

## Highest safety level for dust collectors

*RICO Sicherheitstechnik AG provides explosion Isolation valves for dust collectors of TRM Filter d.o.o.*



TRM Filter d.o.o. based in Ljubljana, Slovenia is specialized in services concerning air filtration technology in order to secure a clean working environment. The company was established in 1982, starting with the production of filter elements and turned within a decade to the development, production and sale of advanced dust collectors and systems for the most demanding applications in the pharmaceutical, chemical and food processing industry. Characterized by its tradition, constancy and progress the Slovenian company offers state of the art technology using only the best possible materials. The focus of

TRM Filter lies on realizing individual solutions to meet any set of requirements, regardless of their complexity. Peter Tomsic, CEO of TRM Filter d.o.o. explains: "Our Company stands for the highest level of quality at each step of our business operations. Ensuring a healthy working environment as well as safety concerning potential hazardous or explosive atmospheres in order to protect people and the environment is our primary aim." Against this backdrop, TRM Filter d.o.o. works with RICO Sicherheitstechnik AG. The Swiss experts equip the highly sophisticated dust collectors with their VENTEX

explosion isolation valves and the explosion isolation REDEX Flap valves.

### **Dust collectors are crucial to ensure safe working environment**

Dust collectors are essential for most operations in the pharma, chemical and food processing industries, where air filtration is required. The concentration of air impurities is usually very high and clogging may be frequent as a result of the extreme loads to which the filtering elements are subjected. TRM Filter d.o.o. offers dust collectors that fulfil highest requirements in containment as well as explosion protection. The dust collectors are used to extract dusty air from different production processes, such as weighing, granulation, tablet pressing, packaging and others. Dust laden air is sucked from the production processes into the dust collector where dusty substances – some extremely toxic – are effectively removed to secure the atmosphere and working environment. The dust collectors distinguish themselves with their compact design, resulting from a unique construction solution. They are equipped with the

state of the art smart filter cleaning technology ROTATRONIC used for monitoring and cleaning the filter elements. The system is designed to provide fully automated operations. The filter cleaning procedure is initiated whenever clogging creates excessive pressure differences on the filter. ROTATRONIC consists of special rotational nozzles with valves on the outlet filter openings, different sensors and a PLC control unit with an advanced user interface. ROTATRONIC with its unique self-learning algorithm provides maximum process stability and operation performance. Another benefit of the TRM Filter dust collectors is the easy maintenance and energy efficiency. In this way, low-cost operations and consequently economic advantages are ensured.

### **Explosion isolation provides highest possible level of protection**

Peter Tomsic points out: "Explosion protection is a very important factor since most applications we deal with handle potential explosive atmospheres of dust – and in some cases – hybrid mixtures with organic solvents. RICO convinced us, as one of

the leading companies in the field of explosion isolation, with their sophisticated, high-quality and advanced systems equipped with the required ATEX certifications.” The high-end and reliable explosion protection which was needed, led the way to the Swiss com-



pany – and finally to the RICO VENTEX isolation valves. The functionality of the valves is based on a sealing of the valve triggered by the pressure wave in case of an explosion. The pressure wave pushes the closing device within the valve to the closing device seal and therefore prevents propagation. The valve consists of an innovative sealing profile with an integrated cavity. Therefore, in case of an exchange, it is neither necessary to grind the valve in nor is the adjustment of the responding gap dimension difficult. Should the explosion isolation be triggered off, an unlocking device secures a quick restart, as the opening of the valve

only requires very little effort. This shortens process interruptions and reduces economic losses distinctly. The valves are characterized by an easy handling, reliability and rapid re-commissioning. Certified experts can easily handle these supervisory

functions. Another valve used for explosion protection of the dust collectors for applications with organic dust, is the passive explosion isolation flap valve REDEX Flap, which allows for optimal protection due to a mechanical locking device. The flap valve is single acting and prevents propagation of explosions opposite the flow direction. Further benefits result from the low pressure loss, the easy maintenance and fast re-commissioning - ensuring minimal process breakdowns in the event of an explosion.

## **Further collaborations already in the pipeline**

TRM Filter d.o.o. found an application partner in RICO Sicherheitstechnik AG in terms of new product developments. Peter Tomsic states: "The possibility to consult competent experts from RICO if questions arise has always been very simple and ef-

fortless.

Consequently, especially the great support and the reliable

service convinced us to ensure further collaboration." The CEO of TRM Filter is also highly satisfied regarding the operation of the explosion isolation systems of RICO. Peter Tomsic sums up: "The partnership was all in all a great success and we are looking forward to our joint projects and future cooperation."

