

_THERMAL SPRAY

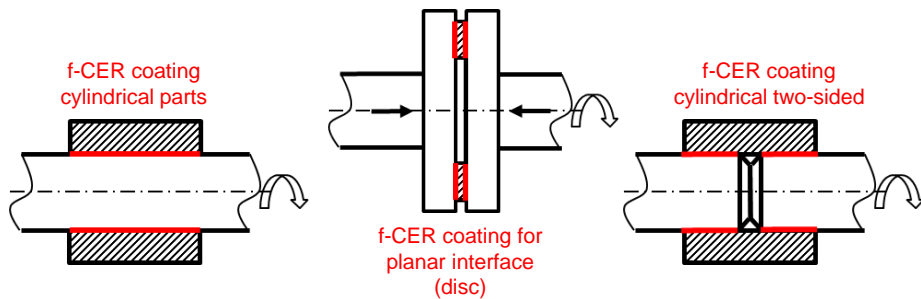
f-CER® High Friction Coatings

Purpose of Coatings

Increase of coefficient of static friction for force-fit machine elements

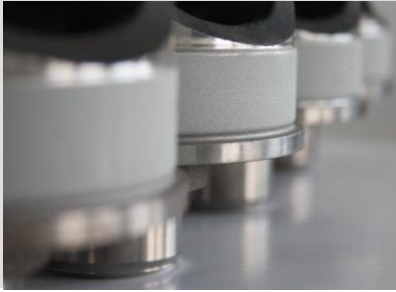
Applications

- Force-fit shaft-hub joints
- Clutches for marine driving shafts, wind power stations
- Locking brakes for cranes, machines, wind generators



Features

- | | |
|---|---|
| ▪ Technologies: | Plasma spraying |
| ▪ Coating materials: | Oxide ceramic in specific composition |
| ▪ Base body materials: | Steel, stainless steel, cast iron, Al and other metals and alloys |
| ▪ Hardness HV0.3: | up to 1400 |
| ▪ Coefficient of static friction, lubricated: | $\mu > 0.5$ |
| ▪ Coating thickness, adjustable: | 0.02...0.2 mm |
| Dimension tolerance of CT: | approx. ± 0.01 mm |
| ▪ For sleeves and conical bushings: coating of the inner and/or outer surface | |



Technology accredited by:



Benefits

- Uncoated steel to steel with f-CER surface: $\mu = 0.5 \dots 0.9$
(Uncoated steel to uncoated steel: $\mu = 0.10 \dots 0.12$)
- More compact construction possible – reduction of cross-section and weight
- Less manufacturing cost
- Higher safety
- Conservation of energy due to less inertia of masses in movement
- High compressive and abrasion resistance
- Best chemical and thermal stability

Our Service Offering

- Accreditation for shipbuilding: DNV, Lloyd's Register
- Parts up to more than 1 m in width/length coatable
- Discs, flanges, flange assemblies, sleeves, tubes, bolts, pivots and further geometries possible
- Developed coating technology, technological experiences for different applications
- Coating of sample and prototype parts, including fixture construction
- Advisory service, design optimisation
- Coatings on provided customer parts
- For smaller parts: pre-fabrication of base bodies at GfE possible



Who we are

With more than 100 years of experience, GfE is one of the world's leading manufacturers and suppliers of high-performance metals and materials. Based on our comprehensive materials science know-how, we develop high-quality tailor-made solutions for a wide range of industrial applications. We offer our customers fast service and qualified technical advice.



Certification in accordance with DIN EN ISO 9001, DIN EN ISO 14001, DIN EN ISO 50001, DIN ISO 45001 and DIN EN ISO/IEC 17025 support our claim to the highest quality and safety. We can thus guarantee products that meet the specific requirements of our customers. Your trust and satisfaction are the cornerstone of our business.

GfE is a subsidiary of AMG Advanced Metallurgical Group N.V., Netherlands, a global leader in the production of specialty metals and metallurgical vacuum furnace systems.

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