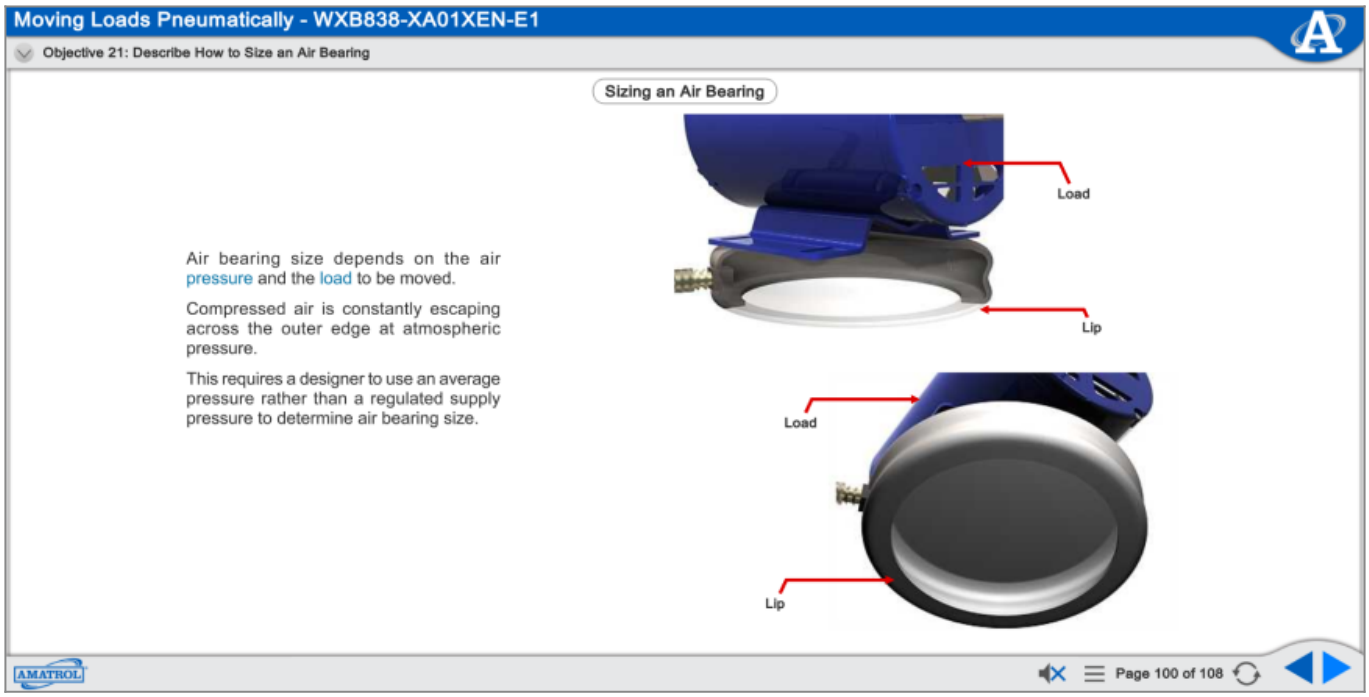
Advanced Pneumatics | Multimedia Courseware



Multimedia Courseware: MB838

Pneumatic power is used in everything from air brakes and hand tools to spray painters and industrial robots. Amatrol's Multimedia Courseware teaches learners about advanced pneumatics concepts applicable across a variety of modern industries, such as manufacturing, transportation, and construction. Learners using Amatrol's advanced pneumatics eLearning course begin by studying the physical principles of pneumatics, such as pressure and flow, and how pneumatic mechanisms are used in real world applications. From this building block, learners begin practicing industry-relevant pneumatic skills, like constructing pneumatic circuits.

Teach Advanced Pneumatics

Amatrol's eLearning curriculum is unique in that it thoughtfully combines in-depth theoretical knowledge with practical, hands-on skills. This powerful combination of knowledge and skills solidifies understanding and creates a strong foundation for pursuing more advanced skills.

Moving Loads Pneumatically
Learners using Amatrol's advanced pneumatics eLearning course will study various aspects of moving loads pneumatically, including pneumatic cylinder loads and applications, component sizing, air bearings, and pneumatic motor loads. Individual lessons focus on topics like the four forces that act against cylinder movement, the operation of a pressure regulator under flow conditions, how to size a pneumatic cylinder, types of torque specifications, and the function and applications of air bearings. Learners will also practice skills, such as connecting and operating a quick exhaust valve, calculating the air flow rate needed to cycle a pneumatic cylinder, and measuring pneumatic motor speed using a photo tachometer.

Vacuum Systems
Learners will study various aspects and components of vacuum systems, including vacuum gauges, manometers, vacuum generators, and vacuum applications. Individual lessons focus on topics like the methods of representing vacuum pressure, the operation and application of a venturi (Bernoulli's Law), the operation of vacuum cups and lifters. Learners will also practice skills, such as connecting and reading a vacuum gauge, connecting and operating a vacuum generator, and designing the vacuum cup portion of a handling rack.

Air Compressors

Learners using Amatrol’s advanced pneumatics eLearning course will study various aspects and components of air compressors, including compressor types, reciprocating compressor components, compressor flow concepts, and compressor performance. Individual lessons focus on topics like types of positive displacement and dynamic air compressors, pressure switches, safety relief valves, Ideal Gas Law, and five factors used in the selection of an air compressor. Learners will also practice skills, such as starting up and shutting down a small reciprocating piston air compressor, determining the cut-in and cut-out pressures on a compressor pressure switch, sizing an air compressor given application data, and using the Ideal Gas Law to calculate the effect of changes in air temperature, pressure, and volume.

Virtual Simulator

Motor Control Troubleshooting Virtual Simulator | Preview
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For example, the precision gauging eLearning course covers important topics, such as:

Address

Amatrol
2400 Centennial Blvd
Jeffersonville, IN 47130

Contacts

email: contact@amatrol.com
phone: (800) 264 8285