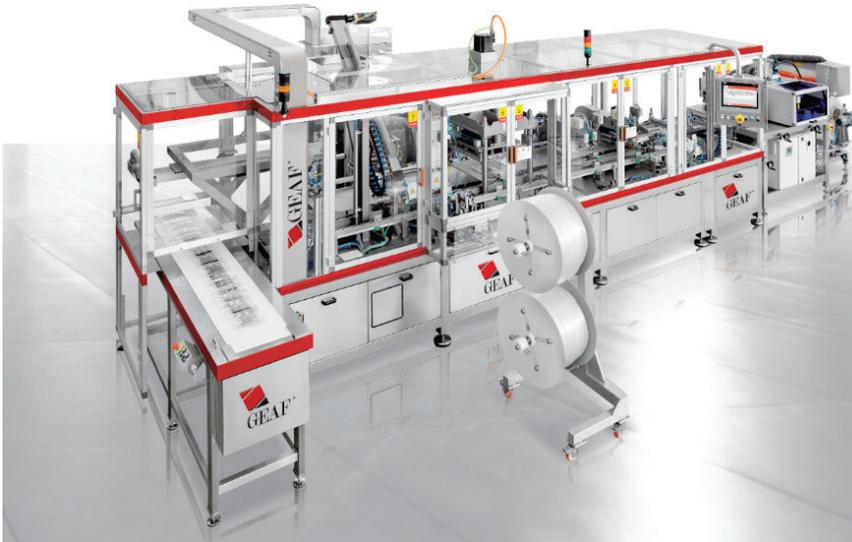


MACHINERY NEWS

ACIC Pharmaceutical Machinery Newsletter



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Market Trends for Ostomy Products

There is predicted growth in the global ostomy products market within the next five years, with an estimated CAGR of over 5%¹. Manufacturers of ostomy products are progressively focusing on product developments, which can improve patient experience and adoption.

Understanding the market trends of ostomy products can help direct decisions on allocating equipment budget, expansion plans, and plant upgrades. Results of market research can also accelerate product development initiatives and minimize risks of a product launch, which are key factors to maintaining market share.



Looking Forward

Patients are increasingly looking towards advanced ostomy products that offer maximum flexibility and comfort. Product innovation will be a key driving factor in ostomy bag adoption for both doctors and patients going forward.

ACIC Pharmaceutical Machinery works with ostomy bag manufacturers to provide custom equipment lines, both semi-automatic and fully automatic, with bag welding machines that use thermocontact or radiofrequency welding. Custom lines are developed based on product specifications and automation requirements. The machines can be integrated with inline splitting reels, laser cutting solutions, leak test, camera controls, welding thickness measure, software quality control system, and automatic inspection for maximum efficiency.

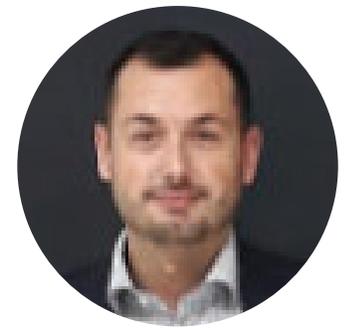


References

1. Technavio Research (2020). Global Ostomy Products Market 2020-2024. Retrieved from <https://www.businesswire.com/news/home/20200319005272/en/Global-Ostomy-Products-Market-2020-2024-Evolving-Opportunities>
2. Our partner GEAF <https://www.geaf.it/en/our-sectors/medical-sector/>

Q & A

How Valmed is Increasing Medical Bag Production by using High Frequency Welding Technology



With Mattia Mancarti

Q *When did the collaboration with GEAF start?*

When Valmed was founded, the mission was to become a leader in the production of nutrition bags (*and not only*). Within a few years, we reached this goal. To continue in our mission and meet increasing market demands, we needed a reliable partner to work with. Valmed needed to collaborate with an expert in technology for medical bag manufacturing – this is how the cooperation with GEAF started, back in 2015. The combined expertise of Valmed and GEAF fueled a productive collaboration that enabled us to strengthen our position in the medical bag market.

Q *Why did you choose GEAF as your partner?*

We chose GEAF as our partner because they turn our ideas for a production process into a real, efficient production line. The GEAF team value innovation, and they are constantly proposing new solutions that are aligned with Valmed's mission and goal for constant growth. Above all, GEAF maintains the high-quality standards that are essential in the medical sector. These reasons convinced us to re-confirm our cooperation with GEAF year-after-year.

Q *What are the advantages of working with GEAF?*

The main advantages of working with GEAF are their flexibility, innovation, and excellent way of listening to our needs. These are some of the best traits we look for in our partners. GEAF has always proved to be an attentive partner and responds to our needs by proposing customized solutions. In addition, Valmed values attention to quality and safety, and it is important to us that our partners share these values.

Mattia Mancarti, Plant Manager of Valmed, a leading company in medical device production, explains how Valmed's collaboration with GEAF allowed them to increase production of their medical bags efficiently and safely during their plant expansion.

The collaboration with GEAF allows us to develop innovative projects to meet new and constantly changing market requirements. For example, one of our machines designed by GEAF can distribute radio-frequency energy to any side of a bag during production. The operator can choose which sides will be enabled, depending on the specific product that is being manufactured. The entire process has been designed for maximum flexibility of parameters and uses just one high-frequency generator.

Q *How many products are manufactured with GEAF machines per year?*

Our goal is to continue to evolve and expand. Currently, at least 8 million medical bags per year are produced using GEAF machines. Based on current and future projects, that number will double.

Q *What are Valmed's requirements when choosing equipment to produce your products?*

In a highly regulated environment such as the medical device sector, it is important to maintain very high and repeatable quality standards. It is essential that the final product is checked thoroughly, tested, and free of defects. Our entire production process is based on the principles of Industry 4.0, which allows our MES (Manufacturing Execution System) to have a constant supervision of production lines, active management of each stage during the process, and continuous communication with all units on our rapidly expanding production site.

Reference:

1. Our partner GEAF <https://www.geaf.it/en/our-sectors/medical-sector/>

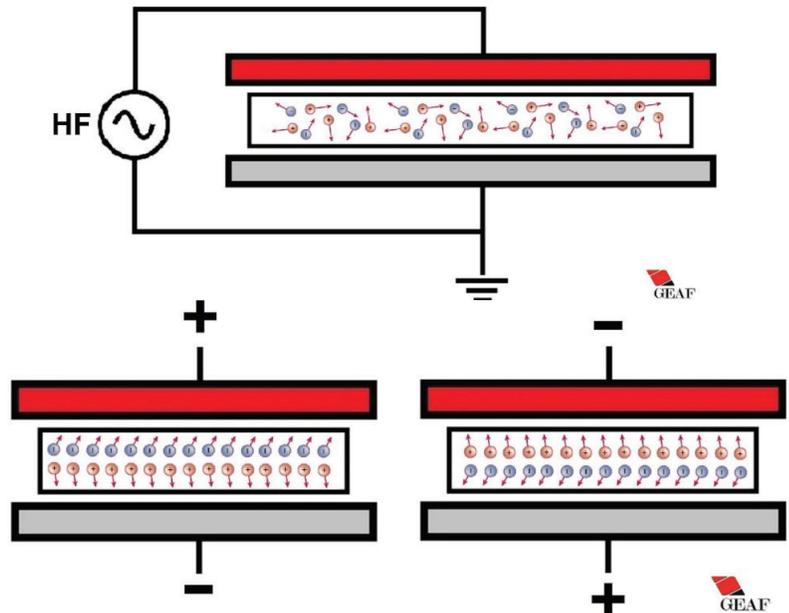
HOW IT WORKS:

Radiofrequency and Thermocontact Welding

Radiofrequency Welding

Radiofrequency (RF) welding, also known as high frequency welding, is an effective sealing process for the manufacture of medical bags such as IV bags, urine bags and blood bags.

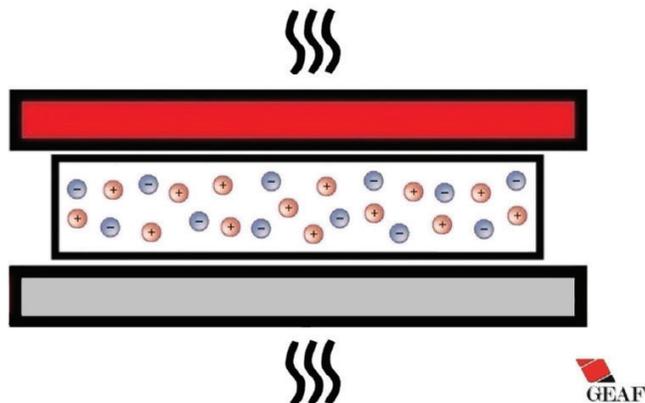
Radiofrequency welding works through the simultaneous application of a pressure force and an electromagnetic field with a frequency of either 27.12, 13.56, or 40.68 MHz on materials (for example, two films of PVC), which causes the material to melt, and the molecules to bond. This process makes the material weldable at relatively modest temperatures (for example, 30°C) and results in a robust seal that is leak-proof and consistent.



Why use RF Welding?

RF welding results in a strong, leak-proof bond without the use of additional materials such as adhesives. The welds are durable, consistent, and ensures integrity of the bag, which is crucial for pharmaceutical products. RF welding optimizes energy consumption, does not generate fumes, and does not require the use of additives. These aspects are beneficial for both the operators and environmental protection.

RF Welding can be performed on materials including polyvinylchloride (PVC), polyurethanes, polyethylene terephthalate (PET), and acrylonitrile butadiene styrene (ABS).



Thermocontact Welding

Thermocontact welding uses external heat and pressure to bond materials. Thermocontact welding can be a good alternative when materials are not suitable for RF welding. Materials for thermocontact welding include polypropylene (PP), polyethylene (PE), and PVC-free plastics.

References:

This article was adapted from our partner, GEAFF, who provides turnkey welding solutions for the pharmaceutical industry.

1. Our partner GEAFF <https://www.geaff.it/en/our-sectors/medical-sector/>

MACHINERY NEWS

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ACIC Pharmaceutical Machinery has extensive experience designing, building, and commissioning both standard and custom projects. With our partners, we offer turnkey automation and equipment solutions for the bio /pharmaceutical and radiopharmaceutical sectors.

OUR PARTNERS:



EQUIPMENT SHOWCASE



With our partner GEAF, we provide complete equipment lines for ostomy bag manufacturing, IV bags (RF and TC), blood bags and filters, plasma bags, drainage and urine bags, and enteral and parenteral alimentation bags.

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