



3K METAL
CARGO AND PERSONNEL LIFTS
MOVABLE FACADE PLATFORMS

THE SAFEST WAY TO
WORK AT HEIGHTS



AUTOMATIC
CAR
PARKING
SYSTEMS



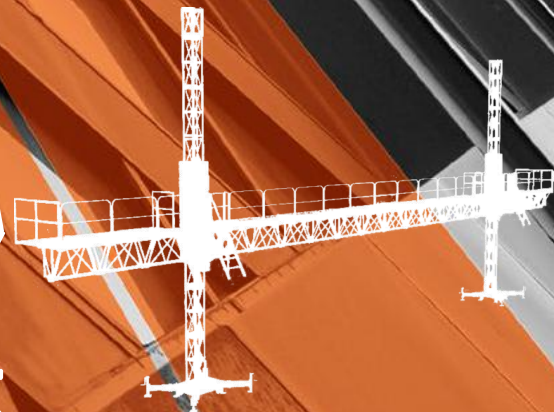
FACADE LIFTS



TRUSSED
PERSONNEL
PLATFORMS



FOLDABLE
TELESCOPIC
PERSONNEL
PLATFORMS



MOVABLE
FACADE
PLATFORMS



IF YOU HAVE NO
SUPER POWERS
TO LIFT YOU UP
SAFELY



www.3kmetal.com



**WE ARE
HERE**

We believe that our company's history can be traced back to the time when humans were curious about the heights of the lands they walked on. In fact, human beings have always wanted to climb above the ground as part of their survival instinct, and have been searching for formulas to do so for eons. They always found a way to do this. In fact, almost throughout history, rising above has been the primary need.

Time passed, and technology advanced... Human enthusiasm appeared to establish living spaces over the territories. Because of the structures built above ground level, industries were forced to work and produce at great heights.

The establishment of our company is the result of this genetic inheritance. It was our goal to accompany and provide human beings wishing to rise above the ground in their journeys to the skies, to establish a living space at the heights, and to provide them with security and efficiency by combining our experience as a long-term industrialist-manufacturer with our academic know-how and capital power.

As 3K Metal, we are constantly striving for greater heights, and high standards are our passion. We cannot replace the use of high-quality materials in the lift systems we manufacture with high-quality production, the design and production of highly secure products, and the provision of the highest level of customer satisfaction. We are looking for ways to improve on the current standards. We do not limit ourselves to globally accepted norms, but rather to standards that necessitate challenge, effort, and knowledge.

The 3K Brand facade lifts, personnel lifts, personnel elevators, car parking systems with lifts, and movable facade platforms are works that provide highly standardized smart solutions and safety measures that are the results of lengthy RESEARCH & DEVELOPMENT and testing processes with know-how gained over the years and a meticulously planned framework. With 3K brand lift systems manufactured with 100 percent local capital, you get high engineering knowledge, years of experience, cutting-edge technology, long-term usage, and service and spare parts warranties.



RESEARCH & DEVELOPMENT

When we plan for RESEARCH & DEVELOPMENT, we set aside a significant portion of our budget for RESEARCH & DEVELOPMENT studies. Following the completion of field tests and the completion of a lengthy RESEARCH & DEVELOPMENT process, our products are made available to users. The engineering team, which consists of academics and industry veterans, has long introduced innovations and broken ground.

We are constantly improving our product development and manufacturing capabilities by taking full advantage of technological opportunities.

The field returns from one-on-one interviews with lift system users have immediate production reflections in the form of improvement. In this regard, we favour developing a flexible product with user participation.

DESIGN

As 3K Metal, we bring the design to a close at the table. From the production stage to the use of the product, we conceptualize the overall scenario. Our lift systems are designed with an artist's sensibility in mind, taking into account additional features, safety standards, economic recycling, and other dynamics that we have developed based on the required abilities of the lift systems in their fields of use followed by production.

Any lift system bearing the 3K trademark advances to the production stage after meeting a number of criteria, including high safety, efficiency, ease of use, quality, long economic life, and recycling.

PRODUCTION

Our production plant, which was established with 100 percent national capital and high technological capability, has defined itself as the honour of Turkish origin products in international markets thanks to the growth of the national economy.

Because of the nature of their use, our lift systems are typically employed in locations with a high risk of accident. The production of the systems to which we entrust our lives has been our primary priority in designing our trademark and defining our production policies.

Our technical team, which has pioneered in the realization of many projects in the industry as well as the safe application of such projects, is skilled at drawing up plans for all stages of production in order to make timely deliveries under specified conditions and of high quality.

QUALITY

Our promises to users include the safety and high quality of our products. As a result, we are proud to attach our trademark to each product we manufacture and to remind you of our promise to "Be on the safe side at heights."

Being fully conscious of our promise, from the management level to the technical team, 3K Metal adheres to quality standards in its productions at all tiers.

The overall production phases are meticulously supervised and managed, beginning with the raw materials supplied to the assembly lines and continuing through the design and delivery of the product.



AFTER-SALES CUSTOMER SATISFACTION

With its expert technical team, 3K Metal's organizational power stands behind its products after the sale.



AFTER-SALES SUPPORT

We maintain the high standard logic that we have implemented at all stages of production throughout the course of after-sales. We consider our customers to be family members, and the products we use in the field to be extensions of ourselves. Regular customer visits and field returns are especially important for us to move forward.

After-sales services that begin with on-time deliveries continue indefinitely in 7 days and 24 hours.

While our production quality leads the industry, we would like to achieve the goal of complete customer satisfaction.

WARRANTY & SERVICE

As part of our goal to achieve long-term use and quality products, our products under the trademark 3K Metal have received the support of organizational power. The lift systems are covered by a 3K warranty for a period of two years.

We provide maintenance and labour-intensive services for 7/24 with our specialist and technically well-equipped team. Regular maintenance and technical services are provided all through Turkey in an uninterrupted manner.

The product life is kept under record from the date of production with the ID number we have assigned to each of the products we manufacture, and solutions for any likely failure are presented before it occurs.

TRAINING

Our products are designed in such a way that they take into account the features of ease of use as well as the safety of the personnel.

The electronic and mechanical components of all of our products are designed in a manner to consider the user-friendly aspects of the products, as well as the control panels.

Furthermore, we have extensive and detailed training programs designed specifically for the team that will be using the system after the sale. Our expert trainers organize training courses based on the curriculum, which includes topics such as likely failures and efficient utilization.

By the end of the courses, participants will have received a qualification certificate for driving a vehicle.

OUR PRODUCTS

FACADE - PERSONNEL and CARGO LIFTING SYSTEMS

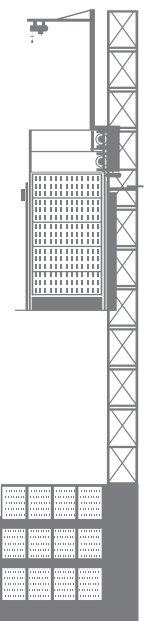
3K 2000DH

3K 2000YH

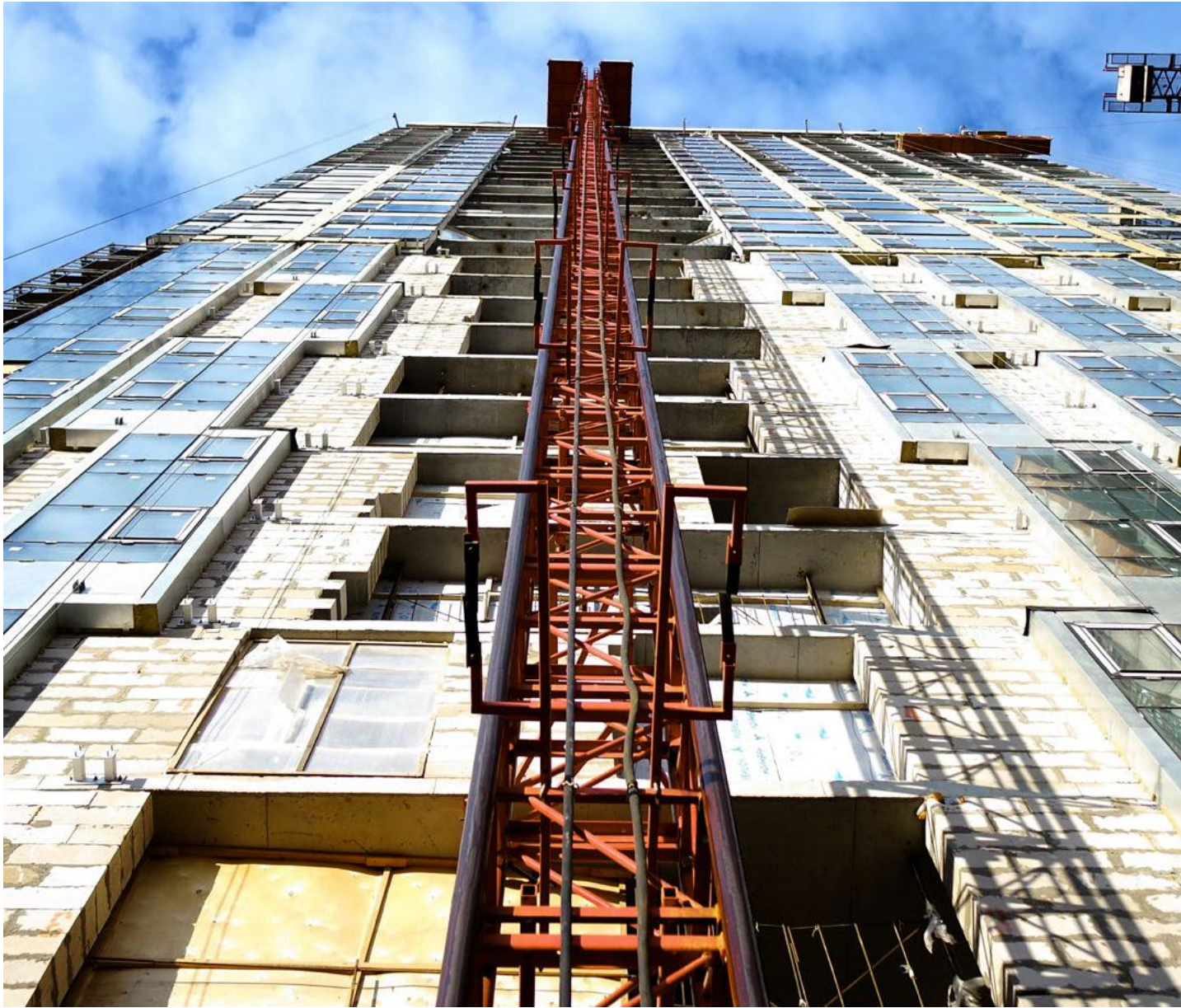
3K 2000BM

3K 2000DKH

3K 2000DK



FACADE - PERSONNEL and CARGO LIFTING SYSTEMS



OPERATION LOGIC OF THE FACADE, PERSONNEL and CARGO LIFTING SYSTEMS

Cargo and personnel lifting systems are primarily used in the construction industry and other industries to transport personnel and materials in a vertical-horizontal direction.

The advantages and ease of assembly of cargo and personnel lifts improve efficiency, safe working conditions, durability, and ease of use on construction sites.

3K Metal Research & Development Department developed the 3K 2000 series with a focus on personnel safety, occupational accidents, and ease of use.

The 3K 2000 model, with a bearing capacity of 2 tonnes, was designed to operate efficiently in medium to high density sites under the toughest conditions.

The 3K Series can be used manually as well as automatically via an optional Floor Sensing System.

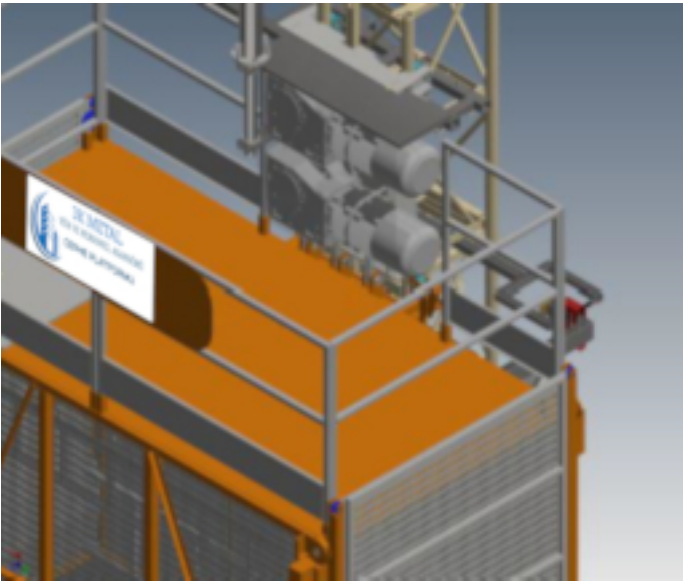
There are load cells in our products, as a standard. Thanks to the load cell, loading cargoes to the lift more than the capacity is prevented.

The cabin's body, which can be manufactured modularly, is brought into compliance with in-shaft applications. As a result, even if the lift pits were covered, the cabin could be easily removed from the pits.

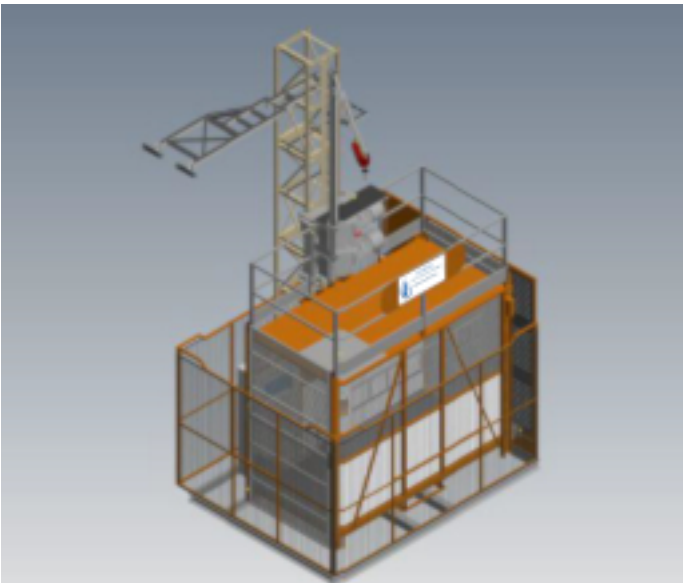
3K 2000DH



3K 2000YH



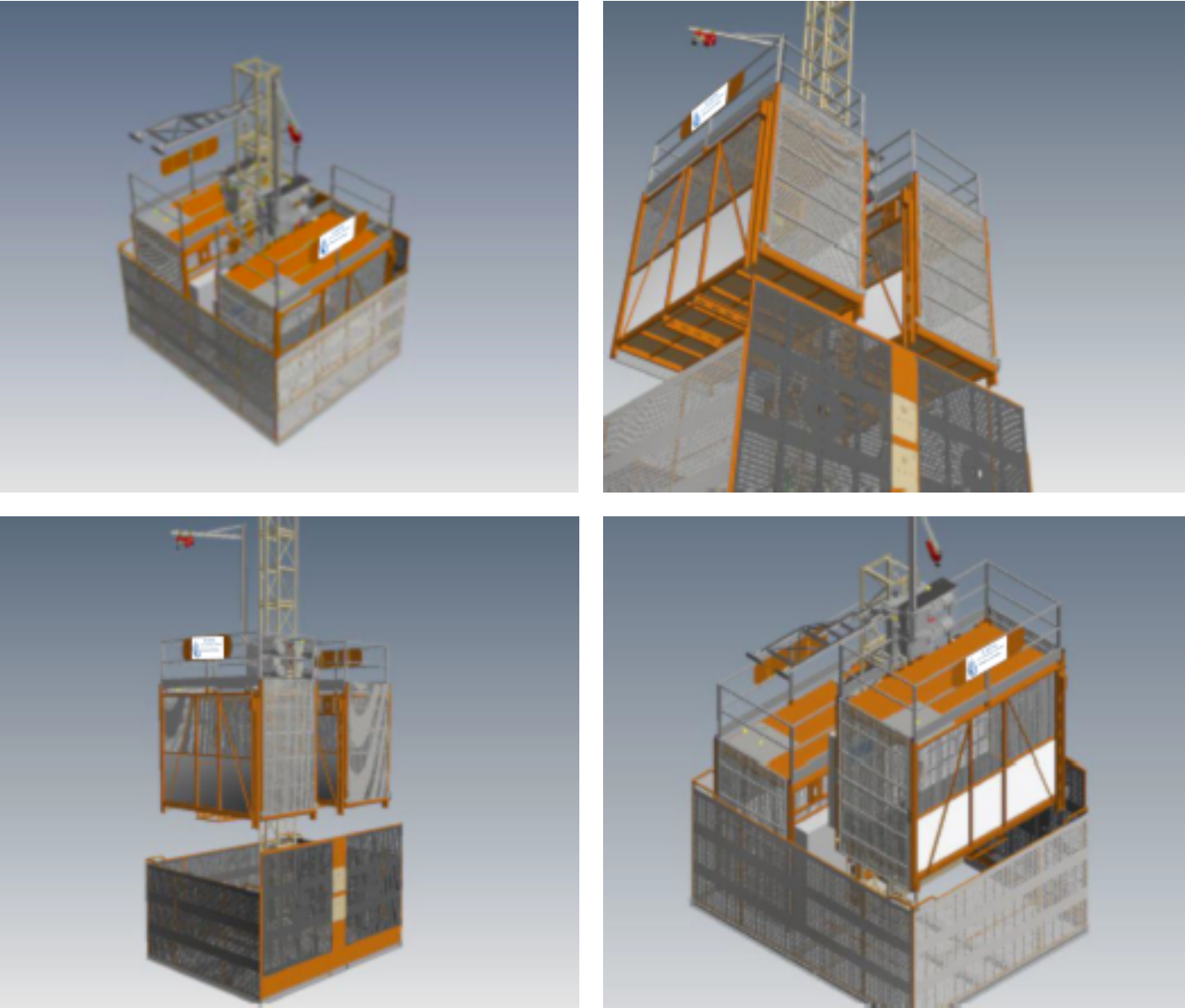
3K 2000BM



Technical Characteristics

	3K 2000DH	3K 2000YH	3K 2000BM
Maximum Height	150 Meters	150 Meters	200 Meters
Capacity	2000 Kg	2000 Kg	2000 Kg
Cabin Dimensions	1450 x 3000 x 2200 mm	1450 x 3000 x 2200 mm	1450 x 3000 x 2200 mm
Speed	30 meters / min.	36 meters / min.	36 - 45 meters / min.
Tension	380V	380V	380V
Engine Power	2 x 11 kW	3 x 11 kW	3 x 11 kW
Power Consumption	63 A	80 A	80 A
Mast Dimensions	600 x 600 x 1482 mm	600 x 600 x 1482 mm	726 x 726 x 1482 mm
Mast Pipe Dimensions	ø60*5 Steel Drawn Pipe	ø60*5 Steel Drawn Pipe	ø76*5 Steel Drawn Pipe
Rack Dimensions	60 x 40 x 1482 mm	60 x 40 x 1482 mm	60 x 40 x 1482 mm
Rack Module	8 modules	8 modules	8 modules
Mast Weight	100 Kg	100 Kg	121 Kg
Connection Distance	6 Meters	6 Meters	6 Meters

3K 2000DKH 3K 2000DK



Technical Characteristics

	3K 2000DKH	3K 2000DK
Maximum Height	200 Meters	200 Meters
Capacity	2 x (2000 Kg)	2 x (2000 Kg)
Cabin Dimensions	1450 x 3000 x 2200 mm	1450 x 3000 x 2200 mm
Speed	36 - 45 Meters / min.	30 Meters / min.
Tension	380V	380V
Engine Power	2 x (3 x 11 kW)	2 x (2 x 11 kW)
Power Consumption	2 x (80 A)	2 x (63 A)
Mast Dimensions	726 x 726 x 1482 mm	726 x 726 x 1482 mm
Mast Pipe Dimensions	ø76*5 Steel Drawn Pipe	ø76*5 Steel Drawn Pipe
Rack Dimensions	60 x 40 x 1482 mm	60 x 40 x 1482 mm
Rack Module	8 modules	8 modules
Mast Weight	136 Kg	136 Kg
Connection Distance	6 Meters	6 Meters



MOVABLE FACADE PLATFORM



Movable Facade Platforms are the systems used in painting, jacketing, repair and restoration works on the construction sites, buildings, manholes, and shipyards.

As a general operating principle, these are the platform systems that move along the steel masts via electrical engines and are assembled to the facade on which work is to be done with anchorage arms.

These are modular systems that can be opened to a width of ten meters for single masts and thirty meters for double masts. Meanwhile, using the system's standard materials, it can reach up to 150 meters.

The movements are provided by the pinions on the electric engines, which are equipped with two reducers, and are transmitted to the racks that are vertically mounted on the masts. Each electrical engine includes electromagnetic brakes to ensure the system's safe rise and fall.

The system also includes parachute brakes in addition to such brakes. The parachute braking system activates automatically if the machine exceeds the running speed while moving downward due to centrifugal force.

Features of Construction and Usage

- The standard 3K MP equipment can be installed up to 10,50 meters with a single mast and 30 meters with two masts, while movable platforms at the currently available width can reach a height of 150 meters. According to the cargo directives recommended in the operation manual, the bearing capacity is set at 2000 kg.
- The masts (columns and posts) used in 3K MP, as well as the wings (platform), are coated against corrosion using the hot-dip galvanization method,
- 3K MP is designed to grasp the mast on four points for rigid load distribution (The Engineering term used to describe substances that are not subjected to any influence with no transformation under any force and moment in a frictionless environment,
- High quality profiles are used in the construction of the bearing piers of 3K MP masts in accordance with the strength calculations,
- 3K MP is mounted on four ball casters for ease of movement during assembly.
- Telescopic extensions are available on 3K MP wings to help with access to the facade (within which such extensions may stretch and shrink),
- On the 3K MP panel, an hour counter is available, and maintenance services are performed at the time intervals specified in the maintenance manual.

Safety Standards

- Speed-sensitive parachute braking system,
- Suspension mast without a rack to be mounted on the rack line's edge,
- During assembly, anchorage arms are used to secure the masts to the structure every 6 meters,
- The platform's upper and lower limit deceleration and suspension switches,
- Control switches at the racks' ends,
- Balancing switches for vertically positioned masts,
- Emergency stop button,
- Machine safety equipment against high and low tension,
- Audio Warning system prior to any move,
- Continuous Audio Warning during downward movements
- In the event of a power cut, a manual levering arm for 3K MP is available
- For use and safety, there are warning plates. In the production line, the following trademarks are preferred: The 3K MP is manufactured without the use of any TSE non-compliant materials. GAMAK is used for engines that need mechanical power, whereas Yılmaz Redüktör is used for drivelines.

OUR PRODUCTS

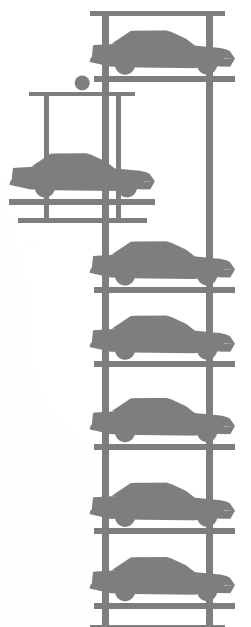
AUTOMATIC CAR PARKING SYSTEMS

BINARY(HIGH-CEILING) and FOLD (LOW-CEILING)
CARPARK SYSTEMS TWO-STOREY PUZZLE
PARKING SYSTEMS

TWO-STOREY PUZZLE PARKING SYSTEM

MULTI STOREY PUZZLE PARKING SYSTEM

VERTICALLY ROTATING CAR PARKING



AUTOMATIC CAR PARKING SYSTEMS

BINARY (HIGH CEILING) and FOLD (LOW CEILING) CAR PARKING SYSTEMS



OPERATION LOGIC OF THE CAR PARKING SYSTEMS

They operate in a coupled manner to provide coherence between vertical and horizontal transmission elements. They are designed to meet the necessary capacity and traffic flow. Where there is heavy traffic, the number of lifts is increased, or efforts are made to solve the parking problem by using horizontal lifts in addition to vertical lifts.

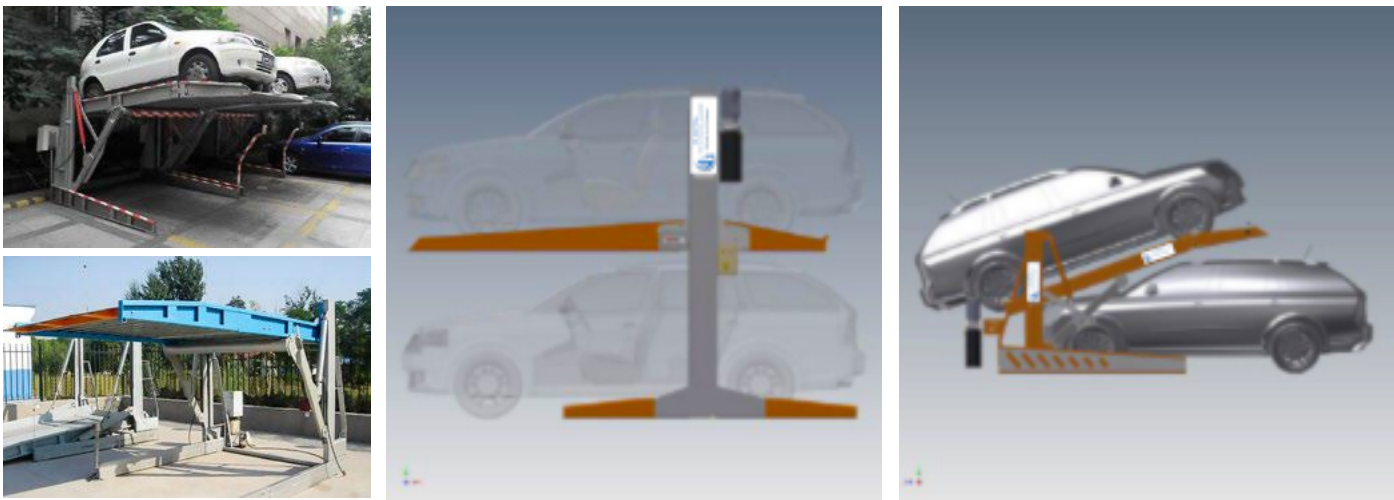
Aside from fully designed steel parking systems, steel-reinforced concrete mix structures can also be designed. The facades can be appropriately coated to match the structures (optional).

The gradually increasing population and changing living standards will, in the future, lead to semi-automatic and full automatic parking systems due to the increase in the costs of the existing parking lots and the spaces allotted for such parking purposes in lieu of the high construction costs.

Furthermore, the demand for automatic and semi-automatic car parks will gradually increase as a result of centralized business quarters, insufficient car parks near metro and mass transportation stops, parking lots allotted for personnel and visitors of public institutions and entities, and a paucity of car parks for students and academicians at state and private universities

ADVANTAGES

- These are the mechanisms designed in the manner to allow parking abundant cars in relatively smaller and less voluminous spaces in comparison with the multi-storey and flat car parks.
- The system's safety is managed by PLC.
- They can be built in any space that meets the requirements. They can be functionally designed.
- The operating costs are kept to a bare minimum. They do not require systems such as external lighting, ventilation, or anything else because the number of employees is kept to a minimum.
- The car deliveries are completed in the possible shortest time due to the dual-direction propulsion system.
- Optionally, an external coating and a rotating table can be added to the system.



Technical Characteristics

Type	Full Automatic mechanical puzzle car parking system
Operation Mode	LCD / IC Card / Manual
Car Capacity	2200kg
Vehicle Dimension (L × G × Y)	5000mm x 1850mm x 1550mm; 5000mm x 1850mm x 2050mm
Lifting Speed	4KW 8-12m / dak / 2,2KW 5,6m / dak
Warning Device	Available
Protection Device	Full Hydraulic Protection Frame to prevent falls, and mechanical locks
Workforce Noise	min
Tension	220V / 240V / 380V
Engine Power	2,2KW
Failure Signs	Computerized Failure Detection, Audio Alert
Paint	Galvanized coating with corrosion-resistant paint of high quality
Certification	ISO9001 and CE

Advantages

- Simple Operation
- Safety
- Low Sound
- Requirement for small space
- Elegant and stylish appearance
- Quick and simple installation
- Suitable for both general and private use

Operation Principles

This parking system is designed to allow 2 spaces to the up and down. The car parked on the bottom may move in and out. If any car is to be parked to the top, the car on the bottom should be driven out.

TWO-STOREY PUZZLE CAR PAKING SYSTEM **Operating Principle**



The equipment is designed as two- storey multi - tiered park car. The logic behind such car parking systems is that the highest storey is filled first. The car on the bottom floor is easily delivered, and the car owner can take delivery of the car directly. When a car in the highest row is delivered, the system empties the row beneath the car on top and descends the car on top to the bottom.

Technical Characteristics

Type	Full Automatic mechanical puzzle car parking system
Operating Mode	LCD / IC Card / Manual
Car Capacity	2200kg
Vehicle Dimensions (L×G×Y)	5000mm x 1850mm x 1550mm; 5000mm x 1850mm x 2050mm
Lifting Speed	4KW 8-12m / min / 2,2KW 5,6m / min
Warning Device	Available
Protection Device	Full Hydraulic Protection Frame to prevent falls, and mechanical locks
Workforce Noise	min
Tension	220V / 240V / 380V
Maximum Operating Pressure	2,2 KW / 4 KW
Failure Signs	Computerized Failure Detection, Sound Alert
Paint	Galvanized coating with corrosion-resistant paint of high quality
Certification	ISO9001 and CE

Advantages

- Simple Operation
- Safety
- Low Sound
- Requirement for small space
- Elegant and stylish appearance
- Quick and simple installation
- Suitable for both general and private use

MULTI-STOREY PUZZLE CAR PARKING SYSTEM **Operation Principles**



The equipment is multi-leveled and multi-tiered in design. Except for the top floor, the tier on top leaves a vertical gap. The bottom cars move horizontally, while the top floors move vertically. The mezzanine floor moves vertically as well as horizontally. Because of this feature, the cars can be delivered and picked up at any time.

Technical Characteristics

Type	Full Automatic mechanical puzzle car parking system
Operating Mode	LCD / IC Card / Manual
Car Capacity	2200kg
Vehicle Dimensions (L×G×Y)	5000mm x 1850mm x 1550mm; 5000mm x 1850mm x 2050mm
Lifting Speed	4KW 8-12m / min / 2,2KW 5,6m / min
Warning Device	Available
Protection Device	Full Hydraulic Protection Frame to prevent falls, and mechanical locks
Workforce Noise	min
Tension	220V / 240V / 380V
Engine Power	2,2 KW / 4 KW / 5,5 KW
Failure Signs	Computerized Failure Detection, Sound Alert
Paint	Galvanized coating with corrosion-resistant paint of high quality
Certification	ISO9001 and CE

Advantages

- Simple Operation
- Safety
- Low Sound
- Requirement for small space
- Elegant and stylish appearance
- Quick and simple installation
- Suitable for both general and private use

VERTICALLY ROTATING CAR PARKING SYSTEM **Operation Principles**



The vertically rotating system is made up of a gearbox propelled by a reduction engine and a lift assembled by chains at regular intervals. During the parking and collection processes, the cars parked in the lift and the unoccupied lifts move vertically.

Technical Characteristics

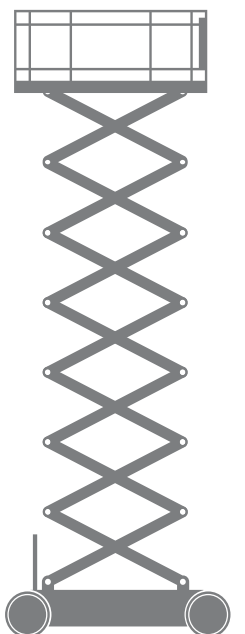
Type	Vertical Rotating elavator(8-10-12-14-16) (SUV 8-10-12)
Operating Mode	LCD / IC Card / Manual
Car Capacity	2200kg
Vehicle Dimensions (L×G×Y)	5000mm x 1850mm x 1550mm; 5000mm x 1850mm x 2050mm
Lifting Speed	0.11 m / dak
Warning Device	Available
Protection Device	Mechanical engine locks
Workforce Noise	min
Tension	380V
Engine Power	11 - 22 KW
Failure Signs	Computerized Failure Detection, Sound Alert
Paint	Galvanized coating with corrosion-resistant paint of high quality
Certification	ISO9001 and CE

Advantages

- Simple Operation
- Safety
- Low Sound
- Requirement for small space
- Elegant and stylish appearance
- Quick and simple installation
- Suitable for both general and private use

TRUSSED
PERSONNEL
PLATFORMS

3K312M



TRUSSED PERSONNEL PLATFORMS



TRUSSED PERSONNEL PLATFORMS

It has high manoeuvrability even in tight spaces due to its compact dimensions. It is designed in such a way that all of the components are contained within the chassis, allowing for easy access to spares and the replacement of such spares.

It is a product that saves time and reduces the number of employees and it is widely used by companies involved in siding, painting, isolation, construction, maintenance, glass mounting, and cleaning.

It, like traditional products, operates not only on smooth surfaces but also on sloppy and deformed surfaces.

During operations, thanks to the safety systems installed on the product, safety concerns are prioritized.

3K 312M



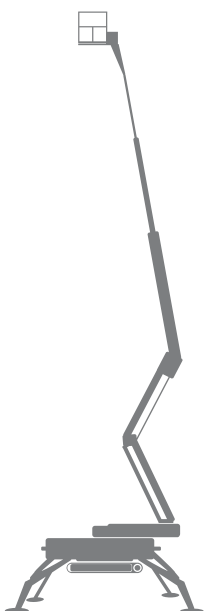
Technical Characteristics

	3K312 M
Bucket Capacity	300kg
Max Operating Height	12m
Max Under Bucket Operating Height	10m
Level-Adjustable Pallet	Available
Extensible Bucket	Available
Climbing Angle	25 degree
Min Height	2.5m
Max Width	1.7m
Min Width	1.3m
Total Weight	3000 kg
Compatibility	EN 280:2015
Max Pallet Speed	2km/h
Proportional Hydraulic Controls	Available
Gasoline Engine	13HP

OUR PRODUCTS

FOLDABLE TELESCOPIC PERSONNEL PLATFORMS

3K 230Z BOOM



FOLDABLE TELESCOPIC PERSONNEL PLATFORMS

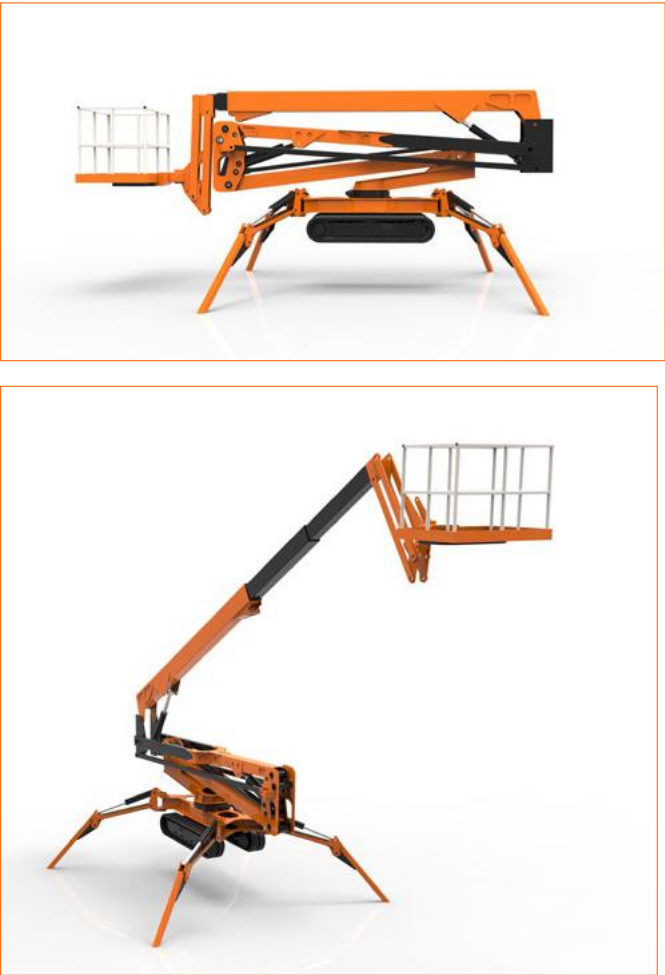


FOLDABLE TELESCOPIC PERSONNEL PLATFORMS

It can be used in the context of modern living space projects, mall construction sites, and shopping centre services, as well as lateral distances with sensible surfaces that are inaccessible prior and subsequent to construction works. It is mostly preferred by cleaning, electrics, ventilation, siding, painting, isolation, and glass-mounting companies because it not only saves time and personnel but also replaces traditional platform systems. Because of its safety systems, the personnel's safety is a top priority.

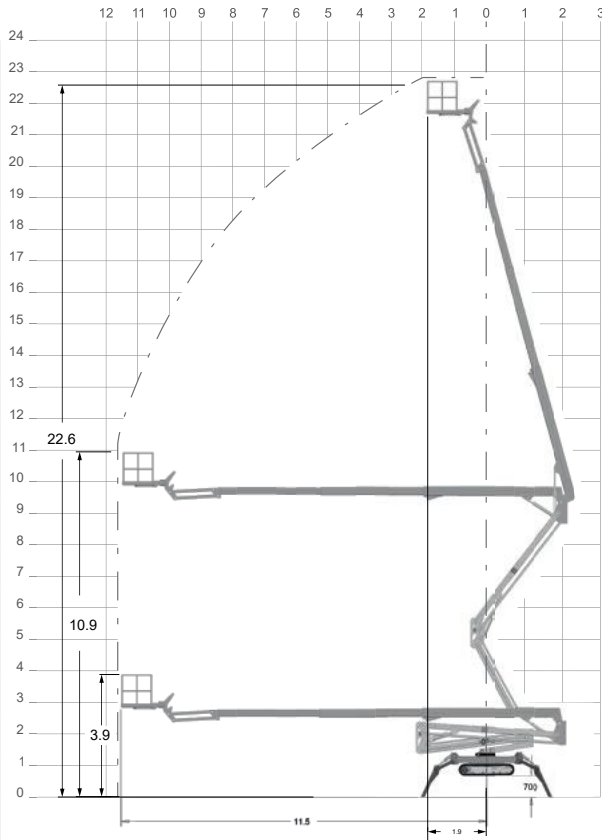
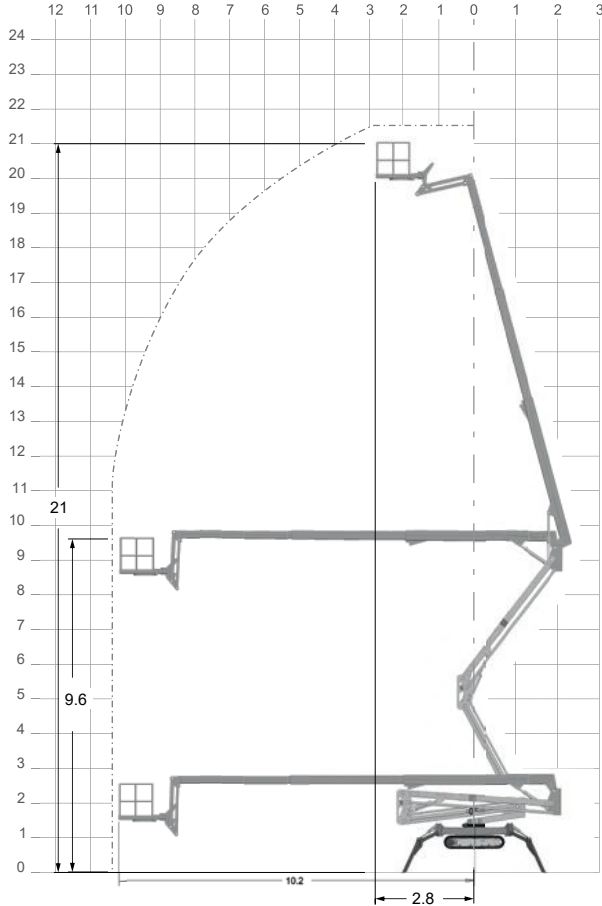
Because it can operate in tight spaces, it provides a great deal of convenience both within the building and in the surrounding area.

3K 230Z BOOM



Technical Characteristics

	3K 230Z BOOM
Bucket Capacity	25-210 kg
Operating Height	23.2 m
Max Lateral Elongation (125kg)	12 m
Max Horizontal Elongation (210kg)	10.5 m
Max Height at Max Elongation (120kg)	12 m
Max Height at Maximum Horizontal Elongation (210kg)	10.5 m
Platform dimensions	0.7x1.3 m
Length of Bucket Arm	1.4 m
Bucket Rotation to the left and right	(+/-) 60
Infinite Crane Rotation	0-360
Minimum Width of the Vehicle	1 m
Minimum Height of the Vehicle	2 m
Minimum Length of the Vehicle	6 m
Maximum Pier Width	4 m
Weight of the Machine	3200 kg
Climbing Angle	40%
Maximum Operation Angle	14 derece
Maximum Width of the Bottom Palette	1.3 m





3K METAL
CARGO AND PERSONNEL LIFTS
MOVABLE FACADE PLATFORMS

İVEDİK OSB. 1403. SOKAK. NO: 13 Yenimahalle/ ANKARA
Phn: +90 850 346 47 06
info@3kmetal.com
www.3kmetal.com