

ECONOMISING THE ENGINEERING
COSTS OF PACKAGING RECIPROCATING COMPRESSORS TO DIVERSE CUSTOMER
SPECIFICATIONS: SOME METHODS AND STRATEGIES .

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One of the major challenges faced today by companies engaged in the business of engineering and packaging of reciprocating compressors for the petrochemical and chemical industries is the extremely large variety of engineering specifications that have to be considered. Over the past two decades or so the requirements stipulated by major Operating Companies and leading Engineering & Contracting- so called EPC- Companies, in their purchase inquiry specifications have become increasingly more diverse, complex and demanding. This trend is not expected to slow down or change.

Conformity to API 618, and other similar or related specifications is often only the starting statement. Major Operating Companies such as Exxon, Shell, Petrobras, to name just a few, include a large number of modifications and more stringent requirements to existing API requirements. EPC Companies have extremely elaborate specifications that cover every activity from the design of auxiliary equipment to record keeping of correspondence. Inquiry Documents can typically be 2-3" thick.

Review, Processing and economic Management of these Specifications represents a significant cost element for companies whose primary business is the engineering and packaging of tailored compressor units. Failure to find effective solutions to these challenges can lead to substantial cost overruns, and/or loss of business. Yet the majority of these businesses- especially small and medium sized enterprises cannot generally afford the resources that are needed for this. The paper based on the writer's 30+ years of hand on experience in dealing with these problems, discusses different empirical approaches and experience based short cuts that can enable an engineering packaging businesses to develop a systematic cost effective approach for estimating the cost of packaged units with a high degree of accuracy, as well as for subsequent engineering and contract execution.