



A detailed service spectrum for Voltas Limited. The top section features the Voltas logo and "VOLTAS LIMITED A TATA ENTERPRISE" on the left, and a "60 VOLTAS LIMITED" anniversary logo on the right. The main heading is "Spectrum of Electro-mechanical Specialised Solutions". Below this, a horizontal bar lists the service stages: "Design | Manufacturing | Supply | Installation | Testing | Commissioning". A central white box lists the following services: "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", and "Water Management & Water and Wastewater Treatment". In the bottom left corner, there is a circular logo for "TVA/ISO 9001". In the bottom right corner, there is a small graphic of three overlapping green banners with white text.



VOLTAS LIMITED
A TATA ENTERPRISE





ACEGWVFXR 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

GREEN
EFFICIENT
SUSTAINABLE







VOLTAS LIMITED
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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
- 2 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 ~.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 1.0kg/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





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Outdoor Units
Up to 80 HP

The Next Generation VOLTAS VRF System
Variable Refrigerant Flow System with DC Inverter Scroll Compressors

Advanced
High Efficiency
Low Power Consumption

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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

Advanced
High Efficiency
Low Power Consumption

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





Supervisory Ozone Monitor CZ12



Controzone CZ6 Sc & CZ6 C







Air Quality & Energy Management Systems

First Engineered OZONE System in the World Qualifying to UL 867A

| Silent Feature of IAQ Management system |
|---|
| Reduction to near total elimination of VOC and odor |
| Sustains CO2 below 1,000 PPM |
| No replacement consumable is required |
| Power to operate is very low |
| Eliminates mold and fungi in AC ducts |
| Operates with outdoor air less than 5 Cfm / Person while yet delivering the IAQ benefits. System in total conformity with ASHRAE Demand Load Ventilation |
| 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. |
| Reduces energy consumed by AC plant up to 20 % |
| Reduces water consumed by AC plant up to 20 % |
| Results in Cap Ex savings of AC system |
| ROI is typically 1 to 3 years |
| 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



Fire and Smoke Test to UL 2043




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




Fire and Smoke Test to UL 2043




Integrated Approach from Design To Commissioning





Design Management



Project Management



Construction Management



Risk Management



Testing Balancing Commissioning



Customer Care

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Indira Paryavaran Bhawan - First Net Zero Building Of INDIA






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Project Highlights

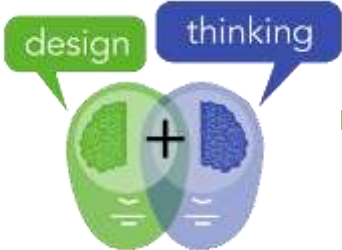
- This is the First "NET ZERO" building of India with "LEED Platinum" certification and GRIHA Five Star certification for Exemplary Demonstration of Renewable Technologies.
- India's First Net Zero Building.
- First time used of Condensing Chilled Beam Unit with Drain Pan suitable for Hot & Humid climate 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.

design + thinking



→








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 air AHUs)
- Area air conditioned with conventional system – 27000 sqft – 130 TR (load)
- Ventilation Area – 106400 sqft (Three basements)









Blueridge IT Park, Pune





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)





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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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Responsible, Reliable & Efficient



Customer Care:
1800 233 1202
1800 266 0100



Thank you