

# An Investment in Advanced Manufacturing.

# An Investment in Detroit.

The LIFT Manufacturing Center is a 100,000 square foot applied research and development facility located in the oldest neighborhood in one of America's great manufacturing cities—Detroit.

As a redeveloped former plastic injection molding facility, the LIFT Manufacturing Center is bringing new lift to U.S. manufacturing and the historic Corktown neighborhood of Detroit.





LIFT is one of the founding members of Manufacturing USA, a network of advanced manufacturing institutes bringing together industry, academia and federal partners within to increase U.S. manufacturing competitiveness and promote a robust and sustainable national manufacturing R&D infrastructure.

A public-private partnership, LIFT is funded in part by the Department of Defense, managed by the Office of Naval Research and supported by the Michigan Economic Development Corporation (MEDC).







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## The LIFT Advanced Manufacturing Center

The nation's premier applied lightweighting research and development facility







The LIFT Advanced Manufacturing Center is 100,000-square feet of space dedicated to applied research, development, and education around lightweight metals, transitioning those breakthroughs to the market, and educating the future and current workforce.

Offering unique capabilities and one-of-a-kind pieces of equipment, LIFT is home to some of the most innovative technology anywhere.

We are revolutionizing the manufacturing industry through lightweighting technology and education.

### **Capabilities**

LIFT has both in-house professionals as well as a national network of experts from the manufacturing industry and academia to meet all of your lightweight metals needs.

#### Services include:

- Weldina
- Extruding
- Stamping
- ► Hot Isostatic Pressing
- ► Forming
- Casting
- ► Engineering Services

#### **LIFT Manufacturing Center Equipment**

#### **Extrusion Press**

- ➤ Can extrude more than 400-inch long sections
- ➤ Over 1.340 U.S. tons
- ➤ Can preheat up to 200 lbs. up to 900° F

#### Flexible Joining System

- ➤ 40ft x 50ft cell
- ➤ Arc welding
- ➤ Spot welding
- ➤ Hydroforming Press
- ➤ 1,000 ton clamping actuator
- ➤ 20,000 psi pressure intensifier

#### **Hydroforming Press**

- ➤ 1,000 ton clamping actuator
- ➤ 20,000 psi pressure intensifier

#### Stamping/Forming Press

- ► Multi-purpose, double-action press
- ➤ Local temperature control
- ➤ Double action forming 300 x 230 tons

#### **Hot Isostatic Press**

- ➤ 30,000 psi of working pressure
- ➤ Interior: 10" diameter x 30" length
- ➤ Rapid Cooling

#### **Metal Injection Molding**

➤ 100 U.S. ton total clamping force

#### **Tilt-Pour Casting**

- ➤ 36"x 38" mold size
- ► Up to 4,000 lb mold weight
- ➤ Nearly 60,000 lb clamping pressure

#### **Linear Friction Welding**

- ► Scheduled to be at LIFT Spring 2018
- ► Largest unit of its kind in North America
- ➤ 35 ton oscillating force
- > 75 ton forge force

#### LIFT Manufacturing Center Labs

#### Machine Shop

➤ All the tools needed to support technology operation and machining

#### **Met Lab**

➤ All the equipment necessary to ensure the work is up to the needed quality standards



Contact us to learn more, or to schedule time on the LIFT Equipment