TBi Industries

Ready for Tomorrow.

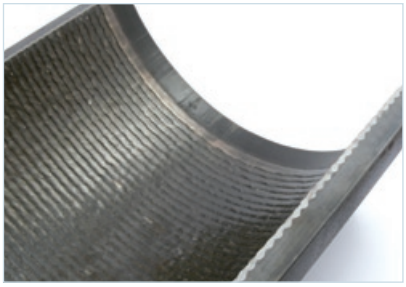
NEW

TBi Welding systems and process development

TBi offers comprehensive services related to modern High-End welding processes

- Project planning and system architecture
- System integration
- Process development and welding tests
- Turnkey solutions incl. all necessary components (e.g. torch, power source, controller, robot, tooling, wire or powder feeders)
- User training at TBi or on-site
- Service & Maintenance of the system together with local partners

	Plasma-MSG Process	Plasma-powder process
Advantages	- High deposition rate - High welding speed, up to 2.8 m/min - Marginal mixing of base materials when cladding - Highly controlled energy insertion, partly independent of deposition rate - Almost spatter free, no finishing of the seam necessary - Special solutions are available (e.g. torches for tubes and pipelines)	- Concentrated heat input, less distortion - Notably higher welding speeds then with GMAW or TIG processes - Quality welding process for homogenous and pore free welds - Spatter free, no finishing of the seam - Penetration and mix-up can be well controlled (cladding)
Application	- Steel, stainless steel, aluminum - Connection welds - Cladding	- Steel, stainless steel - Connection welds - Cladding (corrosion and wear protection)
Use	- Railway car construction (aluminum) - Power plant construction (quality welds) - Mining (wear protection) - Automotive industry (high-speed welding and high optical quality)	- Machine industry (efficient production) - Petrochemical industry (cladding) - General wear protection



Live at the Essen Schweissen & Schneiden 2009

Inside cladding of steel tubes with the Plasma-powder process

- Application of a wear resistant layer of approx. 2 mm thickness
- Hardness: depending on powder, up to 68 HRC
- Cladding capacity 1290 cm²/h
- For tubes starting at 100 mm inside diameter

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