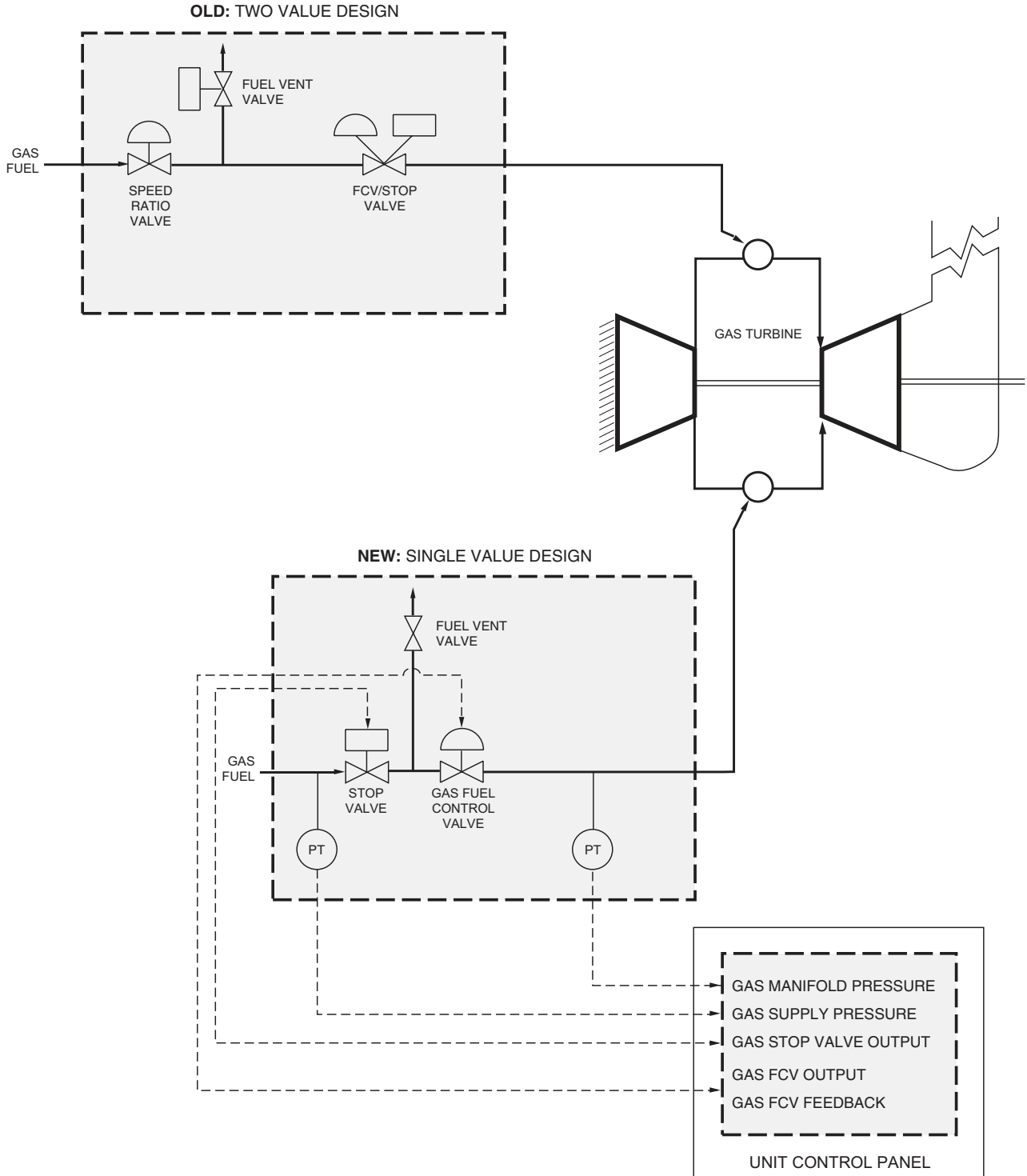


GAS TURBINE FUEL SYSTEM UPGRADE

SINGLE VALVE DESIGN FOR FRAME UNITS



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Simplified schematic showing principal parts of the Petrotech Gas Turbine Fuel System Upgrade.



APPLICATION

The Gas Turbine Fuel System Upgrade with Petrotech's single valve design for frame units provides a compact, robust and reliable system to industrial gas turbines.

ADVANTAGES

Maintenance:

- The single-valve design uses fewer moving parts than traditional two-valve designs, and the single valve can be an off the shelf valve, considerably reducing spares and maintenance costs.
- Items available off the shelf have original manufacturer's part numbers, rather than Petrotech part numbers
- Periodic recalibration is not necessary as is required with pneumatic and hydraulic actuators and positioners.
- Single valve systems are less complex and more compact than 2-valve systems, thus easier to maintain and troubleshoot.

No hydraulics possibility:

- If an electro-mechanical actuated (EMA) gas fuel valve is used, all hydraulic and pneumatic requirements are eliminated. However, the system will function with most hydraulic fuel control valves.

Simple Installation:

- The automated valve assembly can be delivered as a packaged, tested skid for mounting on or adjacent to the turbine skid base or can be custom designed per customer requirements. The control logic installs either in an existing PLC-based unit control panel such as Petrotech's control panel, or can be a separate control unit.

GAS TURBINE FUEL SYSTEM UPGRADE SCOPE OF SUPPLY

The gas turbine Fuel Single Valve System typically includes the following:

- Electro-mechanical gas fuel control valve.
- Electro-pneumatic gas fuel stop valve(s).
- Electric gas fuel vent valve.
- Fuel regulator.
- One (1) manifold pressure transmitter, Rosemount.
- One (1) inlet pressure transmitter, Rosemount.
- Miscellaneous hand valves and gages.
- Gas Application Control Package software for specified microprocessor hardware. This software integrates seamlessly into Petrotech gas turbine unit control panels, and is usually adaptable to other PLC-based control systems.
- PLC, if required.
- Project-specific engineering, installation assistance, start-up and commissioning, documentation, and training.

Certain items typically furnished by the customer, but can be furnished by Petrotech:

- Gas and liquid manifolds, fuel nozzles, pigtails, check valves, miscellaneous installation piping and labor.
- Electrical installation.

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