

Corporate Profile

CONTROL SOLUTIONS DESIGNED TO FIT RIGHT IN

Maximizing your plant's efficiency with control systems built to fit your needs – *exactly*.

Energy Control Technologies

Energy Control Technologies' (ECT) mission is to deliver customer-driven control solutions that maximize production and efficiency of energy processes and machinery. ECT engineers high value control solutions for compressors, steam and gas turbines. *(historically available only in proprietary hardware)* and delivers them in an open platform using leading automation platforms including Rockwell Automation, Siemens SIMATIC S7, HIMA and Honeywell.

Experience

ECT was formed in 2008 by industry experts with extensive experience in marketing, designing, engineering, and commissioning hundreds of projects on various applications from standard to the most complex applications in the world.

For detailed information refer to ECT's reference list and organization chart and experience available upon request.

Industries

ECT provides control solutions and has experience with the following applications:

Refineries

- FCCU and RCCU Air Blowers
- Wet Gas Compressors
- Hydrogen Recycle Compressors
- Lube Oil Refrigeration Compressors

Petrochemical

- Cracked Gas Compressors
- Ethylene Refrigeration Compressors
- Propylene Refrigeration Compressors
- PTA Compressors

Fertilizer Plants

- Process Air Compressors
- SynGas Compressors
- Ammonia Refrigeration Compressors
- CO2 Compressors

Gas Production

- Reinjection Compressors
- Sales Gas Compressors
- Turboexpanders

LNG

- Mixed Refrigerant Compressors
- Refrigeration Compressors
- Boil-off Compressors

Industrial

- Plant Air Compressors
- Steam Turbine Generators
- Gas Turbine Generators
- Steel Mill Blast Furnace Air Blowers



PRODUCT PORTFOLIO

ECT solutions are delivered on Rockwell Automation, Siemens SIMATIC S7, HIMA and Honeywell hardware and software platforms as proven and tested TurboPAC® software applications. ECT ensures trouble-free operation in the field with validation by multiple OEMs and all Major Oil & Gas End Users. Our TurboPAC® software applications for:

Compressors

- SurgePAC® - Compressor Surge Control with special surge control algorithms:
  - Surge Adapter®
  - Surge Preventer®
  - Surge Stopper®
- LoadPAC® - Compressor Performance Control
  - With Interaction Control®
- NetPAC® - Compressor Network Master Performance Control
  - With "Equal distance" loadsharing

Steam Turbines

- SpeedPAC® - Speed Control
- API 670 Compliant Electronic Overspeed Trip System

Gas Turbines

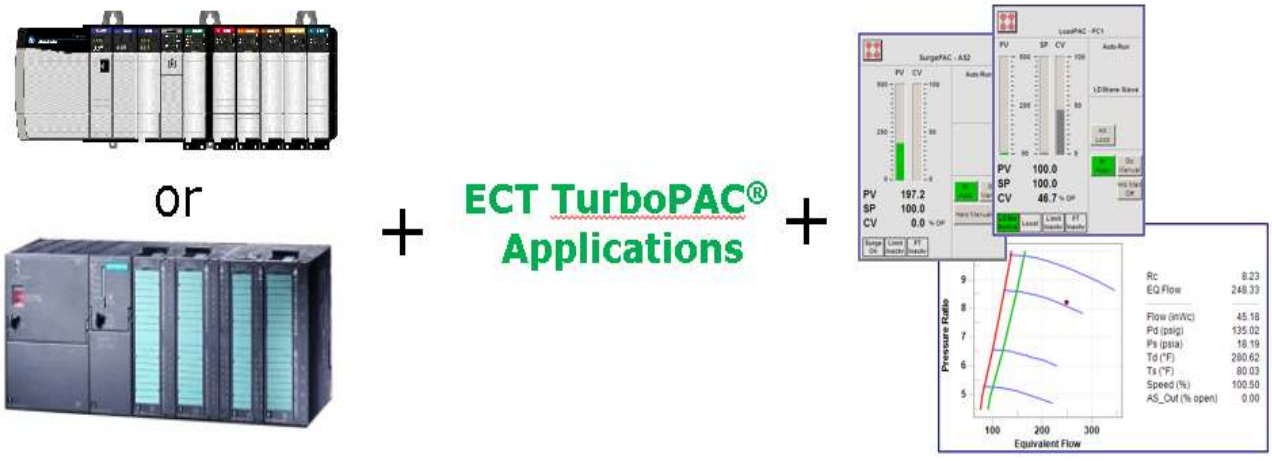
- FuelPAC® - Fuel Control

Human Machine Interfaces

- Turbo PACView®

Compressor Process Simulation

- SimPAC™



ECT ADVANTAGES:

- KNOWN HARDWARE (NO BLACK BOX)
- SUPERIOR TURBOMACHINERY CONTROLS TECHNOLOGY
- PROJECT EXECUTION FLEXIBILITY
- PROJECT SUPPORT FLEXIBILITY
- COMPLETE LIFE-CYCLE COST SAVINGS

Intellectual Property

ECT's has proven applications technology supported by the following patents:

- METHOD FOR PREVENTING SURGE IN A DYNAMIC COMPRESSOR USING ADAPTIVE PREVENTER CONTROL SYSTEM AND ADAPTIVE SAFETY MARGIN
- FAULT-TOLERANT ANALOG OUTPUTS FOR TURBOCOMPRESSORS

And these pending patents:

- METHOD OF ANTI-SURGE PROTECTION FOR A DYNAMIC COMPRESSOR USING SURGE PARAMETER
- SUPERVISORY AND LOAD DISTRIBUTION CONTROL FOR DYNAMIC COMPRESSOR NETWORK PROCESS

ECT provides full field service support from system checkout to commissioning including onsite surge testing and tuning of your system. ECT also has the capability to provide remote field support using the latest technology.



Put ECT to Work for You

Whether it's a site survey to calculate an ROI for a retrofit or to help you with important decisions on piping layout and vessel locations on a new project, ECT is ready to support you on your next turbomachinery control system project.



Contact ECT today at:

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