

A large circular graphic containing a grayscale photograph of a mountain range. The foreground shows a valley with a forest and some buildings. The background features a prominent, snow-capped mountain peak. A semi-transparent purple rectangular overlay is placed across the middle of the circle, containing the text 'INDUSTRIAL REFRIGERATION'.

# INDUSTRIAL REFRIGERATION

## TSUN MANAGEMENT TRAIT

Tsun refrigeration manufacturer company is proud to have at least 20 years of experience in consulting, design, supplying refrigeration equipment, and implementation of commercial and industrial refrigeration systems.

Engineering services include designing a new project or optimization of old refrigeration systems.

Backed by the experience of two decades and with the continuous support of the illustrious workforce of 150 expert personnel, In an atmosphere of friendship and dedication, sincerely strives to gain the confidence and satisfaction of national and international customers.

Adapting to updated requirements of the refrigeration, caused advocating in the development of economic achievements and thereby maximizing profit to our customer's favor.

It is anticipated that our search for excellence would prove effective in the development & economic briskness and expansion program towards industrial independence in the middle east region.

Our company's products are presented complying with international valid standards like ARI, ANSI/ASHRAE, IIR, BS, AD-Merkblatter, with high quality.

We provide such good facilities like warranty, after-sale services, and spare part supplies.

ETSUN  
FLOW EVERYWHERE



One year  
guarantee



Careful  
design



10 Years  
After sales services



Economic



Environmentally  
friendly

## Environment Requirements

TSUN is committed to looking for sustainable, efficient and innovative solutions to limit energy consumption and reduce greenhouse gas emissions.

Compliance with environmental regulations requires the implementation of suitable solutions.

**At TSUN we focus our developments on sustainable solutions with**



- Minimal refrigerant charge
- Use of environmentally and friendly refrigerants with low GWP and natural refrigerants
- High seasonal energy efficiency
- Recyclable materials

## Commercial Air cooler

TSUN commercial air coolers represented in different types of floor and ceiling mounted are designed to suit in commercial stores, storage rooms, food processing & industrial processing plants, and research centers equipment that demanding refrigeration.

The vast scope of refrigeration temperature of these coolers (-40°C, +10°C) and their conformity to all types of refrigerant feeding are amongst TSUN coolers high quality and important advantages.



- Capacity Range 1.7 to 76.7 kW
- Fan Diam. 350, 400, 450 or 500 mm
- Fin Spacing 4, 6 or 8 mm
- No of Fans 1,2, 3 or 4 Fans
- Ability to design in dual discharge or angle type



## Freezing tunnel

Freon industrial evaporators especially for blast freezers, yogurt tunnels, ice-cream tunnels and special usages based on the customer request, equipped with high static pressure fans, high speed air outlet & high air throw.

- Wall type vertical tunnel freezer NBT-V
- Capacity range 14.4 to 175.4 kW
- Fan diameter 630 or 710 mm
- NO. Of fans 1, 2, 3 or 4 fans
- Fin spacing 8 and 10 mm

## Condensing unit



Tsun has performed the design and manufacturing of condensing unit following his achievement in design and manufacturing of other halocarbon refrigeration equipment.

Vertical, horizontal or V-type condensing units are designed to distill halocarbon refrigerant gas in industrial processes, air conditioning and refrigeration systems. All of world up-to-date industrial standards are considered in designing the units with effort to obtain the maximum output.

Operation which produces minimum noises level and easy installation and handling results in the popularity of this series among consumers.

- Heat Rejection Capacity 13.3 kw to 838 kW
- Suitable Compressors 1.5 to 27 hp.
- No of Fans 1 to 4 Fans
- Fan Diameters 350, 400 , 450, 500, 550, 630, 710, or 800 mm
- Ability to design in vertically, horizontally, and V-type

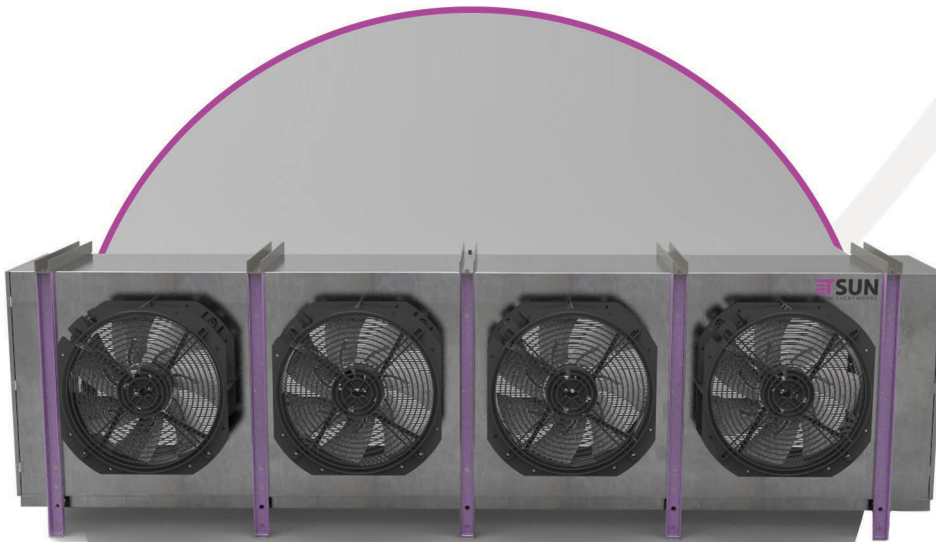
## Parallel Rack System



A parallel rack system is multiple compressor refrigeration units piped in parallel to yield smooth capacity control as compared to a single compressor unit.

A parallel system can be located in a backroom or on a roof in close proximity to refrigeration equipment for reduced piping. Parallel rack system match refrigeration capacity to your actual load and can yield savings of 20% or more over a single compressor unit.

- A wide range of compressors is available, including digital scrolls, to better match capacity and budget needs while providing the most energy-efficient and environmentally-friendly system
- Parallel units, matched to an appropriate condenser, may be modular allowing you to add or change compressors as needed
- The standard rack housing and the frame is made of hot deep galvanized steel with stainless steel as an option
- Optional subsoiling increases refrigerant efficiency on low temp applications by approximately 17%
- Optional heat reclaim increases energy efficiency by reclaiming waste heat from the condenser
- Optional gas defrost increases energy efficiency by using waste heat for defrosting
- Electronic controller units are also available on parallel systems. Choose from a variety of units depending on individual requirements such as monitoring of system features, diagnostics, interfacing with existing building controls and incorporating HACCP recording
- Alarm features are also an option



## Industrial Air Coolers

Industrial air coolers are designed as ceiling-mounted, wall-mounted, and floor-mounted and suitable for meeting refrigeration requirements ranging from +10°C to -50°C and flexible circuiting provides maximum refrigerant flow with minimum pressure drop in any kind of operation.

### Industrial air coolers have efficient application in all operating systems

- Flooded operation equipped with gravity circulation surge drum
- Pumped (mandatory circulation) operation
- Direct expansion operation
- Pumped operation with secondary refrigerant (like brine, ethylene glycol)

- Capacity range 3.5 to 365 kw
- Fan diameter 400 , 500 , 560 , 630 or 710 mm
- All parts are hot dip galvanized after fabrication
- No of Fans 2 to 8 Centrifugal Fans
- Equipped with ZEHIL-ABBEG fans according to IEC 34-5 and IP 54 protection group
- Test pressure is 30 bar
- fin spacing from 6 mm to 15 mm, or mix 12/15
- No of Fans 1 to 4 Fans



## Evaporative Condenser

Evaporative condensers are used to condense refrigerant gas in industrial processes, refrigeration systems and air conditioning. Comprising more than 40 models and a wide range of capacities they respond to all installation requirements.

- Refrigeration capacity 147 to 5000 KW
- It is capable of working with a variety of refrigerants such as R407C, R134a, and R717.
- Air flow range 18000 to 358189 m3/hr
- Fan diameter 18" , 22" , 25" , or 30"
- All parts are hot dip galvanized after fabrication
- Test pressure is 30 bar



## Cooling tower

**Closed type cooling towers for precise industrial systems such as metal melting, plastic injection, and petrochemical plants.**

- Capacity range 199 to 4620 kw
- Air flow range 18000 to 358189 m3/hr
- Fan diameter 18" , 22" , 25" , or 30"
- All parts are hot dip galvanized after fabrication
- Test pressure is 30 bar

**Open type cooling tower for refrigeration systems, air conditioning, power houses, ...**

- Capacity range 100 to 4680 ref. tons
- Air flow range 18000 to 358189 m3/hr
- Fan diameter 18" , 22" , 25" , or 30"
- All parts are hot dip galvanized after fabrication
- No of Fans 2 to 8 Centrifugal Fans

## Vertical & horizontal pressure vessels

The types of vertical and horizontal pressure vessels used in refrigeration plants are designed and manufactured by Tsun Company.

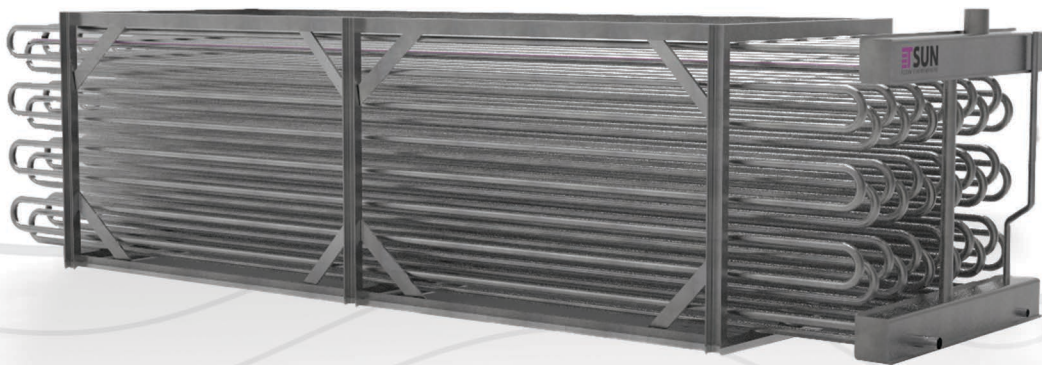
Tsun's pressure vessels are designed and manufactured to European standards and approved by the Austrian TUV Institute and are subject to quality testing and validation by external auditors.

- Diameter range up to 2000 cm
- Length range up to 12000 cm
- Temperature range -50°C to 50°C
- Working pressure range up to 20 bar



## Ice bank

Ice banks are the best way to storage the ice energy to reduce initial cost of industrial cooling and air conditioning projects.



- Reduce maintenance cost due to performance at lower pressure
- Capacity range 90 to 1220 kwh



## Compressor

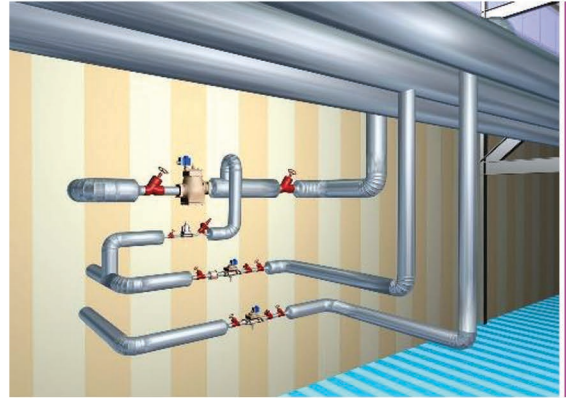
One of the main equipment used in the refrigeration industry is compressors, and Tsun uses world-renowned brands in its projects. These compressors can be designed in different models and capacities. Other refrigerant refrigerants can also be used in these compressors.

Our technical staff is by your side in all stages of selecting, supplying installing and operating the compressor and provides all the spare parts of the compressors with high quality and reasonable prices to the consumers.

- Capacity range 75 to 9678 kw
- evap. Temperature -50 to 0 °c

## Engineering & consulting services

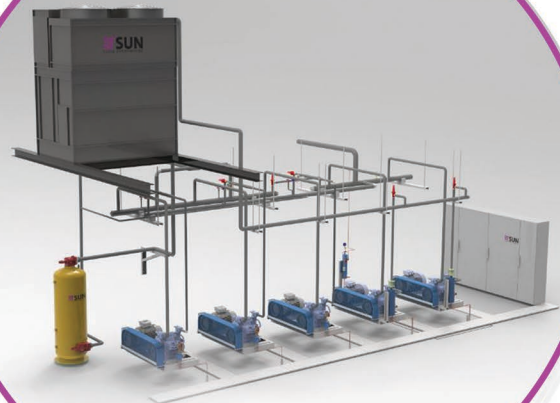
TSUN's Technical assistance network is focused on supporting our customers in equipment commissioning and follow-up, eventual incidences fix, both during the guarantee period and beyond, as well as in any other customer need.



TSUN's strategic policies consider the customer as the center of our operations and, consequently, we aim to become his first option.

## Installation

We will help you to design your plant for maximum efficiency, install and deliver it to you, safely, professionally and on time.



We will help you to select the right equipment and design the most suitable plant layout to maximize efficiency and operability in a safe working environment.

We will supply a broad scope of expertise, reducing complexity and risk, giving you better cost control and accelerating your launch.

## Training

Maximum effectiveness, increased reliability, reduced maintenance costs and a safe working environment with highly motivated employees – that's what you get with TSUN training.



## Technical support

Even the best equipment, in plants with the best condition, can sometimes experience errors and failures

### | Corrective Maintenance |

Tsun Engineers respond to the technical questions and needs of customers in the shortest possible time and, if necessary, repair them at the project site or in the company's workshops.

### | Preventive maintenance |

Tsun Company cooperates with customers by identifying the equipment of each organization, providing standards and instructions for maintenance and repair, setting up maintenance and repair plans, and controlling their implementation in maintaining the organization's capital.

### | Upgrades / Modernization / Optimization |

Tsun Company cooperates with customers by identifying the equipment of each organization, providing standards and instructions for maintenance and repair, setting up maintenance and repair plans, and controlling their implementation in maintaining the organization's capital.

## Spare Parts

We understand Spare Parts are a value-added service for our customer and not a business unit. We focus on providing him with value, facilitating and accelerating its management with personal attention and fair price. We maintain a permanent stock of high quality original spare parts that are verified and guaranteed.



**Original spare parts maintain the performance of your TSUN equipment and plant, ensuring safety and reliability, minimizing downtime and maximizing productivity.**



# Our \_\_\_\_\_ Customers





**TSUN**  
FLOW EVERYWHERE

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