

EC-OD™ Turboexpander Off-Design Software



- ***Software extension for use with AspenTech's HYSYS® simulation software***
- ***Rigorously calculates design and off-design performance for expander compressors within the simulation's operating environment***
- ***For new plan designs and debottlenecks***
- ***Save time while improving the accuracy of plant simulations***
- ***Now available for licensing***

What is EC-OD™

EC-OD is a Windows® based software module for the Aspen HYSYS® process simulator which replicates the expander compressor within the process calculations. The development of EC-OD™ has combined the extensive experience of River City Engineering (RCE) and Mafi-Trench Company (MTC) in the use of expander compressors in a wide range of processes.



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Why Use EC-OD™?

Without EC-OD™, the Aspen HYSYS® expander and compressor unit operations are capable of equalizing the power between the expander and compressor, but cannot automatically determine the Off-Design performance. This Off-Design performance (at points other than the design point) depends on the expander compressor operating speed, which results from the power balance. The user must determine the expander and compressor performance outside of Aspen HYSYS®, and manually enter these results into the simulation model. The process must be interrupted to perform this manual interaction. With EC-OD™ this Off-Design performance iteration is completed automatically within the operating environment of the Aspen HYSYS® simulation.

Modeling Existing Expander Compressors

When the process includes an existing expander compressor, EC-OD™ will automatically determine the Off-Design speed, expander and compressor

efficiencies, guide vane position, and compressor boost. These are determined based on as-built vendor data, which will be embedded in the Aspen HYSYS® simulation.

Modeling New Plants

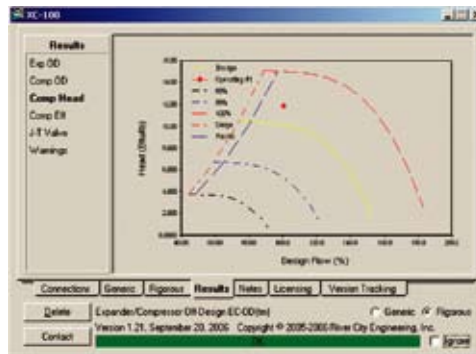
This unit operation extension software can also be used in general simulation of new plants by balancing the power between the expander and compressor automatically. In this mode, the user will define a design point for the expander/compressor. EC-OD™ then evaluates Off-Design cases based on typical expander and compressor performance curves.



More About EC-OD™

EC-OD™ can be acquired by executing a software licensing agreement with RCE. Technical support will be provided by the engineering staff of RCE and MTC as appropriate. For further information, please view the EC-OD™ demonstration video located on the website: www.mafi-trench.com.

For additional information please contact Mafi-Trench Company Marketing Department at +1-805-928-5757



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