

Alternative Energy - Wind | eLearning Course

Small Wind Turbine Generators - W20029-XB01AEN-E1

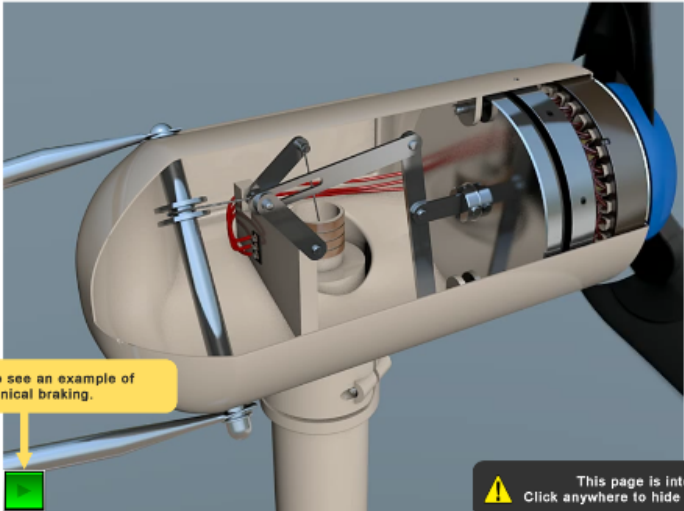
Objective 3: Describe the Operation of a Small Horizontal Axis Wind Turbine

Mechanical Braking

Many turbines use mechanical brakes, which can be driven by cables or hydraulics.

Generally, mechanical brakes are linked to the furling mechanism and are engaged from a winch located at the base of the tower.

Turning the winch first furls the turbine to slow it as much as possible. Continuing to turn the winch applies the mechanical brake to stop rotation completely.



This page is interactive. Click anywhere to hide the instructions.

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eLearning Course: M20029

Amatrol's Alternative Energy - Wind eLearning course (M20029) teaches aspiring wind energy technicians the knowledge and skills they need to prepare for portions of the small wind certifications offered by such certifying groups as SWCC ([Small Wind Certification Council](#)) and ETA ([Electronics Technicians Association](#)). The demand for qualified wind technicians continues to rise, as consumers and businesses turn to wind energy in their communities.

This course teaches small wind turbine operation and safety, which covers DC, AC, and hybrid wind/solar systems.

Teach Small Wind Turbine Components and System Operation

Small Wind Turbine Components

Amatrol's Alternative Energy - Wind eLearning course teaches learners the components of a small wind turbine system. Cutaways, schematics, animations, and more are used to show the construction and function of components such as alternators, generators, batteries, charge controllers, and inverters.

System Operation and Calculations

Beyond learning a component's function, users will also learn how each component operates within a wind turbine system and apply their knowledge in online skill practice. For example, learners will use provided mathematical formulas to calculate battery capacity and discharge time, inverter efficiency, and more.

Interactive eLearning

Highly-Interactive Multimedia Format Appeals to All Learning Styles

Amatrol's curriculum features a highly-interactive, multimedia format that includes stunning 3D graphics and videos, voiceovers of all text, and interactive quizzes and exercises designed to appeal to learners with different learning styles. The wind energy training curriculum provides interactions like these to teach learners about small wind turbines, battery banks, and wind turbine inverters and charge controllers.

Anytime, Anywhere Access Promotes Self-Paced Learning

In today's fast-paced, technology-driven world, it's more important than ever to extend the reach of industrial skill training beyond the borders of traditional classrooms. Amatrol's eLearning meets the challenge for flexibility by offering in-depth, comprehensive technical skills training via an intuitive, easy-to-use web-based Learning Management System (LMS).

With anytime, anywhere online access, Amatrol's eLearning allows learners to set their own pace at home, on the job, in a traditional class setting, or a blended approach of these options.

Additional Info

Requires:

- Computer ([see Computer Requirements](#))

Options:

- Alternative Energy Learning System - Wind (850-AEW)
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Address

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