



COUNTRY'S LARGEST HVAC-R PROVIDER

# Cutting-Edge HVAC-R, Cleanroom & Cold Room Solutions

Revolutionizing Food and Pharma Industry



# **Tritech's Innovative HVAC-R Solution**

For Food & Pharmaceutical Industry

**500+**

Commercial Projects

Pharmaceutical HVAC-R (Heating, Ventilation, Air Conditioning & Refrigeration) solutions play a crucial role in maintaining the integrity and quality of pharmaceutical products. Tritech is a leading provider of HVAC-R and Cleanroom solutions specifically tailored to the pharmaceutical industry. Our expertise in Design Engineering, Supply, Installation, Commissioning and Validation enables us to offer a comprehensive one-stop solution that meets the stringent requirements of Current Good Manufacturing Practices guidelines of USFDA, EU, WHO & ISO. Tritech understands the importance of maintaining a controlled environment in the pharmaceutical sector to ensure the safety, efficacy, and stability of drugs and medical devices.

**200+**

Industrial Projects

With a focus on quality, safety, and compliance, Tritech collaborates closely with clients to design and implement HVAC-R systems that create controlled environments in Cleanroom to mitigate contamination risks and optimize pharmaceutical production conditions. Our commitment to quality and safety is evident in our use of recognized expertise, qualified materials, and cutting-edge technology to deliver HVAC-R systems that not only meet International Regulatory Standards but also Enhance Energy Efficiency and Operational Performance. As a trusted partner for Pharmaceutical, Biotech, Hospital and Food industries, Tritech's comprehensive approach ensures reliable and efficient HVAC-R & Cleanroom solutions that uphold the highest standards of **QUALITY, SAFETY and COMPLIANCE**.





# WHY TRITECH



## 1. Technically Most Capable Engineering Team

An exceptional team comprising professionals with in-depth expertise in designing, implementing, and validating HVAC-R and clean room solutions for the pharmaceutical and food industries. Our country's largest HVAC-R engineering team ensures tailored, compliant, and efficient systems that uphold the safety and quality of pharmaceutical products.

## 2. Specialized HVAC-R & Clean Room Solutions

HVAC of a manufacturing facility is unique and versatile based on specific temperature or humidity control requirements. Trittech- the country's largest HVAC-R & Clean Room Solutions provider, offers the best sustainable, efficient and GMP-compliant solutions for the food and pharmaceutical industry. In collaboration with leading global brands, Trittech provides a complete range of HVAC products that meets all industrial HVAC requirements.



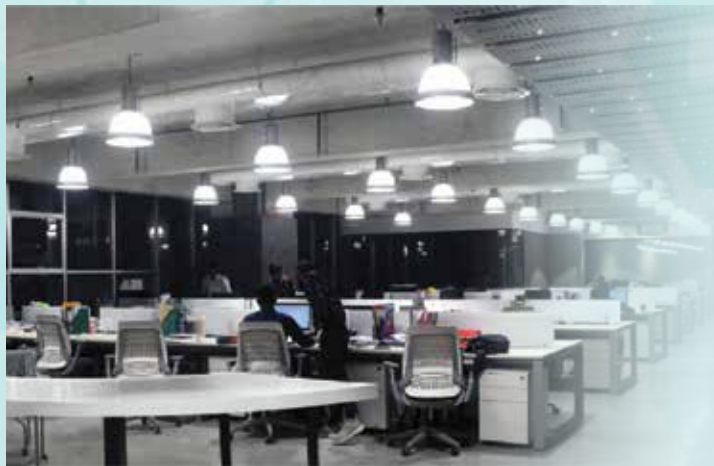
## 3. Largest After-Sales Team in Bangladesh

To ensure a reliable after-sales service for industries in need of running at maximum efficiency level, Trittech shook hands with its sister concern company R4S Technical Solutions Ltd. Trittech's expertise in the HVAC industry and R4S's trained expert technicians ensure the best & fastest after-sales-service-experience.



#### 4. Specialized Food & Pharma Division

Recognizing the versatile & unique requirements of the pharmaceutical and food industries, Trittech established specialized food & pharmaceutical division. A dedicated team with industry-specific knowledge about the food and pharmaceutical industry, Trittech delivers custom-tailored solutions to protect & boost product manufacturing process.



#### 5. Largest Team of Engineers

The country's largest HVAC-R engineering team at an exquisite office setup fosters a collaborative environment to develop and deliver state-of-the-art HVAC-R solutions. Trittech's streamlined workforce exemplifies dedication to innovation and creativity.

#### 6. Seamless Customer Support

As a significant part of the most committed exceptional customer experience, Trittech's Technical Assistance Center offers a user-friendly online platform for seamless communication and quick resolution of queries. Clients can now access support, track progress, and receive updates enhancing overall satisfaction and convenience.



#### 7. Offering Global Top Brands

Our relentless pursuit of excellence leads us to source only the highest quality materials and employ cutting-edge technology in our HVAC-R systems from leading global brands. By adhering to strict standards and utilizing top-notch products, we guarantee systems that meet regulatory requirements, optimizes energy efficiency and operational performance for our valued clients.



## MEET THE TEAM



**Engr. Sheikh Asifur Rahman**  
Managing Director

Sheikh Asifur Rahman is a visionary entrepreneur in the HVAC industry, renowned for his unmatched engineering prowess. Over the past two decades, he has transformed a modest 5-person enterprise into the largest 350 people's HVAC company in Bangladesh through unwavering dedication. A trailblazer, Mr. Rahman has continuously introduced cutting-edge technologies to the Bangladeshi market, driven by his belief in innovation. His exceptional leadership, marked by a balance of vision and pragmatism, is propelling the nation's HVAC industry forward with bold initiatives and unwavering commitment.



**Abu Al Motalib Raju**  
Director

Engineer Abu Al Motalib (Raju) is a distinguished HVAC-R specialist with an impressive two-decade track record in the mechanical industry. As Trittech's Director, he spearheads the central air conditioning sector in Bangladesh, with a specialized emphasis on industrial, food, and pharmaceutical HVAC solutions. Mr. Motalib's profound knowledge and expertise firmly establish him as the leading authority in the country's industrial HVAC-R landscape. Also he is the the current Board of Governor in ASHRAE Bangladesh Chapter.



**Engr. Rajib Raihan**  
Director

Rajib Raihan is a highly disciplined HVAC professional with a distinguished educational background. Schooling from Faujdarhat Cadet College, he continued his pursuit of excellence in mechanical engineering at the prestigious IUT, earning top honors. Mr. Raihan's dedication and commitment to his field are exemplified by his status as the first factory-trained VRF engineer in Bangladesh. His exceptional HVAC expertise has garnered him numerous accolades and recognitions throughout his career.



**Sheikh Ashequr Rahman**  
Director

Sheikh Ashequr Rahman is a seasoned expert in multinational corporations, boasting an illustrious career that includes a prestigious tenure as General Manager at Maersk, the world's premier Integrated Logistics company. A Danish citizen, he brings over 27 years of invaluable experience to the table, renowned for spearheading major technological innovations worldwide. With exceptional leadership and professional acumen, Mr. Rahman is the driving force behind Trittech, orchestrating the entire organization with his profound expertise.



**Iftejahul Hoque Aquib**  
Head of Business, Food & Pharma HVAC-R

Engineer Iftehajul Haque Aquib is a highly proficient HVAC-R specialist, renowned for his expertise in crafting tailored solutions for the demanding food and pharmaceutical sectors. Grounded in a distinguished mechanical engineering education from the prestigious IUT, Mr. Aquib possesses an in-depth understanding of HVAC-R systems and cleanroom solutions. His illustrious career includes contributions to esteemed pharmaceutical firms like Square Pharma, attesting to his industry acumen. Known for his collaborative spirit and extensive knowledge in the food and pharmaceutical HVAC sector, he is a cherished partner for clients. As an invaluable resource at Trittech, Mr. Aquib continues to drive excellence in this specialized field.

# SMARTD

## Global #1 Oil Free Chiller for Pharmaceutical Manufacturing

For precise and reliable operation, SMARTD: The Inventor of Oil-Free Magnetic Bearing Chiller has become an indispensable asset in the pharmaceutical industry. By eliminating oil-based lubricants, Smartdt oil-free chillers help pharmaceutical companies maintain efficacy and quality in product manufacturing.

### Revolutionary Cooling for Pharmaceutical Manufacturing

Smartdt oil-free chillers help pharmaceutical companies maintain efficacy and quality in the medicines they manufacture.



### Saves 50% on Chiller Electricity Bills

With the highest part load efficiency, Magnetic bearings operate with optimum efficiency level reducing 50% chiller electricity bills compared to conventional electric chillers.



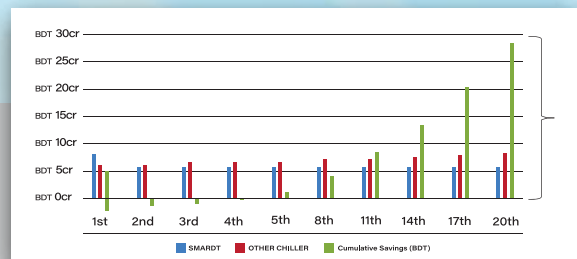
### Built-in Defense Against Power Failure

Each compressor has a bank of capacitors used for energy storage and filtering DC voltage fluctuations. In the case of a power failure, the capacitors continue to provide power to the bearings to keep the shaft levitated, allowing the motor to turn into a generator and to power itself down to a stop.



### Lowest Cost of Ownership

SMARTD's chiller, boasting 50% lower electricity and maintenance costs, saves approximately BDT 30 crore in 20 years of its lifetime. In just 6 years, the ROI of a SMARTD chiller can fund a new chiller, making ownership remarkably cost-effective.



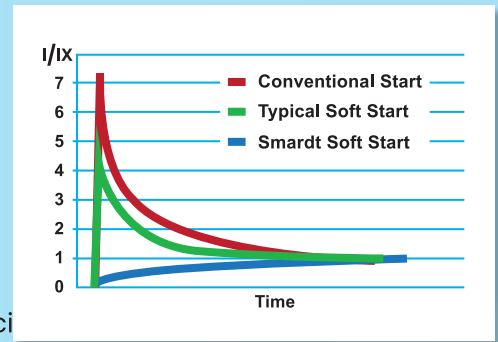
### Dedicated After-Sales Service Team

SMARTD ensures the Best After-Sales Service team in the Bangladesh market by TRITECH. TRITECH has the Biggest and most Experienced Magnetic Bearing Chiller Service team (Dedicated 10 Engineers & 12 Technicians) including 3 SMARTD Certified Engineers.



## The Smardt Chiller Choice

- ✓ 100% oil free: eliminates oil related maintenance costs
- ✓ Magnetic bearings eliminate frictional losses
- ✓ Highest efficiency for lowest operating costs
- ✓ Very low starting current < 2 amps
- ✓ Lowest noise and vibration as standard
- ✓ Fully integrated VSD, providing excellent part-load efficiency
- ✓ Multiple compressors offer built-in redundancy
- ✓ Smardt understands it better than anyone else



**10,000+ oil-free chiller installations worldwide**

## Product Range Summary

### T<sup>w</sup>-Class

Water-Cooled  
Chillers



Capacity: 45-1600 TR

### V-Class

Water-Cooled  
Chillers



Capacity: 350-3600 TR

### TA-Class

Air-Cooled  
Chillers



Capacity: 40-500 TR

### E-Class

Evap Cooled  
Chillers



Capacity: 60-300 TR

### V-Class

Pony Express



Capacity: 500-2500 TR

### G-Class

Low GWP Chillers



Capacity: 80-530 TR

## Global Pharmaceutical References of SMARTD





# Offering Chiller Excellence

## From the Inventor of Screw Chiller Technology



Dunham-Bush is committed towards offering reliable air-conditioning solutions combining innovative engineering and green technology. Superior quality product sourced directly from the USA, UK & Malaysia meets the global market demands for performance, reliability, and energy efficiency.

### Water Cooled Chiller (10-3000 TR)

- Wide variety of chiller available in Screw, Scroll & Centrifugal range.
- Utilizes environment-friendly refrigerants.
- High energy efficiency & COP.
- Low noise & long equipment life.



### Air Cooled Chiller (10-550 TR)

- Wide variety of chiller available in Screw & Scroll range.
- Low carbon footprint.
- Highly energy efficient.
- Lowest cost of ownership.

## Why Choose Dunham Bush For Your Food & Pharmaceutical Industry?

- ✓ **Precision Control:** Maintains precise temperatures crucial for product integrity.
- ✓ **Reliability Matters:** Minimizes downtime to ensure uninterrupted operations.
- ✓ **Energy Efficiency:** Reduces costs and environmental impact.
- ✓ **Regulatory Compliance:** Engineered to meet industry-specific regulations.



# Ensuring Perfect Air with Leading Air Conditioning Solutions From Japan



Industrial climate, regulations, requirements, and culture vary from facilities to facilities depending on the final product. To address these differences, specialized air conditioning solutions from Daikin are achieve the ideal air for each location.

## Water Cooled Chiller (5-3250 TR)

- ⬢ Extensive product lineup for medium to large facilities.
- ⬢ Higher efficiency for process cooling applications.
- ⬢ Outstanding durability for lower maintenance cost.
- ⬢ Meets industry standards for precise & stable temperature control.



## Air Cooled Chiller (5-625 TR)

- ⬢ Ideal for small, medium-sized and large applications.
- ⬢ Highly reliable & economic operation.
- ⬢ Lower energy consumption at partial load.
- ⬢ Structured to endure even the most demanding situations.

## Why Choose Daikin For Your Food & Pharmaceutical Industry?

- ✓ **Temperature Control:** Maintains precise and consistent temperatures for products and processes.
- ✓ **Contamination Control:** Ensures the highest sanitary standards through air filtration and purification.
- ✓ **Energy Efficiency:** Sustainable designs for reduced operational costs and environmental impact.
- ✓ **Compliance:** Incorporates built-in features to meet regulatory requirements.

# Offering World's Most Efficient Absorption Chiller Technology



Kawasaki Thermal Engineering (KTE) supplies eco-friendly Absorption Chillers that create a clean, comfortable & efficient manufacturing environment. Kawasaki Gene-Link specializes in saving energy through the use of waste heat.



## Direct Fired Absorption Chiller

- ⬢ COP 1.33 to 1.49 for NE, NU & NH Series.
- ⬢ 25% reduction in weight.
- ⬢ High partial load efficiency.
- ⬢ Right balance of initial cost & running cost.

## Steam Operated Absorption Chiller

- ⬢ Reduction of steam consumption rate.
- ⬢ Higher partial load efficiency and system efficiency.
- ⬢ Reduced installation cost.
- ⬢ Efficient operation across various range of load.



## Hot Water Operated Absorption Chiller

- ⬢ Highest energy saving rate.
- ⬢ Highest waste heat recovery.
- ⬢ Lower environment impact.
- ⬢ Only hot water based operation up to 53% cooling load.

## Why Choose Kawasaki Absorption Chiller For Your Food & Pharmaceutical Industry?

- ✓ Utilizes waste heat to produce up to 40% of free cooling.
- ✓ Double-life guaranteed compared to conventional chillers.
- ✓ 100% made in Japan & shipped from Japan.
- ✓ Finest sealing with JIS G3101 Material Standard.



# Get Global Top VRF

## Under A Single Roof



Tritech introduced VRF technology as the first company in Bangladesh. Gradually completed the country's most number of VRF projects and introduced leading global brands with the most efficient VRF solutions.



### Daikin VRV Solution (Pioneer of VRV Technology)

- ✧ Flexible design & easy installation.
- ✧ Equipped with VRT Smart Control.
- ✧ Automatic refrigerant charge function.

### Midea VRF Solution (World's #1 Air Treatment Brand)

- ✧ Providing world's latest VRF system V8.
- ✧ 28% more efficient than conventional systems.
- ✧ Proven experience in most number of 1000+ ton projects in Bangladesh.



### LG VRF Solution (The Only First World Country Made VRF in Bangladesh)

- ✧ Maximized space utilization.
- ✧ Comfort cooling & heating operation.
- ✧ Low noise operation.

## Ensure Optimum Efficiency with the Country's First & Best VRF Provider



Completed the largest VRF projects in Bangladesh.



15 years of most extensive VRF project execution experience.



Hundreds of projects & thousands of installed VRF units speak about Tritech's quality.

## Get the Right Selection of Robust & Efficient AHUs & FCUs

Hygiene in the pharmaceutical sector is a self-evident prerequisite to the quality of pharmaceutical products. Avoiding pathogens transmitted through the air is the top priority. Trittech provides a professional production line of AHUs, FCUs & Rooftop Package units to ensure microorganism-free environments by supplying fresh air.



- ✓ Control airborne particles, dust and micro-organism using high-efficiency filters
- ✓ Maintain room pressure and space moisture with proper airflow
- ✓ Ensure hygienically impeccable and comfortable room climate

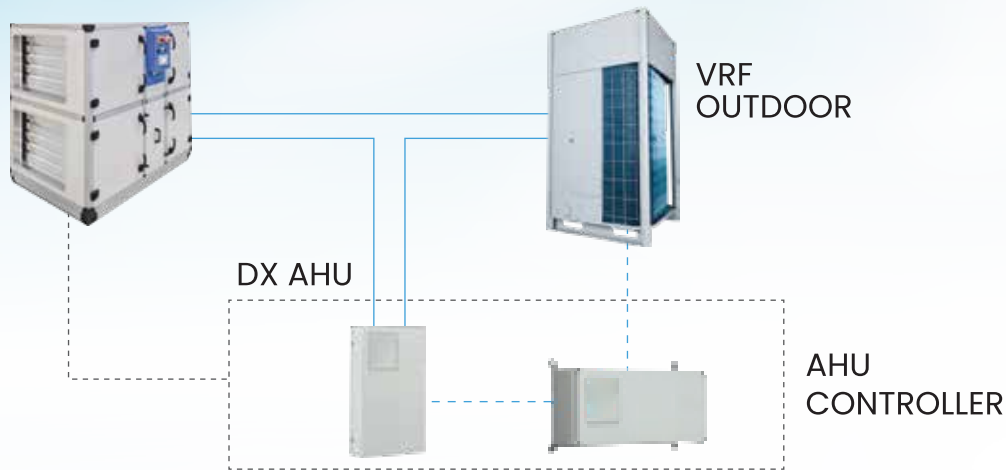


- ✓ The customizable modular design simplifies the operations of transport and installation in the field, reducing times and costs.
- ✓ Guarantees the highest levels of energy efficiency which is characterized by a long life cycle associated with low maintenance costs.
- ✓ AHRI/EUROVENT certified performance.



## DX-type AHU with VRF outdoor unit

DX-Cooling offers a simple & cost-effective solution which does not require any chiller or Chilled water piping System. With DX connection, you can connect the DX-type Air Handling Unit to any VRF or outdoor condensing unit. The integrated expansion valve and AHU Controller box make this a true plug-and-play solution. With no extra configurations needed and no additional design work required by the installer.

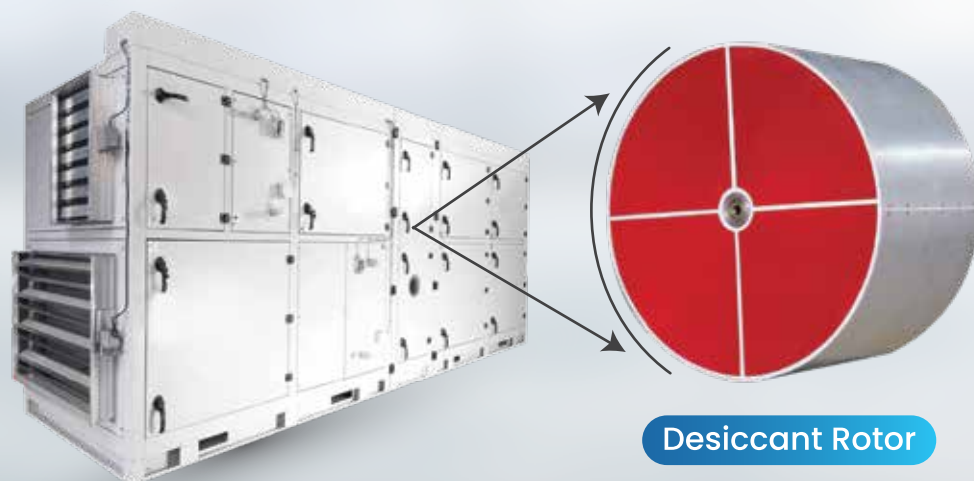


## Air Handling Units with in-built desiccant dehumidifier

AHU cum dehumidifier units are able to maintain necessary temperature, humidity and indoor air quality inside food & pharmaceutical cleanroom facilities. Desiccant dehumidification ensures a hygienic and healthy environment by preventing the formation of molds and fungi inside airstream.

### The unit can be provided with following functional sections:

- ⬡ Heating (Hot Water, Electrical or Steam).
- ⬡ Cooling (Chilled Water or DX).
- ⬡ Heat Recovery (Plate or Desiccant Rotor).
- ⬡ Fine filtration, Hepa filtration, Mixing, sound attenuation.



# Control Moisture with European Top Industrial Dehumidifier



Excess moisture significantly threatens pharmaceutical product quality and shelf-life, making efficient dehumidification vital. Trittech's collaboration with Fisair allows them to provide the world's leading industrial dehumidifier, addressing the moisture-related challenges faced by the industries.



1-165 kg/hr  
dehumidification capacity  
option available

- ✓ Best solutions in the control of environmental humidity.
- ✓ Enhanced quality and efficiency for industrial processes.
- ✓ Highest drying capacity solutions with a high degree of reliability.
- ✓ Dehumidification capacity available from 1-165 kg/hr.



Alter Pharma



Salvat



SANOFI



## Desiccant Dehumidifier (Dehumidification Capacity: 1-165 kg/hr)

- ⬢ Perfect solution for very demanding air drying conditions.
- ⬢ Separate process & reactivated airflows.
- ⬢ Integrated pre- and post-cooling/heating coils for cold/hot water or gas as options.
- ⬢ Patented high-performance silica gel based rotor .
- ⬢ Plug-fan ventilator with flow or pressure control by means of EC motors.

## Refrigerant Dehumidifier (Dehumidification Capacity: 2.5-40 kg/hr )

- ⬢ Automatic built-in defrosting system, removable washable filter.
- ⬢ Delayed startup for protection.
- ⬢ Smart structure, easy maintenance.
- ⬢ Universal wheels, movable .
- ⬢ External pipe allows continuous drainage.



### Get Quiet, Powerful Ventilation Solution

- ✓ Providing wide range of high-quality ventilation products and solutions
- ✓ Providing large-scale air solutions for every industry
- ✓ Solutions suitable for rapid response to ultra-quiet operation



### Introducing Next Generation 'Fabric Air' - Redefine Air Distribution!

- ✓ Innovative airflow solutions with customizable designs
- ✓ Draft-free air distribution
- ✓ Extraordinarily durable and longer life-span



### Get the Best 'Hot Water Generation' Solution!

- ✓ Superior efficiencies, performance and yield reliability
- ✓ Increased production
- ✓ Lower energy consumption and utility costs
- ✓ Improved compliance and safety



### Optimize Efficiency and Control - with 'BMS & EMS System'!

- ✓ Monitor & control HVAC & facility energy management
- ✓ Increase system efficiency & reduce utility cost
- ✓ Qualified EMS System as per US FDA 21 CFR part 11 and EU Eudralex Vol. 4 Annexure 11 and 15 guideline



### Proficient Validation & Commissioning Services

- ✓ Well equipped & experienced commissioning team
- ✓ Validation & Qualification of cleanroom with proper room balancing & various integrity & recovery tests following cGMP guidelines
- ✓ As built drawings, equipment test certificates & qualification reports

# Reliable Clean Room Solution from Global Top Brands

With unwavering commitment to quality, reliability, and innovation, Trittech leads the industry by providing custom-tailored cleanroom solutions for pharmaceutical manufacturing. Cutting-edge technology from leading global brands and Trittech's unmatched expertise ensures the highest standards of cleanliness and safety for every clean room.

- ✓ Meet international standards & cGMP regulations for quality manufacturing
- ✓ Consistent safety & durable product quality for process engineering
- ✓ Ensure a contaminant-free environment with top material quality



Cleanroom Panel

Cleanroom Door & View Panel



Trittech offers various sandwich panels, widely used in cleanrooms for pharmaceuticals, electronics, biology, and food industries.





# Complete Set of Quality Clean Room Products



BIBO UNIT



AIR SHOWER



GOODS  
AIR SHOWER



FUME HOOD



PASS BOX



CLEAN BENCH



BIOHAZARD CABINET



SAMPLING BOOTH



MOBILE LAF



HEPA BOX



FAN FILTER UNIT



CLEANROOM FUNITURE

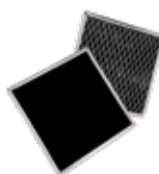
## High End Air Filters for Any Requirements



Primary Filter



Secondary Filter



Carbon Filter



Hepa Filter  
with Separator



High Temperature  
Resistant Hepa Filter



Wooden Frame Top  
Efficiency Hepa Filter



HEPA/ULPA FILTER



V Bank Air Filter

# GET A TO Z COLD CHAIN SOLUTION

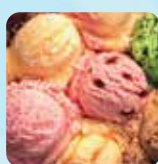
Tritech, your premier cold room supplier in Bangladesh! With a solid reputation for excellence and unmatched expertise in the industry, we are the go-to choice for pharmaceutical, food, and other relevant industries in need of top-of-the-line cold room solutions. At Tritech, we understand the critical importance of temperature-controlled environments for preserving the integrity and quality of your valuable products.



Fruits & Vegetables



Horticulture



Ice Cream



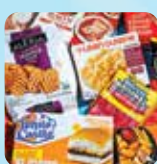
Dry Fruits



Hospitality



Bakery Products



Frozen Food



Pharmaceutical & Chemical

**Puf Panel Thickness :** 60, 80, 100, 125, 150 , 200 mm

**Application :** Storage of Frozen Food-Vegetables, Ice Cream, Horticulture, Pharmaceutical, Chemical, Dairy-Bakery, Dairy-Bakery, Dry Fruits

**Temperature :** +20°C to -40°C

## COLD CHAIN SOLUTION



Source



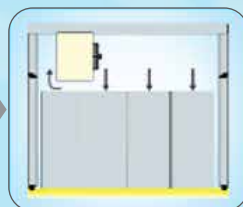
Pre Cooling



Mobile Pre Cooling



Grading & Sorting



Blast Chilling



Display Market



Market Distribution



Storage



Blast Freezing



Packing

# OUR GLOBAL PARTNERS

The logo for SMARTD, featuring the word "SMARTD" in a bold, blue, sans-serif font. The letter "A" is stylized with a circular graphic element inside it.

## **Revolutionary Energy Savings**

The global leader in magnetic bearing centrifugal chillers

The logo for AIRKEY, featuring the word "AIRKEY" in a bold, black, sans-serif font. Above the "I" is a green circular icon with a white dot in the center. Below "AIRKEY" is the text "CLEANROOM SOLUTIONS" in a smaller, black, sans-serif font.

## **Excellent Performance & Endurable Quality**

Experts in industrial clean room planning & construction

The logo for DAIKIN, featuring the word "DAIKIN" in a bold, blue, sans-serif font. To the left of the word is a blue and white geometric graphic element.

## **Global Leader in Air Conditioning from Japan**

With more than 100 years of operation, Daikin has sold millions of systems throughout 170 countries.

The logo for fisair, featuring the word "fisair" in a blue, lowercase, sans-serif font. Below it is the text "air humidity control" in a smaller, blue, lowercase, sans-serif font. To the right of the text is a blue water droplet icon.

## **Best Air Humidity Controller**

20 years of industrial expertise with Top-quality designs and manufacturing dehumidifier

The logo for Midea, featuring the word "Midea" in a blue, sans-serif font. To the left of the word is a blue circular icon with a white "M" inside.

## **World's No 1 Brand of Air- Treatment Products**

Create the most efficient commercial & residential solutions

The logo for Kawasaki, featuring a red stylized "K" icon above the word "Kawasaki" in a bold, black, sans-serif font.

## **World's Most Efficient Absorption Chiller**

Steam fired & hot water absorption chillers save 50% energy

The logo for LG, featuring a red circular icon with a white "L" and "G" inside, followed by the letters "LG" in a bold, black, sans-serif font.

## **Globally Leading Brand for VRF in LEED building**

Expert of end-to-end solution with incredible efficiency

The logo for DB, featuring a blue circular icon with a white "DB" inside, followed by the letters "DUNHAM-BUSH" in a bold, black, sans-serif font.

## **World's Top Commercial Air Conditioner Manufacturer**

120+ years of history with 85000+ operating chillers

The logo for Panasonic, featuring the word "Panasonic" in a bold, blue, sans-serif font.

## **Vitalize The Future With Air**

Provides safety and security through the air

The logo for FabricAir, featuring the word "FabricAir" in a white, sans-serif font inside a dark blue rectangular box.

## **Best Quality & Designed Fabric Ducts**

Supreme cost-effective solutions & easy maintenance



[ Our **Quality Works** Convert Our **Customers**  
to Our **Brand Ambassadors** ]

[www.tritechbd.com](http://www.tritechbd.com)

## SCAN to Learn & Connect

For  
Website



For  
Facebook



For  
LinkedIn



JCX Business Tower (7<sup>th</sup> Floor),  
Plot-1136/A, Japan Street, Block-I,  
Basundhara R/A, Dhaka-1229

HOTLINE  
**096 1033 1033**

CTG Office: 805/A, Modina Tower,  
CDA Avenue, GEC Circle, (Opposite of  
Hotel The Peninsula) Chattogram- 4000