

NMSB VI M50 (K12) Retractable Bollards

Nasatka Security bollards provide the highest level of security against unauthorized vehicle access (anti-terrorism functionality) and provide unparalleled aesthetically pleasing designs (decoration flexibility is very important in an urban area) to protect just about any architecture or landscape with minimal environmental impacts, construction efforts, and budget. Bollards function to control vehicular traffic while maintaining unencumbered pedestrian traffic, architectural aesthetics, and the aesthetic-open-appearances-of-landscapes.

Nasatka Maximum Security Barrier NMSB VI (pronounced 6) bollards, certified K12/L2, are constructed with superior quality steel and, in addition, are the only barriers that include hot-dipped galvanized steel as a standard feature, extending the durability of the bollard barrier system by a minimum of 15 years.

NMSB VI K12 bollards provide multiple operator selections (electric, hydraulic, or manual – two types). Nasatka is the first barrier manufacturer to offer two unique types of automated-hydraulic barrier systems. The traditional bollard barrier systems that utilize sets of bollards (bollard array) that operate simultaneously via a single, remotely located HPU¹. The innovative self-contained bollard system incorporates an HPU or EPU² within each individual bollard to create a self-contained, self-operating bollard barrier system. With this innovation, multiple bollard installations become non-reliant on a single system HPU, allowing greater perimeter security to remain intact. Multiple self-contained units may be configured to operate independently or as a traditional system. The self-contained bollard, requires no external hydraulic lines, greatly increasing ease of installation especially for locations with close proximity to bordering roadways and/or no place to position a remote HPU



enclosure. In addition, a battery-operated (remote HPU) system is available which operates up to 100 cycles without the aid of external power. Manual operation is accomplished via hydraulic accumulator (hand operated) or hydraulic pump (driven by an external, manually attached, cordless drill/driver).

- 1 Hydraulic Power Unit
- 2 Electric Power Unit with remote VFD (Variable Frequency Drive)
- 3 Manual

Features

- High Level of Security - K12/L2 (1986 Std.)
- 39-inch (1.02 m) Height
- 36-inch (914 mm) Height
- Available with All Electric, Electro-Hydraulic or Manual Operation
- Available in Self-contained or Traditional Systems (Remote HPU)
- Provides Free Movement for Pedestrians
- Unparalleled Aesthetically Pleasing Designs
- Hot-dipped Galvanized Steel Standard
- (Extends System Life a Minimum of 15 Years)

Specifications

CRASH RATING

- DOS K12 (15,000 lb/6810kg at 50 mph/80kph) (1986 Std.) / L2 (≤ 20 ft/6 m)
- DOD listed K12 (15,000 lb/6810kg at 50 mph/80 kph) / L2 (≤ 20 ft/6 m)
- Impact Energy
- K12 = 1,253 ft-kips/1,699 kJ

BOLLARD MATERIAL

- 10 inch (10.75-in/273 mm) SCH 140 steel pipe (1-inch/25 mm wall thickness) – K12

BOLLARD HEIGHT

- 39-inches (1016 mm)
- 36-inches (915 mm)

BARRIER WEIGHT

- Individual bollard 1200 lbs.
- Typical set of three bollards 3,800 lbs.

AXLE / WHEEL LOAD

- Axle load 32,000 lbs. (16 T / 14.5 MT)
- Wheel load 16,000 lbs. (8 T / 7.25 MT)

POWER REQUIREMENTS

- Standard configuration 208 VAC, 3 phase, 50/60 Hz
- 208/1 Phase

CYCLE TIME

- Normal barrier deployment in 3-5 seconds.
- Emergency barrier deployment in 1-2 seconds.

OPERATORS

- **Manual:**
 - Cordless drill driven hydraulic pump
 - Hydraulic accumulator (positioned by hand)
- Electric motor driven hydraulic pump, remote hydraulic operator
- Self-contained all electric with remote EPU

FINISHES

- Standard finish is fully galvanized steel housing and bollard assembly
- Top plate made of aluminum tread plate
- A huge assortment of colors and decorative covers are available

OPERATING MODES

- **Normal:** Barrier opens and closes at normal speeds. Barrier is controlled electrically or hydraulically and commands are received via operator input or automation sequence initiation.
- **Emergency:** Barrier raises to secure position. Barrier retains position until commands are received via operator input.
- **Manual:** Unsecure (open/down) or Secure (close/up) barrier via manual displacement of accumulator charge or via using cordless drill to externally power a small hydraulic pump.

SYSTEM CONTROLLER

- Uses a secure, 128-bit AES encrypted communications capable, standard-

based end-to-end architecture, utilizing a real time active vehicle barrier micro-processor to control all input and output, data logging, device enrollment and validation.

CONTROL PANEL

- Standard push button controls with multiple modes of operation.
- Standard menu uses a 5.7-inch (144.78 mm) color touchscreen.
- Custom user interface running on 8, 10, 12, or 17-inch (203.2, 254.0, 304.8, or 431.8 mm) touchscreens (with optional background site map).

WARRANTY

- One Year
- operation failure in ordinary use and defects faulty material or workmanship

BARRIER DETAILS (P/N)	BOLLARDS SPACING (Group of / Inches)	WEIGHT (Lbs.)	FOUNDATION ³ (L-W-D)	NOTES
1141-0102-0000	1/NA	1200	48.5 – 41 – 61	Remote HPU
1141-0202-0000	2/36	2400	84.5 – 41 – 61	Remote HPU
1141-0302-0000	3/36	3800	120.5 – 41 – 61	Remote HPU
1141-0402-0000	4/36	4800	156.5 – 41 – 61	Remote HPU
1141-0502-0000	5/36	6000	192.5 – 41 – 61	Remote HPU
1142-0102-0000	1/NA	1200	48.5 – 41 – 61	SC HPU
1142-0202-0000	2/36	2400	84.5 – 41 – 61	SC HPU
1142-0302-0000	3/36	3800	120.5 – 41 – 61	SC HPU
1142-0402-0000	4/36	4800	156.5 – 41 – 61	SC HPU
1142-0502-0000	5/36	6000	192.5 – 41 – 61	SC HPU
1141-0103-0000	1/NA	1200	48 – 41 – 68	EPU with Remote VFD
1141-0203-0000	2/36	2400	90 – 41 – 68	EPU with Remote VFD
1141-0303-0000	3/36	3800	126 – 41 – 68	EPU with Remote VFD
1141-0403-0000	4/36	4800	162 – 41 – 68	EPU with Remote VFD
1141-0503-0000	5/36	6000	198 – 41 – 68	EPU with Remote VFD
1141-0101-0000	1/NA	1200	48 – 41 – 68	Manual
1142-0201-0000	2/36	2400	90 – 41 – 68	Manual
1142-0301-0000	3/36	3800	126 – 41 – 68	Manual
1142-0401-0000	4/36	4800	162 – 41 – 68	Manual
1142-0501-0000	5/36	6000	198 – 41 – 68	Manual

³ Thirty-six inch spacing shown add 12 inches to length for each adjacent bollard in an array for 48 inch spacing. Example: 2/48 would be 84.5 + 12 = 96.5 inches or 90 + 12 = 102 inches and 5/48 would be 192.5 + 12 + 12 + 12 + 12 = 240.5 inches or 198 + 12 + 12 + 12 + 12 = 246 inches.