Reynold®

India's No.1 in Process Chillers
Exporting to over 48 Countries - US, EU

DUOCHILL™ Series

Dual Temperature 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.

DUOCHILL™ Series Chillers are being designed keeping in mind the cooling requirements of the processes where the required temperatures of the fluid are varied, at different utility points. It is actually fusing the features of two differently set chillers into one, thereby saving largely on the capital and running costs of the chillers, utilizing lesser footprint area as well as being able to maintain the total need through just one set of auxiliary equipment instead of more.

Salient Features

Two separate water circuits at varied temperatures, +6 to + 22 °C, set as per the specific need

Semi-hermetic Screw Compressors with step-less capacity control, adjusting automatically as per the process load, maximizing efficiency

CFC-Free, environment friendly refrigerant

Electronic Expansion Valves for precise temperature control, for increased efficiency

Wired as well as wireless connectivity for remote operation and data logging

Working towards it ... Now!™

R134a

CE 1128 ISO 9001 : 2008 ISO 14001 : 2004

Designed in accordance to the guidelines of AHRI and European Standards, exceed ASHRAE 90.1 and meet ECBC norms as stipulated by BEE

Stepless Capacity Control precisely controlled as per the actual load

Electronic Expansion Valve for precise refrigerant flow, increasing system efficiency

Specially designed Shell & Tube type evaporators – Designed as per ASME Section-VIII division-I – for ruggedness and longer life

Air-cooled condensers – with low FPI-count, high gauge coated fins, pneumatically tested at high pressure – matched with other system specifications, making the Chillers ready for operating at upto 52°C ambient temperatures

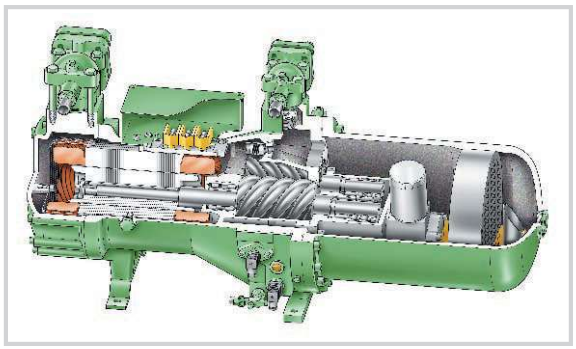
Economizer and other such operations standard to the systems for elevated efficiencies

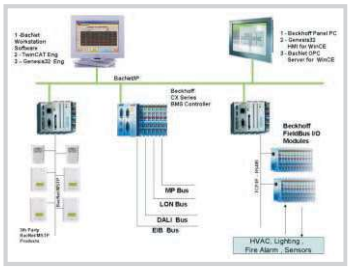
Low noise, axial-flow, discharge pressure controlled fans, for power saving during off-peak ambient conditions

Lowest possible noise levels with the option of custom-built Acoustic Enclosure for the compressor or complete Chiller

BMS compatibility with MODBUS/BACnet/SCADA, option of Dynamic Data-logging with remote monitoring

Least wear and break-down time, longer economical operation





DUOCHILL 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		58-78		0.8 - 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	47.2		26.2	21.0	66.3	66.5	17.4	5.43	93.9	7.46	130.3	33.0	33.8	32.7	1.00	236.6	236.2	236.2	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	7.56	146.5	9.68	207.5	50.4	51.6	50.1	1.00	242.5	242.0	242.3	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	4.80	0.0	6.84	0.0	0.0	0.0	0.0	1.00	234.8	234.3	234.3	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)	Comp1 Amps L1 (A)	Comp1 Amps L2 (A)	Comp1 Amps L3 (A)	Comp1 Power Factor	Volt L1 (V)	Volt L2 (V)	Volt L3 (V)	Com Am L1 (A		
2010-01-12	12:06:17	27.8	25.2	3.03	9.3	0.0	21.8	12.5	12.2	34.4	13.03	52.6	0.0	29.4	23.2	72.2	80.2	28.9	5.00	146.5	7.17	207.5	50.4	51.4	50.1	1.00	236.0	235.4	235.6	0		
2010-01-12	12:05:47	28.0	25.3	3.63	13.4	0.0	21.6	8.2	12.2	34.6	12.86	52.1	0.0	29.1	23.0	71.9	65.7	21.5	4.80	103.2	6.84	147.0	41.5	42.1	41.2	1.00	236.0	235.6	235.6	0		
2010-01-12	12:05:36	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	68.2	21.6	4.90	105.9	6.96	150.4	41.5	42.9	41.1	1.00	235.6	235.4	235.2	0		
2010-01-12	12:05:27	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	114.6	7.27	161.9	41.7	42.8	41.1	1.00	236.6	236.0	236.0	0		
2010-01-12	12:05:17	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	78.6	21.8	5.33	116.3	7.49	163.5	40.6	41.4	40.6	1.00	236.2	235.7	235.6	0		
2010-01-12	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	4.96	104.4	7.04	148.2	40.0	41.4	40.3	1.00	236.0	235.3	235.5	0		
2010-01-12	12:04:57	28.1	25.6	3.61	13.3	0.0	21.1	7.6	12.4	34.4	12.31	50.4	0.0	29.1	21.3	70.1	64.6	21.2	4.69	103.6	6.94	147.4	40.5	42.0	40.4	1.00	236.0	235.7	235.4	0		
2010-01-12	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	65.1	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		
2010-01-12	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	4.95	107.6	6.99	151.5	41.4	42.6	40.7	1.00	235.8	235.3	235.5	0		
2010-01-12	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	27.9	25.7	69.4	68.6	21.9	5.17	113.4	7.20	157.8	41.8	42.6	40.8	1.00	236.5	235.9	236.4	0		
2010-01-12	12:04:17	27.9	26.0	3.65	13.5	0.0	20.4	6.9	12.7	30.6	13.77	54.6	0.0	26.2	28.4	67.7	61.7	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		

Technical Specifications

Item	Units	Air - cooled			Water-cooled		
Model		RFIG0176SD	RFIG0225SD	RFIG0281SD	RFIL0190SD	RFIL0253SD	RFIL0310SD
Nominal Capacity	TR	50	64	80	54	72	88
Rated Power	KW	54	71.7	89.6	37.8	49	59
Refrigerant		R-134a					
Power Source		Main - 400V ± 10%, 50Hz, 3Ph AC Control - 230V AC / 24V DC					
Compressor		Semi-hermetic Compact Screw					
Chilled Water Flow I	m^3/hr	27.6	35.3	44.2	29.8	39.8	48.6
Chilled Water Flow II		5.7	7.2	9.1	6.1	8.1	10
Temperature Range I	^0C	+6 to +15					
Temperature Range II	^0C	+6 to +22					
Condensor Water Flow	m^3/hr	NA	NA	NA	50.2	67	81.8
Capacity Control		25% to 100%, Stepless					
Evaporator		Shell & Tube					
Condensor		Finned Tube, Low FPI, Coated			Shell & Finned Tube		
Expansion Valve		Electronic					
Communication		SCADA / MODBUS / BACnet / BMS					
Dimensions	mm(LBH)	2800x1900x2750	4200x1900x2750	4200x1900x2750	4100x850x1715	4300x850x1785	3410x950x2200
Weight (Approx)	kg	3300	3500	4250	2950	3250	3900
Noise Level	dBA	90			85		

*Other models in the series are also available. Specifications may change without notice.

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