



# Bilal Switchgear Engineering (PVT.) Limited

Switching on reliability  
since 1978

MV/LV Switchgear • Automation & Digitalization • Ventilation System • EPC Services



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**THE FUTURE OF MANUFACTURING IS IN TECHNOLOGY. THE NEXT GENERATION OF MANUFACTURING CHAMPIONS WILL COME FROM THOSE COMPANIES THAT USE BRAIN POWER, NOT LABOR, TO DRIVE THEIR INNOVATIONS.**



INFRASTRUCTURE



INDUSTRY



RESIDENTIAL  
& BUILDINGS



TELECOM  
& IT



POWER  
DISTRIBUTION



POWER  
GENERATION

**SWITCHING ON RELIABILITY SINCE 1978**



## Introduction

**At Bilal Switchgear Engineering (Pvt) Ltd.,** we deliver end-to-end engineering solutions in electrification, automation, and EPC systems with unmatched precision and reliability. With over 48 years of industry leadership, we are proud to be Licensed Manufacturers of ABB Switchgear, Authorized distributor of ABB Busways, System Integrators of SIEMENS, sole distributor of MEGABARRE busways, GBE dry-type transformers and Jiangsu Yawei transformer. Our expertise spans MV/LV panels, HVAC integration along with Ventilation & Cooling Systems, BMS, process automation, and turnkey EPC execution — all designed to power Pakistan's infrastructure with innovation, safety, and long-term performance.

## Our Vision

To be the market leader in providing integrated engineering solutions spanning electrical power distribution & control, HVAC, BMS, process automation, and EPC services under one umbrella, with a commitment to IT innovation, quality, and a legacy built for future generations.

## Our Mission

To deliver innovative, reliable, and value-driven solutions that empower our clients to focus on their core business objectives. By harnessing the power of cutting-edge technologies, we are committed to achieving service excellence, sustainable growth, and the value added development of our people and partners.





## LV TYPE TESTED SWITCHGEAR

System Pro E Power **ABB**

- Fully type tested for Conformance to IEC-61439 1 & 2.
- Rated Voltage: up to 1000V AC - 1500V DC.
- Rated Current: up to 6300A.
- IP Protection: IP 30 to IP 65.
- Form of Segregation: Form-1 to Form-4b.
- Fixed, Plug-in, Withdrawable.
- Transparent Glass or Blind Doors.

Supplied with ABB Brand Name with technology transfer from ABB Italy to Bilal Switchgear Engineering (Pvt.) Limited, assembled under license by ABB.

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## LV SWITCHGEAR PANELS

Powered By **ABB**

We manufacture low Voltage Switchgear Cubicles from 400A to 6300 A according to IEC-61439-1&2. All measuring and recording instruments like Ampere Meter, Volt Meter, Energy Meter etc. are mounted on the front door in Semi Finished Style for easy accessibility for checking of the instrument on the inner side of the door.

Main LT panels, Sub Main Distribution Boards, Motor Control Centers, PFI plants and Final Distribution Boards are equipped with high Quality ABB make major components. Design & Assembly is customized to diversified end use application.

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## MEDIUM VOLTAGE PANELS

Eco Safe (Powered by **ABB**)

- Design to applicable IEC standards.
- Medium voltage switchgears are manufactured from 6.6 kV, 24 kV and 33 kV.
- The panels design incorporates all necessary interlocks to safeguard the equipment as well as operating staff.
- All protection relays, measuring and protection instruments are mounted in the instrument and relay compartment for easy accessibility.
- The circuit breaker trolley (VCB) contains service position, test / isolated positions and with drawn position, In-service position, automatic shutter system is provided for protection against the live parts.

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## MV TYPE TESTED SWITCHGEAR

### UniSafe 2.0 ABB

- Fully type tested as per IEC 62271-200, internal Arc Classified IAC AFLR.
- Loss of service continuity LSC2B and PM metallic partition.
- Wide range of applications, Vacuum or SF6 Circuit breakers as well as Vacuum contactors.
- Ideal solution for Industry, Utilities and Infrastructure projects. Panel is only 600 mm wide up to 1250A.
- Fully tested IP4X as per International IP classification.
- Equipped with Exhaust duct and Chimney based solution which can route the flames outside building in case of an Arc Fault.

Supplied with ABB Brand Name with technology transfer from ABB Italy to Bilal Switchgear Engineering, assembled under license by ABB.



# PRO-SEC

## KE APPROVED 11KV PANELS

*Safer, Smarter, Sustainable.*

Introducing PRO-Sec, the next-generation K-Electric approved Medium Voltage panel from BSE. Designed to meet KE's toughest standards, PRO-Sec is Pakistan's trusted choice for reliable power distribution.

Built on ABB's proven MV technology and produced in BSE's audited facility, PRO-Sec delivers precision engineering with local expertise. Its SF6-based, SCADA-enabled design ensures safety, seamless integration, and long-lasting performance for Karachi's industries and infrastructure.

Since 1978, Bilal Switchgear Engineering (BSE) has led Pakistan's MV switchgear sector. With PRO-Sec, we continue to provide innovative, integrated, and future-ready electrification solutions.



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## NTDC P44: 2018 APPROVED

- 11KV Industrial Metering & Protection Panels.
- 11KV Grid outgoing Panels.
- 11KV Consumer Grid End Panels.
- 11KV Grid Incoming panels
- 11KV Grid bus coupler panels
- 11KV Capacitor switching panels.

Equipped with high performance  
**VCB VD4/P (ABB Italy)**

VD4 PK VCB series specially developed by ABB in conformance to NTDC specs & tested by BILAL at CESI Italy. Prototype testing of panels by BILAL at NTDC RAWAT Lab.



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## RING MAIN UNITS

SafeRing / SafePlus **ABB**

- Extendable Ring Main Unit - SafeRing
- Compact Switchgear - SafePlus
- System Voltages from 12 to 24kV
- Switch, switch-Fuse & Circuit Breaker (VCB) options
- Internal Arc Classification IAC AFLR up to 25KA/1s
- SF6 Gas-Insulated for excellent performance
- Fully sealed for lifetime
- Advance and Flexible, Canopy Option for Outdoor service
- High Reliability and Safety for Secondary distribution
- Designed and tested according to IEC-62271

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## DRY TYPE TRANSFORMERS



### GBE Italy

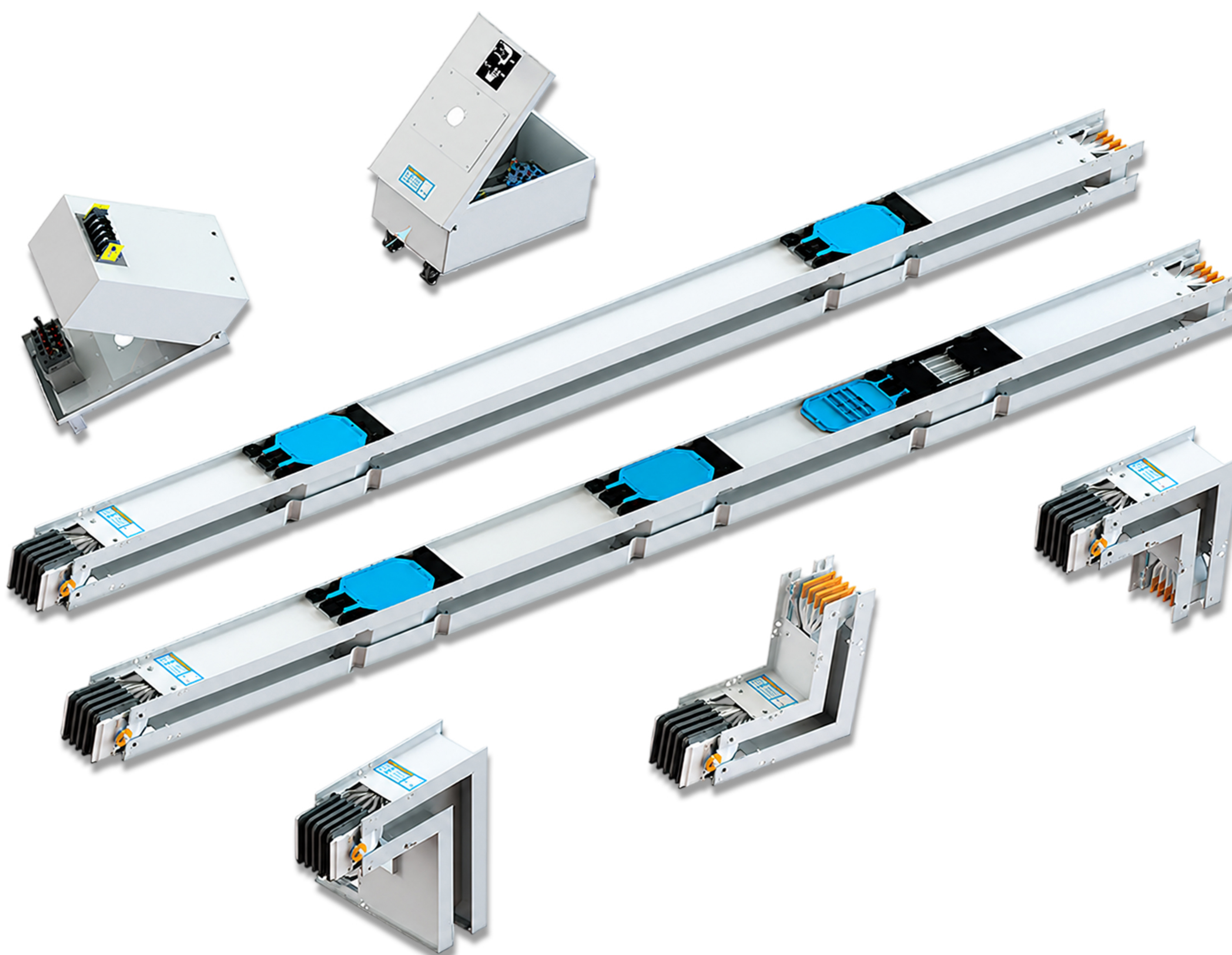
- Cast Resin or Vacuum Impregnated.
- Rating up to 30 MVA.
- Voltage Level up to 52KV.
- Copper OR Aluminum winding.
- Guaranteed zero tolerance lower losses by Eco-design.
- Type tested by CESI according to latest standards.
- Tailored for all applications.

**Authorized Sole Distributor for Pakistan by  
GBE (Italy)**



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| Mistral | System   | Impact <sup>2</sup> |
|---------|----------|---------------------|
| 40A     | 100-400A | 400-6300A           |

## BUSBAR TRUNKING SYSTEM


**MEGABARRE**  
 EUROPE  
 is now

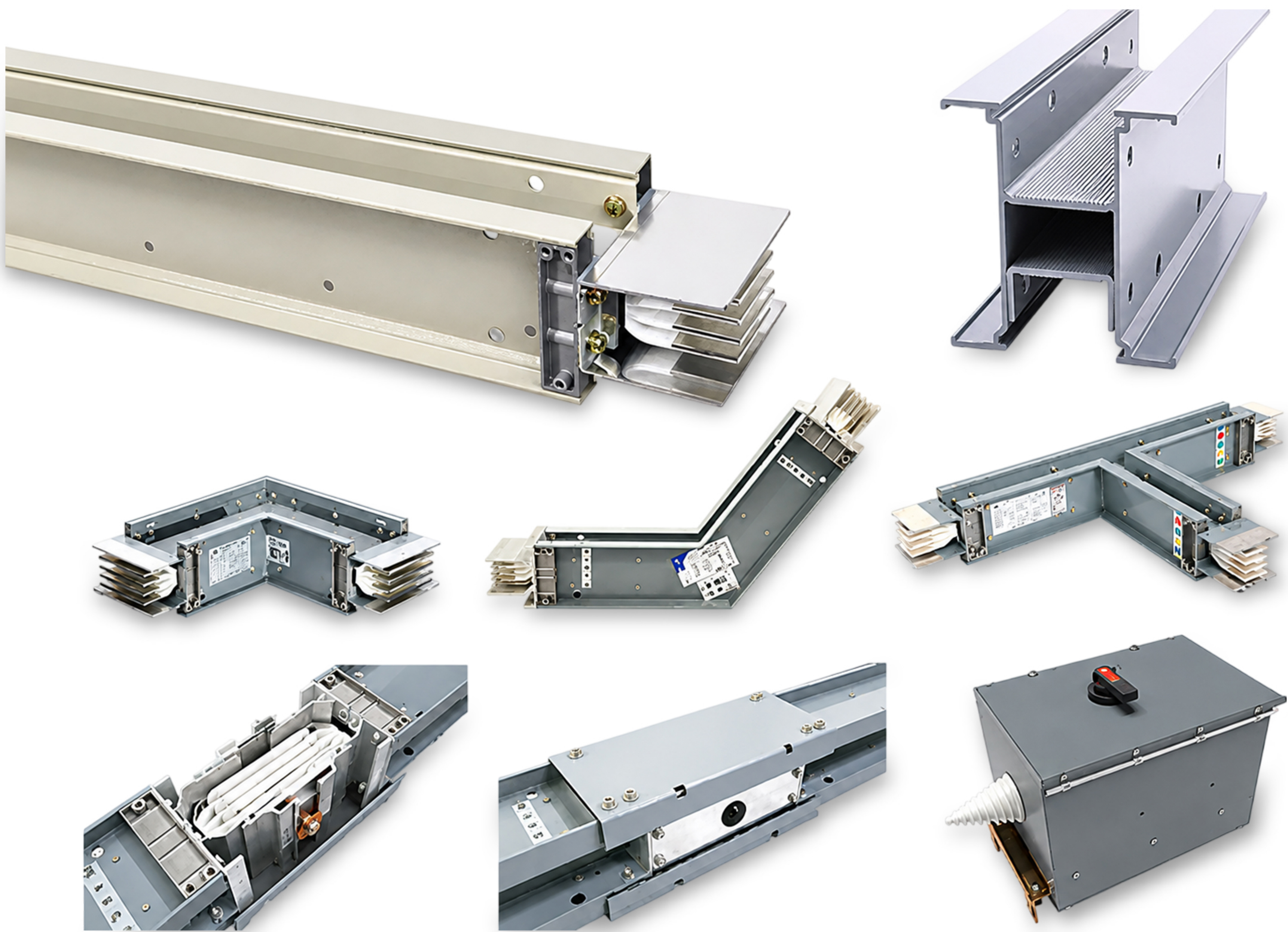
**BIMER BE**  
**ELECTRIC**  
 Energy to build. On.

- Maintenance free monoblock joint.
- IP55 protection degree without any additional accessories and upto IP66 can be offered.
- Thermal class (150°C).
- Fire resistant barrier can be provided.
- Painted Extruded Aluminum Alloy Casing with high mechanical strength characteristics.
- Copper & Aluminum Conductors.
- Type tested by LOVAG according to IEC 61439-1/6.

Authorized Sole Distributor for Pakistan & Afghanistan by MEGABARRE (Italy).

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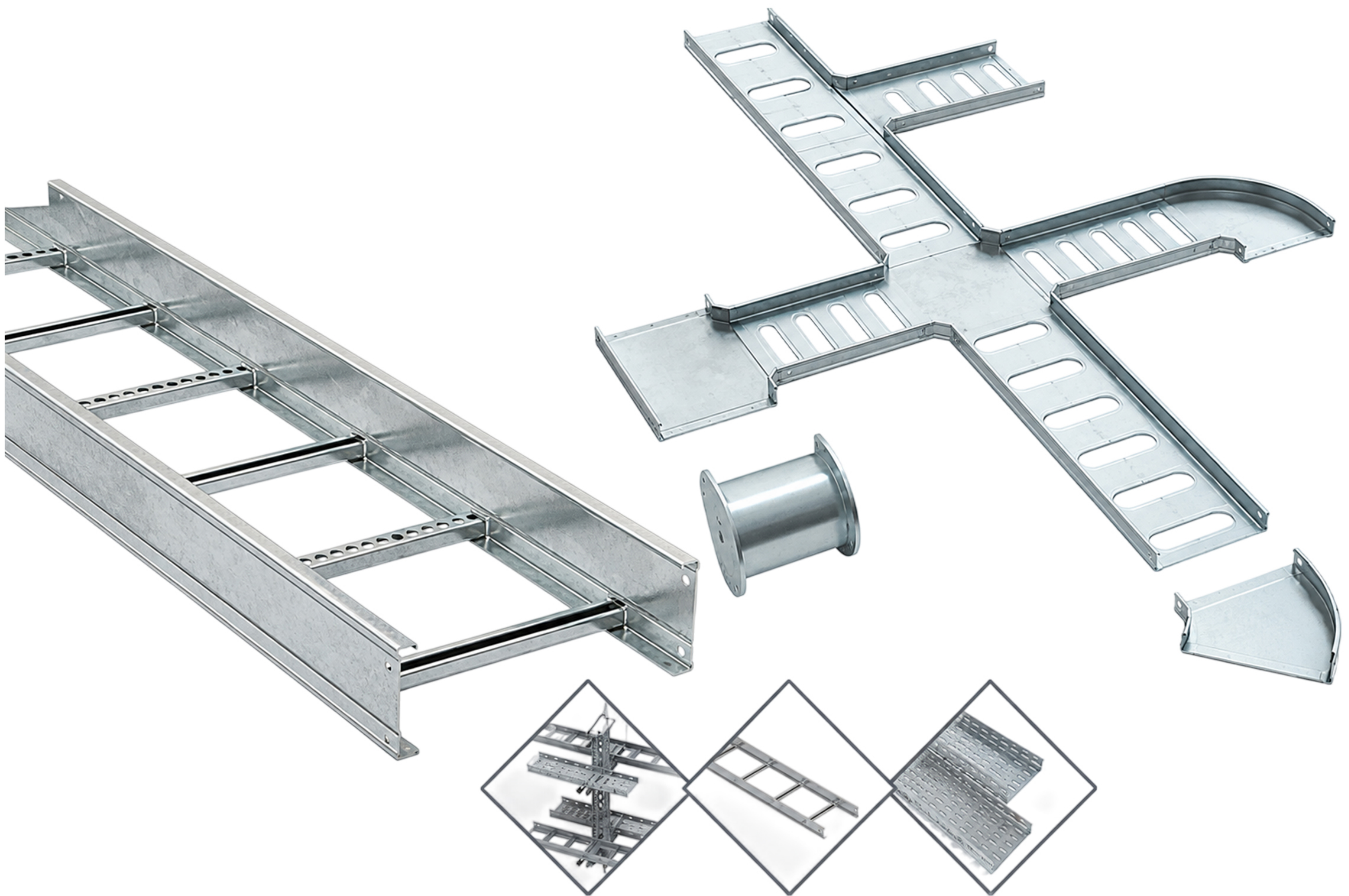


## BUSBAR TRUNKING SYSTEM WAVEPRO **ABB**

- Sandwich construction with Class B Insulation 130°C.
- Aluminum & Copper Conductors.
- Aluminum Housing.
- Icw from 30KA to 120KA.
- IP66 Feeder, IP54 Plugin.
- Rated Current 250A to 5000A.
- KEMA-KEUR certified to IEC 61439-1/6.
- Five proof test at 950°C at 1000VAC for 180 Min in accordance with IEC 60331-1:2018.

Authorized Channel Partner in Pakistan for Supply, installation, Testing, and Commissioning of ABB Busway system.





## **CABLE TRAY AND CABLE LADDER SYSTEMS**

BILAL® manufactures cable trays and cable ladders as per client requirement in different sizes, gauges, and depths. Cable trays are more appropriate where a great number of small cables are used, i.e. small electric cable, computer network cable, etc. Whereas cable ladders are more appropriate for power cables.

### **Types:**

GI  
MS Powder coated  
Stainless Steel  
MS Hot Dip Galvanized.



## Passive Harmonic Filters

LV Power factor Improvement plants with Anti-Resonance filters to prevent resonance in capacitor banks and Amplification of Harmonics. Solutions with 5.67%, 7%, 14% detuning reactors for mitigation of harmonics.



**Passive Harmonic Filters**

## Active Harmonic Filters

For Optimal Power Quality Control in different modular Amp sizes to meet desired TDD as per recommendations of IEEE-519-2022 for THDv & THDi in an LV network. AHF eliminates waveform distortion from 2nd to 50th Order Harmonics in the system due to non-linear loads.



**Active Harmonic Filter**

## Static Var Generators (SVG)

Electronic Reactive Power generators in different KVAR ratings for dynamic Power factor improvement and voltage stability in LV systems



**Static Var Generator**



# INDUSTRIAL AUTOMATION & DIGITALIZATION

**Process, Factory Automation  
& Motion Control**

## FIELD & MOTION

**SINAMICS V20 / G220 (VFDs)  
SITRANS FM FLOWMETERS**

**SIMOTICS (Servo Motors)  
SITOP Power Supplies**

Energy-efficient motion control, highly precise process instrumentation, and reliable power integration for robust, real-world operations.



## IT/OT & DIGITALIZATION Industrial Operations X

**Siemens Industrial Edge  
SIMATIC IOT2050  
Insights Hub / Industrial Copilot**

**SIMATIC Energy Manager (Basic/PRO)  
SCALANCE Industrial Networks & Security**

Seamless and secure IT/OT convergence, edge-to-cloud analytics, AI-driven insights, and precise energy tracking for ISO 50001 compliance.



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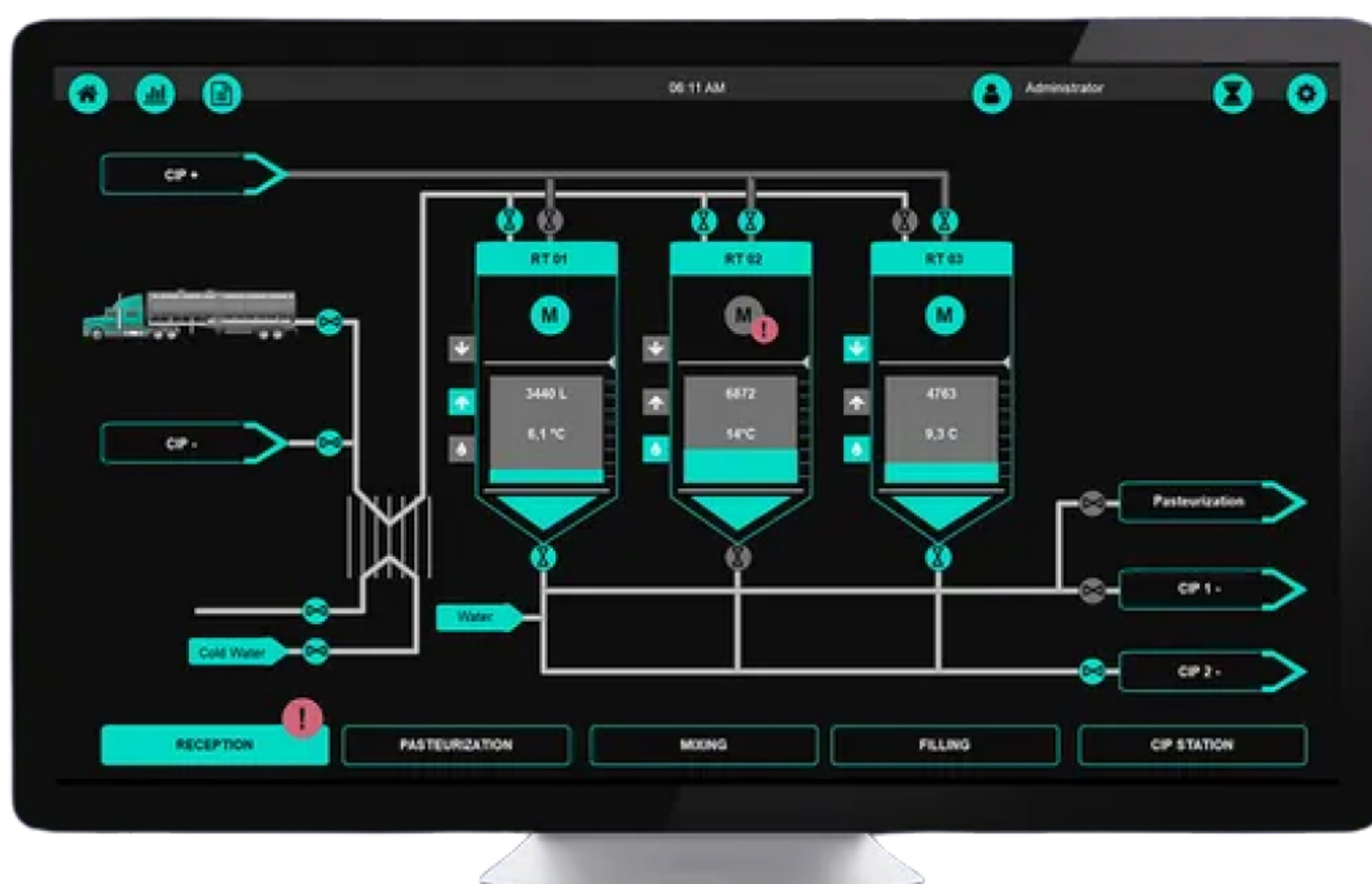
# CONTROL & AUTOMATION

## Totally Integrated Automation - TIA

**SIMATIC PCS 7 (Siemens DCS)**  
**SIMATIC ET 200SP**  
**SIMATIC HMI**

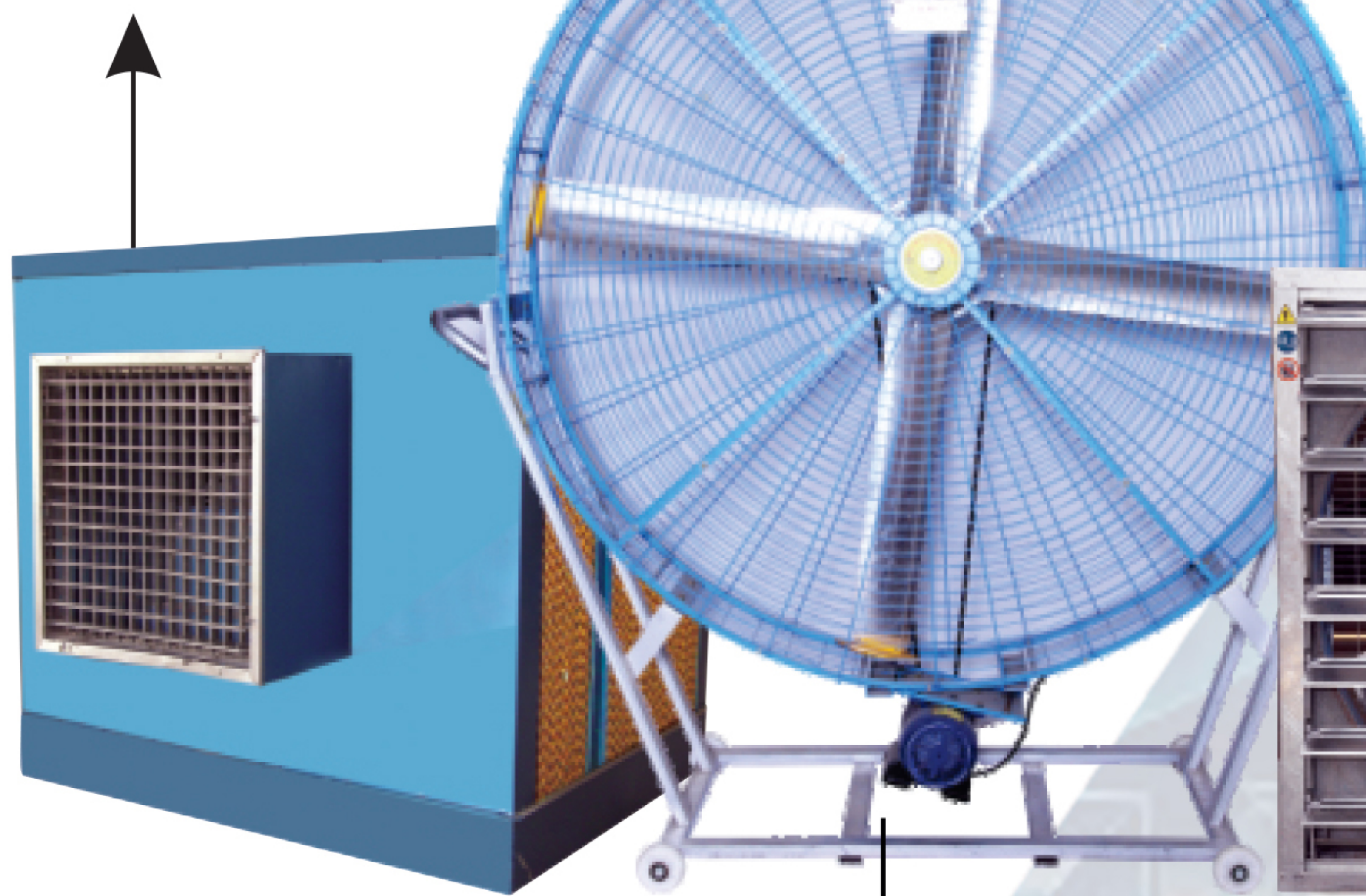
**SIMATIC Controllers (S7-1500 / S7-1200 G2)**  
**SIMATIC WinCC Unified (SCADA)**

Premier distributed control (DCS), scalable logic processing, and advanced web-based visualization for seamless factory and process automation.

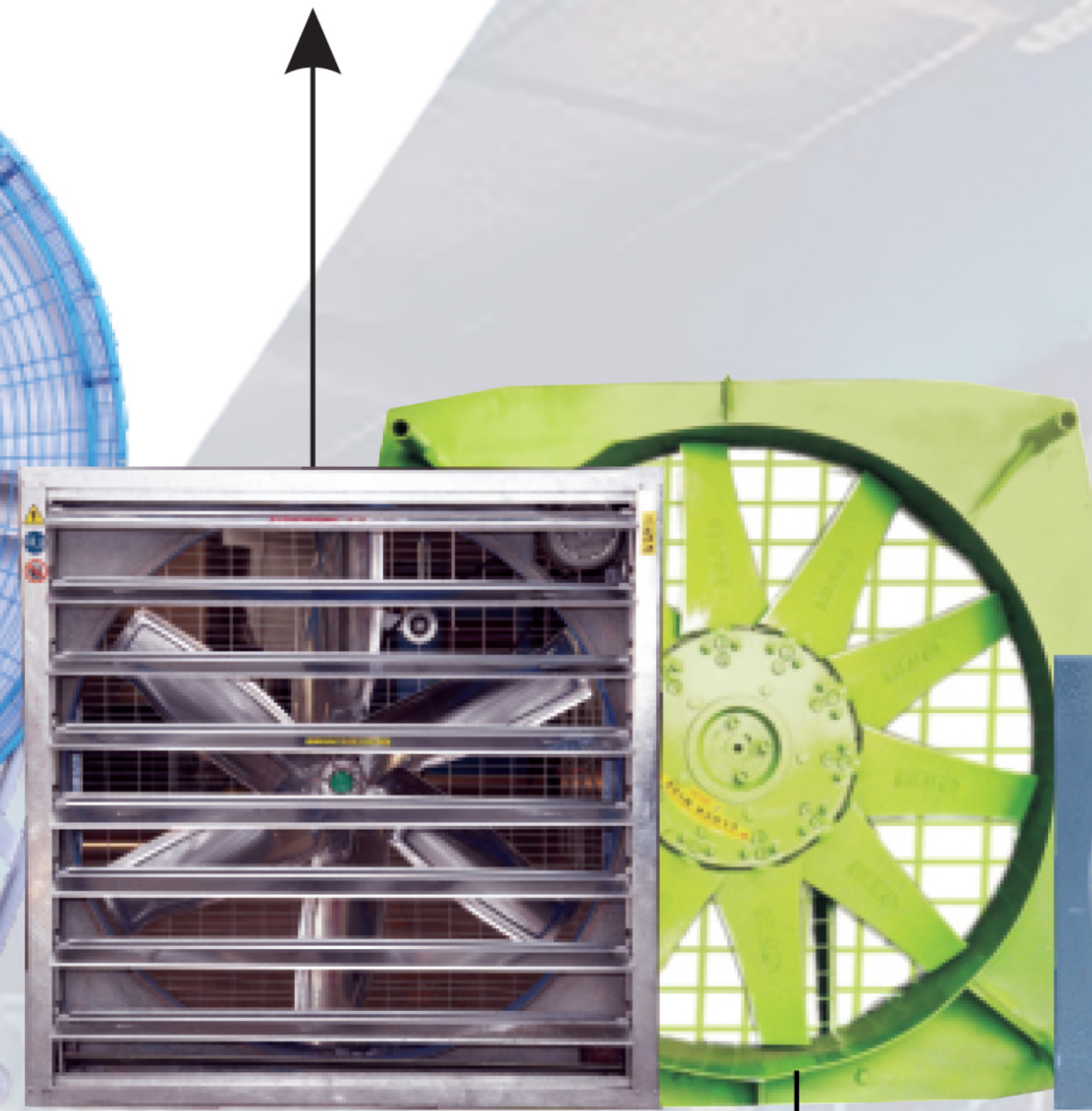




Industrial Evaporative Air Cooling System (Fan / Blower Type) with Imported Cooling Pads



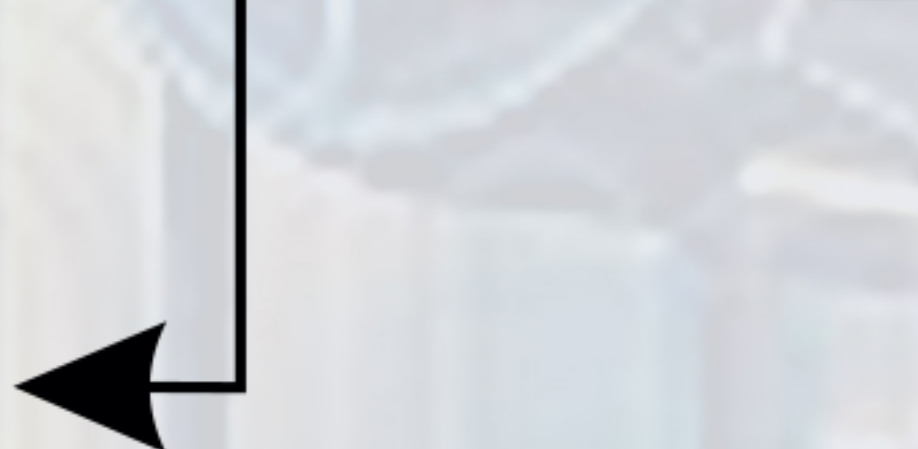
Energy Saving Automatic Louver Belt Driven Fan



Heavy Duty Belt Driven Industrial Supply Fan



Direct Axial Fan



Heavy Duty

## HEAVY DUTY EXHAUST, SUPPLY AIR FANS & EVAPORATIVE AIR COOLING SYSTEMS

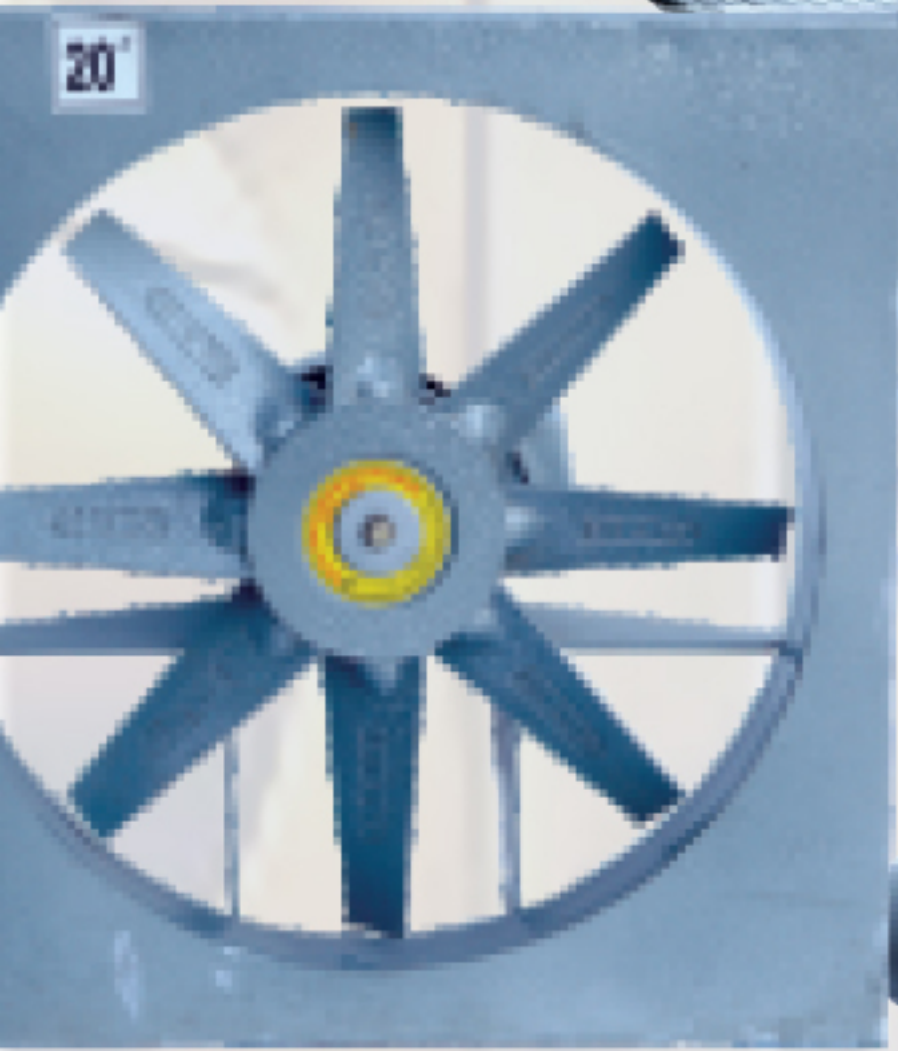
Bilal Switchgear Engineering (Pvt). Limited is one of the leading manufacturer of ventilation fans and evaporative air cooling systems, designed and built with advanced technology.



Industrial Pedestal Fan

Industrial Exhaust Air Blowers Unit

Industrial Evaporative Air Cooling System (Fan / Blower Type) with Imported Cooling Pads



High Capacity Direct Ventilation Fan

Outdoor Mist Cooling System





## EPC SERVICES

Bilal Switchgear Engineering Pvt. Ltd. provides end-to-end EPC (Engineering, Procurement, and Construction) solutions tailored for industrial, commercial, and infrastructure sectors. From design and technical proposals to installation, testing, and commissioning.

Our expertise ensures seamless project delivery under one roof. With core strength in electrical system integration, we also specialize in MV/LV panels, dry-type transformers, modular busways, HVAC interfaces, lighting control, fire protection, and plumbing systems. Every project is executed in strict compliance with IEC, NFPA, and relevant international codes. Backed by seasoned engineers, global OEM partnerships, and a proven turnkey model, Bilal Switchgear delivers safe, efficient, and future-ready MEP infrastructure — on time, with zero compromise on quality.

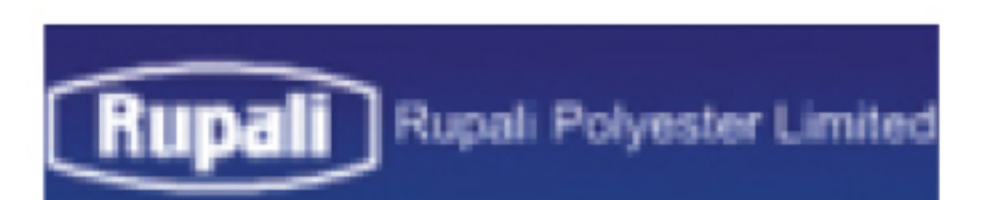
### Our Core Solutions & Services:

- LV & MV Diesel Genset Solutions.
- MV/LV Substations (Design & Execution).
- Oil & Dry Type Power Transformers.
- Modular Busway Distribution Systems.
- UPS & Central Battery Backup Systems.
- Intelligent CCTV, Access Control & Security Solutions.
- Fire Detection & Suppression Systems.
- SCADA & Building Management Integration.
- KNX / DALI-Based Smart Lighting Control.
- Tunnel & Metro Power Management Solutions.
- Earthing & Lightning Protection Systems.
- Interior & Exterior Power Cabling (LV & MV).
- Lighting & Small Power Distribution Networks.
- Power Quality Monitoring & Improvement Solutions.

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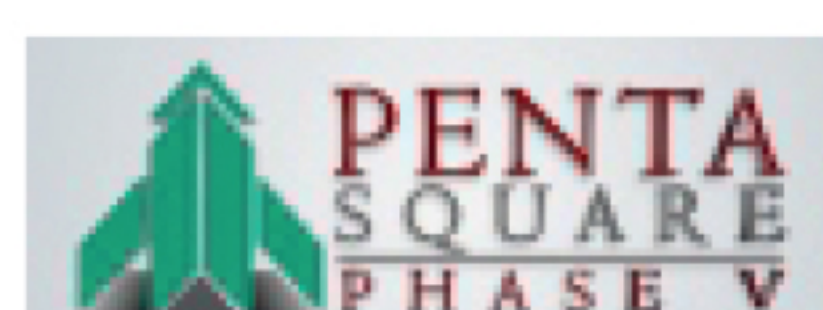
# OUR CLIENTS



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# OUR CLIENTS



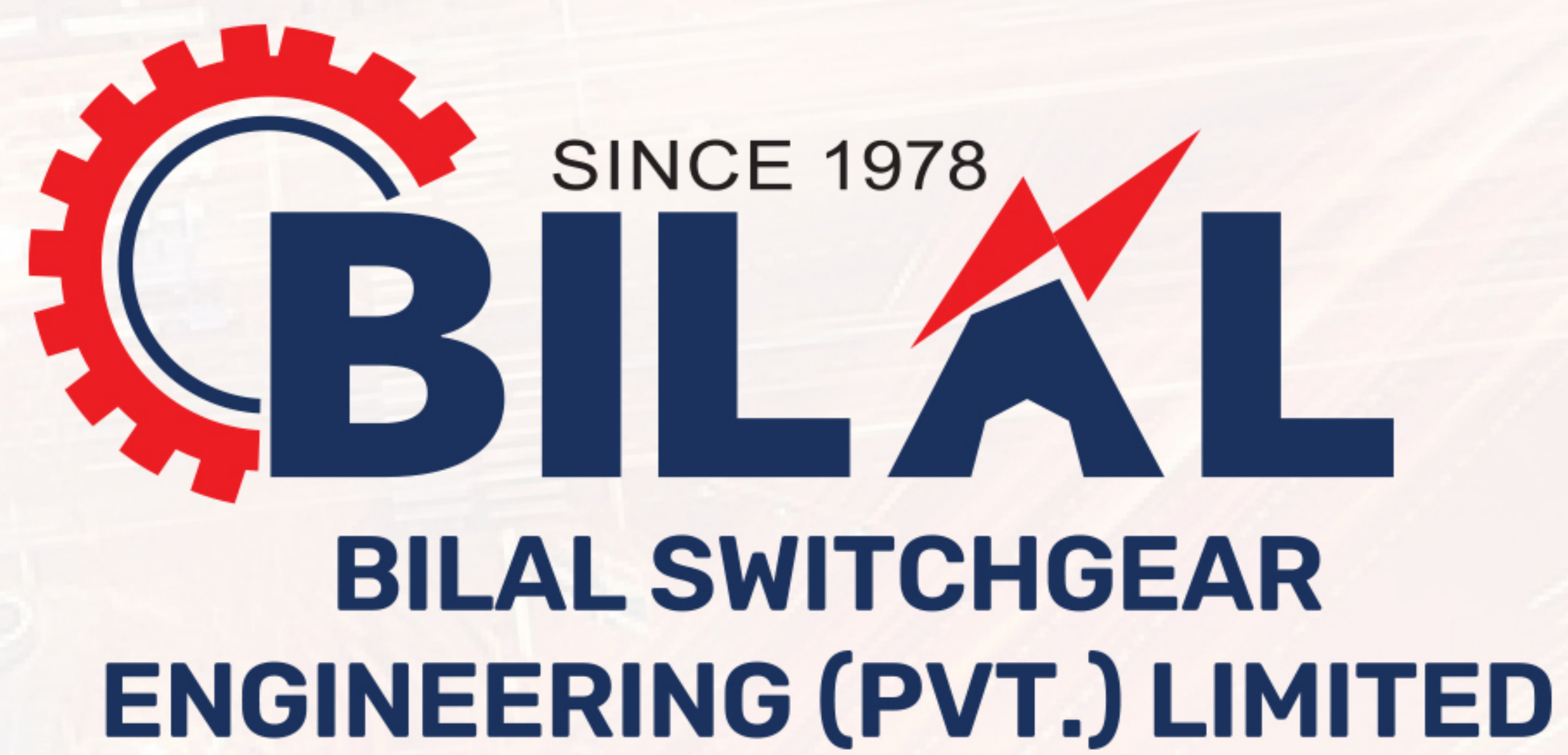


# OUR CLIENTS



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**Lahore | Karachi | Islamabad | Faisalabad | Multan**

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