FLEXIBLE MODULES (FM)

PANTA® FLEXIBLE MODULES
WE ARE YOUR PARTNER

PROCESS KNOWHOW

Lamination
Laminating is the process used to embed the copper conductor in insulating foil by using pressure and heat. The foils are coated with adhesive on one side. The copper conductors are parallel to each other. Different pitches can be combined.

Cutters
The laminated rolls are slit to the final cable width. The lengths of the cables are produced by the cross cutting afterwards.

Stripping
The cable terminations are made in a stripping process. The insulation is stripped off the copper wires using a special cutter. The conductor ends can then be processed further to the required termination style with specific bending tools.

Crimp-Techology
Crimp connections to flat conductors of 1.27 mm and 2.54 mm pitch are possible with the crimping technology from Tyco and Nicomatic.

Overmolding
Fully hydraulic injection molding machines can be used to overmold the cable ends of FFCs or to assemble FLEXIBLE MODULES. The maximum in- jection volume is 15 cm³ with a projected area of max. 75 cm².

Potting with Macromelt®
Macromelt® allows clean processability and does not contain any solvents or other harmful substances. Macromelt® is particularly suitable for applications that require good adhesion to conductor or housing materials at low processing pressure. Macromelt® is injected with low pressure into the cavities. It spreads gently around even the tiniest components, seals and protects the components.

Stiffeners
Special equipment places adhesive tapes and reinforcements onto our FFCs and ZIF jumpers.

Laser Processing
A highly precise, powerful 300 W CO^2 laser implements fast and very flexible stripping modes.

Soldering
Selective soldering systems ensure optimum soldering while minimizing the heat stress for components. A reflow soldering system and placement systems are available for the assembly of SMD components.

Resistance Welding
The contact between the components and PANTA® cables by means of resistance welding ensures a safe interface of very high quality. Welded flexible modules are later potted or overmolded in order to secure the weld.

Assembly Lines
- FAS - Flexible assembly systems ensure high quality modules even for lower volumes.
- AAS - Automatic assembly systems produce high volumes of customized modules in fully auto- matic operation.

The optimal assembly line is selected after a technical and qualitative assessment of the customiz

MISSION

Our mission is to provide our customers with electronic solutions which enable them to develop products and technologies which improve our quality of life.

DEVELOPMENT
CUSTOMER SOLUTIONS

HIGH LEVEL PRODUCT
DEVELOPMENT

QUALITY AT A
HIGH LEVEL

FROM **PROTOTYPE**
TO SERIAL **PRODUCTION**

FLEXIBILITY
RELIABILITY