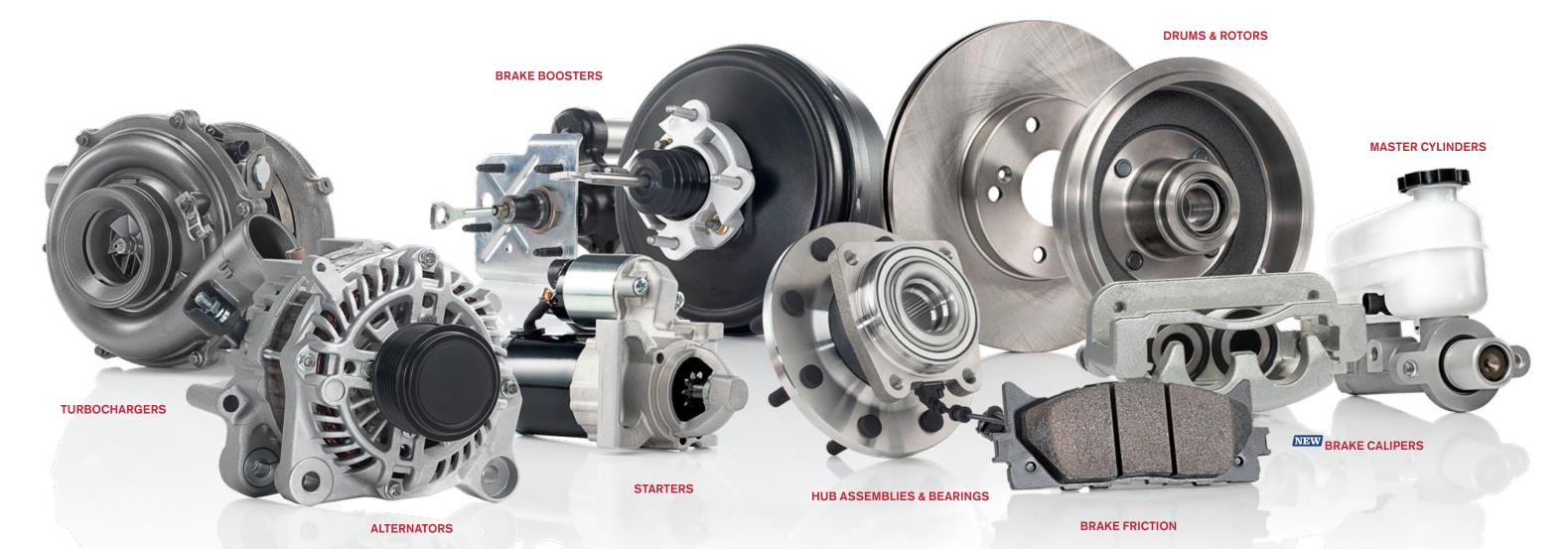


## UNDERHOOD

#### **WE'RE STREET-SMART**

It takes more than quality parts to be a quality supplier. With 50 years of industry experience and data-driven market intelligence, we know the streets. Through our proven track record of performance on the pavement, we meet the needs of real-world techs, build for performance and durability, and provide value added services at zero cost.



## **Your Source**

★ Motorcar Parts of America is your source for next-generation automotive parts. That's why the boldest and brightest names in the traditional and retail aftermarket trust their brands to us.

## UNDERCAR



### MPA at a Glance

ESTABLISHED » 1968

NASDAQ TICKER » MPAA

EMPLOYEES » 4,000

GROWTH » 16.5% Annual Compounded (2013- 2018)

COVERAGE » Automotive

» Heavy Duty

» Power Sports

QUALITY » IATF 16949

**Certified Facilities** 

FILL RATES » Industry Leading

PRODUCTION » New & Remanufactured

GLOBAL FACILITIES » 1.5 Million Sq. Ft.

#### North America

- \* CALIFORNIA, USA
  - Global Corporate HQ
- ★ TENNESSEE. USA
  - Purchasing
- **PENNSYLVANIA, USA** 
  - Distribution Center
- ★ VIRGINIA, USA
  - Turbochargers
- ★ TORONTO. CAN
  - D&V Electronics
- **★** TIJUANA, MEX
  - Packaging & Logistics
  - Core Sortation & Warehouse
  - Sustainable Manufacturing

#### Asia

- **★** SINGAPORE
  - Warehouse & Logistics
- **★** MALAYSIA
  - Sustainable Manufacturing
- CHINA
  - Warehouse & Logistics

### **OUR NEWEST FACILITY: NOW OPEN**

#### Packaging & Logistics

Located near the US border, our newest facility was built from the ground-up to expand our capacity in packaging and logistics. The new 409,000 square foot plant features state-of-the-art equipment and productivity enhancements to meet growing customer demands for all product lines. Nearby to our two existing sustainable manufacturing buildings, the new building brings our footprint to nearly 719,000 square feet in Tijuana, Mexico.

### THE BIG PICTURE

★ MPA stands among the largest aftermarket parts manufacturers. From California to Singapore, MPA's facilities total over 1.5 million square feet of manufacturing, distribution, engineering and management space, with ample capacity ready for business expansion to meet growing customer demands.

Our IATF 16949 Certified global facilities produce and distribute premium quality remanufactured and 100% new products. Developed jointly by the International Automotive Task Force (IATF) and the International Organization for Standardization (ISO), ISO/IATF 16949 Certification represents the highest quality standards in the automotive industry.



## YOU'RE COVERED

## **Quality Aftermarket Parts**

Featuring coverage for over 96% of all vehicles on North American roads, we're with you every mile. With quality assurance and a proven performance record, Motorcar Parts of America is your top choice for all of your automotive needs.

- ★ Import & Domestic

- ★ Sport Utility

★ Motorcar Parts of America provides complete coverage for key automotive aftermarket replacement parts. Produced under strict quality standards, each product line is custom-cataloged under private label or house brands. Constantly reviewing additions for coverage and consolidations provides industry leading product management for true parts supply.







**COVERAGE ON ALL VEHICLES** 

#### **Heavy Duty Starters & Alternators**

Extreme conditions call for extreme performance. Motorcar Parts of America builds for quality and durability to withstand the service demands of heavy duty applications.

#### **On Highway**

### **Off Highway**



























## STARTERS

#### PRODUCT FAMILIES



**GEAR REDUCTION (GR)** 



**DIRECT DRIVE (DD)** 



PERMANENT MAGNET **GEAR REDUCTION** 



**OFFSET MOUNT (SM)** 

#### **PERFORMANCE**



#### **LEAD-FREE BRUSHES**

For environmental sustainability, unmatched performance and reliability.

Brushes wear out because they're in constant contact with the rotating commutator. MPA starters use only high-grade copper/ carbon alloy brushes to defend against deterioration. The material ensures long life and promotes environmental sustainability.



#### **DOUBLE AND SINGLE-SEALED BEARINGS**

Zero grease leakage and minimal friction, even under excessive heat and vibration.

Double and single-sealed bearings with grease enclosed rollers provide smooth operation and prevent leakage. This allows internal starter components to turn with minimal friction - even under harsh environmental conditions.



#### **OVERSIZED SOLENOID CONTACTS**

**Ensures maximum voltage conductivity and limit** circuit resistance.

Most MPA starters feature oversized solenoid contacts to provide better electrical connections. The larger surface area decreases circuit resistance and promotes current flow. Peak electrical energy is available every time the engine cranks.



#### **OIL-IMPREGNATED BRONZE BUSHINGS**

Limits internal component free-play, reduces friction and ensures exceptional performance.

Oil-impregnated bronze-sintered bushings provide exceptional support and free rotation of internal starter components, with built-in lubrication to reduce friction and heat. The result is powerful engine cranking every time.



#### **DRIVE CLUTCH**

#### Ensures proper starter engagement on every start.

The drive clutch is subject to abuse every time it engages with the flywheel and during post-start overspin. MPA starters feature hightension springs, precision gears and aerospace quality lubricants to accommodate load capacity in extreme hot and cold.

★ Designed to meet customer demand for exceptional durability, performance and cranking power with every turn of the key, MPA Starters provide industry leading coverage for nearly every vehicle on and off the highway. Each starter we produce is 100% end-of-line tested on computer-controlled, proprietary load-based equipment, to ensure it meets or exceeds all OE performance specifications.

## **Performance With Every** Turn of the Key.



## ALTERNATORS

#### PRODUCT FAMILIES



**GENERATORS** 



**INTERNAL FAN** 



**EXTERNAL FAN** 



**WATER-COOLED** 



INTERNALLY REGULATED



**EXTERNALLY REGULATED** 



**COMPUTER REGULATED** 

#### PERFORMANCE



#### **LEAD-FREE BRUSHES**

For environmental sustainability, unmatched performance and reliability.

Brushes wear out because they're in constant contact with the rotating commutator. MPA starters use only high-grade carbon brushes to defend against deterioration. The material ensures long life and promotes environmental sustainability.



#### PREMIUM QUALITY BEARINGS

Reduce friction for smooth operation and minimal noise.

Bearings are subject to extreme wear, which is why it's essential to start with the best. MPA starters feature premium bearings for reduced friction, smooth operation, and minimal noise. These units also provide exceptional support for the



#### PRESS FIT HIGH CAPACITY DIODES

Provides a smooth output of DC current to the vehicle's electrical system while also reducing heat.

Press-fit high capacity diodes convert AC current from the alternator into DC current for the electrical system. A builtin heat sink dissipates heat created during the rectification process. Together, these features provide a seamless supply of electrical energy to the vehicle.



#### PRECISION-POLISHED SLIP-RINGS

To ensure maximum electrical contact while preventing arcing and voltage spikes.

Precision-polished slip-rings ensure a smooth transition of electrical energy from the brushes to the rotor. There's no need to worry about arcing or voltage spikes.



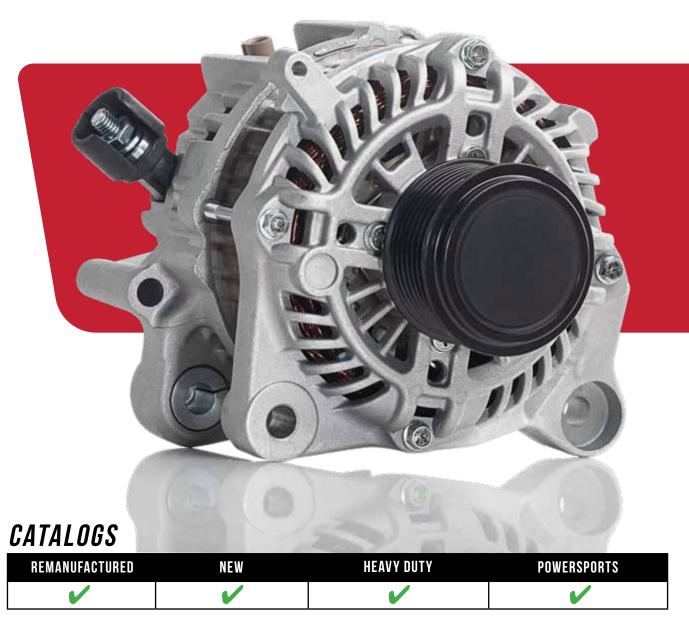
#### **INSULATED ROTORS & STATORS**

To maintain stringent performance standards and reduce

Shorted stator windings or rotor coils can be a serious problem. That's why, in MPA alternators, these components are fully insulated. This thoughtful touch guarantees years of dependable service.

★ Designed to handle today's increased demand for power, MPA Alternators include a full program of applications for light vehicles, trucks, heavy duty and recreational power sports. 100% end-of-line tested to meet OE performance specifications, component enhancements feature lead-free brushes, oversized bearings, pressure-fit high capacity diodes, precision polished slip-rings and double insulated rotors & stators for premium quality, mile after mile.

## Power. Precision. Persistence.



## TURBOCHARGERS

#### PRODUCT FAMILIES



**SINGLE** 



TWIN



TWIN-SCROLL



**VARIABLE TWIN-SCROLL** 



**VARIABLE GEOMETRY** 

#### PERFORMANCE



#### **DUAL PLANE BALANCED TURBINES AND SHAFTS**

To eliminate high-speed vibrations, increase efficiency and reduce noise.

Every MPA unit features a turbine and shaft that have been fully balanced. Because turbochargers spin at over 250,000 RPMs, this procedure is paramount. It eliminates vibration and noise, while also increasing efficiency.



#### 100% NEW OEM DESIGN OR **UPGRADED SEALS**

To prevent leaks, boost reliability and durability.

To keep oil in, and exhaust and intake air out, seals are needed at each end of the turbocharger bearing housing. Although they may seem simple, these rings are critical to component longevity and performance. To ensure reliability, MPA turbochargers feature 100% new seals that either meet or exceed OE specification.



#### STRATEGICALLY DESIGNED **THRUST PLATES**

Made to offset axial load, while also providing remarkable bearing protection and lubrication.

MPA turbos have premium-grade thrust plates designed to absorb axial loads and protect the bearing assembly. Each is precision-engineered to meet or exceed OE specification. Oil galleys are also built into the plate for superior lubrication.



#### 100% EOL TESTED

#### Computer tested for performance and durability.

Rigorous testing ensures MPA turbochargers are ready to provide years of flawless performance. Each unit undergoes a detailed test to duplicate harsh real-world conditions. The procedure is performed using state-of-the-art equipment for accurate results.



#### **MINIMAL TURBO LAG**

#### To better maximize power and performance.

MPA turbochargers spool up quickly with minimal lag. Precise calibration and construction help ensure rapid throttle response every time.

★ Engineered for performance, efficiency and power, MPA's new and remanufactured Turbochargers are assembled to the highest quality and performance standards and are evaluated using proprietary digital technology. Features include dual plane balanced turbines and shafts designed to eliminate high speed vibrations, new OEM design or upgraded components to boost reliability and durability, and thrust plates are strategically designed for correct function and lubrication.

## **Enhanced Efficiency** & Economy.





## DRUMS & ROTORS

#### PRODUCT FAMILIES



**VENTED ROTORS** 



**SOLID ROTORS** 



**FULL CAST DRUMS** 



**COMPOSITE DRUMS** 

#### PERFORMANCE



#### **SAE G11H18 METALLURGY**

Improved heat dissipation, brake fade resistance and sound dampening.

G11H18 iron improves thermal transfer, reduces noise and guarantees maximum brake system performance. MPA rotors are engineered and manufactured to exacting standards for tensile strength and hardness ensuring exceptional performance and extended service life.



#### **OE DESIGNS AND PERFORMANCE**

Restoration of system performance without fade or vibration.

MPA brake rotors are engineered to match original equipment specifications for thermal dissipation, durability and service life. Symmetric split core castings, machined mating surfaces and double disc ground finishes promote efficient bed-in and smooth quiet stops.



#### **EXACT-FIT MOUNTING**

Fully machined mating surfaces prevent run-out and DTV issues.

All critical dimensions, including mounting surfaces and outer hats are CNC machined to exacting tolerances delivering easy installation and eliminating vibration caused by run-out and DTV issues by ensuring parallelism when installed.



#### **DOUBLE DISC GROUND FINISH**

Installation-ready surfaces for improved bed-in and smooth, quiet stops.

MPA brake rotors feature an OE style double disc ground friction surface which accelerates the brake pad bed-in process. This non-directional finish ensures parallelism, reduces surface finish Roughness Average (Ra) eliminating noise and vibration.



#### 100% INSPECTED AND MILL BALANCED

Mill balancing eliminates feedback and vibration.

Each MPA brake rotor is inspected for rotational imbalances and corrected if not within established parameters. Mill balancing promotes a smooth ride at all speeds and confident application of stopping power.

★ MPA iron is built to last. With robust G11H18 iron and state-of-the-art manufacturing processes, each MPA Brake Drum and Rotor unit matches OE specifications for heat dissipation, fit and overall performance. Precision machined surfaces make installation a breeze and eliminate vibration caused by run-out and disc thickness variation (DTV) issues.

**Durable Stopping** Strength.



## FRICTION

#### PRODUCT FAMILIES



**SEMI-METALLIC PADS** 



**CERAMIC PADS** 



SEMI-METALLIC SHOES



SAE J2784 PARKING Brake Formulas

#### **PERFORMANCE**



### APPLICATION SPECIFIC HARDWARE INCLUDED

OE style, application specific hardware is included for trouble-free installation and optimal performance.

Brake pad and shoe hardware replacement is essential for full restoration of brake system performance. Worn hardware can lead to unnecessary noise, vibration, and premature component deterioration.



#### **COPPER-FREE BRAKE PADS AND SHOES**

To promote environmental sustainability without compromising braking integrity.

Copper dust is a harmful contaminant that pollutes lakes and streams. For environmentally-friendly braking without performance loss, MPA components feature premium copper-free friction material.



#### LOW DUST FRICTION MATERIALS

For improved aesthetics and clean braking.

MPA brake pads and shoes produce minimal brake dust for a clean stop every time. Wheels, tires and brake rotors remain untarnished for improved aesthetics and maximum performance.



#### **OE FIT & FORM**

For excellent stopping ability and easy installation.

Each set of MPA brake pads and shoes is designed to restore or improve OE performance for stopping power, service life, noise and dust.



#### **QUIET BRAKING**

Application specific, multi-layer shims eliminate noise.

Brake pad shims eliminate noise by moving vibrational harmonics out of audible range. Shims can also act as a thermal barrier preventing heat created by the pad/rotor interface from reaching the brake fluid.

★ MPA Brake Pads and Shoes are engineered to perform in the most extreme conditions. Our full line of friction components are engineered and manufactured to OE specifications using premium grade materials that provide unsurpassed stopping performance without fading or dusting.

## Feel the Force.



#### CATALOGS

REMANUFACTURED	NEW	HEAVY DUTY	POWERSPORTS
	<b>V</b>		

## WHEEL HUBS & BEARINGS

#### PRODUCT FAMILIES



**GEN 1 WHEEL BEARINGS** 



**GEN 2 HUB ASSEMBLIES** 



**GEN 3 WHEEL HUB ASSEMBLIES** AND BEARINGS

#### PERFORMANCE



#### PRECISION INDUCTION HARDENED **RACEWAYS**

To improve noise reduction, stability and resistance to wear.

Precision induction hardened raceways offer unrivaled resistance to radial and thrust loads. Manufactured to exacting tolerances provides years of noise-free, dependable service. Properly hardened raceways are integral to restoring performance and ensuring a longer service life



#### HARDENED BALL OR TAPERED BEARINGS

Extends service life, provides smooth operation, and improves load-bearing capability.

At the heart of every wheel bearing and hub assembly are precision manufactured bearings. Hardened ball, roller and tapered bearings provide increased load-bearing capabilities and extend service life.



#### **OE GRADE ABS SENSORS**

Restores operation of the vehicle's emergency braking systems.

MPA hub assemblies are tested and confirmed at our state-of-the art facility in Torrance, CA. Our extensive OE library allows us to test both active and passive ABS sensors to confirm waveform uniformity, signal strength and output to ensure seamless integration and performance with the vehicle's emergency braking system.



#### PREMIUM GRADE WHEEL STUDS

To prevent corrosion, resist thread stripping and breakage.

MPA premium grade steel studs can withstand repeated lug nut removal and reinstallation. The robust construction prevents breakage and thread stripping, providing exceptional durability.



#### PREMIUM QUALITY SEALS AND **GREASE**

Premium materials provide better sealing against the elements and smoother operation.

Premium high temperature bearing grease ensures smooth and noise-free operation. MPA hub assemblies and bearings are sealed using the latest technology to keep dust, dirt and water out while keeping the grease intact and bearings running smoothly.

★ MPA Hub Assemblies provide a smooth ride with exceptional durability and performance. With segment leading coverage on light vehicle applications, all units are engineered and manufactured to meet or exceed OE specifications for fit, form and function, vibration and noise. MPA lot tests 100% of all incoming shipments for critical dimensions, bearing noise, and both passive and active ABS signal integrity before the product leaves our factory floor. Laser engraving is available for

Smooth. Secure. Stable.



## MASTER CYLINDERS

#### PRODUCT FAMILIES



ALUMINUM

#### PERFORMANCE



#### **OE GRADE EPDM SEALS AND O-RINGS**

To prevent leaks, maintain consistent pressure and performance.

Properly seated port seals are fundamental to providing necessary braking power to stop your vehicle safely. MPA master cylinders feature OE grade seals for consistent pressure and stopping power. All units are lot tested to check for proper sealing by subjecting them to a proprietary pressure degradation test here in the USA.



#### **OE STYLE FLUID-LEVEL SENSOR**

For ease of installation and proper brake function.

Where available, brake fluid sensors are included to provide a worry-free solution to possible faulty sensors being swapped over to the new part. This removes the possibility of misdiagnosis due to faulty fluid sensors on the old, failed unit.



#### PREMIUM GRADE RESERVOIRS

To reduce cracking due to sudden fluctuations in temperature.

Where available, premium grade reservoirs are included with every master cylinder to help reduce the instance of damage during reservoir removal from the failed part. Made from high quality plastics, MPA brake master cylinder reservoirs provide worry-free operation under even the toughest conditions.



#### PRECISION MACHINED

Manufactured to exacting specifications to ensure maximum performance and durability.

Restoring the braking system requires precision parts that are manufactured for repeated performance. MPA lot tests all incoming shipments for critical dimensions, piston travel, proper sealing, port sizes, and mounting surfaces to ensure quality in every box.



## 100% COMPUTERIZED MULTI-STAGE TESTING

State-of-the-art testing equipment for real-world results.

MPA has developed in-house computerized testers that simulate on-vehicle conditions to provide real-world feedback to our engineers. We utilize the results to improve product quality and develop new techniques to catch possible issues before they happen.

★ The heart of the braking system, MPA
Master Cylinders are engineered to
provide exceptional performance and
fluid handling. All units are manufactured
to meet or exceed OE specifications, with
component enhancements including OE
grade EPDM seals, O-rings, negativeground switch sensor fittings and crackresistant vinyl based reservoirs. Each unit
is precision machined and 100% pressure
tested before it leaves our facility.

Trusted.
Tested.
Tough.



## BRAKE BOOSTERS

#### **PRODUCT FAMILIES**



HYDRO-BOOST

**PERFORMANCE** 



### FULLY TESTED PURE RUBBER DIAPHRAGMS

Ensures maximum vacuum boost for safe and repeatable brake assist.

The diaphragm is the heart of a vacuum brake booster. Every MPA unit comes with a pure rubber diaphragm that has been fully tested for an optimal internal pressure differential. The outcome is maximum braking assist in every situation.



#### 100% PLATED STEEL SPRINGS

To maintain consistent pedal feel and enhance performance.

Once the brake pedal is released, an internal spring inside the booster returns the diaphragm to its fixed position. MPA boosters include 100% plated steel springs, to ensure this happens every time. The high-quality of this component can be felt every time the brakes are released.



#### **NEW O-RINGS**

New O-rings ensure proper sealing both internally and externally.

Proper sealing is necessary to ensure maximum vacuum or hydraulic pressure is available for every braking maneuver, whether at a stop sign or in an emergency.



### PAINTED CASINGS TREATED WITH RUST INHIBITOR COATING

Prevents oxidation and surface rust from forming, extending service life.

Oxidation of exposed metal surfaces is inevitable, so MPA treats all of our brake boosters with an anti-corrosion coating. This allows an extended shelf and on-car service life without the fear of internal corrosion causing loss of brake pressure.



#### **FULLY TESTED CHECK VALVES**

To maintain braking assist under all driving conditions.

The brake booster uses engine vacuum to provide braking assist. Under heavy load, when pressure is low, the one-way check valve maintains vacuum that would otherwise be lost. Every MPA booster comes with a fully tested check valve for guaranteed braking assist under all conditions.

★ Designed with the unexpected situations faced by today's drivers in mind, MPA
Brake Boosters are engineered and tested to deliver maximum braking assist with minimal pedal effort. New replacement and specially treated components help ensure maximum vacuum seal, reliable pressure transfer and enhanced performance. All units are subjected to 100% end-of-line testing using proprietary testing equipment.

# Maximum <a href="Performance">Performance</a> Effortless braking.



## BRAKE CALIPERS

#### PRODUCT FAMILIES



**CAST IRON** 



**ALUMINUM** 

#### **PERFORMANCE**



#### **OE FIT & FORM**

Each MPA Brake Caliper is manufactured to meet or exceed OE specifications.

Each MPA Brake Caliper is manufactured to exacting specifications ensuring easy installation and confident, reliable operation right out of the box and for many miles to come.

#### ZINC PLATED FINISHES

Zinc plating has been developed to exceed OE specifications for corrosion protection.

Protection from environmental contamination prevents rust, ensuring optimal brake system performance and service life. All cast iron caliper bodies and brackets are protected with a zinc coating that restores the factory look and ensures miles of worry-free performance in even the harshest climates.



#### **NEW BOOTS AND SEALS**

All piston seals and dust boots are replaced with application-specific EPDM rubber components.

Proper sealing is necessary to ensure safe, reliable stopping. EPDM rubber is engineered to work across a wide temperature range without deterioration or leaks.



#### **ALL NEW PHENOLIC PISTONS**

Phenolic pistons provide improved heat dissipation and corrosion resistance, however they are prone to damage from excessive heat and lateral loads over time

While superior in some aspects to other piston materials, phenolic pistons can develop undetectable structural issues that can lead to premature failure. 100% phenolic piston replacement quarantees safe, reliable system performance.



#### HARDWARE INCLUDED

Hardware replacement is essential for complete brake system restoration, and optimized stopping performance with reduced noise and vibration.

Application specific hardware ensures proper pad fit, and operation, maximizing service life and promoting smooth, confident application of braking force.

★ Designed to provide full restoration of brake system performance right out of the box, MPA brake calipers are engineered and manufactured to meet the demands of automotive technicians. Installation-ready with application specific hardware kits and brackets where required, MPA Brake Calipers perform as good as they look. All MPA caliper units are 100% endof-line pressure tested using computer controlled equipment.

## **Dependable Stopping** Power.



## HEAVY DUTY

#### PRODUCT FAMILIES



**STARTERS** 



**ALTERNATORS** 



BRUSHLESS ALTERNATORS



**DC MOTORS** 



**GENERATORS** 

#### PERFORMANCE



#### **MARKET COVERAGE**

The highest quality manufactured and remanufactured Starters, Alternators, DC Motors Generators and Components.

Dixie Electric's product offering encompasses a full range of remanufactured and new Alternators, Generators, Starters, and Components for commercial vehicle, agriculture, construction, industrial, mining and specialty application markets.



#### **COMMITMENT TO QUALITY**

Our engineers are committed to continuous improvement and customer satisfaction

Dixie products are endurance tested to exceed 5,000 hours of operation for alternators and 28,000 cycles for starters. Combined with 100% end-of-line testing, Dixie products are guaranteed installation ready and will provide extended service life and reduced down time.



#### **ENGINEERED PERFORMANCE**

The Dixie Electric engineering team offers a wide range of skills and expertise necessary to support customer needs.

Our philosophy promotes team collaboration with engineers, product management, and sales personnel to develop innovative solutions and ensure our products support customer's requirements.



#### **ENGINEERED INNOVATION**

DelStar series heavy duty integral brushless alternators feature engineered enhancements designed to improve performance and reliability.

DelStar engineered innovations include air cooled designs, SMART regulators and Long-Life bearings all engineered to improve reliability, extend maintenance intervals and deliver optimized performance even in the most severe conditions.



#### COMPONENTS

Dixie has a full line of new and remanufactured components for Starters, Alternators, DC Motors and Generators.

Dixie Electric's premium quality replacement parts meet or exceed original equipment manufacturers specifications for performance and proper fit.

★ Since 1968, Dixie Electric has combined superior service, advanced engineering, and manufacturing processes resulting in the highest quality new and remanufactured charging & starting products in the Heavy Duty aftermarket. Dixie manages production facilities in Canada and India and the distribution network of strategically located warehouses throughout Canada and the United States.

Heavy.
Duty.
Experts.



# QUALITY Built to Last

With every turn of the key, MPA products delivery reliable performance.

★ Quality products start with quality manufacturing. With 50 years of road-tested performance, our dedication to durability drives every decision we make. From component sourcing to quality assurance, quality is the guiding principle across all operations. It's reflected in our continuous improvement philosophy that demands ongoing advances, resulting in products that are always better.

### 1. GLOBAL SOURCING

Quality products demand quality parts.

Materials technologies are delivering new component hardware that outperforms legacy specifications. By sourcing improved components we're able to increase durability, resulting in higher reliability of our replacement parts. Engineers validate suppliers' claims with in-house data to ensure performance specifications are accurate.

### 2. IATE 16949 CERTIFICATION

Quality facilities from quality standards.

The leading technical specification for automotive sector quality management systems, IATF 16949 is the most widely used international standard in the industry. Harmonizing assessment and certification systems across the global automotive supply chain, IATF 16949 sets the highest standards for quality. All global MPA facilities meet or exceed these industry standards, managed by a dedicated internal team. Recertification is required every 6 months, performed by external IATF auditors, to ensure quality procedures are faithfully implemented.

### 3. LEAN CELL MANUFACTURING

Quality production with quality ideas.

MPA believes in modern manufacturing philosophy: move as quickly as possible, make the widest variety of products possible, and make as little waste as possible. Using Six Sigma strategies, combined with extensive internal analysis, MPA replaced traditional assembly lines with focused factories optimized for specific product types. By working in smaller batches with artisan quality, work in process is reduced while quality increases. Multiple in-line testing procedures are performed to ensure products meet or exceed specific performance standards.



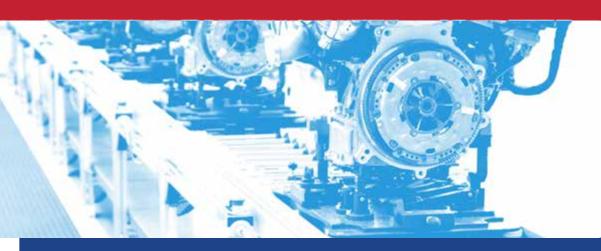






## **Driven By Data**

MPA is dedicated to delivering the most durable products possible. By performing punishing durability tests followed by root cause analysis, our engineers pinpoint causes of failure and then re-engineer components and processes to prevent similar failures in the future. Armed with the data gathered from thousands of tests performed on parts after years of real-world, on-vehicle exposure, MPA develops improvements through component enhancements and manufacturing techniques that increase product durability. By rethinking OE specifications in terms of the test data, we develop unit build specifications to deliver unmatched performance.



## TESTING

★ MPA leverages an ongoing cycle of testing that continually reveals additional opportunities for product quality improvement through a series of staged tests and discovery processes. With each new enhancement, testing is repeated to uncover additional ways that improvements can be implemented. Through component upgrades, innovative protective covers, heat shields and mechanical improvements, our commitment to quality never ends.

## T<sup>3</sup>Multi-Stage Testing



**Initial Sample Approval (ISA) Testing** All incoming parts are spot-tested by lot.

**Sub-Assembly Testing** 



100% sub-assembly tested prior to use in manufacturing.

**End-of-Line (EOL) Testing** All products are individually end-of-line tested, one at a



time, on specialized equipment that validates across a wide range of performance metrics.

#### ROOT CAUSE ANALYSIS

FAILURE MODE ANALYSIS (FMA) Engineers conduct a forensic exploration of parts after durability testing to determine specific causes of failures and identify opportunities for improvement.

DESTRUCTIVE TESTING MPA labs feature custom-built equipment that subjects parts to simulated on-vehicle conditions in a controlled environment. Parts are run continually for up to 2,800 hours or until failure occurs, to empirically determine any weaknesses in design or componentry.

#### **ENGINEERING**

**BUILD SPECIFICATIONS** Findings from the previous stages form the foundation for improved component specification and manufacturing techniques, all of which are maintained in a proprietary database that informs all manufacturing facilities.



mpa motorcarparts.com

## SUPERIOR SERVICE

### **Product Management**

MPA keeps our customers first to market with new products. Our suite of advanced practices work in unison to identify late-model applications to drive maximum market share.

★ Motorcar Parts of America is defined by our commitment to service. High quality parts demand high quality product and operations management. A manufacturer with vast analyticsdriven market intelligence, our support and logistics services make us the smartest supplier on the streets.

### Category **Management**

Motorcar Parts of America delivers extra value through collaborative services that enhance consumer marketing efforts, reduce operating costs, manage inventory exposure, and maximize category revenues.



#### RESEARCH

Knowledgeable insights for strategic advantages aligned with market trends

- New Application Identification
- Vehicle in Operation (VIO) Analysis
- OE Part Numbers & Sampling



#### **SPECIFICATION**

Comprehensive, uniform product information is created and maintained for all products

- Multi-View Product Photography
- Performance Specifications
- Technical Bulletins



#### **SUPPORT**

Industry leading technical support services staffed by multi-lingual ASE certified technicians

- Telephone Hotlines
- Technical Websites
- Technical Content & Photos



#### **MARKETING**

Creative marketing campaigns to increase market share and customer satisfaction

- Marketing Collateral & Promotional Campaigns
- Point-of-Sale Materials
- Digital Content & Video Production



#### **TRAINING**

Technical training, sales skills and regional business development services

- Field Training Programs
- Digital Training Content
- Webinar & Live Web Events



#### **CHANGE-OVERS**

Physical inventory shifts are performed to normalize field stocking levels as required

- Stock Lifts
- Packaging
- Brand Strategies



#### **PACKAGING**

Comprehensive private label support, house branded boxes and specialty configurations

- Private Labeling
- House Brands
- In-Box Technical Collateral



### **CATALOGING**

Ongoing updates with late model additions, smart consolidations and rich media content

- Print Catalogs
- eCatalog Management for POS Systems
- Cross References & Consolidations



### **MERCHANDISING**

Maintain ideal inventory levels through our supply chain optimization services

- Category Captain & Leadership Management
- Vendor Managed Inventory (VMI)
- Logistics Analysis & Special Order Programs



#### **LINE REVIEWS**

Analytics into product movement optimize inventory levels by region and product line

- Pricing & Lifecycle Management
- Inventory Movement & Turns
- POS Data Analysis



## We're dedicated to raising knowledge.

★ The MPA Innovation Center houses our advanced training center and digital video studio.

Equipped with the technical infrastructure of a Hollywood production facility, we produce custom educational and training videos to promote best practices in diagnosis and installation. Full in-house capabilities include live action, scripting, sound, graphics, and lighting, allowing us full flexibility to meet nearly any creative concept. Content delivery includes integration into

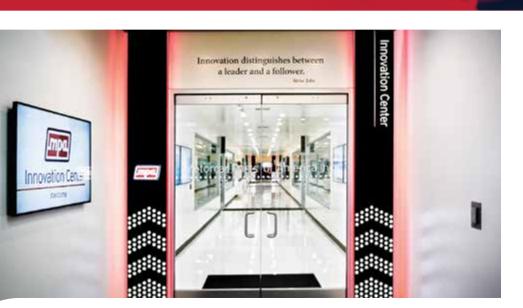
private platforms or popular social media, search optimized for relevant keywords.

INNOVATION

Educational materials are developed and taught by a team of experienced trainers, who conduct courses both in-house and in the field. MPA stands as a leader, committed to ensuring mechanics, countermen, and consumers have the know-how to achieve excellent results.

## **Tech Support**

With a free hotline staffed by ASE certified technicians and a proprietary database for fast and accurate diagnostics, MPA is not only committed to providing support, we are committed to providing knowledge. Our in-house production studio specializes in producing easily accessible training videos, while field training ensures mechanics, countermen, and consumers have a solid understanding of best practices. Be Street Smart.





## Training

### **VIDEO**

MPA operates a fully equipped video production studio for developing training content to educate a wide audience on best practices. The facility features two automotive lifts and a complete editing, graphics, sound, and production suite for premium quality media.

### CURRICULUM

Our standardized curriculum is in-person, classroom style training with countermen and mechanics. Focusing on product knowledge, diagnostics, common problems, and installation, we ensure best practices start at the source.

### FIELD SERVICES

Our team of trainers travel around the country educating customers, mechanics, and countermen on diagnostics and installation procedures. Knowing how to ask the right questions, make appropriate recommendations, and accurately diagnose problems is vital in providing quality service.

## SMART & SUSTAINABLE

★ MPA's dedication to remanufacturing makes us your source for sustainable business practices. The remanufacturing process reclaims durable components from millions of product cores, preventing tons of material from entering our landfills and preserving the inherent energy invested in forging, casting and milling those heavy products. MPA is your source for Street-Smart parts.

Remanufactured parts require up to 91% less energy to produce compared to new parts.\*

\*Automotive Parts Remanufacturing Associat

**MOTORCAR PARTS ★ OF AMERICA ★** 

International Headquarters

2929 California Street | Torrance, CA 90503 USA

