

China Metal Fabrication: Key Innovations from FABTECH 2025



Xiamen, Fujian Dec 15, 2025 ([Issuewire.com](https://www.issuewire.com)) - Global manufacturing is experiencing a transformation driven by the relentless drive for greater efficiency, accuracy, and smarter methods of production. This transformation is most visible in the metal fabrication industry where new technologies in automation, software and materials are changing what's possible. This shift raises a question for many international companies: How can they find a high-quality, reliable manufacturing partner that will keep up with the pace? It is a common question at trade shows like FABTECH in North America. Openex, a [China Sheet Fabrication Manufacturer](#) that is well positioned to meet the new demands of this industry can be seen by looking back at the **FABTECH 2025**.

Unveiling Metal Fabrication's Future

FABTECH is North America's largest event for metal forming and fabrication, welding, finishing, and other related activities. It is held at McCormick Place, Chicago, Illinois. This event serves as an important hub for industry professionals who want to learn, connect and discover the latest technology. The 2025 event was held between September 8 and 11, and it showcased the future of manufacturing with an emphasis on smart, sustainable, and integrated solutions.

The floor was awash with new technology, indicating a shift towards digital and automated processes. FABTECH 2025 featured a number of key trends and innovations, including:

- Robots are everywhere at FABTECH2025. They showed a greater ability to perform complex and intricate tasks. The focus of the show was to improve efficiency and safety, while reducing human errors. This technology makes it easier for manufacturers, particularly in large-scale production runs, to produce parts of higher quality and with greater consistency.
- Data-Driven manufacturing: Integration of Industrial Internet of Things and advanced software were a major theme. Exhibitors displayed platforms that provided real-time information on

machine performance and alerts for predictive maintenance, as well as production tracking. The data-driven approach allows businesses to optimize workflows, reduce the amount of downtime and make better decisions. This leads to cost savings.

- **Advanced Cutting Technologies:** While laser cutting is a standard, FABTECH 2025 featured the next generation in laser technology. The fiber lasers, with their increased power and precision, were the highlight of FABTECH 2025. They can cut thicker materials faster. Water jet cutting systems and plasma systems, which offer solutions for a wide range of materials, were also on display.
- **Sustainable Manufacturing Practices** - The industry has a growing focus on reducing the environmental impact. FABTECH 2025 showcased solutions that focused on energy efficiency, waste minimization, and eco-friendly materials. Green practices are a competitive advantage for manufacturers who want to find partners that can help them reach their sustainability goals.

The trends point to a future in which a successful fabrication firm will be more than a supplier of parts; it will be a partner who is technology-driven and capable of managing integrated, complex projects.

Openex – A trustworthy partner in metal fabrication

In the new manufacturing era, the question is: **Where can I find a professional and trustworthy metal fabricator?** Finding a partner who not only has the technical skills but also provides a comprehensive one-stop solution. Openex is a good example of this model. They provide full-scope manufacture for large-scale structures and equipment. They are distinguished by their commitment to service and quality in the competitive market.

Core Capabilities

Openex is a one-stop metal fabricator that offers a complete range of services. They manage the entire projects, from beginning to end. This streamline approach reduces logistical issues and ensures consistency in quality. They offer a wide range of services, including:

Large Machining Openex has around 1,000 advanced machines that can be used to precision machine large parts.

Diverse Cut: They have cutting capabilities that are unmatched, with technologies such as water jet, plasma, robotic contour bending, flame and sawing. They can work with many different materials and thicknesses because of their versatility.

Expert Welding: This company has state-of-the art equipment for welding and an experienced team. They are skilled in multiple welding techniques, which ensures the durability and integrity of all fabrications. One of the extreme example is that the welding seams of the vacuum chambers made by Openex can withstand helium leakage test in value $>1.0 \times 10^{-9}$ Torr L/s within 30 seconds.

Massive Scale Forming: Openex's plate-rolling department can roll up to 4,250mm of plates with a 200mm thickness. Press braking can be used to form parts as thick as 100mm. This ability to form large parts is a competitive advantage.

Quality Assurance: Openex uses a rigorous quality assurance system to make sure that only products in compliance are delivered to the customers. The commitment to quality is at the core of their business. They even developed some AI powered Optical Inspection machine to help inspect the parts and

components.

Case Studies and Applications of Diverse Products

Openex's versatility and technical expertise are evident in their work across many industries. They are able to produce large quantities of parts for the most demanding applications.

Heavy Construction and Equipment: They fabricate massive components such as frames, booms and hydraulic cylinders for large mining and construction machinery. One notable project was the fabrication of an excavator arm complex for a global manufacturer of heavy equipment. This project required precision welding and machining in order to ensure that the arm would be able to withstand extreme operating stresses.

Power Generation and Energy: This company manufactures critical structures, such as turbine casings and generator frames. It also produces complex pipework. Openex fabricated large pressure vessels sections for a major client in the energy industry, while meeting industry standards of safety and material integrity. For Tube Sheets used in heat exchangers, While most of other companies drill the hole one by one, Openex drill the tube sheet with a 4-spindle drilling machine, which means the speed and the precision are far more higher.

Offshore and Marine: Openex manufactures offshore platform modules and specialized marine gear in the marine sector. They are a reliable partner in shipbuilding and offshore projects because of their ability to work at massive scales while adhering to international maritime standards.

Aerospace and Defense Openex, a heavy fabrication company that specializes in large structural components and equipment for ground support, also serves the aerospace and automotive sectors. Openex fabricated and machined a series robust transport frames for large components of aircraft, showing their ability to meet strict dimensional and quality specifications.

The Openex advantage: Aligning to the Future of Fabrication

The innovations displayed at FABTECH confirm that the future is large-scale, intelligent, and integrated metal fabrication. Openex's model of business is a direct response to these trends. They help their clients reduce risk, streamline supply chains and guarantee the highest level of quality by providing a full-service, one-stop shop. This is more than just producing parts. It's about becoming a strategic partner for the modern manufacturing world.

Openex is an example of how a [Metal Fabrication](#) business can thrive when it combines advanced technology, large-scale capabilities and a commitment to quality.

For more information, visit Openex's official website:

<https://www.cncmetalworking.com/>

Media Contact

Openex

*****@openex.com.cn

+86 186 5928 0806

No. 99 Yilan Rd., Xiamen , CN.

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