

# STANDALONE EQUIPMENT MANUFACTURING

## Benefits

Achieve full serialization for as-built documentation and aftermarket

Improve supply chain governance and visibility

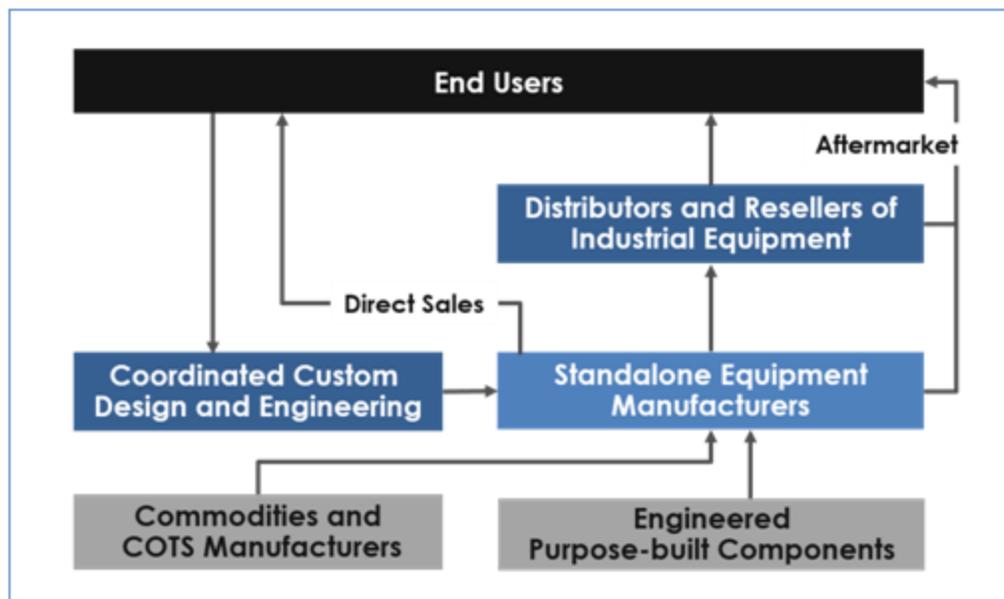
Establish consistent global processes and collaboration

Integrate quality directly into core business processes

Digitize management of customer and supplier orders through EDI

QAD offers a unique solution for standalone equipment manufacturers that includes the full-featured QAD [Cloud ERP](#) and several related capabilities that help standalone equipment manufacturing adapt to changing business conditions, improve forecast accuracy, drive operational efficiency and improve delivery in full on time (DIFOT), all while meeting their customers' demands for greater feature sets and extensibility.

## Standalone Equipment Manufacturing Value Chain



Consumption by standalone equipment manufacturers includes both commodity items and commercial off-the-shelf materials and purpose-built components. There is a separate value chain for servicing end users that desire customization and, due to product complexity, also a significant aftermarket business.

Key features include demand planning, supply chain execution, quality management and

global financials. These and other capabilities help manufacturers control of processes, reduce risk and modernize operations that align with business strategy.

**Increase utilization** through better material planning and handling.

**Improve DIFOT** through better supply chain insight and accurate inventory tracking.

**Reduce manual costs and errors** by automating complaint management and quality-related processes.

**Increase inventory turns, reducing inventory** via sophisticated forecasting methods and detecting demand forecast changes as they happen.

## **QAD Standalone Equipment Manufacturing Solution Overview**

Standalone equipment manufacturers often differentiate their products based on technical features that require both continuous investments in product development and in constant modification of associated processes. The dynamic nature of these changes accentuates the need for integration and systems that foster continuous improvement.

Many of the standalone equipment manufacturers' products are made in relatively low volumes. The production process includes a fair amount of manual movement of the material between manual assembly processes that often requires product and production order specific work instructions. All this processing becomes more complicated as the product becomes more complicated.

Products may include multiple electronic subsystems and even hydraulic, pneumatic or mechanical motion subsystems. The production runs, therefore, often require the kitting of components and frequently require both mechanical and electrical integrity checks.

The complexity of the BOM and the potentially high level of variation require a sophisticated integrated approach to planning and execution functions. Standalone equipment manufacturers closely monitor specific operational metrics and expect performance that allows them to differentiate. Key metrics include DIFOT, Capacity Utilization, Inventory Turns, Production Downtime, Work-in-Process Levels and Reduced Manufacturing Cycle Time.

The QAD solution offers a complete approach to address the complex processes and innovation needed by standalone equipment manufacturers. The following are the key capabilities of the solution that help manufacturers successful address their unique challenges and opportunities to improve performance:

### **Item level serialization**

[QAD DSCP \(Demand and Supply Chain Planning\)](#)

[QAD QMS \(Quality Management System\)](#)

[QAD Supplier Portal - supplier management](#)

## [Planning and Scheduling Workbenches](#)

### Lot Traceability

## [QAD EAM \(Enterprise Asset Management\)](#)

## [QAD BI \(Business intelligence\)](#)

## [QAD Cloud EDI](#)

## [QAD Automation Solutions](#) – Shop Floor Data Collection and Label Printing

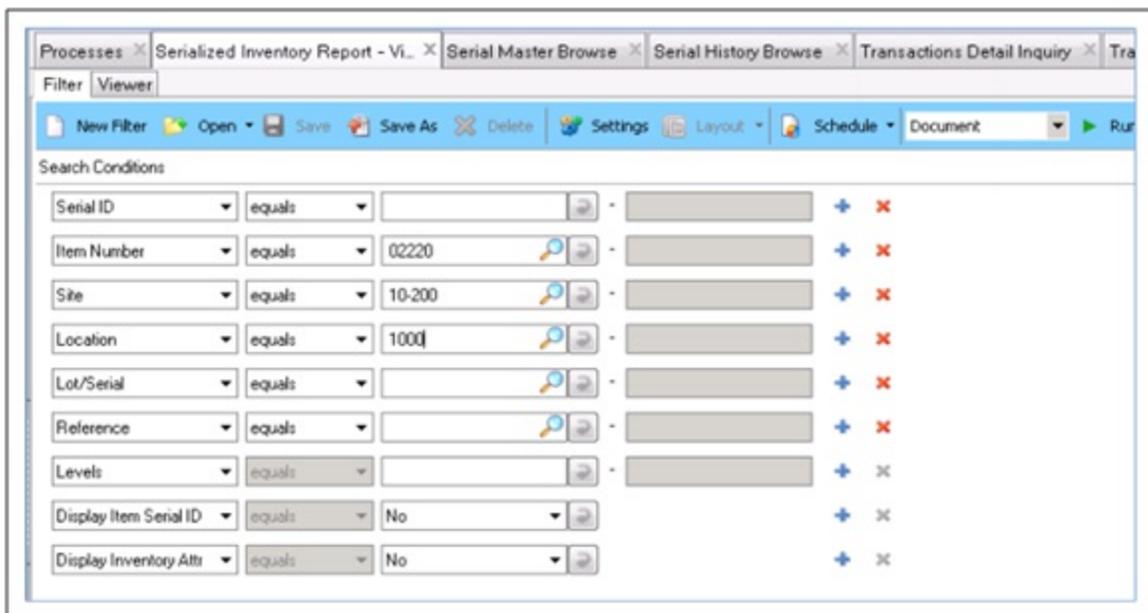
Overviews of the first three solutions areas listed above follow. For information about the rest of the solution areas, please visit [QAD.com](http://QAD.com).

### Item Level Serialization

Product complexity and associated product revision levels drive the requirement for unit level, electronic serialization needed by standalone equipment manufacturers. While driven by the expectations of their customers, standalone equipment manufacturers also look at the business benefit that can come with better visibility and overall operational improvement.

The QAD Item Level Serialization solution **addresses manufacturers' robust material traceability requirements**. Traceability can extend to final assemblies tied to subassemblies or lot identifiers for sourced components. **Information about products and inventory movements stored in each of these logistic units are all captured and accessible through a serial ID.**

### Serialized Inventory Report



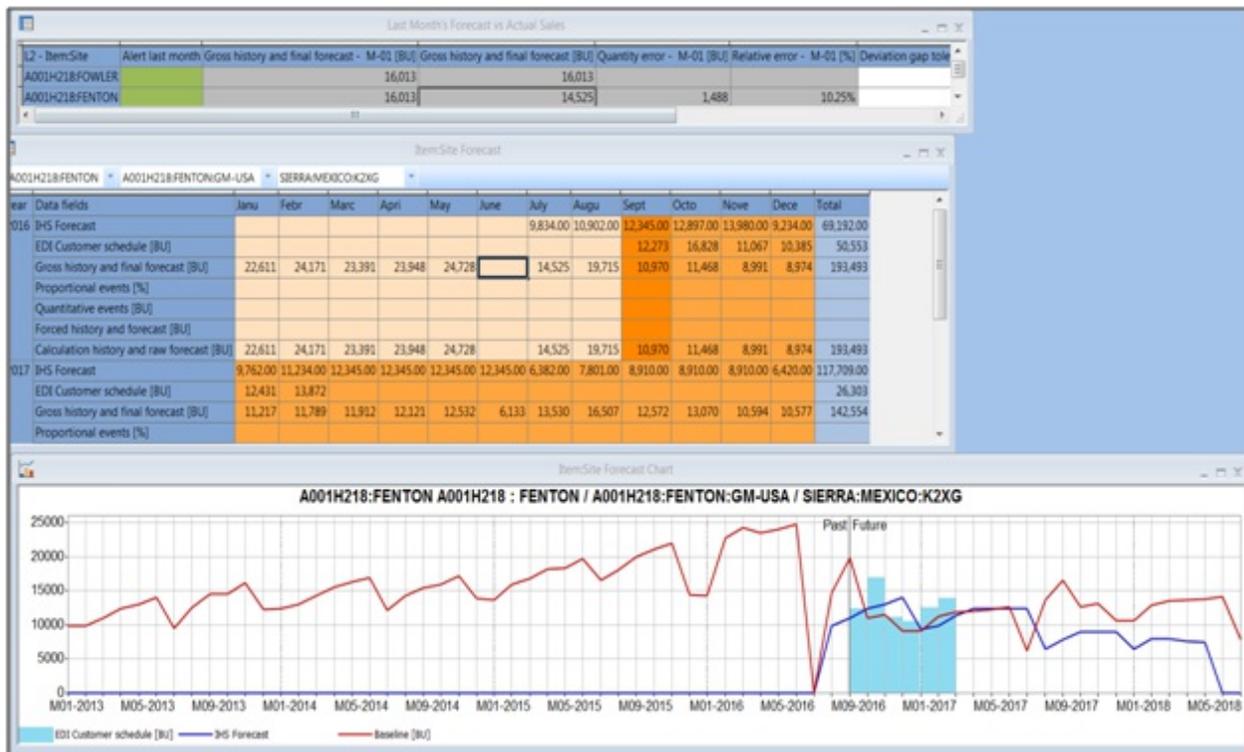
Field	Operator	Value	Search Icon	+	-
Serial ID	equals				
Item Number	equals	02220			
Site	equals	10-200			
Location	equals	1000			
Lot/Serial	equals				
Reference	equals				
Levels	equals				
Display Item Serial ID	equals	No			
Display Inventory Attr	equals	No			

## QAD DSCP (Demand and Supply Chain Planning)

QAD DSCP (Demand and Supply Chain Planning) provides tools to build and **manage better forecasts by improving data reliability and accuracy due to collaboration** between all those involved in the forecasting process. Standalone equipment manufacturers can manage forecasts at any level – customer, item, group or family – with input from a variety of sources including sales representatives, customers, marketing and finance.

QAD Demand Planning, part of QAD DSCP, **creates sales forecasts based on historical, market analysis and customer production data**. Exceptional events such as holiday shutdowns can also be input. QAD DSCP **uses sophisticated statistical modeling** to pinpoint statistical anomalies that can skew demand. The models can smooth historical data if applicable, determine the effect of exceptional events and generate a forecast for each individual item, automatically selecting the best-fit statistical model.

### QAD DSCP Two-year Production Plan based on Multiple Data and Departmental Sources



### QAD QMS (Quality Management System)

Quality control in a high tech standalone equipment manufacturing environment is often an integral part of the operation. Standalone equipment manufacturers typically have electrical and other system inspections at varying stages of the assembly process to assure satisfactory functionality prior to additional handling.

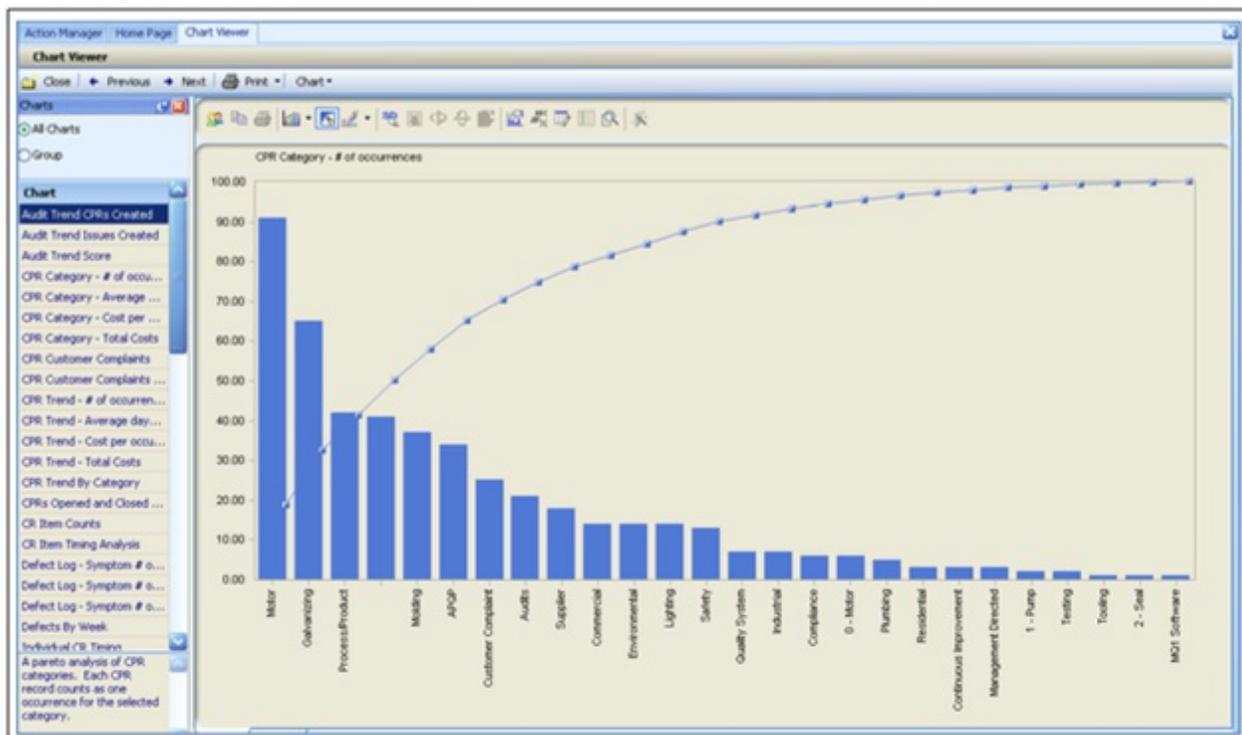
QAD Item Attributes and Quality Control allow for attributes that are tracked at the lot level when an item is received from a supplier. Item Attributes supports complete traceability at the lot and attribute level for anything bought, sold or produced.

QAD QMS further **supports the integration of quality planning efforts whether through formal APQP or other manufacturer-developed standard operating procedures.** QAD QMS supports the management of quality information in terms of both specifications and supporting documentation. This integration allows manufacturers to integrate related process data, automate required business processes, and comply with design and customer specifications.

**QAD QMS offers a complete suite of automation tools to manage quality systems,** including:

- Document Control for the central storage and management of controlled documents, including approval workflow, archiving and audit trail
- Complaint handling to comply with GMP regulations
- CAPA/NCR to provide an automated closed loop solution for problem resolution
- Employee Training for the management and qualification of key personnel
- Audits to support both internal and external auditing
- Inspection & Statistical Process Control to document and automate processes around inspections

### QAD QMS Defect Tracking Analytics



For more information on how the QAD Standalone Equipment Manufacturing solution can help your company, please contact QAD at +1-805-566-6100 or email [info@qad.com](mailto:info@qad.com).