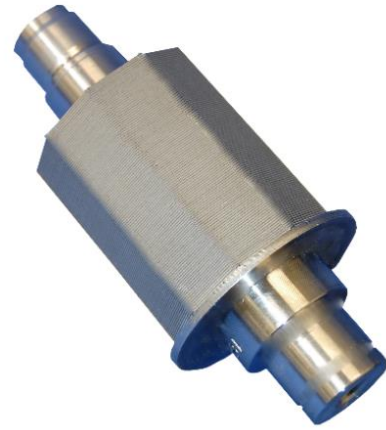


## BONDING PRE-TREATMENT FOR SERVOMOTORS

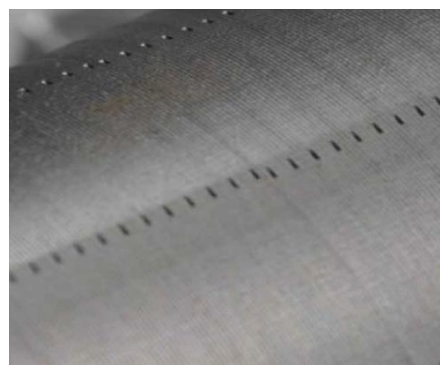


### APPLICATION

- Bonding pre-treatment of shafts and sheet metal stacks for rotor production
- Pre-treatment of magnets for bonding as an option
- For synchronous and asynchronous three-phase and servo motors
- Long-term stable adhesion through surface modification
- Surface tensions:  
 $\sigma > 38 \text{ mN/m}$
- Increase of demolition values
- Alternative or complementary to conventional blasting and washing processes



Laser processing rotor



Laser treated rotor surface

### LASER SYSTEM AND PROCESS

- Even with low power systems efficient and economical
- Processing:  
up to  $5 \text{ cm}^2/\text{s}$  with CL 50
- Faster processing times due to higher laser power
- Process-oriented suction technology
- Optionally:  
Process monitoring and component control
- Own laser production and application expertise
- Process qualification up to the serial production

# COMPACT TURNKEY SOLUTION FOR YOUR SERVO MOTOR PRODUCTION

- Machine type:  
**cleanCELL 1170**
- ESD compliant design
- Footprint (W x L):  
1.114 mm x 1.790 mm
- Weight: approx. 900 kg
- Variable clamping device:  
Processing height < 680 mm  
Rotor diameter < 150 mm
- Hand scanner for  
workpiece identification
- Sensor based  
position detection
- Automatic  
diameter check
- Camera system for process  
visualization and  
documentation
- High technical availability  
(> 98,5%)
- Designed for 24/7 operation
- Customer-specific  
adaptations possible



cleanCELL 1170 with lifting door

2020. Subject to technical changes



Ergonomic operation



Variable clamping device

## COST-BENEFIT ECONOMIC EFFICIENCY

- **Running costs:**  
cleanCELL 1170  
incl. Suction  
< 5,00 €/h
- **Costs per unit:**  
Rotor d=80 mm, h=110 mm  
Laser CL 50 (50 Watt)  
3-shift operation  
~ 0,12 €/piece

PLEASE CONTACT US - WE ARE HAPPY TO ADVISE!

 **cleanLASER**  
cleaning with light