Parenteral

COMPLEX DEVICES, SIMPLE PATIENT CARE
SELF-ADMINISTRATION

The growing prevalence of chronic diseases, coupled with the evolution of patient’s lifestyles, is driving new ways of administrating parenteral drugs.

• Home-care therapy setting is clearly emerging as one of the major trend in the industry, reinforced by the switch from intravenous to subcutaneous injections.
• Self-administration at home therefore translates into a need for safer, easy-to-use, and ergonomic devices.
• Parenteral drug delivery devices are adapted in multiple ways to leverage the user’s injection experience hence foster patient adherence.

PLATFORM APPROACH

Our platforms are designed strategically for a maximum possible range of potential therapeutic areas and patient populations.

• To meet both pharmaceutical company’s and patients’ needs, our platforms can be tailored and customized for your specific combination-product.
Our parenteral products

**COMMERCIALY AVAILABLE PRODUCT**

**Passive safety systems**
Our premium passive safety device platform, Safe’n’Sound®, helps in preventing needlestick injuries and leveraging patients’ injection experience.
- Safe’n’Sound® 1ml
- Safe’n’Sound® 2.25ml

**Pen Platforms**
Our comprehensive portfolio of own-IP and tailor-made pen injectors help customers to treat a wide range of pathologies.
- Reusable pens & disposable pens
- Tailor-made pens
- Autoinjectors

**IN DEVELOPMENT PLATFORMS**

**Wearables**
Our smart on-body injector platform, Symbioze, is tailored for multiple-use, high-volume administration to foster patient adherence. It consists of a reusable main unit and a prefilled, preloaded disposable module containing the drug, offering sustainability for users.

**Implanters**
We developed a portfolio of devices to deliver implants with integrated needlestick protection. We can also support your projects and explore design attributes for new developments.

Our services

**Integrated services from device selection to GMP manufacturing**

**Early-stage Innovation**

**Testing services for customer formulations**
Safe’n’Sound®

SAFE’N’SOUND® 1 AND 2.25ML
Robust and ergonomic design for the safety of healthcare professionals and naïve users.

Safe’n’Sound® 1ml and 2.25ml are highly customizable platforms of add-on passive safety devices for prefilled syringes. It helps in preventing needlestick injuries.

1ml Long Staked
- Single use device
- Easy to activate with passive one-handed activation
- Ergonomic design
- Robust against shocks and vibrations
- Suitable for low fill volumes and higher viscosity formulations
- For prefilled ISO standard glass syringes and compatible with PLAJEX™ polymer-based prefillable syringes
- Highly customizable platform
- Market proven and commercially available in 1 and 2.25ml sizes
- Compatible with manual and fully automated assembly lines

2.25ml Long Staked
Safe’n’Sound® customization capabilities

Safe’n’Sound® is a highly customizable platform in order to meet both users and pharma needs.
Our pen injectors platforms

Designed for various therapies and applications.

With 4 platforms, we offer pen injectors designed to meet key user needs, compatible with any drug in a cartridge container.

**PENDURA AD®**
- **REUSABLE**
- For low and high-volume drugs
- **Automatic, spring-driven** drug delivery
- **Side activation** button

**PENONE®**
- **DISPOSABLE**
- For any drug with a **fixed dosing**
- **Automatic, spring-driven** drug delivery
- **Side activation** button
- **Dose counter**

**PENHV®**
- **DISPOSABLE**
- For any drug with high volume dose and/or high viscosity
- **Automatic, spring-driven** drug delivery
- **Push-button** on **top** of pen

**PENVARIO®**
- **DISPOSABLE**
- For any drug with **variable dosing**
- **Standard** disposable pen
Reactive pens

Multiple use, same efficiency.

Our reusable pens ensure the application of proven technological solutions with reliability, intuitiveness as well as ease-of-use.

PENDURA AD
Ergonomic, market-proven reusable pen injectors
- Easy-to-read dose indicator and fully transparent cartridge holder
- Low-force spring-assisted dose delivery
- Ergonomic, easy-to-reach trigger button
- Visual confirmation of the dose delivery completion
- High robustness and modern design
Disposable pens

Tailor the injection.

Our portfolio of disposable pens includes variable and fixed dose devices for automatic and manual drug administration, combining modern design with high intuitiveness of use for multidose therapies. Nemera offers three disposable pen injector development platforms with wide customization and drug capability options, to serve fulfilling of various customer requirements:

**PENONE**
Dedicated to manufacturing of disposable, fixed-dose and fixed number of increments pen injectors.

**PENVARIO**
Dedicated to manufacturing of disposable, variable-dose pen injectors.

**PENHV**
Dedicated to manufacturing of disposable, spring-driven pen injectors for the high dose / high viscosity drugs.

---

**PENONE**

Intuitive, disposable, fixed dose pen injectors.

- Spring-assisted, low-force delivery
- Intuitive user interface including visual feedback
- Dose counter

- No risk of under-dosing
- No priming before the first use
- Compact design

if there is a drug in the pen before the injection

when another pen needs to be ensured to safely continue therapy

when the pen is empty and should be disposed
PENVARIO

Extensive range of possibilities for disposable variable dose pen injectors.

- Manual, variable dose disposable pen injector
- Features of standard disposable pen injectors, i.e.:
  - Manual, push button activated
  - Variable dose
  - Dial back
- Low- and high scale production possible
- Highly Customizable

PENHV

Spring-assisted does delivery for fixed or variable dose disposable pen injectors.

- Variable dose or fixed-dose
- Spring-assisted
- Push button on the top of pen
- Non-extendable dosing knob
- Dedicated for the administration of high volume/ high viscosity drugs

CHALLENGES

Need for low-force spring assisted disposable pen.

Rise of higher viscosity drugs and larger dose volume administration.

SOLUTION

Long-standing experience designing spring-assisted pens.
Pen injectors

An array of technological solutions available to shape the optimum pen device matching your needs.

Comprehensive, integrated capabilities to successfully drive the design and manufacturing of state-of-the-art pen injectors.
Tailor-made pens and autoinjectors

Leader in co-manufacturing for pens and autoinjectors.

With proven track record in managing parenteral customized solution and large-scale industrialization projects, we are leader in co-manufacturing for pens and autoinjectors for different application fields.

With the extensive 10 years of leading experience in co-development and design for manufacturing of pens and autoinjectors, we empower millions of patients with hormonal or immune disorders worldwide who rely every day on devices manufactured by Nemera.

Customer Expectations

- Development Risks Mitigation
- Early Stage Design
- Customization (colors, outer design...)
- Low & High Scale Manufacturing
- Short time to Market
- GMP Manufacturing
- Design Engineering & Prototyping
- Cost Efficiency
- Product Development
**Symbioze**

**Smart, high volume and sustainable on-body injector platform to foster patient’s adherence.**

Nemera’s smart patch-worn on-body injector platform, Symbioze, is an innovative, user-friendly and sustainable solution to self-inject a medication at home. Its unique positioning consists of delivering high volume drugs (20ml), especially biologics, in combination with a multiple-use approach, thanks to its reusable and disposable parts.

**REUSABLE**
Suitable for different drug platform

**READY TO USE**
‘clip, patch & go’ patch worn, prefilled and preloaded

**SMART**
Robust engine, connectivity & live feedback

**PHARMA FRIENDLY**
Standard filling and assembly

**FLEXIBLE**
Adjust to different volumes, flowrates & viscosities
KEY BENEFITS

Sustainable and cost-effective

Final assembly in regular, non-aseptic final assembly/packaging environment

Intuitive and easy to use for optimum treatment adherence

Ideal for complex, novel drugs administration whilst staying in line with pharma standards

- Ready-to-go mobile app as a companion to core technology.
- Enhanced treatment management with a wide range of connectivity features.
Implanters

Solutions for sustained released formulations.

Implants are fragile and insertion into the body requires caution. Nemera developed a portfolio of devices to deliver implants with integrated needlestick protection. As implants can vary a lot, we support your projects and explore design attributes that will increase the user experience such as improved holding and priming, improved motion for implant insertion, etc.

**SOLID IMPLANT DEPOT INJECTION DEVICE**

- Implants easily loaded under the skin without risk of breakage
- Visible implant before application
- Prevent device reuse thanks to its clip mechanism
- Robust and simple system
- Customizable implant (needle size, shape...)
- Safety depot syringe with compact plunger rod

**SAFETY RETRO INJECTOR FOR SOFT IMPLANTS**

- Implants easily loaded under the skin without risk of breakage
- Prevent device reuse thanks to its clip mechanism
- Little effort and pressure applied on implant
- Automatic implant positioning thanks to its specific plunger rod
- Better control of implant positioning
Our services

INTEGRATED SERVICES
from device selection to GMP manufacturing
We have developed end-to-end services and expertise in device development, device consulting, and contract manufacturing to complement our diverse portfolio of products to help you through every step of the journey.

EARLY-STAGE INNOVATION
Our front-end innovation, design research, human factors expertise enhances our capabilities in gaining a full understanding of the patient journey to ensure a successful drug/device combination product.

TESTING SERVICES FOR CUSTOMER FORMULATIONS
Thanks to our cutting-edge laboratory service, our comprehensive test range assures compliant and reliable parenteral drug/device combination products.

Learn more about our services at: nemera.net/our-services
As a world-leading drug delivery device solutions provider, our purpose of putting patients first enables us to design and manufacture devices that maximize treatment efficacy.

We are a holistic partner and help our customers succeed in the sprint to market of their combination products. From early device strategy to state-of-the-art manufacturing, we’re committed to the highest quality standards.

Agile and open-minded, we work with our customers as colleagues. Together, we go the extra mile to fulfill our mission.

nemera.net