



The One-Source Solutions Provider
DESIGN | FORMULATE | COMPOUND | MOLD | FINISH
Thermoset Composites

R&D Technical Center
Chagrin Falls, OH

Corporate Office
Chagrin Falls, OH

Manufacturing Plants
Chagrin Falls, OH
Cuba, MO
Dublin, VA
Taizhou, China

Sales and Marketing
Chagrin Falls, OH
Shanghai, China
Blacksburg, VA



mar-bal.com

About Mar-Bal, Inc.

- Leading manufacturer of thermoset composite materials, components & assemblies
- Founded in 1970 – Family Owned, Second Generation Leaders
- Corporate Offices
 - R&D Labs
 - Engineering
 - Tooling & Design
 - Materials Development
 - Custom Equipment Rebuild
- Four Domestic Manufacturing Plants
- China (Taizhou) Manufacturing
- Asia Sales Office (Shanghai)
- 450+ Employees Globally
- Vertically Integrated Solutions Provider
 - Engineered BMC Formulation Development
 - Custom Equipment Remanufacturing
 - High Speed Injection, Compression and Transfer Molding Processes
 - Secondary Finishing



Engineering Collaboration



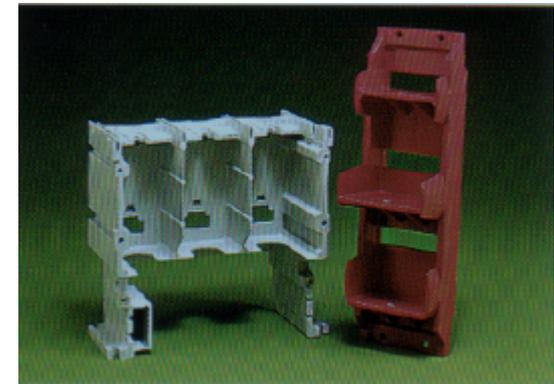
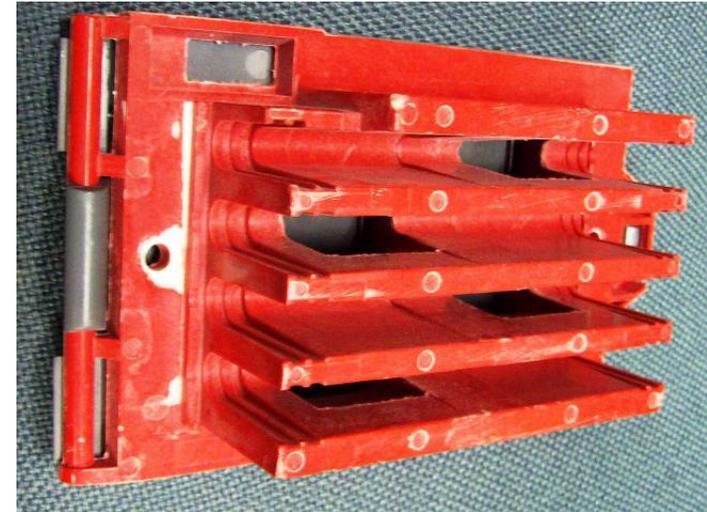
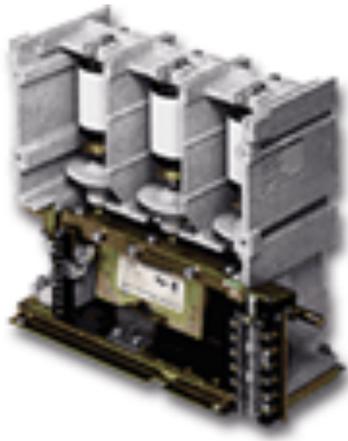
Materials Engineering | Program Management | Tool Design |
Part Design | Design for Manufacturing | Material Selection |
Product Development | Testing | PPAP | VA & VE Leadership



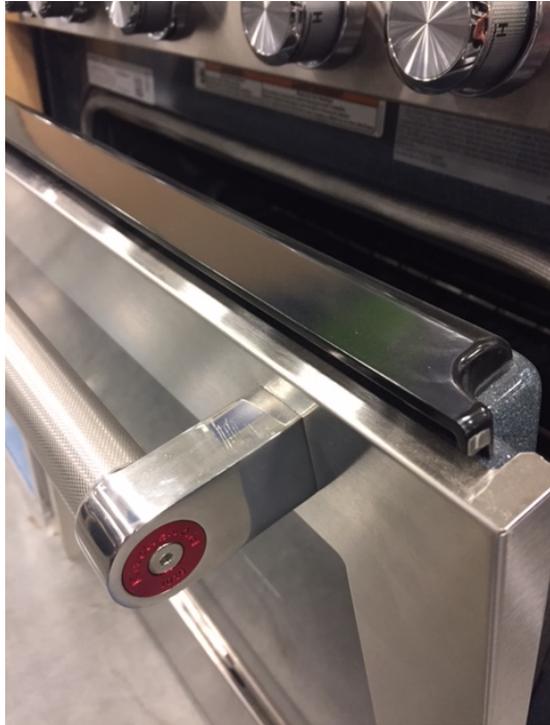
Industrial / Electrical

High Strength / Impact

- SMC Substitution – meet impact testing
- Plunger press conversions
- Elimination of selective composite placements techniques



Consumer Appliance



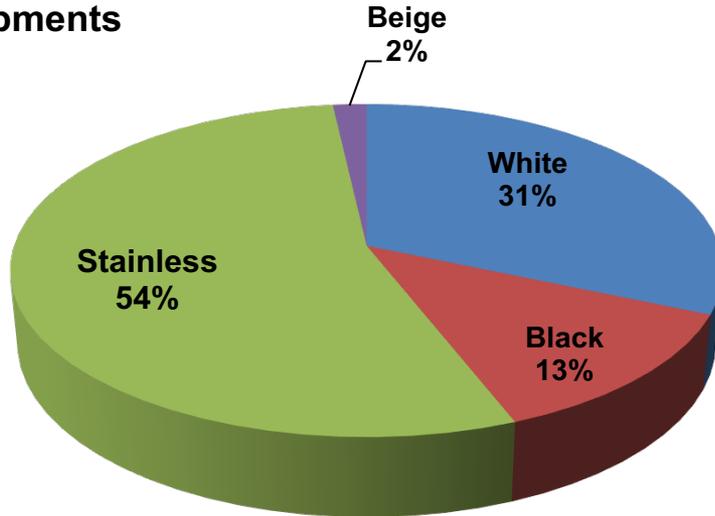
3MM+ Injection Molded Components Produced in 2016

Handles / Consoles / Vent Trims / Scoops

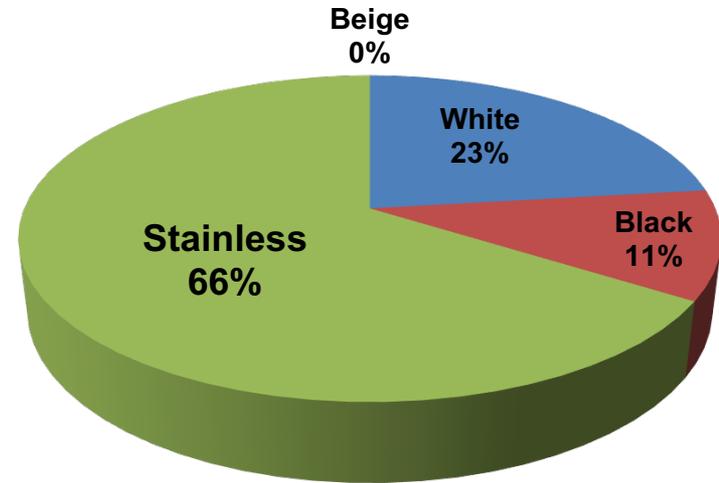


Market Share – Color Trends

2014
Gas Ranges and Ovens
Shipments

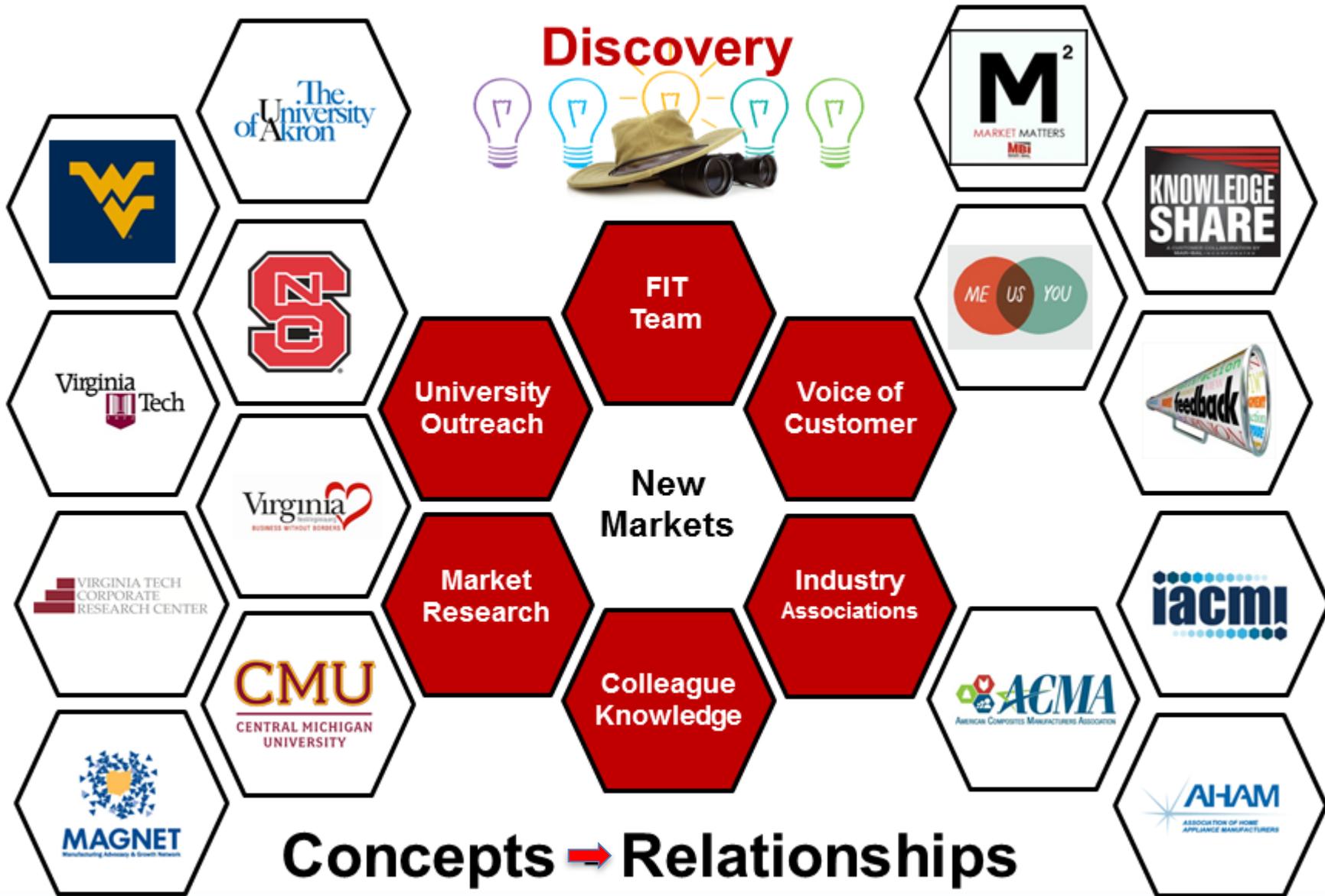


2016
Gas Ranges and Ovens
Shipments



- Stainless Steel demand continues to increase
- Black and White colors continue to decrease
- Black Stainless & Platinum Stainless emerging

Discovery



Concepts → Relationships



PROJECT RENAISSANCE

\$15MM Investment

- New 110,000 sq. ft. production facility (Painesville, OH)
- Innovative central vacuum, cooling & dust collection systems
- Automated BMC compounding system
- Facility expandable to 250,000 ft. sq.



PROJECT RENAISSANCE



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R&D TECHNICAL OFFICE

Chagrin Falls, OH

CORPORATE OFFICE

Chagrin Falls, OH

ASIA SALES OFFICE

Shanghai, China

OHIO PLANT

Chagrin Falls, OH

VIRGINIA PLANT

Dublin, VA

MISSOURI PLANT

Cuba, MO

CHINA PLANT

Taizhou, China



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