## Integrated **Service Solutions**

### Individual Consulting

Our highly-qualified experts partner with customers throughout the entire production process, providing professional technical advice and bespoke solutions – goal oriented and competent.

### **Research & Development**

Due to the close cooperation between our R&D department and our customers, current developments are continuously adapted to the needs - the driving force behind our technical progress.

### **Competence Center**

Our in-house technical center in Vreden provides the opportunity to test products and material properties under realistic conditions – even before the final production.

### **Production Equipment**

We are your experienced partner for high volume production equipment for fuel cell components and stacks. Our equipment and tooling capabilities include pilot and production lines, and rotary forming and cutting tools.

### Installation & Commissioning

Our team of experts is experienced in installing and commissioning production equipment for a variety of end markets, including clean energy.

### **After Sales Services**

We have the highest technological and quality standards for ourselves and our services. Comprehensive maintenance and repair work are part of our everyday services.

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# Turning ideas into powerful technologies

HYDROGEN FUEL CELLS

# Technologies full of innovative power

SAUERESSIG is a reliable and innovative full-service provider of calendaring, embossing and rotary processing systems in standard and custom designs. Together with Terrella Energy Systems, a supplier of primarily stack ready bipolar plates, we leverage our inventive spirit and our technological expertise to accelerate the mass market adoption of hydrogen fuel cells.

We keep moving for you.







# **Fuel Cell Capabilities**



### Fuel Cell Development

We are experienced in developing and optimizing the manufacturing processes for fuel cell components, including graphite and metal bipolar plates, catalyst coated membrane and gas diffusion layers.



### **Rotary Embossing & Cutting Cylinders**

We offer specialized know-how for the design and manufacture of rotary forming and cutting tools used to manufacture components within the fuel cell stack.



We are specialists in the design and manufacture of prototyping, pilot and production lines for components and stack assembly. For plates, we offer comprehensive process expertise - including embossing, resin impregnation, curing, bonding and sealing.

### **Gas Diffusion Layer**

- Laboratory tests
- Printing roller development
- Printing roller manufacturing
- Process support
- Prototype development
- Laboratory, pilot and production lines (In-/Off-Line)

#### **Bipolar Plate**

- Laboratory tests
- Process support and development
- Embossing and cutting roller development
- Embossing and cutting roller manufacturing
- Equipment to produce a graphite based web
- Laboratory, pilot and production lines (In-/Off-Line)

### **Fuel Cell**

#### Catalyst Coated Membrane

#### Automated In-line Assembly

- Laboratory tests
- Process support
- Combination of processes (BPP, CCM, GDL)
- Prototype development
- Laboratory, pilot and production lines (In-/Off-Line)

"Hydrogen technologies play a key element in the energy transition: They must be developed and made marketable on a large scale."

Brandon Babe | Sr. Director, Engineering & Energy