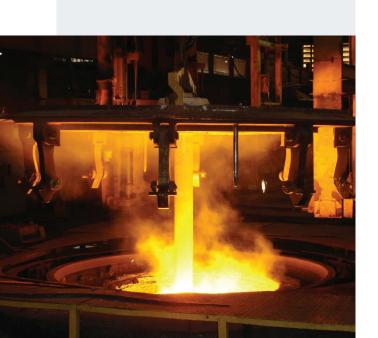
### High quality, highly cost-effective

steel casting production to meet the world's most demanding applications.







# AmstedMaxion™ **CASTING**

## **One source.**Every solution possible.

Imagine leveraging state-of-the-art technology with our comprehensive engineering and manufacturing expertise. AmstedMaxion is uniquely qualified to produce large, highly complex castings for robust, industrial applications with unmatched reliability and precision. Rely on us to provide customized castings and components to suit your every need, from the smallest to the largest and most complex castings, all engineered to the most rigorous specifications. With global manufacturing and engineering resources, and a strong distribution system in place, AmstedMaxion has the reach, financial backing and experience to deliver high quality parts anywhere in the world in the most efficient and economical way. Look to us for the shortest product development cycle and lead times in the industry.



one industrious force.

For more than 100 years, Amsted Rail has been earning the respect of industrial leaders worldwide for engineering advances in critical systems to enhance the productivity and safety of heavy haul rail equipment. Amsted Rail applies their manufacturing expertise gained from developing rugged components for railcars to earth-moving equipment and other off-road vehicles where reliability is essential. These applications are where Amsted's expertise dovetails with that of lochpe-Maxion of Brazil. lochpe-Maxion brings more than 70 years of expertise and a proven record of reliability to the manufacturing of steel wheels and chassis for autos, trucks, buses, as well as heavy-duty agricultural and mining machinery. It owns the largest steel foundry in South America which serves customers in 42 countries around the world.

Operating together, as a joint venture between lochpe-Maxion, Amsted Rail and The Greenbrier Companies, AmstedMaxion is the premier source for providing steel castings for heavy-duty industrial applications used in the most demanding working conditions — construction, mining, rail, automotive, power generation, agriculture, oil and gas. Our rigorous materials and process control standards assure you of unsurpassed quality management throughout the manufacturing process.



# AmstedMaxion<sup>™</sup> **Solutions**

### Superior process. Superior products.

AmstedMaxion's advanced, cost-effective manufacturing process guarantees you delivery of the highest quality industrial castings in the shortest possible turnaround time. The process is enhanced from start to finish by the use of dynamic simulation software and other nondestructive tests usually required by the market.

Heavy-duty industrial equipment and machines require rugged, reliable castings built to withstand the demands of extreme operating conditions. We offer a wide range of precision-engineered industrial and railway castings, all manufactured to meet or exceed the customers, AAR and others international specifications.



#### World-class facility

Largest industrial complex in Brazil
Largest steel foundry in South America with more than 70-year of history
Certified ISO 9001:2008, ISO 14001

Continuous improvement (Lean Manufacturing, Six Sigma, KAIZEN, TPM, & 5S)



#### Elite engineering and consistent quality

International engineering team ready to design any customized castings

On-staff Six Sigma black belt and green belt managers for continuous improvement:

Reduce costs by eliminating waste

Defect prevention

Optimize strength-to-weight ratios

Dynamic simulation process using sophisticated modeling software to ensure proper tooling



#### Proven manufacturing capacity and flexibility

Extensive experience producing large castings for various markets

Foundry can accommodate castings from 10kg to over 5,000 kg

Capacity exceeds 30,000 metric tons in castings annually from scrap metal to melting to shipping finished product

Castings available in a range of states from sub-assembled to semi-finished to finished Castings available in a range of metals: Carbon steel, low alloy steel



#### Robust quality control standards

Metallurgists on staff to perform mechanical, metallographic and chemical tests Internal Quality Inspection Lab:

Magnetic particle inspection

X-ray test outsourcing to evaluate internal soundness

Dimensional inspection

Ultrasonic inspection to examine internal defects



Developing ways.

#### About AmstedMaxion

Created from the joint-venture between Amsted Rail, The Greenbrier Companies and Brazil's lochpe-Maxion, AmstedMaxion combines the vast expertise of two manufacturing leaders. Our experience, dedication and efficiency in servicing today's demanding heavy-duty industrial enterprises and heavy haul operations is unequaled as we design dependable performance into equipment and machines working in the world's most extreme environments.

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To learn more, visit www.gbmx.com.br