

# **COOPER-BESSEMER PIPELINE RERATES**

By George Donald, Technical Director - Centrifugal Compressors / Steve Kaulius, Director - Centrifugal Compressors New Business

RMS had the opportunity to work with a pipeline customer to rerate three of their Cooper-Bessemer RCB-14 single stage overhung centrifugal compressors as part of our customer's planned pipeline expansion project. RMS worked with the customer and a partner millwright service to plan and execute this compressor rerate project that helped the customer reach their new design performance levels. RMS' engineers worked directly with the customer to engineer new impellers, manage the on-site testing, and commission these newly rerated compressors.

The customer required the rerated compressors to deliver more head to increase the output of their natural gas pipeline. These specific customer requirements were used by RMS engineers who conducted the design work in RMS' Bethlehem location. The RMS Engineering team got to work designing new compressor wheels and components required to deliver the performance curves outlined by the customer.



Figure 1

Thanks to decades of experience and RMS' ability to collaborate with industry-leading consultants, the team was able to redesign the compressors to meet the customer's required performance metrics. The rerated compressors produce some of the highest head of any compressor wheel built by RMS and perfectly matched this specific application.

Upon completion of the new wheels and components for the rerated Cooper-Bessemer RCB-14 single stage overhung centrifugal compressors, the RMS Engineering team was on-site to oversee the installation, testing, and final commissioning of these new compressors. RMS' ability to test compressors on-site allows the team to validate compressor performance. All three compressors exhibited acceptable performance per the new performance curves.



Figure 2

RMS immediately started work with the customer on a subsequent operation at another pipeline station. This second compressor rerate operation is currently underway and RMS looks forward to delivering another successful rerate for the customer.

# For more information:

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