ECOTROC® KTN

Compressed Air Refrigeration Dryer

Efficient Refrigeration Drying

Rev 01_0218
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EN

geprüftes QM-System
gem. DIN EN ISO 9001

Reg.Nr.: 119/9001.06/14

ECOTROC® KTN

The intelligent way of safe and efficient compressed air processing

Due to physical conditions water is a part of the breathing air and because of this in every compressed air system. To extract humidity from the ambient air, refrigeration dryers use the simple physical fact that cold air can hold less humidity than warm air. When saturation is reached, humidity changes the aggregate stage from gas to liquid and can easily be separated. That's the functional principle of **ECOTROC® KTN** dryer series.

KSI **ECOTROC® KTN** refrigeration dryers provide dry compressed air efficiently and effectively at minimum operating costs, ensuring operational security. This protects expensive systems, machines and devices worldwide and improves the operation security effectively.

More compact, more power: ECOTROC® KTN

The new refridgeration dryer series ECOTROC KTN scores with its very compact design, the great power and reliability. And the processing of compressed air is getting more efficient and safe by the new, built-in control. High-standard parts and a newly designed heat exchanger guarantee the economic efficiency and the endurance of the units.

The result:
a powerful and compact refrigeration dryer.

High quality components:

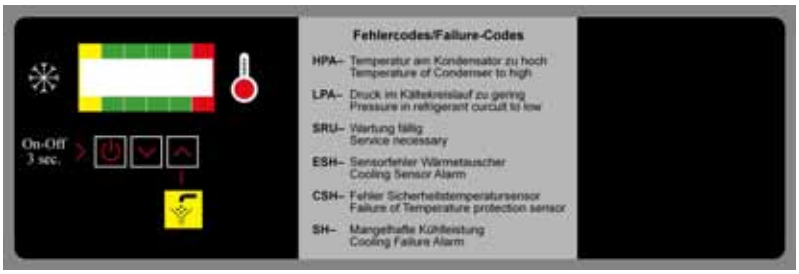
• Compressor:	Tecumseh
• Fan motors:	Elco; Rosenberg
• Control:	Danfoss; Ranco
• Condensator:	Karyap; Thermoway
• Valves:	Ceme

The ECOTROC® KTN Plus Effect +++

+ safe operation through standard (KTN 330-1800) hotgas bypass guaranteed
+ microprocessor control monitors the most important components as well as the quality of the compressed air
+ simple and efficient installation due to same height of inlet and outlet
+ standard condensate drain can easily be exchanged by an alternative component
+ easy maintenance due to good accessibility of all components

The Control

Automatic operation control and monitoring



The microprocessor control device of the **ECOTROC® KTN** controls the operation of the refrigeration dryer fully automatic. Furthermore it monitors the current state of the process and enables a simple and fast diagnosis of failures.

- Display of pressure dew point through a clear scale
- Alarm output for problems in the compressed air refrigeration dryer
- Quick identification of the affected component
- Trouble-shooting overview in the manual enables a direct debugging in most cases
- Manual condensate discharge through pressing the „▲“ button.
- Signal output for external alarm integrated (12 V DC signal)

Service Advantages

- Clever clip locks at the side panels; dismounting without any tools
  => easy access to the interior of the **KTN**
- clear arrangement of the components enables easy service and maintenance work
- simple installation of external condensate drains (e.g. **KONDRAIN®** N1) through connection on the back of the dryer

Optional Versions

- Performance levels higher than 1800 m³/h
- High pressure version up to 350 bar
- Delivery with external mounted condensate drain **KONDRAIN®** N1 | N5 | N10

Easy accees to the clear structured interior

Clever clip-locks and easily removable side panels

with mounted **KONDRAIN®** N5

with mounted **KONDRAIN®** N1

KSI recommends pre and post filtration!

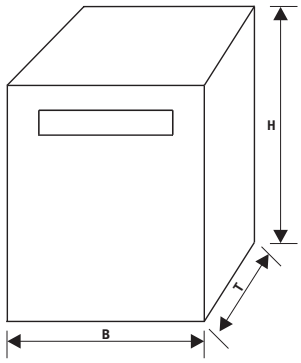
Capacities and Dimensions

Type	Capacity*	Dimensions (mm)			Connection height	Weight	Connection	Heat exchangers
	m³/h	B	T	H	mm	kg	*(male/female)*	
KTN 54	54	380	475	685	570	30	½“ female	1
KTN 72	72	380	475	685	570	30	½“ female	1
KTN 108	110	380	475	685	570	32	¾“ female	1
KTN 132	132	380	475	685	570	32	¾“ female	1
KTN 156	156	420	600	835	767	46	1“ female	1
KTN 186	186	420	600	835	767	46	1“ female	1
KTN 222	222	420	600	835	767	47	1“ female	1
KTN 330	330	460	700	923,2	802	64	1“ female	2
KTN 390	390	460	700	923,2	802	64	1 ½“ female	2
KTN 510	510	660	910	1050	955	86	2“ male	2
KTN 660	660	660	910	1050	955	96	2“ male	3
KTN 780	780	660	910	1050	955	114	2“ male	3
KTN 1068	1068	870	1260	1151,5	1070	230	2“ male	4
KTN 1200	1200	870	1260	1151,5	1070	245	2“ male	5
KTN 1530	1530	950	1700	1395	1063,5	265	3“ male	6
KTN 1800	1800	950	1700	1395	1063,5	290	3“ male	7

*refering to 1 bar (abs.) and 20°C at 7 bar g operating pressure, 35°C inlet temperature

Higher volume flows / higher operating pressures on demand

Dimension Drawing



Correction Factors

Correction factors						
Inlet temperature						
°C	30	35	40	45	50	60
F1	1,28	1	0,92	0,78	0,65	0,45

Correction factors						
Ambient temperature						
°C	20	25	30	35	40	50
F2	1,05	1	0,98	0,93	0,84	0,70

Correction factors working pressure													
bar ü | g	4	6	7	8	9	10	11	12	13	14	15	16
F3	0,80	0,94	1	1,04	1,08	1,11	1,14	1,16	1,19	1,22	1,24	1,25

Pressure dew-point 3° C calculated to volume flow at a suction condition of 20°C and 1 bar (abs.)

*Please multiply the capacity of **KTN** with the correction factors in the above table.*
Example:** Capacity **KTN 390** at **8 bar g** working pressure, **40°C** inlet temperature and **30°C** max. ambient temperature: ▸ **Capacity nom (390 m³/h) x F3 (1,04) x F1 (0,92) x F2 (0,98) = Capacity calculated (365,69 m³/h)

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