

# POWER GENERATION OPTIMIZED (PGO) SERVO VALVE

Improved reliability and performance in GE Gas and Steam Turbines



## REDUCING THE RISK OF UNPLANNED OUTAGES

In power generation facilities, unplanned outages can not only undermine reliability of available power capacity, it can also result in costly emergency repairs or reduced life of system components due to a sudden system stoppage. Maintenance managers and instrument technicians need to stay in compliance with equipment specifications, safety regulations, and local code requirements to avoid disruptions to their power supply. In turbine designs, servo valves are critical operation components, often at a single-point failure position with no opportunity for redundant backup. This creates an essential need for highly reliable valves that require minimal maintenance without sacrificing turbine performance.

## YOUR EXPERIENCED PROVIDER OF HIGH PERFORMANCE SERVO VALVES AND ACTUATORS

For decades, Moog has served as a leading supplier of servo valves and actuators for GE gas and steam turbines as well as other machine manufacturers. Our team of engineers is dedicated to continual innovations and product improvements to solve concerns raised through customer feedback. One unique aspect of GE industrial frame turbines is the use of a single circuit for fluid power control, cooling and lubrication. Power plant users have reported that the hydraulic fluid cleanliness desired for optimum servo control may be difficult to achieve on a consistent basis under these conditions.

In response to consistency and reliability challenges faced by customers and a solution request initiated by GE, Moog engineers have developed a new Power Generation Optimized (PGO) option for our G771K and G772K series of intrinsically safe servo valves. This heavy duty valve option offers increased reliability at a competitive price, all while maintaining Moog's exceptional precision and quality that leading power generation customers have relied on. Look on your actuators for the Moog valve with the red cap to know that you're power generation optimized!



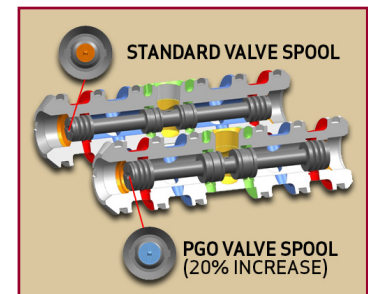
For more information visit our website at:  
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Moog Power Generation PGO Valve  
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## PGO VALVE FEATURES

- High dynamic performance that exceeds GE213A6077 specifications
- In the pilot stage torque motor, benefit from reduced particulate contamination blockages with:
  - a 42% increase in the curtain area between the nozzle and the flapper
  - a 40% increase in nozzle size to ensure consistent pressure
- In the main stage, the spool has a 20% diameter increase and a 44% chip shear force increase to overcome varnishing and stiction for longer operating capacity



## THE OPTIMAL UPGRADE FOR GE POWER GENERATION TURBINES

- “Drop-in” replacement for Moog G771K/G772K servo valves with no changes to conduit or manifold mounting
- Lower cost alternative to competing heavy duty servo valve technologies
- Relaxed oil quality requirements to ISO 4406 18/16/13 cleanliness levels allows for reduced oil conditioning via expensive filtration elements
- Available as a new valve purchase or an upgrade during a actuator/valve repair or maintenance order

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