DLyte Desktop PRO®



Powered by DryLyte® TECHNOLOGY

All the features from a DLyte machine, now available in ultra-compact system

The new ***DLyte Desktop PRO*** is an ultra-compact system that gathers all the advantages of any DLyte system available now on the market. This new equipment allows any company (no matter about its size), to access the disruptive dry electropolishing technology and it is accessible to small laboratories, workshops, workrooms and SMEs needing a cost-effective solution for metal surface finishing processes.

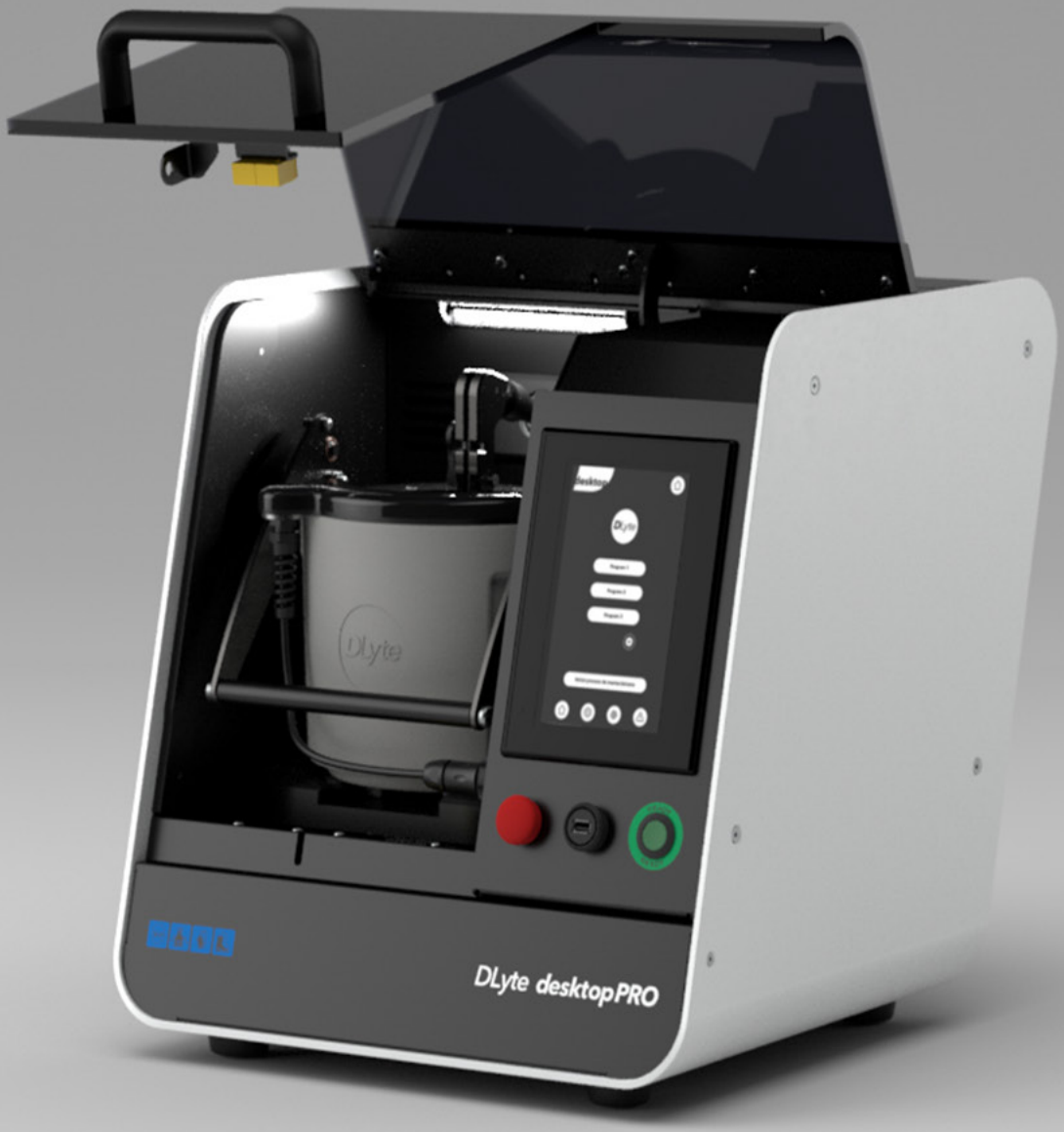
From grinding to mirror finishing, this new set-up offers a new handy way to process any casting, sintering or milling metal parts.

Fast & Accurate · Accessible · Clean & Safe

DLyte Desktop PRO®

the revolution in Metal Surface Finishing

A brand of
GPAINNOVA



The revolutionary DryLyte technology, available at your fingertips

How it works

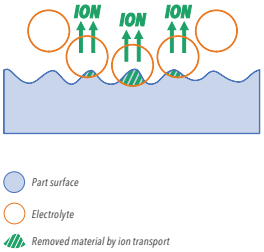


TECHNOLOGY INTRODUCTION

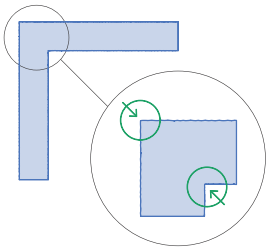
DryLyte® TECHNOLOGY

Powered by *DryLyte Technology, DLyte Desktop* PRO works by combining the electrical flow created by the **high precision** rectifier with the movement of the pieces through the electropolishing media. This results in an ion exchange, removing material only from the peaks of roughness. The process does not round edges and can access internal corners that are not easily accessed mechanically.

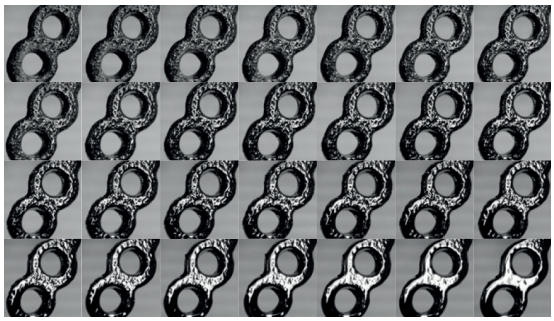
This product is protected by one or more of the following patents and patent applications:
Patents https://www.gpainnova.com/patents



The process removes material only from the peaks of the roughness.



The process does not round edges and can penetrate the internal cavities of the piece.



Macro sequence of a DryLyte Technology Polishing Process.

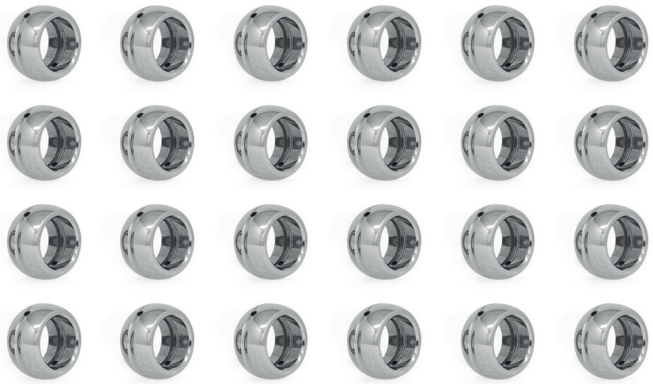
Fast & accurate

DLyte Desktop PRO combines the exceptional performance of DryLyte technology with the ease of a plug-and-play system, allowing a high-quality surface finishing as manual polishing process. The advanced dry electropolishing technology ensures minimal material removal, geometry preservation and a brilliant shine.



Consistency and durability

Our automated surface finishing ensures uniformity between batches and parts so that every part meet your specifications.



Reduce the number of steps in your polishing process

With DLyte Desktop PRO, metal framework are homogenously finished, **up to 10 times work faster than any other equipment***. DLyte increases productivity and allows any technician to focus in high-value activities while the equipment is finishing the parts.



*Source: Internal surveys among DLyte's customers (2020)

Accessible to all

With a wide range of materials, easy-to-use platform, and affordable, DLyte Desktop PRO offers high-quality surface finishing that every single company can access.

Plug and play

In a matter of minutes, users can begin surface finishing metal parts from the comfort of their desktop. Pre-set settings and opt-in advanced controls allow every technician to finish high-quality metal parts at the press of a button.

Except a standard household electrical plug, the DLyte Desktop PRO does not require special installation.



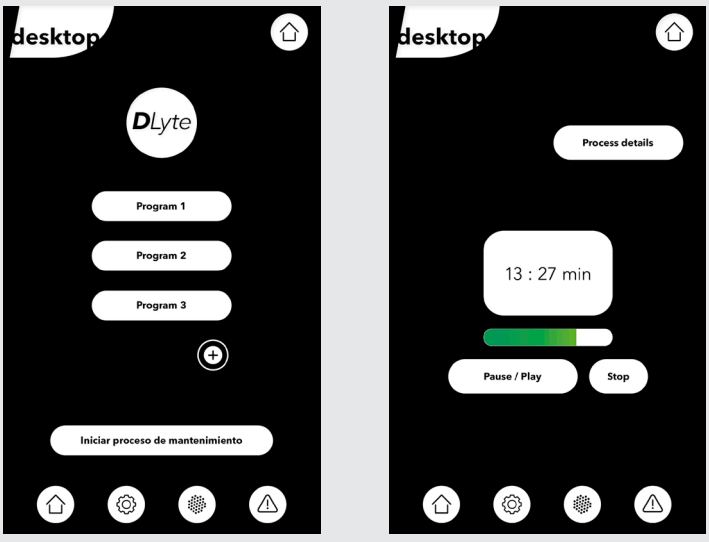
Quick coupling and releasing of the holder

The new and convenient holder fixation system with easy pressure and automatic locking system reduces the loading and unloading times.



Advanced and intuitive interface

Any professional will learn how to use DLyte Desktop PRO easily, without prior knowledge.



Ultra-compact & silent

The equipment boasts the latest technology and fits it all into a tiny box. It is extremely space-saving as it can be operated on top of a table of 465 mm x 465 mm. When space is a matter DLyte Desktop PRO makes the difference as it brings high output in a very small case. The new mechanical design ensures an exceptional smooth and silent operation.



Affordable



Allowing automation with excellent quality, DLyte Desktop PRO offers unrivaled utility at just a fraction of the cost per piece of any other surface finishing method. With DLyte Desktop PRO, technician can automate surface finishing with high quality, speed, and affordable.

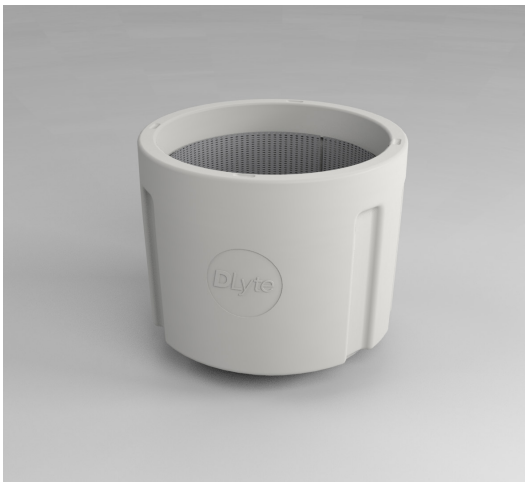
Ultra-compact, high-finishing result, accurate and affordable. The new Dlyte Desktop PRO offers a state-of-the-art solution for all kind of companies. Aditionally, maintenance and consumables provide an unbeaten cost per piece.

TECHNICAL SPECIFICATIONS

Machine dimensions	465 x 465 x 510 mm
Machine weight	20 kg
Power	1 kW
Voltage	110 V / 220-240 V

Clean & safe

The automation of surface finishing with DLyte Desktop PRO protects technician from the exposure to the chemical **agents related to hand polishing at work. The consumables used are safe and clean,** without hazards of chemical liquids waste or dust during the process.



Simple electrolyte handling and storage

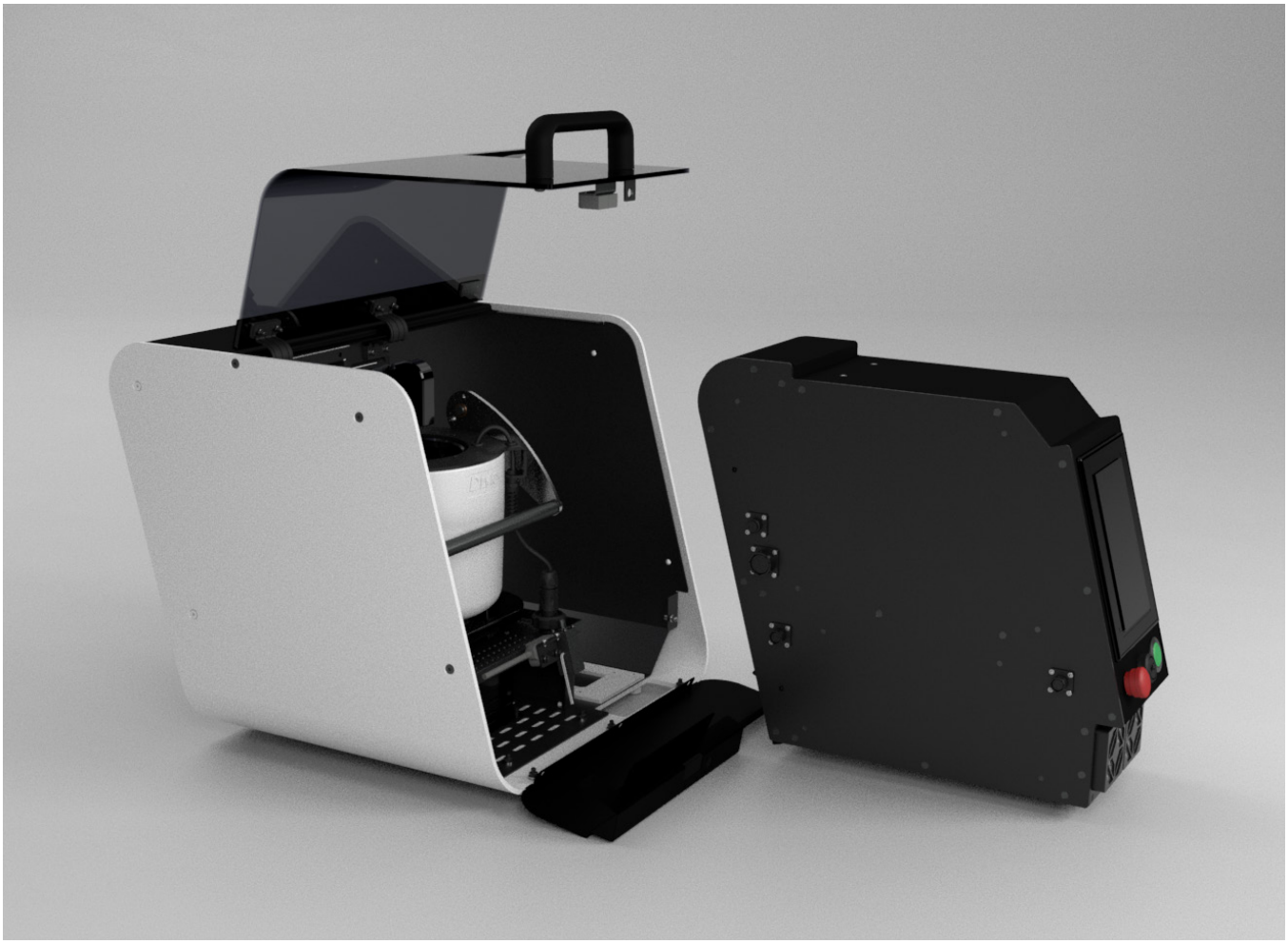
The use of a solid electrolyte guarantees an easy, quick and safe electrolyte media loading and unloading. The electrolyte exchange is performed in less than a minute.

The 3L electrolyte container can be exchange in less than a minute. This effortless step guarantees an optimization of each operating steps. When removed, the electrolyte is closed and stored in any ambient environment.

Easy maintenance

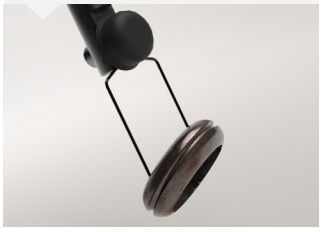
DLyte Desktop PRO has been designed with high-quality components and outstanding design reducing failures, guarantying a maintenance cost the lowest possible.

In case of failure, this new system can be fixed in less than an hour, thanks to a new removable electrical box.



How it works

Step 1
The parts are clamped onto the holder



Step 2
The holder is introduced into the machine

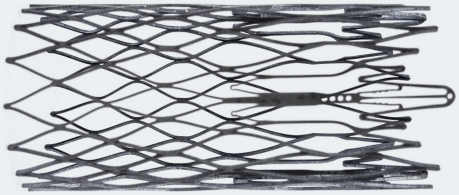


Step 3
The program is selected

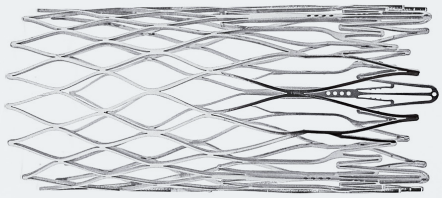


Step 4
Surface finishing treatment is performed





Before DLyte



After DLyte

Wide range of materials compatibility

DLyte Desktop PRO allows to treat a wide range of materials, thanks to its complete range of parameters, including a combination of a high/ low frequency process. The equipment includes a standard package to treat CoCr and stainless steel. Additional software packages to treat other materials are also available.

SOFTWARE PACKAGES

MODEL	DESCRIPTION
CoCr Group	Software to treat Cobalt Chrome materials.
Stainless Steel Group	Software to treat Stainless Steel materials.
Titanium Group	Software to treat Titanium Group materials.
Copper Group	Software to treat Copper Group materials.
Nickel Group	Software to treat Nickel Group materials.
Aluminium Group	Software to treat Aluminium Group materials.
Steel Group	Software to treat Steel Group materials.
Full software package (all materials)	Software to treat all Group materials.

REDUCE COSTS BY UP TO 80% | **MAKE YOUR PRODUCTION MORE FLEXIBLE** | **STANDARDIZE YOUR PRODUCT**

Holding and fixing

Dlyte Desktop PRO's standard package includes one holder finger, to hold one single piece.



Thanks to the additional holder Spring Desktop, you will be able to hold multiple small pieces, taking advantage of their through holes. Our customization service will find the solution that meets your needs.

Lower costs

The treatment does not require manual processing, reducing labor costs and eliminating the need to rework parts and the production of defective parts.

Time saving

DLyte is an automatic process which reduces the complexity of the current multi-step processes. The entire process is completed in one step.

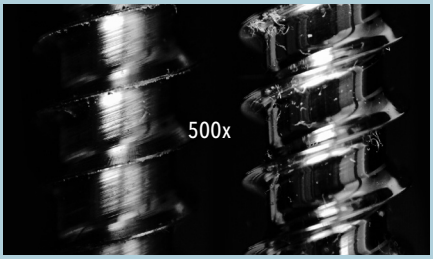
Controlled workflows

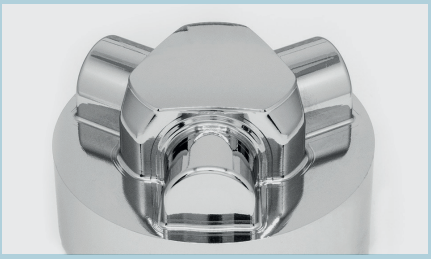
DLyte offers a unique solution to meet the needs of dental laboratories, goldsmiths, healthcare companies and small industries in general, with traceable and predictable results, according to polishing needs, production quantities, and/or piece dimensions.

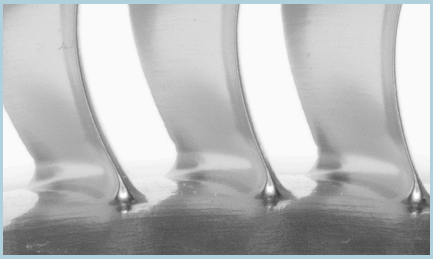


Benefits of the technology

DryLyte® TECHNOLOGY







1 Achieves **homogeneous** results across the surface and eliminates micro-scratches. The system works efficiently at micro and macroscopic level.

2 **Geometry preservation.** Respects the tolerances and preserves the initial shape, even the cutting edges. It is not rounding the edges as there is no abrasion of the surface.

3 **Best in class surface roughness** (Ra under 0,01 micrometers).



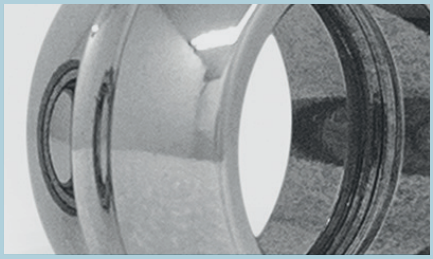


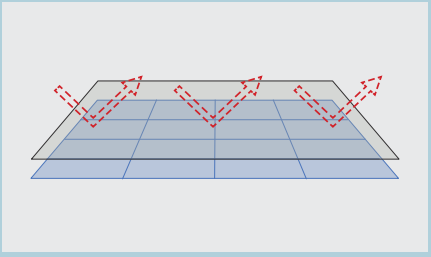


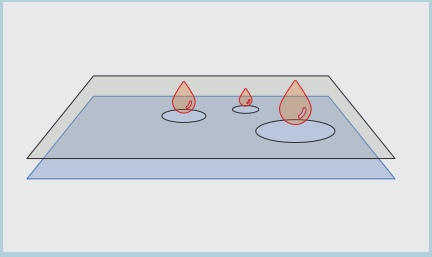
4 **Repeatability and homogeneity** guaranteed. DLyte process guarantees stable results among different batches within the electrolyte media lifespan. There is no wear as would typically occur with abrasive particles.

5 Up to **10x faster** than current processes, replaces multiple process steps and **competitive cost** per part.

6 **Biocompatibility** proven. **Clean, non-hazardous** and easy waste management. Alternative abrasive processes lead to extremely dusty and noisy environment.







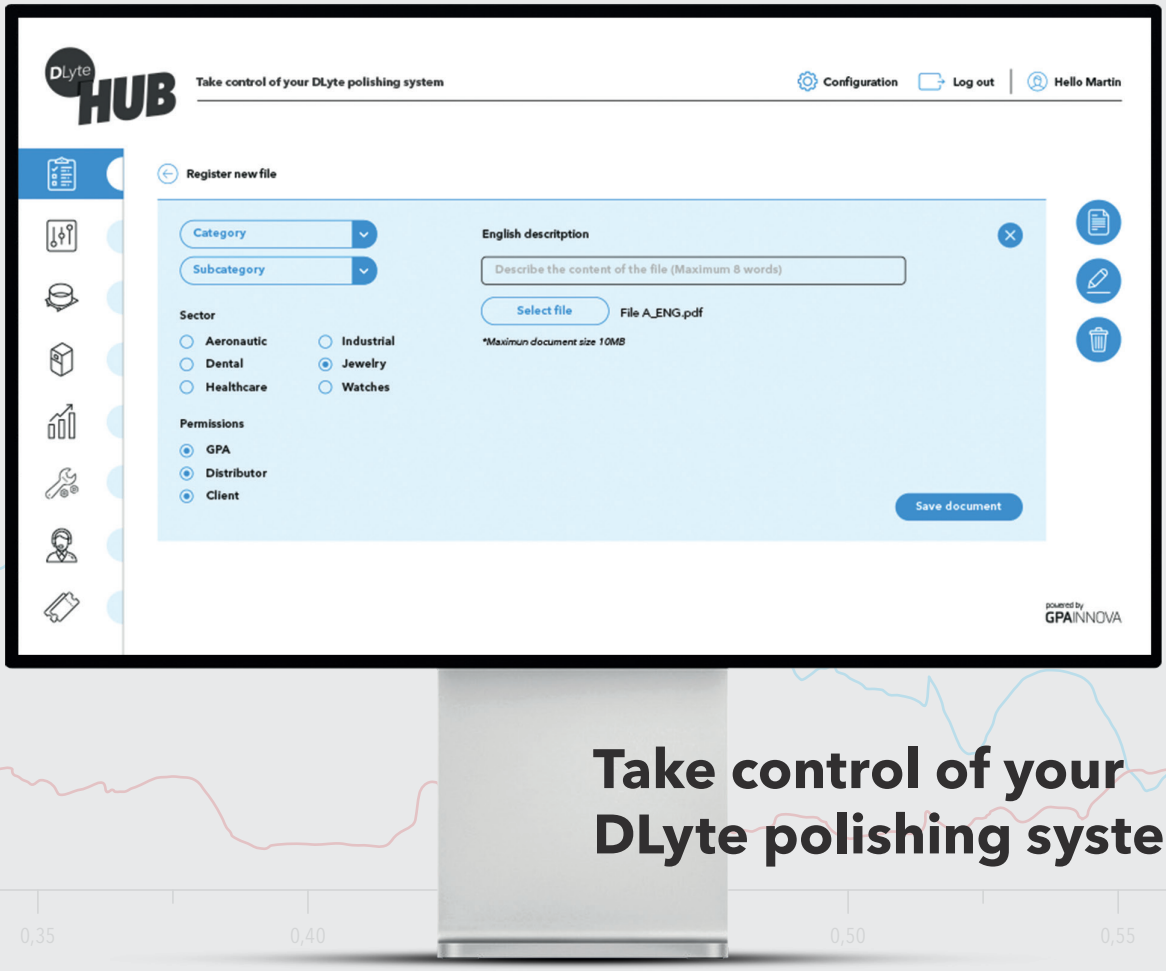
7 Enhances negative surface skewness (rsk) which increases the surface bearing contact area (allowing uniform lubricant film distribution) **improving the bearing ratio and reducing the friction** between the pieces.

8 Avoids generating grinding texture patterns, **improving wear and fracture resistance, and improving fatigue resistance.** Isotropic surfaces.

9 DLyte is the only system able to remove roughness and **improve the corrosion resistance** of the metal pieces at the same time reducing the number of processes required in the manufacturing process.

DLyte HUB

The new customer portal that unifies all the services you need for a high quality finishing



Take control of your DLyte polishing system

Process Consulting | Maintenance platform | Polishing management
Electrolyte Management | Knowledge Platform | Machine Monitoring