a **breath** of expertise

Nemera

we put patients first

DELIVERING SOLUTIONS **FOR PATIENTS**

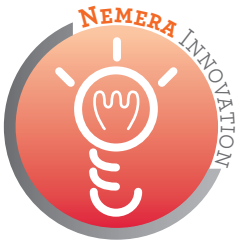
Asthma and COPD affect more than 600M patients globally and over **10M asthmatics rely everyday on devices manufactured by Nemera**.

Drugs delivered via the pulmonary route can be rapidly absorbed. This makes the lung an important organ for delivering not only drugs for **treating local lung diseases but also for systemic treatments** of diseases such as diabetes and pain.

Nemera has a long-standing expertise in designing, developing and industrialising pulmonary devices.

Key players in the pharmaceutical industry have trusted Nemera to **develop and industrialize pulmonary devices** for strategic products. . We guarantee **cost-effectiveness and on-time delivery** through our project management while offering total project visibility. Nemera's powerful Innovation and Development capabilities and **first-class quality system** are key assets on the road to success. Nemera offers **global injection capabilities, automation/assembly performance, in-line quality control, GMP and FDA compliant process validation**.

Nemera's **proprietary pressurized-metered dose inhaler (pMDI) valve platform Inhalia®** adds a high performing technology to the pulmonary product range.



Standard pulmonary delivery device portfolio

- INHALIA® pMDI platform

Customized solutions based on existing technologies

High volume industrialization of your pulmonary delivery devices

Quality for patients

Accurate dosing and ergonomics contribute to patient adherence to treatment. That is why, at Nemera, we put patients first when designing, developing and manufacturing drug delivery devices.

Thanks to our compliance demanding specifications our devices are well-suited to deliver precise doses of inhaled drugs.

Our dedicated facilities, are at the core of our manufacturing and validation culture, according to GMP standard. We are committed to providing excellence in the quality of our products and services:

- Full traceability, 100% in-line controls
- ISO 9001, ISO 13485 and ISO 15378 certification
- Production according to GMP
- Manufacturing in ISO CLASS 8 clean rooms
- DMF available

Inhalia®

The high performing metering valve platform that patients can count on

Nemera has developed a new reference in pMDI valves that is consistent and reliable for patients. With an optimised engine design and elastomer material, Inhalia® addresses the stringent regulatory requirements for pulmonary drug delivery.

Inhalia® platform: select your best combination					
Standard doses*	Gasket material	Core component material	Canister ring fitment FEA 20	Ring material	Ferrule material
30 µl, 40 µl, 50 µl, 63 µl	Chlorobutyl**	Acetal (POM) or Polyester (PBT)	Cut edge	Polyamide (PA) or Polyethylene (PE)	Anodised or Varnished

* Contact us for doses up to 100 µl ** Other materials upon request

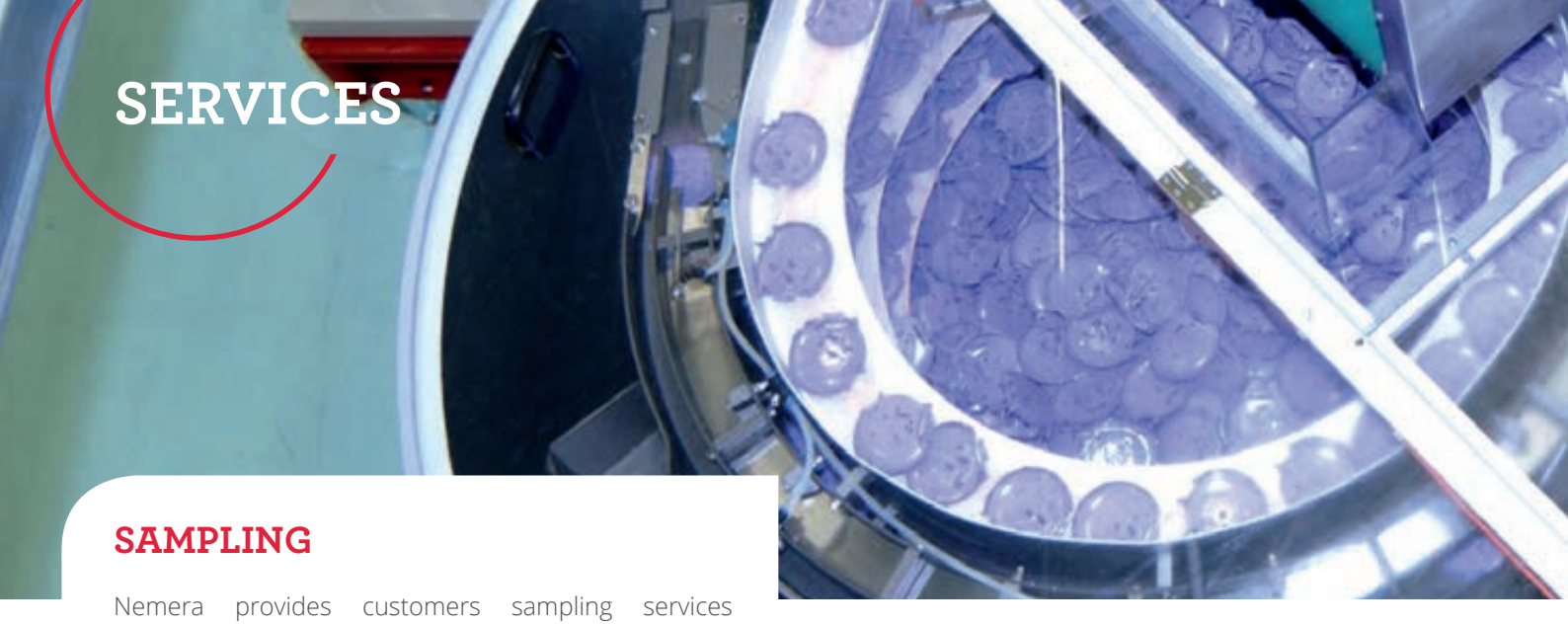
Key reasons to choose Inhalia® for your pMDI solution:

- **Consistent shot weight and sharp tail off**, validated with formulations with up to 15% ethanol content
- **Prime retention** guarantees **dose consistency** through extended periods of non-usage and through life of the device
- **Unique engine design** and gasket material choice provide excellent tightness with **low moisture ingress and leakage**
- Regulatory compliant resins and elastomers have **very low extractable profiles**
- Robust design ensures low sensitivity to variations in crimping
- Design is **compatible with existing industrial lines**
- Inhalia is **cost competitive**
- The platform is **available for nasal applications**

All Inhalia® platform configurations have gone through comprehensive testing and validation in line with international regulatory requirements.

A comprehensive datapack of tests performed is available. Please contact us !

SERVICES



SAMPLING

Nemera provides customers sampling services according to their project needs.

We can suggest and provide delivery systems from initial testing purposes to stability studies or clinical trials.

LABORATORY

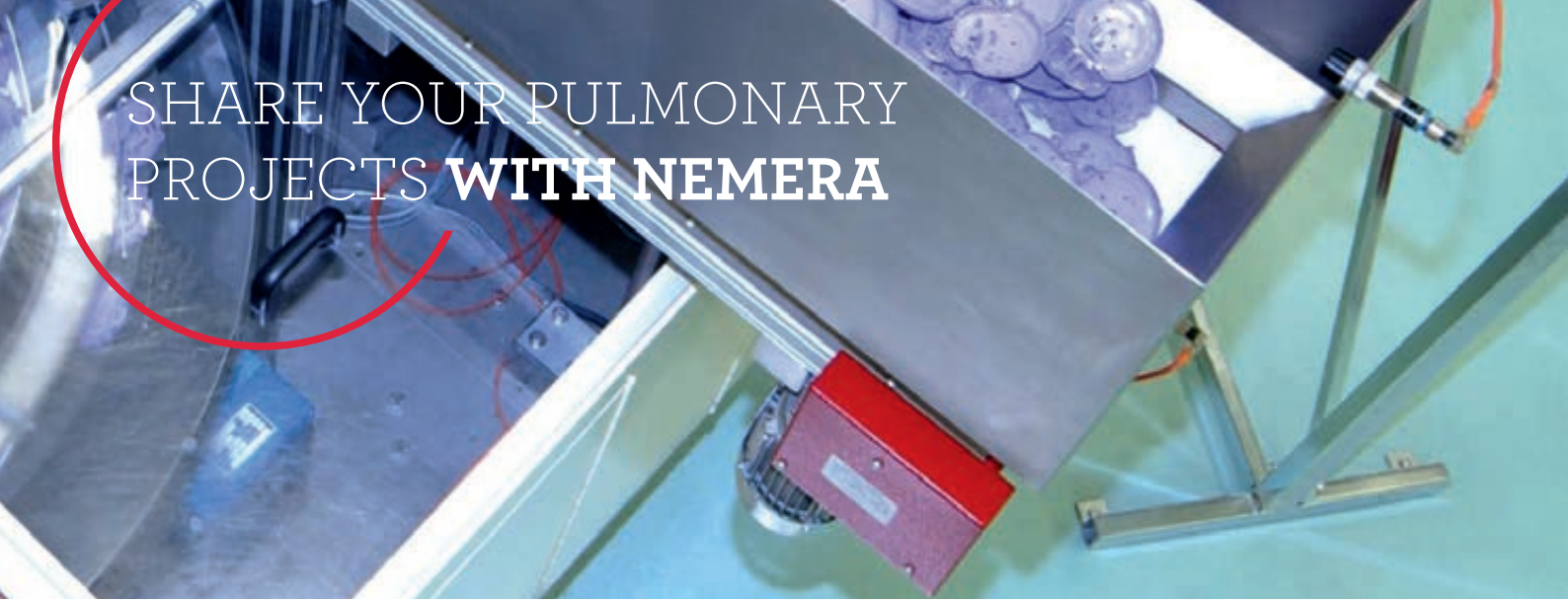
Our highly qualified team has extended knowledge of pharmaceutical methods and requirements to support your projects.

Our laboratory can perform a wide range of tests related to device performance:

- Shot weight testing
- Priming
- Actuation and refill force
- Leakage
- Tomography services
- Functional studies

FILLING AND PROCESSING

Please contact us for processing and filling advice.



SHARE YOUR PULMONARY PROJECTS **WITH NEMERA**

We will help you turn your concept into a fully compliant inhaler. From concept development to industrialization, we guarantee the validation of your pulmonary device at every step.

Industrialized and manufactured by us, this customer specific DPI is a 200-dose disposable unit with dose counter, built from 14 components.

Customer specific reservoir type injection molded DPI with 200 doses, built from 8 components.

Our customers rely on us for speed to market, high volume industrialization and fast track development of devices that meet their needs. We have a recognized expertise in:

- Dry Powder Inhalers (DPI)
- Pressurized Metered Dose Inhalers (pMDI)
- Dose counters

The Innovation team

follows a standardized product innovation process to support your own innovative concept development or customize for you

our concepts available in-house (dose counters for pMDI, new generation valves, breath-activated pressurized BAI or DPIs, pre-metered type or reservoir type).

- Risk analysis and mitigation
- Design for manufacturing and verification
- Detailed design with professional tools
- Design verification/prototyping
- Pilot process qualification

The Industrialization team

implements high performance capabilities for injection molding processes, automation/assembly performance and in-line quality control.

- Efficient injection/assembly manufacturing concepts
- Strong performance in sophisticated high speed assembly
- Supplier management with mold makers and automation manufacturers
- Risk analysis and mitigation
- GMP and FDA compliant process validation

Nemera is a world leader in the design, development and manufacturing of drug delivery solutions.

NEMERA INNOVATION · CO-DEVELOPMENT · CONTRACT MANUFACTURING

50+ OVER 50 ENGINEERS IN DEVELOPMENT

30000+ OVER 30,000 SQM OF CLEAN ROOM MANUFACTURING

47 SALES IN 47 COUNTRIES

750 OVER 750 MILLION DEVICES PRODUCED YEARLY

1300+ OVER 1,300 EMPLOYEES

4 PLANTS IN EUROPE & THE USA

- Neuenburg, Germany
- La Verpillière, France
- Le Tréport, France
- Buffalo Grove, IL, USA

OUR PORTFOLIO

we put patients first

Nemera

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