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summits
Enabling Innovation. Enhancing Lives.

NEW DIMENSIONS SOLUTIONS

Tex-Dryers

The Refrigeration air dryers

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- Exclusively designed for Textile industry
- Lowest pressure drop
- Microchannel condenser adds bonus savings
- Complete monitoring and control systems

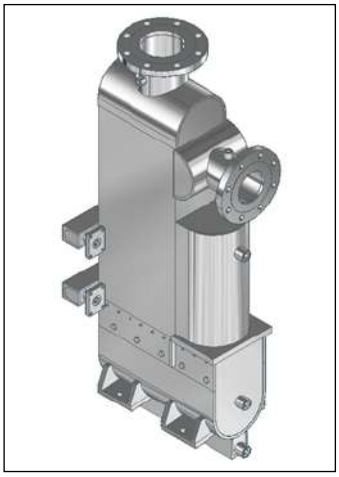
GICG UKAS MANAGEMENT SYSTEMS
ISO 9001: 2015 ISO 14001:2015 ISO 45001:2018

Need of a Tex-Dryer

Compressed air is one of the most expensive energy source in all industries. The pressure build in compressed air is directly proportional to the energy spent. Unfortunately we loss considerable amount of pressure across the treatment products in removing the contaminants. When it comes to low pressure applications like Textile manufacturing the pressure drop across the air dryers and micro filters play a significant role in the energy cost. The standard air dryers manufactured for general applications are not best suited for these low pressure applications due to more pressure drop and lesser features. Summits Tex-Dryers are meticulously designed to meet this challenging task and are designed to deliver optimum performance with lowest possible pressure drop and numerous features specifically tailored for the textile industries.

Tex-Dryers

Tex-Dryer - Tailormade Heat exchanger



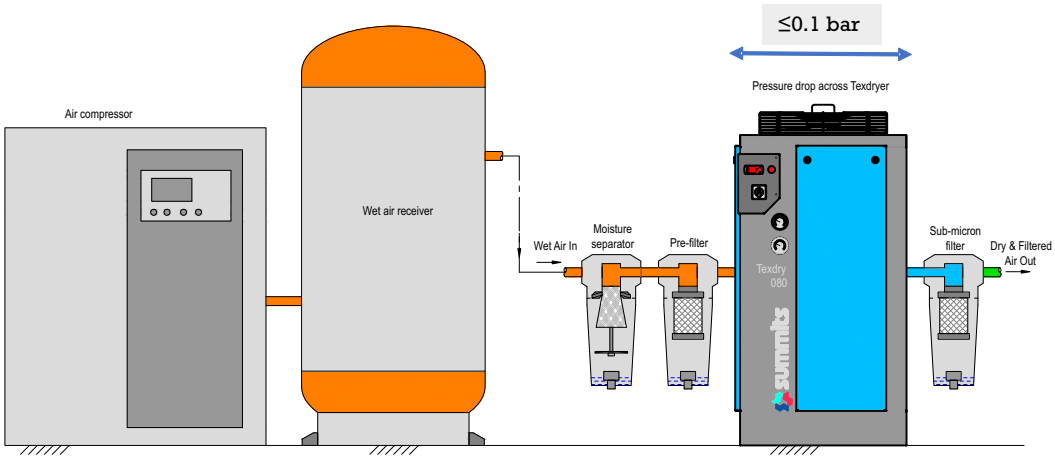
The uniqueness of Summits Tex-Dryers lies in the internal construction of heat exchanger. Selectively chosen fins type & optimally sized geometry breaks boundary layer and creates effective turbulence with lesser pressure drop down to 0.1 bar.

Excellence of Tex-Dryer heat exchanger over conventional dryer

- Integrally fused fin eliminates contact Resistance between plates and fins leading to attaining the highest heat transfer co-efficient.
- Offset fins, besides creating better turbulence for heat exchange, also act as an efficient preliminary moisture separator.
- Inbuilt wire mesh demister provides countless impingement surfaces to coalesce the moisture particle and hence separates it effectively.

Significance of 0.1 bar:

A compressed air system (CAS) which is designed to meet the exact requirement of application pressure is considered the most efficient system. The productivity output could very well be increased by 35% with efficiently designed CAS system.



CAS of ≤0.1 bar drop can feed 15 looms

CAS of ≤0.2 bar drop can feed only 11 looms

Excellence of Microchannel condenser

Microchannel condensers feature an array of flat tubes with microchannels that increase the surface area available for heat exchange. This design allows for better heat transfer, leading to improved system performance and energy efficiency. 1°C reduction in condensing temperature can benefit in 1% increased cooling capacity and 2% reduction in power consumption.

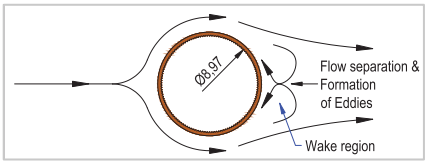
Efficient heat transfer: Metallurgical bond between tubes and fins eliminates contact resistance leading to 10% increased efficiency.

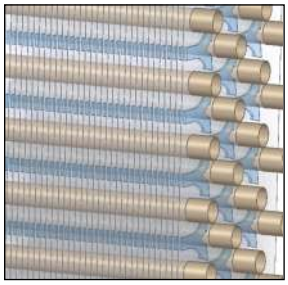
Power saving: Reduced fan power consumption & noise level due to 60% less airside pressure-drop.

30% reduced Refrigerant Charge.

Conventional Tube fin condenser

More resistance to fan air flow: Staggered arrangement of tubes in conventional copper tube condenser causes increased pressure drop across the condenser which necessitates selection of higher rating fan and leads to increased power consumption.



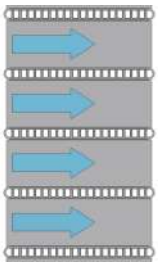


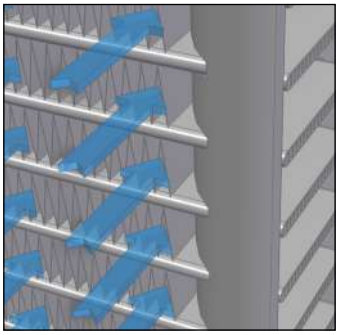
Less effective heat transfer area: Flow separation & formation of eddies at the wake region around the tube is unavoidable. These eddies reduce effective area of heat transfer.

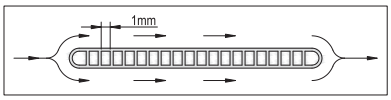
Microchannel condenser

Less resistance to air flow: Parallel arrangement of tubes offers less resistance to fan air flow which leads to selection of lesser rating fan and reduced power consumption.

More effective heat transfer area: Flat tube construction avoids the wake region and increases effective heat transfer area.







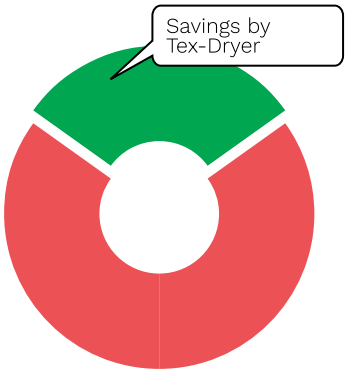
PLC based control and protection

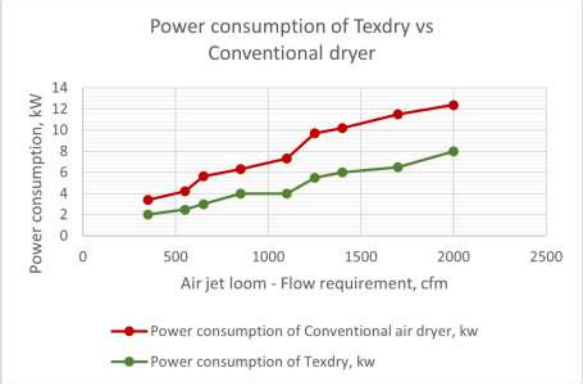
Open platform & fully customizable Texplus dryer comes with an advanced open platform PLC with numerous features including total system monitoring, preventive maintenance alerts and compatible to industries required communication protocol such as RS485 modbus, BMS, IOT, Ethernet, Industry 4.0 & etc. Being an open platform software, the PLC can be programmed to meet your specific tailored requirements.

Pacto, The Smart drain valve

- Silent
- Zero air loss
- Amble savings

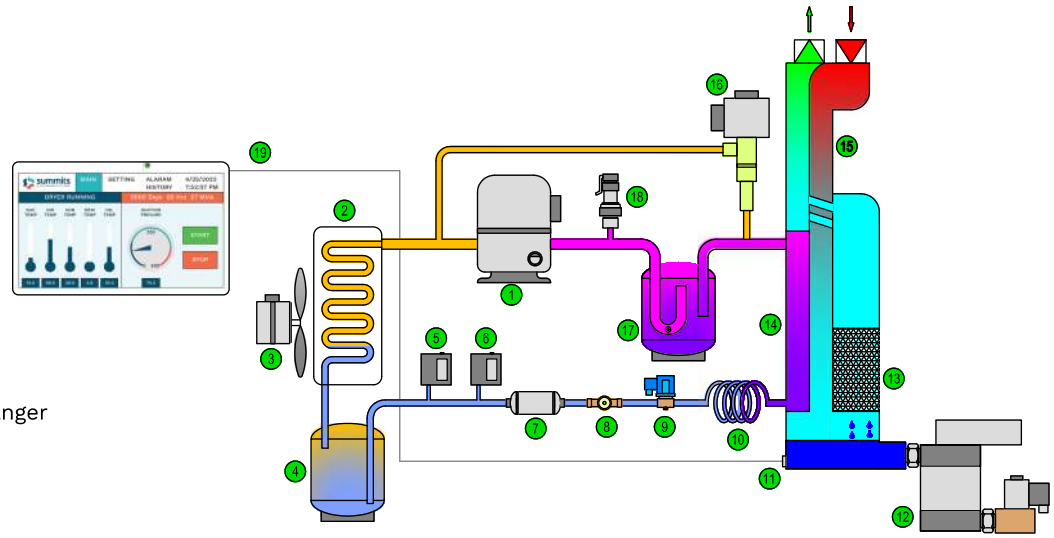
Energy spent : Tex-Dryer vs Standard





Schematic diagram

1. Refrigerant compressor
2. Condenser
3. Condenser cooling fan
4. Liquid receiver
5. High pressure switch
6. Fan pressure switch
7. Filter dryer
8. Liquid line sight glass
9. Solenoid valve
10. Capillary
11. Dew point sensor
12. Zero air loss drain valve
13. Moisture separator
14. Refrigerant to air heat exchanger
15. Air to air heat exchanger
16. Hot gas bypass valve
17. Accumulator
18. Pressure transmitter
19. TexplusController



Technical Data

SI NO	Model Variance	Air Flow		Overall dimension, mm			Weight	Power Supply v/ph 50 Hz	In/Out
		cfm	m³/h	W	D	H	Kg		
1	Texdry 040	400	680	950	600	1045	142	230/1	G2-1/2
2	Texdry 060	600	1020	950	600	1045	148	415/3	G2-1/2
3	Texdry 080	800	1360	720	970	1425	475	415/3	DN100
4	Texdry 100	1000	1700	820	1095	1615	520	415/3	DN100
5	Texdry 125	1250	2125	820	1095	1615	530	415/3	DN100
6	Texplus 175	1750	2975	970	1420	1620	600	415/3	DN100
7	Texplus 200	2000	3400	1470	1420	2000	970	415/3	DN150
8	Texplus 250	2500	4250	1470	1420	2000	980	415/3	DN150
9	Texplus 300	3000	5100	1620	1570	2000	1150	415/3	DN150
10	Texplus 350	3500	5950	2120	1570	2000	1300	415/3	DN200

Note:

Texdry is designed for below operating condition

Pressure	:	4 bar(g)
Temperature	:	45°C
Ambient temperature	:	35°C
Dew point	:	3°C

Nomenclature:

Texplus 200 →
Texdry: Series name
200 x 10 = 2000 cfm

Kindly contact us for capacity more than 3500cfm.
Water cooled option is available from 500 cfm onwards.
FAD (Free Air Delivery) is based on ISO 7183-2007.
In/Out Flange (DN) conforms to ASME B16.5 CL 150 LBS SORF.

Harvesting the elements of air through innovation for

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SHPL/TD/01-R00