

ZOPF
ENERGIEANLAGEN

Power Electronics for the Industry



Main Product Groups

CORE FOR POWER ELECTRONICS



POWER STACKS



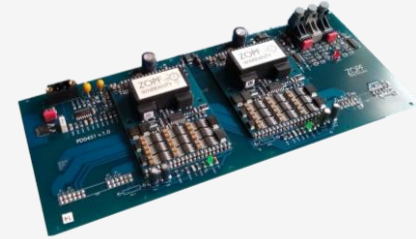
- Development
- Manufacturing & Repair
- Obsolescence Management
- Air & liquid cooled

MULTILAYER BUSBARS



- Development
- Manufacturing
- Laminated Multilayer
- Copper & Aluminum

PRINTED CIRCUIT BOARDS



- Development
- Manufacturing & Repair
- Multilayer
- SMD & THT

Application Sectors

IN VARIOUS INDUSTRIES



WIND



SOLAR



INDUSTRY



E-MOBILITY



Key Company Figures

DATA & LOCATIONS



- Founded in: 1992
- # of Employees: 40
- Head office: Leipzig, Germany
- Revenues: 2021 9,6 Mio. Euro

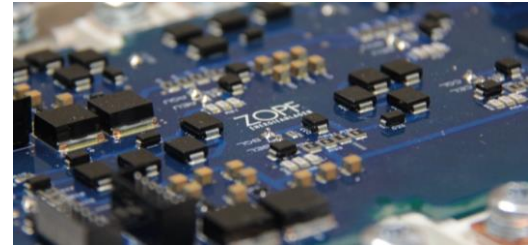


Evolution

MILESTONES

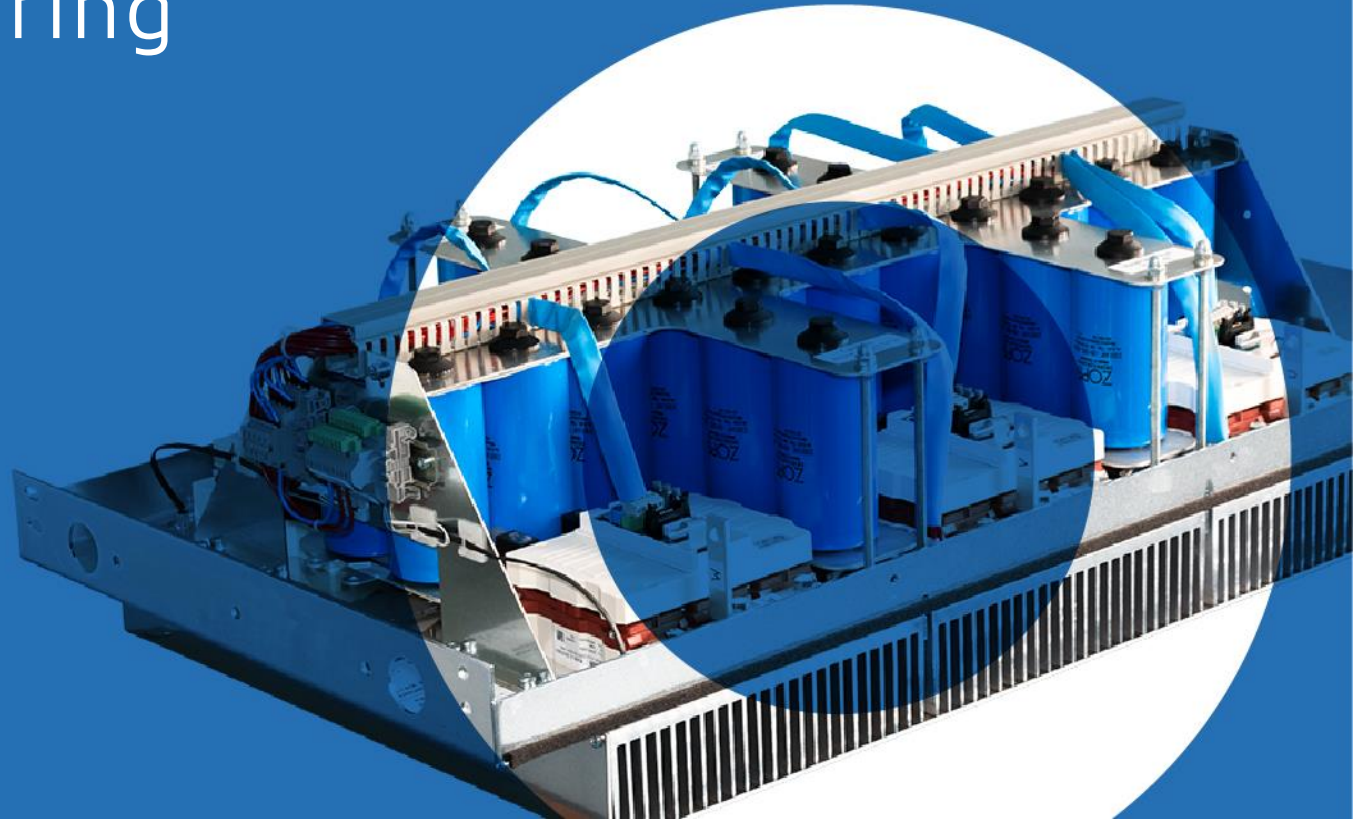


- 2021 ● Expansion of Manufacturing Footprint
Acquisition of busbar supplier EMEK
in Vöhrenbach, Germany
- 2019 ● Investment in Printed Circuit Boards
Set up of new PCB assembly line (SMD)
- 2017 ● License Agreement with Infineon
ZOPF partners with Infineon to continue
their power stack manufacturing & repair
- ISO 9001:2015 Certification
The QM system of ZOPF is certified by TÜV Süd
- 2016 ● New Power Stack Manufacturing
Manufacturing start of new power stacks for the
renewables industry
- 2007 ● General Overhaul and Repair
Start to overhaul and repair converter power stacks
- 1996 ● Service and maintenance of wind turbines



Power Stack Manufacturing

Leipzig
Germany



Power Stack Portfolio

LEIPZIG



SEG / Woodward / ConverterTec



ZOPF STACK Master + Slave



ZOPF RACK 314 air & water



ZOPF NGX Skiip



ZOPF NGX LightStack



ZOPF NG03 air & water



ZOPF IDS N80 K & KE

Alstom / Convertteam / GE



ZOPF MD2000



GE Delta Module 800A & 1000A



ZOPF Pro 1.5 MW - air



ZOPF Pro 2.5 MW - water



ZOPF Pro 2.0 MW - 580A + 750A



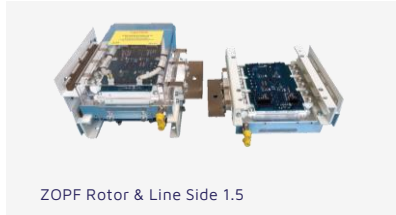
ZOPF Pro 2.0 MW - 580A + 750A

Power Stack Portfolio

LEIPZIG



GE Salem



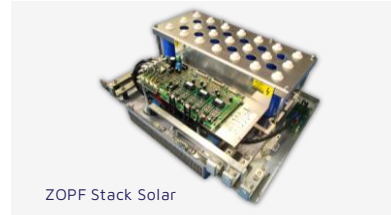
ZOPF Rotor & Line Side 1.5

Ingeteam



ZOPF AK Set – AK9779 + AK9758

SMA

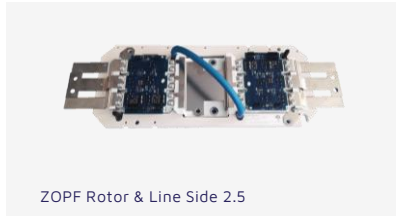


ZOPF Stack Solar

others



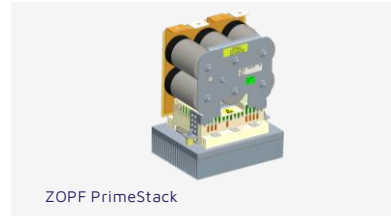
L&B Pitch Control



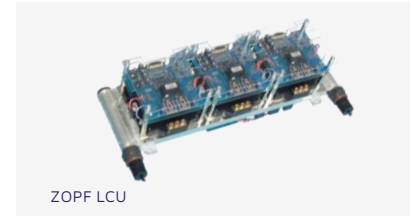
ZOPF Rotor & Line Side 2.5



ZOPF AK Set – AK9762 + AS3566



ZOPF PrimeStack



ZOPF LCU

Head Office & Manufacturing

LEIPZIG



- 40.000 m² area
- 800 m² production
- 900 m² warehouse



Power Stack Assembly

LEIPZIG



- 6 workstations, expandable up to 12
- Separate soldering workstation (SMD)
- Work step protocols
- Dual follow-up check



Test Bench

LEIPZIG



- ✓ 100% final testing
- ✓ Computer controlled
- ✓ Automated test records
- ✓ AC 690V / 400A
- ✓ DC link forming
- ✓ Active cooling

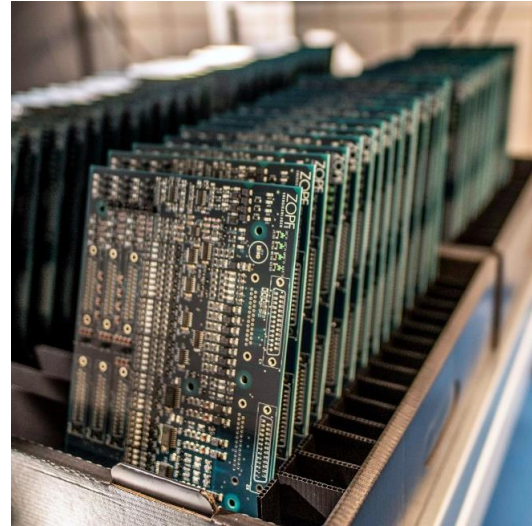


Printed Circuit Board Assembly

LEIPZIG



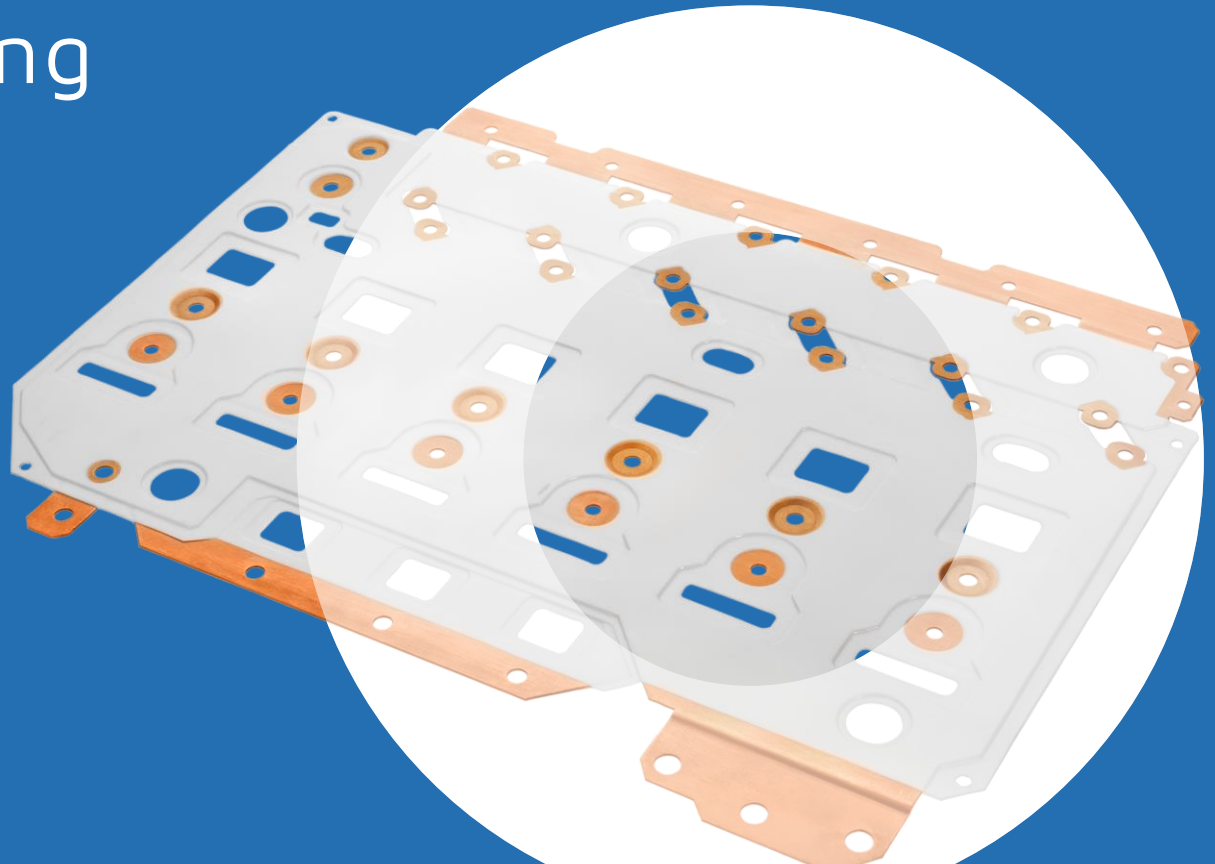
SMD pick & place assembly



Brazing furnace

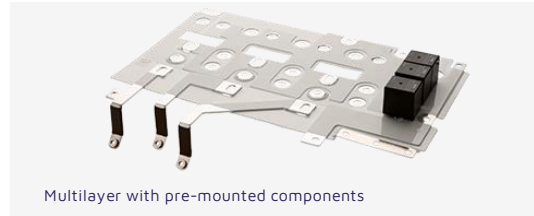
Multilayer Busbar Manufacturing

Vöhrenbach
Germany



Busbar Portfolio

VÖHRENBACH



Multilayer with pre-mounted components



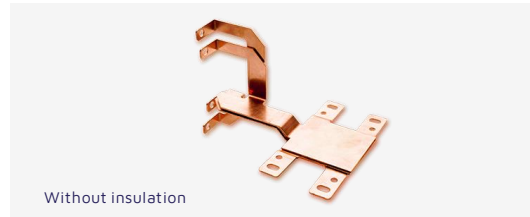
Customer specified connectors



Space saving connections



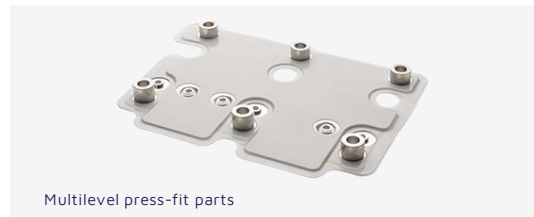
Flat construction



Without insulation



Multilayer on various levels



Multilevel press-fit parts



Punching parts



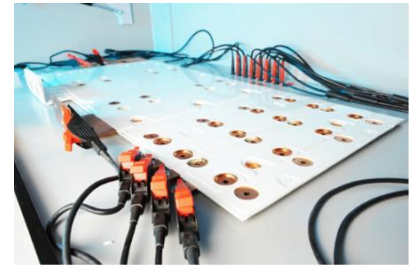
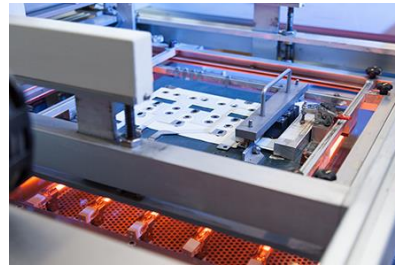
Up to 6mm copper punching

Busbar Manufacturing

VÖHRENBACH



- 750 m² production area
- 2 CNC punching machines
- Lamination presses
- CNC bending
- Soldering & welding



Contacts

ZOPF ENERGIEANLAGEN



Andreas Arens

Managing Director

phone: +49 341 980 7363

email: Arens@zopf-energie.de

Ronny Fechner

Technical Department

phone: +49 341 980 7363

email: Fechner@zopf-energie.de

Keno Fresemann

Business Development

phone: +49 151 2623 1725

email: Fresemann@zopf-energie.de

Thorsten Leibhan

Sales

phone: +49 151 1219 2096

email: Leibhan@zopf-energie.de

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