

American Manufacturing at it's **BEST**....





# Corporate Governance

#### **Accountability:**

ISO 9001 Certification requires documented processes, from the front office to the manufacturing floor. We are subject to the standards of the certification.

#### **Transparency:**

We keep our employees in the loop, sharing the good and the bad, and welcoming honest feedback from members of the team.

#### **Equity and Inclusion:**

Management has an "open door" policy, all Employees are considered equal parts of the BTE team, with their own unique talents and needs. We strive to create a true "Family Atmosphere".

#### **Responsibility:**

As a manufacturer of products which affect businesses and consumers directly, we understand the importance of delivering products that perform their intended function.





## Services

- Design Development
- Engineering
- Tooling
- Molding
- Assembly



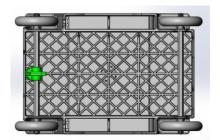


# Design Development

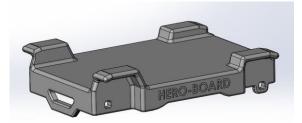
### 90% of our Customers (new and existing) engage us during the Design Phase of their project:

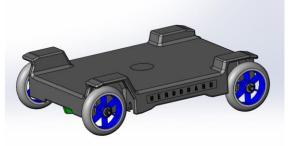
- Trusted experts in Design Development (tooling, material and performance optimization, sustainability)
- BTE's Team of specialists (Engineering, Design, Manufacturing) work closely with Manufacturing Engineers,
   Inventors and Product Developers





- Lower Production Cost
- Higher Quality
- Quicker Time to Market
- Lower Capital Equipment Cost
- Bring Production up to Speed Sooner
- Fewer Engineering Changes
- Lower materials and labor costs
- Reduce product development cycle time
- Emphasis on standards reduces costs





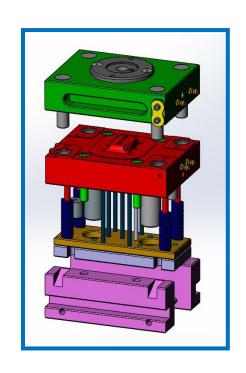




# Engineering

**CAD/CAM Design for Manufacturing** 

- Solid Works CAD
- SurfCam/Fusion 360 CAM









# Tooling

### Machining

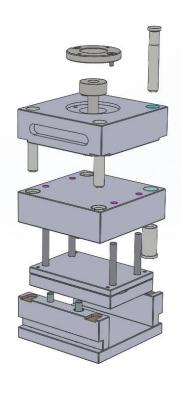
Milling, turning, patterns, fixtures and molds

Capacity range from a single prototype to production quantities

Highly skilled and experienced work force with modern tools and equipment

Turn-key prototype to production stages Inspection, assembly, testing, packaging, labeling.

Quick delivery response time



- 1 Haas VF-7 32 X 32 X 84
- 1 Haas VF-5 5 axis 12h X 24w X 32d
- 1 Haas VF-3 26 X 26 X 40
- 1 Haas VF-2 5 axis 6h x 12w x 12d
- 1 Fadal 4020 20 X 20 X 40
- 1 Haas TM-2 16 X 16 X 40
- 2 Haas TM-1 12 X 12 X 30
- 1 Haas TL-1 Lathe 10" diameter cap.
- Wire and Conventional EDM
- Balance of tool-room support equipment including, milling machines, engine lathe, surface grinding, ID grinding.
- Planned addition of Haas EC1600 Horizontal CNC boring Mill Q2 2024.





# Tooling

### Injection Mold Tools, Simple to Complex...



**Single Cavity Tool** 



**Four Cavity Tool** 



Sixteen Cavity Tool





# Molding

### **Injection Molding**

- Capacity range from single prototype to production quantities
- Press sizes 66 US Ton to 500 US ton
  - 1 66T X 5oz Arburg
  - 1 88T X 3oz Cincinnati
  - 1 88T X 9oz Arburg
  - 1 143T X 13oz Arburg
  - 1 230T X 20oz Vandorn
  - 1 300T X 40oz Vandorn
  - 1 500T X 60oz Vandorn

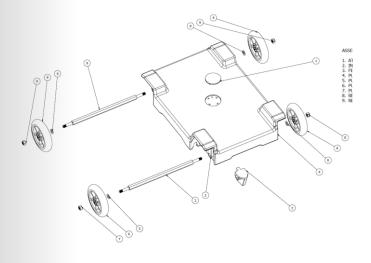
Planned addition of 750T X 120 oz press Q1 2024











# Assembly



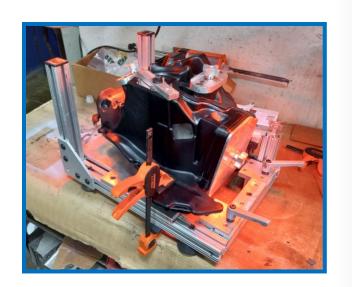


- Leak Testing
- Pad Printing
- Vibration and Hot Plate Welding











## Gallery – Medical Equipment

















## Gallery – Electronic Equipment

















## Gallery – Consumer Products













## Gallery – Automotive







## American Manufacturing at it's BEST....

### Michigan's only expert in the Art and Science of Plastic Welding

- Michigan's only non-automotive supplier of vibration and hot plate welded parts using on-site equipment
- State of the art industrial design supports hand crafted tool builds combining technology and human talent to create optimum results





### Vibration Welding



Vibration Welding Services include both Vibration Weld Tool Manufacturing and the production of Vibration Welded plastic parts for Low to Mid Volume production (up to 125,000 parts per year).

While Best Tool & Engineering has been in business since 1991, our team has been involved with the process since the 1970's having worked on taillights, glove boxes, door panels, and intake manifolds for the Ford Ranger, F150, Expedition, and many more.



Upper and Lower Vibration Weld Tool



**Vibration Welded Component** 





### Hot Plate Welding

Our Hot Plate Welding Services include both Hot Plate Tool Manufacturing and the production of plastic Hot Plate Welded parts for Low to Mid Volume production (up to 75,000 parts per year).

Our current table size is 24 X 32 inches and can accommodate a wide range of part sizes. The tools we design are integrated with electrical, pneumatic, or hydraulic components and are then cut and assembled in house.

Just like Injection Molds, Hot Plate tools can produce multiple parts at once to reduce the price of each part coming out of the machine. However, unlike Vibration Welding, family components are welcome and can be manufactured at the same time despite having drastically different geometries.







### Hot Plate Welding

Top Part Holding Fixture



**Heating Plate** 

Bottom Part - Holding Fixture

Significantly smoother flash with less particulate (Fines) than other assembly methods

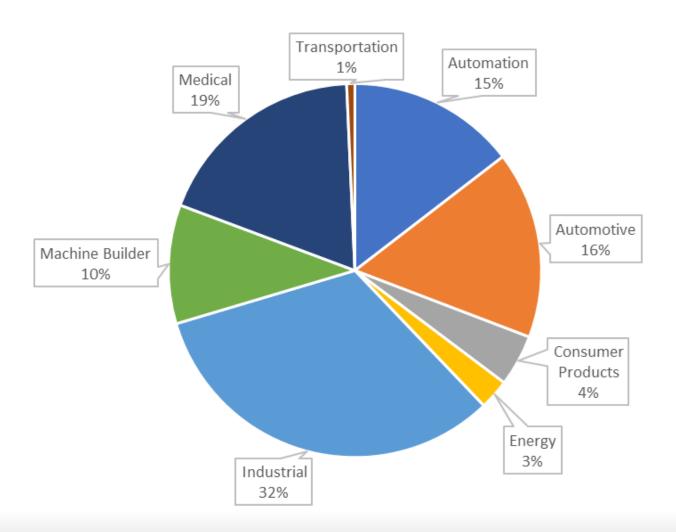
Highest joint strength of any weld process when welding PP, PE, TPE and EPDM materials







# Customer Diversity Across all Services



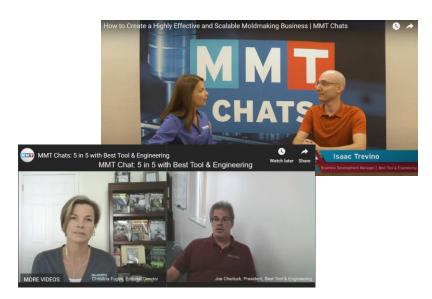




### **Recognized Industry Experts...**



Featured Speaker at the 2022 and 2023 MoldMaking Conference



Joe Cherluck and Isaac Trevino interviewed for Moldmaking Technology Magazine

### Reviews



In our search for manufacturers with Plastic Welding capability we did not expect to find a true partner in design development, prototype production, production and assembly in one company! We could not be happier with BTE!

### **Invinity Energy Systems**

Enovate values the business we do with Best Tool. Customer service, Quality, and delivery is always spot on.

#### **Enovate Medical**

Thanks to the whole team for an excellent first weld trial on the B tools yesterday. We were on time and our customer was very pleased with the results.

#### **Branson Ultrasonics**

Never have an issue doing business with you. Parts are quality made, communication on delivery is excellent, and customer service is cordial and prompt. Only the second supplier I've given the A++ rating to in 2020/2021.

# Thyssenkrupp Engineering Plastics

I interviewed several companies in the Michigan area looking for the best in communication, best response time as well as quality when it came to bringing my product to life. From the design process to production, I would highly recommend this company. I see them as more of a team that dives in deep with you making sure your completely happy and satisfied for every step of the way! Love these guys, thank you

### **Heroboard Fitness**





## **Quality Certification**



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MANAGEMENT SYSTEMS

American Systems Registrar, LLC, a provider of third-party system registration and accredited by the ANSI National Accreditation Board attests that:

#### **BEST TOOL & ENGINEERING**

34730 NOVA DRIVE CLINTON TOWNSHIP, MI 48035

with a scope of:

## PLASTIC INJECTION MOLDING OF COMPONENTS FOR THE AUTOMOTIVE AND OTHER INDUSTRIES

has established a quality management system that is in conformance with the International Quality System Standard

ISO 9001:2015

ASR Certificate Number:

Date of Certification:
Date of Certification Expiration:
Date of Initial Registration:

Revision:

7685 August 3, 2022

August 2, 2025 August 4, 2019

Re-Issue Date:

Richelle Kinzie

**CERTIFICATE OF REGISTRATION** 

