



## SUCCESS STORY

# Ground breaking contact technology for innovative switchgears

**China's largest switchgear manufacturer Xi'an XD High Voltage Apparatus Co. Ltd. has more than 50 years of experience in designing high-voltage equipment. Based on advanced technologies, their products are known for their reliability and used worldwide.**

Gas Insulated Switchgears (GIS) are more reliable in harsh environment, clearly require less space with a footprint as much as 70% smaller and are cost effective in operation due to less maintenance. Pluggable connections allow for thermal expansion in response to temperature fluctuation and facilitate the design of smooth and rounded shapes to minimize the electrical field strength. This results in higher withstand voltage and also makes for shorter insulation distances or smaller switchgear sizes. Above all, pluggable connection solutions reduce assembly and maintenance costs.

### The challenge

The increasing demand for energy and the associated expansion of existing power grids call for powerful and highly dependable equipment. The miniaturization of installations and systems requires a reduction in size of all machinery and components without compromise in performance. At the same time, energy suppliers and power stations pay very close attention to their operating and maintenance costs.

The challenge for Xi'an XD High Voltage Apparatus is to provide very reliable, high-power but still economical equipment. Always in search of ways to improve their design concepts, Xi'an XD High Voltage Apparatus was looking for a space-saving, extremely solid contact element with high performance characteristics.



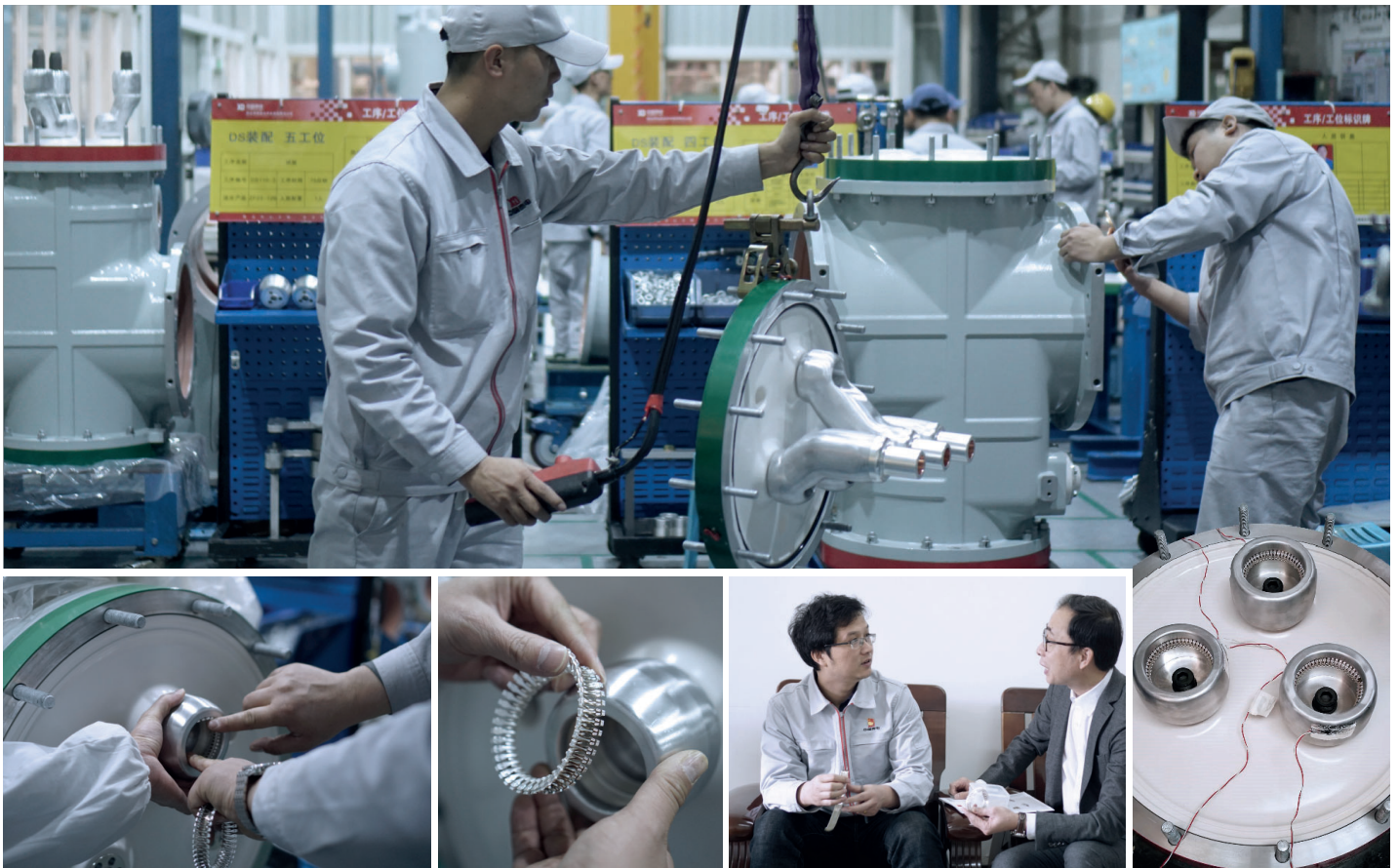
**Market Segment: PTD**  
**Power transmission and distribution**



### MULITLAM flexo ML-CUX

**Application: Gas Insulated Switchgear**

- Excellent rated and short circuit current-carrying capacity
- Minimal transition resistance and contact heating
- Excellent behavior and lifetime for thermal bus bar expansion
- High impact, shock and vibration resistance



### The solution

The Stäubli MULTILAM flexo ML-CUX piqued the engineers' interest at Xi'an XD High Voltage Apparatus. The two-component torsion spring with "stretchable" design is compact and flexible. It provides highest performance and low-loss energy transfer. Stäubli's demanding quality tests guarantee extremely durable and reliable electrical contact solutions. Therefore, all MULTILAM products from Stäubli provide dependable long-lasting operation.

The design of the ML-CUX contact element allows for installations with very little space. Based on its features and functionality, fewer contact elements are required for the same or higher power, enabling a more compact system design with less heating. For its latest series of innovative high voltage GIS products, Xi'an XD High Voltage Apparatus has successfully implemented the new MULTILAM flexo ML-CUX contact elements in various highly demanding busbars.

### The added-value provided

Based on the long-standing, trustful business relationship with Stäubli Electrical Connectors and the many years of excellent experience with Stäubli's MULTILAM contact technology, the evaluation of the new ML-CUX series was a logical consequence.

The functionality, the excellent, constant and long-life performance as well as the product dimension fully convinced the experts at Xi'an XD High Voltage Apparatus. Thus, their customers benefit from compact, reliable and powerful GIS switchgear equipment on top of a positive impact on their total cost of ownership. By using the latest contact technology novelty by Stäubli, Xi'an XD High Voltage Apparatus increases the innovation level of its GIS portfolio.

### Customer benefits

- High performance across a wide temperature range
- Long-lasting and reliable operation
- Flexible design allows for easy installations in straight, cost-effective groove
- Compact construction and high performance contribute to cost reductions

### About Stäubli

Stäubli is a global mechatronics solution provider with three core activities: Connectors, Robotics and Textile. The international Group has a presence in 29 countries.

Stäubli Electrical Connectors is a specialist for advanced contact technology and technically mature solutions with a product portfolio ranging from miniature connectors up to high-power connectors for various industries.

[www.staubli.com/electrical](http://www.staubli.com/electrical)