

# CyberNotes

A collection of industry news from the Internet

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## Welding Technology Information

**Pro-Fusion, Inc.** Although this Web site provides plenty of information about the company's line of tungsten electrodes, electrode grinders and plasma arc welding torches, welding technology information and how to apply it to a variety of welding applications makes up more than 75% of the site. The site contains three major sections: products, tungsten electrode data and welding application data. Other parts of the site offer information about the company, provide a way to contact it via e-mail, link to other welding related sites and detail some free offers such as how to obtain literature, copies of welding-related magazine articles and free samples of pre-ground tungsten electrodes.

The Tungsten Data section includes tips sheets that provide some general rules on how to identify amperage ratings for a variety of grind angles and tip diameters and outline proper grinding and cutting techniques for tungsten electrode preparation. Besides the guidelines from the AWS A5.12 standard, the company recommends the following: "1) Always use a dedicated tungsten grinder (to avoid contamination of the electrode). 2) Grind longitudinally and concentrically so that the lines on the ground surface move in the same direction as the electrode and the electrode has no flat spots. 3) Since tungsten is a very hard material, grinding wheels should be made of diamond or borazon. 4) electrodes should be cut using a cutting wheel where possible. Notching and breaking or using pliers to snap electrodes can cause splintering in the electrode that is difficult to see and can create a weld defect."

The Welding Application Data section offers information on the fundamentals of welding parameter development including welding physics, weld current, arc length, weld speed and the benefits of arc pulsation. It also includes a troubleshooting guide for arc welding systems and information on how to analyze a welding application for automation. This includes details on the benefits of automatic welding, how to plan for system automation, strategies for implementing an automated welding



project and a table giving a sample calculation for return on investment based on equipment and labor costs.

<http://www.pro-fusiononline.com>

## Resistance Welding Products

**Tuffaloy Products, Inc.** This site includes information on the company's complete line of resistance welding products, including electrodes, welding tip holders, nut and stud welding products, multi-tip equipment and adapters, weld force gauges, alloys and welding accessories. Each product listing offers technical specifications and dimensional data and drawings. The site also includes data for improved resistance welding such as recommended uses for the different classes of resistance welding alloys and welding tips. It lists the following electrode life savers: "1) Use standard electrodes with ejector, self-adjusting tube, water-cooled electrode holders wherever possible. Avoid special or irregular shapes for lowest cost. 2) Use ample cold cooling water as close as practical to the welding contact surface, properly circulated at a minimum 30 lb/in.<sup>2</sup> pressure, and supplied at a rate of at least 1 1/2 gal/min. 3) Be sure to select the proper type and size of electrode, taking into consideration electrode pressure, contact area of electrode, gauge and nature of material to be welded. 4) Good welds depend upon properly maintained electrodes to assure an accurate surface contact. Keep tapers clean and dress electrode faces with lathe, emery

paddle or fine file. Use castor oil or graphite grease to facilitate tip removal, and avoid application of insulators such as white lead and other materials."

The site also provides a means of contacting the company through the Internet for general information and technical assistance.

<http://www.tuffaloy.com>

## Used Welding Equipment and Replacement Parts

**R. J. Kates Co.** Users can purchase used welding equipment and factory direct replacement parts for most major brands of welding equipment over the Internet through this site. Used equipment shoppers click onto a category, i.e., one of the welding processes, and it allows them to see actual inventory. This includes prices, descriptions, pictures of the equipment and ordering information. To purchase a replacement part, the shopper types in a description of the part, model number and serial number. The company uses that information to find the correct part numbers. The site also includes information on the company, which is a San Diego-based welding repair and used equipment shop. Browsers can also ask for technical assistance via the site.

<http://www.rjkates.com>

## Storage Reels for Hoses, Cords and Cables

**Coxreels.** The highlight of this Web site is the company's 20-page on-line catalog, which is easily navigated by pointing and clicking. The catalog includes "how to" ordering information that helps customers determine their reel size requirements. The site also includes a brief company profile, including its mission and quality statements, an interactive request form for custom sales quote request and a quality page that shows all the components of one of the company's host reels.

<http://www.coxreels.com>