Comprehensive Industrial Solutions by AxisValence: Advancing Productivity, Safety, and Efficiency



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In today's fast-paced manufacturing world, industrial productivity is driven by precision, consistency, safety, and compliance. Whether it's printing, packaging, converting, textiles, plastics, or pharmaceuticals—modern production lines demand advanced electro-mechanical systems that minimize waste, ensure operational safety, and improve overall efficiency.

AxisValence, a business unit of A.T.E. India, addresses this demand with a complete range of industrial automation and enhancement products. From static elimination to print quality assurance, ink management, and solvent recovery, AxisValence solutions are engineered to optimize each critical point in the production cycle.

This article provides an overview of the key technologies and systems offered by AxisValence across its diverse portfolio:

Electrostatics: Managing Static for Quality and Safety

Electrostatics can compromise product quality, disrupt operations, and pose serious safety hazards, especially in high-speed processes involving films, paper, textiles, or volatile solvents. AxisValence offers a complete suite of static control solutions:

- ATEX AC Static Eliminators: Certified for use in explosive or solvent-heavy environments such as rotogravure or flexo printing lines.
- AC and DC Static Eliminators: Designed for long-range or close-range static charge neutralization across a range of substrates.
- Passive Static Dischargers: Cost-effective, maintenance-free brushes for light-duty static elimination where power isn't available.
- Air-based Static Eliminators / Ionisers: Use ionized air streams for dust blow-off and static removal, ideal for hard-to-reach areas.
- Static Measurement & Online Monitoring: Includes handheld meters and IoT-enabled monitoring systems for real-time control and diagnostics.
- **Electrostatic Charging Systems**: Generate controlled static charges for bonding or pinning applications in laminating or packaging lines.
- Electrostatic Print Assist (ESA): Enhances ink transfer in rotogravure printing by improving ink pickup and registration.
- Camera-Based Web Videos for Print Viewing: Real-Time Visual Inspection

High-speed printing applications require instant visibility into print quality. AxisValence's ViewAXIS systems are high-performance, camera-based web viewing solutions:

- ViewAXIS Mega: Entry-level system with high-resolution imaging for real-time visual inspection.
- **ViewAXIS Giga**: Equipped with 14x optical zoom and X-ray vision for deeper inspection of layered prints.
- **ViewAXIS Tera**: Full repeat system with a 55" display, allowing operators to monitor and inspect the complete print layout in real-time.

Camera-Based Web Videos for Print Viewing systems help identify print errors like registration issues, smudging, or color inconsistencies early in the production run—minimizing rework and improving efficiency.

• 100% Inspection Systems: Intelligent Defect Detection

Modern converters and packaging companies require automated systems that can identify microscopic flaws at high speeds. AxisValence's DetectAXIS systems use AI-based image processing and line scan cameras for 100% inspection:

- **DetectAXIS Print**: Identifies printing defects such as streaks, misregistration, color deviation, and missing text at speeds up to 750 m/min.
- **DetectAXIS Surface**: Designed for detecting surface anomalies—scratches, gels, holes, fisheyes—on films, textiles, and nonwovens.

Real-time alerts, digital roll-maps, and adaptive detection improve quality control while reducing material waste and production downtime.

Ink Handling Systems: Consistent Ink Quality and Reduced Waste

Stable ink flow and temperature directly impact print quality and solvent consumption. AxisValence's **Valflow** range ensures optimal ink conditioning through:

- **Ink Filters**: Eliminate contaminants like metallic particles, fibers, and dried pigments that can damage cylinders or cause print defects.
- Ink Pumps & Tanks: Efficient centrifugal pumps and round stainless-steel tanks designed for continuous ink circulation and minimal ink residue.
- Ink Temperature Stabilisers (ITS): Automatically control ink temperature to prevent viscosity drift and reduce solvent evaporation—delivering consistent print shade and odor-free operation.

Valflow lnk handling solutions are ideal for gravure and flexographic printing applications.

• Print Register Control Systems: Precision Alignment in Every Print

Maintaining precise print registration control system is critical in multi-color printing processes. AxisValence offers two specialized systems:

- **AlygnAXIS**: For rotogravure presses, using fiber optic sensors and adaptive algorithms to deliver real-time register accuracy.
- **UniAXIS**: A versatile controller for print-to-mark, coat-to-mark, and cut-to-mark applications—both inline and offline.

These controllers reduce waste, enhance print alignment, and speed up setup during job changes.

Safety and Heat Recovery Systems: Energy Efficiency and Explosion Prevention

Solvent-based processes require strict monitoring of air quality and heat management to meet compliance and reduce operational costs. AxisValence provides:

- NIRA Residual Solvent Analyser: Lab-based gas chromatography system for quick analysis
 of residual solvents in films.
- Air-to-Air Heat Exchangers (Lamiflow): Recover and reuse waste heat from drying processes—improving energy efficiency.
- LEL Monitoring and Recirculation Systems: Ensure solvent vapor concentrations stay within safe limits in enclosed dryers using flame ionization or infrared detection.

Together, safety and heat recovery systems ensure both environmental safety and process optimization.

Surface Cleaning Systems: Contaminant-Free Production Lines

Particulate contamination can ruin coating, lamination, and printing jobs. AxisValence offers contactless surface cleaning systems that combine airflow and static control:

- **Non-Contact Web Cleaners**: Use air curtains and vacuum to remove dust from moving substrates without physical contact.
- **lonising Air Knives**: High-velocity ionized air streams neutralize static and clean surfaces entering finishing zones.
- **Ionising Air Blowers**: Cover larger surfaces with ionized air to eliminate static and debris.

- **Ionising Nozzles & Guns**: Handheld or fixed, these tools offer targeted static and dust elimination at workstations.
- Waste Solvent Recovery: Sustainable Ink and Solvent Reuse

Reducing solvent consumption and improving environmental compliance is critical for modern converters. AxisValence partners with **IRAC** (**Italy**) to offer:

- **Solvent Distillation Systems**: Recover usable solvents from spent ink mixtures, reducing hazardous waste and cutting costs.
- Parts Washers: Clean anilox rolls, gravure cylinders, and components through high-pressure, ultrasonic, or brush-based systems.

Waste solvent recovery systems offer a quick ROI and support zero-waste manufacturing goals.

Why Choose AxisValence?

AxisValence combines decades of industrial expertise with innovative product design to deliver reliable, safe, and efficient solutions for manufacturing processes. With a product portfolio spanning:

- Electrostatics & Static Control Systems
- Web Viewing & Print Inspection Solutions
- Ink Handling and Conditioning Equipment
- Register Control and Print Automation
- · Heat Recovery and Air Quality Monitoring
- Surface Cleaning Technologies
- Waste Solvent Management

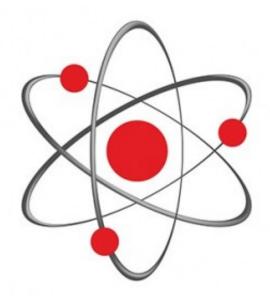
AxisValence serves diverse industries including printing, packaging, plastic and rubber, textile, pharma, and automotive.

From single-device retrofits to complete system integration, AxisValence enables manufacturers to improve output quality, reduce waste, meet safety norms, and gain a competitive edge.

Explore our full product range at www.axisvalence.com or contact our sales network for a customized consultation tailored to your industrial needs.

For more details, visit us at - https://www.axisvalence.com/





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