JST Power Equipment is more than a manufacturer – we are a solutions innovator at the cutting edge of transformer technology. We continually work to create products with higher efficiencies and lower costs. Each year, we make substantial investments in the research and development of new products and manufacturing techniques. We regularly innovate on behalf of our customers, collaborating with them to find solutions to their specific challenges. Explore JST’s systems and solutions.
Our Story – Get to Know JST Manufacturing

An Expanding Global Footprint with a Dynamic North American Presence

JST started in Haikou, China, in 1993, as a developer and manufacturer of high-tech, environmentally friendly power transmission and distribution equipment. Primarily a cast-resin transformer producer, the company’s steady growth has resulted in JST evolving into a market leader in the electrical equipment space.

JST GLOBAL HIGHLIGHTS

- JST is the largest dry-type transformer manufacturer, delivering over 100,000 units with transformers installed in more than 57 countries and regions. JST is the No. 1 dry-type transformer exporter.
- JST’s North American Headquarters is located in Lake Mary, Florida. Its functions include sales and service for all global business, an R&D center and manufacturing plant for ANSI MV metal-clad switchgear, Mv GIS, and manufacturing plant for ANSI/IEEE switchgear.
- In North America, JST is a leader in the market of cast-coil transformers, vacuum pressure impregnation (VPI) transformers, medium-voltage (MV) air-insulated switchgear (AIS) and gas-insulated switchgear (GIS), and skid solutions.
- JST is expanding in Chennai, India, to supply more cast-resin dry-type transformers to the global market.
- Global Operations to Support Our Customers
  - JST operates five factories in China with more than 2 million square feet of capacity.
  - JST operates a manufacturing site in Mexico and is focused on supporting North and South American customers.
The JST Difference

First and Focused on Uptime
JST Power Equipment developed and marketed the first independent pole-operated breaker with a three-phase system that helps utilities improve their delivery performance by isolating outages to prevent a whole-system shutdown.

Delivering Complete Unit Substations and Single Source Accountability
A turnkey transformer and switchgear package streamlines everything from installation to troubleshooting and service—not to mention, acquiring and implementing new substations for growing companies. With a single point of contact at JST Manufacturing, our customers can easily access support when and where they need it.

Beyond Manufacturing—Addressing Operational Obstacles
A lot of providers talk about being a partner, but what does that really mean? To JST Power Equipment, our role as a solutions provider is to listen to your challenges, problems, and goals, and then to provide customized product and systems solutions that allow you to better compete in your marketplace.

What Does That Look Like Exactly?

What keeps you up at night?
One OEM manufacturer said lack of spare parts was a major time and resource drain in their production process. While assembling a 70+ ton piece of equipment, if a small part breaks or a connector fails, the entire line is stopped, the equipment is removed, and the order is put on hold until the replacement part arrives. The real issue is that this approach could take 8 to 12 weeks, or require cannibalization of future projects.

The Bottom Line.
Rather than expecting customers to select systems from a predetermined lineup, JST Manufacturing focuses on problem-solving. This means we’ll never force a solution. Instead, we’ll engineer the answer.

The JST Solution.
The equipment on that line is a system that JST can build, and the real answer is providing a vending machine-type solution where all parts are stocked and ready on-site, on demand. Should a component fail on the line, a part is immediately accessed, and a fix is available within minutes. JST provides parts inventory—and the flexibility for the factory to pay as it uses parts—to keep operations up and running efficiently. On-site inventory is a game changer for production, employee satisfaction and customer experience.

Market Segments
JST delivers systems to the following market segments:
- Renewables: wind, solar, and BESS
- Utilities: power generation and substations
- Construction: industrial and commercial
- Data centers, cryptocurrency and mining
- Marine
- Industrial/Manufacturing
Core Systems and Solutions in North America

JST Manufacturing Delivers Integral Transformer and MV Switchgear Systems In North America

<table>
<thead>
<tr>
<th>CAST COIL TRANSFORMERS</th>
<th>VPI TRANSFORMERS</th>
<th>LOW-VOLTAGE VPI PRODUCTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Voltage:</strong> up to 40.5 kV</td>
<td><strong>Voltage:</strong> up to 15 kV</td>
<td><strong>Transformer Technical Parameters</strong></td>
</tr>
<tr>
<td><strong>BIL:</strong> up to 200 kV</td>
<td><strong>BIL:</strong> up to 200 kV</td>
<td><strong>Capacity range:</strong> greater than 1,000 VA</td>
</tr>
<tr>
<td><strong>Ratings:</strong> up to 45 MVA</td>
<td><strong>Ratings:</strong> up to 14.5 MVA</td>
<td><strong>Rated voltage range:</strong> 3,300 volts</td>
</tr>
<tr>
<td>(fan cooling available)</td>
<td>(fan cooling available)</td>
<td><strong>Frequency:</strong> 50Hz/60Hz</td>
</tr>
<tr>
<td><strong>Enclosure:</strong> NEMA 1, 12, 3R, 4 and 4X</td>
<td><strong>Enclosure:</strong> NEMA 1, 12, 3R, 4 and 4X</td>
<td><strong>Structure:</strong> VPI dry type</td>
</tr>
<tr>
<td>Special options: phase-shifting version, water-cooled, rectifier/traction, marine</td>
<td>Special options: reactor, up to 36 pulse transformer, water-cooled reactor</td>
<td><strong>Standards:</strong> GB, IEC, ANSI/IEEE, UL etc.</td>
</tr>
</tbody>
</table>

**CAST COIL TRANSFORMERS**
- Voltage: up to 40.5 kV
- BIL: up to 200 kV
- Ratings: up to 45 MVA (fan cooling available)
- Enclosure: NEMA 1, 12, 3R, 4 and 4X
- Special options: phase-shifting version, water-cooled, rectifier/traction, marine

**VPI TRANSFORMERS**
- Voltage: up to 15 kV
- BIL: up to 200 kV
- Ratings: up to 14.5 MVA (fan cooling available)
- Enclosure: NEMA 1, 12, 3R, 4 and 4X
- Special options: reactor, up to 36 pulse transformer, water-cooled reactor

**LOW-VOLTAGE VPI PRODUCTS**
- Transformer Technical Parameters
  - Capacity range: greater than 1,000 VA
  - Rated voltage range: 3,300 volts
  - Frequency: 50Hz/60Hz
  - Structure: VPI dry type
  - Standards: GB, IEC, ANSI/IEEE, UL etc.

- Reactor Technical Parameters
  - Capacity range: greater than 10mH
  - Rated voltage: greater than 3,300 kV
  - Frequency: 50Hz/60Hz
  - Structure: VPI dry type
  - Standards: GB, IEC, ANSI/IEEE, UL etc.
Switchgear

GIS – GAS INSULATED SWITCHGEAR

JST provides a wide range of MV GIS for primary and secondary distribution applications. The J10X and J20X switchgear product lines are designed for a variety of applications. With a greatly reduced footprint, enhanced personnel safety, and reduced operating maintenance costs, GIS can offer advanced solutions to your application needs.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Unit</th>
<th>J20X C-GIS</th>
<th>J10X RMU</th>
<th>J10N Nitrogen RMU</th>
<th>J10S Solid-Insulated</th>
<th>J10SI Semi Insulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulating Medium</td>
<td>SF6</td>
<td>SF6</td>
<td>SF6</td>
<td>N2</td>
<td>Solid Resin</td>
<td>SF6 and Air</td>
</tr>
<tr>
<td>Lightning Impulse Withstand (BIL)</td>
<td>kV</td>
<td>150</td>
<td>150</td>
<td>95/125</td>
<td>95</td>
<td>95</td>
</tr>
<tr>
<td>Rated Voltage</td>
<td>kV</td>
<td>up to 40.5kV</td>
<td>up to 24kV</td>
<td>up to 12k</td>
<td>up to 12k</td>
<td>up to 12k</td>
</tr>
<tr>
<td>Rated Current</td>
<td>A</td>
<td>up to 2500A</td>
<td>up to 630A</td>
<td>up to 630A</td>
<td>up to 630A</td>
<td>up to 630A</td>
</tr>
<tr>
<td>Rated Short Circuit Breaking Current</td>
<td>kA</td>
<td>up to 31.5kA</td>
<td>up to 25kA</td>
<td>up to 20kA</td>
<td>up to 25kA</td>
<td>up to 20kA</td>
</tr>
<tr>
<td>Dimensions (WxDxH)</td>
<td>mm</td>
<td>600-800x1600x2400</td>
<td>450x1000x1700</td>
<td>350x800x1450</td>
<td>440x800x1450</td>
<td>375x915x1800</td>
</tr>
<tr>
<td></td>
<td>in</td>
<td>24-32x63x94.5</td>
<td>14x32x57</td>
<td>14x32x57</td>
<td>17.5x32x57</td>
<td>1</td>
</tr>
</tbody>
</table>

AIS – AIR INSULATED SWITCHGEAR

JST Power Equipment type J100CLAD™ is an IEEE-rated, non-arc-resistant, metal-clad switchgear product line with type J3MAG™ magnetic actuated, vacuum circuit breakers. The J3MAG™ offers several advanced features, including single-phase operation and independent pole actuators, and its limited moving parts reduce overall maintenance costs to a bare minimum and improve system reliability.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Unit</th>
<th>4.76kV</th>
<th>8.25kV</th>
<th>15kV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage</td>
<td>kV</td>
<td>2.4, 4.16</td>
<td>4.8, 6.9, 7.2</td>
<td>7.2, 8.4, 12.4, 13.2, 13.8, 14.4</td>
</tr>
<tr>
<td>Rated Continuous Current</td>
<td>A</td>
<td>1200, 2000, 3000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short Circuit Current</td>
<td>kA</td>
<td>25, 31.5, 40, 50</td>
<td>40</td>
<td>25, 31.5, 40, 50</td>
</tr>
<tr>
<td>Rated Short-Time Current, 2 sec.</td>
<td>kA</td>
<td>25, 31.5, 40, 50</td>
<td>40</td>
<td>25, 31.5, 40, 50</td>
</tr>
<tr>
<td>Rated Frequency</td>
<td>Hz</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Power Frequency Withstand</td>
<td>kV</td>
<td>19</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>Lightning Impulse Withstand</td>
<td>kV</td>
<td>60</td>
<td>95</td>
<td>95</td>
</tr>
<tr>
<td>Rated Withstand Current, 10 Cycles</td>
<td>kA</td>
<td>65 to 130</td>
<td>104</td>
<td>65 to 130</td>
</tr>
<tr>
<td>Max. Permissible Tripping Delay</td>
<td>Sec.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated Close &amp; Latch Current Rating</td>
<td>kA</td>
<td>65 to 130</td>
<td>104</td>
<td>65 to 130</td>
</tr>
<tr>
<td>Rated Cable Charging Current</td>
<td>A</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Rated Isolated Capacitor Bank Current</td>
<td>C2</td>
<td>630A</td>
<td>C2 630A</td>
<td>C2 630A</td>
</tr>
<tr>
<td>Rated Interrupting Time, 50 ms.</td>
<td>ms.</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Rated Control Voltage</td>
<td>AC/DC</td>
<td>48-250</td>
<td>48-250</td>
<td>48-250</td>
</tr>
<tr>
<td>Standard Operating Duty</td>
<td></td>
<td>O-0.3s-CO-3min-CO</td>
<td>O-0.3s-CO-3min-CO</td>
<td>O-0.3s-CO-3min-CO</td>
</tr>
</tbody>
</table>
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