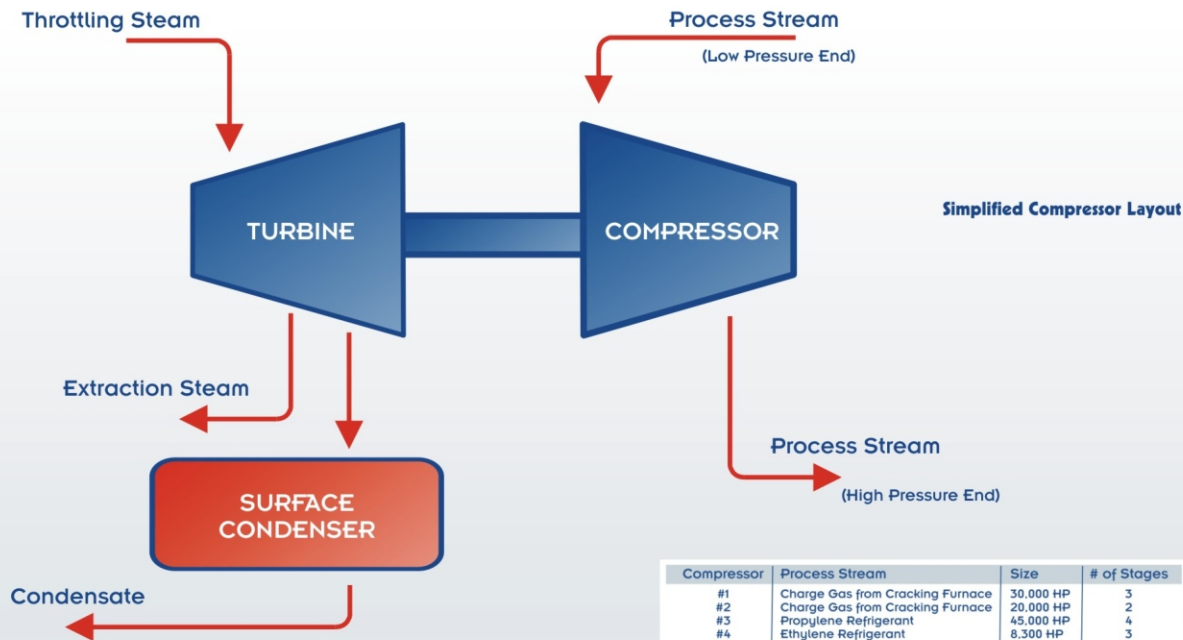


# Compressor Monitoring Program in the Ethylene Unit



- ▶ In 2001, the Cedar Bayou Plant launched a comprehensive monitoring program for its two charge gas compressors and two refrigeration compressors.
- ▶ The process monitoring program uses existing resources and software to
  - Increase compressor efficiency by lowering turbine steam usage.
  - Increase compressor reliability by detecting problems early.
- ▶ The program continually gathers process data and calculates variables such as heat transfer coefficients for access by more than 300 individual PCs throughout the plant.
- ▶ The program has supported improvements such as on-line cleaning of surface condensers and installation of a “jump over,” which provides colder, high-pressure water to the condensers to improve performance and reduce fouling.

## Benefits

- ▶ Increases compressor efficiency (saves up to \$180,000 per year for every 1% increase in efficiency).
- ▶ Requires no capital funding (uses existing plant resources and software).
- ▶ Saved approximately \$5,000,000 in throughput by prompting on-line cleaning of the surface condensers.
- ▶ Reduces frequency of circumstantial unit shut down.



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