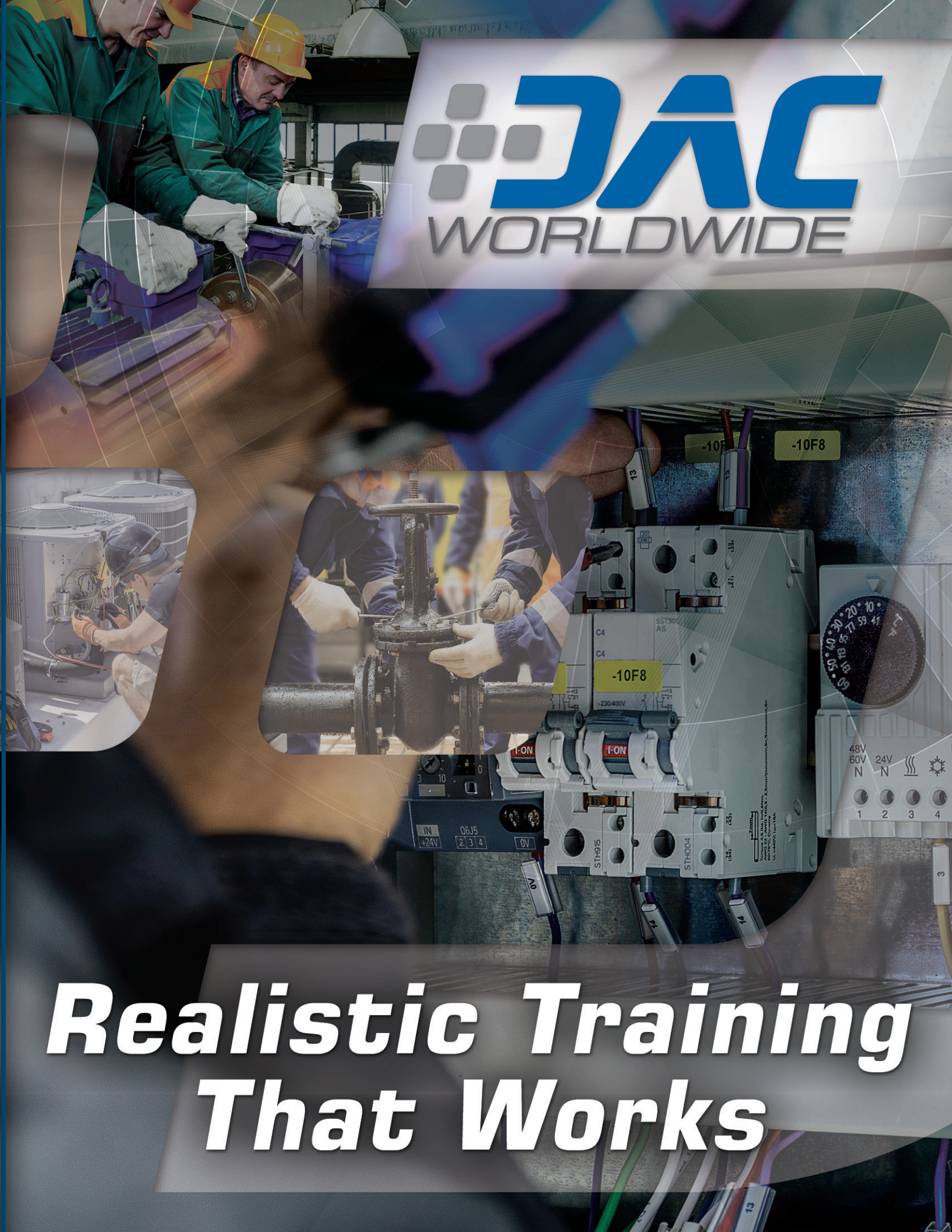

DAC
WORLDWIDE
-10F8
-10F8
-230/400V
48V
60V
24V
N
N
1
2
3
4
IN
+24V
Q6J5
2 3 4
0V
STH915
STH004
Realistic Training
That Works

# Who We Are And What We Do

## Early Beginnings

DAC Worldwide was founded in 1980 as a full-service model-making company serving engineers, industrial designers, and marketing professionals through the design and fabrication of technical models. Initial projects related to the design of chemical plants, refineries, power plants, nuclear plants, and large industrial equipment. Our staff of process piping, mechanical, and electrical designers created high-quality, realistic models that became an integral part of the engineering and design process.

### Lessons Learned

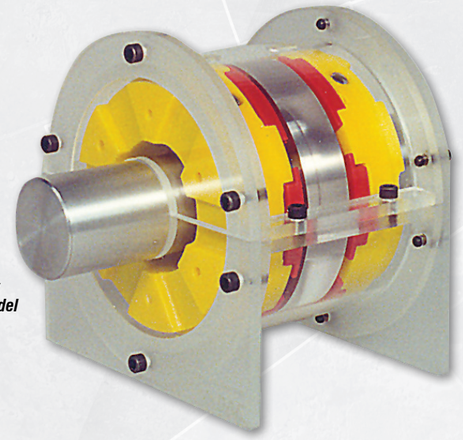
In 1982, we began to fabricate training-related models for the nuclear industry. Before long, our realistic training tools were used in projects for virtually every nuclear utility in the country.

Along the way, we realized the point ... our customers needed realistic, industrial-grade, generic training devices addressing maintenance fundamentals. Further, we found that few products existed that matched their needs.

### Product Development

Our product line's development started in 1988, with our original Kingsbury Bearing Model. Still offered today, it has, to some degree, become a historical footnote within a product line addressing a broad range of more fundamental and comprehensive topics.

In spite of all of these changes, many things about our company have remained the same; our commitment to high levels of craftsmanship, our interest and knowledge in industrial equipment and systems, and our interest in solving our customer's needs on a one-on-one basis.

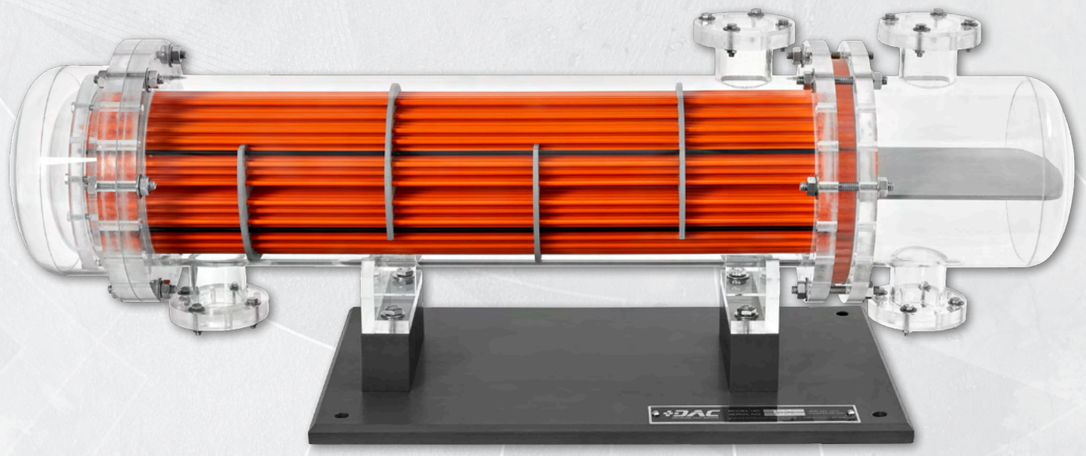


*209 | Kingsbury Thrust Bearing Model*

### Continuing Excellence

The design assistance we provide today in training program design and implementation has a logical, practical foundation in industrial experience...
Experience that can help you get results from your training dollar in the most efficient way possible...
Through actually experiencing common maintenance tasks.

**Learn more about DAC Worldwide by exploring our vast product line or contact us!**

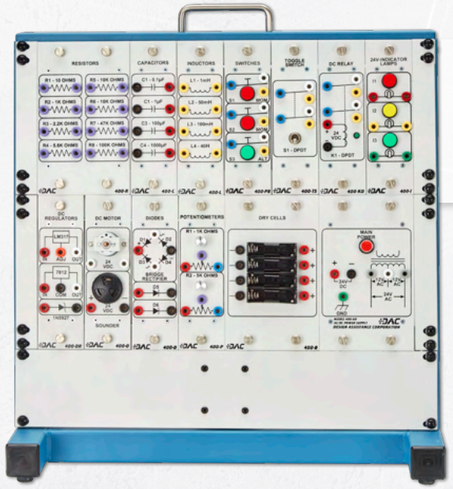


*287 | Multi-Pass Floating Head Heat Exchanger Training Model*

# Electrical & Electronics Training Systems

DAC Worldwide manufactures realistic, industrial-quality electrical & electronic training systems that teach a wide range of hands-on maintenance skills in a variety of focused subject areas.

## Basic Electrical & Transformers



**400-PAC | Basic Electricity Training System Plus**

Introduces basic electrical AC and DC principles and troubleshooting

**408-000 | Transformer Wiring Training System**

- Conditions and circumstances of making common transformer connections
- Includes two complete sets of three-phase transformers for paralleling training



## Electrical Generation



**490-000 | Electrical Generation Fundamentals Training System**

- True electrical generation simulator depicting multiple power plants on a grid
- Internal computer with analog and digital I/O

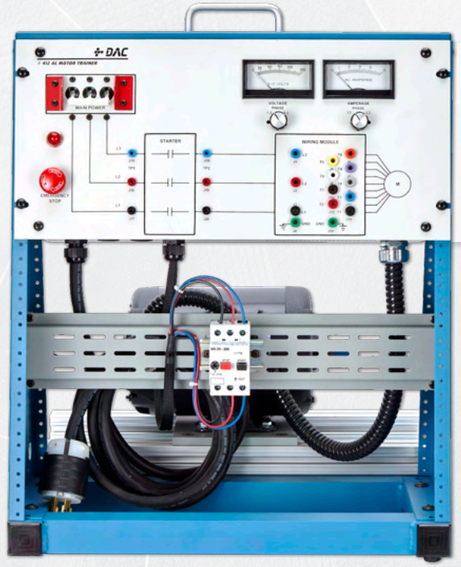


**491-000 | Transformer Connections Training System**

- Training in paralleling of generators and connecting to large power grid using modern equipment
- Single-phase and three-phase transformer connections

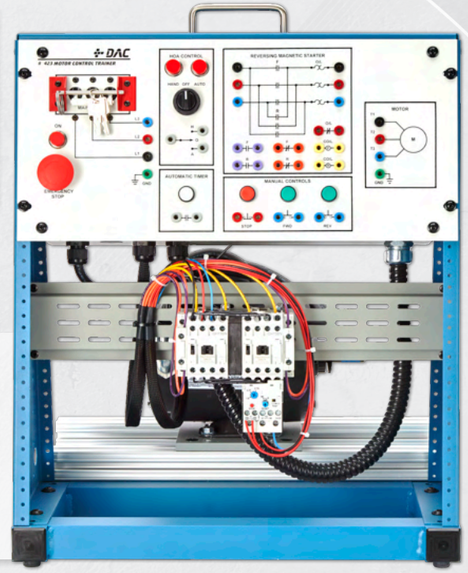


## Motor Control



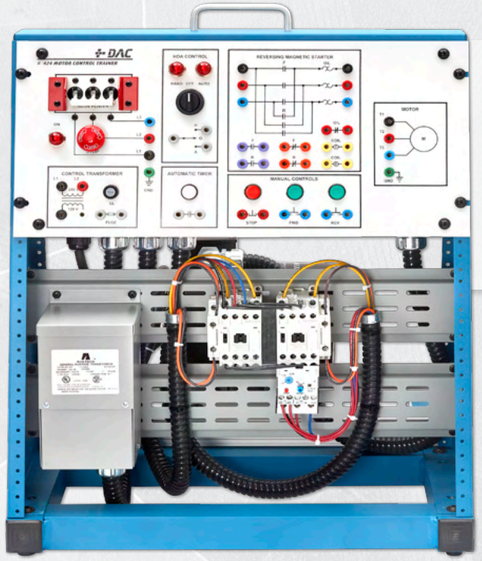
**412-000 | 3-Phase, Squirrel Cage Rotor, AC Motor Training System**

Provides starting point for understanding common industrial induction motor



**423-000 | 3-Phase Motor Control Training System w/ Magnetic Starter**

Principles, wiring, and troubleshooting of reversing magnetic starters



**424-000 | 3-Phase Motor Control Training System w/ Magnetic Starter, Low Voltage Start**

Principles, wiring, troubleshooting & application of reversing magnetic starters



**428 | Piloting Switch Module**

Controls circuitry using alternate switch components, relays, and timers

**420-000 | 1-Phase Motor Control Training System w/ Manual Starter**

Wiring, fault troubleshooting and application of single-phase motors

**426-000 | DC Permanent Magnet Motor Control Training System**

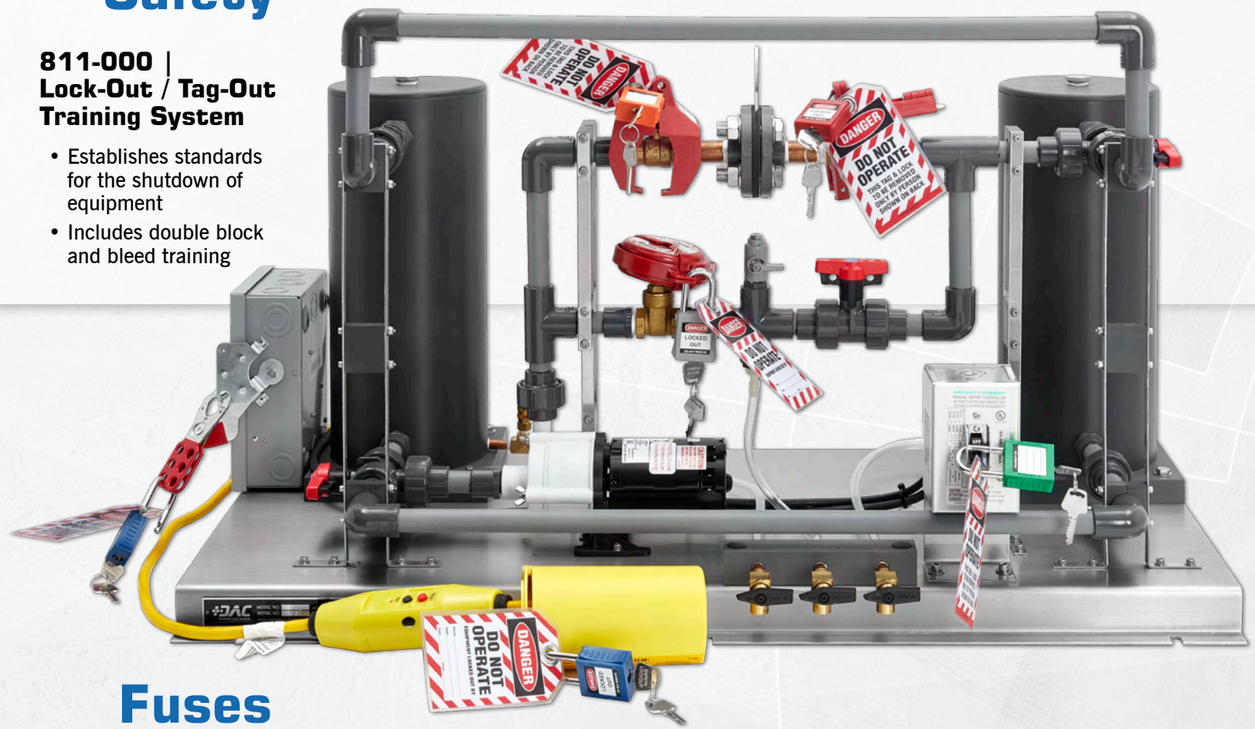
Troubleshooting and application of DC permanent magnetic starters

# Electrical & Electronics Training Systems

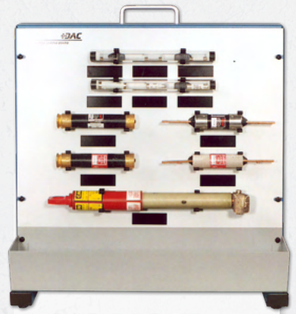
## Safety

**811-000 | Lock-Out / Tag-Out Training System**

- Establishes standards for the shutdown of equipment
- Includes double block and bleed training




## Fuses



**816-PAC | Fuse Sample Board**

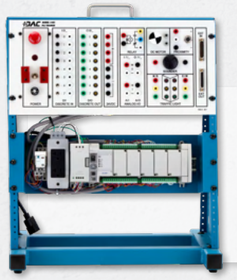
## Variable Frequency Drives

**429E | AC Variable Frequency Drive Training System Plus**

- AC drive system troubleshooting, programming, and wiring
- Eight fault switches train on drive, motor, and control wiring troubleshooting



## Programmable Logic Controllers



**461-000 | Basic PLC Training System – AB Micro850**

- Programming and application of industrial PLCs
- Connects to process control, motors/motor control, sensors, PLC application and fluid power training devices



## Safety

**810-000 | Electrical Lock-Out / Tag-Out Training System**

- Lock-Out/Tag-Out skills performed at reduced voltage (24 VDC) for enhanced safety
- Test points allow users to verify components are deenergized

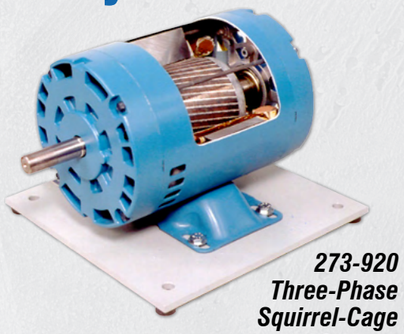




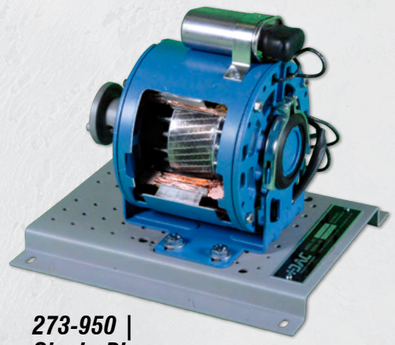


## Electrical Cutaways

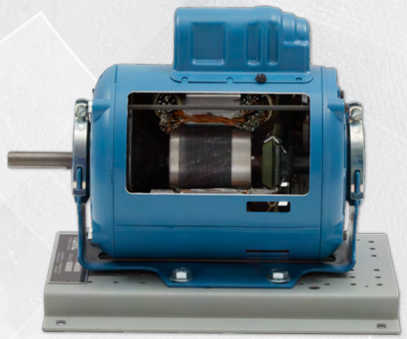
**DAC Worldwide's Electrical cutaways feature real industrial components that have been restored & sectioned to expose key internal components & their functionality.**



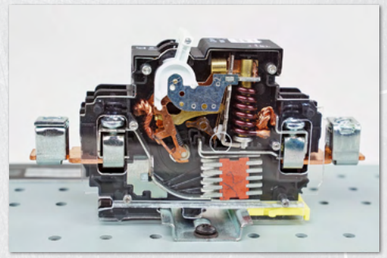
*273-920 Three-Phase Squirrel-Cage AC Motor*



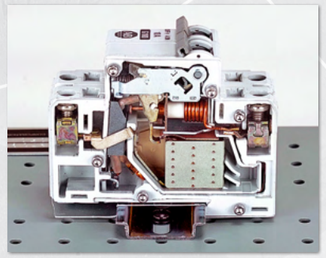
*273-950 | Single-Phase PSC AC Motor*



*273-930 | Single-Phase Capacitor-Start AC Motor*



*273-907 | 100A, Single Pole Circuit Breaker*



*273-905 | 2-Pole Circuit Breaker*

# Mechanical Maintenance Training Systems

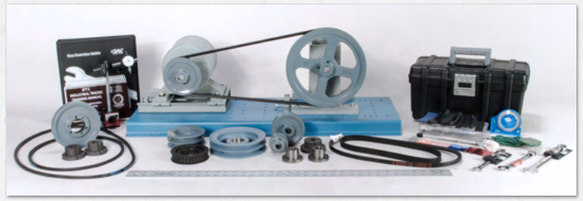
DAC Worldwide's variety of mechanical training systems, cutaways, dissectibles, & sample boards teach a wide range of maintenance skills.

## Gears

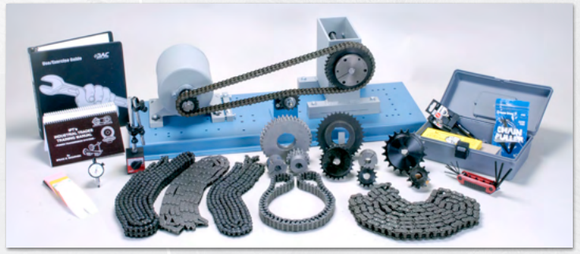


**205-PAC | Gear Maintenance**

## Belts & Chains



**201-PAC | Belt Drive**

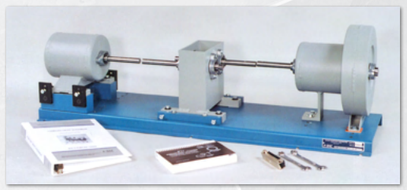


**223-PAC | Chain Drive**

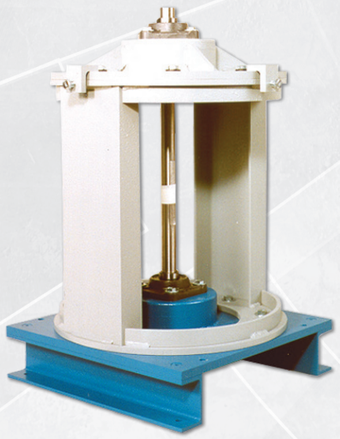
## Coupling & Shaft Alignment



**208D-PAC | Basic Coupling / Shaft Alignment**



**206-PAC | 3-Component Coupling Shaft Alignment**



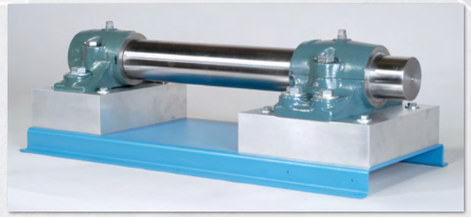
**207-PAC | Vertical Coupling Shaft Alignment**



## Bearings

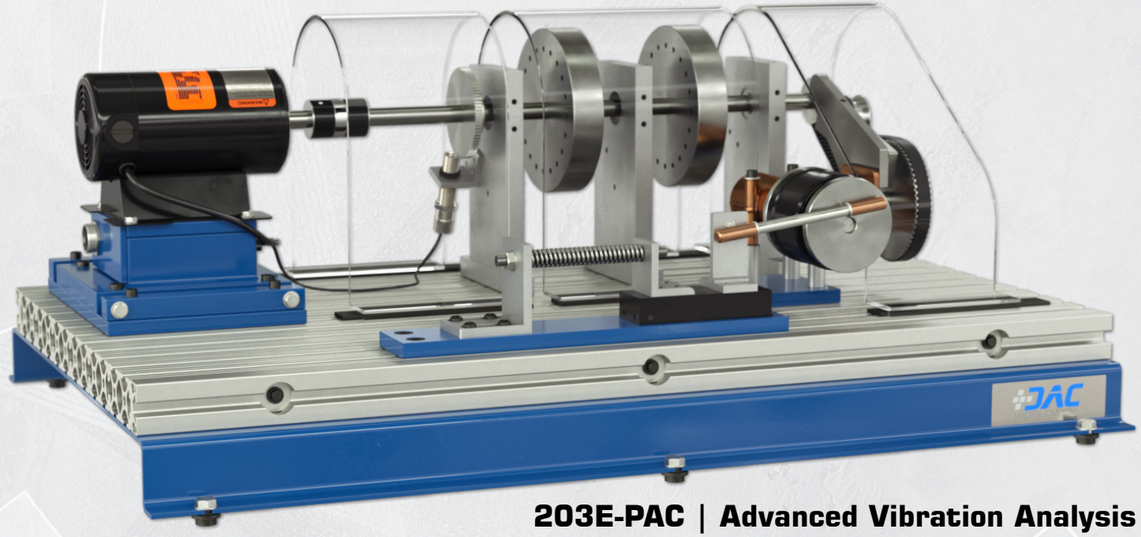


**204E-PAC | Extended Bearing Maintenance**

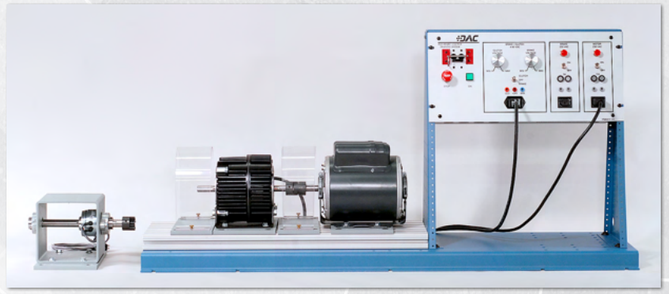


**204J-PAC | Journal & Fluid-Film Bearings**

## Vibration Analysis, Brake Clutch & Fan Balancing



**203E-PAC | Advanced Vibration Analysis**



**220-PACP | Brake Clutch**



**202-PAC | Fan Balancing**

# Mechanical Cutaways & Sample Boards

## Cutaways & Dissectibles

**DAC Worldwide's industrial cutaways are industrial components that have been restored & sectioned to expose key internal components & their functionality. Dissectibles allow learners to disassemble, inspect, & reassemble components to teach hands-on maintenance skills.**

**Cutaways & dissectibles for mechanical maintenance include the following series:**

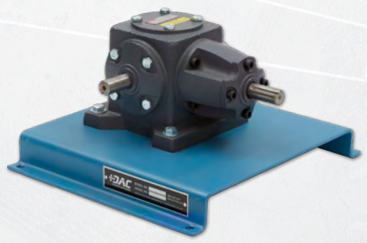
- 200-2000 - Mechanical Component Cutaways (8 in series)
- 205-200 - Gear Reducer Cutaways (15 in series)
- 205-100 - Dissectible Gear Reducers (11 in series)



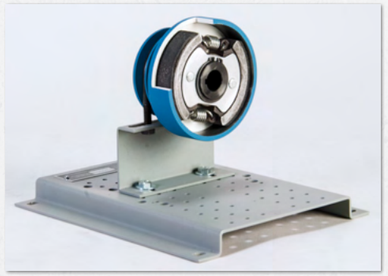
*205-220 | Right Angle Spiral Bevel Gear Reducer Cutaway*



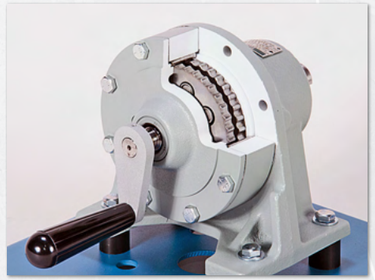
*205-180 | Planetary Gear Reducer Dissectible*



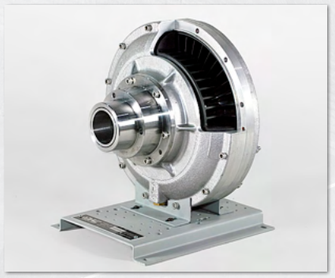
*205-120 | Right Angle Spiral Bevel Gear Reducer Dissectible*



*200-2204 | Centrifugal Clutch Cutaway*



*205-270 | Cycloidal Gear Reducer Cutaway*



*200-2082 | Fluid Coupling Cutaway*

## Sample Boards

**DAC Worldwide's sample boards provide easy industrial component identification & selection.**

**Available sample boards:**

- Mechanical Fasteners
- Bearings
- Gears
- Belts
- Chains
- Couplings



*836-PAC - Gears*



*838-PAC - Chains*



# Quality

DAC WORLDWIDE

## WELD FAULT COMPARISON KIT
## 825-000

**DAC Worldwide's Weld Fault Comparison Kit (825-000) is a set of three-dimensional visual aids with accompanying training materials.**

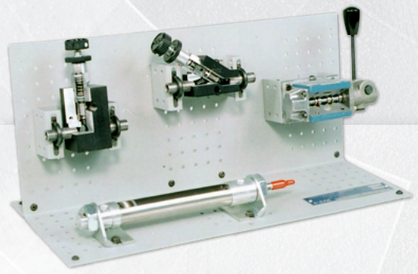
- **Teaches identification of common weld defects**
- **Facilitates basic training in weld quality and weld fault terminology**
- **Includes twelve molded weld samples that depict acceptable (Go) and unacceptable (No Go) examples of common weld defects**
- **Welding defects shown include undercut, tie-in, porosity, lack of fusion, fillet size, and other common faults**



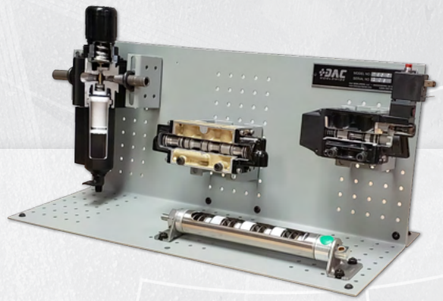

**Courseware includes 3 hands-on exercises:**

1) Introduction to basic weld joint terminology & identification;
2) Identification, rating, and classification of weld faults commonly found in the field; &
3) Introduction to the use of a weld fillet gauge

# Fluid Power



*710 | Hydraulic Component Cutaway Set*



*760C | Pneumatic Component Cutaway Set*

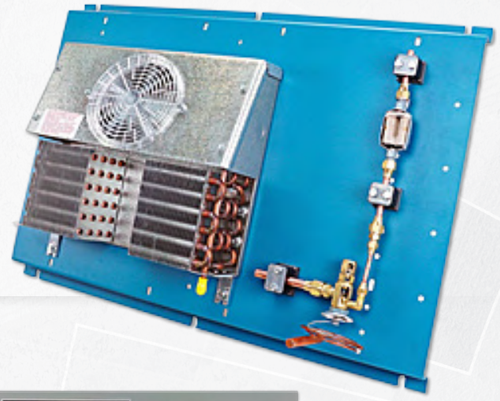


*773-195 | Bladder Accumulator Cutaway*

# Focused HVAC Maintenance Training

## HVAC System Cutaway

- Teach about the cooling needed for fresh and frozen food preservation
- Sectioned example of refrigeration system
- Enhance training in HVAC system design, maintenance, troubleshooting, and preventive/predictive maintenance

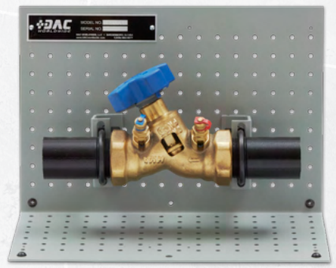


*373-991 | Ceiling Unit Cooler System Cutaway*

## Component Cutaways



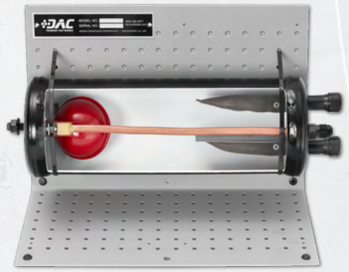
*373-502 | ACR Solenoid Valve & 373-505 | Heat Pump Reversing Valve*



*373-551 | ACR Manual Balancing Valve*



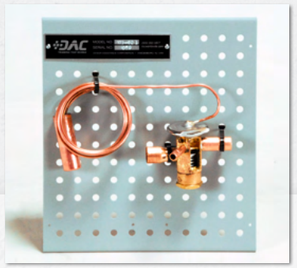
*373-601 | ACR Liquid Line Filter/Drier*



*373-721 | ACR Oil Separator, Float-Type*



*373-701 | ACR Suction Line Accumulator*



*373-521 | ACR Thermostatic Expansion Valve, Fixed-Type*



*373-195 | Compressor Service King Valve*



*373-510 | ACR Magnetic Check Valve*



*373-501 | ACR Steel Ball Valve*



DAC Worldwide's line of HVAC cutaways are real-world industrial components that have been restored and refinished. Each component has been professionally sectioned to expose primary components that students will encounter in the field.

## Compressor Cutaways

**DAC Worldwide offers students wide-ranging experience using a variety of different compressor types commonly found in HVAC systems, including:**

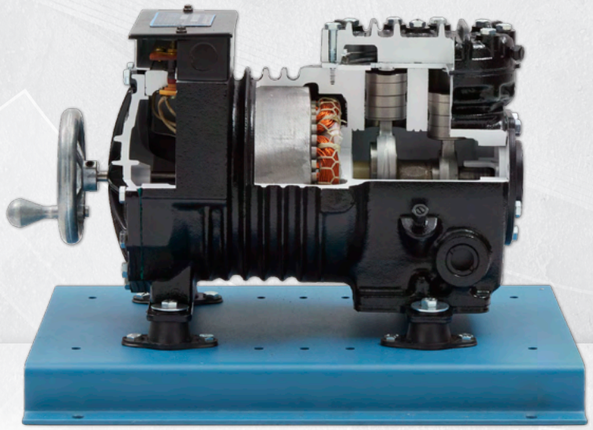
- Hermetic
- Semi-Hermetic
- Open Drive Refrigeration
- Hermetic Rotary



*373-140 | Open Drive Refrigeration Compressor Cutaway*



*373-110 | Hermetic Compressor*



*373-120 | Semi-Hermetic Compressor*



*373-160 | Hermetic Rotary Compressor Cutaway*

# Training Systems



### *603-000EH | 4-Variable Advanced Process Control*

- Measures process variables including level, pressure, temperature, & flow
- Create cascade, feedforward, feedback, split range, ratio, and three-element control loops



### *619-000EH | Flow Measurement*

- Working, large-scale, flow-related fluid process system
- "Open architecture" allows for installation of optional instruments

### *616-000EH | Portable Calibration*

- Allows for convenient testing and calibration of instruments, process controllers, etc.



## Also Available:

### *601-000EH | Variable Process Control*

- Measures process variables including level, pressure, & flow
- Create simple & advanced process loops

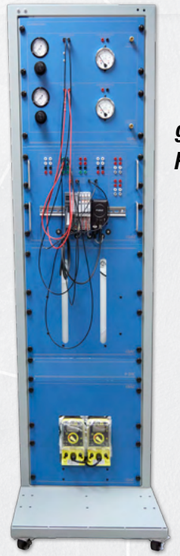
### *602-000EH | Temperature Process Control*

- Covers temperature measurement & control in industrial fluid process systems
- Configure control loops using feedback & feedforward control methods

### *605-000EH | Analytical Process Control*

- Provides training for process variables relating to water chemistry
- Variables monitored include pH, conductivity, ORP, & dissolved oxygen

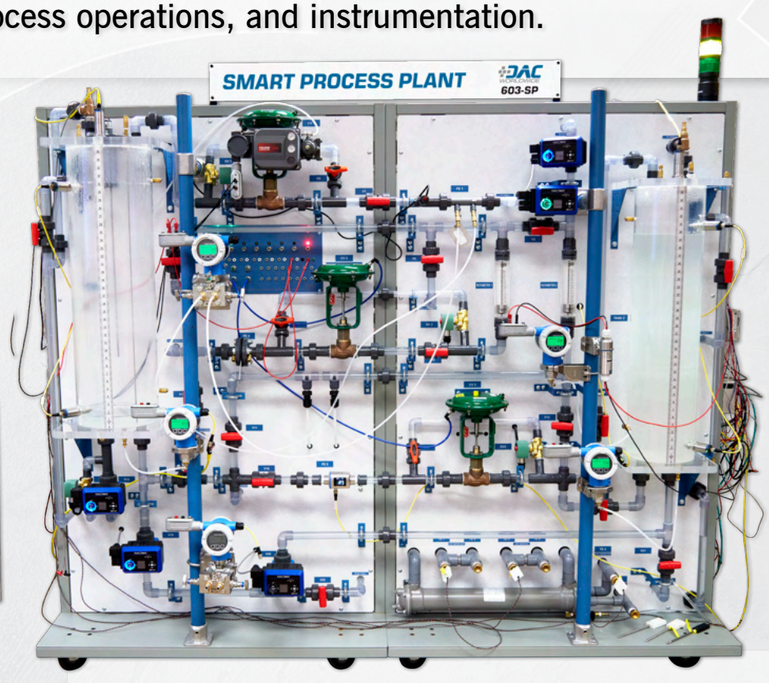
DAC Worldwide manufactures training systems & cutaways to teach hands-on skills in process control, process operations, and instrumentation.



*910 Life Sciences Process Extension*

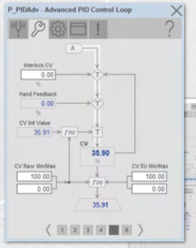


*Industrial Grade Water Chiller*

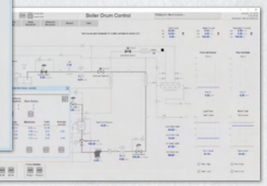


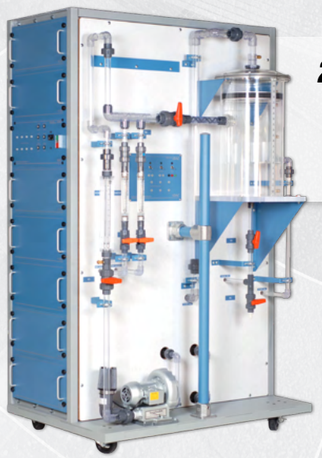

### *603-SP | Smart Process Plant*

- Offers a world-class modern process plant simulator
- Features Industry 4.0 technologies like PlantPAx supervisory control and monitoring, HART wireless, network security, cloud-based data analytics, and SCADA process application modeling
- Supports training for operators, technicians, and engineers



*PlantPAx Software*





### *295-101 | Vertical Separator*

- Reduced-scale, three-phrase vertical separator
- Uses alternate production stream components, refined oil, air, & water

### *617-CTL | Level Measurement*

- Offers basic hydrostatic principles training
- Hands-on installation, calibration & maintenance of process field instruments



# Process Control & Instrumentation

## Cutaways

**DAC Worldwide's Process Control & Instrumentation cutaways feature real industrial components that have been restored & sectioned to expose key internal components & their functionality.**



*273-215*
*Air Pressure Regulator Cutaway, Control Valve Type*



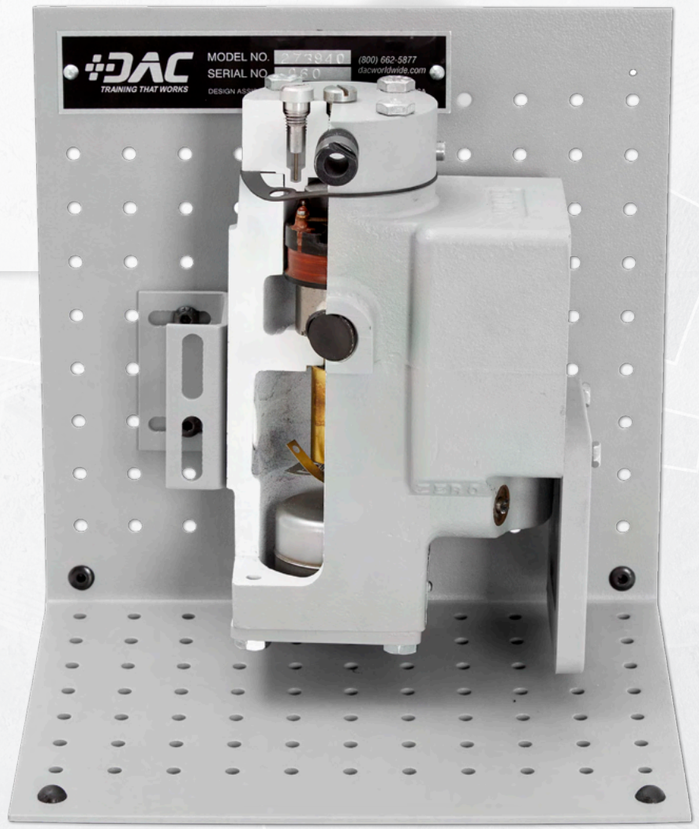
*273-270*
*Pressure Gauge, Low Pressure*



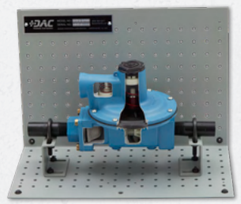
*273-217*
*Switching Regulator Valve Cutaway*



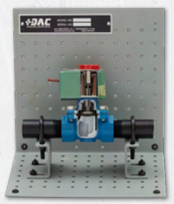
*273-230*
*Bourdon Tube Pressure Gauge Cutaway*




*273-840*
*I/P Transducer*



*273-150*
*Gas Pressure Regulator*



*273-440*
*Solenoid Valve Cutaway*



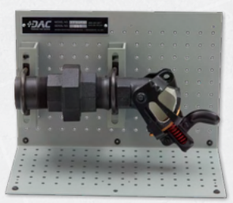
*273-320*
*Single Basket Straining System Cutaway*



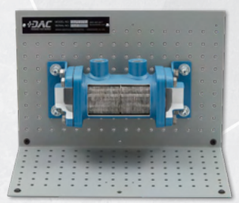
*273-430*
*Ball Float Drain Valve*



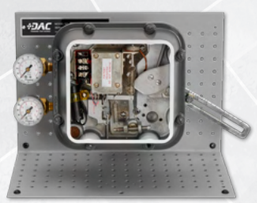
*273-450*
*Level Gauge Cock Valve Cutaway*



*273-500*
*Drum Gate Valve Cutaway*



*273-610F*
*Oil Cooler Cutaway, Finned Tube Bundle-Type*



*273-810*
*Control Valve Positioner Cutaway*



# Pumps, Compressors & Valves

## Industrial Quality Training Aids

DAC Worldwide manufactures a wide variety of training aids to teach hands-on skills in pump, compressor, and valve maintenance.

### Training Systems




*275E-PAC | Pump Maintenance and Alignment Training System Plus*



*250-PAC | Valve Packing Training System*



*277-PAC | Centrifugal Pump Fundamentals Training System Plus*

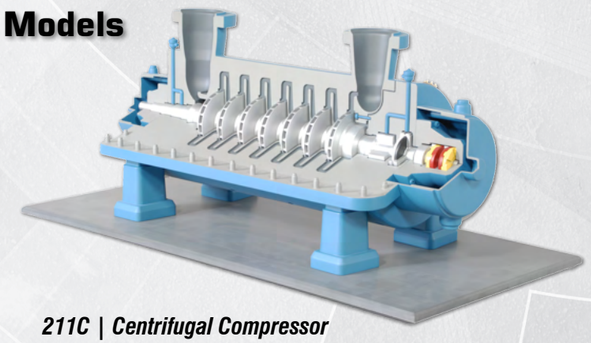


*275-000 | Pump Maintenance Trainer*

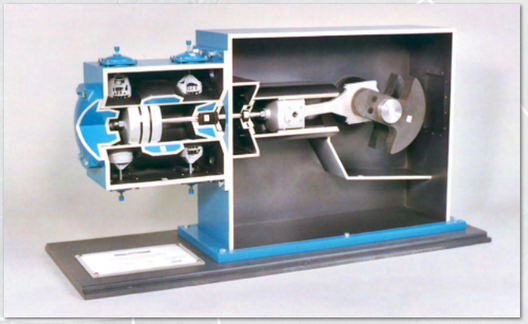


*280-PAC | Pump Packing/Mechanical Seal Training System Plus*

### Models



*211C | Centrifugal Compressor*



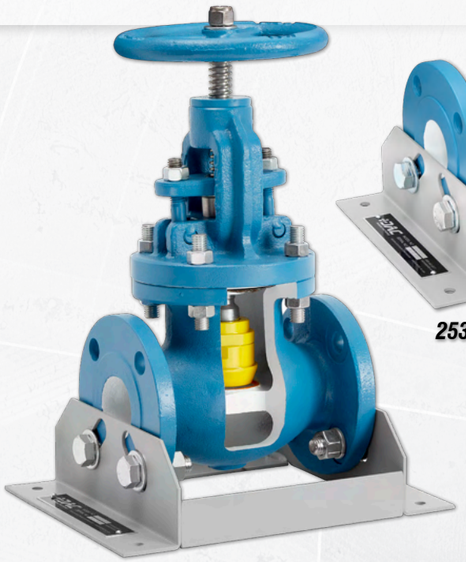
*211-000 | Reciprocating Compressor*

## Cutaways & Dissectibles

# Industrial Quality Training Aids



251 | Gate Valve Cutaway



252 | Globe Valve Cutaway



253 | Ball Valve Cutaway



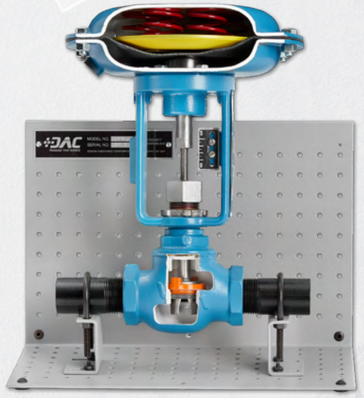
275-135 | External Gear Pump Dissectible



275-180 | Air-Operated Diaphragm Pump Dissectible



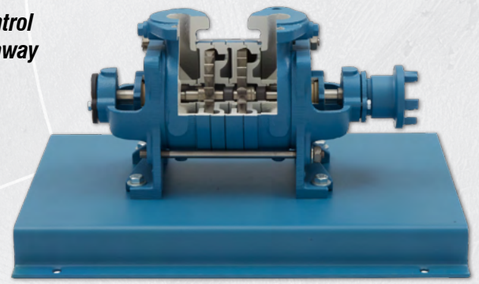
255 | Control Valve Cutaway



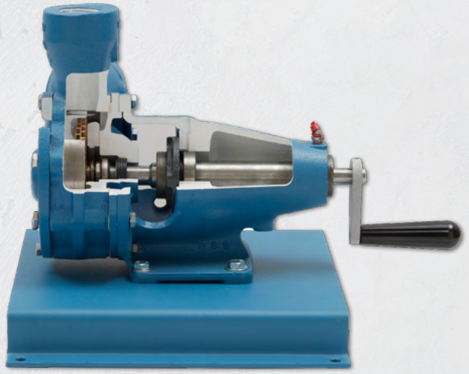
255D | Downsized Control Valve Cutaway



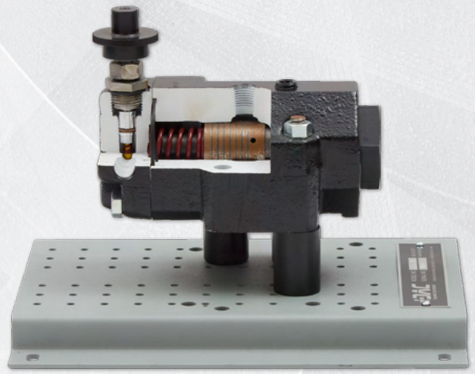
257 | Check Valve Cutaway - Swing-Type



278-117 | Multi-Stage Side Channel Pump Cutaway



278-155 | Horizontal Turbine Pump Cutaway (Roth/Aurora)

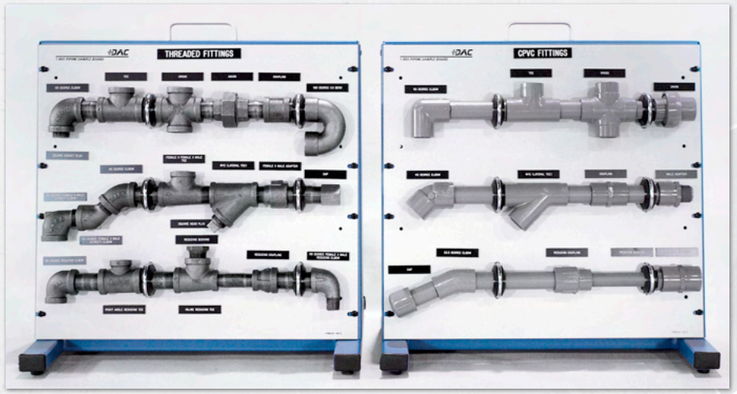


773-213 | Hydraulic Sequence Valve Cutaway



254 | Butterfly Valve Cutaway

## Sample Boards




865-PAC1 | Piping Component



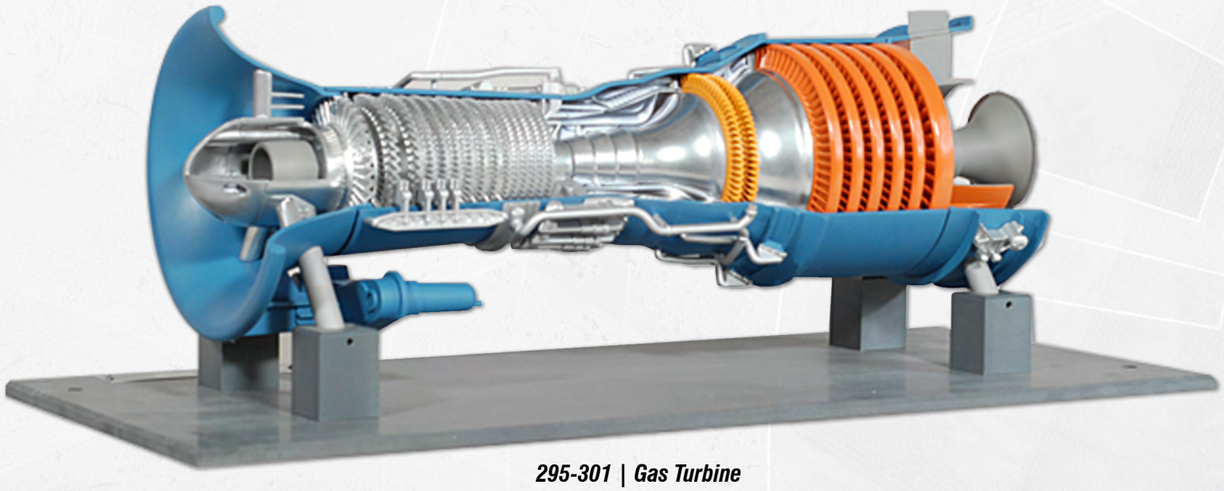
869-PAC | Pump Impeller

*Also Available: Flange (864-PAC) & Hose and Coupling (868-PAC)*

# Oil Production Training Models & Cutaways

DAC Worldwide manufactures realistic, industrial-grade training systems, cutaways, dissectibles, & scale models to teach a wide variety of relevant oil production skills. Our products provide unique teaching tools that give students a greater understanding of how these systems operate.

## Models



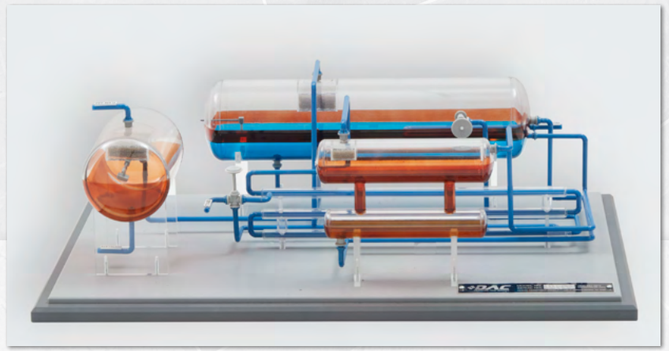
*295-301 | Gas Turbine*

**DAC Worldwide's industrial scale models depict industrial systems and components in realistic detail.**

**Based on common equipment by industry leaders, models include all primary features, color-coded flow paths, and component cutaways that allow for easy viewing of internal components.**



*295-408 | Pumpjack*



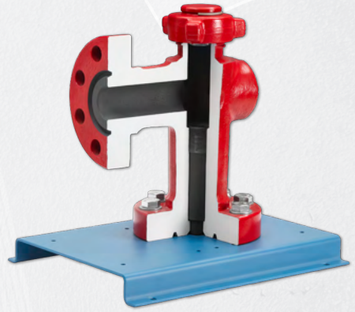
*295-110 | Low-Temperature Separator System Model*



## Cutaways & Dissectibles



*295-703 | Wellhead Backpressure Regulator*



*295-711 | Barrel Choke Valve*



*295-709 | Oil Field Relief Valve Cutaway*



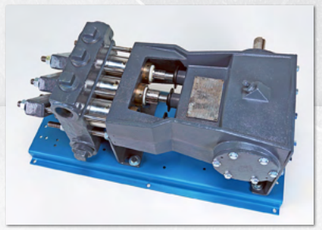
*295-705 | Lever-Operated Dump Valve Cutaway*

**DAC Worldwide's industrial cutaways are real components that have been restored & sectioned to expose key internal components & their functionality.**

**Dissectibles allow users to disassemble, inspect, & reassemble components to teach hands-on maintenance skills.**



*295-704 | Oilfield Production Regulator (Big Joe)*



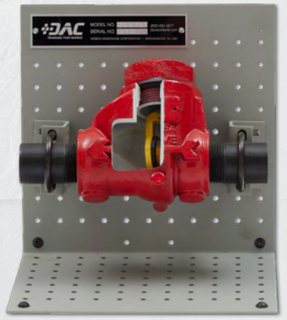
*295-418 | Representative Triplex, Plunger Mud Pump Dissectible*



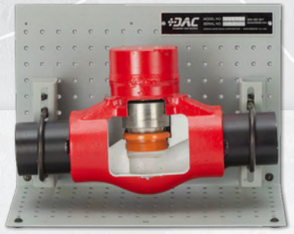
*295-719P | Pneumatic Surface Safety Valve*



*295-795E | Extended Wellhead Assembly*



*295-707 | Oil Patch Swing Check Valve Cutaway*



*295-706 | Piston Check Valve Cutaway*

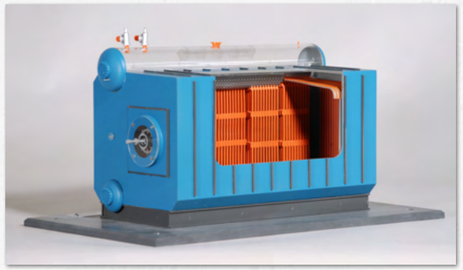
# Heat Transfer & Steam Training Systems

## Models & Cutaways

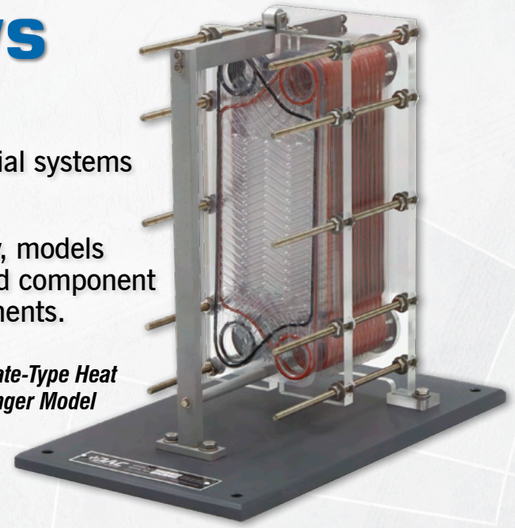
### Models

DAC Worldwide's industrial scale models depict industrial systems and components in realistic detail.

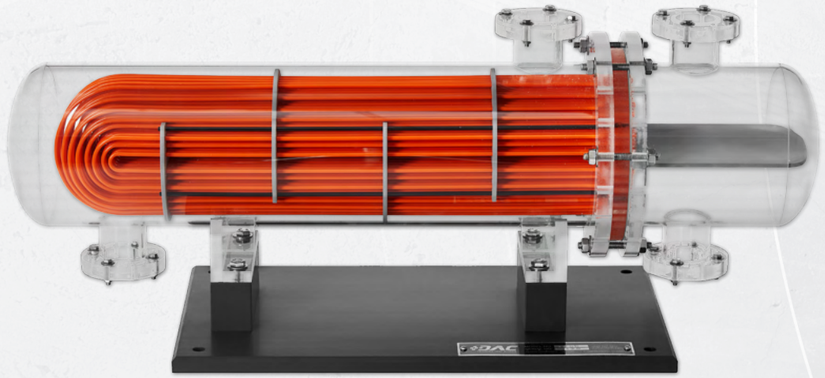
Based on common equipment used throughout industry, models include all primary features, color-coded flow paths, and component cutaways that allow for easy viewing of internal components.



*355 | Water Tube Boiler Model*



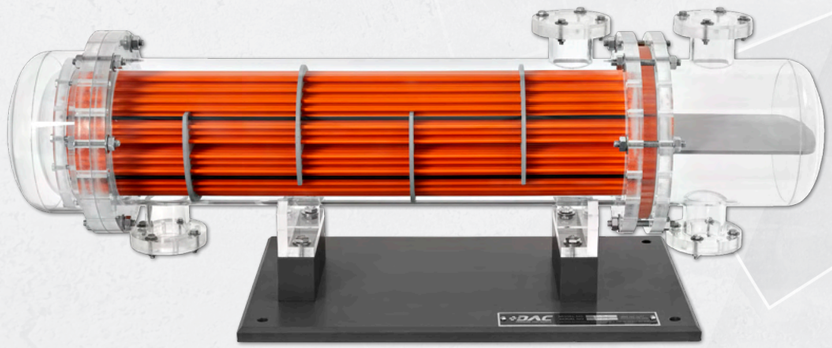
*284 | Plate-Type Heat Exchanger Model*



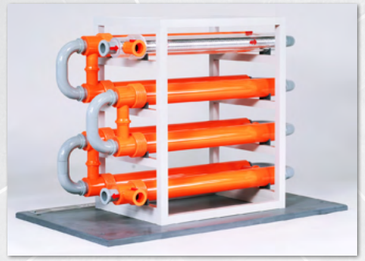
*285 | U-Tube Heat Exchanger Training Model*



*289 | Vertical Thermosiphon Reboiler Heat Exchanger Training Model*



*287 | Multi-Pass Floating Head Heat Exchanger Training Model*



*281 | Annular Tube Heat Exchanger Model*

DAC Worldwide manufactures realistic, industrial-grade training systems, cutaways, dissectibles, & scale models to teach a wide variety of relevant heat transfer & steam skills. Our products provide unique teaching tools that give students a greater understanding of how these systems operate.

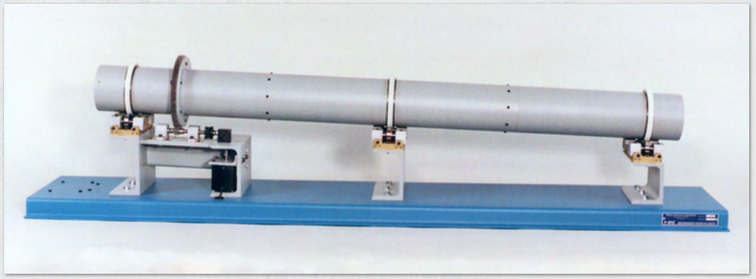
### Training Systems

DAC Worldwide's industrial training systems feature real industrial equipment to provide a realistic, hands-on learning experience.

Built with full-size, industrial-quality components, these task-specific systems prepare students to perform effectively in the field.



*238-000 | Heat Exchanger Maintenance Training System*



*241-000 | Rotary Kiln Maintenance Training System*

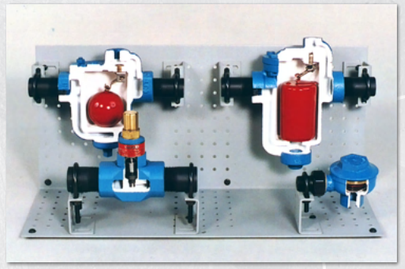


*240-000 | Boiler Tube Trainer*

### Cutaways & Dissectibles

DAC Worldwide's industrial cutaways are real components that have been restored & sectioned to expose key internal components & their functionality.

Dissectibles allow users to disassemble, inspect, & reassemble components to teach hands-on maintenance skills.



*274 | Steam Trap Cutaway Assortment*



*249-PAC | Steam Turbine Dissectible*

# Training Systems
# Cutaways & Dissectibles
# Custom Models
# Sample Boards

## For A Variety Of Industrial Technical Topics, Including:

**Electrical & Electronics**

**Fluid Power**

**Heat Transfer & Steam**

**HVAC**

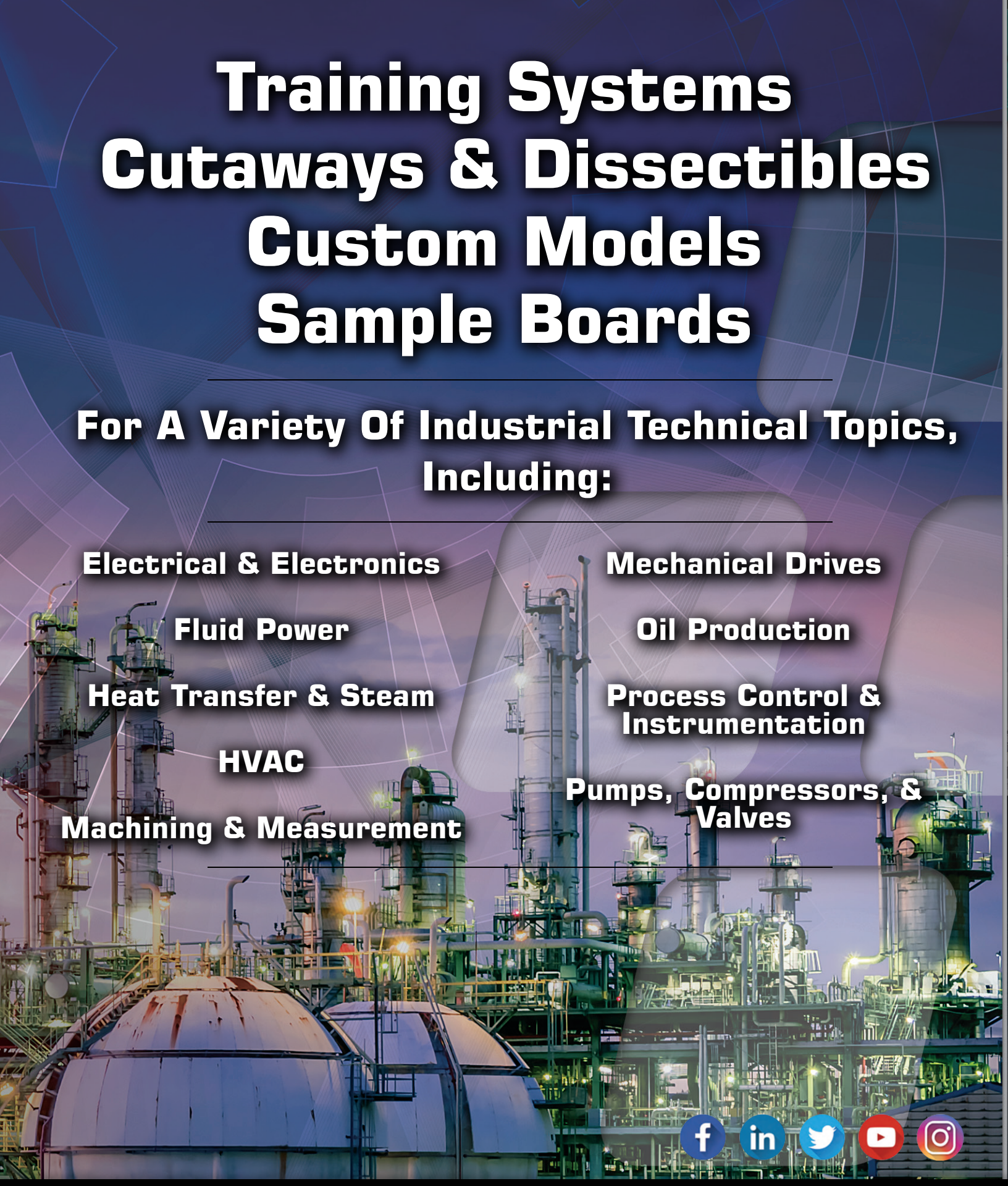
**Machining & Measurement**

**Mechanical Drives**

**Oil Production**

**Process Control & Instrumentation**

**Pumps, Compressors, & Valves**



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