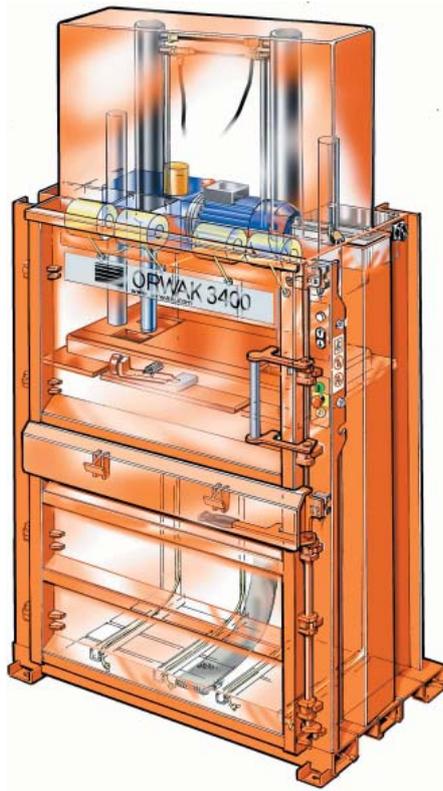




GB OPERATING MANUAL



ORWAK 3400

March 2005
PUBL. NO
4869057-00
Edition 4

TABLE OF CONTENTS

Safety	2
Operating instructions...	3
Technical specifications.	4
Dimensional drawing	4
Transport	4
Installation	5
Weekly inspection and maintenance	6
CE.....	7

SAFETY

Read the operating instructions **BEFORE** operating the machine.

Our warranty/product responsibility requires that instructions are followed and that original spare parts and recommended hydraulic oil and lubricants are used.

The user of the machine is responsible for the safety checks and for ensuring that daily maintenance of the machine is carried out.

The user is responsible for ensuring that any faults are corrected and that neither the user nor other individuals are exposed to danger.

The owner is responsible for ensuring that national and local laws are complied with when using the machine.



This symbol means WARNING or DANGER - personal safety instruction!



This machine is designed for **ONE MAN OPERATION**.

Only the operator is allowed in the machine's working area.



The machine must **not** be used if the **safety functions** (e.g. switches and protections) have been deactivated, damaged or removed.

Lost or damaged parts must be replaced with **original spare parts**.



The machine has a **high centre of gravity**. If the machine needs to be moved, the press plate **must** be lowered fully before moving.



Installation, repair and service work may **only** be performed by **qualified and competent** staff, and in accordance with the installation and service instructions.



The machine **must not** be used by minors.



Never climb on the machine.

SAFETY FEATURES

The machine is equipped with the following safety features:

Upper and lower door switches, which prevent compacting with the doors open. **Covers and protections** conceal hydraulic lines and movable machine parts. When the lower door is opened, the lower door pressure is **relieved**. **Baling** is performed **from the side** of the machine to keep the operator away from the baling area. The machine is also equipped with an **emergency stop**, as well as a **main switch** that can be locked to prevent unauthorised use, for example during service and maintenance or when removing any waste that has become trapped. For the same reason, the upper door can also be locked with a padlock in the top right corner.

RANGE OF APPLICATION

The machine is a hydraulically operated baler intended for compacting bulky materials such as **cardboard, paper and plastic**. The material being compacted must be **evenly distributed** in the chamber. The machine may only be used in areas that have a roof, protection against wind and normal lighting.



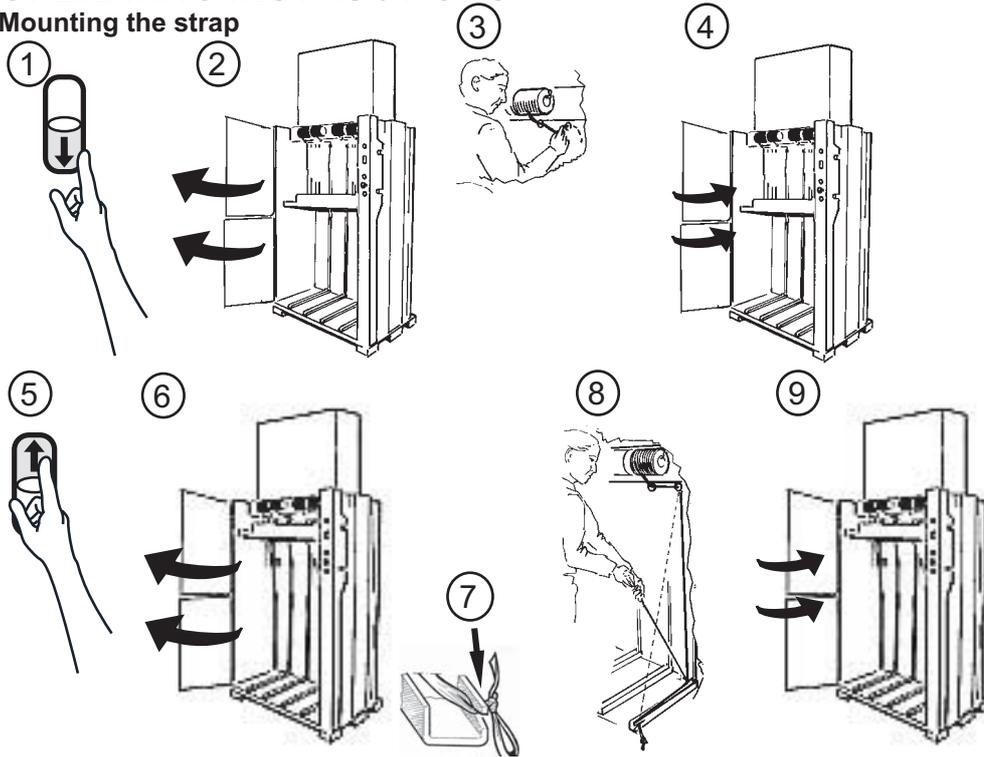
Materials that are **flammable** or of an **explosive** nature, such as pressurised containers or equivalent which, when exposed to pressure or sparks, could cause damage, fire or an explosion, **must not** be compacted in the machine.



Only use **straps** or **string recommended by the machine manufacturer**.

OPERATING INSTRUCTIONS

Mounting the strap



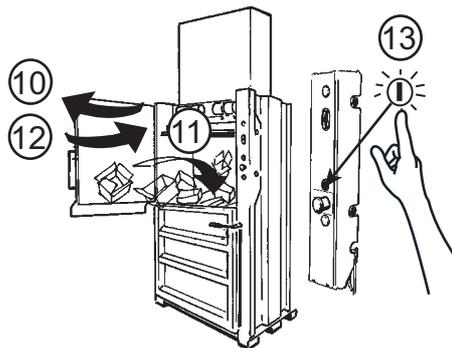
⚠WARNING!

Only the operator is allowed in the machine's working area!

Mounting the strap

- 1 Make sure that the press plate is lowered.
- 2 Open the upper and lower doors fully.
- 3 Place the straps in the strap holders, pull the straps through the loops and behind the pin at the back of the chamber.
- 4 Close the doors.
- 5 Run the press plate up.
- 6 Open the doors fully.
- 7 Fasten the straps with a loop at the bottom of the chamber.
- 8 Place the straps in the strap slots with the bale tool.
- 9 Close the doors.

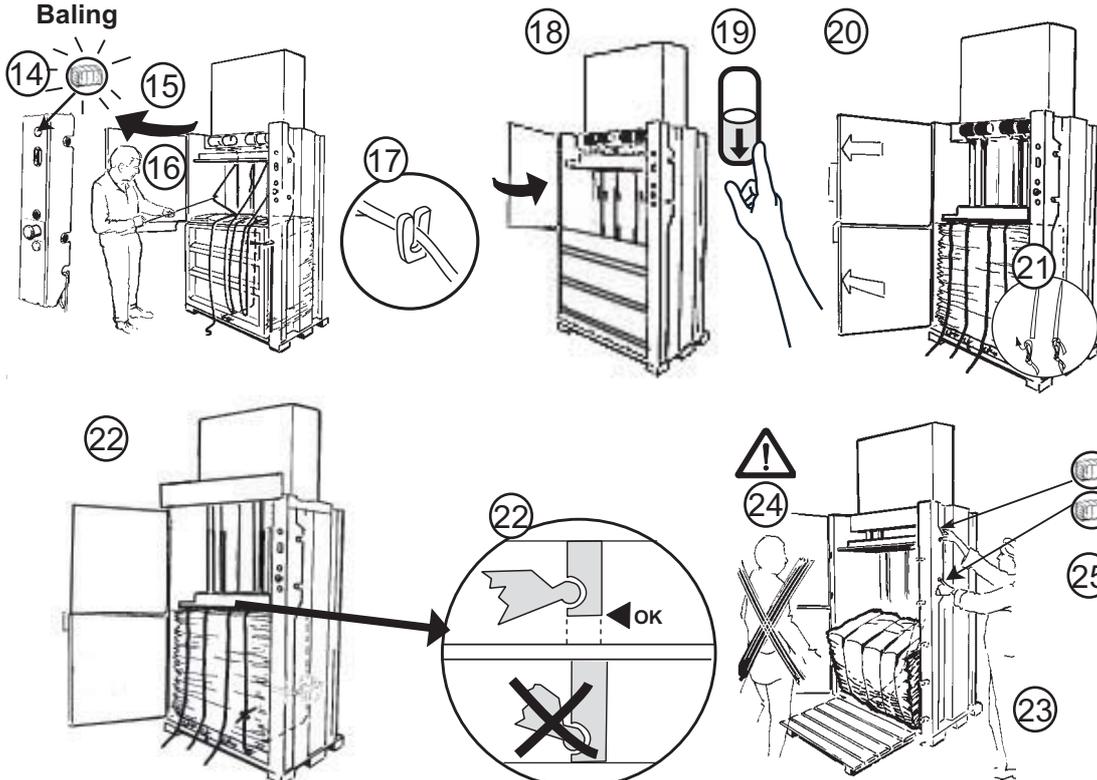
Compaction



Compaction

- 10 Open the upper door.
- 11 Place the waste evenly distributed in the chamber.
- 12 Close the upper door - The start button lights green.
- 13 Press the green start button for an automatic press cycle.

Baling



Baling

- 14 The yellow lamp flashes for ready bale - the machine is ready for baling.
- 15 Open the upper door.
- 16 Pull the straps over the bale.
- 17 Cut the straps with the knife.
- 18 Close the upper door.
- 19 Run the press plate down using the down arrow. The press plate automatically stops in the down position and keeps the bale UNDER PRESSURE.
- 20 Open the upper and lower doors FULLY.
- 21 Tie the straps.
- 22 Check that the end of the pressure rod on the upper side of the press plate ends at the OK arrow.
- 23 The operator stands at the SIDE of the machine, outside the risk area.
- 24 Make sure that nobody is in the risk area!
- 25 Remove the bale by pressing the two buttons on the side of the machine at the same time.

English

TECHNICAL SPECIFICATIONS

(Valid for 490 3400-00 unless otherwise indicated)

GENERAL DATA

Total weight: 1,350 kg
Transport height: 2,150 mm

Dimensions: (-02,-4)
Height: 2,983 mm (2783)
Width: 1,450 mm
Depth: 1,065 mm

Recommended necessary space installed: (-02,-4)
Height: 2,983 mm (2783)
Width: 2,650 mm
Depth (door open): 2,878 mm

Bale size:

Height: 1,000 mm
Width: 1,200 mm
Depth: 800 mm
Weight, cardboard: up to 300 kg
Weight, plastic: up to 450 kg

Loading aperture:

Height: 570 mm
Width: 1,200 mm

Noise level: 73 dB (A)

Primer: Anti-corrosive primer.

Topcoat: Two part paint and powder coat.

ELECTRICAL DATA

Operating power: 3x400 V, 50 Hz

Electric motor: 3 kW

Operating voltage: 24 AC/DC via transformer

Electrical

connection: 5 pin CEE plug, 10 A

Protection class: IP 55

HYDRAULIC DATA:

Flow: 25 L/min

Working pressure:

240 bar (3470 psi)

Relief pressure:

240 bar (3470 psi)

Press force:

24 t (240 kN)

Surface pressure: 2.5 kg / cm²

Cycle time total: 41 s.

Piston stroke: (-02,-04)

1,000 mm (800)

Oil volume: 20.8 L

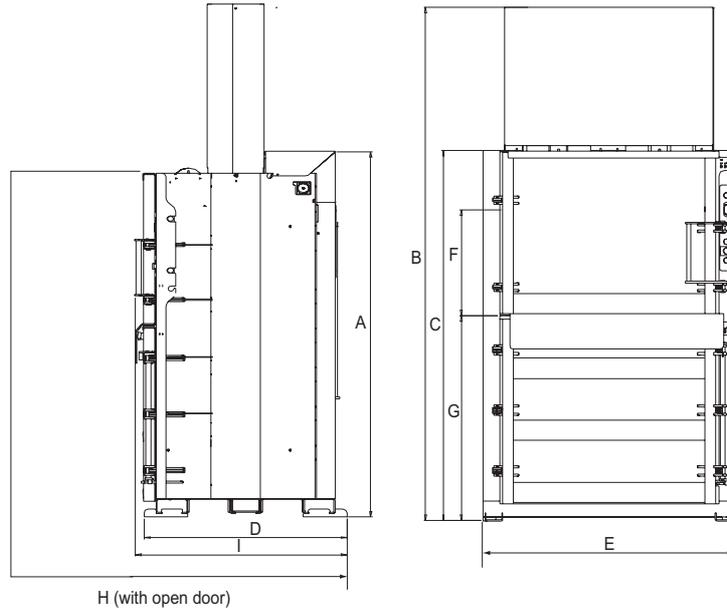
Recommended hydraulic oil:

+5°C to +60°C: ISO VG 32-68

below 5°C:

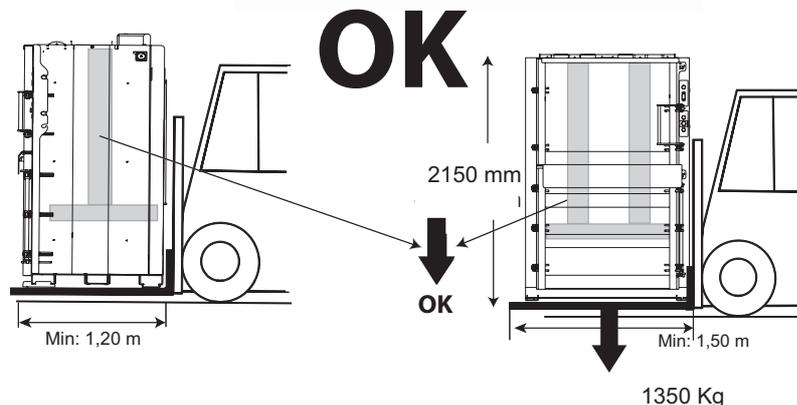
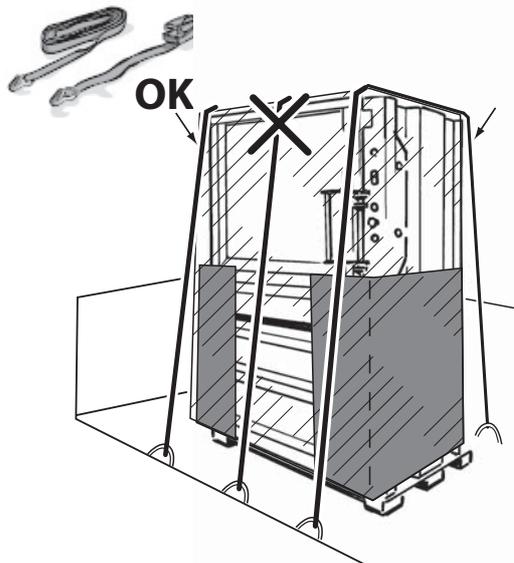
Lubrication Engineering
 LE 6520 Monolec hydraulic
 multigrade SAE 5W-20

DIMENSIONAL DRAWING



-00	(-02, -04)
A= 2150	A= 2150
B= 2983	B= 2783
C= 2000	C= 2000
D= 1020	D= 1020
E= 1450	E= 1450
F= 570	F= 570
G= 1108	G= 1108
H= 2278	H= 2278
I= 1065	I= 1065

TRANSPORT INSTRUCTIONS



INSTALLATION TEXT FOR THE PICTURES ON THE LAST DOUBLE-PAGE SPREAD

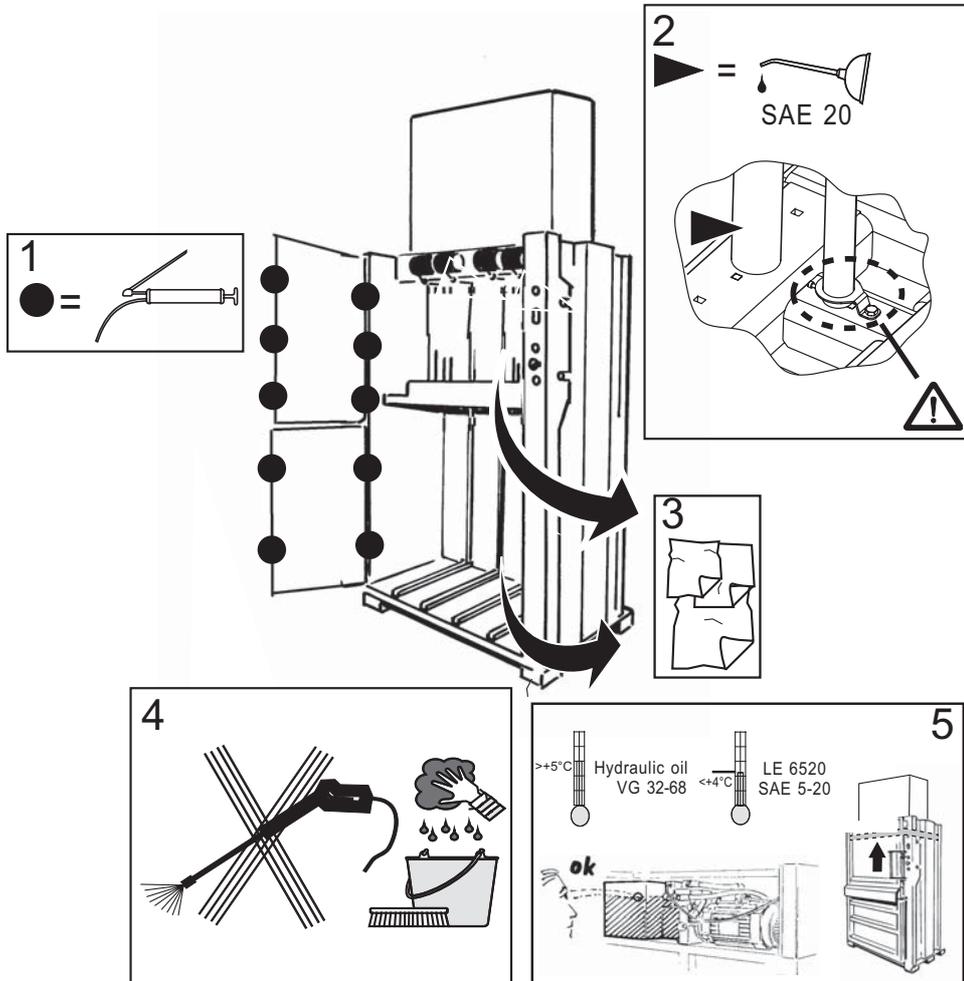
-  Read through the **whole** instructions **before** installing the machine!
If the instructions are not followed, this could result in personal injuries.
(The machine is packaged using recyclable plastic.)
-  Make sure that **nobody** except the **qualified and competent** installation engineer is in the vicinity of the machine during the installation process! Only **one** person is allowed to carry out the installation.
-  The installation **must** be carried out by an **qualified and competent** person.
-  Some steps involve **dangerous machine movements**. Take every precaution, as there is a great risk of **serious crushing injuries**.
-  1: **Note the installation dimensions!!** The operator **must** have enough space to be able to stand on the right **side** of the machine during baling. The height of the ceiling, the turning radius of the door and sufficient space for service work etc. **must** also be considered!
-  2: Electrical installation: A qualified electrician should only ensure that the **correct electrical power** according to these instructions is **available** for the installation of the machine. The electrician or any other individual **must not** switch on the current to the machine or start the machine. This may **only** be carried out by the **qualified and competent installation engineer in accordance with the installation instructions**.
- 3a: Take out 1 bale tool, 2 strap holders and 8 rubber tiles.
b: Place the strap holders in the strap holder mounts and hang the strap hook on the side of the machine
- 4: Place the machine on the rubber tiles and ensure that it is level.
- 5: Make sure that the machine's main switch is set to 0 and that the emergency stop is pressed in.
- 6: Remove the remote control from the electrical box.
- 7: Connect the machine to the wall socket.
- 8: Turn the main switch to 1 and reset the emergency stop button. A white lamp lights up.
-  9: **Dangerous machine movement!!** Check the motor's **direction of rotation** by **briefly** pressing the remote control button.
NOTE! If the motor rotates in the wrong direction, call in an electrician to reverse the phases.
-  10: **Dangerous machine movement!!** Run the cylinder **jerkily** up towards the mounting beam by briefly and repeatedly pressing the remote control button.
- 11: Screw the cylinders in place from the upper side of the press plate (although do not tighten them until point 15).
- 12: Angle the hydraulic hoses down and ensure that they are not in contact with any sharp edges. Tighten the hydraulic couplings on the cylinders.
- 13: Strap the hydraulic hoses as illustrated.
- 14a: Run up the press plate using the remote control button until it is approximately 200 mm from the uppermost position.
b: Turn the main switch to 0.
c: Disconnect the remote control by disconnecting the three cables from the logic unit. Tighten the screws on the logic unit again.
Store the remote control in a suitable location, separate from the machine.
-  When the cylinder has been run up and the installation completed, **the remote control must be removed** from the electrical box! If the remote control is not removed, it is possible to bypass the machine's entire safety system, with a very great risk of personal injuries as a consequence.
- 15: Tighten the cylinder screws.
- 16: Screw the bale indication mount to the beam on the upper side of the machine. Tightening bracket screws seated as delivered produces maximum bale size.
- 17: Install the covers.
- 18: Close the doors.
- 19a: Turn the main switch to 1.
b: Make sure that the emergency switch is **not** pressed in.
c: Run up the press plate using the "up arrow".
d: The green lamp lights up.
- 20: Check the oil level when the press plate is in its uppermost position.

 When the cylinder has been run up and the installation completed, **the remote control must be removed** from the electrical box! If the remote control is not removed, it is possible to bypass the machine's entire safety system, with a very great risk of personal injuries as a consequence.

WEEKLY INSPECTION AND MAINTENANCE

NOTE! During inspection and maintenance, service work and the removal of trapped waste etc.:

- Always turn the main switch to "0" and secure it with a padlock.
- Do not work inside the machine



SAFETY CHECK



- Check **the upper and lower door switches**: It must not be possible to start the machine if a door(s) is open.
- Check **the baling push buttons**: It must not be possible to remove the bale from the machine with only one push button.
- Check that the **emergency stop** is working.
- Check that the **plate** that connects the cylinder and the press plate is mounted (see figure 2 above):



If any faults are discovered in the functions listed above, the machine must **not** be used until it has been repaired by authorised service personnel.



Service and repairs are only to be performed by qualified and competent staff, and in accordance with the machine manufacturer's instructions.



Oil change: Contact the local authorities for advice regarding how to reduce the environmental impact when dealing with residual oil.

DECLARATION OF CONFORMITY



We AB ORWAK
Box 58
S-576 22 Sävsjö, Sweden
Tel: 46-382-15700
Telefax: 46-382-10607

declares under its sole responsibility that the product model
(serial number specified on the first page)

4903400-00 - 4903400-99

to which this declaration relates is in conformity with the following
standards or other normative documents following the provisions of Directive
98/37/EEC (Machinery Directive)
89/336/EEC, 92/31/EEC, 93/68/EEC (EMC Directive)
73/23/EEC, 93/68/EEC (Low Voltage Directive)

EN 60204-1 (Safety of Machinery - Electrical Equipment of Machines)
EN 61000-6-1 (EMC Immunity for equipment in residential, commercial and light-
industrial environments)
EN 61000-6-2 (EMC Immunity for equipment in industrial environments)
EN 61000-6-3 (EMC Emissions from equipment in residential, commercial and
light-industrial environments)
EN 61000-6-4 (EMC Emissions from equipment in industrial environments)

(EMC technical report has been issued by SP,
Swedish National Testing and Research Institute, Box 857, SE-501 15 BORÅS,
SWEDEN)

Sävsjö 2004-12-20

A handwritten signature in black ink, appearing to read "Tony Olsson".

Design manager

Installation

1

min. 2983 mm
min. 0.6 m
min. 0.6 m

2

ORWAK Box 58
576 22 Sävsjö
Sweden **CE**

Type Serial No
Product No Date
V Hz kW A

2,5 mm

3

B
B
A
(8x)

4

A
B
C
OK

5

Check
a) OK
b) OK

6

7

8

A)
B)
C)

9

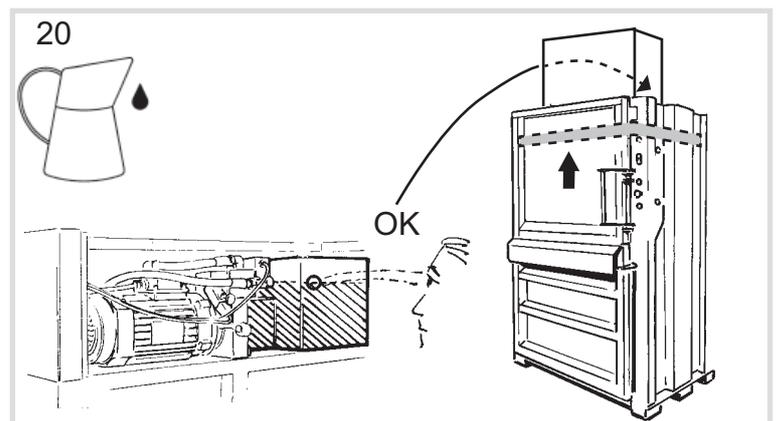
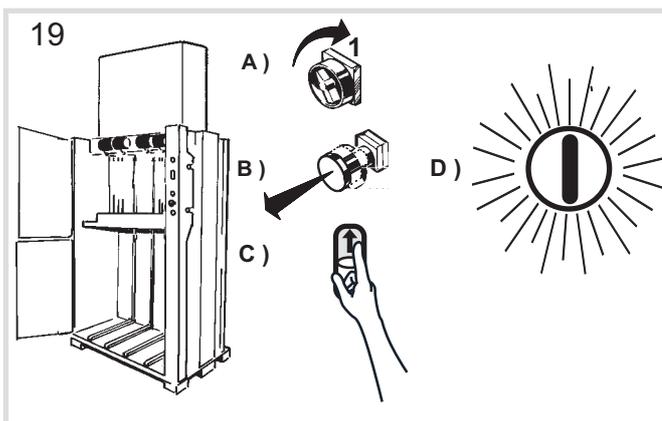
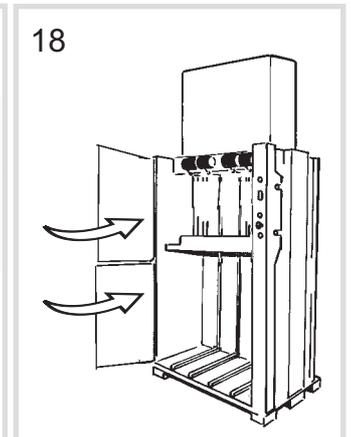
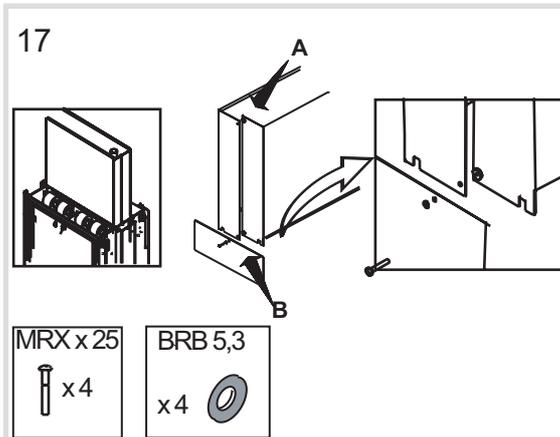
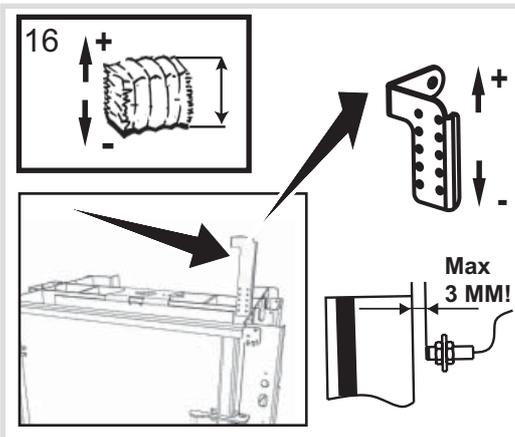
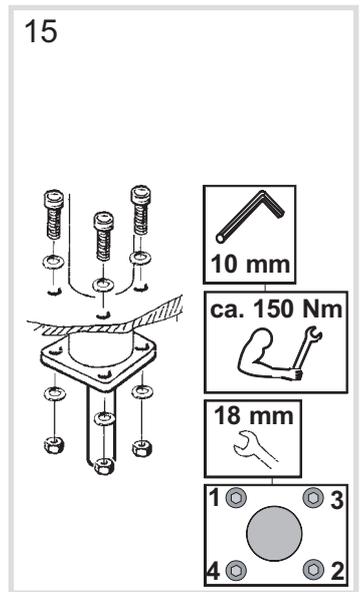
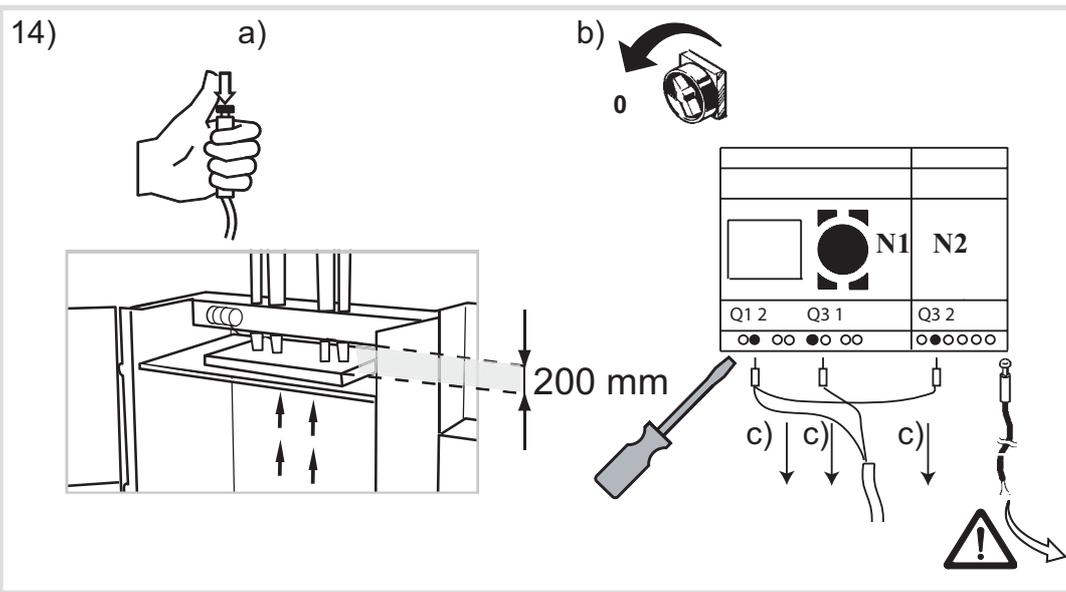
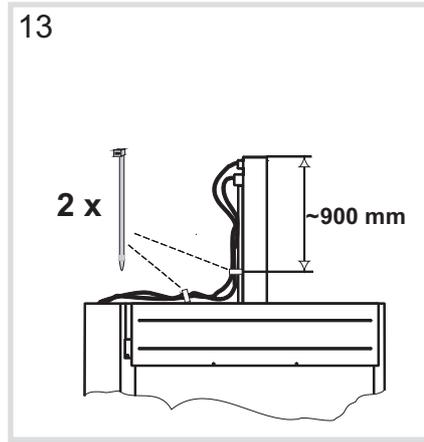
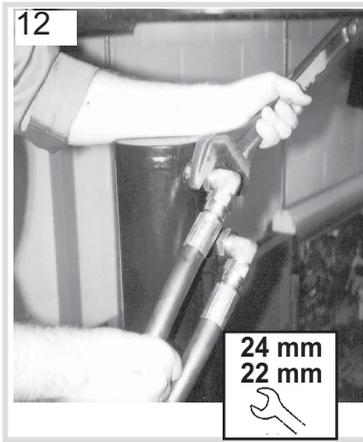
A)
B)

10

11

10 mm
18 mm

Installation





ORWAK[®]
- PUTTING PRESSURE ON WASTE -



SiTCO
TOTAL PACKAGING SOLUTIONS

شركة الفصول للتجارة والصناعة الدولية

SEASON INTERNATIONAL TRADING & INDUSTRIES CO.

P.O. Box 886, Manama - Kingdom of Bahrain, Tel: +973 17704647, Fax: +973 17704648
E-mail: info@seasoninternational.net, web: www.seasoninternational.net