

**SOLUTIONS**

**CHEMICAL  
AND PHARMA-  
CEUTICAL  
INDUSTRY**

**SOLUTIONS FOR  
AIR TREATMENT  
AND PLANT  
DIAGNOSTICS**

 **TROTEC**  
AT WORK.



**OUR PASSION:  
THE PERFECT  
CLIMATE  
FOR YOUR  
PRODUCTION**



**Desiccant dehumidifiers of the TTR series**  
Desiccant dehumidifiers, for stationary application



**Air cleaners of the TAC series**  
incl. cleanroom suitability, for mobile application



**Radial fans of the TFV series**  
High-pressure aeration and deaeration, also for Ex zones, stationary or mobile



**Heating units of the TEH series**  
High-performance electric heaters, for mobile application



**Industrial dryers of the DH series**  
Condensation dryers, for stationary application

## FOR THE RIGHT CHEMISTRY IN ALL PROCESSES

Trotec solutions for Condition Control and Condition Monitoring



**LD6000**  
Combination detector for acoustic leak detection and trace gas leak detection



**Dehumidifiers of the TTR series**  
Desiccant dehumidifiers, for mobile application



**Thermal imaging cameras**  
The IC series and the AC080V tablet PC for real-time measurements



**Industrial data logger DL200X**  
Universal data collector for documentation and monitoring



**Ultrasound measuring instrument SL800R**  
Leak detection in compressed-air lines or tanks and wear test



## BEST CONDITIONS FOR REFINED PRODUCTS

Trotec Condition Management provides the ideal atmosphere for failure-free operation in the chemical and pharmaceutical production

There is probably no other industrial sector attributing more relevance to the requirements for a constantly controlled climate for processing and storage that are decisive for an efficient production process than that of the production of chemical products or pharmaceuticals.

Starting with the storage in the raw material stock to processing with special methods and techniques to the storage of finished goods: with all of the above, major importance is attached to the humidity level which can be regulated precisely as needed - be it for dry keeping or the generation of dry air for dehydration tasks and other manufacturing processes.

Being one of the leading specialists in the dehumidification sector with a comprehensive range of equipment options as well as application and industry expertise acquired over many years as manufacturer we can offer custom-tailored air conditioning and air treatment systems for every demand.

### Professional dehumidifiers for perfect product conditions

With various series of high-quality condenser dryers and desiccant dehumidifiers available in progressive performance classes and manifold design options - for the most part from our own production completely developed and manufactured in Germany - our product range holds an adequate dehumidification solution for every requirement.

### All-round solutions for air conditioning

As an expert for air treatment solutions we offer not only dehumidification systems, but also the complete range of machines for climate conditioning: e.g. air cleaners suitable for cleanroom applications, high-pressure radial fans that can also be used in Ex zones and especially powerful electric heating units for very large amounts of warm air.

In case of merely temporary demand, e.g. as short-term replacement in case of equipment failures or as back-up for momentary production peaks, many devices can optionally also be hired.

To protect the value of your buildings and facilities we further provide a broadly varied selection of different measuring devices for non-destructive building diagnostics, damage detection, quality assurance and industrial maintenance. Trotec supplies all solutions completely from a single source - with one contact person for all inquiries.

### Use the Trotec Condition Management to optimize your process workflows:

Our experts will analyse the processes directly on site and then develop a tailor-made solution meeting your specific requirements. You can also request a trial operation - completely without obligation - and form your own opinion.

**TROTEC AT WORK** –  
A selection of our  
references:





## SOLUTIONS COMING STRAIGHT TO THE DEW POINT

Trotec dehumidification systems will help you keep you powder dry in every respect

All Trotec dehumidifiers impress with an excellent value-for-money ratio. Their fully automatic, low-maintenance operation reduces the overall costs of operation and an active utilization of process energy - e.g. to additionally heat room air or to generate hot water - further advances the expected return on investment.

### Refrigerant dryers for economic dry keeping

Our industrial dryers of the DH series are extremely robust and powerful condensation dehumidifiers for the dry keeping of larger areas even at low temperatures.

The DH units do not need an additional fresh air supply and can be perfectly adjusted for any environmental requirement. Also, they can subsequently be installed without difficulty e.g. in existing ducted air systems.

### Desiccant dehumidifiers for air drying at low dew points

Especially in cold environments with a low dew point, our industrial desiccant dehumidifiers of TTR series are ideal application solutions for dry keeping, gas dehumidification or the generation of large dry air volumes.

These devices, exclusively available only at Trotec, represent the current state-of-the-art when it comes to a series of desiccant dehumidifiers on the market. Owing to a comprehensive standard equipment as well as numerous equipment options, the compilation of a virtually tailor-made solution to meet your individual needs can quickly be realized - upon request supplied with bacteriostatic sorption rotor with hygienic design. Due to the configurable air direction reversal TTR dryers can also

be flexibly integrated into existing process sequences even with pipe connections. With the operator side always facing the user, the dry air outlet of these devices can be installed as needed on the left- or right-hand side.

### Various application possibilities in the chemical and pharmaceutical production

The extensive operating range of our dehumidifiers between -20 °C and +70 °C and the control option depending on humidity or dew point ensure efficient dehumidification operations for various tasks:

- the dry keeping of hygroscopic materials for an optimal processing quality without the risk of caking
- the prevention of hygiene and condensation problems during production and storage
- an effective protection for moisture-sensitive raw materials and products
- optimized product drying
- the pre-dehumidification of process air for sugar-coating machines, drying tunnels and other processes with a great demand for dry air
- the prevention of climate conditions promoting mould growth
- quicker silo cleaning
- an optimum process air conditioning during dosing, filling and packing
- the improvement of the free-flowing properties (aka pourability) of bulk materials
- extended maintenance and repair intervals for buildings and facilities



Refrigerant dryer DH 60



Stationary and mobile version of desiccant dehumidifier TTR 2800

Many dehumidifiers are also available with stainless steel housing and moreover offer manifold options for energy recovery ensuring maximum efficiency.

We will gladly fill you in on the details to all available options:

Phone +49 2452 962-777

Or send us an email to [kam@trotec.com](mailto:kam@trotec.com)



## THE APPROPRIATE DEVICE FOR EVERY SCENARIO

Damage prevention by way of exactly need-based air treatment and non-destructive diagnostics

As the only industrial equipment supplier on the market, Trotec can offer you the entire range of air treatment solutions from a single source - in addition to an advanced dehumidification technology for dry keeping and dry air generation. On top of that, we supply diverse measuring instruments for process diagnostics, documentation purposes or damage detection.

After all, the range of causes for complex tasks is often as interdisciplinary as the required problem-solving expertise for process optimization.

### Working under high pressure



Owing to their stable characteristics and constantly high pressure even over longer transport routes the high-pressure radial fans of our TFV series are ideally suited for the technical ventilation of rooms with a critical atmosphere. The devices are optionally also available as mobile version and for the application in Ex zones.

### Clean heat - no cheat



Designed specifically for ambulant requirements in large-scale heating scenarios, corrosion protection applications or load tests, our TEH units offer ideal possibilities to realize large-volume ambulant heating applications with fully smoke-, flame- and condensate-free warm air - especially for industrial enterprises with energy excess capacities or an independent power supply. These electric heating units are further suited for all applications requiring large amounts of warm air whilst the use of indirect oil heating units is not possible.

### Always a "TAC" better

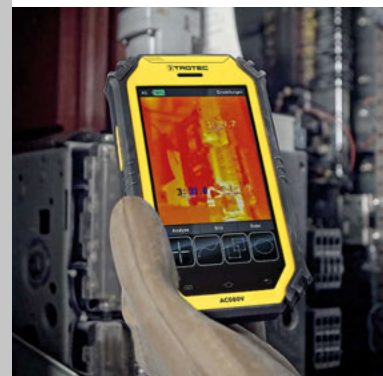


Reconstruction and expansion work on existing plants or a temporarily altered storage atmosphere call for special air purification measures. Among the devices for mobile application our air cleaners of the TAC series resemble the technologically most advanced solution. Thanks to a variably placeable terminal HEPA filter, the devices that are also approvable for asbestos abatement, can additionally be used in cleanroom environments.

### Measurement technology for equipment inspection and preventive maintenance

An early detection of potential damages on machinery, installations or parts of a building prevents costly failures and increases production reliability and system efficiency in equal measure. With a wide range of solutions for various measurement engineering applications we can provide you with the perfect measuring device for every task.

From the universally applicable industrial data logger DL200X for manifold monitoring tasks in automation, control and feedback control systems to thermal imaging cameras with real-time infrared video technology to analyse the state of production facilities or for process diagnostics - Trotec provides measuring equipment and application expertise from a single source. Further examples are measuring instruments for ultrasound and audible sound or combination devices with additional tracer gas detection to locate leaks in compressed-air lines, to perform tightness tests etc.



**EXPERTISE  
RATHER THAN  
EXPERIMENTS**



## PLAY IT SAFE

### WITH OUR BEST PRACTICE INDUSTRIAL SERVICES



Since every industrial undertaking has characteristic process flows, installations and facilities, every air treatment solution demands case-specific device configurations.

All in all, the combined effects of air currents, humidity conditions and temperature fluctuations are often hard to calculate on a purely theoretical basis, e.g. in airlock areas or on conveying paths.

The consequence: Unnecessary additional costs due to an overestimated demand or - even worse - solutions not working sufficiently in real life.

**Hence, Trotec provides not just dehumidification technology but tried and tested dehumidification solutions!**

Our dehumidification specialists analyse the processes directly on site, carry out room climate measurements to detect problematic areas and then develop a tailor-made solution right up to the exact positioning of the devices.



Before the planned stationary units are installed, our service team first works with mobile versions of the drying units as part of a trial run. These can be put up without any difficulty or the need for structural changes.

During this validation phase we document all relevant climate parameters such as air temperature, relative humidity, dew point or flow rate for a final optimization of the requirement calculation.

**Trotec is the only provider of this advantage:**

Thanks to the unique option of non-binding trial operation you will invest solely in solutions which have verifiably proven their worth in everyday operation meeting your individual on-site requirements.

The stationary units will not be ordered until you are fully satisfied with our concept.

The only costs incurred consist of an inexpensive hiring flat rate for the time of test operation.



**EXPERTS FOR  
ALL-ROUND SOLUTIONS**  
AIR TREATMENT AND MORE

The Trotec Trade Division is one of the leading equipment partners for air treatment solutions in trade and industry.

In addition to drying systems we can offer a complete range of machines for climate conditioning - covering the sectors of heating, humidification, ventilation and air conditioning right up to air purification. Furthermore we provide manifold measuring devices for building diagnostics, damage detection, quality assurance and industrial maintenance.

We not only have the appropriate devices in all product categories, but also comprehensive application expertise acquired over many years.

**Your advantages with Trotec:**

- system-independent consultation
- purchase, hiring, service - all from a single source
- one contact person for all inquiries



**FLEXIBILITY FOR RENT**  
MADE POSSIBLE BY TKL  
FOR A SMALL FEE

TKL is the Trotec Rental Division and permanently conditioned for rental appliances.

In order to safeguard your profit-earning capacity in case of machine failures or during temporary peak demands Europe's leading equipment hirer lends its support with more than 10,000 rental appliances and a quick 24-hour delivery service guaranteeing the availability of machines for failure intervention and the expansion of capacity.

- desiccant dehumidifiers with process air flow rates of up to 13,300 m<sup>3</sup>/h
- condenser dryers with up to 2,000 litres/24 h
- air cleaners with up to 5,000 m<sup>3</sup>/h
- high-pressure radial fans with capacities of up to 54,000 m<sup>3</sup>/h
- **Unique in the world:** high-performance electric heating devices for warm air amounts of up to 9,000 m<sup>3</sup>/h
- oil heating units with a heating capacity of up to 500 kW and an air flow rate of up to 25,000 m<sup>3</sup>/h
- **Unique in the world:** mobile air conditioning systems for surrounding conditions of -26 °C to +60 °C

**If desired, we will be pleased to realize customer-tailored special models**

Example XTR 2300, complete system for air conditioning in an industrial production hall. Individual design with air-cooled desiccant dehumidification, Flowmatic flow rate control of dry air, humidity and temperature regulation, post-tempering of the process air and thermal decoupling as well as insulation of the outer layer to prevent condensation.



**Unlimited services**

Trotec and TKL have nearby stores all over Europe. Our network of subsidiaries is growing steadily to make sure our quick and competent on-site service is available for you regardless of the location.

You also need an individual drying installation? **Just give us a call. We would be happy to advise you personally:**

**Phone +49 2452 962-777**

Or send us an email to [kam@trotec.com](mailto:kam@trotec.com)

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### Best conditions for your success

With corporate divisions for industrial equipment, rental appliances and services that are linked up intelligently, the Trotec Group is one of the prime international addresses for professional complete solutions regarding climate control and measuring technology for building diagnostics.

We can offer our industry expertise acquired over many years, products of a high quality and a comprehensive range of services - all from a single source!

Benefit from the experience our experts gathered from numerous installations - especially for applications in the chemical and pharmaceutical industry. We will be pleased to advise you personally and in detail. Feel free to contact us by phone or e-mail - we look forward to your inquiry.

