

**B**olton Gate Roller Shutters are an economical method of providing a secure and weatherproof closure to large or small openings on ships.

Roller shutters provide a virtually unobstructed opening and when open, the shutter and mechanism are out of the way above the doorway and clear of any risk of damage from vehicles moving through the opening. The doors are robust and have a long life with little maintenance required.

Bolton Gate roller shutters have been supplied on many prestigious marine projects worldwide for over 60 years including cruise ships, workboats, ferries, naval vessels and oil rigs and come with the technical design and back-up for which the Company is renowned. Shutters can be supplied as standard up to 7000mm wide. Larger widths up to 12 metres are available (please consult sales office for details).



## STANDARD SPECIFICATION

### **Curtain**

Shutter curtains are constructed from continuously interlocked galvanised steel laths, securely held in place by end locks. Various thicknesses and profiles are available according to individual criteria such as size, wind loading etc. Bottom rails are generally galvanised and roll-formed into a tee section with rubber weatherseal.

### **Guides**

Vertical guides are formed from rolled steel or fabricated dependent on size and wind loading and are supplied with suitable angles for fixing to the structure.

### **Endplates**

Prime painted mild steel of appropriate thickness relative to door size and supplied with angles for fixing to the structure.

### **Barrel**

The barrel is constructed from seamless steel tube of adequate diameter to resist deflection and held in bearings or cups attached to the endplates.

## FINISH

Generally galvanised with non-galvanised parts prime painted.

## OPERATION

The shutters are electrically operated by a 3-phase geared motor mounted on one endplate. Adjustable limit switches are incorporated to stop the shutter at the end of each travel. Standard controls are open/close/stop buttons and if remote operation is required, a safety edge fitted to the bottom rail is supplied as a minimum.

## WIND RESISTANCE

The standard design of shutter will withstand wind loadings in excess of 1Kpa (Class 5 in accordance with EN 12424) and have been tested up to 2.4Kpa to EN 12444. The standard design can be augmented by using thicker laths, windlocks, fabricated side guides and sliding windposts.

## WEIGHT

Dependent upon size and lath configuration but typically 35kgs/m<sup>2</sup>.

## OPTIONS

### **Hoods/Fascias**

Galvanised steel hoods and fascias can be supplied to cover the coiled shutter and motor.

ATEX rated motors and controls.

### **Lath Designs**

Various lath designs are available dependant on opening sizes and wind loading but generally are either 76mm curved single skin or and 100mm insulated flat laths.

### **Finishes**

Polyester powder coating (marine grade) in a range of standard RAL colours is available and should be used as a minimum in a marine environment. Grade 304 and 316 stainless steel shutters are also available for increased corrosion resistance.