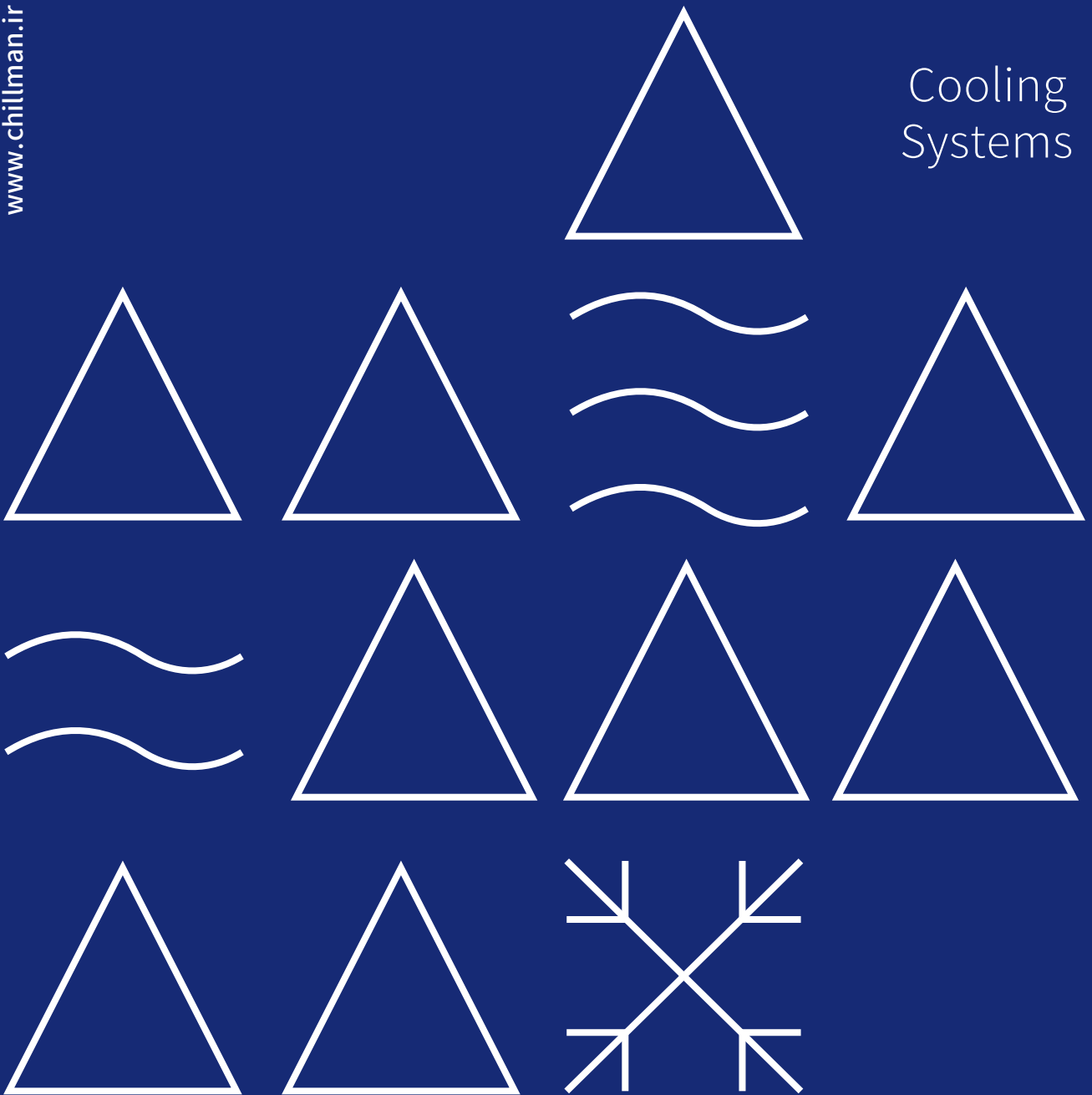


www.chillman.ir

Cooling Systems



CHILLMAN

Coolest HVAC team around

 Aircooled Chiller

powered by **PACKMAN** industrial group



About CHILLMAN

Chillman Company is one of the subsidiaries of Pakman Industrial Group. Pakman Company, with more than fifty years of experience in the field of marketing, has started to produce the Chillman brand in the production of new technologies in the cooling industry.

Chillman Company, by employing skilled and experienced personnel in the field of the country's cooling industry, has undertaken special engineering innovations in the production of products such as:

- Compression chillers
- Cold water compression chillers
- Cool air compression chillers
- Fan coil
- air conditioner
- Ice Bank

And other products required in the cooling industry.

Air Cooled Chiller





ITEM	UNIT	SCROLL COMPRESSOR				
General Data						
Cooling Capacity	TR(kW)	20 (70)	30 (105)	40 (140)	60 (210)	80 (280)
Refrigerant		R407C				
Input Power	ekW	31	42	56	86	118
Electric Power Supply	V/ph/Hz	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50
Compressors						
		Scroll Type				
Compressor Qty.	qty	4	4	4	4	4
Evaporator						
		Shell & Tube Heat Exchanger				
Water Flowrate	m ³ /hr	11	16	22	32	43
Evaporator Qty.	qty	1	1	1	1	1
Circuit per Evaporator	qty	2	2	2	2	2
Condenser						
		Finned Tube Heat Exchanger				
Condenser Qty.	qty	4	4	6	8	8
Condenser Row/FPI		3/12	4/12	4/12	4/12	4/12
Condenser Fan						
		Axial Fan				
Condenser Fan Qty.	qty	4	4	6	8	8
Expansion Valve						
		Electronic Expansion Valve				
Expansion Valve Qty.	qty	2	2	2	2	2
Package Dimensions						
		Dimension & Weight				
Lenght	mm	3000	3000	4300	5400	5400
Width		2400	2400	2400	2400	2400
Height		2600	2600	2600	2600	2600
Transport Weight	Kg	900	1260	1850	2440	3570

COOLING CAPACITY CONDITIONS:

- ELEVATION 1500m ABOVE SEE LEVEL
- OUTDOOR CONDITIONS: 40°C
- CONDENSER/EVAPORATOR TEMPERATURE: 50°C/5°C
- SUBCOOL/SUPERHEAT: 5°C/10°C
- CHILLED WATER OUT/IN: 7°C/12°C



Refrigrant



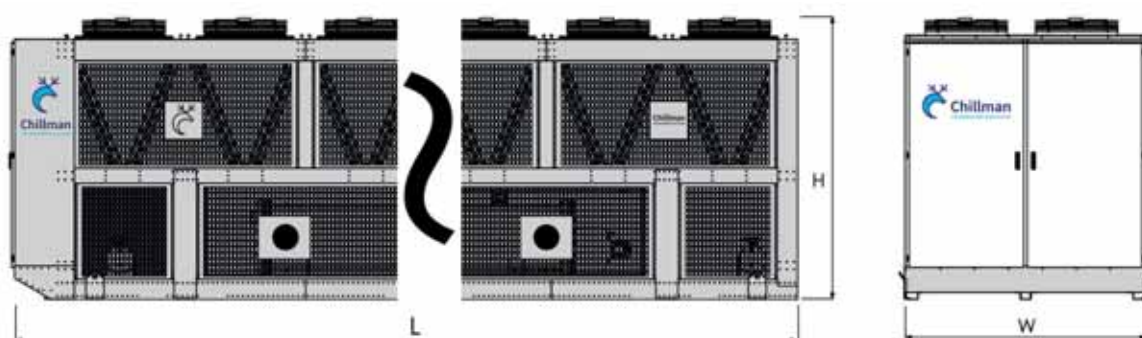
Scroll



Axial Fan

AIR COOLED CHILLER

Screw Compressor



ITEM	UNIT	SCREW COMPRESSOR									
General Data											
Cooling Capacity	TR(kW)	100 (350)	120 (420)	140 (490)	160 (560)	180 (630)	200 (700)	250 (875)	300 (1050)	400 (1400)	500 (1750)
Refrigerant		R134a									
Input Power	ekW	125	147	170	195	222	238	303	377	456	568
Electric Power Supply	V/ph/Hz	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50
Compressors											
Semi Hermetic Compact Screw											
Compressor Qty.	qty	2	2	2	2	2	2	4	4	4	4
Evaporator											
Shell & Tube Heat Exchanger											
Water Flowrate	m ³ /hr	55	65	76	87	98	107	135	160	216	270
Evaporator Qty.	qty	1	1	1	1	1	2	2	2	2	2
Circuit per Evaporator	qty	2	2	2	2	2	2	4	4	4	4
Condenser											
Finned Tube Heat Exchanger											
Condenser Qty.	qty	10	10	12	14	16	20	22	26	32	40
Condenser Row/FPI		4/12	4/12	4/12	4/12	4/12	4/12	4/12	4/12	4/12	4/12
Condenser Fan											
Axial Fan											
Condenser Fan Qty.	qty	10	10	12	14	16	20	22	26	32	40
Expansion Valve											
Electronic Expansion Valve											
Expansion Valve Qty.	qty	2	2	2	2	2	4	4	4	4	4
Package Dimensions											
Dimension & Weight											
Lenght		7700	7700	9100	10500	12000	14800	16200	19000	23400	28000
Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Height		2900	2900	2900	2900	2900	2900	2900	2900	2900	2900
Transport Weight	Kg	4900	5250	6800	7250	9000	10850	11200	15000	21000	23500

COOLING CAPACITY CONDITIONS:

- ELEVATION 1500m ABOVE SEE LEVEL
- OUTDOOR CONDITIONS: 40°C
- CONDENSER/EVAPORATOR TEMPERATURE: 50°C/5°C
- SUBCOOL/SUPERHEAT: 5°C/10°C
- CHILLED WATER OUT/IN: 7°C/12°C



Refrigerant



Screw



Axial Fan



Two Circuits



CHILLMAN

AIR-COOLED CHILLER

SPECIFICATION & FEATURES

SCROLL COMPRESSOR

Scroll compressors are now the most used compression technology replacing reciprocating compressors due to its undeniable superiority. Several, fully qualified, multiple compressor assemblies (tandem and trio) allow the use of scroll compressor into our large capacity chillers.



SCREW COMPRESSOR

All screw compressors are of high efficiency and reliability in all operating conditions and are equipped with separated radial and axial bearings, liquid injection and economizer connection, PTC motor temperature thermistors and discharge temperature thermistors, a motor protector, and oil level switch and oil pressure differential switch connector and other accessories. The compressors have the best reliability, longest bearing life during heavy duty running and strict operating conditions.

CONDENSER

Condenser coils will be designed to withstand maximum operating pressures and a maximum temperature of 300°F for standard duty copper tube coils with standard headers.

Coils will be of plate fin type construction providing uniform support for all coil tubes. Coils are to be manufactured by copper tube with self-spacing collars, which completely cover the entire tube surface. Fins are to be formed with full collar on all of tube diameters and tube patterns. Fin thickness will be 0.006" +/- 5% for aluminum. Fin spacing available will be at most 14 fins per inch.

Tubing and return bends will be fabricated from UNS 12200 seamless copper conforming to ASTM B75 for standard pressure and temperature applications. Core tubes will be mechanically expanded to form an interference fit within the fin collars. Expansion will not decrease the tube wall thickness. Coils will be manufactured using return bends of the same material as the core tubing. Return bend wall thickness, at the outside circumference of the bend, will be no less than the core tube wall thickness.



SHELL&TUBE EVAPORATOR

The evaporators are carefully engineered to provide excellent heat transfer rates, effective refrigerant boiling and assured oil carry-through. Shell circuits are engineered to provide high performance with a low-pressure drop to conserve the required pumping power. Evaporators made by Packman Group are designed for optimum heat transfer rates and features rolled-in tubes and removable heads. Shell side baffling is selected for high operating efficiency and reasonable fluid pressure drops. Compliance with ASME codes and quality controlled manufacturing make the cooler suitable for a wide variety of virtually trouble-free fluid cooling applications.

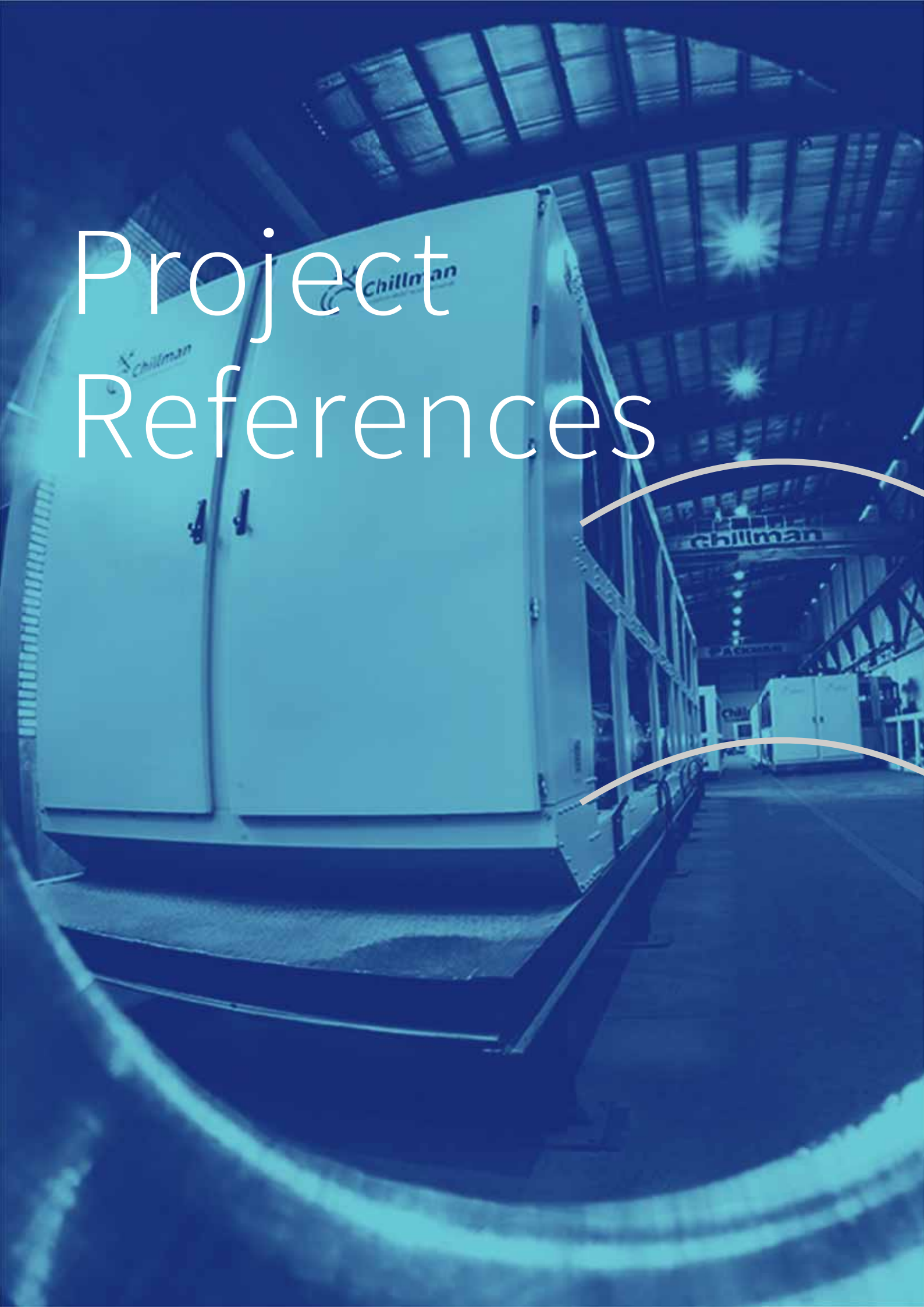


ELECTRONIC EXPANSION VALVE

Electronic expansion valves used in our chillers can manage refrigerant flow through cycle with high accurate precision. Modulation of refrigerant flow guarantees a wide operating range for chillers, due to the combination of the fixed opening and the moving element with a travel of 15 mm driven by stepper motor. These valves have been carefully designed down to the smallest detail, to guarantee high reliability, and ensures correct operation. Electronic expansion valves are made from modular components that are assembled during installation; this solution simplifies maintenance and inspection of the individual components.



Project References



SOME OF Our Projects



Ghoive Ghazaei
Hospital



Parand Combine Cycle
Power Plant



Atlas
Commercial Complex



Atieh 2 Hospital



Parsian Bank



Sarem
Hospital



Iran Khodro



Kazeroun
Power Plant



Erfan Niayesh Ministry of Power
Hospital



Ardebil Gas
Power Plant



Zar Shouran



Crouse
Company



Baghe Behesht



Chitgar
Complex



Opal Commercial
Complex



Damavand
Power Plant



Khoi
Power Plant



Almas Ghou
Complex



Moheb-e-Yas
Hospital

Power Plant & Petrochemical:

- ∩ Yazd Solar Power Plant
- ∩ Takht Jamshid Petrochem.
- ∩ Abadan Power Plant
- ∩ Kahnouj Power Plant
- ∩ Sport Complex & Pool
- ∩ Behbahan Power Plant
- ∩ Asalouye Power Plant
- ∩ Samangan Power Plant
- ∩ Shirvan Power Plant
- &...

Industrial:

- ∩ Sabah Dairy
- ∩ Daity Dairy
- ∩ Kaleh Dairy
- ∩ Isatis Pouya Yazd
- ∩ Pesian Noush
- ∩ Gilak Daneh
- ∩ Kermanshah Bio Ethanol
- ∩ Ofogh Tolid Darou
- ∩ Pakchoub Khouzeestan
- &...

Hospital:

- ∩ Imam Hosein Tehran
- ∩ Shahid Beheshti Isfahan
- ∩ Imam Khomeini Ahwaz
- ∩ Peyvand Aza Shiraz
- ∩ Chamran Shiraz
- ∩ Savaneh Sukhtegi Mashhad
- ∩ Shahid Sadoughi Yazd
- ∩ Amiralmomenin Zabol
- ∩ Imam Reza Amol
- &...



SOME OF OUR Clients



شرکت نفت ایران



گروه مدینا



شرکت کیسون



شرکت ایران خودرو



شرکت کاله



شرکت آب و فاضلاب استان تهران



دانشگاه تهران



شرکت یونیلور



شرکت دایری



شرکت توسعه صنایع ناسیسانی ایران



مجموعه فولاد مبارکه اصفهان



شرکت زر ماکارون



شرکت نصب نیرو



شرکت دریا بالا



شرکت ماموت



وزارت کار و امور اجتماعی



بانک مرکزی جمهوری اسلامی ایران



شرکت هلی حفاری ایران



بانک صادرات ایران



دانشگاه صنعتی امیرکبیر



بانک سپاربان



بانک گردشگری



دانشگاه تربیت مدرس



شرکت کره شکلی



بانک صنعت و معدن



شرکت ساختمانی سیت



قواید



دانشگاه صنعتی شریف



وزارت دفاع و پشتیبانی نیروهای مسلح



مرکز تحقیقات راه، مسکن و شهرسازی



شرکت ساختمانی و تأسیساتی سایول



دانشگاه علم و صنعت ایران



دانشگاه شهید بهشتی
دانشگاه پزشکی



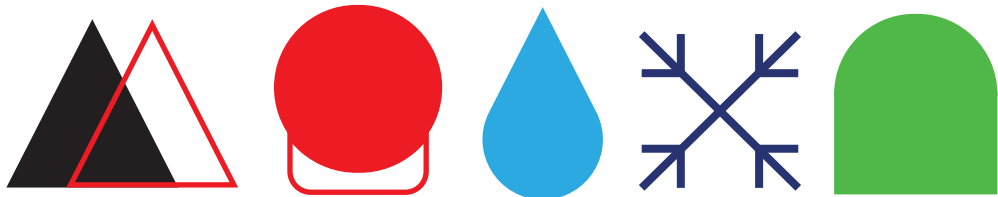
دانشگاه آزاد اسلامی



بینه آسیا



شرکت مهام شرق



PACKMAN GROUP

History

The Packman Company was founded in February 1975, and was soon afterwards registered in Tehran registration department. In early years the Packman construction and service branch focused on building construction. Different mega power plants were built by cooperating with Brown Boveri and Asseck companies in 1976.

The company started its official activities in construction of High-Pressure Vessels such as Hot-Water Boilers, Steam Boilers, Storage Tanks, Softeners and Heat Exchangers from 1984.

Packman Company is one of the first companies which supplied the high quality and standard hot water boilers to the customers.

Packman has exported its products to countries such as Uzbekistan, United Arab Emirates and other countries in the region. It is one of the largest producers of hot-water and steam boilers in the Middle East.

Now we are proud to announce that the Packman industrial group has five major sub-brands that have product titles in all field of HVAC equipment and engineering services, and we do not know this success except with the help and support of our customers.

1. Construction Services Industry Association
2. Industry Association
3. Construction Companies' Syndicate
4. Technical Department Association
5. Mechanical Engineering Association
6. Engineering Standard Association

Departements:

Sales Deps:

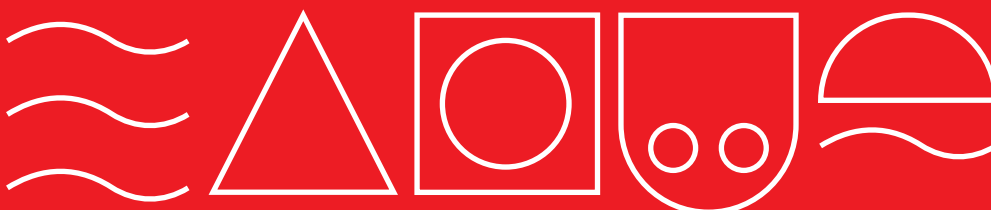
- ∩ Power Plant & Petrochemical
- ∩ Industrial
- ∩ Hospitally Service
- ∩ Commercial & Residential
- ∩ Sport Complex & Pool

Technical Deps:

- ≡ Manufacturing R&D
- ≡ Innovation Center
- ≡ EPC Execute Unit
- ≡ Product Develop Unit
- ≡ Sales Engineering Dep

Others:

- ≈ After Sales Service
- ≈ Project Control
- ≈ Financial Office
- ≈ Commercial Office
- ≈ Marketing Dep



PACKMAN GROUP Brands



PACKMAN

Industrial Group

Designer & manufacturer of Condensing, Hot Water, Steam, Hot Oil & Waste Heat Boilers, Heat Exchangers, Autoclave Pressure & Storage Vessels, ...



GREENMAN

Green mindset, green future

Engineering & Designing Greenhouse Pant, CO2 Capture System, Flue gas Condenser & Special HVAC Systems, ...



ROMAN

Water solution

Designer & manufacturer Reverse Osmosis Plant & Package, Water Treatment, Softener & Filters and Chemical Dosing Systems, ...



RAADMAN

a look to the future

Designer & manufacturer of Industrial Mono & Dual Block Gas, LPG, Light & Heavy Oil Burners, Premixed & Postmixed Burners, Watertube burners, Process burners, Special application burners & Combustion Solutions, ...



CHILLMAN

Cooler hvac around

Designer & manufacturer of Air & Water Cooled Chillers, Air Handling Units, Fancoil, HVAC Equipment, ...



1. Isfahan Factory



2. Vilashahr Factory



3. Parand Factory



4. Parand (2) Factory

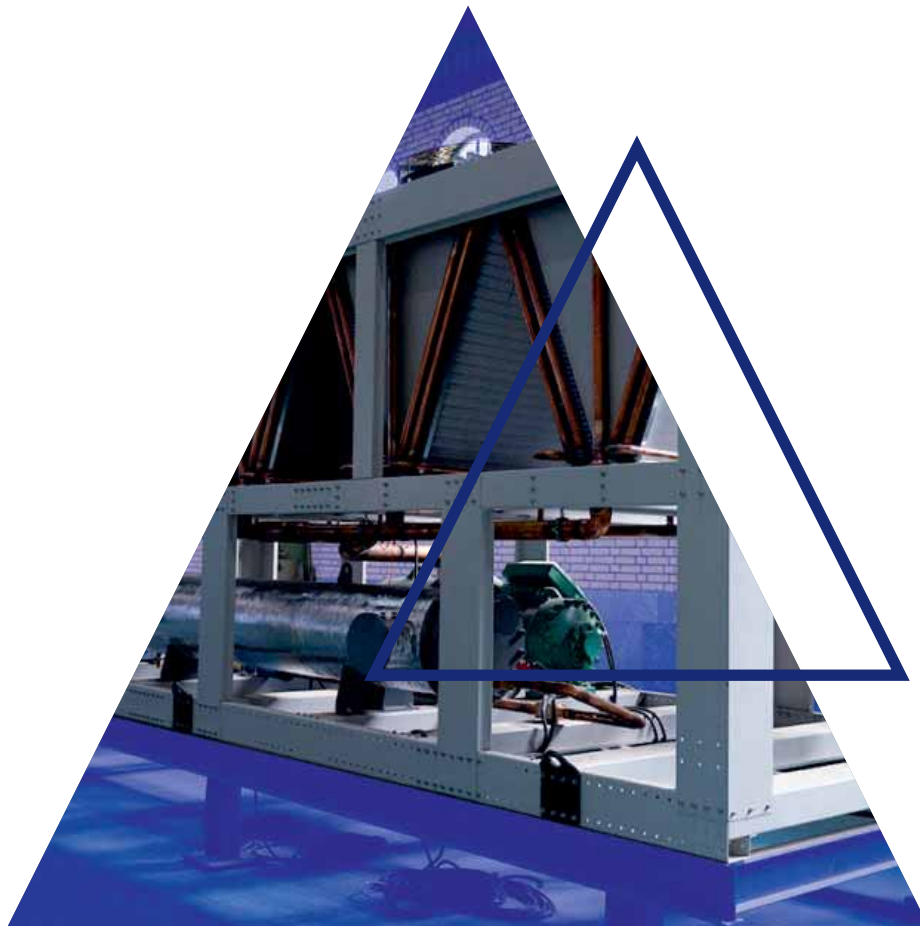


5. Bonyad Factory

SOME OF Certificates are



Cooler HVAC Team Around



PACKMAN



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ROMAN

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