

# **PRODUCT RANGE**



# Filtration Technology

Drying Technology ECOTROC

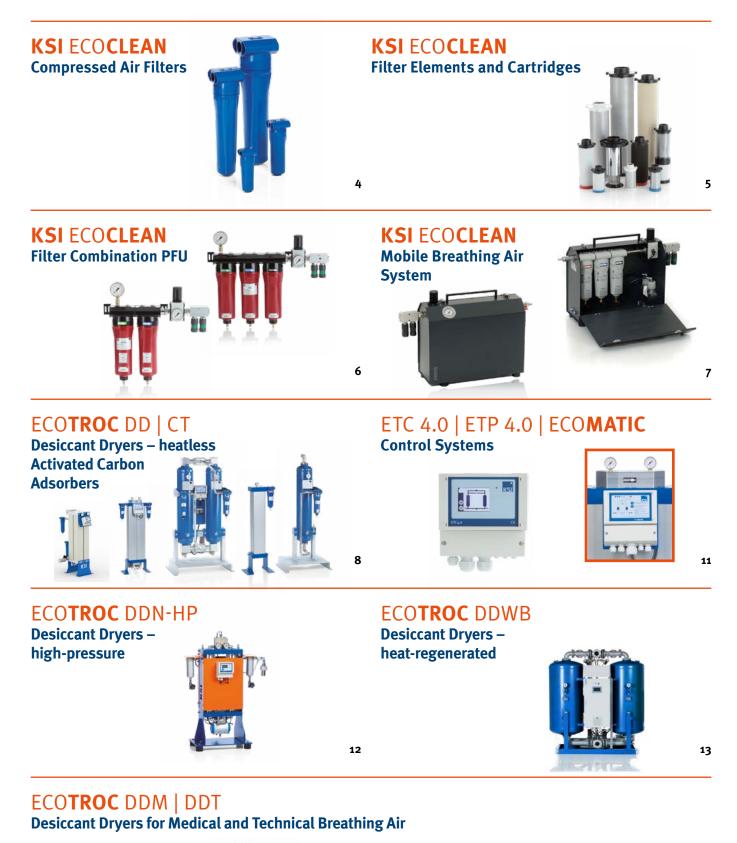
Condensate Technology KONDRAIN · KONTREC

Online System Monitoring
KSI ECOCONTROL

www.ksi-technologies.com

Rev 02\_0522 2022 CAN

# **KSI** PRODUCT RANGE



# **KSI** PRODUCT RANGE



KON**DRAIN** Condensate Drains



**KSI** ECO**CLEAN** AFE Alternative Filter Elements for Third Party Compressed Air Filters





ECO**TROC** REFD

Refrigeration Dryers

17



KONTREC Oil-Water-Separators



20

18

KONTREC AKF Alternative Replacement Elements for Third Party Oil-Water Separators



22

ECOCOMP Alternative Filters for Compressors and Vacuum Pumps



23

# Compressed Air Filtration KSI ECOCLEAN

APF ADVANCED PREMIUM FILTRATION

KSI ECOCLEAN compressed air filters meet the strictest quality requirements and are very economical in purchase price, operation and maintenance. The housing is made of die-cast aluminium, protected inside and outside with a cathodic dip coating (KTL) and powder-coated outside.

#### Further features are:

- optimized flow through: 75% less flow resistance due to the arched compressed air inlet
- prevention of corrosion and bacteria growth
- quick and comfortable maintenance by hexagonal head at the bottom of the filter housing
- tested quality: 100% leakage test of each KSI ECOCLEAN filter
- standard equipped with automatic condensate drain
- lowest differential pressures of up to 1.6 psi (SMA, saturated)

#### **Other Filter Types**



Cartridge Filters Activated carbon cartridge Molecular sieve cartridge Catalyst cartridge



Flanged Filters up to 7,415 cfm, DN 200 Flanged Water Separators up to 4,950 cfm, DN 150

#### The KSI ECOCLEAN APF Plus-effects +++

- + connection: 3/8" to 3"
- + capacity: levels 35 cfm 1,300 cfm
- + protects production & processes ► extends machine & installation cycle time
- + minimizes operating costs ► saves energy
- + maximized operational reliability ► protection against production or machine downtime
- + best industrial equipment quality ► long lifetime
- + easy serviceability ► minimized service costs
- + quick and secure assembly ► quick installation
- + user-oriented filtration (25, 5, 1, 0,1 and 0,01 micron as well as activated carbon) ► optimum selection
- + activated carbon, molecular sieve & hopcalite cadridges
   ▶ can be combined individually

#### **Standard Product Range**

**Threaded filters** 14 types: APF35-38 with 35 cfm and 3/s" connection to APF1300 with 1,300 cfm and 3" connection**Flanged filters**8 types: APFF825-3-01 with 825 cfm and DN80 connection to APFF7415-8-09 with 7,415 cfm and DN 200 connection



High-Pressure Filters 725 psi – 7250 psi



**Stainless Steel Filters** Sterile stainless steel filters and process filters



**Medical Sterile Filters** 

Up to 765 cfm, 2"

Water Separators

up to 1,300 cfm, 3"

**Vacuum Filters** Vacuum pump protection filters Vacuum pump exhaust filters



# 1.6 psi

# Compressed Air Filter Elements KSI ECOCLEAN



KSI ECOCLEAN high-performance filter elements provide the perfect combination of operational safety and cost effectiveness.
up to 45% less differential pressure by the constructional structure of the support frames on the inside and outside of

maximum filtration surface due to the optimized pleating -> for maximum surface filtration

the filter elements

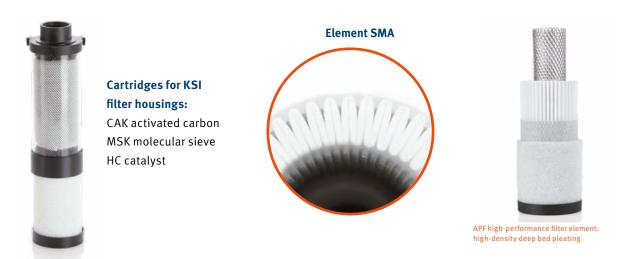
- special component adhesive sticks the end caps securely
- plastic end caps prevents corrosion ("blooming") and bacteria formation
- drainage layer made of fleece stabilizes the filter medium and protects against swelling and cracking
- high-performance filter material provides chemical, mechanical and thermal durability (up to 248 °F) and is technically silicone-free
- volume of filter depth provides maximum dirt holding capacity at maximum filtration grades

Element type	VF25	FF5	MFO	MF1	SMA	СА
Particle filtration	25 microns	5 microns	1 micron	0,1 microns	0,01 microns	-
max. residual oil at 20°C	10 mg/m³	5 mg/m³	0,5 mg/m3	0,1 mg/m <sup>3</sup>	0,01 mg/m3	0,003 mg/m³
max. temperature	148°F	148°F	148°F	148°F	148°F	122°F (77°F recom.)
max. operating pressure	APF35-	38 - APF765: 232	psi   APF885: 195.;	75 psi   APF1300: 1	52.25 psi	

#### Compressed air quality with KSI ECOCLEAN filter elements according to ISO 8573.1\*

Element type	SI	۸A				м	F1				MF	0				FF5					VFa	25				CA				
max. particle Ø [micron]																														
Purity class	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
max. residual oil [mg/m³]																														

\*KSI ECOCLEAN high-performance filter elements exceed requirements of ISO 8573.1



Advantages of **KSI ECOCLEAN** filter elements are available when used in an **KSI ECOCLEAN** compressed air filter and with almost all the other filter housings on the market.

# Filter combination PFU



In order to achieve a perfect painting result, compressed air preparation is absolutely essential, as air drawn in via the compressor and then compressed is always contaminated, for example by oil components from the compressor as well as by condensate and dust particles.

In breathing air treatment with the **KSI ECOCLEAN** PFU filter combination, the compressed air flows through three filtration stages after it has been dried using a refrigeration dryer or desiccant dryer. After the first filtration stage for particles down to 5 microns (incl. water separation function) and the second filtration stage with 0.01 microns, the air flows through an activated carbon filter: the end result is 100% technically particle-free and oil-free air.

#### PFU<sub>3</sub> for breathing air systems

For breathing air systems in critical environments 100% technically oil and particle free air

#### **Fields of application**

- e.g. in the paint booth
- for water- and solvent-based coating systems
- for respirator hoods without activated carbon filter

#### Scope of supply

Ready-to-c	operate filter combination including:
1. stage	5 micron filtration incl. water separation function
	and automatic condensate drain
2. stage	0,01 micron filtration and automatic
	condensate drain
3. stage	Activated carbon filtration and manual drain
	<0,003 mg/m³ residual oil content
	Pressure Gauge for inlet pressure display
	Pressure regulator
	2 outlet valves with safety clutch
	Wall mounting brackets

#### **PFU2** for paint works

For paint works 100% technically oil and particle free air

#### **Fields of application**

e.g. preparatory work in the paint booth

- for solvent-based coating systems
- for respirator hoods with activated carbon filter on the belt

#### Scope of supply

Ready-to-operate filter combination including:				
1. stage	5 micron filtration including automatic			
	condensate drain			
2. stage	0,01 micron filtration including automatic			
	condensate drain			
	Pressure Gauge for inlet pressure display			
	Pressure regulator			
	2 outlet valves with safety clutch			
	Wall mounting brackets			

#### **Technical Details**

PFU3	for 130 cfm and 1/2" connection or 210 cfm and 1" connection
PFU2	for 130 cfm and 1/2" connection or 210 cfm and 1" connection

## Mobile Breathing Air System KSI ECOCLEAN



KSI Filtertechnik has mastered the two central challenges to mobile breathing air systems with the KSI ECOCLEAN MAK. The breathing air is not only provided in the required purity, but also exactly where the user needs it. Even hard-to-reach working environments with adverse conditions are made accessible and the user is safely supplied with breathing air. Cleaning of tank systems, painting work, construction sites, ... – no problem with the KSI ECOCLEAN MAK.

# Portable light weight with three-stage respiratory air preparation

With a size of only 15.75 inch × 2.55 inch × 0.73 inch, the **MAK 63** is only slightly larger than a piece of carry-on luggage for taking on board, and with its weight of 33 lbs it is portable despite its sturdy construction.

Just as important as the compact exterior are the high-quality components installed inside: The core of the system is the threestage processing unit, consisting of an MFO, an SMA and a CA filter. Water constituents and particles of 1 micron, 0.01 micron and in the CA filter element also oil aerosols down to a residual oil content of < 0.003 mg/m<sup>3</sup> are separated in sequence.

Further advantages: Due to the clever arrangement of the APF filter elements in the filter bell of the housing, replacement is quick and inexpensive with KSI manufactured, comparatively inexpensive elements.



Scope of supply			
Ready-to-o	operate filter combination including:		
1. stage	APF63MFO with automatic condensate drain D150		
2. stage	APF63SMA with automatic condensate drain D150		
3. stage	APF63 CA with manual condensate drain HAM12		
	Pressure Gauge for displaying the operating pressure		
	Pressure regulator		
	Condensate collector		
	2 connections with safety couplings		
	2 connections for external oil-water-separators		

#### Scope of supply

# Heatless Regenerated Desiccant Dryer ECOTROC DD

**ECOTROC DD** desiccant dryers offer highest reliability and a cost-saving working principle.

Some features are:

- large pipe sizes inside the desiccant dryer, large diameters of valves and silencers
- highly-hygroscopic desiccant ensures stable pressure dew points of -4 °F to -94 °F (-40 °F as standard)
- shuttle valves work completely without electric operation
- standardized exhaust valves of brand manufacturers ensure operating safety
- microprocessor control ensures an economical and material friendly 10-minute cycle
- integrated compressor synchronizing circuit as a standard
- flow-optimized components such as KSI ECOCLEAN compressed air filters, large piping in the dryer and large dimensioned valves and silencers



Desiccant Dryer DDAP	Desiccant Dryer DDN	Desiccant Dryer DDF
Capacity up to 110 cfm	Capacity up to 705 cfm	Capacity up to 1,800 cfm

#### ECOTROC DDAP | DDN | DDF High-performance Desiccant Dryers including:

- Pre-filter KSI ECOCLEAN SMA (up to 705 cfm)
- Post-filter KSI ECOCLEAN DMF (up to 705 cfm)
- ECOMATIC electronic control system including compressor synchronizing circuit
   Volume flow: up to 1,800 cfm\*
   Pressure dew point performance: -40°F to -94°F
   Maximum pressure:
   232 psi (DDAP65: 195.75 psi)

\*calculated at 14.5 psi (abs.) and 68°F at 101.5 psi working pressure

#### The ECOTROC DD Plus-Effects +++

- + high-value desiccants > constant pressure dew points, consistent air quality
- + minimized energy requirements ► lowers operating costs
- + maximized operating reliablility > protection against production and machine failure
- + long service cycles and lifetime
- + easy to program and operate
- + easy serviceability
- + minimized service costs

#### Standard Product Range – Heatless Regenerated Desiccant Dryer

DDAP: 11 types from 6 cfm to 110 cfm

DDN | DDF: 13 types from 105 cfm to 1,800 cfm

### **Activated Carbon Adsorbers** ECO**TROC** CT



For processes requiring maximum process safety, the activated carbon adsorption is a proven solution.

Features of the KSI **ECOTROC** CTAP, CTN and CTF are:

- optimal adsorption of oil vapour (hydrocarbons)
- high-active activated carbon for air and gases provides maximum efficiency
- optimized use of the entire activated carbon bed
- residual oil content up to a max. 0,003 mg/m<sup>3</sup>
- oil indicator for checking the saturation level, standard for models CTN105 and larger
- easy accessibility for uncomplicated and quick service
- 8,000 hours of activated carbon service life\*
- \* The service life of the activated carbon depends on its quality and relative humidity and of the compressor type.

Activated Carbon Adsorber CTAP	Activated Carbon Adsorber CTN	Activated Carbon Adsorber CTF
Capacity up to 65 cfm	Capacity up to 705 cfm	Capacity up to 1,800 cfm
		Cons.





LARGER CAPACITIES UPON REQUEST



#### ECOTROC CTAP | CTN | CTF **Activated Carbon Adsorber**

including:

• Post-filter KSI ECOCLEAN DMF (up to 705 cfm)

Volume flow: up to 1,800 cfm\*

Maximum pressure: 232 psi (CTAP65: 195.75 psi))

Residual oil content up to: < 0,003 mg/m<sup>3</sup> at 68°F

\*calculated at 14.5 psi (abs.) and 68°F at 101.5 psi working pressure

#### **Standard Product Range – Activated Carbon Adsorbers**

CTAP: 8 types from 6 cfm to 65 cfm CTN | CTF: 13 types from 105 cfm to 1,800 cfm

# The Advantages at a Glance ECO**TROC** DD

#### **Operational reliability**

- Large dimensioned silencers avoid increase of the differential pressure.
- Two (DDAP | DDN) or four (DDF) large dimensioned silencers provide further safety by eliminating the risk of any discharge of desiccant dust to the atmosphere.
- The exclusive use of quality desiccants from well-known manufacturers guarantees reliability.
- Pre- and post-filter (standard for models up to DDN 705) bring system reliability.

#### Service-friendly for professionals

- The desiccant is changed via filler and drain ports in all **ECOTROC** DD models. No more awkward and time-consuming dismantling of the top and bottom plates in the DDAP compact series!
- The DDN series include two fnage connections that allow access to the complete pipeline bridges for quick and easy service.
- Simple and clear structured service packages simplify planning and implementation.
- The two-year maintenance kit for the **ECOTROC** DDAP compact series consists of two Bürkert valves, two silencers, two pressure gauges, a set of replacement pistons, a set of o-rings and screws.
- The two-year maintenance kit for of the **ECOTROC** DDN series up to DDN 705 consists of two Bürkert blow-out valves, two silencers, two pressure gauges, a set of replacement pistons, o-rings and screws.

#### **Features**

- Regeneration gas recirculation is a standard design feature of all DD dryers.
- The symmetric arrangement of the piping and components facilitates an assembly that is adapted to the room conditions (for example placing the piping and the pre- and post-filter on the backside of the dryer).
- Trouble-free installation due to delivery of units ready for connection (plug & play).
- Lifting lugs are provided on all vessels of the DDN | DDF series for easier handling and installation.
- The models in the DDN | DDF series have a transport frame (for e.g. pallet truck) as a base frame.
- Robust and solid construction of all models of the **ECOTROC** DD series.
- Easy floor mounting by predrilled holes in the base frame.
- DDAP6 and DDAP12 models can also be prepared for wall mounting, if requested.





Large-dimensioned silencers on all DDF models



Filling ports on all DDN and DDAP models No dismantling of the plates and profiles is required for any of the DDAP!



Pipeline bridges can easily be removed if service is required



KSI service package for the two-year maintenance intervals of an DDAP

# The Controls ETC 4.0 | ETP 4.0 | ECOMATIC

#### NEW: Advanced dew point controller with intelligent functions (ETC 4.0 / ETP 4.0)

- wifi transmission / parameterization
- GSM module
- control as "master" with touch display for connectable sensor boxes
- can be used as a master for internet-based monitoring and planning
- configurable inputs through selectable signal reception: potential-free or 4-20 mA (2-wire)
- 5 valves controllable

#### ECOTROCONOMY-Comfort (ETC 4.0)

- available for the entire **ECOCTROC DD** series
- sending of notification and alarm messages by email
- all ECOCTROC DD dryers can easily be upgraded (even older models and models from other manufacturers)
- dew point measurement and display up to -148°F
- demand-oriented regeneration control by measuring the operational conditions
- integrated load change counter (makes vessel inspections at a later time possible )
- saves the operating parameters in combination with date and time (still available after power failure)
- password protection on all levels (can be modified)
- connection for optical and acoustic signals (flashing light, horn etc.)
- automatic service indicator
- service interval display, adjustable intervals
- potential-free alarm output
- external 2-20mA-signal to transfer the displayed dew point value, i.e. to a master display or control room

#### ETP 4.0 (Premium)

Features of ETC 4.0, plus:

- pressure measurement at the dryer inlet and indication on the display of the controller
- temperature measurement at the dryer inlet and indicator on the display of the controller
- safety shutdown in case of divergence from specified values is possible

#### **Control Unit with Fixed Cycle Times**

#### ECO**MATIC**

#### Standard scope of supply of all ECOTROC DD

- display of the adsorption / regeneration cycle
- fully electronic microprocessor
- energy-saving compressor synchronizing circuit
- adjustable cycle times (selectable)
- status display and potential-free alarm signal for service requirements
- 24 V optional



More information about the online system monitoring KSI ECOCONTROL at www.ksi-technologies.com



ECOMATIC

# High-pressure Desiccant Dryers ECOTROC DDN-HP

Highest competence in engineering and KSI-quality "Made in Germany" guarantee secure and reliable compressed air treatment up to 7250 psi.

The **ECOTROC DDN-HP** series is based on the worldwide well-known series **ECOTROC DD** desiccant dryers. The highpressure models benefit from the proven quality of the DD models.

High-pressure components designed for the highest industrial requirements, make the DDN-HP dryers a safe and solid system solution, with an attractive price-performance-ratio.

#### The ECOTROC DDN-HP Plus Effect +++

- + the new benchmark in cost-benefit ratio
- + compact design
- + premium high-pressure fittings
- + weld seamless stainless steel vessels
- + internal self-cleaning dust filter
- + stainless steel vessels with 3-bed filling
- + preloaded desiccant bed
- + low-maintenance fittings
- + robust, torsion-resistant construction and design
- + high-quality components ► maximum endurance and operating life
- + intelligent control unit ► comfortable & user-friendly operation
- + high service and maintenance friendliness ► minimized service costs
- compressor synchronization included as a standard
   reduced energy consumption and cost
- + upper valve unit incl. variable nozzle

#### Designed for the following pressure ranges and flow rates:

• 725 psi	25 – 755 cfm

- 3625 psi 50 480 cfm
  5075 psi 70 660 cfm
  6525 psi 90 810 cfm
- 7250 psi 95 825 cfm



#### **Standard Product Range – High-Pressure Desiccant Dryers**

DDN-HP:	725 psi: 9 types from 25 cfm up to 755 cfm
	3625, 5075, 6525 and 7250 psi: 8 types up to 825 cfm



## Heat Regenerated Desiccant Dryers ECOTROC DDWB



**ECOTROC** DDWB sets standards by operating entirely free of purge air loss, in combination with a low regeneration temperature based on blower technology. In addition, it has a user-friendly and extensive control unit.

The **DDWB** series in complete convinces with optimum efficiency and top quality compressed air and compressed gas with consistant supply at the highest level.

#### The <mark>Sys</mark>ten

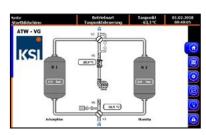
- Regeneration by heated ambient air in counter-flow to adsorption
- Cooling by ambient air in parallel flow to adsorption
- No need for purge air Zero Purge
  - For maximum requirements even in critical environment

#### The ECOTROC DDWB Plus Effects +++

- + high-end mechanical engineering ► high reserve capacities & safety
- + linear pressure dew points ► consistant compressed air quality
- + intelligent process solutions ► low energy costs
- + powerful, long-living desiccant > constant and high compressed air quality
- + user-friendly design ► easy maintenance
- + brand-name components > simplified maintenance & high operational reliability
- + modular design ► high price efficiency
- + optional dew point control > provides more security and saves energy
- + special designs on request; i.e. made of stainless steel or with design approvals
- + even suitable for applications in critical environments
- + intelligent control unit > plus process safety & linear pressure dew points
- + lower energy costs, gained by switching system or loop cooler, on request
- + alternative powers such as hot steam optional > energy efficiency
- + thermal isolation of vessels available on request

#### **The Service Advantages**

- vacuum blower at the height of workbench
- heater at comfortable working height
- low-maintenance plug valves
- special service kits for each dryer
- use of standardized parts; no special tools required
- controls are easy to use; simple menu guidance system



Touch-Screen EDC Steuerung

#### **Touch-Screen EDC Control**

- (based on Siemens S7-1200)
- touchscreen for maximum user-friendliness
- intuitive menu guidance
- text messages provide quick and clear status information
- optionally available **TPS** dewpoint control with dewpoint sensor

#### **Standard Product Range – Heat Regenerated Desiccant Dryers**

**DDWB:** capacities from 235 cfm up to 5,590 cfm. Larger capacities on request.

# Medical and Industrial Breathing Air ECOTROC DDM | DDT

Operational safety, air purity and reliability are most important when health and healthcare are in focus. The **ECOTROC** DDM and DDT series fulfill the strong requirements for medical and technical breathing air while convincing with their very good price-performance-ratio.

The DDM and DDT series of desiccant dryers provide the cleanest breathing air in a high-end system solution, while fulfilling the following regulations and limit values:

#### **ECOTROC** DDM (for medical breathing air):

- European Pharmacopoeia
- DIN EN ISO 7396-1

**ECOTROC** DDT (for technical breathing air):

• EN 12021 | BS 4275 | ANSI/CGA | AS 1715

#### Medical breathing air Desiccant dryers DDMAP and DDMN



#### Technical breathing air Desiccant dryers DDTAP and DDTN



**DDMAP:** 8 types from 7 cfm to 80 cfm **DDMN:** 5 types from 130 cfm to 430 cfm

Larger capacities upon request.



#### ECOTROC DDMAP | DDMN

## Medical compressed air processing including:

• pre-filter combination KSI ECOCLEAN MFO / SMA

- ECOTROC heatless desiccant dryer, fully automatic with special desiccant filling, including third vessel with activated carbon/Hopcalite filling
- ECOMATIC electronic control unit including compressor synchronizing function (option: pressure dew point control)
- post-filter KSI ECOCLEAN DMF (option: SE sterile filter)
   Volume flow output: up to 430 cfm\*
   Pessure dew point: -40°F; Max. pressure: 232 psi (all types)
   \*calculated at 14.5 psi (abs.) and 68°F at 101.5 psi working pressure. 95°F inlet temperature

ECOTROC DDTAP | DDTN

# Industrial compressed air processing including:

- KSI ECOCLEAN SMA pre-filter
- ECOTROC heatless adsorption dryer, fully automatic with special desiccant filling, including third vessel with activated carbon/Hopcalite filling
- ECOMATIC electronic control system including compressor synchronizing control (dewpoint control optional)
- post-filter **KSI ECOCLEAN** DMF (optional SE sterile filter) Volume flow output: up to 353 cfm\*

Pessure dew point: -40°F; Max. pressure: 232 psi (all types)

\*calculated at 14.5 psi (abs.) and 68°F at 101.5 psi working pressure. 95°F inlet temperature

**DDTAP:** 8 types from 6 cfm to 65 cfm **DDTN:** 5 types from 105 cfm to 355 cfm

Larger capacities upon request.

# KSI – the Strong Partner for the Specialized Compressed Air Dealer

#### Engineering, Design, Manufacturing

Quality is decisive! And this is especially true when outstanding quality meets an interesting price-performance ratio. This is the case with **KSI Technologies,** which was founded in the Greater Toronto Area in the spring of 2022 and supplies the entire Canadian compressed air market from there.

The core business includes four product lines:

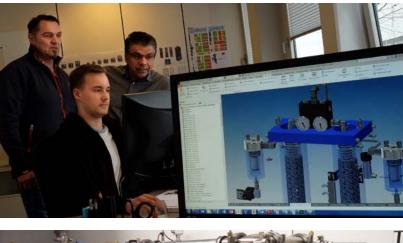
- KSI ECOCLEAN Filtration Technology
- ECOTROC Adsorption Technology
- KONDRAIN & KONTREC Condensate Management
- KSI ECOCONTROL Online System Monitoring

Even though **KSI Technologies** is a relatively "young" player on the Canadian market: The company convinces with sales experience in Canada as well as concentrated competence from more than 25 successful years on the German and international markets. The quality "Made in Germany", of course with all necessary certifications, is now also available in Canada.

The headquarter of KSI is located in Willich/ Germany, close to Duesseldorf and its international airport. At this site our design engineers, technicians and mechanics develop the complete product range, create the 3D-engineering, prepare the technical drawings, build and test prototypes, do the final assembly of our products carefully, control the quality of our goods and do the documentation. Everything in accordance to EN ISO 9001.

A core principle: offer our customers products of the highest quality and hold large stock for immediate dispatch.







## **KSI in brief:**

**KSI Technologies** and **KSI Filtertechnik**, owner-operated since its foundation in 1996, have got a lot of strengths. And they follow some principles that are the same for specialized compressed air dealer, service companies and suppliers.

- Being loyal to specialized compressed air dealers means, that KSI cooperates only with specialized compressed air dealer and service companies.
- Everything downstream of the compressor the shortest and most striking summary of our extensive product range.
- + We are manufacturers! At our plants in England, Czech Republic and in Willich/Germany.
- Availability: We achieve a quick availability of our vast range of products by large warehousing facilities and clever logistics.
- Tested quality: Many certificates prove the high quality of our products and services.



#### **Our company locations:**

#### KSI Filtertechnik GmbH, Willich | Germany

- design and engineering
- assembly desiccant dryers/compressed air filters
- final product control

#### Sales subsidiaries:

#### KSI Technologies Canada Corp., Cambridge, ON | Canada

Broek op Langedijk | Netherlands

• sales

sales

• product support

KSI Benelux B.V.,

product support

#### KSI Technologies Ltd., Norwich | Great Britain

• production of filter elements

- production of special filters
- test laboratory for filter elements

# KSI Filtertechnik s.r.o.,

#### Rymarov | Czech Republic

- production of dryer parts
- vessel construction
- production of activated carbon filters for oil-water-separators



# T

Headquarter	KSI Filtertechnik GmbH 47877 Willich/Germany
Foundation	April 1996
Owner	Holger Krebs
Managing Director	Holger Krebs
Number of Employees	168 (business group)
Turnover	33 Mio Euro (business group)

# Membrane Dryers ECOTROC MBD

**ECOTROC MBD** is the most compact KSI solution for drying compressed air suitable to specific requirements. Membrane dryers do not require electric power and are almost entirely maintenance-free. In addition they only dry the compressed air when really needed. The compact design makes them appropriate for mobile use as well as for stationary applications at the "point of use".

Further features of **ECOTROC MBD** are:

- easy & quick installation
- very cost-effective concept for lower volume flows
- no condensate drainage necessary
- no reduction of oxygen concentration
- also for explosion-proof areas
- no electric power needed
- continuous operation possible
- mounting in any direction

#### Suitable for various pressure dew points

• The pressure dew point at the outlet of the membrane dryer can be adapted to the operator's specific requirements.

#### **Dew point reduction**

Dew point reduction	68°F	89,6°F	131°F	167°F
Use of purge air	10%	14%	21%	29%

#### ECOTROC MBD PLUS

#### Pre-filtration of 0,01 microns is mandatory!

The **ECOTROC MBD PLUS** model is our system solution: It combines a membrane dryer with the mandatory prefilter **KSI ECOCLEAN** SMA and wall mount brackets. For vertical and horizontal installation.



#### **Applications:**

- instrument air
- pneumatic controls
- laboratory air
- analysers
- ozone generators
- pneumatic precision instruments
- laser applications
- coating lines
- electric switch boxes and pipes
- packaging machines
- printing machines
- CNC installations
- robot technology
- electronics & telecommunications and many more



#### **Standard Product Range – Membrane Dryers**

ECOTROC MBD: ECOTROC MBD Plus: 12 types: MBD13 with 13 g/min to MBD750 with 750 g/min 12 types: MBD13 with 13 g/min to MBD750 with 750 g/min

# Refrigeration Dryers ECOTROC REFD



The **ECOTROC REFD** refrigeration dryer series convinces with its solid design, high capacity and reliability. The integrated control makes processing of compressed air more efficient and safe. High-quality components and the new heat exchanger ensure economic efficiency and long lifetime of the units.

**The result:** a powerful and solid refrigeration dryer.

also available as high pressure version

#### **Features and Advantages:**

- microprocessor control monitors the most important components and the quality of the compressed air
- simple and efficient installation, as the entrance and exit are at the same height
- external connection for level-controlled condensate drain available at the factory
- easy maintenance due to good accessibility of all components

#### **Microprocessor control**

- monitors important parts
- displays maintenance dates
- controls dew point
- prevents from dangerous conditions
   (2 temperature sensors)
- interface for external alarm



#### **Standard Product Range – Refrigeration Dryers**

ECOTROC REFD: on request

# Condensate Drains

Due to physical conditions, significant quantities of compressor condensate always occur in compressed air systems. In addition to water (condensed moisture), condensate also contains dirt, fine dust, particles, oil and microbes. The condensate must be completely removed from the compressed air system.

**KONDRAIN** electric condensate drains guarantee a secure draining. They prevent condensate from entering the system and protect downstream devices.

The level-regulated condensate drains **KONDRAIN** N ensure economical condensate draining by preventing any unnecessary loss of compressed air during the draining process.



#### level-controlled



#### **Features:**

- flexible connection, 90° rotatable ► flexible installation
- very durable Viton membrane ► more reliability and long service life
- maximum protection of the membrane and functions through integrated filter
- test button for functional tests at any time; can also be used for manual draining
- self-monitoring by using intelligent control
- additional protection by auto reset function
- status message in the case of alarm (except for KN350 model)
- zero-voltage contact (except for KN350 model)
- continuous performance level, ranging from 100% oil to 100% water
- just one service kit for the entire series
- also available for high-pressure applications: KONDRAIN KN-HP

#### **Standard Product Range – Condensate Drains**

 KONDRAIN N:
 8 types KONDRAIN KN350 with 350 cfm\* to KONDRAIN KN10600 with 10,600 cfm\*

 KONDRAIN KMT:
 1 type KONDRAIN KMT2100 with up to 2,100 cfm\*



#### Features:

**KONDRAIN KMT** 

time-controlled

- very easy to use
- solid design
- adjustable interval time
- clear evident opening interval
- manual discharge at any time via test button
- highest reliability
- also available for high-pressure applications: **KONDRAIN** KMT-HP



KONDRAIN KMT-HP

# **Oil-Water-Separators** KON**TREC** PREMIUM & COMFORT



#### The KONTREC Plus Effect +++ Invest less, achieve more

KONTREC helps in many ways to

- + reduce costs that arise with proper disposal
- + discharge condensate in accordance to regulations
- + avoid energy costs
- + save space with its compact construction
- + minimize operating costs and effort
- + amortize the investment by a long service lifetime
- + protect the environment.

Discharging contaminated condensate into the public sewerage system violates law and regulations in most countries.

**KONTREC** is a not only a small and reliable local treatment unit but the ideal and simple solution to generate water that can be safely discharged in accordance to local regulations (<20 mg/l residual oil content).

#### Simple and brilliant

The physical properties of most compressor condensate allow cost effective treatment. Condensate consists primarily of a mixture of oil, water and particles – and **KONTREC** separates the oil from water quick and reliable. The water (about 99%) can be discharged into the public sewer system after treatment by the KSI oil-water-separator. **KONTREC** separates synthetic oils and polyglycols as well as mineral oils.

The special design and the use of high quality components makes **KONTREC** the right solution for all types of compressor condensate.

#### **Options:**



**Condensate distributor KONTREC KO-KVC** Connection inlet: 1 x ½" Connection inlet: 3 x ½"



**Condensate test kit KONTREC KO-TK** For determining the correct special filter for particularly difficult condensate applications



**Multi-inlet KONTREC KO-ME** Connection inlet: 3 x <sup>1</sup>/<sub>2</sub>"

KONTREC Premium:6 types: KON-P125 with 125 cfm\* to KON-P2120 with 2,120 cfm\*KONTREC Comfort:4 types: KON-C70 with 70 cfm\* to KON-C530 with 530 cfm\*

## Alternative Filter Elements for Third Party Compressed Air Filters **KSI** ECO**CLEAN** AFE

KSI produces all filter elements for compressed air filters and all alternative filter elements and cartridges in-house. This ensures complete control for safeguarding our certified KSI industrial equipment quality. The combination of operational safety and cost effectiveness forms the basis for all KSI ECOCLEAN filters and for all high-performance filter elements.

#### Simply the clever alternative!

Our customers benefit from many advantages of our KSI ECOCLEAN filter elements not only when using KSI ECOCLEAN compressed air filters, but our extensive range of alternative filter elements also covers nearly *all available filter housings of nearly all international manufacturers*. A further important advantage: KSI offers these filter elements at the same quality as the original manufacturer, but at up to 30% lower prices.



#### **Filter Elements**

Alternative filter elements for housings from other manufacturers	s
ABAC	Hankison · old range
ABAC · old range	Hi-line
Airfilter Engineering	Hiross
Almig	Hydrovane
Alup	Hitema
Atlas Copco	Ingersoll Rand
Beko	Kaeser ► current range
Boge	Kaeser ► range up to 1991 and range 1991–2000
Compair	Mikropor
Deltech	МТА
Domnick Hunter · medical	Omega Air
Domnick Hunter	OMI
Donaldson   Ultrafilter > 90's range and cartridges	Walker
Donaldson   Ultrafilter > Process- and sterile filters	Worthington
Donaldson   Ultrafilter ► 80's range	Zander   FST   Domnick Hunter > Process and sterile elements
Fini	Zander • filter elements and cartridges
Friulair and	
Hankison many	
more!	

#### **Catridges and Process Filter Elements**



#### For third party filter housings:

- activated carbon, molecular sieve and catalyst cartridges
- process filter elements for housings of Zander, FST, Domnick Hunter and Donaldson (Ultrafilter)
- (cartridges for housings of other manufacturers on request)

# Alternative Replacement Elements for Third Party Oil-Water Separators KONTREC AKF



Since the company foundation in 1996, KSI produces replacement elements for oil-water-separators according to highest quality standards. Each year more than 28,000 KSI high-performance elements are produced and sold worldwide. This is equal to 100 tons of finest activated carbon.

- KSI provides:
- process-induced high-performance ► best adsorption
- highest adsorption capacity ➤ maximum filter service life
- maximum cleaning safety > for waste water discharge conforming with local directives
- absolute dimensional accuracy due to quality control
   maximum bypass safety
- 4-layer seam and tear resistant PE sleeve > filter strength and dimensional stability
- quick delivery, best quality, good price

KONTREC alternative replacement elements are available for the following oil-water separators:

OEM manufacturer	Model	Туре
Alup	Aquamat	120   250   450   900   1800   3600   7200
Atlas Copco	OSW	5   11   30   55   110   315
Atlas Copco	OSC 35 - 2400*	35   95   145   355   600   825   1200   2400
Beko	Öwamat	1   2   3   4   5   5 R   6   8   9   20
Boge	Öwamat	1   2   3   4   5   5 R   6   8   9   20
Boge	Ökomat	5   10   15   30   60   120   240
Domnik Hunter	ES	36   90   125   250   500   1000   2100   2150   2200   2300   2400   2500   2600
Domnik Hunter	H2OIL-X	2010   2015   2030
Donaldson (Ultrafilter)	ultrasep P	7,5   15   30   60   120   240
Donaldson (Ultrafilter)	ultrasep SP	5   7,5   10   15   30   60   120   240
Donaldson (Ultrafilter)	ultrasep AS-P	N 5   10 N   15 N   30 N   60 N   120 N   240 N
Ecoair	TS	3   4   15   16   60
Hankison	HS	60 - 120   140 - 900   1800   3600
Jorc	Puro	Enviro   Puro Mini   Puro   Puro Midi   Puro Grand   Puro Xtender
Kaeser	Aquamat	1   2   3   4   5   5 R   6   8   9   20
Kaeser	WO	I - II   III   VI
Sabroe	Divisor	IE - IIE   IIIE   IVE
Sabroe	SAB	25   45   90   180   360   720
Schneider	Öwatec	10   40   130   175   250
Schneider	Öwatec (old series)	Typ 40   Typ 50   Typ 75   Typ 120
Wortmann	drukomat	1   2 - 15   30   60
Wortmann	drukosep	1   2   3   6   12   25   40
Wortmann	WO	I - II   III   IV
Zander	ecosep S	1   2 - 15   30   60
Zander	WT	1 - 2   3   4
Zander	ecosep SL	1 - 5   8   15   30   60

\* Adsorption elements for the Atlas Copco OSC are supplied as a static (non-floating) element.

# Alternative Filters for Compressors and Vacuum Pumps ECOCOMP

Since 1998 KSI quickly and reliably delivers filter and oil separators in OEM-quality for compressors. To make this possible, KSI uses a storage space of 2,500m<sup>2</sup> only for this one product group. The result: 96% of all orders leave our headquarters at the same day.

All filter products are designed for maximum performance and are subject of systematic further development. Our product range includes more than 7000 original references – you can find all of them in our price and product list.

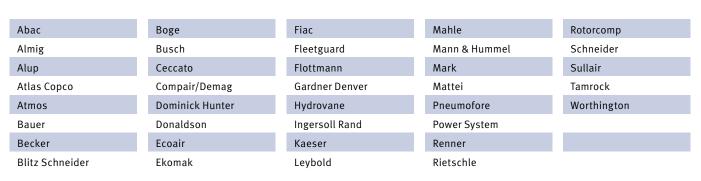
#### Features:

- process-depending best performance
- best materials, longest lifetime
- durable and solid industrial quality
- protects compressors, vacuum pumps and compressed air systems



#### **Oil Separator Cartridges, Air Filters and Oil Filters**

Available for the following manufacturers of compressors and vacuum pumps, or as a substitute for filters of other manufacturers:







#### KSI Technologies Canada Corp.

30 Fleming Dr, Cambridge, ON N1T 2B1, Canada mail@ksi-technologies.com www.ksi-technologies.com