

UNVEILING
QUADRA-EDGE
TECHNOLOGY.

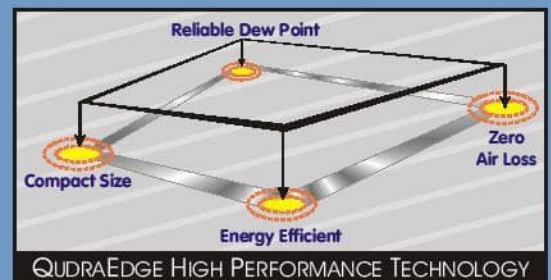
European ingenuity. Indian passion.

Some Application Area :

- ▶ Automobile Industries
- ▶ Textiles Industries
- ▶ Cements Industries
- ▶ Steel Industries
- ▶ Sugar Industries
- ▶ Food & Beverage Processing
- ▶ Petroleum & Gas
- ▶ Pharmaceuticals & Cosmetics Industries
- ▶ Rubber Leather Processing
- ▶ Paper Industries
- ▶ Printing Industries
- ▶ CNC Machine & Instrumentations
- ▶ Pet Bottling Industries
- ▶ Laboratories
- ▶ Garment Manufacturing and others



Quadra Edge Technology is a new generation design of **FILTRATION TECHNIK INDIA** that results in **4** clear advantages for you :



THIS IS FURTHER ENHANCED BY :

- ◆ Smartpac heat exchanger features all in one aluminum design with no interconnecting tubes, wide channels leading to low air velocity and low Pressure Drop
- ◆ Maximum Dew Point performance ensured.
- ◆ Quick and easy installation.



Clean Air Package
Refrigerated Air Dryer *from*
Filtration Technik India

Refrigeration Compressor

This compressor forms part of a closed loop system compressing the refrigerant and circulating it around the system. Models FTI 3 to FTI 81 use piston compressors, and models FTI 105 to FTI 368 use energy efficient scroll compressors.



Evaporator (air to refrigerant heat exchanger)

The evaporator removes heat from the compressed air and transfer it to the cold refrigerant. The saturated refrigerant evaporates with the heat from the compressed air. Superheated vapour is then returned to the compressor

Hot Gas by-pass Valve

The function of the hot gas by-pass valve is to prevent freezing of the evaporator in low load conditions. It does this by sensing low pressure refrigerant leaving the evaporator and re-directing hot refrigerant leaving the evaporator and re-directing hot refrigerant gas back to the compressor inlet as required. This ensures optimum dewpoint control under all operating conditions. Cirrus dryers use a 100% modulating valve which is pressure operated providing a quicker response than temperature controlled valves.

Water Separator

Condenser

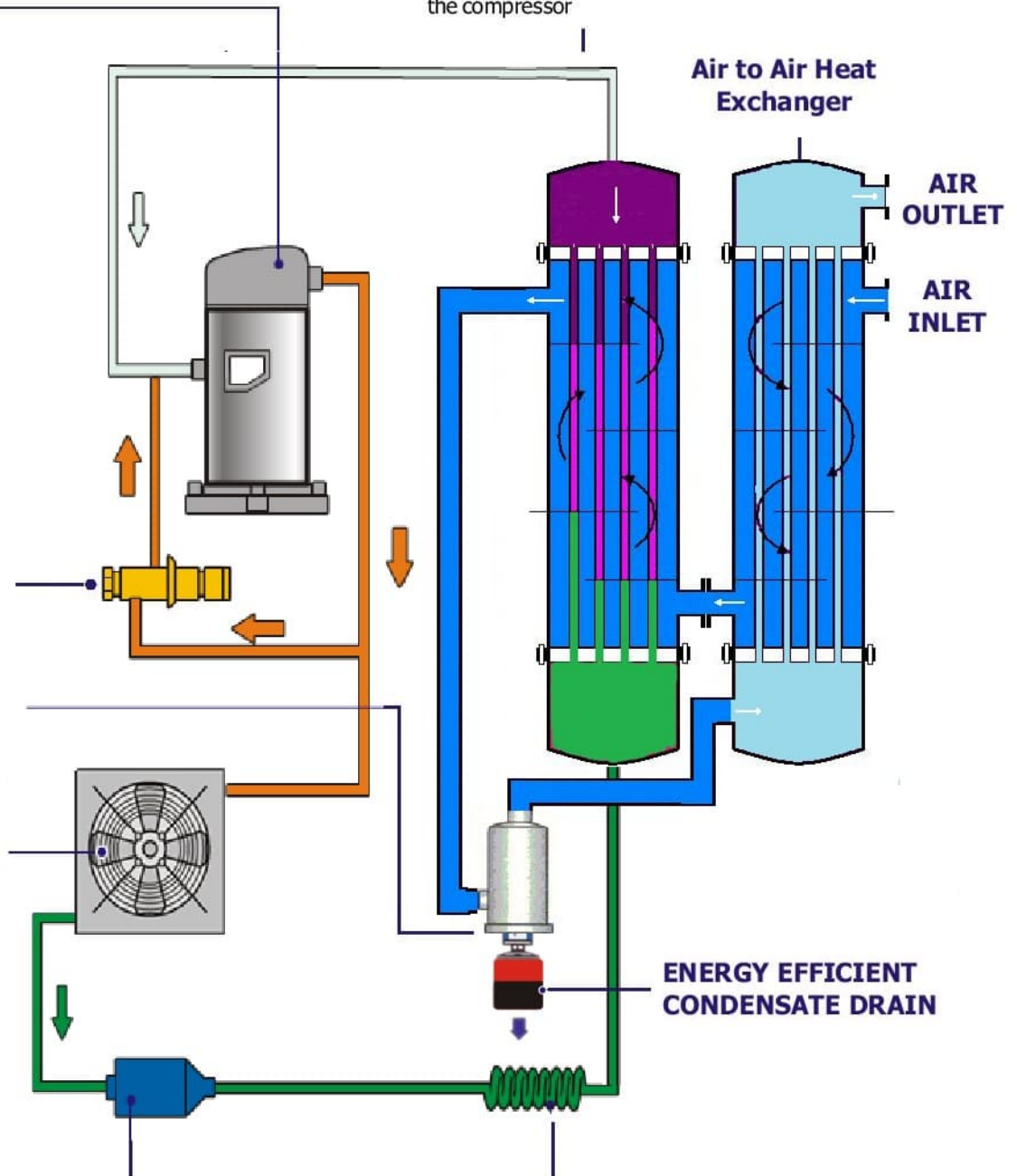
The condenser receives the hot, high pressure vapour from the compressor and cools it. The heat added to the refrigerant is exchanged with the cooling air flow. Condensation occurs as the refrigerant passes through the condenser and high pressure, sub-cooled liquid is formed to feed the capillary expander.

Filter \ Dryer

The filter dryer removes moisture or particulate that may be present in the refrigerant system

Capillary Expander

The capillary expander reduces the pressure of the liquid refrigerant to ensure the correct refrigerant flow rate enters the evaporator. This provides maximum heat exch



Cross Flow Heat Exchanger Module
used on Models FTI 18 to FTI 368

USER BENEFITS

- Consumer required pressure dew-point above +0°, therefore optimal compressed air quality.
- Capillary injection for maximum operational security
- Compact full-size heat exchanger. Copes with overload conditions.
- Integrated WET-X Condensate separator, designed to cope even with overload created by compressor separator failure.
- Scroll-Refrigerant compressor reduced power consumption. No crankcase heater required so instant start up from model FTI 125
- Modern Full-Size heat exchanger design results in a lower pressure differential saving energy input.
- Compact design - Small footprint enables ease of installation and full use of the available floor-space being up to 30% smaller and lighter.
- Tailor made guarantee packages.
- Environmentally friendly cirrus dryers only utilize recognized environmentally friendly refrigerants. R134a & R 404A as standard available world-wide.
- Reduced refrigerant requirement up to 65 % less refrigerant requirement. Our contribution to environmental protection!
- Cycle Control ensures that the dryer never freezes, maintaining constant operational security.



You can rely on our experience

With the introduction of the cirrus range we are building on 10 years of experience in compressed air treatment. This fact, coupled with our strict adherence to quality assurance issues, is a pre-requisite for remaining at the forefront of innovative product technology.

We constantly Endeavour to provide you, the customer, with the best advice and service to guarantee the most efficient and effective operation of our products. The new Cirrus range incorporates the most up-to-date technology and efficient use of materials. Its modular design and use of well-proven proprietary components ensure long service life and world-wide availability. Thanks to the unique design of the heat exchanger, the dryers are not considered to be pressure vessels.

Economical Drying

Low operating costs, modern design and up to 65 % less refrigerant, are surely enough reason to consider the Cirrus refrigeration dryer range when making a decision on your next dryer purchase requirement! The Cirrus dryers are part of a complete product range of refrigerant air dryers. We can supply larger sizes and dryers to work at pressures up to 50 bar.



COMPRESSED AIR QUALITY TO ISO 8573.1

Class	Solid Particles Maximum number of particles per m ³			Water Pressure Dewpoint°C	Oil (Incl. Vapour) mg/m ³
	0.1-0.5 micron	0.5-1.0 micron	1.0-5.0 micron		
1	100	1	0	-70	0.01
2	10,000	1,000	10	-40	0.1
3	-	10,000	500	-20	1
4	-	-	1,000	3	5
5	-	-	20,000	7	-
6	-	-	-	10	-

Technical Specification :

Cirrus Model	NI/m	Flow Rate		Refrigerant	Connection	Power Ph/V/Fr	Dimensions			Weight Kg
		Nm3/hr	Scfm				L	B	H	
CRD3	350	21	12	R 134a	G 1/2"	1/230/50	460	350	600	30
CRD5	550	33	19	R 134a	G 1/2"	1/230/50	460	350	600	32
CRD8	850	51	30	R 134a	G 1/2"	1/230/50	660	400	625	45
CRD12	1200	72	42	R 134a	G 1/2"	1/230/50	660	400	625	48
CRD18	1800	108	64	R 134a	G 1"	1/230/50	625	550	770	75
CRD23	2300	138	81	R 134a	G 1"	1/230/50	625	550	770	80
CRD31	3100	186	109	R 134a	G 1 1/2"	1/230/50	625	550	770	86
CRD43	4300	240	150	R 134a	G 1 1/2"	1/230/50	625	550	770	90
CRD55	5500	330	194	R 404A	G 1 1/2"	1/230/50	675	610	770	92
CRD62	6200	372	219	R 404A	G 1 1/2"	1/230/50	675	610	770	96
CRD81	8100	486	286	R 404A	G 2"	3/415/50	675	610	770	98
CRD105	10500	630	371	R 404A	G 2"	3/415/50	920	610	1020	140
CRD125	12500	750	441	R 404A	G 2"	3/415/50	920	610	1020	144
CRD145	14500	870	512	R 404A	DN 80	3/415/50	1310	1000	1500	400
CRD160	16000	960	565	R 404A	DN 80	3/415/50	1310	1000	1500	420
CRD180	18000	1080	636	R 404A	DN 80	3/415/50	1310	1000	1500	435
CRD220	22000	1260	770	R 404A	DN 80	3/415/50	1310	1000	1500	450
CRD300	30000	1800	1060	R 404A	DN 100	3/415/50	1310	1000	1500	470
CRD368	36800	2208	1300	R 404A	DN 100	3/415/50	1310	1000	1500	500

The data is based on following conditions :

Inlet Temperature :	45° C
Inlet Pressure :	7 bar g
Ambient Temperature :	40°C
Dew Point :	3° C

Correction Factor - Ambient Temperature

Ambient Temperature °C	25	35	40	45	50
Factor FTI 3 -368	1.13	1.05	1	0.91	0.79

Correction Factor - Compressed air inlet Temperature

Inlet Temperature °C	35	40	45	50	55
Factor FTI 3 -368	1.4	1.18	1	0.84	0.7

Correction Factor - Dew Point

Dew Point °C	3	7	10
Factor FTI 3 -368	1	1.25	1.35

Correction Factor - Pressure

Pressure in bar g	3	4	5	6	7	8	9	10	11	12
Factor FTI 3 -368	0.74	0.84	0.9	0.96	1	1.04	1.06	1.09	1.11	1.13

our other range of products



Absorption Air Dryer



Microfilter



High Pressure Dryer



Condensate Drain

- All performance parameters are as per IS standard
- As product development is a continues process with us, specifications may change without notice.

Nothing contained in this brochure is intended to extend any warranty or representation, expressed or implied, regarding the products described herein. Any such warranties or other terms and conditions of sale shall be in accordance with FILTRATION TECHNIK INDIA's standard terms and conditions or such products.

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AUTHORISED DEALER

Refrigerated Air Dryer