

Purdue Research Park  
3000 Kent Avenue, Suite C1-100  
West Lafayette, IN 47906-1075

Main: USA +1 765.464.8414  
Fax: USA +1 765.464.8408

[info@parsolexinc.com](mailto:info@parsolexinc.com)

## **Parsolex and Bosch Packaging Technology Announce a Strategic Partnership for Solid Dosage Manufacturing Technologies**

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West Lafayette, IN (November 5, 2019) – Parsolex and Bosch Packaging Technology (“Bosch”) are pleased to announce a strategic partnership, granting Parsolex access to the latest Bosch pharmaceutical technologies and Bosch access to a manufacturing site in the U.S. to showcase its technological capabilities.

Parsolex is a leading contract development and manufacturing organization (“CDMO”) focused on providing solutions to clients that involve the production of non-sterile pharmaceutical products, such as supporting innovation, solving formulation problems, tackling manufacturing challenges, improving operational efficiency, and addressing production capacity requirements.

“Parsolex is excited to partner with Bosch Packaging Technology to offer our clients access to the latest solid dosage technology innovations in granulation, coating, tablet compression and capsule weight sorting,” said Alfonso Chang, CEO of Parsolex. “Access to Bosch and its technology enhances our capability to work on even more complicated and diverse issues that are challenging our clients’ business today.”

Parsolex has added Bosch’s state-of-the-art granulation, fluid bed coating and drying, tablet compression, tablet drum coating and capsule weight checking technologies to its recently expanded CGMP commercial manufacturing facility in West Lafayette, Indiana, USA. Parsolex will now have an unparalleled diversity of solid dosage manufacturing technologies with these precision machines. Parsolex selected the new Bosch equipment to complement its existing capabilities, and the company expects the expanded infrastructure to work well in a range of clinical supply manufacturing programs. With this investment, Parsolex continues its commitment to scientific and operational excellence, helping it solve more complicated formulation and drug product manufacturing challenges that its clients face.

*Thomas Mauritzen, President of the Bosch Packaging Technology Pharma Division in North America stated: “Bosch’s strategic partnership with Parsolex offers a showcase of our state-of-the-art oral solid dose manufacturing equipment, which combined with their wealth of expertise, will immediately position Parsolex as a top contract manufacturer for the pharmaceutical industry. With the range of*

*equipment and processes they have in-house, Parsolex can offer their clients the highest level of service and support from development into production. "*

Parsolex believes that adding these exciting new capabilities is a critical element in its strategy to facilitate CGMP production for Clinical Trial Materials ("CTM") and commercial drug products for its clients, as well as a means to inform scale-up conducted during technology transfer to larger scale production equipment. The new Bosch capabilities installed at Parsolex's West Lafayette site includes:

- New granulation and precision coating capabilities with Bosch's Pilotmix and Pilotlab platforms that provide high-shear granulation capabilities and spray granulation, coating of fine particles, pellets and microtablets, and drying, respectively. Additionally, this CGMP granulation suite is equipped with pneumatic material transfer capabilities for closed transfers of product to increase production efficiency and state-of-the-art comminuting platforms to offer solutions for achieving the desired particle size distributions by milling and sieving of dry and wet powders.
- The highly efficient Bosch TPR 200 tablet press, which more than doubles Parsolex's tablet compression production rate and allows for greater flexibility, improved yields, and faster changeover times.
- The Bosch Solidlab 2 drum coater, which provides easy scale-up of production parameters for cosmetic and functional film coating of compressed tablet cores, including controlled release applications.
- The Bosch KKE 1700 capsule checkweigher that gives precise gravimetric weighing for 100% capsule weighing and high production uptimes to further enhance Parsolex's current capsule filling capacity, which has produced well over 2.5 million commercial capsule doses.

Parsolex will leverage Bosch's modular data acquisition systems for these new unit operations, which will inform the design and development of robust process parameters and further enhance Parsolex's statistical process control. Parsolex also views Bosch's experience and emphasis on GAMP 5 guidelines during software design as an essential component of the company's ability to comply with 21 CFR Part 11 requirements.

As part of this strategic partnership, Parsolex and Bosch will evaluate research to conduct and publish to demonstrate Parsolex capabilities with Bosch technologies and will evaluate hosting joint events to discuss capabilities, technologies, and other topics pertinent to the pharmaceutical industry.

To learn more about Parsolex and its capabilities, please visit [www.parsolexinc.com](http://www.parsolexinc.com).

Contact:

David A. Engers, PhD

Parsolex

Director, Client Services

(765) 464-8414

## About Parsolex

Parsolex is derived from the words “Partner, Solutions, Excellence” – the foundation of everything we do. Since 2004, our experienced team has been committed to innovation in product and process design, development, CGMP manufacturing, and testing of solid oral dosage forms. We strive to achieve the success of all our clients to improve patient lives around the world. Parsolex operates a CGMP facility equipped with state-of-the-art manufacturing and analytical technologies located in West Lafayette, Indiana, USA, that is registered with the US Food & Drug Administration. Parsolex’s technical capabilities include formulation and process development, including first-in-human strategies; clinical trial material (“CTM”) manufacturing, scale-up, and technology transfer for a broad range of oral solid dosage forms, including but not limited to tablets, film-coated tablets, and hard gelatin capsules filled with powder, granule, and coated-beads; analytical method development and validation services; ICH stability storage; CGMP warehousing; and CGMP commercial manufacturing. For more information about Parsolex’s capabilities and strategic advisory services, please contact +1 (765) 464-8414. Learn more at [www.parsolexinc.com](http://www.parsolexinc.com).

## About Bosch Packaging Technology

Based in Waiblingen near Stuttgart, Germany, and employing 6,300 associates, the Bosch Packaging Technology division is one of the leading suppliers of process and packaging technology. At over 30 locations in more than 15 countries worldwide, a highly-qualified workforce develops and produces complete solutions for the pharmaceuticals, food, and confectionery industries. These solutions are complemented by a comprehensive after-sales service portfolio. A global service and sales network provides customers with local points of contact. More information is available online at [www.boschpackaging.com](http://www.boschpackaging.com)

The Bosch Group is a leading global supplier of technology and services. It employs roughly 410,000 associates worldwide (as of December 31, 2018). The company generated sales of 78.5 billion euros in 2018. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT company, Bosch offers innovative solutions for smart homes, smart cities, connected mobility, and connected manufacturing. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group’s strategic objective is to deliver innovations for a connected life. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is “Invented for life.” The Bosch Group comprises Robert Bosch GmbH and its roughly 460 subsidiary and regional companies in over 60 countries. Including sales and service partners, Bosch’s global manufacturing, engineering, and sales network covers nearly every country in the world. The basis for the company’s future growth is its innovative strength. At nearly 130 locations across the globe, Bosch employs some 68,700 associates in research and development.

Additional information is available online at [www.bosch.com](http://www.bosch.com), [www.iot.bosch.com](http://www.iot.bosch.com), [www.bosch-press.com](http://www.bosch-press.com), [www.twitter.com/BoschPresse](https://www.twitter.com/BoschPresse).