

Smoke Ventilation



UNIQUE
WINDOW SERVICES

The Concept

When a fire breaks out and is unable to be controlled, smoke and deadly gases will quickly fill the effected space and then spill into other parts of the home or office.

The speed at which fire and smoke can move can be very scary and this can make it nearly impossible for occupants to escape.

Smoke alarms are a great way to notify you when smoke is first detected, wouldn't it be great though to give the occupants more time to get out of the building?

Phone:
(07) 3265 5771

Fax:
(07) 3265 5662

Web:
www.uniquewindowsservices.com

The Concept cont.

As mentioned in our 'Passive Ventilation' brochure, hot air rises, as does the heated smoke. What can be done to facilitate easier evacuations is to incorporate operable high level windows to give the smoke a passage of escape. The most life threatening element of a fire is the inhalation of smoke, so to give that dangerous element a means of clearing the space the occupants of the office or home are given more time to escape. Removing the smoke also increases visibility for the users of the building.

There are several preventive measures that are now being integrated and installed into new residential and commercial developments. A Smoke Ventilation System incorporated into the early design concept does increase the ability of the end users to escape in the event of a fire emergency. Operable high level windows that are linked to the Building Management System can be opened within seconds of the smoke being detected.

What can happen in fire emergencies is that power can be lost and therefore compromise the operation of the system. To overcome this, a failsafe battery backup with fire rated cabling can be installed to ensure the effectiveness of the windows even with the loss of mains power.

On a commercial scale, Unique Window Services has been involved with some of Brisbane most recent landmark projects.

Brisbane Central, located on Queen Street Mall, consisted of two conjoining stages; firstly refurbishing the old T and G Building; the second was a completely new building on Albert Street.

Smoke dispersal systems were installed into each building with electrically operated awning sashes which were strategically placed into various areas of the buildings to create a pathway for smoke to escape. Linked directly to the building management system and a battery backup these windows will open immediately upon smoke detection.

The second project of note is Portside Wharf at Hamilton. Our role here was to automate the high level windows in the common areas to create a smoke vent. Not only does the opening of these windows allow the built up gases a way to escape, it is an ongoing process where the continued diversion of the smoke is allowed. The increased visibility not only helps the occupants escape but also assists with emergency personnel to gain access to the effected space, identify the cause and extinguish the fire.

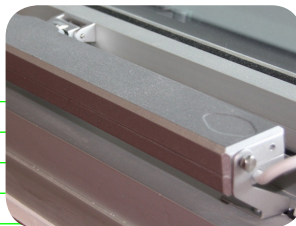
Unique Window Services have been servicing the window industry for the past 20years. We specialise in energy efficient automated window controls and welcome your call if you have any questions or would like a meeting regarding what can be achieved.



Products

Linco L2

Voltage	24v DC
Load Capacity - Push/Pull	250N/250N
Lock Force	600N
Current Under Load	0.6A max.
Stroke Length	<300mm
Stroke Speed at Full Load	6mm/sec
Operating Temperature Range	-15°C to 75°C
Limit Switch	Factory Preset
IP Grade	IP32
Electric Overload Cut Off	Built In



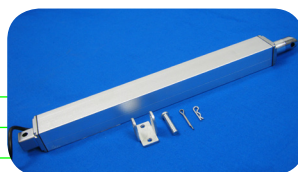
Linco L2S

Voltage	24v DC
Load Capacity - Push/Pull	250N/250N
Lock Force	600N
Current Under Load	0.6A max.
Stroke Length	<300mm
Stroke Speed at Full Load	6mm/sec
Operating Temperature Range	-15°C to 75°C
Limit Switch	Factory Preset
IP Grade	IP32
Electric Overload Cut Off	Built In



Linco S100

Voltage	12v DC
Load Capacity - Push/Pull	150N/150N
Lock Force	2000N
Current Under Load	3A max.
Stroke Length	50mm<300mm
Stroke Speed at Full Load	15mm/sec
Operating Temperature Range	-26°C to 65°C
Limit Switch	Factory Preset
IP Grade	IP54
Electric Overload Cut Off	Built In



Linco S200

Voltage	12v DC
Load Capacity - Push/Pull	500N/500N
Lock Force	3000N
Current Under Load	3A max.
Stroke Length	75mm<762mm
Stroke Speed at Full Load	15mm/sec
Operating Temperature Range	-26°C to 65°C
Limit Switch	Factory Preset
IP Grade	IP65
Electric Overload Cut Off	Built In



UNIQUE
WINDOW SERVICES

Phone:

(07) 3265 5771

Fax:

(07) 3265 5662

Web:

www.uniquewindowsservices.com

Projects

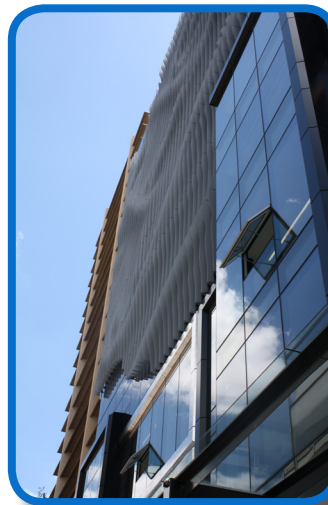
Brisbane Central

Product: UCS Supermaster Chain Winder

Located in the Queen Street Mall and consisting of two stages; the first refurbishing the old T&G Building; the second was a completely new 11 storey building on the corner of Albert and Elizabeth Street. Due to the building being heritage listed there were many compliance issues which expanded over 7 years before completion.

The main focal point and objective was to create a sustainable building that incorporates traditional and innovative design aspects.

Unique Window Services installed a smoke dispersal system into both buildings. Strategically placed throughout the buildings were operable windows wired to the building management system (BMS). Within seconds of smoke detection, low voltage actuators with fail-safe battery backup systems receive a signal from the smoke alarm, driving the windows open allowing smoke to escape and more time for evacuation.



Projects

Portside Wharf

Product: UCS Supermaster Chain Winder

Our role in this development was to automate the high level windows in common areas to create a smoke vent.

Within seconds of smoke being detected our motors are engaged through the Building Management System. The opening of these windows allows both the immediate escape of any built up smoke and other harmful gases and provides the continued means of diversion for these dangerous elements.

The purging of these gases increases visibility for patrons and the time that they have to escape in the case of a fire emergency. The increased visibility also allows emergency personnel a greater

chance of identifying and dealing with the issue and bringing the situation under control in a timely manner.

To ensure the ongoing functionality of the motors, should the mains power fail, also installed at Portside Wharf is a battery back-up system.



Unique Window Services

1/45 Kingtel Place
GEEBUNG QLD 4034

**Shane
Adam
James**

Phone:

(07) 3265 5771

Fax:

(07) 3265 5662

Emails:

**sales@uniquewindowsservices.com
marketing@uniquewindowsservices.com**

Web:

www.uniquewindowsservices.com

Phone:

(07) 3265 5771

Fax:

(07) 3265 5662

Web:

www.uniquewindowsservices.com