



CORPORATE PROFILE

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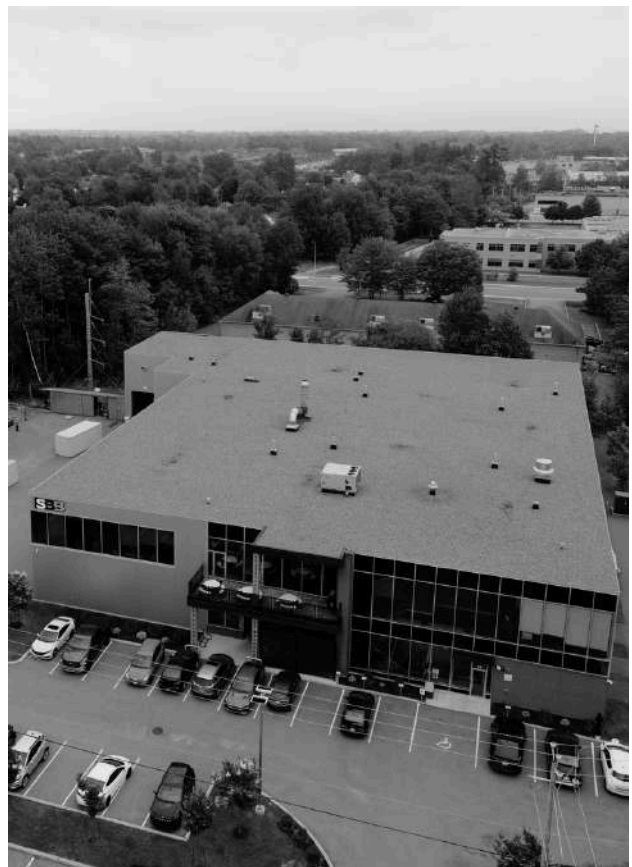
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AN OVERVIEW

After leading the industry for 50 years, SBB remains a symbol of innovation and excellence. We are renowned as pioneers in Friction Stir Welding (FSW) in Canada and the first to introduce aluminium Emergency Restoration System (ERS) towers. Our expertise in crafting complex aluminum extrusion structures is unmatched.

Headquartered in Blainville, Quebec, Canada, our multidisciplinary team of engineers, draftsmen, and specialists is fueled by a passion for innovation. This drive has propelled us to the forefront of the industry, earning us the title of the world leader in aluminium guyed tower designing and manufacturing.

Our global network of partners spans more than 60 countries and supports our mission to deliver innovative and reliable turnkey solutions that redefine safety and efficiency standards worldwide.



WELCOME MESSAGE

With a 50-year legacy, SBB embodies evolution, adaptation, and progress—essential traits for any organization committed to long-term success.

Our values of adaptability, engagement, and quality are at the core of everything we do, enabling us to thrive in a dynamic and demanding environment.

We set exceptionally high standards, but it's not just about the quality of our products; it's about the added value of our unwavering support and the importance of quality in every aspect of our operations.

Whether interacting with customers, suppliers, partners, or employees, the quality of our actions and decisions shapes the strength of our relationships. Our dedicated team is driven by a passion for excellence. They constantly seek innovative solutions to address the consequences of climate change and meet our customers' evolving needs.

With a global presence spanning over 60 countries, our enduring commitment to integrity, professionalism, and agility has solidified authentic relationships with clients and partners worldwide.

At SBB, we are dedicated to providing unparalleled service and expertise in turnkey aluminum solutions, backed by decades of experience and a relentless pursuit of excellence.



PATRICK GHARZANI
PRESIDENT & CEO

OUR VALUES



PASSION

We're passionate about what we do.



INNOVATION

We offer innovative solutions and specialized products that help our customers overcome even the toughest challenges.



ADAPTABILITY

Change is in our DNA, and we're always evolving to meet the needs of our customers.



QUALITY

At the heart of everything we do, is a deep commitment to quality.



COMMITMENT

Our dedicated employees pursue excellence with tenacity, loyalty, and a proactive approach, creating an engaged workforce focused on continuous improvement.

OUR CERTIFICATIONS

We proudly hold certifications for ISO 9001:2015, ISO 14001:2015, and CSA W47.2, ensuring our products meet rigorous international standards such as IEC and IEEE. To uphold the quality and reliability of our offerings, our Quality Inspection team and R&D specialists conduct ongoing tests, frequently in the presence of our customers. Furthermore, our solutions have undergone rigorous testing at renowned external facilities such as the Polytechnic School of Montreal and the Canadian National Research Council (CNRC). Our comprehensive Quality System guarantees the conformity of our manufactured products and provides clients with reliable turnkey solutions.



OUR MANAGEMENT TEAM



PATRICK GHARZANI, MBA, ADM. A
PRESIDENT AND CEO

Holder of a Master's Degree in Business Administration and member of the Order of Chartered Administrators of Quebec. Before acquiring SBB in 2018, he worked with the company for 12 years, gaining extensive experience in developing international markets. Patrick also serves on the board of various organizations. He has built a solid reputation for his expertise in this field over the past 25 years.



MOHAMMAD AIT FATEH
BUSINESS DEVELOPMENT DIRECTOR

An adept strategist with a Master's degree in Design Thinking and over 14 years of global experience spanning Europe, Africa, South America, and Asia. He specializes in project management and business development, particularly fostering customer relationships and generating leads across B2B, G2G, and B2G realms. Proficient in team management, product and project management, contract development, innovative solutions and negotiations.



MICHEL VEILLEUX, ENG
ENGINEERING, QUALITY, TECHNOLOGY DIRECTOR

Member of the Order of Engineers of Quebec. He plays a vital role in SBB's strategic initiatives. He focuses on optimizing processes, ensuring quality assurance, integrating technology into daily tasks, and providing engineering innovation and expertise to guarantee the best technical support for our customers.

OUR MANAGEMENT TEAM



PIERRE-YVES CARPY
SUPPLY CHAIN & LOGISTICS DIRECTOR

He brings over three decades of extensive expertise in purchasing, logistics, and supply chain management across diverse industries.

With a proven track record of optimizing operational efficiencies and driving cost savings, he is an expert at developing sourcing strategies, negotiating contracts, and implementing innovative solutions to streamline the supply chain process, enhance supplier relationships, and execute complex logistics operations.



DENIS LEGAULT, CPA
FINANCE DIRECTOR

Chartered professional accountant with over three decades of experience in financial management. Bringing a wealth of experience from diverse industries, He joined SBB in 2018 with a clear goal: to craft our financial strategy with precision, leveraging industry best practices. His rigorous approach to cash flow and risk management ensures that we navigate the financial landscape with confidence and foresight.

OUR BUSINESS UNITS

At our core, we specialize in providing aluminium turnkey solutions across various sectors, seamlessly blending innovation, expertise, and reliability. Our business units encompass a comprehensive offer, each carefully designed to provide our clients with dependable and innovative solutions to meet their unique challenges.

ALUMINUM GUYED TOWERS

- Emergency Restoration System (ERS)
- Masts (Met Mast)
- Tower Crane

BARRIERS

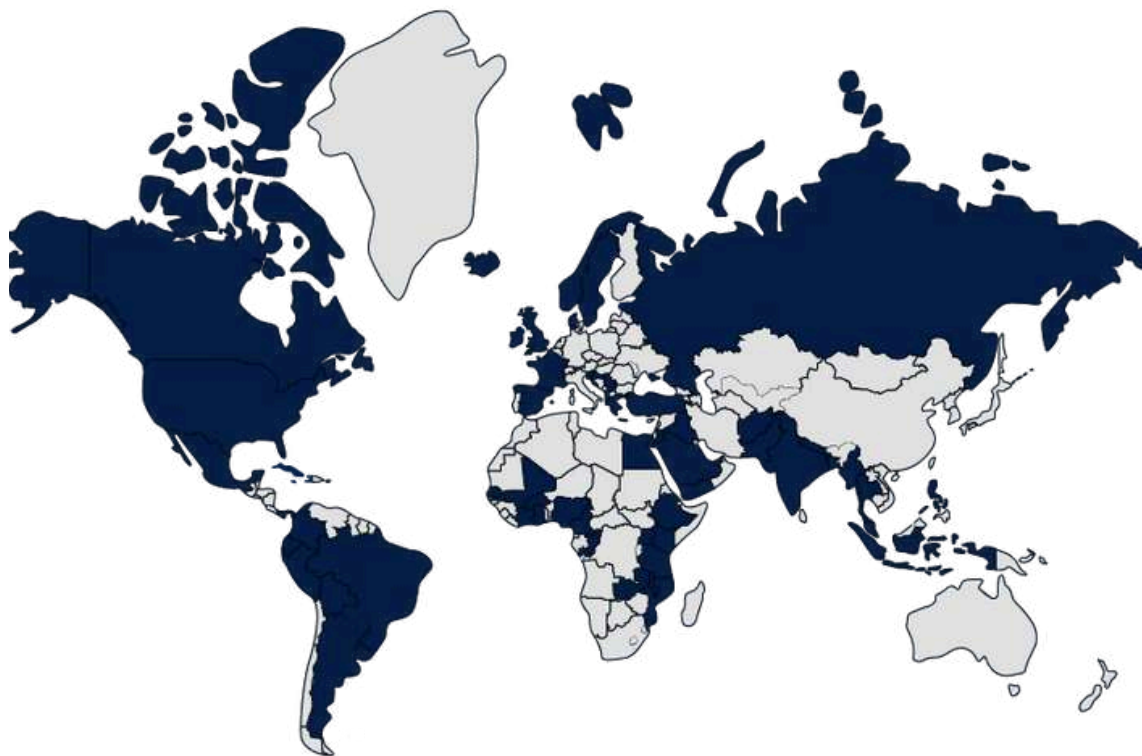
- Anti-flood barriers
- Liquid basin
- Hazardous liquid waste protective barrier

ENGINEERING & MANUFACTURING SERVICES

- Machining center and triple welding skills- TIG, MIG and FSW (Friction Stir Welding)
- Engineering and Design services
- Manufacture of complex aluminium structures

TECHNICAL SERVICES AND SOFTWARE

GLOBAL PRESENCE



- Our company is headquartered in Blainville, Quebec, Canada.
- We have a presence in over 60 countries.
- Our team is as diverse as our clientele. This diversity enables us to provide our customers with excellent service in their preferred language most of the time.

SBB IN NUMBERS



ALUMINIUM GUYED TOWERS



Our aluminium geyed towers provide a versatile solution to the numerous challenges faced by utilities worldwide. Their lightweight yet sturdy construction makes them ideal for addressing issues such as aging infrastructure and the need for network expansions to cope with increasing energy demand.

Our aluminium geyed towers, a sustainable alternative, are designed to swiftly and efficiently aid in emergency restoration efforts. They are beneficial for integrating new technologies and contributing to the modernization and construction of transmission lines. They also provide a sense of security, knowing they can be deployed without power interruption.

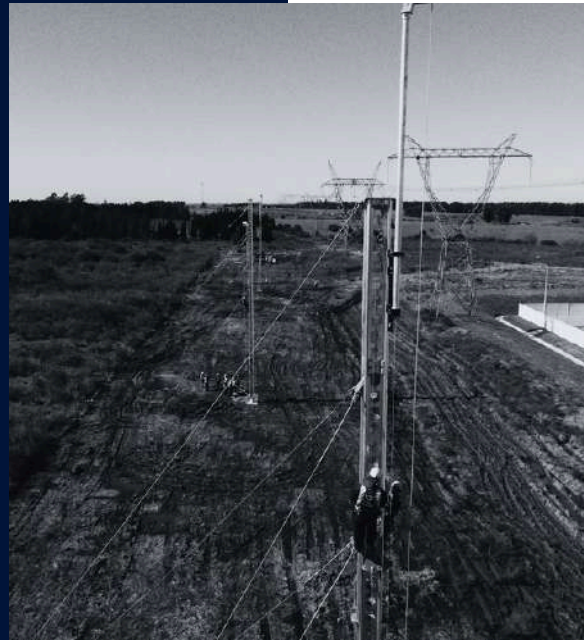
Aluminium is ideal for use in extreme weather due to its thermodynamic adaptability. Unlike other metals, it doesn't become brittle at low temperatures. Most aluminium alloys can perform at temperatures as low as -45°C while being lighter than steel alloys without compromising performance and endurance.

Furthermore, aluminium's superior thermal conductivity allows it to dissipate heat more efficiently than steel in extreme weather conditions. This helps maintain dimensional stability, prolongs the tower's lifespan, and instills confidence in its endurance. Our towers have been tested in various global projects, and we can confidently say that they can withstand any terrain or weather conditions.

ALUMINIUM GUYED TOWERS

EMERGENCY RESTORATION SYSTEM (ERS)

- Our emergency restoration towers provide a solution for escalating energy demand and the need for improved grid reliability.
- Made of aluminium, they offer strength, durability, and lightweight characteristics, ideal for fast emergency response.
- Emergency restoration towers can be used for voltages ranging from 33kV to 1000kV.
- Innovative design ensures quick restoration, expansion, and maintenance of power transmission lines, minimizing downtime.
- Unique components like CE-certified fall arrest devices and work platforms prioritize safety without compromising speed, even in emergencies.
- Strategically deploying these towers improves emergency preparedness and network resilience and meets growing energy demand regardless of weather or ground conditions.



MASTS (MET MAST)

- Our Met Masts offer solutions for companies aiming to meet changing customer needs and decarbonization commitments.
- SBB Met Masts are meticulously designed for permanent installation and temporary prospecting, facilitating accurate, real-time data collection for renewable companies.
- Lightweight yet robust construction ensures long-term structural integrity and cost-effective prospecting with a height of up to 125m.
- They enable renewable energy companies to boost power generation capacity, align with customer expectations, and promote resilient infrastructure for decarbonization.

ALUMINIUM GUYED TOWERS

TOWER CRANE (CONSTRUCTION LIFTING SYSTEM)

- Innovative, modular aluminium guyed crane tower.
- Minimizes time, labour, and long-term costs for transmission line expansion projects.
- Constructed using high-strength aluminium for unparalleled durability.
- Lifespan of up to 50 years.
- Capacity to lift loads of up to 3 tonnes.
- Lightweight for easy transport and installation.
- Robust for safety and reliability during critical lifting operations
- Customers worldwide benefit from savings on transport and operational costs.
- Enables allocation of resources towards other project aspects.



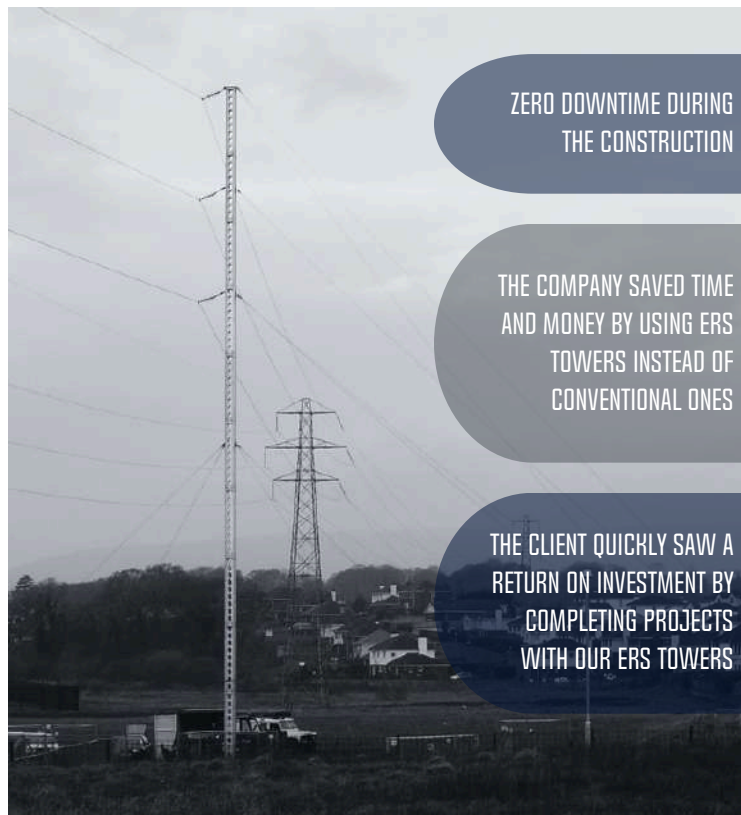
FIND MORE CONTENT ABOUT OUR
ALUMINIUM GUYED TOWERS HERE



CASE STUDIES

A NEW WAY OF MANAGING THE CONSTRUCTION OF A SUBSTATION

A utility company in Europe was planning to add a new substation to an existing 275 kV double-circuit power line. This project involved building two new terminal towers to serve the new substation. The main challenge was finding a cost-effective way to bypass the entire 300-meter-long construction site with a temporary power line without disrupting the power flow.



CHALLENGES

This client encountered several challenges during the construction of new terminal towers. A primary concern was ensuring the constant availability of a circuit on the existing power line throughout the project. Any downtime of the entire power line was unacceptable, as it could threaten network security. The client's tight deadline required readily available, easy-to-install, and dependable materials.

SOLUTION

This client purchased the SBB Emergency Restoration System (ERS) towers for emergencies, also used in planned transmission network projects. During the substation connection project, two ERS towers were set up to ensure that one power circuit remained operational during the construction of the terminal towers.

Once the construction was complete, the conductors were reinstalled onto the new terminal towers, and the ERS towers were disassembled and stored in the SBB containers. The ERS towers proved to be a faster and more economical solution compared to standard lattice steel towers.

CASE STUDIES

INSTALL ATION OF THREE PERMANENT MET MASTS IN CANADA

Our client needed to install three weather masts permanently for their Regional Wind Farm project in Canada. Since the existing wind turbines in the region stand at an average height of 124 meters, the met masts must be as tall and robust as possible to withstand extreme weather conditions. Our client had a specific and unique requirement since setting up a 124m mast would make it the tallest in North America.

CHALLENGES

During the development of this project, three aspects were considered. The first was the "Safety First" approach, which required the installation to adhere to the highest safety standards, regardless of the mast chosen. The second was that the measurement mast must meet the design requirements of the international standard IEC 61400-2-1:2005. Finally, completing the installation on schedule was crucial, given the project's specific requirements.

SOLUTION

Given the project requirements, SBB towers were a perfect fit. They were made of light sections (under 100 kg) that could be assembled by a team of six people within a minimal time frame.

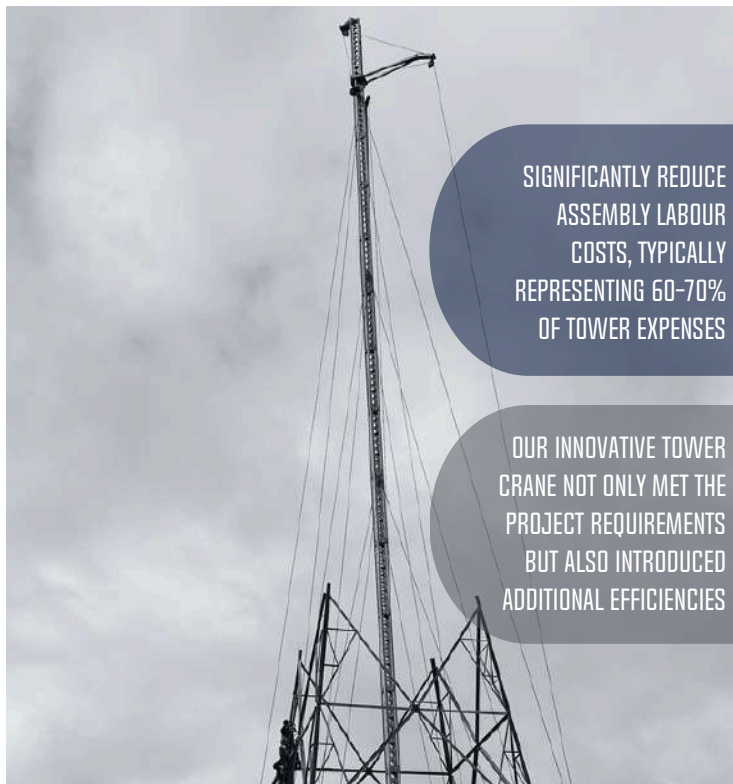
Furthermore, reliable equipment, such as a CE-certified Fall Arrest Device, maintains the highest level of safety. The Fall Arrest Device lets climbers/riggers safely climb the tower while being secured without interruptions from bottom to top, in comparison to other lifeline devices.



CASE STUDIES

INNOVATIVE CRANE SOLUTION ENHANCES TOWER UPGRADE PROJECT EFFICIENCY

Our client specializes in developing custom solutions for lifting and erecting existing high-voltage towers. The end-user, a European Grid Operator, faced challenges in upgrading its secondary transmission network due to increasing demand for alternative energy sources. However, strict environmental constraints imposed conditions on the project's execution.



CHALLENGES

The European Grid Operator encountered several challenges, including limited workspace around existing towers, restrictions on the number of trucks, prohibition of ground excavation, and limitations on equipment size. On our side, our team faced a tight deadline of two months to deliver a fully functional product. Despite our late-stage involvement, we overcame initial doubts and successfully completed the project.

SOLUTION

The collaborative solution involved our client's clamps on existing towers, allowing the attachment of guy wires for crane stability. Our crane provided the lifting capabilities needed for tower assembly, outperforming expectations with additional functionalities

like load rotation, reducing assembly time and effort. The project was a success, meeting lifting capabilities as per the scope statement. Our crane's additional functionalities significantly enhanced efficiency, demonstrating its value in tower assembly projects.

ALUMINIUM BARRIERS



Companies and communities worldwide face a significant challenge in protecting their critical infrastructure from flooding due to climate change.

Our aluminium barriers are designed to protect their critical infrastructure against flooding, serve as reliable liquid basins, and protect against hazardous liquid waste.

Constructed with high-strength aluminium and marine-grade alloy, these barriers offer multiple advantages: they are lightweight, versatile, and highly durable. Unlike traditional materials, aluminium is corrosion-resistant, ensuring the barriers remain effective in harsh environmental conditions for an extended period.

Our aluminium barriers are more than just a product; they represent our proactive commitment to safety. They offer companies and communities a reliable and adaptable solution to enhance the longevity and reliability of their critical assets, manage liquid containment, and protect against hazardous spills.

ALUMINIUM BARRIERS

ANTI-FLOOD BARRIERS

- Provides essential protection to substation infrastructure against flooding
- Made from high-strength aluminium with marine-grade alloy
- The barrier is designed to withstand increased loads, including waves, currents, and debris, and has a height of 3.2 ft/1m above the water
- Lightweight, versatile, and highly durable
- Corrosion-resistant, ensuring long-term effectiveness in harsh environmental conditions
- Innovative design allows for rapid deployment
- Forms a shield around designated areas, preventing water damage to critical infrastructure



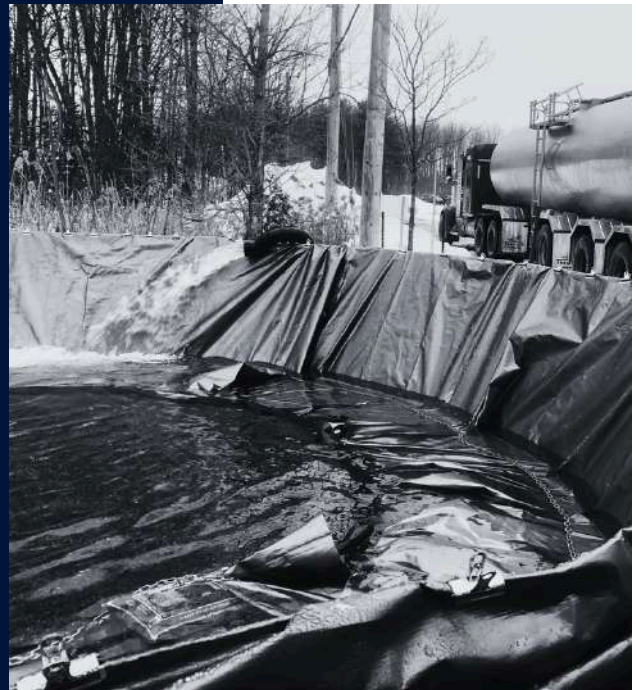
LIQUID BASIN

- Lightweight and easy to transport and install
- High strength and durability
- Corrosion-resistant, ensuring long-term effectiveness in harsh conditions
- Versatile, suitable for a variety of liquid containment needs
- Rapid deployment and easy setup
- Low maintenance compared to traditional materials
- Environmentally friendly and recyclable

ALUMINIUM BARRIERS

HAZARDOUS LIQUID WASTE PROTECTIVE BARRIER

- Minimize environmental risks and potential harm to surrounding areas.
- Easy to transport, install, and adapt to various environments, enhancing efficiency and flexibility in deployment.
- The innovative design facilitates quick setup, enabling swift response to hazardous liquid waste incidents and emergencies.



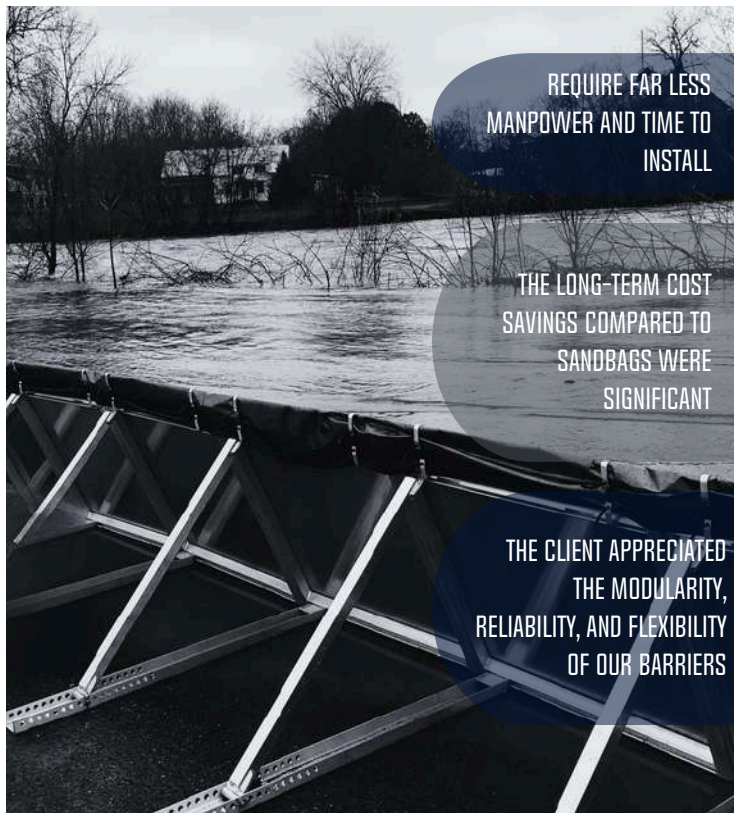
FIND MORE CONTENT ABOUT OUR
ALUMINIUM BARRIERS HERE



CASE STUDIES

PROTECTING COMMUNITIES AGAINST FLOODING

A municipality in Canada, prone to severe flooding due to its geographical location, needed an effective solution to safeguard its main access routes. In previous years, the community relied on sandbags, which, while widely used, proved insufficient. The lengthy installation time, limited human resources, and post-flood contamination made sandbagging an unsustainable and inefficient option. The municipality turned to SBB Aluminium Anti-Flood Barriers to ensure that emergency services could quickly reach areas in need during flood events and mitigate the effects of this natural disaster.



CHALLENGES

The municipality's main concern was ensuring that emergency services could access areas in need during floods while also protecting the community's vital infrastructure. With the traditional sandbagging approach, the community struggled to protect key areas quickly and efficiently. Additionally, using sandbags on roads and parking lots raised concerns about potential damage to the ground and contamination after water receded.

SOLUTION

Our solution was chosen for its flexibility, modularity, and ease of installation, allowing the municipality to deploy flood protection rapidly and with minimal manpower.

Unlike sandbags, which are often single-use, SBB barriers are reusable, making them a cost-effective solution even after their first use.

The barriers were particularly effective in

preserving the integrity of existing infrastructure, such as roads and parking lots. Our system's ability to be deployed without damaging surfaces was crucial in maintaining the area's day-to-day functionality during flood events. Additionally, our engineering ensures that the barriers can perform reliably under diverse conditions, including heavy rain and rapid snowmelt, which are common in the region.

ENGINEERING AND MANUFACTURING SERVICES



At SBB, we provide a comprehensive suite of services for engineering and manufacturing in aluminium.

Our expertise in precision machining, advanced welding techniques, and innovative engineering guidance allows us to undertake custom-made projects tailored to our clients' needs. Our services include:

- Precision Machining
- Expert Welding (TIG, MIG, FSW)
- Engineering Guidance and Design Support
- 3D Modelling for Efficient Production
- Structural Design and Analysis
- Manufacturing of Heavy and Complex Aluminium Structures
- Cost-Effective Sourcing and Optimization Solutions
- Turnkey Manufacturing Solutions

Whether we work with an established industry leader looking to revolutionize aluminum structure manufacturing or a dynamic start-up needing top-tier engineering and manufacturing guidance, we ensure that our tailored solutions exceed their specific requirements.

With our modern production facility and highly skilled team, we guarantee efficient project completion at the highest quality standards.

ENGINEERING AND MANUFACTURING SERVICES

MACHINING CENTER AND WELDING SKILLS

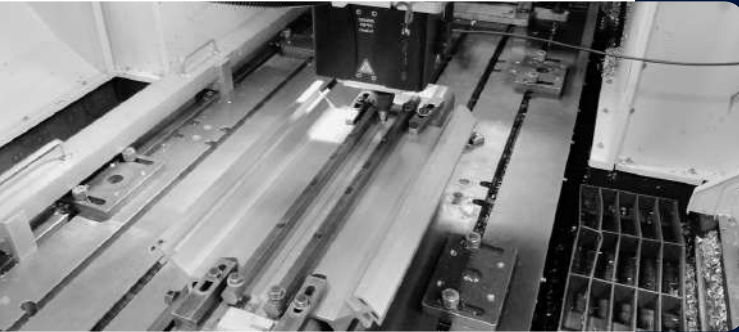
SBB operates within a state-of-the-art 30,000 sqft factory with a 28-foot high ceiling, housing a team of expert welders specializing in TIG and MIG techniques. The facility boasts :

- 2 Fanuc robotic welding arms can weld up to a radius of 3 meters and in all directions thanks to their six axes of movement
- Friction Stir Welding (FSW)
- Overhead cranes with lifting capacities of up to 25 tons
- Production of parts up to 12 meters long
- Team of expert welders in TIG and MIG: MIG welding is usually the best choice when dealing with thicker metals, as it has high penetration, along with the feed wire supplied into the weld puddle. It is mainly used in the manufacturing of pressure vessels and in the construction industry.

TIG welding is preferred for thin, delicate, and prone-to-defect materials. Its applications include pipe joints, aerospace, and automotive fabrication.



ENGINEERING AND MANUFACTURING SERVICES



FRICTION STIR WELDING (FSW)

In 2014, drawing on our extensive experience in aluminum fabrication, we introduced friction stir welding (FSW) to the Canadian market. This cutting-edge technology had been gaining ground in Europe but remained in an early stage in Canada. Motivated by the challenge, we seized the opportunity to pioneer the adoption of FSW, recognizing its potential to revolutionize the aluminium industry. Today, we are proud to be one of the key leaders in this innovative technology, demonstrating our commitment to pushing the boundaries of excellence and advancing the Canadian aluminium sector.

Some advantages of Friction Stir Welding are:

- **Low deformation:** Minimization of distortion and internal stresses.
- **No cracking:** The absence of cracks and porosities is common in traditional welding.
- **Reliability and repeatability:** High reliability and reproducibility of welds.
- **Fast process:** Increased production speed.
- **Aesthetic results:** Clean, aesthetic welds with no need for rework.
- **Strength and hermeticity:** Excellent mechanical strength and hermeticity.
- **Durability:** Long-lasting assemblies.
- **Clean and safe production:** Environmentally friendly and safe process.

ENGINEERING AND MANUFACTURING SERVICES

ENGINEERING AND DESIGN SERVICES

Our team of specialized engineers and designers excels in the fields of civil, mechanical, electrical and industrial engineering. We provide comprehensive services to analyze and optimize your extrusion designs, ensuring efficiency and cost-effectiveness. From simplified and standardized shapes to detailed 3D modeling, we facilitate the fabrication of your concepts with precision.

Key benefits of our services:

- **Extrusion Design Optimization:** We analyze your designs to suggest improvements that enhance performance. By simplifying and standardizing shapes, we create accurate 3D models for your approval, ensuring seamless fabrication.
- **Efficiency and Cost Reduction:** Our experts streamline complex concepts to reduce assembly and manufacturing challenges. We conceptualize scalable forms of extrusion and group components strategically, saving you time and money while boosting efficiency.

Customized Solutions:

- **Material Selection:** We provide expert advice on selecting the best materials for your project.
- **Project Configuration:** Our team recommends dimensions and configurations that align with your goals, accelerate production, and ease transport.
- **Welding Optimization:** We assess the impact of welds on product appearance and quality, determining optimal welding methods for a flawless final concept.

Advanced Modeling:

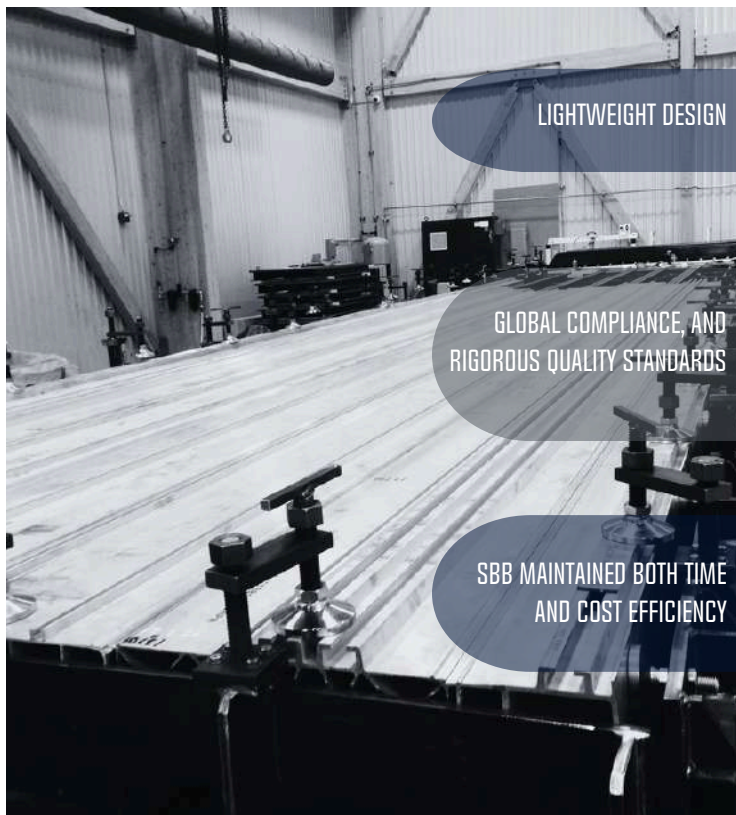
- **Interference Simulation:** We predict potential interference between parts in an assembly, preventing the creation of non-viable concepts.
- **Force Simulation:** Our modeling simulates forces on parts to determine their capacity and durability, utilizing finite element calculations and material properties.



CASE STUDIES

LIGHTWEIGHT CONSTRUCTION IN THE TRANSPORTATION INDUSTRY

The aluminium roof structures, known as pavilions, are critical components of the rail wagons. Each pavilion measures 2.5 meters (8 feet) in width and varies in length from 10 meters (33 feet) to 11.5 meters (38 feet), with an approximate weight of 1,300 kilograms (3,000 pounds). These complex structures comprise several extruded aluminium sections and must meet stringent industry specifications for performance and durability.



CHALLENGES

The client faced several challenges, beginning with the need for lightweight but durable roof structures that would optimize train performance and reduce environmental impact. Additionally, the project required absolute precision to meet strict safety and quality regulations essential to the rail industry. As a European client, they also required a manufacturer that could adapt to their specific standards. Ensuring consistent quality across all units while keeping the project within time and budget constraints was another critical factor.

SOLUTION

Using friction stir welding (FSW), along with MIG and TIG welding, SBB ensured the precision needed to meet the client's rigorous safety and performance specifications. Additionally, SBB adapted its manufacturing processes to align with the European standards, ensuring full

compliance with the client's requirements. To guarantee the highest level of quality, SBB conducted thorough testing on each unit, including X-ray, ultrasonic, magnetic particle, and penetrating liquid inspections. These measures ensured that every pavillion met the necessary structural and safety benchmarks.

TECHNICAL SERVICES AND SOFTWARE

We offer exceptional technical support to verify solutions, validate configurations, and address inquiries. Our complimentary support is available indefinitely for customers using our turnkey aluminium solutions.

TRAINING PROGRAMS

Our experienced team has conducted over 200 global training sessions, offering unmatched expertise. Our tailored training ensures that participants gain the necessary knowledge and experience to work safely and independently. These programs are divided into two comprehensive categories:

- **Field Training:** 5 days of hands-on instruction for assembly and dismantling of towers in various environmental conditions.
- **Software Training:** 3 days of intensive software training covering the operation of the software and installation methods.

SOFTWARE SOLUTIONS

SBB utilizes Power Line Systems Inc.® (PLS series) software, trusted by over 80% of power utility professionals for its flexibility and reliable calculations, enabling result validation and scenario simulation.

- **PLS-CADD LITE:** Validates ERS tower behavior, displaying line parameters and climatic loads.
- **PLS-POLE LW + MAST:** This software defines tower component capacities, calculates required guy wires, assesses insulators' mechanical capacities, and details element geometries.





CONTACT INFORMATION

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