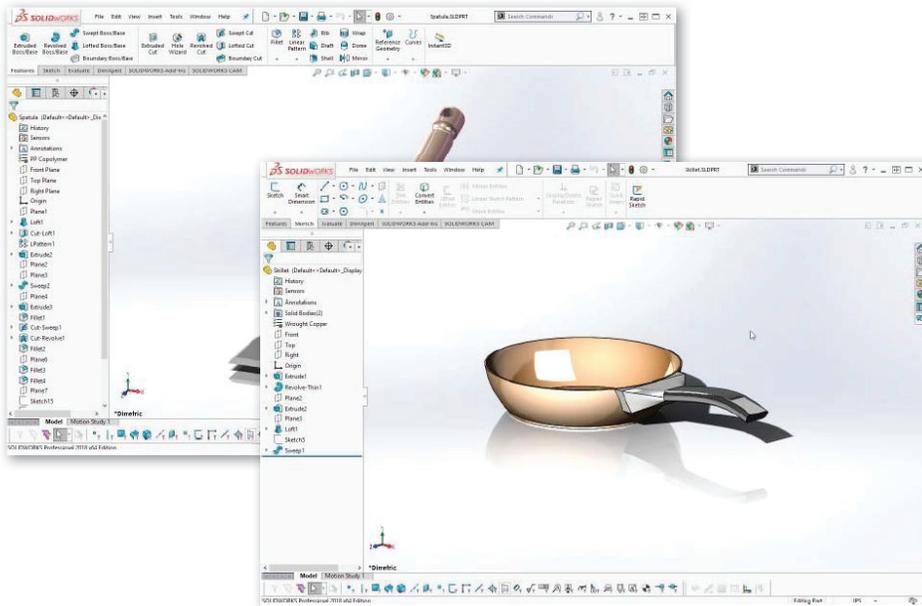


Computer Aided Design 1 and 2 Learning Systems

96-CAD1B 96-CAD2B

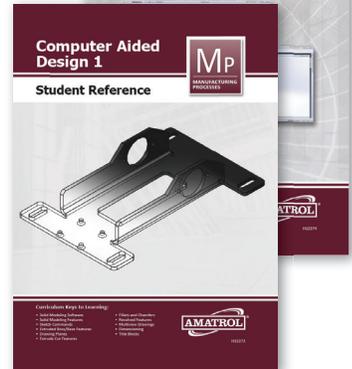
MP

MANUFACTURING
PROCESSES

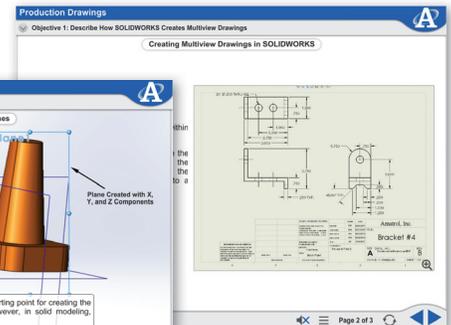


SolidWorks Software used with the 96-CAD1B and 96-CAD2B

Computer Aided
Design 2
Student Reference



Student Reference Guides



Interactive Multimedia Curriculum

Learning Topics:

- Solid Modeling
- Solid Model Creation
- Extruded Boss/Base Features
- Solid Model Features
- Fillets and Chamfers
- Production Drawings
- Production Drawings
- 3D Assemblies
- Smartmates and Mate Editing
- Advanced Mates and Exploded Views
- Solidworks Animation
- Assembly Motion Automated Tools

Amatrol's Computer Aided Design 1 and 2 Learning Systems (96-CAD1B and 96-CAD2B) show how to use and fully utilize SolidWorks Solid Modeling software. Solid modeling software is widely favored over other types of technical drawing software because of its versatility that allows it convey design concepts, stress testing, and verification of assemblies. Within Computer Aided Design 1, learners will study 2D sketching and 3D commands, extrusion commands used to remove material from a solid model, revolved commands, drawing plane creation, and creating 2D technical drawings from 3D models.

Computer Aided Design 2 builds on the 96-CAD1B's topics and skills by covering techniques used to make individual 3D models into product assemblies. More specifically, the 96-CAD2B covers assembly design approaches and the creation of 3D assemblies, exploded view drawings and animation which are beneficial in conveying design concepts, and assembly animations including adding motor motion, the animation wizard, and manual timeline animation methods.

Computer Aided Design 1 and 2 are part of Amatrol's Project-Based Learning Program. The Project Based Learning program was designed for high schools to teach valuable problem-solving, teamwork, and STEM skills and provide a strong base to build toward careers in engineering, manufacturing, and many more or as a stand-alone system.



Technical Data

Complete technical specifications available upon request.

Computer Aided Design 1

SolidWorks Software Licenses (4)
Multimedia Curriculum (M12273)
Instructor's Guide (C12273)
Installation Guide (D12273)
Student Reference Guide (H12273)

Additional Requirements

Microsoft Excel

Computer – One (1) per student: See requirements:
<http://www.amatrol.com/support/computer-requirements>

Additional Recommendations

Mobile Technology Workstation (82-610)

Computer Aided Design 2

Multimedia Curriculum (M12274)
Instructor's Guide (C12274)
Installation Guide (D12274)
Student Reference Guide (H12274)

Additional Requirements:

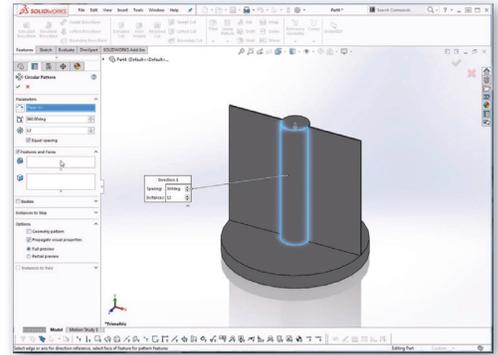
Computer Aided Design 1 Learning System

(96-CAD1)

Create a Multi-View Drawing from a 3D Model with the 96-CAD1B

Amatrol's Computer Aided Design 1 Learning System includes four SolidWorks software licenses. Learners will use SolidWorks to study a variety of topics like methods used to create solid model features, how to size and place a sketch entity, the steps used to create an extruded cut feature, and how to create a dimension feature. After studying these objectives, learners will be able to practice skills in SolidWorks. Some of these skills include: identifying features on a solid model; using the boss/base command to create a solid model; creating a fillet on a solid model; and creating a multi-view drawing from a 3D model.

If you already have enough SolidWorks licenses for your class, Amatrol also offers the Computer Aided Design 1 Learning System – Customer Supplied SolidWorks (96-CAD1BZ). This product excludes the SolidWorks software licenses and provides the multimedia curriculum, installation guide, instructor's guide, and student reference guide.

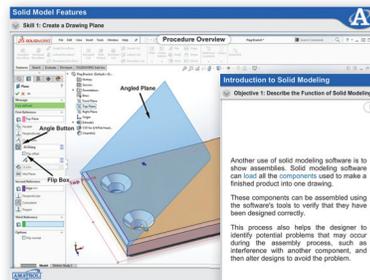


SolidWorks

Animate a 3D Assembly Using the Motor Tool

The Computer Aided Design 2 Learning System builds on to the skills and knowledge gained in the required 96-CAD1B. This learning system will covers topics like the function of a 3D assembly model, how to mate components using the symmetric advanced mate, and how to animate an exploded assembly. Learners will then use this knowledge to practice skills like using mates to create a 3D assembly, creating an exploded view of an assembly, and animating a 3D assembly using the motor tool.

Study Computer Aided Design with Interactive Quizzes and Exercises



Interactive Multimedia Curriculum

The included curriculum for the 96-CAD1B and 96-CAD2B are presented in a highly attractive interactive multimedia format. This curriculum can be used anywhere with a computer and is designed for both self-paced and classroom teaching methods. Amatrol's multimedia curriculum features all of the depth of topics and skills that Amatrol is known for, but adds 3D graphics, video, interactive quizzes and exercises, and voiceovers of the text.

Student Reference Guide

Sample copies of the Computer Aided Design 1 and Computer Aided Design 2 Student Reference Guides are also included with each system for your evaluation. Sourced from the curriculum, these Student Reference Guides take the entire series' technical content contained in the learning objectives and combines them into perfectly-bound books. Student Reference Guides supplement this course by providing a condensed, inexpensive reference tool that learners will find invaluable once they finish their training, making them the perfect course takeaway.



Certified ISO 9001:2015