



Production

Dopharma Production

We are producing our products to the same high standards like we are performing our research. We are delivering high quality and safe products. Having our own production facilities enables us to closely monitor the quality of our used ingredients and processes.

Dopharma's production lines are in full compliance with the GMP standards for the pharmaceutical industry. On top of that, we are constantly looking for ways to improve and streamline our production processes. This requires investments in time and money, but will pay off by increasing our quality and efficiency.

Production

As a habit we are starting every day with a short team meeting to align on the tasks that have to be done that day. This is creating optimal teamwork and efficiency and is resulting in a high output in volume and quality.

Filling

At the headquarters in Raamsdonksveer, Dopharma has nine production lines: two lines for the production of oral soluble powders, three lines for the production of feedmixes and topdressings, one production and labelling line for injectables and a line for the production of oral liquids. All lines have been renewed or even rebuilt to state of the art production lines. In Vair-sur-Loire, our second pharmaceutical production site, we have five production lines, two for syringe formulations, one for infusions, one for oral liquids and one for oral powders. All these lines have been renewed recently, according to the most recent requirements in quality and volume.

Drinkmixes

These are water soluble and water dispersible powders for oral administration through drinking water systems or milk replacers. The production process at these lines include mixing, sampling and filling.

Granulated premixes

Unique about this line in Raamsdonksveer is the preparation process; heating and cooling down are possible during this process. The line contains a vacuum transport system for the carrier compound and a cleaning in place system reducing time loss in the cleaning process.

Feedmixes

This is a more straight through process where usually high volumes are involved and homogeneous mixing and filling is important.

Oral liquids

At these lines we are preparing the pharmaceutical products and supplements in oral solution. There are several preparation tanks at both production sites. For optimal flexibility in batch size a fully automatic dosing system is used for solvents from the huge four 35,000 L tanks in Raamsdonksveer. Here we have the possibility to cool, heat and create vacuum during the process.

A fully automated Cleaning In Place (CIP) system is present, reducing time loss in the cleaning process. With the most advanced operating software we have the possibility to make all kinds of formulations. At both locations these lines were fully rebuild in 2019, increasing our capacity and flexibility.

Product type	Presentation		Batch size	Products (for example)
Drinkmixes	jars, combitins, buckets, bags	100 g - 25 kg	600 kg	Doxylin® WSP Phenoxyphen® WSP Suanovil®
Granulated premixes	bags	5 - 25 kg	800 kg	Fludoprex® premix
Feedmixes	bags	5 - 25 kg	1200 kg	Feedmix TS
Oral liquids	bottles, cans	250 ml - 5 L	1000 L - 6000 L	T.S.-Sol® 20/100 Prazil®
Injectables (NL)	glass bottles	20 - 100 ml	500 L - 2000 L	Dexa-ject® Dofatrim-ject® Flordofen® Melovem® Penstrep-ject®
Injectables (FR)	plastic bottles	500 ml	2000 L	Cofacalcium® Speciale 2411®
Pastes	syringes, tubes, jars			Cefovet® Teat sealants

Injectables - Raamsdonksveer

Our sterile production line has a very strict regime regarding hygiene, qualification of personnel, validation of machines and work spaces. We are preparing solutions (60%) and suspensions (40%). The finished products are sterilized in line and after production the line will be cleaned automatically (CIP). The whole line was newly built in 2015 and contains the latest technology for preparation, sterilizing, filling and packaging.

Injectables - Vair-sur-Loire

In this facility with a 2000 L preparation tank and 1000 L filling tank, injection solutions are prepared to be filled in 500 ml plastic bottles.

Pastes - CoopHAVET, Vair-sur-Loire

Pastes are prepared at our production site in France. There are two production lines available which were newly build (Osla mixer and Groninger filling line) in 2018 to produce large volumes of mastitis syringes and other paste formulations and packagings.

Herd specific vaccines - RIPAC-LABOR, Potsdam

These custom made vaccines are prepared from microorganisms from the farm, isolated from lesions from animals suffering disease. Dopharma is able to run a full diagnostic using the most modern techniques (Malditof and PCR) to determine the responsible pathogen(es) and produce afterwards an inactivated bacterial herd specific vaccine. This is done at RIPAC-LABOR in Germany and at RB-Vac in Poland, which are both part of the Dopharma Group.



Labelling

Most labels, inserts and cartons are designed at our own printing facility. The single layer labels and inserts are printed in house for the products originating from Raamsdonksveer. Products produced in Vair-sur-Loire are produced and labelled locally. To allow optimal flexibility in timing and capacity Dopharma is also producing unlabeled products on stock to respond quickly to our customer's demands.

Quality control

Our quality assurance process requires that we analyse the products in our laboratory during the different stages of the production process. Therefore we are using modern techniques according to the pharmacopeia guidelines to test the following:

- Raw materials: before production the incoming raw materials will be identified per container.
- Samples during production: this will assure the homogeneous quality throughout the complete batch.
- Finished products: to ensure that the products produced are meeting all requirements following the dossier.

To limit the lead time and therefore releasing products in a shorter time frame, Dopharma is using an UPLC. This is an HPLC (High Pressure Liquid Chromatograph) that works under very high pressure and results in analysing more samples per hour.

Due to our high standards and demands in quality we are receiving and performing many audits per year (up to 40), all coordinated by our QA team in Raamsdonksveer and Vair-sur-Loire.

At the Dopharma QA departments we perform laboratory analysis for stability studies, purity measurements, sterility tests of parenteral preparations and raw materials, bioburden testing and validation of analytical methods.



We are 100% dedicated to livestock and committed to make a significant contribution to the future of livestock farming. Our mission is to use our expertise and knowledge to support the continuous development of livestock farming. Our focus is to create innovative solutions and to manufacture high quality and effective products which are safe for animals, humans and their environment.



*Above: Dopharma headquarters at Raamsdonksveer, the Netherlands.
Middle: Ripac Labor at Potsdam, Germany.
Below: Dopharma France facilities at Vair-sur-Loire, France*