

High-Production Technologies for Extraction Neon and Helium from Ambient Air

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Neon is widely used in the gaseous and liquid forms in many modern fields such as power engineering, space engineering and electronics. The world neon consumption rises rapidly and it has reached 250,000 m³/year. A group of scientists and engineers has designed a complex of equipment for producing neon with extraction of high pure helium as a by-product. The production neon purity is not lower than 99.999 %. The technological chain of neon production is considered and the optimal concentration of intermediate product (Ne+He+N₂+H₂) is determined. The set of equipment for different stages of neon production is described as well as the equipment for helium purification from neon. The results of the industrial operation and typical quality certificates of products are presented.