

**INDUSTRIAL ADDITIVE TECHNOLOGIES**

Additive Manufacturing:  
The complete solution  
comprising digitalization,  
machines and services

## > TRUMPF – your expert partner for additive manufacturing

3D printing is shaping the future of production technology, and TRUMPF offers both of the relevant laser technologies for additive manufacturing: Laser Metal Fusion (LMF) and Laser Metal Deposition (LMD). We always offer you the right technology to match your application.

For the industrialization of additive manufacturing, we offer you a complete solution comprising digitalization, machines, and services. As a pioneer in the field of additive technology we have almost 20 years of experience and expertise to pass on to you – enabling you to benefit from robust and reliable machines for industrial series production.

✓  
**TRUMPF OFFERS SOLUTIONS**

in all three sectors for your industrial additive manufacturing



Digitalization

Machines

Services

## > Our processes for your additive manufacturing



✓  
**LMF PROCESS**

Laser Metal Fusion

Layer by layer in a powder bed: In the laser metal fusion process, the laser creates new workpieces from powder in layers. You can utilize this process for the mass production of complex metallic components.



✓  
**LMD PROCESS**

Laser Metal Deposition

Here the laser first generates a weld pool on the component surface, into which a metallic filler material in powder form is continuously added and melted. This creates beads that are welded to one another, and then form structures on existing base bodies or entire components. You can also utilize this process for coating and repair purposes.

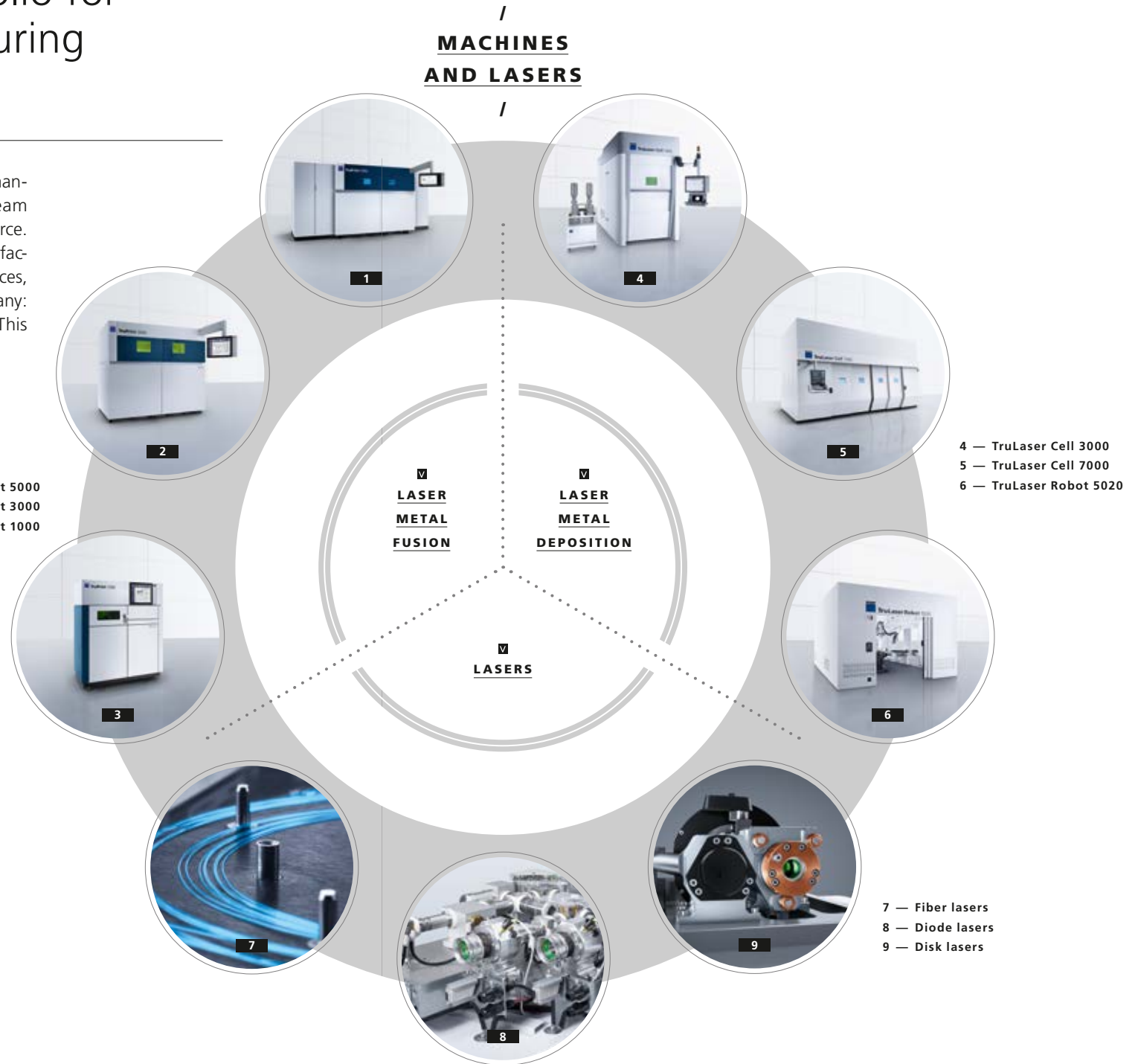
# > Our product portfolio for additive manufacturing

TRUMPF is a complete supplier for additive manufacturing, providing machines, laser beam sources and laser systems from a single source. Our extensive product portfolio equips manufacturing facilities with all the relevant beam sources, developed and produced by our own company: disk lasers, diode lasers, and fiber lasers. This gives you a clear competitive edge.

- 1 — TruPrint 5000
- 2 — TruPrint 3000
- 3 — TruPrint 1000

- 4 — TruLaser Cell 3000
- 5 — TruLaser Cell 7000
- 6 — TruLaser Robot 5020

- 7 — Fiber lasers
- 8 — Diode lasers
- 9 — Disk lasers




## > Our expertise for your additive applications


Additive manufacturing enables structural components with the highest material requirements to be produced, coated, and repaired. In terms of design, you're free to do whatever you like. You can realize elaborate shapes and individual components fast, flexibly, and cost-effectively – from the very smallest batch size up.




**✓**  
**TOOL AND  
MOLD CONSTRUCTION**  
Molds, tools, tool inserts




**✓**  
**AUTOMOTIVE**  
Heat exchangers, tools,  
impellers



*Created by: Volkswagen AG*



**✓**  
**ENERGY/TURBINE**  
Turbines, nozzles




*Created by: Siemens AG*



**✓**  
**AEROSPACE**  
Structural components,  
turbine blades



**✓**  
**MEDICAL AND  
DENTAL TECHNOLOGY**  
Implants, medical instruments,  
dental components



*Created by: BEGO Bremer Goldschlägerei  
Wilh. Herbst GmbH & Co. KG*

*Created by: AQ Implants GmbH*

## Our range of services and digitalization

From financing to optimization of your entire production – our service offering ideally complements our technologies.

- ▣ Financing
- ▣ Technical Service
- ▣ Training
- ▣ Industrial parts and powder management
- ▣ Software and monitoring



### FINANCING

We support your entry into the new technology with a tailored financing solution based on your situation and your market. Open up new growth opportunities – with machines and financing from a single source.

### TECHNICAL SERVICE

<p><b>1,600</b> service engineers support you worldwide</p>	<p><b>85%</b> of service cases solved without service visit</p>
<p><b>24/7</b> spare parts supply the next day</p>	<p><b>30 min</b> callback time for urgent service requests</p>

Do you need fast technical support? Do you want preventive security for your machine availability? With our global service network and our innovative service solutions, we're at your side – regardless of which country of the world your production is based in. You can count on fast, expert support – from installation through to maintenance and repair. Just get in touch with our Technical Service team. Together with our specialists, you can then decide which approach represents the best solution to your requirements.



✓  
**TRAINING**



Increase your expertise and secure competitive advantages with our comprehensive training program. Enhance your knowledge, optimize your manufacturing processes, and boost your productivity. Depending on the course subject, you can learn directly at the machine, in our modern training facilities, or in virtual classrooms. We give you the expertise you need for your entire production plant – practically and effectively.

✓  
**INDUSTRIAL PART  
AND POWDER MANAGEMENT**

The external parts and powder management, consisting of sieve station, powder removal station, and powder silo, supplements the TruPrint systems. Setup and powder removal on one or more machines is possible, all parallel to production, increasing your productivity and profitability.



TRUMPF powders are optimally designed and tested for our TruPrint systems and thus ensure industrial-standard reproducibility of the parts.

**CONSTANTLY GOOD**  
due to permanent quality control

**QUICKLY AVAILABLE**  
thanks to large inventories and short delivery times

**PERFECTLY ADAPTED**  
for industrial series production

❑  
**SOFTWARE  
AND MONITORING**

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Our software solutions support you at all stages of your production – from component design and data pre- and post-processing to production control. Monitoring and analysis tools provide you with maximum transparency, monitoring statuses and processes in real-time. This means you can prevent expensive machine shutdowns and identify potential to save time and money. It's the best way to get optimal production results.

