

1. DESCRIPTION

The VENUS model Building Maintenance Unit (BMU) is a particularly economic system for carrying out work on building facades up to a **height of 40 meters**. It is designed to take one or **two people** together with their work equipment.

The system consists of:

- a **mobile traversing trolley** running along the roof with suspension jib, hydraulic ram, electrical control box and counterweights
- a **working platform** suspended from the trolley by galvanised steel wire ropes
- a **concrete track or rails**.

The VENUS machine may be fitted with alternative equipment depending on the application:

- an **ALTA «L» 2 m platform** with 2 suspension points (Fig. 1)
- an **ALTA SOLO platform** with a single suspension point (Fig. 2)

The SOLO platform can be fitted as standard with a hinged stirrup for ease of transport and storage (Fig. 2).

One or two **TIRAK powered hoists** perform the lifting and lowering operations.

The hoists are mounted on the platform, which is also fitted with wire rope reels.

The hoist(s) are always controlled from the platform, while the lifting and lowering of the jib and the traversing of the trolley are operated either from the trolley control box or a pendant control station attached to the end of the jib. The operator uses a rotary switch on the trolley control box to select the point from which he wishes to control the trolley.

Only the slewing of the turret is controlled manually, for changing from parked position to working position. The turret can be positioned and locked in eighths of a turn.

The noise level emitted by the machine does not exceed 73 dB.

As an option, the machine can be fitted with an extension to increase the height for passing over parapets by a maximum of 600 mm (Fig. 3) = max. height of 2000 mm.

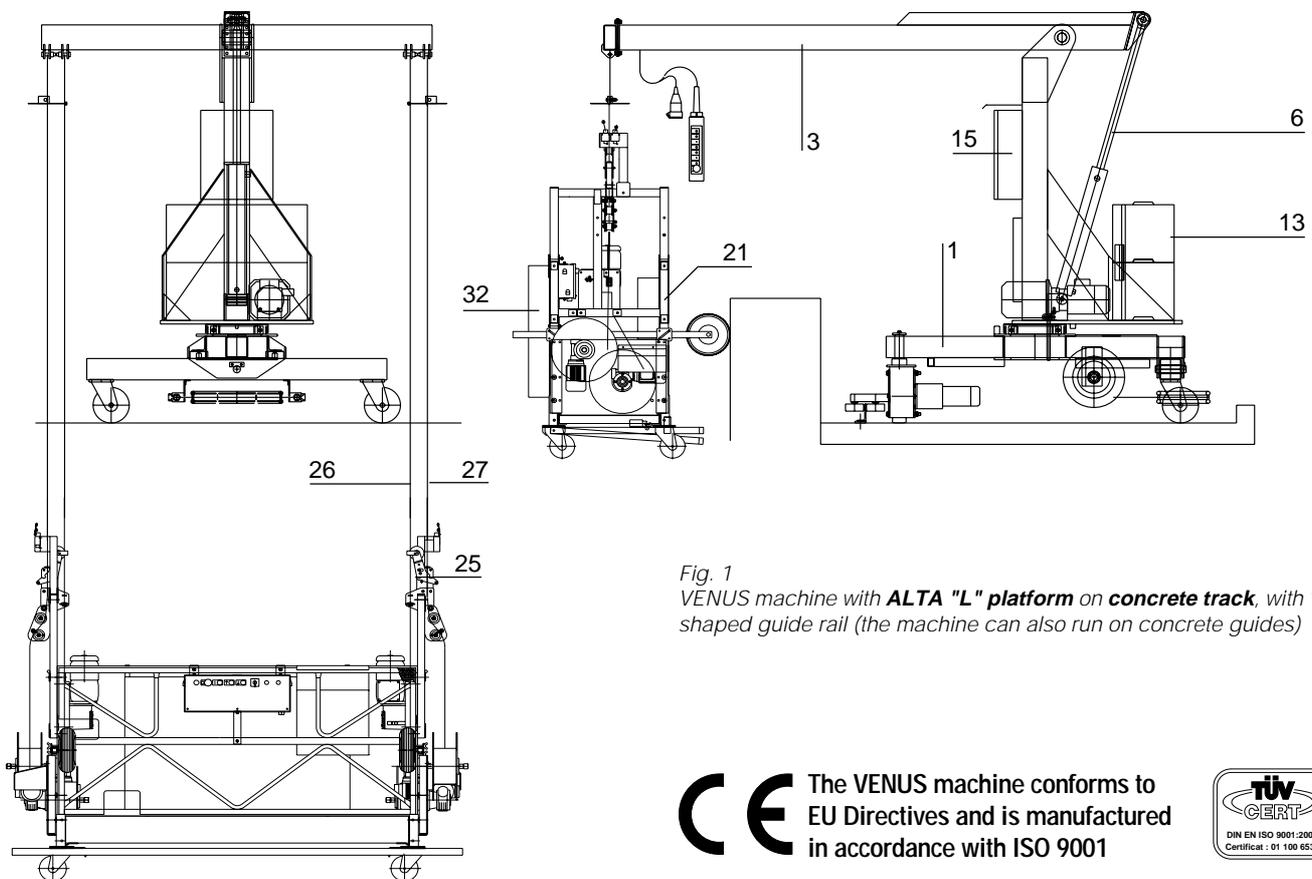


Fig. 1
VENUS machine with **ALTA "L" platform** on **concrete track**, with "L" shaped guide rail (the machine can also run on concrete guides)

CE The VENUS machine conforms to EU Directives and is manufactured in accordance with ISO 9001



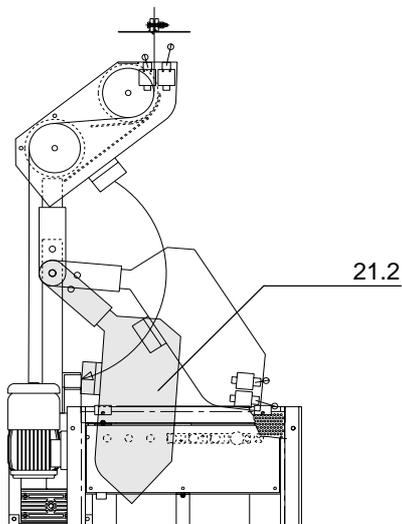


Fig. 2 - ALTA SOLO platform with hinged stirrup (option)

2. MAIN COMPONENTS

2.1 Trolley on roof

- 1. Trolley
- 2. Turret
- 2.1 Extension (optional)
- 3. Jib
- 4. Powered roller frame
- 5. Rear roller frame (not powered)
- 6. Hydraulic ram
- 7. Guide wheel
- 8. Guide for power supply cable
- 9. Reel for power supply cable
- 10. Traversing motor
- 13. Counterweight
- 14. Slewing ring
- 15. Electrical control box
- 15.1 Pendant control station
- 15.2 Platform power supply point
- 18. Hydraulic unit
- 19. Anti-slewing handle (ALTA SOLO)

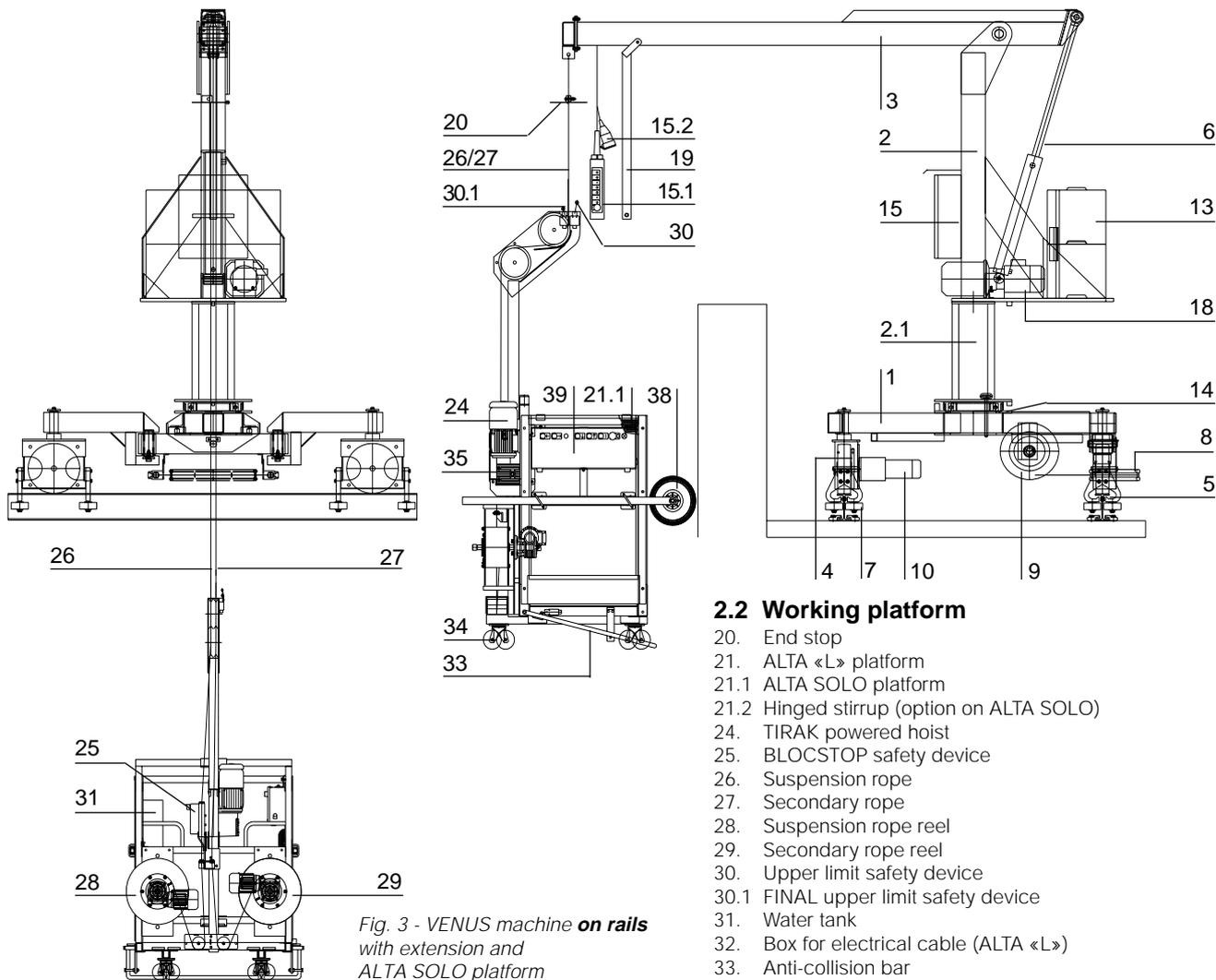


Fig. 3 - VENUS machine on rails with extension and ALTA SOLO platform

2.2 Working platform

- 20. End stop
- 21. ALTA «L» platform
- 21.1 ALTA SOLO platform
- 21.2 Hinged stirrup (option on ALTA SOLO)
- 24. TIRAK powered hoist
- 25. BLOCSTOP safety device
- 26. Suspension rope
- 27. Secondary rope
- 28. Suspension rope reel
- 29. Secondary rope reel
- 30. Upper limit safety device
- 30.1 FINAL upper limit safety device
- 31. Water tank
- 32. Box for electrical cable (ALTA «L»)
- 33. Anti-collision bar
- 34. Swivel castor
- 35. Overload safety device integrated on TIRAK hoist
- 38. Support roller
- 39. Electrical control box

**technical
sheet****SECALT
building maintenance units (BMU)
VENUS model**ref.: **T-643**
rev. no.: **3**
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page: **3/4****3. TECHNICAL SPECIFICATIONS**

Trolley		with ALTA "L"	with ALTA SOLO
traversing by two brake motors	kW/Hz		0,09/50
traversing speed	m/min.		8
slewing			manual
loading per wheel in working position (max. jib length)			
front wheels	± daN	1084	823
rear wheels	± daN	286	247
counterweights	± daN	1200	900
total deadweight	± daN	2565	2025
electrical power supply cable	type	DELACHAUX GP 4 G 2,5	
useful length	m	20	
spring cable reel	type	EXEL 1.2S.3TC8	
jib			
standard length (max.)	m	2,5	2,5 or 3,5
lifting / lowering control		by single acting hydraulic ram	
power supply by motor-driven pump	rate l/min.	1,3	
capacité du réservoir	l	10	
Platform	type	with/without hinged stirrup	
overall dimensions (LxwxH)	±mm	2500x1050x2120	1150x1030x2380
working load limit	daN	240	120
= number of persons	max.	2	1
deadweight	± daN	340	210
lifting / lowering speed	m/min.	8,5	
max. lifting height	m	40	
lifting hoist	type	TIRAK X-300P	TIRAK X-300P
number		2	1
working load limit	daN	300	300
nominal speed	m/min.	8,5	
suspension wire rope	type	A8 (6x17 + mixed core)	
number		4	2
length	m	according on lifting height	
diameter	mm	8,3	
guaranted breaking load	daN	4800	
Manufacturer		SECALT S.A. 3, rue du Fort Dumoulin, L-1425 Luxembourg Telephone: (352) 43 42 42-1 - Fax: (352) 43 42 42-200	
CE certification number		0398/760S/333/06/97	

4. CONTROL CIRCUIT

The machine has two control panels:

- a) 1 control panel (electrical control box) (Fig. 4) on the trolley
- b) 1 main control panel on the platform consisting of :
 - 1 control box (Fig. 6) for controlling the hoist(s)
 - 1 pendant control station (Fig. 5) at the end of the jib for controlling the traversing of the trolley and the lifting/lowering of the jib.

The control panel is selected using the lockable switch (51) on the trolley control box.

4.1 Trolley controls

- 50. Main switch / trolley emergency stop
- 51. Rotary switch for TROLLEY control or PLATFORM control (pendant control station)
- 52. Trolley on
- 53. Trolley emergency stop
- 54. Traverse left
- 55. Traverse right
- 56. Lift jib
- 57. Lower jib

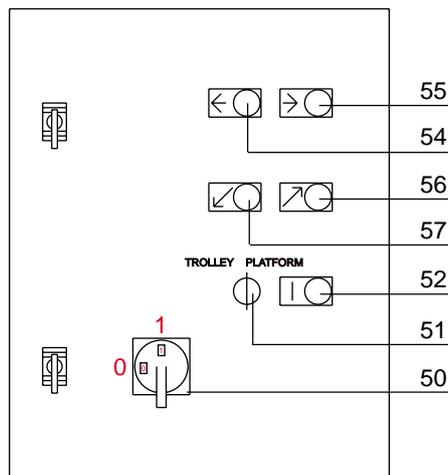


Fig. 4 - Trolley control box

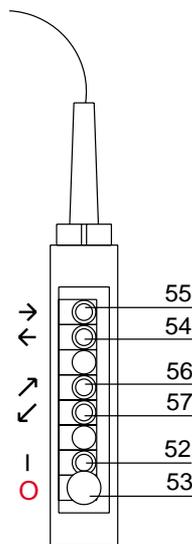


Fig. 5 - Pendant control station

4.2 Platform controls

- 40. Switch (ALTA «L» only)
- 41. Platform on
- 42. Platform emergency stop
- 43. Lift
- 44. Lower
- 45. Unwind secondary rope (ALTA SOLO only)
- 46. Indicator lamp (overload on the platform)
- 49. Neutralisation of lower anti-collision bar

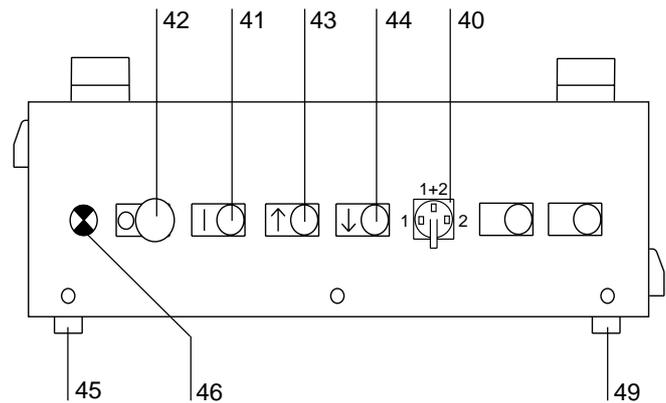


Fig. 6 - Platform control box

5. SAFETY DEVICES

To ensure safe operation without danger to personnel, the machine is fitted with a number of safety devices which monitor the correct operation of the various components and operate in the event of a breakdown or fault.

5.1. Safety devices on the trolley

- trolley emergency stop
- electrical supply cable end limit
- traversing end limit
- phase order safety device
- optional safety device
- presence of rail or concrete guide

5.2 Safety devices on the platform

- platform emergency stop
- BLOCSTOP safety device
- overload safety device integrated on TIRAK hoist
- upper safety limit
- FINAL upper safety limit
- lower anti-collision bar
- phase order safety device
- manual lowering in the event of a power break