The technological link between the world and its people, is KUMKANG KIND’s promise!
KUMKANG KIND

History

1979. 08 Establishment of Kumkang Kind Co., Ltd.
1988. 09 Listed on the Korean Stock Exchange
1989. 06 Completion of Banwol Factory
1990. 01 Completion of Eonyang Factory
1992. 01 Completion of Busan Factory
1992. 05 Obtained KS Certificate [pipes for ordinary, pressure and structural]
1992. 07 Obtained quality certificate from Japanese scaffolding association
1992. 11 Achieved $10 million in exports
1993. 02 Obtained JIS Certificate [structural pipe]
1999. 05 Obtained ISO 9002 Certificate
2003. 04 Completion of Jincheon #1 Factory
2003. 12 Obtained ISO 9001 Certificate
2005. 10 Establishment of Research and Development department
2006. 05 Completion of Jincheon #2 Factory
2006. 12 Completion of Eumseong Factory
2007. 09 Establishment of Kumkang Kind (M) Sdn. Bhd as a subsidiary in Malaysia
2009. 10 Completion of Nilai Factory in Malaysia
2009. 11 Achieved $30 million in exports
2010. 01 Establishment of Kumkang Kind America
2010. 06 Establishment of Kumkang Kind Vietnam
2011. 09 Establishment of Kumkang Kind India
2011. 11 Achieved $50 million in exports

Kumkang Kind is proud to have its products in more than 23 countries around the world. With the globalization, we have set up a global network: Kumkang America Inc., Kumkang Kind (M) Sdn. Bhd, Kumkang Kind Vietnam and Kumkang Kind India are acting as Kumkang Kind’s representatives in their respective regions. As Kumkang Kind has established several agents and distributors, wherever you go, you will always find our products nearby.

Kumkang Kind Overseas branch offices

Headquarter
1445-2, Kumkang Kind Bldg., Seocho-dong, Seocho-gu, Seoul, Korea

Kumkang Kind India
#151/102 Wagh Mane, Plot No.222, 27th Road, Bandra(w), Mumbai - 400 050

Kumkang Kind Malaysia
80-01, Block B, No. 2, Jalan PJU 1A/19, Ara Damansara, PJU 1A, 47810 Petaling Jaya, Selangor, Malaysia

Kumkang Kind Vietnam
6th. Beautiful Saigon BLDG., 02 Nguyen Khac Vien St, District 7, Ho Chi Mihn City, Vietnam

Kumkang America
483 E. Katella Ave, #216 Orange, CA 92867 USA

Kumkang Kind is a leader in the production of aluminum formwork in South Korea and is a member of the Kumkang Group. Founded in 1979, the company has grown from being a local player in the construction industry to a global player, with a presence in more than 23 countries around the world.

As a leader in the construction industry, Kumkang Kind has been recognized with several awards and certifications, including the KS Certificate for panel form work, the KS Certificate for pipes for ordinary, pressure, and structural use, and the JIS Certificate for structural pipes. The company has also achieved significant milestones in its growth, including $10 million in exports in 1992, $30 million in exports in 2009, and $50 million in exports in 2011.

Today, Kumkang Kind is a trusted name in the construction industry, providing high-quality aluminum formwork solutions to customers around the world. With a global network of agents and distributors, Kumkang Kind is committed to delivering the best products and services to its customers, wherever they may be.
Why should you choose Kumkang Kind Aluminum Formwork System?

The most important aspect of a successful structural construction is the formwork system. Kumkang Kind will always offer you the most trustful, secure, efficient and cutting edge of formwork system technology available on the market.

- **Speed**  
  Due to its easiness of assembly, 4 days cycle is guaranteed compared to 7-9 days cycle for conventional formwork system.

- **Quality**  
  Due to the smooth surfaces and accurately dimensioned panels, no need for plastering or remedial work after concrete casting.

- **Safety**  
  No need to remove props and prop heads when dismantling slab panels.

- **Easy assembly**  
  Due to its easiness of assembly, no need for skilled workers nor carpenters.

- **All-in-one system**  
  With Kumkang Kind’s Aluminum Formwork System, brackets for wall, slab, elevator and external working platform are provided.

- **Mobility**  
  The formwork to the next level can be done through material transfer box on the slab without using the crane.

- **Freedom of design & job site planning**  
  Unlike tunnel or flying formwork, Kumkang Kind’s Aluminum Formwork System is a “modular” formwork. It can be used for any architectural and structural layout.

- **Durability**  
  A state of the art manufacturing technology using aluminum alloy (6061-T6) material yields its repetitive use (up to 250 times) and results in decreasing construction cost compared to conventional formwork.

No need for skilled workers

The Aluminum Formwork System is made of lightweight aluminum which allows the largest components to be hand carried and set up. Even it does not need skilled workers due to the elaborate design provided to make sure that our clients success must be achieved.

Cost reduction

A form designed for maximum reuse may have to be stronger and more expensive than one designed for a single use, but it can save a great deal on the total form investment. Extra features that make erection and stripping easier will add to original form costs, but labor savings may outweigh the extra cost by using Kumkang Kind Aluminum Formwork System.

Faster construction

The Aluminum Formwork System is fast. It is not uncommon for a contractor to double or triple the output of their form crews when they convert from a wood faced form system to Kumkang Kind Aluminum Formwork System.

Unparalleled quality

Quality control extends beyond our manufacturing plant. We are actively engaged in custom design and engineering to improve our product line. We constantly re-evaluate our products, and regularly consult with contractors, builders, and distributors. We also conduct on-site training and inspections to ensure our clients’ success.

Best technical support

Kumkang Kind Aluminum Formwork System is based on worldwide field experience and accumulated technical know-how. Whatever customers need, we will always fulfill their demands with the most appropriate system. With our R&D department continuously researching for newer and better products, we will maintain our leading position as the leader of Aluminum Formwork System against our competitors.
### Special features

#### Construction Method

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Hard Held Formwork</th>
<th>Tunnel Formwork</th>
<th>Table Formwork</th>
<th>Traditional Formwork</th>
<th>Kumkang Kind ALU Formwork</th>
</tr>
</thead>
<tbody>
<tr>
<td>No cranes or other heavy equipment required</td>
<td>✔️</td>
<td></td>
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<tr>
<td>Able to pour walls (column) and floor slabs with beams with one lift</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>Strike floor slabs formwork without moving props</td>
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<tr>
<td>Can form concrete in place as part of work cycle</td>
<td>✔️</td>
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<tr>
<td>Can form concrete columns and beams together</td>
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<tr>
<td>NO Skilled labor required</td>
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<tr>
<td>Suitable for single (1) or two (2) storey buildings</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
<td></td>
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<tr>
<td>Suitable for high-rise buildings</td>
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<tr>
<td>Formwork equipment adapts to different designs</td>
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<tr>
<td>Able to form all concrete elements</td>
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<tr>
<td>Can pour all walls, columns &amp; beams together with floor slabs, permitting cellular design &amp; savings in steel &amp; concrete</td>
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<td></td>
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<tr>
<td>Lowest formwork to forming area ratio</td>
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<tr>
<td>Conforms to architects design with no need modifications to suit the system</td>
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<tr>
<td>Self correction feature providing unmatched forming accuracy</td>
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<td></td>
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<tr>
<td>Environmentally friendly - no huge debris, no messy disposals</td>
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</tr>
</tbody>
</table>

#### Application

- **Single Storey (Terrace or Link House)**: The most common. Slow construction and labor intensive.
- **Double(2) Storey (Terrace or Link House)**: Usually not acceptable without concrete beam.
- **Three(3) to Six(6) Storey (Apartments or Buildings)**: Not suitable structurally. Requires concrete structural elements.
- **High Rise (Buildings or Apartments)**: Not suitable structurally.

#### Material

<table>
<thead>
<tr>
<th>Specification</th>
<th>Aluminum A6061-T6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>List</strong></td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Combined Aluminum (A6061-T6)</strong></td>
<td>✔️</td>
</tr>
</tbody>
</table>

#### Composition

- **Inner wall panel**: Slab corner & Beam
- **Slab panel & Support**: In-out corner & Hunch
- **Accessory**: Wall tie / Round pin / Wedge pin

#### Normal module

- **Wall panel**: 600 mm x Wall height (2,300 or 2,450) x 63.5 thk
- **Slab panel**: 600 mm x 1,200 x 63.5 thk
Unrivaled manufacturing capacity

Kumkang Kind manufactures the Aluminum Formwork System both in over a 150,000 m² facility located in Eumseon and a 62,600 m² facility located in Jincheon, Korea as well as Nilai factory which has over 24,282 m² facility located in Malaysia. We utilize advanced automated system, skilled labors, and the latest in computer technology to produce the best quality product at a competitive price.

1. Warehousing of raw materials
2. Cutting
3. Hole processing
4. Notching
5. Welding
6. Labelling of panels
7. Grinding
8. Brushing
9. Leveling & adjustment of panels
10. Coating
11. Packing
12. Loading into containers
Quality guarantee and unsurpassed support

Listening to your needs and providing solutions have been the hallmark of our business since day one. We design products that meet your requirements and demands, not ours. Special applications and custom design are a challenge, not a problem. That's why we lead the industry in developing solutions through new designs.

Services

Kumkang Kind offers a wide variety of services, from Aluminum Formwork CAD design to consulting services with an emphasis on commercial and residential construction.
We provide strict supervision service to enhance efficiency and safety

The most effective means of achieving safety in the use of forms is to have competent supervision during erection and concreting. Supervisors must see that formwork is constructed exactly as designed, following a safe erection procedure so that no members are temporarily overloaded. We, our supervisors always carefully check out the proper installation in terms of whether formworks have been set up and assembled.

Many accidents occur in formwork product handling when employees, particularly those who are young or inexperienced, use machine and equipment, or handle heavy and awkward materials in hazardous circumstances and without proper training. Storage and handling systems should not be used by anyone who is not properly trained. In law 'use' means “any activity (involving work equipment) and includes starting, stopping, programming, setting, transporting, repairing, modifying, maintaining, servicing and cleaning”.

Employee safety is largely depended on proper information, instruction, training and supervision. Staff must be:
- Informed and trained, so that they understand the nature of any risks to their health or safety, or that of others, from the work they do and the measures necessary to adequately control them
- Instructed as to the safe systems of work they must follow
- Supervised to ensure that they follow the instructions and training given to them
- Involved in the health and safety management system and decision-making process

We provide strict supervision service to enhance efficiency and safety

Structural line

Wall panel positioning (I/C + WALL)

Beam panel setup (Beam + SC)

Stair and elev-pit setup

Slab panel setup

Completion of slab panel setup

Installation of electrical, plumbing components and steel reinforcing bar
## Formwork components

### Wall panel

<table>
<thead>
<tr>
<th>Size</th>
<th>Weight (kg)</th>
<th>Weight combined with Rocker (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>600 x 2300</td>
<td>25.940</td>
<td>17.590</td>
</tr>
<tr>
<td>600 x 2450</td>
<td>26.645</td>
<td>18.000</td>
</tr>
<tr>
<td>450 x 2300</td>
<td>19.730</td>
<td>14.730</td>
</tr>
<tr>
<td>450 x 2450</td>
<td>20.250</td>
<td>15.120</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Size</th>
<th>Weight (kg)</th>
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<tr>
<td>600 x 2300</td>
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</tr>
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</tr>
<tr>
<td>450 x 2450</td>
<td>20.730</td>
</tr>
</tbody>
</table>

### Standard panel

<table>
<thead>
<tr>
<th>Size</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>600 x 2300</td>
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</tr>
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</tr>
</tbody>
</table>

### Slab panel

The Slab panel will be used to support the concrete weight during concrete pouring and casting.

### Slab corner

- **Connection between Wall panel & Slab panel**

### Slab corner

- **Connection between Wall panel & Slab panel (inside)**

### Slab corner

- **Connection between Wall panel & Slab panel (outside)**

### Slab corner

- **Dependent upon each structure**

### Slab wall

- **Dependent upon each structure**

### Slab wall

- **Dependent upon each structure**

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- **Dependent upon each structure**

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### Slab wall

- **Dependent upon each structure**

### Joint bar

- **Used to join the beams together (Middle beam and/or End beam), the pipe support will be placed under the prop head**

### Joint bar

- **Used to joint the prop heads with the beams (Middle beam and/or End beam)**

### Joint bar

- **Used to joint the prop heads with the beams (Middle beam and/or End beam) and slab corner, the end beam supports the slab panels**

### Joint bar

- **Used to join the beams together (Middle beam and/or End beam)**

### Joint bar

- **Dependent upon each structure**
Formwork components

Wedge & Round pin or Long pin

- The Round pin and Wedge pin will be used to joint the Wall or Slab panels together.
- The Long pin and Wedge pin will be used to fix the Joint pin with the prop head and beams (Middle beam or End beam) together.
- Weight (kg) 0.015
- Weight (kg) 0.22

Pipe support

- The pipe support is used to support the weight of the slab during concrete pouring and casting. It will remain under the prop head until 2 levels of casting.
- Weight (kg) 10
- Weight (kg) 11.5
- Weight (kg) 12.5
- Weight (kg) 13.0

Wall platform, Slab platform and Elevator platform

- As a substitute of a scaffolding system, these wall platform, slab platform and elevator platform will be fixed on the concrete (Wall/Slab/Elevator) and used as working platform for workers.
- Weight (kg) 15
- Weight (kg) 9
- Weight (kg) 10

Waller-bracket & Square pipe

- The Waller-bracket and Square pipe are used to allow the horizontal straightness of wall panels and a flat wall surface (especially at the bottom) after concrete casting.
- Weight (kg) 0.07

Flat tie

- The Flat tie is used to joint the wall panel to the opposite side’s wall panel. Depending on the wall panel’s height, the number of flat tie used will vary.
- Weight (kg) 0.125

PVC sleeve

- Made of PVC material, the PVC sleeve will be installed between the Wall panel and the opposite side’s wall panel. The flat tie will be inserted inside this item in order to protect the flat tie to be casted within the concrete.
- Weight (kg) 0.085

Bolt, Nut & Washer

- This set of accessories will be used as an embedded anchor in order to fix panels on the concrete surface during its installation.
- Weight (kg) 0.11

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- The pipe support is used to support the weight of the slab during concrete pouring and casting. It will remain under the prop head until 2 levels of casting.
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- This set of accessories will be used as an embedded anchor in order to fix panels on the concrete surface during its installation.
- Weight (kg) 0.11
Slab setup

- Setup of slab corner
- Setup of slab panel
- Detailed setup of beam
- Setup of beam

Completion of slab setup
We form the future

Dismantlement of slab

Dismantlement of joint bar and pin

Dismantlement of beam

Completion of assembly process

Dismantlement of slab panel

Dismantlement of slab corner

3D view of staircase
Project references

INDIA

Nanded City, Pune - India

Riverview Apartments, Lucknow - India

Astonia Royale, Pune - India
Project references

MALAYSIA

**JKR Tower, Kuala Lumpur - Malaysia**

**STP Condominium, Kuala Lumpur - Malaysia**
We form the future

Project references

**MALAYSIA**

**KLCC Tower, Kuala Lumpur - Malaysia**

**Verve Suites, Kuala Lumpur - Malaysia**
Project references

MALAYSIA

Tropicana, Damansara - Malaysia

Universe Prime Condominium, Sabah - Malaysia

Cybercity 2, Sabah - Malaysia
Project references

VIETNAM

HABICO Tower, Hanoi - Vietnam

Dolphin Plaza, Hanoi - Vietnam

Vinaconex, Hanoi - Vietnam

Landmark, Hanoi - Vietnam
Project references

SINGAPORE

Wohhup - Singapore

The Altez - Singapore

18 Blocks - Singapore
### Project References

<table>
<thead>
<tr>
<th>SINGAPORE</th>
<th>LIBYA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson 18 - Singapore</td>
<td>The 50,000 Housing Unit Project, Tripoli - Libya</td>
</tr>
</tbody>
</table>