A Wide Spectrum of
Green Products
Energy Efficient Machines
Electro-mechanical Solutions

Spectrum of Electro-mechanical Specialised Solutions
Design | Manufacturing | Supply | Installation | Testing | Commissioning

- Heating, Ventilation, Air Conditioning (HVAC)
- Integrated Building Management Systems (IBMS)
- Fire Protection & Security
- Public Health Engineering
- Indoor Air Quality (IAQ)
- Mechanical & Allied Jobs
- Electricals and Instrumentation
- Process Refrigeration
- Water Management & Water and Wastewater Treatment
ACEGWFVXR Series 50 Hz

1. Energy Efficient
2. Variable Speed Water-Cooled Screw Chillers
3. Range from 100 TR to 200 TR

Variable Speed
IPLV ~ 36 kW/TR

ACEGWFXR Series 50Hz

1. Energy Efficient
2. Water-Cooled Screw Chillers
3. Range from 100 TR to 350 TR
### ACEGADXR R134a 50Hz

1. Energy Efficient
2. Air-Cooled Screw Chillers
3. Range from 100 TR to 380 TR

**ECBC & GREEN Series
Capacity: 100 TR to 380 TR**

### WCFX-V Series 50/60Hz

1. VFD Water Cooled Screw Chillers from Dunham Bush
2. Cooling Capacity: 133 to 665 TR (467 to 2340 kW)

**Variable Speed
IPLV ~ 0.36 kW/TR**
DCLC Series 50Hz

1. Water Cooled Centrifugal Chillers from Dunham Bush
2. Cooling Capacity: 300 to 1500 TR (1055 to 5274 kW)

WCFX-E Series 50Hz

1. Water Cooled Rotary Screw Chillers from Dunham Bush
2. Cooling Capacity: 60 to 843 TR (211 to 2965 kW)
3. Multiple Compressor Configuration from 200 TR and above
AFVX Series (High Ambient) 50Hz

1. Air Cooled Screw Flooded Chillers from Dunham Bush
2. Cooling Capacity: 85 to 445 TR (299 to 1565 kW)

AFVXB Series 50Hz

1. Air Cooled Screw Flooded Chillers from Dunham Bush
2. Cooling Capacity: 100 to 520 TR (352 to 1830 kW)
Voltas Absorption Chillers

Direct Fired & CO-GEN Model
Capacity Range from: 120 TR to 1450 TR
Heat Source: HSD / LDO / SKO / Natural Gas

The New Generation Machines with Advanced Paraflow Technology Featuring High Reliability & Efficiency manufactured & Tested state-of-the-art facilities in India, to the highest standards.

Small Direct Fired (Koala Series)
Capacity Range from: 40 TR to 100 TR
Heat Source: HSD / LDO / SKO / Natural Gas

Voltas Absorption Chillers

Hot Water Model
Capacity Range from: 60 TR to 1000 TR
Heat Source: Saturated Steam at 1.0 kg/cm²g, Low Temp. At 85 Hot Water, High Temp. At 140 Hot Water

The New Generation Machines with Advanced Paraflow Technology Featuring High Reliability & Efficiency manufactured & Tested state-of-the-art facilities in India, to the highest standards.

Double Effects & Steam Fired
Capacity Range from: 40 TR to 1450 TR
Heat Source: Saturated Steam 8kg/cm²g
The Next Generation VOLTAS VRF System
Variable Refrigerant Flow System with DC Inverter Scroll Compressors

Features

- DC fan motor, low noise, low power consumption
- 180° sine-wave DC inverter control
- Full Inverter: all DC inverter compressors
- Modular: DC inverter + AC fixed compressor

Outdoor Units
Up to 80 HP
Wide Range of Indoor Units

Microprocessor-Controlled Packaged & Ductable Split Units
Capacity Range 6 TR to 24 TR
INTELLISYS Range with R410A
Capacity Range: 6 TR to 18 TR

A comfortable future begins with sustainable cooling solutions. Voltas is committed to providing innovative HVAC solutions that benefit our customers as well as the environment. Our proactive development of R410A refrigerant systems are designed to be the INTELLIGENT and COMPACT, to cater to your total sustainable cooling requirements.

Air Quality & Energy Management Systems

- Engineered Ozone Systems
- Supervisory Ozone Monitor CZ12
- Controzone CZ8 LAN
- Controzone CZ6 Sc & CZ6 C
- Supervisory Ozone Monitor CZ12
Air Quality & Energy Management Systems
First Engineered OZONE System in the World Qualifying to UL 867A

<table>
<thead>
<tr>
<th>Silent Feature of IAQ Management System</th>
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<tbody>
<tr>
<td>Reduction to near total elimination of VOC and odor</td>
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<tr>
<td>Sustains CO2 below 1,000 PPM</td>
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<tr>
<td>No replacement consumable is required</td>
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<tr>
<td>Power to operate is very low</td>
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<tr>
<td>Eliminates mold and fungi in AC ducts</td>
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<tr>
<td>Operates with outdoor air less than 5 Cfm / Person while yet delivering the IAQ benefits. System in total conformity with ASHRAE Demand Load Ventilation</td>
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<tr>
<td>Operation fully automatic with microprocessor based monitors and controllers. All IAQ parameters displayed remotely through web based IP. Supports monitoring and continuous audit of IAQ and energy parameters. Issues automatic alerts on email if IAQ or energy parameters are not within optimum range.</td>
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<tr>
<td>Reduces energy consumed by AC plant up to 20 %</td>
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<tr>
<td>Reduces water consumed by AC plant up to 20 %</td>
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<tr>
<td>Results in Cap Ex savings of AC system</td>
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<tr>
<td>ROI is typically 1 to 3 years</td>
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The entire system is UL listed for operational safety (UL 1995), safety against fire and smoke (UL 2043), and for safety for use in human occupied space (UL 867A).

COILotron
Perfect System for Mold Free Cooling Coil and Drain Pan

Near Total Elimination of Mold, Fungi, and Microbes on Cooling Coil and Drain Pan
- Clean and new looking Cooling Coil
- Near 100 % elimination of Endotoxin and Pathogens on coil
- Reduces allergy symptoms, SBS, and indoor air related sickness
- Improves Heat Transfer Efficiency up to 20 %
- Results in reduced energy
- Earns LEED and GBC Merit Points
- Environmentally Friendly
- Suitable for new or retrofit installations
- Easy to Install
- Quick Return on Investment
GERMITRON
Suitable for Hospitals, Speciality Labs, Animal Houses etc
Indoor Air Quality & Bactericidal Management System

Achieves 90% Kill Rate of Bacteria and Virus, per pass
- Scientifically Proven Design with Computerized Selection to assure delivery of Specified or Target Kill Rate.
- Custom Designed to suit airflow and duct size
- Rated Average Life of Lamps is 16,000 Hours, longest in the Industry
- High Energy output 800 mA Lamps
- Lamps installed in frame mounted Quartz Sleeve
- Easy and quick Lamp change, without withdrawal or removal of frame from duct work or access door, or Quartz Sleeve
- Indicating lamp to show Lamp failure, without opening access door, or turning off power

Integrated Approach from Design To Commissioning

Design Management  Project Management  Construction Management  Risk Management  Testing Balancing Commissioning  Customer Care
Indira Paryavaran Bhawan - First Net Zero Building Of INDIA

Project Highlights

This is the First "NET ZERO" building of India with "LEED Platinum" certification and GRIHA Five Star certification for Exemplary Demonstration of Renewable Technologies.

- India’s First Net Zero Building.
- First time used of Condensing Chilled Beam Unit with Drain Pan suitable for Hot & Humid climate like India.
- Total Energy savings of about 40% has been achieved by adoption of Energy Efficient Chilled Beam Unit.
- Reduction in Water Consumption has been achieved by use of GEO-Thermal System.
- Energy efficient VFD Driven Screw Chillers of IPLV .37 kW / TR
- Energy Produced per year 14,91,000 kWh & Energy Consumption for building per year 14,21,000 kWh
First Time Use of Condensing Chilled Beams Suitable for Hot and Humid Climate like India.

**BRIEF DETAIL OF IGPB - Equipment Details**

- **Screw Chillers**: 240 – 2 nos (one standby), 200 TR – 1 nos along with Variable pumping system and cooling towers (only for conventional system)
- **Air handling units**: 23 numbers for chilled beams, 9 nos for conventional system (for Meeting/common areas)
- **Heat recovery units**: 02 nos
- **Chilled Beams**: 376 numbers.
- **Geo thermal System**: for heat rejection of 180 TR
- **Ventilation fans**: 16 for smoke extraction, 24 for normal ventilation
- **VAV boxes**: 24 numbers
- **BMS system**: 2 way PIVC valves along with motorized butterfly valves.
- **Air cooled DX type packaged units**: 03 numbers

**BRIEF DETAIL OF IGPB - Details of HVAC System**

- **Total Air Conditioned Area**: 120000 sqft
- **Area air conditioned with chilled beams**: 93000 sqft – 310 TR (200 by chilled beams, 110 TR by primary AHUs)
- **Area air conditioned with conventional system**: 27000 sqft – 130 TR (load)
- **Ventilation Area**: 106400 sqft (Three basements)
Project Highlights

- LEED Gold Standard Green Building – IT SEZ Park, Pune
- Total Air conditioning Area – 1 million sqft
- Total Air conditioning capacity – 5,000 TR
- Energy saving through IAQ Management & Demand Load Ventilation – 700 TR
- Project Completion Date – May 2012 (Phase 1)

Blueridge IT Park, Pune
Some of our state-of-the-art MEP projects

- **Netaji Subhash Chandra Bose International Airport, Kolkata**
  HVAC, Electrical works, Plumbing, Water treatment

- **Delhi / Chennai Metro Rail Project**
  Underground stations: Airconditioning Automatic control & Monitoring system, Electrical Power supply & distribution system

- **Buddh International Circuit, Greater Noida**

- **Seasons Mall, Magarpatta**
  HVAC & Fire Fighting

- **Cybercity, Magarpatta**
  HVAC

- **The 5 Star Sofitel Hotel, Mumbai**
  HVAC, Electrical, Plumbing, Fire fighting

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Customer Care:
1800 233 1202
1800 266 0100

Responsible, Reliable & Efficient
Thank you