

Welcome to Benchmark Computer Solutions Limited

Your trusted partner in enhancing manufacturing efficiency through innovative software solutions.



Improve Quality, Lower Production Costs, and Increase Process Efficiency with QA/S SPC

## Introducing QA/S SPC Software

Designed to streamline your production process, QA/S SPC provides comprehensive analysis and real-time insights to drive continuous improvement.

The demand to increase product quality is critical in manufacturing, with an expectation of Six Sigma or better conformance to product specifications. Achieving best-in-class quality output requires continuous analysis and real-time quality control. QA/S SPC is a real-time Statistical Process Control (SPC) quality analysis solution that is straightforward to use and applicable to any quality monitoring application.

With simple configuration and deployment methods, QA/S SPC offers an extensive set of SPC calculations, control charts, portal dashboard views and standard quality reports that can be applied in a variety of combinations to help pinpoint quality outliers.

QA/S SPC enables operators, quality personnel, manufacturing engineers and management to view quality SPC data and other production parameters impacting product quality. Apply any of the extensive set of SPC calculations to any process variable and integrate SPC data into expressions and logic to drive corrective actions based on process trends.

- ✓ Apply Any Combination of a Full Suite of SPC Calculations
- Customize Powerful Statistical Rule-based Alarms
- ✓ Combine SQC and Process Monitoring for Accurate Insight
- Customizable Connectors to All New and Existing Equipment
- Monitor, Analyze, and Control Processes from Dashboards

#### **Key Features and Benefits**

- ✓ Security
   User management with multi-level user IDs
   Any number of users
- ✓ User-Friendly Interface

Our user-friendly software ensures ease of use for operators and managers alike. Edit and make changes to data effortlessly, regardless of your role within the organization. With intuitive controls, anyone can navigate and utilize the software effectively.

✓ Access Anywhere, Anytime

Access your data from anywhere within the plant using the web interface provided. Our software enables convenient data analysis and monitoring, empowering you to stay connected and informed, no matter where you are.

#### Customizable Templates

Configure pictorial presentations of parameters and characteristics using customizable templates. Tailor the software to your specific needs and requirements, ensuring seamless integration with your existing workflows. Add different types of parameters – Variable, Attribute, Taper, and Circularity.

#### ✓ Gauge Integration

Easily integrate Sylvac and Mitutoyo gauges with our software for seamless data entry and analysis. Customizable options are available for integration with any type of gauge, ensuring flexibility and compatibility with your equipment.

#### ✓ Enhanced Features

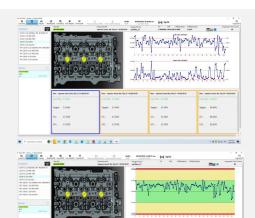
Features such as retake, modify, part number deletion, and additional charting capabilities have been added to further streamline your operations.

#### ✓ Multiple Machine Data Collection

Efficiently collect data from multiple machines at a single station, streamlining your data collection process and ensuring accuracy and consistency across your operations.

### Charts, Grids, Tiles and Graphics

- ✓ Quality Dashboards and Smart Tiles Provide Process KPIs
- ✓ Quickly Scroll, Zoom and Sort to Uncover Quality Anomalies
- ✓ Add Operator Comments to Any Quality Sample
- ✓ Customizable Upper and Lower Control Limits (UCL/LCL)
- Asset Navigation Provides Fast Access to Quality Data



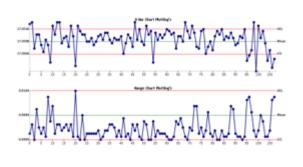
### **Extensive Library of Statistical Calculations**

✤ X-Bar	🛠 Cpl
✤ Range	🛠 Cpu
Sigma	PPK
Cpk	🛠 Pp
🛠 Ср	

### **Detect Quality Deviations with Customizable Alarm Rules**

The software adheres to the golden rule principle, ensuring adherence to predefined rules and standards. Receive timely alerts and notifications based on established criteria, enabling proactive intervention and problem resolution. User-configurable, these rules empower you to tailor your quality monitoring process according to your specific requirements. Let's delve into our two golden rules:

- Golden Rule 1: If three consecutive readings exceed the upper control limit (UCL) in our SPC software, an alarm
  or pop-up message will be triggered, prompting immediate attention to potential quality deviations.
- ✓ Golden Rule 2: Similarly, if three consecutive readings fall below the lower control limit (LCL), our SPC software will generate an alarm or pop-up message, indicating a potential quality issue that requires intervention.





Visualize Real-time Processes

- Track running counts such as the number of parts processed by a user during a shift or day, enabling realtime monitoring and performance evaluation.
- Custom Trends, Charts and Alarms
- ✓ Access Operational Data on Any Device at Any Time
- Intuitive Dashboards Provide Instant Quality KPIs
- Control Chart The powerful charting features of the QA/S SPC Module make SPC data easy to see and to act upon
- Process Monitoring Chart

# Coupling to MES systems

QA/S SPC is based on MS SQL, providing the best prerequisites for versatile data matching with other IT systems e.g., in ERP (Microsoft Dynamics), MES, SCADA, etc. Automatically sync the quality data to the MES/ERP system, based on the configured frequency.

System requirements			
Server	Operating system	Windows 2003, 2008, 2012 Server™, Windows 7™, Windows 10™ (32 or 64 bit)	
	SQL Server	Microsoft SQL Server 2005, 2008, 2008R2, 2012, 2014 or 2016 (preferably Standard or Enterprise Edition)	
	.Net Framework	4.6	
	Processor	Intel i5 comparable processor (6 Generation)	
	RAM	min. 16 GB RAM	
	Hard drive space	min. 200 GB	
SPC Terminals	Software	PM2, NodeJS	
	Operating system	Windows7™, Windows 8™ or Windows10™ (32 or 64 bit)	
	.Net Framework	4.6	
	Processor	Intel i3 comparable processor or larger (6 Generation)	
	RAM	min. 8 GB RAM	
	Softwares	Microsoft Excel 2013 / 2016 Professional (32 or 64 bit)	
	Hard drive space	min. 200 MB	
Network	Ethernet	min. 100 Mbit/s	



Kandivali Automotive | Kandivali Tractor Igatpuri | Chakan | MHEL | MVEL | Rudhrapur Nagpur | Zaheerabad



Mohali Plant 1 | Mohali Plant 2



Rajkot Plant

The technical data given serves as a product description only and should not be understood as guaranteed properties in the legal sense.

Specifications subject to change without notice. Last updated Mar 2024.

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