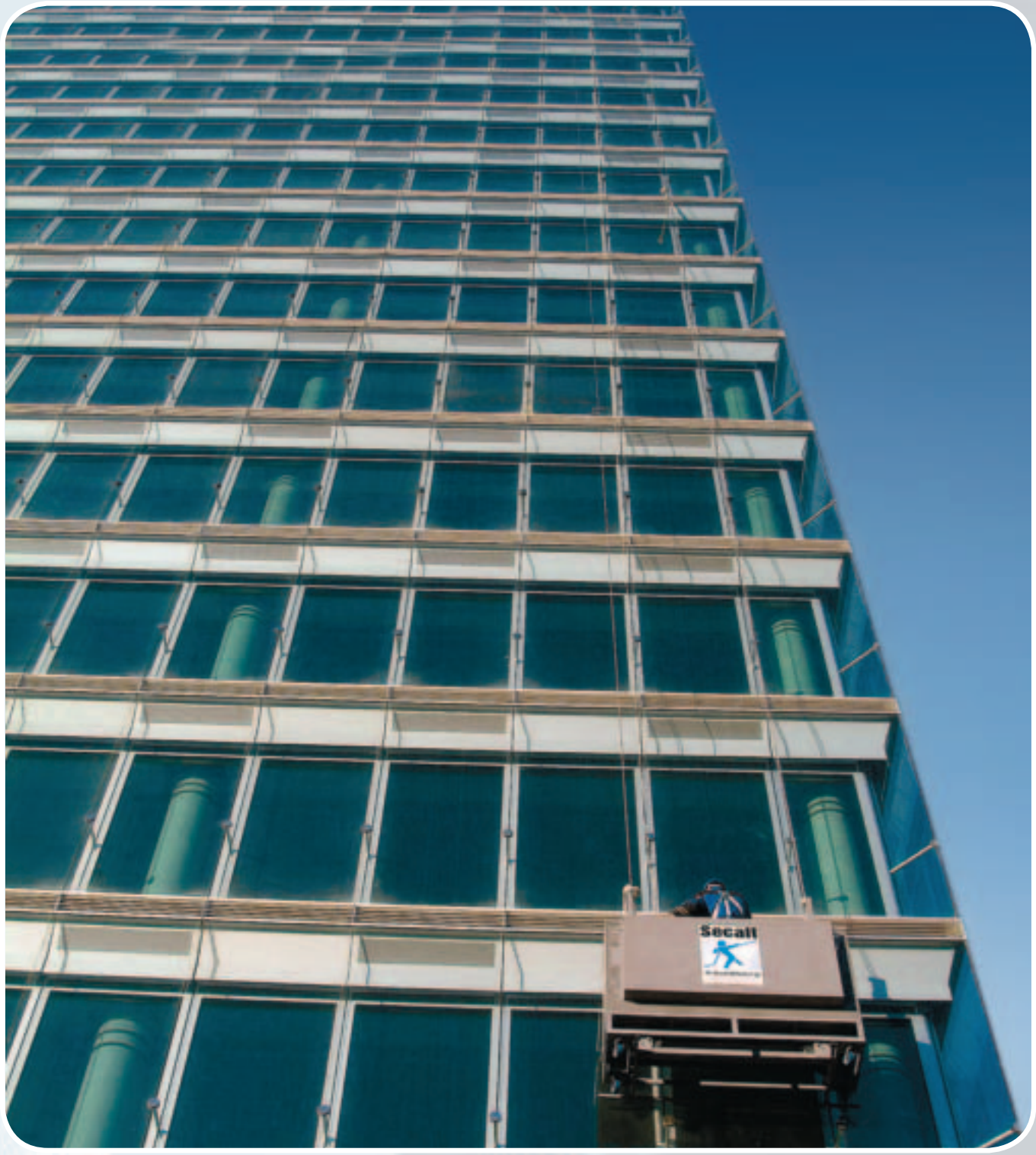
secalt®

building maintenance units



Tractel Group

Marconi (I)

Caesar Palace (USA)

TGI Bordeaux (FR)

Reichstag -Berlin (DE)

SECALT®: throughout the world

Gasprom (RU)

Deutsche Post Bonn (DE)

Chicago beach (UAE)

SECALT®: having the know-how

The TRACTEL® Group,

world leader for access systems through its operating company, SECALT S.A., based in Luxembourg, has a long experience in lifting and materials handling, suspended access and personal protection equipment. SECALT S.A. has been a specialist in suspended access for over 30 years and offers all types of permanent and temporary suspended access systems, with a complete range of technical solutions developed by its experienced personnel:

- **applications and design:**
  SECALT's engineers, with the fixed objective of offering the most technically adapted equipment to meet the requirements of increasingly sophisticated buildings, use the best calculation and CAD tools available to meet all the relevant standards and regulations whilst taking into account the customers' aesthetic and budgetary criteria.

- **production and quality control in factory:**
  with the aim of total Quality, the factory is certified to ISO 9001.

- **installation, commissioning and after-sales service:**
  our teams of technicians install our systems around the world and ensure a fast and effective service to give complete satisfaction to our customers.

Yapi Kredi Plaza (TR)

Jin Fan (CN)

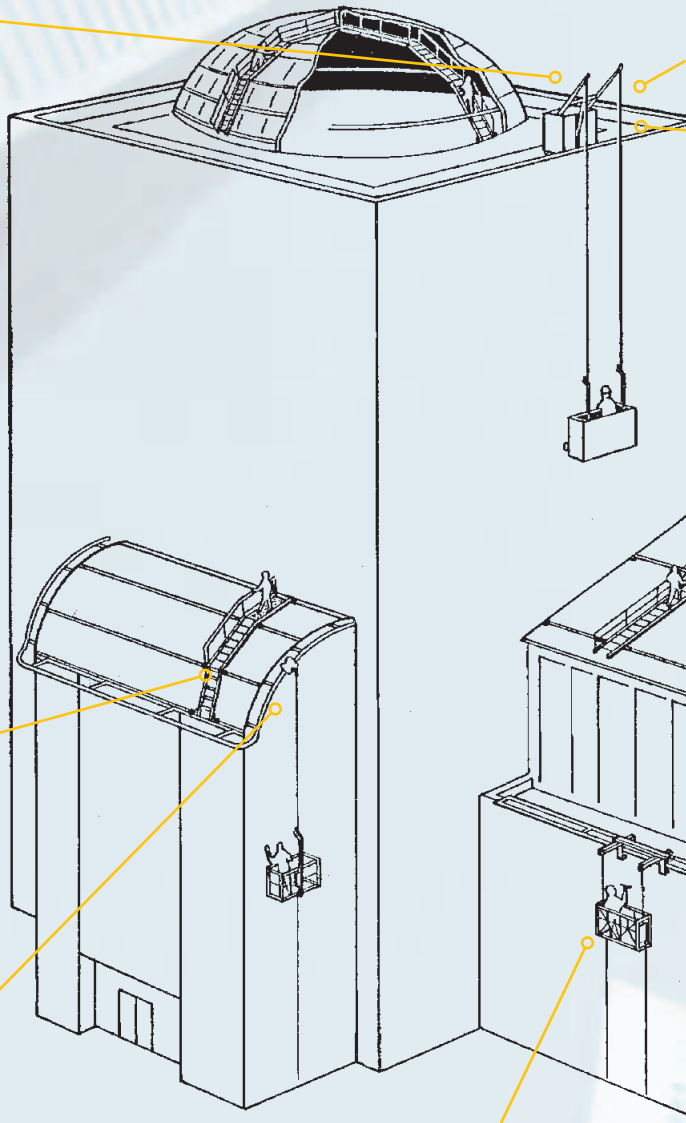
Emirates Towers (UAE)

For each building,

Machine traversing on track

Ladder for external maintenance of glazed surfaces

Cradle suspended from trolley traversing on rail

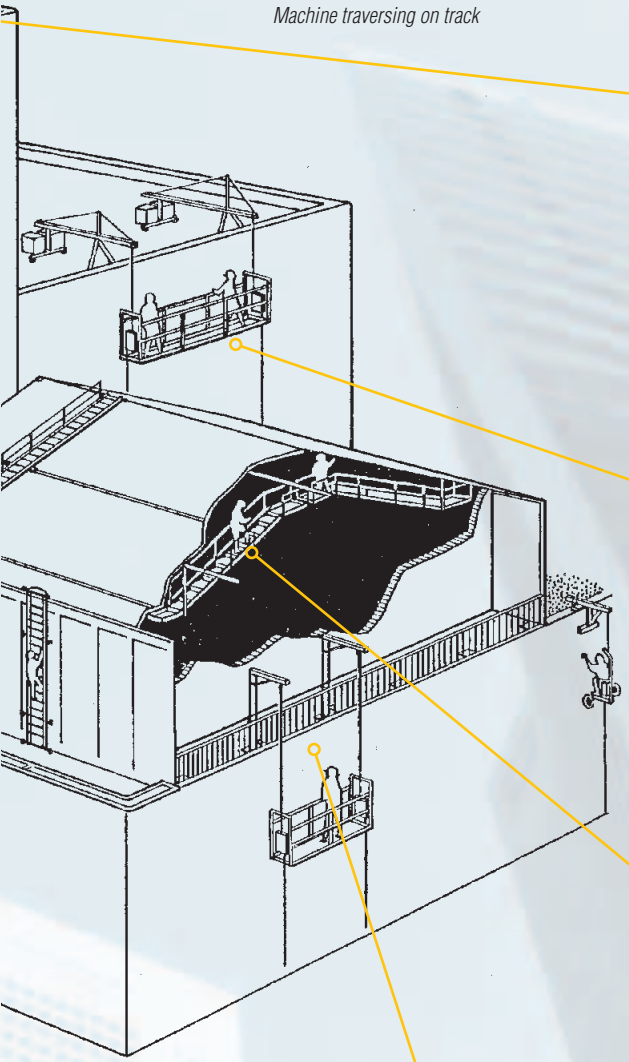


Cradle suspended from parapet mounted powered trolley

its own solution

Machine traversing on track

Machine traversing on track



Cradle suspended from Portafix beams

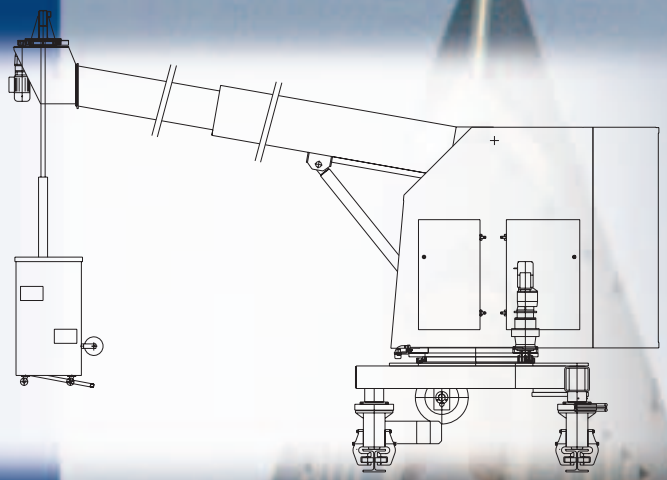
Travelling platform for internal maintenance of glazed surfaces

Cradle suspended from fixed Davits

Compact machines

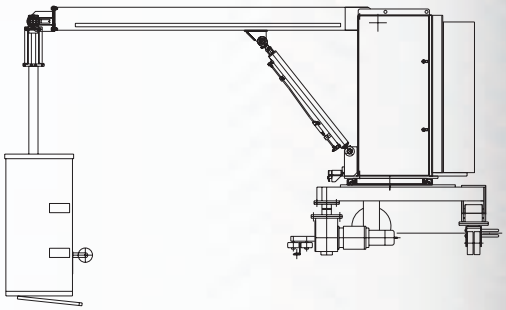
Hoists mounted on the roof trolley

SATURNE
Working height: > 140 m
Hoists: 2 TIRAK
Control system: MAGTRON



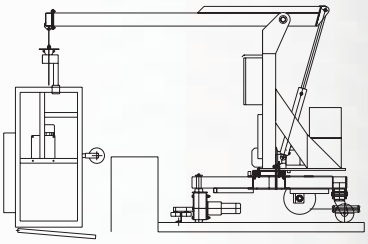
JUPITER
Working height: up to 140 m
Hoists: 1 TIRAK
Control system: MAGTRON

MARS
Working height: up to 60 m
Hoists: 1 XD-312 P
Pendant control cable



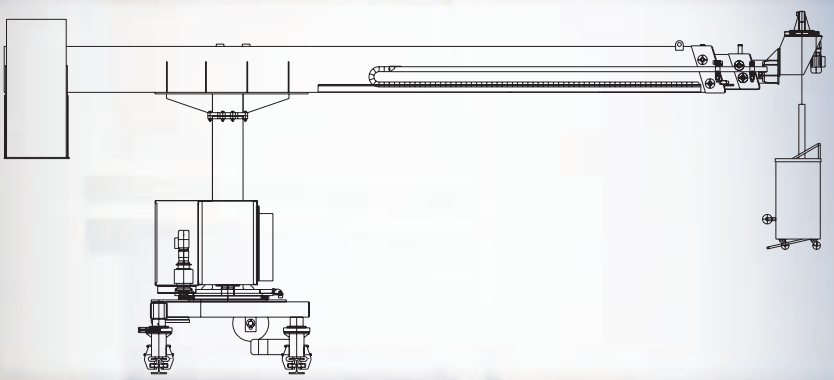
Cradle mounted hoists

VENUS
Working height: 60 m
Hoists: cradle mounted
Pendant control cable



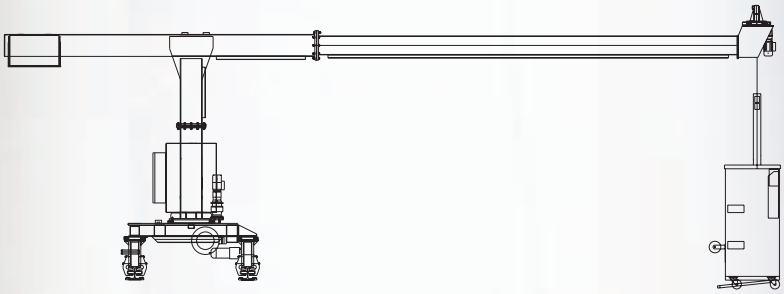
Machines with mast

> 140 m



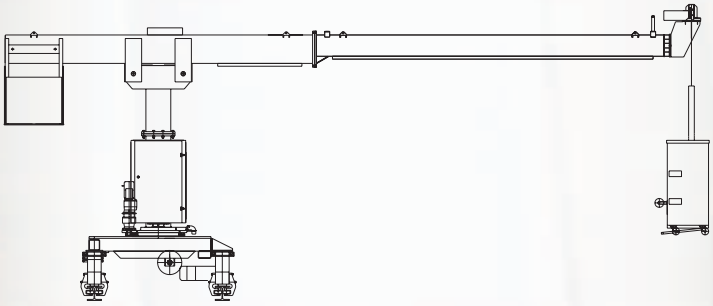
SCORPIO
Working height: >140 m
Hoists: 2 TIRAK
Control system: MAGTRON

140 m



JAGUAR
Working height: up to 140 m
Hoist: 1 TIRAK
Control system: MAGTRON

60 m



MUSTANG
Working height: up to 60 m
Hoist: 1 TIRAK XD-312 P
Pendant control cable

60 m

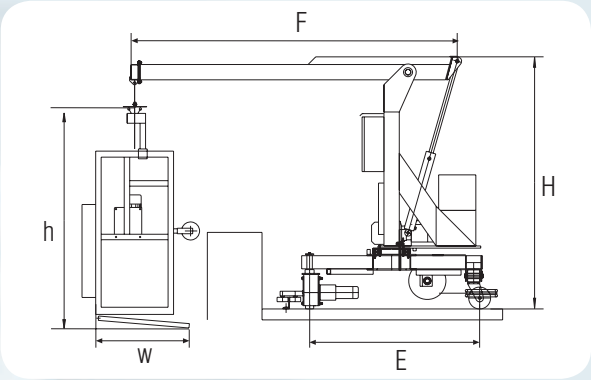
VIPER
Working height: 60 m
Hoists: cradle mounted
Pendant control cable

System with cradle-mounted hoists

(working height up to 60 m)

venus

Al Tayer Bldg Dubai (UAE) - Venus



The Venus machine is a compact, lightweight and economic system, suitable for all buildings up to 40 m. It is fitted with a hydraulic ram to lift the jib, with a manual or powered slewing ring and powered traversing.
Depending on the working requirements, it may be supplied with a cradle for one or two persons (SOLO or ALTA).The working operations are powered by one or two powered TIRAK® hoists, which are mounted on the cradle, together with the wire rope winders.

Advantages:

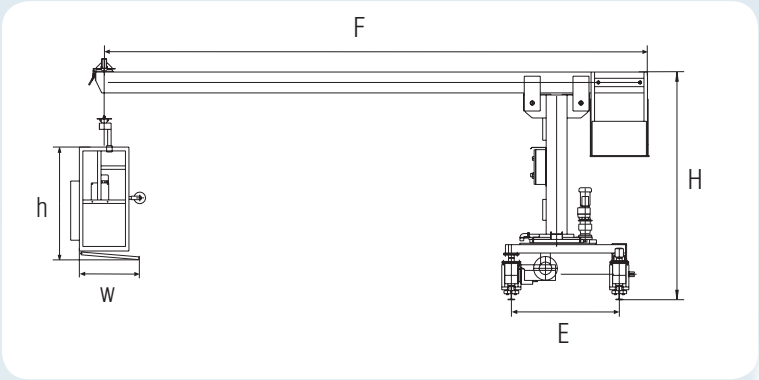
- reduced investment
- use on multiple roofs or with multiple suspensions
- reduced weight
- storage of the cradle on the roof

Technical data:

Height of lift	40 m
Length of jib (F)	2.500 mm
Trolley cross-section (E)	1.500 mm
Overall height (H)	2.310 mm
Dimensions of Alta cradle	2.500 x 1.050 x 2.120 mm
(l x w x h) Solo cradle	1.150 x 1.030 x 2.380 mm
Track	rail, concrete
Control system	pendant control box
Type of construction:	
turret	hot dipped galvanised steel painted finish
cradle	aluminium

viper

Berlaymont, Bruxelles (Belgium) - Viper



The Viper machine, suitable for buildings up to 60 m, is a variation of the Venus machine fitted with a mast to allow travel over obstacles on the roof. The overall size of the trolley is considerably reduced because of the counterweights fitted to the end of the jib. As with the Venus machine, the Viper is fitted with a SOLO or ALTA cradle onwhich are mounted the TIRAK® hoists and wire rope winders.

Advantages:

- reduced dimensions of the trolley
- easy travel over the parapets

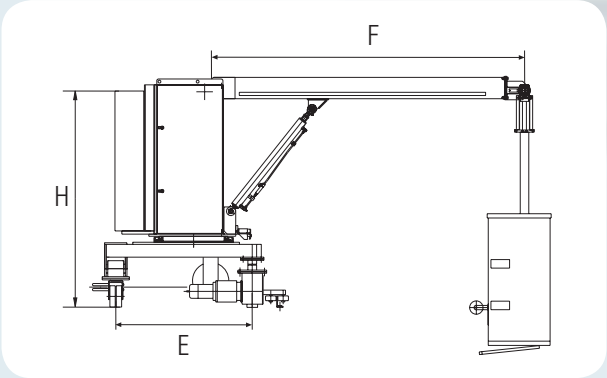
Technical data:

Height of lift	60 m
Length of jib (F)	6.500 mm
Trolley cross-section (E)	1.500 mm
Overall height (H)	3.070 mm
Dimensions of Alta cradle	2.500 x 1.050 x 2.120 mm
(l x w x h) Solo cradle	1.150 x 1.030 x 2.380 mm
Track	rail (standard) concrete (optional)
Control system	pendant control box
Type of construction:	
turret	hot dipped galvanised steel painted finish
cradle	aluminium

System with 1 hoist on the roof trolley

(working height up to 60 m)

mars



Kredit Bank- Luxembourg - Mars Ma 215

Technical data:

Height of lift	60 m
Length of jib (F)	8.500 mm
Trolley cross-section (E)	1.300/ 1.500 / 1.800 mm
Overall height (H)	2.163 mm
Track	concrete track, rail track
Control system	pendant control box (standard) PLC and/or MAGTRON® (option)
Type of construction:	
turret	hot dipped galvanised steel painted finish
cradle	aluminium

The Mars machine is the first model of the range with the hoists mounted on the roof trolley, for buildings up to 60 m. It is a single jib machine. It is lightweight, multi-purpose at a budget price. The machine is very compact so that it is more easily hidden from view. It is fitted with a TIRAK® XD-312P which is characterised by its care of the wire rope, the wear of which is practically inexistant.
All the operations are powered: lifting and lowering of the cradle, movement of the jib, traversing of the trolley, slewing of the turret and rotation of the spreader bar.

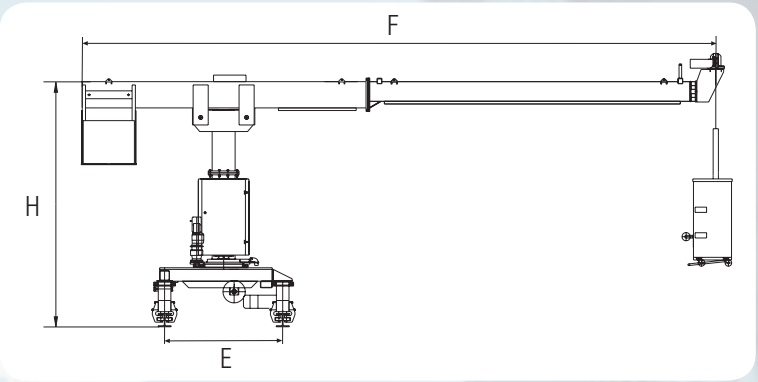
Options:

- PLC • MAGTRON® • crane for hoisting the glazing

Advantages:

- central control • simplified maintainance and repairs through good accessability of working parts because of its central carrying structure • compact and reduced dimensions in the parking position

mustang



Chamber of commerce Luxembourg - Mustang Mu 516

Technical data:

Height of lift	60 m
Length of jib (F)	12.000 mm (model Mu500)
Trolley cross-section (E)	1.500 / 1.800 mm
Overall height (H)	variable
Track	rail (standard) concrete (option)
Control system	pendant control box (standard) PLC and/or MAGTRON® (option)
Type of construction:	
turret	hot dipped galvanised steel painted finish
cradle	aluminium

The Mustang machine, suitable for buildings up to 60 m, is a variation of the Mars machine fitted with a horzontal jib and a mast. The height of the mast allows the machine to pass over obstacles on the roof without the need for a hydraulic power system.

Options:

- PLC
- MAGTRON®
- crane for hoisting the glazing

Avantages:

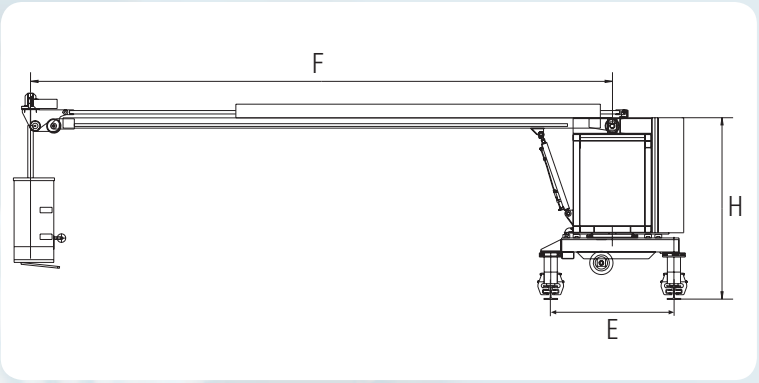
- trolley with reduced dimensions
- passes easily over the parapets

System with 1 hoist on the roof trolley

(working height up to 140 m)

jupiter

Yapi Kredi Plaza (Turkey) - Jupiter Ju 618



Thanks for its specification and multi-operations, the JUPITER is the ideal solution for buildings up to 140 m. Its TIRAK® hoist safely lifts a cradle for two persons, whilst limiting to the very minimum any fatigue and wear of the wires ropes which are stored on simple winders with no tension. All operations are powered, including slewing of the turret. The powered rotating spreader bar always allows the cradle to be perfectly positioned parallel to the facade. Its unique MAGTRON® communication system dispenses with the electric control cable between the cradle and the machine. Moreover, a default code detection and display system simplifies the maintenance of the machines.

Options:

- crane for hoisting the glazing • traversable cradle

Advantages:

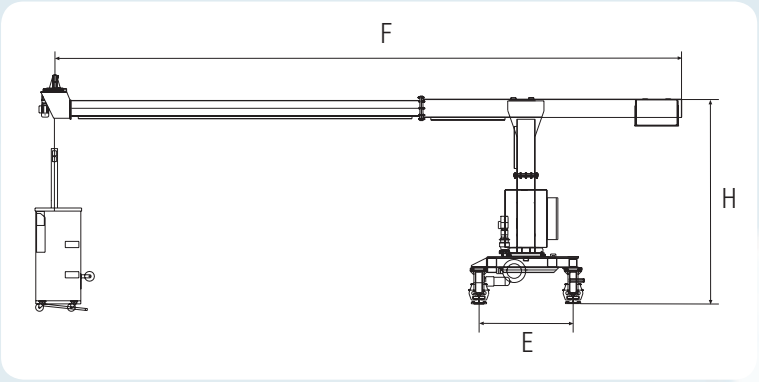
- controls by PLC and MAGTRON®
- simplified maintenance and repairs with display of machine faults by the robot
- compact parking position with jib in the horizontal position

Technical data:

Height of lift	140 m
Height of jib (F)	8.500 mm
Trolley cross-section (E)	1.800/2.500 mm
Overall height (H)	2.653 mm
Track	rail (standard) concrete (option)
Control system	PLC and MAGTRON®
Type of construction:	
turret	hot dipped galvanised steel painted finish
cradle	aluminium

jaguar

Four Seasons Hotel Cairo (Egypt) - Jaguar Ja 725



The JAGUAR machine, suitable for buildings up to 140 m is a variation of the JUPITER fitted with a horizontal jib and a mast to allow the machine to pass over obstacles on the roof. This mast may be telescopic to make it more discrete in the the parking position. With its feature of a telescopic jib, this machine can work on facades which are at some distance from the installation point. The movement of the counterweights allows a reduction and good spread of the loads on the rollers. All the operations are powered and controlled through the MAGTRON® control system.

Options:

- crane for hoisting the glazing• telescopic jib • telescopic mast

Advantages:

- passes easily over the parapets • good spread of the loads

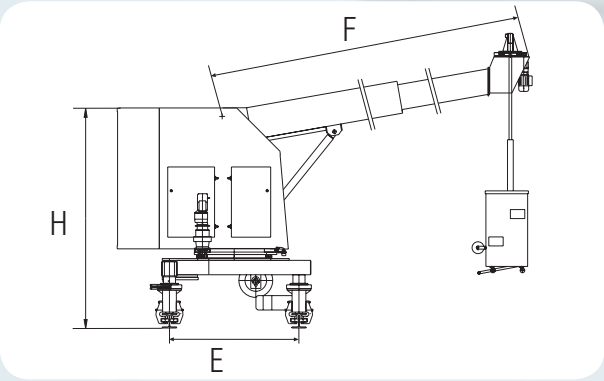
Technical data:

Height of lift	140 m
Height of jib (F)	12.000 mm (Ja500)
Trolley cross-section (E)	1.500/1.800 mm
Overall height (H)	variable
Track	rail (standard) concrete (option)
Control system	PLC and MAGTRON®
Type of construction:	
turret	hot dipped galvanised steel painted finish
cradle	aluminium

System with 2 hoists on the roof trolley

(working height over than 140 m)

saturne



Dubai (UAE) - Sa 600

Technical data:

Height of lift	over 200 m
Length of jib (F)	14.000 mm
Trolley cross-section (E)	1.500/1.800/ 2.500 mm
Overall height (H)	2.163 mm
Track	rail(standard) concrete track (option)
Control system	PLC and MAGTRON®
Type of construction:	
turret	hot dipped galvanised steel painted finish
cradle	aluminium

The SATURNE machine is the most developed of the systems with the hoists mounted on the roof car. A single jib with a rotating spreader bar, it is the machine for working at heights over 200 m and for complex architectural structures. With double TIRAK® it is possible to use long working platforms or articulated cradles to reach recessed facades. All operations are powered and monitored by a PLC and MAGTRON® controls.

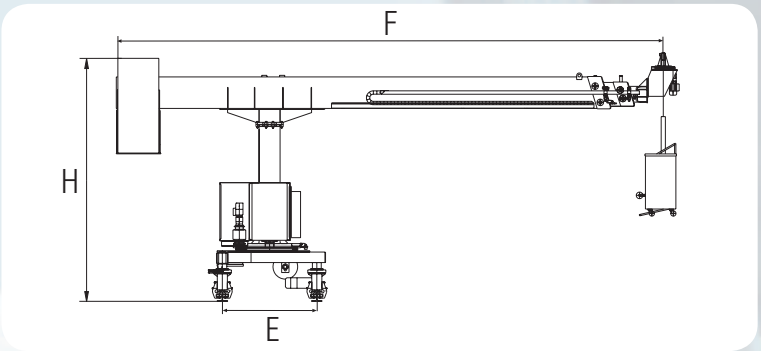
Options:

- crane for hoisting the glazing • traversable cradle

Advantages:

- rotating spreader bar and telescopic jib allow the cradle to be positioned parallel to the facade
- long or special working platform
- despite its size it is compact in the parking position

scorpio



City Center Botanic (Belgium) - Scorpio Sc 725

Technical data:

Height of lift	over 200 m
Length of jib (F)	12.000 (Sc500) 19.000 (Sc600)
Trolley cross-section (E)	1.500/ 1.800/ 2.500/ 3.000 mm
Overall height (H)	variable
Track	rail (standard) concrete (option)
Control system	PLC and MAGTRON®
Type of construction:	
turret	hot dipped galvanised steel painted finish
cradle	aluminium

The SCORPIO machine is a variation of the SATURNE, fitted with fixed or telescopic mast which allows it to pass over high parapets or obstacles on the roof. With its two sets of TIRAK®, it reaches working heights of over 200 m. The movement of the counterweights allows a reduction and good spread of the loads on the rollers. Special jibs (telescopic or "trellis" type beams) are usual for this type of machine and allow work at some distance from the installation point. All the operations are powered and controlled through a PLC and the MAGTRON® control system.

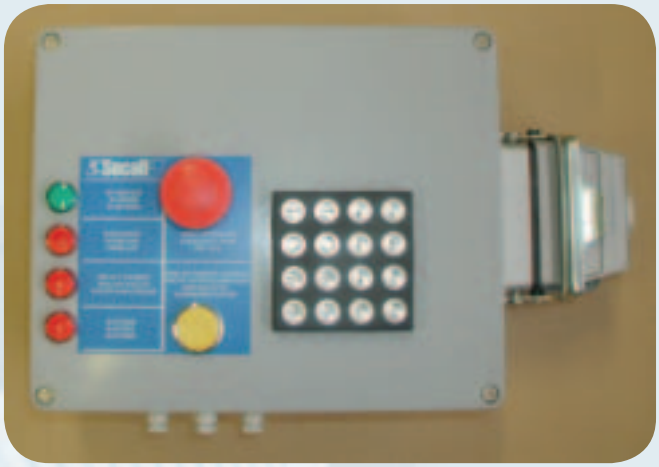
Options:

- crane for hoisting the glazing
- telescopic jib, trellis beam
- telescopic mast

Advantages:

- passes easily over the parapets • good spread of the loads

MAGTRON® controls



The MAGTRON® control system allows the transmission of data and speech through induction of the magnetic field linked through the steel wire ropes, using 2 transducers.

Advantages of the MAGTRON® system:

- elimination of the pendant control cable or special lifting wire rope incorporating electric cables
- no requirement for a dedicated transmission frequency
- unaffected by proximity to other electrical or computer equipment
- MAGTRON® sytem developed exclusively for SECALT machines
- control voltage reduced to 10 V, with no risk of electric shocks
- display as an option.

Applications:

- Building maintenance machines (BMU)
- Suspended cradles
- Any application with one or more steel wire ropes which may be linked together or by a metal structure

TIRAK®

The heart of the technology for lifting people centres on the TIRAK®. This hoist through which the wire rope passes has quickly become the standard hoist used on all sorts of working platforms, thanks to its compact size, its lightweight and its use of unlimited lengths of wire rope. TIRAK® uses a limited number of parts, reducing the weight, wear and maintenance to a minimum.

The most simple models are found on VENUS and VIPER machines, as well as on all the cradles used with monorails or davits, on which two X-300 or X-500 hoists are mounted on the cradle.

MARS and MUSTANG machines are fitted with DUAL-TIRAK®-XD hoists, which operate the lifting and safety wire ropes simultaneously thanks to two traction pulleys mounted on the same axel and powered by the same gear.

JUPITER, JAGUAR, SATURN and SCORPIO machines use high capacity TIRAK® hoists, which comprise two traction mechanisms powered by the axel. They are mounted in a chassis with reelers to take up to 300 m of wire rope. Special reelers can take up to 600 m of wire rope.

Monorail: a system integrated into the facade

An ideal system for integrating into metal structures and facades of the curtain wall type, it blends perfectly with the building, to the great satisfaction of architects. The monorails are made of aluminium alloy and may be supplied plain, anodised or lacquored. With their lightweight and high strength, they may be formed in any direction to integrate fully with the facades. These monorails may be fitted with manual or powered trolleys which are easy to operate in complete safety.

RAILSCAF

The **RAILSCAF**®, a monorail made of a lightweight and compact profile, may be fitted with an integrated chain, allowing powered trolleys to negotiate slopes up to 60°. This solution is particularly efficient when used with SOLO cradles.

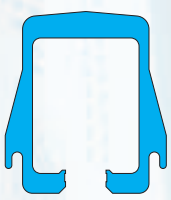
profile:	120 x 40 mm
Weight:	6.05 kg/m
Max. distance between supports:	3 m
Max. loading:	350 kg

EASYRAIL

EASYRAIL is an ideal system for high rise buildings. Easy to install because of its rigid construction, it only needs a fixing support every 4.4 m. It may be used with ALTA or SOLO type cradles.

profile:	175 x 73 mm
Weight:	9.61 kg/m
Max.distance between supports:	4.4 m
Max. loading:	500 kg

ORAIL



ORAIL is a horizontal u-shaped monorail which can be set within a recess or a false ceiling and provides a particularly aesthetic system. The traversing trolleys travel inside the rail disguising this safe suspension installation.

profile:	110 x 98 mm
Weight:	9 k g / m
Max. distance between supports:	3 m
Max. loading:	350 kg

Davits and powered davits

The first system, based on a cradle suspended from two **fixed davits**, adjustable and lightweight (made of aluminium alloy) is very economic and simple to install. It allows all parts of the facade to be reached in sections equal to the length of the cradle, fitted with hoists and powered reelers.

Advantages:

- cost of installation,
- ALTA type cradles may be used up to 8 m,
- no excess equipment on the roof,
- system may be completely dismantled when not in use.

Powered davits are an intermediate system between fixed davits and building maintenance machines (BMU). Traversing on a vertical track, fixed to the parapet, this system leaves the roof free of equipment whilst keeping a simple and efficient operating mode.

TRAVSAFE® lifeline

Travsafe® horizontal lifelines provide safe, non-permanent access on sites at height where there is a risk of falling: blocks of flats, industrial buildings, industrial equipment, structures, etc.. The Travsafe® lifeline gives users working at height excellent mobility, as it passes smoothly over intermediate anchors. It is a unique system with two wire ropes, providing the following advantages:

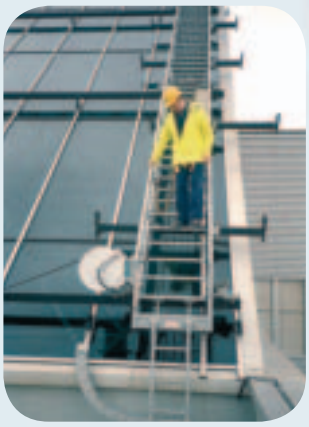
- Passes smoothly over intermediate anchors
- In the event of a fall, there is less deflection of the wire ropes than with a single wire rope system,
- Allows wider spacing between intermediate anchors.

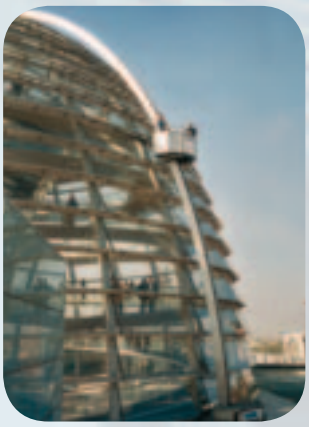
Ladders and travelling platforms

These systems are particularly suitable for domes, atriums or buildings with panoramic views.

Ladders, either sloped or vertical, travel special tracks with rubber covered rollers. They can be supplied with fixed, modular or folding guard rails and with crinolines for vertical models.

Travelling platforms for use under glazed roofs are made from aluminium profiles. The floor panels integrate well with the structure of the building. The guard rails may be fixed, modular or folding.
Depending on the architects choice, the material may be supplied painted, anodised or plain, depending on the aesthetic and archtectural constraints.





Height safety

Providing all protection in the widest range of situations is now more than ever the TRACTEL® Group, main focus. It is a technical and human challenge combining innovation, skills and training.

The universal presence of the TRACTEL® Group on construction sites has contributed to the development of an extensive range of harnesses, fall protection equipment for working at height. The Tractel Group can offer the equipment which is most suited to your job, to hold you in position and secure you if there is a risk of falling while working at heights of more than three metres.

Installation & Maintenance

Around the world, the companies of the TRACTEL® Group together with their partners put their know-how and experience at your disposal to ensure a fast and efficient service and to give you complete satistaction.

Secalt S.A.

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