



# Complex Shaped Component Solutions using Superplastic Forming

Macrodyne Superplastic Forming Presses produce a wide array of large precision components that feature a superior surface finish free from residual stresses and commonly used for the production of large components.



## Macrodyne Advantages

## Innovative Superplastic Forming Solutions

### North America's Largest Hydraulic Press Manufacturer

Heavy-duty presses up to 20,000 tons, Automation, and Die Handling Equipment for dies weighing more than 100 tons.

### RELIABLE

The industry leader in designing and manufacturing high-quality hydraulic presses with superior operational flexibility and extensive functionality to perform for decades.

### CUSTOMIZABLE

Standard or custom-designed solutions for any application.

### COST-EFFECTIVE

The right press and automation for your application within your budget.

Macrodyne Super Plastic Forming Presses provide the ability to form complex shaped titanium, aluminum and stainless steel components such as engine blades using inert gas forming at high temperatures up to 1800 degrees Fahrenheit.

Our modern SPF presses are capable of both super plastic forming and hot forming (hot sizing) operations. Accurate and repeatable argon gas pressures and multi-zone temperature control are achieved using our proprietary flexible and repeatable process control system.

### Macrodyne SPF Press Features:

- Precise and uniform multi-zone temperature control
- Precision gas management system
- High-speed data acquisition system
- Highly efficient heat shields
- Rolling bolsters

In addition to supplying new custom Superplastic Forming hydraulic presses, Macrodyne provides comprehensive service, rebuild and upgrade options for existing presses of all makes and models.