



ALUMINIUM FORMWORK

TURNING THE WORLD UPSIDE DOWN



ASAL

ENGINEERING SERVICES (P) LTD.

Aluminium Formwork
Design | Supply | Modification



Asal

Engineering Services Private Limited, a start-up based in Chennai, India.

We specialize in Aluminium formwork Design, Manufacturing, Installation and Modification. We are a team of young and energetic Engineers and Architects

Our team is always diligent in making sure the design is economical and the materials are carefully crafted according to the accepted standards.

We strongly believe that key to success is working to clients' satisfaction as well as ours, thereby reducing minor errors that even clients fail to notice.



To create a clean and sustainable environment of the future by formworking new ideas with green materials and energy.



We strive to provide the most promising alternative to steel and timber in formwork, thereby reducing the time and cost of the construction and increasing customers' profits



Aluminium formwork, being a new type of building material was invented in the year 1962. After more than 50 years of development, it is being widely used in the United States, Canada, Europe, HK, Macao, India, Malaysia, South Korea, Brazil and Vietnam. However, the application of aluminium formwork is relatively new in our country. Aluminium formwork has many advantages as compared to other formworks.

WHY ALUMINIUM FORMWORK SYSTEM

It can be used repeatedly with low average use-cost:

Aluminium panels can be re-used more than 200 times unlike conventional formwork which serves only a maximum of 50 to 60 repetitions.

Construction is convenient and effective: The assembly of aluminium formwork is simple and convenient; the average weight is 24kg/m². A skilled installation worker can install 20-30 square meters per day.

Saving on Construction Time: Aluminium formwork system is a fast assembly and removal system that shorten the construction period and save the administration cost. A set of formworks can build one storey in every four days under a normative construction

Wide Application: Aluminium formwork can be used for wall, slab, column, beam, stairs, windows etc.

High Salvage Value: The salvage value of the aluminium alloy in formwork system is very high when scrapped after reaching full repetition limit.

No construction garbage on site: All parts of aluminium formwork are reusable, and there is no garbage on site after the formworks are removed to ensure the construction environment is safe, clean and tidy.

Flexibility: Aluminium alloy construction formwork comes in different standard sized panels and is flexible to assemble according to the requirement of the respective projects. Only 10-15% of non-standard panels need to be replaced when the formwork is reused for another project, thereby reducing the cost.

Carbon emission reduction: Many developed countries have already stipulated that only renewable formwork should be used in construction projects as opposed to wooden formwork.

Good stability, high bearing capacity: Once the system is assembled, it will form a complete framework with very good stability and bearing capacity of up to 60 KN per square meter.

Convenient support system: In traditional method of formwork construction technology, the platform generally requires full framing with higher cost whereas the support for the aluminium formwork are relatively less (spacing between each independent support is 1350 mm) thereby providing larger work space, personnel access and easy materials handling at site.

Excellent surface finish: The quality of concrete surface is smooth after removing the aluminium formwork and basically meets the requirement of finished and exposed concrete. Plastering is not required, thereby resulting in cost reduction.

Aluminium formwork specification

Aluminium Alloy	: 6061
Temper	: T6
Welding	: MIG Welding
Grade of wire	: 5356
Aluminium Panel thickness	:



Ultimate Tensile Strength	: 310 MPa
Tensile Yield Strength	: 276 MPa
Shear Strength	: 207 MPa
Ultimate Bending Strength	: 607 MPa
Youngs Modulus	: 68.9×10^3 MPa

Our Products:

- Aluminium formwork system
- Aluminium Column formwork
- Aluminium Shear wall formwork
- Aluminium Lift core wall formwork
- Aluminium Staircase formwork

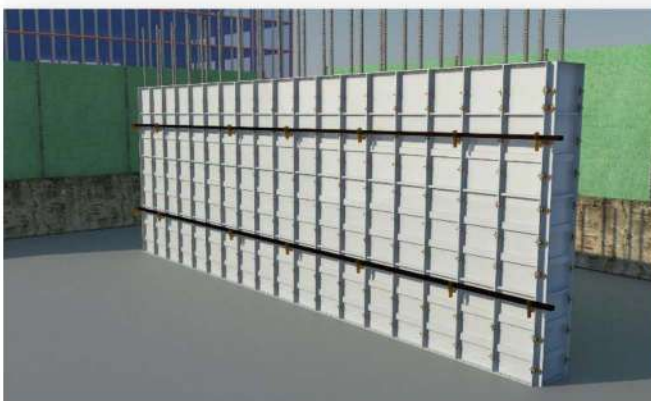


Aluminium formwork system

- Aluminium formwork system for full building reduces construction time and cost.
- Smooth surface finish is obtained which eliminates plastering entirely.
- Provisions for door, window opening, plumbing lines, electrical conduits, sunken slabs, sunshade projections, window boxout projections etc. can be provided with Aluminium formwork system.

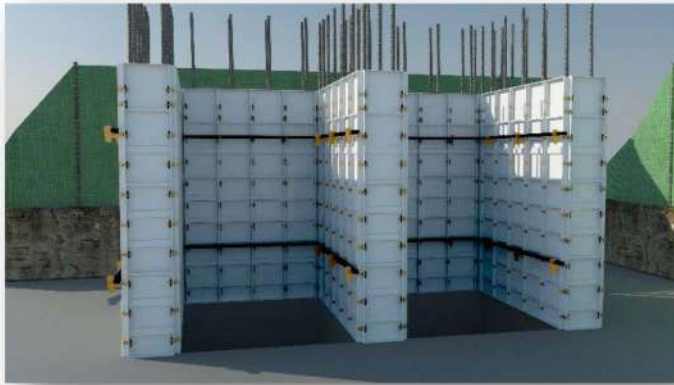
Column Formwork

- Aluminium formwork for columns consists of different standard size panels and is flexible to assemble according to the required dimensions.
- Good stability and high bearing capacity - up to 60KN per square meter.
- Single lift casting is possible thus saving time and labour.



Wall Formwork

- Aluminium formwork for shear wall can be installed easily and helps avoid double lift casting thereby saving a lot of time and labour.
- Perfect vertical and horizontal alignment can be maintained.
- Smooth concrete finish is obtained post removal of forms.



Lift core wall

- Lift core wall can be easily erected without much effort.
- Perfect vertical and horizontal alignment can be maintained.
- Aluminium formwork system's fast assembly and removal time reduces overall construction duration

Aluminium formwork Modification:

- We undertake projects that involve modification of already available components to suit new projects.
- Economical and efficient designs will be incorporated to utilize the available components effectively.
- Our personnel will support in listing out the materials available.
- Additional components will be supplied based on the designs prepared.

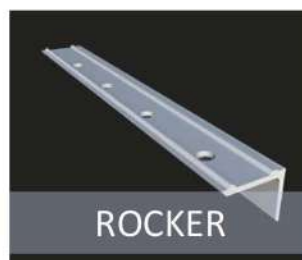
Aluminium Formwork Components:

- Wall Panel
- Rocker
- Internal Connector
- External Connector
- Slab Panel
- End Link
- Middle Link
- Prop Head
- Link Connector
- Beam Side Panel
- Beam Bottom Panel
- Door Side Panel
- Window Side Panel
- Lower Corner
- Upper Corner
- Slab Connector
- Corner Slab Connector
- External Corner Slab Connector
- Kicker

Wall panels are used to cast Walls, Columns, Shear walls, Lift core wall and Staircase core walls.



WALL PANEL



ROCKER

Rockers are placed under the wall panels on the inner side to facilitate easy stripping.

Internal Connector are placed in the internal corner of the room connecting two Wall Panels on adjacent sides.



External Connector are placed in the external corner of the room connecting two Wall Panels on adjacent sides.

Slab Panel are placed between the Link Panels that run throughout the slab length.



End Link along with Middle Link and Prop Head provides support for slab panels to rest on.

Middle Link along with End Link and Prop Head provides support for slab panels to rest on.



Prop Head is provided with Round Tube for resting the Prop Support.

During de-shuttering the Prop Head is left undisturbed along with Prop while the other panels are moved to next floor.

Beam Side panels are placed along the sides of the beam.



Kicker is provided below and above the wall panels.

Kicker comes along with Kicker Bolt and nut to get itself affixed with the concrete, so that the next layer of Wall panels can be placed on it for erection.

Lower Corner is used to connect the window side and window bottom panels.



Upper Corner is used to connect the window side and beam bottom panels.

Slab Connector is used to connect the wall panels and slab panels.



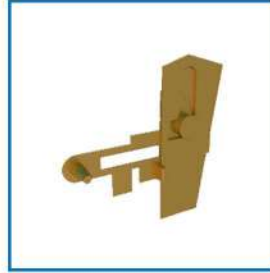
Corner Slab Connector is used to connect the wall panels and slab panels in the corner.

Typical Aluminium formwork Accessories

Pin and wedge is used to connect two aluminium formwork panels



Waller Holder is connected to Wall panels to hold the Alignment Waller



Wall tie is connected between two opposite panels to resist the concrete pressure and maintaining the wall thickness.



Wall tie sleeve are covered over the Wall ties to prevent the Wall ties from adhering to the concrete wall.



Panel Puller is used installation as well as stripping of Forms after after concreting.



Wall tie puller is used to remove the Wall tie from the Wall post concrete and removal of forms.



Tie rod and wing nut is connected between two opposite panels to resist the concrete pressure and maintaining the wall thickness.



Twin Waller is placed at specific distance on either sides of panels and are connected using Tie rod and wingnut.



Our Manufacturing Capacity

- We have a supply capacity of 40 tons per month (1,800 sq.m per month)
- We make sure adequate man-power and machineries are engaged to achieve more than mentioned quantity in case of urgent requirement.
- We make sure only qualified welders who are capable of fabricating precisely without any defects are employed in fabrication.
- We manufacture Aluminium Formwork accessories.



Our Projects

PROJECT LOCATION: KOLLAM, KERALA

PROJECT DESCRIPTION: ALUMINIUM FORMWORK SYSTEM



Projects

PROJECT LOCATION: CHENNAI, TAMIL NADU
PROJECT DESCRIPTION: ASAL FUSION FORMS



Our Projects

PROJECT LOCATION: BENGALURU, KARNATAKA

PROJECT DESCRIPTION: ALUMINIUM FORMWORK ACCESSORIES



Projects

PROJECT LOCATION: CHENNAI, TAMIL NADU
PROJECT DESCRIPTION: ASAL SUNKEN FORMS



WHY ASAL?

Quality Assurance

Perfectly designed and carefully crafted to make sure that there are no possible defects.

Buy-Back Guarantee

After partial or complete usage of formwork systems, we will buy back the materials.

Timely Delivery

We will make sure to deliver the materials in the given time by all means possible.

CONTACT

Asal Engineering Services (P) Ltd.

**No. 4/36, Sriram colony, Alwarpet,
Chennai - 600018**

Phone:

Aravind S: +91 7904428903

Sakir Shalim M: +91 9952201991



info@asalindia.com



www.asalindia.com



[linkedin.com/company
/asalindia](https://linkedin.com/company/asalindia)



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