

## mBar Technologies, Inc

mBar Technologies, Inc. is located in beautiful Boise, Idaho nestled among a few of the largest semiconductor companies in the world. We provide products and services to customers across the globe in semiconductor and solar related specialty manufacturing industries. Our passion is working with people to develop innovative engineered designs that solve real world problems and enhance productivity.

mBar Technologies, Inc. is a leading provider of precision refurbishment, calibration, repair, and engineering services. Creating innovative solutions that enhance process and machine productivity is our number one priority.

From concept, to design, to final test and qualification, our team of professionals work effectively meet your requirements whether they are aimed at maximizing system lifetime, lowering cost of ownership, or improving performance. Let us put our extensive knowledge and experience with precision equipment to work for you.

## Services

mBar Technologies, Inc. is a full-service engineering company that provides exceptional value through our innovative manufacturing and refurbishment processes for precision components. Our experienced team has the expertise and capabilities to source, manufacture, and refurbish components to specifications that meet or exceed those of original equipment manufacturers. We've been providing semiconductor services and support for years to some of the largest electronics and precision technology companies in the world.

## Refurbishment/Repair/Calibration Services

Refurbishment services, when done right, can effectively extend the life of equipment and components. The process requires knowledge of the system, parts and materials, and an understanding of the expected lifetimes of each component.

mBar Technologies, Inc. has extensive experience with refurbishment of a broad array of critical manufacturing equipment components and assemblies.

One of the key aspects of refurbishment is to ensure that component lifetimes are synchronized to limit overall maintenance and equipment downtime. mBar Technologies, Inc. has in-depth knowledge about extending product lifetime through carefully selected cleaning process, material selections, and design improvements. From diagnostics to reassembly, mBar Technologies, Inc. will ensure your machine, assembly, or component gets the highest quality care and service while saving significant time and money versus a complete replacement

## **Products**

We refurbish/repair/calibrate many different types of parts and equipment including but not limited to:

- Throttle Valves
- Isolation Valves
- Gate Valves
- Liquid Injection Valves
- Liquid Flow Meters
- Capacitance Manometers
- Slurry Pumps
- Mass Flow Controllers
- Welding

The mBar Technologies, Inc. team can help you determine what the best options are for your system needs; it may be refurbishment, repair, replacement, re-design, or a combination of these depending on the equipment and your goals. We can give you guidance on the impact of the available options so that you can make the optimum choice for enhancing your operations.



### Capacitance **Manometers** (Baratrons)

Refurbishment

#### REFURBISHMENT SERVICE:

Capacitance Manometers (Baratrons)

#### Services performed:

- Incoming inspection
- Intial Cleaning
- · Passivation of Stainless Steel
- 10 Point Calibration
- · Final Cleaning & Helium Leak Test
- · Packaged in cleanroom environment
- · Includes accompanying Test Report
- · Chamber ready Quality Assurance

#### Models Serviced:

- MKS 100 Series
- MKS 600 Series
- MKS 700 Series MKS 800 Series
- · Tylan/Millipore CDL Series
- · Tylan/Millipore CMH Series



Our team of industry professionals are considered leaders in precision pressure and flow devices within the semiconductor industry. Our services are performed in clean environment with procedures that meet or exceed the most stringent OEM and industry specifications. We provide exceptional value, quick turn around times, and customizable testing procedures

Phone: 208-794-8666

Fax: 208-968-9662

Email: service@mbartechnolgies.com





#### **Liquid Flow Meter** Clean and Calibration

#### **Liquid Flow Meter**

#### Services Performed:

- · Incoming inspection & Failure Determination
- Initial Cleaning
- · Gravimetric and Sonic Nozzle Calibration
- · Testing and validation against factory specification
- · Function Tested at "like process" flow
- Final cleaning and Helium Leak Test
- · Packaged in Cleanroom environment
- · Includes accompanying Test Report
- · Chamber ready Quality Assurance



Our team of industry professionals are considered leaders in precision pressure and flow devices within the semiconductor industry. Our services are performed in clean environment with procedures that meet or exceed the most stringent OEM and industry specifications. We provide exceptional value, quick turn around times, and customizable testing procedures.

Phone: 208-794-8666

Fax: 208-968-9662

Email: service@mbartechnolgies.com





#### Injection Valves Refurbishment

#### REFURBISHMENT SERVICE:

#### Injection Valve

#### Services performed:

- Incoming inspection & Failure Determination
- · Complete Tear down and Initial Cleaning
- · Passivation of Stainless Steel Components
- Inspection of Teflon surface
- · Low Temp Sensor modification
- · Testing and validation against factory specification
- Function Tested at "like process" flow rates
- · Final cleaning and Helium Leak Test
- · Packaged in Cleanroom environment
- · Includes accompanying Test Report
- · Chamber ready Quality Assurance



Our team of industry professionals are considered leaders in precision pressure and flow devices within the semiconductor industry. Our services are performed in clean environment with procedures that meet or exceed the most stringent OEM and industry specifications. We provide exceptional value, quick turn around times, and customizable testing procedures.

Phone: 208-794-8666

Fax: 208-968-9662





### HVA Mini Gate Valves Refurbishment

#### REFURBISHMENT SERVICE:

HVA Mini Gate Valve

#### New Replacement Parts:

- Seals
- O-Rings
- · Bellows (As Required)

#### Services performed:

- Incoming inspection & Failure Determination
- · Complete Tear-Down
- · Passivation of Stainless Steel Components
- Flanges Resurfaced
- Function Test
- Final Cleaning & Helium Leak Test
- · Packaged in cleanroom environment
- Includes accompanying Test Report
- Chamber ready Quality Assurance



Our team of industry professionals are considered leaders in precision pressure and flow devices within the semiconductor industry. Our services are performed in clean environment with procedures that meet or exceed the most stringent OEM and industry specifications. We provide exceptional value, quick turn around times, and customizable testing procedures.

Phone: 208-794-8666

Fax: 208-968-9662

Email: service@mbartechnolgies.com





### MKS 253B Series Throttle Valves Refurbishment

#### REFURBISHMENT SERVICE:

253B Throttle Valve

#### New Replacement Parts:

- Seals and O-Rings
- Bearings
- Set Screws
- Flapper Screws

#### Services performed:

- Incoming inspection & Failure Determination
- Complete Tear-Down
- · Passivation of Stainless Steel Components
- Flanges Resurfaced
- Function Test
- · Final Cleaning & Helium Leak Test
- · Packaged in cleanroom environment
- Includes accompanying Test Report
- · Chamber ready Quality Assurance



Our team of industry professionals are considered leaders in precision pressure and flow devices within the semiconductor industry. Our services are performed in clean environment with procedures that meet or exceed the most stringent OEM and industry specifications. We provide exceptional value, quick turn around times, and customizable testing procedures.

Phone: 208-794-8666

Fax: 208-968-9662

Email: service@mbartechnolgies.com





## Intellisys Throttling Butterfly Valve Refurbishment

#### REFURBISHMENT SERVICE:

Intellisys Throttling Butterfly Valve

#### New Replacement Parts:

- Seals and O-Rings
   Bearings
- Set Screws
- Flapper Screws

### Services performed:

- Incoming inspection & Failure Determination
- Complete Tear-Down
- Passivation of Stainless Steel Components
- Flanges Resurfaced
- Function Test
- Final Cleaning & Helium Leak Test
- · Packaged in cleanroom environment
- Includes accompanying Test Report
- Chamber ready Quality Assurance

Our team of industry professionals are considered leaders in precision pressure and flow devices within the semiconductor industry. Our services are performed in clean environment with procedures that meet or exceed the most stringent OEM and industry specifications. We provide exceptional value, quick turn around times, and customizable testing procedures.





### MKS 653B Series Throttle Valves

Refurbishment

#### REFURBISHMENT SERVICE:

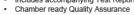
653B Throttle Valve

#### New Replacement Parts:

- Seals and O-Rings
- Bearings
- Set Screws
- Flapper Screws

#### Services performed:

- · Incoming inspection & Failure Determination
- · Complete Tear-Down
- · Passivation of Stainless Steel Components · Flanges Resurfaced
- Function Test
- · Final Cleaning & Helium Leak Test
- · Packaged in cleanroom environment
- Includes accompanying Test Report



Our team of industry professionals are considered leaders in precision pressure and flow devices within the semiconductor industry. Our services are performed in clean environment with procedures that meet or exceed the most stringent OEM and industry specifications. We provide exceptional value, quick turn around times, and customizable testing procedures.

Phone: 208-794-8666

Fax: 208-968-9662

Email: service@mbartechnolgies.com





### MKS 683B Series Throttle Valves

Refurbishment

#### REFURBISHMENT SERVICE:

683B Throttle Valve

#### New Replacement Parts:

- Seals and O-Rings
- Bearings
- Set Screws
- Flapper Screws

#### Services performed:

- Incoming inspection & Failure Determination
- Complete Tear-Down
- · Passivation of Stainless Steel Components
- Flanges Resurfaced
- · Final Cleaning & Helium Leak Test
- · Packaged in cleanroom environment
- · Includes accompanying Test Report
- · Chamber ready Quality Assurance



Our team of industry professionals are considered leaders in precision pressure and flow devices within the semiconductor industry. Our services are performed in clean environment with procedures that meet or exceed the most stringent OEM and industry specifications. We provide exceptional value, quick turn around times, and customizable testing procedures.

Phone: 208-794-8666

Fax: 208-968-9662

Email: service@mbartechnolgies.com





### MKS T3BIA Series Throttle Valves

Refurbishment

#### REFURBISHMENT SERVICE:

T3BIA High Speed Throttle Valve

#### New Replacement Parts:

- Seals and O-Rings
- Bearings
- Set Screws
- · Flapper Screws

#### Services performed:

- · Incoming inspection & Failure Determination
- Complete Tear-Down
- · Passivation of Stainless Steel Components
- Flanges Resurfaced
- Function Test
- · Final Cleaning & Helium Leak Test
- · Packaged in cleanroom environment
- · Includes accompanying Test Report
- Chamber ready Quality Assurance



Our team of industry professionals are considered leaders in precision pressure and flow devices within the semiconductor industry. Our services are performed in clean environment with procedures that meet or exceed the most stringent OEM and industry specifications. We provide exceptional value, quick turn around times, and customizable testing procedures.

Phone: 208-794-8666

Fax: 208-968-9662





### Malema MFC-8000 **Slurry Controller** Refurbishment

#### REFURBISHMENT SERVICE:

Malema MFC-8000

#### Services Performed:

- · Incoming inspection & Failure Determination
- Complete Tear-Down
- Motor Driven pinch valve tubing replaced (OEM) recommendation 1 yr PM cycle)
- Ultrasonic Flow Meter Tested
- Flow Controller Tested
- · Unit Tested for repeatability at "like process" flow
- · Leak Tested and Purged
- · Packaged in Cleanroom environment
- · Includes accompanying Test Report
- · Tool Ready Quality Assurance



Our team of industry professionals are considered leaders in precision pressure and flow devices within the semiconductor industry. Our services are performed in clean environment with procedures that meet or exceed the most stringent OEM and industry specifications. We provide exceptional value, quick turn around times, and customizable testing procedures.

Phone: 208-794-8666

Fax: 208-968-9662

Email: service@mbartechnolgies.com





### **Precision Welding**

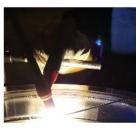
#### WELDING SERVICES:

#### Types:

- . Gas Tungsten Arc (TIG)
- Micro Welding
- Metal Inert Gas (MIG)

#### Brazing Materials:

- Aluminum
- Stainless Steel
- Titanium
- Nickel
- Inconel



We have over 55 years of experience specializing in aluminum, stainless steel, titanium, Inconel and nickel; 38 of those years we honed our craft as aerospace, manned-space, and defense welders.

Our team of industry professionals are considered leaders in precision pressure and flow devices within the semiconductor industry. Our services are performed in clean environment with procedures that meet or exceed the most stringent OEM and industry specifications. We provide exceptional value, quick turn around times, and customizable testing procedures.

Email: service@mbartechnolgies.com





#### **VAT Valve** Refurbishment

#### REFURBISHMENT SERVICE:

#### **VAT Gate Valve**

#### New Replacement Parts:

- Gasket Gate
- Bellows

#### Services performed:

- Incoming inspection & Failure Determination
- · Complete Tear-Down
- Passivation of Stainless Steel Components
- · Flanges Resurfaced
- Function Test
- · Final Cleaning and Helium Leak Tested
- Packaged in Cleanroom environment
- Includes accompanying Test Report
- · Chamber Ready Quality Assurance



Our team of industry professionals are considered leaders in precision pressure and flow devices within the semiconductor industry. Our services are performed in clean environment with procedures that meet or exceed the most stringent OEM and industry specifications. We provide exceptional value, quick turn around times, and customizable testing procedures.

Phone: 208-794-8666

Fax: 208-968-9662





## MKS 153 Series Throttle Valves

#### REFURBISHMENT SERVICE:

153 Throttle Valve

#### New Replacement Parts:

- Seals and O-Rings
- Bearings
- Set Screws
- Flapper Screws

#### Services performed:

- · Incoming inspection & Failure Determination
- · Complete Tear-Down
- · Passivation of Stainless Steel Components
- Flanges Resurfaced
- . Final Cleaning & Helium Leak Test
- · Packaged in cleanroom environment
- · Includes accompanying Test Report
- Chamber ready Quality Assurance



Our team of industry professionals are considered leaders in precision pressure and flow devices within the semiconductor industry. Our services are performed in clean environment with procedures that meet or exceed the most stringent OEM and industry specifications. We provide exceptional value, quick turn around times, and customizable testing procedures.

Phone: 208-794-8666

Fax: 208-968-9662

Email: service@mbartechnolgies.com





### Tylan/Millipore/Brooks AC2 Repair

Repair

#### REFURBISHMENT SERVICE:

Tylan/Millipore/Brooks AC2 Repair

#### Services Performed:

- · Incoming inspection & Failure Determination
- · Voltage output verified
- Verify Eprom settings
- · Lead and Gain verified and adjusted if needed
- · Unit Tested for repeatability at "like process" conditions
- · Includes accompanying Test Report
- Tool Ready Quality Assurance



Our team of industry professionals are considered leaders in precision pressure and flow devices within the semiconductor industry. Our services are performed in clean environment with procedures that meet or exceed the most stringent OEM and industry specifications. We provide exceptional value, quick turn around times, and customizable testing procedures.

Phone: 208-794-8666

Fax: 208-968-9662

Email: service@mbartechnolgies.com





### Tylan MDV Series Throttle Valves

Refurbishment

#### REFURBISHMENT SERVICE:

Tylan MDVX Throttle Valve

#### New Replacement Parts:

- Seals and O-Rings
- Belts
- Flapper Screws

#### Services performed:

- · Incoming inspection & Failure Determination
- Complete Tear-Down
- · Passivation of Stainless Steel Components
- Flanges Resurfaced
- Teflon Recoat Option
- Function Test
- · Final Cleaning & Helium Leak Test
- Packaged in cleanroom environment
   Includes accompanying Test Report
- · Chamber ready Quality Assurance



Our team of industry professionals are considered leaders in precision pressure and flow devices within the semiconductor industry. Our services are performed in clean environment with procedures that meet or exceed the most stringent OEM and industry specifications. We provide exceptional value, quick turn around times, and customizable testing procedures.

Phone: 208-794-8666

Fax: 208-968-9662





We offer a wide range of custom designed data management systems built to fit your company's specific needs.

Some of the many possibilities of your new system -

- Sub-Assembly Tracking
- Inventory Control
- Time Management
- Part Kiting
- Private Custom Labeling
- Data Security
- Performance Tracking
- Custom Customer Controls
- Cost Analysis across the Entire Company
- Staffing Controls
- Employee Performance Monitoring
- Finance Reporting
- Secure Data Backup

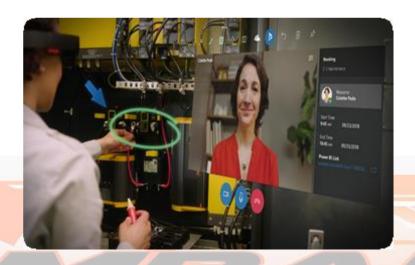
- Time Clock Integration
- Calendar Integration
- PO Management
- Live Data Reporting
- Document Management
- Revision Control
- ISO Compliant
- PM Controls
- Process Monitoring
- Employee Training Certifications
- Tool Monitor / Remote Control
- SPC
- And so much more...



# Microsoft HoloLens

As one of the original Microsoft HoloLens partners we offer a remote onsite assistant.

Enable on-site technicians to share what they see with remote experts, while staying heads-up, hands-free with Dynamics 365 Remote Assist on Microsoft HoloLens. Using modern tools like mixed reality video calling, annotations, and file sharing, technicians and remote experts can work together to solve problems in real-time.



Troubleshoot complex problems faster, the first time. Enable experts to assist technicians remotely, so you can save time, reduce travel costs, and improve operational efficiency.



HoloLens is a augmented reality
(AR) headset, that is a "fully
untethered, see-through
holographic computer".
The HoloLens allows users to
experience 3D holographic images
as though they are a part of their
environment.



The system is designed to fit the needs and requirements of the customer in a easy to understand and easy to use format. Complete control over the whole of your business from just one central interface.

The dynamic modular interface allows the system to grow and expand with your business, no need to scrap the whole system and upgrade to a different system when your business grows.

## Managing your Workflow

- **Streamline** By identifying and removing unnecessary steps/processes.
- **Reduce errors** By alerting management of current status and reject levels.
- **Assign tasks** These can be assigned to people with appropriate skills to perform the task.
- **Tracking reports** Including who worked on the assembly, tech-level, repair time, parts ordering, cycle counts, tool identification, increasing/reducing forecasts, tracking rejects, and paid-for-performance bonuses.
- **Reduce waste and save time** Eliminate unnecessary paperwork and paper chasing. The constant movement of workflow means once a technician has finished their part, they can immediately pass it on so it does not sit idle.
- *Improve visibility* Tracking can allow a team member to instantly check the status of an item. It allows key people to see critical processes at every step, identify bottlenecks, and monitor performance throughout.
- **Scripted automation** Decisions that were determined by people can be made by the system, based on system rules instead of human interpretation. This provide a more consistent output.
- **Audit trails** shows who, what, when and what actions were performed. Since the system is linked to a database, it keeps a record of what occurs in the system.

## **Proven Results**

The Toyota car company adopted Ford's assembly line in the 1950s, and later developed their own lean production database system. Over the following years, the benefits of their in-house system resulted in:

- Productivity increases between 300% and 400%.
- Labor productivity increased an average of 25% a year.
- Defect rates reduced from over 2,000 parts per million to less than 50 parts per million, and in many instances to less than 10 parts per million.
- Cost of quality reduced by over 60%.
- Work-in-process inventory decreased by more than 80%.

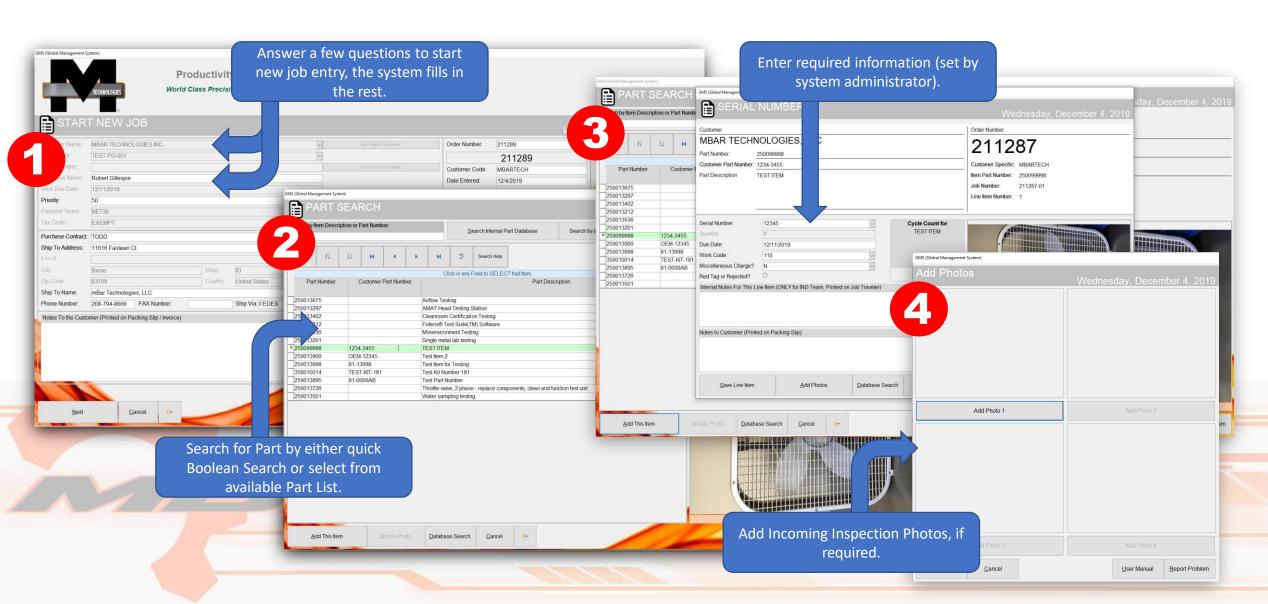


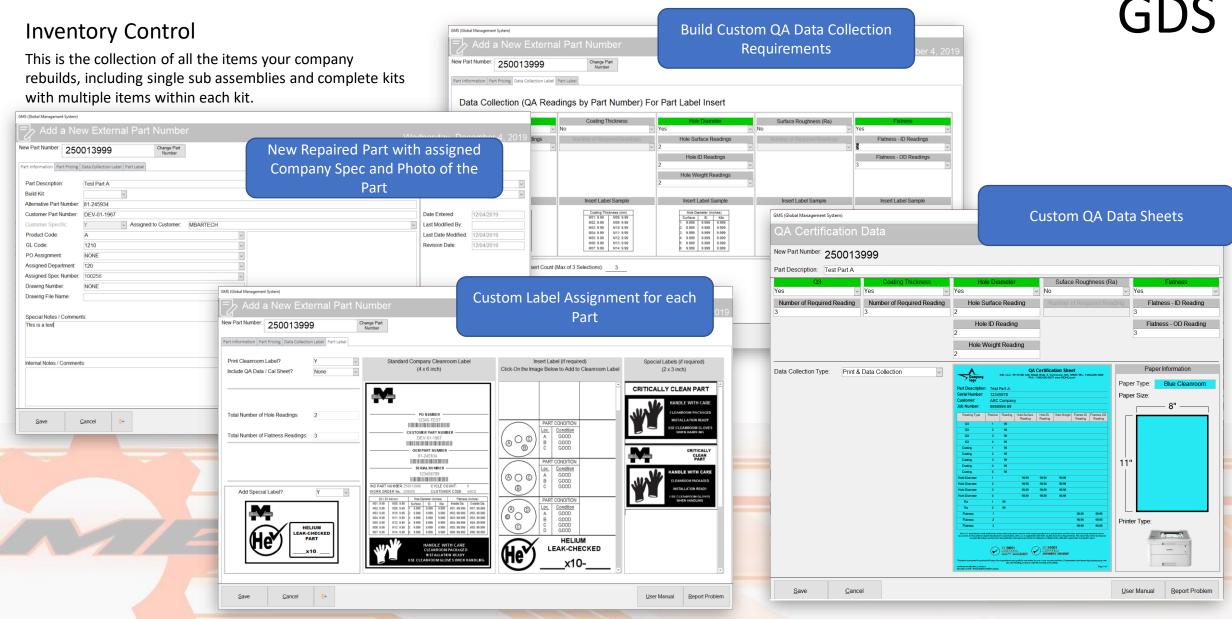
## **End Results:**

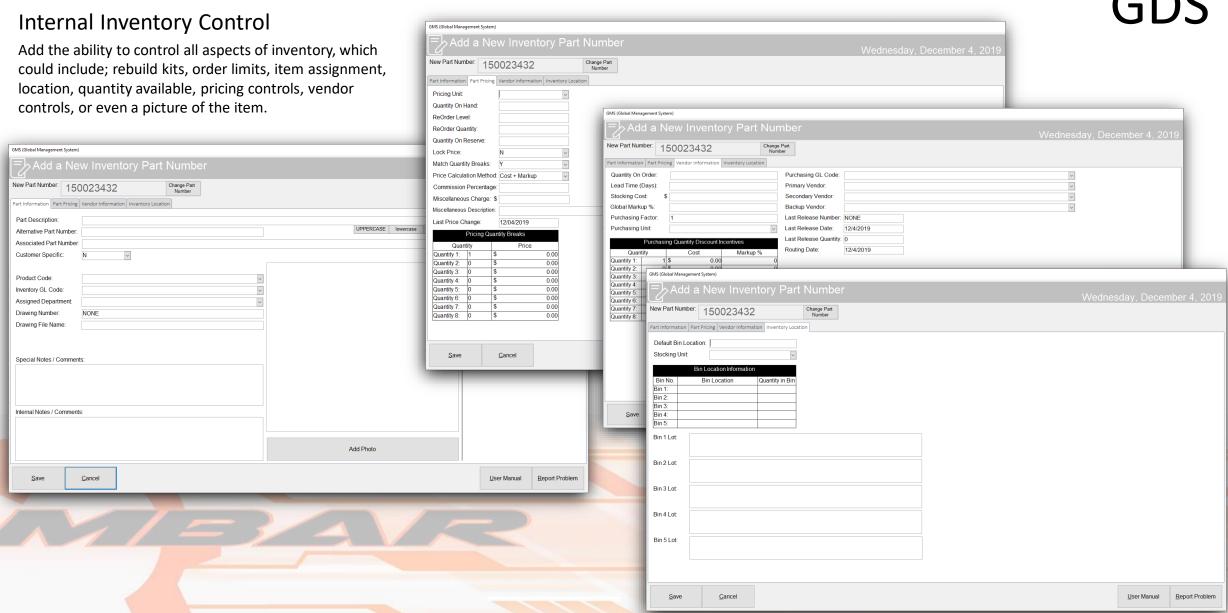
Benefits of Custom-Built In-House Database Systems

- Fits exactly to the business requirements of the company.
- Positive relationship between the development team and the end user.
- Full control over the system and its functionality.
- Provides a greater competitive advantage over an off-the-shelf software.
- Ability to implement updates and process changes instantly.
- Easier to orientate staff to the software, because it follows your business practices and vernacular.
- Modular system allows you to build the core components, then build out as you grow.
- Allows you to identify areas with high overhead.
- Normal long-term costs are lower than off-the-shelf software.

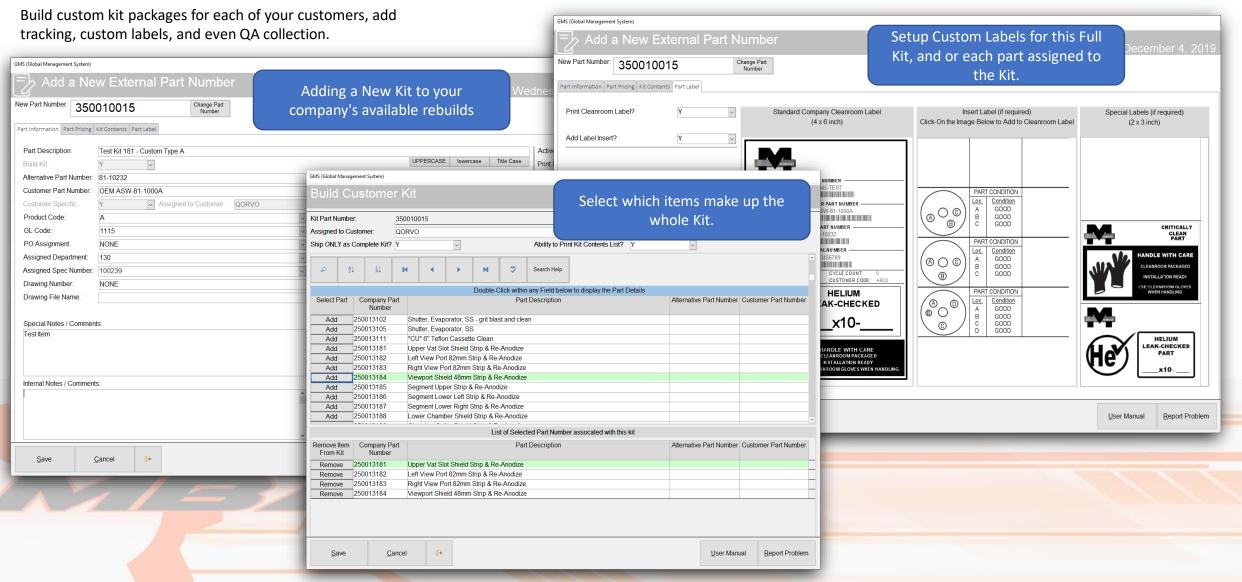
Sub-Assembly Tracking (4 Easy Steps)



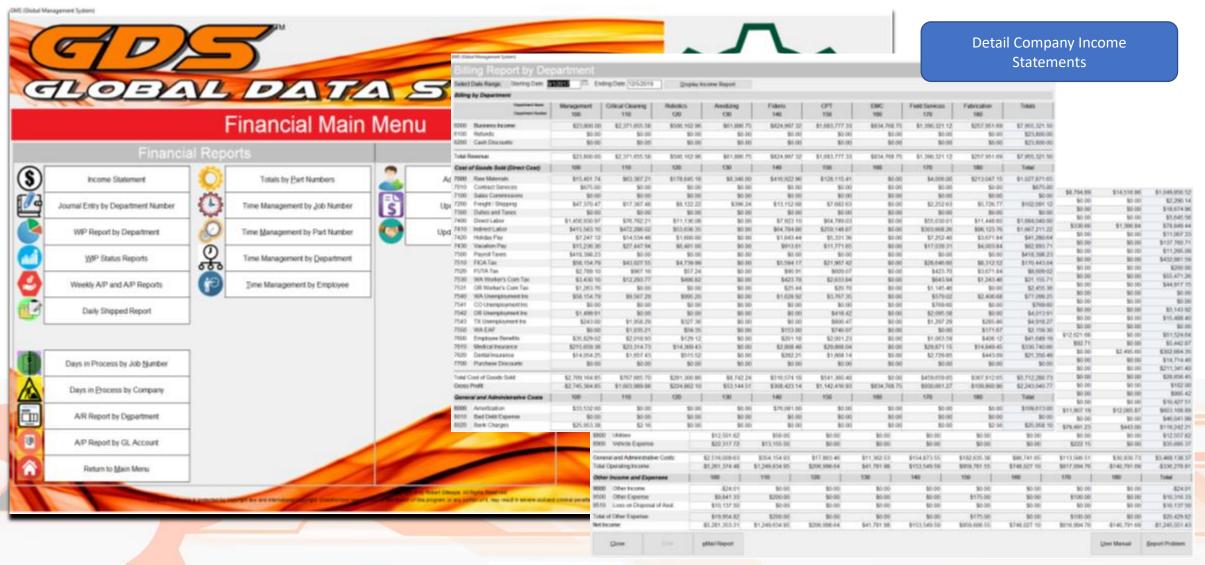




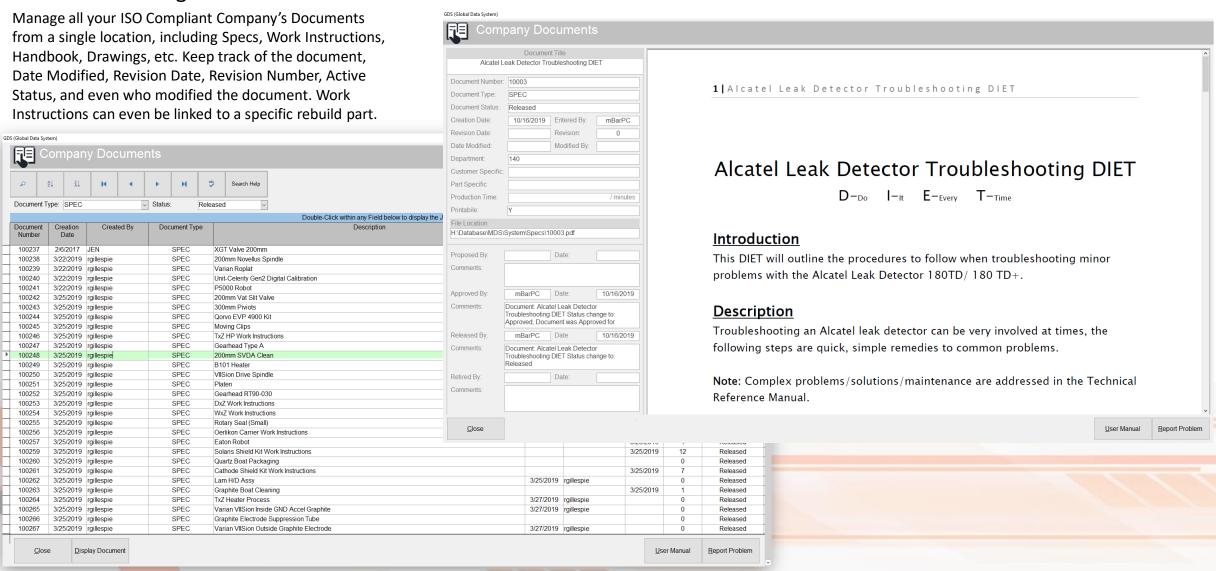
### Kiting



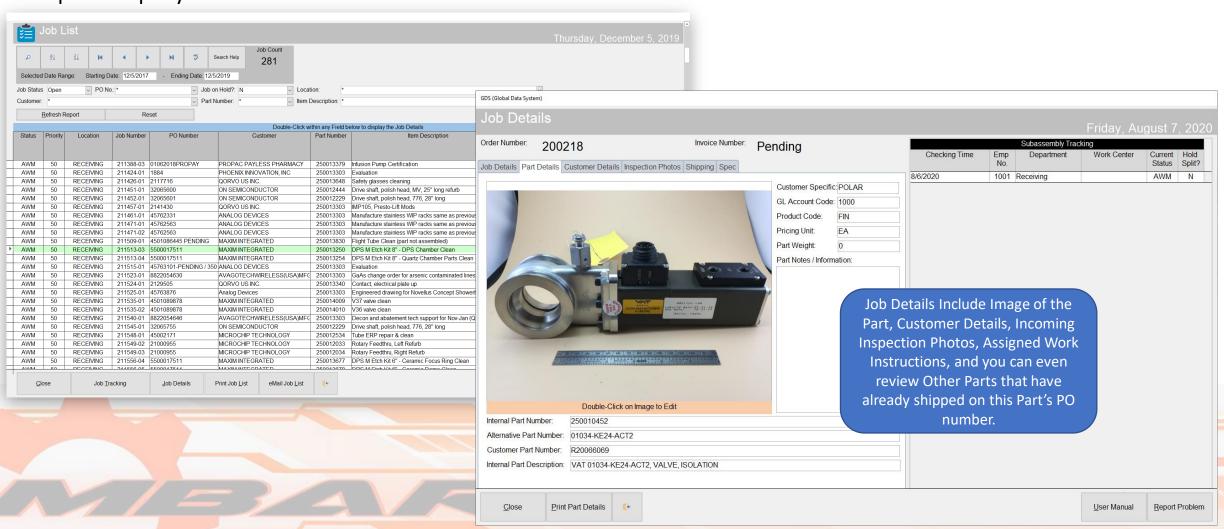
### **Custom Financial Reporting**



### **Document Management**



Sample Company Job List and Rebuild Part Details



Setup Custom Flag Event when a item comes into the shop for repair

