

•••FINISHED PARTS MADE OUT OF PTFE AND OTHER HIGH PERFORMANCE PLASTICS: perfect solutions for the industry.

> Finished parts – customised to the needs of our clients

The production of finished parts begins with the selection of the correct material. Due to our in-house PTFE compounding and production of semi-finished parts we offer ideal solutions according to the requirements of our customers. Moulded PTFE parts with sophisticated geometry and high requirements of tolerance are exclusively manufactured by machining. Well-trained, specialised personnel, efficient development, fixed processes and state-of-the-art CNC manufacturing technology form the basis for high flexibility and constantly good, certified quality for the benefit of our customers. This basis, combined with wide-ranging experience in the field of PTFE processing and machining, allows us to offer a comprehensive range of finished parts.

# ···STAFF

What would an enterprise be without its employees? We employ dedicated people, young and old, who add their diligence and skills to the company and stick to their roots here in this region.

A good mixture of specialised staff and engineers ensures high quality of work in all divisions of the company, supported by technical training and additional qualifications. The annual apprenticeship allows young people to start their professional careers and contributes to the fact that the experienced colleagues impart their knowledge and their skills to the following generations.



PTFE NÜNCHRITZ is an apprenticing company for different technical professions.







# ··· DEVELOPMENT AND ENGINEERING

Long-term experience in PTFE-related material and process development forms the basis of our ideal solutions for your specific applications.

Furthermore, our engineering department assures firstclass technical requirements are met in the production of finished parts:

- 3D design
- CAM system
- Lifecycle assessment based on material and design

### We offer:

- On-site individual application consulting
- Manufacturing based on provided samples
- Realisation of individual and standard parts

# ···ORDER PROCESSING

We have an up-to-date, fully integrated ERP system for smooth preparation and processing of your requests and orders. Efficient process design, modern production planning and detailed traceability are just a few of many resulting positive aspects.

A comprehensive raw materials warehouse allows us to flexibly and quickly respond to your needs and ensure planning reliability for you at the same time. In addition, we can maintain customised warehousing on request to provide for shortest delivery times. This is realised either by a traditional ordering system or via an electronic data interface.



# **···**MANUFACTURING PROCESS

Processing of the semi-finished products into finished parts is mainly done by shape-cutting chipping technology such as turning, milling, drilling and sawing. For individual solutions and special adjustments, our experienced staff ensures highest quality standards by careful and precise manual labour.



Along with the actual product, the certificates required for the application become increasingly important.

We can provide the following documents – partly dependent on the material:



# TURNING

- CNC turning
- CNC turning-milling
- Conventional turning
- Drilling with driven tools

A comprehensive range of lathes ensures a wide range of moulds and dimensions for finished parts. PTFE billets and extrudate bars form the base material for triaxial machining.



MILLING

CNC milling
Drilling with driven tools

Finished parts with sophisticated geometry are manufactured at the milling centres with a state-of-the-art CAM interface and 5-axis machining.



# INDIVIDUAL ... BY PRECISE MANUAL OPERATION

- Signing
- Marking
- Tailoring
- Assembling etc.



We process exclusively semi-finished plastic products. Thus, we ensure compliance with high purity standards of the products. ISO 9001 (current version)

- ISO 14001 (current version)
- OHSAS 18001 (current version)

# PRODUCT-RELATED: • FDA (21 CFR 177.1550)

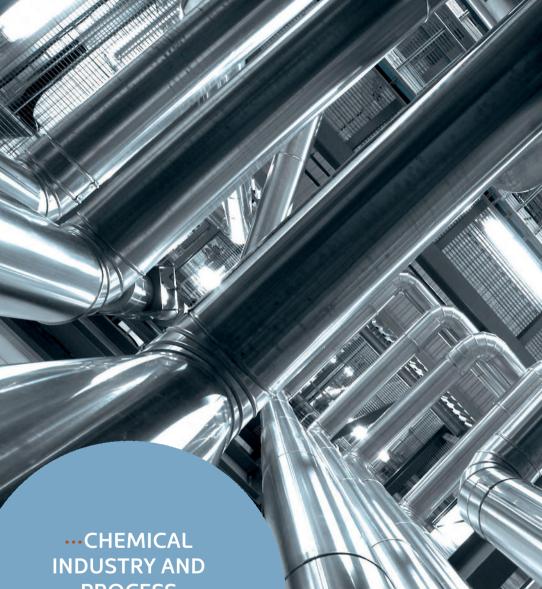
- (EU) 10/2011
- USP Class VI
- UL94 V0
- BAM
- W270 (resistance against microbes)
- 3A approval
- Certificate of compliance 2.1
- Test report 2.2
- Inspection certificate 3.1
- EC Safety data sheet
- Material data sheets

Please note the required documents in your request, if applicable.





PLASTIC PARTS AT YOUR OPTION we focus on tailored solutions.



# **···PRODUCT RANGE**

Some examples for applications in specific industrial sectors are listed below. We would be happy to provide assistance for your individual requirements.



## Sealing elements

- Casing seals, packing gaskets and seat rings for chemical ball valves
- Piston and guide rings as well as packing for process gas compressors
- Flat gaskets for flange sealing • Spring-energised seal rings for sealing of pivot joints





### Expansion joints/bellows

- Valve bellows for aseptic valves in the beverage industry
- Diaphragms for the sealing of ground outlet valves in pharmaceutical tanks



# PROCESS TECHNOLOGY



# Bearings

 Sleeves as spindle ball bearings in stainless steel ball valves

### Various machine elements

- Anchor agitators for stirrers in laboratory devices
- Spray nozzle for tank cleaning systems
- Scrapers for thin film vaporisers



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Some examples for applications in specific industrial sectors are listed below. We would be happy to provide assistance for your individual requirements.



### Seals

- Piston/rod seals, sets of chevron-type sleeves, wipers as well as slide rings and piston rings for hydraulic and pneumatic cylinders
- O-rings as cap seals
- Sealing lips of radial shaft seal rings for shaft sealing
- Piston coating for guidance and sealing of shock absorbers



### Bearing elements and sliding components

- Bearing sleeves in pneumatic actuators for fittings
- Slide plates for bogies of trams and light rail vehicles
- Sliding disks for air suspension in railway passenger cars
- Sliding films in viscous dampers for commercial vehicles



# 13



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Some examples for applications in specific industrial sectors are listed below. We would be happy to provide assistance for your individual requirements.

### Plant engineering

- insulation components in membrane cell elements of electrolytic plants
- bubble caps for distribution trays and structured packing as column internals
- expansion joints as compensators in pipelines

### Electrical engineering and semi-conductor technology

- process carriers for wafers in wet etching processes
- different insulation elements in components of highfrequency engineering
- fillings in microwave-aided level metering systems

### Aerospace engineering

- spring-loaded seal rings in airfoil heating systems of aircrafts
- seals in water and wastewater systems of aircrafts

### Medical engineering and analytical technology

- various construction parts for medical laser systems
- special nozzles in dust measuring devices
- insulating parts for EDX spectrometer

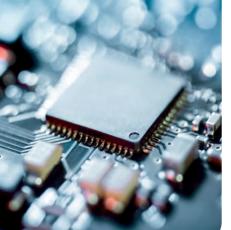
### Optics and precision engineering

- grating as adjusting aid for cleaning of optical lenses
- dust protection seals and slide bearings for stereoscopic microscopes







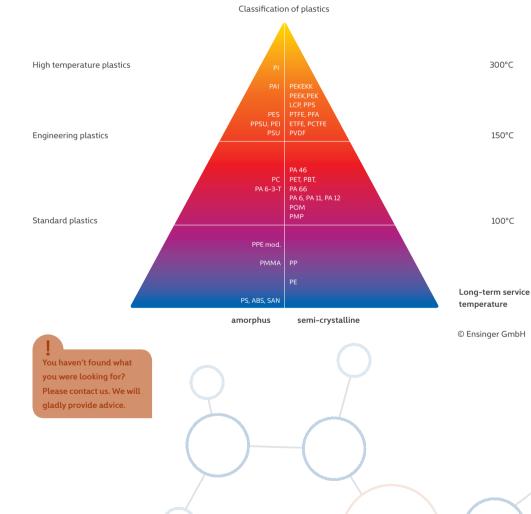




# **···**MATERIAL SELECTION

You should receive the most effective solution: some applications require the manufacturing of parts based on other standard-, structural- or high-performance plastics due to technical or business reasons. We also offer this option and, at the same time, we leverage our expertise in plastic machining – as well as our long-term material know-how.

Materials we supply:



# **•••THE COMPANY**

50 years experience in PTFE processing – ours is a record few can even approach! Our enormous production depth that starts with the compounding of the raw material through semi-finished products (hydraulic pressing and RAM extrusion) through to cutting on stateof-the-art CNC controlled turning and milling centres guarantees that you get totally reliable products from a single source. Series production or single items – we put our enormous capabilities to the test every single day. Own research and development in cooperation with raw materials producers and customers, leading universities and research institutes, plus the unrivalled experience our staff provide you with a base for getting optimum solutions to all your problems and toughest tasks that is unequalled anywhere. Whether you provide us with drawings, samples or application requirements – we will develop and manufacture it for you. Our materials testing laboratory and the regular stringent manufacturing tests we carry out in all production areas are your guarantee of an even and continuous high standard of quality. We have got what it takes for products of the highest standard, whether in our team of highly experienced and qualified staff on the one hand or our cutting edge machinery and the clear designer logic of our production processes on the other.

We are certified according to the current versions of ISO 9001, ISO 14001 and according to OHSAS 18001. You profit from our total flexibility and delivery reliability.

# PTFE NÜNCHRITZ

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