EagleBurgmann develops new generation of dry-running seals

Sealing technology company EagleBurgmann Germany GmbH & Co Kg recently reported that it has developed a new generation of dry-running shaft seals for agitators.

In addition to the known benefits of this type of mechanical seal – for example, there is no seal supply system – the latest SecoMix1 is also silent running and has been prototype tested for use under conditions designated ATEX category 1 (zone 0). These shaft seals are designed to be used in mixers, agitators, dryers and filter strainers.

Specific advantages of this design, include:

- compact, easy to fit unit (semi-cartridge);
- torque transmission with no damage to the shaft;
- no noise emissions, no squeaking;
- heat dissipated via patented circulation holes;
- extremely safe to operate, with a long service life;
- no temperature monitoring required for ATEX category 1 (zone 0);
- wear marking improves seal maintenance planning; and
- FDA-compliant materials.

Operating data:

- shaft diameter d1 = 25–160 mm (0.98 to 6.30 inches), with larger diameters available upon request;
- pressure p1 = vacuum to 6 bar (87 psi);
- temperature t1 = -20°C to +150°C (+250°C, with cooling flange); and
- sliding velocity vg = 2 m/s (7 ft/s).

Mechanical seals from the SecoMix series have been used successfully for over a decade. They are designed as single seals in a semi-cartridge construction, and comprise a sprung seal face and a stationary seal unit – giving them the added benefit of being easy to fit.

Dry-running SecoMix seals do not require a supply system, so they offer significant advantages over liquid or gas-lubricated systems. Given this saving on the purchase and operation of a seal supply system, the investment cost for a dry-running single seal is as little as 30% of that for an equivalent liquid-lubricated seal, says the company.