Automated Construction Equipment
Panelization Made Simple for the 21st Century

Integrated Systems for Automation in the Construction Industry
Automated Construction Equipment

Automated Construction Equipment (ACE) is a leader in the design, development and fabrication of the most advanced process equipment available for the construction industry.

Our process equipment is designed to meet the needs of our customers preferred construction method whether it is utilizing wood, Light Steel Framing solutions (LSF) or a hybrid system integrating red iron and LSF into the construction process.

Automated Construction Equipment goes beyond just being an equipment manufacturer as we are able to help you with your project every step of the way. We are able to do this through our strategic partnerships with a number of engineering and construction management firms who we have developed working relationships with over the years. These firms have proven track records and are first tier organizations in their respected fields. This allows us to help you take your project from Greenfield to a finished product.
Automated Construction Equipment offers a number of framing systems to meet your light steel framing needs. Our equipment is designed to meet your needs to ensure that your construction process meets and exceeds your local building code. So if you are looking at using LSF for the entire project or a hybrid system incorporating red iron or another construction method we are here to help.

We currently offer systems ranging from powered framing tables to hold the frame in position while the members are fastened by the operators either manually, our multiple fastening tools, our automated fastening tools to a fully robotic welding system.

**Framing Systems ~ Light Steel Framing**

**Heavy Duty LSF Framing Table**

**Model:** S4-14  
**Panel Length:** 16', 24', 30' or custom unit  
4.9m, 7.3m, 9.1m  
One side fixed, one side adjustable.  
**Panel Height:** 4' - 14'; 1.22m - 4.27m  
**Fastening:** Twin screw fastening units (standard)  
**Drive:** Twin 1HP drive units coupled with a variable speed drive with a torque inverter.  
**Standard Accessories:**  
- Pop-up rollers on each side for easy removal of completed frame  
- Adjustable side rail supports for door/window assemblies  
- 0 point position with built in tape measures  
- Powder coat finish

**Heavy Duty LSF Framing Table**

**Model:** D4-24  
**Panel Length:** 16', 24', 30' or custom unit  
4.9m, 7.3m, 9.1m  
both sides adjustable.  
**Panel Height:** 4' - 24'; 1.22m - 7.32m  
**Fastening:** Twin screw fastening units (standard)  
**Drive:** Twin 1HP drive units coupled with a variable speed drive with a torque inverter.  
**Standard Accessories:**  
- Pop-up rollers on each side for easy removal of completed frame  
- Adjustable side rail supports for door/window assemblies  
- 0 point position with built in tape measures  
- Powder coat finish

**Medium Duty LSF Framing Table**

**Model:** MD8-10  
**Panel Length:** 16’ or 24’  
4.9m or 7.3m  
both sides adjustable.  
**Panel Height:** 8’ - 10’; 2.44m - 3.05m  
**Fastening:** Twin screw fastening units (standard)  
**Drive:** Single 1HP drive units coupled with a variable speed drive with a torque inverter.  
**Standard Accessories:**  
- Pop-up rollers on each side for easy removal of completed frame  
- Adjustable side rail supports for door/window assemblies  
- 0 point position with built in tape measures  
- Powder coat finish

**Optional Framing Table Upgrades:**
- Automated fastening units (screw or nails)  
- Automated welding units  
- Smart plant tracking and process control
Sheathing Systems

ACE has developed three separate sheathing systems to meet the degree of optimization your facility requires. Whether you only need a manual system with a squaring corner, to a semi-automated system with a multiple tool bridge to a fully automated linear actuator ‘cnc’ system, we have the sheathing system best designed for your requirements.

Manual Sheathing System
Model: MSS14-24
Panel Size: 14’ x 24’; 4.27m x 7.30m Maximum
Standard Accessories:
Pop-up rollers on each side for easy removal of completed frame
Squaring corner to ensure frame stays square
Safety catwalk running length of unit on both sides
Powder coat finish
Optional Upgrades:
High RPM drills equipped with ergonomic fastening system for operators.
Smart plant tracking and process control

Semi-Automatic Sheathing System
Model: SAS4-14
Panel Length: 16’, 24, 30’ or custom unit
4.9m, 7.3m, 9.1m
One side fixed, one side adjustable.
Panel Height: 4’ - 14’; 1.22m - 4.27m
Fastening: Multiple tool package fastening bridge (up to 24 tool
Drive: Single 1HP drive units coupled with a variable speed drive with a torque inverter.
Standard Accessories:
Pop-up rollers on each side for easy removal of completed frame
Squaring corner to ensure frame stays square
Powder coat finish
Optional Upgrades:
Automated fastening units (screw or nails)
Smart plant tracking and process control

Fully Automatic Sheathing System
Model: FAS4-14
Panel Length: 16’, 24, 30’ or custom unit
4.9m, 7.3m, 9.1m
One side fixed, one side adjustable.
Panel Height: 4’ - 14’; 1.22m - 4.27m
Fastening: Single tool fastening system
Drive: Multiple axis linear controlled actuators
Standard Accessories:
Pop-up rollers on each side for easy removal of completed frame
Squaring corner to ensure frame stays square
Stud detection system (wood or LSF)
Powder coat finish
Optional Upgrades:
Additional tool accessory package (router, etc)
Smart plant tracking and process control
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Roll Forming ~ Light Steel Framing

ACE with its roll forming partner has developed a series of stud, track and bridging machines to produce all the LSF stud and track members you will require.

If you are looking at cutting the middle man out of your supply chain and are looking at the option of roll forming we have the machines that will meet your requirements.

We offer options optimization packages for single machines, three machine packages and five machine packages to better control the roll forming process in your facility.

**Track & Stud Roll Forming Machine**
**Model:** TSR-1420-5
**Gauges:** 20 up to 14 (0.9mm to 1.9mm)
**Profiles:** 5 x C/U 3-5/8” to 12” (92mm to 305mm)
**Stations:** 12
**Production Output:** 1200m/hr
**Decoiler:** 3000Kg maximum rating

**Track & Stud Roll Forming Machine**
**Model:** TSR-1420-6
**Gauges:** 20 up to 14 (0.9mm up to 1.9mm)
**Profiles:** 6 x C/U 2-1/2” up to 12” (92mm to 305mm)
**Stations:** 14
**Production Output:** 1200m/hr
**Decoiler:** 3000Kg maximum rating

**HD Track & Stud Roll Forming Machine**
**Model:** TSR1220-6
**Gauges:** 20 up to 12 (0.9mm to 2.5mm)
**Profiles:** 5 x C or U; 3-5/8” up to 12” (92mm to 305mm)
**Stations:** 14
**Production Output:** 1200m/hr
**Decoiler:** 3000Kg maximum rating

**Dedicated Bridging Forming Machine**
**Model:** BR 15
**Gauges:** 18 and 20 (0.9mm to 1.3mm)
**Profiles:** 1 x U
**Stations:** 8
**Production Output:** 1200m/hr
**Decoiler:** 1500Kg maximum rating
**Truss Systems**

Automated Construction Equipment offers Truss Systems for both wood and LSF framing systems. Both systems allow for the easy layout and fastening of either wood or steel members.

Our Truss Systems be designed to meet your particular truss requirements whether you require a single truss line to a multiple line set up, we are here to help.

**Standard Truss System Options**

- Truss systems are specifically designed for either LSF/LGS or wood building systems.
- LSF/LGS truss systems are manual units with a maximum capacity of 14’ x 60’ (4.3m x 18.3m)
- Wood truss systems are semi automated building systems and come equipped with a bridge fastening system
- All units come equipped with quick positioning markers for quick jig set up
- All units are equipped with pop-up rollers for easy removal of truss
- All units are powder coat finished
Automated Construction Equipment will work with you every step of the way and we stand by that. We have developed a Plant and Construction Management package to help you enter into the world of high production manufacturing of residential and commercial properties.

Our management package will be tailored to meet your organizations needs. Whether you are a financier developer, construction company or an entrepreneur starting out as new venture we will work with you to ensure that this venture will succeed.

We offer either Plant Management packages for a period of 6, 12, 24 months or more to meet your needs. This package provides for a plant manager and supervisors to oversee the day to day operations of the production facility. In conjunction with this we will provide the set up of the material supply and purchasing arrangements for the plant operation. We also offer human resource services, payroll, account payables/receivables and any other administrative roll for plant operations.

We also offer along with the plant management package a construction management service package for the on site installation and finishing of the buildings. We will work with local contractors and trades to teach them in the particular of panelization installations and finishing services to meet and exceed the local building codes.
**Engineering Partner**

**Falcon Engineering** is a Canadian engineering, professional consultancy and designs build Service company that have achieved recognition for promoting conservation and reusable energy. Our deep understanding of the culture needs and expectations of the local North American market provides us an advantage as we are able to respond promptly and appropriately to satisfy and exceed such needs.

We strive to please our clients with our high bench mark services and are very passionate to deliver high quality work. We specialize in consulting services for both commercial and industrial facilities with high quality, affordable solutions to saving energy, utilizing state of the art technology.

The company, with over 40 years of combined experience, has been providing professional consulting and turn-key services to manufacturing and marketing sectors. We have the extensive experience, technical and managerial expertise to successfully serve all types of properties/facilities that include commercial and residential buildings institutions (schools, hospitals, and government complexes), manufacturing and industrial facilities, recreational facilities, healthcare, pulp and paper, mining, pharmaceuticals, food and beverage and preventive maintenance support.

Falcon Engineering stands for:
- Safety, well-being and comfort of all human beings
- Integrity of professional services and commercial relations
- Application of state-of-the-art engineering capability
- Confidentiality of client information
- High level of tailored expertise.
- Close and long-term relations with technology and business partners.
- Sustainable use of world resources
- Protection of the world fauna and flora
Benefits of Light Gauge Steel Framing

There are many reasons why steel framing has come to the forefront as one of the best and most feasible alternative building materials for residential and commercial construction. Steel is a superior construction material.

- Highest strength-so-weight ratio of any building material
- 100% recyclable
- 68% industry recycling rate
- Non-combustible - does not burn nor contribute fuel to the spread of a fire
- Inorganic - will not rot, warp, split crack or creep
- Dimensionally stable - does not expand or contract with moisture content
- Consistent material quality - produced in strict accordance with national codes, no regional variations.

Benefits to the Builder

- Substantial discounts on builder risk insurance
- Lighter than other framing materials
- Noncombustible
- Easy material selection - no need to cull or sort the pile and a small punch list
- Saves jobsite time with ease of panelization offsite
- Straight walls and square corners
- Windows and doors open and close as they should
- Less scrap and waste (2% for steel vs. 20% for wood)
- Price stability - price spikes are extremely rare
- Consumer perceives steel as better

Benefits to the Consumer

- High strength results in safer structures, less maintenance and slower aging of structure
- Fire Safety
- Not vulnerable to termites fungi or organism, including mold
- Less probability of foundation problems - less weight results in less movement
- Less probability of damage in an earthquake
- Lighter structure with stronger connection results in less seismic force
- Less probability of damage in high winds
- Stronger connections, screw vs. nail