Online Courses for the Gear Industry

THORS Academy courses reflect industry processes from start to finish. Every step of the way,

Think THORS™ for solutions that accelerate learning and improve effectiveness.

RAW MATERIALS



Aluminum Fundamentals Ductile Iron Fundamentals Gray Iron Fundamentals Polymer Fundamentals Powder Metallurgy Basics



Steel Basics
Steel Fundamentals



BARSTOCK

Steel Basics
Steel Fundamentals

MANUFACTURING PROCESSES



CASTING

Bonded Sand Fundamentals
Bonded Sand Iron Casting Basics
Engineering Drawings for Castings
Quality Inspection for Steel Castings



FORGING

Engineering Drawings for Forgings Forging Basics Forgings: Closed Die Processes Forgings: Closed Die Terminology and Equipment



GEAR CUTTING

Bevel and Hypoid Gear Terminology
Engineering Drawings for Spur and Helical Gears
Gear Chart Interpretation–Elemental
Measurements on Cylindrical Gears
Gear Fundamentals
Spur and Helical Gear Terminology
Gear Hobbing Series 1 Lightning Learning
Gear Hobbing Series 2 Lightning Learning



MACHINING

Engineering Drawings for Machining
Fixturing Fundamentals for Machining
Hole Process Fundamentals
Machine Tool Fundamentals
Surface Process Fundamentals
Turning Tool and Process Basics
Turning Center Series 1 Lightning Learning
Turning Center Series 2 Lightning Learning
Horizontal Machining Center Series 1 Lightning Learning
Vertical Machining Center Series 2 Lightning Learning
Vertical Machining Center Series 2 Lightning Learning
Vertical Machining Center Series 2 Lightning Learning



HEAT TREATMENT

Heat Treating Basics
Heat Treating Processes and Equipment
Heat Treating Testing and Defects
Heat Treating Safety



GEAR FINISHING

Cylindrical Grinding Fundamentals
Cylindrical Grinding Process Strategy
Cylindrical Gear Manufacturing Troubleshooting
Gear Chart Interpretation-Elemental Measurements on Cylindrical Gears
Honing Series 1 Lightning Learning
Honing Series 2 Lightning Learning
Rotary Surface Grinding Series 1 Lightning Learning
Rotary Surface Grinding Series 2 Lightning Learning



ASSEMBLY AND TESTING

Bearing Fundamentals
Bolted Joint Basics
Gear Fundamentals
Gearbox Basics
Oil Seals Fundamentals: Rotary Applications
Threaded Fastener Specifications
Threaded Fastener Terminology and Components
Threaded Fastener Testing and Defects
Welding Fundamentals



QUALITY ASSURANCE

Affinity Diagrams

Destructive Metallurgical Testing Engineering Drawing Fundamentals

Engineering Drawings for Spur and Helical Gears

GD&T Fundamentals

Measurements: Basic Concepts Measurements: Measurement Math Measurements: Measuring Processes Measurements: Measuring Tools Non-Destructive Testing

Process Failure Modes and Effects Analysis (PFMEA)

Process Flow Diagrams

Value Analysis Value Engineering

7QC Tools: Check Sheets 7QC Tools: Control Charts 7QC Tools: Fishbone Diagrams

7QC Tools: Histograms

7QC Tools: Pareto Charts

7QC Tools: Scatter Diagrams

7QC Tools: Stratification

8D Problem-Solving Basics
5S Workplace Organization Method

Production Part Approval Process (PPAP)

Control Plan

Contingency Planning Fundamentals



GEAR DESIGN

Bearing Fundamentals
Bevel and Hypoid Gear Terminology
Bolted Joint Basics
Gear Fundamentals
Gearbox Basics
Oil Seals Fundamentals: Rotary Applications
Spur and Helical Gear Design Fundamentals
Spur and Helical Gear Terminology
Threaded Fastener Specifications
Threaded Fastener Terminology and Components
Value Analysis and Value Engineering (VAVE)



GEAR SALES

Bevel and Hypoid Gear Terminology
Gear Fundamentals
Gearbox Basics
Spur and Helical Gear Terminology
Understand Customer Personality Styles to
Help You Sell More Effectively



SAFETY

Personal Protective Equipment (PPE) Selection Lockout Tagout (LOTO)



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