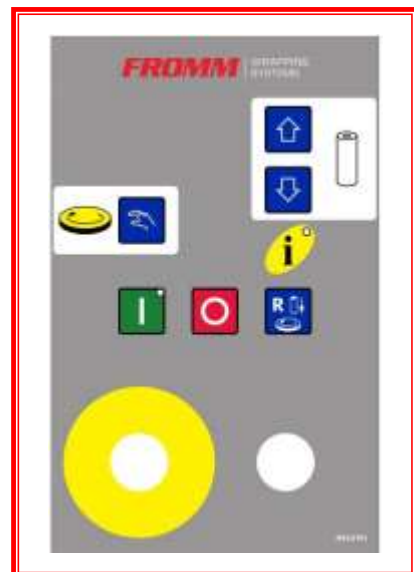


# FROMM

**SEMI – AUTOMATIC  
Stretch Wrapping Machine  
Series FS110  
FS1.2148 V01/V02/V03  
Manual Version 08\_R2**

FS1.2148-Manual 32.41XX.XXX.V01-02-V03-EN08\_R2.doc / ORIGINAL MANUAL© 12/16



Dear Customer,

We would like to thank you for purchasing our machine. In this manual we would like to draw your attention on the technical features and quality of the machine you have purchased.

Our machines are guaranteed to work at an maximum efficiency, only if original spare parts are used and only if work and repair on the machines has been carried out by our own specialist staff. We advise you, therefore, to entrust all maintenance work on the MANUFACTURER machine EXCLUSIVELY to our technical assistance and spare parts service department. In fact, if any maintenance work on manufacturer machine is carried out by non-authorized personnel, or if any NON-ORIGINAL spare- / replacement parts are used, all the manufacturer guarantees, technical assistance and obligations will be nullified immediately. We believe that you will understand the importance of the condition stated above. From a technical point of view, it is our primary aim to protect our customers from negative experiences.

This INSTRUCTION MANUAL is your guide to the INSTALLATION/USE and MAINTENANCE of the machine you have purchased. We advise you to follow all the instructions and suggestions in the manual with great care, as the efficient operation and long life of the machine depends on its correct use and on the methodical application of the maintenance regulations described later on.

We point out that, if any difficulties arise, our INTERNATIONAL CUSTOMER ASSISTANCE SERVICE is entirely at your service for explanations or call-outs. If needed you can reach us by sending an English E-mail to: [service@fromm-stretch.com](mailto:service@fromm-stretch.com). Your question will be answered directly by us, or forwarded to one of our service hubs in the area for which the service request has been done. Obviously you can also take a direct contact with the supplier of your machine.

The MANUFACTURER, declines all responsibility for any incorrect usage of the machine or inadequate maintenance work. The INSTRUCTIONS MANUAL is to be considered as an integral part of the product. Keep and look after this Manual throughout the whole lifecycle of the machine. The MANUFACTURER reserves the right to make modifications for the improvement of his machines, without giving prior notice.

Make sure that any amendments are added to the manual. Hand this Manual on to any other users or subsequent owners of the machine. When using the manual, take care not to damage its contents, either wholly or partial. On no account parts of this manual should be removed, torn out or rewritten. Keep the manual in places which are protected from dampness and heat. Look at the cover of the manual to identify the model dealt with now in your possession. Look at the INDEX to find the CHAPTER or SECTION containing all the notes on a specific subject.

The intention of all the INSTRUCTIONS AND/OR NOTES ON THE PRODUCT is to point out the safety precautions, correct procedures and operational instructions required for the efficient operation of the machine. The SPAREPARTSLIST supplied with the delivery is an integral part of the manual, it contains technical information on the acquired components mounted on the machine. Each page is marked with the Document code (On the inner side the top left and right side)

We wish you all the best results with our machine and we remain at your service.

We take this occasion to send you our best regards.

Fromm Stretch Wrapping Division  
ITALY

### Copyright

This manual contains confidential industrial information belonging to MANUFACTURER. All rights are reserved and may be protected by copyright or other ownership laws and treaties. No part of this manual may be reproduced in any form or by any means without explicit permission from MANUFACTURER.

**BE Opgelet!**

Leest U in elk geval de gebruiksaanwijzing, vooraleer de machine wordt opgesteld, geïnstalleerd en in gebruik genomen wordt. Daardoor zorgt U voor Uw eigen veiligheid en vermijdt U schade aan Uw machine.

**DE Achtung!**

Lesen Sie unbedingt die Gebrauchsanweisung vor Aufstellung-Installation-Inbetriebnahme. Dadurch schützen Sie sich und vermeiden Schäden an Ihrem Apparat.

**DK OBS!**

De bør absolut læse bruganvisningen, inden maskinen opstilles, installeres og tages i brug. Derved beskytter De Dem selv og undgår skader på maskinen.

**ES Atención!**

Resulta imprescindible leer las Instrucciones de manejo antes de proceder al Emplazamiento/ Instalación/Puesta en servicio del aparato, con objeto de protegerse a si mismo y evitar el deterioro de la máquina debido a un manejo incorrecto.

**FR Attention!**

Lisez impérativement le mode d'emploi avant l'installation/la mise en service. Vous vous protégerez ainsi et éviterez des détériorations sur votre appareil.

**GB Important!**

Read the operating instructions carefully before installation and before using this machine for the first time. You will avoid the risk of causing harm to yourself or to your machine in this way.

**GR Προσοχή!**

Πρίν την εγκατάσταση, σύνδεση και αρχική λειτουργία της συσκευής διαβάστε προσεκτικά τις οδηγίες χρήσης. Έτσι προστατεύετε τον εαυτό σας και αποφεύγετε πιθανές βλάβες συσκευής.

**IT Attenzione!**

Leggere assolutamente le istruzioni d'uso prima di procedere alla posizionatura, installazione, messa in funzione della macchina. Questo per proteggere la incolumità dell'operatore e danni all'apparecchio.

**NO NB!**

De må lese bruksanvisningen før oppstilling, installasjon og start av maskinen! Gjør det for å unngå skade på Dem selv og maskinen.

**NL Let op!**

Lees beslist de gebruiksaanwijzing voor het plaatsen, installeren en in gebruik nemen van uw machine. Dat is veiliger voor Uzelf en U voorkomt onnodige schade aan Uw machine.

**PL Ważne!**

Przed instalacją maszyny, bądź przed przystąpieniem do pracy z maszyną po raz pierwszy, należy dokładnie przeczytać i zapoznać się z niniejszą instrukcją obsługi. W ten sposób uniknie się ryzyka mogącego spowodować uraz ciała bądź uszkodzenie maszyny.

**PT Atenção!**

Leia as instruções de utilização antes da montagem - instalação e - primeira utilização. Assim evita avarias no aparelho.

**SE OBS!**

Läs bruksanvisningen noga före uppställning, installation och användning. Ni förebygger därmed olycksrisker och undviker skador på maskinen.

**FI Huomio!**

Tutustukaa huolellisesti käyttöohjeeseen ennen laitteen asennusta ja käyttöönottoa. Näin välttytte mahdollisilta vahingoilta käyttäessä konetta.

**MACHINE MAKE - UP**

Article number 

32.4	1			.			
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Serial number 

		.					
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Manufactured by

Delivered by 



 Delivery date

**GROUPS****OPERATING PANEL**

16.8411 OP1 / Operating panel 1

**TURNTABLE**

16.8421 Turntable diameter Ø1500mm / 1.200kg\*

16.8422 Turntable diameter Ø1650mm / 1.350kg\*

16.8423 Turntable diameter Ø1650mm / 2.000kg\*

16.8424 Turntable diameter Ø1500mm / 1.250kg\*, HS right side

16.8425 Turntable diameter Ø1500mm / 1.250kg\*, HS left side


\*NOTE!! KG refers to maximal loading capacity on the turntable

**MAST**

16.8431 Mast 2.100mm / 2.000mm + 100mm (Overlap)

16.8432 Mast 2.500mm / 2.400mm + 100mm (Overlap)


**CARRIAGE**

16.8440	Carriage 0 / Mechanical film-core tension
16.8441	Carriage 1 / Mechanical film-core tension
16.8442	Carriage 2 / Mechanical break-roll tension
16.8443	Carriage 3 / Mechanical break-rollers pre-stretch
16.8444	Carriage 4 / Magnetic tension
16.8440	Carriage 0 / Mechanical film-core tension
16.8442	Carriage 2 / Mechanical break-roll tension


**VARIATION**

16.8451	Gearbox fixed position
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**MACHINE MAKE - UP****OPTIONS**

16.8280	Ramp turntable Ø1.500mm, length 1.449mm, width 990mm, 1.350kg*
16.8465	Ramp turntable Ø1.650mm, length 1.449mm, width 990mm, 1.350kg*
16.8211	Ramp turntable Ø1.650mm, length 1.550mm, width 1.000mm, 1.500kg*
16.8462	Pit-option for table 1.500mm – FS1xx series
16.8463	Pit-option for table 1.650mm – FS1xx series
N5.2638	Photocell for black film
N5.2651	Photocell for black products


\*NOTE!!

Ramps KG refers to maximal loading capacity on the ramp

## GENERAL

The FS1 "CENTO" machine is an semi-automatic pallet wrapping machine.  
The operator has to place the pallet on top of the turntable and connect the film on the pallet.

The tension or stretch can be adjusted on the operating panel or carriage.  
Depending on the functionality of the machine, the operator can start the wrapping process or initially he has to setup the wrapping cycle, speed of turntable and carriage.

The process will be activated by pressing the start button. After completing the cycle, the machine will stop in his original start position, the film can be disconnected and the operator can take away the pallet from the turntable.

- This manual is only intended for a semi-automatic pallet stretch wrapping machine, mentioned at page one, as delivered by FROMM Stretch Wrapping Division.
- FOR EVERYTHING IN THIS MANUAL IS VALID, IF APPLIED!
- THE ORIGINAL, SIGNED FACTORY MANUAL HAS TO REMAIN CLOSE TO THE MACHINE, TOGETHER WITH THE MACHINE ELECTRICAL PLAN AND INVERTER MANUALS.  
A special bracket FS3.0250 can be purchase to keep this documentation together.
- This so-called turntable machine can be build into the floor.  
A support frame for building the machine in the floor can be supplied as an option.
- Pre- stretching (Stretching out) the film prior to application on the goods reduces the costs of packaging and is easier on the environment. (Available pre stretch depends on the model)
- Refer to chapter for the technical data, which describes the installation in detail and for the complete size of the installation.
- Read carefully at least the chapters **HANDELING AND TRANSPORT** and **INSTALLATION**.
- For safety reasons the entire instruction manual should be read before setting in operation the machine/installation, solving failures and executing maintenance.
- We particularly draw your attention to the chapters **SAFETY INSTRUCTIONS** and **WARNINGS** which point out the intended use and unsafe situations that could not be prevented in the design and manufacture of the wrapping machine.
- It is strictly prohibited to tamper with the machine It is prohibited to feed the machine with unforeseen, corrosive or inflammable products since the machine is not the explosion-proof type.
- The duration of guarantee is provided the following are observed: the use for which the machine was designed, built and protected, in addition to recommendations, information - including matters of general knowledge - details plus the safety and health technical limits notified to by the Manufacturer to the User by virtue of the operating use.
- We cannot accept any claim for warranty if non-original spare parts are utilized.
- If the machine is used beyond its operating limits and if the manufacturer's features are altered in any way, such use is considered **improper**. In this case **MANUFACTURER** is relieved of any liability for injury/damage caused to people/property due to failure to comply with these guidelines.
- For all the aforementioned reasons, we recommend that our customers always notify the Service Department.

## SAFETY INSTRUCTIONS



### ATTENTION!

***The following conditions have always to be satisfied, unless otherwise indicated in other instructions in this manual.***

- This wrapping machine has been delivered by FROMM Stretch Wrapping Division and may only be applied for wrapping of pallets / products which meet the requirements as mentioned in the description of the machine in chapter TECHNICAL DATA.  
Any other use of the machine as for the described purpose may cause danger due to damage to the machine and/or the safety of the operator or other persons in the neighbourhood of the machine.
- Read this manual carefully before using the machine, and be aware of the residuals risks which could not be excluded during the development of this machine.
- In any case all the components must be disposed of by scrupulously complying with the corresponding laws in force in the country in which the machine is used, and only by qualified persons who are capable of assessing possible risks.
- Only personnel trained for the purpose may operate the machine.
- Use the emergency stop to halt the machine immediately.
- Only trained electricians may perform electrical work on the machine.
- Don't find yourself close to the carriage when the machine is in operation. Be careful especially in the lowering phase of the carriage. (Use the emergency stop to halt the machine immediately).
- Don't find yourself near the turntable when the machine is in operation.  
(Use the emergency stop to halt the machine immediately).
- Don't touch the pallet when the machine is in operation.  
(Use the emergency stop to halt the machine immediately).
- Don't place or insert your hand and fingers between mast and carriage.  
(Use the emergency stop to halt the machine immediately).
- Don't put your hand or fingers in the mast.  
(Use the emergency stop to halt the machine immediately).
- Don't put your hand or fingers near the wheels for the carriage movement.  
(Use the emergency stop to halt the machine immediately).
- Don't put your hand or fingers in the electrical box.  
(Use the emergency stop to halt the machine immediately).
- Don't cross the space between the mast and turntable.  
(Use the emergency stop to halt the machine immediately).
- Don't put your finger in the space between the turntable and the base-unit.  
(Use the emergency stop to halt the machine immediately).



## SAFETY INSTRUCTIONS



- When installing the machine, as a precaution, always check that the controls and safety systems are correctly mounted and operating efficiently. If any malfunctions are noted, immediately stop the production cycle and ask the authorized technical service to intervene.
- Examine the data-plates. If they are in poor condition, replace them with utmost urgency, strictly and directly contacting the authorized technical service or the Manufacturer
- The requirements, as mentioned in chapter **MAINTENANCE INSTRUCTIONS** should be satisfied during adjustment and maintenance activities.
- People should not step on to means of transport, unless indicated clearly otherwise.
- People should not find themselves above the means of transport.
- Do not place tools and components on the machine.
- Safety devices should not be bridged and put out of operation.
- The manufacturer will only make the machine ready for operation, when the electrical main connection satisfies the standards applicable in the country of delivery.
- The supplier will do the training of the operating personnel. If not, the training will have to be done properly by the company that takes care of the installation.
- The machines are designed and implemented conforming to the safety laws in force. Consequently, no intrinsic fire risks are envisaged when the machine is used normally.
- As such, the equipment provided against the possibility of **fire outbreaks** inside the company are sufficient for any problems caused by the material used for the process.
- In the event a fire breaks out and fire extinguishers are used, it is recommended that extinguishers filled only with CO2 be used, so as not to damage both the equipment on the machine and the wiring system.
- In the event of **flooding**, it is compulsory that all the power supplies be disconnected before entering the room in which the machine is installed.
- In the event the wrapping machine was subjected to a flooding, contact the Customer technical service of MANUFACTURER.
- You are strictly recommended not to work in the machine while wearing unsuitable clothing (unbuttoned, ample garments) or personal objects (bracelets, watches, rings, etc.).

## SAFETY DEVICES



**We urge on you again that all safety devices are installed for the safety of the operator etc. and should not be bridged and put out of operation.**

Refer to the drawing below for the applied references.

Survey control panel

	<p>A = Acoustic signal</p> <p>B = Emergency stop</p> <p>C= Main switch Light On, when the power is On</p>	<p>C = Main switch</p> <p>The main supply (1x230V) is switched on and off with the main switch. The supply voltage for the control part (24VAC) is thus equally switched on and off.</p>
<p>E = potential meter for film tension.</p>	<p>E = Adjustment FILM Tension. (Only when the machine has been equipped with film carriage 4)</p>	
<p>G = crush-proof guard</p>	<p>This is a entrance safety guard, interlocked by means of Photocell sensor and reflector. Any time underlying foreign matter comes between this guard, it inverts the film carriage's motion and causes the turntable to stop in emergency.</p>	

## WARNINGS

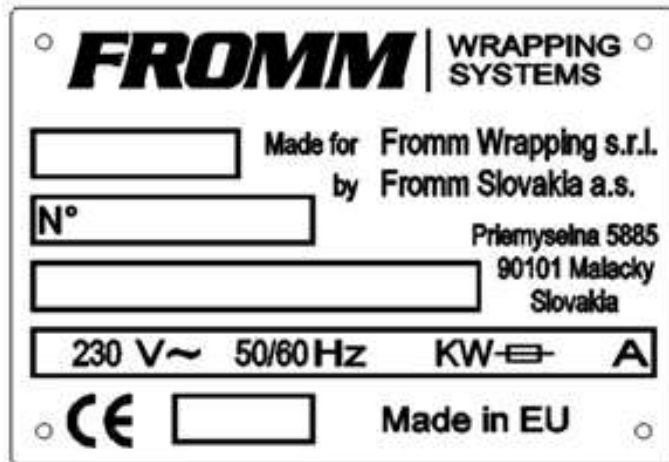
- The mean weighed noise level of the machine is less than 80 dBa. It is possible that, depending on the applied film, during wrapping of the pallets / products incidentally a noise level with a maximum of 80 dBa will be measured. Carrying of noise protecting devices is advised.
- One has to reckon with the possibility that the film (roll) contains an electrostatic charge.
- Utmost caution has to be taken with respect to the complete electrical installation. ONLY trained persons may carry out activities to it, after having taken the required safety measures as mentioned in the chapter **SAFETY INSTRUCTIONS**.
- One has to reckon with the European safety requirements and standards if the machine has to be adapted and thus safety measures or protection covers also have to be adapted.
- Touching the electrical equipment will hazard your personal safety.
- Persons who carry out changes in or adaptations (function, operation or principles) to the machine are fully responsible for those changes and/or adaptations.
- All relevant safety measures should be taken when carrying out any activity on the machine, especially during maintenance activities and solving failures.  
Take care that the main switch is switched off (position "0") and locked (If possible), or that the power cable is disconnected in order to prevent other persons in putting in action the machine during your activities.  
All the normally valid safety measures or customs with respect to safety should also be taken during those activities.
- Playing with or around the machine may cause dangerous situations with a machine in operation. This playing is never allowed!



- All other prescriptions and laws with respect to working conditions and safety on the working spot should be observed with this machine.
- An acoustic signal device has been installed in the control cabinet, which will be activated first during a short period, as a warning every time before the machine is starting.

## EXPLANATION IDENTIFICATION STICKER

An identification sticker with the following information has been mounted at the backside of mast.



<b>Name of the manufacturer</b>	: FROMM Slovakia a.s.
<b>Type</b>	: Machine type.
<b>Serialnr.</b>	: Production number of manufacturer.
<b>Voltage</b>	: Supply voltage.
<b>Power</b>	: Used power
<b>Fuse</b>	: 10 Amp
<b>Year of manufacture</b>	: Year in which the machine has been built by manufacturer.

Besides, the CE-mark has been placed on the identification plate:

### CE-mark

Machine fulfils the applied requirements as mentioned in the CE - machine directives

<b>2006/42/EC</b>	<b>(Directive)</b>
<b>2004/108/EC</b>	<b>(Electromagnetic compatibility)</b>
<b>2006/95/EC</b>	<b>(Low tension)</b>

- It is strictly prohibited to remove the identification sticker or to replace it with any other similar one of any type.
- Should the CE mark sticker be damaged for any reason, please notify the MANUFACTURER immediately.

## TECHNICAL DATA

<b>Machine</b>	<ul style="list-style-type: none"> <li>- Speed turntable OP1</li> <li>- Capacity</li> <li>- Operation / working advice</li> <li>- Operational hours</li> <li>- Ceiling height FS1 "CENTO"</li> </ul>	Adjustable by inverter. max. 25 pallets/hr. Max. 2.300 pallets per year 8 hrs/day, 5 days/week minimum of 2.400mm / 94,50"
<b>Weight</b>	<ul style="list-style-type: none"> <li>- Total weight FS1 "CENTO" Ø 1.500mm</li> <li>Ø 1.650mm</li> </ul>	approx. 270kg approx. 370kg
<b>Conditions</b>	<ul style="list-style-type: none"> <li>- Environmental temperature</li> <li>- Environment</li> </ul>	+ 5 to +30°C clean, dry and non-aggressive
<b>Electrical</b>	<ul style="list-style-type: none"> <li>- Power supply</li> <li>- Control voltage</li> <li>- Motor turntable</li> <li>- Motor film carriage</li> <li>- Installed power</li> <li>- Protection class</li> </ul>	1 x 230 V 50/60Hz 24 VAC 0.55kW 0.22kW 1 kW IP44
<b>Pallet goods</b>	<ul style="list-style-type: none"> <li>- Pallet dimensions (Length x width) Ø1500mm</li> <li>- Pallet dimensions (Length x width) Ø1650mm</li> <li>- Height with load FS130 (pallet included)</li> <li>- Dimensions of load outside pallet</li> <li>- Top of load</li> <li>- Maximal weight Ø1.500mm</li> <li>- Maximal weight Ø1.650mm</li> <li>- Maximal weight Ø1.650mm</li> </ul>	800 x 1.200 x 140 31,5" x 47,24" x 5,51"  1.100 x 1.200 x 140mm 43,30" x 47,24" x 5,51"  min. 500mm / max. 2.200mm min. 19,69" / max. 82,67"  max. 20mm / 0,79" per side flat 1.200kg 1.350kg 2.000kg

## TECHNICAL DATA

<b>Stretch-film</b>	- LLDPE Material	Max 35 µ / 0,000138"
	- Spool core diameter	76 mm / 3"
	- Outer diameter of spool	Max. 250mm / 9,84"
	- Film width	Max. 500mm / 19,69"
<b>Colors</b>	- Bottom unit, mast	: Blue, RAL 5010
	- Turntable disk	: Yellow, RAL 1021
	- Chassis film carriage	: Yellow, RAL 1021
	- Control cabinet	: Grey, RAL 7035

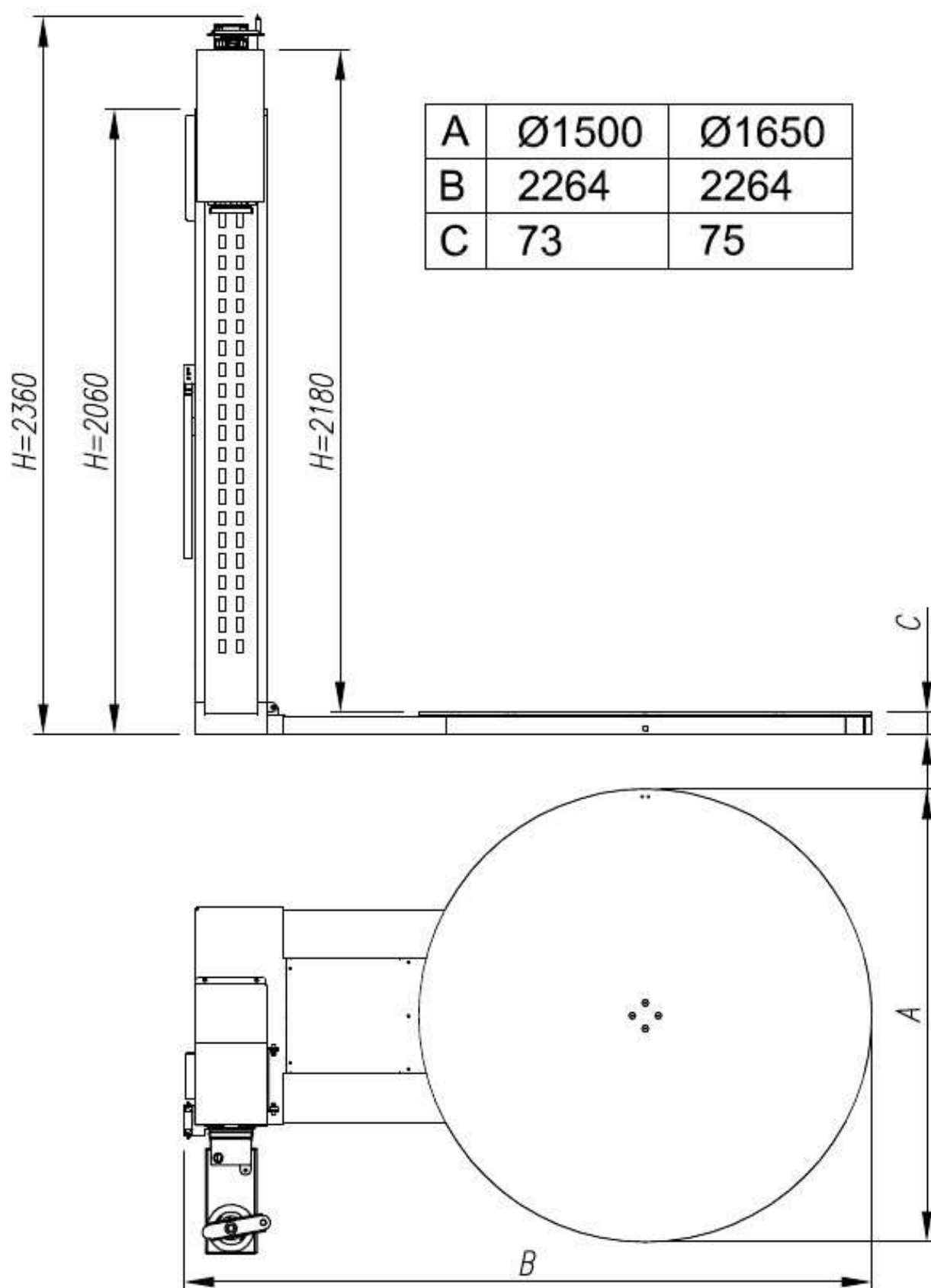
Should the need arise to work with products having a different nature than the above mentioned ones. It is essential that you contact the technical service of MANUFACTURER in order to receive written authorization.



**WARNING : do not use film thicker than 35 microns without consulting the Manufacturer**

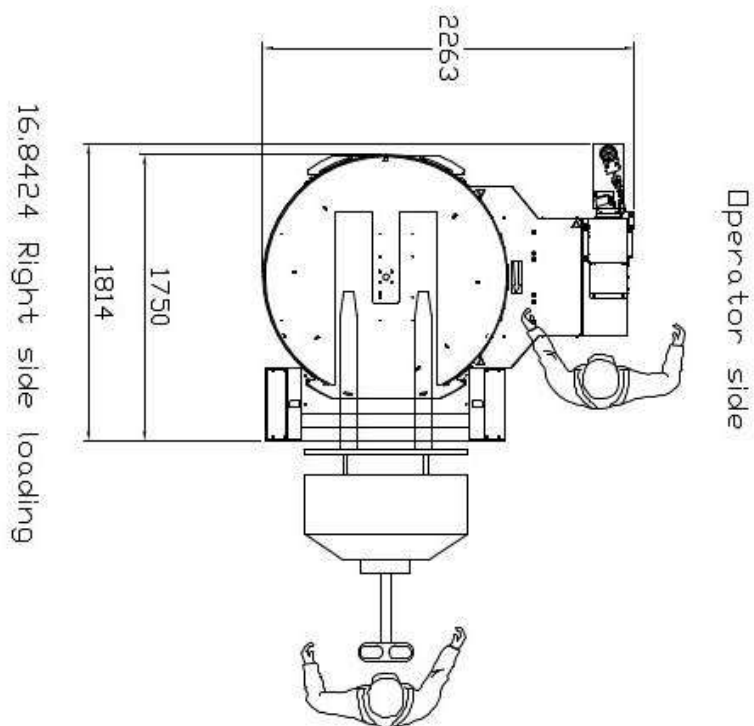
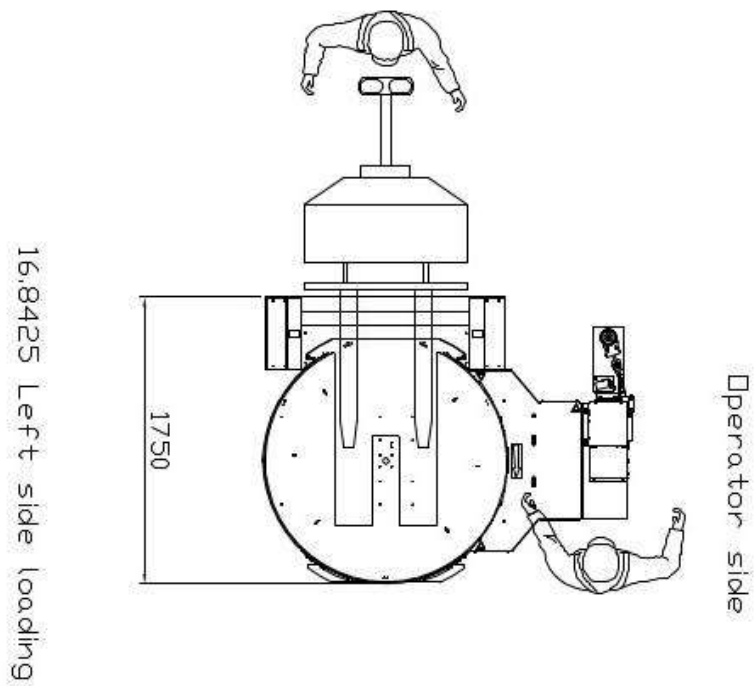
## DIMENSIONS

Refer to the LAYOUT on this page for the dimensions.



## DIMENSIONS

Refer to the LAYOUT on this page for the dimensions.












## EXPLANATION OF PICTOGRAMS

**ATTENTION!!** (FOR EVERYTHING IS VALID, IF APPLIED!)








### WARNINGS

 Fig. 1	Figure 1:  DANGER High voltage present.
 Fig. 2	Figure 2:  Danger Sign
 Fig. 3	Figure 3:  Risk of crushing one's hands
 Fig. 4	Figure 4:  Risk of crushing hands and feet
 Fig. 5	Figure 5:  Falling hazard
 Fig. 6	Figure 6:  Sharp objects



### COMMAND PLATES

 Fig. 7	Figure 7:  It is prohibited to pass by within the lifting equipment's ray of action
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## EXPLANATION OF PICTOGRAMS

 Fig. 8	Figure 8:  Do not use bare flames and do not smoke
 Fig. 9	Figure 9:  Don't access the area while the machine is working
 Fig. 10	Figure 10:  Don't remove the SAFETY DEVICES
 Fig. 11	Figure 11:  Don't execute any work before taking off the voltage of the machine
 Fig. 12	Figure 12:  Truck insertions
 Fig. 13	Figure 13:  Lifting points
 Fig. 14	Figure 14:  This identifies situations in which <b>THE SUPPLIER</b> must be contacted

## EXPLANATION OF PICTOGRAMS

 Fig. 15	Figure 15:  Very important guidelines that must strictly be complied with. Otherwise machine operators could be at risk, the consequence of which would be the voiding of any form of warranty and liability on behalf of <b>FROMM PACKAGING SYSTEMS</b> .
 Fig. 16	Figure 16:  Operations that must never be performed.

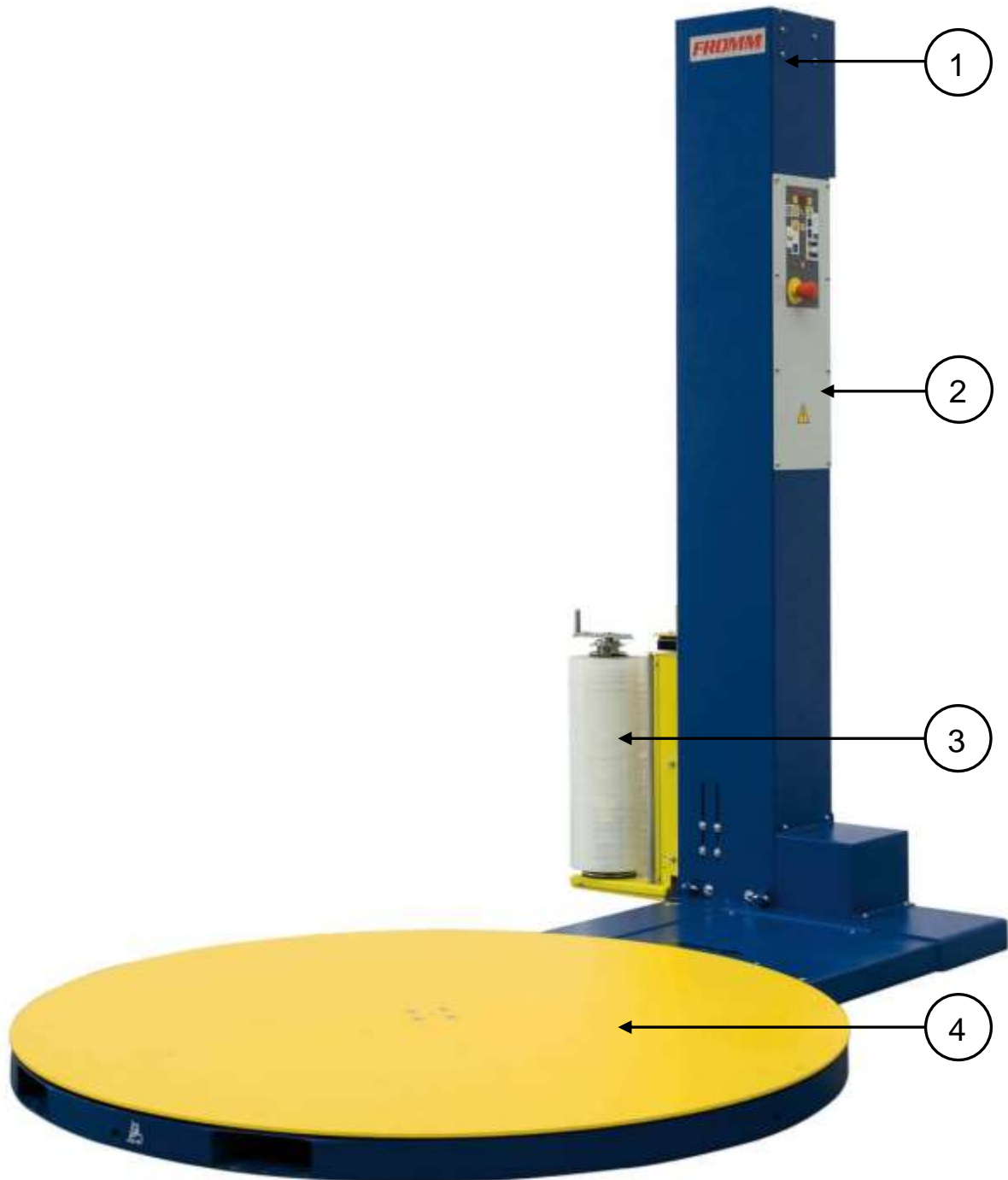
### CE-MARK

 Fig. 17	Figure 17:  Machine fulfils the applied requirements as mentioned in the CE-machine directives.
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## MAIN COMPONENTS

The installation as delivered, consists of the following parts:

- 1- Mast
- 2- Control cabinet with control panel
- 3- Film carriage
- 4- Turntable



## HANDLING & TRANSPORT



### ATTENTION!

All mentioned activities may only be executed under supervision of qualified personnel from the manufacturer or his representatives!

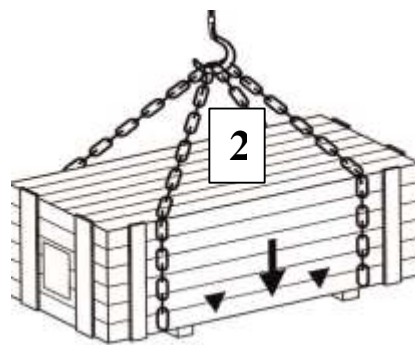
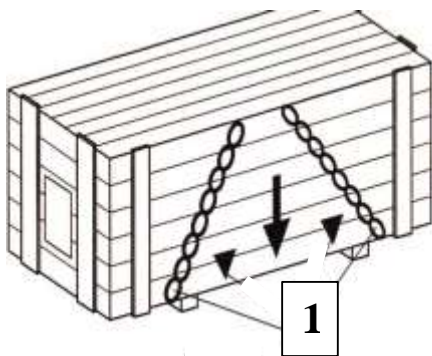
Pay attention that proper hoisting and lifting tools are used for handling of the machine.

The machine is supplied in a wooden crate insulated by plastic air bubble film. It is advisable that two another operators be in attendance on the ground when the machine is moved by means of the mechanical equipment driven by the operator in charge since the size of the machine may prevent a clear view during the various phases of the handling operations.

Depending on weight, dimensions, location of machine on the vehicle, available installation space lifting methods and points suitable for the operations described below must be used, fully observing the current safety and health laws and the Manufacturer's recommendations.

Lifting and handling of packing in a wooden crate by crane

- use a crane and sling of sufficient strength
  - bring the vehicle near to the lifting pallet
  - pass the sling (and/or ropes - chains) around the case in the positions indicated by the external markings (1);
- First check that the case - sling/hook (2) are well secured, then carefully lift the case and place it in the designated area, moving it gently.



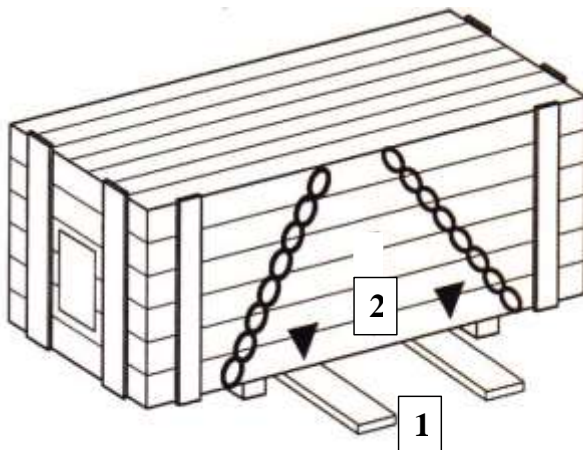
## Lifting and handling of packing in a wooden crate by fork-lift truck



Lifting and transport must be affected by a fork-lift truck suitable to bear the weight of the machine, its accessories and packing.

Always check in advance that sufficient space is available for the operations.

- slide the forks (1) of the truck under the casels support base, in line with the indicator-marks printed (2).
- lift the load after ensuring it is stable, and transport it to the area in which packing is to be removed, avoiding jerks and dangerous cambers.



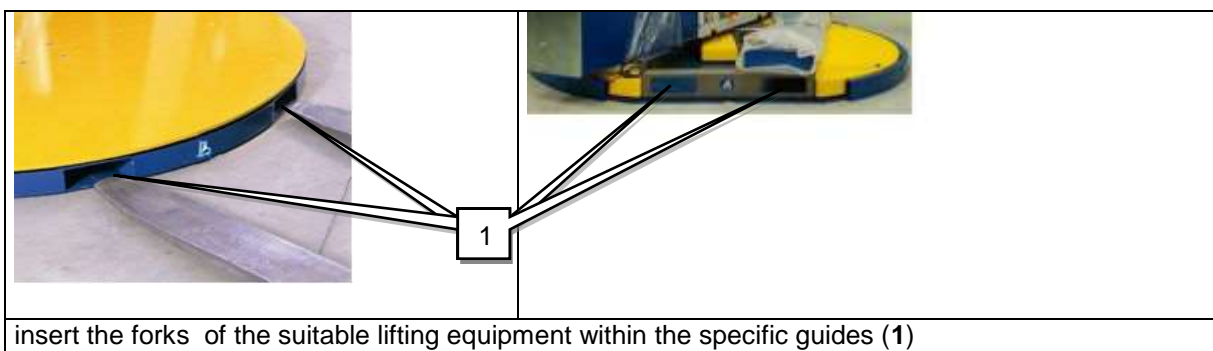
Following measures have to be taken for transport and storage of the machine:

- One has to take care for a suitable storage environment respectively packaging during long-term storage.

Drag bands etc., if used, in order to attach several parts may never be tightened over vulnerable parts, such as control panel, ventilation grills, etc.).

## Handling the unpacked machine

Should any machine components be shipped together with the machine, handle them adopting all safety precautions.



insert the forks of the suitable lifting equipment within the specific guides (1)

## Machin

### e storage

The machine and any components packed together with it are protected by a plastic covering that does not guarantee long storage times.

**The machine must never be stacked nor is it capable of supporting external loads.**

## INSTALLATION INSTRUCTION



### ATTENTION!

All mentioned activities may only be executed under supervision of qualified personnel from the manufacturer or his representatives!

Refer to pictures in **INSTALLATION INSTRUCTION** mentioned position numbers.

### General guideline

Always check in advance that the minimum conditions for machine placing and operation are observed, in particular: ambient conditions (suitable floor), temperature, humidity, lighting and suitability of the designated area.

Installation in rooms subject to the risks of flooding, explosion and fire is strictly forbidden.

The area necessary for installation of the wrapping machine is the area according to the dimensions on the layout plus enough space for installing and working on the machine.

Installation must be executed by qualified personnel, directly coordinated by the authorized Technical Service, fully observing the instructions that follow, in addition to current safety and health laws.

As a precaution, always check for any damage caused during transport and handling work.  
If necessary, contact the Manufacturer directly.

### Temperature

For safety make sure the machine is operating at ambient temperature in the range +5°C to +30°C.  
If other values are measured, contact the Authorized Technical Service with utmost urgency.

### Work areas

It is strictly forbidden to locate and/or use the machine if the ambient conditions are liable to cause risks of explosion or inflammable.

Ensure that the following are not present: dust concentration, gas, dangerous fumes and particles, electrostatic fields, excessive electro-magnetic flow, or anything else that might be harmful to persons so exposed or to the efficient running of the machine.

In any event, observe the current safety and health laws.

The machine should be placed on a flat, rigid, vibration-free concrete floor

Never access the high parts of the machine improperly.

### Energy sources

The client must provide a cable suited for the required supply voltage up to the control cabinet, of which the diameter of the conductors can manage the total of the required power as mentioned in chapter **TECHNICAL DATA**

The wrapping machine should preferably be connected to the customer's supply voltage wall socket with a connecting cable with a standard CEE-plug, being fused with a 16A-fuse (slow).

For the correct plug check chapter **TECHNICAL DATA**

A main switch preceding the plug has to be provided by the customer, if necessary.

The mains supply must satisfy the applicable standards, such as permitted voltage fluctuations, ripple-generation, reduction of high harmonics, etc.

## INSTALLATION INSTRUCTION



### ATTENTION!

All mentioned activities may only be executed under supervision of qualified personnel from the manufacturer or his representatives!

FOR EVERYTHING IS VALID: IF APPLIED!

**Due to shipping requirements, the shaft (1) is usually shipped horizontally and bears on a support that has been specifically set up for it. Consequently the shaft must be re-positioned when the machine is installed.**

- Upon having located the machine, lift the shaft (1) by turning it around the fulcrum shaft that has been specifically setup and then locate the shaft upright as compared to the turntable
- Secure the shaft vertically to the relative plate with the 4 screws (Figure 2)
- Place the motor cabinet over the motor and secure with screws (Figure 2 & 3)



Fig. 1

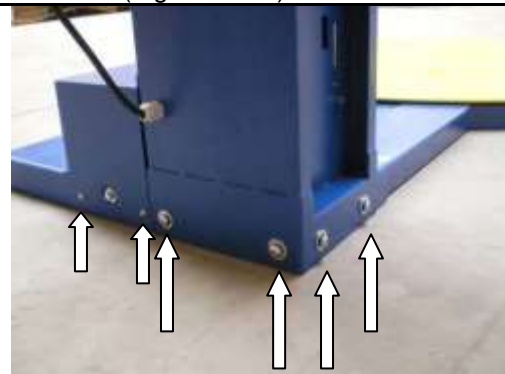


Fig. 2

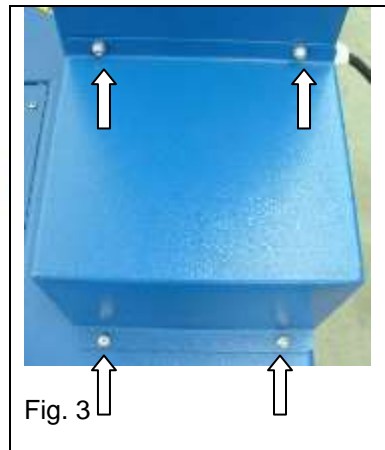


Fig. 3



**ASSEMBLY SEQUENCE**

1. Check the functionality of the MAIN SWITCH (Fig. 1)



Fig. 1



2. Check the functionality of the EMERGENCY SWITCH (Fig. 1)



Fig 1.



3. Check the functionality of the transport belt for the carriage  
4. Check the knitting of the transport belt for the carriage



5. Check the functionality of the safety device of the base (Only for 1.650mm Turntables)



6. Check the functionality of the MOVEMENT of the CARRIAGE (Fig. 1 / 2 )



Fig. 1 / Movement UP



Fig. 2/ Movement DOWN

**ASSEMBLY SEQUENCE**

7. Check the functionality of the proximity at the top of the mast, which limits the top position of the carriage and the micro switch at the bottom of the mast executing the same function (Fig 1 & 2)

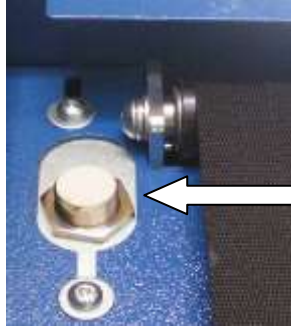


Fig. 1

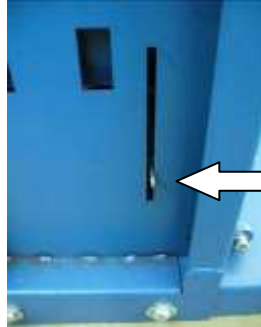


Fig. 2

8. Check the functionality of the PHOTOCELL (Figure 1 & 2)



Fig. 1



Fig. 2 16.8440 – V01



Fig. 2 16.8440 – V02

9. Check the functionality of the brake system 16.8440- V01 (Fig. 1)

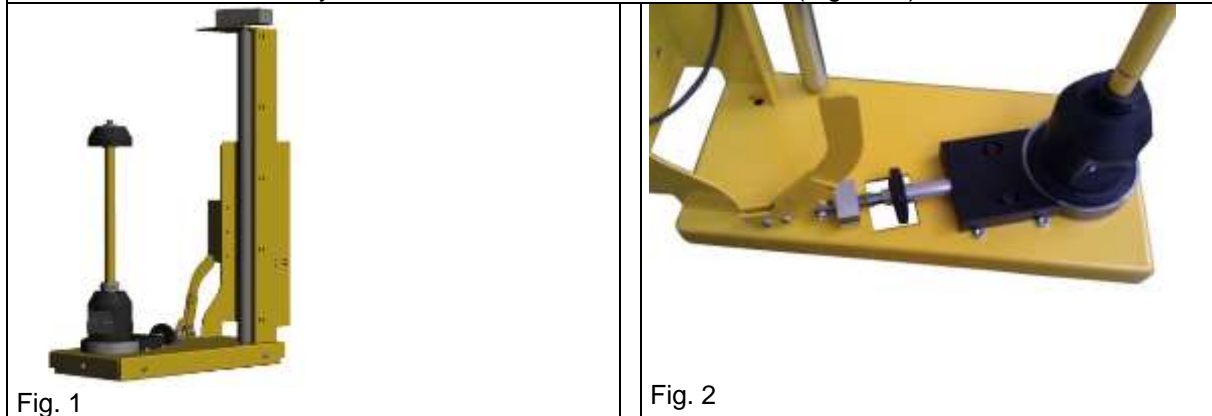


Fig. 1

## ASSEMBLY SEQUENCE

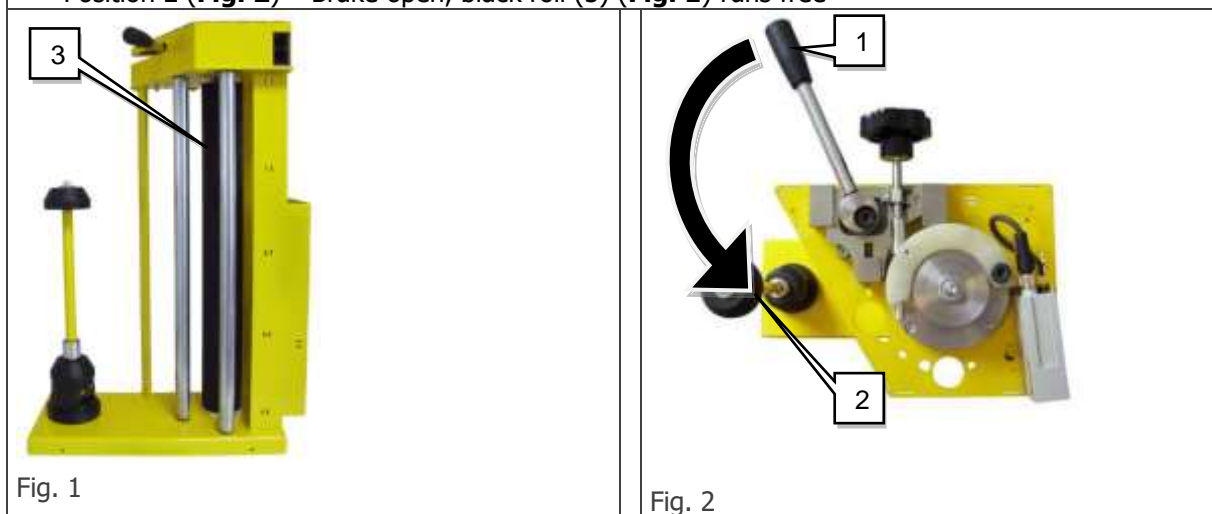
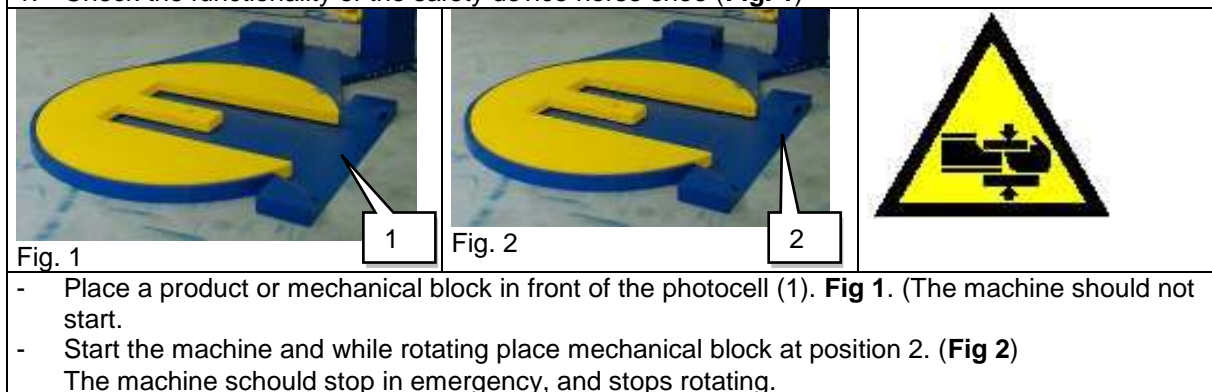


## 10. Check the functionality of the BRAKE SYSTEM 16.8440- V02 (Fig. 1 / 2)



## 11. Check the functionality of the BRAKE SYSTEM Carriage 2 (Fig. 1 / 2)

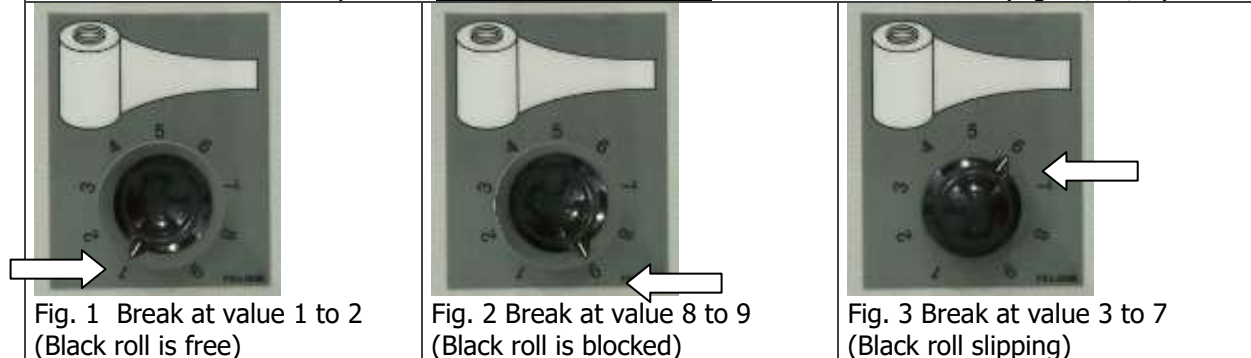
- Position 1 (**Fig. 2**) – Brake closed, black roll (3) (**Fig. 1**) is blocked
- Position 2 (**Fig. 2**) – Brake open, black roll (3) (**Fig. 1**) runs free

1. Check the functionality of the safety device horse shoe (**Fig. 1**)

## ASSEMBLY SEQUENCE



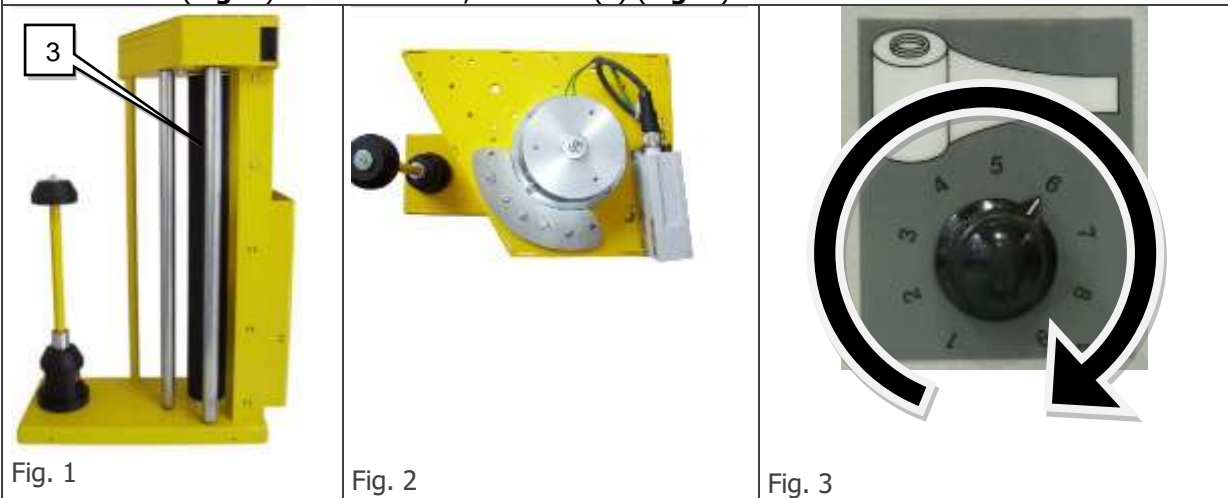
### 2. Check the functionality of the **POTENTIAL METER CARRIAGE 4 - 16.8663** (Fig. 1 / 2 / 3)



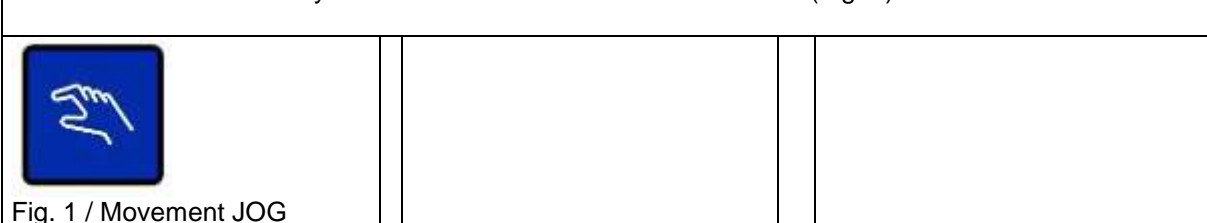
**All settings are subject to the quality of film. Thus with higher or lower quality of film variations of the settings is completely normal. We advise to use the machine with the settings as explained in Figure 3. (6/7)**

### 3. Check the functionality of the BRAKE SYSTEM Carriage 4 (Fig. 1 / 2 / 3)

- Position 1 (**Fig. 3**) – Brake open, black roll (3) (**Fig. 1**) runs free
- Position 9 (**Fig. 3**) – Brake closed, black roll (3) (**Fig. 1**) is blocked



### 4. Check the functionality of the MOVEMENT of the TURNTABLE (Fig. 1)



**ASSEMBLY SEQUENCE**

5. Check the functionality of the RESET of the MACHINE (Fig. 1)

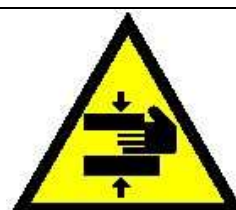


Fig. 1 / Reset function

6. Check the functionality of the proximity sensor for bottom / top-wraps and zero position (Fig. 1)



Fig. 1

**ELECTRICAL CABINET**

7. Check the functionality of the terminal / over-current / circuit breakers (Fig. 1 & 2)



Fig. 1 Carriage



Fig. 2 Turntable



**ASSEMBLY SEQUENCE****ATTENTION!**

After the first installation

Follow procedure below before starting the machine

- Control if the emergency button is free;
- Turn on the machine;
- Press the reset button;
- Wait 5 seconds and then make the first rotation in manual mode;
- If the turntable rotates, follow procedure below.

After installation or maintenance of the machine follow procedure below to check the efficiency of the safety devices, such as:

- ✓ **Interlocking of the safety belt interlocked operator guard**
- ✓ **Emergency button**

*Check for the efficiency of the mobile interlocked safety belt of the carriage*

- start the machine
- *trigger the interlocked operator guard*

**Check that the carriage inverts its running direction for approximately 3 seconds and that the turntable starts slowing down and stops within a few seconds.**

*Check for the efficiency of the mushroom-head button (Emergency stop)*

- start the machine
- press the emergency mushroom-head button

**Check that the machine stops within a few seconds.**



## CONTROL PANEL

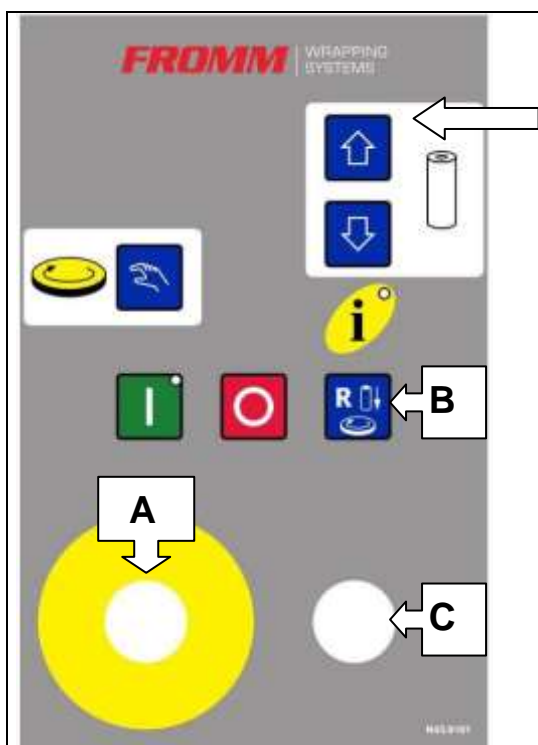


Fig.1

Figure 1: Console FS11x Generation V01

**A = Emergency stop**

**B =** Reset button

**C = Indication main switch is turned ON  
(Light = ON)**

**Or**

**C = Joystick version (Optional)**

Up = Film carriage moves upwards

Down = Film carriage moves downwards

## ERRORS

**E1: NO PALLET DETECTED** 1x beep / pause

E1:	NO. 1111111111111111	1x beep / pause
E2:	EMERGENCY SWITCH	2x beep / pause

After switching on the machine, press RESET!!

E3: INVERTER ERROR                      3x beep / pause

E4: SAFETY BELT 4x beep / pause

E4:	SAFETY DEET	1x beep, pause
E5:	BASE SAFETY DEVICE	5x beep / pause

ES: SERVICE BY FROMM ENGINEER  
REQUESTED



## ALARM RESET

Clear the fault, push the **RESET** button if it is necessary to restart the cycle.

During the failure the machine will repeatedly beep until the fault is cleared.

The relay inside the cabinet will make a clicking noise.

## Manual program

	<p>From software version 1.1: Press button shortly and switch from <u>AUTOMATIC</u> to <u>MANUAL</u> program</p>
	<p>START button Automatic program : LED is OFF Manual program : LED is blinking</p>

***Below parameters have to be set at first installation. (Can only be changed by FROMM service)***

<b>Double wrapping</b>	wrapping ascent / descent	<b>PA8-01</b>
<b>Single wrapping</b>	cycle, ascent only	<b>PA8-02</b>

## INDICATIONS

### START-UP CYCLE ACTIVE

An acoustic signal device has been installed in the control cabinet, which will be activated first during some seconds as a warning every time before the AUTOMATIC PROGRAM is executed.

The operator will thus be able to leave the danger zone before the machine starts to operate.

The machine will only start to operate after this period has been elapsed.

### RESET MACHINE

The automatic program of the wrapping machine is interrupted and a failure indication will be displayed on the console, when the emergency stop is activated or any other failure is detected.

Wrapping can only be started again after pushing reset on the control panel. Thus, the failure is reset and the control voltage is activated again, assuming that the mains switch still has been switched on. The cause of the failure has to be solved first, of cause.

By holding down the reset button for 3 seconds the wrapping machine can be brought back to the start conditions.

The turntable returns back to the zero position of the machine.  
The film carriage returns back to the zero position of the mast.



## BASIC OPERATING INSTRUCTIONS



Button	Explanation
	<p>START button</p> <p>Automatic run mode</p> <p>Activate this run mode, after the machine has been turned on and the safety conditions have been complied with, by pressing the START pushbutton provided that the corresponding work cycle has been set.</p> <p>Automatic program : LED is OFF</p> <p>Manual program : LED is blinking</p>
	<p>STOP button</p> <p>For stopping the machine so that it can restart from the operation point in which it stopped. Pressing two times consecutively the operation point has been reset and the next start will be from the beginning of the work cycle.</p> <p>Press TWO times and the machine will stop immediate</p>
	<p>Jog table, keep button pressed for the manual movement of the turntable</p> <p>From software version 1.1:</p> <p>Press button shortly and switch from AUTOMATIC to MANUAL program</p>
	<p>Carriage movement jog button.</p> <p>Press once to raise the carriage. Press again to stop the movement.</p> <p>Or optional JOYSTICK ask your supplier!</p>
	<p>Carriage movement jog button.</p> <p>Press once to lower the carriage. Press again to stop the movement.</p> <p>Press during the automatic cycle and the carriage will stop the movement during activation of this button</p> <p>Or optional JOYSTICK ask your supplier!</p>
	<ol style="list-style-type: none"> <li>Reset button. Reset the machine to home position.</li> <li>After switching on the machine clear error E2 the control voltage is activated again.</li> </ol>
	Information button indicates the alarms

	<p><b>RE / FIND ZERO POSITON</b></p> <p>Press stop and immediate after press reset and hold both buttons for 5 seconds.</p> <p>The turntable starts to rotate and stops at the next position.</p> <p>ZERO POSITION CORRECT – Proceed with working cycle</p> <p>ZERO POSITION FALSE – Repeat procedure (Max 3 times)</p>
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## STARTING AND STOPPING OF THE TURNTABLE WRAPPING CYCLE



### Automatic run mode with settable cycles

Activate this run mode, after the machine has been turned on and the safety conditions have been complied with, by pressing the START pushbutton provided that the corresponding work cycle has been set via the pushbutton panel.

**ATT.** The acoustic signal is active during approximately 3 seconds before the automatic wrapping cycle will be executed. The machine will only start to operate after this period has been elapsed.

**N.B.** The automatic wrapping cycle is only started, if the start conditions are fulfilled.  
A failure indication is displayed, if not all start conditions are fulfilled.  
The start conditions for the automatic wrapping cycle are:

- One of the WRAPPING PROGRAMS 1-2;
- Photocell "pallet height" should be activated;
- Emergency stop not activated;
- No failure detected;

### Stop with table deceleration

This stop is commanded as follows:

- by pressing the stop pushbutton
- by pressure exerted on the base safety device
- by the presence of an alarm that commands the immediate stop.

This stop mode envisages:

- the immediate stop of the film carriage
- the turntable starts to slow down until it stops.

**NOTE:** with this type of stop the machine can restart from the operating point in which it had stopped by, pressing the start button.

## WRAPPING PROGRAMS

***Below parameters have to be set at first installation. (Can only be changed by FROMM service)***

### **Double wrapping. PA8 - 01.**

The UP/DOWN (double) wrapping program will be executed with this function.

- After completing the pre-selected number of bottom wraps the film carriage will go upwards;
- While the turntable keeps turning, it will halt automatically at the top, to apply the pre-selected top wraps;
- After this the carriage will go downwards again;
- After reaching the switch for the carriage ZERO position, the turntable will halt in phase;
- The film can be cut at the bottom and the pallet can be transported.

### **Single wrapping PA8 - 02.**

The ONLY UP (single) wrapping program will be executed with this function.

- After completing the pre-selected number of bottom wraps the film carriage will go upwards;
- While the turntable keeps turning, it will halt automatically at the top, to apply the pre-selected top wraps;
- Now the turntable will halt in phase;
- The film can be cut on the top and the pallet can be transported.

## ALARMS

E1:	NO PALLET DETECTED	1x beep than pause (repeated sequence)
E2:	EMERGENCY SWITCH	2x beep than pause (repeated sequence)
E3:	INVERTER ERROR	3x beep than pause (repeated sequence)
E4:	SAFETY BELT	4x beep than pause (repeated sequence)
E5:	BASE SAFETY DEVICE	5x beep than pause (repeated sequence)

ES: **SERVICE BY FROMM ENGINEER REQUESTED**

## ALARM RESET



After having cleared the fault, push the RESET button

### ES - SERVICE REQUIRED

Problem suggestion	Possible solution
- This alarm signals that service has to been done	- If maintenance will be done by a qualified FROMM engineer. The timer will be reset to ZERO and the alarm disappear from the operating panel.
- Service has been done Alarm ES persists	- Timer has not been set to ZERO - Call FROMM distributor.

**INSERTING THE FILM**

Place the new film reel (direction of unwinding depends on the side on which the cling is found).

Guide the film through the brake system according to the subjoined drawing.

**Arrows on the inside of the roll means:****CI = CLING INSIDE**

The film has to be guided through the brake system in this way when applying a "differential cling"-film with the cling on the inside of the film when unwinding the film from the film reel.

**Arrows on the outside of the roll means:****CO = CLING OUTSIDE**

The film has to be guided through the brake system in this way when applying a "differential cling"-film with the cling on the outside of the film when unwinding the film from the film reel.


The way of guiding the film through the brake system when applying a "double sided cling"-film is basically not relevant.

**Stretchfilm**

- LLDPE Material
- Spool core diameter
- Outer diameter of spool
- Film width

Max 35  $\mu$  / 0,000138"  
 76,2 mm / 3"  
 Max. 250 mm  
 Max. 500 mm

**CHANGING FILM CARRIAGE 0 – FS1 “CENTO” V01**

 <p>Step 1</p>		
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**CHANGING FILM CARRIAGE 0 – FS1 “CENTO” V02**

 <p>Step 1</p>		
---	--	--

**MAINTENANCE INSTRUCTIONS FOR OPERATORS****SAFETY!**

- First switch off the main switch and lock it before carrying out maintenance on the installation.
- Take care, that other persons cannot put the installation in action.
- Take care, that the protection covers, etc. are remounted when putting the installation in action again.
- Maintenance and replacing of spare-parts has to be done only by trained responsible maintenance engineers

The installation will have a long operational life due to preventive maintenance. This means, that the various parts of the installation have to be monitored on a weekly, monthly, semi-annually or annually schedule.

The operational lifetime is influenced by the environmental conditions. The indicated maintenance frequency is valid for normal operation conditions (8 hrs per day, 20° C, clean environment). One is advised to increase the maintenance frequency under more severe conditions. Keep rotating parts free from dirt.

**REMAINDER OF THE FILM**

The machine has to be cleaned every day

Never use solvents to clean the machine. To remove dust or particles deposited during the size changeover operations, never use compressed air: only use rags and aspirators.

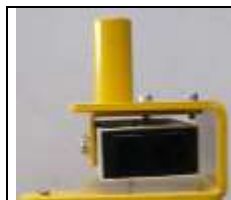
Check if any film and packaging remainder are present in the brake system and remove it.

**IMPORTANT NOTE!**

Official maintenance and replacing of spare-parts has to be documented in the separately delivery maintenance booklet. Machines counters and the maintenance responsible engineers has to be filled out. Including date of maintenance. Every additional special maintenance has also to be documented. No maintenance or lack on maintenance can influence the warrantee and safety conditions of the machine.

**MAINTENANCE INSTRUCTIONS****2 Weeks maintenance**

- Clean the photocell of the carriage.



16.8440-V01



16.8440-V02

**Monthly maintenance / Control**

- Check if the center bolts (1) (**Fig. 1**) of the turntable are still locked tight;
- Move the disk slowly with your feet;
- If you see that the disk has a play on the central bearing, locking of bolts is requested;
- Secure the turntable carefully, use lock tide n°628.

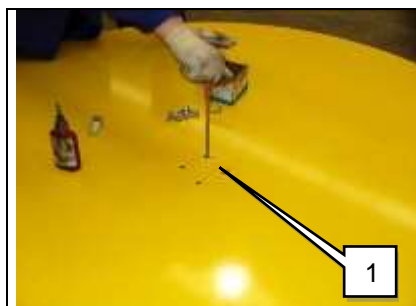


Fig. 1

## MAINTENANCE SCHEME



Based on 20 pallets per day / 8 Hours

## TURNTABLE

MAINTENANCE FREQUENCY								Counter value
	8 hr	40 hr	100 hr	200 hr	500 hr	1000 hr	1800 hr	Every wraps
Daily cleaning	X							375 Wraps
Cleaning eye of photocell			X					5.000 Wraps
Belt (Check)				X				7.500 Wraps
Turnplate chain				4				7.500 Wraps
Gear wheels				4				7.500 Wraps
Bearings						X		32.000 Wraps
Wheels carriage								126.000 Wraps
Friction discs <b>Visual check</b>						X		32.000 Wraps
Friction discs <b>Replacement</b>								126.000 Wraps
Proximity and limit switches						X		32.000 Wraps
Electrical system							X	63.000 Wraps
Sliding wheels							X	63.000 Wraps
Support wheels							X	63.000 Wraps

The numbers in the maintenance scheme refer to lubricants, which are to be applied in the table with lubricants (hereunder).

The symbol "X" in the maintenance scheme refers to remarks concerning the maintenance of or checking on the relevant part or system.

## LUBRIFICANTS

No.	LUBRIFICANT					
	SHELL	BP	ESSO	MOBIL OIL	TEXACO	
1	OMALA 220	ENERGOL GR-XP 220	SPARTAN EP 220	MOBILGEAR 630	MEROPA 220	
2	OMALA 680	ENERGOL GR-XP 680	SPARTAN EP 680	MOBILGEAR 636	MEROPA 680	
3	TONNA T68	MACCURAT 68	FEBIS K 68 EP220	VACTA.4	WAX LUBRICANT X68	
4	ALVANIA R	ENERGREASE L2	BEACON 2	MOBILUX 2	MULTIFAK EP2	
5	TELLUS 46	HPL 46	NUTCO H46	DTE 26	RANDO HD46	
6	TORCULA 32	ENERGOL RD-E 80	AROX EP 56	ALMOBIL 1	ARIES 32	
7	TELLUS 15				RANDO HDZ 15	
8	RETINAX WB				STARPLEX PREMIUM 1 (depending on the application)	



## **AGENT**

FROMM Wrapping Systems S.r.l.  
Viale del Lavoro, 21  
37013 Caprino Veronese (VR)  
Italy

Tel. +39 045 205 7300  
Fax +39 045 205 7373

VAT no. IT 04146150232

[www.fromm-stretch.com](http://www.fromm-stretch.com)  
[info@fromm-stretch.com](mailto:info@fromm-stretch.com)

## **MANUFACTURER**

FROMM SLOVAKIA a.s.  
Priemyselná 5885  
SK-901 01 Malacky  
(SLOVAK REPUBLIC)

VAT no. SK2022019109

## **DOCUMENTATION**

Refer to the leaflet delivered separately for the spare parts.

Or download it directly from our website:

**<http://www.fromm-stretch.com>**

Or contact your Fromm distributor.

# EC Declaration of Conformity

(EC machinery directive 2006/42/EC - Annex IIA)

The Supplier (manufacturer): **FROMM SLOVAKIA a.s.**  
**Priemyselná 5885**  
**SK-901 01 Malacky**  
**(SLOVAK REPUBLIC)**

Agent: **FROMM Wrapping Systems S.r.l.**  
**Via del Lavoro 21**  
**IT-37013 Caprino V.se (VR)**  
**(ITALY)**

Declares, under its responsibility, that the product:

Model: **FS11x**

Machine type:

Serial no.:

Description: **Semi-automatic wrapping machine using stretch film**

has been manufactured in compliance with the following directives:

**2006/42/EC (Directive)**  
**2004/108/EC (Electromagnetic compatibility)**  
**2006/95/EC (Low voltage)**

and in compliance with the following harmonised and national standards as well as other standard documents:

**UNI EN 12100:2010**  
**ISO 13849-1:2008 + AC:2009**  
**IEC EN 60204-1:2006**  
**UNI EN 415-6:2013**  
**UNI EN415-10:2014**

01/01/2017

Name: **Mr. Reinhard Fromm**  
Function: **Legal Representative**



A handwritten signature in blue ink, appearing to read 'Reinhard Fromm', is shown above a horizontal line.

## WARRANTEE CONDITIONS

### FROMM Distributor to End-user.

Warranty over a period of 12 months, using the machine in operation 8 hours a day, 40 hours a week. The warranty includes all deficiencies clearly resulting from poor manufacturing or faulty materials.

#### The warranty excludes:

- a) wearing parts.
- b) deficiencies resulting from improper stocking, incorrect handling and use as well as from using strapping / stretch film qualities not recommended by FROMM.
- c) deficiencies resulting from improper repair work made by the customer.
- d) deficiencies resulting from lack or improper maintenance work.

Warranty lapses as soon as the installation is not maintained according to supplied maintenance- and operating instructions.

The warranty concerns the parts to be replaced, exclusive the necessary repair hours.

Damage claims as a result of production shutdowns and claims for damage to persons and to property resulting from warranty deficiencies cannot be asserted by the customer.

### Maintenance costs

Ask your local distributor / supplier for the maintenance cost per year / service period.  
Service will be provided according FROMM service conditions / contracts.

**SERVICE LOGBOOK**

Service / Maintenance executed	
Machine counter:	
Date:	
Engineer:	
61.600 rounds / or <u>ONE</u> year	

Service / Maintenance executed	
Machine counter:	
Date:	
Engineer:	
61.600 rounds / or <u>ONE</u> year	

Service / Maintenance executed	
Machine counter:	
Date:	
Engineer:	
61.600 rounds / or <u>ONE</u> year	

Service / Maintenance executed	
Machine counter:	
Date:	
Engineer:	
61.600 rounds / or <u>ONE</u> year	

Service / Maintenance executed	
Machine counter:	
Date:	
Engineer:	
61.600 rounds / or <u>ONE</u> year	

Service / Maintenance executed	
Machine counter:	
Date:	
Engineer:	
61.600 rounds / or <u>ONE</u> year	

**SERVICE LOGBOOK**

Service / Maintenance executed	
Machine counter:	
Date:	
Engineer:	
61.600 rounds / or <u>ONE</u> year	

Service / Maintenance executed	
Machine counter:	
Date:	
Engineer:	
61.600 rounds / or <u>ONE</u> year	

Service / Maintenance executed	
Machine counter:	
Date:	
Engineer:	
61.600 rounds / or <u>ONE</u> year	

Service / Maintenance executed	
Machine counter:	
Date:	
Engineer:	
61.600 rounds / or <u>ONE</u> year	

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Date:	
Engineer:	
61.600 rounds / or <u>ONE</u> year	

Service / Maintenance executed	
Machine counter:	
Date:	
Engineer:	
61.600 rounds / or <u>ONE</u> year	