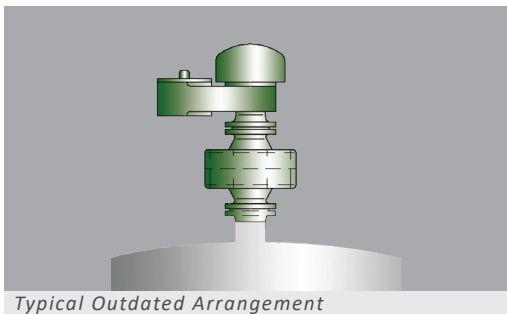


# PROTEGO® VD/TS-IIB3

## The Smarter Choice for Safe & Efficient Tank Venting



Typical Outdated Arrangement



PROTEGO® High Intensity Rain Test

### WHY SETTLE FOR OUTDATED TECHNOLOGY?

Conventional in-line Flame Arresters under Pressure/Vacuum Valves create unnecessary risks, hidden costs, and higher emissions. The **PROTEGO® VD/TS-IIB3** solves these challenges, providing a **safer, cleaner, and more cost-effective** tank protection solution that **reduces emissions, saves product, and lowers operational expenses**.

### HIGH INTENSITY RAIN TEST

The optimized **VD/TS-IIB3** weatherhood features an overhanging-rim geometry that directs heavy rain away from the **FLAMEFILTER®** element and includes an integrated protective screen to block water droplets and debris. **Comprehensive flow testing** confirmed that the new hood maintains the catalogued air inbreathing volume flow under dry conditions and limits reductions during both vertical and lateral rain exposures without exceeding the design vacuum. Rainstorm tests simulating intense downpours produced stabilized differential tank pressures, demonstrating that the hood prevents inadmissible vacuum spikes under storm-level conditions. Deflagration testing according to **ISO 16852/ 80079-49:2024** witnessed by **IBExU** confirmed zero flame transmission through the hooded valve assembly and full compliance with **ATEX 94/9/EC**. The hood's modular bolt-on design allows straightforward retrofit to all existing **VD/TS-IIB3** valves without any **modification** to the housing, ensuring **no loss of flow capacity** or safety performance during installation.

# Key Advantages of PROTEGO® VD/TS-IIB3 For Sustainable, Safe, & Efficient Tank Protection

## UNMATCHED EFFICIENCY AND PRODUCT SAVINGS

Equipped with **10% full lift** valve pallet technology, the **PROTEGO® VD/TS-IIB3** opens later and closes faster in case of venting comparing to 100% proportional lift valve types, reducing product losses by up to 88% per venting cycle. Its **ultra-low-leakage rate** — up to 99% tighter than **API 2000 standards** — significantly reduces nitrogen consumption and minimizes evaporation losses. Additionally, the **VD/TS-IIB3** design reduces vapor exposure to the integrated **FLAMEFILTER®** element, **extending maintenance cycles**, prolonging the total life expectancy while reducing contamination and maintain flow efficiency.

## SIMPLE AND SAFE MAINTENANCE

The **PROTEGO® VD/TS-IIB3** enables quick visual inspections by simply removing the weather hood — without dismantling the valve or using cranes, even on large units. Inspections can be performed without emptying the tank (except during active filling; ignition sources must be avoided), **minimizing downtime** and personnel exposure while ensuring continuous operational readiness. Designed for harsh environments, the weather hood of the **VD/TS-IIB3** offers protections against and has been specifically designed for high intensity rain events and even provides sandstorm resistance. The entire device is certified according to **ISO 16852/80079-49:2024** for use at temperatures up to 200°C, ensuring safe use in extreme climates such as tank roofs hated by solar radiation.

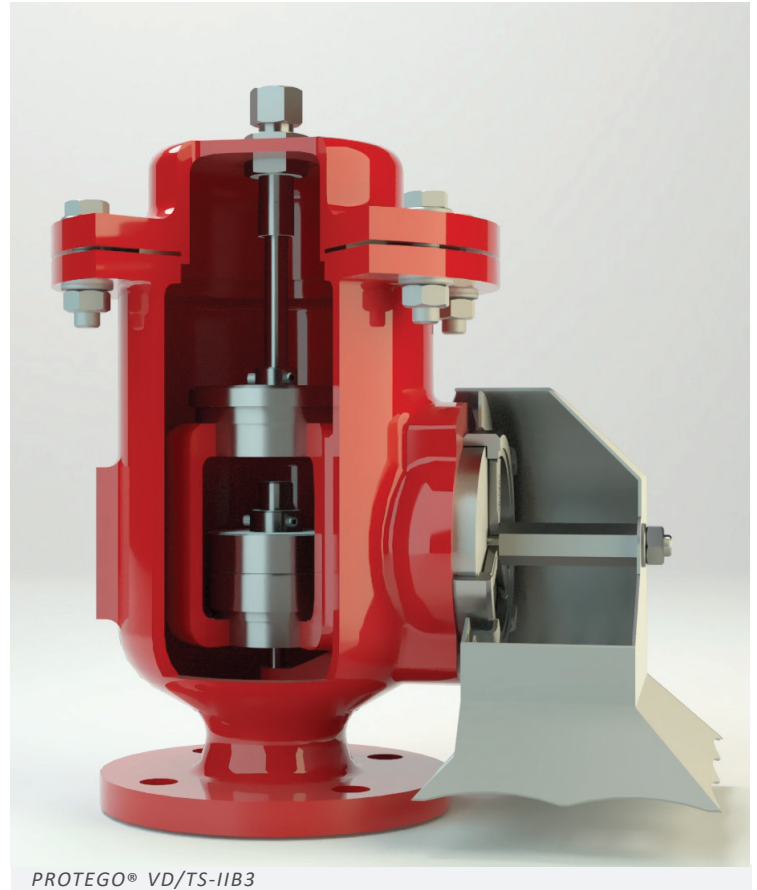
## FUTURE-PROOF COMPLIANCE AND FLEXIBILITY

Fully certified to **ISO 16852/80079-49:2024** for Explosion **Group IIB3**, the **VD/TS-IIB3** covers nearly all hydrocarbons, alcohols, and solvents, This may eliminate the need to replace equipment after product changes according to the HAZOP reviews, ensuring your installation remains flexible, compliant and future-ready without retrofit costs.

## ELIMINATE HIDDEN RISKS OF IN-LINE ARRESTERS

We support our customers by developing and optimizing devices for protection against overpressure and vacuum, deflagrations, detonations and burning.

## THE SMARTER CHOICE FOR SAFE & EFFICIENT TANK VENTING



PROTEGO® VD/TS-IIB3

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