

# INDUSTRIAL AIR CONDITIONER ( V-cool Series )

#### **VENTECH SYSTEMS PVT. LTD.**

(An ISO 9001:2015 Certified Company)

(Recipient of Bhartiya Udyog Ratna Award)

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**VENTECH SYSTEMS PVT. LTD.** helps your Sorting machines deliver accurate results and best performance by virtue of design, supply, installation, testing & commissioning of state - of - the - art Industrial Air Conditioners ( Air handling Units ) for Sortex Cabins. We help you in contributing to safety of food and enhancing the quality standards of rice grains & non-rice grains like wheat & lentils.

**VENTECH** has always had affinity towards new technologies and in an endeavour to add value to Environment and making it healthier, has introduced Industrial Air Conditioners ( V Cool Series ) for serving the air conditioning requirements of Sortex cabins / Panel Rooms of Rice Mills , Dal Mills and Flour Mills. The air conditioners are coupled with state of the art Outdoor condensing units for making the system complete and work to the satisfaction of the consumer. We are authorized channel partners for technologically superior Johnson Controls – Hitachi Air Conditioning India Limited and LG Electronics India Pvt. Ltd.

#### WE ARE AUTHORIZED CHANNEL PARTNERS

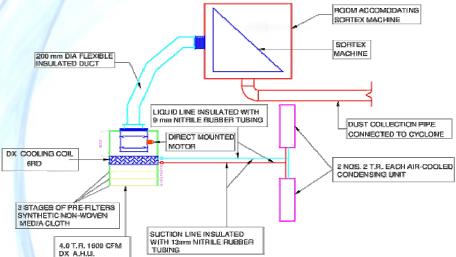






## **INDUSTRIAL AIR CONDITIONER (V-cool Series)**





SCHEMATIC DIAGRAM FOR CUSTOMIZED VENTECH AIR HANDLING SYSTEM INCLUDING OUTDOOR UNITS
FOR SORTEX CABIN

### THE "VENTECH" ADVANTAGE

# SALIENT FEATURES OF INDUSTRIAL AIR CONDITIONERS ( V-cool SERIES )

#### **INDOOR EVAPORATOR UNIT**

As the name suggests, the unit is meant for indoor application. However, this name has become a misnomer since units can also be installed outside the Sortex cabin to avoid nuisance caused due to dust. Also called as Air Handling Units.

#### WIDE RANGE AVAILABLE:

2.0TR, 3.0 TR, 4.0 TR, 5.0 TR, 5.5 TR, 7.5TR, 8.5 TR, 11.0 TR, 16.5 TR

#### **DURABILITY**

•The system is designed for harsh working environments of Rice & Dal Mills to counter rice bran and air borne dust and the system supplied is of rugged and durable nature.

#### FRESH AND COOL

- 100% fresh air for excellent indoor air quality.
- Clean and filtered air flow ensures dust free environment. The Air handling unit is provided with three stages
  of filtration comprising of sliding box type pre-filter with synthetic non-woven washable media. (EU-1)
  strengthened using Rods in 3 segments in filter section. The filter section is easily accessible for cleaning of
  filters thereby ensuring ease of maintenance.

#### **COOL ON YOUR POCKETS**

- Excellent return on investment.
  - Lower operating cost.
- Creates comfortable Working environment Beat the Heat, easily and economically.
- •Increases efficiency of Sortex machine and enhanced indoor air quality & productivity becomes certain. Good AC system will make sure that product losses are minimal, running cost is lowest and reliability becomes of the highest order.

#### LUXURY OF CUSTOMIZATION WITH SPLENDID CONSTRUCTIONAL FEATURES

- We give our customers the flexibility to choose from and customize according to their needs.
- We offer sturdy Industrial Air Conditioners units manufactured using 25 / 50 mm thick PUF injected GI Double Skin panels with different material of construction customized to suit client's requirement. In accordance with our manufacturing standard, the inner skin is of 24 G (0.6 mm) plain galvanized steel sheets & outer skin of 24 G(0.6 mm) pre-coated galvanized steel sheet lending good aesthetics to the equipment.
- •The panels are fastened to rigid corrosion resistant extruded Aluminium hollow framework held together with PVC corner joints. Assembly is done using self drilling & self tapping galvanized sheet metal screws. The air conditioners are sent as a complete assembly and hence it is very easy to use.
  - •Our excellent fabrication quality ensures low casing leakage, low filter bypass leakage and good mechanical strength.
- •• DIDW direct/ belt driven forward curved centrifugal blower are provided for high air flow and these blowers are designed for low RPM for lower noise levels & trouble free operation. The blowers are supplied with fire retardant double canvass connection so that vibrations are not transmitted to the casing.

- •Standard Totally Enclosed Fan Cooled (TEFC) Squirrel Cage Motors of reputed make viz. ABB / Bharat Bijlee / Siemens, etc. (Enclosure Conforming to protection IP55 ) continuously rated suitable for operation on 415±10%, 3-Phase, 50Hz±5%, AC Supply with class 'F' insulation for an ambient of 50 Deg.C and conforming to IS:325-1996 are supplied for driving the fans.
- •The Fan and motor are mounted on common extruded aluminium channel base frame with vibration isolators to minimize vibration transmission.

#### HIGHLY EFFICIENT COILS

- •Galvanized sheet steel end plates shall hold the copper tube pack.
- Coils are of direct expansion type for handling R22 / R410 A refrigerant.
- •The coil tubes are plain copper having ½" OD. The coil tube arrangement is multi circulated with choice of 4/6 row deep in the direction of air flow.
  - Tubes are mechanically expanded for better bonding with aluminium fins for efficient heat transfer.
- Free flow aluminium fin configuration provide better heat transfer and less air pressure drop. Depending on application, one can choose from 8/10/12 FPI fins spacing.
  - Water coils are self-drainage and vented type.

#### **DRAIN PAN**

Wide drain pan facilitates quick draining of condensate. Drain pan is fabricated out of corrosion resistant 22 G stainless steel. To avoid surface condensation, drain pan is insulated with closed cell nitrile rubber insulation.

#### **ACCESSORIES**

- Marine lamp in fan section can be provided for better visibility.
  - •View port in fan section.
- Door limit switch to switch off the motor automatically for personnel safety, can also be provided as an option.

#### **DIFFERENT CONFIGURATIONS**

- Choice of Top, Bottom and Side air discharge is offered to suit site layout.
  - •Option of keeping units inside the Sortex cabin or outside the cabin
- •To suit site constraints and considering the application under reference method of drawing of return air can also be customized.

#### **OUTDOOR AIR COOLED CONDENSING UNIT**

- •Option of multiple outdoor units ensures reliability i.e each AHU can be supplied with 1 working & 1 standby unit which gives flexibility of running either of the two outdoor units.
- •Outdoor unit can be made available in single / multiple circuits comprising of reciprocating /semi-hermetic/ Rotary compressors with suction and discharge shut off valves, liquid receiver with valves.
  - •The heat exchanger is efficient causing reduced power consumption.
- •The units can be supplied with factory charged conventional R22 refrigerant or contemporary environmental friendly R410A refrigerant.
- •The unit is invariably placed outside in the open environment and hence called outdoor air cooled condensing unit
  - •The compressors are of compact size with high volumetric efficiency & low noise .
  - •The propeller fan delivers high airflow which maintains high COP even at high ambient temperatures.
- Multiple circuits act as energy saver, provides redundancy, reduces wear & tear of compressor and prevents over cooling.
- •Microprocessor based intelligent control panel for precise control can be provided as an option. Extremely safe and zero error communication signal through communication cable is ensured. LED Remote is provided to switch on the Air Handling Unit. If the customer does not wish to opt for aforesaid panel, then only MCBs with respective power cables are required for operating the Air Handling Unit and Outdoor Unit.