

## Innovative dual chamber syringe for pharma market

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**Singapore:** Japan-based Arte and German company ProJect Pharmaceuticals are working closely on the development of a new type of dual chamber prefillable syringe for freeze-dried pharmaceuticals. The two companies have joined hands with the objective to provide innovative dual chamber syringes for the global pharmaceutical market. This type of device, called Lyo-DCPS, will be delivered in standard nests and tubs to comply with the industrial standard for aseptic filling of nested syringes. The abbreviation Lyo-DCPS stands for lyophilized dual chamber prefillable syringe.

The development has reached pilot scale and lyophilization of first customer products in the new device has been performed successfully. Sterile nested Lyo-DCPS for GMP manufacturing of drug product will be available early 2013.

While Arte is contributing its manufacturing expertise on high quality pharmaceutical packaging systems specifically in the field of prefillable syringes, ProJect Pharmaceuticals is adding its know-how in developing filling and freeze drying processes and will adapt the Lyo-DCPS design to enable GMP-conformity and efficient manufacturing processes.

Lyo-DCPS can be filled on widely used nested syringe fillers. The diluent is filled first and can be autoclaved as required by international guidelines. The drug solution is filled into the second chamber and completely sealed on the filling line before entering the freeze drier. Due to its special design, the system opens by itself within the freeze drier enabling lyophilization of the drug solution in presence of the diluent.