



FIRE ROLLING SHUTTERS  
BLOCKSHUTTER E90



**BLOCKSHUTTER E90** is a fire resisting roller shutter designed for fire protection and compartmentalization, tested to guarantee the system's integrity up to 1000 °C for 90 minutes (E performance).

The elements are securely hooked together and blocked with steel lateral stops to prevent slipping of the slats and to guarantee the uniform mantle descent. The bottom slat is made of a robust L shaped profile 3,00 mm thick.

**BLOCKSHUTTER E90** is normally supplied with mono-phase 230V or three-phase 400V wheel chain motor with Gravity Fail Safe system. This particular system allows the descent of the shutter by gravity, without the need for electrical current. The activation occurs in a totally automatic way when the solenoid of the motor receives the fire alarm signal at 24Vdc (500mA) and releases the motor brake allowing the descent with a mechanical controlled speed.





The solenoid is also equipped with a fusible link able to activate the shutter even in the event of a malfunction of the alarm. In case of a momentary power failure, the shutter remains in its position, rolled inside the box or in the closed position and can be moved by means of the manual chain emergency operation on the motor (the operation can only be made from the roll side).

It is mandatory, for the Gravity fail safe system, to install an audio-visual warning device in accordance with standard EN 12604, that must intervene throughout the descent in Gravity Fail Safe mode of the shutter. The warning device is supplied as standard and must be connected to the alarm system that provides a continuous signal 24V (500Ma) for a duration of at least 60 seconds. The motor is equipped with a push-button panel with up / down / stop commands.

Upon request, it is possible to implement the system with a control unit prepared for connection to the fire alarm, smoke or temperature detection system and which incorporates a light and acoustic warning device.

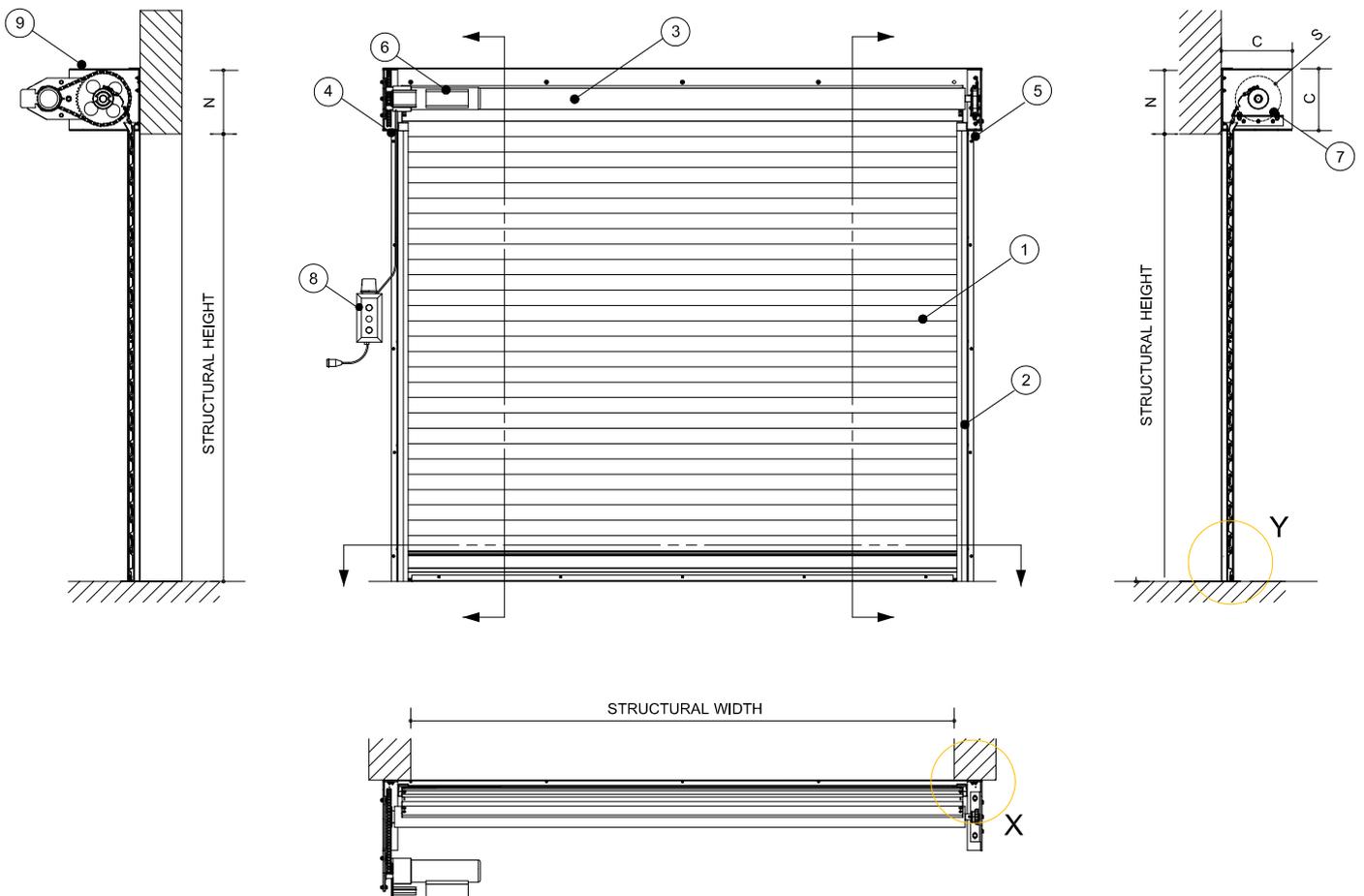
Front wall fixation must take place on a support with the same or greater fire resistance characteristics than the fire rolling shutters.

It is the Customer's responsibility to correctly size the support structures (masonry / reinforced support or HEA covered with REI panels) according to the weight of the shutter to be installed

On request: automatic operation, RAL coating and resistance to wind load CLASS 2 according to standard EN 13241-1.

**BLOCKSHUTTER E90 is certified with CE marking  
according to standards EN 16034:2014, EN 13241:2016**

Installation scheme Type 1



#### Components

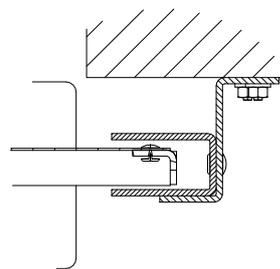
1. Mantle
2. Side guides
3. Winding shaft
4. Motor support bracket
5. Anti drop device support brackets
6. Motor
7. Anti drop device
8. Control panel
9. Head box casing

#### Installation scheme Type 1

support brackets for motor and safety brake system fixed on the wall

Lateral sliding side guides, fixed on the wall

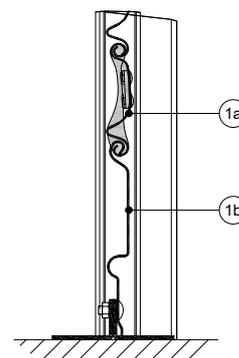
#### Construction details



##### Detail X

Side guide "U" shaped, dim. 50x30 mm with profile "Z" shaped, dim. 43x65x43 mm for wall fixing. Both in galvanized steel.

NB: for shutters over L. 3000mm width the guides are 90x30 mm.



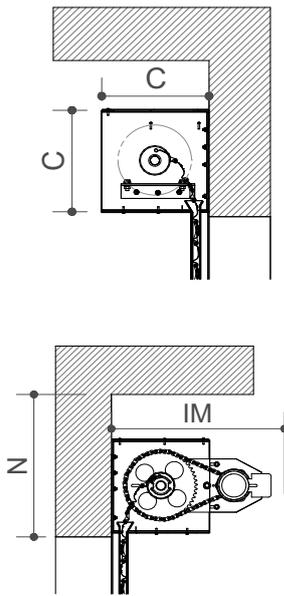
##### Detail Y

1a. Galvanized steel element, single sheet, 71 mm, complete with steel lateral stop.

1b. Steel bottom element, in galvanized steel, single sheet H.140 mm, with L shaped profile 50x30 mm.

### DIMENSIONS

The mantle is hooked to a support shaft and held by two sturdy steel flags; the roll is protected by a casing box in galvanized press-folded sheet which constitutes an additional fire protection.



Dimension range diagram **BLOCKSHUTTER E90**

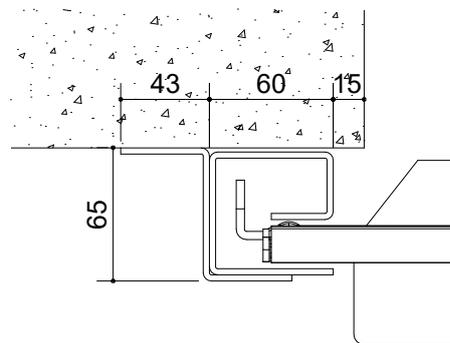
7000													
6500	N = 470 mm C = 400x400 IM = 600 mm		N = 620 mm C = 550x550 IM = 800 mm										
6000													
5500													
5000													
4500	N = 420 mm C = 350x350 IM = 600 mm		N = 520 C = 450 IM = 700			x 450							
4000													
3500													
3000													
2500													
2000													
H / L (mm.)	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500	8000

### SIDE GUIDES

The **BLOCKSHUTTER E90** system includes a pair of guides "U" shaped, 3mm thick in galvanized steel with variable depth according to the clear opening width; to increase the resistance to wind load or vortices inside the building where the shutters are installed, we can provide (on request) sturdy "G" guides and tear-proof hooks applied to the slats.



upper view



Front wall installation of side guide  
(valid dimensions up to W. 6.000 mm)

Guide type	Shutter dimensions max W. x H. (mm)	Guide dimensions max W. x D (mm)
GE90	up to 10.000 x 8.000 (front wall fixation)	80 x 80

**Important: lateral side guides are mandatory**

### MOTION DEVICES / MOTORS AND CONTROL PANEL

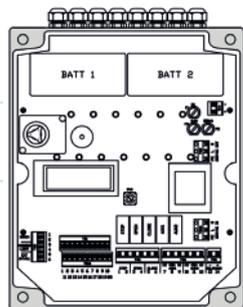
#### MOTOR



	JM150	JM500	JM500 (BP8)	JM750	
SINGLE PHASE MOTORS	230V / 1Ph / 50Hz				
	Volt	230V / 1Ph / 50Hz			
	Watts	90	370	370	370
	AMPS	1.8	3.5	3.5	3.5
	Gearbox Output Speed	34	34	34	22
	Unit Torque Nm	20	62	62	95
	Standard Sprocket on Unit	11T 3/8 Pitch	9T 5/8 Pitch	9T 5/8 Pitch	10T 5/8 Pitch
	Max Lifting Height(m)	4	5.5	4.5	7
	Lifting Capacity kgs	170	500	600	750
	RPM	6.2	6.2	5.1	3.4
Torque Nm	112	343	413	607	

	JM200	JM500	JM500 (BP8)	JM750	JM1000	JM1500	JM2200	
THREE PHASE MOTORS	400V / 3Ph / 50Hz							
	Volt	400V / 3Ph / 50Hz						
	Watts	120	250	250	300	370	750	750
	AMPS	0.7	0.9	0.9	1.2	1.5	2.8	2.5
	Gearbox Output Speed	34	34	34	22	22	15	16.5
	Unit Torque Nm	30	62	62	95	128	368	427
	Standard Sprocket on Unit	11T 5/8" Pitch	9T 5/8" Pitch	9T 5/8" Pitch	10T 5/8" Pitch	9T 3/4" Pitch	11T 1" Pitch	14T 3/4" (duplex) Pitch
	Max Lifting Height(m)	4	5.5	4.5	7	7	13	14
	Lifting Capacity kgs	200	500	600	750	1000	1500	1800
	RPM	6.2	6.2	5.1	3.4	3.5	3.4	3.2
Torque Nm	165	343	413	607	810	1610	2500	

#### CONTROL PANEL (OPTIONAL)



GENERAL FDCP	Power Supply	230v - 50 Hz
	Max Motor Load	6.3A @ 230 v
	Max Accessories Load	4A @ 24v d.c
	Working Temp	- 20 to + 70° C
	Protection Fuses	Ext 24v d.c: F1 = T4A, Delayed Mains: F2 = T200mA, Delayed Relays: F3 = T6.3A, Delayed
	Batteries	2 x 12V 1.3Ah
	Dimensions (mm)	236 (w) x 286 (h) x 108 (h)
	Weight (Kg)	3.0

#### Application:

Whilst maintaining the function of everyday use the FDCP gives advanced warning in the event of a fire before closing the shutter or curtain, protecting both personnel and property from the effects of smoke and fire.

Built in comprehensive diagnostics which include mains fail and low battery charge.

Can be fully interfaced with building management systems

STANDARDS AND CONFORMITY	The FDCP complies to the following EMC and Low Voltage standards and directives	
	EMC Directive:	2004/108 / CE Directive:
	Low Voltage Requirements:	2006/95 / CE Directive:
	and In association with:	
EN 60204-1: 2006+A1: 2009 / EN 61000-6-1: 2007		
EN 61000-6-2: 2005 / EN 61000-6-3: 2007+A1: 2011		
EN 61000-6-4: 2007+A1: 2011 / EN 12453:2001		
EN 50272-2: 2001		