



MEDELPHARM

Innovative
technologies
**for powder
processing**



Our Values

- ↘ Passion
- ↘ Competence
- ↘ Innovation
- ↘ Sustainability

The **company**

Foundation

1985, turbulent times socially, economically, politically, musically, and electronically!

The year of Windows 1.0, NINTENDO, Mikhail Gorbachev starts the perestroïka, FDA launches first AIDS test, Michael Jackson's "We are the world"

1985, the year of the foundation of MEDELPHARM.

+ 30 years and many more to come.

NOW headquartered in Lyon, Medelpharm has broken away from the purely mechanical sector and has become an independent company, which puts Pharmaceutical Powder Processing in the centre of its operations.





Key Figures

2 generations of technology

21 countries on 3 continents

100 installed instruments

1 000 users

1 000 000 ideas

Mission

Formulation Expertise meets Equipment Excellence

Medelpharm is an international enterprise passionate about designing and manufacturing straightforward, fast and reliable equipment for Research & Development specialists.

Medelpharm stands for a symbiosis of intimate understanding of powder behavior with mechanical and electronic excellence.

Our knowledge of production processes led us to create pragmatic solutions easy to use, affordable and not reserved to an elite but open to all researchers.

R&D instruments Made by people for people

Markets

- ↘ Pharmaceutical
- ↘ Food & Confectionary
- ↘ Detergent & Chemical
- ↘ Cosmetics & Metal Powder

Activities

Powder, Powder everywhere ...

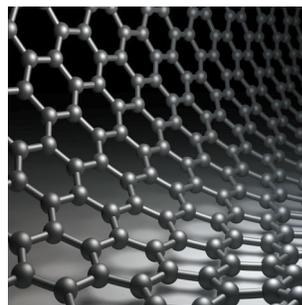
For the last 115 years tablets have been produced in all shapes, weights and sizes. As of today the proportion of drugs, produced in solid dosage form, still represents 80%.

Compressed powder can be found everywhere in our life: In batteries, airbags, dishwasher tablets, soup cubes, eye shadow, coffee bags, ball pens and not to forget pharmaceuticals.

Tableting is a process of self-packaging where a powder or granule mixture is prepared, a die mold is filled, and then the mixture is compressed and ejected.

Formulation quality comes from understanding the process and being able to apply this knowledge not only to compression but also to granulation, milling, coating, etc.

Medelpharm is continuously incorporating these processes into its portfolio and services.





To just name a few:

- ✎ University of Minnesota, USA
- ✎ University Düsseldorf
- ✎ University of Ghent, Belgium
- ✎ University Bordeaux
- ✎ University Parma
- ✎ Tech. University Braunschweig
- ✎ John Moores University Liverpool
- ✎ NUS Singapore
- ✎ Sungkyunkwan University, South-Korea
- ✎ Please see the comprehensive list on our website

University partnership

Creativity, innovation and proof of concepts: All these are attributes which can be best found when cooperating and communicating with universities and research centers.

Here collaboration leads to a continuous exchange and improvement of our machines for the benefit of our most valuable asset: Medelpharm's clients.

The students - also clients of tomorrow - therefore get the opportunity to use professional tableting instruments for their training, thus gaining experience on future working methods and machines.

Medelpharm has chosen to put universities' relation at the heart of its strategy with partnerships all over the world.

Solutions for Research & Development...

- ↘ Styl'One Classic
- ↘ Styl'One Evolution
- ↘ Rotary Press Simulation
- ↘ Roll Compaction Simulation
- ↘ Containment
- ↘ Analis Software

Medelpharm products

Scale up with confidence and speed

Medelpharm started its operation on production rotary presses, before coming out with its first patent of a research press that would fit on a production floor.

Working hand in hand with Universities these robust presses were fitted with the latest technologies in data acquisition and software, finding the balance between the flexibility and precision required by R&D, and the ease of use and stability required by production.

For more than 15 years we have been continuously developing further our tableting instruments in order to meet the demand of all users looking for an all-in-one solution to use in Research & Development and to produce Clinical batches.

Our best reward and pride is the long queue of scientists waiting to use our equipment in pharmaceutical labs, at universities or in the Medelpharm laboratory.

Key selling points

- ↘ Ease of use
- ↘ Versatility
- ↘ Small footprint
- ↘ Easy to clean
- ↘ Proven technology
- ↘ High speed



STYL'One Nano

Powder Compaction Science concentrated in a revolutionary new Benchtop R&D Press

Tableting has never been so easy and so powerful, from pure API characterization to formulation assessment.

Single-punch presses are ideal at formulation stage: easy to operate, easy to clean and for small amounts of API. STYL'One Nano offers all of this and more, including the unique and powerful drive technology, normally reserved for an Elite of premium compaction simulators.

Scientists can use the flexibility to drive the punches at high velocity to replicate the pre-and main compression of a small rotary tablet press in order to prevent tablet defects such as capping.

Premium data analysis software allows you to plot the recommended profiles as set forth in USP <1062>. Start building your own API & excipient database with STYL'One Nano now!



Single compression



Square compression



Saw Tooth



Pre and Main Compression

...and Production



STYL'One Evolution

No compromise from R&D to Production Scale-up

The STYL'One Evolution pushes further the limit of simulation with high speed rotary presses or full roll compaction simulation.

Only 1 single machine, that is all you need for small-scale development to recreate your whole process with dry granulation, tableting, tab-in-tab, external lubrication and a lot more.

And all these steps are directly scalable to your respective production presses.

Benefiting from in-depth knowledge of rotary tablet presses, the STYL'One Evolution allows your floor operators to troubleshoot by comparing different set-up on the rotary press they have targeted. It also allows to preset parameters on your rotary press with minimal amount of powder or to test the effect and impact of new tooling.

Key features

- 10.000's of tablets with weight regulation
- Up to 80KN compression
- B&D tooling
- Tab-in-Tab
- Paddle feeder



STYL'One Contained **Safety with unique performances but still user-friendly**

The clean enclosed design of the STYL'One can be enhanced and adapted to suit your requirements for safety.

Nitrogen solution for food are running at some customer sites allowing research and production of small batches in oxygen free environments.

Full size isolators or compact wash in place solutions have also been installed with various OEL exposure levels.

Once working with gloves and through windows, you will appreciate even more the ergonomics of our instruments and accessories.

Even if you just connect a vacuum to run under negative pressure inside the powder zone, its design will let you operate with minimum powder exposure and maximum cleaning safety.

- ↘ Analytical Software
- ↘ GMP module
- ↘ Multilayer
- ↘ Tab-in-Tab

Medelpharm products

ANALIS for R&D

The data acquisition and analysis package included in all our equipment allows you to exploit all the instrumentation provided with our presses.

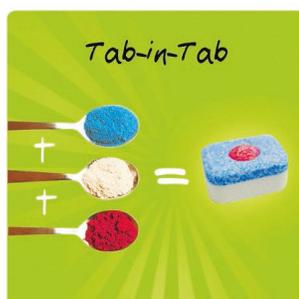
Force or displacement mode, elongated dwell time, specific compression profile and automated research mode let you browse your design space in the most efficient way.

Rotary press simulation or roll compactor simulation are at your disposal and of course all standard research profiles.

For fast results, use the predefined formats, create your own report and export to your favorite data package.

Accessories for R&D

- ↘ Gravity or forced feeder
- ↘ Tablet tester connection
- ↘ Instrumented die
- ↘ Heated die
- ↘ Hand-feed single mode





ANALIS for production

With multi-level operator control and GAMP 5 validable software, the GMP production module delivers clinical batches tight within specifications.

Our systems enable you with only a few grams of powder to create real prototypes of production batches long before your final scale-up process has been achieved and you can send a small batch to stability/packaging testing, etc.

There is no limitation in the choice of production press you would like to mimick and you do not require the big volume of product which is necessary to run a production press at high speed.

The weight regulation package or the link to an automatic checker gives you all the quality control you need. The log function is invaluable during audits and controls, associated to a multilevel matrix of user rights.

Accessories for GMP Production

- Aluminium or stainless steel
- Good and bad tablet sort
- Weight regulation
- External lubrication
- Shaped tooling



Expertise

- ↘ Tableting consulting
- ↘ Formulation support
- ↘ Production troubleshooting
- ↘ Training

Services

Your resource for Optimal Tableting

We welcome you in our laboratories in the heart of the University of Lyon and at our headquarters in BEYNOST (Lyon).

Our team of Junior and Senior scientists are available for you from the starting point of powder characterization. For screening of numerous formulations, they will help you to find the best candidates for production using innovative mimicking technologies to bypass limitations with your tableting.

We are available to answer any questions on the choice of future production tooling and to produce small test batches.

We are there to brainstorm together with you on practical solutions for your most exigent and ambitious development.





Innovative Solutions

- ↘ Powder characterization
- ↘ Formulation screening
- ↘ Prototyping of multilayer
- ↘ Internal vs external lubrication

Training to maximise your capabilities in R&D and production.

Our goal is to bring know-how at all levels:

To production operators as well as to formulation scientists.

Theoretical and hands-on training on your production floor allows us to tailor your training to your demands.

A pragmatic approach to transfer every development into a robust production.

Investment in training today, means time-saving tomorrow.

Medelpharm is a training centre recognized by the French authorities.

Registered # 82 01 01220 01.

Solutions from A to Z

- ↘ L.B. Bohle
- ↘ Medelpharm
- ↘ Caleva
- ↘ ProCepT
- ↘ Fitzpatrick
- ↘ Quadro

Distribution

Processing equipment from Lab scale ...

Our catalogue offers unique research analytical equipment for wet or melt high shear granulation and pelletisation.

Our in depth experience in Research made us select the best portfolio for your laboratory.

We also carry benchtop and R&D models from small scale milling, extrusion, coating and of course compression, dry coating and dry granulation.

Our STYL'One is an example of the all-in-one tool for small scale development.





... to Production floor

From the most advanced technology to cost-effective and space-saving solutions, all your requirements for equipment in dry powder processing find a solution here: Powder transportation, dry granulation, milling, sifting, tableting, continuous or pan coating.

We are also standing behind our equipment to help you through our own support technicians for a faster response or through our partners for after sales service.



Our **support**

- ↳ URS definition
- ↳ Installation and training
- ↳ Support
- ↳ Maintenance & calibration
- ↳ Consumables
- ↳ Wear and tear parts

We are all **mad***



***making a difference**



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