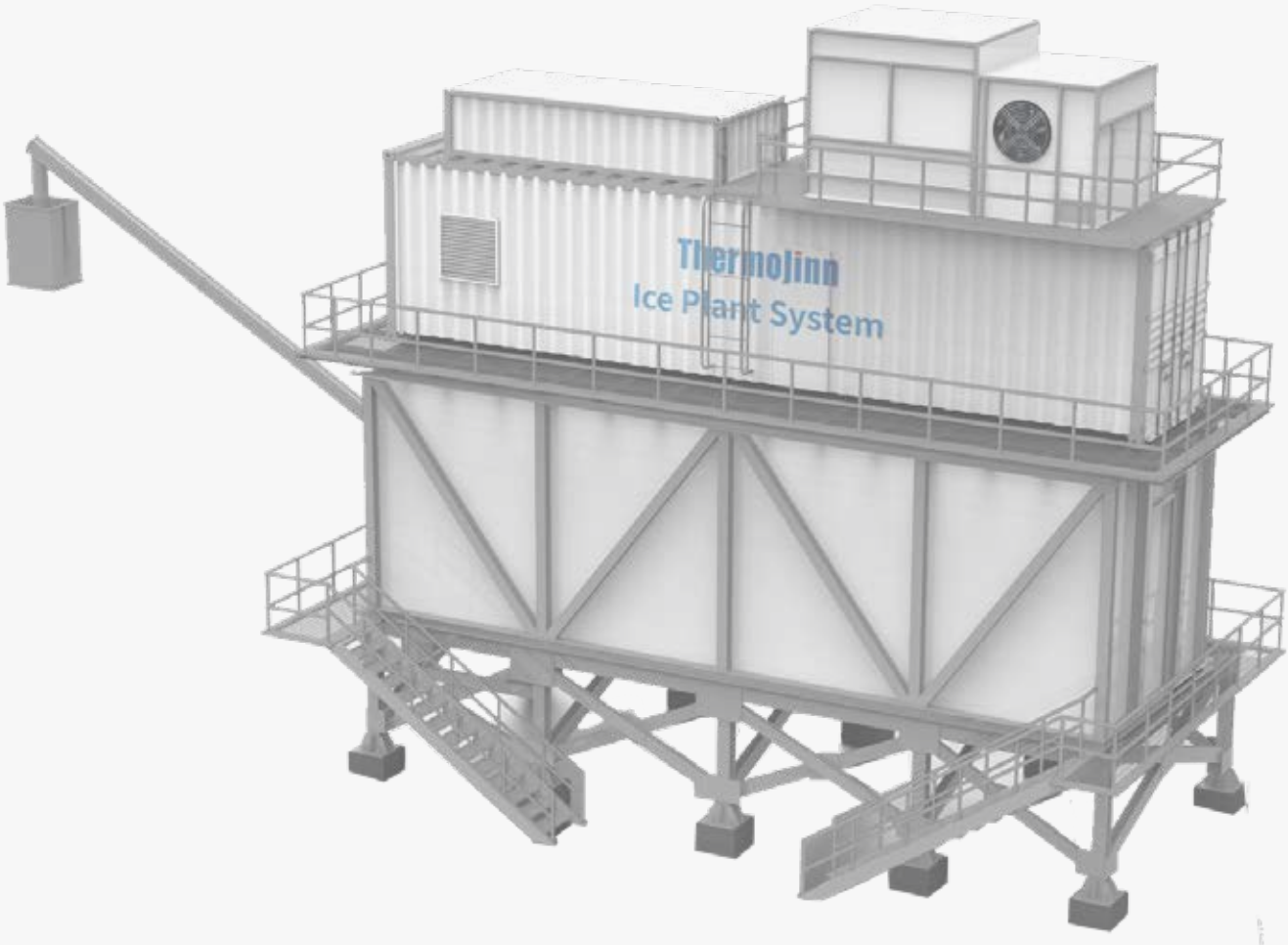
Thermojinn

Concrete Cooling System



√ *Quick installation*

√ *Modular Design: Ice Storage, Ice Plant, Chiller*

√ *Service Center in Daman,*
Dubai, Indonesia, Thailand, Mexico

√ *Extremely quick to install,*
reducing times and costs of installation

√ *Best ice production qulity, power efficiency*

√ *Remote control, user friendly interface*

Product Information

Thermojinn containerized Ice plant for flake ice machine is divided into two types: 20feet model and 40 feet model. Equipped with other equipment such as automatic Ice storage and Ice delivering system into a container in order to simplify transportation and installation

Model naming (complete model code should be noted in the order)

Ice Plant:
TJ-FIP100: ThermoJinn Flake Ice Plant, 100T/day.

Ice Storage:
TJ-AIS 40: Auto Ice Storage 40ton capacity.

Ice Delivery - Screw type:
TJS-15: ThermoJinn Screw type delivery, capacity: 15t/hour

Ice Weighting System:
PWT400: Pneumatic Weighing hopper, capacity: 400kg/time

Chiller:
TJ-ICW/CW: ThermoJinn
Ice Cooling Water
Chiller System

Standard Configuration

- Low noise Semi-Hermetic compressor: Bitzer, Hanbell, Skadi, Thermojinn
- Flake Ice Drum: chrome galvnized for long term service
- Auto raking storage system, less troubles of ice blocking
- Screw or Pneumatic ice delivery system
- Evapoorative condenser: Thermojinn
- High efficient heat exchanger
- Danfoss control valves
- Touch screen

Optional Configuration of TJ Ice plants and Chillers

Power supply:
380V/3ph/50hz
380V/3ph/60hz
208-230/3~/60hz
440-460/3~/60hz
...

Condensation type:
Water tower cooling
Air cooling
Evaporative Cooling

Ice Plant Type:
Flake ice plant
Tube ice plant
Plate ice plant

Electrical accessories:
Prearrangement for supervision system

Non-Containerized:
Modular chiller - non containerized
Modular ice plant - non containerized

PRODUCT PARAMETERS

Flake Ice Plant

Model	Daily Cap (t/d)	Ref.Cap. (kw)	Inst.Power (kw)	Cons.Power (kw)	Cons.Water (ltr/hr)
TJ-FIP10	10	63	35	31	416
TJ-FIP15	15	90	52	45	624
TJ-FIP20	20	113	63	55	832
TJ-FIP25	25	142	79	69	1040
TJ-FIP30	30	164	91	79	1248
TJ-FIP40	40	221	123	108	1664
TJ-FIP50	50	285	159	139	2080
TJ-FIP60	60	323	180	158	2496
TJ-FIP80	80	442	246	216	3328
TJ-FIP100	100	556	309	272	4160

Note: Above data is based on 380v/3ph/60hz, R404a, with water inlet temp <25℃

Auto Ice Storage

Model	Ice Strorage Capacity(ton)	Type	Length (mm)	Width (mm)	Height (mm)
AIS18	18	Containerized	12192	2438	2591
AIS23	23	Containerized	12192	2438	2896
AIS40	40	Combined	12212	3680	3680
AIS50	50	Combined	12212	3680	4150
AIS60	60	Combined	12212	4150	4150
AIS75	75	Combined	12212	4900	4150
AIS90	90	Combined	15000	4900	4150
AIS100	100	Combined	15000	5195	4150

Ice Delivery Sytem - Screw type

Model	Ice Delivery Capacity (Ton/h)	Length (m)	Power (kw)
TJS-10	10	15	5.5
TJS-15	15	15	7.5
TJS-20	20	12	7.5

Ice Weighing Hopper - Pneumatic type

Model	Capacity (kg)	Length (mm)	Width (mm)	Height (mm)
PWT200	200	800	720	1300
PWT250	250	800	800	1400
PWT300	300	800	800	1600
PWT350	350	850	800	1700
PWT400	400	900	800	1800
PWT450	450	1000	800	1800
PWT500	500	1000	800	1980

Water Chiller System - 1℃ water output

Model	Unit	TJ-ICW60	TJ-ICW 120	TJ-ICW 180	TJ-ICW 240	TJ-ICW 312	TJ-ICW 360
Daily capacity	T/d	60	120	180	240	312	360
Ice water flow	m³/hr	2.5	5	7.5	10	13	15
Necessary Ref. cap.	kw	124	260	390	520	675	780
Installed Ref.cap.	kw	139.1	289.4	441.9	571.7	725	815.4
Installed Power	kw	36.8	66.1	97.6	121.6	165.8	196.8
Running Power	kw	27.6	52.9	78.1	97.3	132.6	157.4
System COP	kw/kw	3.99	4.13	3.87	4.14	3.68	4.15
Container	ft	20	20	40	40	40	40
Chilled water tank *	m³	20	40	60	80	100	100

Note: "*" means supplied by customer

Why Temp Control of Concrete is needed?

During condensation and rigidification process of concrete, hydrated cement produces a large amount of hydration heat. When the heat accumulates, the temperature increase inside the concrete will become rapider. The concrete structure is thick and large, which has low thermal conductivity and makes the heat hard to emit, therefore, the temperature difference between the inside and the outside of the concrete is excessive and tensile stress comes up. When the tensile stress excesses the current concrete ultimate tensile strength, the concrete surface will crack. Generally, the temperature difference between inner and outer part of the concrete should not exceed 25℃, otherwise there would be crack to the concrete.

In order to prevent cracking, maximum temperature inside the concrete should be controlled strictly. One of the methods of controlling temperature is to reduce the concrete pouring temperature. Therefore, the concrete-out temperature should be limited. In hot season, the concrete-out temperature, in natural conditions, sometimes excesses the temperature limited by construction. Then, artificial temperature reduction is needed. Namely, precooling the aggregate and mixing the concrete with cold water and flake ice to reduce the concrete-out temperature. This is the most effective measure for reducing concrete pouring temperature. Thermojinn focuses on research, manufacture, and sales of the concrete cooling equipment. We have provided overall cooling and temperature reducing system for many famous sky-scrapers, water conservancy projects, nuclear power projects, mines and so on. Our products mainly include ice-making system, water-chilling system and automatic flake ice storing and delivering system. Thermojinn passed the certification of ISO900 quality system, ISO14001 environment management system and CE.

Components Examples

Application

ThermoJinn

Fuzhou ThermoJinn Reftech Co.,Ltd
Fujian Thermojinn Trade Co.,Ltd

Factory: Shengzhou, Zhejiang Province, China
Office: C1, R&F, Taijiang, Fuzhou, Fujian, China
Tel: 0086.591.87899520
Mob: 0086.15806062160 (whatsapp)
http://www.thermojinn.com | http://www.thermo-jinn.com

Distributor: