

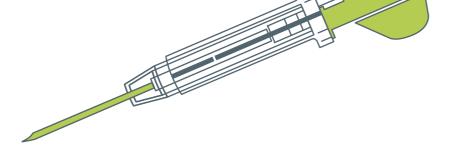
With the development of a new implant syringe, Gaplast has revolutionized the application of subcutaneously administered drugs.

oday, implants containing active ingredients (also known as "rods") are firmly established in the field of long-term medication. Due to the retarding release of the active ingredient, they replace the daily intake of tablets or the administration of injections. That way, they provide

protection and safety for patients – either human or animal. However, administering them with the help of commercially available implant placers often involves a number of hurdles. Frequently, the implant is not pushed into the injection channel, but into the surrounding tissue; not rarely, administrations have to be

repeated several times because the needle's retraction causes the medication to shift or be pulled out a bit again. With their new type of implant syringe, Gaplast, a packaging manufacturer from Upper Bavaria, Germany, aims to minimize these unpleasant side effects during administration.

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It all began with an idea

"The idea goes back to the mid-1990s," recalls Ingmar Kneer, team leader in the medical technology sector at Gaplast. "At that time, we received the first inquiry from a large German generic manufacturer for the development of an implant syringe. Innovation and ingenuity are firmly anchored in our DNA, and quite quickly we came up with a new type of mechanism. It pulls the cannula out of the patient's tissue after the implant has been applied into the injection channel. This ensures reliable administration."

Today, this device is available with a depot for one or three months. Ingmar Kneer: "It is used, for example, in the treatment of oncological diseases, but also for the long-term medication of hormones in human and veterinary medicine. Additional long-term or depot applications have already been initiated."

"Every step fulfills the highest standards without compromising functionality or visual appearance."



Ingmar Kneer, team leader in the medical technology sector at Gaplast

Full functionality

Only approved "pharma proof" or "medical grade" materials are used in the manufacture of implant syringes. The main material – a modified styrene-acrylic copolymer – guarantees full functionality as well as stability of shape and color. "We can provide evidence that our implant syringe shows significantly less color deviations and deformations caused by sterilization than comparable medical devices," says Ingmar Kneer.

Tight network

In order to grant the highest level of quality, Gaplast not only relies on particular materials, but also on a close exchange with a specialized partner network. "The intensive exchange with all partners is a matter of course for us," explains Ingmar Kneer. "We heavily involve them in process step development, thus making sure that all components are precisely matched for production."

Careful handling

Harro Höfliger is part of this network – the company designs high-precision machines for the pre-assembly of devices and the insertion of implants. They make sure that the implant is assembled

and packaged to operate properly and in top quality – although very tight tolerances (e.g. in the stylet area) are used here. Not only the syringe body has to be kept intact, it must also be guaranteed that the syringe itself remains optically flawless. During the assembly process, this requirement is met by supplying individually packaged implant syringes in trays and carefully inserting

them into the feeding units using precise pick-and-place technology. Numerous in-process controls (IPCs) ensure consistently high functionality. Camera systems on the machines provide seamless monitoring of the filling and feeding process. Ingmar Kneer sums up: "Every process step fulfills the highest standards without compromising functionality or visual appearance of the device."



The implant syringe is used, for example, in the treatment of oncological diseases.



Gaplast's device is available with a depot for one or three months.



About Gaplast GmbH



For more than 30 years, the packaging manufacturer with headquarters in Altenau (near Oberammergau, Germany) has been an owner-managed family business and is a healthy industrial company today. Originating from a management buy-out by the senior boss Roland Kneer, at two locations in Upper Bavaria, the company develops and produces intelligent and sustainable bottles, closures and applications made of plastic for well-known companies all over the world. Gaplast considers itself a solution finder and provides customers with all components from a single source for tailor-made product solutions. Meanwhile the company employs about 300 people and trains apprentices in nine professions. In 2020, the annual turnover amounted to 44 million euros. Gaplast is DIN ISO 9001 and 15378 certified, ISO 13485 is in preparation.