



## Custom Plastic Enclosures

We manufacture custom plastic enclosures and housings for low and medium runs with  
**NO MOLDS or TOOLING!**



# The Company



- Quick
- Easy
- Performant



## Toolless:

We design and create custom plastic enclosures and housings in small, medium or large production runs with no molds or tooling.

Toolless has been ISO certified since 2020. All our systems and designs comply with the certs.

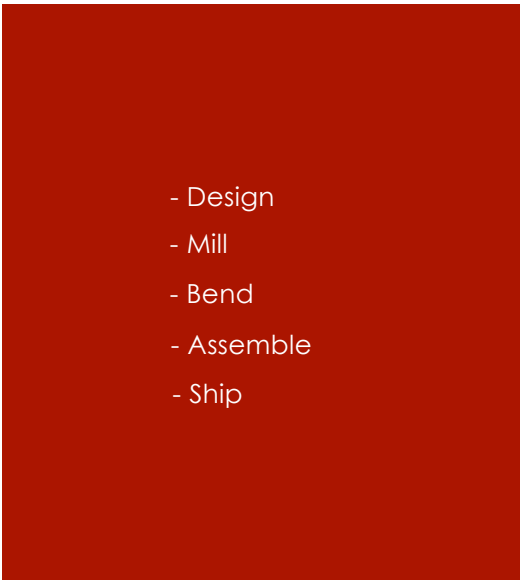
With more than 25 years of experience in the industry we are able to cover all ranges of enclosures, from simple to complex.

The technology used by Toolless was developed in the early 90's in France. It grew out of a combination of sheet metal, wood cabinet making and model-building fabrication techniques. It was first called TTK-Box in North America, and has been called Toolless since 1997. Toolless Plastic has a French partner, LTP.

The company is located in Everett, Washington (USA). Our facility is 15,000sq/ft., which houses design,

production, and cosmetic enhancements. We have 18 employees including two designers, one sales manager, one operations manager, one office staff, one financial manager and 12 manufacturing staff.

Toolless Plastic Solutions has more than 250 customers such as AMD, Rockwell Automation, Molex, GE Healthcare and Philips. All of our products are made in the USA. We can deliver products anywhere in the USA or internationally.



## Custom Plastic Enclosures:

Our strength is to create your enclosures with no molds or tooling. This includes a low initial investment and the capacity to modify your enclosure at any step of production.

### **Design:**

Toolless uses SolidWorks to design any product/design. After the completion of the design we send the customer a 3D model, which belongs to them. We can also create changes in the design at any stage of the production. It is simple to make changes and it is affordable. The design process of a product can take about one to two weeks depending on the level of complexity of the enclosure.

### **Prototyping:**

Upon approval of the design, we will proceed with making the prototype. The prototype is crucial in our process because it is the mock-up for your approval, and to make sure that we understand your needs. Prototyping can take up to one week.

### **Mass production:**

Upon approval of the prototype, we start the production. The time frame of mass production depends on the number of enclosures needed and the complexity of the enclosure.

## Our Manufacturing Process:

There are four steps in our manufacturing process:

### **Milling:**

When the design is completed and approved all the data will be exported into a CNC. In this phase we use a flat sheet of plastic and we cut the enclosure's pattern.

### **Sawing:**

This is a unique technology from Toolless called "Tongue and Groove." This technology allows us to have a faster turnaround and also to achieve better bending with a higher cosmetic finish.

### **Bending:**

After the flat sheets of plastics are milled and sawed we bend the plastic. We can do cold or hot bending depending on the angle. We also are able to add curves in an enclosure.

### **Assembling:**

Finally we assemble the parts using glue that melts the plastic together.



### Materials:

At Toolless Plastic Solutions we carry a large range of plastics:

- ABS
- Acrylic
- Polycarbonate
- Boltaron

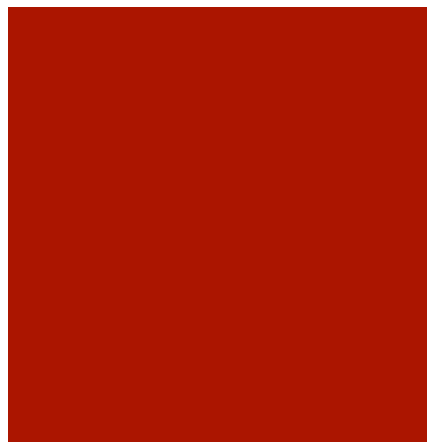
Those plastics are available in different colors, and can be assembled easily.



### Cosmetics:

Toolless Plastic Solutions has contributed to its success in making high cosmetic enclosures by adding some cosmetic enhancements to this manufacturing process:

- Digital Printing is available in house.
- Paint can be added to match specific colors.



# Technologies Matrix

	Toolless	Injection	Thermoforming
NRE + prototype (\$)	Low	High	High
Allow Modification	✓	x	x
Tooling	x	✓	✓
Dying cut	x	✓	✓
Curve	✓	✓	✓
Bending	✓	x	x
Silkscreens	✓	x	x
Quality	High	High	Medium
CNC	✓	x	x
Turnaround	Fast	Slow	Slow
3D models	✓	x	x
Paint	✓	x	x
Assembly Capacity	0 to 500 pieces	Over 1000	Over 1000



### Toolless Contact:

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