

HRB-PROTECTOR SERIES CRASH RATED RISING BOLLARD



HRB-Protector Series Crash Rated Rising Bollards



General Description

OPTIMA crash tested HRB-Protector series rising bollards are especially designed for entrances that have very high security requirements to keep vehicle access under control. In addition to the control of vehicle access in high security applications, if there is a threat of vehicle attack from high tonnage vehicles with high speeds, it is not possible for the vehicle to keep on moving forward anymore beyond the bollards as crash tested bollard destroy the vehicle completely.

OPTIMA crash tested HRB-Protector series rising bollards are designed for ASTM F2656-15 crash rating. Actual test was fully successful and the product is certified according to ASTM F2656-15 (grade P1, zero penetration). Even after the test, Optima HRB-PROTECTOR was still operational.

CONSTRUCTION

Raising section of the bollard has 350mm outer diameter and raised height is 1250mm. It is made of a steel tube is special type of high strength steel, hot dip galvanized to prevent corrosion and/or three layers yellow/black epoxy painted.

HYDRAULIC POWER UNIT AND CONTROL ELECTRONICS

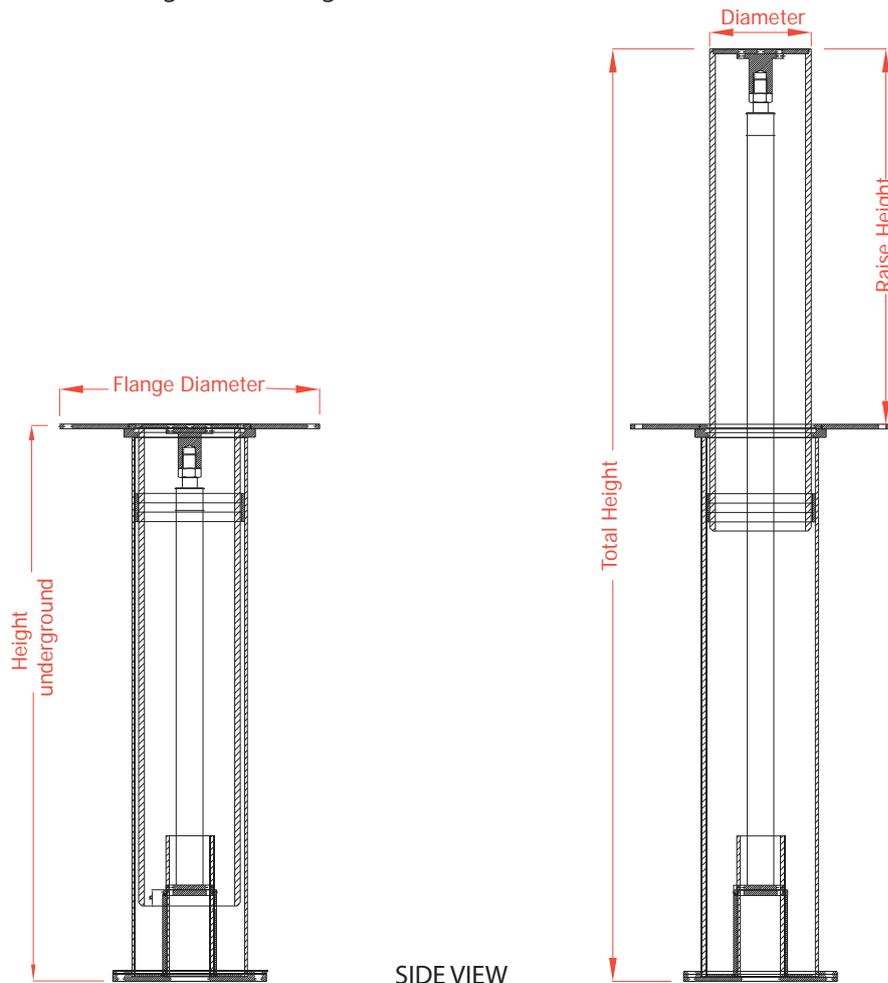
All the hydraulic components are tested at 250 bars although normal operating pressure is around 75-100 bars. Manual hand pump is standard in HRB-Protector series rising bollards, therefore in case of power failure it is possible to raise and lower the bollard by manual hand pump. Coolers or heaters are can be integrated to the hydraulic power unit in extreme weather conditions (optional). Bollards are controlled with the help of advanced microelectronics. Two push button operator keyboards with emergency stop are standard; one desktop, other being integrated in the hydraulic power unit. AC electric motor is driven by a contactor and protected by a thermic breaker. The low current voltage required by the system is supplied by a switch mode power supply. There is a fuse for every component in the system. All the cables running in the system are colour coded and numbered to ease tracking.

ENVIRONMENTAL CONDITIONS AND POWER REQUIREMENT

Between -20°C and +65°C, %95 non condensing humidity, 3 phase 380-415 VAC 50-60 Hz.

OPTIONAL ACCESSORIES

1. Flashing LED lights on the top of bollard
2. Radio control receiver, transmitter and antenna
3. Safety photocell, mounting stand and sunshade
4. Hydraulic accumulator for emergency raise fast facility.
5. Uninterrupted power supply (UPS)
6. Transformer to convert power
7. Submersible drainage pump
8. SCADA System for remote operation and monitoring
9. DC motor and pump unit with dry batteries
10. Solar Panel
11. Different color options
12. Stainless steel bollard sleeve (grade 304 or grade 316)



SIDE VIEW

