



**FROMMM** | WRAPPING  
SYSTEMS

## Stretch Wrapping Machines

## FS210

Semi-automatic stretch wrapping machines equipped with a joystick.

### Standard technical specifications

#### Turntable

1.650mm

#### Maximum pallet format

1.100 x 1.200mm

#### Maximum pallet weight

2.000kg

#### Maximum pallet height

2.000mm/2.500mm

#### Power supply

400V – 50/60Hz

#### Standard version FS210

Fitted with mechanical film brake  
Joystick operation

#### Options FS210

- access ramp;
- access ramp for electric pallet truck;
- frame for submerged floor mounting.

## FS230

Semi-automatic Stretch Wrapping Machines with multiple wrapping programs.

### Standard technical specifications

#### Turntable

1.650mm/1.800mm/2.200mm

#### Maximum pallet format

1.100 x 1.200mm for Ø 1.650mm

1.250 x 1.250mm for Ø 1.800mm

1.550 x 1.550mm for Ø 2.200mm

#### Maximum pallet weight

2.000kg

#### Maximum pallet height

2.500mm/2.800mm/3.200mm

#### Power supply

230V – 50/60Hz

110V – 50/60Hz

#### FS230, Extremely complete standard version, including:

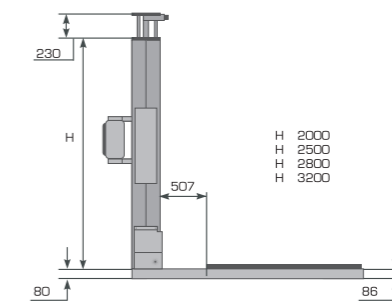
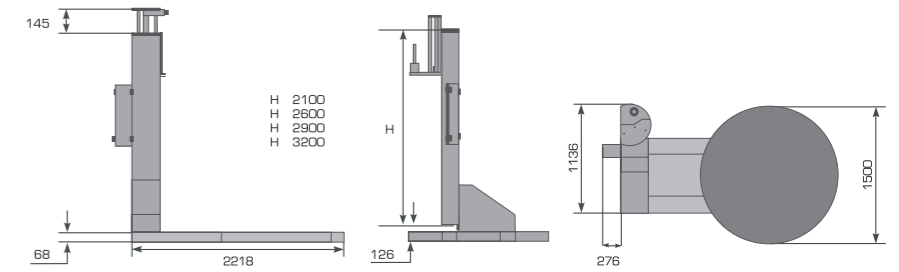
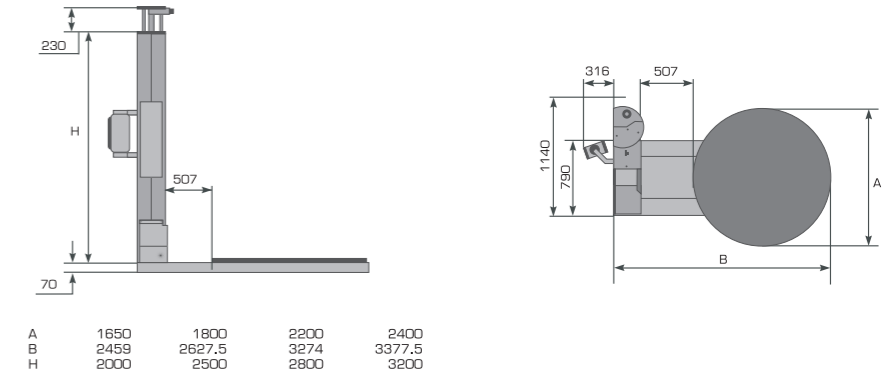
- soft start, specially for wrapping unstable loads;
- soft stop at 0 position;
- fitted with a mechanical film brake;
- audio signal at the start of a wrap cycle;
- adjustable bottom wraps;
- adjustable top wraps;
- standard overlap of approx. 20 %;
- photoelectric cell for automatic height detection.

### Options FS230:

- pallet height 2.800mm;
- pallet height 3.200mm;
- turntable 1.800mm;
- turntable 2.200mm;
- open turntable (horse shoe);
- pressure plate;
- access ramp;
- access ramp for electric pallet truck;
- frame for submerged floor mounting;
- photoelectric cell for black film.

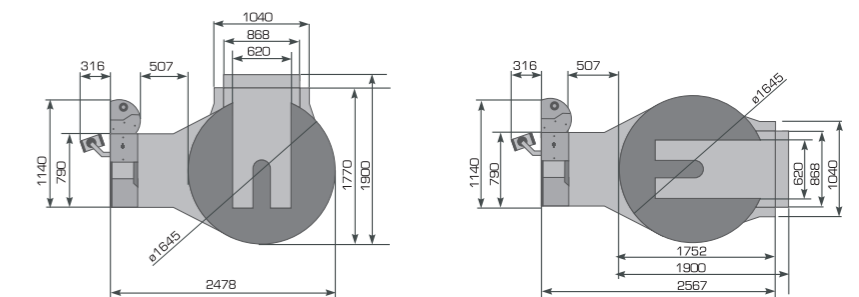
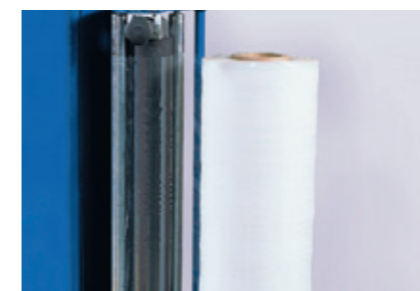
### FS230 with 2 automatic programs:

- Upwards or Downwards wrap only.
- Double wrap.
- Manual operation possible.



### Mechanical film brake

Film brake adjustment by means of hand wheel.



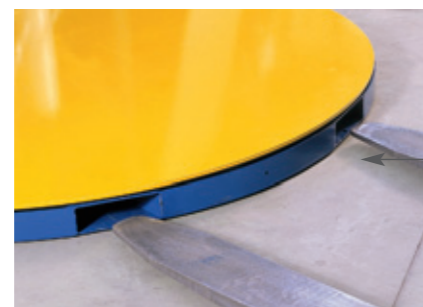
### Space saving open turntable

The optional open turntable makes loading with a hand pallet truck easy, specially where floor space is limited. Equipped with an integrated walk-on safety device.



### Moving the machine

Easy to move using a forklift truck.



### Low bottom wrapping at turntable level

The lowest position of the film carriage is easy to set. It can even start wrapping at turntable level. In this case the pallet will be fully wrapped with the product at the same time.



## Budget/Basic Stretch Wrapping Machines

FROMM stretch wrappers are extremely user-friendly and can be used in every situation. The FS210 and FS230, in particular, are highly suited to use by smaller-scale film users. Extra emphasis was placed during the design stage on safety and reliability. All the machines are designed to cope with a high workload. The use of carefully selected components keeps maintenance to a minimum.

## FS250 & FS270 Series

Semi-automatic Stretch Wrapping Machines with multiple wrapping programs and various pre-stretch systems.

### Standard technical specifications

#### Turntable

1.650mm/1.800mm/2.200mm

#### Maximum pallet format

1.100 x 1.200mm for Ø 1.650mm  
1.250 x 1.250mm for Ø 1.800mm  
1.550 x 1.550mm for Ø 2.200mm

#### Maximum pallet weight

2.000kg

#### Maximum pallet height

2.500mm/2.800mm/3.200mm

#### Power supply

230V-50/60Hz  
110V-50/60Hz

### Extremely complete standard version, including:

- soft start, specially for wrapping unstable loads;
- soft stop at 0 position;
- audio signal at start of wrap cycle;
- adjustable bottom wraps;
- adjustable top wraps;
- photoelectric cell for automatic height detection;
- adjustable turntable speed (frequency-controlled);
- independent adjustable upward and downward speed of the film carriage;
- different film tension selectable during upward and downward carriage movement;
- touch button control panel, based on a microprocessor with text display, for adjustment of parameters and previously set wrapping programs.

### Easy to operate control panel to adjust:

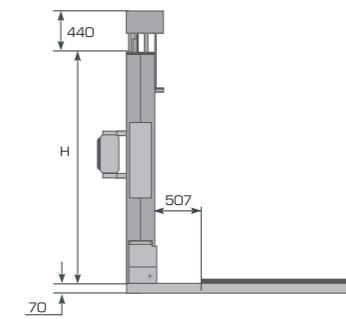
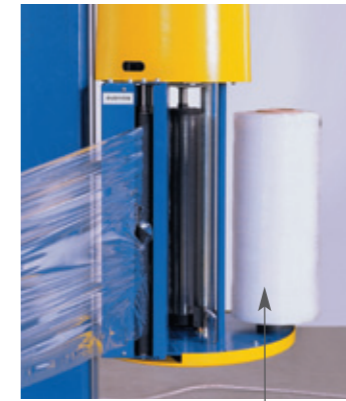
- film tension;
- number of bottom wraps;
- number of top wraps;
- upward speed of the film carriage;
- downward speed of the film carriage;
- speed of the turntable;
- adjustable delay of the photoelectric cell, for film overlap at pallet top;
- easy to read error code list;
- security blocking code feature.

### Seven (7) Automatic programs:

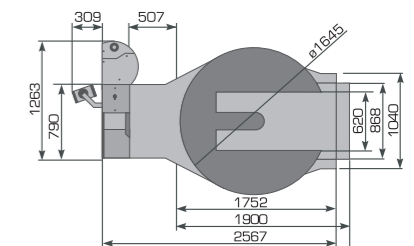
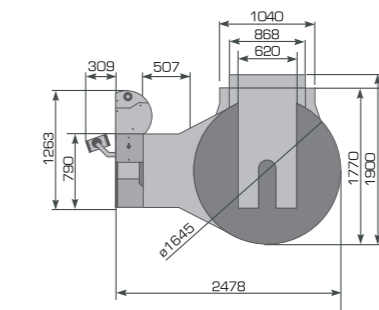
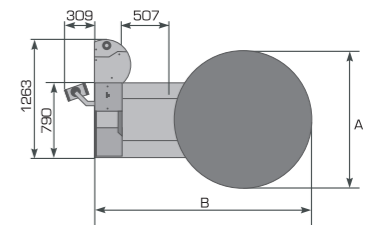
- Upwards or Downwards wrap only.
- Cross-wrapping, from bottom to top and back.
- Waterproof program in combination with top sheet.
- Program for extra wrapping layer at pre-set height.
- Automatic start from a pre-set height.
- Complete program with disengagement of photoelectric cell, pallet height adjustment through control panel.
- Possibility of setting up an additional customer-specific program.

### Options:

- pallet height 2.800mm;
- pallet height 3.200mm;
- turntable 1.800mm;
- turntable 2.200mm;
- open turntable (horse shoe model);
- top pressure plate;
- access ramp;
- access ramp for electric pallet truck;
- frame for submerged floor mounting;
- voltage/frequency transformer;
- photoelectric cell for black film;
- 16.8240 conversion kit to model 270;
- 16.8242 conversion kit to model 270+ for unstable pallets;
- 16.8246 automatic film cutting device.



A	1650	1800	2200	2400
B	2459	2627.5	3274	3377.5
H	2000	2500	2800	3200



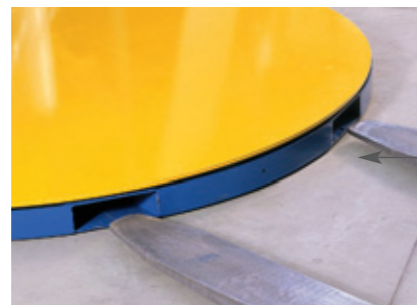
### Space saving open turntable

The optional open turntable makes loading with a hand pallet truck easy, specially where floor space is limited. Equipped with an integrated walk-on safety device.



### Moving the machine

Easy to move using a forklift truck.



### Low bottom wrapping at turntable level

The lowest position of the film carriage is easy to set. It can even start wrapping at turntable level. In this case the pallet will be fully wrapped with the product at the same time.



## Standard Stretch Wrapping Machines

If you prefer easy to operate machines with the option of no less than Seven (7) wrapping programs and multiple pre-stretch systems, then you should certainly choose the FROMM FS250/FS270 Stretch Wrapping Machines. Again, extra emphasis was placed during the design stage on quality, safety and reliability. All these machines are designed to cope with a high workload. The use of carefully selected components keeps maintenance to a minimum.

### FS250 with electromagnetic film brake (up to approx. 100 %)

The film is stretched between the film carriage and the pallet. This stretch is adjustable by means of touch buttons on the control panel.

### FS270 with electromagnetic brake and a fixed gear ratio (up to approx. 150 %)

The film is pre-stretched between two rolls with gear wheels, with a fixed stretch ratio of 150%. 200% gear wheels can be supplied as an option.

### FS270+ 1-Motor Pre-Stretch unit

1-Motor pre-stretch with an extra swinger arm as additional option, enabling a controlled film feed. The film supply speed can be adjusted from the touch button control panel. (16.8242 Conversion package)

**FR230 | FR250  
FR270 | FR290**

Semi-automatic Stretch Wrapping Machines with multiple wrapping programs and various pre-stretch systems.

**Standard technical specifications**

**Maximum pallet height**

2.000mm/2.500mm/3.200mm

**Maximum pallet format**

Unlimited

**Rechargeable traction battery**

24V – 110A/h

**Automatic high-frequency battery charger**

Charging power supply  
230V – 50/60Hz

**Extremely complete standard version, including:**

- audio signal at the start of the wrap cycle;
- adjustable bottom wraps;
- adjustable top wraps;
- photoelectric cell for automatic height detection;
- adjustable driving speed of robot by means of a frequency controller;
- independent adjustable upward and downward speed of the film carriage;
- different film tension selectable during upward and downward carriage movement;
- easy to operate touch button control panel, based on a microprocessor, for adjustment of parameters and previously set wrapping programs.

**Easy to operate control panel to adjust:**

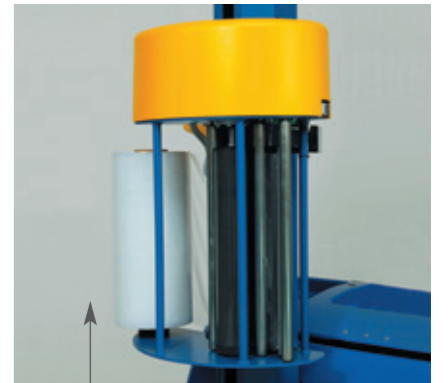
- film tension (not on FR230);
- number of bottom wraps;
- number of top wraps;
- upward speed of film carriage;
- downward speed of film carriage;
- driving speed of the robot;
- adjustable delay of the photoelectric cell, for film overlap at pallet top;
- easy to read error code list;
- security blocking code feature.

**Seven (7) Automatic programs:**

- Upwards wrap only.
- Cross-wrapping, from bottom to top and back.
- Waterproof program in combination with top sheet.
- Program for extra wrapping layer at pre-set height.
- Automatic start from a pre-set height.
- Complete program with disengagement of photoelectric cell, pallet height adjustment through control panel.
- Possibility of setting up an additional customer-specific program.

**Options:**

- pallet height 2.500mm;
- pallet height 2.800mm;
- pallet height 3.200mm;
- conversion kit to model FR270;
- photoelectric cell for black film;
- 16.8246 automatic film cutting device.



**FR230 with a mechanical film brake**  
Film brake adjustment, with a hand wheel.

**FR250 with electromagnetic film brake**  
**(up to approx. 100 %)**

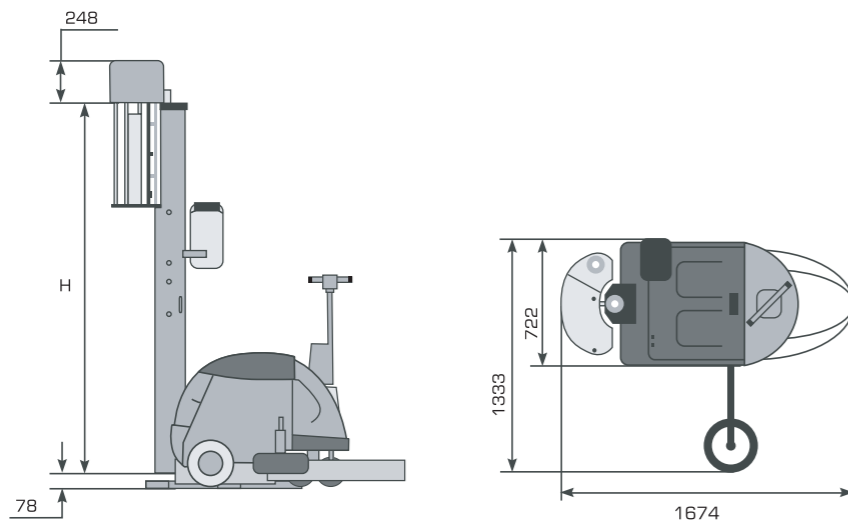
The film is stretched between the film carriage and the pallet. This film stretch is adjustable by means of touch buttons on the control panel.

**FR270 with electromagnetic brake and a fixed gear ratio**  
**(up to approx. 150 %)**

The film is pre-stretched between two rolls with gear wheels, with a fixed pre-stretch ratio of 150 %. 200 % gear wheels can be supplied as an option.

**FR290 with a 1-Motor driven pre-stretch unit (250 %)**

Pre-stretch by means of a 1-Motor driven pre-stretch unit, enabling a controlled film feed. The film supply speed can be adjusted from the touch button control panel.



H 1850  
H 2100  
H 2600  
H 2900

**Robot Stretch Wrapping Machines**

The FROMM robot is a mobile, semi-automatic stretch wrapping machine. It is particularly suitable for customers who need to wrap a wide range of large pallets or for situations where stretch wrapping takes place in various locations. With the battery fully charged, it can wrap up to 220 Euro pallets.



Development centre in Germany



Production centre for machines and equipment in Italy



Production centre for STARstrap™ strapping in Thailand



Productions centre for STARstrap™ strapping in Germany



Productions centre for STARstrap™ strapping in Chile



Polyester recycling plant in Germany

# FROMM Group

The FROMM Group develops and produces a wide variety of systems for unitizing and palletizing goods for transport: strapping machines and systems, pallet stretch wrapping machines, the patented Airpad pillow system, together with all necessary consumables.

Established in 1947, the Swiss family business generates a turnover in excess of 150 million Euros and employs a workforce of around 700 worldwide. 20 subsidiaries in Europe, North and South America, South Africa and Asia, along with a multitude of specialized sales partners throughout the world ensure – in your vicinity – professional advice, prompt customer service and maintenance.

The company pursues a policy of logical vertical integration while upholding traditional values such as proximity to customers, quality consciousness, continuity, independence and environmental awareness, which are the reasons for decades of success.

## Development centre

In the FROMM development centre, a long established and experienced team of engineers constantly develops new techniques and products using the very latest 3D CAD systems. Up-to-date test procedures guarantee the high FROMM quality standards.

## Production centres for machines and equipment

Production takes place round the clock in the FROMM production centres. Highly qualified teams of specialists manufacture FROMM products satisfying the highest demands of quality on computer-controlled machines. All machines are tested before leaving the factory. The company has ISO 9001 certification.

## Production centres for polyester plastic strapping and multilayer blown films

STARstrap™ plastic strappings are produced in the FROMM production cen-

tres exclusively from recycled polyester bottle material on modern state-of-the-art extrusion plant. These bands guarantee the high quality of the strapping carried out with FROMM machines and equipment.

All kinds of film types for the Airpad pillow material are produced on blown film extrusion machines. Special film types guarantee a high loading capacity of the individual pillow elements. The plants are certified in accordance with ISO 9001 and ISO 14000.

## Polyester recycling plant

Produced in the FROMM recycling plant from used PET bottles is high grade ground material, agglomerates and regranulates for the production of PET strapping, foodstuff films, textiles and drink bottles. This enables FROMM PET products to satisfy the most rigorous ecological requirements. The plant is certified in accordance with ISO 9001 and ISO 14000.

FROMM stands for development, production, consultancy, sales and service – worldwide and from a single supplier!

Benefit from our expertise!

