# TEST REPORT No. 406367

Customer

**MASINARA S.p.A.**

**Via Albert Einstein, 8 - 40050 MONTEVEGLIO (BO) - Italy**

Item[#]

**electrically-operated roller shutter named "Grille rolling shutter 7,5×4,0 - sliding system"**

Activity

**verification of mechanical durability in accordance with standard UNI EN 12604:2002**

Results

| Cycles conducted | Visual inspection | Functionality test |
|---|---|---|
| 16673 | passed | passed |

(#) according to that stated by the customer.

Bellaria-Igea Marina - Italy, 19 June 2023

Chief Executive Officer

(Dott. Arch. Sara Lorenza Giordano)

Firmato digitalmente da SARA LORENZA GIORDANO

**Order:**
89347

**Item origin:**
sampled and supplied by the customer

**Activity date**
from 6 August 2021 to 19 April 2022

**Activity site:**
MASINARA S.p.A. - Via Albert Einstein, 8 - 40050 MONTEVEGLIO (BO) - Italy

**Contents** **Page**


Description of item[#] 2
Normative references 3
Apparatus 4
Method 4
Environmental conditions 4
Results 4
Findings 5



This document is made up of 5 pages and 1 annex and shall not be reproduced except in full without extrapolating parts of interest at the discretion of the customer, with the risk of favoring an incorrect interpretation of the results, except as defined at contractual level.
The results relate only to the item examined, as received, and are valid only in the conditions in which the activity was carried out.
The original of this document consists of an electronic document digitally signed pursuant to the applicable Italian Legislation.



**Chief Test Technician:**
Dott. Giacomo Rito
**Head of Security and Safety Laboratory:**
Dott. Andrea Bruschi

**Compiler:** Dott. Marina Bonito
**Reviewer:** Dott. Andrea Bruschi

**Description of item[#]**

The item is an electrically-operated roller shutter having the physical characteristics specified in the following table.

| | |
|---|---|
| **Overall width** | 7500 mm |
| **Overall height** | 4000 mm |
| **Clear opening width** | 7400 mm |
| **Clear opening height** | 3900 mm |
| **Weight of the curtain** | 256 kg |

The item specifically consists of a grille rolling shutter with connecting link P77 made using tube for shutter shaft, diameter 101 mm, structural side plate with opening and sliding carriage, spring box SUPER 240X101X60 - with steel bearing. Further details of item specifications in annex "A".

**Customer supplied component list**

| Code | Description | Quantity |
|---|---|---|
| 006SG00024 | SLIDING CARRIAGE | 2 |
| 006SG00016 | SLIDING SUPPORT FOR TUBE 101 WITH BEARING | 2 |
| 005DC00350 | STRUCTURAL SIDE PLATE WITH OPENING 500x550x3,0mm | 2 |
| 001SD24101 | SPRING BOX SUPER 240X101X60 - WITH STEEL BEARING | 12 |
| 003AN00001 | PVC PROTECTION FOR SPRING BOX | 12 |
| 004FF00001 | POM SIDE STOP FOR SPRING BOX | 4 |
| 022BL00077 | CONNECTING LINK P77 GALVANISED STEEL TUBE 14 PITCH 77 TH.1,5 | 864 |
| 031EL00607 | STORMPROOF DP-GUIDE 80X80X80 - 2,0MM INT.25MM | 2 |
| 034GG00021 | GASKET FOR STORMPROOF DP RAIL 80X80 INT. 25MM | 4 |
| 008IN00003 | NYLON ENTRY GUIDE FOR STORMPROOF DP RAIL 60X70 AND 80X80 INT. 25MM | 4 |
| 030MV00058 | ELECTRONIC CONTROL UNIT M-PLUS with radio receiver (433,92MHz) | 1 |
| 030MV00064 | KEY-IN RADIO CONTROL 4 CHANNEL 433,92 Mhz | 1 |
| 030MV00065 | PUSHBUTTON M-TOUCH FOR PANEL CONTROL M-PLUS | 1 |
| 030MV00041 | EASYBOX - INTERNAL BRAKE RELEASE DEVICE | 1 |
| 030MV00080 | WIRELESS FLASHING LIGHT MOVLED WITH MOTION SENSOR | 1 |
| 030MV00066 | SAFETY LIGTH BARRIER INFRARED H2430MM LIGI07 OSE TOT. H.2555 MM | 1 |
| 002MO60X12 | STEEL SPRING 60X1,2 | 12 |
| 023GC00002 | CONNECTING HOOK FLAT FOR TUBE D.14 TH.4,0MM | 72 |
| 024CL00021 | SCREW FOR NYLON PLUG -CH.4 | 94 |
| 024CL00014 | NYLON PLUG FOR PIPE D.14x1,2MM - EXT.D. 25MM | 94 |
| 024CL00025 | PLATE FOR SIDE CHAIN PITCH 77 | 94 |
| 025TB00013 | STRAIGHT TUBE 14 X 1,2 MM GALVANIZED - L. 7,5 ML | 49 |
| 025TB00027 | STRAIGHT TUBE FOR SHAFT D.101 x 3,0MM | 1 |
| 030MT00000 | DOUBLE MOTOR 101x240 | 1 |

([#]) according to that stated by the customer; Istituto Giordano declines all responsibility for the information and data provided by the customer that may influence the results.

**Item photograph**

## Normative references

| Standard | Title |
|---|---|
| UNI EN 12604:2002 | Porte e cancelli industriali, commerciali e da garage - Aspetti meccanici - Requisiti e metodi di prova *(Industrial, commercial and garage doors and gates - Mechanical aspects - Requirements and test methods)* |
| UNI EN 12605:2001[##] | Porte e cancelli industriali, commerciali e da autorimessa - Aspetti meccanici - Metodi di prova *(Industrial, commercial and garage doors and gates - Mechanical aspects - Test methods)* |

([##]) as a departure from the standard due to product type.

**Apparatus**

| Description | In-house identification code |
|---|---|
| cyclic movement control system comprising microprocessor and special electromechanical control interface | // |
| cycle counter + timer to count the number of cycles carried out, sealed and marked with signatures | // |
| AEP Transducers TS 1 kN load cell and DFI (digital force indicator) | EDI104A |
| GEFRAN PZ-34-S-150 linear displacement transducer, measuring range 0-150 mm | FT451/1 |
| electropneumatic apparatus for the operating cycle complete with PLC and cycle counter | // |

**Method**

| Normative reference | Clause and standard | Description/parameters |
|---|---|---|
| clause 5 of standard UNI EN 12604:2002 and clause 5.2 of standard UNI EN 12605:2001 | durability test | 165 cycles per d<br>9 min each cycle<br>In agreement with the customer, all intermediate functional checks, routine maintenance, resets and intermediate visual inspections were carried out by Masinara S.p.A. |

**Environmental conditions**

| | |
|---|---|
| **Temperature** | (15 ÷ 28 ± 1) °C |
| **Relative humidity** | (40 ÷ 70 ± 5) % |

**Results**

| Cycles conducted | Date | Event | Operation performed | |
|---|---|---|---|---|
| | | | by Masinara | by Istituto Giordano |
| 1 | 6 August 2021 | test begins | -- | monitoring |
| 3002 | 24 August 2021 | -- | visual inspection passed | -- |
| 4080 | 31 August 2021 | engine not working | changed the pinion | -- |
| 6650 | 11 October 2021 | -- | visual inspection passed | -- |
| 6871 | 14 October 2021 | -- | added Movled battery flasher | -- |
| 7824 | 21 October 2021 | engine not working | changed the circuit | -- |
| 8824 | 2 November 2021 | -- | visual inspection passed | -- |
| 9824 | 9 November 2021 | -- | visual inspection passed | -- |
| 12484 | 26 November 2021 | engine not working | changed the gears | -- |
| 13925 | 24 January 2022 | -- | visual inspection passed | -- |
| **16673** | 19 April 2022 | engine not working | functionality test passed | monitoring |
| | | | visual inspection passed | |
| | | test ends | -- | |

When the test was halted by the customer, the item was still in a fully-operational and failure-free condition.

**Findings**

| Cycles conducted | Visual inspection | Functionality test |
|---|---|---|
| 16673 | passed | passed |

Chief Test Technician
(Dott. Giacomo Rito)

Head of
Security and Safety Laboratory
(Dott. Andrea Bruschi)

# ANNEX “A”
# TO TEST REPORT No. 406367

Customer

**MASINARA S.p.A.**

**Via Albert Einstein, 8 - 40050 MONTEVEGLIO (BO) - Italy**

Item#

**electrically-operated roller shutter named “Grille rolling shutter 7,5×4,0 - sliding system”**

Contents

**item technical documentation**

(#) secondo le dichiarazioni del cliente.

Bellaria-Igea Marina - Italy, 19 June 2023

**Order:**
89347

**Item origin:**
sampled and supplied by the customer

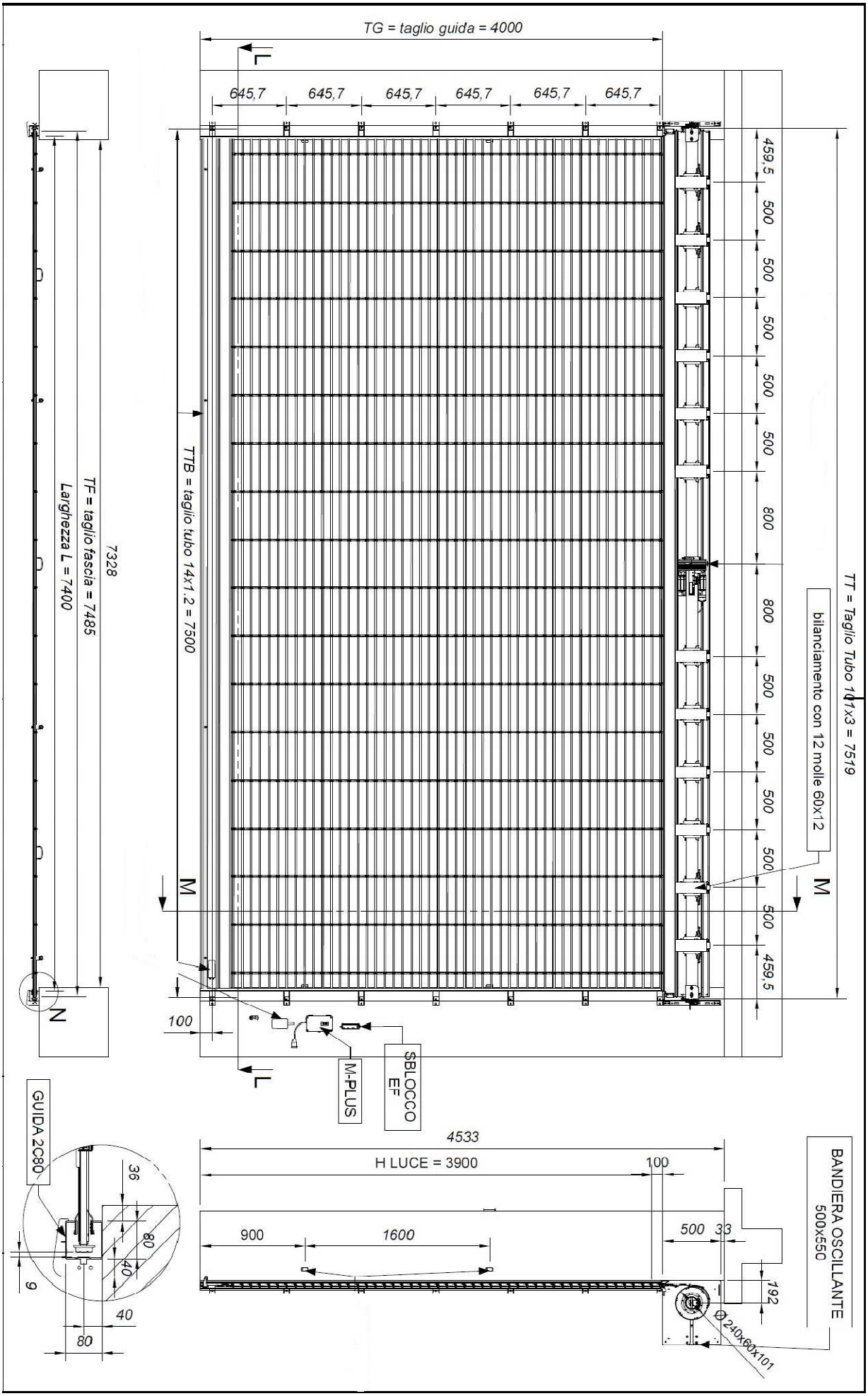
**Activity date**
from 6 August 2021 to 19 April 2022

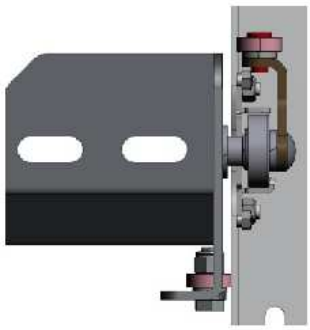
**Activity site:**
MASINARA S.p.A. - Via Albert Einstein, 8 - 40050 MONTEVEGLIO (BO) - Italy

This annex consists of 3 pages.



**ISTITUTO GIORDANO S.p.A.** Via Gioacchino Rossini, 2 - 47814 Bellaria-Igea Marina (RN) - Italia - Tel. +39 0541 343030 - istitutogiordano@giordano.it - www.giordano.it
Cap. Soc. € 1.500.000 i.v. - R.E.A. c/o C.C.I.A.A. (RN): 156766 - Registro Imprese Romagna (Forlì-Cesena e Rimini) e CF/P. IVA: n. 00 549 540 409


TG = taglio guida = 4000
645,7
645,7
645,7
645,7
645,7
645,7
459,5
500
500
500
500
500
800
800
500
500
500
500
500
459,5
TTB = taglio tubo 14x1.2 = 7500
TT = Taglio Tubo 101x3 = 7519
TF = taglio fascia = 7485
Larghezza L = 7400
7328
bilanciamento con 12 molle 60x12
M
M
L
L
N
100
M-PLUS
SBLOCCO EF
GUIDA 2C80
36
80
40
9
40
80
4533
H LUCE = 3900
100
900
1600
500
33
192
Ø 240x60x101
BANDIERA OSCILLANTE
500x550

| | |
|---|---|
| Art. 006SG00024<br>SLIDING CARRIAGE<br>It is equipped with 4 bearing, it allows the axis to move when the diameter of the rolling curtain changes.<br>Load test over 1000 kg | |
| 006SG00016<br>SLIDING SUPPORT FOR TUBE 101 WITH BEARING<br>With integrated bearing on the bottom side.<br>Nominal Load test over 1000 kg |  |
| 005DC00350<br>STRUCTURAL SIDE PLATE WITH OPENING 500x550x3,0mm<br>Open side for mounting the shaft with the SLIDING CARRIAGE already fixed.<br>Nominal Load test over 1000 kg | |
| 001SD24101<br>SPRING BOX SUPER 240X101X60 - WITH STEEL BEARING<br>With galvanized steel bearing that allows the lowest coefficient of friction (0,60 Nm) on shaft D.101mm | |
| 022BL00077<br>CONNECTING LINK P77 GALVANISED STEEL TUBE 14 P.77 TH.1,5<br>Connecting link in galvanised steel and polished finish<br>Easy interlocking mounting system with clip, weldless and screwless. | |