

Turnkey HVAC Design | Supply | Installation | Lifecycle Support



COMPLETE HVAC SOLUTIONS

Delivering engineered climate solutions for commercial, industrial & institutional excellence.

Authorized Distributor of YORK Chiller



Corporate Overview

Global Cynax Bangladesh Ltd. is a leading Turnkey HVAC Engineering & Contracting Company, delivering integrated heating, ventilation, and air conditioning solutions across Bangladesh. We specialize in designing and executing high-performance HVAC systems for:

- Commercial complexes
- Shopping Mall
- Hotel & Resort
- Healthcare institutions - Hospital & Clinic
- Industrial facilities - Pharma, Food, etc.
- Data centers and mission-critical environments

From concept engineering to final commissioning, we assume complete responsibility — ensuring seamless coordination, technical integrity, and operational excellence.

As an Authorized Distributor of YORK Chillers (Johnson Controls), we combine world-class HVAC technology with advanced engineering expertise to deliver solutions that are energy-efficient, scalable, and future-ready.





OUR HVAC TURNKEY PHILOSOPHY

Turnkey HVAC Engineering – A Strategic Advantage

In complex construction environments, fragmented responsibilities often lead to delays, inefficiencies, and performance gaps. Global Cynax eliminates these risks through a fully integrated Turnkey HVAC Model, where a single expert partner manages the entire system lifecycle.

Our Integrated Scope Includes:

- Detailed HVAC Engineering & Load Analysis
- Equipment Selection & Global Procurement
- Authorized YORK Chiller Supply
- Professional Installation & Quality Assurance
- System Testing & Performance Commissioning
- Lifecycle Maintenance & Technical Support

This unified approach ensures:

- ✓ Reduced Interface Risk
- ✓ Optimized System Efficiency
- ✓ Transparent Accountability
- ✓ Predictable Project Delivery
- ✓ Lower Lifecycle Cost



STEP-BY-STEP HVAC SUPPORT



HVAC DESIGN & LOAD CALCULATION

A high-performing HVAC system begins with accurate engineering. Global Cynax supports HVAC design and load calculation for new greenfield projects and retrofit projects. We evaluate sensible and latent heat loads, ventilation demand, diversity factors, zoning requirements, and Bangladesh climatic conditions to support correct capacity selection and energy optimization.

Where required, we assist consultants and project teams in preparing equipment schedules, BOQ alignment, and technical submittals. Our engineering focus is to ensure that selected equipment matches project conditions and that system design can be executed practically on site.

Engineering scope (typical):

- Heat load and ventilation calculation
- Zoning and air distribution planning
- Equipment capacity selection (Chiller, AHU, FCU, Pumps, Cooling Tower)
- Ducting and hydronic concept review
- Controls and integration planning support



CHILLER SOLUTIONS YORK (JOHNSON CONTROLS)

Global Cynax is an authorized distributor of YORK chillers in Bangladesh. YORK (Johnson Controls) is globally recognized for reliable cooling performance, advanced control capabilities, and long lifecycle value. We support selection and integration of air-cooled and water-cooled chiller systems aligned with project load profiles and operational requirements.

We also support the project team by coordinating technical documentation, installation interfaces, and commissioning readiness so that the chiller plant achieves stable operation with proper flow, delta-T, and control sequencing.

YORK support highlights:

- Capacity selection and configuration guidance
- Technical datasheets and submittal support
- Installation and commissioning coordination
- Long-term service planning and spare parts guidance



AIRSIDE EQUIPMENT

AHU & FCU

Global Cynax supports complete airside system integration including AHU and FCU solutions for comfort cooling and ventilation needs. Airside performance depends on correct airflow, static pressure compliance, filtration requirements, coil selection, and proper installation/duct connection.

In many projects, clients directly purchase major items (such as AHU/FCU) from principal sources as per consultant specification. Global Cynax supports technical coordination and integration to ensure plant-airside matching and balanced distribution.

Airside technical focus:

- Airflow and static pressure alignment with design
- Proper duct connection and leakage control
- Filter selection and indoor air quality support
- TAB readiness for measured airflow compliance



HYDRONIC SYSTEMS COOLING TOWER & PUMPS

For water-cooled systems, hydronic performance depends on correct cooling tower capacity, pump head and flow calculations, and stable water quality management. Global Cynax supports supply coordination and integration of cooling tower and pump systems including primary/secondary pumping configurations as required by project design.

Typically, cooling towers and pumps are sourced from international supply markets such as Thailand, China, Turkey, and Malaysia, based on project specifications, approved vendor lists, availability, and commercial strategy.

Hydronic technical highlights:

- Pump sizing support (flow/head, curve matching)
- Cooling tower selection aligned with heat rejection demand
- Valve and accessory integration for balancing and maintenance
- Interface planning for piping, supports, vibration isolation



DUCTING, FABRICATION & HVAC ACCESSORIES

Global Cynax supplies and integrates complete HVAC ducting and accessories required for safe and efficient air distribution. Ducting quality and accessory selection significantly affect airflow balance, noise control, and fire safety compliance.

We support complete scope including duct fabrication/installation and essential accessories such as fire dampers, volume control dampers, diffusers, grilles, louvers, flexible connectors, hangers/supports, and insulation materials.

HVAC accessories supplied include (typical):

- Fire damper, VCD/NRD, backdraft damper
- Diffuser, grille, louver, plenum box
- Flexible duct/connector, vibration isolators
- Insulation, vapor barrier, acoustic lining (as required)

Sourcing may involve established international supply chains from Thailand, China, Turkey, Malaysia and UAE, ensuring best value and availability while meeting technical requirements.



EQUIPMENT SUPPLY MODEL & PROCUREMENT COORDINATION

In most HVAC projects, foreign procurement is typically divided into major packages and supporting packages. Global Cynax supports both direct client procurement and fully integrated supply models, depending on project requirements.

Major Equipment

(Often procured directly from principal manufacturers such as YORK/Johnson Controls):

- YORK Chillers (Johnson Controls)
- AHUs & FCUs (Johnson Controls or consultant-approved manufacturers/sources)

Supporting Equipment & Accessories (globally sourced):

- Cooling towers and pumps
- Dampers, diffusers, grilles, valves, sensors, insulation, and related accessories
- Common sourcing origins include Thailand, China, Turkey, and the UAE, subject to consultant approval and product availability

In addition to foreign procurement, Global Cynax directly supplies high-quality local equipment and accessories such as Ducting materials and fabrication components, maintaining the highest standards of performance and reliability.





COMMERCIAL BUILDINGS (SHOPPING MALL, OFFICE & MIXED-USE)

Commercial buildings require HVAC systems that balance occupant comfort, energy efficiency, zoning flexibility, and long operating hours. Office towers and mixed-use facilities often experience fluctuating load profiles due to occupancy density, equipment heat gain, and varying operating schedules.

Global Cynax supports commercial building projects through structured load analysis, zoning strategy development, and coordinated system integration. Our approach ensures proper airflow distribution, stable chilled water performance, and optimized control sequencing to maintain indoor comfort across all floors and tenant areas.

Commercial HVAC Focus Areas:

- Detailed load calculation considering occupancy diversity and equipment loads
- Zoning design for multi-tenant flexibility
- Air-cooled or water-cooled chiller plant integration
- AHU/FCU selection aligned with floor-by-floor airflow requirements
- Energy-conscious control strategy planning
- TAB and performance validation before occupancy



HOSPITAL & CLINIC FACILITIES

Healthcare environments demand precision HVAC engineering. Hospitals and clinics require strict temperature control, humidity management, ventilation standards, and infection control measures to protect patients and medical staff. Global Cynax supports healthcare HVAC projects with a focus on air quality, pressure control, filtration standards, and reliable 24/7 operation. We coordinate closely with consultants to ensure compliance with healthcare ventilation guidelines and functional zoning requirements.

Healthcare HVAC Focus Areas:

- Critical area load calculation (OT, ICU, isolation rooms, labs)
- Pressure zoning (positive/negative pressure areas)
- High-efficiency filtration integration (HEPA-ready systems where required)
- Fresh air management and ventilation compliance
- Redundancy planning for essential areas
- Precise air balancing and pressure verification during commissioning

Outcome:

Controlled indoor environments that support infection prevention, medical precision, and uninterrupted healthcare operation.



HOTEL & RESORT PROJECTS

Hospitality projects demand quiet operation, guest comfort, aesthetic integration, and energy-efficient performance. HVAC systems must maintain consistent thermal comfort across guest rooms, lobbies, banquet halls, kitchens, and service areas—each with different load characteristics.

Global Cynax supports hotel and resort developments with tailored zoning strategies, modular cooling solutions, and sound-conscious equipment integration to ensure guest satisfaction and operational reliability.

Hospitality HVAC Focus Areas:

- Guest room FCU zoning and control strategy
- Banquet and ballroom peak-load management
- Kitchen and fresh air ventilation planning
- Low-noise equipment selection and vibration control
- Modular chiller solutions for staged load operation
- Energy optimization through smart sequencing



MANUFACTURING FACILITIES & INDUSTRIAL PROJECTS

Manufacturing facilities require HVAC systems designed for process stability, worker comfort, and equipment heat management. Industrial environments often present higher sensible loads, ventilation requirements, and operational durability challenges. Global Cynax supports industrial HVAC projects through application-focused engineering and robust system integration, ensuring performance consistency under demanding operational conditions.

Industrial HVAC Focus Areas:

- Process load evaluation and heat rejection planning
- Ventilation strategy for worker safety and air quality
- High-capacity chiller plant integration
- Cooling tower and pump system alignment with industrial load
- Durable ducting and accessory selection for industrial environments
- Structured commissioning and performance documentation

Outcome:

Stable, application-driven HVAC systems designed to support productivity, process reliability, and operational continuity.

COMMISSIONING, HANDOVER & AFTER-SALES SUPPORT

Global Cynax supports complete system readiness through commissioning and structured handover. Our approach ensures that performance is verified, documentation is complete, and the client's operations team is prepared to run the system reliably.

Commissioning support includes pressure testing, flushing/cleaning (as required), TAB, control verification, and performance validation. Upon completion, we provide handover documentation including O&M manuals, warranty documents, test reports, recommended maintenance schedules, and training support.

After handover, we continue support through preventive maintenance, AMC, spare parts planning, troubleshooting, and performance optimization—helping clients maintain energy efficiency and reduce downtime over the system lifecycle.





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