

AUTOMATIC SAMM 2.0



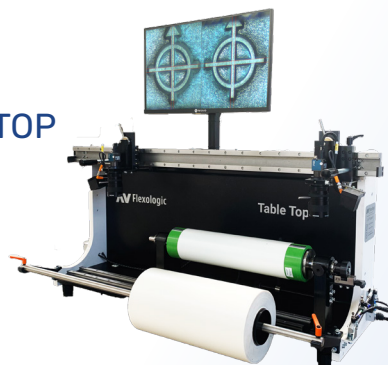
AUTOMATIC SAMM USD



MOTORIZED MOM USD



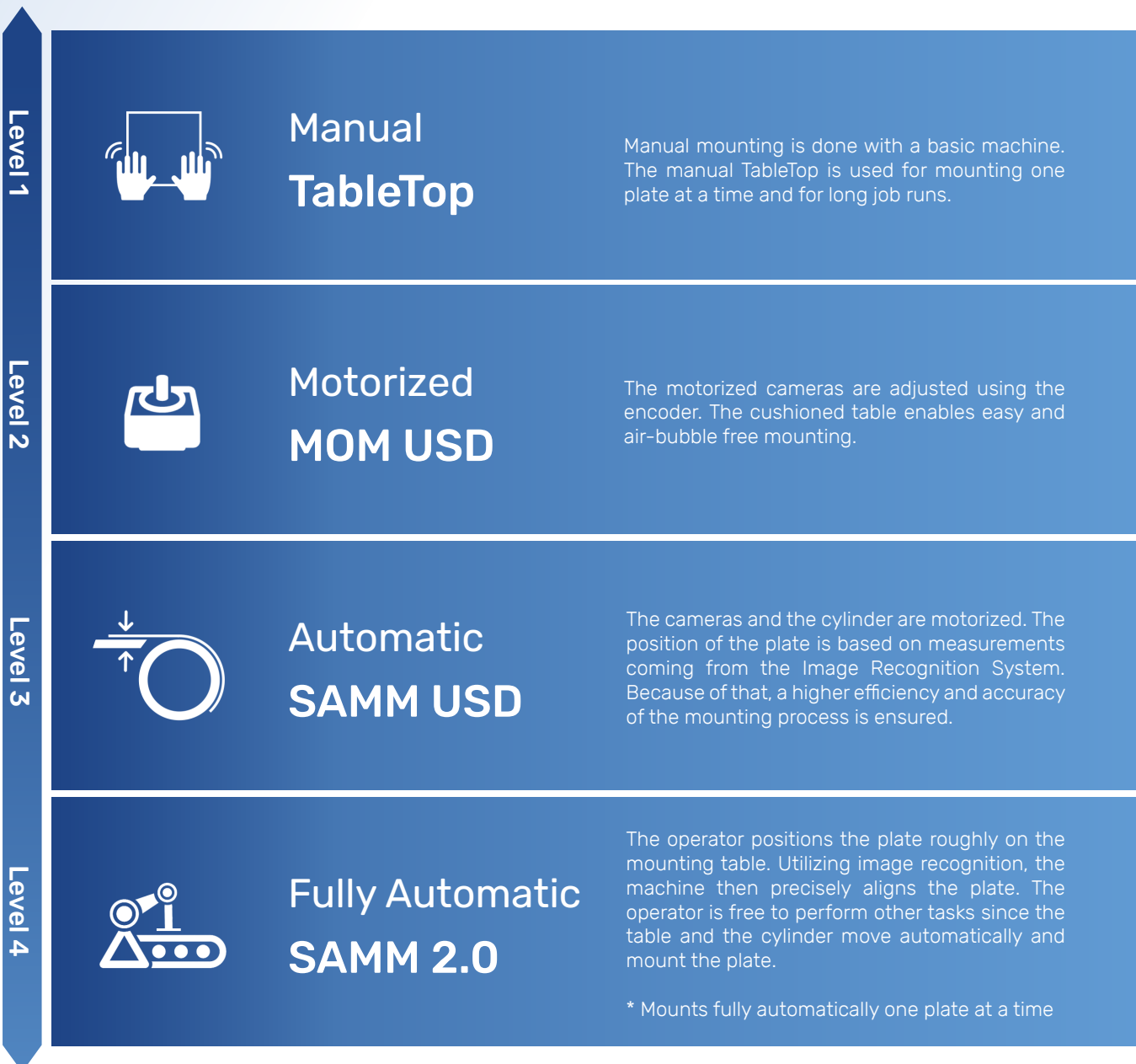
TABLETOP



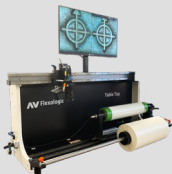
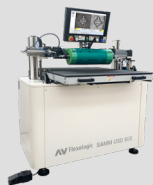
Introduction of mounting concepts

AV Flexologic offers a full range of flexo plate mounting machines for the narrow web industry, from completely manual to fully automatic.

This section describes the 4 different concepts that can be identified in flexographic plate mounting machines, from entry-level to fully automated:



Specifications

Mounting machine	Widths [mm]	Widths [Inch]	Max Repeat [mm/Inch]	Sleeves or Cylinders
 TableTop	≤ 800	24"	610 / 24"	Cylinders and/or sleeves
 MOM USD	≤ 850	33.46"	850 / 33.46"	Cylinders and/or sleeves
 SAMM USD	≤ 850	33.46"	850 / 33.46"	Cylinders and/or sleeves
 SAMM 2.0	≤ 850	33.46"	1350 / 53.15"	Sleeves or Cylinders

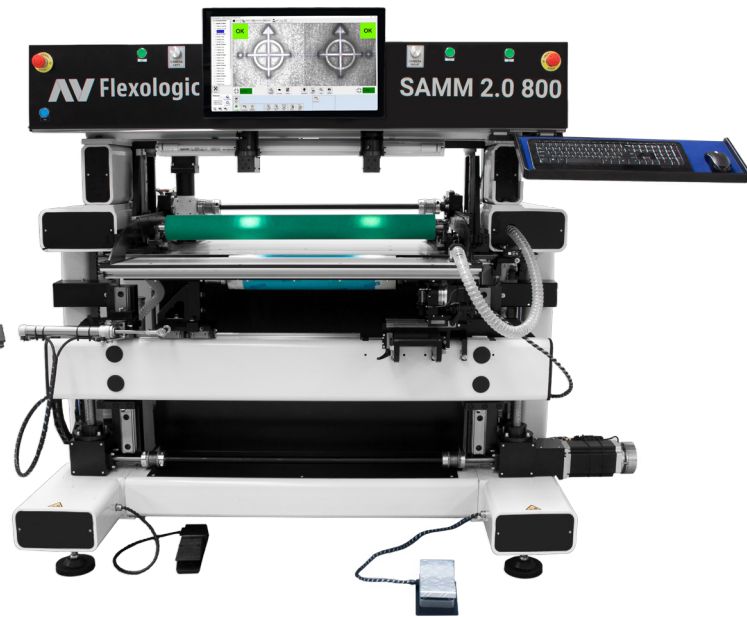
SAMM 2.0 800

AUTOMATIC FLEXO PLATE MOUNTING MACHINE

SLEEVES VERSION



CYLINDERS VERSION



Product Video



Widths

Width [mm]	≤ 850
Width [inch]	33.46"
Max repeat [mm/inch]	1350 / 53.15"

Description

The patented **SAMM 2.0 800** is AV Flexologic's solution to flexo printing industry trends. Leveraging over 20 years of experience in automated mounting machines with vision technology, the SAMM is renowned as the **world's most precise and fastest mounting machine**.

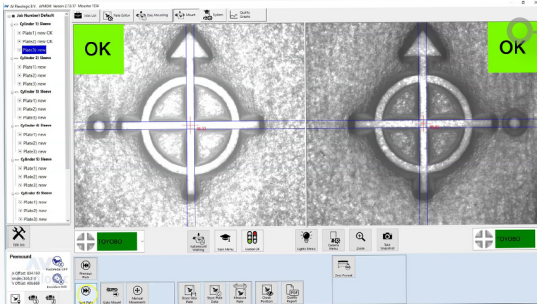
The Automatic SAMM 2.0 800 mounts narrow web flexo plates onto sleeves or cylinders with **unmatched accuracy, repeatability and speed**.

Workflow

The workflow is straightforward. The operator initiates the process by roughly positioning the flexo plate using laser pointers. Then, **automation** takes over, precisely positioning the plate. Motorized cameras and patented Image Recognition software ensure **placement accuracy within 5 microns**.

The motorized front table moves automatically, mounting the plate onto the sleeve **without operator intervention**. This allows the operator to focus on other tasks while the SAMM 2.0 800 achieves a remarkable **60-second mounting speed**, meeting **high quality requirements** and **minimizing press downtime**.

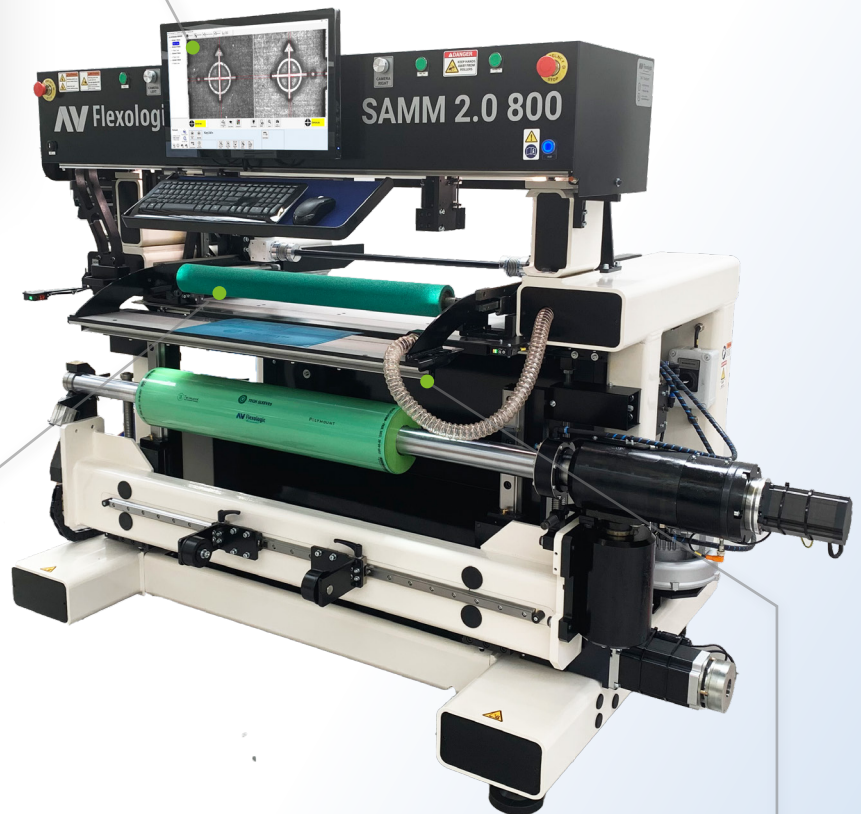
Unique Features



Patented Image Recognition

The Image Recognition System **checks** the alignment of **mounting marks** to ensure the printing **plate is correctly positioned on the sleeve**. Based on preset tolerance settings, plates are categorized as either 'OK' or 'NOT OK'.

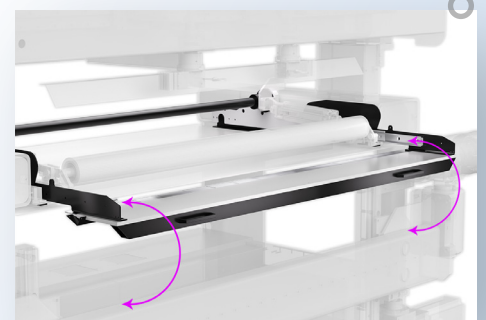
If a plate is outside tolerance, the machine will not proceed to the next plate, **preventing incorrect plates from reaching the press**. This will ensure error-free operation.



Pressure Roller

The pressure roller guarantees **smooth mounting**, eliminating air-bubbles and saving time. This feature promotes **ergonomic working practices**. Additionally, the pressure roller facilitates **efficient tape application**.

The operator attaches pre-cut tape to the sleeve or uses the tape holder. By activating the pressure roller and rotating the sleeve, the **tape is evenly applied without air-bubbles**. An optional cutting knife trims tape overlap without damaging the sleeve.



Motorized front table

An added advantage of the SAMM 2.0 800 is the motorized front table, which enables the machine to **fully automatically mount individual printing plates without operator interaction**.

The performance of the mounting job achieves an **accuracy of 5 microns**. During the automatic mounting operation, the operator can prepare the next plate or perform another preparatory or finishing task.

SAMM USD

UPSIDE-DOWN AUTOMATIC FLEXO PLATE MOUNTING MACHINE



Product Video



Widths

Width [mm]	≤ 850
Width [inch]	33.46"
Max repeat [mm/inch]	850 / 33.46"

Description

The **Automatic SAMM Upside-Down** is an **extremely precise, fast and easy to use** flexo plate mounting machine for labels. Mounting with this machine requires **minimal operator intervention** since the positioning of the plate is done automatically using the patented Image Recognition software.

Workflow

After loading the sleeve/cylinder onto the pneumatically operated quick-lock clamping system, the operator selects a job, and the cameras move into position. Using **laser pointers as guides**, the operator **places the flexo plate** on the large mounting table.

The mounting machine then takes over, **swiftly positioning the plate** using patented Image Recognition technology. As the cylinder automatically moves downward, the operator **adjusts the table** back and forth for **precise plate mounting**.

After mounting, the **machine automatically checks the mounting marks alignment** against set tolerances and indicates approval with "OK" signs.

Unique Features



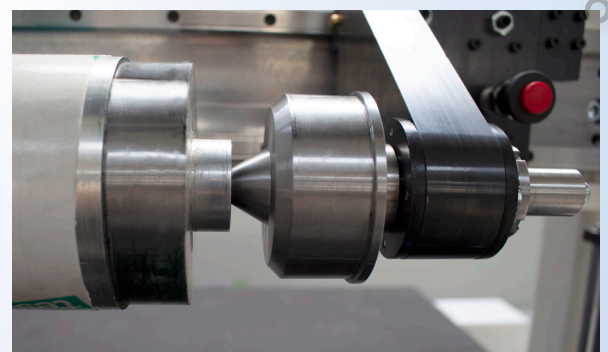
Patented Image Recognition

The Image Recognition System **measures** the exact positions of the **mounting marks** and thus how **accurately** the printing plate is fixed on the sleeve. The tolerance of the report settings determines whether a plate is judged as mounted 'OK' or 'NOT OK'. The Image Recognition is used also for an **accurate plate positioning** (5 microns).



Cushioned vacuum table

The SAMM Upside-Down features a **spacious, robust mounting table** that simplifies handling. Its vacuum technology prevents air from passing between the plate and cylinder, ensuring **bubble-free mounting**. Equipped with patented Image Recognition System, the table **secures and positions the plate accurately**. Locking and unlocking the table is easy and it is done automatically when the plate is placed accurately.



Cone System

The pneumatic clamping system works with 2 (or more) cones which can be customized.

MOTORIZED MOUNTING MACHINE



Product Video



Widths

Width [mm]	≤ 850
Width [inch]	33.46"
Max repeat [mm/inch]	850 / 33.46"

Description

The **MOM USD** is an **ergonomic motorized mounting machine** for labels. It is equipped with all the AV Flexologic **standard features** and ensures **high quality results**. With robust construction, this machine offers **easy manual plate mounting** facilitated by motorized cameras.

Workflow

After loading the sleeve/cylinder onto the pneumatically operated quick-lock clamping system, the operator selects a job and adjusts the cameras using the encoders. With **laser pointers** as guides, the **operator precisely positions the flexo plate** on the spacious mounting table.

Using **HD cameras** beneath the table, the operator **manually adjusts** the plate's position. The sleeve/cylinder **moves vertically down** by pressing a button on the touchscreen. With back-and-forth movements of the cushioned table, the operator **achieves air-bubble-free** plate mounting onto the cylinder.

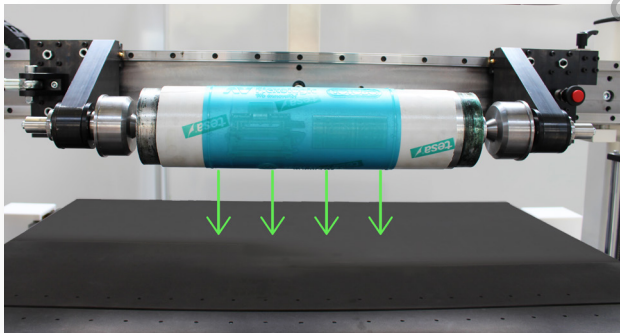
The operator can now unlock the sleeve/cylinder using the foot pedal and proceed with the next one.

Unique Features



Motorized cameras with encoders

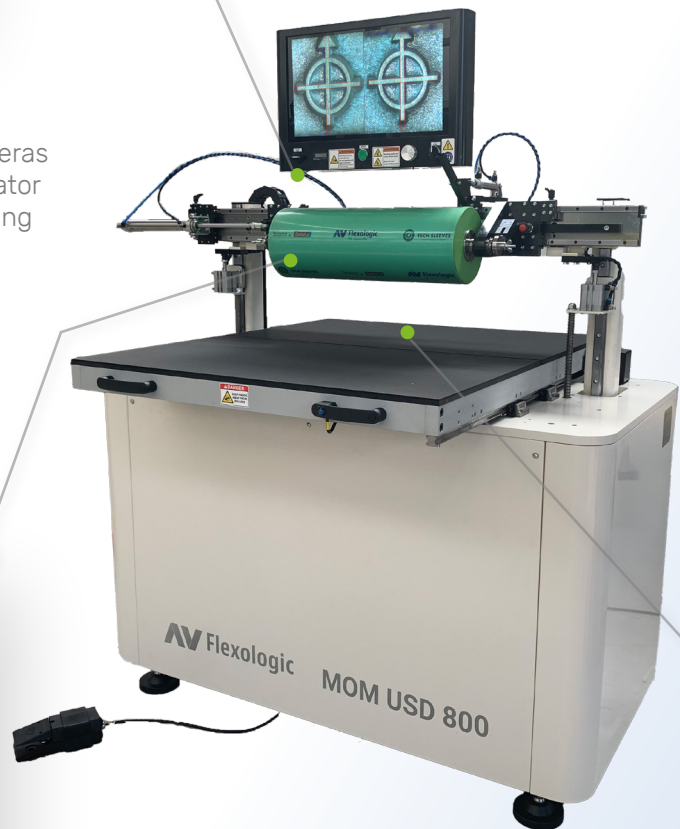
The MOM USD is equipped with motorized cameras located underneath the cushioned table. The operator **moves the cameras into the mounting position** using encoders.



Vertically moving cylinder

After the plate is positioned manually, the **cylinder/sleeve moves down vertically towards** the fixed-height **mounting table**. This maintains a consistent distance between the lens and the plate, avoiding the necessity to adjust camera focus.

By bypassing the need for focus adjustments, it effectively **mitigates the parallax effect** often encountered in other plate mounting machines. In these systems, altering the focus distance also shifts the focal point, potentially distorting camera calibration.

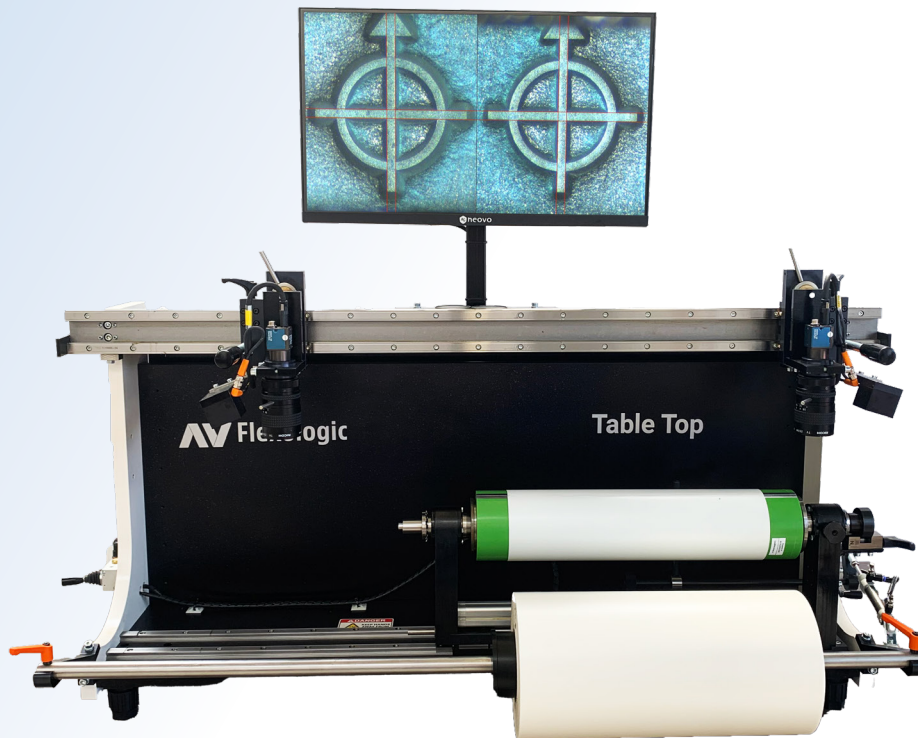


Cushioned table

The MOM Upside-Down is equipped with a cushioned table like the Automatic SAMM USD. This **sturdy table provides bubble-free mounting and high quality results**. Locking and unlocking the table is easy and it is done automatically after the plate is positioned.

TableTop

ENTRY-LEVEL MANUAL MOUNTING MACHINE



Product Video



Widths

Width [mm]	≤ 800
Width [inch]	24"
Max repeat [mm/inch]	610/24"

Description

The **TableTop** is an **entry-level flexo plate mounting machine** for labels. The TableTop is suitable for **cylinders and/or sleeves**, as it can be equipped with brackets or cones to support cylinders or an air shaft for sleeves. TableTop provides an **easy manual mounting** for the narrow web printing.

Workflow

The operator places and locks the cylinder/sleeve using the clamping system or loads the sleeve on the shaft. HD color cameras are then calibrated from the beam, followed by manual plate positioning and mounting by the operator.

An optional tape holder can be added to the TableTop for applying tape onto the cylinder/sleeve.

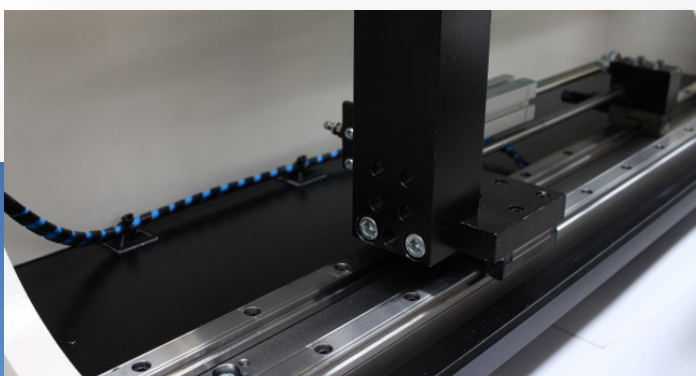
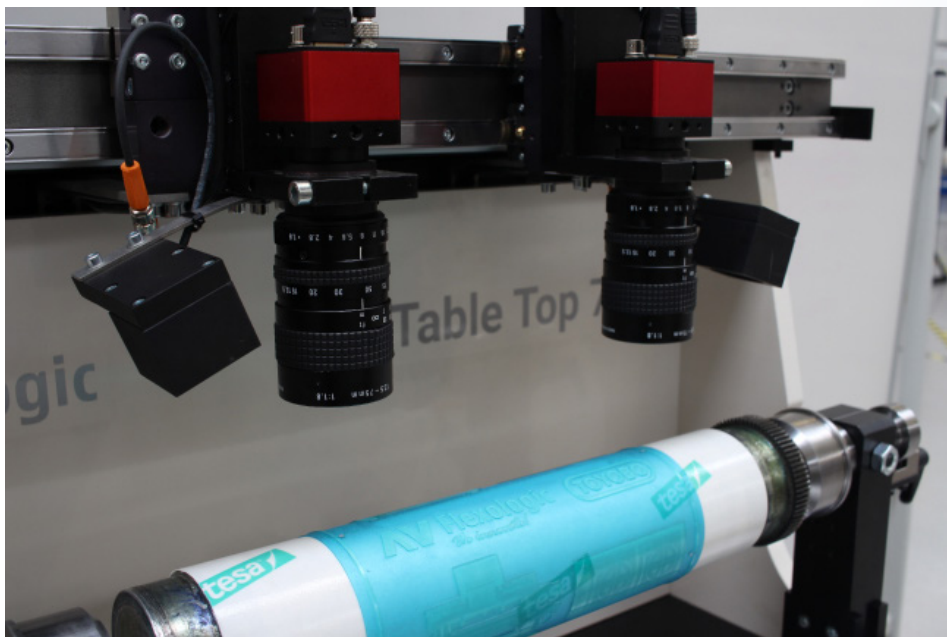
Specifications

There are 3 versions of the TableTop:

1) TableTop Standard: The standard version is suitable for **cylinders**. The TableTop can be **equipped with brackets or cones** to support cylinders. There are cylinder **support clips**, which lock the cylinder in position during the mounting phase.

2) TableTop Air Cylinder: The TableTop Air Cylinder is made for **sleeves** and is equipped with an **airshaft** for mounting plates onto sleeves. A **bracket** on the right hand side can be opened to **conveniently change the sleeves**.

3) TableTop Disc: This version can **support both sleeves and cylinders**. It is provided with **2 cones** that clamp the sleeve in the correct position. The operator controls the pneumatic clamping system with a foot pedal. The cones are made according to **customer specifications** and can also be equipped with a central pin for locking cylinders as well as sleeves.



Options

Mounting table

Cutting knife

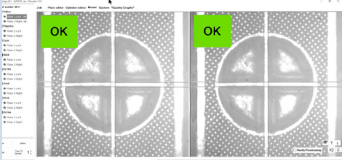
Tape holder on precision rail

Features Overview



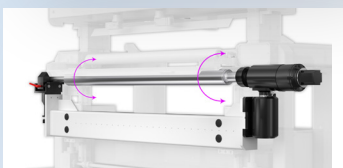
Robotic positioning

Powered by AV Flexologic software, the robotic table consistently positions the mounting plate with an exceptional accuracy of 5 µm. After positioning, the vertically moving cylinder automatically comes up.



Quality check with image recognition

The Image Recognition System measures the positions of the mounting marks to determine the accuracy of the printing plate placement on the sleeve. The tolerance of the report settings determines whether a plate is judged as mounted 'OK' or 'NOT OK'.



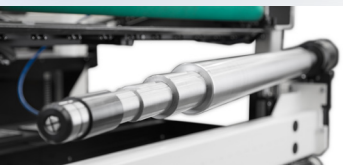
Motorized rotation cylinder

The chromed cylinder is driven by a high quality electric motor which is joined to a high precision, zero backlash gear reducer called a 'harmonic drive'. This ensures maximum possible precision in the rotational (Y) direction of the mounting process. Starting or recalling a job and moving to the right mounting position for each plate is done within seconds.



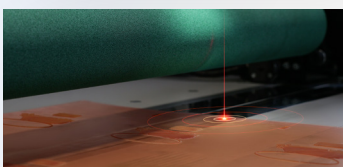
HD Ethernet cameras

Using the latest technology in high-speed Ethernet cameras on all of the mounting equipment, AV Flexologic ensures crisp and sharp ultra-high-resolution images, enabling an efficient and accurate mounting process.



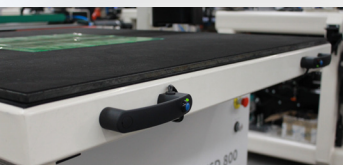
Custom made Air Cylinder

All sleeve-dedicated AV Flexologic mounting equipment is equipped with a high-precision chromed mounting mandrel. The cylinders are produced in Germany by a specialist company under the strictest tolerances. The cylinder is custom-made to fit press requirements.



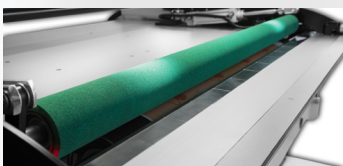
Laser pointers

Laser pointers are mounted next to the cameras to indicate where the field of view of the cameras is. The mounting marks can be easily positioned in a fraction of time, instead of having to search for the mounting marks in the camera image each time.



Cushioned table

The SAMM and MOM USD are equipped with a large and sturdy mounting table which is very easy to handle. This table enables a bubble-free mounting operation as it doesn't allow any air to pass between the plate and the cylinder. Locking and unlocking the table is easy and it is done automatically when the plate is placed accurately.



Pressure roller

The pressure roller has become a standard feature in AV Flexologic flexo plate mounting machines over recent years. The roller is used to apply the plates evenly over the carrier such as a sleeve, cylinder or Mylar. The use of the pressure roller eliminates the typical 'hand-rolling'. The feature saves time and avoids un-ergonomic working procedures.



Digital zoom capability

Combining HD cameras with HD flatscreen monitors enables mounting equipment to zoom digitally up to 170x.



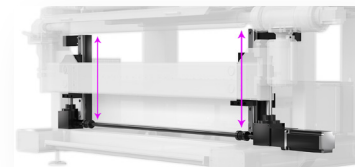
Windows 10 mounting software

Striving for the latest up-to-date technology, the SAMM 2.0 is equipped with Windows 10, which is fully compatible with our software.



Quality report

After each plate is mounted, the MOM and SAMM mounting systems can automatically check the tolerance of mounted plates using Image Recognition. A PDF quality report is generated on-the-fly with the ability to check top and bottom.



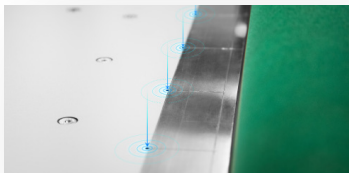
Vertical movement of cylinder

The cylinder moves vertically on high-precision linear guides. The advantages are that by moving the cylinder towards the plate, the plate is not disturbed in the final stage of the mounting process, meaning the 'fixation' accuracy of the plate to the sleeve is very high. Also, fixed distance from lens to plate means that there is no need to focus the lenses, ensuring the highest accuracy and user-friendliness.



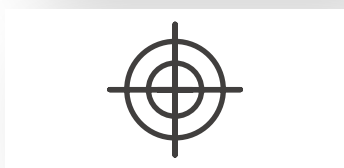
Fixed distances from the lens to plate

The table remains at a fixed height, allowing the cylinder to move vertically to secure the plate onto the sleeve's adhesive layer (tape or twinlock). This setup ensures optimal operator ergonomics, a key advantage of AV Flexologic systems.



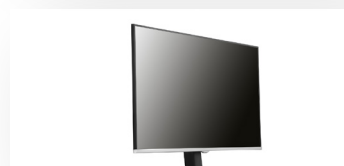
Vacuum table

To ensure highly accurate positioning, the vacuum system fixates the plate to the robotic table before positioning.



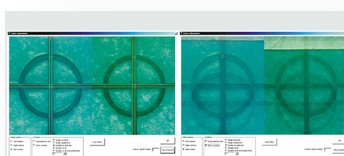
Digital calibration system

Camera images undergo calibration to generate a lookup table, digitally correcting any deviations in the camera beam down to 10 µm across its width. Each camera position recalls y-deviation, digitally adjusting images for 100x more accurate mounting. Y-deviation data is also stored in a lookup table.



40" HD Monitor

To facilitate optimal viewing of mounting marks during the process, both MOM and SAMM machines feature a large-format HD Mounting monitor positioned atop the machine. Paired with HD Ethernet cameras, this setup provides magnified images with exceptional detail, enhancing machine accuracy and user-friendliness.



Overlay

Once the first plate is in the correct position, the overlay module enables the operator to take snapshots of the mounting marks, which are then shown semi-transparently while mounting the other plates.

Options Overview



Automatic Easyreg detection

Using our patented Image Recognition System, a visual mark on the edge of a sleeve such as the W&H Easyreg strip can be automatically 'set to zero' on the MOM, SAMM and FAMM mounting systems by simply pushing a button. The camera automatically homes in on the Easyreg mark and also automatically 'sets zero' in X and Y direction with 0.001mm (1µm) accuracy.



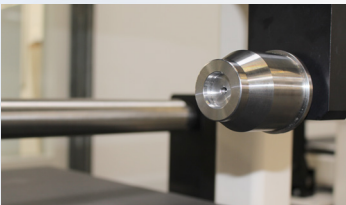
Tape holder

A tape holder can optionally be added to MOM and SAMM machines on precision linear guides. The linear guides make sure the tape roll is completely parallel to the sleeve when applying tape and assist the operator to easily move the tape along the side of the sleeve.



Cutting knife for plates and tape

A special cutting knife can be slid around the whole length of the machine and cut the tape seamlessly. It is made with a precise depth adjustment, therefore the sleeve is not damaged from cutting.



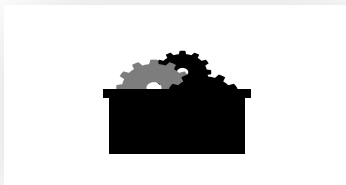
Extra set of cones

An extra set of cones for cylinders can be made. Every set of cones is custom designed according to customer needs.



Barcode scanner

A barcode scanner can be optionally added to the MOM or SAMM for automatic loading of the jobs. The jobs are then usually made offline in prepress to optimize the machine Operation Equipment Effectiveness (OEE).



Critical spare parts package

It is recommended to opt for a critical spare parts package, which is available for all equipment. AV Flexologic has spare parts warehouses in Western Europe: Alphen aan den Rijn, The Netherlands (HQ), North America: New Hudson, Michigan, USA and Eastern Europe: Cluj-Napoca, Romania.

Narrow-Web Product Summary

Specifications	TableTop	MOM USD	SAMM USD	SAMM 2.0
Max Width (mm)	≤ 800	850	850	850
Max Width (inch)	24"	33.46"	33.46"	33.46
Max Repeat (mm/inch)	610/ 24"	850/ 33.46"	850 / 33.46"	850 / 33.46"

Features & Options	TABLETOP	MOM USD	SAMM USD	SAMM 2.0
Camera encoders	✓	✓	✓	✓
Sturdy frame	✓	✓	✓	✓
laser pointers		✓	✓	✓
Vertically moving cylinder		✓	✓	✓
Fixed distance from lens to plate		✓	✓	✓
Touchscreen			✓	✓
Windows 10			✓	✓
Overlay System (patented)			✓	✓
Motorized cameras		✓	✓	✓
Image Recognition			✓	✓
Quality check using Image Rec			✓	✓
Robotic positioning			✓	✓
Vacuum table			✓	✓
Digital calibration system			✓	✓
Digital zoom capability			✓	✓
Quality report				✓
DOAL Lights				✓
Automatic mandrel rotation				✓
Automatic pressure roller				✓
Motorized rotation cylinder				✓
Air mandrel				✓
Cone system	✓	✓	✓	
Cushioned table		✓	✓	
Extra set of cones	0	0	0	
Critical Spare Parts Package	0	0	0	0
Tape holder	0	0	0	0
Cutting knife				0
Barcode Scanner				0
Automatic Easyreg detection				0

✓ = Included 0 = Optional

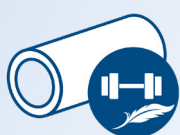


FLEXO PRINTING SLEEVES AND BRIDGES

Tech Sleeves® manufactures light weight composite sleeves and bridges for the global flexographic printing industry. By using the highest quality grade of materials, Tech Sleeves® is able to outperform any sleeve on the market in terms of durability, consistency and dimensional accuracy.

Tech Sleeves® and Tech Bridges® are qualified for high printing speeds of up to 800 m/min, or 2,624 ft/min and within the industry they are recognised as one of the lightest, stiffest and stable sleeve and bridges on the market with weight savings of up to 40%.

LIGHTWEIGHT TECHNOLOGY



LIGHTWEIGHT SLEEVES & BRIDGES

Advanced lightweight technology reduces the weight of the sleeve and minimises overall press bounce for outstanding printing results



RUBBER-SEALED EDGES

The highest protection against dropping and damaging the sleeve. Protects the inner core from tear and damage.



STIFFEST AND MOST DURABLE SLEEVES

The hardened UV cured Vinyl Ester Resin outer layer (**82 ShoreD**) makes our sleeves the hardest and the stiffest in the flexo print market

CONFIGURATIONS

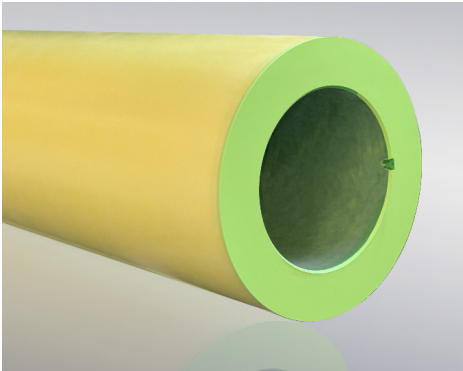
FEATURE	ADVANTAGE	TECH LIGHT®	TECH PRO LIGHT®
Axial zero line	Helps in defining the zero position	●	●
Milled slot	A durable slot solution	●	○
Sealed edges	Ensures chemical and moisture protection providing dimensional stability	●	●
Rubber edges	Provides maximum durability		●
Metal Reinforced Slot	Great notch durability, bonded in the rubber for maximum durability, so not possible to come loose		●

“O”: Optional



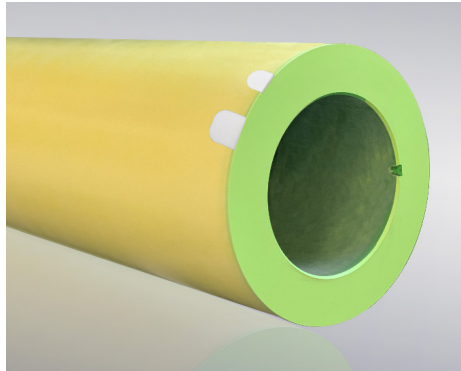
TECH SLEEVES
THE FUTURE IS NOW

Sleeve Options



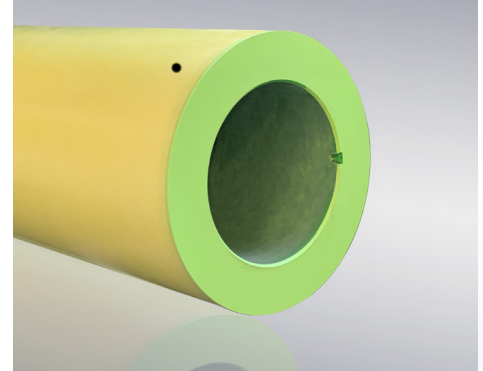
RUBBER SEALED EDGES WITH REINFORCED SLOT

Increases the lifetime of a sleeve by making the end of the sleeve resistant to impact. Prevents damages to the positioning pins in the press and mounting machines without weakening the registration slot.



SMART SLEEVE (RFID CHIP & MAGNET)

RFID embedded sleeve which allows reading and writing for the purpose of identification. Works with the new and our existing systems. It improves the printing process and prevents mistakes from using the wrong sleeves in the press.



CONDUCTIVE SLEEVE

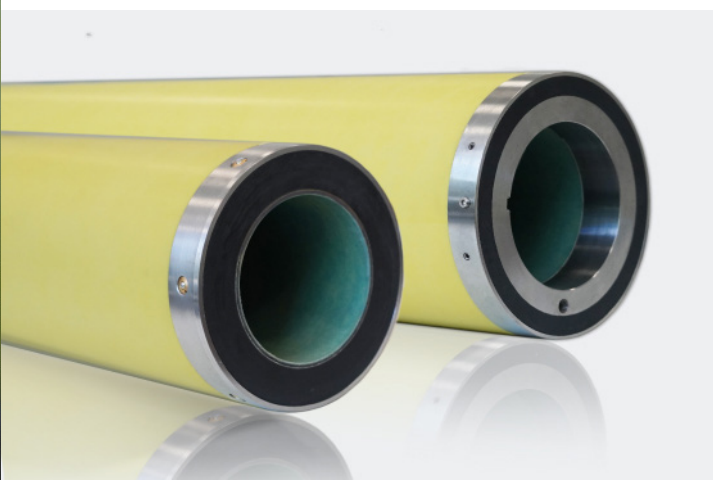
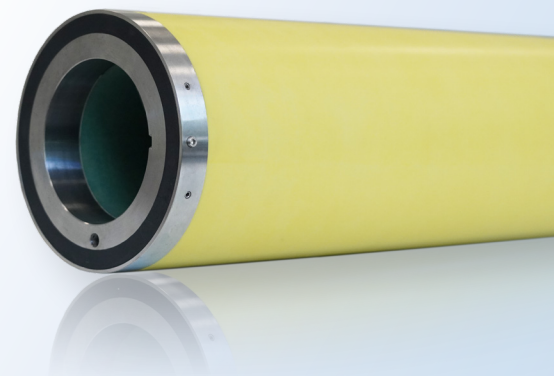
All the sleeves from Tech Sleeves can become conductive sleeves with the use of carbon. Conductive sleeves conduct electrostatic charges, which can occur in the printing area and go into the grounded printing press. Many companies choose this type of sleeves for printing.

Tech Bridge®

Description

Tech Bridge® has an ultra high strength composite core complemented by a fiber-reinforced outer shell, which makes it suitable for high speed printing. It is available with a separate air connection or as air-through. Miller valves are standard for Separate Air Tech Bridges® that have a minimum wall thickness of more than 25mm. This high quality Hard Coated Bridge Sleeve is suitable for all plate sleeves.

The Tech Bridge comes standard with an outer metal ring protecting the edges of the bridge on both sides.



Features & Options

- ✓ Sealed edges
- ✓ Full inner metal ring
- ✓ Outer metal ring incl. pin
- ✓ Miller valves
- ✓ Air Through or Separate Air
- ✓ Conductive by use of carbon

Discover



TECH SLEEVES
THE FUTURE IS NOW



Global Support Network

24/7 assistance ☎ +31 (0) 172 503 621



Do you need urgent support? Call us at any time!

Our team consists of more than 20 experienced engineers who can help you with any problem you might face. We provide support in: English, German, Spanish, French, Italian, Dutch, Romanian, Arabic, and Thai.

AV Flexologic Care

Explore AV Flexologic Care Packages that provides you support even after the warranty expires.

	Level 1	Level 2	Level 3
Access to knowledge base	●	●	●
Training videos	●	●	●
Free remote support	●	●	●
Spare parts 15 % discount	●	●	●
24/5 assistance		●	
24/7 assistance			●
Software upgrades		●	●
Yearly maintenance visit		●	●
Extended warranty parts & labour			●
Dashboard*			●
24/7 support			●

Request your own AVF Care package at av@flexologic.nl or call us at +31 (0) 172 503 621

*Dashboard only on FAMM 3.0 & SAMM

You can contact us easily in many ways:



Call us at **+31 (0) 172 503 621** or **+1-800-467-1746** for USA.



We create an account for you in our support portal 'Freshdesk'. You can always create a ticket when you log into your account.



Send an email to **support@flexologic.nl**.

By sending your email, a ticket is automatically created in our system, and we will provide support as soon as possible.

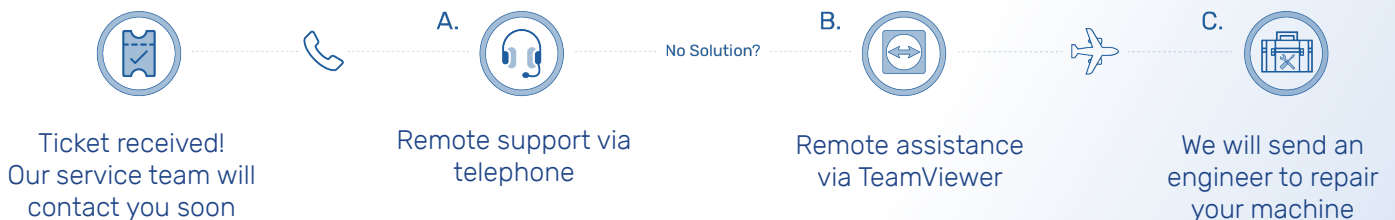


Visit our website at **www.flexologic.nl/support** and fill in the contact form.

By sending the form, a ticket is automatically created in our system and we will support you in a short time.

What happens next?

Once we receive your ticket or email, we will support you in the following ways:



Do you want to easily find information about your machine?

Our support portal is designed to provide you help in an instant. By logging in to Freshdesk, you will be able to find information about your machine and answers to frequently asked questions

For additional information about Support & Service, visit our website: www.flexologic.nl/support

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