

## Safety two-fold

*Dust collectors of TRM Filter are protected with the fastest explosion isolation slide valve on the market*



TRM Filter, located in Ljubljana, Slovenia, is specialized in the development and manufacture of air filtration systems. The company was founded in 1982, starting with the production of filter elements and established it-self within a decade in the market. Today, the traditional company provides air filtration systems for application fields with the highest requirements regarding containment as well as explosion protection. TRM Filter is further characterized by using cutting-edge technologies as well as excellent materials. Realizing individual solutions is also of high importance for the dust col-

lector specialists – with the objective to fulfil virtually every customer requirement regardless of its complexity.

### **Addressing high, company-owned security standards**

The company meets these requirements within the course of its latest projects: TRM Filter was taken on board when a renowned, intentionally active client in the pharmaceutical field was in need of a new granulation plant. A dust-collector complete system was required from the Slovenian experts with very high safety requirements, as demanded by the

end customer. In this case, the legal provisions weren't enough – the pharmaceutical company set considerably higher standards regarding safety requirements as those defined by the legisla-

ture. "Our customer from the pharma industry is aware of the dangers – especially the explosion risks – and



has therefore high requirements concerning the safety of dust-collector systems", explains Peter Tomšič, CEO of TRM Filter and adds that cooperating with experts in the field of design measures for explosion protection is consequently an imperative. Especially production environments, in which solvents are used, hybrid mixtures or flammable vapors, cause a higher hazard potential that needs to be contained by means of adequate safety measures. These were implanted eventually with a comprehensive explosion protection concept. TRM Filter approached for this purpose trusted partners, with whom they have established a long-standing reliable cooperation.

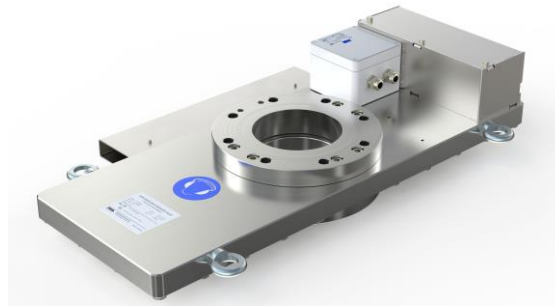
### **The right product combination leads to the needed result**

TRM provided the explosion proof, robust ECO Filter, in order to create a consistent as well as safe system for

the end customer. The filter convinces with a design that withstands, concerning dusts and hybrid mixtures, explosion pressures up to a Kst value of 400 bar m/s. Additionally, it of-

fers a long service life before a filter change is needed. The compact design with integrated secondary filters forms another advantage. The low maintenance costs, especially when compared to explosion suppression dust collectors, complement the product further. The ECO Filter is, beyond that, predestined for difficult operating conditions – e.g. high temperatures in airflow. Tomšič approached ultimately the experts of the RICO Sicherheitstechnik AG from Herisau, Switzerland, since the complete installation needed to be realized including explosion protection. RICO supplied two of its new explosion isolation slide valves RSV as well

as VENTEX® valves - which are implemented on the inlet of the fluid bed - in order to provide a comprehensive constructive explosion protection. "The explosion isolation slide valves are the fastest in the market and are used in applications, where the pipelines connect plant components. In case of emergency, the pressure or rather flame sensor detects the explosion. The latter activates a gas generator and causes, by means of the created pressure, an instant shut-down of the slide valve", explains Tomšič. Furthermore, the slide valves consist of stainless steel - minimizing in this way the corrosion risks. They are especially predestined for the pharmaceutical field since all fittings are in accordance with the high hygiene requirements, which can be applied in the pharmaceutical production processes as well as the cleaning cycles. The explosion protection slide valves are certified in accordance with the IP65 protection class and are therefore stable against influences such as dust or water. A gen-



eral lower maintenance effort due to the low tare weight of the slide valve forms another advantage - installation and handling are in this way significantly easier.

The final concept of the plant was implemented by the IEP Technologies

GmbH located in Ratingen, Germany. Necessary steps were taken in order to match the needed products - resulting in an optimally protected plant for the pharma company. Detection as well as a control system were provided by IEP for connecting the applied solutions ideally. "The cooperation with RICO and IEP was important, so that we could provide a concept, which included everything relevant for the end customer", comments Peter Tomšič and adds that the protection of employees, the environment, the equipment as well as production need to be fully ensured and operational interruptions reduced to a minimum.

**Project process ran like clockwork based on trust and competence**

The collaboration of TRM Filter and RICO Sicherheitstechnik AG exists since many years. The project implementation took place based on daily contact between the two companies, in order to obtain the best results for the customer. The technical requirements are always defined by the respective application. Peter Tomšič assesses especially the application of the explosion protection slide valve RSV as the perfect solution for the latest project, since it consists of a very complex production process. The given circumstances needed to be reflected extensively, before choosing the explosion protection product supplier. RICO convinced with its portfolio as well as trustworthiness. Not least because of the knowledge of the team's competence led Tomšič to the conclusion to implement the project with the experts from Herisau. The CEO elaborates: "You don't change a process that works – such as the cooperation with RICO". No other partner was considered by TRM Filter, since the focus of the explosion protection lied on the explosion isolation. The dust collector experts work also closely with RICO regarding maintenance.

The employees are regularly trained by the Swiss specialists. Peter Tomšič confirms that the project course ran all in all smoothly – the collaboration between all participating companies was very harmonious and productive, even though it was a long path until the new plant was completed.