

# FULLY AUTOMATIC MOUNTING MACHINE FOR THE FLEXIBLE PACKAGING INDUSTRY



## FAMM

Next generation fully automatic mounting equipment for mounting flexographic printing plates onto sleeves, using image recognition.



# THE FAMM (FULLY AUTOMATIC MOUNTING MACHINE) SERIES

The state-of-the-art machine belongs to the top range of AV Flexologic mounting machines for mounting flexographic photopolymer printing plates. Short job runs, quick changeover times and high quality is achieved, while at the same time the FAMM mounts fast, consistently, and accurately. FAMM systems for mounting on mylars and for mounting on cylinders are also available.

## Operation

The operation of the FAMM is very simple. The operator can select a (repeat) job from the computer or create a new job. It is also possible to connect the FAMM to the DTP department and optimize the digital workflow.

When the mounting coordinates are loaded in the computer, the job can start:

- The operator brings the sleeve into the machine and pre-positions the plates on a conveyor belt.
- The robot transports the plates from the belt into the machine, where 2 automatic moving cameras recognize the mounting marks.
- The FAMM uses AV Flexologic's patented image recognition software to measure the position of the mounting marks real-time during the automated positioning of the plate being mounted. This highly increases automation and accuracy over mounting and prevent human failures.

- After each robot movement the coordinates of the mounting marks are measured and corrected accordingly until these coordinates are within the user-specified mounting tolerance (10-20  $\mu\text{m}$ ). The accuracy of measurements is  $\pm 2.5 \mu\text{m}$ . There is no need for manual handling.
- Afterwards, a pressure roller mounts the printing plates bubble free onto the sleeve. A special table supports the printing plate during the mounting process to ensure correct mounting.
- After having finished mounting, the cameras return to their original position and a digital proof (snapshot) is made of the mounting marks. The digital quality report is automatically generated and demonstrates the mounting results. These reports are stored with the job in the computer.

All the plates are mounted onto the sleeve automatically without operator interference. While the FAMM is taking care of the mounting job, the operator can even attend to other tasks. This greatly increases efficiency in the prepress department.

More plates will be mounted on a sleeve in the shortest period of time. Therefore the FAMM payback is short and often less than 1 year.

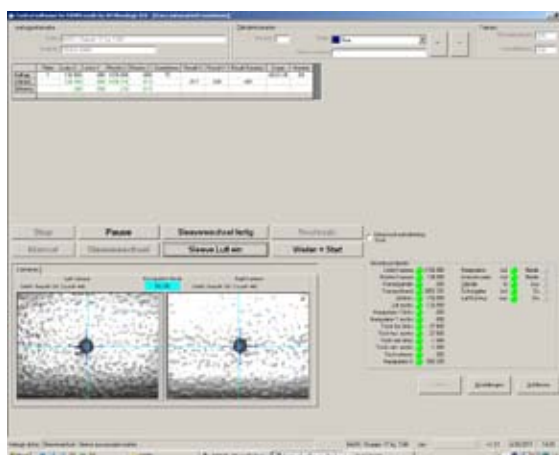
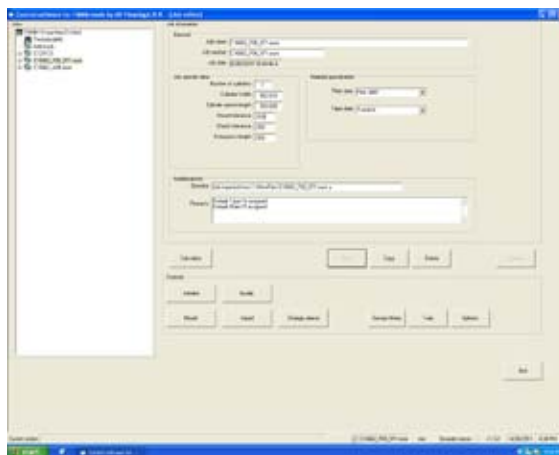
## Possibilities

### *Automated pre-setting function*

Mounting machines of AV Flexologic comply with the latest requirements of pre-setting with different print preset system. Systems used by all major printing press suppliers for pre-setting detection in the printing press are incorporated into the FAMM. For example, it is possible for visual register marks on the sleeve to be detected automatically. This mark is then used as 'zero up', with the position of the mark being a sleeve-specific zero position for both X and Y register. The FAMM has an automatic adjustment system for the register mark strips on the sleeves both in X and Y directions.

### Network Capabilities

The DTP department can create mounting jobs which are converted by the AV Plug In, so these mounting jobs can be used by the FAMM. There are also several possibilities for other Plug Ins. Through remote desktop software AV Flexologic can provide direct support within minutes. A connection through internet is standard on the FAMM. The network connection also enables interchanging data for press settings. This information is now available for preset information of the printing press, resulting in a shorter set up time and reducing costs.



### Recognition Modes

There are different recognition modes available on the FAMM:

- BLOB-mode: detect mounting marks as target.
- CORR-mode: detect trained mounting marks.
- Semi Auto-mode: the possibility to mount plates with mounting marks that are not picked up during mounting. After mounting the plate is automatically checked. The semi auto-mode works up to ten times faster than the current manual mounting.
- Registration Mark Mode: this function is optional.





## FEATURES

- High definition camera image
- Automatic positioning and mounting for the highest repeat quality/mounting plates in minutes
- Choice of accuracy
- Digital proof report on mounting results
- Multiple safety features to ensure risk-free operation
- Absence of air bubbles
- Automatic check of plate positioning
- Digital proof reports available

## ADVANTAGES FAMM

- Reduction of press downtime due to human failure
- Efficient
- Elimination of plate positioning mistakes
- Accurate
- Fast
- Easy to operate
- Safe
- Fast ROI
- High repeating accuracy

## TECHNICAL DATA

	FAMM 1500	FAMM 1700	FAMM 2000	FAMM 2500
Max. sleeve length	1500 mm / 59"	1700 mm / 67"	2000 mm / 79"	2500 mm / 98"
Max. sleeve repeat	1250 mm	1250 mm / 49"	1350 mm / 53"	2000 mm / 78"
Min. sleeve repeat	230 mm / 9"	230 mm / 9"	230 mm / 9"	300 mm / 9"
L x W x H	5220 x 1920 x 1740 mm 205" x 76" x 70"	5220 x 1920 x 1740 mm 205" x 76" x 70"	5800 x 1920 x 1740 mm 228" x 76" x 70"	6500 x 2020 x 1740 mm 256" x 80" x 70"
Electrical connection	380 V. 50/60 Hz. 4 kVA / 18 Amp. Or according to specifications	380 V. 50/60 Hz. 4 kVA / 18 Amp. Or according to specifications	380 V. 50/60 Hz. 4 kVA / 18 Amp. Or according to specifications	380 V. 50/60 Hz. 4 kVA / 18 Amp. Or according to specifications
Connection compressed air	6-8 Bar	6-8 Bar	6-8 Bar	6-8 Bar
Net. weight	Approx. 4000 kg	Approx. 4000 kg	Approx. 5400 kg	Approx. 6000 kg



### Head Office

AV Flexologic B.V.  
H. Kamerlingh Onnesweg 2  
P.O. Box 252  
NL-2400 AG Alphen aan den Rijn  
The Netherlands

Tel +31 (0)172 434221  
Fax +31 (0)172 437919  
Mail [av@flexologic.nl](mailto:av@flexologic.nl)

### Toll Free number from the UK

0800-3892121 *(only accessible in the UK)*

### Office in Germany

Postfach 1144  
D-58581 Iserlohn  
Tel +49 (0)2371 51501  
Fax +49 (0)2371 52820  
Mail [flexo@andersonundvreeiland.de](mailto:flexo@andersonundvreeiland.de)