



kW Saver

SDC SERIES THERMAL MASS/CYCLING INTEGRATED FILTRATION





Founded in 1983 in Liege, Belgium, Drytec provides compressed air products worldwide and sales & after-sales service to channel partners throughout Europe. Drytec is keeping a high level of stock in Belgium with over 1000 dryers on shelves and thousands of consumables to serve customers in the best and fastest way. With nearly 45 years of experience in compressed air systems, Drytec is now one of the leading companies in the field of compressed air filters and automatic drainage systems for various industries.

Note: The product images/visuals may include optional components. Images represent the appearance of the product. Please check the standard and optional lists of the relevant product for the most accurate cautiously.

www.drytec.be

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Drytec Air Quality Focus

Drytec knows the importance of high-quality compressed air and provides customers with the highest quality air possible. Using clean, dry air is extremely important for most air powered applications. Moisture or contamination in the air from the compressor discharge will result in many complications to production equipment. These complications will decrease productivity and may affect the production quality of final product.

Applications

Drytec provides an entire range of products for filtration and air purification applications to fit various market requirements (ISO 8573.1: 2010 standard). Applications include: Food production, dairies, breweries, chemical plants, pure air and clean room technology, pharmaceutical industry, weaving machines, photo labs, paint spraying, powder coating, packaging, control and instrument air, sand and/or shot blasting, general air works, microchip production, optics, process air as well as many other industries

The Refrigerant Circuit and Insulation

Drytec exclusively uses environmentally friendly R513a refrigerant gas in the dryers. This refrigerant is suitable for both low and high temperature applications. R513a has excellent thermodynamic properties and can operate at very low pressure compared to other refrigerants.

Also, similar to the R134a on thermodynamic properties but with the lower GWP (Global Warming Potential) than R134a. Which is suitable with the F-Gas Regulation. This will in turn increase the refrigerant compressor's service life. With R513a Drytec dryers can operate at very high ambient temperatures. Drytec engineers add extra capability to the heat exchangers with a superior no loss insulation system. This perfect insulation philosophy continues to the refrigeration circuit side also. Superior insulation and oversized condensers (for ultra-high ambient temperatures) enable the SDC Series Dryers to offer continuous air quality.

Drytec SDC Series Cycling air dryers supply constant dew-point at all flow ranges.



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Compact Design

SDC Series Air Dryers are highly reliable, efficient, have small space requirements and offer low cost ownership. Integration of pre/post filtration within the dryer cabinet saves labour time, installation cost and valued production space. The compact size also offers flexibility and economy during transportation.

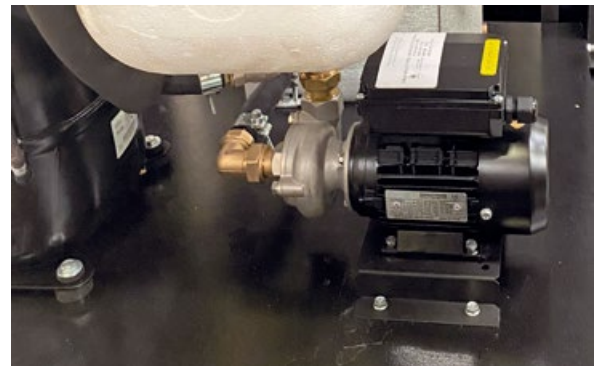
SAFETY - Electrical Cabinet Isolation

- Electrical panel separated from service areas of the dryer.
- Minimization of electrical components from refrigerant side of dryer.
- Electrical controls access without exposure high heat areas.



SDC Advantages

- "Best in Class" low package pressure drop saves energy consumption from the supplying air compressor.
- Thermal mass technology offers stable pressure dewpoint at varying loads.
- Drytec state of the art "3 in 1" cast aluminium heat exchanger provides unmatched longevity & cooling.
- Glycol cooling components are all stainless steel.
- 60°C max. inlet temp.



Drytec Advanced "3 in 1" Heat Exchanger

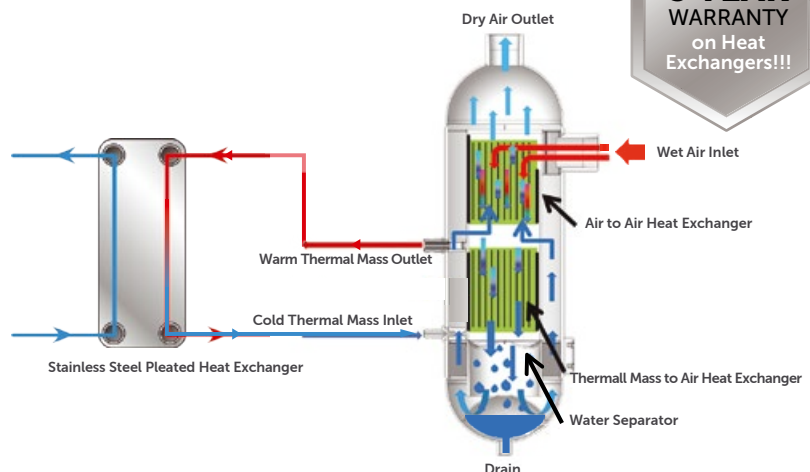
Thermally Optimized Encapsulated Design

- Air to Air Exchanger
- Thermal Mass to Air
- Multistage Moisture Separation

High Strength Aluminium Design

Large Surface Area for Heat Transfer

Robust Cylindrical Casing



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Scroll Refrigerant Compressors:

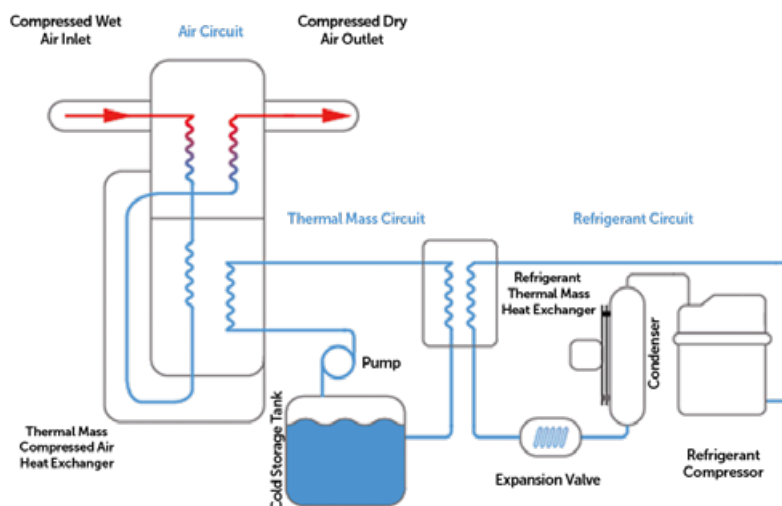
- Have fewer moving parts
- Offer smoother and quieter operation
- And are more reliable and more efficient than reciprocating types.

Moisture saturated Compressed Air from the Air Compressor enters a Particulate Pre-Filter then into the Thermal Mass Dryer-Compressed Air travels through a Coalescing Pre-filter and then 3 in 1 Heat Exchanger.

As the compressed air passes through, it is then cooled by the cold Thermal Mass System and water vapor then condenses into liquid and is removed with the drain system.

Cold compressed air then passes by the incoming hot air to re-heat in order to prevent plant air pipes from sweating – then the dried compressed air passes through a Coalescing Post Filter and out to the customers application.

SDC Cycling Series-Working Principle



Digi-Pro Controllers (210 Nm³/h to 930 Nm³/h units)

Drytec SDC Series Air Dryers incorporate exclusive Digi-Pro series controller. Digi-Pro controllers have outstanding technology for both functionality and durability in addition to visual appeal. The new controller design offers ease of adjustment with one finger, with accurate digital dew point display. In addition to coded alarm monitoring of the dryer.

Digital Controller with Embedded Features

- Digital dew point monitoring
- Periodic maintenance interval display
- Status report
- Run-hours meter
- Fahrenheit and Centigrade selection



Easy Service

Easy access into the cooling components in seconds by the help of "easy lift" panels with integrated finger slots. Simplifies service access with quick access by technicians (no screws/fasteners to remove).



Easy Service



ESD Controller (1200 Nm³/h to 12500 Nm³/h units)

Drytec SDC Series Air Dryers of larger capacity have ESD Digital Controller. With the help of the highly engineered ESD Controller on the SDC Series Cycling Air dryers reduce energy consumption. The ESD interface assists the users to monitor many useful parameters on the dryer and guides them to troubleshoot any problem very easily. During the nights, weekends and holidays many companies do not stop their dryers although the compressors may be stopped. ESD Controller saves huge amounts of money by simply shutting the dryer down automatically when it is not in use.



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Grooved Couplings and Fittings

- The compressed air circuit utilizes grooved couplings and fittings to ensure a positive connection without leaks
- These couplings assist the service technician to dismantle and assemble pipes easily and quickly



Service Safety

- The GKON Series Filter integration features
- Electronic Zero-Loss Drain system integration features
- System depressurization whenever the service needed via Electronic Zero-Loss Drain's "manual drain" function
- No compressed air loss
- Low maintenance design
- Reliable
- Robust low operating cost
- Simple installation

Zero Clearance Compressed Air Filters with High Performance Elements

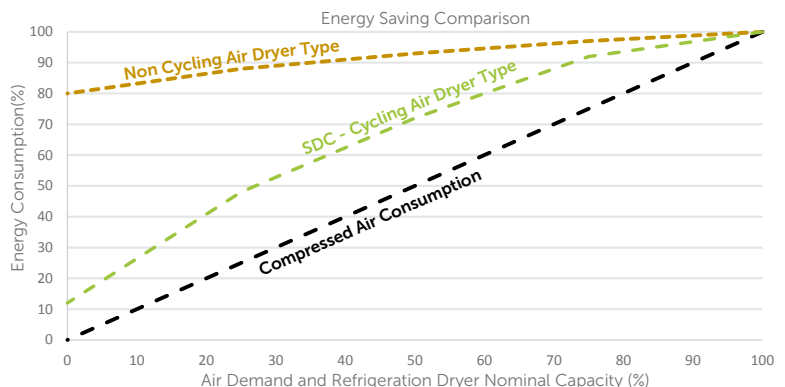
Drytec GKON Series compressed air filters are a SDC Series dryer standard. The X Pre-Filter (coalescing filter for water removal) is used for up to 1-micron particles and the Y Post Filter (coalescing filter for oil removal) is used to remove oil down to 0.01 ppm. Listening to customer needs our engineers created a service friendly design. The Zero clearance design helps service technicians to replace the element in just a few minutes.

The SDC Series dryer/filter combination has 2 elements and 2 Viton O-rings to ensure operation of the dryers at its best performance until the next planned maintenance.



Process Air Quality Protection

Pressure drop is a large concern in compressed air. In many applications high pressure drops will cause a decrease in the pressure at the point of use which results the machines or processes not operating correctly. Presence of dirt particles and oil in the compressed air system may result in filter blockage. It is important for the end users and service technicians to recognize if there is a problem in the system. The performance of the filters directly affects the pressure drops and system performance. Therefore, it is very important that the filter elements are changed at the filter service time. SDC Series Digital Controllers feature an alarm/warning indicating the appropriate time to change the filter elements. When the indication should occur, the element change will assist to avoid loss of performance and increase at pressure drop.



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Correction Factor for SDC Air Dryers

Inlet Temperature (°C)	F1	Ambient Temperature (°C)	F2	Pressure (barg)	F3
30	1.29	20	1.05	4	0.80
35	1.00	25	1.00	6	0.94
40	0.92	30	0.98	7	1.00
45	0.78	35	0.93	8	1.04
50	0.65	40	0.84	10	1.11
60	0.45	45	0.76	12	1.16
-	-	50	0.70	14	1.22
-	-	-	-	16	1.25

Choosing the Correct Dryer

If an air compressor delivers 500 m³/h at 6 barg, the dryer inlet temperature is 45°C and ambient temperature is 30°C

Please choose your dryer model as follows;
500 / 0.94 / 0.78 / 0.98 = 695 m³/h

The correct dryer model for this application is SDC930

SDC Series - Technical Specifications

Model	Capacity (m ³ /h)	Power Supply (V / Ph / Hz)	Connection Size	Filter Quantity and Type	Replacement Filter Element Kit	Dimensions (mm)		
						Length	Width	Height
SDC-210	210	230 / 1 / 50	1 1/2"	Integrated - GKON-405 X/Y	MKON405 KIT	777	747	1378
SDC-305	305	230 / 1 / 50	1 1/2"	Integrated - GKON-405 X/Y	MKON405 KIT	777	747	1378
SDC-375	375	230 / 1 / 50	1 1/2"	Integrated - GKON-405 X/Y	MKON405 KIT	777	747	1378
SDC-495	495	230 / 1 / 50	2"	Integrated - GKON-805 X/Y	MKON805 KIT	857	727	1505
SDC-623	623	230 / 1 / 50	2"	Integrated - GKON-805 X/Y	MKON805 KIT	828	728	1763
SDC-930	930	230 / 1 / 50	2"	Integrated - GKON-1205 X/Y	MKON1205 KIT	828	728	1763
SDC-1200	1200	230 / 1 / 50	2"	Integrated - GKON-1205 X/Y	MKON1205 KIT	828	728	1763
SDC-1388	1388	400 / 3 / 50	3"	Integrated - GKON-HC-1805 X/Y	MKON-HC-1805 KIT	1148	798	1739
SDC-1800	1800	400 / 3 / 50	3"	Integrated - GKON-HC-1805 X/Y	MKON-HC-1805 KIT	1148	798	1739
SDC-2500	2500	400 / 3 / 50	3"	Integrated - GKON-HC-2775 X/Y	MKON-HC-2775 KIT	1313	878	1788
SDC-2775	2775	400 / 3 / 50	3"	Integrated - GKON-HC-2775 X/Y	MKON-HC-2775 KIT	1313	878	1788
SDC-3330	3330	400 / 3 / 50	DN100 Flange	Integrated - GKON-5850 X/Y	GKO5850 KIT	1577	993	1976
SDC-3915	3915	400 / 3 / 50	DN100 Flange	Integrated - GKON-5850 X/Y	GKO5850 KIT	1577	993	1976
SDC-5085	5085	400 / 3 / 50	DN100 Flange	Integrated - GKON-5850 X/Y	GKO5850 KIT	1797	1077	2075
SDC-5850	5850	400 / 3 / 50	DN100 Flange	Integrated - GKON-5850 X/Y	GKO5850 KIT	1797	1077	2075
SDC-6875	6875	400 / 3 / 50	DN150 Flange	** Externally Connected - F6500 X/Y	6*M1200 KIT	2188	1062	2024
SDC-7875	7875	400 / 3 / 50	DN150 Flange	** Externally Connected - F8500 X/Y	8*M1200 KIT	2188	1062	2024
SDC-9000	9000	400 / 3 / 50	DN150 Flange	** Externally Connected - F11000 X/Y	10*M1200 KIT	2247	1551	2114
SDC-10500	10500	400 / 3 / 50	DN200 Flange	** Externally Connected - F11000 X/Y	10*M1200 KIT	2247	1551	2114
SDC-12500	12500	400 / 3 / 50	DN200 Flange	** Externally Connected - F14000 X/Y	14*M1200 KIT	2547	1547	2172

** Not integrated and not included in standard package

Given flows are at 7 barg pressure with reference to 20°C and 1 bar atmospheric air suction as per ISO 7183 standard

Nominal Working Pressure	7 barg	Minimum Inlet Temperature	5°C
Maximum Working Pressure	16 barg	Nominal Ambient Temperature	25°C
Minimum Working Pressure	4 barg	Maximum Ambient Temperature	50°C
Nominal Inlet Temperature	35°C	Minimum Ambient Temperature	5°C
Maximum Inlet Temperature	60°C	Refrigerant	R513a

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