



Maintenance Parts Excellence Course

**AN INTENSIVE 3-5-DAY COURSE OFFERED IN PARTNERSHIP
WITH PAMco and Asset Acumen**

Course Available for Private Live-Virtual



"Great insight on how to address the full community of stakeholders needed to support successful Parts Management"

"Instructors explained real world application"

"Very Knowledgeable instructors and the interaction with other professionals taking the course was invaluable"

"Don Barry provided practical insight for the areas of excellence."



"This Maintenance Parts Excellence Program is highly recommended"

"Handouts were very valuable to apply even after the training was complete"

"KPI approach detailed and practical when being applied to a specific parts"

"Great knowledge base of the instructors with real life applications of the theory."



Course has been held
publically and privately in:

- Canada
- Croatia
- Middle East
- Peru
- Caribbean

About the Program and How to Register

Proven Leading Practices in Maintenance Parts Management

Who Should Attend

The Extraordinary Value of This Program

Program Dates, Location, Tuition Fees and How to Register

Overview: Day 1, 2, 3

Instructor: Don Barry

Maintenance Parts Leadership and Control Elements

Overview: Day 3, 4

Instructor: Ali Zuashkiani

Deep-Dive into Inventory Optimization

Optimal Spares Stocking for Asset Life-cycle

Overview: Day 5

Instructors: Ali Zuashkiani

Optimal Spares Stocking for Asset Life-cycle

Instructor: Don Barry

Putting the 5-Days of Parts Management Excellence into Practice

How You Will Learn

Who Should Attend



About the Program

Proven Leading Practices for Maintenance Parts Management

Why do you stock parts? Who is responsible when parts are not available when needed? How do we get high maintenance parts service levels at an optimal cost? What is the value of stocking parts versus keeping the business at target production? Why are some organizations good at managing parts and others continue to struggle? What should we focus on first to fix our maintenance Parts Business? How do we achieve Maintenance Parts Management Excellence? How can you learn these skills?

An excellent way to gain these skills is to attend this intensive 5-day program. You'll join a group of like-minded professionals who are guaranteed to come away with the needed skills and insights to upgrade their Maintenance Parts Management operation.

Who Should Attend

Our 2019 Maintenance Management offering is available for stakeholders that may have influence or a dependency on their parts being available when needed. This program has been attended by a wide variety of industrial and government organizations. A version of this program has been used directly in organizational training particularly when leading practices are being discerned so that business change can be facilitated. Attendees, who have included maintenance parts management and personnel, inventory planners, design engineers, maintenance management, operations management and financial personnel responsible for the cost of the business, have all found this course valuable. If your responsibilities include supporting maintenance and the parts operation in your organization, we urge you to take a close look at this exceptional learning opportunity.

Extraordinary Value of this Program

The 5-Day Maintenance Parts Excellence Course is offered by Go2Learn with instructors experienced at delivering related training with the University of Toronto, which has been designated the #1 Engineering school in Canada.

The program is taught by three world-class instructors who bring a wealth of experience to the classroom:

- A mastery of the subject matter; ability to relate theory & practice
- Real-world experience with corporations and organizations
- Ability to deliver material in an interesting and clear manner
- Understanding of what should be a priority to those looking to understand maintenance parts management excellence.

The program combines fundamental need-to-know material, tried-and-true methodologies and processes, and proven leading-edge approaches that have shown measurable business benefits.

Participants receive five full days of instruction over five consecutive weekdays, including a wide range of case studies which demonstrate how these principles have been successfully and widely applied. You will come away equipped with complete binder notes on the program material, valuable hard-cover books, and an unparalleled learning experience.

Program Dates, Location, Tuition Fee and Registration

Program Dates

Live virtual course are available throughout the year. 8 weeks lead-time required.

Location

The 3-5 day course will be held:

- Virtual

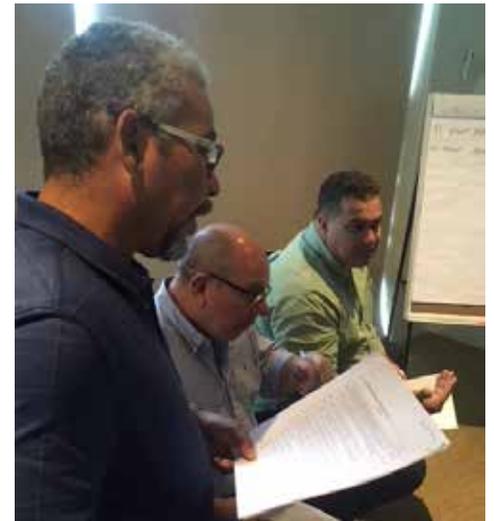
Tailored to fit your schedule, the course can be delivered over time

Tuition Fee

Call for details: 917 554-3444

How to Register

Call 917 554-3444 or visit www.go-2-learn.com/MPE



Instructor: Don Barry



Donald Barry is Principal Consultant with Asset Acumen Consulting with over 40 years experience in asset management, maintenance parts management and related strategies and systems, as well as experience in predictive analytics, and Internet of Things.

Don managed all aspects of IBM Canada's maintenance parts operation for more than 8 years and has assisted multiple consulting clients in their parts management strategy development and execution. He is experienced at creating maintenance and distribution process improvements and developing inventory reduction strategies with increased service levels. Don's in-depth experience includes world-class inventory optimization and reutilization techniques.

His consulting clients have included leading companies in computer technologies, field service operations, airlines, railway, manufacturing, mining, oil and gas, CPG, power generation transmission and distribution utilities.

Don is a Reliability Centered Maintenance (RCM2/3) practitioner and the recipient of the Lifetime Achievement Award in Plant and Production Maintenance, awarded by Federated Press.

Donald Barry's two-plus day presentation will examine principles such as leadership, maintenance parts delivery processes and elements of inventory optimization.

His session will cover:

- An introduction to the key elements that contribute to a successful maintenance parts management organization
- How to assess your organization's maintenance parts management maturity
- How to prioritize opportunities within your maintenance parts organization
- The key financial influences for maintenance parts management
- The role the enterprise 'community' must take to ensure a leading Maintenance Parts Management operation
- Some of the leading practices and related KPIs in maintenance parts management
- The value of properly supporting the maintenance organization and their planning and scheduling
- The value of Reliability-Centred Maintenance (RCM2-3) in support of asset life-cycle management and the supporting inventory spare parts policies
- System tools that support Maintenance Parts excellence
- Change considerations in leading Maintenance Parts initiatives
- Key initiatives to take back to your organization

Day 1 Monday May 4 9:00 am - 5:00 pm

Leadership and Control

Maintenance Parts Management Pyramid of Excellence Overview

- Leadership, control, continuous improvement, quantum leaps, maintenance parts management strategy, managing change, warehouse logistics, procurement and parts repair, supporting systems and performance measures
- Why we stock parts
- Simple self-assessment for a parts operation
- Maintenance parts inventory management vs a manufacturing process management
- Organization and reporting considerations for maintenance parts management

- Which enterprise business areas contribute to the success of a leading maintenance parts operation
- Defining a net value /cost of a maintenance parts management process baseline

An Approach to Creating a Maintenance Parts Management Strategic Plan

- Defining current maturity level in maintenance parts management
- Identifying prioritized opportunities for improvements
- How to do a self-assessment of your own operation
- Example of KPIs for a world-class global parts operation

Key Performance Metrics for Maintenance Parts Management

- An approach to tailoring KPIs for multiple business dimension levels
- Examples of maintenance parts operational, and inventory effectiveness KPIs
- Developing a balance scorecard for a maintenance parts operation

Day 1 (Continued)

The Importance of Maintenance Parts in Effective Maintenance Execution.

- Key stock room (warehouse) logistics elements
- Defining the process flow of an effective stock room
- Roles and tasks of a stock room coordinator and staff
- Exercise on the benefits of supporting planned maintenance with parts
- Stock room facility requirements and sizing exercise
- Safety and environmental considerations in maintenance parts warehousing
- Guidance on stock room security, inventory counts and material handling tools and techniques
- Stock room organizational considerations
- Sizing remote & mobile maintenance parts inventory requirements

Day 2 Tuesday, May 5 9:00 am - 5:00 pm

Inventory Policy Management Dynamics

Inventory Planning

- Fundamental responsibilities of an Inventory Planner
- Leading Parts Process Flow Management Systems attributes (Replenishment, Mobility)
- Case Study on how to prioritize maintenance parts needs in the journey towards leading practice
- Maintenance Parts stocking influences and approaches (including ABC stocking level management)
- Managing high and medium demand maintenance parts inventories
- Defining and defending the inventory value and service levels in an enterprise
- Developing the elements of inventory policy
- Inventory replenishment fundamentals (MIN/MAX, EOQ)
- Introduction of an "Inventory Profile" summary report

- Managing inventory echelons in complex logistics networks
- Managing inventory surplus and scrap processes
- Process elements that contribute to inventory policy management

Asset Life-Cycle Integration

- Understanding the requirements and impact of successful initial spare parts list creation
- The role of the manufacturer in creating your initial spare parts list
- The role that risk and reliability insights influence the early asset and maintenance parts life-cycle
- Defining the spare parts policy ownership in an asset life-cycle
- Process elements that contribute to initial spare parts list creation
- Spare parts netting

Inventory Optimization

- An approach to optimizing inventory levels
- Strategic cost management of maintenance parts – what is realistically achieved?
- Inventory policy netting
- Data elements of a leading "Maintenance Parts Optimizer" solution

Procure and Repair

- Leading procurement scope for strategic commodity sourcing, supplier relationship management and transaction execution
- Maturity matrix for a procurement operation
- Leading KPIs for a maintenance parts procurement support operation
- Example of an improvement plan for an existing maintenance procurement operation
- Dynamics of a rotatable & repairable parts operation
- Leading KPIs for a parts repair support operation
- Example of how used parts and repair costs can be treated in a parts repair operation

Day 3 Wednesday, May 6 9:00 am - Noon

Implementing Maintenance Parts Management

Technology and Maintenance Parts Management

- Review leading practice requirements in a maintenance parts management system
- Scope of a typical EAM solution managing maintenance parts
- Inventory management data elements and financial treatment considerations
- The role of business intelligence (BI), automated analysis, mobile technologies, RFID, blockchain in maintenance part management
- The evolution of maintenance parts systems requirements
- Financial tracking of inventory levels and transaction considerations
- Reviewing outsourcing technology options in maintenance parts inventory management
- The role and value of automated storage and retrieval systems (ASRS)

Impact of Change Management in Asset Management Initiatives

- Challenges maintenance organizations face today
- The benefits of improving maintenance
- Why change management is important in parts and asset management initiatives
- Review of large Asset Management implementations with a change management focus
- Example of change management steps and plans
- Critical success factors of change management



Instructor: Ali Zuashkiani



Ali Zuashkiani, PhD, CRL, CMRP is CEO of PAMCo, a Canadian Consulting Company with projects across the globe. Ali is a graduate of Harvard Kennedy School of Policy, Said Business School of Oxford, and business executive programs of WITS Business School (South Africa), and INCAE business school (Costa Rica) and holds a PhD from the University of Toronto. He has been Director of Educational Programs at C-MORE for 13 years.

Ali has more than 20 years of practical experience combined with scientific rigour in optimizing asset management decisions in more than 200 plants in 30+ countries. His consulting endeavours include numerous Life Cycle Costing management projects for utility and gas distribution companies in North America, RCM implementation projects in power plants, oil and gas companies, and the electricity distribution industry, and assignments dealing with asset management practices in 85 plants in the Middle East and South America.

Ali is the author of *Expert Knowledge Based Reliability Models* and a frequent global speaker on a range of topics in asset management. He has been Chair of the International Physical Asset Management Conference for the last 14 years. Ali was named by the Asia Society as one of the world's most dynamic young leaders in 2008 and was recognized by the World Economic Forum as a Young Global Leader of 2013.

Ali Zuashkiani's 2-day presentation will drive deeper elements of spare parts provisioning and inventory optimization

His session will cover issues such as:

- Do you know what parts are critical and how they may fail in your operating context?
- What are your fast-moving spares? What would be the optimum reorder point? What would be the most economical reorder quantity?
- How to hit the right balance between risk of having too few spares and cost of inventory
- What are optimum minimum spares/safety stock for your slow-moving spares?
- How many repairable spares to keep in your inventory to minimize total cost production and inventory costs?
- How reducing replenishment lead times can save a company money
- Do you know how to prioritize your spare parts inventory improvement plans?
- How co-locating and sharing can reduce costs
- How to predict spare parts for a fleet of assets
- What is "Reliability-Centered Spare Parts Management"?

Day 3
Wednesday, May 6
1:00 pm - 5:00 pm

Spares Provisioning & Inventory Optimization

Key Inventory Issues

- Eliminating excess inventory
- Setting initial spare parts
- Improving availability
- Setting and monitoring goals
- Investment recovery

Types of Production Inventory

- Active inventories
- Rarely-used (slow-moving) parts
- Commodity parts
- ABC and XYZ analysis of spare parts
- How Pareto works in inventory systems

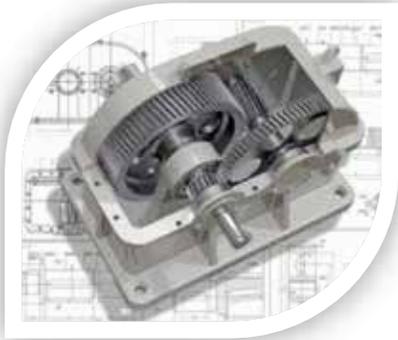
Day 4
Thursday, May 7
9:00 am - 5:00 pm

Managing Risk and Cost in Parts Management

Managing Risk and Cost in Maintenance Parts Management

- How spares parts fail and how to calculate the risk
- Protecting a plant's availability while reducing holding costs
- **Case study:** Predicting future demands of spare parts
- **Case study:** North American utility
- Predicting future demand for rarely-used items
- Predicting future demand for fast-moving items
- Predicting future demand for fleet of assets
- **Case studies:** The concept of the service level
- **Case study:** Assessing risk - getting caught short, getting caught long, total risk approach

Day 4 (Continued)



- Common biases in inventory management: cost and lead time biases
- Conducting sensitivity analysis: sensitivity to criticality, lead time, price, carrying costs...

Setting the Reorder Point

- Measuring lead time: impact of lead time on reorder point (Case study)
- Assessing criticality
- Demand analysis and measuring its variation
- Calculating the reorder point when both demand and lead time are constant
- Calculating the reorder point when demand is constant while lead time is variable
- Calculating the reorder point when lead time is constant while demand is variable
- Assessing reorder point where both lead time and demand are variable
- Several case studies and in class examples

Setting the Reorder Quantity

- Factors affecting reorder quantity
- Estimating carrying costs factors
- Estimating ordering costs
- What is Economic Order Quantity?
- **Case study:** Optimum order quantity when there is a price discount
- **Case study:** Optimum order quantity when there is shipping costs discount
- **Case study:** EOQ when there is a spare part production rate

Reliability-Based Spare Parts Management

- How to develop a spare parts list based on FMEA analysis
- How to set Min-Max to achieve asset reliability
- **Case study:** Turbo Generator Lubricating Oil System

Determining Excess Inventory

- Conducting an extreme test
- Assumptions made during an extreme test
- **Various case studies**
- Getting rid of excess inventory
- Writing off excess inventory

- Ways to optimize inventory investment:
 - › Reducing the replenishment lead-time
 - › Sharing common spares
 - › Disposal of gross excess inventory investment recovery
 - › Consignment of selected parts
- **Several case studies** and in-class exercises

Developing Store Room Layouts, Improvement Projects,

Re-organization, etc.

- Choosing the site
- Using mezzanines
- Storeroom lighting
- Purchasing and installing shelving
- Color rendering and lighting

Storeroom Measures and KPIs

- Gathering data
- Measuring storeroom activity
- Conducting an in-house storeroom audit

Maintenance Parts Purchasing Insights

- **Case study:** 12 actions that cause unnecessary purchases
- **Case studies:** Avoiding unnecessary purchases
- Where to focus your inventory management efforts

Day 5

Friday, May 8

9:00 am - 5:00 pm

Setting and Monitoring Goals

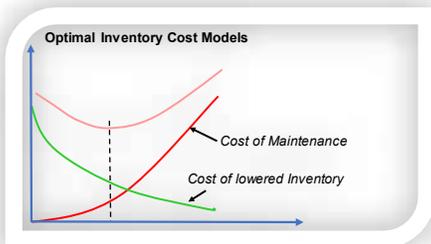
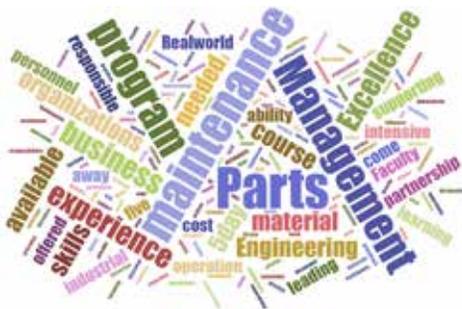
- Factors affecting goal results
- Deciding what to measure
- The Absolute Variance Ratio (AVR)
- The +/-1 percentage
- Deciding how often to measure

Partnering with Others

- Why partner with others?
- Potential partners

Benchmarking Performance

- 7 steps to effective benchmarking



Instructors:
Dr. Zuashkiani
Don Barry

Day 5

Friday, May 8

9:00 am - 5:00 pm

**Going Deeper in Asset Life-cycle
Initial Spare Parts Tactics**

**Putting the 5-Day Maintenance Parts
Excellence Course into Practice**

Managing Repairable Spares

- Introduction to SMS software
- What SMS software (for provisioning of emergency/ capital spares) may be able to do for you
 - › **Case study 1:** electric motors of a conveyor system
 - › **Case study 2:** TFT pumps for an oil and gas company in North America
- The answer to optimizing the repair-or-replace decisions
 - › **Case study 3:** Gas meters for a gas distribution company in North America
 - › **Case study 4:** PSVs for a major mining company in North America

- A strategic approach to achieving maintenance parts excellence: getting the technology, process and people mix right
- Reviewing trends in maintenance parts management
- Reviewing a leading maintenance parts operation case study
- Working through a case study exercise on a maintenance parts operation
- Making maintenance parts excellence work for your organization
- Programs that will work for you
- Developing personal 'next steps' for each class participant.

Managing Capital Spares

- How many initial capital spares to purchase?
 - › **Case study 1:** Aluminum pot-line transformers case in New Zealand
 - › **Case study 2:** Steel manufacturing fume fan shaft



How you will learn

Real-world Experience

The five sessions will feature a variety of instructional modes and interactivity. Dialogue is encouraged and individual objectives for the course are sought out relating to one's own challenges. These will be addressed (or responded to outside of classroom time).

Case studies drawn from actual industry experience will be used extensively, supplemented by individual and group problem-solving sessions.

Unique elements will enhance the learning experience. For example, Don Barry will facilitate a real maintenance parts case study on how related business stakeholders can contribute to the maintenance parts management success.

A highlight of Don Barry's session is the always-popular Planning and Scheduling game that will help participants understand the real value of maintenance planning and scheduling and the importance of good execution and the role maintenance parts plays in that execution.

Ali Zuashkiani will be presenting real case examples based on his international experience including a transformer example from an aluminum plant in New Zealand, numerous cases from petrochemical plants in the Middle East, copper industry, electricity distribution, ports operations, electricity transmission, slurry pump from oil and gas industry in North America, steel manufacturing, and a gas refinery.

In addition, Ali will guide related software products that were developed for forecasting the demand for fast-moving spare parts (OREST), establishing the optimal number of critical spares to stock (SMS).

Deliverables

What you will receive in the five intensive, day-long classroom sessions are the centerpiece of your experience at the Maintenance Parts Management Excellence Program. However, much more is provided, creating an overall package that will engage you while you're here, and deliver long-lasting results that will pay off when applied within your organization.

You will receive:

- Two knowledgeable speakers who will talk about parts management, KPIs, warehouse management, inventory planning, inventory optimization, inventory asset life-cycle planning, effective inventory systems, and establishing corporate excellence.
- A program certificate from Go2Learn and the Instructors acknowledging your completion of the program.

Course details are subject to change. For the most up-to-date information, please see our website at:

go-2-learn.com/maintenance-parts-excellence/



Why and Who Should Attend?

Whether you're in engineering, operations, procurement, maintenance or a maintenance parts professional, this course will unveil, and make digestible, the complexities and dynamics of managing a **world-class parts operation**.

If you represent facilities and plants from asset-intensive industries such as utilities (electric generation/T&D/retail/gas/water/waste), oil & gas, chemical, mining, pharmaceutical, aerospace & defense, food & beverage, public sector, or are responsible for operating a fleet or other manufacturing, this course will set the standard for maintenance parts excellence.



Join two world-class maintenance parts professionals for 5-days of intense learning, and career-making insight. This course provides you with the methodology, process, and tools to be a leader in making significant progress and ROI in ensuring the right parts inventory in the right place at the right time.

Virtual: A Great Destination

It is without question that on-site, in-person learning is the best option, but while we have little choice, doing virtual education is effective. We strive to make these courses interactive, engaging, and interesting.

This course can be delivered as an overview (20 hours) or as a deep-dive (32 hours). The course can be designed to your time availability. Delivered in full day blocks or over many days with 2-3 hours per day.

Presented by:

