Safety & Quality Standards

CE | TÜV | ISO 9001:2015 14001:2015 18001:2007

SPARTAN SINCE 1971 Celebrating Engineering Excellence

Spartan®
Faster ~ Safer ~ Reliable

NEW

ELITE AVIATOR
Elevate to CE safety standards

SPARTAN'S PREMIUM CE APPROVED, EXPORT QUALITY PASSENGER & MATERIAL HOISTS



Vision & Mission

CORE PURPOSE

To Enhance the Productivity, Speed and Safety in Construction and Infrastructure Industry by providing Advanced Mechanized Solutions, thereby saving their Money, Time and Efforts.

CORE VALUES

- Passion for Perfection and Innovation.
- Employee Growth Through Continuous Self Improvement.
- Building Strong Relationship with Internal and External Customers.

ASPIRATIONAL CORE VALUES

- Customer Service Above All Else.
- Always Telling The Truth.
- Contributing Back To The Ecosystem At Large.

BRAND PROMISE

Committed Fast Response to Build Close Relationship with the entire Eco-System!

State-Of-The-Art Infrastructure



By Being in Engineering Industry and being a leader in manufacturing Construction Equipment, calls for mammoth and advanced production unit. Spartan boasts of State-of–the-Art manufacturing facility at Atgaon on Mumbai-Nashik highway. It is fully equipped with world class equipments to manufacture an array of construction equipments & Fire Evacuation Lifts. It is spread across 5 acres with 1 lac Sq.ft. build-up Shed & Office. The production facility covers Fabrication, Production Assembly, Testing, R&D, Design & Development, Spares Management & Despatch.

Kaizan:

As you are aware, it means any improvement, one-time or continuous, large or small. Kaizen is a daily process, the purpose of which goes beyond simple productivity improvement. Spartan's aim is towards a process that, when done correctly, humanizes the workplace, eliminates overly hard work and perform experiments on their work using the scientific method and learn to spot and eliminate waste in business processes. In all, the process suggesting a humanized approach to workers, thus increasing productivity. Spartan envisions the participation of workers in the improvement, people at all levels of the organization participate in kaizen, from the CEO down to janitorial staff, as well as external stakeholders when applicable. It is an ongoing and consistent process followed at Spartan, with proper implementation and review mechanisms.









5S Systems:

Spartan aims to built a work space for efficiency and effectiveness by identifying and storing the items used, maintaining the area and items, and sustaining the new order. We achieve the above by following the below steps:

5S Systems

Sort	Sorting is done through all items in a location and removing all unnecessary items from the location.
Set in Order	Setting in order is putting all necessary items in the optimal place for fulfilling their function in the workplace
Shine	To shine is to sweep or clean and inspect the workplace, tools and machinery on a regular basis.
Standardize	To standardize the processes used to sort, order and clean the workplace.
Sustain	Sustain the developed processes by self-discipline of the workers. Also translates as "do without being told".

Surface Treatment

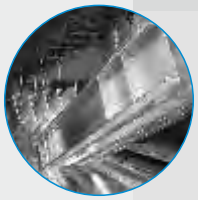


Powder Coating

All sheet metal and some structural parts go through 11 tank process and PP Powder Coating which gives superior finish and long life protection from corrosion.

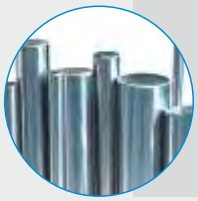
Advantages of Powder Coating:

- Powder coated surfaces are more resistant to chipping, scratching, fading, and wearing than other finishes.
- Powder coating does not contain solvents which have pollutants known as volatile organic compounds (VOC's). It protects the environment.



Hot Dip Galvanization

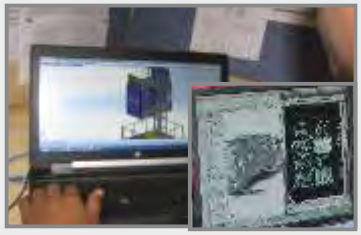
- Most of structural component of hoist like mast, wall tie base frame carriage and cage base etc are hot dip galvanized with 80 to 100 GSM.
- Zinc is extremely durable in all whether conditions.
- Galvanized surface is scratch resistance and high in aesthetics.
- Galvanization is the process of applying a protective zinc to steel or iron in order to prevent rusting.



Hard Chrome Plating

Hard Chrome plating is done as a technique of electroplating a thin layer of chromium onto a metal object. The chromed layer can be decorative, provides corrosion resistance, eases cleaning procedures, and increases surface hardness.

Research & Design Development

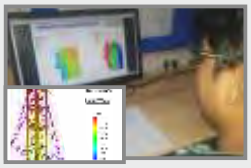


Spartan's Design & Development team consists of 20+ dedicated professionals with expertise in Engineering Design & Development.

Our design team uses SolidWorks for 3d solid model design, static & dynamic analysis Finite Element Analysis (FEA) of machine components & documentation. This ensures strength & reliability of all components & thereby gives the customer peace of mind. Our Design Engineers study the structural, static & dynamic Load requirement, load deflection characteristics & working Conditions of the end application.

Entire structure of machine has been designed on basis of FEA study by considering various loading conditions to ensure the life, reliability and safety.





Quality Control

All Measuring & Testing Instruments calibrated are from NABL Laboratories



Dial Vernier, Micrometer & Bore Gauges



Plug Gauges, Ring Gauges Ring with Key way gauge



Thread gauges, Radius Gauges, V-Groove & Feeler Gauges



Hardness Testing Machine



Bench Center for Checking run out, Concentricity & Parallelism

Fixtures

ADVANTAGES OF IN-HOUSE FIXTURES:

Fixtures to be maintained identical fabrication dimension & geometry to make standard quality parameters as per drawing.
Interchangeability fitment of mast with each other | Reduces time and efforts.



Carriage Fixture for Hoist



Hoist Mast Track Welding Fixture



Hoist Mast Full Welding Fixture



Hoist Mast Inspection on Surface Table for Twist & Bend

Machine Testing

Electric Panel Testing





- Proper tightening of all wires are confirmed.
- All panel logics are checked properly
- All hoist safety limit & sensor proper working is confirmed.
- VFD parameter are entered properly as per motor make.
- Drawing of electric wiring is placed in panel.

Hoist Machine Testing



- All the components duly fitted as per assembly drawing is confirmed.
- Visual inspection of all the components are done.
- Proper assembly fitment & movement of components are carried out.
- Feedback mechanism is followed directly fitters level.
- If there is problem in assembly at immediate corrective action is taken.
- 100% Machine Assembly, Performance, safety & Load Trail Inspection with calibrated load are carried out.

Certifications

ISO 9001:2015



CE Certificate



CE Certificate



Environmental Certificate



OHSAS 18001:2007



CE - Bar Cutting Machine



CE - Bar Bending Machine



SPARTAN GENUINE SPARES | works better lasts longer

THINK PARTS
THINK SPARTAN

WHY TO HAVE RATE CONTRACT FOR SPARTAN SPARES?

- **Model Wise Price List**
  Model wise Price List is available which enables correct spare part procurement.
- **One Stop Shop**
  All machine components i.e. Parts, Electrical, Hardware & Consumables available at one place from Spartan.
- **Faster Order Processing**
  No quotation is required, Purchase Order can be sent for material despatch to site which reduces delivery time.
- **Reduction of Overheads**
  As the rates are fixed in the agreement, as per model spare parts, cost & time reduction is achieved by less number of enquiries, Purchase Order, GRN and supplier bills.
- **Fixed Rates**
  The rates of the Spare parts are fixed for the contract period allowing the budgeting and planning.


Spares Identification


Barcode Machine


Barcode on Parts

- All spares used in Spartan machines have an ERP code so that identification of the correct part is easier.
- Drawings are available for each machine with their part name and ERP code for customer usage.
- Customer has to provide ERP code, part name, machine model & serial number whilst enquiry.

The Atgaon factory has an in-house complete facility for spares of all products. It is managed by the Store department. It follows Storage processes like FIFO, Specified Material Storage Location System and Quality Management System tools like 1S & 2S.

Fully Equipped Regional Stores


AHMEDABAD


BANGALORE


CHENNAI


DELHI


HYDERABAD


KOLKATA


MUMBAI


PUNE



TWIN CAGE
PASSENGER & MATERIAL HOISTS



SINGLE CAGE
PASSENGER & MATERIAL HOIST

NEW

ELITE AVIATOR
Elevate to CE safety standards

SINGLE & TWIN CAGE
PASSENGER & MATERIAL HOISTS (SPM)

SALIENT FEATURES

Whopping Market Share



Spartan tops the Indian Rack & Pinion Passenger and Material Hoists industry with whopping above 60% market

Exports



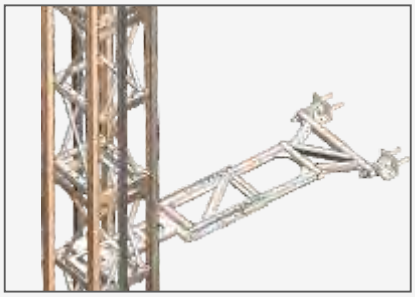
Spartan exports to 10+ countries across the globe.

50,000+ Machines at Onsite

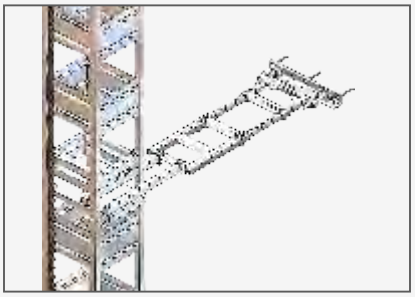


MAST FOR ALL MODELS OF PASSENGER & MATERIAL HOIST

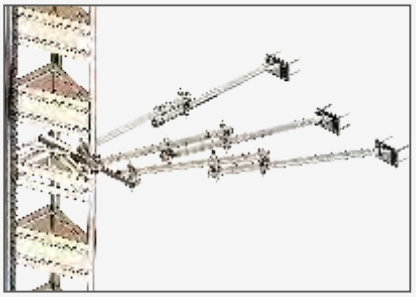
Mast & Wall tie for 2 ton Twin Cage



Mast & Wall tie for 1.5 & 1.2 Ton Cage



Mast & Wall Tie for 1.0 Ton Cage



- Mast constructed from high quality square tube, incorporated with sheet metal bend angle.
- FE Analysed mast designs.
- Mast fabricated through fixture, hence there's uniformity in mast quality and dimension.
- Hot dip galvanised surface for corrosion free mast.

Heli Bevel Spiral Gears



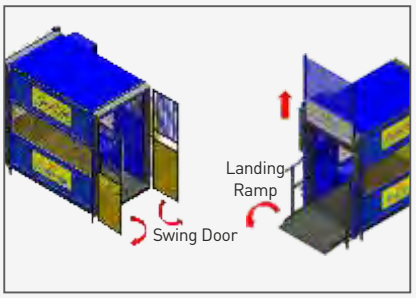
Spartan provides world's best Nord/ Rossi Planetary Design Gearbox, which gives better efficiency and 50% power saving.

Carries Big And Odd Size Material



Because of Top open Roof feature, you can carry big and odd sizes of door frames, scaffoldings, Plywood sheets, Marble and Glass slabs to heights.

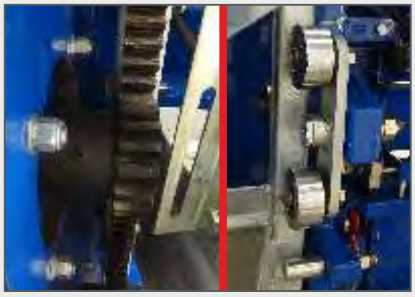
Swing Type Entry & Exit Door



Exit door side rails have been provided for safe transit of people, which eliminates the mishaps caused by making a special barricade on each floor.

SALIENT FEATURES

Minimal Vibration



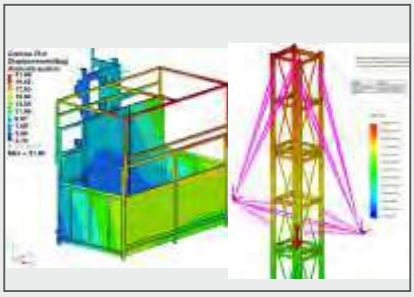
The cage of the hoist has comparatively less vibration than any other manufacturer due to its 6 module rack feature. Hence the engagement of the teeth with the rack is more. As the masts are square tube, we use flat rollers which has full line contact with the mast tube, thereby making the movement smoother.

Mechanical Lock for Carriage



For additional safety during mast addition & Height Extension.

Finite Element Analysis (FEA)



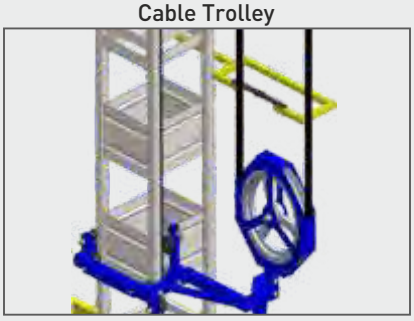
Our Design Engineers study the structural, static & dynamic Load requirement, load deflection characteristics & working Conditions of the end application.
Entire structure of machine has been designed on basis of FEA study by considering various loading conditions to ensure the life , reliability and safety.

European Design Safety Device



Latest advanced design given for highest factor of safety to protect against free fall of hoist.

Cable Trolley



Guides the cable safely & Increases its life.

Base Enclosure



Sheet metal and tube section fabricated base enclosure. With complete powder coated body preventing from rust for log life.

Top, Bottom, Slow Down & Final Limit Switches



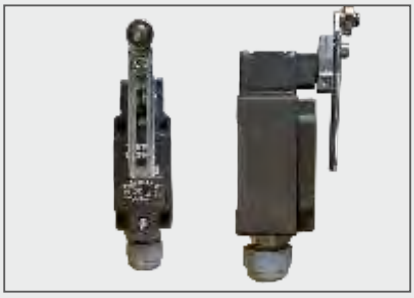
These limit switches are provided to prevent over travel of machine and for safe operation. All limit switches are accessible from within the cage.

Operating Console



Easy and safe for operating Push buttons for up and down hoist travel.

Top Brand Limit Switch



Teknic & Telemecanique, make reliable limit switches with IP67 protection.

Variable Frequency Drive (VFD)



Spartan provides Japanese make Mitsubishi VFD (variable frequency drive) as a standard fitments in all the hoists.

RCCB



It converts electric power efficiently at 24Volt DC. thus increasing life of electrical parts in control panel.

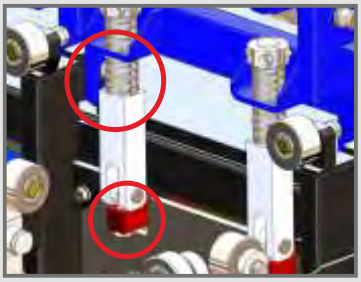
Mast Erection Jib



Electrically operated mast erection jib makes erection easy and effortless.

OPTIONAL FEATURES

LOAD CELL ASSEMBLY



Standard Control Panel



Overload indicator Lamp & Bell

Optional Control Panel with Floor selector / HMI





BENEFITS:

- Over load protection.
- Load cell has fitted on carriage and it will not allow the hoist to move if cage is over loaded than its permissible load.

FLOOR SELECTION / HMI



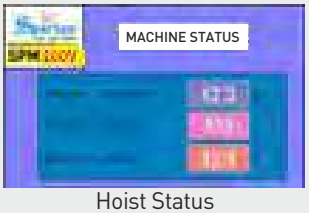
BENEFITS:

- Touch screen HMI will be provided to select the floor number.
- Selected floor number and current floor number shown on display.
- All Fault Indication will be shown on display.

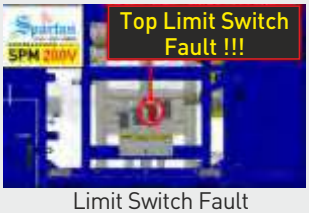
FAULT INDICATION



Floor Selector



Hoist Status



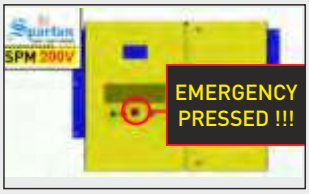
Limit Switch Fault



Cage Door Open



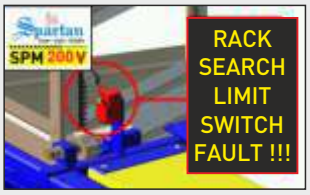
Drop Test Count



Emergency Pressed



Trap Door Open



Rack Searching Limit Switch Fault

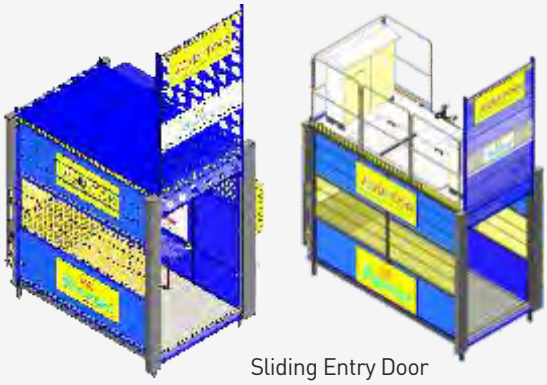


Encoder Assembly

ENTRY DOOR VERTICAL SLIDING TYPE & FULL HEIGHT BASE ENCLOSE

BENEFITS:

Effortless and easy door opening and closing.



Sliding Entry Door



Full Height Base Enclosure

LIMIT SWITCHES (SINGLE & TWIN CAGE)

Bottom Limit Switches | Top Limit Switches | Door Entry & Exit Switches | Rack Searching Switches | Final Limit Switches
Slow Down Limit Switches | Service Platform | Base Enclosure Gate Switches | Micro Limit Switch for safety device
Mechanical Lock for Cage Door | Cable Protector Limit Switch | Trap Door Limit Switch | Floor selection (Optional) | PLC and HMI (Optional)

TECHNICAL SPECIFICATIONS FOR SINGLE CAGE HOIST

FEATURES	SPM 250V LS/ HS		SPM 200L	SPM 150V	SPM 120V	SPM 100V	SPM 100L	SPM 80L
Model	Single Cage Rack & Pinion Passenger & Material Hoist							
Capacity	2.5 Ton		2.0 Ton	1.5 Ton	1.2 Ton	1 Ton	1 Ton	0.8 Ton
Max Height	150 mtrs./ 250 mtrs.		150 mtrs.	150 mts.	150 mtr.	100 mtr.	100 mtr.	80 mtr.
Speed	30 mtr/ min.	54 mtr/ min	30 mtr/ min.	30 mtr/ min.	30 mtr/ min.	30 mtr/ min.	20 mtr/ min.	20 mtr/ min.
Motor Capacity	Low Speed - NORD	High Speed - NORD	NORD MOTOR					
	13.04 kW (87Hz) x 2 nos.	19.13 kW (87Hz) x 2 nos.	13.05 kW (87Hz) x 2 nos.	7.6 kW (87Hz) x 2 nos.	5.19 kW (87Hz) x 2 nos.	5.19 kW (87Hz) x 2 nos.	-	3.8 kW (87Hz) x 2 nos.
	Low Speed - ROSSI		ROSSI MOTOR					
	14.36 kW (87Hz) x 2 nos.		9.57 kW (87Hz) x 2 nos.	6.9 kW (87Hz) x 2 nos.	5.19 kW (87Hz) x 2 nos.	5.19 kW (87Hz) x 2 nos.	3.8 kW (87Hz) x 2 nos.	-
Safety Device	SSD 3500		SSD 3500	SSD 3500	SSD 3500	SSD 3500	SSD 3500	SAJ 20-0.73
VFD Capacity	30 kW	45 kW	30 kW	15 kW	11 kW	11kW	11 kW	-
Cage size LxWxH)	3.5 x 1.4 x 2.3 mtr.		3 x 1.4 x 2.3 mtr.	2.5 x 1.4 x 2.3 mtr.	2.2 x 1.4 x 2.3 mtr.	2.2 x 1.4 x 2.3 mtr.	1.8 x 1.2 x 2.2 mtr.	1.5 x 1.2 x 2.2 mtr.
Wall Tie Interval	6 mtr.		6 mtr.- up to 120 mtr. 3 mtr. - above120 mtr.	6 mtr.- up to 120 mtr. 3 mtr. - above120 mtr.	6 mtr.- up to 120 mtr. 3 mtr. - above120 mtr.	6 mtr.	6 mtr.	3 mtr.
Mast – Size (mm)	Square: 500 x 500 x 1508		Square: 400 x 400 x 1508	Square: 400 x 400 x 1508	Square: 400 x 400 x 1508	Triangle: 400 x 500 x 1508	Triangle. 400 x 500 x 1508	Square Tube 150 x 150 x 1508
Mast – Section (mm) Thikness	Upto 150 mtr: Square Tube: 60 X 60 X 4 150 to 250 mtr: Square Tube: 60 X 60 X 6		Square Tube: 50 x 50 x 4	Square Tube 50 x 50 x 4	Square Tube 50 x 50 x 4	Front Square Tube: 50 x 50 x 4 Rear pipe section dia Ø. 48.8 x 4	Front Square Tube: 50 x 50 x 4 Rear pipe section dia Ø. 48.8 x 4	-
Foundation Size (L x W x Thk.) (mtr)	4.5 x 3.0 x 0.3		3.5 x 3.4 x 0.3	3.0 x 3.4 x 0.3	3.0 x 3.4 x 0.25	3.0 x 3.4 x 0.25	2.8 x 3.1 x 0.2	2.0 x 2.0 x 0.2

TECHNICAL SPECIFICATIONS FOR TWIN CAGE HOIST

FEATURES	SPM 250-250V		SPM 200-200V		SPM 150-150V	
Model	Twin Cage Rack & Pinion Passenger & Material Hoist					
Capacity	2.5 Ton (Per Cage)		2.0 Ton (Per Cage)		1.5 Ton (Per Cage)	
Max Height	250 mtrs.		250 mtrs.		250 mtrs.	
Speed	Low Speed (LS)	High Speed (HS)	Low Speed (LS)	High Speed (HS)	Low Speed (LS)	High Speed (HS)
	30 mtrs./ min	60 mtrs./ min.	30 mtrs./ min	60 mtrs./ min.	30 mtrs./ min.	60 mtrs./ min.
Motor Capacity	14.36 kW (87 Hz) x 2 per cage	19.13 kW (87 Hz) x 2 per cage	9.6 kW (87 Hz) x 2 per cage	19.13 kW (87 Hz) x 2 per cage	6.9 kW (87 Hz) x 2 per cage	11.5 kW (87 Hz) x 2 per cage
Safety Device Model	SSD 3500		SSD 3500		SSD 3500	
VFD Capacity	30 kW per Cage	45 kW per Cage	30 kW per Cage	45 kW per Cage	15 kW per cage	25 kW per cage
Cage size (LxWxH)	3.5 x 1.4 x 2.3 mtrs.		3 x 1.4 x 2.3 mtrs.		2.5 x 1.4 x 2.3 mtrs.	
Wall Tie Interval	6 mtrs		6 mtrs		6 mtrs	
Mast – Size (mm)	Square - 500 x 500 x 1508		Square - 500 x 500 x 1508		Square - 500 x 500 x 1508	
Mast – Section (mm)	Upto 150 mtr : Square Tube: 60 X 60 X 4 150 to 250 mtr: Square Tube: 60 X 60 X 6		Upto 150 mtr: Square Tube: 60 X 60 X 4 150 to 250 mtr: Square Tube: 60 X 60 X 6		Upto 150 mtr : Square Tube: 60 X 60 X 4 150 to 250 mtr: Square Tube: 60 X 60 X 6	
Rack Modules	6 Modules		6 Modules		6 Modules	
Foundation Size (L x W x Thk.) (mtr)	4.5 x 4.3 x 0.3		4.1 x 5.3 x 0.3		3.7 x 5.3 x 0.3	

NEW

MULTIFUNCTIONAL HOIST | MAN | MATERIAL | REBAR

SPARTAN'S MULTIFUNCTIONAL HOISTS (SMH)



Multi-functional Hoist with Passenger Cage



Multi-functional Material Hoist with Half Cage



Multi-functional Material Hoist (SMH) with Rebar Carrier For Carrying Rebar upto 12mtr Long

EASY, FAST & EFFICIENT OPERATION



Loading



Traveling



Rotating



Unloading

CAGE FOR CARRYING MATERIAL

- Entry & Exit doors are spring loaded for easy, effortless opening & closing.
- Front side openable panel door, for direct loading and unloading through forklift.
- Carries variety of construction material during the process of construction, right from the beginning till the end.



Bricks / Concrete Blocks



Rebars



Sanitary Ware



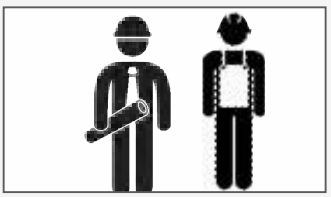
Glasses/ Marbles/ Tiles



Concrete



Rebar Stirrups



Passengers

SALIENT FEATURES

European Geared Motor



European make inline helical bevel geared type high efficiency geared motor is provided.

European design Safety Device



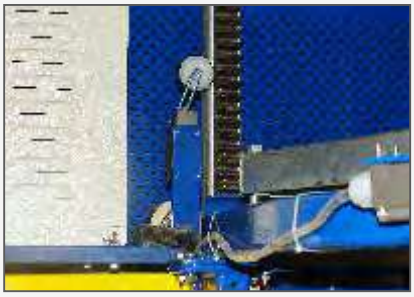
European design safety device with latest four point contact lock to prevent cage from free fall. It is automatic reset safety device hence no need to open safety device for resetting at site.

Control Panel & Operating Console



Control Panel with IP55 Protection. Top Brand HMI cum PLC provided on control Panel. All limit switch fault indicating display on control panel.

Rack searching limit switch



It is provided as an additional safety feature.

Encoder for Floor Selection



Floor selector is provided with encoder IP65 protection

Entry/ Exit Door Limit Switch



These are electric interlock switches, which stop the cage to move up or down

Wireless Remote Control



It is provided for easy Hoist operation.

Top, Bottom & Final Limit Switches



It is provided to prevent over travel of machine and for safe operation.

European make VFD

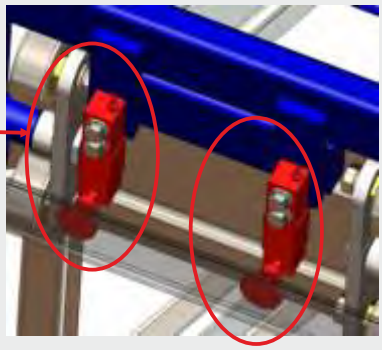


Delivers breakdown free top performance that exceeds expectations.

OPTIONAL FEATURES

LOAD CELL ASSEMBLY

Load Cell Assembly





Over load message will displayed on HMI

BENEFITS:

- Over load protection.
- Load cell has fitted on carriage and it will not allow the hoist to move if cage is over loaded than its permissible load.

OPTIONAL FEATURES

REBAR ATTACHMENT





BENEFITS:

- For SMH 100V, 120V Rebar attachment can carry 0.5ton rebar (12mtr. Length max.)
- For SMH 150V Rebar attachment can carry 1.0 ton rebar (12mtr. Length max.)

SHEET METAL BASE ENCLOSURE

Benefit: Higher safety

Tube section
Base Enclosure
(Standard)





Sheet Metal
Base Enclosure **(Optional)**

SAFETY FEATURES & LIMIT SWITCHES

Bottom Limit Switch | Top Limit Switch | Door Entry Switch | Door Exit Switch | Rack Searching Switch | Final Limit Switch
Slow Down Limit Switch | Service Platform Switch | Cable Protector | Base Enclosure Gate Switch | Rebar Home Position Limit Switch
Micro Limit Switch for safety device | Mechanical Lock for safety during Erection | Rack Modules.

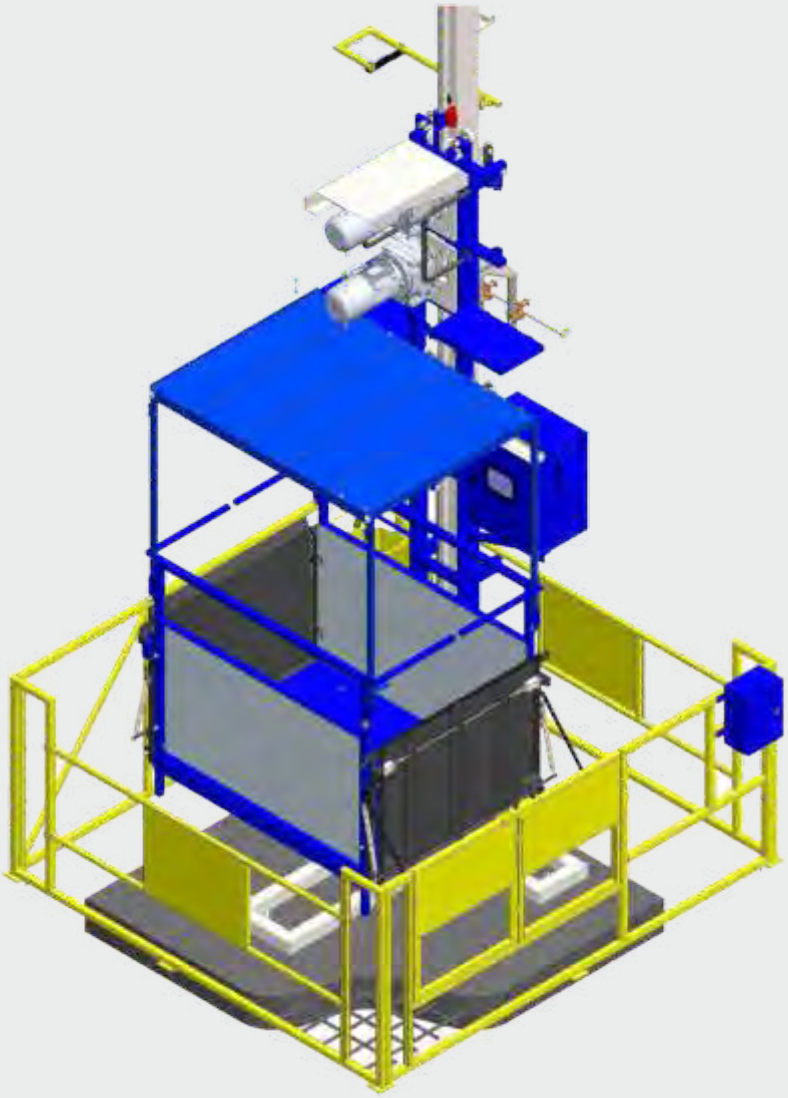
TECHNICAL SPECIFICATIONS

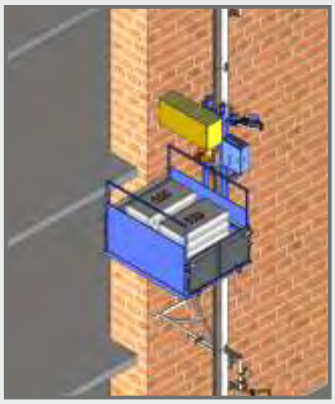
FEATURES		SMH 200V / SMH 200P		SMH 150V / SMH 150P		SMH 120V / SMH 120P		SMH 100V / SMH 100P	
Capacity		2.0 Ton		1.5 Ton		1.2 Ton		1 Ton	
Max Height		150 mtr.		150 mtr.		150 mtr.		100 mtr.	
Speed		30 mtr/ min.		30 mtr/ min.		30 mtr/ min.		30 mtr/ min.	
Motor Capacity		Nord	Rossi	Nord	Rossi	Nord	Rossi	Nord	Rossi
		13.05 kW (87Hz) x 2 nos.	9.57 kW (87Hz) x 2 nos.	7.6 kW (87Hz) x 2 nos.	6.9 kW (87Hz) x 2 nos.	5.19 kW (87Hz) x 2 nos.	5.19 kW (87Hz) x 2 nos.	5.19 kW (87Hz) x 2 nos.	5.19 kW (87Hz) x 2 nos.
Safety Device		SSD 3500		SSD 3500		SSD 3500		SSD 3500	
VFD make Capacity		30 kW		15 kW		11 kW		11 kW	
Cage size (LxWxH) (mtr.)		Cage without Roof (V): 2.5 x 1.2 x 1.5		Cage without Roof (V): 2.0 x 1.2 x 1.5		Cage without Roof (V): 2.0 x 1.2 x 1.5		Cage without Roof (V): 2.0 x 1.2 x 1.5 mtr.	
		Cage with Roof (P): 2.5 x 1.2 x 2.2		Cage with Roof (P): 2.0 x 1.2 x 2.2		Cage with Roof (P): 2.0 x 1.2 x 2.2		Cage with Roof (P): 2.0 x 1.2 x 2.2 mtr.	
Wall Tie Interval		6 mtr.- up to 120 mtr. 3 mtr. - above120 mtr.		6 mtr.- up to 120 mtr. 3 mtr. - above120 mtr.		6 mtr.- up to 120 mtr. 3 mtr. - above120 mtr.		6 mtr.	
Rebar Carrying Capacity & Length		1 ton. Max. 12 mtr. Horizontal length		1 ton. Max. 12 mtr. Horizontal length		0.5 Max. 12 mtr. Horizontal length		0.5 ton Max. 12 mtr. Horizontal length	
Mast	Size (mm)	Square -500 x 500 x 1508		Square -400 x 400 x 1508		Square- 400 x 400 x 1508		Triangle- 400 x 500 x 1508	
	Section (mm)	Square Tube - 60 x 60 x 4		Square Tube - 50 x 50 x 4		Square Tube - 50 x 50 x 4		Front Sq. Tube: 50 x 50 x 4 Rear pipe Section Dia Ø 48.8 x 4	
Foundation Size (LxWxH) (mtr.)		4.0 x 3.4 x 0.3		3.5 x 2.9 x 0.3		3.5 x 2.9 x 0.25		3.5 x 2.9 x 0.25	

NEW

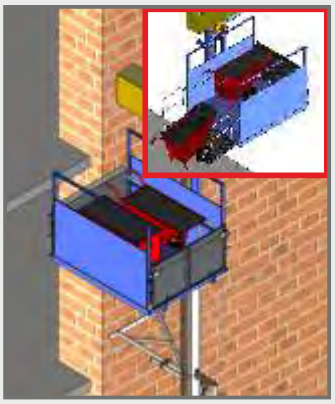
MULTIFUNCTIONAL HOIST | MAN | MATERIAL | REBAR

SPARTAN MULTIFUNCTIONAL HOIST (SMH 100L)





Cage for carrying Bricks, Tiles & Other Material



Cage with Wheel Barrow to carry Concrete



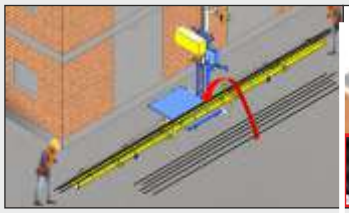
Cage with Rebar Carrying Attachment



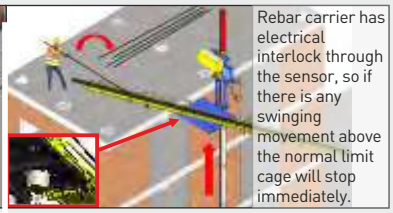
Cage with Bricks Trolley to carry Bricks

EASE IN ASSEMBLY, LOADING & UNLOADING WITH CAGE

REBAR ATTACHMENT



Loading Rebar



Unloading Rebar

- The Rebar's manually put into the Rebar Carrier frame at the ground level.
- After placing the Rebar move the Cage in the upward direction by the Remote.
- Hoist will be install in location such a way that the rebar can be unloaded on the neighboring building also.
- After the Rebar Frame arrived at the certain floor, the Frame should swing manually towards the Building & manually unloading the Rebar.

SPARTAN MAKE WHEEL BARROW

- Spartan make Wheel Barrow's carrying capacity 0.18 cubic mtr.
- Wheel Barrow size: 1.2 L x 0.4 W x 0.7 H (mtr)
- The Concrete carrying Wheel Barrow manually put into the Cage at the ground level.
- After placing the Wheel Barrow move the Cage in the upward direction by the Remote upto the Landing floor.
- After the Cage arrived at the certain floor, the Wheel Barrow drive manually on the floor & manually unload the Concrete, sand etc.



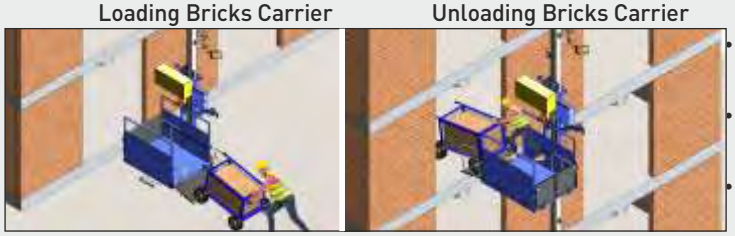
Loading Wheel Barrow



Unloading Wheel Barrow

CAGE WITH BRICKS CARRIER

Loading Bricks Carrier **Unloading Bricks Carrier**



- The Bricks carrying Trolley manually put into the Cage at the ground level.
- After placing the Trolley move the Cage in the upward direction by the Remote upto the Landing floor.
- After the Cage arrived at the certain floor, the Trolley drive manually on the floor & manually unload the Bricks.

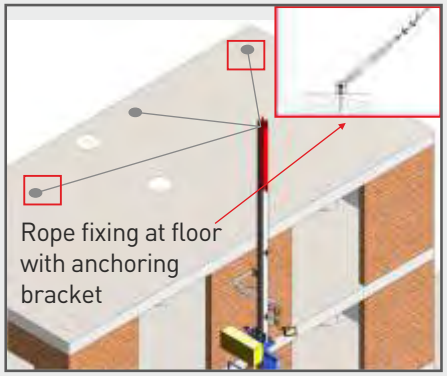
PASSENGER CAGE WITH BRICKS CARRIER

- The Bricks carrying Trolley manually put into the Cage at the ground level.
- After placing the Trolley move the Cage in the upward direction by the Remote upto the Landing floor.
- After the Cage arrived at the certain floor, the Trolley drive manually on the floor & manually unload the Bricks.

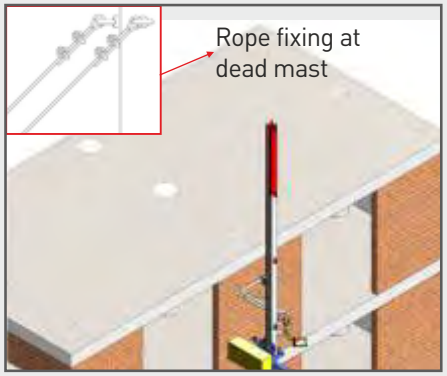
Loading Bricks Carrier Unloading Bricks Carryier



ROPE GUYING ARRANGEMENT





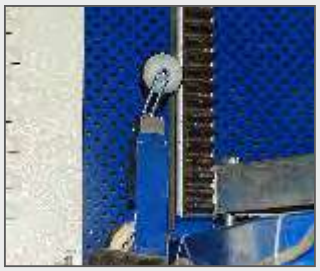


- Simple arrangement will be provided for mast erection above the Building Height where the Wall tie arrangement is not possible.
- The Dead Mast is supported with the help of Rope Guying for the Free standing height above the Building Height.

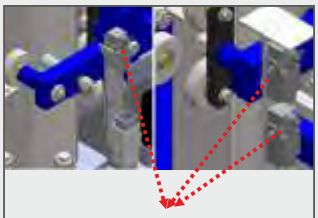
SALIENT FEATURES



Centrifugal Brake: The safety device is fitted on a separate plate in the carriage. The safety device is actuated by a centrifugal force and stops the platform in case the speed exceeds 0.4 m/s more than normal traveling speed.



Rack searching limit switch: It is provided as an additional safety feature.



Top & Bottom Limit Switches

Top& Bottom Limit Switches: It is provided to prevent over travel of machine and for safe operation.



Entry / Exit Door Limit Switches: These are electric interlock switches, which stop the cage to move up or down until the door is closed.



Fault Message Indicating Display: These display indicates, if there is any switch fault in Control Panel.



Top brand VFD, MCB & Conductor: Delivers breakdown free top performance that exceeds expectations.



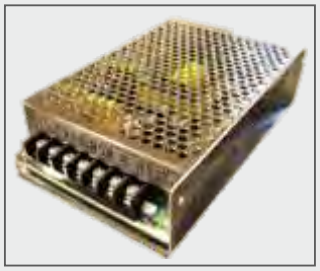
Encoder for Floor Selection: Floor selector is provided with encoder IP65 protection



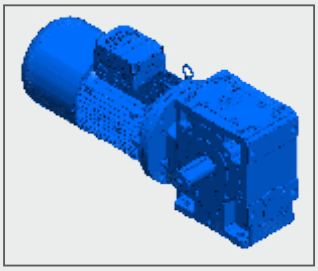
Wireless Remote: It is provided for easy Hoist operation.



Top Brand Limit Switches: Teknic euchner, Telemecanique make reliable limit switches are provided along with IP67 protection.



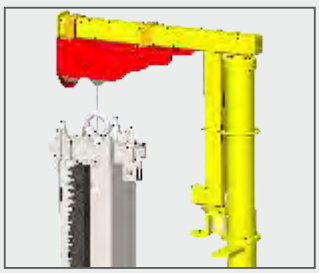
SMPS: It convert from AC to 24 volt DC electric power efficiently. Hence it is safe and increases life of electrical parts in control panel.



Geared Motor: European make inline helical bevel geared type high efficiency geared motor is provided.



Decent Wire Connections: All wiring connection are well tied through Cable ties and glands.



Electrically operated Mast Erection Jib: Electrically operated mast erection jib makes erection easy and effortless.

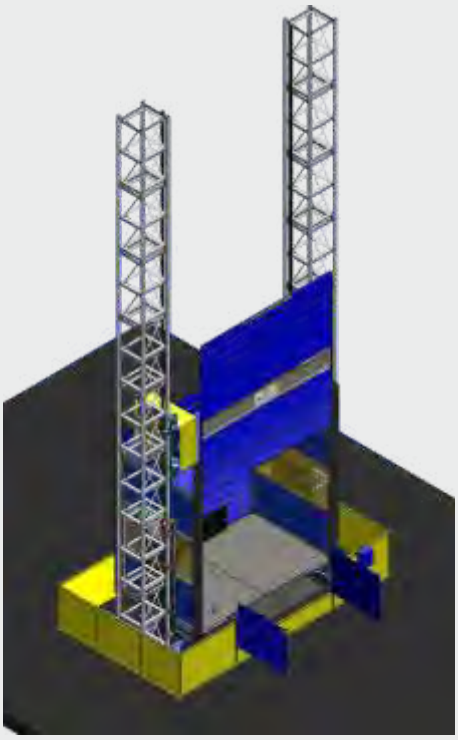
TECHNICAL SPECIFICATIONS

FEATURES	MULTI-FUNCTIONAL HOIST (SMH 100L)
Description	Spartan Multi-functional Hoist
Drive Mechanism	Rack and Pinion
Capacity	1 Ton
Max Height	80 mtr.
Speed	20 mtr./min.
Motor Power	3.8 kW (87Hz) x 2 No.s
Safety Device	SAJ 20-0.73
Cage Size (L x W x H)	1.5 x 1.2 x 1.2 mtrs
Wall Tie Interval	3mtrs.
Mast (mm)	Square tube 150 x 150 x 1508
Foundation Size (L x W x T) (m)	2.0 x 2.0 x 0.2 Thickness

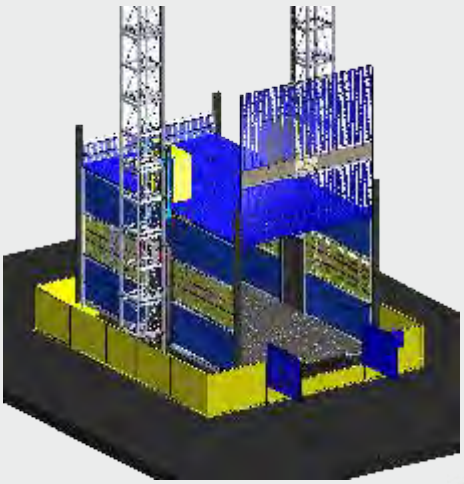
NEW

ELITE AVIATOR
Elevate to CE safety standards

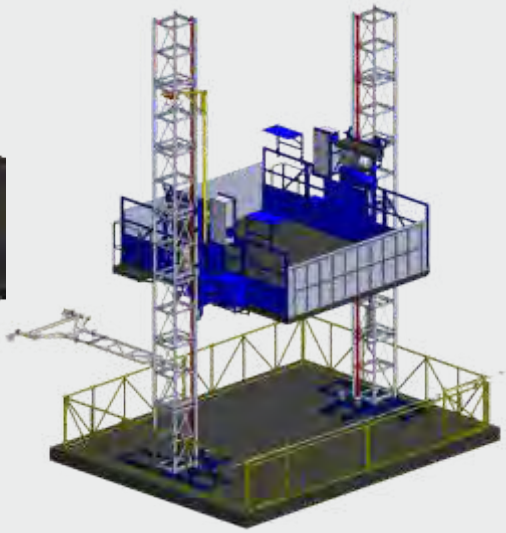
Twin Mast Passenger & Material Hoist
SPM 300V / SPM 600V of 3.0, 6.0 & SMH 400V / SMH 1000V of 4.0, 10.0 Ton Capacity



Twin Mast Passenger & Material Hoist
SPM 300V of 3.0 Ton Capacity



Twin Mast Passenger & Material Hoist
SPM 600V of 6.0 Ton Capacity



Twin Mast Multi-Functional Hoist
SMH 400V of 4.0 Ton Capacity

SAFETY FEATURES & LIMIT SWITCHES

Bottom Limit Switch | Top Limit Switch | Door Entry Switch | Door Exit Switch | Rack Searching Switch | Final Limit Switch
Slow Down Limit Switch | Trap Door Limit Switch | Base Enclosure Gate Switch | Micro Limit Switch for safety device
Mechanical Lock for Cage Door | PLC & HMI (Optional) | Floor Selection Switch (Optional)

SPECIFICATIONS

FEATURES		SPM 300V	SPM 600V	SMH 400V	SMH 1000V
Model		Rack & Pinion Twin Mast Passenger & Material Hoist		Rack & Pinion Twin Mast Material Hoist	
Capacity		3.0 Ton	6.0 Ton	4.0 Ton	10.0 Ton
Max Height		150 mtr.	120 mtr.	300 mtr.	120 mtr.
Speed		18 mtr/ min.	18 mtr/ min.	30 mtr/ min.	18 mtr/ min.
Motor Capacity		5.5kW (87Hz) x 4 Nos.	9.6kW (87Hz) x 4 Nos.	15.9 kW (87Hz)x 4 Nos.	9.6kW (87Hz)x 4 Nos.
VFD make Capacity		Mitsubishi (30 Kw)	Mitsubishi (40 Kw)	Mitsubishi (45 Kw)	Mitsubishi (40 Kw)
Cage size (LxWxH)		2.0(L) x 3.5(W) x 3.0(H)	6.0(L) x 3.5(W) x 3.0(H)	5.2 x 4.4 x 1.5	6.0(L) x 3.4(W) x 1.2(H)
Wall Tie Interval		6 mtr.	6 mtr.	6 mtr.	6 mtr.
Mast	Size (mm)	650 x 650 x 1508	650 x 650 x 1508	650 x 650 x 1508	650 x 650 x 1508
	Section (mm)	Dia 76.6 x 4.5 Thickness	Dia 76.6 x 4.5 Thickness	Dia 76.6 x 4.5 Thickness Dia 76.6 x 6.0 Thickness Dia 76.6 x 8.0 Thickness	Dia 76.6 x 4.5 Thickness
Foundation Size (L x W x Thk.) (mtr)		3.25 x 5.65 x 0.3 Thk.	6.75 x 5.65 x 0.3 Thk.	7.5 x 5.8 x 0.3 Thk.	6.75 x 5.25 x 0.3 Thk.

SPARTAN'S MULTI-FUNCTIONAL HOIST INSTALLED AT MUMBAI METRO RAIL PROJECT

Mumbai Metro Rail Project



APPLICATION:

To carry Passengers & Loading-Unloading of Construction Material

CUSTOMISED INSTALLATION:

Machine is used for Construction of Metro station in Mumbai by J.Kumar / L&T. Hoists are installed from ground level to 30 mtr. under ground.

CHALLENGES FACED DURING INSTALLATION:

The challenge was of anchoring the rock, as the wall was 6 mtr. away from the pilling wall.

SPARTAN'S SOLUTION TO THE CHALLENGES:

Rack anchoring challenge was resolved with the help of mobile crane for welding. After understanding the structural load calculations done by Spartan's competent design team, hoist was installed within a span of 6mtr.It ensured sufficient stability and strength.

SPARTAN'S MULTI-FUNCTIONAL HOIST INSTALLED AT HISTORIC GOMMANTESHWARA STATUE

APPLICATION:

Spartan's two Multi-functional Hoists were used to lift Abhisheka Material & Milk. It was also used by digniteries like Karnataka former Chief Minister Shri Siddaramaiah with cabinet ministers and former Prime Minister of India Shri H.D. Deve Gowda & Family, to reach at the top of the statue.

CHALLENGES FACED DURING INSTALLATION:

No vehicles were available to carry the machine & parts to the top of the hill. It was manually carried. Geological department's order to not to anchor on the precious rock, made the installation of the machines added to the challenge.

SPARTAN'S SOLUTION TO THE CHALLENGES:

Every machine & small parts were manually lifted to the top of the hill. Spartan customised and designed the frame mounting arrangement for the base foundation.

German scaffolding technology was used to clamp & tie the masts while installation.







Former Prime Minister of India
Mr. Deve Gowda & Family



Former Chief Minister of Karnataka State
Mr. Siddaramaiah & Family

SPARTAN'S PASSENGER & MATERIAL HOIST AT CRITICAL PROJECTS



The Bombay Sappers, Army Camp Project, Rajasthan



Vehicle Traffic Management System Tower, Kolkata.

APPLICATIONS:

For India-Pakistan border surveillance.

At Vehicle Traffic Management System Tower for Maintenance of Cameras & Traffic surveillance.

CUSTOMISED INSTALLATION DETAILS:

Machines are used for surveillance towers for Indian Army, Rajasthan and Traffic Department, Kolkata.

CHALLENGES FACED DURING INSTALLATIONS:

The challenge was that, there was no column, beam or wall to fix wall tie on towers. Support fixing is very difficult and risky at such heights, as there is no other support for the movement from mast to surveillance tower.

SPARTAN'S SOLUTION TO THE CHALLENGES:

Spartan had to redesign & modify support system and weld it at each stage of surveillance tower as the tower goes narrow from top side.

CUSTOMER CARE


Customer Care Team- Ahmedabad


Customer Care Team- Chennai


Customer Care Team- Delhi


Customer Care Team- Hyderabad

- We have well trained team of technicians having 10-20 years of rich hands-on experience with leading construction companies.
- We have experts from both mechanical & electrical background at each location to serve the customers 24x7.
- We have an in-house training facility to impart training on safe usage and maintenance of machines to our engineers and operators.
- Our ERP backed Call Management System App. with dedicated service co-ordinators at National & Regional level ensure timely response to customer calls.
- We also have dedicated Toll Free Number for our esteemed customers Support & In-house Training.


Customer Care Team- Mumbai


Customer Care Team- Pune






Machines Handovers
to Customer


Repair & Maintenance

ANNUAL MAINTENANCE CONTRACTS (AMC):

AMC enhances Productivity, Speed and Safety of machines at work sites. It provides the customers with a schedule along with efficient services thereby saving Money, Time and Efforts on machine maintenance. Immediate availability of Engineers and Spare parts for AMC Customers on priority.

PREVENTIVE MAINTENANCE CONTRACTS (PMC):

During PMC our experts check customer's machines, rectifying minor problems and suggest how to keep machine healthy and fit for operation.

As a goodwill gesture it is free of cost.

PMC assures machine's longer life and prevents any breakdown well in time.


9 steps of Commissioning Process



Warranty Certificate

ONSITE TRAINING & DEVELOPMENT





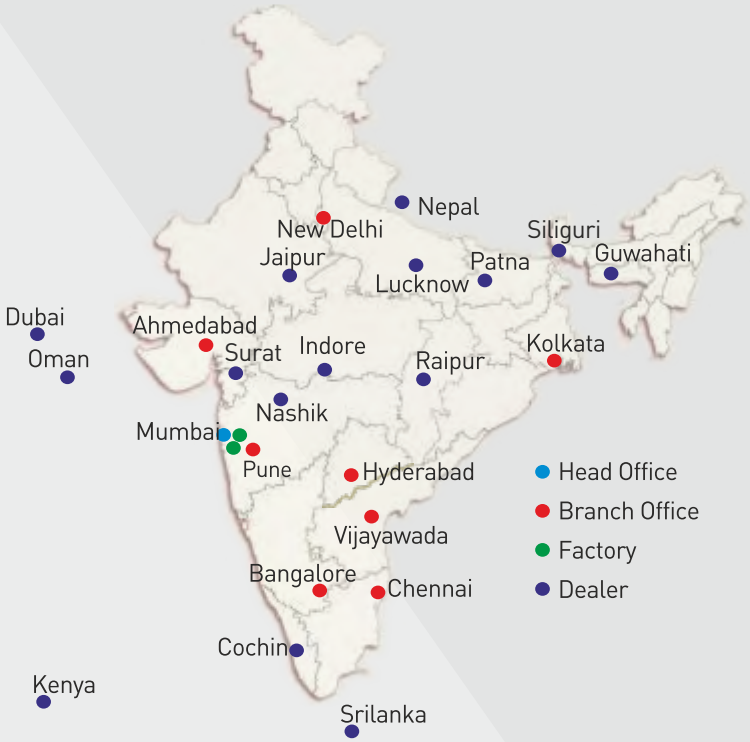


Our Customer Delight department helps you train your team on site, technical solutions for various issues related to work sites, safety audits of machines and all other things that are important to keep the machines in best condition.

OUR VALUABLE CUSTOMERS



NEAR YOU! EVERYWHERE



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www.spartanindia.com

CENTRAL ENQUIRY EMAIL
espartan@spartanindia.com

TOLL FREE NO.: 1800 3000 0150
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spartan-engineering-indusrtries-pvt-ltd.

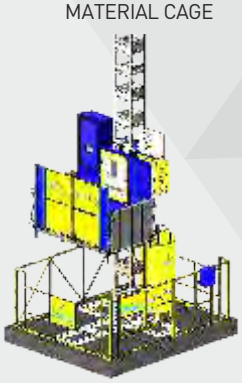
FACEBOOK
spartanengineering.india

TWITTER
Spartan_India

INDIA'S LEADING MANUFACTURER OF



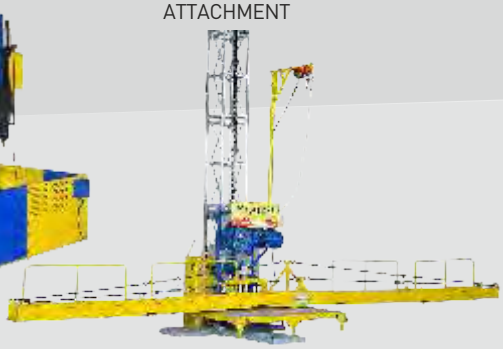
SINGLE & TWIN CAGE PASSENGER & MATERIAL HOIST



MATERIAL CAGE



PASSENGER CAGE



REBAR CARRYING ATTACHMENT

MULTIFUNCTIONAL MATERIAL HOIST



BAR CUTTING MACHINE



BAR BENDING MACHINE



SPIRAL BENDING MACHINE



STIRRUP BENDING MACHINE



SCRAP STRAIGHTENING MACHINE



ROPE SUSPENDED PLATFORM (SRP)

CUSTOMER CARE SERVICE | **CUSTOMER DELIGHT** | **PREVENTIVE MAINTENANCE CLINICS (PMC)** | **ANNUAL MAINTENANCE CONTRACTS (AMC)** | **ONSITE TRAINING & DEVELOPMENT** | **GENUINE SPARE PARTS**

Spartan® Faster~Safer~Reliable

SPARTAN ENGINEERING INDUSTRIES PVT. LTD.

Head Office: Spartan House, Unit No.: 111, 1st Flr., New Tejpal Industrial Estate, Andheri - Kurla Road, Sakinaka, Mumbai - 400072 | Tel.: +91 22 4055 0000 | Email: espartan@spartanindia.com

Branch Offices: Mumbai | New Delhi | Bangalore | Hyderabad | Chennai | Kolkata | Pune | Ahmedabad

Domestic Dealers: Kochi | Jaipur | Nasik

SMC/2019/DEC/HOIST/3000