TECHNICAL SPECIFICATIONS

**Options**

- Polyester power coated finish to a standard RAL colour.
- Grade 304 or 316 stainless steel construction.
- Proximity switch to signal fully closed status.
- Holdback magnets (24 or 220 volt DC).
- Cylinder locking
**Fire Resistance**
Tested to IMO Resolution A.754 (18) for 60 minutes, rated A0 and approved by most major marine authorities.

**Curtain**
Constructed from 51mm flat section galvanised steel laths with pressed steel endlocks fitted to alternate laths to prevent lateral movement.

**Bottom Rail**
Formed from a reinforced lath for uniformity of appearance.

**Guides**
The side guides are formed from galvanised steel channels and prepared for fixing to the opening structure by means of continuous fixing angles.

**Endplates**
Fabricated from galvanised steel of adequate thickness relative to door size and supplied with angles for fixing to the structure.

**Roller**
The roller is manufactured from mild steel tube of sufficient diameter and wall thickness to resist deflection and is mounted in cups on each end plate. A galvanised steel casing is supplied as standard.

**Finish**
Galvanised as standard. They are also available in grade 304 or 316 stainless steel or polyester powder coated in range of standard RAL colours at extra cost.

**Weight**
Approximately 25 kgs per m$^2$.

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**ELECTRIC OPERATED ROLLER SHUTTERS - A0 CLASS**

Electric operated roller shutters are available with an internal and external motor.

**Operation**
Operation is by means of a electrical tubular motor with gravity failsafe closure. The standard unit is prewired obviating the need for a site electrician. The standard control is by means of low level push button station fitted adjacent to the shutter.

**Fire Activation**
Tubular motor: In a fire condition, activation is initiated by an incoming signal from the fire alarm system. Closure is by gravity with a controlled descent.

External motor: In a fire condition, closure is activated by a fusible link. If activation is required from the fire alarm system, an auto re-set magnet is available at extra cost. Descent is always at a controlled speed.

- **Maximum size internal motor:** 4000 mm wide x 2500 mm high
- **Maximum size external motor:** 6000 mm wide x 3000 mm high (subject to 13.5m$^2$ maximum)

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**MANUAL OPERATED ROLLER SHUTTERS - A0 CLASS**

**Operation**
Manual push-up, pull down operation is via lifting handles fitted to the bottom rail.

**Fire Activation**
In a fire condition, closure is effected by a local fusible link which releases a drop bar. If remote activation is required from the fire alarm system or the bridge, a 24 or 220 volt DC magnet is available at extra cost.

- **Maximum size:** 2620 mm wide x 1500 mm high

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**Options**
- Polyester power coated finish to a standard RAL colour.
- Grade 304 or 316 stainless steel construction.
- Proximity switch to signal fully closed status.
- Holdback magnets (24 or 220 volt DC).
- Cylinder locking.
Galvanised Steel Roller Shutters provide a secure and weatherproof closure to large or small openings.

**Curtain**
Constructed from 76mm high flat section continuously interlocked Galvanized steel laths which are securely held in place by end locks.

**Bottom rail**
The bottom rail comprises a lath fitted with rubber weather seal.

**Windlocks**
Wind locks are fitted at the appropriate centres to retain the curtain in the side guides under wind load conditions.

**Guides**
Vertical guides are formed from galvanized steel into a channel with an internal rebate on which the wind locks engage when subject to high winds, are fitted with twin full-height brush seals and are supplied with suitable angles for fixing to the structure.

**Endplates**
Galvanized steel of appropriate thickness relative to door size and supplied with angles for fixing to the structure.

**Roller**
The roller is constructed from galvanized steel tube of adequate diameter to resist deflection, is polyester powder coated and held in bearings attached to the endplates.

**Electrical Operation**
All shutters are operated by a 3 phase IP65 rated motor with inbuilt safety brake mounted on one endplate. Adjustable limit switches are incorporated in the control panel to stop the shutter at the end of each travel. A motor casing is supplied for an IP56 rating.

**Casings**
A casing is supplied which houses the roller and curtain when raised.

**Controls**
The shutters are operated via a low-level IP56 rated push button controller.

**Speed of operation**
Approximately 150mm per second.

**Weight**
Approximately 50 kgs/m2.

**Finish**
Galvanised with a Marine grade polyester powder coating in a single RAL colour.

**Maximum size:** 10000 mm wide x 10000 mm high