

INDUSTRIAL DEVELOPMENT

Special Furnace for Drying

The USSR Exhibition of National Economic Achievements Gold Medal has been awarded for a new and highly effective method of electrode calcination. This technology reduces drying time by a factor of 5 to 8 and significantly lowers energy consumption.

During construction of the most recent blast furnace for the Cherepovets Metallurgical Combine, plans called for erecting over 130,000 tonnes of metal structures fabricated from alloyed steels which may react very 'capriciously' to welding. To ensure high-quality welded joints, the first thing needed was well-calcinated electrodes.

A number of different types of electrical furnaces have been developed for drying electrodes, but, in this case, none of the furnaces satisfied the welders as to the quality of the calcination.

Help finally arrived from specialists of the Combined Department of Welding of VNIPI Promstalkingonstruksiya (All-Union Scientific Research and Planning Institute for the Main Administration of Steel Structural Parts Manufacture) of Minmontazhspetsstroi SSSR (USSR Ministry of Installation and Special Construction). Two of these specialists, V. Gorbunov and A. Basukinskii, developed a fundamentally new technology, and then designed and built a special furnace that functions on the principle of aerodynamic heating and has automatic temperature control. This furnace made it possible to obtain the proper electrode condition in