

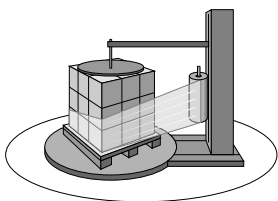
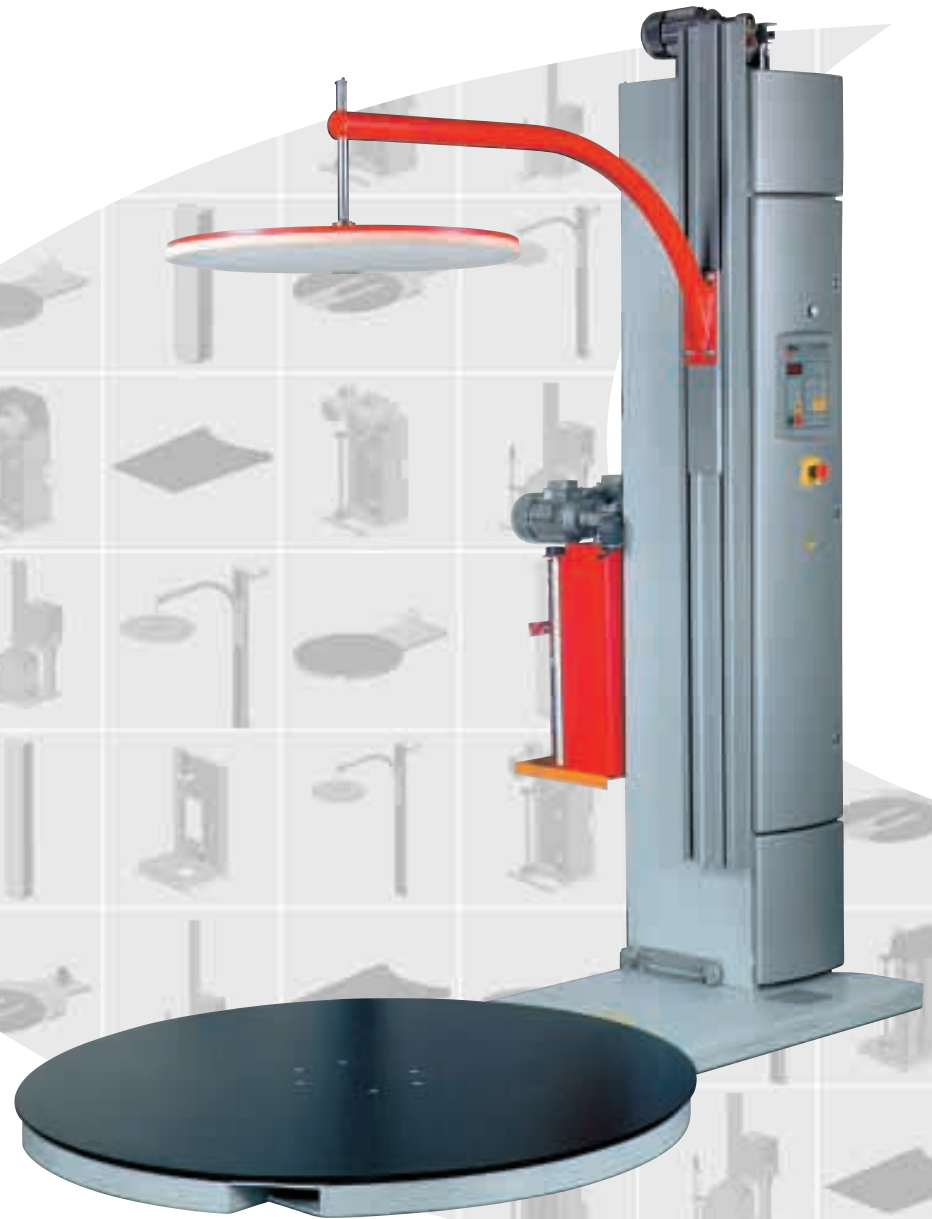


The stretch film wrapping machines WMS are both manually controlled and semiautomatic wrappers. **The modular concept** was applied at the development and the construction of this new range. Due to this conception a machine can "grow" according to the requirements of its user. A simpler version of wrapping machine can be chosen



**The stretch film wrapping machines WMS** represent a new generation of pallet stretch wrappers used in all branches and industry for end-of-line-wrapping of pallets in stretch film. This way is the most common and the simplest one to protect the products against spontaneous motion or shifting and release within the transport. The stretch film wrapping protects the goods against unrequired weather effects and against damages caused by water or dust, as well.

Any further detail information is available directly at the producer or you can visit the website [www.ekobal.com](http://www.ekobal.com) for your better orientation and for an eventual support of your final decision which of machines would meet your requirements the best way.



at the beginning, and it can be improved step by step according to the increased demands to wrapping quality and higher efficiency by various options as e.g. prestretch systems for better usage of stretch film are – an offer of simple mechanical brake up to 2-motors controlled prestretch is available. As an addition to that there are optional equipments of the machines enabling higher grade of wrapping process as well as an improvement of machine attendance. For disposal is the range of manually controlled machines up to self-learning semiautomats where all the pallets wrapped later than a sample pallet are fixed the same way stored in the machine memory.

## WMS

### Wrapster Modular System

# WMS Type Range



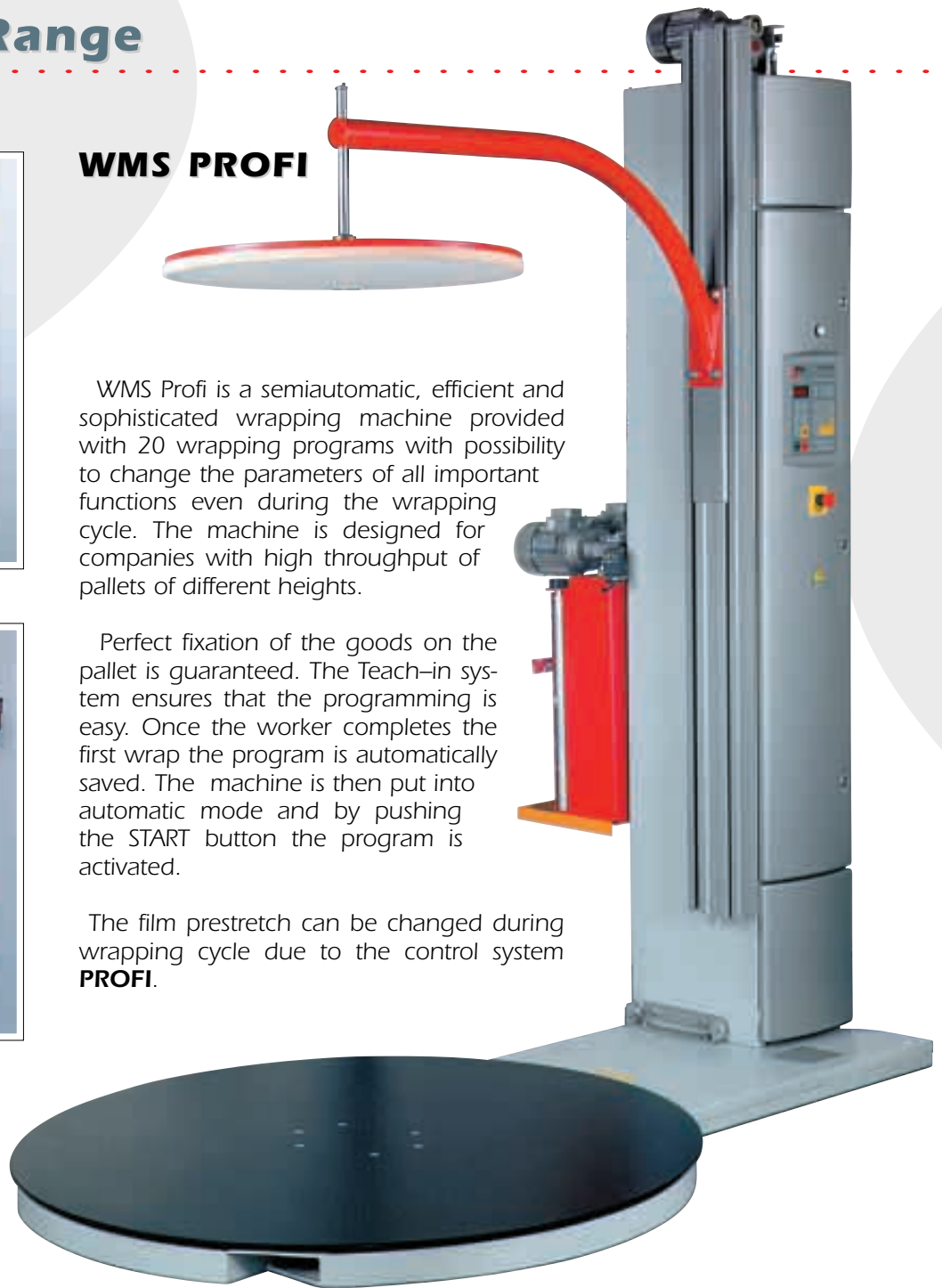
## WMS PROFI

WMS Profi is a semiautomatic, efficient and sophisticated wrapping machine provided with 20 wrapping programs with possibility to change the parameters of all important functions even during the wrapping cycle. The machine is designed for companies with high throughput of pallets of different heights.

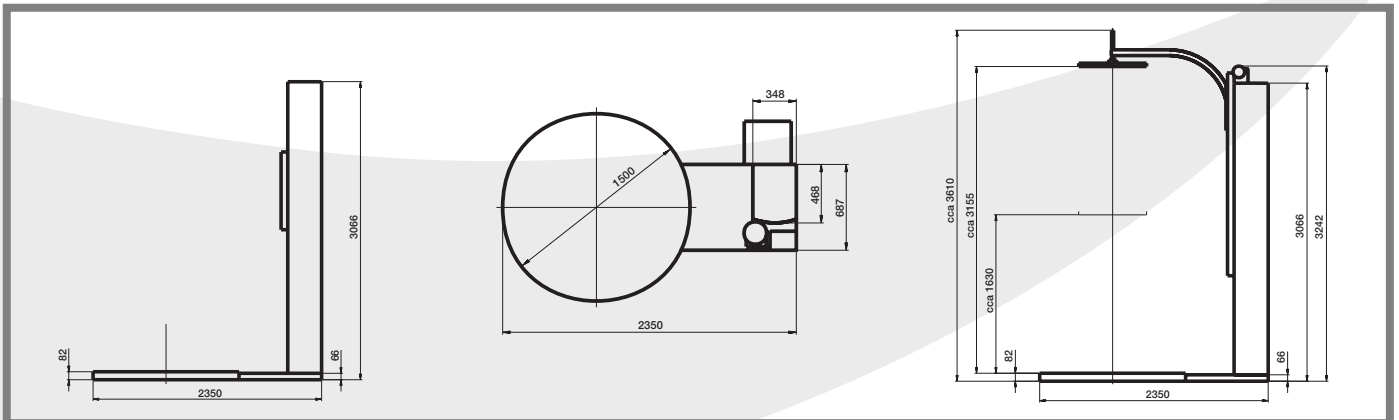


Perfect fixation of the goods on the pallet is guaranteed. The Teach-in system ensures that the programming is easy. Once the worker completes the first wrap the program is automatically saved. The machine is then put into automatic mode and by pushing the START button the program is activated.

The film prestretch can be changed during wrapping cycle due to the control system **PROFI**.



View and ground-plan drawing





## WMS STANDARD

The machine is designed for companies with a medium throughput and for companies with higher capacity of pallets with different heights.

The machine control is very simple – push the "START" button and the whole wrapping cycle will run without any further intervention from an operator.

An exact keeping of the set wrapping programs is guaranteed – altogether five wrapping programs can be set in the memory under a password protecting them against unrequired intervention. When creating a program there are four various wrapping types available, in case of a machine equipped with the top platen it means altogether eight types: simple and cross wrapping combined with or without top sheet and, eventually, with top platen.

Wrapping parameters for disposal for all of wrapping types are regulation of film carriage speed independently up and down, turntable speed regulation, number of film revolutions on the bottom and the top of pallet, eventually changing of film prestretch.



## WMS JUNIOR PLUS

WMS Junior Plus is a simple semiautomatic machine eliminating completely the effort of an operator. The machine is designed for companies with a medium volume of wrapping capacity and for companies with higher capacity of pallets of equal heights. It will fill all demands for a solid fixation of goods, plus give a high quality of wrapping.

The machine control is very simple – push the "START" button and the whole wrapping cycle will run without any further intervention from an operator. An exact keeping of the set wrapping programm is guaranteed – one wrapping program can be stored in the memory under a password protecting it against unrequired intervention.

When creating a program there are four various wrapping types available: simple and cross wrapping combined with or without top sheet.



# Wrapster Modular System



## WMS JUNIOR

The wrapping machine fully eliminating the physic effort of operators. It is designed for companies who require good fixing and wrapping quality, and have a medium volume of pallets to be wrapped. The carriage and the turntable are electrically driven. The machine is manually driven by pushbuttons from a control panel.

This wrapper as well as those ones of higher standards are ready to be provided with a top platen for unstable goods, regulation of turntable speed and with one of pre-stretch systems which can reduce the film consumption significantly.



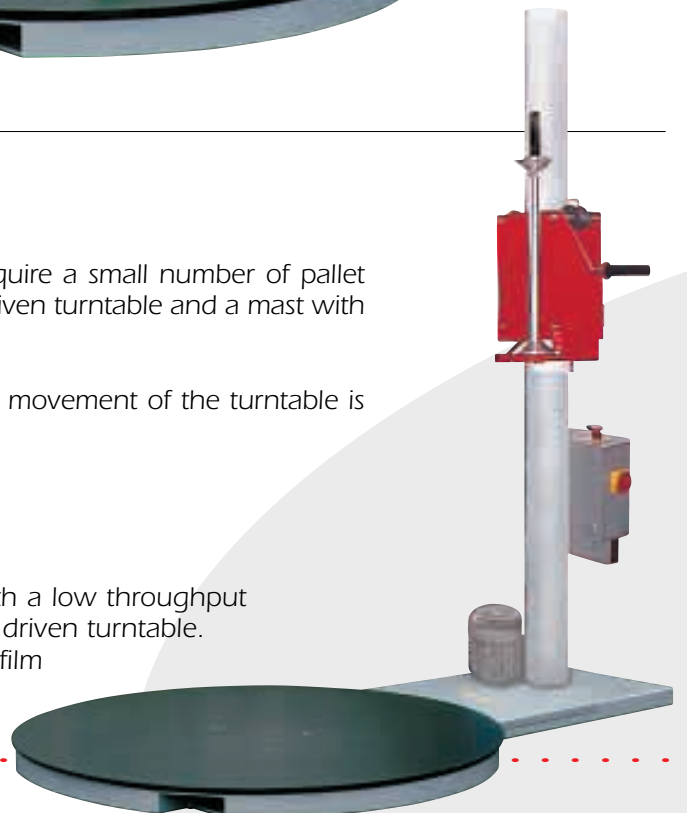
## WMS BASIC PLUS

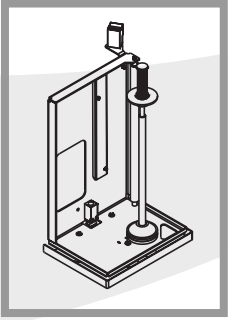
Simple machine: It is designed for plants who only require a small number of pallet wrappings. The machine is composed of an electrically driven turntable and a mast with manual movable film carriage with a counterweight.

The machine is provided with a mechanical brake. The movement of the turntable is controlled from the machine distributor, or by a pedal.

## WMS BASIC

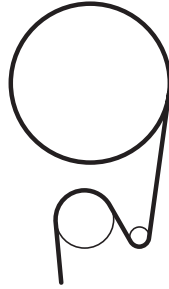
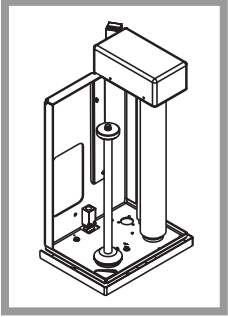
The simplest machine. It is designed for companies with a low throughput requirement. The machine is composed of an electrically driven turntable. When wrapping the pallet a manual holder with stretch film is held by an operator.





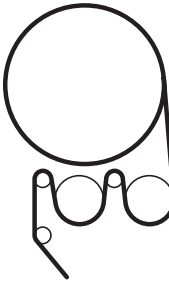
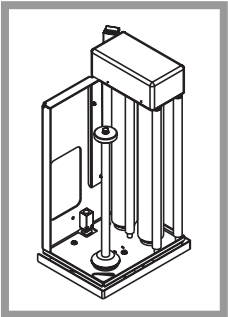
### Hand brake

The simplest equipment where the tension of film at wrapping is reached by hand rotation of the grip; the brake is tightened or loosened this way. No primary prestretch is possible on this equipment, the only prestretch is the secondary one the value of which is set on handgrip experimentally. The system is used for wrapping without any special demand to wrapping quality and reduction of film consumption. It is mainly used when pallet wrapping is required occasionally only.



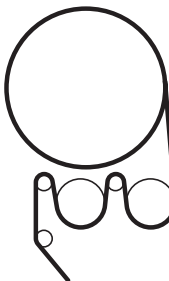
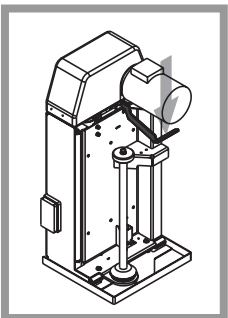
### Electromagnetic brake

Film spans over one operation roll. No primary prestretch is possible on this equipment, the only prestretch is the secondary one the value which is being set by tension power of a pallet against operation roll braked by electromagnetic brake. The stretching force given by braking force of electromagnetic brake is regulated by the machine control system. Usage of electromagnetic brake enables fixing of the film end to the pallet as well as the utilization of higher secondary prestretch (i.e. higher film tightness around the goods on a pallet).



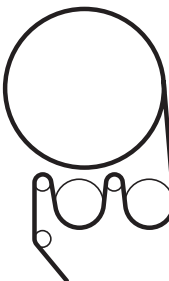
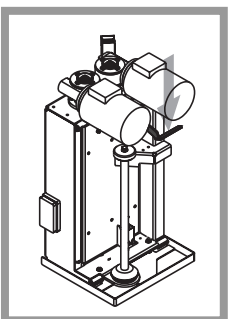
### Mechanic prestretch system

The film is unrolled by tension power of the rotating pallet. Between two main rolls, which mesh together using a chain transmission, rise the primary film prestretch and thus reducing the film consumption. The gear ratio may be set up by replacing the gear wheels on the rolls and the chain. Mechanic prestretch system means an economic solution for medium demand on wrapping capacity with no requirement for regulation of prestretched film. This system reduces film consumption by approx. 10-30% what helps the fast investment return.



### 1-motor prestretch system

The principle of this equipment is to prestretch film between two main rolls which mesh together using a gear drive. The secondary prestretch may be controlled from the control board in the range of 70% up to 400%. 1-motor prestretch system means some more economic solution for middle or higher demand on wrapping capacity with requirements for good wrapping quality and regulation of film consumption – the system reduces it by approx. 20-40% what helps the fast investment return. This way of wrapping increases also the aesthetic level of wrapped goods.



### 2-motors prestretch system

The principle of this equipment is to prestretch film between two main rolls which have each its own drive and different revolutions. The range of primary prestretch moves from 50% up to 500% according to the stretch film used, the secondary one moves between 70% and 400%. This system reduces film consumption by approx. 20-50% what helps the fast investment return. 2-motors prestretch system means the most economic solution for quality and sophisticated wrapping in workshops with middle and higher wrapping capacity with requirements for reduction of film consumption as well as a requirement for often changes of wrapping parameters. It can be used for wrapping of easy deformable or fragile goods, as well.

### Automatic film separation

Automatic film separation is available for machines with 1- or 2-motors controlled prestretch systems. It separates the film at the end of wrapping cycle. When is the turntable turning the last rotation a pin is released and perforates the film. Presently a prestretch system stops and the film is torn by the tension of still rotating pallet.

The concept of modular construction offers the production of made-to-measure machines as per concrete ideas of a customer while favourable delivery times are kept. In case of changed conditions in the production of the customer are the WMS-machines ready to be modified accordingly.

The principal advantage of modular system seems to be a possibility of easy extension the machine abilities directly at the customer in a very favourably short time period.

Options	Basic	Basic Plus	Junior	Junior Plus	Standard	Profi
Hand brake	-	●	●	●	●	-
Electromagnetic brake	-	-	X	X	X	●
Mechanic brake	-	-	X	X	X	X
Mechanic prestretch (80%, 130%, 180%)	-	-	X	X	X	X
1-motor prestretch (70% - 400%)	-	-	X	X	X	X
2-motors prestretch (50%-500%)	-	-	-	X	X	X
Automatic film separation	-	-	-	X	X	X
Electric chain top platen	-	-	X	X	X	X
Monitoring of pallet height by photocell	-	-	-	X	●	●
Orientated stop of turntable	X	X	X	●	●	●
Soft start	X	X	X	X	X	X
Fluent regulation of turntable speed	-	-	X	X	X	X
Regulation of film carriage speed	-	-	-	●	●	●
Turntable foot pedal	X	X	-	-	-	-
<b>Auxiliary machine equipment</b>						
Turntable bridge	X	X	X	X	X	X
Top sheet holder	X	X	X	X	X	X
Floor frame	X	X	X	X	X	X
<b>Machine modifications</b>						
Atypic turntable diameter	X	X	X	X	X	X
Increased loading limit of turntable	X	X	X	X	X	X
Forklift-shaped/cut out turntable	-	-	X	X	X	X
Incorporation of WMS wrapper in the line	-	-	-	X	X	X

● standard equipment    x available on request    - additional equipment impossible

Technic parameters	Basic	Basic Plus	Junior	Junior Plus	Standard	Profi
Voltage [V]	3 x 400V, 50 Hz					
Electric input (max.) [kVA]	0,8	0,8	1,8	3,2	3,2	3,2
Ground-plan dimensions [mm]	2300 x 1500					
Turntable height [mm]	85					
Machine height [mm]	-	2060	2300	2300	2300	2300
Machine weight without top platen [kg]	300	400	420	480	480	480
Machine weight with top platen [kg]	-	-	490	550	550	550
Protection grade	IP 54					
Turntable loading limit [kg]	1200 (1500, 1800)					
Dimensions of wrapped pallet [mm]	1200 x 800					
Max. height of wrapped goods [mm]	-	1800	2300	2300	2300	2300
Turntable rotations [1/min]	10					

### Advantages of wrapping machines of new range WMS:

- maximal use of modular construction concept
- robustness characteristic for the wrappers of WMS range is kept in spite of partly lightened and size-reduced mechanical parts
- new design of prestretch devices
- easy exchange of various types of film prestretch devices just at the user
- possibility to build a more sophisticated machine step by step according to requirements and possibilities of operator
- extended life time of non-stationary parts due to using of anti-friction bearings there
- facilitated operation and reduced requirements for space by built-in the distributor inside of the mast and placing the film carriage on the side of mast

