

OUR COMPETENCE

We Always Think One Step Ahead

For more than 50 years, Poligrat has specialized in the development, production and application of processes for the finishing of metal surfaces. With the courage to innovate and a high degree of reliability, we have grown from a development laboratory into the leading international systems provider that we are today.

Our passion is it to recognize our clients' progress as potential and to develop individual solutions to translate it into reality. Part of our success is being able to implement these solutions on a permanent basis and support our clients' needs.

Together with you, we will analyze the tasks at hand, outlining new routes to find the best solution. In our technical center, we can then define the technical implementation. We continually develop new applications and processes that optimize metal characteristics for your needs—creating added value for your company. As an independent, solid medium-sized company, we are proud of our long-standing and trusting relationships with our clients—both in Germany and around the world.



**ADDED VALUE
THROUGH SURFACE TECHNOLOGY**

Improving Metal

YOUR ADDED VALUE

Add New Potential to Your Company with Poligrat

Let us support you in the development and optimization of your products and accompany their implementation. Your added value is always the focus of our efforts—for example, by removing manufacturing problems, developing product innovations, and tapping into new market opportunities through:

- Improved performance
- Increased precision
- Extended life cycle
- Improved appearance
- Better process reliability
- Less maintenance
- Minimization of downtime
- Higher operating efficiency

With our expertise and innovative processes, we can discover new potential to create more value for your company. For this reason, we always collaborate with you in a partnership—developing answers today for your questions of tomorrow.

See for yourself!

We look forward to identifying the opportunities and potential for your company—just ask us!

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PROCESSES AND PRODUCTS

Added Value through Surface Technology

New Characteristics and Higher Quality

In addition to the construction method and selection of materials, the quality of surfaces is a crucial factor for the performance and integrity of a component. Durability and operational availability are notably influenced by the surface. The professional treatment of metallic surfaces, therefore, significantly affects the suitability, performance, and operating costs of the material. Take advantage of our long-standing experience in a wide range of application areas. Regardless of the hardness or strength we can

process your components, even within bore holes, hollow spaces, and openings—with reproducibility in the μ range. At Poligrat, you will receive one-stop surface refinement quality:

- Consulting and prototype processing in our technical center
- Processes, systems, and installations—full service included
- Application of Poligrat processes—also as service offers

Systems and Service from a Single Source

We deliver complete systems, including all pre- and post-treatment services: standard and customized systems for processing single and serial parts, wires and bands on reels, mass small parts as bulk material, and facilities for wastewater treatment. In addition, we can support your implementation of the necessary licensing procedures as well as plant maintenance and engineering.

As a system provider, we are able to supply all the necessary chemicals and equipment. We would also be glad to support your application in connection with our processes, at our plants or locally at your facility using our mobile equipment. With our precision mechanical engineering department, we can manufacture a wide range of components, including surface treatments—we are your one-stop source!



Cleaning

Cleaning, derusting, passivation

Removes fouling, scale residues, rust, ferritic contamination reliably. Improves the corrosion resistance.

Products: Cleaner

Pickling and Passivating

Brush, spray and immersion pickling

Ensures the corrosion resistance (metallically clean), increases product life and benefit and increases the aspect / quality.

Process: Polinox

Chemical Polishing and Deburring

Smooth, burr-free and particle-free, metallically clean

Deburs and smooths edges and surfaces of the entire workpiece, increases durability and fatigue resistance, reduces friction and wear, improves the adhesion of coatings.

Process: Aluchem, Carbochem, Cuprochem, Tichem, Zirchem



Electrochemical Polishing and Deburring

Smooth, burr-free, glossy, functional

Removes damaged material surfaces without mechanical, thermal and chemical impact. Benefits from the pure properties of the material.

Process: POLIGRAT E

Chemical Coloring and Anodising

Attractive colors for Stainless Steel and Titanium

Creates light-resistant, non-ageing, non-peeling and corrosion-resistant colored metal surfaces.

Process: Polispectral®, Titancolor

Coating

Glass-ceramic nano-coating

Protects invisibly and long-lasting against dirt, fingerprints, graffiti. Improves the cleaning behavior and corrosion resistance significantly. Reduces fouling.

Process: Poliant®, Poliseal®

Materials

- Aluminium / Injection Moulded Aluminium / Aluminium Alloys
- Bronze
- Chrome Steels
- Dental Alloys / Injection Moulded Alloys
- Stainless Steel (Austenite, Ferrite, Martensite, Duplex)
- Cobalt / Cobalt Alloys (Stellite, Vitallium, L605) / Carbon Steel

- Nickel / Nickel Iron / Nickel Alloys / Niobium / Nitinol
- Magnesium / Magnesium Alloys / Brass / Molybdenum / Mumetal
- Rhenium
- Tantalum / Titanium / Titanium Alloys
- Tungsten
- Zinc / Zirconium

Functional Surfaces

- Fouling / coating behavior / biocompatibility
- Fatigue resistance
- Emission behavior
- High frequency conductivity
- Corrosion resistance
- Solderability and weldability
- Metallic cleanness
- Passivity / product neutrality
- Reflective behavior / cleaning behavior
- Sterile properties
- Vacuum behavior / abrasion

Decorative Surfaces

- Color
- Smoothness
- Cleaning behavior / structure

Burr-free Surfaces

- Smooth edges / burr-free
- Particle-free
- Crack detection
- Sharpness / scale-free



PATENTS

The Courage to Test New Ideas and Innovations

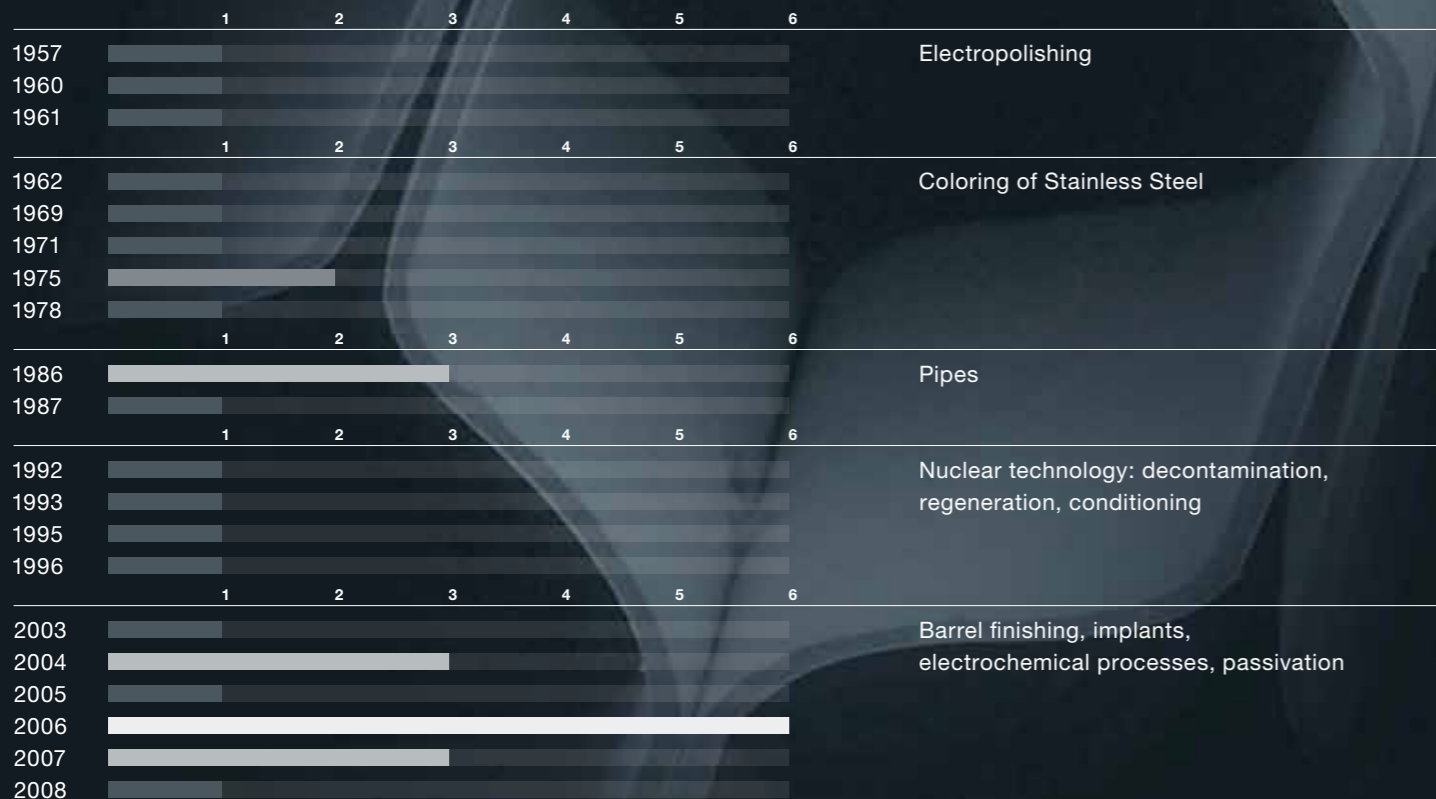
Leading Developer of Innovative Processes

New potential for innovations and marketing—this is the key to the added value we offer you. Our processes result from studying our clients' requirements from a fresh perspective, and identifying new paths through the development of innovative products. Our patents protect us and our clients from imitation and competition.

We take the time to really understand your needs and define the optimal application of a Poligrat process, customized for your specific products.

Our innovative power and our readiness to go down new and unconventional paths has turned us into an international market and technology leader. This offers you the security of long-term success—with Poligrat at your side as a strong and independent partner.

Patent Application:



INDUSTRIES









Successful in Thousands of Applications

Our Success is Your Success

Poligrat procedures have been implemented around the world in many industries in the field of contract processing and numerous different production plants. You will find detailed information in our brochures, which we have compiled for a range of different industries. Simply contact us—we would be glad to provide you with a selection.

Globally Active

In its core competence, the Poligrat Group is the international market and technology leader. We are represented internationally on all relevant markets. You will find an overview of the Poligrat locations, distribution partners, and license holders on our website at www.poligrat.de.

-  Chemicals / pharmaceuticals / food
-  Automotive
-  Medical technology
-  Mechanical and equipment engineering
-  Structural engineering and building equipment
-  Power supply
-  Mass and precision parts
-  Other industries

