

HRR-HS4100 CRASH TESTED HYDRAULIC RISING ROAD BLOCKERS



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General Description

Road blockers are designed especially for entrance points which have a threat of vehicle attack or for the ones that have high security requirements. If there is a threat of vehicle attack in addition to the control of vehicle access in high security applications, hydraulic road blockers are the unique solution and the most secure systems. Even though the attack is from high tonnage vehicles with high speeds, it's not possible for the vehicle to keep on moving because of the damage given to front, wheels and the bottom of the vehicle. Optima HRR-HS4100 Crash Tested Hydraulic Road Blockers are crash tested to PAS 68:2010 / DOS K12 standards. Drive unit is electro-hydraulic, but in case of power failure road blocker can be lowered or lifted manually with the help of hydraulic accumulator/manual hand pump. Typical raise/lower time is 3 seconds. In case of emergency, raise/lower time can be as low as 1 second. With the help of PLC (programmable logic control), raise/lower function can be achieved by every kind of card readers, biometric readers like fingerprint or hand shape, radio control, on/off key switch etc. Besides, safety accessories like photocells, inductive loop detectors, flashing lights or red/green traffic lights can be integrated to the system very easily. Typical weight of a road blocker is 2-3 tons (depending on road blocker type).

STEEL CONSTRUCTION

Main mechanical elements forming the construction are heavy duty 12 mm top, front plate and the frame consisting of 100*100 box, 200*75mm U and 100mm I beams. This sophisticated mechanical design enables the road blocker to withstand minimum 22 tons of axle loads, besides, in case of crash, linkage bars transmit the impact directly to the foundation, therefore help to protect the steel structure. Cushioned cylinders power the road blocker up as they pivot on multi-sealed bearings. Steel construction is either hot dip galvanized or 3 layer primary plus 2 layer epoxy painted in order to prevent rusting. Standard color is RAL:1028 traffic yellow/black.

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 all HRR-HS series, therefore in case of power failure it is possible to raise and lower the bollards by manual hand pump. Coolers can be integrated to the hydraulic power unit optionally. Control electronics utilized in hydraulic road blocker is PLC controlled. Two keyboards with emergency stop are standard; one desktop, other being integrated in the hydraulic power unit. 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 +75°C, % 95 non-condensing humidity, 380 V 50~60Hz (or 220 V, 50~60Hz, optional)

OPTIONAL ACCESSORIES

1. Flashing or red/green lights
2. Radio control receiver, transmitter and antenna
3. Safety photocell, stand and casing
4. Inductive loop detector
5. Drainage Pump
6. Card Reader System
7. Hydraulic accumulator
8. Uninterrupted Power Supply (UPS)
9. DC motor and pump
10. Different colors

MODELS:

RAISE HEIGHT : 1000mm

LENGTH : From 2000mm to 6000mm

