industry, and for water jet cutting and blasting.

Technical specifications for AC HP 20-2120

| Pneumatech Variants → Specifications ↓ | Units | ACHP 20 | ACHP 25 | ACHP 30 | ACHP 50 | ACHP 80 | ACHP 110 | ACHP 130 | ACHP 150 | ACHP 210 | ACHP 240 | ACHP 270 | ACHP 340 | ACHP 415 | ACHP 530 | ACHP 675 | ACHP 770 | ACHP 970 | ACHP 1100 | ACHP 1360 | ACHP 1440 | ACHP 1725 | ACHP 2120 |
|--|--------------------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|
| Flow ⁽¹⁾ | l/s | 9.2 | 10.6 | 15.0 | 24.2 | 37.5 | 52.8 | 60.6 | 71.1 | 98.6 | 114.4 | 128.1 | 160.3 | 195.8 | 251.1 | 319.2 | 362.5 | 457.8 | 520.3 | 641.4 | 678.9 | 814.4 | 1000.0 |
| | m ³ /hr | 33 | 38 | 54 | 87 | 135 | 190 | 218 | 256 | 355 | 412 | 461 | 577 | 705 | 904 | 1149 | 1305 | 1648 | 1873 | 2309 | 2444 | 2932 | 3600 |
| Power consumption | kW | 0.22 | 0.24 | 0.25 | 0.25 | 0.31 | 0.52 | 0.6 | 0.72 | 0.97 | 1.16 | 0.97 | 1.16 | 1.6 | 1.6 | 2.1 | 2.1 | 2.7 | 3.4 | 4.3 | 4.7 | 5.2 | 8.9 |
| | hp | 0.30 | 0.32 | 0.34 | 0.34 | 0.42 | 0.70 | 0.80 | 0.97 | 1.30 | 1.56 | 1.30 | 1.56 | 2.15 | 2.15 | 2.82 | 2.82 | 3.62 | 4.56 | 5.77 | 6.30 | 6.97 | 11.94 |
| Pressure Drop | mBar | 20 | 85 | 140 | 15 | 30 | 40 | 50 | 40 | 60 | 80 | 90 | 90 | 130 | 50 | 100 | 60 | 80 | 100 | 100 | 120 | 120 | 200 |
| | psig | 0.29 | 1.23 | 2.03 | 0.22 | 0.44 | 0.58 | 0.73 | 0.58 | 0.87 | 1.16 | 1.31 | 1.31 | 1.89 | 0.73 | 1.45 | 0.87 | 1.16 | 1.45 | 1.45 | 1.74 | 1.74 | 2.90 |
| Refrigerant type | - | R134A | R134A | R134A | R134A | R134A | R134A | R134A | R134A | R134A | R134A | R134A | R134A | R134A | R134A | R134A | R134A | R134A | R134A | R134A | R134A | R134A | R134A |
| In/Out Connection | BSP | 3/8" | 3/8" | 3/8" | 3/4" | 3/4" | 3/4" | 3/4" | 1" | 1" | 1" | 1 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | DN50 | DN50 | DN50 | DN50 | DN50 | DN50 | DN50 | DN50 |
| Length | mm | 500 | 500 | 500 | 676 | 676 | 676 | 676 | 675 | 675 | 675 | 700 | 700 | 700 | 700 | 700 | 700 | 1190 | 1190 | 1190 | 1190 | 1190 | 1208 |
| | inch | 19.7 | 19.7 | 19.7 | 26.6 | 26.6 | 26.6 | 26.6 | 26.6 | 26.6 | 26.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 46.9 | 46.9 | 46.9 | 46.9 | 46.9 | 47.6 |
| Width | mm | 360 | 360 | 360 | 405 | 405 | 405 | 405 | 485 | 485 | 485 | 752 | 800 | 800 | 800 | 800 | 800 | 1000 | 1000 | 1000 | 1000 | 1000 | 1800 |
| | inch | 14.2 | 14.2 | 14.2 | 15.9 | 15.9 | 15.9 | 15.9 | 19.1 | 19.1 | 19.1 | 29.6 | 31.5 | 31.5 | 31.5 | 31.5 | 31.5 | 39.4 | 39.4 | 39.4 | 39.4 | 39.4 | 70.9 |
| Height | mm | 460 | 460 | 460 | 495 | 495 | 495 | 495 | 710 | 710 | 710 | 1100 | 1320 | 1320 | 1320 | 1455 | 1455 | 1455 | 1455 | 1455 | 1455 | 1455 | 1120 |
| | inch | 18.1 | 18.1 | 18.1 | 19.5 | 19.5 | 19.5 | 19.5 | 28.0 | 28.0 | 28.0 | 43.3 | 52.0 | 52.0 | 52.0 | 57.3 | 57.3 | 57.3 | 57.3 | 57.3 | 57.3 | 57.3 | 44.1 |
| Weight with box | Kg | 30 | 30 | 30 | 45 | 50 | 58 | 60 | 70 | 80 | 90 | 130 | 160 | 190 | 195 | 285 | 355 | 455 | 465 | 505 | 530 | 565 | 645 |
| | Lbs | 66.1 | 66.1 | 66.1 | 99.2 | 110.2 | 127.9 | 132.3 | 154.3 | 176.4 | 198.4 | 286.6 | 352.7 | 418.9 | 429.9 | 628.3 | 782.6 | 1003.1 | 1025.1 | 1113.3 | 1168.4 | 1245.6 | 1422.0 |

1. Flow is measured at reference conditions: 1 bara and 20°C at operating pressure of 45 barg, inlet temperature 35°C .

| Correction Factors Inlet Pressure | | | | | | | |
|-----------------------------------|------|------|------|------|------|-----|------|
| barg | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| psig | 290 | 363 | 435 | 508 | 580 | 653 | 725 |
| Kb | 0.84 | 0.91 | 0.93 | 0.97 | 0.98 | 1 | 1.02 |

| Correction Factors Inlet temperature | | | | | | | |
|--------------------------------------|-----|----|------|------|------|------|------|
| °C | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| °F | 86 | 95 | 104 | 113 | 122 | 131 | 140 |
| Kt | 1.2 | 1 | 0.85 | 0.72 | 0.63 | 0.55 | 0.49 |

| Correction Factors Ambient temperature for R134a | | | | | | |
|--|------|----|------|------|------|------|
| °C | 20 | 25 | 30 | 35 | 40 | 45 |
| °F | 68 | 77 | 86 | 95 | 104 | 113 |
| Kt | 1.08 | 1 | 0.92 | 0.84 | 0.77 | 0.65 |

| Correction Factors Ambient temperature for 404a | | | | | | |
|---|------|----|-----|------|------|-----|
| °C | 20 | 25 | 30 | 35 | 40 | 45 |
| °F | 68 | 77 | 86 | 95 | 104 | 113 |
| Kt | 1.06 | 1 | 0.9 | 0.81 | 0.73 | 0.6 |

Do not ‘over-dry’ your entire compressed air network

Dry air comes with a cost, both in terms of initial investment as well as running costs. The required dryness should be chosen based on the largest compressed air consumers, while more critical applications can be covered with a low PDP dryer at point-of-use.

So before you install a centralized adsorption dryer, verify whether such high degree of dryness is required for your entire system. It could be sufficient to install a centralized refrigeration dryer, and to place a small adsorption or membrane dryer at point-of-use for critical applications.