

Vetter – leader in the lyophilization field

Due to the deep process temperatures, freeze-drying can only be accomplished by using a high amount of energy. In addition, it is time intensive. All the more important is the cooperation with a competent partner; Vetter is an expert in the field of lyophilization and is experienced in the development of efficient drying cycles. Since 1981 Vetter has been implementing lyophilization of agents directly in the syringe. Three years later, the firm introduced the patented dual-chamber syringe Vetter Lyo-Ject®, which is especially suited for lyophilized substances.

The Vetter Lyo-Ject® contains the lyophilized, medically active substance as well as the solvent. The agent is found in the front of the syringe, the solvent is filled in the rear chamber. The mixture of the agent and the solvent takes place just before administration: The solvent is pressed into the front chamber by simple twisting the plunger rod ("Twist and Push") and combines with the agent there. This construction allows the solubility of the agent in a completely sterile environment. The effort of doctors and hospital personnel is thereby limited to ensuring the complete dissolution of the lyo-cake and homogenous mixing, ensuring that there is no air left in the needle before it is ready for performance.

As expert in the field of lyophilization and highly sensitive agents, Vetter's groups of specialists develop specific lyophilization cycles together with the customer for each product. If a customer approaches Vetter with a new product, the firm is able to provide a reliable estimate of the future cycles based on its experience. Within the scope of its product life-cycle management, Vetter also offers transfer from vial applications to dual-chamber systems.