www.lgfsysmac.com

LGF SYSMAC (INDIA) PVT. LTD.
Corporate address: 402-403, Tower C, NDM - 2, Netaji Subhash Place,New Delhi-110034
T +91 11 47348888 **F** +91 11 47348899 **E** info@lgfsysmac.com

Who are we?

LGF SYSMAC a 15 Years Young and Vibrant Company Characterized by

- ✓ Young and dynamic leadership
- ✓ Customer centric approach
- ✓ Constant improvement through innovative and out-of-the-box
- ✓ Quick response to changing customer needs
- ✓ Focus on role for developing a green planet
- ✓ Partnering with the world's best in class
- ✓ 250+ machine tool customers all over india and 500 + hardware projects completed successfully
- ✓ Pan india presence with HO in delhi and representation in major cities
- ✓ 60 dedicated and committed people – 10 service personnel

Who we are?

Our growth partners

- Alu Alpha, Portugal
- Securistyle, UK
- URBAN, Germany
- Hautau, Germany
- Zobel, Germany
- LGF, Italy
- GMC, Italy
- **UCS, Italy**
- Müller Technologies, Switzerland
- Yilmaz, Turkey

Hardware product range

- Standard categories
  - Casement door
  - Casement window
  - Sliding door
  - Sliding window
- New categories
  - Parallel opening windows
  - Parallel Slide windows & doors
  - Tilt and Slide windows & doors
  - Lift & slide windows & doors
  - Slide & fold doors
  - Tilt & turn windows
  - Pivoted windows
  - **Motorized solutions (smoke evacuation & natural ventilation)**

ULTRAFLEX

Ultraflex Group has over 80 years of experience in manufacturing and distributing the highest quality and most innovative products.

The Ultraflex Group affiliate companies design and produce widely known equipments in the Marine, Industrial, Architectural, alternative energy fields.

LGF sysmac INDIA PVT. LTD.

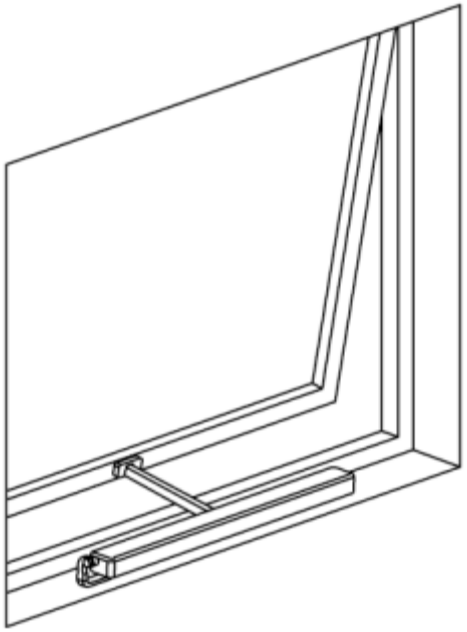
PRODUCTS

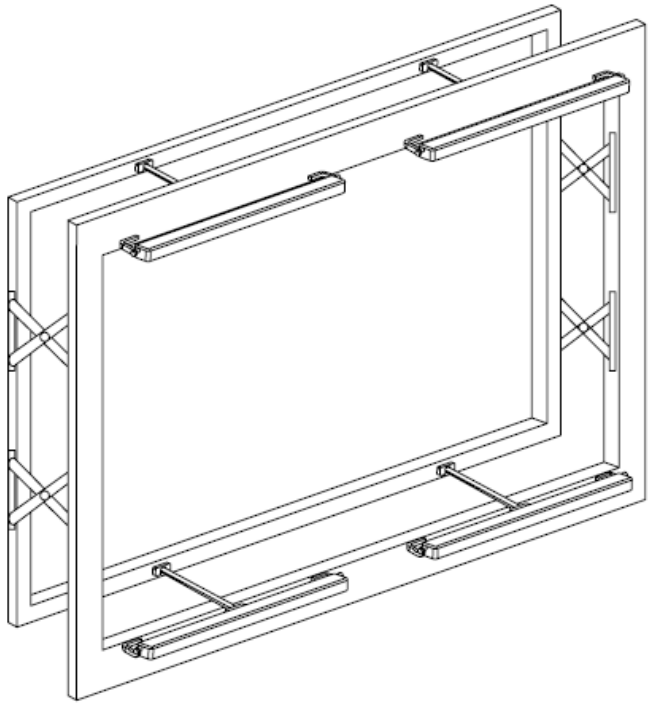
ELECTRICAL SYSTEMS

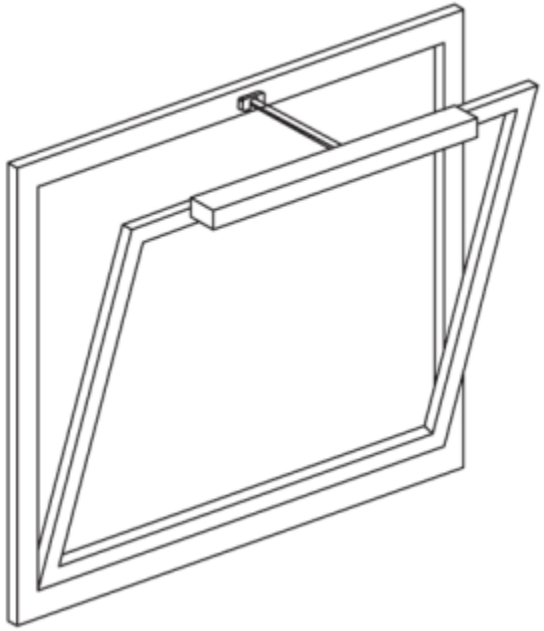
PNEUMATIC SYSTEMS

MANUAL SYSTEMS

ELECTRICAL CHAIN MOTORs







NATURAL SMOKE AND HEAT EXHAUST VENTILATION

Improve the indoor safety condition in case of fire inside of building.

WINDOW REMOTE CONTROL AND OPERATION SYSTEMS

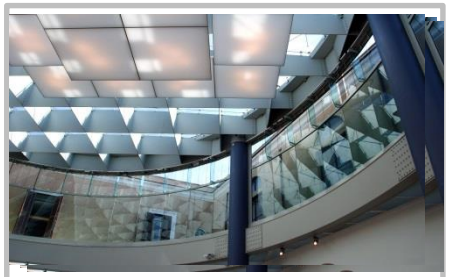
Where ?

Stadiums - Arenas

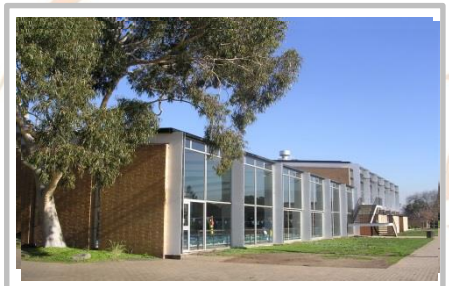
Airports

Hospitals

Schools Universities



Museums



Library

Theaters

Shopping Center

Warehouse Industrial

Office Buildings

Hotels

Exhibition Centers

Where ?

- **INDUSTRIAL APPLICATIONS**
- Office
- Skylights – Domes
- Clerestory windows
- Sun blades
- Airport
- Bibliotheca
- Façade windows and High Rise





Where ?

- **RESIDENTIAL APPLICATIONS**
- Roof windows
- Sunrooms – Conservatories
- Villas – Million Dollar Homes

Why ?

- ***EMERGENCY SYSTEMS***
- **SMOKE VENTILATION**

➢ Smoke is the first cause of death during a fire in a building.

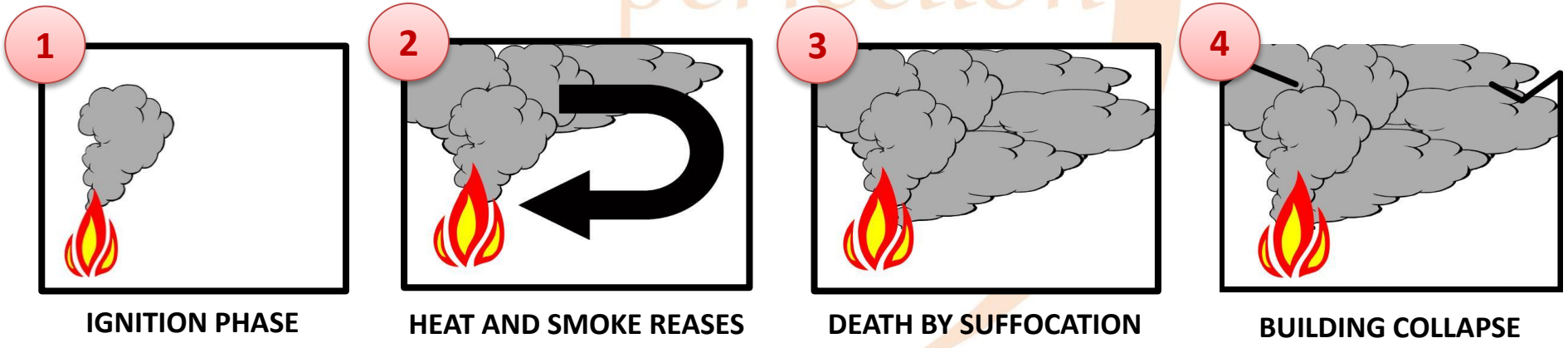
➢ Emergency exits, escape routes must be free of smoke.

➢ Firemen can enter, save lives and extinguish fire.

MAIN RISKS DURING FIRE

In the event of fire inside of a building, smoke and heat gases rise up in the building, creating a layer of dangerous gases under the ceiling, which fill up the room in a very short time.

The smoke precludes the visibility of the emergency exit or impedes the prompt intervention of the firemen. Due to the toxic substance of the smoke, the 90% of all fire victims die due to **smoke inhalation**. Furthermore the high temperature inside of the building, could generate explosion or big damages to the building structures, with the consequent collapse, called **flashover** .



WHY USE SMOKE VENTILATION?

- 3

For avoiding the above dangerous events and keeping escape routes clear for longer and also ensure the fire service can quickly and safely locate and extinguish a fire, a natural smoke and heat exhaust systems (NSHEV) must be integrated in fire protection concept.

The NSHEV consists of a system of automatic opening windows installed in the upper sections of the façade or in the roof for let the building free from smoke and heat. Ventilation openings in the lower area increase the thermal uplift, generating a “chimney effect”. It is important to use doors for exit rather than windows.

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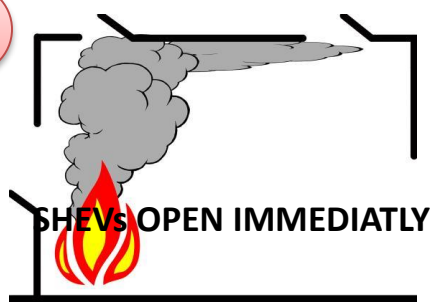

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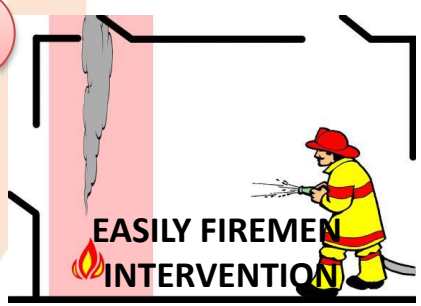

NSHEV DEFINITION:

The NSHEV consist in an electrical drive installed and operating on vertical or horizontal window design and developed for resisting to very high heat (up to 300°C) and reliability (up to 10.000 cycles) tests.

NSHEV systems can be divided in two main categories:

1. FAÇADE EXHAUST SYSTEM.
2. ROOF EXHAUST SYSTEM.

NSHEV DEFINITION:

CHAIN DRIVE

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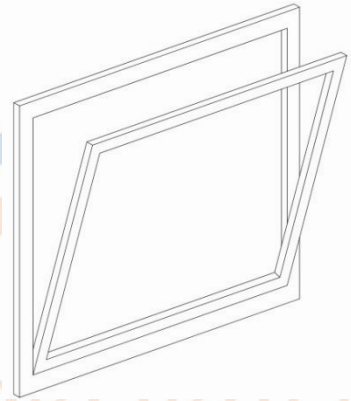

SHEV

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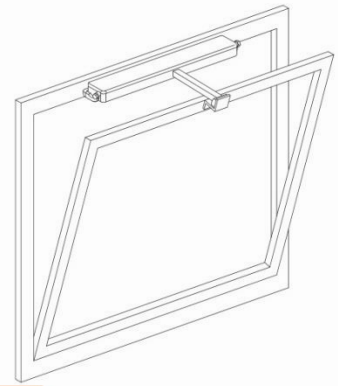

NSHEV

FAÇADE EXHAUST SYSTEM

RACK DRIVE

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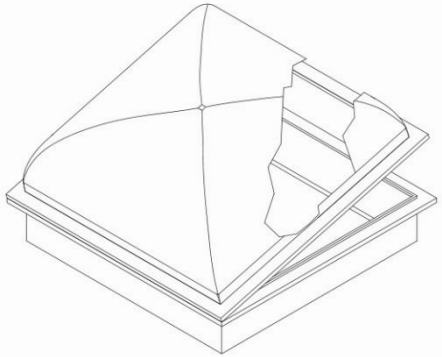

ROOF SHEV

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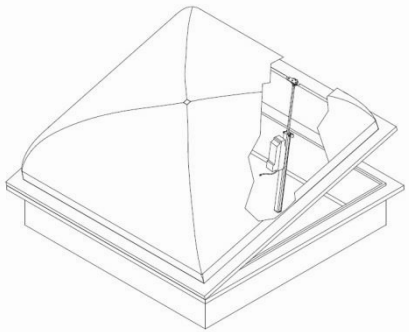
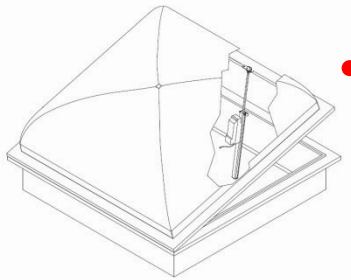


NSHEV

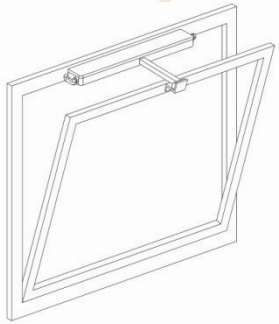
ROOF EXHAUST SYSTEM.

NSHEV SYSTEM:

NSHEV systems need electrical power supply 24Vdc and shall be connected to an electric system for smoke and heat extraction which are composed by a control unit and related smoke and heat detector and/or emergency push buttons. The control unit shall be include power supply backup solution aim to grant the 24Vdc even if the main power supply 230Vac is down due to the blackout caused by the fire.



NSHEV
ROOF EXHAUST SYSTEM.



NSHEV
FAÇADE EXHAUST SYSTEM

Main characteristics

MODEL	POWER SUPPLY	MAX STROKE	MAX FORCE	*PLUS VERSION*	*ADV VERSION*
QUASAR	24Vdc	500mm	300N	 	  
VEGA	24Vdc	300mm	300N		 
QUASAR-L	24Vdc	600mm 750mm 1000mm	300N	*Only on request*	
TWIN QUASAR	24Vdc	500mm	600N	*Only on request*	
TWIN VEGA	24Vdc	300mm	600N		

Basic Information

- **ESSENTIAL**

1. Type of window (top/bottom hinged, skylight …)
2. Window Dimensions
3. Weight (at least thickness of glass)
4. Natural or Smoke ventilation or both
5. Quantity (price, customization, manual controls)
6. Building layout

- **IMPORTANT**

6. Stroke requirements
7. Type of hinges
8. Standards and certification requirement.

Notions about evacuation

- Windows are easier access for fire evacuation. Never. Doors are meant to be used for fire escape. It is important to have them smoke free.
- It helps to have an opening from outside the window in facades. Yes it does, but then security is compromised and hardware solutions do not exist for dual opening of windows.
- Lets look at the following video.

Thank you for your attention