



QUICK-CLOSING CYLINDERS IN MECHANICAL AND PLANT ENGINEERING

SAFE SHUTDOWN OF TURBINES

With the HAZ 148 quick-closing cylinder developed and patented by Schneider Servohydraulics, the machine and plant manufacturer has obtained an important component that is required, for example, when operating steam turbines in order to effectively prevent system-damaging speeds.

As a specialist in electrohydraulic servo valves, Schneider Servohydraulics develops integrated solutions for a wide range of servo technology applications in mechanical engineering. The focus is on

on the power density of the products and applications. By using the valves and cylinders in combination with electronic control components, maximum safety and accuracy can be achieved.

When operating steam turbines in power plants, the patented HAZ 148 quick-closing cylinder from Schneider Servohydraulics minimizes risk and increases availability at the same time.

SAFETY HAS TOP PRIORITY

Machine protection also always means occupational safety for the machine operator. The following applies to both: effective and reliable protection saves costs and prevents consequential damage. For this reason, fail-safe functions are activated in machines and systems in the event that the normal control and safe operation of the machine fails.

operation no longer work. A loss of production and Accidents at work cause considerable costs and can

Depending on the extent, this can also cause lasting damage to the image of the plant operator. The HAZ 148 quick-closing cylinder ensures the safe shutdown of turbines within a very short time in the event of a quick shutdown, so that people and machinery are not harmed.

LIGHTWEIGHT CONSTRUCTION PREVENTS CONNECTION BREAKS

The quick-closing cylinder from Schneider Servohydraulics is less than half the weight of its predecessor at approx. 75 kg due to the fact that it is largely made of aluminum. Short maintenance times were also taken into account during development. The outer seal package can be easily replaced without having to completely dismantle the cylinder.

SERVOMOTION FOR LOW-PRESSURE HYDRAULICS

The quick-closing cylinder can be used across all industries. Wherever valves require fast actuation, e.g. for process interruption in the chemical industry or in small power plants with steam turbines, quick-closing cylinders are required. The HAZ 148 is a very fast-acting actuator with high forces. It has a closing time of < 300 ms with a total stroke of 65 mm. The spring closing force is an enormous 23,000 N. Despite the high closing speed, the product only has a small ½" connection line with a nominal pressure of 8 bar.

The system can be easily integrated into a safety chain together with the valve function block (HZ 122-0B), which has three position-monitorable switching valves for the 2oo3 decision.

Image: Schneider Servohydraulics

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