HKR strives to be the Total Solution Provider in the Thermal Expansion space.

HKR has made its way in the domestic market since 1972. For the past 40 years, we’ve been a growth partner to the Korean economy as the firmly grounded leader of the Korean Expansion Joint manufacturing industry.

The modifier “Korea’s first ever” has always followed our name all along our path: we were the first to manufacture Expansion Joint in Korea (1974), first to be qualified to supply nuclear power plant in Korea, and the first to acquire ASME Stamp in Korea (2002). In May 2013, we reafﬁrmed our status as the pioneer as well as our top class technology by joining EJMA membership, an exclusive league of Expansion Joint manufacturers where only the world best can be admitted.

Meanwhile, we have expanded our facility to meet the growing customer demand. In 2013, we’ve successfully completed plant expansion in Cheon-an in addition to our Pyeongtaek plant. Likewise, we are successfully ramping up our Vietnam plant to better meet our clients demand in South Asia. At the same time, we endeavor to excel in quality control, cost reduction, and Just-In-Time delivery to fully satisfy various customers, based on our accumulated know-how and technological expertise from the vast track record.

Despite all the growth and achievement of the last 40 years, we aspire to be greater with the great new vision. That is to become a ‘Global Top-Tier Expansion Joint Maker’. We will not become complacent at the current position-Korea’s best Expansion Joint manufacturer but will keep challenging ourselves even further to become a globally leading Expansion Joint manufacturer through continuous innovation and transformation which is embedded in our DNA.

Thank you.
2013
02 Acquired "U2" Stamp from ASME
05 Joined the MEMBERSHIP of EJMA (Expansion Joint Manufacturers Association)

2012
07 Acquired "U" & "PP" Stamps from ASME
08 Acquired CE-PED Certificate
12 Acquired "5" Stamp from ABS

2010
07 Acquired "S" Stamp from ASME
08 Acquired Type Approval Certificate of Lloyd's Register for Drysynthetic Expansion Bellows (Type Approval)
09 Established HANKOOK Raseonkwan Company

2009
04 Acquired ARA Certificate of Manufacture & Design
05 Improved operation of Vietnam factory
08.01 Changed Company Name from Hankook Raseonkwan to HKR
08.11 Opened business relationship with GE ALRO Energy directly
11.06 Acquired a certificate of ISO14001
06.05 "2005yr" Best Supplier award from TOSHIBA CORP. Japan
05.11 Acquired UNB certificate of manufacturing
06.06 Assessment for Cryogenic Expansion Bellows (Type Approval)
05.10 Acquired ARA Certificate of Manufacture & Design
06.05 Assessment for Cryogenic Expansion Bellows (Type Approval)
Our facilities, as well, have expanded alongside HKR’s evolution. With HQ in Pyeongtaek, HKR now has 3 factories, 1st and 2nd plants in Pyeongtaek & Cheonan S. Korea, respectively and the 3rd plant in Vinh Doung Vietnam. Our total production area amounts to 20,884.1 sqm.
HKR has an excellent quality control system to produce and keep the high-quality products based on the quality control system of ASME "U2, U, PP & S", ISO 9001. Furthermore, special test requirement from customers such as Destructive Testing, special NDE and etc. are also performed sufficiently to satisfy and improve the reliability of our products.
Not just in terms of the # of clients, but also in terms of the volume we are pretty well-diversified across the regions. Our experienced overseas sales team and the 14 agents help us serve our geographically diversified clients base well.
Annual Sales

Our annual sales have usually been around 24~29 mn USD for the past 4 years with 27~29% M/S in Korea. Going forward, however, HKR is projected to achieve sales of over 50 mn USD.

Firm Market Leader in Korea

HKR has maintained the leading position among the Korean expansion joint manufacturer (M/S: 27~29%).

Active Investment in Human Resource, Facilities, and Machineries Planned in 2014 1H to expand:
1. Product Application
2. Customer Base
3. Production Capacity / Productivity

Execution of Global Growth Strategy

Annual Sales Projection (Unit: USD mn.)

The sales dip in ’13 is attributable to the disposal of HKR’s HVAC division.
HKR’s Products Range

HKR has several types of Expansion Joints. For each and every subtype and for each and every model, our size, temperature, and pressure coverage is very wide. In other word, we can make EJs of pretty much any kind.

Metallic Expansion Joints
Non-Metallic Expansion Joints
Flexible Joints
Rubber Expansion Joint
Piping Spool & Duct
Bellows for Heat Exchanger
Cryogenic Bellows for LNG Carriers
Steam Vent Silencer
Pressure Range
Temperature Range
Gas Turbine

Flexible Hose

Metal Expansion Joint

Non-Metal Expansion Joint for Inlet & Outlet Duct
ALL COUNTRIES OF THE WORLD

METAL EXPANSION BELLOWS FOR CASING

NON-METAL EXPANSION BELLOWS FOR CASING

IRAN MAPNA HRSG
ALGERIA HADJRET HRSG
TAIWAN HSINTA 1, 2
VIETNAM NHON TRACH 2
UAE TWEELAH A HRSG
INDIA UNOSUGEN
SAUDI ARABIA MARAFIQ 5, 6
SAUDI ARABIA RAS AZ ZAWIR HRSG
FRANCE TOUL PJT
S.KOREA OSEONG CCPP
OMAN BARKA III & SOHAR II HRSG
QATAR RAS RAFFAN HRSG
EGYPT AIN-SOKHNA HRSG
TURKEY ERZIN HRSG
AUSTRALIA GE INPEX HRSG
POLAND GE WROCLAWEK HRSG
ALL COUNTRIES OF THE WORLD
Crossover Piping is used for transferring steam from IP (or HP) Casing to LP Hood in a steam turbine system. It should have suitable flexibility due to the different thermal movement between the Turbine and casing. It should also have stability for the steam pressure when operating.

<table>
<thead>
<tr>
<th>Country</th>
<th>Project Details</th>
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<tbody>
<tr>
<td>S. KOREA</td>
<td>YONGHUNGH #3~6</td>
</tr>
<tr>
<td>JAPAN</td>
<td>JOETSU CCPP Unit No.1-1,2-2</td>
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<tr>
<td></td>
<td>CHUBU ELECTRIC POWER / HEKINAN#4,5</td>
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<td>MALAYSIA</td>
<td>TANJUNG BIN#1~4</td>
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<td>INDIA</td>
<td>MUNDRA#1~5</td>
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<td>RAIPUR POWER PLANT#1,2</td>
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<tr>
<td>NETHERLAND</td>
<td>NUON MAGNUM #3,4</td>
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<tr>
<td>SAUDI ARABIA</td>
<td>YANBU2 STG #1~3</td>
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<td></td>
<td>RABIGH POWER PLANT #1~4</td>
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<td>QURAYYAH#1~5</td>
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<tr>
<td>UAE</td>
<td>EMAI#1,2</td>
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<tr>
<td>VIETNAM</td>
<td>MONG DUONG #1,2</td>
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<tr>
<td>USA</td>
<td>CLECO-RODEMACHER UNIT 3</td>
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<tr>
<td>LIBYA</td>
<td>AL KHALJU POWER PLANT PJT CONTRACTOR</td>
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<tr>
<td>GERMANY</td>
<td>CCEC 750 MW HARD COAL POWER</td>
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<td>EBLD-CPP DEVELOPMENT POWER PLANT WILHELNSHAVEN</td>
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<td>EGYPT</td>
<td>EL AN EL SOKHNA SUPERCritical TPP#1,2</td>
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<td>UK</td>
<td>WEST BURTON#1~3</td>
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<td>ALL COUNTRIES OF THE WORLD</td>
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</table>

Seal Bellows
All Countries of the World

Power Plant

BOP Part

BFP-T Exhaust Duct & Expansion Joint Assembly

Dog-Bone Type Expansion Joint for Condenser Neck

S-Balanced Type Expansion Joint for Flash Tank

Rubber Expansion Joint for Condenser

Metal Expansion Joint for Boiler Duct

Non-Metal Expansion Joint for Boiler Duct

UAE Fujairah Desalination Plant

S. Korea Hadong #1–8 TPP

Dangjin #4–8 TPP

Shinboryong TPP

Taean #7–10 TPP

Boryong #7,8 TPP

YongHung #3–6

Bukpyung #1,2 TPP

Seo Incheon TPP

Thailand Gheco TPP

Indonesia Cirebon TPP

Japan Hitachinaka TPP

Mazuura Unit 2 TPP

Oman Barks Power & Desalination Plant

Brazil Termonorte Energia

Egypt EL-Kureimat TPP

All Countries of the World
Chemicals & Petro Chemicals Industry

ALL COUNTRIES OF THE WORLD

S. KOREA
SK E&C NEW PX PROJECT
SMP W-1 PROJECT

JAPAN
TOKUYAMA PJT
TOKUYAMA PROJECT
LEO+/SILVER PJT

SAUDI ARABIA
JUBAIL EXPORT REFINERY
R-0173 YANBU #3 PJT
SADARA MIXED FEED PJT
SCP EXPANSION PROJECT
RABIGH PETROCHEMICAL PROJECT
SAUDI KAYAN OLEFIN PROJECT
RABIGH PHASE II PROJECT

KUWAIT
LPG TRAIN #4 AXA PJT

GREECE
BOURGE 3 PJT

INDONESIA
BTR PJT

ALGERIA
ALGERS REFINERY PJT

QATAR
R-0174 RAS TANURA PJT

TURKEY
IZMIT REFINERY PJT

OMAN
SALALAH PROJECT
SONAR AROMATICS PROJECT

NIGERIA
ESCRAVOS GAS PROJECT - #3

USA
USGC ETHYLENE PROJECT

THAILAND
IPPC UHV PLANT PROJECT
SPRC CLEAN FUELS PROJECT

TURKMENISTAN
TRUKUMENBASH PROJECT

ASME & BV
HP VAPORIZER PROJECT

ALL COUNTRIES OF THE WORLD
**MARINE INDUSTRY**
(on-shore / off-shore)

HKR designs and manufactures a wide variety of bellows type expansion joints for LNG Carriers rating from 3/8” to unlimited size of nominal diameter in accordance with the EJMA, ASME, IGC, GTT and special code required from customers.

HKR Expansion Bellows for LNG Carriers are inspected and certified by classifications from LR, ABS, DNV, BV, KR, NK, ABS and GTT.

**ALL COUNTRIES OF THE WORLD**

<table>
<thead>
<tr>
<th>HULL NO</th>
<th>SHIPBUILDER</th>
<th>SHIPOWNER</th>
<th>CLASS</th>
<th>COUNTRY</th>
<th>PROJECT</th>
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<td>&quot;DAEWO8 SHIPBUILDING &amp; MARINE ENGINEERING Co., Ltd&quot;</td>
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<td>Taiwan</td>
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</table>
HKR has served demanding/top-tier clients, which we believe is a testament to the quality of our product and the trust with our partners.