

On-Demand Courses for the Valve 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.

MATERIALS



Aluminum Casting Fundamentals
Ductile Iron Fundamentals
Gray Iron Fundamentals



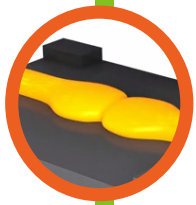
Steel Basics
Steel Fundamentals

PROCESSES



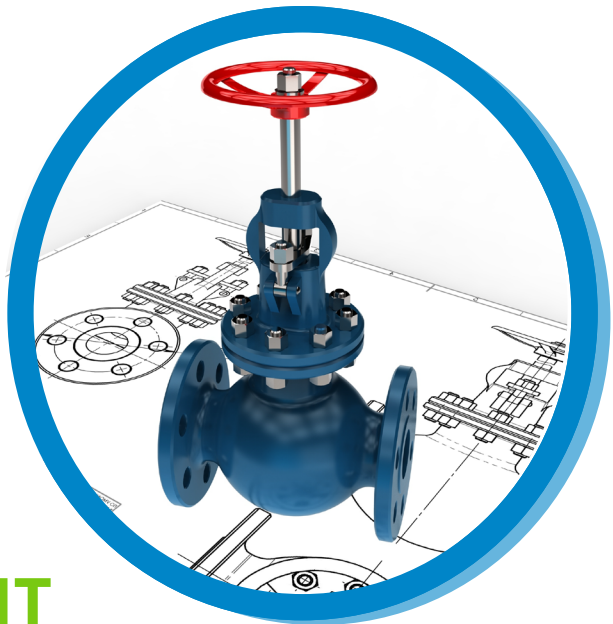
CASTING

Bonded Sand Fundamentals
Bonded Sand Iron Casting Basics
Bonded Sand: Horizontally Parted Molds
Bonded Sand: Mold Patterns
Bonded Sand: Vertically Parted Molds
Chemically Bonded Sand Basics
Gating and Rising Basics
Gravity Die Casting Basics
High Pressure Die Casting Basics
Low Pressure Die Casting Basics
Investment Casting Basics
Vacuum Process Fundamentals



FORGING

Forging Basics
Forgings: Closed Die Processes
Forgings: Closed Die Terminology and Equipment



Our solution creates value for the following functions:

Design Engineering	Purchasing
Manufacturing Engineering	Quality
Manufacturing Operations	Sales



HEAT TREATMENT

Heat Treating Basics (available in Spanish)
Heat Treating Processes and Equipment
Heat Treating Safety
Heat Treating Testing and Defects



ADDITIONAL COMPONENTS

Hydraulic System Fundamentals
Gearbox Basics
Bearing Fundamentals
Electronic Terminology
Electric Power Introduction
Electric Motor Fundamentals
Bolted Joint Basics
Threaded Fastener Specifications
Threaded Fastener Terminology and Components
Threaded Fastener Testing and Defects
Oil Seal Fundamentals: Rotary Applications
Welding Fundamentals



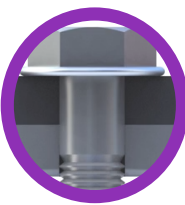
SAFETY

Personal Protective Equipment (PPE) Selection
PPE Scenarios for Forge Shops
Lockout Tagout (LOTO)



MACHINING

Lightning Learning: Turning Center Series 1 and 2
Lightning Learning: Vertical Machining Center Series 1 and 2
Lightning Learning: Horizontal Machining Center Series 1 and 2
Lightning Learning: Honing Series 1 and 2
Lightning Learning: Rotary Surface Grinding Series 1 and 2
Lightning Learning: Gear Hobbing Series 1
Cylindrical Grinding Fundamentals
Cylindrical Grinding Process Strategy
Fixturing Fundamentals for Machining
Hole Process Fundamentals
Machine Tool Fundamentals
Surface Process Fundamentals
Turning Tool and Process Basics



QUALITY ASSURANCE

Engineering Drawing Fundamentals
Engineering Drawing Castings
Engineering Drawing Forgings
Engineering Drawing Machining
GD & T Fundamentals
Measurements: Basic Concepts
Measurements: Measurement Math
Measurements: Measuring Processes
Measurements: Measuring Tools

Process Flow Diagrams
Control Plan
Production Part Approval Process (PPAP)
Process Failure Modes and Effects Analysis (PFMEA)
8D Problem-Solving Basics

Quality Inspection for Steel Castings
Green Sand Defect Analysis
Destructive Metallurgical Testing
Non-Destructive Testing
Affinity Diagrams
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



MANUFACTURING EXCELLENCE

Valve Basics – Just Released!

Contingency Planning Fundamentals
5S Workplace Organization Method
Value Analysis and Value Engineering (VAVE)
Internet of Things: Manufacturing
Robotics Fundamentals
Purchase Order Fundamentals



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