

Process Know How and the effects on Product Design and Engineering

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In the past, the main focus with the design, engineering of compressor components and the key wear parts was sitting within rather narrow and set boundaries around the actual machine, neglecting the peripheral process environment, acting upon the compressor. However, the plant environment as a whole yields the most critical effects like catalyst debris, chemical reactions or liquids influencing the compressors reliability and plant availability. Based on the shared inputs of process experts in refineries, chemical industries etc, together with in house applications know-how. A direct link between the overall process information, the product specifications and the compressor operation has been generated and included in daily engineering standards. As an outcome of this holistic approach different projects, not only carried out to optimize the compressor and plant availability, but also to increase overall process efficiency are described. The projects were related to the re-design and optimization of compressor cylinders and wear parts for HDPE and LDPE processes, and to optimize a RDS process using a special control scheme and hardware.

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