

STEEL ROLLER SHUTTERS
DRIVE OPTIONS & INSTALLATION CLEARANCES

Manual Operation

Operated manually by hand – the maximum recommended size is 6m² to meet the specified amount of force to safely operate the load - 220N.

Chain Operation

Operated via hauling chain operated reduction gearbox – the maximum recommended size is 22m² (Grifco P/N #HDHWO) or 25m² (Grifco P/N #EHDHWO).

Electric Operation

- Operated electrically by heavy duty industrial worm & wheel reduction gearbox/electric motor unit through chain drive to shutter drum.
- Standard position of motor is below the drum. Optional positions are above, or behind, the drum.
- The drive has built-in limit switches and is operated by Up/Stop/Down push button controls. The Down button requires continuous pressure for the entire down cycle of shutter for safety reasons.
- Remote control activation, key switches, induction loops or other means of operation may be fitted as an optional extras.

- 3-Phase openers are standard. Single phase openers are available as optional extra. All standard openers have Short Time Rated Duty Cycle (10 minutes operation every hour).
- High Cycle Rated openers are available in 3, or single phase versions. These are recommended for shutters exceeding 20 cycles per day, or for car parks securing more than 6 vehicles.
- Motor sizes:
 - 0.75kW (1HP) for shutters up to 36m²
 - 1.1kW (1.5 HP) for shutters up to 50.0m²
 - 1.5kW (2.0 HP) for shutters up to 80.0m²
 Typical operating speed – 6 metres per minute.
- The openers are fitted with emergency hauling chain drive in the case of power failure.

Table 1 SERIES 75-100 SLAT THICKNESS AVAILABILITY

Slat (mm)	Thickness Availability	
	0.8mm	1.0mm
75	Yes	Yes
100	Yes	Yes

S100 Standard Headroom & Sideroom Clearances

Type	Operation	Maximum Size	Guide	"A"		"B"	"C"	"D"	"D1"	"E"	"F"
				Inboard	Outboard						
S 100	Manual	6m ²	60mm	170mm		190mm	650mm	400mm	N/A	400mm	N/A
S 100	Manual	6m ²	100mm	210mm		230mm	650mm	400mm	N/A	400mm	N/A
S 100	Manual	6m ²	Windlock	210mm		230mm	650mm	400mm	N/A	400mm	N/A
S 100	Chain	25m ²	60mm	170mm	410mm	190mm	700mm	500mm	550mm	400mm	790mm
S 100	Chain	25m ²	100mm	210mm	450mm	230mm	700mm	500mm	550mm	400mm	790mm
S 100	Chain	25m ²	Windlock	210mm	450mm	230mm	700mm	500mm	550mm	400mm	790mm
S 100	Electric	36m ²	60mm	170mm	410mm	190mm	700mm	540mm	700mm	400mm	790mm
S 100	Electric	36m ²	100mm	210mm	450mm	230mm	700mm	540mm	700mm	400mm	790mm
S 100	Electric	36m ²	Windlock	210mm	450mm	230mm	700mm	540mm	700mm	400mm	790mm
S 100	Electric	8.0m H x 10.0m W	Windlock	250mm	450mm	230mm	800mm	640mm	850mm	400mm	950mm
Fire	Chain	16m ²	Refer Tech. Data Sht 9F to 9H	N/A	450mm	230mm	700mm	500mm	550mm	See Note 3 Below	790mm #
Fire	Electric	36m ²		N/A	450mm	230mm	700mm	540mm	540mm		790mm #

Codes - Refer Tech. Sheet 9B for drawing: A - Inboard / Outboard sideroom. B - Capstan end sideroom. C - Minimum Headroom from underside lintel to ceiling. D - Inside clearance of capstan side of curtain. D1 - Inside clearance of drive side. E - Underside of lintel to centreline of shaft. F - Headroom from underside of below mount motor to top of rolled curtain.

Notes:

- Dimension 'A' is shown for RH operation. For LH operation swap dimensions 'A' & 'B'.
- All headroom dimensions allow for 250mm high guide feed-in extension above lintel height.
- # - If release arm set below motor this dimension increases to 1200mm.
- For restricted clearance applications, discuss options with local Mirage branch office.
- The typical life span of roller shutter springing is defined as follows:
 - Low cycle (i.e. open 1 - 20 cycles per day) - Spring life of up to 10,000 cycles;
 - High cycle (i.e. open 20 - 40 cycles per day) - Spring life of up to 80,000 cycles;
 - Extreme high cycle (i.e. open more than 40 cycles per day) - Spring drums are not recommended. A springless drum and brake motor is recommended for these applications.