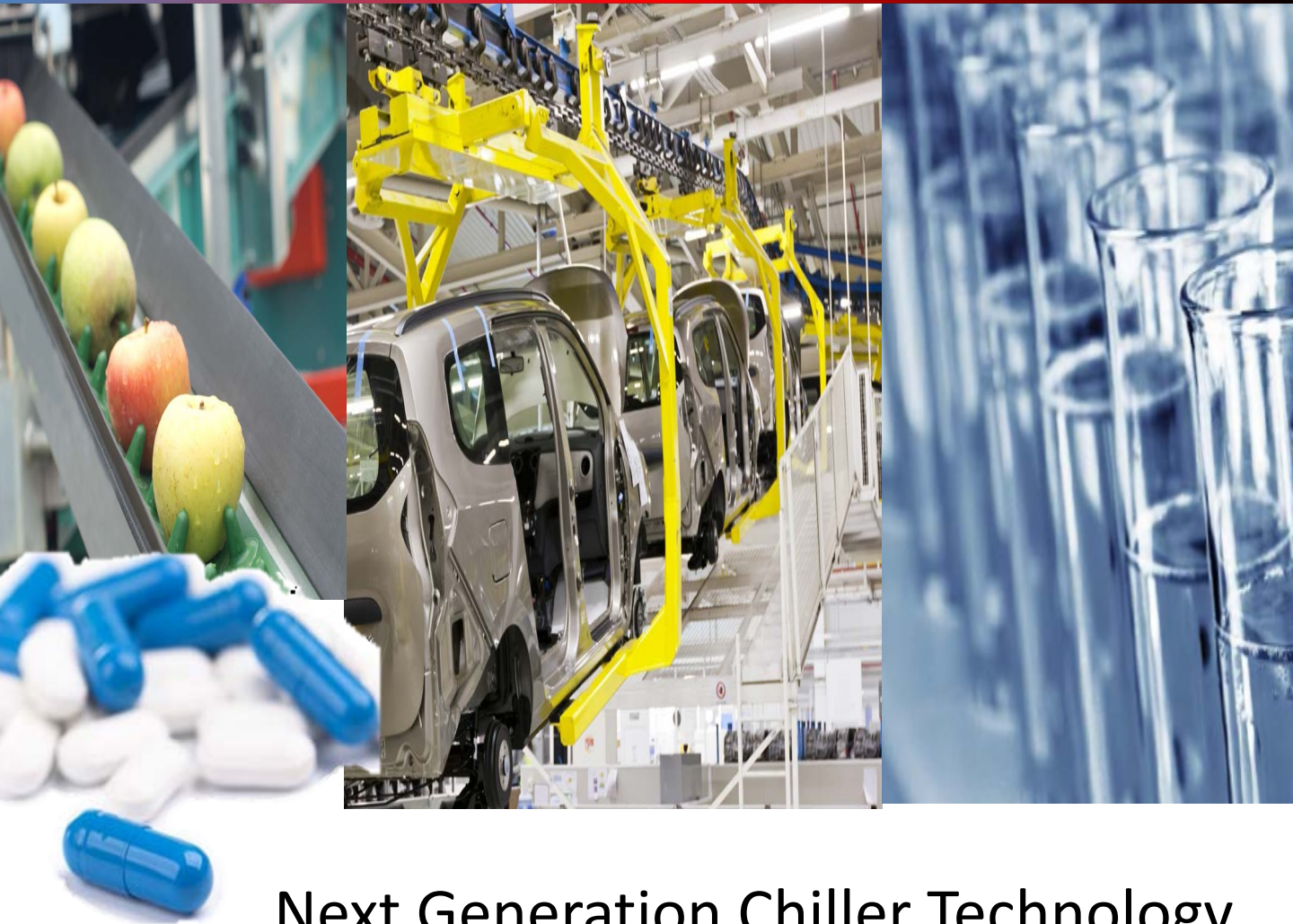




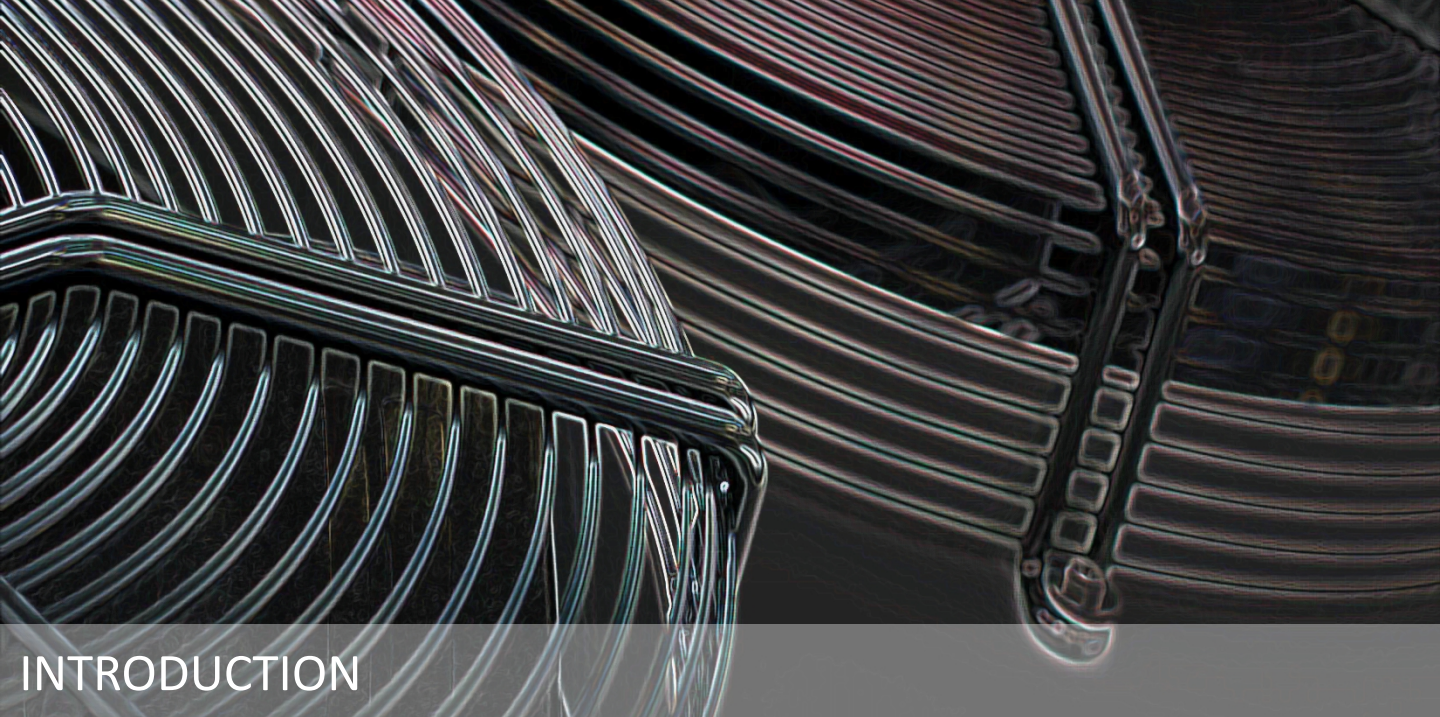
MATRIX

COOLING SYSTEM



Next Generation Chiller Technology
Cooling capacity 1.3 - 210 KW





INTRODUCTION

MATRIX COOLING SYSTEM is a specialist solutions provider who sell and service temperature control equipment for process and comfort applications.

Established in 2010, Matrix Cooling System has over ten years' pan-India experience in the food and beverage processing, chemical and pharmaceutical, plastics and rubber, manufacturing and facilities management markets, having provided solutions to over thousands of temperature control projects.

Matrix Cooling System provides a trustworthy and successful service to its large customer base, and with continual growth plans, Matrix is always investing in innovation in order to expand and improve product ranges, whilst maintaining their exceptional standards.

Matrix Cooling System provide maximum flexibility for customers; providing standard and packaged units including custom builds with commissioning and 24/7 service support.

PC-Series Chillers

The PC-Series air-cooled chillers are at the cutting edge of cooling technology and have been specifically designed for use in industrial applications, are compact, energy efficient and environmentally friendly.

Placing efficiency at its heart, the innovative evaporator-in tank configuration ensures reduced ambient heat gain and a steady temperature of the process fluids.

Environment Friendly Innovation

The PC-Series chiller utilises the most sustainable R410A refrigerant, with R407C and R134a gases used in smaller capacity models. The R410A refrigerant offers an improved carbon footprint, helping to lower the impact of each and every process, safeguarding both your business and the natural environment for the foreseeable future.

Intelligent Engineering

PC-Series Chiller feature efficient hermetic scroll compressors which operate at low power level, saving energy throughout operation. Supporting this environmental stance, the units feature highly efficient finned coil evaporators.

Factory Testing

A full check of the refrigerant charge, leakage controls and micro compressor is completed before every delivery ensuring long-term, sustainable standard of reliability.



Complete Reliability

PC-Series Chiller are produced with performance in mind and with component safety considered at every stage, with phase monitoring, pressure switches, glycol level sensor, crankcase heaters and an internal hydraulic bypass circuit all integral to the system's core.

User-Friendly Digital Microprocessor

In addition to leading energy efficiency and environmentally friendly refrigerants, the PC-Chiller incorporates the latest technology with unique digital control.

Process Chiller

Description	Units	Model					
		PC-1.5-AC	PC-02-AC	PC-03-AC	PC-05-AC	PC-7.5-AC	PC-10-AC
Nominal Capacity*	KW/TR	5.25/1.5	07/02	10.5/03	17.5/05	26.25/7.5	35/10
Refrigerant		R-22 / 407c/ 410a					
Power Supply		420V ± 5% / 3PH / 50 Hz					
Compersor							
Type		Reciprocating			Scroll		
Make		Emerson			Emerson/Danfoss		
Qty	Nos	1	1	1	1	1	2
Condenser							
Type		Air Cooled					
Fan Dia x Qty	mm x Nos	400 x 01	350 x 02	400 x 02	450 x 02	500 x 02	550 x 02
Make		Trumax / High Cool / Favell					
Evaporator							
Type		Coil In Tank			Brazed Plate Heat Ex-Changer		
MOC		Copper Coil			Stainless Steel 316 L		
Qty	Nos	1	1	1	1	1	2
Water Pump							
Type		Centrifugal					
Make		Shimge			Kirloskar		
MOC		Steel					
Power	HP	0.5	0.5	0.5	1.0	1.0	1.5
Nos		1	1	1	1	1	1
Power Input	KW	1.9	2.4	3.6	6.3	8.3	13.4
Tank Capacity	Ltr	35	45	65	115	165	215
Water Connection							
Inlet	Inches	1	1	1	1	1.5	1.5
Outlet	Inches	1	1	1	1	1.5	1.5

** Rated Condition:

- Cooler Leaving Water temperature 6.5°C & Cooler entering temp 12.2°C.
- 35°C Ambient Temperature

#Specification are subject to change due to continuous product development

Process Chiller

Description	Units	Model					
		PC-12-AC	PC-15-AC	PC-18-AC	PC-20-AC	PC-25-AC	PC-30-AC
Nominal Capacity*	KW/TR	42/12	52/15	63/18	70/20	87/25	105/30
Refrigerant		R -407c/ 410a					
Power Supply		420V ± 5% / 3PH / 50 Hz					
Compersor							
Type		Scroll with ASTP					
Make		Emerson			Emerson		
Qty	Nos	2	2	2	2	2	2
Condenser							
Type		Air Cooled					
Fan Dia x Qty	mm x Nos	500 x 03	600 x 03	500 x 04	550 x 04	650 x 04	600 x 06
Make		Favell					
Evaporator							
Type		Brazed Plate Heat Ex-Changer					
MOC		Stainless Steel 316 L Cu Brazed					
Qty	Nos	2	2	2	2	2	2
Water Pump							
Type		Centrifugal					
Make		Kirloskar					
MOC		Satinless Steel					
Power	HP	1.5	1.5	2.0	2.0	2.5	3.0
Nos		1	1	1	1	1	1
Power Input	KW	1.9	2.4	3.6	6.3	8.3	13.4
Tank Capacity	Ltr	240	300	360	400	500	600
Water Connection							
Inlet	Inches	1 1/4	2	2	2	2.5	2.5
Outlet	Inches	1 1/4	2	2	2	2.5	2.5

** Rated Condition:

- Cooler Leaving Water temperature 6.5°C & Cooler entering temp 12.2°C.
- 35°C Ambient Temperature

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DX-Series Chillers

AIR COOLED



DX-Series Air Cooled Scroll/Screw Chiller features a compact all-in-one package optimised for full-load applications where reduced investment cost is required. For cold or hot climates, the DX-Series chiller can be equipped with specific options with optional IP54 electrical box and cabinet fan to operate up to 52 °C outside air temperature.

Performance Features :

- **Micro Channel Heat Exchangers**
- **Low Noise Scroll/Screw Compressors**
- **Shell and Tube Heat Exchanger with Reduced Pressure Drop**
- **Auto- Adaptive Microprocessor Control**
- **Optional Touch Pilot control with web connectivity possibilities and colour touch screen user display**

DX-Series Chillers

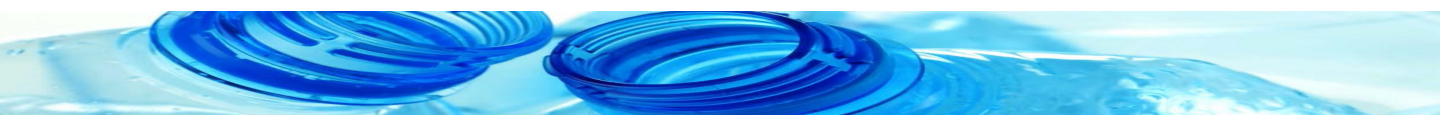


WATER COOLED CHILLER

DX-Series water cooled scroll chillers can minimize the total cost for your manufacture processing, the water-cooled chiller uses first brand scroll compressor(DANFOSS, COPELAND, PANASONIC) technology, and first brand electrical elements(SIEMENS,LG). The packaged water cooled scroll chiller has reliable operating performance, and integrated with a water pump and a water tank, so it needs only easy, low-cost installation and maintenance

Performance Features :

- 4.5 KW -131KW Cooling Capacity
- 7°C – 40°C Temperature
- Available With R407c/404a/410a/22
- Single Point Electric Connection
- Small Unit to Minimize The Space
- Optional Include a Process Pump or Stainless Steel Tank



Water Cooled Package Chiller



DX-Series water cooled scroll chillers can minimize the total cost for your manufacture processing, the water-cooled chiller uses first brand scroll compressor(DANFOSS, COPELAND, PANASONIC) technology, and first brand electrical elements. The packaged water cooled scroll chiller has reliable operating performance, and integrated with a water pump and a water tank, so it needs only easy, low-cost installation and maintenance

Performance Features :

- **5 TR To 50 TR Cooling Capacity**
- **-10°C – 40°C Temperature**
- **Available With R407c/404a/410a/22**
- **Single Point Electric Connection**
- **Small Unit to Minimize The Space**
- **Optional Include a Process Pump or Stainless Steel Tank**

Matrix Pump Tank Station

- **Capacities From 100L to 5000L**
- **Pumps From 01 to 40 HP**
- **Flows From 110 to 4500 LPM**
- **S S 304 Reservoir**



The Matrix pump tank station is very space efficient. It uses the vertical dimension for water storage, and uses an integral pump platform deck to minimize floor space footprint. The high flow, high turbulent pumps offer maximum heat transfer across the process. Pump assemblies are mounted on a structural steel deck and attached to the tank via flexible connectors. This pump tank is designed and engineered for round-the-clock operations with minimal service, providing maximum return on investment.

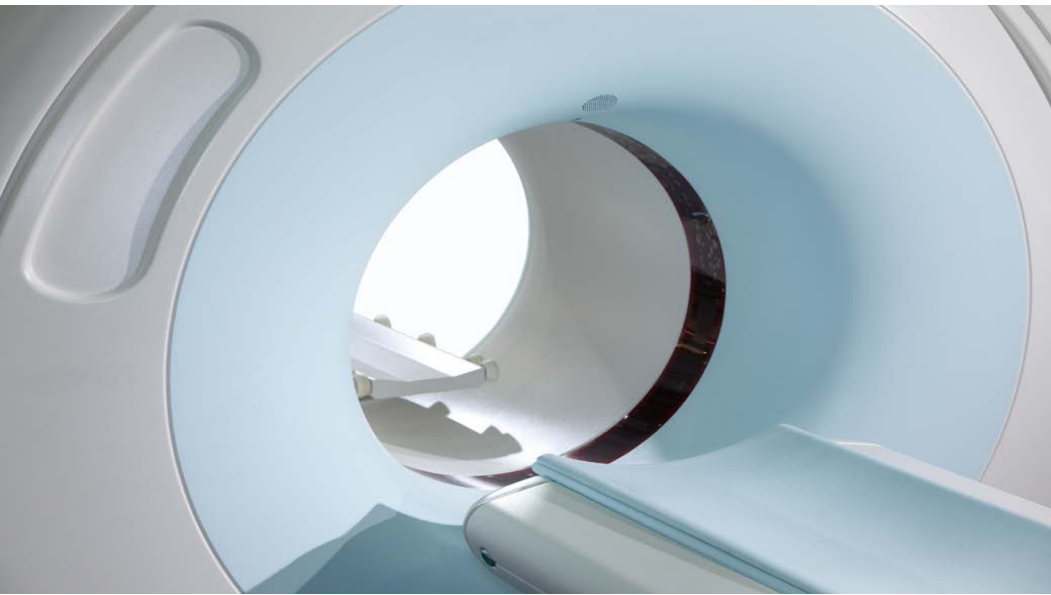
TANK CONSTRUCTION:

- **Satinless Steel S S 304 or 316L (Upvc Optio**
- **Drain valve**
- **Overflow port**
- **Hot / cold section partition (baffle) (Optio**
- **Temperature gauges for each partition**
- **Water-level control (float type)**
- **Flange pump connections**
- **Multiple pump connections**
- **Tank insulating on chilled water systems**
- **Tank lid**





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