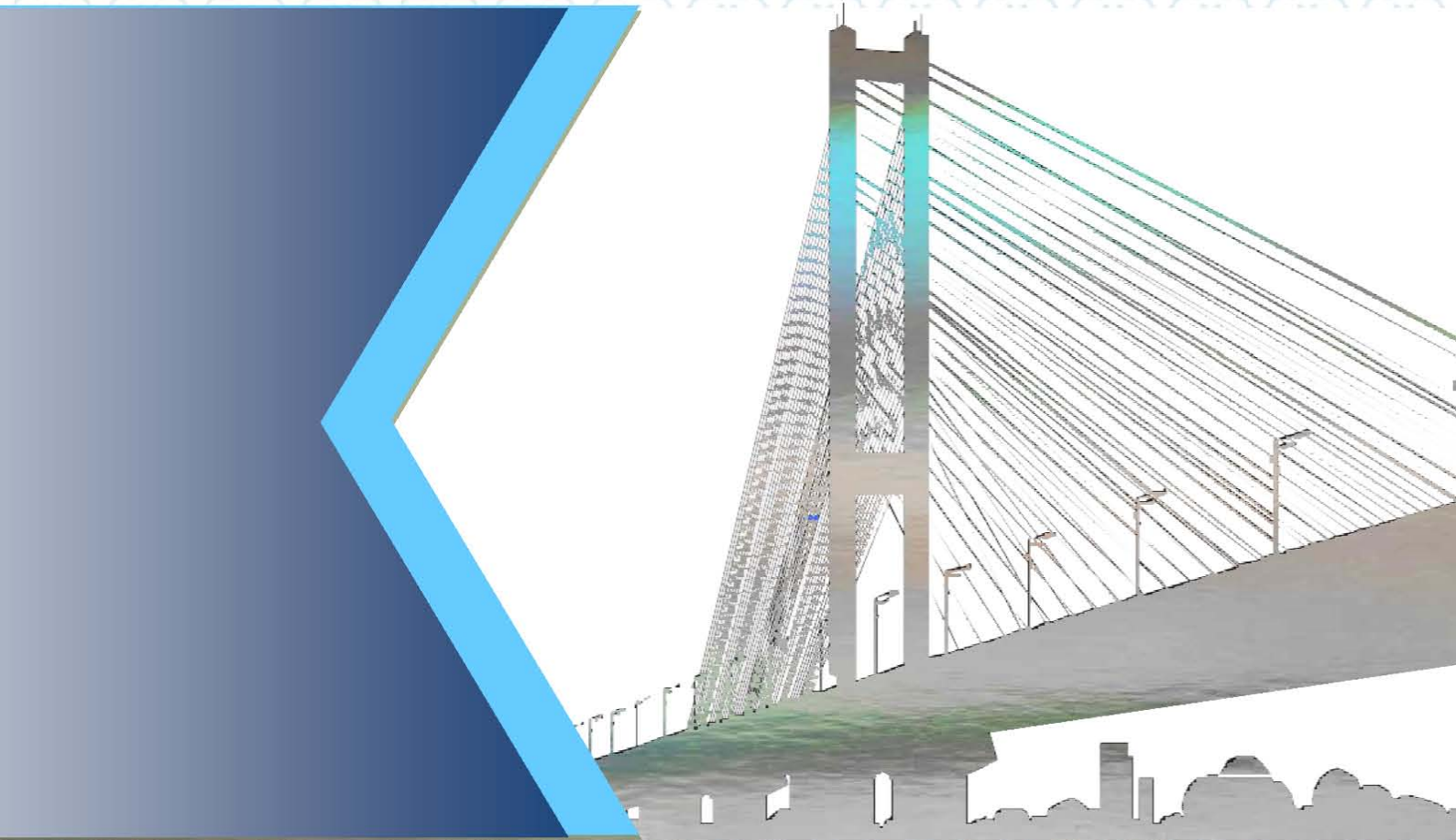
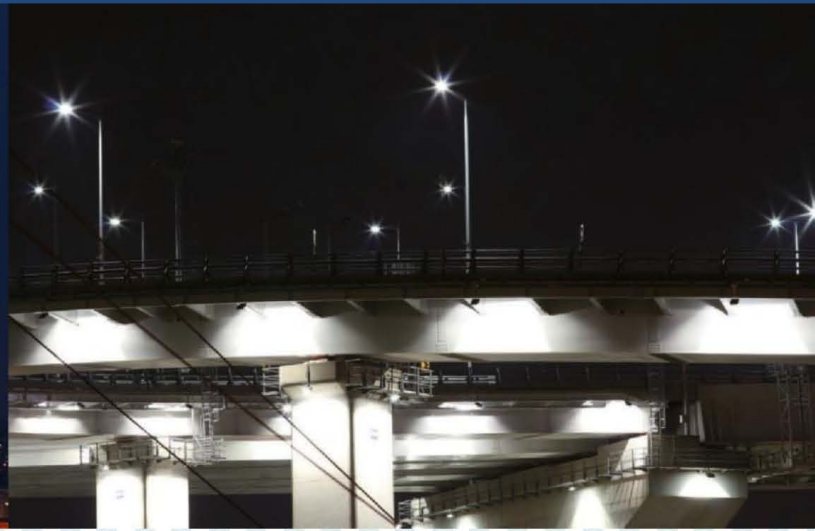


# SAMIL TECHNOLOGY

DEVICES FOR BRIDGE





## **PLACING TOP PRIORITY ON CUSTOMER SATISFACTION WITH ADVANCED TECHNOLOGIES**

SAMIL TECH designs, manufactures and supplies key components for bridges, which are the main items of its business.

SAMIL TECH is actively reflecting its R&D results and customers' needs into product development, and thus taking the lead in achieving customer satisfaction.

# Technology to connect the world, technology to support the world

SAMIL TECH's mission is to "create a brighter world by providing better technologies." SAMIL TECH will continue to develop highly reliable products that will connect and support the world based on advanced technologies.



## BRIDGE BEARINGS

### ELASTOMERIC BEARING

Elastomeric bearings handle vertical loads exerted on the top of a bridge or a building structure and also provide a buffering function to reduce the size of excessive lateral force applied to a substructure by allowing a lateral displacement. This component is made in a square shape using laminated rubber elastic body.

#### Built-in elastomeric bearing

KS F 4420



Fixed



Multi Directional Movement



One Directional Movement

#### Separate elastomeric bearing (general)

KS F 4420



Fixed



Multi Directional Movement



One Directional Movement

**POT BEARING**

POT bearings evenly deliver vertical loads through a rubber pad sealed between the top and the bottom plates. The middle plate accommodates rotational distortion. As for lateral displacement, horizontal movement is permitted through a contact between the sliding and PTFE plates.



Fixed



Multi Directional Movement



One Directional Movement

**DIVIDED SPHERICAL BEARING**

Vertical load is delivered to the ground through a semi-spherical bearing plate fixed in position by the top and the bottom plates. It uses a bearing plate comprised of a flat contact surface with the top plate and a spherical contact surface with the bottom plate. The flat surface provides controlled expansion to accommodate displacement while the spherical surface allows for rotational forces. Such bearings allow for greater rotation than POT bearings.



Fixed



Multi Directional Movement



One Directional Movement

**DISC BEARING**

This bridge bearing is suitable for most bridge types. It incorporates a urethane disc that accommodates all loads and rotations of the superstructure. As for lateral displacement, it allows horizontal movement through contact between the sliding and PTFE plates.



Fixed



Multi Directional Movement



One Directional Movement

## EXPANSION JOINTS

### TRANSFLEX

- **Trafficability:** The surface of this product is made of rubber which has a natural ability to absorb impact and reduce noise for vehicles driving over it.
- **Applicability:** Because of its inherent flexibility this product responds to twisting forces and slant displacements. This product can be custom made to various specifications.
- **Durability:** Because this product is made of neoprene which is inherently resistant to ozone and oil corrosion it will last a very long time.
- **Installation and Maintenance:** Manufactured in units of 1.8m, this product is easy to install, maintain and replace.
- **Drainage:** During expansion, curves and bends on the surface maintain flatness without causing vertical displacement. Water is drained along the curved surface, thus leakage is prevented.



### NEW FINGER JOINT

- **Trafficability:** This component minimizes discontinuity to provide a smooth flat surface with excellent trafficability and low noise.
- **Applicable to a Range of Displacements:** Based on an independently developed special rubber mixing technique, this product has improved expandability and thus can be applied to a wide range of bridge applications such as for lateral, longitudinal and slanting directions.
- **Workability and Maintainability:** The simple structure ensures high workability and economic maintenance.
- **Gap Adjustment:** With a leveler attached to the main body of the expansion joint, this is convenient for adjusting gaps during installation.

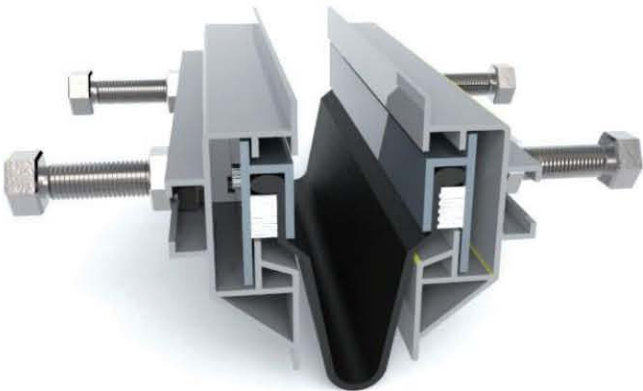
### FINGER JOINT

- **Workability:** Manufactured as a modular system, this product is easily handled and installed.
- **Trafficability:** This product does not have an uneven surface, and thus ensures excellent trafficability and low noise level.
- **Durability:** The driving surface is made of steel, thus durability is excellent.
- **Applicability:** Can be applied to all bridge types.
- **Maintenance:** Due to its modular design partial replacement can be carried out swiftly with only minimal traffic control.



## MODULAR JOINT

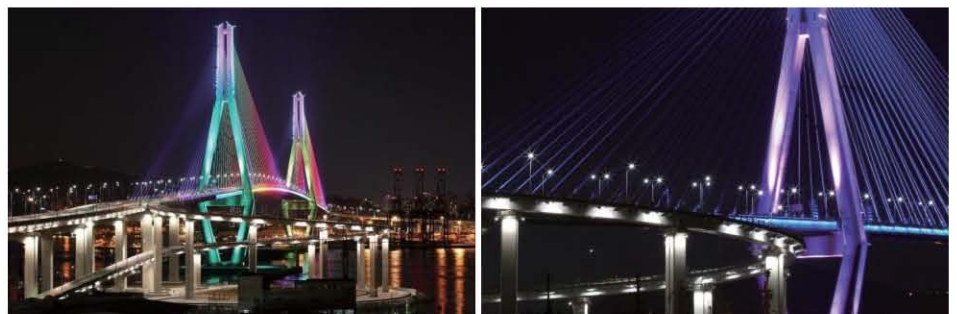
- **Trafficability** : The gap between the rubber seals ensures high trafficability.
- **Applicability**: This product is ideal for a long rail bridge with a large expansion length.
- **Durability**: Highly abrasion resistant and exceptionally durable.
- **Water Resistance**: This product provides perfect waterproofing.



## RAIL JOINT

- **Workability**: Proper gap adjustment is easy to achieve at installation, and the simple and lightweight structure ensures convenient installation.
- **Durability**: The top cover ensures high durability.
- **Applicability**: This product can be applied to a wide range of bridges, such as skew bridges and slant bridges.
- **Maintenance**: Simple maintenance of the drainage materials results in low maintenance costs.

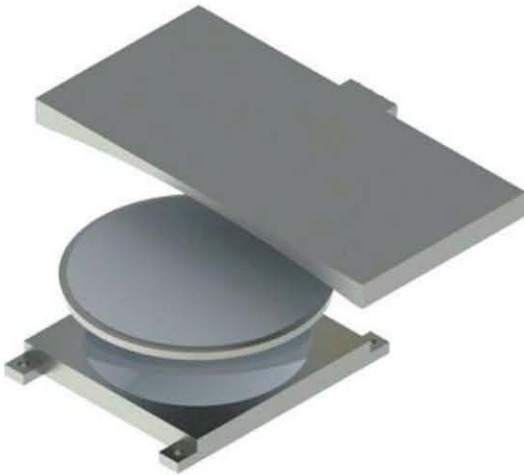
SAMIL TECH  
CO., LTD.



## SEISMIC ISOLATION EQUIPMENT

### HIGH DAMPING RUBBER BEARING

- The rubber and steel laminated structure of this component absorbs and dissipates seismic forces by using the damping capacity of the specially formulated rubber.
- After an earthquake the component reverts to its original position due to the properties of the rubber.
- This product provides tensile reinforcement.
- This product can be inspected visually.



### FRICTION PENDULUM BEARING

- This product is comprised of stainless steel friction plates that together absorb and dissipate seismic forces using the coefficient of friction and curvature.
- After an earthquake, the damaged part is restored by the curved surface.
- It is easy to adjust displacement adjust, therefore this product is suitable for bridges having a large expansion length.

### LEAD RUBBER BEARING

- Lead plates are inserted alongside rubber laminates to absorb and dissipate seismic forces by taking advantage of the shearing deformation properties of the combined lead and rubber.
- After an earthquake the component reverts to its original position due to the properties of the rubber.
- This product provides excellent tensile reinforcement.
- This product can be inspected visually.



# A solid infrastructure to create innovative technologies and solutions, SAMIL TECH's perfect line of facilities

SAMILTECH is well aware that it cannot achieve success even with high technology and top-quality products unless it can also meet customers' needs perfectly. SAMILTECH has secured not only complete technological and production capabilities, but has also built a complete quality assurance and managerial system to provide customers with only the best service.

## TESTING FACILITIES



Aging Tester



Rheometer



Ozone Tester



Tensile Strength  
Tester



Low-temperature  
Tester



Product Aging Tester

## MANUFACTURING FACILITIES

### ELONGATION



Rubber Mixer



Bench Drill



Press



Rubber Cutter



Welding Machine

### ELASTICITY



Rubber Cutter



Milling Machine



Shearing Machine



Lathe



Shot Blaster



Bench Grinder



Radial Drilling Machine



Press



Devices for BRIDGE

**SAMIL TECHNOLOGY (THAILAND) CO., LTD.**



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