



A head-high ProFlap1000 undergoes last test procedures

## ProFlap meets new testing standards

**For explosions inside a protected system, ProFlap ensures that the flames cannot spread within the ductwork. Recently, our proven product successfully passed tests according to new test standards. In addition, the expansion of the product line is in the works.**

**Warning of explosion risk:** If very fine dusts in particular concentrations are created, a tiny source of ignition is sufficient to create an explosion. "However, this happens very rarely. As a precaution, all our Keller systems are designed to withstand pressure surges and are equipped with additional measures against explosion protection", according to Jens Kuhn, Quality Manager at Keller Lufttechnik.

### Explosion decoupling

One of these measures is by means of explosion decoupling, which prevents flames from spreading inside the ductwork. "During operation, the downstream mounted back pressure flap is kept open by the air flow", explains Jens Kuhn. "In the event of an explosion, the flap closes as soon as it detects the pressure front inside the ductwork."

### ProFlap II meets new test standards

Keller Lufttechnik repeatedly tested the proven part because new test standards will apply in the future. In fact, although the new standards are not yet adopted, the test group is already working on a preliminary version. The necessary tests are much more complex. "We perform tests at a minimum and maximum installation distance", reports Jens Kuhn.

Several tests are performed for various applications, explosion protection types and diverse container constructions.

### Optimized and expanded production line

Keller experts took advantage of the tests to optimize the product – especially regarding potential energy savings. "The back pressure flaps of smaller dimensions were designed to be narrower so that the resistance and therefore the energy consumption for the entire operation of the system decreases", explains Jens Kuhn. In addition, Keller introduced versions of the ProFlap in which the flap is securely locked and re-opened only by means of an electrical signal, if necessary. "Application ranges with dusts in category 2 should be equipped with this type of installation", explains our expert. Customers have frequently demanded a back pressure flap for ductwork with large nominal diameters. "Shortly, we are planning to launch our ProFlap1000 with a nominal diameter of 1000 mm", announces Jens Kuhn, who is completing final testing at the head-level back pressure flap. <



ProFlapII on test stand

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