

TEST REPORT

Render to: Windloch Windows

TITLE	SUMMARY OF RESULTS
Product manufacturer:	Winloch
Product type:	Casement mulled vertically with fixed
Product series/ model:	Windloch WS-75
Over all size	1219mm x 3048 mm (48"x120")
Air infiltration @6.24 PSF :	<0.05L/sm2 (<0.01 cfm/ft ²)
Water penetration resistance (Astm 331):	960 Pa (20 Psf)
Test completion date:	03/09/15
Report # 15-0009-A	

Report No: 15-009-A
Test Completion Date: 3-9-15
Report Date: 3-10-15
Report Retention Date: 3-10-25

Client: Yoav Ben Shimon
Windloch
467 Brooke Ave- Unit C
Deer Park, NY 11729

Test Specifications

NYC Building Code Chapter §12-11:

Specifications for Window Guards for other than Double Hung Windows.

ASTM E 283:

Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.

ASTM E 331:

Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.

ASTM E 330:

Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.

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(631) 815-1920 Office
(631) 815-1901 Fax

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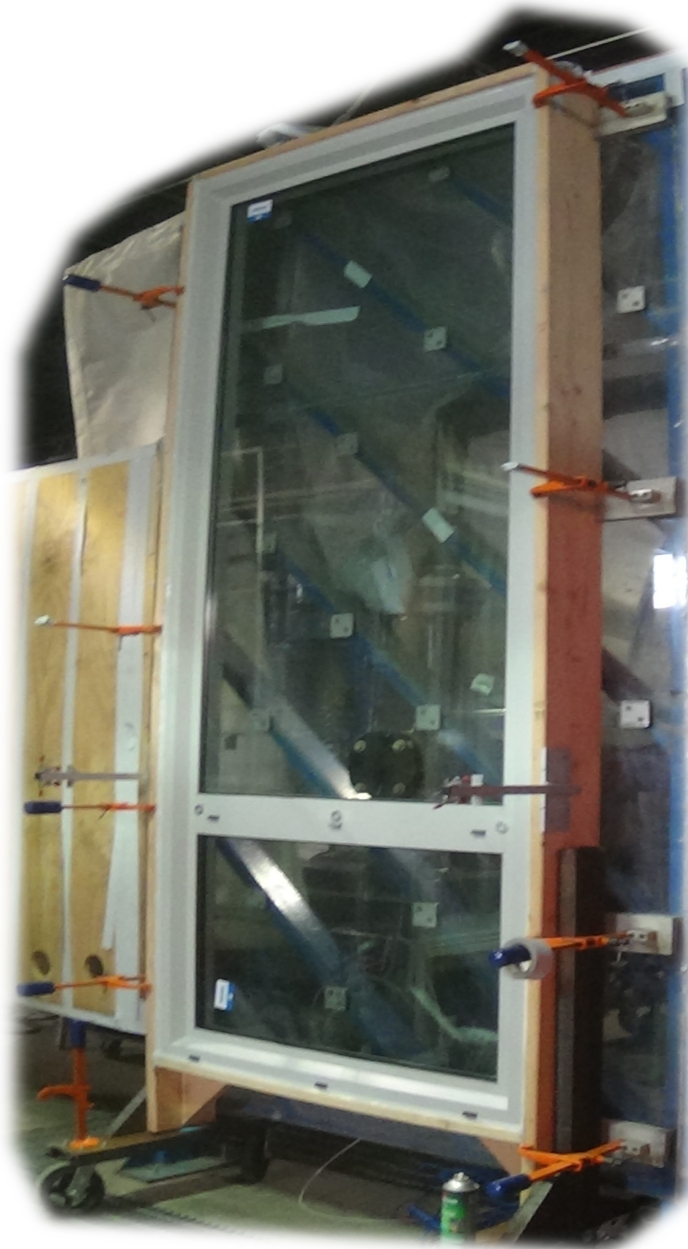
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Test Specimen:



Specimen drawing attached

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Window, Door and Curtain Wall Testing

Installation:

Unit is installed into a 2x8 Douglas fir buck with a total of 20 anchors.

All frame members have an anchor centered at around 6” away from the edge of the unit. The head and sill have three anchors each.

The Jambs have seven anchors each. Spacing between anchors is approximately 20” except by the combination mullion where there are anchors located just above and below on both jambs.

Each anchor has one or two screws that fasten the anchor to the buck.

Window, Door and Curtain Wall Testing

Results

Paragraph	Test	Result	Allowable
(5.3.2)	Air Infiltration ASTM E283 @300 Pa (6.24psf)	Pass <0.05 L/sm ² <0.01 cfm/ft ²	Reported
(5.3.2)	Air Infiltration ASTM E283 @75 Pa (1.57psf)	Pass <0.05 L/sm ² <0.01 cfm/ft ²	Reported
(5.3.3)	Static Water Penetration ASTM E331 @ 575 Pa (12Psf)	Pass	No Water
(5.3.3)	Static Water Penetration ASTM E331 @ 718 Pa (15Psf)	Pass	No Water
(5.3.3)	Static Water Penetration ASTM E331 @ 958 Pa (20Psf)	Pass	No Water
(5.3.4.2)	Uniform Load max Deflection ASTM E330 @ + 4310 Pa Positive (90 PSF) Horizontal combination mullion	Pass 1.27 mm (0.05")	Reported
(5.3.4.2)	Uniform Load Max Deflection ASTM E330 - Pa Negative (-90 PSF) Horizontal combination mullion	Pass -1.27 mm (-0.05")	Reported
(5.3.4.2)	Uniform Over load Max Deflection ASTM E330 @ + 6464 Pa (Positive 135 PSF) Horizontal combination mullion	Pass 0.25 mm (0.01")	Reported
(5.3.4.2)	Uniform Over load Max Deflection ASTM E330 @ - 6464 Pa (Negative 135 PSF) Horizontal combination mullion	Pass -0.25 mm (-0.01")	Reported



Window, Door and Curtain Wall Testing

Limit arm Test Procedure:

As per NYC building code standards, 150 lbs of force was applied to the center span of casement sash stile. This was achieved by measuring with a calibrated force gauge consisting of a load cell and a digital device. The maximum vent opening was measured before, during and after the test to detect any distortion. A 5” sphere was used to check all openings in the window; any location where the sphere could pass through the open window was to be considered a failure.

Specimen:

Two limit devices were installed to couple the top of the sash stile to the frame jamb and the bottom sash rail to the combination mullion. With the sash unlocked, the sash was not able to be opened more than 4 ½” in any location.

Limit arm test results:

The window tested passed all requirements for limit arm testing. In no location was the vent opening larger than 4.5” so that a 5” sphere can not be passed through the window. No distortion in the sash, frame, or limit arms was noted. Video of the test is available upon request. All opening measurements were taken at the mid-span of the stile where the load was applied and deflection is greatest. These measurements were taken before during and after each test. No gross deflections or distortions were detected.

Window, Door and Curtain Wall Testing

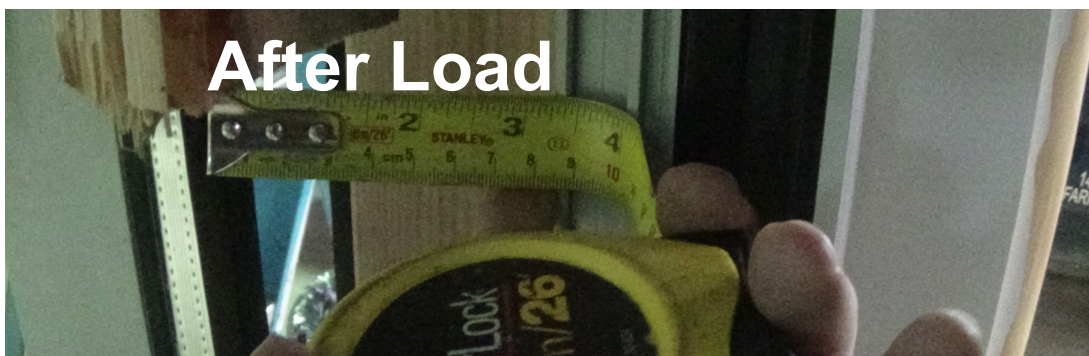
Window Guard Acceptance Board Specimen 1 (3/10/15)

Company:	Contact:
Windloch 467 Brooke Ave- Unit C Deer Park, NY 11729	Tel: 1-718-640-8391
Window Type:	
Aluminum Casement WS-75	
Part Type/ ID#:	Model/Series:
mfgr part no. 904301	WS-75
Hardware:	Device Maker:
Limit arm hardware set with Stainless limit arm. Die-cast Zamak slider and stopper nylon spacer	Giesse
	Screw Type:
	Three counter sunk #6 x 3/4 Stainless screws with a Security T4 Torx drive.

**MT GROUP Certified
Laboratory Test
Report Results**

Window Model/Series	Width	Height of casement	Prior to Load	With 150 lbs Load	Post Load	Test Position
WS-75	48"	87.75	3"	3-7/8"	3-1/4"	Mid span stile

Window, Door and Curtain Wall Testing



Window, Door and Curtain Wall Testing



This report is prepared for the convenience of our customers and endeavors to provide accurate and timely project information. It is the exclusive property of the client so named herein and relates only to the specimen(s) tested. It contains a summary of observation made by a qualified representative of Materials Testing Lab, Inc. This report is intended to help in your Quality Assurance Program, but it does not represent a continuous nor exhaustive evaluation. The statements made herein do not constitute approval, disapproval, certification, or acceptance of performance or materials. This report may not be reproduced, except in full, without the written approval of Materials Testing Laboratories, Inc.

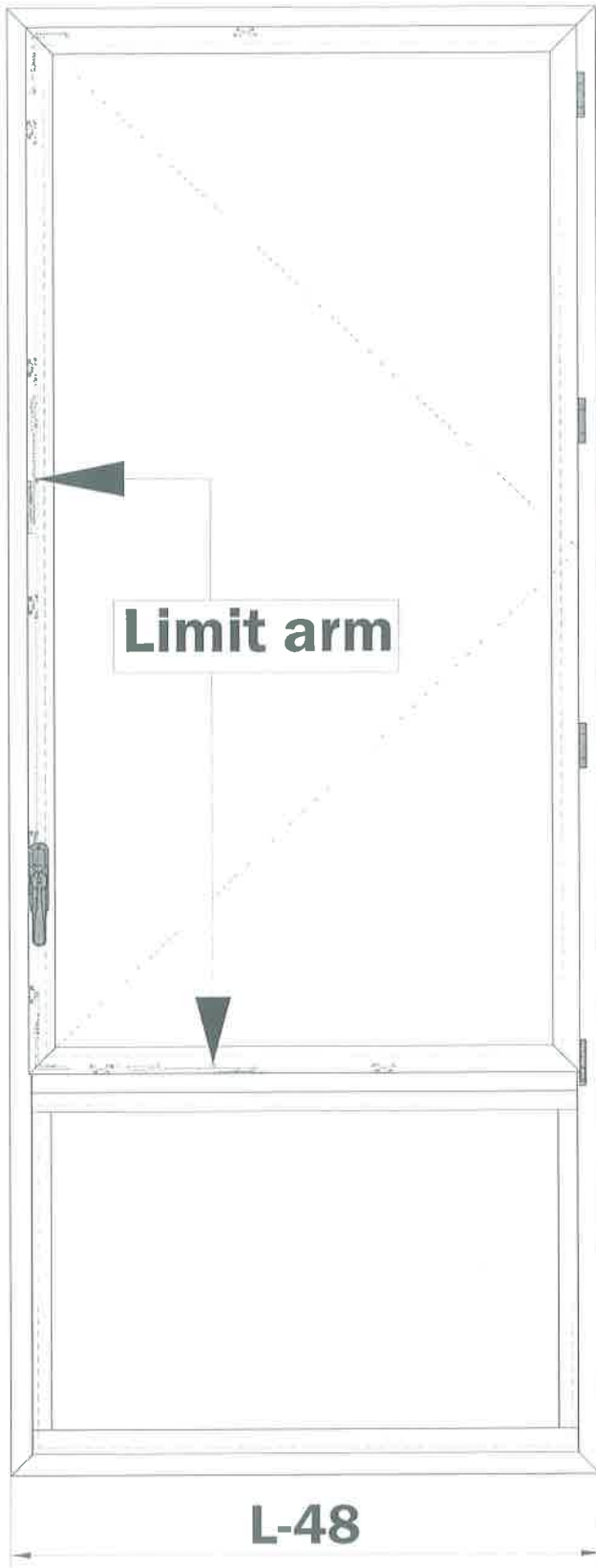
*A copy of this report will be retained by Materials Testing Lab, Inc, for a period of seven years.
This report is the exclusive property of the client so named herein.*

For Materials Testing Lab, Inc.

Craig Ginsberg
Mechanical engineer
Date: 3/10/15

Approved 
by: _____

Frank Pennisi
Vice President
Date: 3/10/15



MT GROUP
TEST SPECIMEN COMPLIES
WITH THESE DETAILS
ANY DEVIATION IS NOTED
 REPORT NO. 15-009-A
 TEST DATE: 3-9-15

WINDLOCH 3788 SW ARMADILLO TRL ARCADIA, FL 34266 (718)-640-8391 (941)-626-8272 (941)-718-4868 Fax info@windloch.com WWW.WINDLOCH.COM	PROJECT NAME: 52 Wooster st.		CAD FILE 52W.dwg	
	DESCRIPTION: Mockup Window for the testing Elevation		DATE: Jan/28/15	REV 1
	DESIGN BY: YOAV BEN-SHIMON	SYSTEM MODLL: Windloch WS-75	SCALE: 1:15	
			DRAWING NUMBER: 1	

ADDITIONAL ARM T/T. - RESTRICTOR
904301
Functions

Additional arm for combining with the type 2 arm on windows with sashes wider than 1000 mm, whose function is to distribute the force with which the sash is opened during tilt opening.

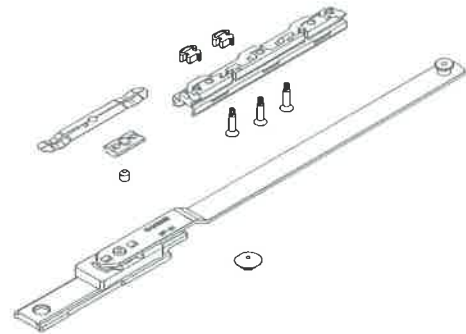
The same arm can also be used on ARCHED and SLANTED windows with sashes wider than 900 mm.

Finish

Base finish

Packaging

Box of 5 pieces


Tecnical Features

The additional arm is used on sashes wider than 1000 mm and fitted to the upper cross beam on the opposite side to the arm (corner drive side), preventing an excessive leverage during tilt opening which could otherwise impair window operation.

The arm comprises a component to be hooked to the corner drive without fixing screws, a rod and a slider to be fixed to the frame with the two supplied grub screws.

The component and the respective slider function only when through the cremone the mechanism is set in the tilt opening position. In fact, the pin on the rod fixed to the corner drive enters the slider on the frame only in this case.

During the tilt opening, the sash pin moves inside the slider, preventing the sash from opening excessively and balancing the weight on the type 2 arm as well as on the additional arm.

For ARCHED or SLANTED windows, the additional arm is used on the command side, fixed directly to the cremone drive or the window handle mechanism.

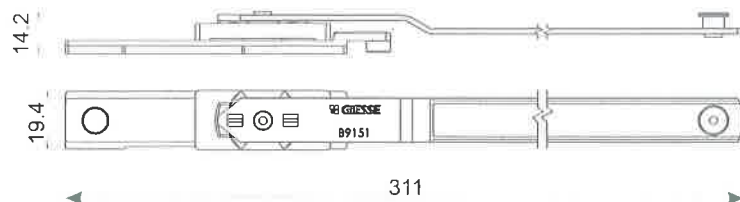
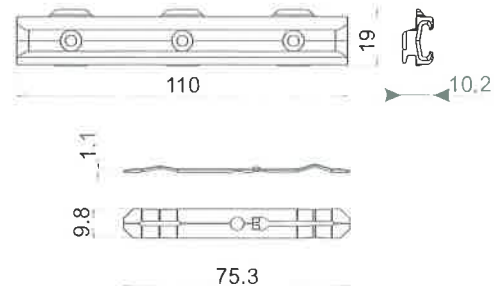
Its use, which is essential to increase the window security level, is recommended for sashes widths from 900 to 1100 mm, and compulsory for sashes wider than 1100 mm and heights greater than 1600 mm.

Parts

Instructions sheet

Materials

Stainless steel arm
Die-cast zamak slider
Nylon spacer
Steel screws
Zamak stopper


SYSTEM MODEL: WS 75
CAD FILE : WS-75 cat.dwg
SCALE : 1:1
VER - DATE: 2 - May/08/14
PAGE : 75-13-55

KEYED HANDLE 3 POSITIONS
901149
Functions

Specific cremone for operating GIESSE tilt-and-turn mechanisms, in logic version.

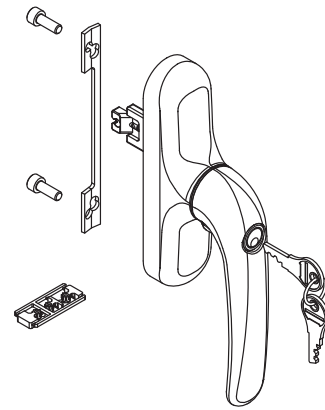
The key provided allows the user to select only bottom-hung opening of the window but not complete opening (possible only when in actual possession of the key).

Finish

Natural, painted in RAL 9010, silver, white, pearl white, black.

Packaging

Box of 10 pieces


Technical Features

90° and 180° rotation of the handle with snap positioning.

Depending on the position of the key with respect to the cylinder, the following are possible:

- 1, to block the sash in closed position, blocking the rotation of the handle at 0°.
- 2, to block the rotation of the handle at 90°, allowing bottom-hung closing and opening of the sash, but not complete opening.
- 3, complete rotation of the handle through 0°, 90° and 180°, thus allowing complete opening of the sash. In this case the key cannot be extracted so that, for the user, it is clear that the window is open. In fact the key can be extracted only when the handle is in closed or bottom-hung position (0° or 90°).

The use of high quality die-cast materials, together with the GIESSE painting system, guarantees excellent mechanical performance, colour uniformity and strong resistance to abrasion.

The cremone is designed for fitting on working C/C distances of 104 mm and 92 mm.

Each article in the PRIMA line is packaged singly in a special polystyrene box protecting it from the phase of installation until it is used.

Parts

Instructions sheet

Materials

Die-cast aluminium handle

Case, slide and dummy control device in die-cast zamak GS SILVER PLUS

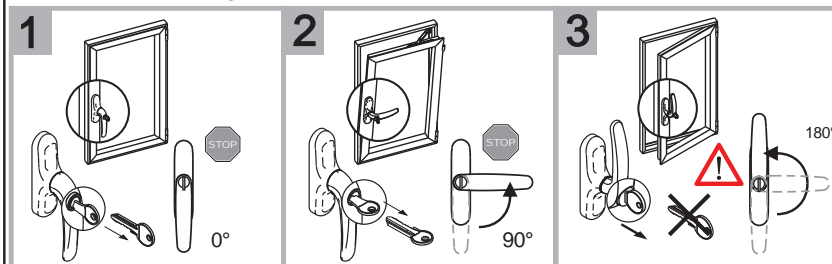
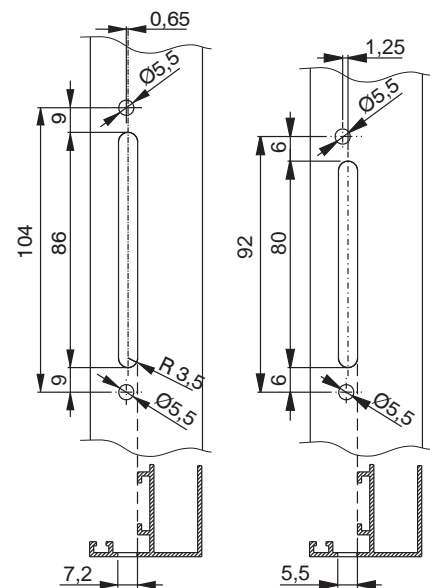
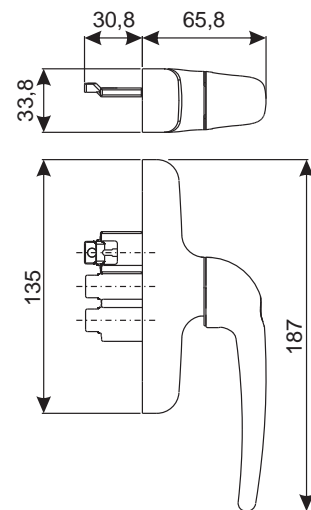
White galvanised zamak gear

Internal sheath and base in hostaform

Nickel-plated brass key and cylinder

Steel spring

Stainless steel fixing plate and screws


SYSTEM MODEL: WS 75
CAD FILE: WS-75 cat.dwg
SCALE: 1:1
VER - DATE: 2 - May/08/14
PAGE: 75-13-11

