

GE Oil & Gas

Via Felice Matteucci, 2
50127 Florence - Italy
T +39 055 423211
F +39 055 4232800
Nuovo Pignone S.p.A.

www.ge.com/oilandgas

GE Oil & Gas

Control Valves

for Critical Applications



GE imagination at work

COMK/MARK 997/II - Designed by: Studio Tre Fasi
Printed by: Sagraf -12-2009
©2009 Nuovo Pignone S.p.A. All Rights Reserved



Complete System & Service Solutions

GE Oil & Gas is well regarded as a global leader in oil and gas and power generation applications. Through expertise accumulated during more than 100 years of innovation, we have continued to define the state-of-the-art in valve technology. GE Oil & Gas combines application knowledge, engineering and manufacturing expertise, GE's renown Research and Development Centers, and the rigor of GE Six Sigma Quality to provide technologically advanced valves that meet the needs of the most critical applications.

Technical features of GE Oil & Gas control valves:

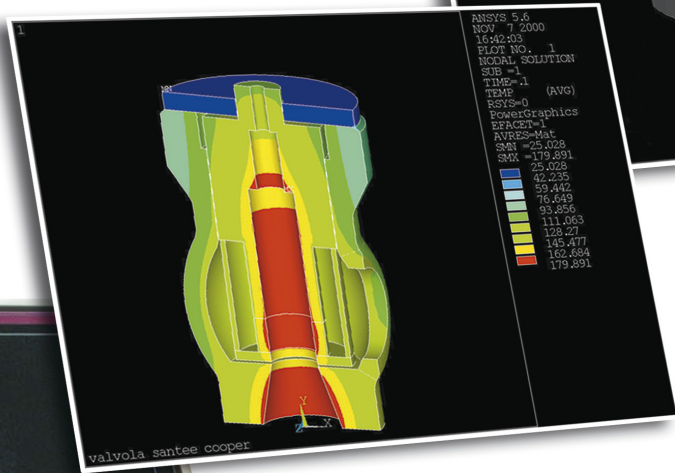
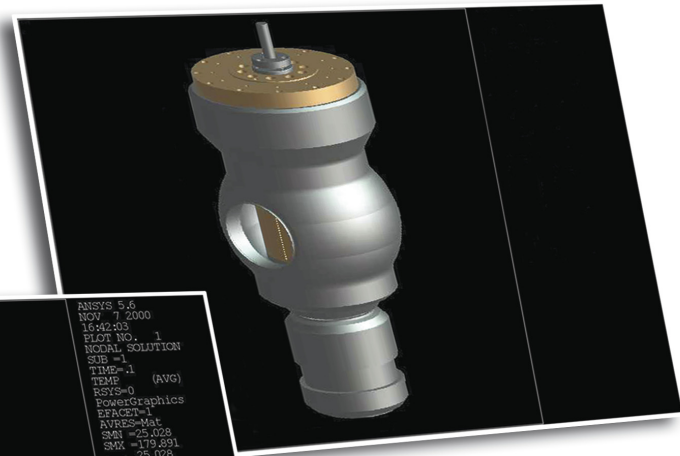
- Size range: 1" to 44" std
- Rating class: 150# - 2500#; API 10,000 - 15,000
- Globe and angle valves
- Cast and forged body
- Temperature range: -196°C to 570°C

Why use GE Oil & Gas control valves?

GE Oil & Gas is a leading global supplier of compressors, turbines, pumps and valves for refineries, petrochemical plants, power generation facilities and compression and pumping stations.

The benefits that GE Oil & Gas offers are:

- Single source responsibility
- Optimized system performance through product synergy
- Advanced technical services
- Project management interface
- Global assistance for commissioning and start-up



ANSYS thermo-mechanical finite element analysis is employed by our engineers to account for the stress and temperature distributions in the valve design and to verify compliance with the specifications of the application.

Control valves for critical applications

GE Oil & Gas has developed a complete range of control valves for critical applications based on over 100 years of experience in the oil and gas, petrochemical and power generation industries.

Power Plants

- Pump recirculation control valves
- Heater by-pass valves
- Fuel gas shut-off and control valves
- Steam bleeding control valves
- Flash tank level/pressure control valves
- Condenser control valves
- HRSG HP drum start-up valves
- HP by-pass pressure control valves
- Process steam header control valves
- HP header vent valves

Compressor Protection

- Anti-surge control valves
- Hot by-pass valves
- Large size control valves
- High pressure API control valves

Harsh Environments

- Low-emissions control valves
- H₂S high concentration control valves

Oil Pipeline

- Discharge pressure control valves

Urea Plants

- Reactor level control valves
- Urea expansion control valves
- Carbamate recycle valves

Fertilizer Plants

- Control valves for CO₂, syngas, ammonia, natural gas and air services

Cryogenic Applications

LNG Plants

- Compressor antisurge valves
- Gas-to-flare valves
- Pressure letdown valves
- By-pass valves
- Vent valves

Desalination Plants

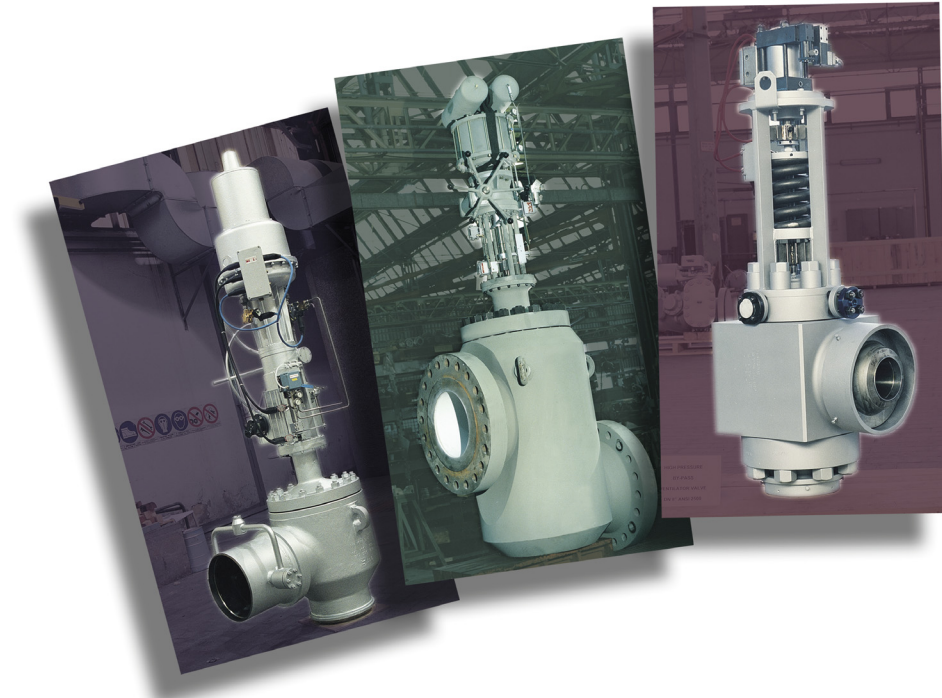
Global Services

Service Policy

GE Oil & Gas guarantees complete service and maintenance assistance all over the world. Our Global Services include: technical assistance during on-site erection; commissioning and start-up; training; spare parts availability; high-tech repairs; Conversions Modifications & Upgrades (CM&Us) and retrofits of existing units; Contractual Service Agreements (CSAs), and extended warranties.

CM&Us (Conversions Modifications and Upgrades)

GE Oil & Gas designs equipment for long-term operation. New technology developed for advanced valves can frequently be applied to the operating fleet of existing units. In addition, customized solutions can be engineered to meet specific customer requirements. This allows us to optimize valve performance over the life cycle.



The resulting benefits are increased performance and improved economics achieved through:

- Gains in output efficiency
- Improved reliability
- Reduced inspection intervals
- Reduced maintenance cost
- Compliance with environmental regulations

Benefits:

- Improved valve performance using GE Oil & Gas special trim
- Improved tightness class
- Improved operating range
- Reduced valve maintenance costs
- Environmental compliance through reduction of fugitive emissions