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The tutorial highlights the operating principle, structural modifications, general and individual solutions applied for Roots vacuum pumps, as well as advantages and disadvantages of the latter. Pumping characteristics of the pumps and units by major producers of Roots machines are provided.

It is intended for use by bachelor's degree students of the course 15.04.02 "Technological machines and equipment", specialization "Vacuum and compressor equipment of physical machines", and master's degree students of the curricula "Designing and operation of vacuum processing equipment" and "Vacuum engineering and technology". The book will be useful for professors, Ph.D. fellows and students engaged in the training programs "Technological machines and equipment", "Applied physics", "Nuclear engineering and thermal physics", "Nanoengineering".

The tutorial is prepared at the Department of "Vacuum and compressor equipment of physical machines".

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