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## Smart & Sustainable Solutions designed for Energy Efficient Environments Supporting Buildings Achieve Efficiency Through Smart & Sustainable Buliding Management Systems.

HVAC | Mechanical | Electrical | Fire Fighting | Utility



JBI Engineers is ISO Certified professionally managed organization boasting a team experienced in Design, Planning and Project Execution, offering Turnkey solution to every single client across the Nation.

We offer sustainable solutions for multiple applications viz. comfort cooling systems, process cooling, clean rooms, cold rooms, Labs, Data Centers, General & Basement Ventilation, Exhaust, Fire Fighting and Alarm Systems, etc. and our scope of services include complete Mechanical, Electrical and Utility Solutions for various sectors: Residential, Commercial, Institutional, Medical, IT & Non-IT, Industrial projects, Health Sector, Corporates, Retail and Hospitality.

## ENERGY-EFFICIENT BUILDINGS

To build a truly green building and obtain the highest ratings, you need a HVACR solution that reduces energy consumption but not at the cost of performance.

HVACR systems in commercial buildings can be challenging. You require a combined solution that will meet the challenge of strict sustainability standards, long-term concerns and high energy costs.

Typically HVACR systems use more than 40% of a commercial building's energy. You need a solution that turns the table on energy efficient economics and gives you complete control.

With JBI you can acheive them all and build the commercial space of the future!

#### RODUCTS OFFER

Air Washers & Scrubbers

Air Handling Units & Scrubbers

Axial / Centrifugal / Duct Fans

Diffusers / Louvers / SS tanks / Dampers

**HVAC INSTALLATION & DUCTING SOLUTIONS** 

Packaged Units & Split Systems

Air Handling Units & Scrubbers

VRV/VRF System

**HVAC Chiller System** 

Air Handling / Fan Coil Units

**Ducting & Insulation** 

FIRE FIGHTING, SECURITY & ALARM SYSTEMS

CLEAN ROOM SOLUTIONS

**COLD ROOM SOLUTIONS** 

**ELECTRICAL ENGINEERING SERVICES** 

HVAC AUTOMATION

AMC, REPAIR & UTILITY SERVICES





Ensuring trust and peace of mind through exceptional quality, unprece dented commitment, value-added service and irresistible prices to our esteemed clients.

To be the largest and the most preferred Mechanical, Electrical, Utility and Fire Fighting contractoring firm globally by delivering customer delight through pursing excellence.





## Concept to Commissioning

The business philosophy of JBI is to undertake projects of all sizes, value and complexity on same model and treat each individual project on a "concept to completion" basis. This philosphy acts as a foundation for ensuring total customer satisfaction.

## Solution Designing & Drafting



Analysis of Layout



Heat Load Calculations



Estimation of Capacity



Full Layout Designing

## 3 Installation & Commissioning



Pre-installation survey of the places where AC should be installed



Installation by our certified technicians



Post-Installation quality inspection

#### **Installation Process**

- 1) Need Analysis
- 2) Undertaking course of action
- 3) Engineering Drawing
- 4) Sourcing of Equipment
- 5) Testing & Commissioning
- 6) Site handover

## Layout Designing

Layouts are designed considering heating, cooling, ventilation, humidifying, dehumidifying, filtering, noise and air distribution aspects to maintain acceptable environments.

The system is designed to ensure that sanitary, hygienic, industrial, fire and emergency requirements are met with established industry standards for construction, installation, performance, energy conservation, and safety.



## **Project Management**

To underpin project objectives of delivery, budget, quality and performance, JBI has an edge with on-site experience of completing projects PAN India. Modern project planning software systems are utilised which can be applied to suit customer requirements.

- 1) Working closely with designers, engineers, installation experts, and clients to make sure that every project is completed on time and within budgetary guidelines.t
- 2) Long-range project planning and scheduling.
- Proper staffing on each project .
- 4) Ensuring the quality and makes of all components of BOM used in system.



## Turnkey Upgrades and Retrofits / Repair & Services

- 1) Turnkey upgrade, retrofit, and replacement services for facilities of all types.
- 2) Takes care of all makes and brands of the system.
- 3) Prevent breakdowns by keeping the unit operating at peak performance and efficiency.
- 4) Facilitates adjustment and tuning of the system and unit, focusing of preventive maintenance to avoid downtimes.



## **AMC & After Sales Support**

Annual Preventive & Diagnostic programs saves money by keeping the system running at peak efficiency, maximizing energy savings, and extending the life of the system.

We specialize in the maintenance of MEP Building Services including:

HVAC

Electrical

Fire Fighting

Utility

Our AMC Proposals are designed after proper study of the all the units in the system design and focusing on areas of improvement.

Attending breakdown calls

Wear & Tear of system

Electrical Connection Inspection

Regular Maintenance visits

Spare parts planning

Age check of the system

We also undertake annual maintenance contracts and other related services such as ducting cleaning, retrofitting, equipment up gradation/replacement, UPS and HVAC equipment on rent for short duration.



Comprehensive Annual Preventative Maintenance



Comprehensive **Annual Maintenance** Contracts



Critical Spare parts availability to reduce downtimes



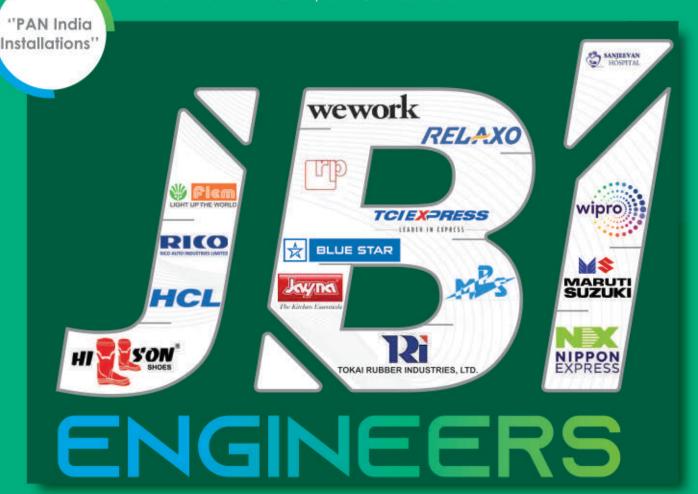
**Emergency Repairs &** regular visits

## SECTORS WE SERVE



CLIENTS & **PARTNERS** 

We take pride in strong relationships we establish with our clients and partners spread across PAN India. Our clients include some of the most prominent established brands.



## Our Products

We have a comprehensive range of products right from HVAC control to Air Distribution. Our Products are engineered to global standards with emphasis on efficiency and reliability.

Each product is designed to meet and exceed performance parameters.



#### **Air Washers**



Industrial & commercial applications

#### **Air Scrubbers**



Kitchen applications

#### Capacity:

4000 CFM ~ 80000 CFM

#### **Air Handling Units**



Capacity: 2400CFM - 30000CFM

#### **Fan Coil Units**



Capacity: 1000CFM - 60000CFM

### **Ventilation Systems**



Axial Flow fan



Centrifugal fan



Inline Duct fan



EC fan

### **Speciality Products**



**Grills & Diffusers** 



Louvers



Fire & Smoke Dampers



MS/SS Tanks 100 - 10000 ltrs



**Sound Dampers** 





## EVAPORATIVE C SOLUTIONS



## **Technical Specifications**

## **Portable & Spot Coolers**

Model	APC	ASD-20K	ASD-25K	ASD-35K	ATD-10K	ATD-20K	ATD-25K	ATD-35K			
Body material	Special Pre-plasticsized coated galvanised steel										
Minimum Evaporation Efficiency (%)	90	90	90	90	80	90	90	90			
Pad Surface Area (m2)	1.14	1,56	2.17	3.74	0.85	1.56	2.17	3.74			
Pad Thickness (mm)	100	100	100	100	60	100	100	100			
Connection Load (kw)	0.61	0.79	1.55	3.88	0.19	0.79	1.55	3.88			
Power Supply	230/1Ph/50Hz		415/3Ph/50Hz		230/1Ph/50Hz		415/3Ph/50Hz				
Overall Dimensions (L x W x H) (mm)	750x1150x1550	1150x1150x950	1150x1150x1150	1450x1550x1450	650x650x1200	1150x1150x1450	1150x1150x1650	1450x1550x2150			
Air Discharge Size (mm)	Free	400 x 400	400 x 400	650 x 650	440x240	600 x 500	800 x 500	1000 x 600			
Fan Type	Axial	Centrifugal DIDW (Double inlet Double Width)			Axial	Centrifugal DIDW (Double inlet Double Width)					
Tank Capacity (Liter)	120	110	110	190	60	110	110	190			
Dry Weight* (Kgs)	80	170	205	300	62	165	325	595			

## **Ducted Evaporative Coolers**

Model	ADC-20K	ADC-25K	ADC-35K	ADC-45K	ADC-L-85K	ADC-L-100K	ADC-L-125K				
Body material	Special Pre-plasticsized coated galvanised steel										
Minimum Evaporation Efficiency (%)	90	90	90	90	90	90	90				
Pad Surface Area (m2)	1.56	2.17	3.74	6.06	9.08	13.88	13.88				
Pad Thickness (mm)	100	100	100	100	100	100	100				
Connection Load (kw)	0.79	1.55	3.88	5.87	9.67	11.75	15.75				
Power Supply	415/3Ph/50Hz										
Overall Dimensions (L x W x H) (mm)	1150x1150x950	1150x1150x1150	1450x1550x1450	1750x2350x1750	2150x2400x2150	2150x2400x2150	2300x3300x2500				
Duct Connection Size (mm)	400x400	400 x 400	650x650	900x900	1100x1100	1250x1250	1400x1400				
Fan Type	Centrifugal DIDW (Double Inlet Double Width)										
Tank Capacity (Liter)	110	110	190	475	715	1000	1000				
Dry Weight* (Kgs)	165	200	295	565	790	910	1010				

<sup>\*</sup>Industrial long life construction (heavy duty)

## **ARCTIC Applications**



Factory Shop Floors



Canteen & Kitchen Ventilation



Warehouses



Cinema



Residences



Green House & Tea Industry



Schools



Showrooms



Shop Floor & Assembly Line



Hotels & Restaurants



Gym



Multipurpose Halls



Poultry Farm



Religious



Office



## SOLUTIONS FOR HVACR SYSTEMS



The sizing of the system is a key factor in its efficiency. It is a must to design the HVAC system with the correct capacity as per the requirement to make it energy efficient. Less capacity HVAC systems do not solve the purpose and higher capacity systems add up unnecessary initial investment costs and use more energy that is needed.

## Packaged Units & Split System

Unmatched choice of system components for **buildings small to large**. We offer complete air conditioning systems for residential, commercial and industrial use.

Whether for a large data center, a complex commercial concern or a small business, JBI offers sustainable options to deliver **customized comfort and efficiency.** 

Design the system you need for a corner retail shop, light commercial application, office building, hotel, school and more.



Inverter Packaged and Ducted Split Air Conditioner



Inverter Ducted Hot & Cold Air Conditioner



Packaged and Ducted Split Air Conditioner



Floor Mounted Verticool AC



Concealed Split Ac



Hybrid & Cassette Ceiling ACs



Split Air Conditioner



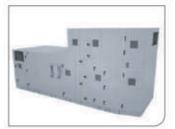
Ceiling Concealed

## Air Handling Units (AHU)

Incorporating the right airside products into a HVAC air handling system is a critical part of creating world-class performance.

By helping you select the right air handling system, JBI can help address indoor air quality issues such as temperature and humidity, ventilation, mold, bacteria, other particulate matter, and noise.

Installed Capacity: 4000 CFM ~ 336000 CFM



#### **Performance Air Handlers**

Air handlers can help HVAC systems achieve higher energy efficiency and indoor air quality while reducing maintenance requirements – adding life to buildings and improving the lives of people within them.

#### Variable Air Volume Units



Round In Round Out



Single Duct Terminal Units



Dual Duct Terminal Units



Fan Powered Terminal Units

We supply and install Scrubbers for varied industrial usages. Scrubbers are high efficiency air pollution control equipments used to remove particulate matter, fumes and gases (especially acid gases) from industrial processes. The process takes place by 'scrubbing' the pollutants by contacting them with a scrubbing media (either wet or dry) thus resulting in a residual exhaust of negligible particulate size.

Scrubbers

#### Wet Scrubbers



Venturi Scrubber



Packed Tower Scrubber



Dry Scrubber Industrial



Dry Scrubbers

Dry Scrubber Unit

### **Applications**

Acid Mist Furnaces Gas absorption Building product mfg Kilns Boilers
Odor Control/removal
Crushers and screens
Fumes/VOC smelters
Transmission Rooms

Kitchen Exhaust Diesel Engines, Gensets, Turbines Compressors, H.V. Alternators Power Plants Hospitals OTS / ICUS Pharmaceutical Manufacturing

## VRV / VRF System

Most future-forward HVAC systems which combines VRF zoned comfort with hydronic chiller system advantages, resulting in up to 20% less refrigerant in the overall system compared to conventional VRF.

Installed Capacity: 12 HP ~ 600 HP

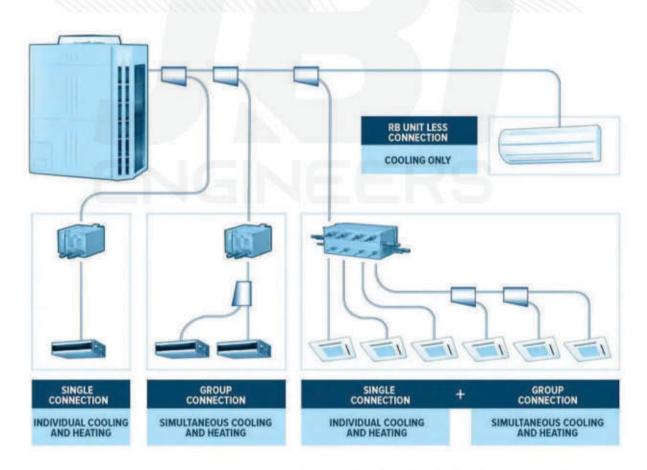
#### **HVRF** engineering: Advantages

**Energy Efficiency:** The system is designed to provide exactly the amount of cooling needed for the current conditions, which means it runs less frequently and at a lower capacity. The VRF system is also designed to capture heat from the cooling process and reuse it in other areas that may need heating.

**Consistent Comfort:** The VRF system's compressor can detect the precise requirements of each zone, and send the precise amount of refrigerant needed to do the job. Our Systems are designed for well-controlled humidity and no hot or cold spots.

**Less Downtime**: Since the VRF system is designed to run only when needed and under partial-load conditions, there is less wear and tear on the parts. That means fewer breakdowns.

**Required Less Space:** Since the air handlers are smaller and VRF systems don't usually require ducts, they don't require as much wall and ceiling space for the equipment. That means you get to keep those gorgeous high ceilings in your apartment.



All Electric Heat Pump Refrigerant Reduction Indoor Environmental Quality Simplified Installation

## HVAC Chiller System

Air Cooled Water Cooled Modular Our chillers serve HVAC systems designed and built uniquely for each building, that deliver the **right temperature**, **humidity and ventilation** for the space, and they also help **minimize operating costs** with superior energy efficiency levels, low sound levels and with minimal environmental impact.

Installed Capacity: 10 TR ~ 800 TR

#### **Comprehensive Chilled Water Systems**

- This system comprises one or more chillers, cooling tower(s), condenser-water pumps, chilled-water pumps, and load terminals served by control valves.
- Fixed- or variable-speed compressors and other components.
- Complies with or exceeding
   energy code minimum require ments.
- > Provides centralized equipment for easier maintenance.



#### **Screw Chillers**



Air cooled



Water cooled



Air cooled VFD Screw



Water cooled VFD Screw

#### **Scroll Chillers**



Air & Water Cooled

### **Centrifugal Chillers**



Water Cooled Centrifugal Chiller

## **Process Chillers**



Process Chillers for medical, pharmaceutical industries and varied industrial applications like plastic mould cooling, printing and lamination processes. These chillers incorporate microprocessor based controls which offer intelligent cooling and are energy efficient apart from being extremely compact with a small footprint.



## Ducting & Insulation

We repair, design, build and install air distribution systems, custom ductwork transitions, custom rectangular ductwork. We also install spiral ductwork and may other types of sheet metal ductwork.

Installed: 200+ projects successfully

#### **HVAC Ducting**



Spiral Ducting Superior aesthetic appeal.

Indoor applications for improved ambiance.



Stainless Steel Businesses and large manufacturing facilities application.



Mild Steel Fire resistant.

kitchen exhaust applications.



**Rectangular Ducting** 

Hot dip galvanized steel sheet.

Most stringent HVAC / Industrial specifications.



**Aluminum Ducting** 

Swimming pool, clean rooms for sensitive industrial applications.



Fire Rated **Duct Works** 

Fexible glass fibre fabric.

Rubber

Insulation

### **HVAC Insulation**



Negligible Water/ Moisture Absorption



Stable K Value



**Excellent Thermal &** Acoustic Insulation



Wide Operating Temperature Range



Chemically Unreactive



Resistance to Fungi



Polyolefin

Insulation



Rockwool Insulation



Fibre Glass Insulation



Under Roof Insulation



**HVAC Duct Insulation** 



Pipe Insulation

## Fire Fighting & Alarm Installations

No matter what potential risks you face, we can help tailor a life safety solution that preserves investments and brings peace of mind.

- Fire Sprinkler Systems & Installation
- Fire Extinguisher Solutions & Services
- Fire Hydrant Systems and Installation
- Fire Detection/ Alarm system & Voice Evacuation Systems
- Gas suppression system
- Flectronics Wireless Nurse Call System for Hospitals
- Fire Stop Sealants
- Special Hazards Installation and Services
- Security and Surveillance system with CCTV & Public Address System



The combination of Firefighting & Alarm Installation services enables us to provide the greatest advantage to all our customers as a single source and single point of contact for all their critical needs.

## Clean Room Works

Clean Rooms are environments where the concentration of airborne particles is **controlled**, which are built and used to minimise the introduction, generation and retention of particles and where other significant parameters such as **temperature**, **humidity and pressure** are monitored as needed.

Modular Partition

Modular Ceiling

Flooring

### **Cleanroom Installation Steps**

- Building works and finishes.
- Cleanroom setup.
- 3. Preliminary ventilation.
- 4. Cleaning.

- 5. Installation of HEPA /ULPA filters.
- Certification test in compliance with standard ISO 14644.



Capacity: 10000 - 100000 Class



We design, supply and install modular and bespoke walk-in cold rooms and deal in turnkey cold storage projects for usage in Industrial Cold Storage, Agriculture Cold Storage, Supermarkets, Pharmaceutical, etc.

Cold Room Works



#### Features:

- a) PUF Panel Polyutherane Foam(PUF) Panel
- b) Insulated Door
- c) Refrigeration System Indoor + Outdoor
- d) Electrical Panel to control Refrigeration System

## Electrical Engineering Services

We at JBI have design & execution capabilities for solutions in HT, LT, DG, UPS/Inverter and ELV Systems to address requirements across industries.











### Scope of Work

Plant Shutdowns, Turnarounds, Comprehensive Startup & Commissioning

Supply & Installation of:

- Switch yards, Bus ducts, Transformers, PMCC panels
- Fire and Gas systems
- DCS and PLC systems
- Electric Panel Changeouts
- Electrical Substations Contracting
- Building Energy Management Systems (BEMS)
- Commercial Electrical Installations
- High tension (HT) & Low tension (LT) Cable laying works
- Power and Lighting systems

# HVAC Automation Building Automation System (BAS)

JBI offers Building Automation solutions and systems for HVAC & R applications. It consists of programmable controllers (PLCs), user interfaces (HMI), communication interfaces, remote management systems and cloud services to offer the customers a control system that is powerful yet flexible and can be easily interfaced to the more widely-used Building Management Systems.

- a) Easy installation with out-of-the box functionality.
- b) Solutions for both new and retrofit applications.
- c) Low upfront costs.
- d) Advanced Security.

We offer customised automation solutions for the residential, industrial and commercial segments in the HVAC market, for each application segment which is integrated into individual units like heat pumps, shelters, rooftop, computer room air conditioners (CRAC), chillers and air treatment systems as well as complex systems for shopping centres, supermarkets, museums and data centres, etc.

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Our complete 360 service portfolio revolves around preserving high performance and minimising downtimes. Our services go well beyond just repair and maintenance.

JBI conducts regular service visits to foresee and forestall operational hurdles and hence ensures that the system performs seamlessly.

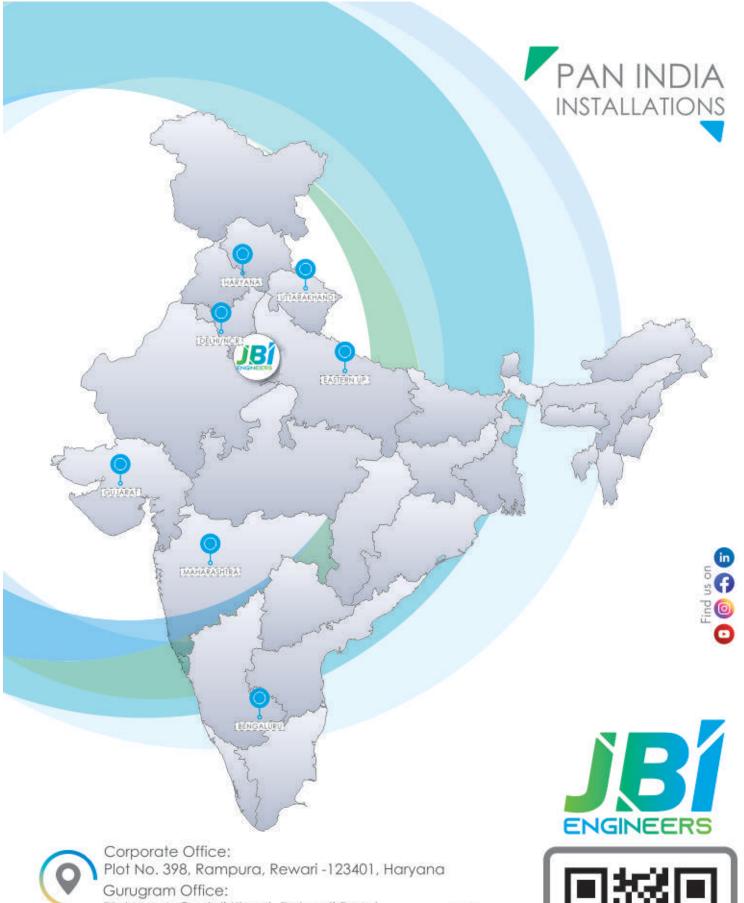
Our HVAC&R Operations, Maintenance, and Repair Services experts can help reduce maintenance costs and minimize downtime.



### Swift Response

Our experts get your facilities functioning again quickly.

Innovative approaches to HVAC repair and preventive maintenance and operations.





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