



# Egyptian Power Stations to receive high pressure valves

*It will be the world's biggest gas-fired combined-cycle power plant complex: the currently built three power plants Beni Suef, Burullus and New Capital located 110km south of Cairo, Egypt. Spread across an area of 500,000m<sup>2</sup>, the plants will be capable of providing electricity to approximately 15 million Egyptians. The complex is part of the Egypt Megaproject, which will involve the development of power generation facilities with a combined capacity of 16.4GW and is expected to boost the country's power generation by approximately 50 percent.*

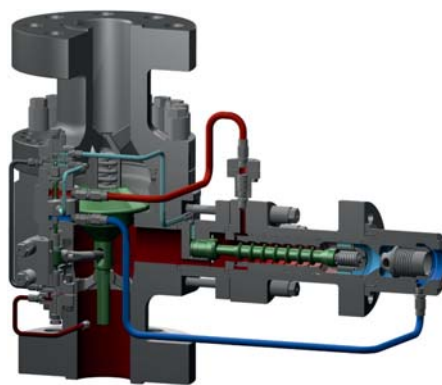


*The high pressure test stand at Schroeder Valves can generate a maximum pressure of 400 bar and simulate fluctuating load conditions.*

Among the suppliers is the German specialist for protective pump fittings Schroeder Valves. The company has recently developed an automatic recirculation valve suited for the high and maximum pressure range as well as for situations involving highly fluctuating pump loads and long periods of operation under extreme partial load conditions - exactly the features needed for the protection of the pumps in the Egyptian complex. In the so-called combined cycle power stations waste heat exhausted by gas turbines is recovered to generate steam. This steam then drives a steam turbine and the linked generators. Schroeder Valves will deliver 36 valves of the new type to protect the power stations' 36 boiler feed pumps. The boiler feed pumps cover flow rates of up to 500 cubic metres per hour and heads of 2,000 metres and above. These pump sets have an electrical drive rating of 3,550 kW and weigh 18 tonnes each. Shipment of the first few units is scheduled to start at the end of 2016. The Schroeder High Pressure Valve SHP is an automatic recirculation valve which was developed to protect pumps and equipment from damage that can occur due to the flow rate falling below the permissible minimum. Thus the SHP is

suited primarily for customers in the field of power plant and plant construction and the offshore industry. The SHP builds on existing Schroeder Valves technology. The company already has decades of operational experience with almost all of the effective principles and assemblies used. As such the SHP can be considered 'Proven Equipment'. The individual system components have simply been modified and innovatively combined, as such that they enhance the dependable and low-wear area of application of the existing technology to

meet the increased requirements. Thus, the new SHP-series automatic recirculation valve enables and promotes the energy-efficient operation of modern power plant facilities. "The SHP takes the general development of higher pressures and temperatures and the increased energy-efficiency requirements into account," explained Axel Mücher, managing partner at Schroeder Valves. "Alongside this, the changing way in which plants work was also taken into consideration in the development of the SHP. Special load sequence power plants, such as modern combined cycle power plants and coal-fired power plants, are operated at partial load for a large proportion of their operating time, on account of the increasing high proportion of regenerative energy generation and highly fluctuating load conditions." Schroeder Valves has each valve undergo a 100% pressure and functionality testing prior to delivery. To ensure this also with the SHP, the company added to their already extensive flow test center a high pressure test stand which can generate a maximum pressure of 400 bar and simulate fluctuating load conditions. Thus the highest quality and safety is ensured for the pumps in the Egyptian power plants.



*The Schroeder High Pressure Valve (SHP) is the ideal fitting for high pressure applications, low-wear operation and highly fluctuating load conditions.*