

More than Filling.



Dual-chamber technology: Vetter Lyo-Ject[®], V-LK[®]



Pharma solutions for tomorrow, today.

For sensitive drugs.

Dual-chamber technology: Vetter Lyo-Ject[®], V-LK[®]

Vetter has developed a process for aseptically prefilled syringe systems, which is unique in the field of liquid and lyophilized drugs. Since some active ingredients can only be mixed immediately prior to application, the different ingredients and solvents can now be prefilled separately and stored in a specially developed dual-chamber system. This equally allows the lyophilization of those substances that are unstable in liquid form.

Because this dual-chamber system is easy to use and reduces the preparation time for an injection compared to a traditional vial/syringe combination, it brings great relief to end users – particularly in the home-care sector.

The ready-to-use dual-chamber syringe Vetter Lyo-Ject[®] and dual-chamber cartridge V-LK[®] offer the following benefits:

- **Simple administration – Easy to handle**
Fewer injection steps compared to vial/syringe combinations, without the need for multiple needles or transfer devices.
- **Increased patient safety**
This all-in one concept helps to reduce product mix-ups and allows precise dosing.
- **High product security**
System is closed in the freeze dryer upon completion of the lyophilization process.
- **Compatibility with pen systems (dual-chamber cartridges only)**
Can be used for single and multidose applications in pens.
- **Low residual volume**
 - Improved closure system and stopper geometry
 - Allows little product loss, overfill requirements and packaging waste.

Safe and simple solutions.

Dosage forms:

Dual-chamber syringes and cartridges

- lyophilized/solvent drugs
- liquid/liquid drugs
- powder/liquid drugs

Formats:

Dual-chamber syringes
0.1 ml – 5 ml per chamber
Dual-chamber cartridges
0.1 ml – 1.4 ml (chamber 1)
0.1 ml – 1.3 ml (chamber 2)

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