

# **Kailashi Refrigeration**

Your's Service Partner....

# **AMMONIA SOLUTIONS**



**KAILASHI REFRIGERATION :-** Premium turnkey solution provider & equipment manufacturer for Ammonia refrigeration in India. Kailashi refrigeration has been engaged in providing turnkey solution for varioustype of commercial refrigeration for different industries like Dairy, Beverages, brewery, cold storage Chemical, fertilizer, slaughter houses. Marine industries etc. Maintaining high quality standards and ultimate customer satisfaction. We are proud to say that we are one of the most sought after company throughout the nation. We have been manufacturing and supplying energy efficient solutions for your refrigeration requirements.

#### **KAILASHI VISION:-**

Best in class services is our aim, and providing best engineered product to our customer is our moto.

#### **KAILASHI MISSION:-**

To make a positive difference in the business of our customer through the best possible customer service quality of product, and competitive price.

#### **COMPRESSOR:-**

We provide twin rotary screw compressor and reciprocating compressor as well depends upon system design requirement. We have compressor range between 20 TR to 400TR for both application negative temperature and positive temperature. Due to rugged design ammonia compressor are first priority in all industrial applications due to following features.

- > Wide range of capacity 20TR TO 400TR
- > Low running cost
- > Easy routine maintenance
- > Rugged design
- > Low spare cost
- > Flexible capacity control

#### **EVAPORATIVE CONDENSER:-**



Evaporative condenser are used to remove heat from mechanical refrigeration system to the environmental in acceptable manner. Evaporative condenser are combination of water and air cooled condenser. Due to counter flow design evaporative best in its segment. Advantages of evaporative condenser.

- > Low power consumption
- > High system efficiency
- > Lower moving part
- > Low maintenance
- > Coil made of rust free material SS304/ hot dip galvanized MS tubes.
- > MOC Option available for basin SS304/ galvanized
- > Low foot print area.
- > Capacity range 35 TR to 450 TR



#### **ATMOSPHERICA CONDENSOR :-**

These are specially designed Atmospheric Condensers which condense ammonia into liquid state from gaseous state. The robustly constructed ammonia base Atmospheric Condensers that we offer are of high efficiency and durability. The pipes used for atmospheric condensers are of 2" TATA or equivalent make heavy pipe and every pipe will have the embossed mark of the manufacturer. The pipe is of High Frequency Induction Welded (HFIW) type and the condenser overall length will be 20'. Each condenser will be provided with 2" size Globe valve at inlet top and <sup>3</sup>/<sub>4</sub>" Globe Valve at outlet.

#### **ADVANTAGE OF ATMOSPHERIC CONDENSER:-**

- > No preventive maintenance required fit and forget.
- > Better efficiency than air cooled and water cooled
- > Easy to replace even single set and easy to install.
- > Low capital cost
- > Corrosion resistant Galvanized pipes minimum 100 micron.



#### SHELL AND TUBE CONDENSER/EVAPORATOR:-

Shell and Tube Heat Exchangers are one of the most popular types of exchanger due to the flexibility the designer has to allow for a wide range of pressures and temperatures. A shell and tube exchanger consists of a number of tubes mounted inside a cylindrical shell. Two fluids can exchange heat, one fluid flows over the outside of the tubes while the second fluid flows through the tubes. The fluids can be single or two phase and can flow in a parallel or a cross/counter flow arrangement.

# **ADVANTAGE OF SHELL AND TUBE :-**

- > Better efficiency than air cooled
- > Easy to replace and easy to install.
- > Low capital cost
- > Wide range of capacity start from 7 kW.
- > Options with tube MOC



#### **PLATE HEAT EXCHANGER:-**

A plate heat exchanger is a type of heat exchanger that uses metal plates to transfer heat between two fluids. This has a major advantage over a conventional heat exchanger in that the fluids are exposed to a much larger surface area because the fluids are spread out over the plates. This facilitates the transfer of heat, and greatly increases the speed of the temperature change

Stainless steel is a commonly used metal for the plates because of its ability to withstand hi temperatures, its strength, and its corrosion resistance

# **ADVANTAGES OF PLATE HEAT EXCHANGER:-**

- High Heat transfer & heat recovery efficiency
- The extent of fouling is low and less fluid retention.
- Compact structure and low investment,
- Easy installation and easy maintenance



### FORCED AIR COOLING UNIT:-

Cooling Unit Are Used In Cold And Blast Rooms To Extract Heat From Product And Cool It Down At Set Temperature. Cooling Unit Consist Of Fins And Coli Arrangement And Heat Exchanged By Forced Air Though Motor Fan.

#### **ADVANTAGES OF FORCHED AIR COOLING UNIT**

- Evaporating Temperature Range +5°c To -40°c
- Refrigerant R717 (ammonia Nh3)/ Other Freon Family Gases.
- Capacity 2 Kw To 140 Kw
- Fin Spacing 4 Fpi To 8 Fpi
- Rust Free Coil Moc Ss304
- Ppgi/ss Outer Enclosure
- Water/gas/ Electric Defrosting Provision.

#### RECEIVER

A pressure vessel is a container designed to hold gases or liquids at a pressure substantially different from the ambient pressure. Receiver is integral part of ammonia refrigeration system.

#### **ADVANTAGES OF AMMONIA RECEIVER :-**

- Hold Overall System Gases.
- Help To Pump Down The System
- Provide Uniform Refrigerant To All Units.
- Wide Range Of Capacity Starts From 200 Ltr.

#### LOW PRESSURE RECEIVER OR PUMP FEED SYSTEM:-

The liquid overfeed or also known as pump recirculation system designs are widely used, especially in low temperature multi-evaporator systems, more popular with ammonia refrigerant. The overfeed means much more liquid is fed to evaporator than the liquid actually vaporizes. Excess liquid is called overfeed, which returns to low pressure side accumulator or L.P. receiver By over feeding the evaporator, the inner surface is kept thoroughly wetted and thus achieves optimum heat transfer.

## **ADVANTAGES OF OVER FEED SYSTEM:-**

- Power Saving 15%
- Uniform Liquid Distribution.
- No Oil Deposition In Fcu.
- Protect Compressor From Liquid Entering
- Unaffected From Outdoor Ambient Temperature
- Low Compressor Load.

# **ELECTRICAL PANEL :-**

In house manufacturing facility. We manufacture best in class electrical panel by using reputed makes switchgears and accessories. The panel can be tailored made as per design requirement with various starter options like. VFD. SOFT STARTER, DOL, STAR DELTA.In our panel also having option for HMI and PLC arrangement to meet model controlling system as per customer requirement. For turnkey projects we also have best in class controlling facility commonly known as SCADA system with independent server, monitor, ups, software and modern controls









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