WHITE ROSE / TANK H SERIES RISING BOLLARD TECHNICAL SPECIFICATIONS

- 1. The bollard cylindrical portions height rising 260mm and 26mm thick blocks should be.
- 2. Bollard covers the top of the barrier due to vehicle tires being exposed rust and rot-iron, steel and plastic material will not be. Should be special alloy 'Etal 140 'aluminum material.
- 3. Bollard barriers should be 500mm height while full opened.
- 4. Bollard barriers, able to work synchronous multi-system.
- 5. The Bollard barrier bushing for the moving part, which is buring in the ground should be 320 mm in diameter.
- 6. All metal surfaces shall be coated with electrostatic paint.
- 7. Moving parts shall be guaranteed for 10 years against corrosion.
- 8. Moving to attract the attention of some drivers that is the color RAL 1028 traffic signal should be yellow in color and 10 mm in depth, even under the paint is scratched rust should not get out.
- 9. The bollard barrier should be not affected impact of vehicles by the burden. And the seal rings shall be not effected rust and corrosion. And should be aluminum produced special alloy 'Etal 140 'with 500 mm in diameter.
- 10. The bollard can withstand 7,5 tons per axle should be.
- 11. Bollard should be 500mm height from the ground. If the vehicle crash shall not exceed %30 damage which is 40km/hour speed and 4 tons.
- 12. Bollard barriers, able to work synchronous multi-system. And 500 mm stroke bollards delay difference between each other in the operating range must not exceed 2%.
- 13. The hydraulic main power system should be 380 V AC, 50 Hz.
- 14. Hydraulic pressure control sholud be very fine regulated.
- 15. Bollard barriers while waiting for the top position should be used to prevent hydraulic lock system for not come down.
- 16. All used components valve's, pumps, solenoid valve's should be CE Standard.
- 17. Hydraulic hoses R2 double-stranded steel wire, insulated and underground type of rubber used in the interior and exterior. Metal and copper pipe not used.
- 18. The caution lamp should be solar system on the Bollard barrier and will be build-in. But should be easily need to create awareness while closed or open .And It should have two advantages, First; Tires should not be subjected to excessive shock. Second: Lamp height should not be vehicle shake.
- The system oil temperature gauge oil pressure gauge and level gauge should be.
- 20. Bollard barrier should be consist of three cylindrical tube. First:The moving part, Second: The tube for bushing parts of moving part. Third: The outer housing cap.(Outer housing cap can be easy take out for repair and maintenance situations that require installation without breaking concrete and hoses.)
- 21. The system should be frustrated with manual hand valve when the power failure.
- 22. Optionally, When the power failure, The bollard manual hydraulic hand pump should be move up.
- 23. Opening and closing time should be adjustable between 4 and 6 seconds.
- 24. Auto shut-off time should be adjustable between 1 and 78 seconds.
- 25. Electronic card driver should be solid Theriac and contactor.

- 26. Electronic card is lead-free (FR4), and should be covering copper plating.
- 27. The electronic card input's and output's has to be ,Optocouplers / Isolators.For protection Against harmful interference from outside.
- 28. The engine run time to adjust trimpot on the card must be.
- 29. Traffic signaling lamp should be output to connect to the electronic card.
- 30. Bollard hydraulic barrier system work in sync with the electronic card to connect to the original output (sync output) should be.
- 31. Electronic card must be on the photocell output. Security for the 2 sets of mutual safety photocell or 1 double antenna loop detector available.
- 32. Electronic card to support the functional connections should be 12 V and 24 V outputs.
- 33. Bollard control board microprocessor card must be able to connect various digital and analog components, and should be adjustable.
- 34. With microprocessor control panel the motor working with a lower and upper limit on the duration of the motor protection feature should work without.
- 35. Fusing for motor and solenoid valve was done on the electronic card should be.
- 36. Electronic switch for motor protection must be integrated on the card. Motor protection switch should be CE standard.
- 37. Main power supply must be connected with 30 Amps ,PCB terminal blocks.
- 38. Hydraulic and electrical components in a cabin must be painted RAL 7035 polyester outer space. Intervene in the cabinet with 2 door and 2 must have ventilation louvers. Cabinet wall thickness of 1.2 mm, and should be supported by the carrier profile.
- 39. The motor should be work in -20C / +70C temperature range.
- 40. Electronic card should be conform, access control systems like; remote control, button, card reader, automatic switching, license plate recognition systems, able to connect to all kinds of vehicles scan.
- 41. The main power system should be operated with 220/380 V AC 3 Phase / 50 Hz (+ / 20%).
- 42. The manufacturer fabrication errors should be 2 (two) year warranty and 10 (ten) year spare parts guarantee.
- 43. Manufacturer's ISO 9001 2008 TUV, CE, TSE-HYB, Capacity Report, 3rd Party Test Report available.
- 44. Company on completion of the work products industry, approved by the Ministry must give a warranty and a detailed user guide. Companies will be excluded from the evaluation that does not have this feature.
- 45. Company should be authorized dealer.