



**INNOMAC**<sup>®</sup>  
machines with global innovation...



# INNOMAC PASSENGER CUM MATERIAL HOIST, MODEL : IPM 150x150TC, IPM 200x200TC

*The Best in its Class Under "Make in India" Concept*

## SPECIAL FEATURES :

- ★ Highly Robust Design
- ★ World Class Safety Systems
- ★ Rack & Pinion of Global Standards
- ★ Most Advanced Control Panel
- ★ Robust Joystick
- ★ Variable Frequency Drive
- ★ Corrosion Free Surface Coating
- ★ Wide Range of Features
- ★ Pan India Service Support

## OPTIONAL FEATURES :

- ★ Biometric Scanner
- ★ HD Color Display
- ★ Load Cell with Display
- ★ Floor Selector
- ★ Lift Shaft Application

And Many more ...



**INNOMAC ENGINEERING INDUSTRIES PVT. LTD**

Survey No: 48/1 & 48/2, Chikkabidarakallu, NH-4 Tumkur Road, Bengaluru - 560 073

Phone No: 6362905518

[info@innomacindia.com](mailto:info@innomacindia.com)

[www.innomacindia.com](http://www.innomacindia.com)

# ABOUT US



## WINNER OF BEST COMPANY TO WORK FOR 2025

### INNOMAC, Innovative Machines, the name itself speaks...

As an Engineering Company based at Bengaluru, that is envisioned to bring about the transformation in construction and infrastructure industry through advanced technological innovations leading to manufacturing of bench marking featured machines under "Make in India" concept.

The company envisions to attend the first choice of customers for construction equipments through continuous research and development.

**INNOMAC** believes there is a need to bring innovation through technological Advancement, Research, World Class Systemisation in every product & service we deal with. The prime focus of the company is on customer needs, evaluation of the current constraints and development of the appropriate solution.

**INNOMAC** has In-house R&D team, who constantly strive to bring their best solution for every task / product we undertake. They are equipped with the world's best software with latest versions. Every component is designed carefully to suit the need of the application. Each component undergoes a stiff design calculation and also goes with Finite Elements Analysis (FEA) in the Software. Hence the **INNOMAC** products are Robust, Reliable and best suits to their applications.

### INFRASTRUCTURE



**INNOMAC** manufacturing facility is having its factory setup on NH-4 (Tumkur Road) that has proximity to Asia's biggest industrial and manufacturing hub at Peenya Industrial Area. The factory is setup on an area of 50,000 sq. ft, and is equipped with latest machinery. IT Infrastructure, software and supported by qualified team of professional.

The Company has established Sales, Service and Spare parts network through pan India operation in major cities of India (Mumbai, Pune, Delhi, NCR, Chennai, Orissa Hyderabad, Kolkata, Kerala, Karnataka and so on. )

On top of the layer, the management team itself is from the industry with over 3 decades of experience in the field of construction equipments and has been the witness of transformation that has taken place in the Construction Segment.



**INNOMAC**<sup>®</sup>  
machines with global innovation...

View the site working



## PASSENGER CUM MATERIAL HOIST - SINGLE CAGE

**INNOMAC** Passenger cum material hoist, models: IPM100, 150, 200 single cage and IPM150x150, IPM200x200 Twin Cage are a 100% make in India concept product designed to lift 1000Kgs, 1500Kgs, 2000Kgs and 3000Kgs (2x1500) & 4000Kgs (2x2000). It is the most robust, efficient, reliable, and Safest PM Hoist for construction sites for various construction activities.

### IPM150 & IPM200 Single Cage

01. Break Motors
02. Ground Enclosure
03. Ground Enclosed Door Limit Switch
04. Tertiary Mechanical Lock Safety System
05. Cage Top Safety Railings
06. Anti-skid Chequered Floor Top Plate
07. Exit Door Mechanical Lock System
08. Entry Door Mechanical Lock System
09. Dead (RED) Mast Unit
10. Erection Platform
11. Maintenance Rack Lock Device
12. Entry Door Limit Switch
13. Exit Door Limit Switch
14. Rack Searching Limit Switch
15. Cable Jamming Limit Switch
16. Top Limit Switch.
17. Bottom Limit Switch
18. Erection Platform Limit Switch
19. Top Override Limit Switch
20. Slow Speed Limit Switch
21. Service Door Limit Switch
22. Emergency Switch with Keys
23. Gearbox Protection Guards
24. AVM between Base Frame & Cage
25. Anti-skid Chequered Inside Cage Bottom Plate
26. Jib Crane System
27. Cable Trolley System (Optional)
28. Safety Alarm
29. Biometric Lock System (Optional)
30. Overload Sensor Unit: Load Cell (Optional)
31. Anemometer (Optional)
32. HMI with Touch Screen Display (Optional)
33. Floor Selector System (Optional)
34. Fire Extinguisher (Optional)
35. Bus Bar System (Optional)
36. Safety Device / Free Fall Arrestor

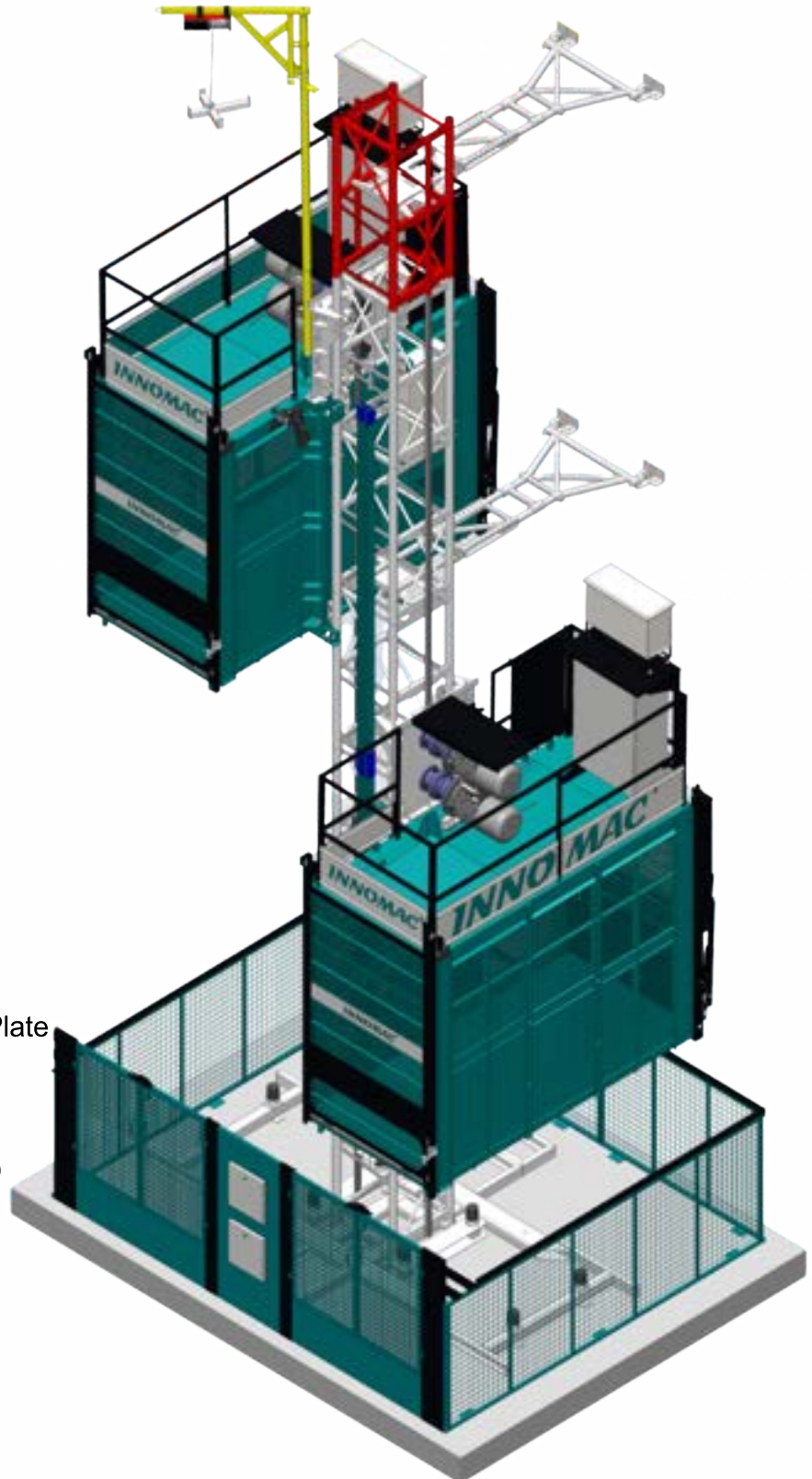


# PASSENGER CUM MATERIAL HOIST - TWIN CAGES

## IPM150x150 & IPM200x200 Twin Cages

### SAFETY FEATURES:

- 01.Safety Device / Free Fall Arrestor
- 02.Break Motors
- 03.Ground Enclosure
- 04.Ground Enclosed Door Limit Switch
- 05.Tertiary Mechanical Lock Safety System
- 06.Cage Top Safety Railings
- 07.Anti-skid Chequered Floor Top Plate
- 08.Exit Door Mechanical Lock System
- 09.Entry Door Mechanical Lock System
- 10.Dead (RED) Mast Unit
- 11.Erection Platform
- 12.Maintenance Rack Lock Device
- 13.Entry Door Limit Switch
- 14.Exit Door Limit Switch
- 15.Rack Searching Limit Switch
- 16.Cable Jamming Limit Switch
- 17.Top Limit Switch.
- 18.Bottom Limit Switch
- 19.Erection Platform Limit Switch
- 20.Top Override Limit Switch
- 21.Slow Speed Limit Switch
- 22.Service Door Limit Switch
- 23.Emergency Switch with Keys
- 24.Gearbox protection Guards
- 25.AVM between Base Frame & Cage
- 26.Anti-skid Chequered Inside Cage Bottom Plate
- 27.Cable Trolley System
- 28.Biometric Lock System (Optional)
- 29.Overload Sensor Unit: Load Cell (Optional)
- 30.Anemometer (Optional)
- 31.HMI with Touch Screen Display (Optional)
- 32.Floor Selector System (Optional)
- 33.Fire Extinguisher (Optional)
- 34.Bus Bar System (Optional)
35. Jib Crane System
36. Safety Alarm



# PASSENGER CUM MATERIAL HOIST FEATURES

## Standard Features

Single Cage IPM100, 150, 200		Twin Cage IPM150x150, 200x200	
1	Safety Device	1	Safety Device
2	Ground Enclosure	2	Ground Enclosure
3	Top Railings	3	Top Railings
4	Safety Limit Switches	4	Safety Limit Switches
5	Cabin Light	5	Cabin Light
6	Fan	6	Fan
7	Safety Alarm	7	Safety Alarm
8	Hour Meter	8	Hour Meter
9	First Aid Box	9	First Aid Box
10	VFD & DBR	10	VFD & DBR
11	Document Holder	11	Document Holder
12	Erection Platform	12	Erection Platform
13	Cable Drum System	13	Bus Bar System
14	Jib Crane System	14	Jib Crane System
15	Anti-skid Chequered Floor Top Plate	15	Anti-skid Chequered Floor Top Plate
16	Anti-skid Chequered Floor Inside Cage	16	Anti-skid Chequered Floor Inside Cage
17	Gearbox Protection Guards	17	Gearbox Protection Guards
18	Tertiary Mechanical Lock Safety System	18	Tertiary Mechanical Lock Safety System
19	Maintenance Rack Lock Device	19	Maintenance Rack Lock Device
20	Break Motors	20	Break Motors

## Optional Features

Single Cage IPM100,150,200		Twin Cage IPM150x150 , 200x200	
1	Load Cell	1	Load Cell
2	Floor Selector System	2	Floor Selector System
3	HMI with Touch Screen Display	3	HMI with Touch Screen Display
4	Biometric Control	4	Biometric Control
5	Fire Extinguisher	5	Fire Extinguisher
6	Cable Trolley System	6	Cable Trolley System
7	Bus Bar System	7	Anemometer
8	Anemometer		

## ERGONOMIC DESIGN:

**INNOMAC** Hoists are designed with FEA-compliant parts and assemblies to meet design robustness and reliability needs of the equipment. The CNC Punching, bending Co2 welding operations in the specific dies and fixtures make the unit perfect and less noise and vibrations.

The Modern electric system of the LED Lighting, fan, the smooth operations of the machine with VFD drive, sliding door system, joystick operations with the option of overload cut off, floor selector and emergency switch panel make the operator more comfortable and confident to use the machine and remain fatigue-free.

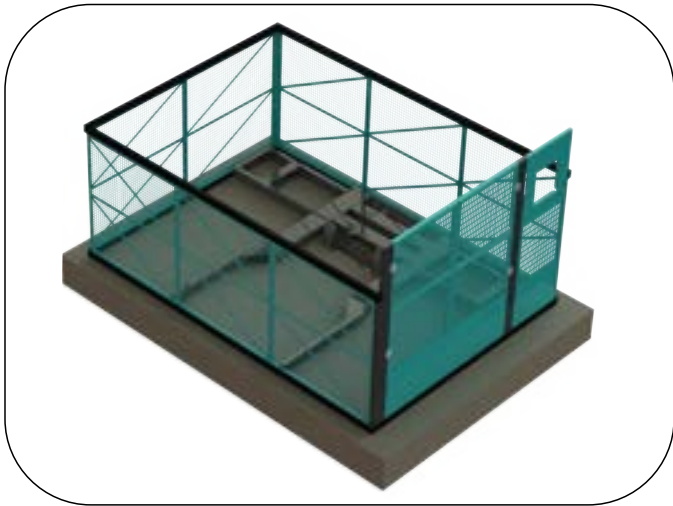
# PASSENGER CUM MATERIAL HOIST TECHNICAL SPECIFICATIONS

SL.No	SPECIFICATION	IPM150	IPM200	IPM150x150 (Twin cage)	IPM200x200 (Twin cage)
1	CAPACITY - KG	1500	2000	2x 1500	2x 2000
2	LIFTING SPEED - m/min.	30	30 45	30	30 45
3	MAX. LIFTING HEIGHT - mt.	150	200	150	200
4	RECTANGULAR CAGE SIZE L X B X H - mt.	2.5x1.4x2.1	3x1.4x2.1	2.5x1.4x2.1	3x1.4x2.1
5	GEAR RACK MODULE	5	5	5	5
6	SAFETY DEVICE EACH CAGE	SAJ30-0.9	SAJ40-1.2	SAJ30-0.9	SAJ40-1.2
7	SQUARE MAST & PIPE SIZE HEIGHT -1508 mm	400X400 Tube Ø60.3	450X450 Tube Ø60.3	450X450 Tube Ø60.3	650X650 Tube Ø76.1
8	MAST WEIGHT	65	75	90	122
9	WALL TIE INTERVAL - mt.	6 to 7	6 to 7	6 to 7	6 to 7
10	CABLE GUIDES INTERVAL - mt.	6	6	-	-
11	JIB CRANE	1kW, 1phase power	1kW, 1phase power	1kW, 1phase power	1kW, 1phase power
12	POWER CABLE GUIDE SYSTEM	Cable Drum Bus Bar Cable trolley	Cable Drum Bus Bar Cable trolley	Bus Bar Cable trolley	Bus Bar Cable trolley
13	FOUNDATIONS DETAILS (L X B X H) mt.	3.5 x 3 x 0.3	4 x 3 x 0.3	3.5 x 6 x 0.3	4 x 6 x 0.3
14	DRIVE BRAKE MOTOR FOR EACH CAGE	2x 9.6kW, 87 Hz	2x 11kW, 50 Hz 2x 15kW, 50 Hz	2x 2x 9.6kW, 87 Hz	2x 2x 11kW, 50 Hz 2x 2x 15kW, 50 Hz
15	VFD EACH CAGE SCHNEIDER / MITSUBISHI/ L&T - KW	22	30 37	2x 22	2x 30 2x 37
16	POWER SUPPLY	415V	415V	415V	415V

Note1: We do have 2 Pole mast design for IPM100, IPM150 & IPM200 for lift shaft application. Please enquire about the lift shaft application hoists with our executive

Note 2: We also have customised PM hoists suitable to Lift shafts / Duct Area / Underground Tunnel stations etc as per sites requirements.

# PASSENGER CUM MATERIAL HOIST - ACCESSORIES / FEATURES



## GROUND ENCLOSURE

Base Frame Assy is fastened through bolt foundation frame during installation and Ground enclosure is fastened to the base frame in all 4 sides for fencing. It provides protection to the machine throughout its periphery and can bear all loads. Enclosure mesh provides the option of power cut-off when someone opens the door during machine operation enabling additional safety, Provide rigid barricade to take care of unwanted entry of person or stray dogs into the machine area and its working boundary.

## EASY INSTALLATION & RAISING

Wall tie Installation platform is provided with the machine for ease of tying the Mast to the wall tie frame and for grouting the wall tie frame to the building RCC beam. Mast bolt dimension dia. M16 of Metric bolt quality 10.9 grade and torque 285 N-m establishes a rigid connection between masts and also with the RCC Beam. Mast connection can be raised upto a height of 150m or lowered based on the required working height at the construction site. Base Frame Installation has to be done on a foundation bed made by RCC for utmost safety.



## SPACIOUS DESIGN

Anti Skid Steel chequered plates is used here on cage floor & cage roof. Powder coated Steel plates used for entry & exit doors. Fully openable entry & exit doors. Unrestricted passage and for easy material movement.

Perforated side walls are provided for good lighting and Ventilation. Emergency exit door on the top of the cage.

## VFD ENABLED OPERATIONS

Innomac uses the VFD of reputed makes like schneider which enables a smoother Start and Stop operation preventing load swings during in the traverse motion. Variable frequency drive provides greater speed adjustment and improved load control of the machine. VFD provide thermal overload and over current protection for the hoist motor, prolonging its life. It provides a redundant hardware safety circuit that guarantee the motor and brake power are removed when an E-STOP switch or safety controller opens the drive input, eliminating the need for external disconnections.



## RACK & PINION FOR PRECISE CONTROL

Mast fixed with rack provides passenger and material movement up to a height of 150 mtr. and produce low vibrations while travelling between mast joints.

3D Mast design is tested under simulated load conditions in FEA software for suitability of design. Adjusting module ensures that the roller is in contact with mast at all times giving better grip. Double roller system ensures transferring of uniform load on the mast.



## DRIVE UNIT

We are using reputed and proven makes of motor & Gear Box like Bonfiglioli, Rossi etc. The drive unit consists of three helical-bevel gear box with motors and it is located above the hoist cage. The drive unit pinions engage with the rack on the mast. The motor are equipped with electromagnetic disc brakes integrated with VFD, which ensure the smooth ride, start and stop. Powder coated finish increases shelf life of structure and high end protection against rust.



## CAGE / CAR UNIT

The CAGE / CAR Unit is fabricated by referring IS-513 grade material along with perforation in its side walls & door, slides vertically with a half foldable exit door. This makes bridge between cage and building floor. The entry door has electro magnetic lock that can be opened only when the electric supply is given. The Dual Guide roller systems ensures the easy alignment and smooth accurate motion of the cage along the mast. The cage unit is powder coated to give corrosion free life for the unit.



## LOW POWER CONSUMPTION

A VFD will only consume the power that's needed, thus saving energy compared to contactors and soft-starters, thereby increasing the machine efficiency.

Deceleration and lowering of a hoist creates regenerative energy produced by the motor. This energy can be transformed into heat using a braking resistor or conditioner and send back to the source, thus leading to net energy savings. An AC regenerative drive will redistribute that energy, which would otherwise be wasted when converted to heat with a braking resistor.



## SAFETY DEVICE

Innomac uses SRIBS brand anti-falling safety device, which is important to ensure safe operation of PM Hoist. It acts as a cage free freefall arrester in case the brake motors fail to hold the cage. It is effective once the cage velocity reaches 1.2m/sec velocity. The centrifugal brake is automatically applied and this gradually stops the cage at a minimum distance ensuring the crew and equipment safety. The anti vibration device mounting in the inner structure reduces the noise occurrence to a great extent and provides a smooth brake operation.



## CONTROL PANELS AND LIMIT SWITCHES

The installed electrical components and tele machine limit switches or equivalent ensure a trouble-free operation. Innomac uses Schneider or equivalent premium and reliable brand electrical contactors, relay, MCB etc. They are being used here to avoid damage to electrical motor, thus reducing the frequency of breakdowns. The control Panels are well arranged and all components are made to comply IP55 protection.

## SERVICE PLATFORM : WALL TIE INSTALLATION PLATFORM

An extended service platform on top of the cage helps engineers to install the masts, wall ties, and do routine machine service. The platform is a fabricated and P U Painted structure. It is hinged with cage, and rigidly supported by two chains. The platform top base is fitted with an anti-skid checkered plate.



## HOT DIP GALVANISATION STRUCTURAL ITEMS

Structural components like Mast, Base Assembly, wall tie base frame carriage and cage base etc are hot dip galvanized with 80 to 100 Microns. Hot dip galvanisation ensures a strong protective zinc coating to steel base material to prevent rusting. Zinc being more durable avoids corrosion in all extreme weather conditions. Galvanised structure is scratch resistant and high in aesthetics.

## ANEMOMETER

An ANEMOMETER is an instrument that measures wind speed. Never operate/assemble/disassemble the machine during winds higher than 28 mph (12.5 m/s, 6 on the Beaufort scale).



## MASTS

The Masts are manufactured using reputed brand steels like Jindal, Sail etc., with precise fixtures and final manufacturing by MIG welding process. Hence it helps for inter-changeability, proper butting, smooth drive for cage and high reliability. Hot dip galvanised finish with 80-100 GSM provides a strong zinc coating protective finish to prevent rust and corrosion. Galvanised finish is scratch resistant and high in aesthetics. The heavy duty seamless round tubes are used to make this square masts used universally.

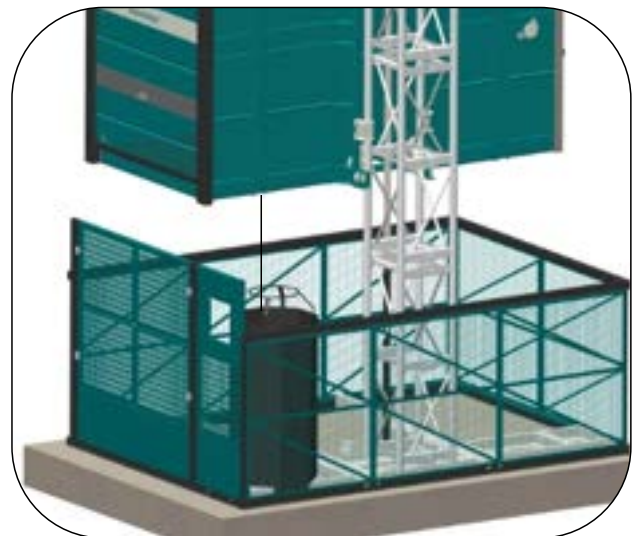


## JIB CRANE ASSEMBLY

JIB crane Assembly is an essential part of PM Hoist that aids in the building of mast assembly at the construction site and disassembling of mast sections one over the other. It is made of steel tube and is mounted on the cage top roof. During installation Jib crane is used for lifting the mast for assembly one over the other in and similar way during un-installation. It's Hoist motor power is 1 KW a for lifting capacity of 250 Kg. Wire rope of dia 6mm is used to lift the mast up to the height of 30m with an the operating speed of 5~10 m/min.

## CABLE DRUM SYSTEM

The Power cable to the PM Hoist is guided between the cable collecting drum at ground level and the cable holder fixed to the top of the cage. The cable holder arm is used to drag the main cable up and down to safely pass through the wall tie frame to avoid any physical damage to the cable. This cable is wound into the drum mounted on to the base assembly.



## BUS BAR SYSTEM

This being the most advanced system in PM Hoist equipment eliminates the use of physical heavy duty power cable requirement giving an advantage of Less maintenance and chances of Low break down to the machine. Bus bar fixed to the mast of the machine are modular in design. It can be fixed to any desired height connecting one by one. In case of any fault it is easy to replace or repair only the damaged part.

# TESTIMONIALS



“ We, Larsen & Toubro Ltd. are happy to share that we own INNOMAC Manufactured machines at our construction sites, INNOMAC is a trusted brand for us, their quality, support are excellent ”



“ INNOMAC is a trusted brand for us to use their high quality of most unmatched advanced features on bar cutting & bending machines. their service support is excellent.”



“ INNOMAC is our trusted brand to supply the quality & reliable with excellent service support on bar cutting & bar bending machines and material hoist.”



“ INNOMAC is a trusted brand for us. Your quality, reliability and personal experience has been unmatched by any other supplier.”



“ We are highly satisfied with INNOMAC products and their reliability, their sales & service team are most professional & highly flexible to meet our sites needs timely ”



“ We are very delighted in using INNOMAC brand bar cutting m/cs, bar bending m/cs, materials hoists and rebar lifting hoists across our various sites. Their equipments are most reliable, maintenance free and their service supports are the best we seen.”



“ We appreciate the coordination, timely monitoring & efficient output from the machine which considerably reduces the wastage of steel at the site ”



“ The Quality, Performance & product support from INNOMAC is much better than the other brands equipments we are using ”



“ At K MV, We are using all range of INNOMAC equipments at our Pan India sites. we are very satisfied with products technology features and their product supports.”



“ In our overall projects, the biggest strength has been the quality of the machines and dedication of the Innomac Team ”



“ We are delighted to share that we own Innomac manufactured mahines at our construction sites. The quality reliability and support they provide are excellent and unmatched ”

and many more.....



# OUR PRESENCE



**BANGALORE**  
MFG. / HO / RO

- NAGPUR
- INDORE
- BHUVANESHWAR
- CHENNAI
- COCHIN
- DELHI
- PUNE
- HYDERABAD
- JAIPUR
- KOLKATA
- LUCKNOW
- MUMBAI
- NASIK
- PATNA
- RAIPUR
- VIJAYAVADA
- INTERNATIONAL**
- DUBAI

● Factory / HO / RO ● Established Branch ● Upcoming Branch ● Dealer

## OUR PAN INDIA CONTACTS



**INNOMAC**<sup>®</sup>  
machines with global innovation...

### INNOMAC ENGINEERING INDUSTRIES PVT. LTD.

**HEAD OFFICE** : No. 13, 3rd Floor, 1st Block, Narayana Nagar, Anjanapura  
Main Road, Doddakallasandra, Kanakapura Road, Bengaluru - 560 062  
Ph: +91 6362905518 | Email: info@innomacindia.com

**FACTORY** : Sy. No. 48/1 & 48/2, Chikkabidarakallu, NH-4, Tumkur Road,  
Bengaluru - 560 073 | Ph: +91 6362905518 | Email: info@innomacindia.com

#### BRANCHES

Karnataka & Kerala: +91 8088901765 / 6362905522  
Tamil Nadu & Puducherry: +91 8088901768  
Telangana & Andhra Pradesh: +91 8088901767  
Bhubaneshwar: +91 9040666777 | Pune: +91 6362905503  
Kolkata: +91 8951359700 | Western Region: +91 8088901766  
Northern Region: +91 8904967705 | Nasik: +91 9823196801  
Nagpur, Raipur & Indore: +91 8904345101  
Dubai Dealer: +971 506447203



Bar Cutting Machine



Bar Bending Machine



Stirrup Bending Machine



Spiral Bending Machine



Scrap Bar Straightening Machine



Innomac Construction Lift



Building Maintenance Unit



Reversible Concrete Mixer



Rope Suspended Platform



Scaffolding Lift



Twin Cage Passenger / Material Hoist



Passenger cum Material Hoist



Rebar Material Hoist



Marble / Granite Slabs Handling



Material Hoist

[www.innomacindia.com](http://www.innomacindia.com)