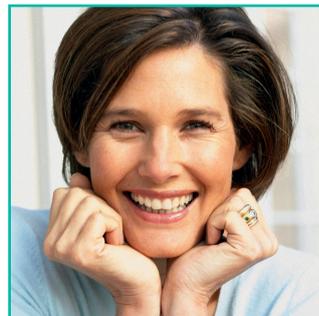
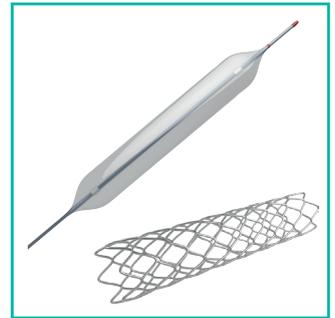


# High-tech surfaces in the service of health





*Our location in Rostock with 3 buildings*

### **A market player for nearly 25 years**

We are a worldwide leading manufacturer of surfaces for medical engineering and have been serving the market for nearly 25 years. During this period, DOT has established itself as a reliable partner for the manufacturers of implants and their supply chain. We have three modern buildings at the Rostock facility with a production area of 8,000 m<sup>2</sup>. We currently have over 300 employees, all dedicated to improving the quality of life of patients.

### **Quality without compromise**

The continuous provision of top class coating services demands fully integrated quality assurance and quality management systems. DOT is certified to ISO 13485 and operates in compliance with the FDA Guidelines of the 21CFR820. We have been a registered supplier with the FDA since 2011. Regular internal audits as well as extensive customer and FDA audits ensure that our quality systems are always at the highest level.

### **Teamwork is key**

Our employees play a crucial role for our success. Most have been employed at DOT for many years and are well versed in our complex manufacturing processes. We work as a team and can rely on each other, day in and day out. This basis of mutual trust allows us to respond swiftly and flexibly to customers' needs and even enables us to deliver on time for surgical procedures at short notice.



*DOT staff at VPS plant*

### Constant advanced qualifications

The requirement for constant improvement of our services in a rapidly changing medical, technological and regulatory environment goes hand in hand with increasing demands on employee qualifications. For many years we have successfully supported internal and external advanced training, including degree courses during employment. This allows us to promote personal potential which strengthens the innovation power of the company.

### Operating internationally

DOT maintains business relations with implant manufacturers in over 20 countries. Exports have grown continuously over the past years. Our business processes are fully aligned to doing business internationally. The sum of our international experience led us to establishing DOT America Inc. in 2013. The company is focused entirely on the US market and is located in the north of the state of Indiana.

### Research creates the future

Surface enhancement at DOT is the result of many years of research and development work. The plant technology necessary was also largely built by our engineers and technicians. Together with our customers and partners in universities, research institutes and clinics, we follow a targeted approach to innovative medical coating solutions for the benefit of patients.

made by DOT

# Innovative Surfaces

## Orthopaedic Coatings

- PVD (Physical Vapour Deposition):  
TiN, TiNbN, TiAlN, ZrN, CrN,  
DLC hard layers



- TPS (Titanium Plasma Spray):  
Porous titanium coatings for  
metal, PEEK and ceramic implants



- Calciumphosphate coatings:  
BONIT®, BONIT®-HA



## Sprayed HA coatings

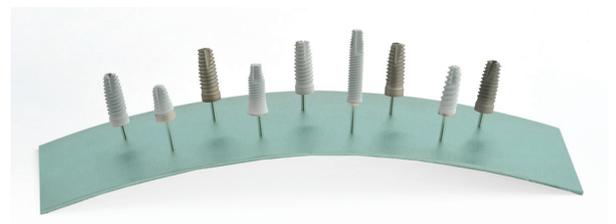


- Titanium anodisation:  
DOTIZE® (type II),  
Colouring (type III)



## Dental Coatings

- Blasted/etched surfaces:  
DUOTex®, CELLTex®
- Bioactive calciumphosphate coatings:  
BONIT®, BONITex®, CELLBIOTex®



- PVD coatings for drills and abutments:  
TiN, ZrN, DLC hard layers



- Anodising of prosthetic screws (DOTIZE®)

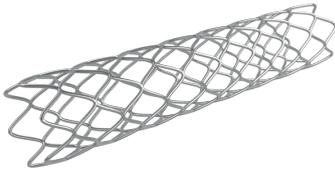


- The anodisation type III (colouring) of implant components



## Coatings for vascular products

- Loading drugs onto stents



- Loading drugs onto balloon catheters



## Functionalised Surfaces

- Copper-based coatings preventing biofilm formation



# Biomaterials

## Our own medical devices

- BONITmatrix®  
(synthetic bone regeneration material)



- OSSA NOVA  
(synthetic bone regeneration material)





*Laboratory services at DOT*

### **Supporting customer approvals**

Manufacturers face increasing tasks in the approvals for medical devices. DOT supports customers in preparing the product dossiers for the regulatory authorities. To this purpose, Master Files for the main coatings were lodged with the FDA. Upon request, we can provide coating-specific information packages with relevant test data as well as coordinate approval queries directly with the regulatory authorities.

### **Measuring and testing/ laboratory services**

We have both the mechanical and microbiological laboratory capabilities to conduct a variety of measurements and tests. These include coating thickness, hardness and wear measurements as well as determination of the microbiological status. The laboratory services can be called upon for validation and sampling, but also for in-process testing. Test protocols are provided according to agreement with the customer.

### **Process and product validation**

For the manufacturers in the medical device industry, the validation of processes and products is a highly relevant criterion for choosing suppliers. At DOT, all major processes are subject to systematic validation and revalidation. Upon request, we also validate customers' products to ensure that the coating services have been applied with the same precision for every order cycle. Shipping and sterilisation validations can also be supported by DOT.



*Cleanroom packaging at DOT*

### Adding the right finish

The quality of coatings largely depends on the initial condition of the surface. We therefore offer technical polishing as an important process step for perfect surface preparation. DOT offers a wide range of polishing capabilities to match the corresponding base material. Our know-how is also available to customers in terms of general finishing of implants, regardless of polishing work as part of the coating process.

### Laser engraving, packing, sterilisation

Under the motto "All from a single source", we offer our customers complementary services in addition to surface enhancement. These include laser engraving, packing in clean rooms, printing and applying labels as well as sterilisation as a sub-contractor. DOT can offer three Class 8 cleanrooms. The packing concepts are developed together with the customer. Furthermore, we have standardised packaging solutions available for dental and orthopaedic implants.

### Worldwide shipping

The DOT logistics team ensures that shipments to customers arrive as quickly as possible at the specified destinations. We cooperate closely with leading logistics providers. All customs procedures for third-party countries are processed in-house in accordance with our status as Authorised Economic Operator (AEO). This allows us to reduce shipping times considerably, particularly for overseas consignments.

**made by DOT**

We look forward to talking  
with you!

**DOT GmbH**

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**DOT – coating specialist for orthopaedic and dental implants**

DOT is one of Europe's leading providers of medical coating solutions for orthopaedic and dental implants and instruments and also their cleanroom packaging.

We also develop and manufacture products for regenerative medicine for dental and orthopaedic applications.

Our comprehensive supply chain concept makes us an ideal medical technology partner. Our activities help restore the health of patients worldwide and thus make a major contribution to the improvement of their quality of life.