



# Compressed Air Refrigeration Dryers

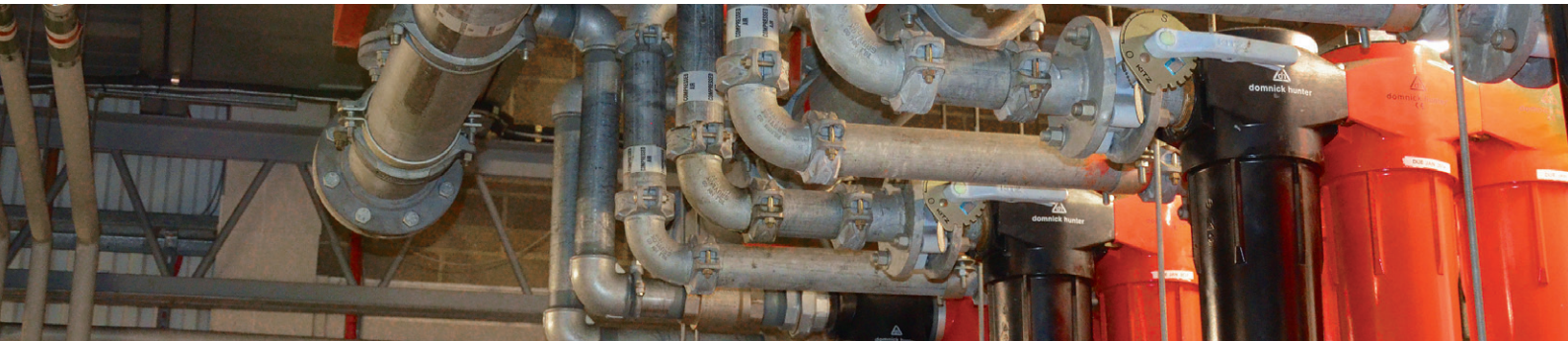
High Efficiency Economic  
Compressed Air Treatment



SUPPLY  
INSTALL  
SERVICE



*Service Excellence!*



## Compressed Air Refrigeration Dryers

IATT have decades of expertise in the supply, installation and service of all types of Compressed Air Filtration, Compressed Air Treatment, Pneumatics Components, Pipework Systems, Condensate Management and Compressed Air Dryers.

The IATT High Efficiency Compressed Air Refrigeration Dryer range is designed to provide clean dry compressed air to a wide variety of industrial and manufacturing applications that demand economic compressed air treatment.

Designed and built to exacting standards in Italy – this range is the most popular Compressed Air Refrigeration Dryer in the world. With over 25 years of experience in the global compressed air treatment industry the range offers unique benefits of optimum efficiency, low cost of ownership and reduced energy consumption.

***Service Excellence!***

*Here at IATT we want to be of service to you - we care and our people care!*

## From Compressor Intake to Point of Use, IATT...

### SUPPLY

IATT offer in-stock next day delivery and rapid reaction installation. IATT is proud to offer the very best solutions and new compressed air treatment equipment needs to ensure that with correct and timely maintenance they will serve you well into the future.

### INSTALL

IATT provide a national coverage for installation using our own team of fully factory trained engineers strategically located throughout the UK that specialise in compressed air and gas treatment technology.

### SERVICE

IATT not only supply and install products for Compressed Air Filtration, Air and Gas Treatment, Refrigeration Dryers, Desiccant Dryers and Onsite Nitrogen & Oxygen Generation we also provide Service Plans and Maintenance Contracts.





# IATT Compressed Air Refrigeration Dryers

The IATT range is the result of decades of developing solutions designed by highly skilled technicians using the most advanced technologies available. Innovation, Quality and Efficiency are the prime driving factors in dryer manufacture.

## THE RANGE

From small, medium to large flow rate options, the range is designed to meet the needs of a wide variety of industrial and manufacturing applications.



## ENERGY efficient

IATT Compressed Air Refrigeration Dryers are energy efficient. Using an innovative patented three-circuit heat exchanger that uses Freon R134A, glycol and compressed air as the refrigerant, the dryers save energy effectively from 0 to 100% load allowing a reduction in operating costs. They provide a consistent dew point at all load levels.

They are particularly suitable for applications that require a partial load or intermittent use of compressed air.

## FEATURES

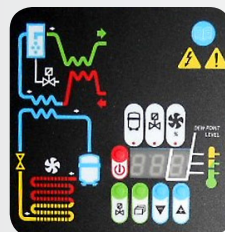
- Corrosion resistant three-circuit heat exchangers with integrated condensate separator.
- Low pressure drop design.
- Unique variable speed fan control technology.
- High efficiency moisture separation.
- Consistent dew point at all load levels.
- Performance that satisfies ISO 7183 industry standards.
- User friendly multi-function electronic controller.
- Advanced integrated microprocessor with diagnostic and alarms.
- Reliable solenoid operated drain valve.
- Compact design with small footprint.
- Environmentally friendly refrigerant.
- 100% individual component and complete unit leak testing.
- Option for a programmable electronic condensate discharge system.

***Call us for a FREE no obligation Quotation and a FREE Site Survey:***



## 2-YEAR WARRANTY

We are so confident that our Compressed Air Refrigeration Dryers are reliable, we offer a no-hassle 2-year Warranty. This includes parts and labour. The use of pre and after filtration in addition to routine maintenance is recommended and necessary.



### Unique Visual Control Panel

The dryers feature a user friendly electronic controller with an advanced integrated microprocessor.

This gives indication for:

- Dryer status with load conditions
- Compressor running status
- Fan speed
- Condensate drain energised
- Condensate discharge parameter programming
- Anomaly Warning
- Diagnostic and alarms

### Remote Signalling Alarm

The dryer control board is equipped with a digital output to enable a remote signalling alarm to be used.

## QUALITY

Dryers are manufactured in compliance with the ISO 9001:2008 quality standards and is integrated with ISO 14001:2004 environmental management system and OHSAS 18001:2007 to safeguard employees' safety.

## FLOW RATES

Flow rates from 36 Nm<sup>3</sup>/hr (21 scfm) to 1000 Nm<sup>3</sup>/hr (589 scfm) at 7 barg (101 psig) working pressure. High pressure and higher flow rate versions are available on request.

## STANDARD REFERENCE CONDITIONS

- Ambient temperature: 25°C (45° max)
- Working pressure: 7 barg (101 psig)
- Inlet air temperature: 35°C (55° max)
- Dew point: 3°C

## BENEFITS

The IATT range of Compressed Air Refrigeration Dryers offer unique design benefits that optimise efficiency, offer low cost of ownership and reduced energy consumption. They provide innovative and reliable dryer technology.

- Corrosion resistant three-circuit heat exchangers with low pressure loss improves throughput and improves energy efficiency.
- Variable speed fan for stable dew point control and reduced power consumption.
- Consistent dew point at all load levels.
- Suitable for applications that require a partial load or intermittent use of compressed air.
- Microprocessor control that is easy to use – the graphic interface allows full system management.
- Reliable refrigeration system with environmentally friendly refrigerant.

## FILTRATION PACKAGE

An essential and necessary feature of a compressed air treatment system is adequate pre and after filtration. IATT always recommend and install coalescing compressed air filters to remove bulk solid particulate, liquid water, oil liquids and aerosols – in some applications there is also a need to install activated carbon filters to remove oil vapour. Our comprehensive range covers small and large flow rate applications and are always sized correctly for the dryer and applications.



## Why Dry Compressed Air?

Compressed air is hot and contains a large amount of water vapour, this will condense into liquid water when the compressed air cools as it travels through the system. It will then mix with solid dirt particles from the atmosphere, compressor, the compressed air pipework and distribution system. Oil liquid and aerosols from atmosphere and the compressor lubricant will turn it into an unmanageable oil emulsion which must be discharged and disposed of without detriment to the environment.

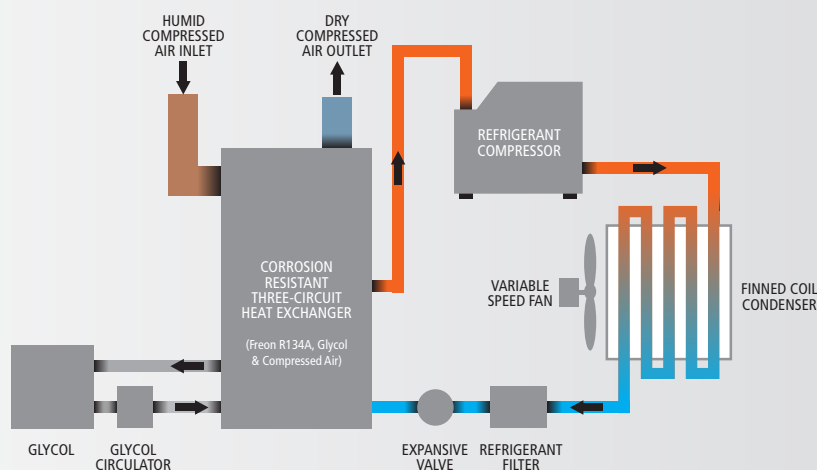
This conglomerate of contamination will cause major problems with downstream compressed air equipment and manufactured products it comes into contact with. Efficient drying and appropriate filtration of the compressed air will remove the water vapour, dirt particles and oil contaminants providing a clean dry compressed air for point of use applications.



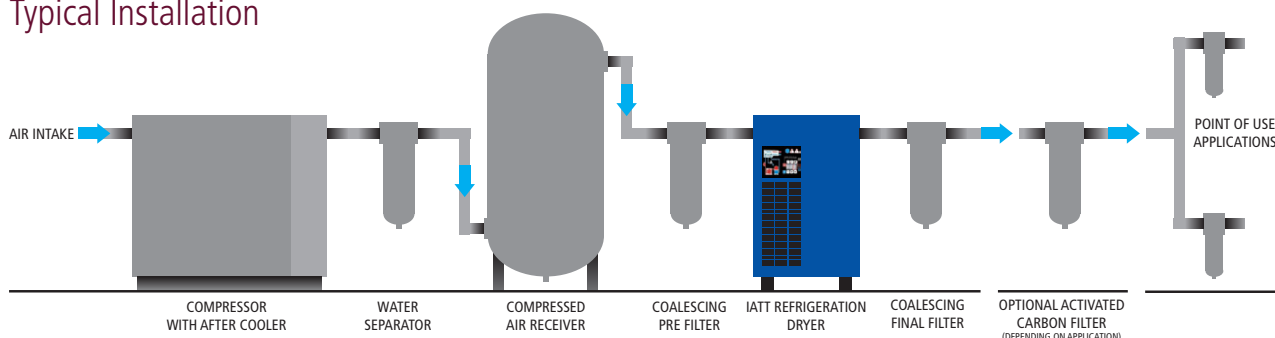
## How IATT Refrigeration Dryers Work

IATT Compressed Air Refrigeration Dryers use an innovative and patented three-circuit heat exchanger combined with a refrigeration unit to cool the incoming compressed air from the compressor. This hot incoming compressed air is cooled initially in the heat exchanger by the cooler outgoing dry air. It then passes through the refrigeration heat exchanger where it is cooled down to 3°C.

As it is cooled, water in the form of vapour condenses into liquid water and is efficiently removed by the integrated water separator and discharged to the drain/condensate management system.



## Typical Installation



## Why Filter Compressed Air?

Compressed air is atmospheric air passed through a compressor and reduced in volume by increasing the pressure. Any dirt, water or oil particles in the atmospheric air, from the compressor lubricant, the pipework system or air receiver will enter the compressed air dryer and distribution system causing problems with equipment and damage to manufactured products.

Coalescing pre filtration will remove the bulk water and solid contaminants reducing the dirt and liquid water burden on the dryer which then only needs to remove the water vapour. Final coalescing filtration removes the smaller and submicron sized dirt particles and any remaining oil liquids and aerosols from the compressor. Depending on the application there may also be need to install activated carbon filters to remove oil vapour. A comprehensive approach to compressed air treatment using correctly installed and sized filtration and refrigeration dryer is recommended by IATT to produce clean dry compressed air for point of use applications.

Contact us for a **FREE** no obligation  
Quotation and a **FREE** Site Survey:

t. 0191 477 0060  
e. [info@iatt.co.uk](mailto:info@iatt.co.uk)





As part of our commitment to Service Excellence we provide comprehensive Service and Support throughout the UK.

We have expertise from compressor intake, through to your treatment systems right through to your point of use equipment and processes. Our specialists also provide professional independent advice for the selection, supply and installation of new equipment, spare parts as well as plant service and maintenance contracts.

### Complete Compressed Air Treatment Capability

IATT offer a wide range of equipment for Compressed Air Treatment with Supply, Install and Service options including:

- Compressed Air Filters
- Pneumatics Components
- Compressed Air Treatment
- Refrigeration Dryers
- Desiccant Dryers
- Pipework Systems
- Onsite Industrial Gas Generation
- Lab Gas Generation



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For service & support contact us on:  
**t. 0191 477 0060** or email: **info@iatt.co.uk**

*Service Excellence!*

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### *Service Excellence!*

When it comes to your Onsite Laboratory Gas Generation and Compressed Air and Air Treatment, No matter...

**What you require,  
Where you are in the UK,  
What your problem is,  
Whether you are large or small,  
IATT have a solution for you!**

IATT always provide service that is efficient, effective, economical and equitable – e4 we call it. You might think this is revolutionary – to us at IATT it's standard practice with the added ingredient of service excellence.

## ENERGY *efficient*

With the cost of energy increasing, IATT always endeavour to select the correct compressed air equipment optimised for your application to ensure that pressure drops are minimal without compromising service life or compressed air and gas quality.

**Service Excellence  
from compressor  
to point of use.**

**What is e4...**  
Our Service Excellence means to you:



**efficient** - effective without wasting time, effort or expense

**effective** - producing an intended result to ensure your plant is ready for operation

**economical** - using the minimum of time or resources necessary at a cost effective price

**equitable** - fair to all parties as determined by reason and conscience