



Pneumatic Rising Roadblockers



General Description

Being a very reliable alternative to the hydraulic road blockers, pneumatic road blockers are an efficient way of solution if there is a threat of vehicle attack in addition to the control of vehicle access in high security applications. As the construction is completely the same with the hydraulic rising road blockers, the strength of the construction is the same. The number of pistons used per road blocker increases due to the low pressure achieved in pneumatic systems. Besides, the piston diameters are larger when compared to hydraulic systems because of the same reason. Even though the attack is from high tonnage vehicles with high speeds, it is not possible for the vehicle to move any further. In standard, the constructive design is made to stop any vehicle with the impact load of 7.5 tons of weight, moving with 60 miles per hour; i.e. Optima designs according to K 12 standards. Drive is pneumatic, therefore in case of power failure road blocker can be lowered or lifted with the help of the pressurised air in the air storage tank. Typical raise/lower time is 3 seconds, but it is possible to design the system to raise/lower in 1.5 seconds.

STEEL CONSTRUCTION

Main mechanical elements forming the construction are heavy duty 12 mm top plate and the frame consisting of 100x100 box, 200x75mm 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 coated in order to prevent rusting. Additionally the parts which stand above the ground level are yellow-black painted.

PNEUMATIC POWER UNIT WITH COMPRESSOR AND CONTROL ELECTRONICS

All the pneumatic components are tested at 25 bars although normal operating pressure is around 8-10 bars. Compressor with storage tank is standard in all PRR series, therefore in case of power failure it is possible to raise and lower the blocker by pressurised air in the tank. Control electronics utilized in pneumatic road blocker is PLC controlled. Two keyboards with emergency stop are standard; one desktop, other being integrated in the pneumatic 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)

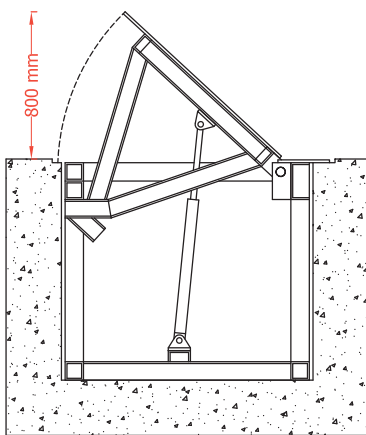
OPTIONAL ACCESSORIES

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. Bigger pressurised air storage tank
8. Uninterrupted Power Supply (UPS)
9. Different colors

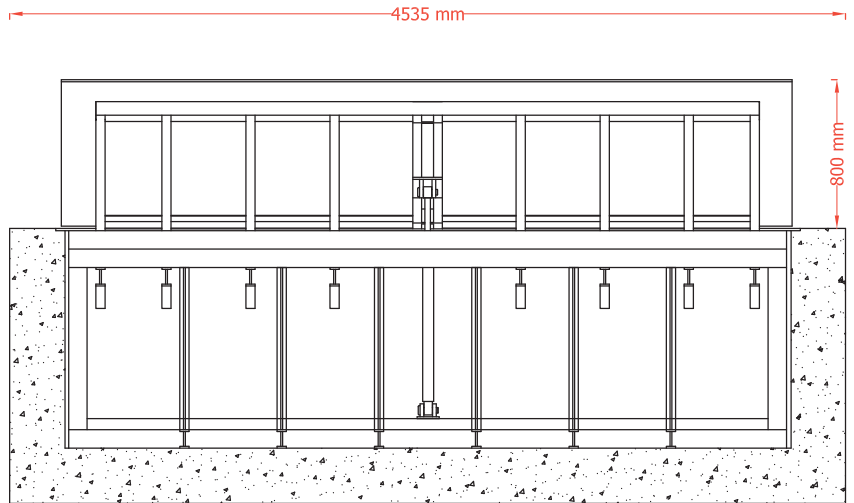
MODELS:

RAISE HEIGHT: From 250mm to 1250mm

LENGTH: From 500mm to 6000mm



SIDE VIEW



FRONT VIEW