



Product
Brochure
Industrial Refrigeration



Cold Room /
Storage



Industrial
Refrigeration



Commercial
Refrigeration



Transport
Refrigeration



Ammonia
Refrigeration



Incepted in the year 1980, Bharat Refrigerations Pvt Ltd has strived its utmost to provide solution to the cooling needs and requirements of our valued customers. Designed in compliance with verified industry standard, our products are widely acknowledged for maximum cooling efficiency, low power consumption and longer service life. Bharat Refrigerations Pvt Ltd has been taken over by Ice Make Refrigeration Limited in December 2016, to serve its Valued Customers by providing total cooling solution & better after-sales services in southern part.

Bharat Refrigerations is committed to help you to meet the demands of foods safety, energy efficiency and reliable performance. We ensure these to you through our competitive pricing, professional advice and innovative design.

About Us



Customer Focus



Honour Commitments



Embrace Innovation



Responsive Service



Building Trust



Believe in Solution



Transparency



Listen to Your Needs



The Core of SOLUTION CUSTOMIZATION

The customized solution can be made to ensure that all the unique needs and business requirements are satisfied

“Custom solutions are specifically designed to accommodate your business requirements to ensure the final outcome to work as you want.”

Why Bharat Refrigerations?

We are in the business of exploring new frontiers with innovative ideas in providing complete cooling solutions for total customer satisfaction.



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Bharat Refrigerations is a leading refrigeration company dealing with various kind of industrial chillers for end to end solutions. Bharat Refrigerations is committed to provide best solution to customers, which fulfill their needs. Bharat Refrigerations manufactures both Air-Cooled and Water-Cooled Chillers with a wide range of 2 TR to 200 TR.

Bharat Refrigerations chillers are ideal for various industries like Pharmaceuticals, Plastics, Foods & Beverages, Dairy & Milk Processing, Chemical Industries etc.



Chilling Plant Application



Dairy & Beverages Applications



Chemical Industries



Pharmaceutical Industries



Process Industries

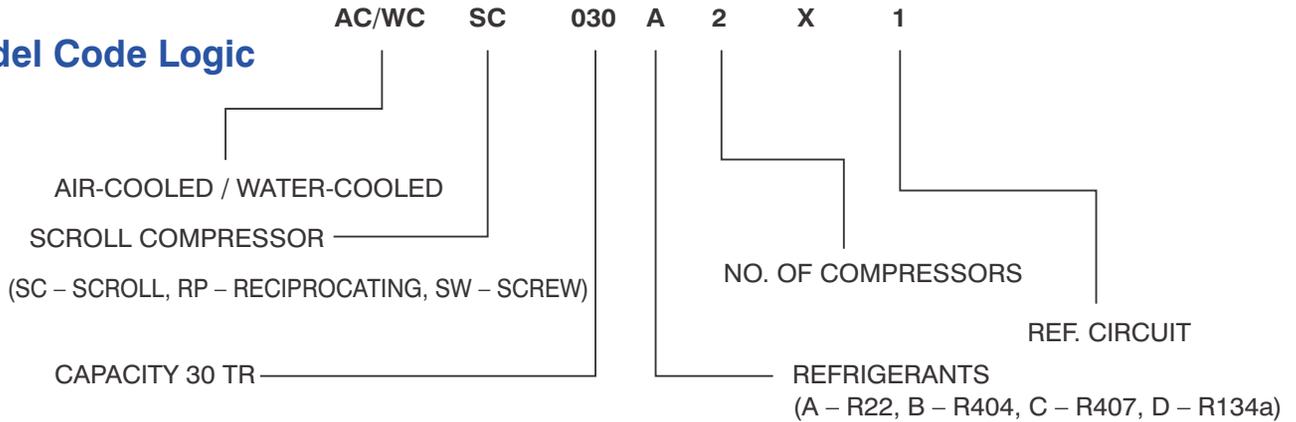


Mineral Water Applications



Plastic Process Industries

Model Code Logic



- No. of Comp. per Ref. Circuit : For Ex. 2x1 – Double Comp. per Single Circuit, 2x2 – Double Comp. per Double Circuit
- All Chillers are Indoor Type

Table - 1 (Scroll Chiller – Air-Cooled)

Sr. No.	Model No.	*Capacity (In TR)	No of Comp		No of Water Circuit	Chiller Pump		Dimension (L X W X H) in Inch
						Max Flow In LPM	Max Pressure In Bar	
1	ACSC005A1X1	5	1	X	1	67	4.8	58 X 26 X 46
2	ACSC008A1X1	8	1	X	1	310	2.0	87 X 38 X 60
3	ACSC010A1X1	10	1	2	1	310	2.0	87 X 38 X 60
4	ACSC012A1X1	12	1	2	1	235	2.8	87 X 38 X 60
5	ACSC017A1X1	17	1	2	1	320	2.8	102 X 51 X 84
6	ACSC022A1X1	22	1	2	1	320	2.8	102 X 51 X 84
7	ACSC026A1X1	26	1	2	1	450	2.5	102 X 51 X 84
8	ACSC034A2X1	34	X	2	1	600	2.4	169 X 57 X 81
9	ACSC044A2X1	44	X	2	1	600	2.4	169 X 57 X 81
10	ACSC052A2X1	52	X	2	1	900	2.6	169 X 57 X 81

*Capacity rated on the base of Refrigerant R-22, water inlet temp. 17°C & water outlet temperature 12°C, Ambient Temperature +43°C.

Table – 2 (Scroll Chiller – Water-Cooled)

Sr. No.	Model No.	*Capacity (In TR)	No of Comp		No of Water Circuit	Chiller Pump		Dimension (L X W X H) in Inch
						Max Flow In LPM	Max Pressure In Bar	
1	WCSC005A1X1	5	1	X	1	67	4.8	58 X 26 X 46
2	WCSC008A1X1	8	1	X	1	310	2.0	58 X 26 X 46
3	WCSC10A1X1	10	1	X	1	310	2.0	80 X 37 X 40
4	WCSC012A1X1	12	1	2	1	310	2.0	80 X 37 X 40
5	WCSC014A1X1	14	1	2	1	235	2.8	80 X 37 X 40
6	WCSC019A1X1	19	1	2	1	320	2.8	89 X 42 X 46
7	WCSC024A1X1	24	1	2	1	320	2.8	89 X 42 X 46
8	WCSC029A1X1	29	1	2	1	450	2.5	89 X 42 X 46
9	WCSC038A2X1	38	X	2	1	600	2.4	112 X 49 X 51
10	WCSC048A2X1	48	X	2	1	600	2.4	112 X 49 X 51
11	WCSC058A2X1	58	X	2	1	900	2.6	117 X 53 X 54

*Capacity rated on the base of Refrigerant R-22, water inlet temp. 17°C & water outlet temperature 12°C, Ambient Temperature +43°C. Condenser water inlet temperature 30°C – 32°C.

Table – 3 (Screw Chiller – Air-Cooled)

Sr. No.	Model No.	*Capacity (In TR)	No of Comp	No of Water Circuit	Chiller Pump		Dimension (LXWXH) in Inch
					Max Flow in LPM	Max Pressure in Bar	
1	ACSW035A1X1	35	1	1	600	2.4	140 X 83 X 74
2	ACSW045A1X1	45	1	1	900	2.6	140 X 83 X 74
3	ACSW060A1X1	60	1	1	900	2.6	184 X 83 X 74
4	ACSW070A1X1	70	1	1	900	2.6	184 X 83 X 74
5	ACSW080A1X1	80	1	1			
6	ACSW090A1X1	90	1	1			

*Capacity rated on the base of Refrigerant R-22, water inlet temp. 17°C & water outlet temperature 12°C, Ambient Temperature +43°C.

Table – 4 (Screw Chiller – Water-Cooled)

Sr. No.	Model No.	*Capacity (In TR)	No of Comp	No of Water Circuit	Chiller Pump		Dimension (LXWXH) in Inch
					Max Flow in LPM	Max Pressure in Bar	
1	WCSW035A1X1	35	1	1	600	2.4	118 X 57 X 57
2	WCSW045A1X1	45	1	1	900	2.6	118 X 57 X 57
3	WCSW060A1X1	60	1	1	900	2.6	118 X 57 X 65
4	WCSW070A1X1	70	1	1	900	2.6	118 X 57 X 65
5	WCSW080A1X1	80	1	1	1750	2.5	118 X 57 X 65
6	WCSW090A1X1	90	1	1	1750	2.5	118 X 57 X 65
7	WCSW100A1X1	100	1	1	1750	2.5	118 X 61 X 67
8	WCSW115A1X1	115	1	1	1750	2.5	130 X 61 X 67
9	WCSW130A1X1	130	1	1	2000	2.9	130 X 61 X 67

*Capacity rated on the base of Refrigerant R-22, water inlet temp. 17°C & water outlet temperature 12°C, Ambient Temperature +43°C. Condenser water inlet temperature 30°C – 32°C

Table – 5 (Glycol Chiller - Air-Cooled)

Sr. No.	Model No.	*Capacity (In TR)	Refrigerant				No. of Comp. Per Ref. Circuit		
			A	B	C	D	Comp. Qty		Ref. Circuit
			R22	R404	R407	R134a			
01	ACRP01.5B1x1	1.5	OP	P	OP	OP	1	x	1
02	ACRP002B1x1	02	OP	✓	OP	OP	1	x	1
03	ACRP003B1x1	03	OP	✓	OP	OP	1	x	1
04	ACRP004B1x1	04	OP	✓	OP	OP	1	x	1
05	ACRP005B1x1	05	OP	✓	OP	OP	1	x	1
06	ACRP007B1x1	07	OP	✓	OP	OP	1	x	1
07	ACRP009B1x1	09	OP	✓	OP	OP	1	x	1

*Capacity rated on the base of Refrigerant R-404, water inlet temp.-15°C & water outlet temperature -20°C, Ambient Temperature +43°C

Table – 6 (Glycol Chiller – Water-Cooled)

Sr. No.	Model No.	*Capacity (In TR)	Refrigerant				No. of Comp. Per Ref. Circuit			Condenser Water Flow rate (LPM)
			A	B	C	D	Comp. Qty		Ref. Circuit	
			R22	R404	R407	R134a				
01	WCRP002B1x1	02	OP	✓	OP	OP	1	x	1	110
02	WCRP003B1x1	03	OP	✓	OP	OP	1	x	1	210
03	WCRP004B1x1	04	OP	✓	OP	OP	1	x	1	250
04	WCRP005B1x1	05	OP	✓	OP	OP	1	x	1	350
05	WCRP07.5B1x1	7.5	OP	✓	OP	OP	1	x	1	425
06	WCRP009B1x1	09	OP	✓	OP	OP	1	x	1	440
07	WCRP011B1x1	11	OP	✓	OP	OP	1	x	1	650

*Capacity rated on the base of Refrigerant R-404, water inlet temp. -15°C & water outlet temperature -20°C, Ambient Temperature +43°C, Condenser water inlet temperature 30°C - 32°C.

• Glycol Chiller outlet temperature ranging from -10°C to -40°C, For other temperature, higher ambient, other capacity please refer to Bharat Refrigerations sales team.

Table – 7 (Mineral Water Chiller – Air-Cooled (Online / Offline))

Sr. No.	Model No.	*Capacity (In TR)	No of Comp	No of Water Circuit	Chiller Pump		Dimension (L X W X H) in Inch	
					Max Flow In LPM	Max Pressure In Bar		
1	ACRP002A1X1	2	1	x	1	45	3.0	48 X 22 X 44
2	ACRP003A1X1	3	1	x	1	45	3.0	48 X 22 X 44
3	ACSC05A1X1	5	1	x	1	67	4.8	58 X 26 X 45

Controller Options

(1) Microprocessor Based Controller For Scroll / Reciprocating Chiller



The LCD screen shows description of the controller parameters, and any other information concerning the controlled variables.

Display Size : 2 line display with 16 characters

Liquid Crystal Display (LCD)

(2) PLC Based Controller For Screw Chiller

- Its programmable logic controller that is fully compatible (hardware and software), which includes programmable controllers, user terminals, gateways, communication devices and remote management devices.
- Self identification functions its shows history of trips with date and time as well as cause of trips.



3) Optional Controller Features

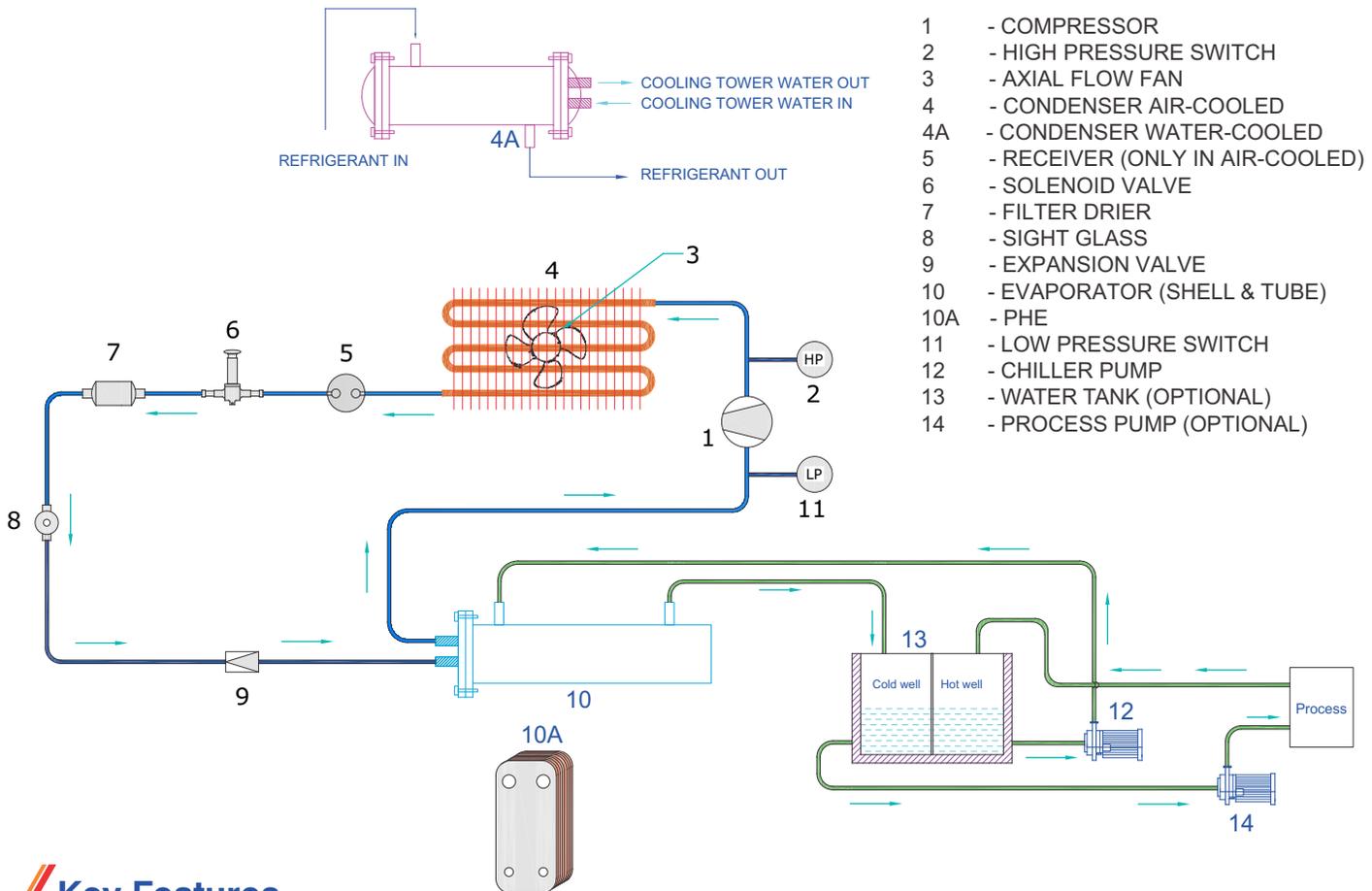
- Touch Screen display
- Data logging Facility
- Modbus (RS 485) / Ethernet communication
- Remote Control Facility

System Safety features (Trip Signals)

- High Pressure
- Low Pressure
- High Voltage
- Low Voltage
- Phase Failure
- Chiller Pump Overload
- Compressor Overload
- Condenser Fan Overload
- Condenser Pump Overload
- Low Water Flow in Chiller
- Low Water Flow in Condenser
- Single Phase Prevent
- Anti-freeze Trip

Note : Controller informs the user of a fault condition via a Buzzer and an Alarm Relay or by Message on display

Refrigeration Cycle



Key Features

- Hermetic (Sealed) / Semi-Hermetic Scroll, Reciprocating, Screw Compressor with compressor protection facilities
- Shell & Tube Evaporator : Imported Inner grooved copper tube with higher surface area and Higher fouling factor
- Shell & Tube Condenser : Imported low Inner Grooved and High outer grooved copper tube with higher surface area and higher fouling factor
- Fin & Tube Condenser : imported Inner grooved copper tube and aluminium fin with high surface area for high ambient condition
- Availability of Customized Solution
- Eco-friendly Refrigerant
- Wide Range of Water/Glycol Temperature (+20°C to -40°C)
- Modular Design
- Easy operation & less maintenance
- Compact in size
- **All Scroll Chiller With VFD (Inverter) are available**
 - Power saving
 - Smooth running in operation
 - Higher refrigerant side COP
 - Precise temperature control

Dimple Plate in Tank Type Chiller

Evaporator	: Dimple Plate Type (S.S plate)
Condenser	: Air-Cooled / Water-Cooled
Water Temperature Range	: +2°C to +4°C
Application	: Food & Bakery Industry
Tank M.O.C	: Inner S.S 304 & Outer G.I.PP/S.S 304
Insulation	: PUF





Air-Cooled V Condenser Screw Chiller



Air-Cooled Screw Chiller



Air-Cooled Scroll Chiller



Online Chilling Plant



Industrial Chilling Plant



Water-Cooled Glycol Chiller



Water-Cooled Screw Chiller



Water-Cooled Screw Chiller



Water-Cooled Scroll Chiller



Dimple Plate Chiller



Water Tank

Water Tank Features

- Capacity Range : 100 Ltr to 25000 Ltr
- High grade PUF insulation with 40 kg/m³ Density and 55 – 60 mm thickness
- 24 Hour temperature maintain within $\pm 1^{\circ}\text{C}$
- Material : Inner : SS 304 / MS
Outer : GIPP / SS 304
- Tank Including with Over flow, Drain and Make up water with float ball valve

Sr. No.	Capacity (In Ltr)	Outer Dimension (LXWXH) in Inch
1	250	35 X 29 X 27
2	500	45 X 35 X 32
3	750	65 X 35 X 32
4	1000	65 X 35 X 39
5	2000	93 X 45 X 39
6	4000	90 X 64 X 58



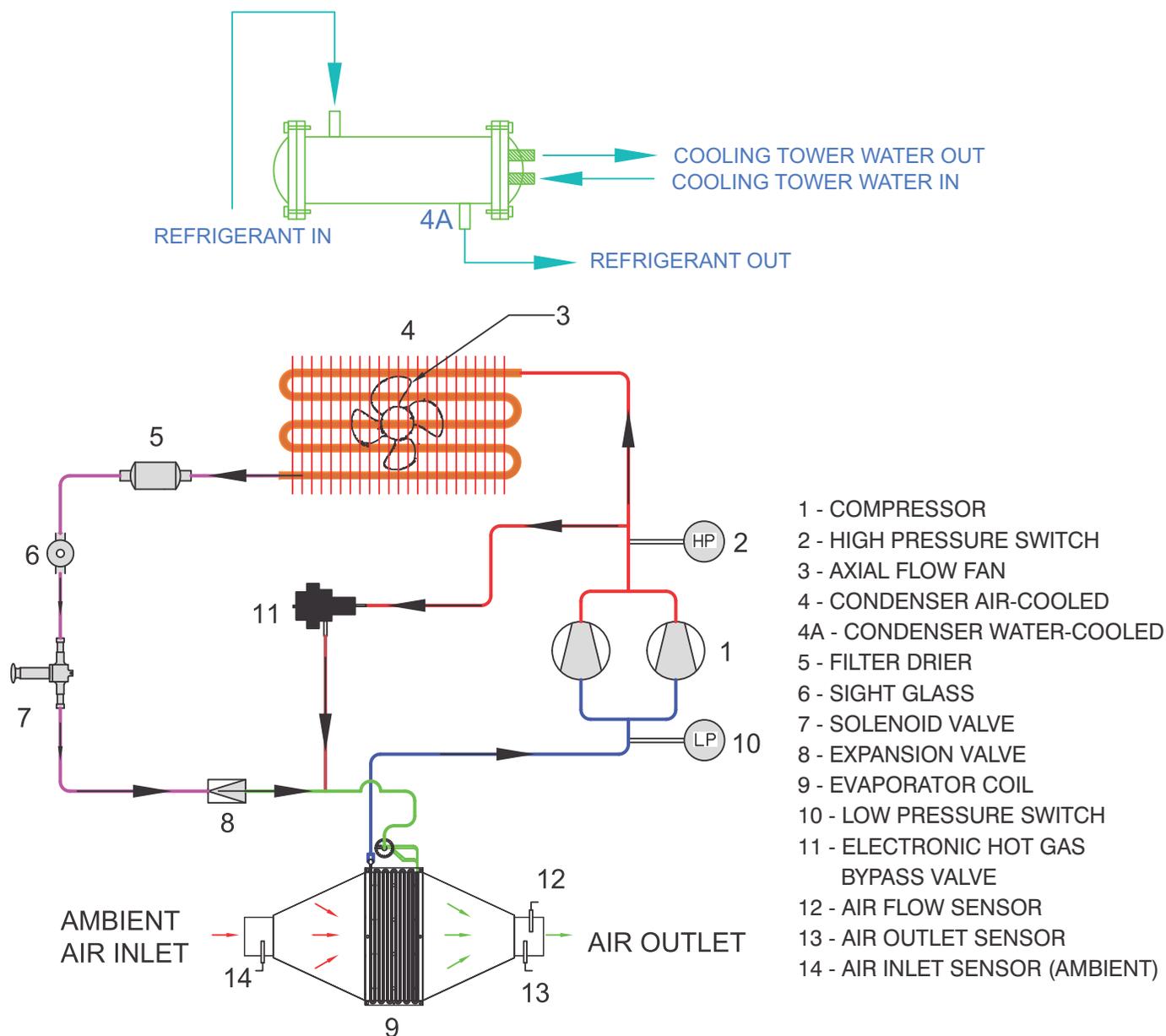
Advantages:

- Compact design
- Low energy consumption
- Low temperature cooling
- Precise temperature control $\pm 1^{\circ}\text{C}$ due to electronic hot gas bypass valve
- Larger size air filter at inlet of air
- Consistent film quality

Application:

- Film Plant - For IBC & OBC Ring Cooling
- Pulverizing - For Grinding of Plastics

Refrigeration Cycle



Air-Cooled / Water-Cooled Air Chiller Specifications:

MODEL	ACAC/WCAC		ACAC/WCAC		ACAC/WCAC		ACAC/WCAC	
	1000	2000	3000	4000	5000	6000	8000	
MAX.AIR FLOW RATE (m ³ /hr)	1000	2000	3000	4000	5000	6000	8000	
MIN. AIR FLOW RATE (m ³ /hr)	400	800	1200	1600	2000	2400	3200	
TEMPERATURE RANGE	5°C to 20°C							
AIR INLET TEMPERATURE / R.H.	40°C / 40 %							
AIR OUTLET TEMPERATURE	15°C							
REFRIGERANT	R22							
NO. OF COMPRESSOR	2							
CIRCUIT	TANDEM							
POWER SUPPLY	415V, 3-PHASE, 50HZ							

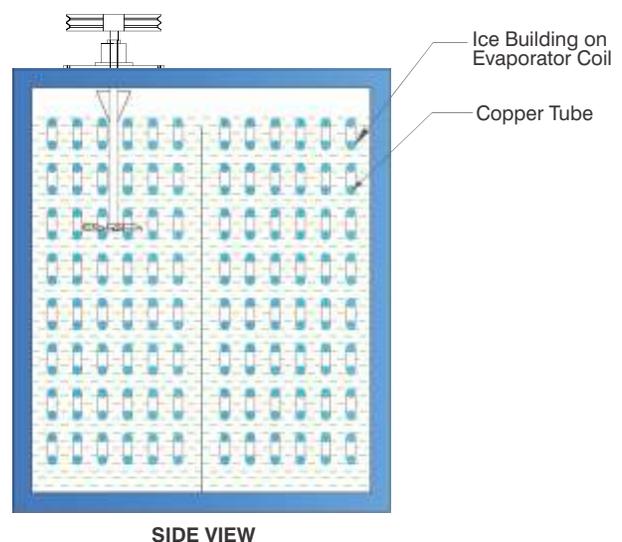
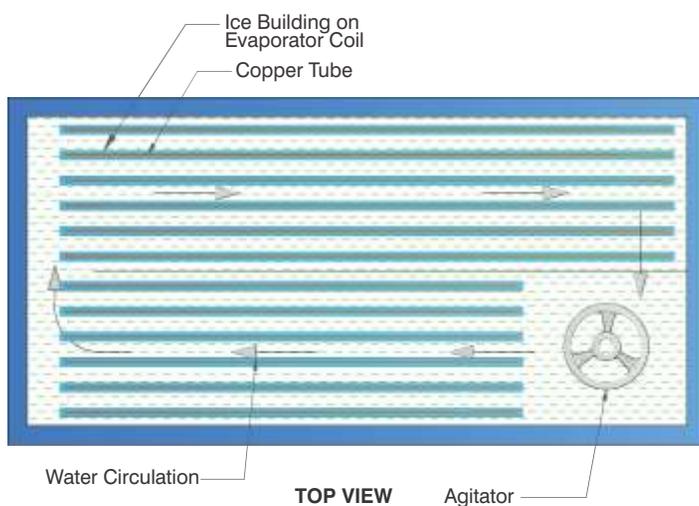
IBT is a system, which stores energy in the form of ICE.
It is applicable in Dairy Industry for quick process in short time with certain limit of power load.

NO NEED OF CIVIL & FABRICATION WORK AT CUSTOMER SITE
EASY TO LIFT & SHIFT | 40% ENERGY EFFICIENT | BETTER INSULATION

(IBT - COIL IN TANK TYPE)



(IBT - COIL IN TANK TYPE)



Advantage

- Requires less connected power load
- The ice water intensively cools the product without any risk
- Power supply is not required once ice formation is completed
- No requirement of Cooling Tower and water supply (For Air-Cooled type)
- Wide capacity with storage tank upto 1,00,000 Ltr. / 33,000 KG ice formation per day
- Cooling energy storage capacity upto 900 TR/Day

Material of Construction

Outer:

- A : Pre-coated GI sheet with PVC film thickness 0.5mm
- B : S.S. sheet, grade 304, thickness 0.5mm

Inner:

- A : M.S. Sheet Thickness 2.4 to 6 mm with epoxy paint.
- B : S.S. sheet, grade 304, Thickness 0.8 to 1.6mm

Buckets:

M.S. angle & channel 65x5 mm to 100x8 mm with paint.

PUF Insulation:

The tank has 80mm insulation, which helps to stop energy loss & consumes lesser power.

Protection & Control accessories:

- Large graphic LCD screen
- Finger-touch menu with simple controls
- Continuous, accurate display of each action

SR NO.	MODEL	TANK CAPACITY	REFRIGERATION	UNIT CAPACITY (TR)	STIRRER SYSTEM	ICE PRODUCE	COOLING STORAGE	BODY SIZE	CONNECTED
		Ltr.	UNIT CAPACITY TR (TON REFRIGERATION)	NO. OF UNITS		TYPE	CAPACITY IN KG (AFTER 20 Hr. WORKING)		
		Ltr.	TOTAL	TR		KG	TR	TOTAL (LxWxH)	KW
1	IBT-501.5	500	1.5	1.5 x 1	Pump	412.5	12	45 x 35 x 39	2.4
2	IBT-1002	1000	2	2 x 1	Pump	550	17	65 x 35 x 39	2.78
3	IBT-1003	1000	3	3 x 1	Agitator	825	24	65 x 35 x 39	3.8
4	IBT-2003	2000	3	3 x 1	Agitator	825	26	93 x 45 x 39	3.8
5	IBT-3003	3000	3	3 x 1	Agitator	825	28	83 x 59 x 69	3.8
6	IBT-2004	2000	4	2 x 2	Agitator	1100	34	93 x 45 x 39	5.8
7	IBT-3004	3000	4	2 x 2	Agitator	1100	35	83 x 59 x 69	5.8
8	IBT-3005	3000	5	5 x 1	Agitator	1375	43	83 x 59 x 69	6.2
9	IBT-4005	4000	5	5 x 1	Agitator	1375	44	91 x 71 x 69	6.2
10	IBT-4006	4000	6	3 x 2	Agitator	1650	52	91 x 71 x 69	7.8
11	IBT-6006	6000	6	3 x 2	Agitator	1650	55	130 x 71 x 69	7.8
12	IBT-6010	6000	10	5 x 2	Agitator	2750	85	130 x 71 x 69	12.2
13	IBT-8010	8000	10	5 x 2	Agitator	2750	89	170 x 71 x 69	12.2
14	IBT-10010	10000	10	5 x 2	Agitator	2750	92	205 x 71 x 70	12.2
15	IBT-10015	10000	15	5 x 3	Agitator	4125	130	205 x 71 x 70	18.6
16	IBT-12015	12000	15	5 x 3	Agitator	4125	133	248 x 71 x 70	18.6
17	IBT-15020	15000	20	5 x 4	Agitator	5500	176	264 x 81 x 70	24.8
18	IBT-18020	18000	20	5 x 4	Agitator	5500	181	264 x 79 x 83	24.8
19	IBT-20026	20000	26	12.8 x 2	Agitator	7150	229	264 x 84 x 86	27.2
20	IBT-25038	25000	38	12.8 x 3	Agitator	10450	328	264 x 86 x 103	41
21	IBT-28038	28000	38	12.8 x 4	Agitator	10450	333	264 x 95 x 103	41

Cold Room / Storage

- Cold Room PUF Panels (Discontinuous Type) 60, 80, 100, 125 & 150 mm
- Cold Room Door
- Solar Cold Room
- Glass Door Display Chiller
- Condensing Unit (Air/Water Cooled)
- Evaporator Unit
- Control Panel for Cold Room
- Curd Incubation Chamber
- Ripening Chamber
- Pre-Cooling Chamber
- Blast Freezer & Chiller

Commercial Refrigeration

- Ice Cream Mix Plant
- Batch Pasteurizer
- Ageing Vat
- Bulk Milk Chiller
- Ice Candy Production Machine
- Ice Cream Hardener (Static/Tunnel Type)
- Mini Blast Freezer & Chiller
- Heat Pump Food Dehydrator

Ammonia Refrigeration

- Turnkey Projects for Cold Stores
- Water Chillers for Dairy
- Glycol Chillers for milk deep chilling for dairy
- Glycol chillers for beverage plants
- Glycol chillers for brewery plants
- Water Chillers for Pharma
- LP Receivers with Ammonia Pumps for retrofit plants
- Ice Accumulating Coils
- Atmospheric Condensers

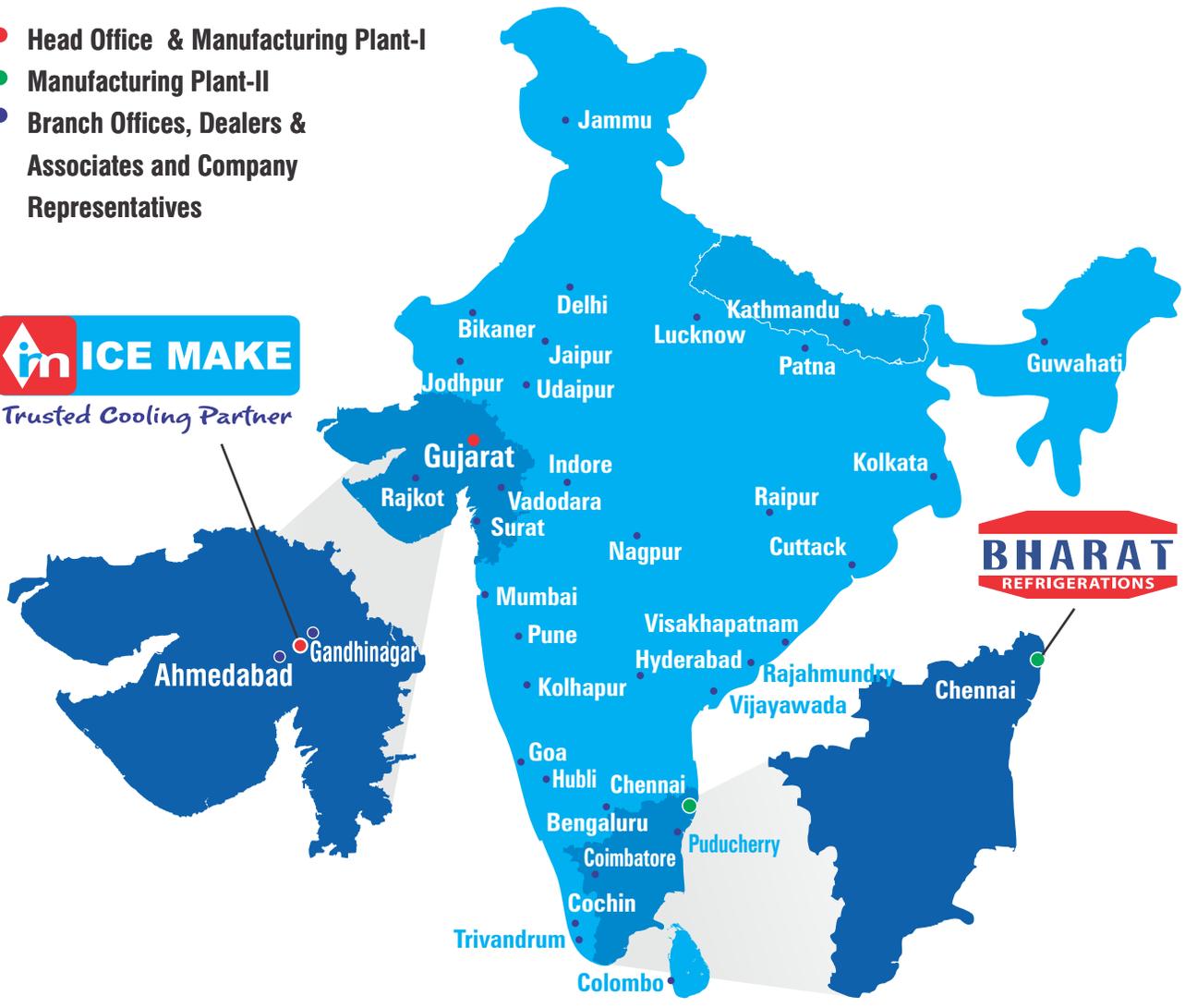
Transport Refrigeration

- Refrigerated Vehicle (GRP)
- Refrigerated Van - Eutectic (GRP)
- Detachable Mobile Container
- Bunk House
- Dry insulated container (GRP)

OUR VALUED CLIENTS



- Head Office & Manufacturing Plant-I
- Manufacturing Plant-II
- Branch Offices, Dealers & Associates and Company Representatives



JUST A MATTER OF REACH!

Our team of dedicated professionals are responsible for the day-to-day operations of after-sales services. They are strategically positioned across India and proximate to clients' location, such that, they can reach the clients' premises within desired time of placing the service call

Toll Free Service No.: 1800-102-4615



Bharat Refrigerations Pvt. Ltd.

(Wholly Owned Subsidiary of ICE MAKE REFRIGERATION LIMITED)

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Trusted Cooling Partner

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