



India's No.1 in Process Chillers

Exporting to over 60 Countries - US, EU

Serving over 6000 customers globally



Installations in over 60 countries





HISTORY

- Reynold India was established on 25th September 1995, with three promoters and an employee strength of 14.
- Reynold India is a private limited company registered with Registrar of Companies Delhi, India, vide Registration No. 55-72715.
- The company's objective is to provide customized cooling solutions to customers globally.



PRESENT

- Employee Strength
As of 2020 we have more than 248 employees, including executives, staff, and workers.
- Manufacturing Locations
Currently, manufacturing takes place at three locations :
 - a) One unit in Noida, adjacent to New Delhi
 - b) Two units in Haridwar, 200 km from New Delhi



ENGINEERING CAPABILITY

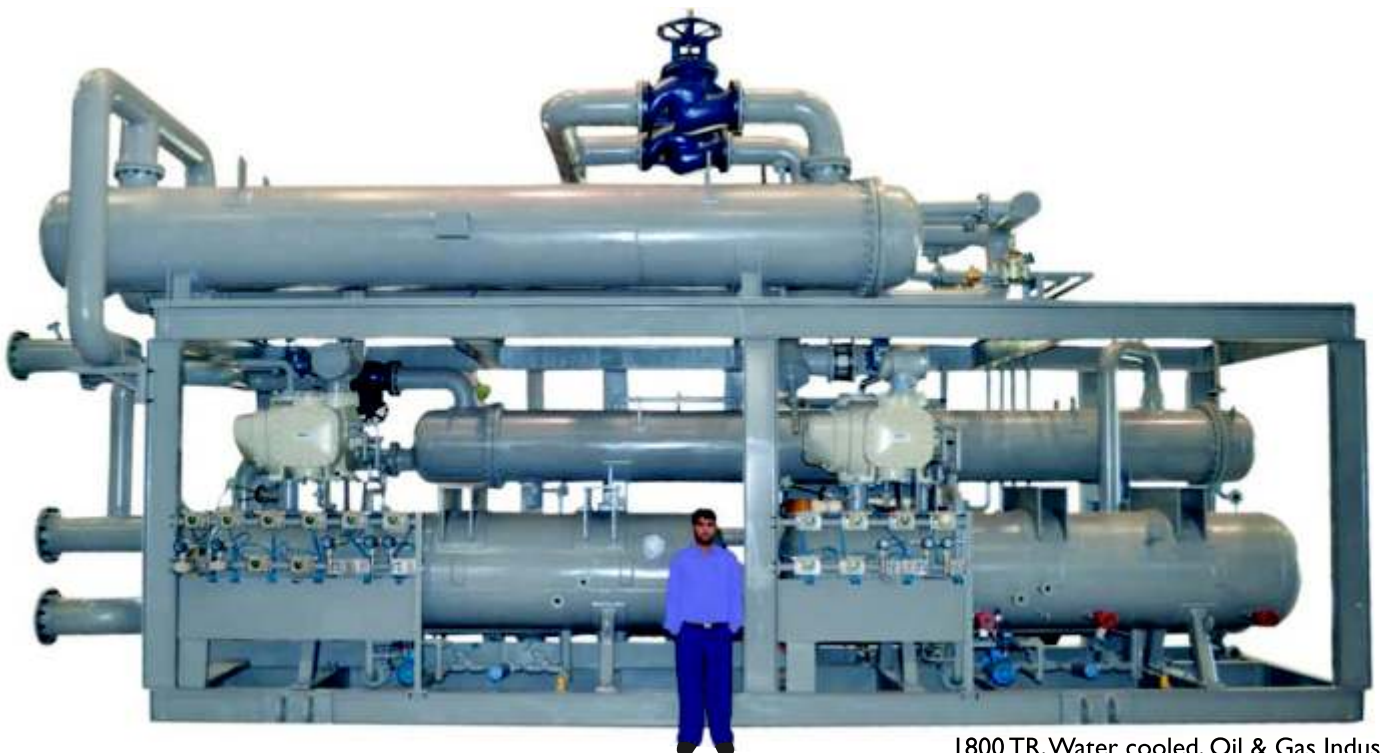
- Currently the number of engineers employed by the company is about 60, spread over design and development, manufacturing, quality and testing, projects, erection and commissioning, after-sales service, besides sales.
- We specialize in customizing the equipment as well as the solutions as per the peculiar process needs, to attain the desired effect.
- We have competent and comprehensive conceptualizing, designing, manufacturing, erecting and trouble shooting teams in place, those of world standard.

Reynold, since inception, has been working on focused and very clear objectives... developing and incorporating futuristic technologies with real environmental considerations, providing users with the most accomplished solutions customized to their needs and owning up to support the commissioned equipment throughout, to ensure that the benefits are realized as conceived.

- R-134a, R-404A, R-407C, R-410A, R-22, NH₃
- Capacity Range - 2 TR to 1800 TR, on skid
- Temperature Range - (+) 60°C to (-) 55°C
- IKW/TR - Upto 0.41
- Standard Design Basis - 45°C ambient, upto 55°C max, 99% RH
- Temperature Accuracy - Upto $\pm 0.3^\circ\text{C}$
- Fluids Handled - Water, Air, Oils, Chemicals, Gases, Solutions, Viscous Fluids



1000 TR, Air cooled, HT Motors, Transmitter based



1800 TR, Water cooled, Oil & Gas Industry

Reynold Chillers are inspected in latest Performance Analyzing Laboratory to authenticate different parameters of the equipment, like capacity output, power consumption, performance, COP, electrical load fluctuations and other heat load conditions.

Real-time analysis is achieved by simulating ambient, electrical and other conditions in the Environmental Chamber. Technical parameters are calibrated and standardized for future reference for specific Chiller series'.



Inspected Equipment		Chiller Performance Inspection																												
Refrigerant	#154A														Temp. diff.	Bois. COP	Accept. Rate	Auto. Trip												
Min	No of Scales														3.9	44	55	0.1	1.0	1.0										
Max	1583														10.0	120	75	3300	4.0	8										
															5.5	58.75	3.9	7.5	1.5	9.3										
		Evap. Sec.			Low Pres. Ref.			Cond. Sec.			High Pressure Ref.			Compressor			Electrical													
Asset		27.8	25.7	0.81	13.0	8.9	22.6	22.2	12.5	31.7	11.46	47.3	26.3	11.1	90.3	96.0	17.4	1.52	83.0	7.46	130.8	33.9	33.8	32.7	1.00	236.8	239.3	238.2	0	
Max		29.1	26.1	4.70	20.0	8.3	21.8	22.1	12.8	34.7	13.76	54.7	29.4	11.1	73.2	113.1	25.2	1.22	146.5	1.22	207.8	66.4	51.8	50.1	1.00	242.5	242.3	243.3	0	
Min		27.3	25.2	1.79	-1.3	8.9	20.1	22.2	12.3	28.5	7.11	31.9	21.3	11.1	57.2	11.1	0.9	4.00	0.0	8.94	0.0	0.0	0.0	0.0	0.0	1.00	234.8	234.3	234.3	0
Date	Time	SecC Evap in (°C)	SecC Evap out (°C)	Ref Low pres. (Bar/g)	Ref Evap Midpoint (°C)	Ref Evap out (°C)	Ref Comp in (°C)	Super heat (K)	SecC Cond in (°C)	SecC Cond out (°C)	Ref High pres. (Bar/g)	Ref Cond 180 point (°C)	Ref After review (°C)	Ref Exp. Valve (°C)	Sub-cool (K)	Ref Comp out (°C)	Comp Heat (kW)	Power input Comp (kW)	COP	Cap. Cool (kW)	COP Heat	Cap. Heat (kW)	Comp1 Amps L1 (A)	Comp1 Amps L2 (A)	Comp1 Amps L3 (A)	Comp1 Power Factor	Volt L1 (V)	Volt L2 (V)	Volt L3 (V)	Cur. A L1 (A)
2018-05-12	12:06:17	27.8	25.2	0.81	9.3	8.9	21.8	22.2	12.2	34.4	13.05	52.4	0.0	29.4	11.1	72.2	92.2	28.9	1.52	146.5	7.17	207.8	66.4	51.4	50.1	1.00	236.8	239.4	238.8	0
2018-05-12	12:05:47	29.0	26.3	3.83	15.4	8.3	21.6	22.1	12.2	34.6	12.86	52.1	0.0	29.1	11.1	71.9	90.7	21.8	1.52	103.2	6.94	147.0	41.5	42.1	41.2	1.00	236.0	236.8	235.6	0
2018-05-12	12:05:34	29.0	25.4	3.84	15.5	8.3	21.5	22.1	12.3	34.1	13.18	53.0	0.0	29.0	11.1	71.7	90.2	21.8	1.52	105.9	6.96	156.4	41.5	42.3	41.1	1.00	236.8	236.4	235.2	0
2018-05-12	12:05:27	29.0	25.4	3.83	15.4	8.3	21.4	22.1	12.3	33.1	13.72	54.5	0.0	29.1	11.1	71.1	74.3	22.3	1.52	114.6	7.27	161.8	41.7	42.5	41.1	1.00	236.8	236.3	236.0	0
2018-05-12	12:06:17	28.0	25.5	3.94	12.8	8.9	21.3	22.1	12.3	32.8	13.78	54.7	0.0	29.1	11.1	70.4	92.5	21.8	1.52	116.3	7.43	163.5	40.8	41.4	40.6	1.00	236.2	235.7	235.8	0

Accreditations

Reynold exports its products to over 60 countries including European Union and United States. We also handle projects many countries particularly of large sizes as well as for various highly customised applications, like Oil & Gas, Concrete, Beverages, Pharmaceuticals, Chemicals etc.

We are accredited with UL, ISO 14001:2015 and ISO 9001:2015 certifications as well as are approved through various prestigious consultants and certifying bodies for specific and peculiar process cooling applications across the world.

The design fabrication, assembly and testing procedures at our factories conform to HTRI, ASME Section VIII/IX, TEMA C/B/R, SHELL DEP and ATEX standards, for an extensive set of specifications of the equipments and installations.

Few of the reputed organisations who have approved our Quality and Manufacturing standards:

Kuwait National Petroleum Company, Kuwait
 National Thermal Power Corporation, India
 Punj Lloyd Limited, Qatar
 Bureau Veritas, India
 Air Liquide, France
 Underwriters Laboratories USA
 ABS Consulting, India
 Tata Consulting Engineering Limited, India

Bharat Heavy Electricals Limited, India
 Indian Space Research Organization India
 Indian Navy, India
 Bhabha Atomic Research Centre, India
 Technimont, Italy
 General Electric, USA
 Larsen & Tubro Limited, India
 TOYO Engineering, India
 Simon Carves, India





CONSULTANTS WE HAVE WORKED WITH

Various Prestigious Consultants and certifying bodies we are approved for specific and peculiar cooling applications:

- Kuwait National Petroleum Company
- National Thermal Power Corporation
- TOYO Engineering
- Simon Carves
- Jacob Humphreys & Glasgow Limited
- Tata Consulting Engineers Limited
- Bharat Heavy Electricals Limited
- Engineers India Limited
- Indian Space Research Organization
- Indian Navy
- Vikram Sarabhai Space Centre
- Bhabha Atomic Research Centre
- JGC, Japan
- TécnicasReunidas, Spain
- Tecnimont, India



MANUFACTURING STANDARDS

Machinery manufactured in Haridwar Factory is as per the following HTRI, ASME Sec VIII/IX, TEMA C/B/R, SHELL DEP and ATEX standards and the process of manufacturing is approved by Bureau Veritas.

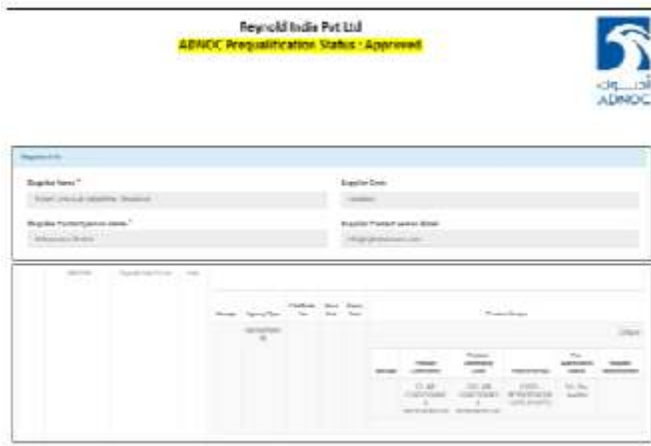
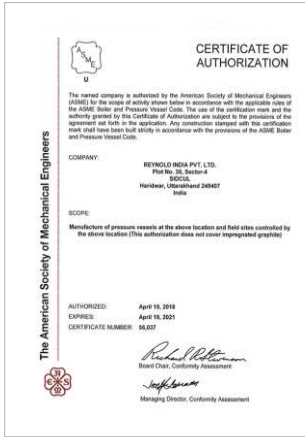
ASME

- (i) ASME SEC VIII DIV I
- (ii) ASME SEC IX
- (iii) ASME SEC V
- (iv) ASME B 31.3
- (v) ASME B 31.5
- (vi) ASME B 16.5

TEMA CLASS C / B / R SHELL

- (i) Shell Dep 31-22-20-31
- (ii) Shell Dep 31-22-20-30
- (iii) Shell Dep 31.38.01-11
- (iv) EN1344S-1 –Unfired Pressure Vessel





ABU DHABI NATIONAL OIL COMPANY



Air-cooled Screw Chillers

Reynold Air-cooled Screw Chillers are suitable for working in extreme tropical weather conditions while maintaining energy and operational efficiencies. The equipment are designed and manufactured in compliance with superior designing and manufacturing standards. The environment friendly chillers are easy to install and are tested against all required international parameters to be at par with the best.



Prominent Features

The latest most efficient and highly reliable screw compressors from Europe

Environment friendly, energy efficient and operation friendly refrigerant R-134a

Highest full and part load energy efficiencies, through single and multiple refrigeration circuits

Factory made and tested DX and Flooded evaporators, made as per highest international standards of manufacturing

Electronic expansion valves for increased efficiency and precise temperature control

Fully automatic PLC based units with remote operation and data logging facilities

Low FPI count and high condensing area together with low noise, high flow, pressure controlled axial fans, ensuring best possible energy efficiency while being operable within the harshest ambient conditions

Stepless capacity control from 25% to 100% adapting precisely to varying process loads

Water-cooled Screw Chillers

Reynold Water-cooled Screw Chillers are designed to work within extreme tropicalized weather conditions, while maintaining the highest energy efficiency. Designing and the choice of equipment are critical to conform to superior standards. Manufacturing and testing standards at our facilities are at par with the best, internationally. Installed equipments are operation friendly and are backed by competent engineering team to realize the advantage while being in operation.



Prominent Features

The latest most efficient and highly reliable screw compressors from Europe

Environment friendly, energy efficient and operation friendly refrigerant R-134a

Highest full and part load energy efficiencies, through single and multiple refrigeration circuits

Factory made and tested DX and Flooded evaporators, made as per highest international standards of manufacturing

Electronic expansion valves for increased efficiency and precise temperature control

Fully automatic PLC based units with remote operation and data logging facilities

High fouling factors, increased condensing area, extra tube thickness and high-flow design, for highest energy efficiency, higher operational reliability and easier maintenance

Step less capacity control from 25% to 100% adapting precisely to varying process loads

Air-cooled Scroll Chillers

Reynold Air-cooled Scroll Chillers are highly energy efficient and are perfectly designed to work within extreme tropical weather conditions. Supported with European origin compressors, these chillers are designed, manufactured and tested in conformation with international industrial standards. The chillers are operation friendly, easy to install and backed by competent engineering team to realize the advantages while being in operation.



Prominent Features

Reliable and energy efficient scroll compressors of European origin

Environment friendly refrigerant R-407C / R-410A/ R-134A,available

Separate and individual refrigeration circuits with each compressor

Totally skid mounted unit with single and multiple refrigeration circuits including fluid pump and storage tank

Electronic expansion valves for larger capacities, for energy efficiency and precise temperature control

Factory made and tested tube-in-tube as well as shell and tube evaporators, with high-flow high-pressure design, for specific process applications

Low FPI count and high condensing area together with low noise, high flow, pressure-controlled axial fans, ensuring best possible energy efficiency while being operable within the harshest ambient conditions

Fully automatic PLC based units with remote operation and data logging facilities,available

Automatic, stepped capacity control, through multiple compressor operation,from 33% to 100%

Water-cooled Scroll Chillers

Reynold environmental friendly Water-cooled Scroll Chillers are easy to install and can work perfectly in extreme tropical weather conditions. These scroll chillers are designed, manufactured and tested as per approved international parameters. Installed equipments are operation friendly and are backed by competent engineering team to realize the advantage while being in operation.



Prominent Features

Reliable and energy efficient scroll compressors of European origin

Environment friendly refrigerant R-407C / R-410A/ R-134A,available

Separate and individual refrigeration circuits with each compressor

Totally skid mounted unit with single and multiple refrigeration circuits including fluid pump and storage tank

Electronic expansion valves for larger capacities, for energy efficiency and precise temperature control

Factory made and tested tube-in-tube as well as shell and tube evaporators, with high-flow high-pressure design, for specific process applications

High fouling factors increased condensing area, extra tube thickness and high-flow design, for highest energy efficiency, higher operational reliability and easier maintenance

Fully automatic PLC based units with remote operation and data logging facilities,available

Automatic, stepped capacity control, through multiple compressor operation,from 33% to 100%

Air-cooled Reciprocating Chillers

While maintaining high energy efficiency, the Air-cooled Reciprocating Chillers are suitable to work in extreme tropical weather conditions. These are designed, manufactured and tested in accordance with international standards. These equipments are easy to install and operation friendly, backed by competent engineering team to realize the advantage while being in operation.



Prominent Features

- Reliable and energy efficient reciprocating compressors of European origin
- Environment friendly refrigerant R-404A / R-407C, available
- Electronic expansion valves for larger capacities, for energy efficiency and precise temperature control
- Multiple refrigeration units including fluid pump and storage tank on skid
- Monocoque skid design for extra ruggedness and reliability for mobile operation
- Low FPI count and high condensing area with coated fins, for easier maintenance and longer life
- Shell and tube type evaporators with high-flow design, ready to handle fluid debris and suspended particles
- Weather and dust proof designs with IP55 / IP65 level protection, available
- Fully automatic PLC based units with remote operation and data logging facilities, available
- Automatic, stepped capacity control, through multiple compressor operation, from 25% to 100%

Water-cooled Reciprocating Chillers

Designed to work in extreme tropical conditions, the Water-cooled Reciprocating Chillers are energy efficient and environmental friendly. These chillers are designed and manufactured within the best available facilities and are tested as per the most stringent international parameters. The equipment are easy to install and operation friendly.



Prominent Features

- Reliable and energy efficient reciprocating compressors of European origin
- Environment friendly refrigerant R-404A / R-407C, available
- Electronic expansion valves for larger capacities, for energy efficiency and precise temperature control
- Multiple refrigeration units including fluid pump and storage tank on skid
- High fouling factors, increased condensing area, extra tube thickness and high-flow design, for highest energy efficiency, higher operational reliability and easier maintenance
- Monocoque skid design for extra ruggedness and reliability for mobile operation
- Shell and tube type evaporators with high-flow design, ready to handle fluid debris and suspended particles
- Weather and dust proof designs with IP55 / IP65 level protection through acoustic enclosures, available
- Fully automatic PLC based units with remote operation and data logging facilities, available
- Automatic, stepped capacity control, through multiple compressor operation, from 33% to 100%

Brine Chillers

Brine Chillers / glycol chillers / low temperature chillers are designed for cooling brine / glycol / liquid refrigerant (dx. applications) to ultra-low temperatures of up to Minus 60 deg. C (evap. temp.). The design includes a screw compressor with internal / external motor, high efficiency, oil separation system, accumulator, evaporator, condenser and economiser. Extensively used in pharmaceutical, chemical and food & beverage industry. Chillers are manufactured using supreme grade components with the help of cutting-edge technology by our skilled team of professionals. These chillers are equipped with integrated air-cooled / Water Cooled condenser or evaporative condenser, to meet the extensive needs of the clients, we offer these Brine Chillers as per application requirements of the clients.



Prominent Features

- Custom Designed Brine Chillers
- Single Stage Ref System for Temp Up to -40 °C
- Two Stage Cascade Ref System for Up to -60 °C
- Eco-friendly Refrigerants.
- Compressor - Open / Semi hermetic, Reciprocating / Screw
- Communication Protocol - Compatible with BMS / Modbus RS485 / Modbus TCP/IP / Profibus / ProfiNet / Ethernet.
- Process Specific Alteration Easily Possible.
- Flame-Proof / intrinsically safe components for Electricals and Instruments.
- High technology Control System including all control & safety interlocks.
- Maintenance Friendly.
- Repairable / Replaceable Components
- Operation & Maintenance Training to customers.
- Comprehensive Technical, O&M Manuals
- Electrical & Instrument Components Certification : IEC Ex / ATEX / NEMA / CCOE / CMRI

Mobile Trolley Mounted Air Cooled Screw Chillers

The whole unit to be mounted on four wheels trailer capable of being towed by a tractor / suitable vehicle. The trailer should have a canopy (with monsoon protection) made of MS suitable for speed of 40 km /hr capable of taking 10 ton load and with the width not exceeding 2.5 mtrs. The trolley should be so constructed so as to comply with the statutory requirements regarding road transportation.



Prominent Features

- The trolley should have two axles with suspension system. Leaf springs of the trolley should be strong enough to withstand total loading of the trolley taking into consideration the transportation shocks and various shocks associated with lifting by cranes and associated shifting.
- It should have the entire chilled water plant, its accessories and the control panel neatly mounted on the trolley. The whole trolley should be suitably enclosed with adequate water ingress protection so as to allow operations along sea side on the jetties and in all weather condition including the ability to withstand sea water sprays from heavy seas in the monsoons.
- The trailer should be provided with suitable lifting arrangement/hooks to lift the complete unit by a crane without damaging the canopy. All slings/ straps etc required for lifting are to be supplied along with the plant and the same should be certified for their load bearing capabilities by the relevant agencies.
- Fluorescent internal/external lighting arrangement is to be provided to enable night operation and maintenance.
- The trolley in its design would conform to commercially usable ruggedized trolley and towable by a tractor / vehicle (max speed 40kmph).

VFD Screw Chillers

This series of compressor equipped with variable frequency drive, provide excellent efficiency under part load by modulating the operating speed of compressor according to fluctuation of process load. External VFDs are used in both Brine / Glycol / Methanol refrigeration chillers as well as Water chillers using Semi Hermetic Screw Compressor.



Prominent Features

1. Capacity Regulation as per load requirement with limited frequency range
2. Save Energy by system modulation (reducing System at part load and on start-up).
3. Precise control & Automation System.
4. Motor Safety and process interlocks.
5. Save overall system cost (DG Size / Compressor Size / Cables etc.)

Advantage

1. VFDs allow starting current equal to or greater than 1.5 times of full load current of motor.
2. Lower Switchgear sizes
3. Peak Demand under control
4. Smooth start
5. Reduction in DG Set capacity requirement.
6. No in-rush currents at start-up (Max. up to 200% of FLC).
7. Improved System performance with Energy Savings.
8. At least 20% Extra capacity available with the compressor (60 Hz operation).
9. Smooth start and low wear and tear of Compressor.
10. Minimum Compressor Switching.
11. Motor Protection and Safety

Methanol Chillers

Methanol Chillers are designed for using methanol water as the cooling media, in place of glycol or brine up to low temperatures of up to Minus 30 deg. C (evap. temp.).

Methanol being flammable, the system should be flameproof, or alternately the evaporator and the machine are made in two separator skids, with the refrigeration skid being installed in the safe area.

The evaporator is installed remotely in a separate skid, and all the instruments on this skid is of flameproof design.



Prominent Features

We guarantee the quality of the product as we abide by the highest quality maintained as per the industry standards.

- Custom Designed Methanol Chillers
- Ref System for Temp Up to -40 °C
- Eco-friendly Refrigerants.
- Compressor - Open / Semi hermetic, Reciprocating / Screw
- Communication Protocol - Compatible with BMS / Modbus RS485 / Modbus TCP/IP / Profibus / Profinet / Ethernet are available.
- PLC & Control Redundant Feature are available.
- Process Specific Alteration Easily Possible.
- Flame-Proof / intrinsically safe components for Electricals and Instruments are optional.
- High technology System Control including all control & safety interlocks.
- Maintenance Friendly.
- Repairable / Replaceable Components
- Maintenance Training to customers.
- Comprehensive Technical, O&M Manuals
- Electrical & Instrument Components Certification : IEC Ex / ATEX / NEMA / CCOE / CMRI

Industrial Screw Chillers

Reynold Industrial Screw Chillers are designed and manufactured for the cooling processes, where each process is completely different from the other. The industrial chillers are designed using qualitative materials and metallurgy and are fitted with the most efficient compressors from Europe. The materials and metallurgies are chosen according to the process fluids being used as per the specific process requirements.



Prominent Features

The latest most efficient and highly reliable semi-hermetic and open screw compressors from Europe

Totally skid mounted units with single and multiple refrigeration circuits, with the highest full and part load energy efficiencies

Factory made and tested DX and Flooded evaporators, made as per highest international standards of manufacturing

Electronic expansion valves for increased efficiency and precise temperature control

Fully automatic PLC based units with remote operation and data logging facilities

High fouling factors, increased condensing area, extra tube thickness and high-flow design, for highest energy efficiency, higher operational reliability and easier maintenance

Low FPI count and high condensing area together with low noise, high flow, pressure controlled axial fans, ensuring best possible energy efficiency while being operable within the harshest ambient conditions

Stepless capacity control from 25% to 100% adapting precisely to varying process loads

Industrial Reciprocating Chillers

Reynold Industrial Reciprocating Chillers find applications in the industrial conditions where one application is completely different from the other. The chillers are manufactured using specific materials that are scientifically evaluated as per the process fluids used in proper industrial process requirements.

Complete study of the process to ascertain peculiarity of the requirement precedes the choice of equipment and accessories being proposed, through an engineering team with proper industrial expertise.



Prominent Features

Highly reliable reciprocating compressor packages from Europe, Japan and US

Factory assembled and tested equipment with the option to dismantle and re-commission at site, in case of very large sizes

Customized as per the extreme and sensitive environmental conditions, factory inspected and certified

Electronic expansion valves for increased efficiency and precise temperature control

Factory made and tested DX and Flooded evaporators, made as per highest international standards of manufacturing

High fouling factors, increased condensing area, extra tube thickness and high-flow design, for highest energy efficiency, higher operational reliability and easier maintenance

Low FPI count and high condensing area together with low noise, high flow, pressure-controlled axial fans, ensuring best possible energy efficiency while being operable within the harshest ambient conditions

Customized turnkey cooling solutions available

Ammonia Chillers

Reynold Ammonia Chillers are compact and skid mounted and are usable for a wide temperature range from medium to low temperature process cooling applications, like in pharmaceuticals, chemicals, dairy, food processing, beverages, cold storage, ice making, industrial gases as well as medium temperature application like HVAC,Plastics,milk etc.



Prominent Features

Highly reliable screw and reciprocating compressors from Europe,Japan and US

Natural refrigerant NH₃ with zero ODP and zero GWP, with the highest energy efficiency

Widest operating temperature range, (+) 30°C to (-) 40°C

Customized as per the extreme and sensitive environmental conditions, factory inspected and certified

Factory assembled and tested equipment with the option to dismantle and re-commission at site, in case of very large sizes

Factory made and tested Flooded evaporators, made as per highest international standards of manufacturing

High fouling factors, increased condensing area, extra tube thickness and high-flow design, for highest energy efficiency, higher operational reliability and easier maintenance

Stepped and stepless capacity control, from 25% to 100%,adapting precisely to varying process loads

Customized turnkey cooling solutions,available

Batching Chillers

Reynold Batching Chillers, and Ice water chillers are customized for concrete mixing and cooling applications with 4°C and 1°C chilled water temperatures, respectively,as the application will demand. The chillers are designed to operate at highly dusty batching sites, within extreme weather conditions, working directly under sun and shower. These chillers are hard-frame based, for operational mobility. The major components in the refrigeration circuits are chosen or designed as per the available site conditions and utilities.



Prominent Features

Highly reliable reciprocating and screw compressors of European origin

Environment friendly, energy efficient and operation friendly refrigerant R-134a / R-404A,available

Customized design for the lowest possible temperatures of water,with or without energy reservoir

Containerized models available,including large sized ice-water storage tank assembly and water pumps

Designed to produce ice-water within extreme weather conditions of upto 52°C

Monocoque skid design for extra ruggedness and reliability for mobile operation

Low FPI count and high condensing area with coated fins, for easier maintenance and longer life

Shell and tube type evaporators with high-flow design, ready to handle fluid debris and suspended particles

Weather and dust proof with IP 55 / IP 65 level protection

Stepped and stepless capacity control from 25% to 100%

Complete turnkey solutions providing ice-water upto the mixing area

Medical Equipment Chillers

Reynold Medical Equipment Chillers are designed for the cooling applications at the highly sensitive medical equipments like MRI, CT Scan, Cyclotron etc. These applications demand customized equipments with precise temperature, pressure and flow control of the cooling fluids.

The processes also demand highly reliable round the clock operation, backed by 24x7 service back up.



Prominent Features

Multiple hermetically sealed compressors with running / standby cycles

Environment friendly refrigerant R-134a/ R-410A/ R-407C/ R-410A, available

Specialized models developed as per the medical equipment with customized parameters, for 24x7 operation

Compact skid mounted units including fluid pump and storage tank

Automatic alert generation on fault detection, with the record for last 50 alarms

Advanced Microprocessor control with remote monitoring as well as fault detection and display, with alarm

Special metallurgy equipment and accessories, available

Low noise operation with acoustic enclosures, available

Turnkey solutions as per the specific jobs, available

Cascade Low Temperature Chillers

Reynold Cascade Chillers are designed and manufactured for ultra-low temperature applications. Primary and secondary refrigeration circuits are completely skid mounted and are available in both Water-cooled as well as Air-cooled types. They are designed as per the peculiar applications and fluid specifications and use materials precisely as per the specific process cooling requirements.



Prominent Features

The latest most efficient and highly reliable screw and reciprocating compressors from Europe/US/Japan

Environment friendly, very stable and operation friendly refrigerant R-404A/R-134a/NH₃

Totally skid mounted units including primary and secondary refrigeration circuits, with the highest possible energy efficiencies

Factory made and tested DX and Flooded evaporators, made as per highest international standards of manufacturing

Electronic expansion valves for increased efficiency and precise temperature control

Fully automatic PLC based units with remote operation and data logging facilities

High fouling factors, increased condensing area, extra tube thickness and high-flow design, for highest energy efficiency, higher operational reliability and easier maintenance

Low FPI count and high condensing area together with low noise, high flow, pressure controlled axial fans, ensuring best possible energy efficiency while being operable within the harshest ambient conditions

Water Cooled Inverter Screw Chillers

This is a new series of compressor called CSVH series with inbuilt inverter, permanent magnet motor in bigger motors , integrated 3 step oil separator, automatic 2 step VI slider, integrated check valve, oil filter, inbuilt MODBUS Communication and excellent part load efficiency which improved efficiency from 5% to 72% compared to a standard screw compressor.



Prominent Features

1. An External VFD based screw chiller can only change the speed of the Screw Compressor from 40 Hz to 60 Hz, that means from 2200 RPM to 3500 RPM, while this Inverter based Variable Speed Chiller can change the speed from 1750 RPM to 8000 RPM. There fore better control over speed and hence more saving in power at part load and lower load.

2. Why a Standard Screw Chiller with external VFD can not be used at lower Speed? like a Inverter based Variable Speed Chiller –

This is because of Oil. Since there is no oil pump, at lower speed, an External VFD based chiller cannot bring back the oil at lower levels, while the Inverter based Variable Speed Chiller has an Intelligent software and monitoring system, which monitors the oil level and speeds up the compressor as and when required automatically to keep the system healthy and running.

3. Some Motors in Inverter based Variable Speed Chiller are Permanent Magnet motors in place of Standard Asynchronous motor, which has excellent part load efficiency.

Air Cooled Inverter Screw Chillers

This is a new series of compressor called CSVH series with inbuilt inverter, permanent magnet motor in bigger motors , integrated 3 step oil separator, automatic 2 step VI slider, integrated check valve, oil filter, inbuilt MODBUS Communication and excellent part load efficiency which improved efficiency from 5% to 72% compared to a standard screw compressor.



Prominent Features

1. An External VFD based screw chiller can only change the speed of the Screw Compressor from 40 Hz to 60 Hz, that means from 2200 RPM to 3500 RPM, while this Inverter based Variable Speed Chiller can change the speed from 1750 RPM to 8000 RPM. There fore better control over speed and hence more saving in power at part load and lower load.

2. Why a Standard Screw Chiller with external VFD can not be used at lower Speed? like a Inverter based Variable Speed Chiller –

This is because of Oil. Since there is no oil pump, at lower speed, an External VFD based chiller cannot bring back the oil at lower levels, while the Inverter based Variable Speed Chiller has an Intelligent software and monitoring system, which monitors the oil level and speeds up the compressor as and when required automatically to keep the system healthy and running.

3. Some Motors in Inverter based Variable Speed Chiller are Permanent Magnet motors in place of Standard Asynchronous motor, which has excellent part load efficiency.

Variable Speed Chillers

Reynold Variable Speed Chillers are upto 50% more energy efficient than standard chillers. The chillers operate efficiently and reliably with almost zero maintenance breakdowns due to the chiller capacities varying automatically, precisely as per the fluctuating heat loads from the processes. Few Processes too would demand variability of the chiller capacities to attain specific process parameters, where they remain highly desirable.



Prominent Features

Reliable and energy efficient screw and scroll compressors of European origin

Environment friendly refrigerant R-134a / R-407C/ R-404A/ R-410A

Highly energy efficient upto 50%; lowest IKW/TR

Continuously varying capacities from 20% to 130%, precisely as per varying process loads

ROI on the additional cost within 1-2 years of operation, depending upon the usage

Widest fluid temperature range, (+) 25°C to (-) 30°C

Lower sound levels of upto 20%; reduced refrigerant levels of upto 15%

Electronic expansion valves for larger capacities, for energy efficiency and precise temperature control

Fully automatic PLC based single and multiple compressor operation

User friendly design backed by specially trained engineering staff

Gas Liquefaction Chillers

Reynold Gas Liquefaction Chillers are specially designed for the liquefaction of Industrial gases like CO₂, N₂O etc. These chillers are completely skid mounted which include gas liquefying evaporators also. The chillers work on multiple refrigerants as per the process requirements. They are customizable as per specific process requirements and with matching metallurgy.



Prominent Features

Reliable and energy efficient screw and reciprocating compressors of European origin

Refrigerants used NH₃ / R-404A / R-22

Completely skid mounted design, including liquefying evaporators

Designed for gas temperatures of upto (-) 30°C and pressures of upto 100 bar

Special metallurgy equipment and accessories as per hazardous area classifications

Small vessel mounted units to very large liquefier sizes available

Complete commissioning at site handled through specially trained engineering staff

Round the clock operating, continuous storage liquefiers available

Custom designed, with HT motors, available

Hazardous Area Chillers

Reynold Hazardous Area Chillers are customized as per the specific process needs at various hazardous areas, certified through prestigious international testing certifying bodies. These highly specialized chillers find their applications in oil and gas industry throughout the world.

These chillers are backed by dedicated engineering teams, with sound know how, highly desirable during engineering, fabrication, testing as well as while commissioning at site.



Prominent Features

ATEX certified chillers, with UL / CSA / IECEx certifications, available

Designed for hazardous area classifications Zone-I & Zone-2

Explosion proof designs for gas groups IIA, IIB and IIC

Using smart transmitters with all signal and control cables as per hazardous area classifications

NEMA Standard enclosures for electrical control, junction boxes and motors

Special metallurgy equipment and accessories as per hazardous area classifications

Skid mounted designs, upto 1800TR nominal capacities

Microprocessor controlled with remote monitoring and data logging

Customized turnkey jobs handled

Oil Chillers

Reynold Oil Chillers are specially designed to cool oil directly through refrigerant-to-oil heat exchanging circuits. The Chillers are designed to handle the oil entering the evaporator at higher than normal temperatures, even the outlet temperature of the oil also being considerably higher than the standard process cooling applications. These Chillers are designed to work within extreme tropicalized weather conditions, handling high fluid temperatures, which makes the design of these Chillers intricate.



Prominent Features

Sturdy and energy efficient hermetic and semi-hermetic compressors of European origin

Environment friendly refrigerant R-407C/R-134a/R-410A, available

Totally skid mounted unit including oil pump, with bypass mechanism

Electronic expansion valves for larger capacities, for energy efficiency and precise temperature control

Factory made and tested tube-in-tube as well as shell-and-tube evaporators, specially designed to handle oils, with high-flow high-pressure design

High fouling factors, increased condensing area, extra tube thickness and high-flow design, for highest energy efficiency, higher operational reliability and easier maintenance

Low FPI count and high condensing area together with low noise, high flow, pressure-controlled axial fans, ensuring best possible energy efficiency while being operable within the harshest ambient conditions

Fully automatic PLC based units with remote operation and data logging facilities, available

Air Chillers

Reynold Air Chillers are VFD based, designed for precise temperature and flow of chilled air, for specific applications like plastic blown film plants etc. The chillers are highly energy efficient by upto 50%, in comparison to the traditional air cooling systems using water chillers in tandem with the air exchangers. Since the ambient temperature and RH varies continuously, the chiller is designed to operate within the desirable temperature range, with automatic capacity control from 40% to 110%.



Prominent Features

Reliable and energy efficient hermetic and semi-hermetic compressors of European origin

Environment friendly refrigerant R-407C/ R-410A/ R-134a, available

Designed for precise air outlet temperature range, upto 48°C ambient temperature and 90% RH

Energy saving of upto 50%, in comparison to the traditional indirect air cooling systems

VFD based design for better temperature control and higher efficiency, available

Compact design with less footprint area and lower maintenance cost

Separate and individual refrigeration circuits with each compressor

Electronic expansion valves for larger capacities, for energy efficiency and precise temperature control

Fully automatic PLC based units with remote operation and data logging facilities, available

CO₂ Based Chillers

Reynold CO₂ based chillers are custom designed and are being tested for specific process cooling as well as other common applications too. The operating range includes medium, low and ultra low temperature applications for various industrial and commercial cooling needs, like super market refrigeration, industrial gases, cold storages as well as general cooling needs.



Prominent Features

Excellent heat transfer quotient for very efficient performance

Futuristic zero ODP with zero net GWP

Fit-and-forget type, once tested properly for pressure and other losses

Easier operation within low ambient temperatures, for ultra-low temperature applications

Lowest efficiency degradation – in comparison – with increasing ambient temperatures

Option of being used for cooling and heating applications, simultaneously

Compact machines with least maintenance set-back space

Dual refrigeration cascades, available

Ammonia Refrigeration Systems for Brewery



Prominent Features

Executing turnkey project for complete Ammonia Refrigeration Systems for Brewery, consisting of Refrigeration Systems with Reciprocating and Screw compressors from KCL/Grasso/Bitzer/J&E Hall

Factory built HP & LP package

Evaporative condenser / cooling tower

Semi-welded evaporator and semi-welded Shell & Tube condenser

MCC and PLC panels with SCADA operation

Glycol tanks, glycol pumps, glycol piping etc.

Ammonia Refrigeration Systems for Cold Storage



Prominent Features

Atmospheric Condenser (Factory Built)

Factory built LP Package with 2 Nos. of Ammonia pumps, one running and one standby

PLC Panel with dual PLC, one running & one standby

Offering Centralized Cold Rooms on turnkey, in both:

Gravity Feed Refrigeration System and

Force Feed Refrigeration System

Color touch screen for Centralized control

Additional Features

Refrigeration Package with Reciprocating or Screw Compressor

Factory built LP and HP Condenser

Factory built Atmospheric Condenser

Factory built MCC and PLC Panels

Cooling coil from Alfa Laval, Guentner etc.

Factory Built HP Receiver Package



Prominent Features

Design Code : ASME Section VIII Div. I
Operating Temperature : +40°C upto +60°C
Design Pressure : 28 bar
Design Temperature : 85°C
MOC Shell : SA 516 Gr.70
MOC of Dished End : SA 516 Gr.70
Shell Thickness : 14 mm min.
Dished End Thickness : 16 mm min.
Corrosion Allowance : 1.5 mm
Radiography : 10% Spot
Painting Procedure : Sand blasted and painted with three coat painting procedure with a total DFT of 200 microns

Accessories

Stop valves for liquid in and outlet
Stop valves for gas outlet
Oil drain stop and quick reacting valves
Safety relief valves
Pressure-indicator and transmitter complete with stop valve
Liquid level Sight Glass with Isolation valve

Factory Built LP Receiver Package



Prominent Features

Design Code : ASME Section VIII Div. I
Operating Temperature : upto (-)40°C
Design Pressure : 16 bar
Design Temperature : 85°C (Mechanical)
MOC Shell : SA 516 Gr.70
MOC Dished End : SA 516 Gr.70
Shell Thickness : 14 mm min.
Dished End Thickness : 16 mm min.
Corrosion Allowance : 1.5 mm
Radiography : 10% Spot
Painting Procedure : Sand blasted and painted with three coat painting procedure with a total DFT of 200 microns

Accessories

Main liquid inlet from receiver
Liquid outlet to Ammonia pump
Wet return
Spare nozzle for wet return
Dry suction
Float switch and Level gauge connection
Oil draining nozzle at bottom of pump separator

Industrial Refrigeration Systems



Prominent Features

Our expertise spreads to varied Refrigeration Systems needed for customized Industrial and Commercial cooling applications. Few of them are mentioned below:

Cold storages upto 5000 metric tonnes capacity (Force feed cold storages, Gravity feed cold storages, Ammonia based cold storages, Freon based cold storages, Cold storage units with pumped ammonia, Cold storages for onion, Controlled atmosphere cold storages)

Evaporative-cooled Chillers (upto -45°C)

Blast Freezers (Blast freezing applications upto -30°C)

Flake Ice Plants (5TPD to 50TPD)

Air-cooled Ammonia Chillers and Cooling Systems

Ammonia refrigeration systems for Brewery and Process applications

Refrigeration systems for General food processing applications, Beverages, Hatcheries, Fisheries and Other special applications

Flake Ice Plants



Prominent Features

Capacity range – 5TPD to 50TPD, on skid

Upto 250 MT storage, with upto 25 TPH single or double-sided ice conveying

NH_3 and R-404A options, with CS, SS and other freezing surfaces available

Highly reliable, rugged and very efficient compressors of European origin

Fully automatic PLC based operation for the entire system, including storage, rake and conveyor, available

24 hours continuous operation with excellent control on flake temperature, size and thickness

Turnkey projects, including flake ice plants, ice storage, rake system and conveying

User friendly operation, handling and maintenance

Quick and easy dismantling and re-commissioning, fully supported

Project Expertise

Reynold exports its products to over 60 countries including EU and US. We also handle turnkey projects in many countries, particularly of large sizes and highly customized applications, in the industries, like, Oil & Gas, Chemicals, Pharmaceuticals, Beverages, Concrete etc.

Project handling requires mature expertise and experience besides proper knowledge and exposure to the specific industry and environment, since the benefits of proper project execution to the organisation can be realised only through expert handling of the project, from conceptualisation to commissioning, within the specified timeframe, meeting objectives convincingly.

Focus areas while handling a project :

Setting superior but achievable objectives

Adept conceptualization of the project

Meticulous planning to execute

Timely and effective execution

Realization of the objectives

We handle projects within India as well as at overseas locations through an experienced and dedicated projects team, whose expertise is not limited to adept project handling and execution only, but have the proper knowledge and exposure to handle the projects under strict guidelines, needed for the highly customized installations and allied works, within highly sensitive and demanding environments of work and operation.

Turnkey Projects

We have commissioned numerous cooling projects, for large ranges of specifications, capacities and fluid temperatures. Although Chillers being centric to most projects, these projects demand highly competent expertise defined by the project peculiarity. Projects are being handled through a qualified and dedicated projects team, from concept to commissioning.

Overseas Projects

Reynold works through an exclusive project team for overseas projects, with adequate equipment and manpower to conceptualize, define, time, coordinate, monitor and commission the projects. We have tied-up with competent local agencies at various countries, highly desirable for proper and timely execution of certain project modules.






Haridwar Plant - 2



Customer Care

Reynold Toll Free
 **1800-120-1516**

*The details and specifications provided here may change without notice. Please ask for the latest updates.

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