





# Key to Safe Rail Transport

Mitsubishi Electric has been supplying brake system for rolling stock over 90 years. Under the cooperation with Mitsubishi Heavy Industries, Ltd., we provided 90,000 brake equipment all over the world. With our experience and ability in supplying extreme safety and high quality products, we are able to provide total solution for brake system. We can propose brake system that fits any type of rolling stock such as high-speed, commuter, metro and locomotive. Since Mitsubishi Electric can supply propulsion system, we are able to optimize rolling stock running and stopping performance. Electric and pneumatic brake are closely blended by the systems, and rolling stock's power consumption and wear in friction material are reduced. Mitsubishi Electric also supplies Train Control and Management System(TCMS) that controls rolling stock equipment as total system. As a rolling stock system integrator, Mitsubishi Electric manages rolling stock as total system to implement optimized train operation.

Our designing section cooperates with research and development section to develop innovative product applying cutting-edge technology.



Our well experienced staff gives total support to our customer in all process, from receipt of product order to after-sales service and overhaul of the product.



We have introduced a comprehensive state-of-the-art inspection facility which brings together many years of know-how, and shifted to automatic data collection. We manage both thorough evaluation on product reliability and successive effort on optimizing test efficiency, which ensures our product has high quality.



Mitsubishi has production lines which are adapted to electronic and pneumatic products. Our production system makes it possible to efficiently produce various brake products with high quality.



**Mitsubishi Manufacturing**

Quality Assurance

Production

Service

Development and Design

## Mitsubishi Brake System

### Master Controller

- High reliability and a high economy, small and lightly by modularized elements



### Air Supply

- Wide range of product, to fit any type of system
- Line up Oil-free type



### Bogie Brake Equipment

- Line up both Caliper or Tread type
- Automatic slack adjuster, parking brake
- Flexible mounting



### Brake Control Unit

- Per bogie or car control
- Various optional functions such as wheel slide protection or train brake control.



## Quality

"Quality First" is one of the most important concept in all process of Mitsubishi's manufacturing. To make our product highly qualified, we constantly work on research and development.

We are proactively acquiring international certifications. We have certification of ISO9001, ISO14001, CMMI Lv.2 which issued by external inspection organizations. We also have an ability of acquiring SIL4 certification if required.



ISO 9001



ISO 14001



CMMI-Lv.2



SIL4

## Testing

Every time Mitsubishi ships product, its safety and quality are carefully tested by quality control engineer. We have innovative test facility that tests our product's safety and quality from every aspect.

