Reynold®

India's No.1 in Process Chillers
Exporting to over 50 Countries - US, EU

VARIAIRE™ Series

VFD-Based Dual-Circuit Air Chillers

Reynold® pioneers the concept of customizing equipment as per the specific process needs, which satiates the dual purpose; helping users to produce desired results from the processes, while maintaining the lowest life cycle costs of the equipment.

To harvest desirable benefits from the latest technology equipments and processes, chilled fluid, as an auxiliary supply, needs to be available at precise flow rates and pressures, besides the temperature accuracy.

VARIAIRE™ Series Air Chillers are VFD based, designed for precise temperature and flow of chilled air, for specific applications like plastic blown film plants. The chillers are highly energy efficient by upto 50%, in comparison to the traditional air cooling systems, using water chillers in tandem with the air-exchangers. Since the ambient temperature and RH vary continuously, the chiller is designed to operate within the desirable temperature range, with automatic capacity control from 40% to 110%.

880 Nm^3/hr to 12000 Nm^3/hr, +30°C to +4°C
R-407C/ R-404A/ R-410A/ R-22 options

Working towards it ... Now!™

407C

404A

ATEX SHELL DEP ISO 14001 ISO 9001

Prominent features

Reliable and energy efficient hermetic and semi-hermetic compressors of European origin

Customized for precise air outlet temperature range, upto 48°C ambient temperature and 90% RH

VFD-based design for better temperature control, higher efficiency and reliability

Energy saving of upto 50%, in comparison to the traditional indirect air cooling systems

Environment friendly refrigerant R-407C / R-404A. R-410A, available

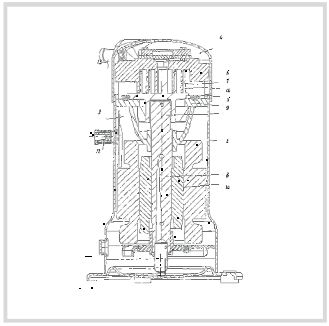
Compact design with less footprint area and lower maintenance cost

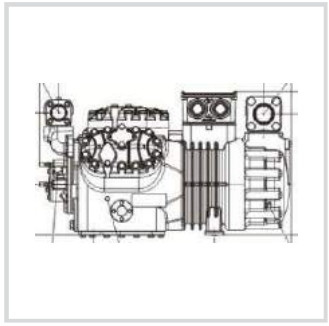
Separate and individual refrigeration circuits with each compressor

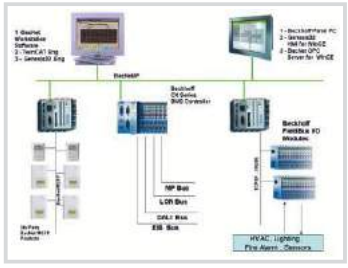
Electronic expansion valves for larger capacities, for energy efficiency and precise temperature control

Monocoque galvanized base-frame for sturdiness, rust-free operation and longer equipment life

Fully automatic PLC based units, with wireless and wired remote monitoring, control and dynamic data-logging, compatible with MODBUS/ BACnet/SCADA available.







VARIAIRE Series Chillers are inspected in our latest Performance Analyzing Laboratory to authenticate different parameters of the equipment, like capacity output, power consumption, performance, COP, electrical load fluctuations and other heat load conditions.

Real-time analysis is achieved by simulating ambient, electrical and other conditions in the Environmental Chamber.

Chiller Performance Inspection

Tested Equipment

Refrigerant		R134A															Term. eff.	Elec. eff.	Stab COP	Accept Stab	Auto Trig										
																	0.93	1.00	2.75	0.02	0.00										
Min	No of Scans						2.0								3.0	44	55	0.1	1.0		1.8										
Max	1363						7.0								10.0	120	75	1000	4.0		8										
							4-7								3 - 6		68-78		0.9 - 7.0		1.8 - 8.0										
		Evap. Sec.		Low Pres. Ref					Cond. Sec.		High Pressure Ref.						Compressor										Electrical				
Mean		27.8	25.7	3.61	13.0	0.0	20.8	7.8	12.5	31.7	11.46	47.3		29.2	21.0	66.3	66.5	17.4	5.43	93.9	7.46	130.3	33.6	33.8	32.7	1.00	236.6	236.2	236.2	0.0
Max		28.1	26.1	4.70	20.0	0.0	21.8	21.5	12.8	34.7	13.79	54.7		29.4	28.4	73.2	115.2	29.2	7.55	145.5	9.58	207.5	50.4	51.6	50.1	1.00	242.5	242.0	242.3	0.0
Min		27.3	25.2	1.78	-1.3	0.0	20.1	0.2	12.2	28.5	7.11	31.9		21.3	10.6	57.2	21.1	0.0	4.50	0.0	6.84	0.0	0.0	0.0	0.0	1.00	234.8	234.3	234.3	0.0

Date	Time	SecC Evap In (°C)	SecC Evap out (°C)	Ref Low press. (Bar(g))	Ref Evap Midpoint (°C)	Ref. Evap. out (°C)	Ref Comp In (°C)	Super heat (K)	SecW Cond In (°C)	SecW Cond out (°C)	Ref High press. (Bar(g))	Ref Cond Mid point (°C)	Ref. After reciever (°C)	Ref Exp. Valve In (°C)	Sub cool total (K)	Ref Comp out (°C)	Comp. Isen. eff** (%)	Power Input Comp. (kW)	COP Cool	Cap. Cool (kW)	COP Heat	Cap. Heat (kW)	Compr Amps L1 (A)	Compr Amps L2 (A)	Compr Amps L3 (A)	Compr Power Factor	Volt L1 L2 (V)	Volt L2 L3 (V)	Volt L3 L1 (V)	Comp Amps L1 (A)
2018-01-12	12:06:17	27.8	25.2	3.63	9.3	0.0	21.8	12.5	12.2	34.4	13.03	52.8	0.0	29.4	23.2	72.2	80.2	28.9	5.09	146.5	7.17	207.5	50.4	51.4	50.1	1.00	236.0	235.4	235.6	0.0
2018-01-12	12:06:47	28.0	25.3	3.63	13.4	0.0	21.6	8.2	12.2	34.6	12.66	52.1	0.0	29.1	23.0	71.9	65.7	21.5	4.55	103.2	6.84	147.0	41.5	42.1	41.2	1.00	236.0	235.6	235.6	0.0
2018-01-12	12:06:36	28.0	25.4	3.64	13.5	0.0	21.5	8.0	12.3	34.1	13.19	53.0	0.0	29.0	24.0	71.7	66.2	21.6	4.58	105.9	6.96	150.4	41.5	42.9	41.1	1.00	235.6	235.4	235.2	0.0
2018-01-12	12:06:27	28.0	25.4	3.63	13.4	0.0	21.4	8.0	12.3	33.1	13.72	54.5	0.0	29.1	25.4	71.1	74.2	22.3	5.14	114.8	7.27	161.9	41.7	42.8	41.1	1.00	236.6	236.0	236.0	0.0
2018-01-12	12:06:17	28.0	25.5	3.54	12.8	0.0	21.3	8.5	12.3	32.8	13.79	54.7	0.0	29.1	25.6	70.4	70.6	21.6	5.23	116.3	7.49	163.5	40.6	41.4	40.6	1.00	236.2	235.7	235.6	0.0
2018-01-12	12:05:06	28.0	25.5	3.54	12.8	0.0	21.2	8.4	12.3	33.5	12.44	50.8	0.0	29.2	21.6	70.1	67.3	21.1	4.88	104.4	7.04	148.2	40.0	41.4	40.3	1.00	236.0	235.3	235.5	0.0
2018-01-12	12:04:57	28.1	25.6	3.61	13.3	0.0	21.1	7.8	12.4	34.4	12.31	50.4	0.0	29.1	21.3	70.1	64.6	21.2	4.88	103.6	6.94	147.4	40.5	42.0	40.4	1.00	236.0	235.7	235.4	0.0
2018-01-12	12:04:46	28.1	25.7	3.65	13.6	0.0	21.0	7.4	12.4	34.7	12.49	51.0	0.0	28.7	22.3	70.0	66.1	21.3	4.92	105.0	6.98	148.8	40.8	41.7	40.8	1.00	236.0	235.6	235.8	0.0
2018-01-12	12:04:36	28.0	25.8	3.73	14.1	0.0	20.8	6.7	12.5	34.0	12.71	51.6	0.0	27.9	23.7	69.9	65.0	21.7	5.05	107.6	6.99	151.5	41.4	42.6	40.7	1.00	235.8	235.3	235.5	0.0
2018-01-12	12:04:27	28.0	25.9	3.75	14.2	0.0	20.7	6.5	12.6	33.1	13.07	52.7	0.0	27.0	25.7	69.4	68.6	21.9	5.27	113.4	7.20	157.8	41.8	42.6	40.8	1.00	236.5	235.9	236.4	0.0
2018-01-12	12:04:17	27.9	26.0	3.65	13.5	0.0	20.4	6.9	12.7	30.8	13.77	54.6	0.0	26.2	28.4	67.7	81.7	22.3	5.81	129.4	7.92	176.6	41.6	43.3	41.6	1.00	234.8	234.3	234.3	0.0

Technical Specifications

		Water-cooled Air Chillers

*Other models, refrigerants and types are also available, on demand.
All the specifications may not be part of the standard equipment and may vary under varying conditions.

Complete Range of Chillers available from 2TR to 1800TR, +60°C to -55°C

Haridwar Plant

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