aalberts surface technologies

HIP | braze | heat treatment

Processes by Location

	Aluminum				Austemper			Ferrous			HIP | Brazing				Specialized Nitriding	
	IN-Wabash	MI-Saginaw	OH-Defiance	OH-Wadsworth	AR-Fort Smith	MI-Livonia	WI-Oshkosh	IN-North Vernon	MI-Lansing	OH-Canton	CT-Manchester	NH-Goffstown	SC-Greenville-Garlington	SC-Greenville-Pelham	SC-Greenville	WI-Pleasant Prairie
PRIMARY PROCESSES																
Age/Precipitation Hardening	●	●	●	●							●	●	●	●	●	
Annealing-Full	●			●				●	●	●	●	●	●	●	●	
Annealing-Subcritical				●				●	●	●	●	●	●	●	●	
Annealing-Isothermal								●	●	●	●	●	●	●	●	
Annealing-Solution - Glycol Quench	●			●												
Annealing-Solution - Hyperquench				●												
Annealing-Solution - Precision Air Quench		●	●	●												
Annealing-Solution - Water Quench	●	●	●	●							●					
Austempering					●	●	●			●						
Brazing - Induction												●				
Brazing - Torch												●				
Brazing - Vacuum											●	●	●	●		
Carbo-Austempering™					●	●	●			●						
Coating-Moly Lube										●						
Coating-Phosphate & Lube									●	●						
Coating-Pickling & Oiling																
Coating-Polymer										●						
Cryogenics											●	●	●	●	●	
Ferritic Nitrocarburizing															●	●
HIP (Hot Isostatic Pressing)													●			
Marquenching					●	●	●			●						
Nitriding - Gas															●	
Nitriding - Ion (Plasma)															●	
Normalizing								●	●	●						
Quench & Temper - Oil Quench								●	●							
Quench & Temper - Polymer Quench									●							
Spheroidizing									●	●						
Stress Relieving	●			●				●	●	●	●	●	●	●	●	
Vacuum Harden & Temper											●	●	●	●	●	
SECONDARY SERVICES																
Bar Saw Cutting - Precision									●	●						
Bar Shearing										●						
Bright Polishing																●
Rough and Finish Grinding																●
Rust Preventative							●		●							
Shot Blasting			●		●	●		●	●	●						
Straightening	●			●												
Thermal Sand Removal	●			●												

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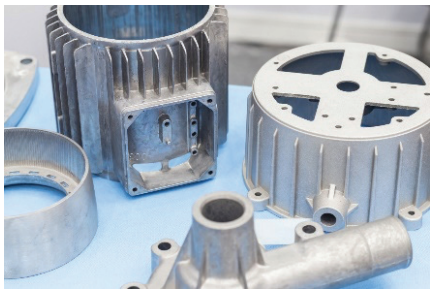
Our Defiance, Saginaw, Wabash, and Wadsworth facilities provide heat treating solutions for aluminum.



End markets we service include:
- Aerospace
- Agriculture
- Automotive
- Commercial
- Defense
- Energy
- Medical
- Off Road & Heavy Truck

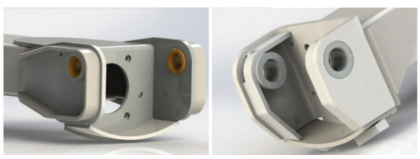
Aluminum Processes Offered
- Solution & Age
- Annealing
- Stress Relieving
- Precision Age Hardening
- Precision Air Quench
- Glycol Quench
- Water Quench
- Hyperquench
- Precipitation Age Hardening
- Thermal Sand Removal (TSR)
- Straightening

Our Livonia, MI, Oshkosh, WI and Fort Smith, AR locations specialize in molten salt quench heat treatment. Austempering, Marquenching and Carbo-Austempering™ results in components which are stronger, tougher and more wear resistant than more conventional heat treatment methods. Molten salt quench heat treatment provides the added advantage of dramatically reduced distortion.

End markets served:
- Aerospace
- Agriculture
- Automotive
- Defense
- Energy
- Heavy Truck
- Construction & Mining
- Turf Care
- Roller Bearings

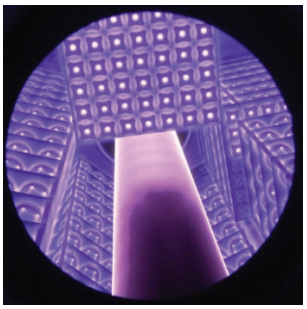
Casting Conversions
Converting fabrications to one-piece austempered ductile iron castings offers significant advantages, allowing our customers to:

- Increase product performance (strength, wear resistance, toughness)
- Reduce number of components
- Reduce weight
- Reduce total cost
- Save internal engineering time



42-component tedder hinge fabrication converted into a one-piece Austempered ductile iron casting.

Our Greenville, SC facility offers the metal working industry the highest level of Ion, Gas and Solution Nitriding and Vacuum Heat Treatment services for all types of metals.



S-Phase Nitriding:
Excellent solution for light to medium duty wear or anti-galling applications in austenitic SS, martensitic SS, and PH steel. This is a low temperature process with excellent dimensional stability, resulting in a thin diffused layer of nitrogen with surface hardness > 67 Rc. Most applications do not require post processing for final dimensional control.

Processes:
- Vacuum H.T.
- Gas Nitriding
- Ion (plasma) Nitriding
- Cryogenics
- S-Phase Nitriding
- Solution Nitriding
- Duplex Nitriding

End Markets Served:
- Auto/Truck
- Aerospace
- Military
- Oil & Gas
- Power Gen
- Agriculture
- Medical
- Food & Beverage