

Running Power Deep

by Mark Passerby

I became interested in the idea of running power deep into a cave after receiving an email from Tom Barton about using a device called a Variac.



The unit above for instance has a 240v input with a 0-280v output. Thus using a formula {drill amps} x {wire loss in ohms} x {mFeet of wire} x 2{wires}= voltage loss
For example running a Hilti TE-14 some 1,250' in cave on 12/2 romex would require 5.65 amps x 1.588(12 ga. wire) x 1.25 kFeet x 2 = 22.43 volts lost would require using the unit above with an input of 240v. The Variac dial would then set to an output of 140volts. The end of the wire would now be sent the necessary juice to run the full powered TE-14 for hours! The above unit can be seen at: Also watch Ebay for used units.

http://variac.com/staco_Variable_Transformer_Map.htm

Picking a Generator

After much searching our choice is the Generac 5500 Wheelhouse with 14" wheels for easy mobility and 12 hours on one tank of gas with low oil protection. Available at most Home Depots. \$650

