
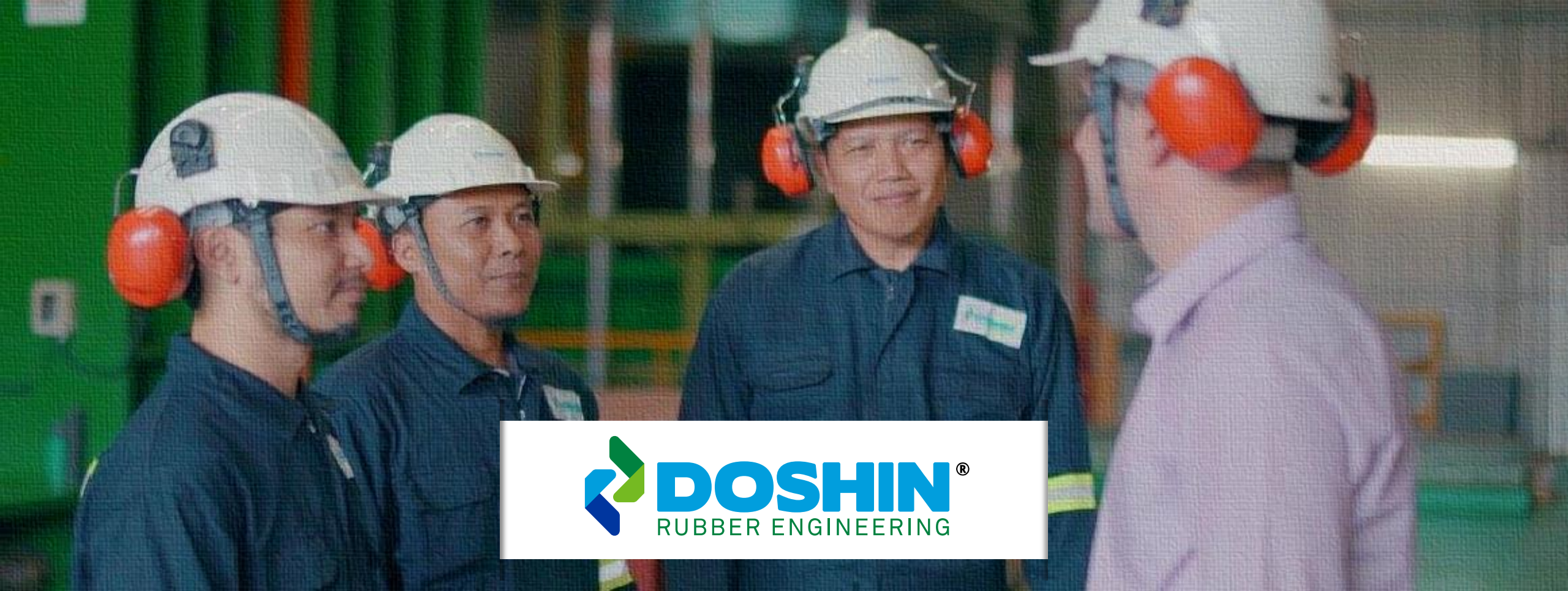


KOSSAN

 **DOSHIN**<sup>®</sup>  
RUBBER ENGINEERING

"GO BEYOND LIMITS MAKE DREAMS RE





ESTABLISHED IN YEAR 1978

*A subsidiary of*



STRETCHING LIMITS • SINCE 1979



GO BEYOND LIMITS  
MAKE DREAMS REALITY

VISION

“ To be the world class market leader in Engineering Rubber Products driven by technological advancement, people value and continual improvement to deliver long term and sustainable growth “

QUALITY  
POLICY

“ We strive beyond customers’ quality requirements through continuous improvement plans with specific attention to technical excellence and innovation “

# CERTIFICATIONS



**CERTIFICATE OF REGISTRATION**

This is to certify that:  
**Doshin Rubber Products (M) SDN. BHD.**

**Quality Profile Sdn. Bhd.**

Lot PT 34252 Jalan Sekolah, Rantau Panjang Klang, Selangor Darul Ehsan, 42100, MALAYSIA.

operates a

**QUALITY MANAGEMENT SYSTEM**

Which complies with the requirements of

**ISO 9001:2015**

For the following scope

Design, development, manufacture, testing and installation of elastomeric bearings, mechanical pot bearings, high damping rubber bearings, floating slab track bearings, steel & rubber expansion joints, marine fenders, spherical bearings, dampers and other engineered rubber product and metal products for bridges, buildings, railways, tramways, marine, mining, oil & gas, nuclear plants and other civil engineering applications.

Certificate No: QEC23010

Issued: 4 November 2016      Originally Certified: 31 January 2006  
 Expires: 26 October 2019      Current Certification: 27 October 2016

*Paul Simpson*  
 Paul Simpson  
 Global Policy Risk and Certification Manager

**SAI GLOBAL**  
 REGISTERED  
 MANAGEMENT SYSTEMS  
 CERTIFICATION BODY

Registered by:  
 SAI Global Certification Services Pty Ltd (ACN 158 716 668) 690 George Street, Sydney NSW, 2000 Australia with SAI Global Limited  
 690 George Street Sydney NSW 2000 Australia "SAI Global" and subject to the SAI Global Terms and Conditions for Certification.  
 While all due care and skill was exercised in carrying out this assessment, SAI Global accepts responsibility only for proven  
 sign-offs. This certificate remains the property of SAI Global and must be returned to SAI Global upon its request. To verify that this  
 certificate is current please refer to SAI Global On-Line Certification register at <http://www.sai-global.com>

QUALITY SYSTEM MANAGEMENT  
 ISO 9001:2015



S/N: 0082

**STANDARDS MALAYSIA**

**Certificate of Accreditation**

No: SAMM 372      Valid until: 14 September 2019

This is to certify that

elab TESTING & RESEARCH CENTER  
 DOSHIN RUBBER PRODUCTS (M) SDN BHD  
 KLANG, SELANGOR  
 MALAYSIA  
 (FIELD OF TESTING: MECHANICAL)

has been granted accreditation in respect of the scope of accreditation described in the schedule, subject to the terms and conditions governing the *Skim Akreditasi Makmal Malaysia (SAMM)*, the Laboratory Accreditation Scheme of Malaysia.

"This laboratory is accredited in accordance with the recognised International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated January 2009)".

*Datuk Fadilah Baharin*  
 (DATUK FADILAH BAHARIN)  
 Director General  
 Department of Standards Malaysia

Date of issue: 22 August 2016

Issuance of this Certificate is governed by Section 16 Subsections (2) and (3) of Standards of Malaysia Act, 1996 (Act 549)

LABORATORY ACCREDITATION  
 SKIM AKREDITASI MAKMAL MALAYSIA(SAMM)  
 MS ISO / IEC 17025



**SRAC CERTSERV**  
 NOTIFIED BODY No. 1835

**Certificate of constancy of performance,**  
 1835 - CPR - 41-0054

In compliance with Regulation (EU) No. 305/2011 of the European Parliament and of the Council of 9 March 2011 (the Construction products Regulation or CPR), this certificate applies to the construction products

**ANTISEISMIC DEVICES, SEISMIC ISOLATORS,  
 ELASTOMERIC HIGH DAMPING ISOLATORS**

used in buildings and civil engineering works where requirements on individual products are critical and whose characteristics are detailed in the Annex 1 placed on the market under the trade mark of

**DOSHIN RUBBER PRODUCTS (M) SDN BHD, Lot PT 34252  
 JLN SEKOLAH, RANTAU PANJANG KLANG 42100, MALAYSIA**

and produced in the manufacturing plant of

**DOSHIN RUBBER PRODUCTS (M) SDN BHD in  
 Lot PT 34252, JLN SEKOLAH, RANTAU PANJANG  
 KLANG 42100, MALAYSIA.**

This certificate attests that all provisions concerning the assessment and verification of constancy of performance (AVCP) described in Annex ZA of the standard

**EN 15129:2009**

under system 1 for the performance set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the

**constancy of performance of the construction products.**

This certificate was first issued on 21.11.2017 and will remain valid as long as the harmonised standard, the construction products, the AVCP methods and the manufacturing conditions in the plant are modified significantly, except suspension or withdrawal by the notified product certification body.

21.11.2017

*PhD. Eng. Cristinel Roncea*  
 General Director,  
 PHD. Eng. CRISTINEL RONCEA

6 Theodor Burada Street, Sector 1, Bucharest, 010215, ROMANIA

SEISMIC ISOLATOR HDRB  
 CE MARK CERTIFICATE  
 CE 1835

# QUALITY CERTIFICATION

QUALITY MANAGEMENT SYSTEM  
Which Complies with the requirements of

# ISO 9001:2015

For the following Scope:

Design development, Manufacture, Testing and Installation of Elastomeric bearings, Mechanical Pot Bearings, High Damping Rubber Bearings, Floating Slab Track Bearings , Steel and Rubber Expansion joints, Marine Fenders, Spherical Bearings, dampers and other Engineered Rubber Products and Metal Products for Bridges, Buildings, Railways, Tramways, Marine, Mining, Oil and Gas, Nuclear Plants and others Civil Engineering application.



# PRODUCTS



A SOLUTION FOR ENGINEERED RUBBER AND STEEL PRODUCTS FOR BRIDGES, BUILDINGS, RAILWAYS, MININGS, AND OTHER CIVIL ENGINEERING APPLICATIONS



## MARINE DOCK FENDERS



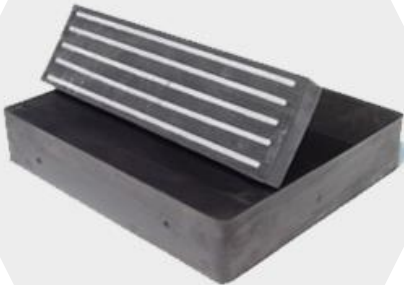
- To perform as bumper to protect the hull and bearing facility from damages



- To perform as a shock absorber on the bearing operation

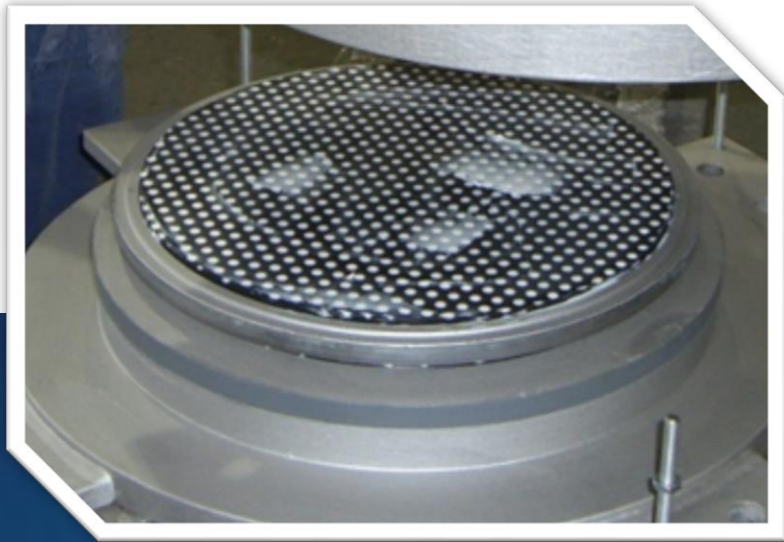
# ELASTOMERIC BEARINGS

To design, produce, and test to meet BS, EN, AS, AASHTO and other international specs





# SPHERICAL BEARINGS



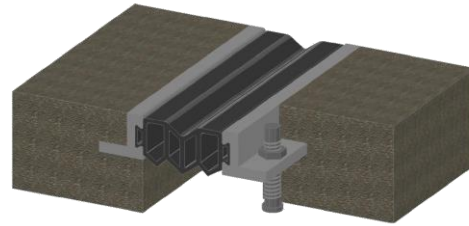
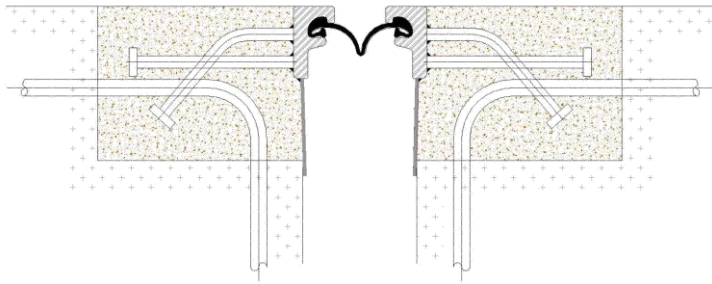
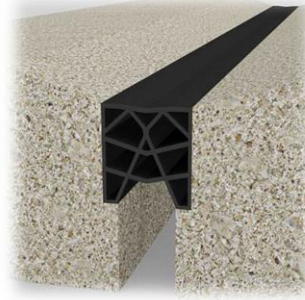
Doshin Spherical bearings are designed for very high vertical, horizontal and lateral loads and where large rotational structural displacements need to be accommodated.



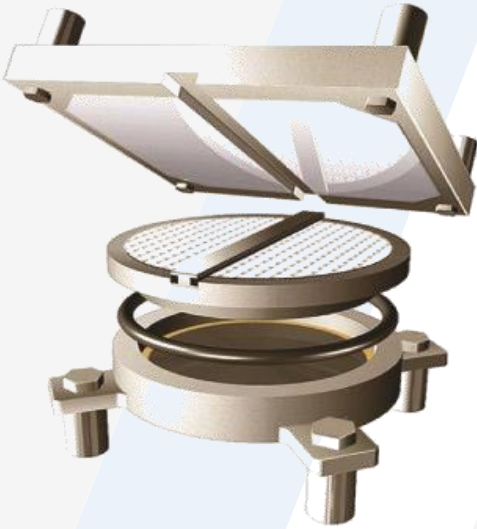
# EXPANSION JOINTS AND SEALS

TYPES OF JOINTS:

1. Elastomer Expansion Joints
2. Modular Joints (3 DOF)
3. Finger Joint (DFJ)
4. Compression Seals



# MECHANICAL POT BEARINGS

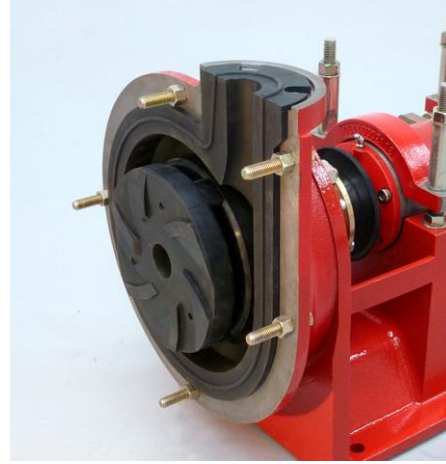


Design, Fabricate, Testing and Install POT BEARINGS up to vertical load 50,000 KN



# MINING RUBBER PRODUCTS

Superior wear resistant rubber compound formulation



# MINING RUBBER PRODUCTS



# RAILWAY RUBBER PRODUCTS

- A proven mass-spring system for achieving very high levels of noise & vibration isolation
- Floating slab track (FST), rubber wedge, rail fastening



## PROJECT REFERENCE:

- Downtown Line SINGAPORE
- Heikamo Rail GERMANY
- TTY Airport Line TAIWAN
- HONG KONG KCRC KSL
- UK Cross Road 2016
- TAIWAN Tai Chung Green Line 2016

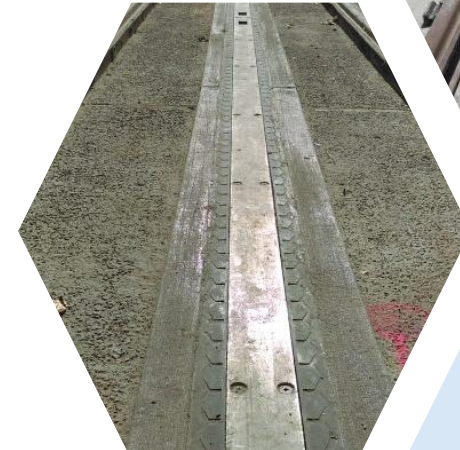
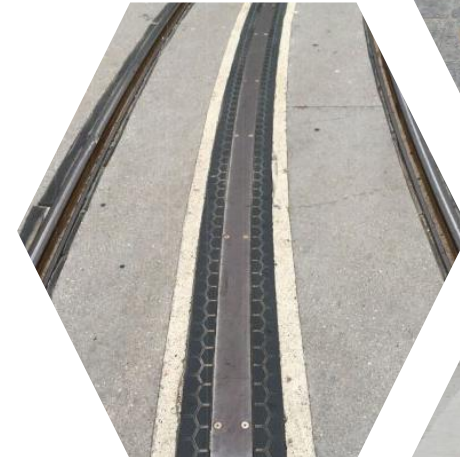


# TRAMWAY & LIGHT RAIL

Special formulated electrical Insulated rubber technology Electrical resistivity ground-level power supply (APS 3) and Static Charging System (SRS) for Alstom's Trams

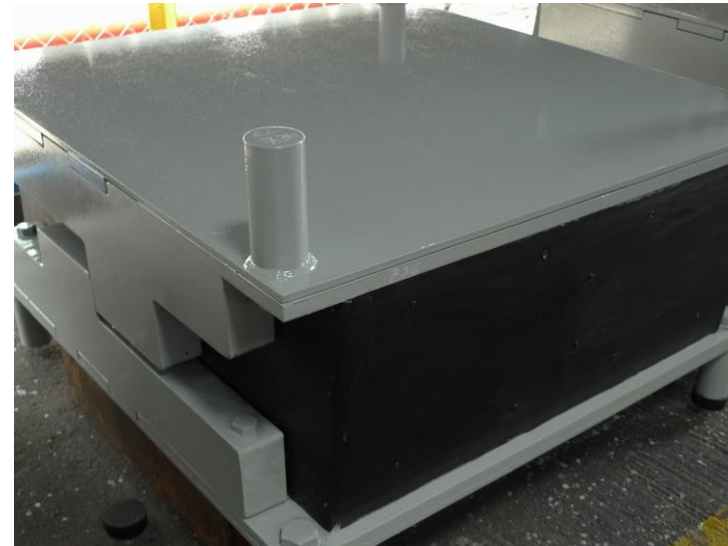
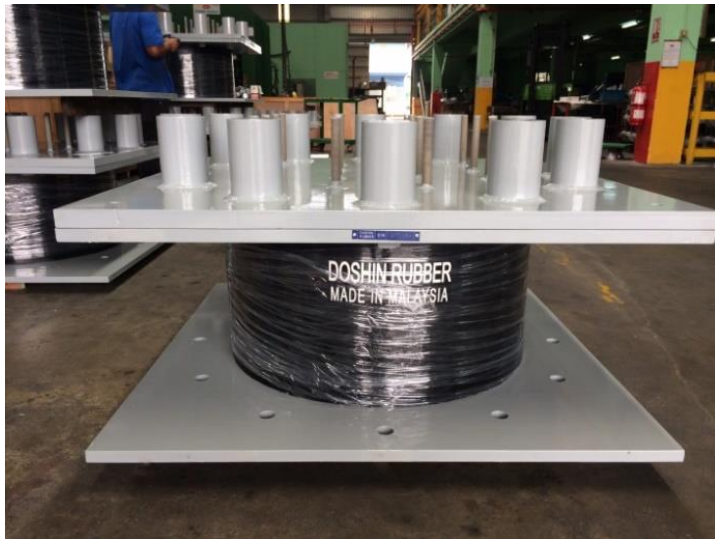
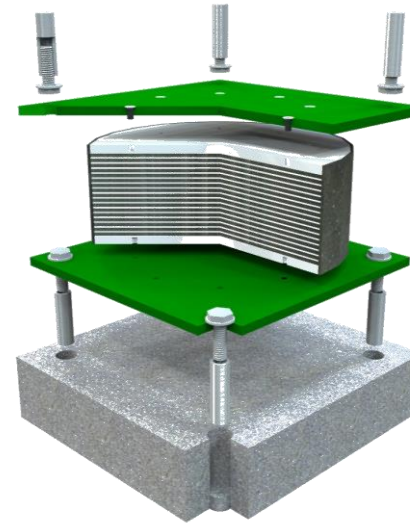
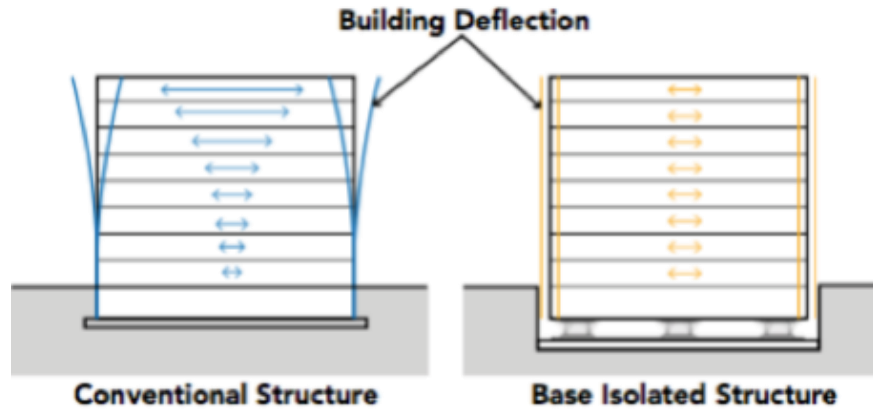


APS is a service-proven power system for tramways which supplies electricity through a third rail at ground level and eliminates the need for catenaries, thus preserving the aesthetics of city center and guaranteeing maximum safety.



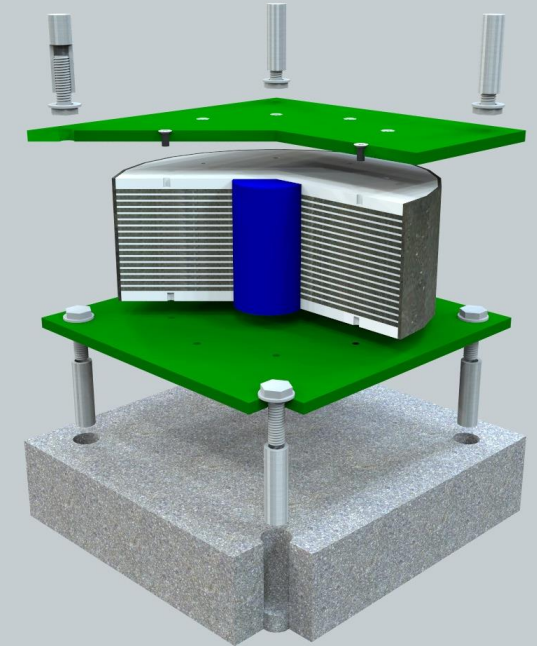
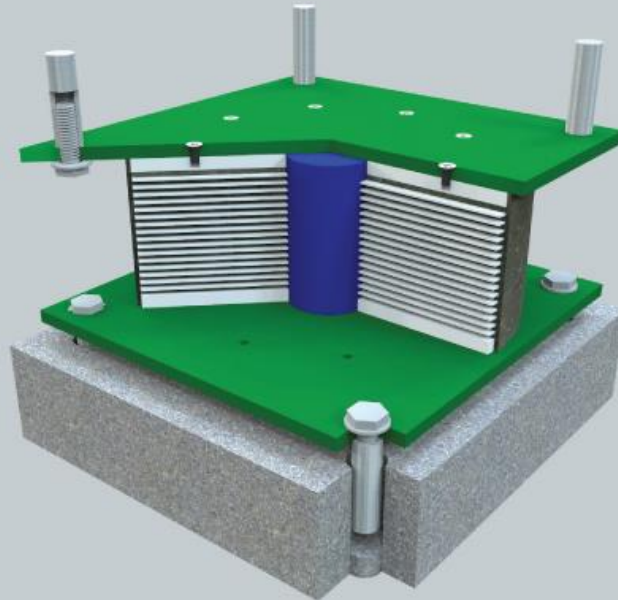
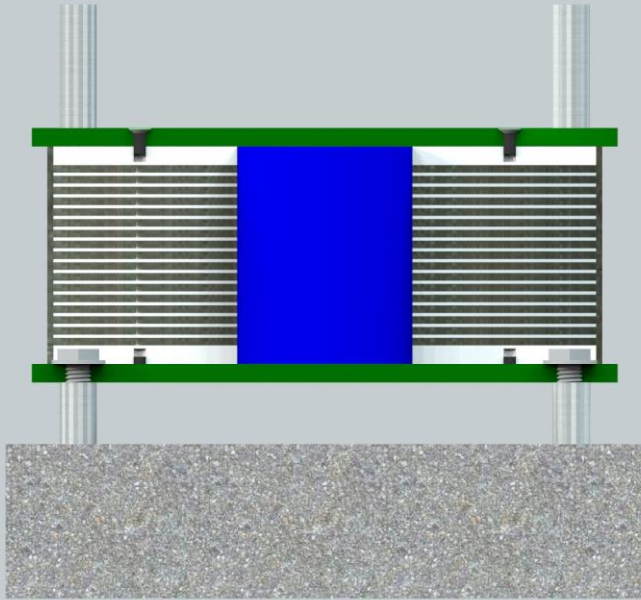
# HIGH DAMPING RUBBER BEARINGS

Design & Produce UHDRB with damping ratio up to 24%





# LEAD RUBBER BEARINGS



# MANUFACTURING FACILITIES



# MANUFACTURING FACILITIES-MIXING

- ❖ Mixing capacity up to 2000 tons compound per month
- ❖ Farrell Chronos Richardan mixing 80L & 160L
- ❖ ST rotor variable speed
- ❖ Temperature control
- ❖ Chronos auto material feeding system



# MANUFACTURING FACILITIES



VARIOUS MOULDING MACHINES FROM 500 TONS TO 2000 TONS



INJECTION TO FENDER AT 1500KG/HR



3 UNITS GEAR PUMP EXTRUDER 1500KG/HR



2000 TONS CLAMPING MACHINE  
3.5M X 3.5M X 3.0M DAYLIGHT



1200 TONS COMPRESSION PRESS  
1.2M X 2.2M



SHEETING PREFORM MACHINE

# MANUFACTURING FACILITIES



CNC



2000 TONS COMPRESSION MACHINE  
1.2M X 3.2M



2000 TONS COMPRESSION MACHINE  
3.5M X 3.5M X 3M



2000 TONS COMPRESSION MACHINE  
1.5M X 3.5M



2000 TONS COMPRESSION MACHINE  
2.2M X 2.2M



1800 TONS HYDRAULIC BUILT  
INTO AUTOLAVE FOR CURING

# E-LAB TESTING & RESEARCH CENTER

CERTIFIED TO ISO/IEC 17025



Innovating the best testing machines with our well trained engineers for engineered rubber solution

# E-LAB TESTING & RESEARCH CENTER

Schedule  
No: SAMM 372



MS ISO/IEC 17025  
TESTING  
SAMM NO. 372



This laboratory accredited under Skim Akreditasi Makmal Malaysia (SAMM) meets the requirements of MS ISO-IEC 17025:2005 General requirements for competence of testing and calibration laboratories. This Malaysian Standards is identical with ISO-IEC 17025:2005 published by the International Organization for Standardization (ISO)





# E-LAB TESTING & RESEARCH CENTER

## FIELD OF TESTING : MECHANICAL

### Scope of Accreditation:

Product: Laminated Elastomeric Bearings, Elastomeric Bearing Pads and Strips

Type of Test	Test Method
SHEAR STIFFNESS #Single Shear 	AS 5100: Part 4 (2004) [Appendix D4]
	BS 5400 – 1983 Section 9.2 Appendix A
	BSEN 1337 – 3 : 2005 [Annex F.7.2]
#Double Shear 	BS 6177 : 1982 Clause 9.5 (Double Shear Configuration)
	RMS B281 Clause 2.2.5 (Apr' 12)
	RTA B280 Clause 2.2.5 (2011)
	AASHTO Sec. 18 (2003) Clause 18.7.4.5.8




Type of Test	Test Method
COMPRESSION QUALITY ASSURANCE TEST 	AS 5100: Part 4 (2004) [Appendix D2]  BS 5400 – 1983 Section 9.2 Clause 7.2 (b)(i)
	BS 6177: 1982 Clause 9.3 (Safe Carrying Capacity Test)
	BS 6177: 1982 Clause 9.4 (Stability Test)
	RMS B281 Clause 2.2.7 (Apr' 12)
COMPRESSION STIFFNESS 	BSEN 1337 – 3 : 2005 (Annex H : Level 1)
	AS 5100: Part 4 (2004) [Appendix D3]  BS 5400 – 1983 Section 9.2 Clause 7.2 (b)(i)
	AASHTO Sec 18 (2003) Clause 18.7.4.5.6 (Short Duration)
	AASHTO Sec.18 (2003) Clause 18.7.4.5.7 (Long Duration)
	RMS B281 Clause 2.2.4 (Apr'12)
	RMS B281 Clause 2.2.6 (Apr'12) (Applied Rotation)
	RTA B280 Clause 2.2.4 (2011)
	BSEN 1337 – 3 : 2005 (Annex H: Level 2)
BS 6177: 1982 Clause 9.6	



# E-LAB TESTING & RESEARCH CENTER

## Product: SEISMIC BEARINGS







(STRUCTURAL ISOLATION, e.g: HDRB, LRB and PENDULUM)

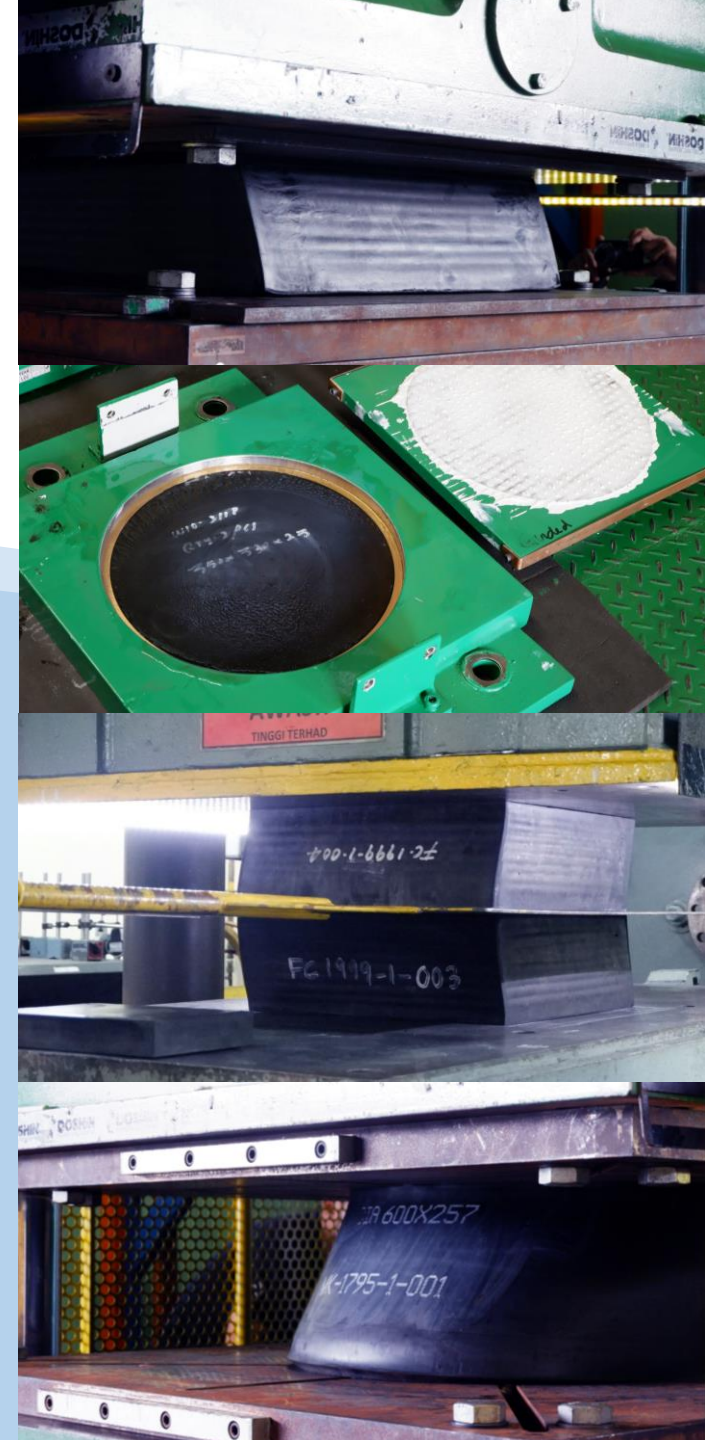
Type of Test	Test Method
COMPRESSION QUALITY ASSURANCE TEST 	BSEN 15129 : 2009 Clause 8.2.1.2.6 Compression under Zero Lateral Displacement BSEN 15129 : 2009 Clause 8.2.1.2.7
COMPRESSION STIFFNESS 	BSEN 15129 : 2009 Clause 8.2.1.2.8
HORIZONTAL CAPACITY 	BSEN 15129 : 2009 Clause 8.2.1.2.5  Horizontal Characteristics On Repeated Cycling

Notes: HDRB : High Damping Rubber Bearing  
LRB : Lead Rubber Bearing

## Product: STRUCTURAL BEARINGS

(SPHERICAL BEARINGS AND MECHANICAL POT BEARINGS)

Type of Test	Test Method
COMPRESSION QUALITY ASSURANCE TEST 	BS EN 1337 – 5 : 2005 (Annex B) BSEN 5400 : 1983 Section 9.2 Clause 7.2 (b) AASHTO Sec. 18 (2003) Clause 18.7.2.5 Short-term Compression Proof Load Test AASHTO Sec. 18 (2003) Clause 18.7.2.6 Long-term Compression Proof Load Test
COMPRESSION STIFFNESS 	BS EN 1337 – 5 : 2005 [Annex B] BS 5400 : 1983 Section 9.2 Clause 7.2 (b)
VERTICAL LOAD TEST 	AASHTO Sec. 18 (2003) Clause 18.7.2.5 AASHTO Sec. 18 (2003) Clause 18.7.2.6
HORIZONTAL LOAD TEST 	BS 5400 : 1983 Section 9.2 Clause 7.2 (b) AASHTO Sec. 18 (2003) Clause 18.7.2.9 (Fixed or Guided Bearings Only)
FRICTION & SLIDING TEST 	BS 5400:1983 (Part 9.1 & 9.2) AASHTO Sec 18 Clause 18.7.2.7 BS EN 1337 : 2004, Annex B
ROTATION TEST 	MRT S81-Appendix D (D4) AASHTO Sec 18, Clause 18.7.4.4.3 BS EN 1337 : 2004, Annex B BS 5400 : 1983 (Part 9.1 & 9.2)



# E-LAB 100

## Fender Compression & Durability Test



COMPRESSION FORCE : 3,000kN

# E-LAB 121 & E-LAB 122

Static Stiffness Performance Test for Floating Slab Track Bearings and Base Plate



E-LAB 121 Vertical Load : 200KN  
E-LAB 122 Vertical Load : 1,000KN  
Static Compression Loading Rate: 2.5~ 120KN/MIN

# E-LAB 132

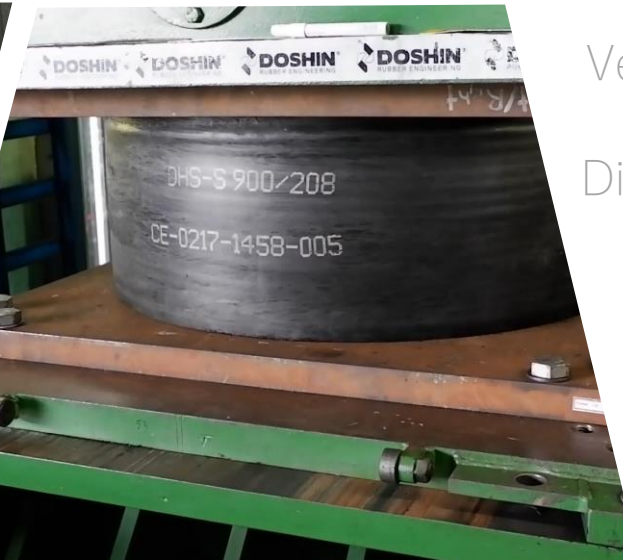


Vertical Load : 10,000KN  
Shear Load : 1,000KN  
Displacement : +/- 500mm

Hysteresis Damping Testing for Structural Bearings and Seismic Isolators

# E-LAB 140

## Hysteresis Damping Testing for Structural Bearings and Seismic Isolators



Vertical Load : 20,000KN  
Shear Load : 2,000KN  
Displacement : +/- 500mm



# E-LAB 150

HYSTRESIS DAMPING TESTING  
FOR STRUCTURAL BEARINGS  
AND SEISMIC ISOLATORS

One of the biggest testing machine  
with shear capability in the world



Vertical Load : 50,000KN  
Shear Load : 5,000KN  
Displacement : +/- 1,000 MM

Machine platen size:  
2,200 mm x 2,200 mm

Capable to Test Bearing size  
up to 2,000 mm

# E-LAB 160

Fenders  
Compression  
Test



- ❖ Energy Absorption & Reaction Force Test
- ❖ Compression Load : 10,000KN

# E-LAB 170

Hysteresis Damping Test for Rubber Compound Development



**DOSHIN**<sup>®</sup>  
RUBBER ENGINEERING

**e-lab 170**

**HYSTERESIS DAMPING TEST**

COMPRESSION FORCE : 1,000KN

SHEAR FORCE : 100KN

SHEAR DISPLACEMENT :  $\pm 200$ mm

Vertical Load : 1,000KN

Shear Load : 100KN

Displacement : +/- 200 MM

Displacement Speed : 200mm per second



**DOSHIN**  
RUBBER ENGINEERING

## e-lab 180

HYSTERESIS DAMPING TEST

COMPRESSION FORCE : 5,000KN

SHEAR FORCE : 1,000KN

SHEAR DISPLACEMENT :  $\pm 200$ mm

## E-LAB 180

HYSTERESIS DAMPING TEST FOR STRUCTURAL BEARINGS AND SEISMIC ISOLATORS

VERTICAL LOAD : 5,000KN

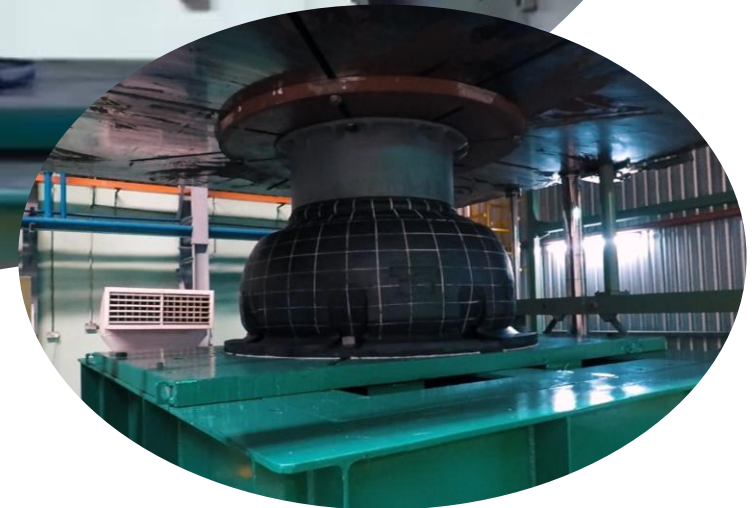
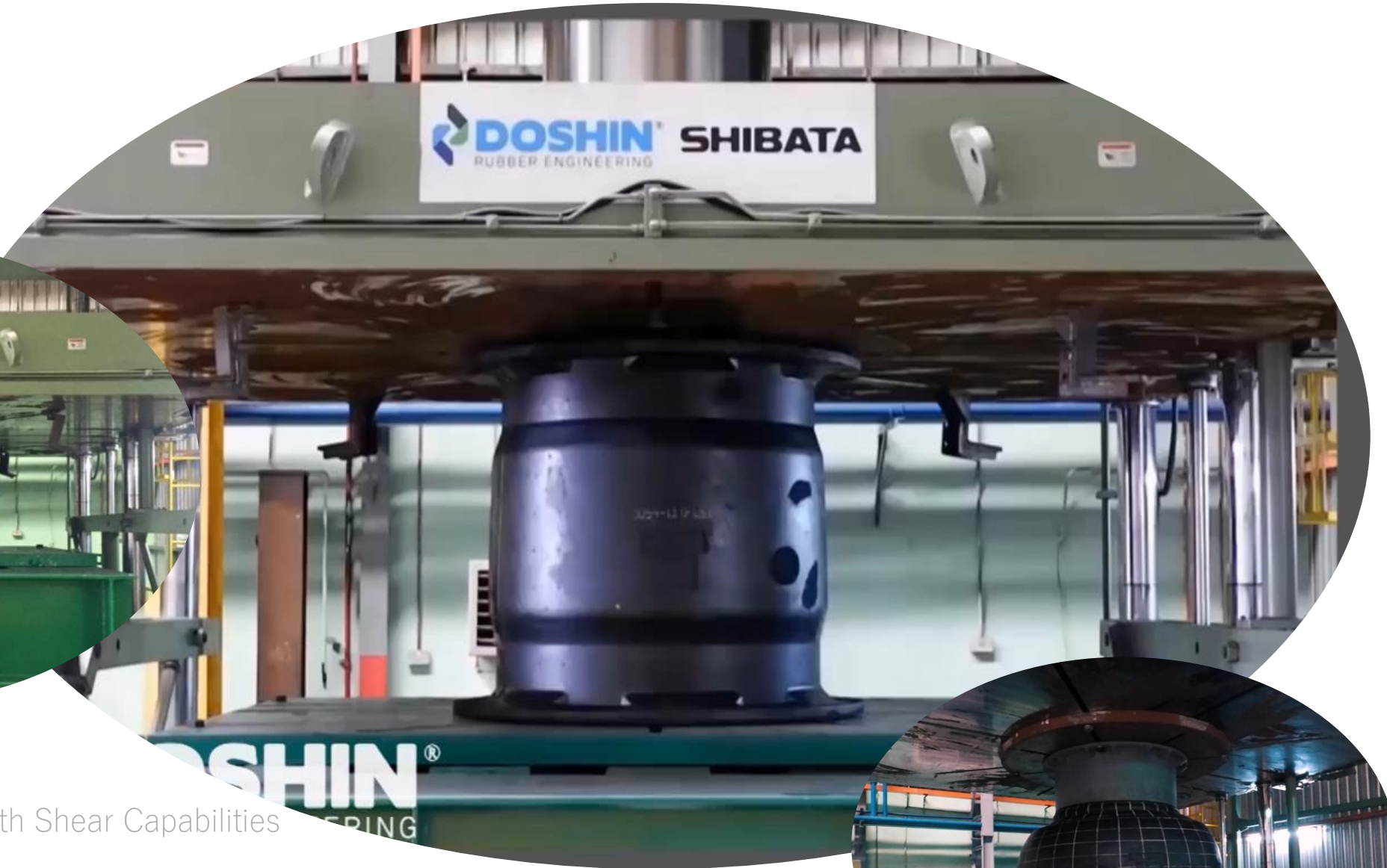
SHEAR LOAD : 2,000KN

DISPLACEMENT :  $\pm 500$  MM

**DOSHIN**  
RUBBER ENGINEERING  
e-lab 122  
STATIC STIFFNESS TEST  
PRESSION FORCE: 1,000KN

S-1209-348

# E-LAB 190



## Performance Test for Fender with Shear Capabilities

- Energy absorption & reaction force test
- Vertical load : 10,000KN
- Shear load : 1,000KN
- Displacement : 3,000MM
- Machine platen size : 3700mm X 3700mm

# RUBBER ENGINEERING & DEVELOPMENT CENTER

## A. RUBBER MATERIAL TESTING

- ✓ Tensile Properties Test
- ✓ Hardness Test (ASTM Shore A, JIS Shore A, IRHD)
- ✓ Hot Air Heat Aging Test (up to 300°C)
- ✓ Compression Set Test
- ✓ Ozone Resistance Test (up to 400 ppm)
- ✓ Quadruple Shear Test
- ✓ ISO/DIN Abrasion Resistance Test
- ✓ Low Temperature Brittleness Test (up to -70°C)
- ✓ Density/SG Test
- ✓ Rheology Test
- ✓ Tear Resistance Test (Trouser and Crescent)
- ✓ Fluid/Oil Immersion Test.
- ✓ Rebound Resilience Test

## B. PRODUCT / PART PERFORMANCE TESTING

- ✓ Static Compression/Load Deflection test (up to 100kN capacity)
- ✓ Dynamic Spring Rate Test
- ✓ Durability/Endurance/Life Test
- ✓ Adhesion/Bond Failure Test (Rubber-Metal Bonded)



Certified to : ISO/IEC 17025

SCOPE OF KOSSAN AND  
DOSHIN LABORATORY  
TEST & MEASUREMENT  
CAPABILITIES



# PROJECTS RREFERENCE



# AUSTRALIA PROJECT

Elastomeric Laminated Bearings, Bearing Strips and Elastomeric Bearings

- Western Australia's largest road project – WA Gateway
- OH2K
- F&B
- Fredrickton to Eungai project (F2E)
- KWR Bypass
- PJ677 Toowoomba OCR
- PJ676 Cooroy to Curragh
- F2E Project BR013 & BR017
- Dingo to Bluff
- Patrick Access Ramp D
- T2E project
- Singleton Rail Bridge
- M2 Widening
- South Expressway Duplication
- BHP Nelson Point
- PJ622 Sapphire to Woolgoolga
- PJ621 Tamworth Bridge Renewal
- PJ620 Iron Creek
- Gerringong Upgrade
- RRL-E Boundary Rd
- Cavill Ridge
- RRL-E Project - Armstrong Rd
- Dohertys Road
- Parkes Way Widening
- MGI Koolan Island Top Deck
- Gerringong Upgrade
- Molonglo
- BLJV Update
- PJ573 Wamban Creek
- Bega Bypass
- Gateway Motorway
- Yeppen Lagoon Bridge
- McLarenavale Overpass
- F11 Hunter Expressway
- South Rd Superway
- Trackstar Station
- Pacific Highway Upgrade

100% tested to ASS100, RMS B281, RMS B280, RTA 280

PROJECTS REFERENCE



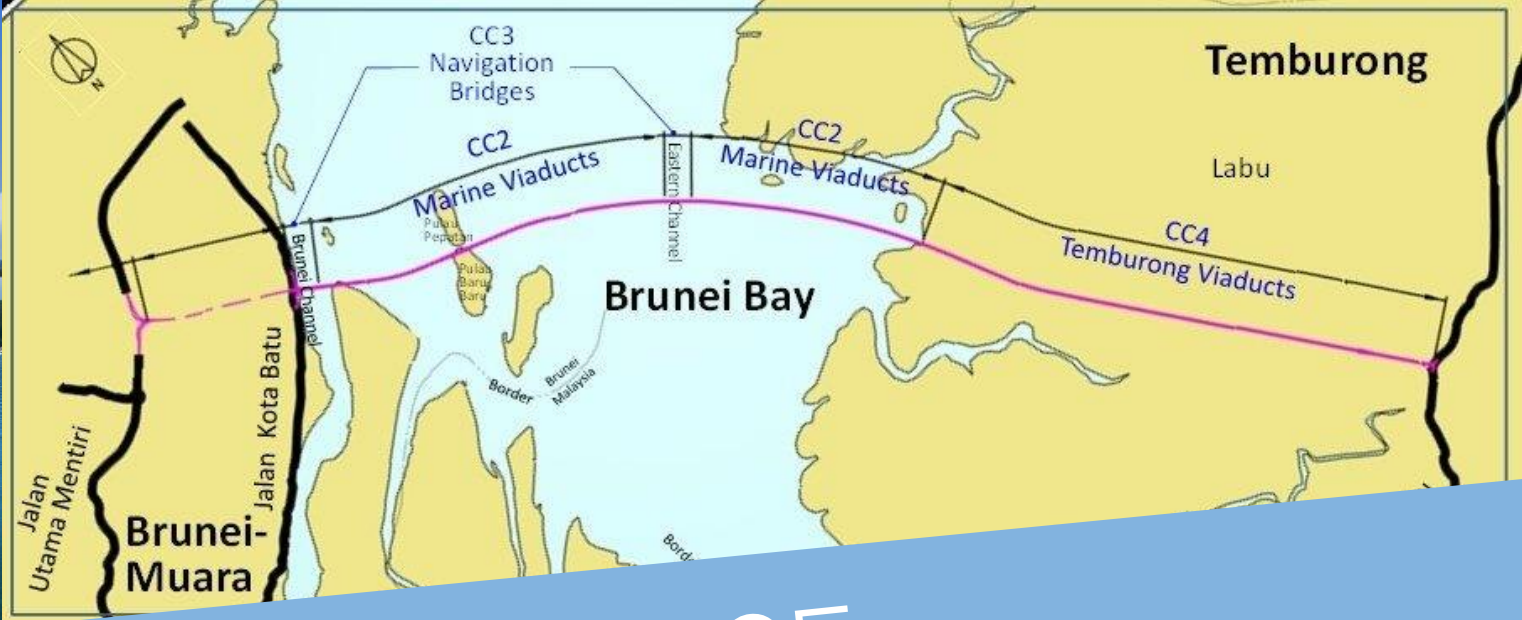
# FRESSINET, AUSTRALIA

Laminated Rubber Bearing



## PROJECTS REFERENCE





# PROJECTS REFERENCE

## TEMBURONG CC3 PACKAGE, BRUNEI, 2017

High Damping Rubber Bearings

# HOSPITAL LAS HIGUERAS, CHILE

High Damping Rubber Bearings  
&  
Lead Rubber Bearing

PROJECTS REFERENCE







# HIGH SPEED TRAIN RUBBER ISOLATORS, CHINA

- Very High Level of Noise and Vibration Isolation
- Simple Installation
- Cost Effective



## PROJECTS REFERENCE



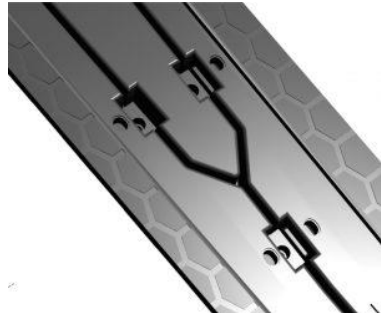
平的噪音和振动隔离  
E AND VIBRATION ISOLATION

# ALSTOM

Electrical resistivity ground-level power supply for trams (APS3) and electric buses (SRS) for ALSTOM

- Test to meet compression load, cyclic fatigue, road running, electrical insulation, coupling, thermal aging, UV, hydrocarbon, comparative tracking index (CTI) and fire retardant test

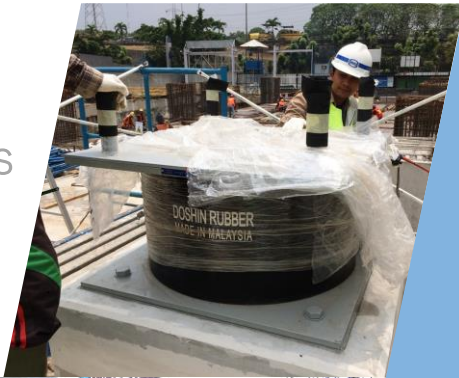
PROJECTS REFERENCE



# WIKA TOWER, JAKARTA INDONESIA

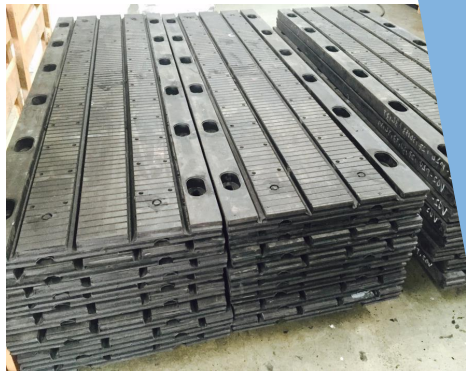
PROJECTS REFERENCE

High Damping Rubber Bearings  
at 20-24% Damping Ratio



# SHIRAZ + GAZVIN CITY, IRAN

172 meter of Elastomeric Expansion Joint  
(DR 165, DR 230 and DR 330)



PROJECTS REFERENCE



# AZERBAIJIAN – ORUMEIH BRIDGE, IRAN

BEHSAZ

High Damping Rubber Bearing

PROJECTS REFERENCE



# TAXIWAY, IRAN

Lead Rubber Bearing (LRB)

PROJECTS REFERENCE





# ABOZAR BRIDGE – QRUMIYE, IRAN

49 NOS High Damping Rubber Bearing



## PROJECTS REFERENCE



# CABLE STAYED BRIDGE – SHIRAZ CITY, IRAN

109 meter of Elastomeric Expansion Joint (DR 250)

PROJECTS REFERENCE





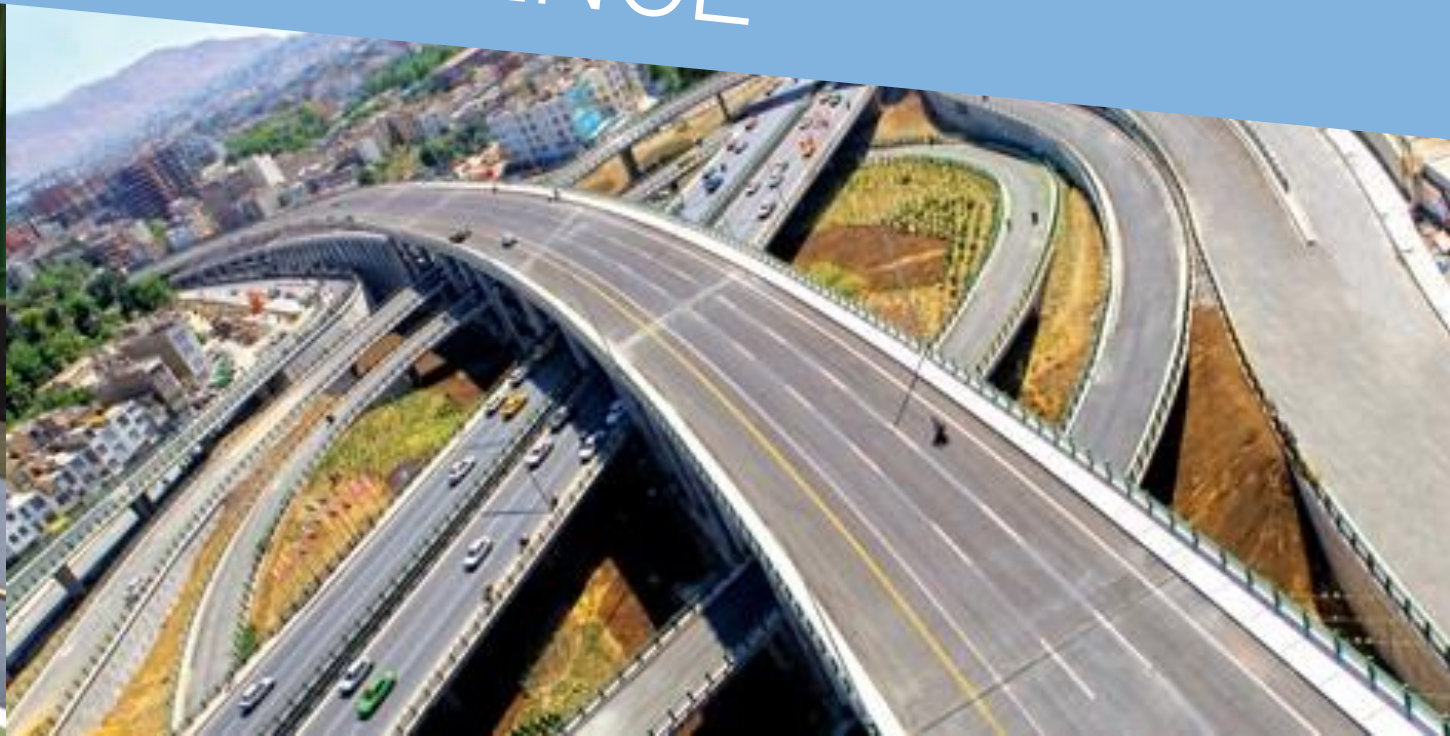
# QAZVIN BRIDGE, IRAN

Laminated Rubber Bearing

*100% customer Witness Testing*



## PROJECTS REFERENCE



# DARESAB, IRAN

24 NOS Dia 600 and Dia 500  
High Damping Rubber Bearing (Damping Ratio 16%)

PROJECTS REFERENCE



# PARAND DOWNTOWN PROJECT, IRAN

High Damping Rubber Bearings



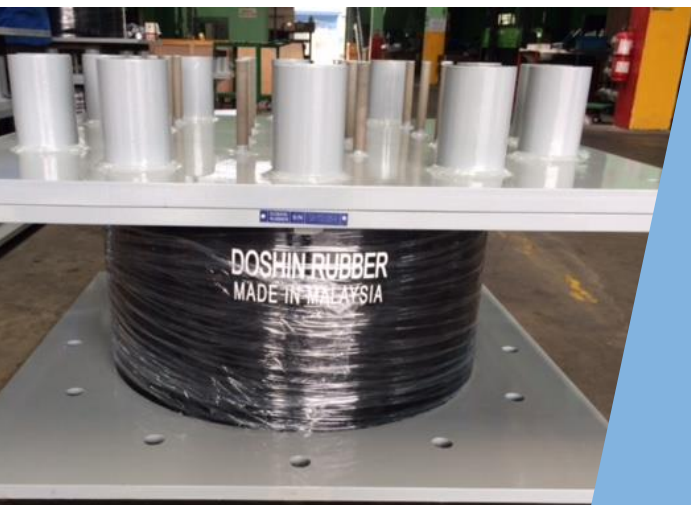
PROJECTS REFERENCE



# UNIVERSITY HOSPITAL OF INDONESIA, JAKARTA

High Damping Rubber Bearings  
at 20-24% Damping Ratio

PROJECTS REFERENCE



RA 166, JAHRA ROAD,  
KUWAIT

Mechanical Pot Bearings

PROJECTS REFERENCE



# LRT AESTHETIC GUIDEWAY ENVELOPE, KLJ LINE, MALAYSIA

Mechanical Pot Bearings



TYPE	PROJ / LG	YEAR	2015
PNR	Type A	LOCATION	ITJ 4
LRT ENVELOPE			

PROJECTS REFERENCE



# PENANG SECOND BRIDGE, MALAYSIA

The longest bridge in South East to install  
Base Isolation High Damping Rubber Bearings  
(2500 NOS HDRB)



## PROJECTS REFERENCE



Penang Second Bridge

PROJECTS REFERENCE



# FIRST PENANG BRIDGE, MALAYSIA

Elastomer Bearings and Expansion Joints (*DR 50 & DR 100*)

## PROJECTS REFERENCE





# LRT KELANA JAYA EXTENSION, MALAYSIA

Mechanical Pot Bearings

PROJECTS REFERENCE



# SUNGAI GOMBAK – JALAN KUCHING, KL, MALAYSIA *(DBKL PROJECT)*

Mechanical Pot Bearings

PROJECTS REFERENCE



LRT Ampang Line Extension, package B, Malaysia

LRT DEPOT,  
AMPANG LINE EXTENSION.  
MALAYSIA

PROJECTS REFERENCE



# DRAWBRIDGE, KUALA TERENGGANU, MALAYSIA

Mechanical Pot Bearings and Expansion Joints (*Finger Joints*)

## PROJECTS REFERENCE



# U-TURN, CYBERJAYA, SETIA ECO GLADES, MALAYSIA

Mechanical Pot Bearings

PROJECTS REFERENCE



# BAYAN LEPAS EXPRESSWAY, PENANG, MALAYSIA

Modular Joints & Elastomeric Expansion Joints



Modular Joints



Expansion Joint – DR165

PROJECTS REFERENCE



Mechanical Pot Bearings

RAWANG BYPASS -  
ELEVATED STRUCTURE,  
MALAYSIA

PROJECTS REFERENCE



# DUKE PHASE 2 – TUN RAZAK LINK, MALAYSIA

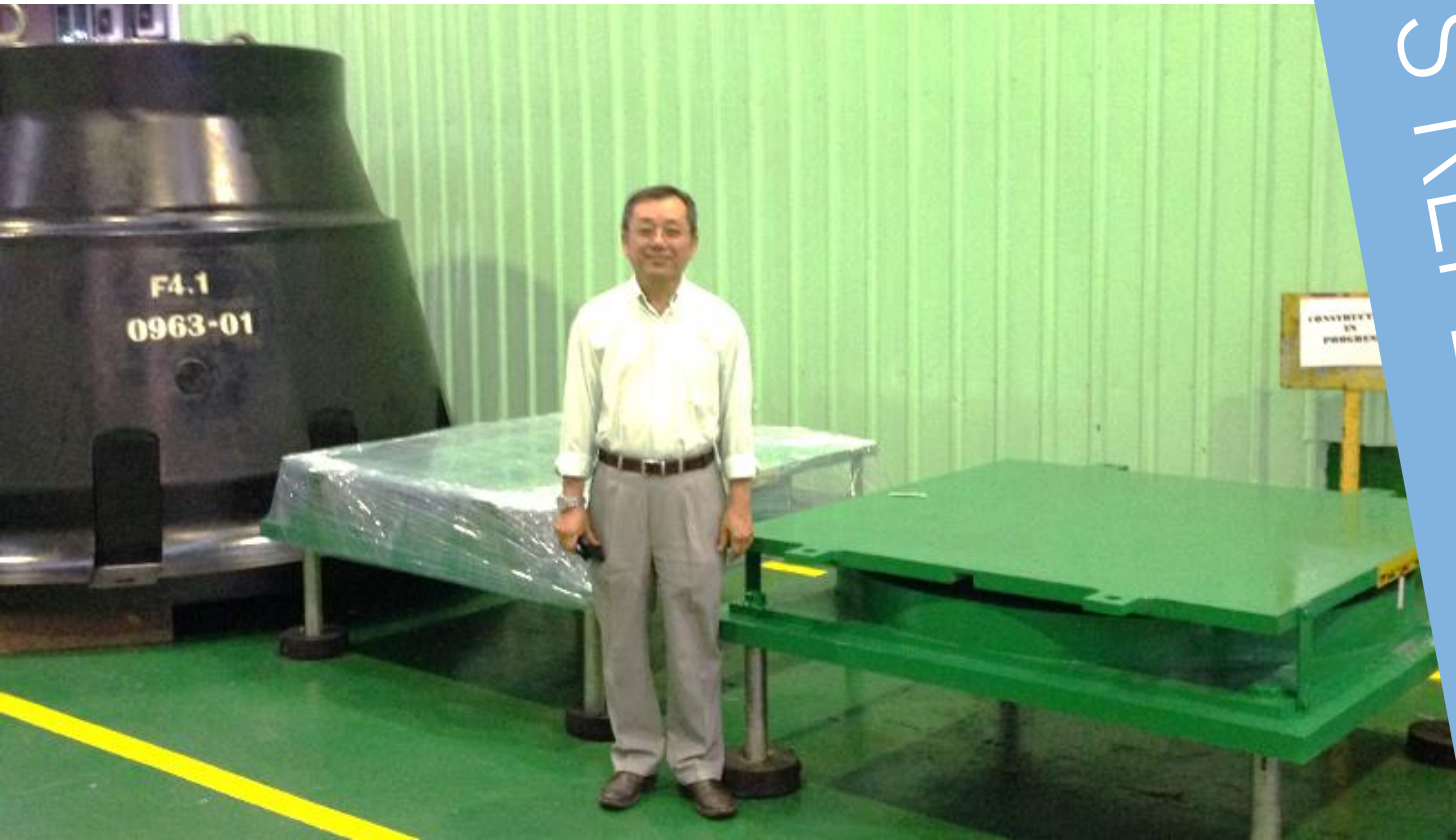
PROJECTS REFERENCE





# JAMBATAN BATANG SADONG, SAMARAHAN BRIDGE, SARAWAK, MALAYSIA

Mechanical Pot Bearings



PROJECTS REFERENCE



# KVMRT LINE 2, MALAYSIA

SUNGAI BULOH – SEDANG – PUTRAJAYA LINK 2017 – 2020

PACKAGE V201 – 614 NOS of High Damping Rubber Bearing (Damping Ratio 17 - 23%)



PROJECTS REFERENCE



# KVMRT, SBK LINE 1, Malaysia

Elastomeric & Mechanical Pot Bearings

## THE MRT

will form an important part of the Klang Valley's Integrated Rail Network, providing good integration with the existing urban rail lines

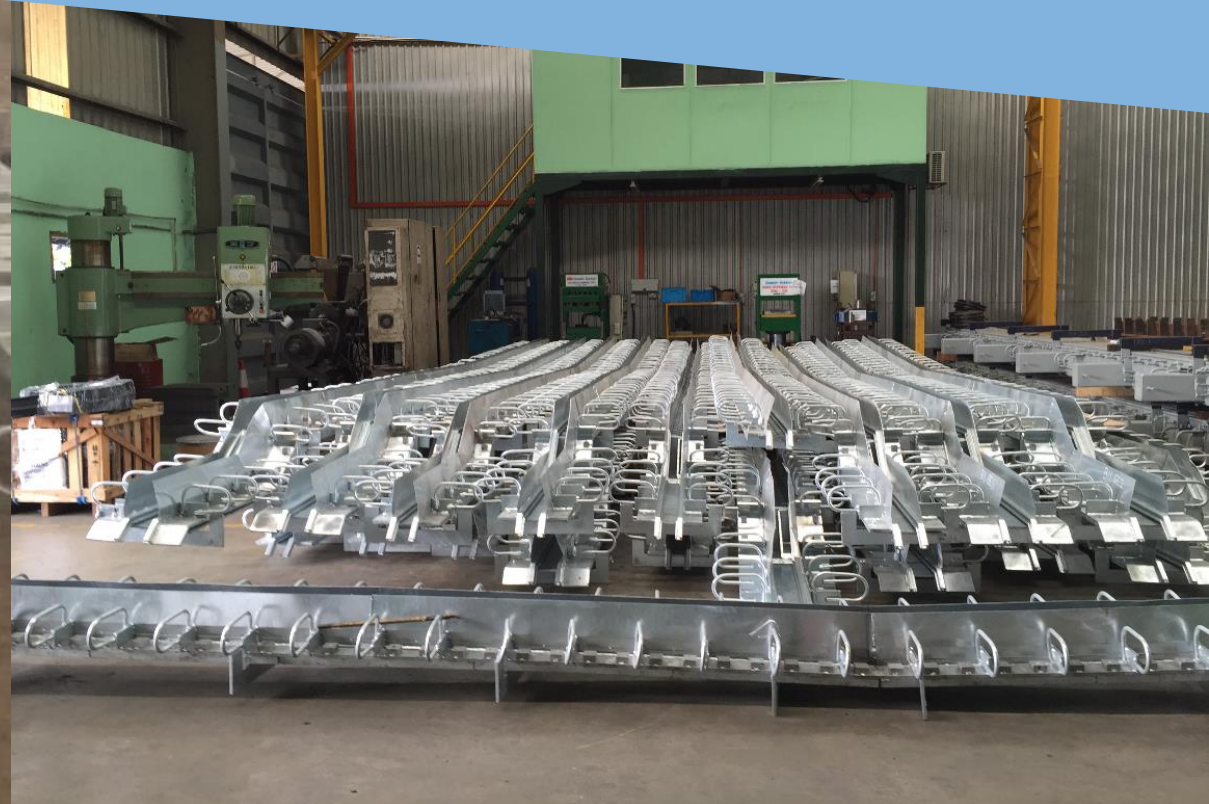
PROJECTS REFERENCE



# PNG - BRIDGE (BRRIP) PAPAU NEW GUINEA

Steel Expansion Joint (Finger Type)

## PROJECTS REFERENCE



# LAOAG BY-PASS BRIDGE, PHILIPPINES

Ultra High Damping Rubber Bearings (20-24% Damping)

PROJECTS REFERENCE



# VLCC JETTY 2, PORT OF FUJAIRAH, UAE

Mechanical Pot Bearings  
&  
Marine Dock Fenders

PROJECTS REFERENCE

Fender – Type SPC 2000

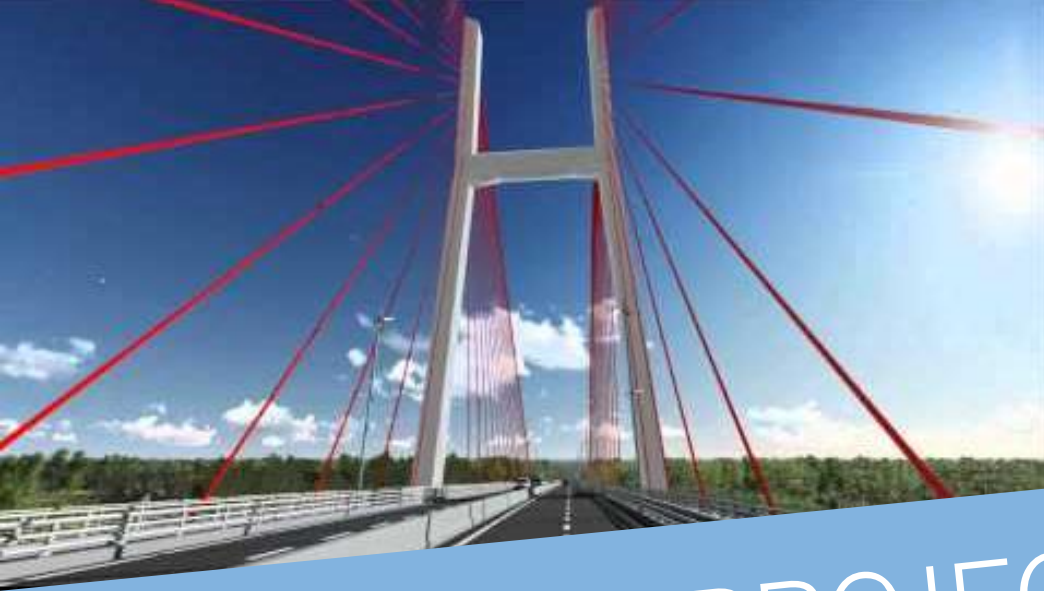


# METRO HO CHI MINH LINE 1, VIETNAM

1200 NOS of Elastomeric Laminated Bearings

## PROJECTS REFERENCE





## PROJECTS REFERENCE

### DONG THAP BRIDGE, VIETNAM

Ultra High Damping Rubber Bearings (19% Damping Ratio)  
Bearing Size: 1550mm x 1550mm x 506mm (4000kg)

Testing Shear displacement at 513mm







DOSHIN RUBBER PRODUCTS (M) SDN. BHD. (114386-H)

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