Material Handling and Crane Systems

KM Kümsan Vinç Sistemleri San. ve Tic. A.Ş. has been established in 1973, aiming to provide our customers with highest quality and and most economical solutions, concerning lifting and material handling and lifting systems. Today, we continue to serve the industry at our 10,000+4,000 sqm site located in Tuzla- İstanbul. The firm began gathering the firms KM Kümsan Crane Systems and Çelikbilek Hoisting and Carrying Systems Inc. Co., providing service in the sector of elevation and carrying machines, under Çelikbilek Group in scope of its corporate structuring project initiated in 2006.

KM Kümsan answers to your special needs and your requirements for your entire crane installation, service, spare parts, periodic maintenance and providing scientific examination and modernization services.

KM Kümsan is the founder member of Electrical Crane Manufacturers Association (TEVİD)

For years, KM Kümsan without sacrificing the quality; makes production of electrical chain hoist, electrical wire rope hoists, single and double girder (EOT) cranes, gantry cranes, JIB cranes, monorail cranes, rubber tire girder (RTG) cranes, special design process cranes and any kind of steel construction, as well as import and export of these products. The word-class crane systems produced in KM Kümsan are in line with quality standards and production certificates and are trading with 21 different countries in the world.

Regional distributorship for middle east including Iraq, Iran (in case of the lifting of embargo), Saudi Arabia, Turkish Republics (Azerbaijan, Uzbekistan, Kirgizstan)

The systems we produce have the quality and manufacturing certificates of the world standards. Furthermore, we can perform tests on the lifting equipments up to 160 tons with the special test station in our premises.
Hoist performance rating can be determined by the table taking into consideration the effective loads and daily average operating hours.

### Hoist Performance Ratings According To The FEM Norm

<table>
<thead>
<tr>
<th>Service classification</th>
<th>Effective loads</th>
</tr>
</thead>
<tbody>
<tr>
<td>y</td>
<td>Load may vary no load to occasional full rated loads. This service covers hoists in repair shops, a light fabricating industries, service and maintenance work.</td>
</tr>
<tr>
<td>y</td>
<td>Loads and utilization are randomly distributed with capacity loads are frequently handled. This service covers the hoist used in general machine shops, in fabricating and assembly industries.</td>
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<tr>
<td>y</td>
<td>In this type of service, loads approaching 50% of the rated capacity will be handled constantly. This service covers hoists in heavy machine shops, laundries, fabricating paints steel warehouses.</td>
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<tr>
<td>y</td>
<td>In this type of service requires hoists capable of handling loads approaching a rated capacity throughout its life. Application may include bulk handling of material with magnets, buckets or other heavy attachments.</td>
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</tbody>
</table>

|x: % of operating time | y: % of maximum load |

<table>
<thead>
<tr>
<th>Service classification</th>
<th>Average operating hours/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Light Duty</td>
<td>≤ 2</td>
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<tr>
<td>2. Standard Duty</td>
<td>≤ 1</td>
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<tr>
<td>3. Heavy Duty</td>
<td>≤ 0,5</td>
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<tr>
<td>4. Very Heavy Duty</td>
<td>≤ 0,25</td>
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</tbody>
</table>

| Hoist Class | M3 1 Bm | M4 1 Am | M5 2m | M6 3m |
Material Handling and Crane Systems

The issues required to be check during the selection of crane:
Primarily determine which application type (construction structure) of crane you need. While making this choice, you are required to select the most appropriate crane type to your site.

1. The capacity of crane must definitely be selected as needed according to your growth trend in the medium term.
2. The operation duration of the crane is not the working hours of your factory. While determining the operation period, mention in which frequency and in which capacity interval you want to use your crane. The unnecessary high service classification will cause you to pay more money for the crane.
3. The lifting speed of the crane important factors that increase the price. Definitely calculate how much speed you need. Especially in the standard workshop crane, high lifting speed (6 m/min and more) will cause you to pay more money for the crane.
4. The single girder cranes are cheap at first glance, but they have some serious disadvantages when compared to the double girder cranes in some issues. These are loss in the lifting height and building lateral approaches, difficulty in reaching the crane due to the absence of the platform (for maintenance and repair), and implementation limits over a certain capacity.
5. While determining your lifting height need, definitely do not forget to consider the dead distance arising from the equipments to which you connect the load such as strap, chain, lifting clamp. If you have limitations in the building measurements, still the applications that will meet your desire can be realized.
6. While selecting the systems for installing electricity to the crane, definitely evaluated your possibility of installing another crane to the same hall. If there is such a possibility, you will not have to re-install electricity system investment in the future by selecting the system capacity higher.

7. Using closed bus bar system will provide you important advantages for situations other than the situations which are compulsory for installing electricity to the crane. These are that the system can be extendable, it is affected from the external environment very less, it has a rigid structure and does not cause flexion problem, it does not have the risks that the open conductors form, it has more stable current receivers and it has less coal abrasion.
8. Pay attention that the electricity parts used in your crane are products which can be supplied from the market easily and having international brand. The producer specific parts will cause you to wait for long durations and pay high prices in case of an accident.
9. While deciding about your crane, pay attention that the parts are designed in accordance with the world standards (DIN and FEM). While making saving from the investment cost, do not suffer from the operating costs.
10. While deciding on your crane, definitely ask the periodical maintenance agreement and extended guarantee period. This will ensure you to benefit from your crane for a long time without problems with a small fee and will decrease your operating costs.
11. Two stage speeds have become an inevitable obligation in terms of the work security especially in the lifting and this feature will allow you to realize all crane movements in a controlled way. By this way, it prevents the work accidents and provides you more gain than its price.
12. Pay attention that the crane end carriage groups be should direct drive without pinions. The pinion drives will cause periodical pinion change work for you and will increase your operating costs.
13. Pay attention that your crane has emergency stop, buzzer, warning light and overload, switch. These devices are very important for your work security and will help the problem-free operation of your premises and will decrease the repairs that will arise due to the faulty usage to the minimum.
14. Pay attention that the drive motors engines have brakes. Even though there are not too many problems in the normal usage, the brake is very important and required for emergency situations.

15. Pay attention that the brakes have the manual opening handle. Especially with the help of the manual opening handle manuel realise break in the lifting, you can use it to level your load down safely in case of electricity cut-off or breakdown.

16. Pay attention that the electricity motors equipped thermistor protection. In case the engines are overheated due to a mechanical or electrical reason, it will prevent the burning of the motor and prevent the expensive repairs.

17. Pay attention that it has rotory limit switch drive by drum. In this way, both the collusion of the hook to the crane on the upper side and the leveling down of the hook and loosening and mixing of the rope wire on the lower side by the unconsciousness users will be prevented. The limitation made with the rope guide becomes disabled when the guide is broken.

18. Pay attention to the operating and maintenance costs. During the purchase of the crane, get information regarding the spare parts and maintenance costs. That the first investment coast can be cheaper but ineffective besides the operating and maintenance costs that will arise afterwards.

19. Pay attention to the crane’s problem-free operating period and life time. As a result, the crane is a machine which is formed of mechanical and electrical parts and it can break down. Definitely ask the intervention durations in the breakdown situations and what type of aids are given in such situations. Get the information about lifetime of the components and emergency spare parts (like, wheel bearing, wire rope, brake tining).

20. Ask the calculation criteria and calculation standards of the steel structure. Make sure that the deflection rate used especially in the crane bridge is not less than L/1000 for S235 material. Make sure that the appropriate reinforcements support that will ensure that the steel structure will be more stable will be used.

21. Make sure that the marking and numbering appropriate to the standards are made in the electricity panels. Request the electricity panel diagram drawings.

22. Check the spare parts and maintenance guide lines. Before making agreement for the crane, definitely review the spare parts catalogues, coding system, exploded pictures and maintenance guidelines. International certificates and norms required in the crane applications:

International certificates and norms for crane applications

- TSE
- ISO 9000
- CE
- FEM
- DIN (15018 / 15020 / 15058 / 15061 / 15070 / 15400 vs.)
- DIN EN ISO 3834-2 Kaynak Kalite Normu
- Welder Certifications
- Production Proficiency Documents
**HOIST & CRANE TYPES**

**MONORAIL**

- A. STRAIGHT LINE
- B. RADIUS LINE

**KB SYSTEM**

- A. SINGLE PROFILE
- B. MULTI PROFILE

**SINGLE GIRDER**

- A. NORMAL
- B. RAISED
- C. UNDERSLUNG

**DOUBLE GIRDER**

- A. NORMAL
- B. RAISED
- C. UNDERSLUNG
- D. HEAVY DUTY
- E. LOW CEILING
HOIST & CRANE TYPES

JIB CRANE

A. 270° SLEWING
B. 360° SLEWING
C. HEAVY DUTY
D. COLUMN TYPE

GANTRY CRANE

A. NORMAL
B. ONE SIDE CANTILEVER
C. DOUBLE SIDE CANTILEVER
D. SEMIGANTRY
E. TELESCOPIC SEMIGANTRY

SPECIAL DESIGN

A. LEVEL LUFFING
B. GROUND WINCHES
C. MARINE TRAVEL LIFT / STRADDLE CARRIER
D. BUILDING MAINTENANCE UNIT
E. AUTO-CLAV CRANE (BLOCK HANDLING)
Monorail Wire Rope Hoist

1. Wire Rope Guide
2. Rotary Limit Switch
3. Overload Switch
4. Brake and Manual Release
5. Lifting Motor and Gearbox
6. Hook Block
10 TON MONORAIL WIRE ROPE HOIST
• Designed and manufactured according to FEM and DIN norms
• European brand hoisting and travelling motors & gear boxes
• Overload protection device
• Variable lifting height through rotary limit switch
• Modular design, depending to girder length
• Law noise gearing design
• Galvanized screws, bolts and connection parts
• Heat treated gears and wheels
• All steel parts shot-blasted against corrosion
• Specially designed rope guide, for protection of rope and drum
• The output shafts of the hoist and travel drives are splined type according to DIN5480 which enables higher safety during load handling, compared to key type output shafts.
• Manual brake release
• Specially designed electric control switchboard
• Standard socket connection for ease of installation and service
• Insulated cable hose and tray for protection of cable
• Variable speed by frequency inverter (optional)
• Load cell application for to avoid over load lifting

Electric Monorail Wire Rope Hoist

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<th>Rope diameter (mm)</th>
<th>Wheel diameter (mm)</th>
<th>Lifting motor (kW)</th>
<th>Lifting speed (m/min)</th>
<th>Travelling motor (kW)</th>
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* Please ask for different load capacities and FEM classes.
** Please ask for different speed alternatives.
*** Standard travelling speed are 5/20 m/min. Please ask for different speed alternatives.
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- **Model**: KC 1, KC 2, KC 3
- **Size**: L1, L2, L3, L4
- **Dimensions**: A (mm), B (mm), C (mm), D (mm), E (mm), F (mm), G (mm), H (mm), I (mm)
- **Weights**: 335, 375, 410, 470, 510, 555, 620, 680, 1000, 1020, 1125, 1220
Double Girder Wire Rope Hoist

1. Travel Motor

2. Wire Rope Guide


4. Hook and Hook Block
**KC SERIES DOUBLE GIRDER WIRE ROPE HOIST**

- Designed and manufactured according to FEM and DIN norms
- European brand hoisting and travelling motors & gear boxes
- Overload protection device
- Variable lifting height through rotary limit switch
- Modular design, depending to girder length
- Low noise gearing design
- Galvanized screws, bolts and connection parts
- Heat treated gears and wheels
- All steel parts shot-blasted against corrosion
- Specially designed rope guide, for protection of rope and drum
- The output shafts of the hoist and travel drives are splined type according to DIN5480 which enables higher safety during load handling, compared to key type output shafts.
- Manual brake release
- Specially designed electric control switchboard
- Standard socket connection for ease of installation and service
- One layer priming and two layer finish paint
- Variable speed by frequency inverter (optional)
- Special design which minimizes level difference between rails
- Load cell application for to avoid over load lifting

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**Electric Double Girder Wire Rope Hoist**

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>Lifting height (m)</th>
<th>Rope dia. (mm)</th>
<th>Track gauge (mm)</th>
<th>Wheel dia. (mm)</th>
<th>Lifting motor (kW)</th>
<th>Lifting speed (m/min)</th>
<th>Travelling speed (m/min)</th>
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* Please ask for different load capacities and FEM classes.

** ** Please ask for different speed alternatives.

*** Standard travelling speed are 5/20 m/min. Please ask for different speed alternatives.
Single Girder E.O.T Cranes

1. End Carriages

2. Warning Horns & Lamps

3. Buffer

4. Electric Control Panel
SINGLE GIRDER E.O.T CRANES

1. Electric Monorail Wire Rope Hoist
2. Pendant Control Box
3. Crane Feston System

Key Components:
- Electric Monorail Wire Rope Hoist
- Pendant Control Box
- Crane Feston System
- Cable trolley
- Towing trolley
- Towing arm
- Pendant control unit trolley
- End clamp
- Flat cable
SINGLE GIRDER E.O.T CRANES

- Capacity from 500 up to 16,000 kg
- Control pendant, remote control unit and cabinet control on request hoisting and travelling motor if gear boxes
- In accordance with customer’s request, single or double speed or gradual speed control with frequency inverter
- Designed and manufactured according to FEM and DIN norms
- Rope or chain hoist applications
- Local or European brand components product alternatives
- Special underslung applications for low-ceiling buildings

A. NORMAL
B. RAISED
C. UNDERSLUNG

10 TON SINGLE GIRDER E.O.T CRANES
Double Girder E.O.T Cranes

1. Double Girder Wire Rope Hoist
2. Walkway
3. Buffer
4. End Carriage
10. Warning Horns & Lamps
Crane Feston System

1. Pendant control unit trolley
2. Towing arm
3. Towing trolley
4. Cable trolley
5. Travel Motor
6. Pendant Control Box
7. Hoist Electrical Box
8. Bridge Electric Control Panel
9. Crane Feston System

- Flat cable
- Towing trolley
- Towing arm
- End clamp
- Cable trolley
- Pendant control unit trolley
DOUBLE GIRDER E.O.T CRANES

- Capacity from 1,000 up to 300,000 kg
- Control pendant, remote control unit and cabinet control on request hoisting and travelling motor if gear boxes
- In accordance with customer’s request, single or double speed or gradual speed control with frequency inverter
- Designed and manufactured according to FEM and DIN norms
- Local or European brand components products alternatives

A. NORMAL  B. RAISED  C. UNDERSLUNG

D. HEAVY DUTY  E. LOWERED

110/20 TON DOUBLE GIRDER E.O.T CRANE
Rule The Power...

110/20 TON DOUBLE GIRDER E.O.T CRANE

85 TON DOUBLE GIRDER E.O.T CRANE
DOUBLE GIRDER E.O.T CRANES

60/5 TON DOUBLE GIRDER E.O.T CRANE

50/10 TON DOUBLE GIRDER E.O.T CRANE
DOUBLE GIRDER E.O.T CRANES

30/5 TON DOUBLE GIRDER E.O.T CRANE

25 TON DOUBLE GIRDER E.O.T CRANE
15/5 TON DOUBLE GIRDER E.O.T CRANE

15 TON DOUBLE GIRDER E.O.T CRANE
Gantry Crane

1. Double Girder Wire Rope Hoist
2. Motorized Cable Reel
3. Hook and Hook Block
4. Gantry Wheel Locking Mechanism
5. Crane Feston System
   - Cable trolley
   - Towing trolley
   - Towing arm
   - Flat cable
   - Ideal control unit trolley
   - End clamp
GANTRY CRANE

- Capacity from 2,000 up to 300,000 kg
- In accordance with customer’s request, single or double speed or gradual speed control with frequency inverter
- Designed and manufactured according to FEM and DIN norms
- Local or European brand components products alternatives
- Special design for special applications

**A. NORMAL**

**B. ONE SIDE CANTILEVER**

**C. DOUBLE SIDE CANTILEVER**

**D. SEMIGANTRY**

**E. TELESKOPIC SEMIGANTRY**

60 TON GANTRY CRANE
GANTRY CRANE

50/10 TON GANTRY CRANE

25/5 TON GANTRY CRANE
10 TON GANTRY CRANE

2x20/3.2 TON GANTRY CRANE
1. Electric Monorail Wire Rope Hoist

2. Jib Slewing Reduced Motor

3. Jib Arm Slewing Mechanism

4. Jib Column

5. Jib Column

6. Jib Crane
Wall-mounted Jib Cranes

1 Electric Chain Hoist

2 Crane Feston System

- Cable trolley
- Towing trolley
- Towing arm
- Ideal control unit trolley
- Flat cable
- End clamp

3 Electric Control Panel

4 Towing arm

5 Towing trolley

6 Ideal control unit trolley
JIB CRANES

- Capacity from 250 up to 5,000 kg standard, special production in accordance with customer’s request
- 180°, 270°, 360° slewing
- It can be assemble to the wall, column or the floor
- In accordance with customer’s request, single or double speed or gradual speed control with frequency inverter
- Designed and manufactured according to FEM and DIN norms
- Local or European brand components products alternatives
- Rope or chain hoists applications
- Special profile systems

A. 270° SLEWING

B. 360° SLEWING

C. HEAVY DUTY

D. COLUMN TYPE 180°
JIB CRANES

500 KG JIB CRANE

2 TON JIB CRANE
Double Girder Wire Rope Hoist

Electric Control Cabin

Process Cranes
Crane Feston System

- End clamp
- Flat cable
- Towing trolley
- Ideal control unit trolley
- Towing arm
- Low Speed Disk Brake
- Rope Drum & Gearmotor
- Electric Control Panel
PROCESS CRANES

80/80 TON DOUBLE GIRDER LADLE CRANE
80/80 TON DOUBLE GIRDER LADLE CRANE
PROCESS CRANES

10 TON SLAG HANDLING GANTRY CRANE

10 TON SLAG HANDLING GANTRY CRANE
Special Projects

- Radial gate winches
- Auto-clav crane
- Precast crane
- Telescopic gantry and EOT cranes
- Marine travel lifts straddle carrier
- Transfer cars
- Special tailor made attachments and machines
- Special tailor made subcontracting
Ground Winches

80 Ton Radial Gate Winch
Ground Winches

110 (55+55) Ton Radial Gate Winch
PROCESS CRANES

70 TON LOCOMOTIVE TRANSFER CAR
70 TON LOCOMOTIVE TRANSFER CAR

10 TON TRANSFER CAR
Teleskopic Semi Gantry Crane

Auto-clav Crane
Lifting Solutions

Lifting Beam

Mash Rippers

Coil Tong

C Hooks
Magnet Spreader Beams

This attachment is used for safety lifting transporting industrial metal, profile, pipe, that works electromagnetic cell specially by holding.

Rotating Magnets

- These are attachments that has 0,25-12 ton lifting capacity to transport the components safety.
Concrete Tong

- This attachment is used for handling to concrete precasts.

Grabs

That attachment to transport scrap, sand, pebble etc. and made of special welded steel to protect from friction.
- This attachment is used for handling to concrete precasts.
Crane Components

Lifting Motor & Gearbox
For the applications of lifting asynchronous motors with special multipolar and helical lifting and quite driving reducers processed in high quality. Soft and safe acceleration.

Travelling Motor & Gearbox
For the applications of driving asynchronous motors with special multipolar and helical lifting and quite driving reducers processed in high quality. Soft and safe acceleration.

Hook
Single and double mouth hook that is made by forging according to the DIN 15401-15402.

Hook Block
With the axial bearing hook allowed for 360° turn and hook block designed according to DIN 15411. Sheaves are manufactured regarding working class as steel, spherical or grey cast iron. Sheaves are also equipped with roller bearings for low friction usage.

Drum
It is produced open grooved St.44 or St.52 prepared rolled pipe according to DIN 15061. A special proceeding has done to block the friction of the drum and the groovies surface.

End Carriages
Modular type end carriages. Which produced from cased profile or with the technic of combined & welded steel plates depending on the diameter of the wheels (160-630 mm). Carriage units reducers are ABM (German made) and it has quite working possibilities.
**Wire Rope Guide**

Made of welded iron or steel material to block the rope over and over wound the drum. There are teflon reels that makes spring pressure over the rope which the types that are made of steel.

**Buffers**

The buffers made of spring or rubber to protect the crane when there will be a crash.

**Boogie End Carriages**

Bogie end carriages unit can be used when there is a need of bigger capacity and the large axis (spans) of the bridge construction.

---

**Electro-Hydraulic Brake (Thrustor)**

Electro-Hydraulic Brake to make the breaking much more safer when the brake on the lifting motors does not enough or if you need another brake for safety. It offers to work on very wide torque value with various brake frames and also can be fitted to directly to the drum.

**Automatic Lubrication System**

When the lubrication needed for the parts which are hard to reach than the automatic lubrication system will help you to reach every points needs greasing. So this will be very useful in the maintenance side.

**Gantry Wheel Locking Mechanism**

In open area cranes its used for protecting the crane by parking from outdoor air conditions.
Electric Control Panel

Protection Rate IP55-IP65. For driver type with fan. Ground protection. Supply 380 V 3 phase. Driver types Sew, Telemecanique, Emerson, Siemens, Mitsubishi, GE and ABB. Power components Telemecanique, Siemens. Cable, shaft, driver tolerance rated + 20%

Anti-Collision Sensor

When using more than one crane in the same hall the anti-collision system sensor will avoid anti-collision the cranes to each other. Also the breaking distance can be arranged between two cranes. It has 24-220 V supply. Distance adjustable. Long life.

Warning Lamp

The crane scales are useable in every crane-user company. Its safe, fast scaling opportunity easy readable 5 digit LCD panel. IP 55 protection class. Can be used between -20°C ~ +60°C. On/Off control.

Warning Horn

Warning Horn used to warn the environment when operating the cranes. These are devices which as the opportunity at red, green, yellow and blue colours. 1.5-2.5 mm diameter of cable. Are that be connected in one points. IP 55 protection class. Has 90-110 db voice. Can be used between -20°C ~ +60°C

Limit Switch

Switches are used for to avoid crashing when you operate the cross and long travel.

NO+NC contac
Protecion type IP55
24-42-110-220 V

Socket Plug

Socket Plug are used to make a direct electrical connection to the motors and the electrical control box by 12-16 pin entry. Using a socket plug will help you to ease of montage-demontage and ease of maintenance. IP 65 protection class. Metal head and of it helps the demounting.
Rotary Limit Switch
Rotary limit switches will allow you to set the lowest and the highest position of the hook. Its mounted the small period applications like drum and shaft. Then you can limit between two points or multipoint with entering the set values. The flange connection is can be made make and female, or the limiting can be used on pinion gear reducer and drums. In optional the potentiometer and encoder includeds can be used.

Cable Trolleys
Our festoon-systems carry flat and round cables for the transfer of electrical energy and data for the crane systems. Hoses are also carried for the directing of fluids, air or gases. The cable trolleys can be manufactured from plastic and also steel with a roller bearing.

Festoon Systems
Specialy designed rolled form of galvanized profiles used to carry festoon system trolleys.

Crane Lighting System
Crane Lighting Systems are used in indoor and outdoor applications to have clear visual for the working area. Range from 100 to 1000 W.

Conductor Rails
Multipole and enclosed conductor rails contain several poles in one or several compact box type plastic housing. They are used for energy and data supply on straight and curved track configurations. For indoor and outdoor applications.

Slip Ring Bodies
Slip ring bocties are used as power and data transfer systems for all types of rotating machines, e.g. Revelving cranes with any number of poles Current ratings up to 1200 A and voltages up to 24 kV are possible. The range in size for the slip ring bodies starts with 30 mm up to 360 mm diameter and lined up to 100-poles. High impact plastic or galvanised steel housing to IP65 protection grade.
Motorized Cable Reels
Motorized cable reels are usually used in open area gantry crane systems winding the cable to the drum by using motor&gearbox. Because of having torque motors, it avoid the cable to loose.

Spring Cable Reels
Through the spring mechanism over, it can do the same duty that motorized cable reels does. It has price advantage. Because of not having motor&gearbox in their body.

Ideal Control
The ideal control that works freelance with the crane movements protects the operator when the load is lifting, lowering and travelling.

Radio Remote Control
Its a system that has the same duty like ultrasonic and radio frequency controlled remote control without any cable connection which gives the opportunity to the operator to move freelance

Pendant Unit
This device has emergency stop button and the other needed buttons to control the crane’s lifting and travelling movements.

Black Box
An electronic device which able you to measure the operating datas and times for the cranes. This datas will help to operate the cranes more safely and for to apply better service.
Rail, Rail Pad and Rail Clips

Produced as A or S type train rail with mushroom head with special strength steel according to DIN 536. At the same time the rail that are produced as rectangular shaped, cold beared materials called St 52-3. The flexibility of Rail Pad allows more softer working place by deploying the weights on the rails to the ground and absorbing the vibration and sound. Rail clips are the materials that are used to connect the rails to the ground.

Frequency Inverter

Ac inverter drive used to supply asynchronous motors. The drive can operate in closed loop flux vector control mode or according to U/F control with its calculation power. The drive separately controls the magnetising current and the active current of a standard asynchronous motor. The rotor speed and position are calculated to control the motor torque and speed. This operating mode is used, in closed loop, to obtain very high performance levels and is thus suitable for the majority of applications.

Crane Weighing System

The crane scales are useable in every crane-user company. Its safe, fast scaling opportunity easy readable 5 digit LCD panel. IP 55 protection class. Can be used between -20°C ~ +60°C. On/Off control.

Operator Control Cabin

Operator control cabins able you to wide field of vision controlled by joystick and button controls and vibration absorption systems seats. Due to needs it can be equipped with aircondition system PLC application and other accessories.

Crane Weighing Display

With 5 digits LCD panel. 130 mm. Can be used between -20°C ~ +60°C. On-Off control. IP55 protection class. Can show erasing and weighing calculation.

Load Limiter Switch

Overload limiters block the system in cases when the load limit anticipated for cranes in EU regulations are exceeded and thus protect the system from overload.
"After Sales and Crane Commissioning Services" has been established in order to repair, maintain and repair Crane Systems manufactured by K-M Kümsan Crane Systems, all over Turkey and abroad. Additionally, companies who hold any kind of lifting and material handling equipment can make use of our full service. We serve 7124 to our customers which are assigned to a periodic maintenance contract.

- Modernisation services (frequency-controlled lifting and travelling systems, remote controls, overload protection devices, digital weight displays, special lifting and handling attachments, PLC applications, anti-crash sensors, change of worned rails...etc)
- Energy line assembling, conversion into closed-type conductor rails (strongly recommended in terms of safety)
- Automation application

Here are some main figures and information about:

- 3 separate Service Teams (consisting of mechanics and electricians) serving 7 days / 24 hours
- 2 separate Erection Teams, for mounting / dismounting Crane systems, transportation of Crane systems
- 2 separate Maintenance Teams, responsible for periodical maintenance (according to the related Laws in Turkey: on quarterly basis per year)
- Start-up of Crane Systems
- Supervisor services
- Trainings and providing of documentation for Operators (User manual, maintenance manual...etc)
- Spare Parts list and (on request) recommendations for any type of Crane systems
- Safety components (slings, hook safety latches, overload limit switches, audio-visual warning devices, black-box... etc)
- Full-shift periodical maintenance team for Crane systems which are erected in critical Sites (on request)
## SINGLE GIRDER EOT CRANE REQUEST FORM

### General Features

**Working Area**
- Outdoor
- Indoor

**Another Crane in the Same Hall**
- Yes
- No

**Columns**
- Yes
- No

**Gusset**
- Yes
- No

**Crane Control**
- Push Button
- Radio

**Concrete**
- Yes
- No

**Steel**
- Yes
- No

**Continuous Concrete**
- Yes
- No

**Explanations:**

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<th>ANOTHER CRANE IN THE SAME HALL</th>
<th>QTY</th>
<th>SIZE CHART</th>
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**Continuous Concrete**

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**Explanations:**

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DOUBLE GIRDER EOT CRANE REQUEST FORM

GENERAL FEATURES

WORKING AREA
OUTDOOR
INDOOR

ANOTHER CRANE IN THE SAME HALL
YES
NO

Q (CAPACITY)
TON

S (SPAN)
mm

H (LIFTING HEIGHT)
mm

COLUMN
YES
NO

CRANE CONTROL
PUSH BUTTON
RADIO

A
mm

B
mm

C
mm

GUSSET
YES
NO

CRANE CONTROL
YES
NO

CONCRETE
STEEL
CONTINUOUS CONCRETE

L
mm

L1
mm

D
mm

EXPLANATIONS: .......................................................................................................................................................................................................................
...................................................................................................................................................................................................................................................
GANTRY CRANE REQUEST FORM

**NORMAL**

**SEMIGANTRY**

**DOUBLE SIDE CANTILEVER**

**SINGLE SIDE CANTILEVER**

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### SIZE CHART

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### ENERGY TRANSFER

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EXPLANATIONS: ...........................................................................................................................................

* Height H2 is only requested for shaft cranes
JIB CRANE REQUEST FORM

PILLAR MOUNTED

MANUEL (Max. 270°)

DRIVEN (Max. 360°)

WALL MOUNTED

MANUEL (Max. 180°)

SIZE CHART

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ENERGY TRANSFER

JIB SLEWING

MANUAL

ELECTRIC

JIB MOVEMENT

MANUAL

ELECTRIC

EXPLANATIONS: ...........................................................................................................................
...................................................................................................................................................