

# DETERMINATION OF POLYTROPIC INDICATORS OF SCHEMATIZED WORKING PROCESSES OF AIR PISTON SLOW-MOVING LONG-STROKE COMPRESSOR STAGES

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**Experimental studies of low-speed long-stroke compressor stages using the example of working fluid — air made it possible to determine such parameters of a schematized working process as polytropes of compression and reverse expansion. These parameters, firstly, can be used in engineering methods of calculation or first-level models, and secondly, they will make it possible to refine the existing methodology for calculating piston stages in terms of determining the volume factor. Based on the analysis, recommendations are given on determination of equivalent polytropes and polytropes of finite parameters. The values obtained are significantly different from those currently accepted for high-speed compressor circuits.**

**Keywords: low-speed long-stroke stage, polytropic indicator, experimental studies, schematization of the working process, indicator diagram.**

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