

FROMM | PACKAGING SYSTEMS

Steel Strapping Tools



#### A332/A333

Tried and tested universal tools for all applications. Reliable, rugged and service-friendly. Characterized by their simple operation and light weight, the A332 and A333 have become indispensable helpers worldwide. Both types are available with the torque wrench tensioning system (TW model).

#### Strap quality:

Regular duty steel strap (Uniflex) up to 850 N/mm<sup>2</sup>

#### Strap dimensions:

09.5 – 13.0 x 0.38 – 0.50 mm (A332) 12.7 – 20.0 x 0.38 – 0.58 mm (A333)

#### Weights

A332: 3.3 kg, A333: 3.9 kg (standard model) A332: 3.7 kg, A333: 4.3 kg (TW model)



#### A334

An especially rugged tool for strapping flat and heavy packed goods in the timber, construction material and metal industries. Thanks to the ideal handle configuration, steel strapping up to a thickness of 0.80 mm can be effortlessly tensioned and sealed.

#### Strap qualities:

Regular duty steel strap (Uniflex) up to 850 N/mm<sup>2</sup> High tensile steel strap (Ultraflex) up to 1100 N/mm<sup>2</sup>

#### Strap dimensions:

 $16.0 - 20.0 \times 0.58 - 0.80 \text{ mm}$ 

#### Weight:

7.2 kg



#### A335

The A335 is identical in design to the A333 but is fitted with a specially machined feed wheel and gripper and is therefore suitable for use with high tensile steel strapping bands. Also available with the torque wrench tensioning system (TW model).

#### Strap quality:

High tensile steel strap (Ultraflex) up to  $1100 \mbox{N/mm}^2$ 

#### Strap dimensions:

12.7 - 19.0 x 0.50 - 0.58 mm

#### Weights:

3.9 kg (standard model)

4.3 kg (TW model)



#### A337

#### with MicroLock™ safety joint

An ideal tool for a wide range of vertical and horizontal strapping applications for flat goods in almost all industries. The unique innovative punching of the sealless MicroLock in joint guarantees even greater safety. Opening and closing by the recoil effect is rendered impossible. The MicroLock is very popular for strapping packages which for instance are subject to shrinkage due to drying out.

#### Strap qualities:

Regular duty steel strap (Uniflex) up to  $850 \ N/mm^2$  High tensile steel strap (Ultraflex) up to  $1100 \ N/mm^2$ 

#### Strap dimensions:

 $09.5 - 20.0 \times 0.38 - 0.63 \text{ mm}$ 

#### Weights:

4.45 kg (standard model) 4.70 kg (TW model)



#### A338

The special gearing permits very high strap tension of a maximum of 5500 N with a force of only 240 N. A handy tool suitable for flat goods and characterized by its convenience and strength.

#### Strap qualities:

Regular duty steel strap (Uniflex) up to 850 N/mm<sup>2</sup> High tensile steel strap (Ultraflex) up to 1100 N/mm<sup>2</sup>

#### Strap dimensions:

 $12.7 - 19.0 \times 0.50 - 0.70 \text{ mm}$ 

#### Weights:

5.7 kg (standard model) 5.9 kg (TW model)



Sealless notched joint



Manual sealless steel strapping tools

Manual sealless strapping tools are ideal for flat goods such as pallets, crates, bales and all kinds of packages. The tools are characterized by their reliability, strength, ergonomic design principles and service friendliness. The proven sealless joint permits extremely rational working, reducing strapping costs by ca. 10 %. The strength of the sealless joint is very uniform and normally higher than that of joints with seals.



#### A380

The A380 is used mainly in the timber and construction material industry. The massively constructed tool is characterized in particular by its reliability in shift work and with continuous operation under the most rigorous conditions. Supplied as a semi and fully automatic model, it is also produced in four tensioning levels. It is recommended to use the tool in suspended mode.

#### Strap qualities:

Regular duty steel strap (Uniflex) up to 850 N/mm<sup>2</sup> High tensile steel strap (Ultraflex) up to  $1100 \, \text{N/mm}^2$ 

#### Strap dimensions:

12.7-25.0 x 0.50-1.00 mm

#### Weights:

17.4 and 18.4 kg (with suspension bracket)

#### Strap tensions:

4500 N, 6500 N, 7500 N, 9500 N

Single button = fully automatic Two-button = semi-automatic



#### A383

The A383 is the big brother of the A380. Heavier and larger, it is intended for the same industries. Also available in two models; especially suitable for 25 and 32 mm wide steel straps.

#### Strap qualities:

Regular duty steel strap (Uniflex) up to 850 N/mm<sup>2</sup> High tensile steel strap (Ultraflex) up to 1100 N/mm<sup>2</sup>

#### Strap dimensions:

19.0-32.0 x 0.63-1.30 mm

#### Weight:

24.0 kg (incl. suspension bracket)

#### Strap tensions:

10000 N, 15000 N



This tool, designed for stationary applications, tensions, seals and separates the strap automatically by actuating the appropriate keypad. It is produced in different tensioning levels and can process regular duty and high tensile steel straps. The uniform tension of the straps is guaranteed by a pneumatic drive.

#### Strap qualities:

Regular duty steel strap (Uniflex) up to 850 N/mm<sup>2</sup> High tensile steel strap (Ultraflex) up to 1100 N/mm<sup>2</sup>

#### Strap dimensions:

9.5-20.0 x 0.38-0.63 mm

#### Weight:

10.5 kg (with suspension bracket)

#### Strap tensions:

2200 N, 3500 N, 4100 N, 6500 N



#### A390/A391

Semi-automatic strapping tools for the pneumatic tensioning and manual sealless joining of steel straps. The pneumatic drive for the tensioning system guarantees fast and uniform tensioning. The low tool weight (5.1 kg) permits efficient working without the need for suspension.

#### Strap qualities:

Regular duty steel strap (Uniflex) up to 850 N/mm<sup>2</sup> A391.

High tensile steel strap (Ultraflex) up to  $1100\ \text{N/mm}^2$ 

#### Strap dimensions:

 $09.5 - 20.0 \times 0.38 - 0.58 \text{ mm}$ 

#### Weight:

5.1 kg (A390/A391)

#### Max. tension:

6000 N



#### A3H

With its short base plate the A3H is able to strap smaller packages.

Thanks to its small dimensions and low weight it is suitable for a wide range of applications. Also supplied with a restrictor valve to permit the stepless regulation of the air supply, and in two tensioning levels.

#### Strap qualities:

Regular duty steel strap (Uniflex) up to 850 N/mm<sup>2</sup>

#### Strap dimensions:

9.5-20.0 x 0.38-0.60 mm

#### Weight:

8.9 kg (with suspension bracket)

#### Strap tensions:

2500 N, 4500 N



Sealless notched joint



Pneumatic sealless steel strapping tools

Areas of application for pneumatic, sealless strapping tools are identical to those for manual tools. The same also applies to the characteristics of the sealless notched joint. The essential advantage is in faster strapping, uniformly and ideally tensioned straps plus the efficient mode of working.

Time savings are considerable, particularly when long band take-ups are required, for instance with compressible packed goods and extremely large crates and pallets. Pneumatically powered tools combined with semi-automatic strap feed systems increase productivity even further.





#### **A301**

Manual tensioner A301 is specially designed for flat objects and packages. Thanks to the feed wheel tensioning system an unlimited band take-up is permitted, guaranteeing taut tension with no tension loss. Using manual sealer model A412 the double notch joint is produced in one operation. The ideally curved levers prevent the handle from jamming, guaranteeing rational working with no risk of hand injury.

#### Strap qualities:

Regular duty steel strap (Uniflex) up to  $850 \text{ N/mm}^2$  High tensile steel strap (Ultraflex) up to  $1100 \text{ N/mm}^2$ 

#### Strap dimensions:

Tensioner: 19.0 – 32.0 x 0.50 – 1.00 mm

#### Weight:

4.0 kg



#### A402

Model A402 is especially well suited for round pakkages with a very small supporting surface. Here too an unlimited take-up is possible and the double notch joint is produced using the manual sealer

#### Strap qualities:

Regular duty steel strap (Uniflex) up to  $850 \ N/mm^2$  High tensile steel strap (Ultraflex) up to  $1100 \ N/mm^2$ 

#### Strap dimensions:

Tensioner: 19.0 - 32.0 x 0.63 - 1.00 mm

#### Weight:

4.0 kg



#### A412

Sealing tool A412 is used in combination with the manual flat or round tensioners A301/A402. The double notch joint is mounted in a single operation permitting only perfect notch joints thanks to the built-in safety pawl.

The ideally curved levers prevent the handle from jamming, guaranteeing rational working with no risk of hand injury. The rubber spacer on the lower lever also permits sealing with both hands on the upper lever

#### Strap qualities:

Regular duty steel strap (Uniflex) up to 850 N/mm<sup>2</sup> High tensile steel strap (Ultraflex) up to 1100 N/mm<sup>2</sup>

#### Strap dimensions:

Sealer: 19.0 - 32.0 x 0.63 - 1.00 mm

#### Weight:

3.4 kg



#### A431

This lightweight and handy combination strapping tool is ideal for strapping bars, tubes, bundles and goods with an extremely small surface. Simple to operate and totally independent of any energy source the A431 has become established as the ideal helper. Lap-over seals provided with a single notch joint are used for sealing.

#### Strap qualities:

Regular duty steel strap (Uniflex) up to  $850\ N/mm^2$  High tensile steel strap (Ultraflex) up to  $1100\ N/mm^2$ 

#### Strap dimensions:

10.0 - 19.0 x 0.38 - 0.63 mm

#### Weight:

3.4 kg



Single notch joint



Manual steel strapping tools with a seal joint

The tools described here are designed for round objects and goods with small surfaces. An exception is the manual tensioner A301 used in combination with the manual sealer A412 and designed especially for large flat objects with a long band take-up.

The joint requires seal joints and thanks to the ideal lever configuration, these can be produced with minimal force. The average strength of the double notch joint with seals is ca. 75 %.



#### A480

Due to its low weight the A480 does not necessarily have to be suspended. This permits more mobile operation. Ideal for strapping tubes, wire coils and all kinds of small bundles, it is a handy and popular tool in numerous industries. Available in two different tensioning levels.

#### Strap qualities:

Regular duty steel strap (Uniflex) up to 850 N/mm<sup>2</sup> High tensile steel strap (Ultraflex) up to 1100 N/mm<sup>2</sup>

#### Strap dimensions:

10.0-19.0 x 0.38-0.63 mm

#### Weight:

4.6 kg (with suspension bracket)

#### Strap tensions:

2500 N, 4500 N



#### A482

Due to its low weight the A482 does not necessarily have to be suspended. Straps of up to 0.90 mm thickness can be processed. The perfect double notch joint guarantees a strength of 75%. The modern A482 optimizes the strapping of packages, mainly in the metal industry.

#### Strap qualities:

Regular duty steel strap (Uniflex) up to 850 N/mm<sup>2</sup> High tensile steel strap (Ultraflex) up to 1100 N/mm<sup>2</sup>

#### Strap dimensions:

19.0 x 0.63 - 0.90 mm

#### Weight:

7.0 kg (with suspension bracket)

#### Strap tensions:

4000 N, 7000 N



#### A452

Pneumatic pusher type tensioner A452 is characterized by its very high strap tension force of 8500 N. Thanks to its free-wheeling system, no strap tension is lost on completion of the tensioning cycle. This extremely rugged, fast and lightweight tool is suitable for both mobile and stationary applications.

#### Strap qualities:

Regular duty steel strap (Uniflex) up to 850  $\rm N/mm^2$  High tensile steel strap (Ultraflex) up to  $1100 \, \rm N/mm^2$ 

#### Strap dimensions:

19.0-32.0 x 0.63-1.27 mm

#### Weight:

4.35 kg

#### Strap tension:

8500 N

#### A461

Pneumatic sealer A461 used for joints can be operated single-handed. It is fitted with a safety mechanism which prevents poor seal joints resulting from faulty operation.

#### Strap qualities:

Regular duty steel strap (Uniflex) up to 850 N/mm<sup>2</sup> High tensile steel strap (Ultraflex) up to 1100 N/mm<sup>2</sup>

#### Strap dimensions:

 $19.0 - 32.0 \times 0.63 - 1.00 \text{ mm}$ 

#### Weight:

4.2 kg



#### A483

Heavier and larger than the A482, the A483 is suitable for use in the same industries. Also supplied in two models, its main application is with 25 and 32 mm wide steel straps. Its pneumatically raised feed wheel greatly assists the introduction of heavy steel straps. Ideal for strapping steel coils, tubes and rods in all positions, as it can be fitted with four different suspension brackets. The A483 has proved its worth especially under shift and continuous working conditions.

#### Strap qualities:

Regular duty steel strap (Uniflex) up to 850  $\rm N/mm^2$  High tensile steel strap (Ultraflex) up to 1100  $\rm N/mm^2$ 

#### Strap dimensions:

25.0 – 32.0 x 0.80 – 1.00 mm

#### Weight:

19.5 kg (incl. suspension bracket)

#### Strap tensions:

7000 N, 9000 N

#### Models:

Single button = fully automatic Two-button = semi-automatic





Pneumatic steel strapping tools with a seal joint

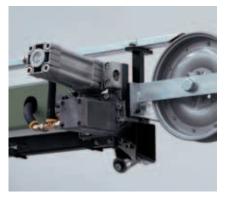
The strapping applications of the pneumatically powered steel strapping tools with a seal joint are identical to those of the manual tools. These tools are especially suitable for round, curved and irregular shaped goods with a small surface. Separate lap-over metal seals are used for the joint; these form a single or double notch joint, guaranteeing a correct seal every time.



## Semi-automatic steel strap feed systems EFS

The ideal and cost-effective intermediate solution between totally manual and fully automatic strapping systems is the semi-automatic steel strap feed system. The machines are built to customer order and are easy to integrate into existing conveyor lines. The strapping band is passed automatically around the package. The actual strapping is completed manually with a FROMM strapping tool suspended from a counterbalanced boom.

Models EFS100 to EFS509 cover a wide product and application range in the most varied industries.



#### E101

#### Strap qualities:

Regular duty steel strap (Uniflex) up to 850 N/mm<sup>2</sup> High tensile steel strap (Ultraflex) up to 1100 N/mm<sup>2</sup>

#### Feed units:

Pneumatically powered, manual

#### Strap feed rate:

2 m/sec. at 6 bars

#### Strap dimensions:

10.0-32.0 x 0.50-0.80 mm

#### Min. package size:

Dependent on strapping tool

## Max. package size:

W 2500 x H 2500 mm

#### Variants:

- Machine stationary
- Machine travelling longitudinally
- Machine with sword
- Coil strapping machine
- Machine with bunker feed system



#### E201

#### Strap qualities:

Regular duty steel strap (Uniflex) up to 850 N/mm<sup>2</sup> High tensile steel strap (Ultraflex) up to 1100 N/mm<sup>2</sup>

#### Feed units:

Electrically powered, manual

#### Strap feed rate:

1-2 m/sec. at 6 bars

#### Strap dimensions:

 $10.0 - 32.0 \times 0.70 - 1.00 \text{ mm}$ 

#### Min. package size:

Dependent on strapping tool

#### Max. package size:

W 2500 x H 2500 mm

#### Variants:

- Machine stationary
- Machine travelling longitudinally
- Machine with sword
- Coil strapping machine
- Machine with bunker feed system



# Fully automatic steel strapping machines AM

Fully automatic strapping systems are easy to integrate into existing conveyor lines. For use in a wide range of industrial applications, strapping machines are obtainable with the strapping heads at the top, at the side or in a horizontal plane.

Models AM100 to AM800 cover a very wide product range and are available with highly diverse additional options.



#### M100

#### Strap qualities:

Regular duty steel strap (Uniflex) up to 850 N/mm<sup>2</sup> High tensile steel strap (Ultraflex) up to 1100 N/mm<sup>2</sup>

#### Strapping head types:

Hydraulic

#### Strap dimensions:

10.0-19.0 x 0.50-0.80 mm

#### Min. package size:

W 300 x H 20 mm

#### Max. package size:

W 2500 x H 3000 mm

#### Strap tension:

Up to 8500 N to 18000 N

### Sealing method:

Sealless notched joint

#### Joint strength:

Up to 80 %, dependent upon strap quality



#### MH200

#### Strap qualities:

Regular duty steel strap (Uniflex) up to 850  $\rm N/mm^2$  High tensile steel strap (Ultraflex) up to 1100  $\rm N/mm^2$ 

#### Strapping head types:

Pneumatic

#### Strap dimensions:

 $19.0 - 32.0 \times 0.70 - 1.00 \text{ mm}$ 

#### Min. package size:

W 150 x H 150 mm

#### Max. package size:

W 2500 x H 3000 mm

#### Strap tension:

Up to 8500 N to 18000 N

#### Sealing method:

Sealles notched joint

#### Joint strength:

Up to 80 %, dependent upon strap quality

#### Options M100/MH200:

- Dispenser for jumbo coils
- Sword
- Machine with travel facility
- Integrated bunker feed system
- Edge protection system
- $-\mbox{ Vertical press systems up to 20 KN press force}$
- Conveyor systems

Other options and configurations are available. Please contact our specialist staff for further details.



Development centre in Germany



Productions centre for STARstrap™ strapping in Germany



Production centre for machines and equipment in Italy



Productions centre for STARstrap™ strapping in Chile



Production centre for machines and equipment in Slovakia



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<sup>™</sup> plastic strappings are produced in the FROMM production cen-

tres exclusively from recycled polyester bottle material on modern state-of-theart 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!