

# Refrigerated dryers

For clean, dry compressed air



Since 1966, US-based Pneumatech has delivered industryleading compressed air and gas treatment solutions to some of the most state-of-the-art production facilities around the globe.

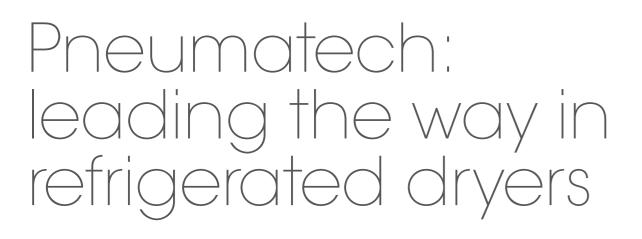
Our innovative Pneumatech refrigerated dryers give our customers reassurance of effective protection against the presence of any humidity in the compressed air, which often is the source of:

- · Corrosion, pollution and leakage of the air net.
- · Decreased efficiency of equipment/tools.
- Reduced quality of the end product.

By avoiding the risk of damage in your production by using a Pneumatech refrigerated dryer, you also benefit from lower maintenance cost of the compressed air network. Most importantly, you avoid the high maintenance cost of damaged production equipment which may result in a lower quality product.

#### **Pure protection**

Your processes are your life blood.
They need to be protected at all costs.
That's why you need an exceptionally reliable source of clean, dry air or gas – and that's what Pneumatech delivers. We are an ISO 9001:2008 and ISO 14000 certified manufacturer who fully understands your industry's regulatory and environmental concerns. You can trust us to protect your processes, your products, your applications, and your reputation.





## Pure profitability

We aim to deliver consistently high-quality products and services that contribute to your bottom line. Our refrigerated dryers are designed to drive down your manufacturing costs and energy use. We continually invest in exceptional manufacturing, quality, service and innovation to help you save energy and money, year after year.

### << Pure production</pre>

Maximizing your productivity is one of Pneumatech's core objectives. Our superior solutions add value to your production processes while consuming the least energy possible.

Our refrigerated dryers are extremely reliable to keep your production up and running optimally.

#### **General Industry**

Pneumatech refrigerated air dryers are used in a variety of applications in general industry, for example to secure product packaging, product assembly, surface cleaning, and air supply to machinery.

#### Wood, pulp and paper

Typical applications in the wood, pulp and paper industry are the control of saw blades, flaps, measurement solutions and lifters. Production processes frequently fail if moisture is left in the system. Refrigerated dryers play an important role to minimize vapor.

#### Cement & Steel

Applications include separation processes, cooling and pipe transportation. In cement and steel plants, many production processes often take place in tough working conditions where a reliable and heavy duty dryer is essential.

#### **Textile**

Compressed air is required in textile spinning, textile weaving, thread detectors, clamping/positioning in the machinery, and cooling systems. A specific compressed air quality is required to protect solenoid valves, actuators, and the calibration of textile machinery.

#### **Automotive**

Clean, dry compressed air is vital to the automotive industry. Examples include changing and filling tires, spray painting, car lifts, garage doors, surface cleaning, brake testing, and to power most of the tools used.

## Let Pneumatech remove the water from your air net

Refrigerated dryers use a refrigerant gas to cool the compressed air.

As a result, the water in the air condenses and can be removed.

Refrigeration technology is by far the most used dryer technology,

and is applied to more than 95% of industrial applications.

Pneumatech offers four types of refrigerated dryers. Read more about the

AD range of non-cycling dryers on this page, and on the following page the AC range of cycling dryers.

Pneumatech refrigerated dryers stand out for their environmental friendliness. The AD and AC ranges are ISO 14001 compliant and use cooling media that does not harm the ozone layer (R134a, R404A and R410A).



#### **AD non-cycling dryers**

Pneumatech's reliable and innovative noncycling refrigerated air dryers are a costeffective solution to remove condensation and the resultant corrosion from your compressed air system. These well tested and marketaccepted dryers will give you years and years of reliable service.

- Minimize the pressure drop with high-quality components.
- Limited energy consumption by zero loss drain.
- Highly efficient –
   low refrigeration kW at full load.

#### What makes the AD range unique?

- Integrated air-to-air heat exchanger on all models.
- Hot gas bypass valve on even the smallest units in the range.
- No-air-loss electronic drain on all models.
- Remote start/stop, general and drain alarm systems.

#### **Applications**

AD non-cycling dryers are commonly used in today's production environment. Almost all industries are in a need of a refrigerated dryer that eliminates the vapor in a reliable and safe way. The AD range is often used within the automotive, textile, wood, pulp and paper, construction and general industries where the usage is occasional or intermediate. They can also of course be used for continuous operation, but if energy efficiency is important we recommend the AC range.



#### **Applications**

Cycling refrigerated dryers are suitable when your production has fluctuations in air demand or temperature. In addition, if you have higher demand, the Pneumatech cycling range is a must in order to save up to 20% of energy compared to the non-cycling range. It is ideal for intermediate or continuous air use.

#### AC cycling dryers

Pneumatech cycling dryers only operate according to the air flow, unlike non-cycling refrigerated dryers that operate continuously even if the air flow is changing. The dryers cycle based on the relative humidity of the air to the surrounding ambient temperature. Corrosion in the air lines is not a risk if the relative humidity is kept below 50%. The benefit is energy savings. The AC dryer provides a solution that offers:

- A compact design with a low pressure drop.
- An optimized dew point to safeguard your production.
- · Long service intervals that minimize your lifetime costs.

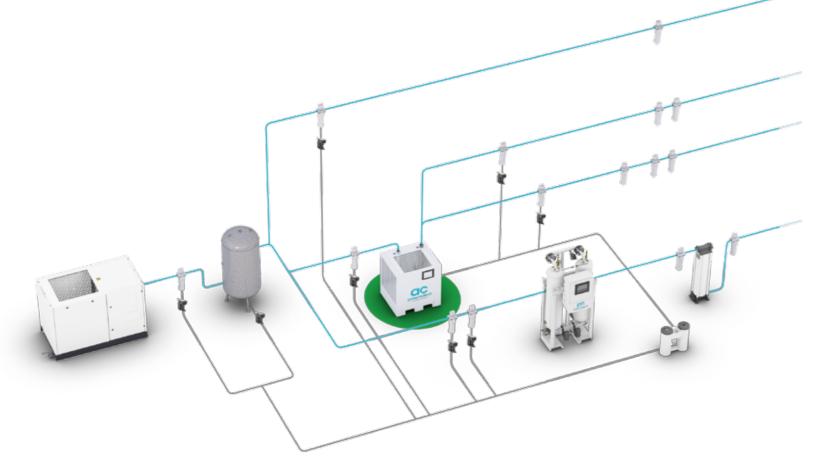
#### What makes the AC range unique?

- Purelogic<sup>™</sup> controller stands out from the rest.
- · Saver-Cycle Control, which optimizes the unload time of the compressor.
- Brazed plate heat exchanger with integrated water separator (AC-15 to AC-100).
- Aluminum heat exchanger with integrated water separator (AC-125 to AC-2100).
- · No-loss electronic level drain, with manual back-up drain.
- · Practical and attractive product design.

## Installation of your refrigerated dryer

The system overview illustration gives a good indication of a Pure Pneumatech installation for

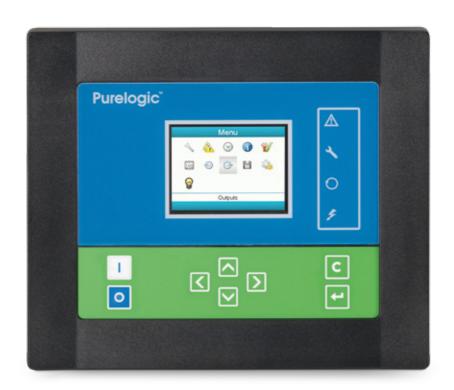
a general industry application.



A proper installation of a refrigerated dryer should also include a Pneumatech filter just before the dryer's inlet to protect the dryers from oil and particulate matter. In addition, depending on your specific application and the sensitivity of the machinery, after-filters are also highly recommended.

Don't forget the Pneumatech condensate drains which are needed for the compressor, tank, dryers and filters, to drain the water to your Pneumatech oil water separator.

It is highly recommended to use Pneumatech branded filters in your Pneumatech system.



# Control and monitor your dryer

The Purelogic™ Central Controller is the ideal complement to your refrigerated and desiccant dryers.

This state-of-the-art control solution will provide optimal control and monitoring of your machines,

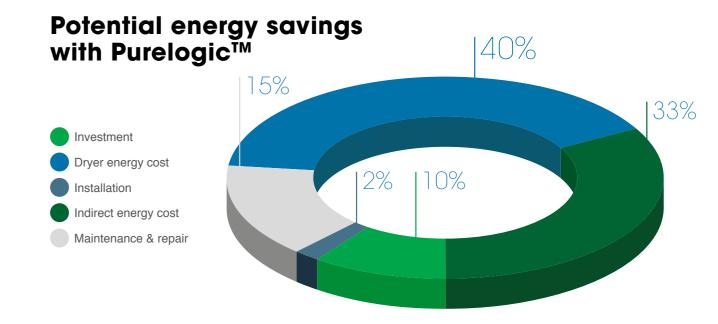
increased reliability and reduced energy use.

- Easy to use Purelogic™ incorporates a 3.5" high-definition color display with a multilingual user interface, clear icon indications and Ethernet connectivity.
- Control & monitoring Purelogic<sup>™</sup> displays the dew point and relative humidity.
- Energy-efficient Purelogic™ will drive down your energy consumption and reduce your costs.
- Safe production A number of alarms give you the information you need for safe operation.

The type of controller may vary depending on the model.

### Purelogic™ features & benefits

- · Trending, counters and service indicators.
- Preventive maintenance warnings.
- Remote web monitoring capabilities.
- Robust & easy to use key pad.
- Remote start/stop capabilities.
- Automatic restart after power failure.



#### Globally present. Globally certified

Pneumatech was founded in Kenosha, Wisconsin, USA in 1966 and has grown continuously. At the start of this century Pneumatech expanded into compressed air and gas treatment and industrial nitrogen generation markets. It currently has production sites in the USA, Europe and China. In 2010 Pneumatech received ISO 9001 and ISO14001 certification, and OHSAS 18001 certification in 2011.

















