

3M Introduces New Dry Powder Inhalers

Innovative designs simplify operations, ensure efficient delivery

3M Drug Delivery Systems introduces the 3M™ Taper Dry Powder Inhaler and the 3M Conix™ Dry Powder Inhaler, new technologies that expand its inhalation platform. The 3M Taper DPI will be introduced with a workshop at the Respiratory Drug Delivery Conference in Lisbon, Portugal on Wednesday, May 20, where presenters will explain its unique design, which stores active pharmaceutical ingredients (API) on a microstructured carrier tape, enabling it to provide up to 120 pre-metered doses.

The Taper DPI uses 3M microreplication and extrusion technology to create a “dimpled” tape upon which one or more APIs are coated. This unique dimple design allows the use of API only, virtually eliminating the need for lactose or complex powder formulations. The device works via a simple mechanical process: upon opening the mouthpiece, a dose is ready for use. The air flow of the patient’s inhalation releases an impactor that strikes the tape and releases API into the airstream. API particles are further deagglomerated as they pass through the device, helping to ensure effective delivery.

A number of features help make the device patient-friendly and accurate: A ready indicator provides a visual cue to patients that the device is ready to use. An audible click sounds when the dose has been delivered, and a dose counter displays the number of doses remaining. Its breath actuated delivery helps ensure effectiveness, and the device works in an easy three-step process—patients simply open the inhaler, inhale and close. With an API dose range of up to 1 milligram and protection against moisture ingress, the Taper DPI brings important new functionalities to DPI systems.

In addition to the Taper DPI, the Conix DPI further expands the 3M inhalation portfolio. The Conix DPI uses an innovative reverse-flow cyclone design to offer effective drug delivery and simple operation. The inhaler’s design allows formulation flexibility and protection from moisture ingress, and is engineered to increase the effectiveness of energy transfer from the patient’s inhalation to the drug formulation. Available in single unit disposable and reloadable dose designs as well as multi-unit dose designs, the Conix DPI is suitable for a variety of applications, including mass immunizations and vaccinations, and treatment of asthma, COPD and hay fever.

“Companies turn to 3M for its quality portfolio of drug delivery options – especially when it comes to inhalation systems,” said Jim Vaughan, division vice president, 3M Drug Delivery Systems. “We are the leader in MDI delivery systems and now we’re advancing full-steam into DPI drug delivery with several significant offerings.”

For more information, please contact 3M Drug Delivery Systems at www.3M.com/dds or call 1-800-643-8086.

About 3M Drug Delivery Systems

3M Drug Delivery Systems partners with pharmaceutical and biotech companies to develop pharmaceuticals using 3M’s inhalation or transdermal drug delivery technology. 3M offers a full range of feasibility, development and manufacturing capabilities combined with regulatory guidance to help bring products to market. In-house resources, including toxicology, regulatory expertise, quality assurance, operations, and marketed product support, are available for each step of the development and commercialization process. This depth of resources is one reason why more than 50 percent of all metered-dose inhalers worldwide and 80 percent of all transdermal systems in the United States utilize 3M drug delivery technology. For more information, please visit www.3M.com/dds or call 1-800-643-8086.

About 3M Health Care

3M Health Care, one of 3M's six major business segments, provides world-class innovative products and services to help health care professionals improve the practice, delivery and outcome of patient care in medical, oral care, drug delivery and health information markets.

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