

Process Management Condition Monitoring & Centerlining Tools

SMC has an increasing range of management and monitoring solutions that can be used to reduce both product and process variations and improve machine efficiency through visual and data analysis.

Our experts can help **increase your process control** and **product quality**, thereby helping you to **reduce waste and cost**.

Thanks to improved fault finding capabilities, our cutting edge components can also help detect and identify issues at an early stage. SMC supports autonomous maintenance, with real time feedback from the machine systems and components providing data for analysis to **help reduce machine downtime, unplanned stoppages and improve maintenance planning**.

By adopting centerlining activities you can **identify and monitor optimum process conditions**, streamline operating procedures and even **reduce set-up and changeover times**.

And with the current focus on **health and safety** in the workplace, centerlining can also incorporate **tamper-proof components** in your systems to meet the growing need of **increased legislation**.

SMC Approach to Total Business Solutions

Our Total Business Solutions strategy covers all aspects of today's highly complex manufacturing industry. It focuses on:

1. Energy Management
2. Health & Safety
3. Learning & Development
4. Productivity

In addition to advising customers on these specific areas, our Total Business Solutions strategy is built around Five Keys to Success

- **Listening** – we maintain regular contact with customers and we listen to the business issues facing them, giving us a much greater understanding of business needs;
- **The Big Picture** – we take a holistic view of your business and the demands made upon it to develop a range of solutions;
- **Broad industry experience** – enables us to identify opportunities for all aspects of your business, from improved productivity and factory throughput to energy management, health & safety issues and even risk management;
- **Exploiting technology** – our technically led approach to customer support delivers not just a component solution but addresses all aspects of the design and production process;
- **Being there** – we always aim to deliver a future proof solution for customers so together we can look ahead and stay ahead of the competition.

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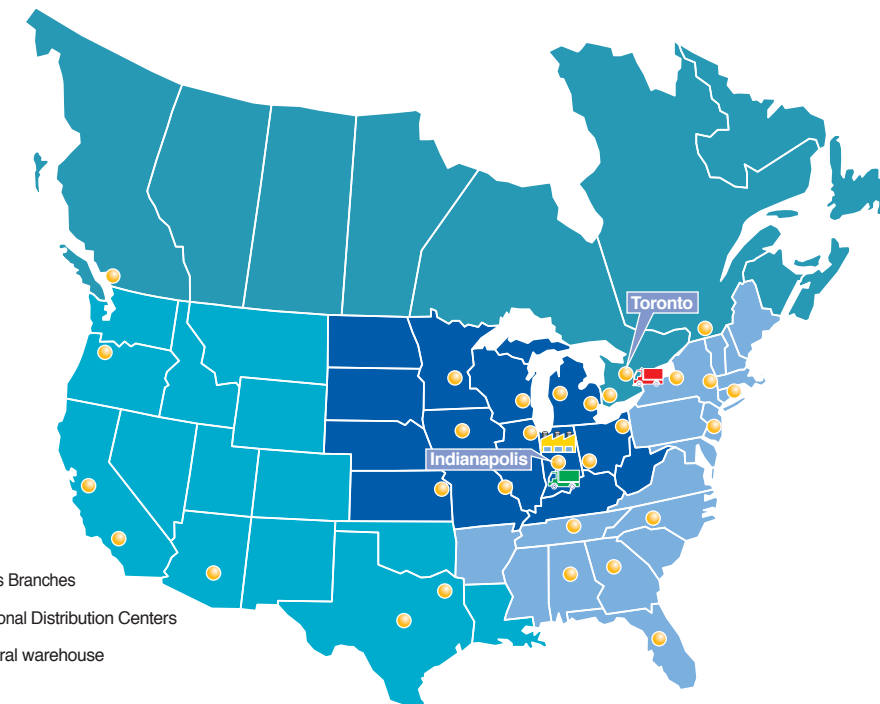
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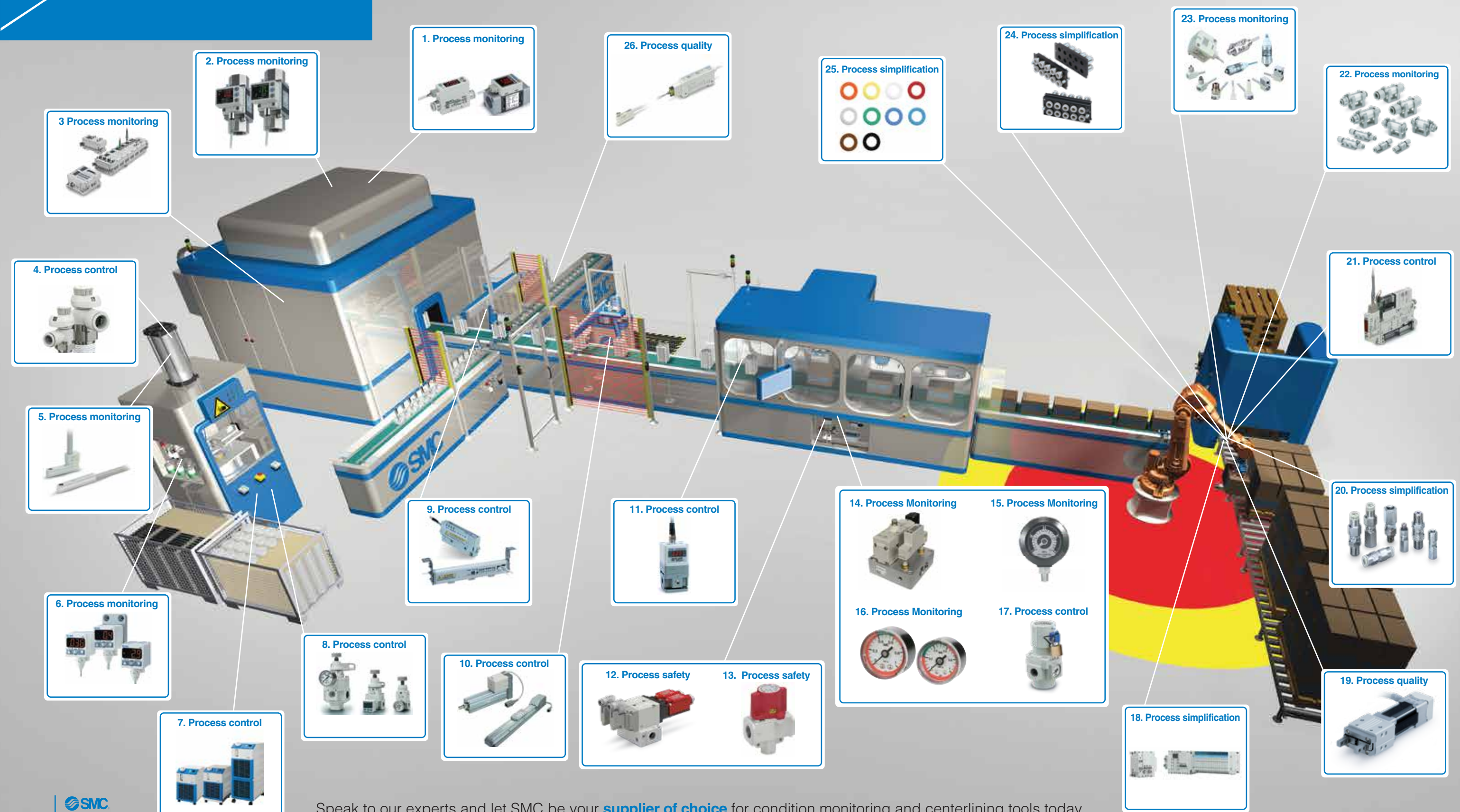
Automation – Controls – Process



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Process Management

Condition Monitoring & Centerlining Tools



Applicable Products

Process Monitoring

- Series PFMB 2 Color Display Switch**
 - Improves visual monitoring and diagnostics
 - 2 color visual status indication
 - Digital flow switch for air and nitrogen
- Series PF3W Digital Flow Switch**
 - Improves visual monitoring and diagnostics
 - Combined digital flow switch and temperature sensor for water
 - 3 color / 2 screen display
- Series EX600 Fieldbus system**
 - Enables condition based monitoring
 - Diagnostic functions
 - Remote access
- Series DM-9 solid state switches**
 - Improves ability to maintain working tolerance
 - 2 color indication
- Series ISE/ZSE Digital pressure & vacuum switches**
 - Improves visual monitoring and diagnostics
 - 2 color visual status indication
 - Digital and analog outputs

- Series ALDS Automatic Leak Detection System**
 - Improves machine availability
 - Reduces unplanned stoppages
 - Accurately locates machine compressed air leaks
- Series GD40 Pressure Differential Gauge**
 - Enables maintenance control of filters
 - Visual indicator for filter element status
- Series G46 Gauges**
 - Enables visual confirmation of process parameters
 - 2 color analog display with limit indicator
- Series ZFC In-line filters**
 - Enables optimal vacuum performance and process quality
 - Easy installation and flexible mounting
 - Clear casing and white element
- Series PSE Sensors/Controllers**
 - Enables point-of-use monitoring
 - Handles a range of fluids, pressure and vacuum
 - Remote mounting

Process Control

- Series AS-FS flow controllers**
 - Enables standard operating procedures
 - Allows accurate setting
 - Numerical flow control
- Series HRS Chillers**
 - Ensures consistent product quality
 - High accuracy process temperature control
- Series IR Regulators**
 - Ensures consistent product quality
 - Precision pressure setting and control
- Series IZN/IZS Ionizers**
 - Ensures consistent product quality
 - Controls/eliminates static electricity
 - Operator safety

- Series LE Electric Actuators**
 - Enables flexible production
 - Programmable speed, force and position
- Series ITV Electro-Pneumatic Regulator**
 - Ensures consistent product quality
 - Automatic pressure/vacuum regulation
 - Proportional control of air pressure and vacuum
- Series AR Tamper-proof Components**
 - Maintains standard operating procedures and safety levels
 - Lockable cap
- Series ZK2 Vacuum Unit**
 - Reduces air consumption and energy costs
 - Digital vacuum switch

Process Simplification

- Series EX600-W Fieldbus System**
 - Reduces installation and running costs
 - Stable and secure wireless connection
 - High speed communication
- Series ZP2V-B Vacuum Saving Valve**
 - Reduces changeover times and tooling costs
 - Utilizes check valve to reduce air consumption

- Series KDM Multi-Connector**
 - Reduces changeover times
 - Eliminates connection errors (poke yoke)
- Series KQ2C color Caps**
 - Minimizes installation errors and reduces changeover times
 - Enables accurate matching of fittings to tubing

Process Quality

- Series LEHZ Electric Gripper**
 - Ensures consistent product quality
 - Programmable speed, force and positioning

- Series D-M9K Trimmer switch**
 - Ensures consistent product quality
 - 3 color visual indication
 - Dual switched outputs

Process Safety

- Series VP Dual monitored dump valves**
 - Simple integration to achieve required performance level
 - Compliant to harmonized standard ISO 13849-1 Category 3/4

- Series VHS Valves**
 - Enables safe working Lock Out/Tag Out practices
 - Lockable, 3 port pressure relief isolation valve