



User Manual for BR-6600T & 6600Q

Catalog

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1.1 Summary

Please read this manual carefully before you install and maintain the BR-6600T & BR-6600Q lifts, it can help you assemble, operate and maintain this product in the correct way, avoiding risk and improving the reliability and product lifetime.

BabcoPark takes no responsibility for the damage of product, vehicle or personnel caused by the operation that does not follow the manual or declines to operate within regulation.

1.2 Statement

1.2.1 Please operate the product according to this manual, otherwise the operator takes full responsibility for damage and injury to themselves and others.

1.2.2 If the product is damaged during the transportation process, the carrier should take responsibility for it.

1.2.3 To secure safe use, the operator should be trained by a professional technician and should not be allowed to operate or repair the product before reading the manual in detail and checking all safety devices.

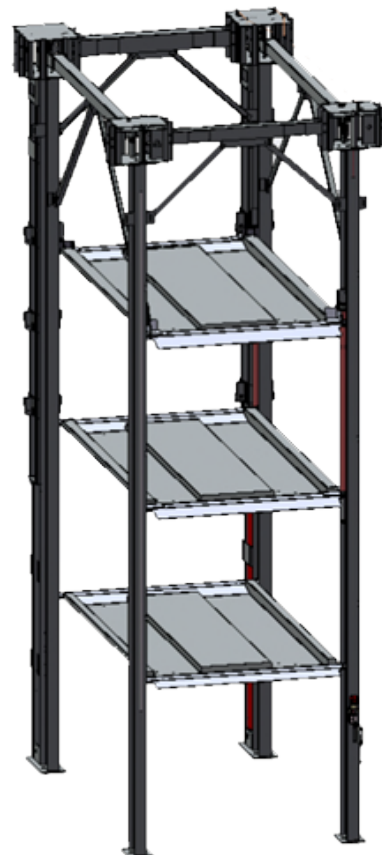
1.2.4 BabcoPark provides one year parts warranty and five year warranty on the structure of the lift, the quality guarantee is only confined by what was caused by manufacturing. Warranty does not apply if the product is damaged by abnormal wear or improper use or maintenance that fails to follow requirements.

1.2.5 **We are committed to updating techniques and improving our product, so changes and improvements are subject to change without prior notice.**

Product Information

2.1 Description

BR-6600T & BR6600Q are four-post stacker parking lifts supplied by BabcoPark. They are the most effective way to triple or quadruple the capacity of typical parking areas, and are the best option for car storage. The lift consists of four posts and two platforms (for BR-6600T) or three platforms (for BR-6600Q). The control panel and locking release handle is found on the front post, the power unit and control box is found in the back of machine.



Chart(1) single unit

2.2 Dimensions

Attention: The dimensions may be different as per a customer’s special requirement. Please contact our sales team for exact dimensions.

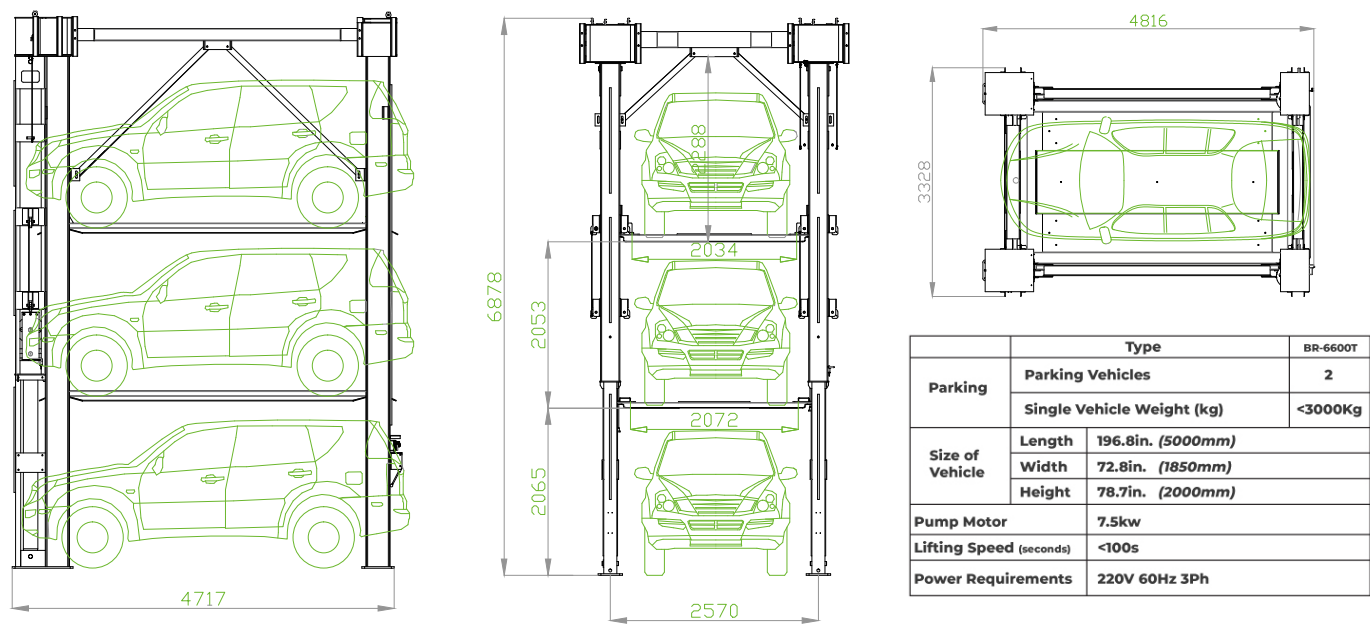


Chart 2 Standard dimensions of BR-6600T

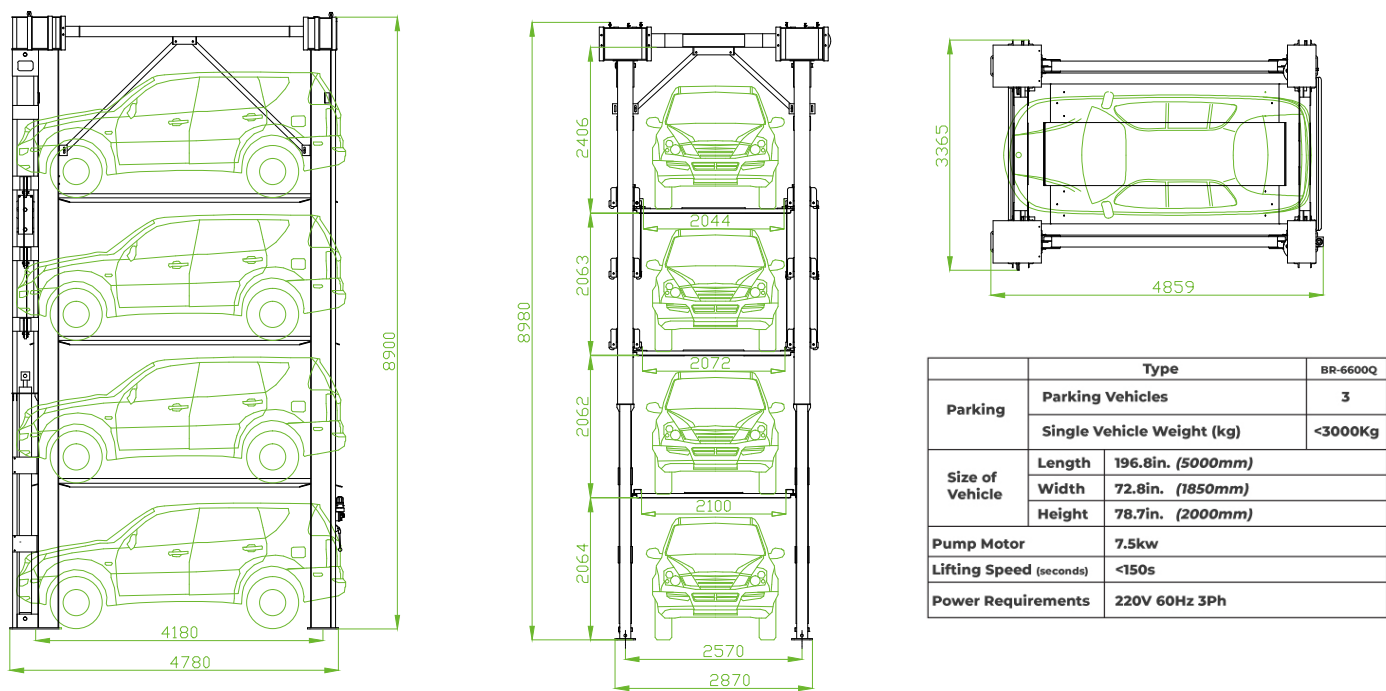


Chart 3 Standard dimension of BR-6600Q

Shipping Information

The BR-6600T & BR-6600Q are packed by packing frame, straps and cardboard to avoid damage during transportation.

Please check if there is any damage or parts shortage & noted on the waybill before receiving the equipment.

The package may be loose during transportation. Please cut off the packing belts which are used to secure the product, to avoid any damage.


Foundation

Please complete work on the foundation before product assembly, according to foundation drawing. A reference for a standard foundation schematic is found on attachment 1 in this manual.

- 4.1 The datum grade for this foundation work is ground level on site.
- 4.2 This foundation is a reinforced concrete structure, the concrete grade is C30.
- 4.3 Dig to prime soil for base of columns, and pour after compaction.
- 4.4 Installed positions for column prefabricated parts (screws) should be less than 1mm error. The screw thread should be well protected during foundation construction. Make sure you don't have concrete adhered or serious rust on screws.
- 4.5 The extra bottom part of the foundation pit should be tamped layer by layer to designed elevation by 3:7 spodosol; the horizontal error of the foundation pit level should be no more than 20mm.
- 4.6 The sumps should be done by the owner as per local standards, and connected to sewer or other drainage system.
- 4.7 All of the power supply terminals should be placed by owner as shown in above drawing, with 2m wires (3 phase 5-wire system) reserved.

Assembly

- 5.1 Notice
 - 5.1.1 Before the lift installation, please read and learn the safety warnings in detail.
 - 5.1.2 Keep the working site clean and tidy.
 - 5.1.3 Check the working environment around the lift. Don't leave the products in the rain. Don't use the equipment in a damp environment. Keep good ventilation and enough light in the area.
 - 5.1.4 Only trained personnel can operate the parking lift. Untrained staff should keep away from the working area. **All staff without training are forbidden to operate the lift.**
 - 5.1.5 Motor must be grounded to avoid electric shock.
 - 5.1.6 Power off when installing, to ensure safety as there is high voltage on the power unit.
 - 5.1.7 Be careful during installation to avoid any accident.
 - 5.1.8 Operate the equipment as intended. Do not modify the equipment or use any part which is not supplied from our company.

- 5.1.9 Prohibit the dismantling of any parts related to safety.
- 5.1.10 The safety locking device should be well protected.
- 5.1.11 Please keep people, cars or animals away from the equipment in operation.
- 5.1.12 Keep enough space around the equipment.
- 5.1.13 **Warning:** Keep any flammable objects away from the working area as there is electric spark when the switch works.
- 5.1.14  This mark is a safety warning.
- 5.1.15 Keep the equipment clean and keep up with regular maintenance. Appropriate lubrication and maintenance is good for the performance and lifespan of the lift.
- 5.1.16 Keep key switches and buttons clean and dry to avoid oil and grease on the product.
- 5.1.17 Check the synchronous situation of the four corners and check if there are any loose parts, if any found - please stop operation and fix ASAP.

● 5.2 Preparation

Before installation of the lift, please check the following items:

- 5.2.1 The working area should be well designed and have enough space.
- 5.2.2 Keep obstacles, like electrical wire, away from the installation area.
- 5.2.3 Carefully check to see if there is cracks on the concrete ground that support the lift and check if the foundation intensity can meet the requirements. The finished concrete slab must be solidified for the appropriate number of days. Otherwise, the lift will crush the ground, which will cause damage to equipment and injury or death.
- 5.2.4 Make sure concrete slab is level; over 5mm tolerance is prohibited. The tolerance within this limit can be adjusted by washers. If the ground is seriously uneven, please fix it.
- 5.2.5 It's prohibited to install lift on non-concrete ground.
- 5.2.6 It's prohibited to install equipment on ground with cracks or with debris.
- 5.2.7 It's prohibited to install equipment on a second or higher floor without approval of architect.
- 5.2.8 If there is no protection, please do not install the lift outdoors to avoid something damage to the motor.
- 5.2.9 Check the wiring position from the power supply to the lift and make sure that all wires will be protected well.
- 5.2.10 Draw the position of the baseplate of the column with chalk after confirmation to ensure that the tolerance is within 3mm to avoid affecting the installation of the lift.
- 5.2.11 Carefully check to assure that the layout is correct.

● 5.3 Necessary tools

- 1 Crane with 15m lifting height
- 1 Forklift with 5 ton capacity
- 1 Set of non-adjustable spanner, adjustable spanner and allen wrench
- 1 Set of screwdrivers (including slotted screwdriver and phillips screwdriver)
- 3 Pieces of leveling instruments
- 1 Piece of tapeline for 5M
- Insulated rubber tape
- Sealing tape

● 5.4 Installation

- 5.4.1 Check the foundation work again to make sure that all the positions and dimensions of column points are correct.
- 5.4.2 Stack up the platforms so that all holes match to each unit, put some spacers under the bottom platform and in between each platform to make space large enough (approx. 100mm to 150mm high) for installers' hands going inside, (do not block any hole), assemble the nylon sliders onto platforms, then place the platforms aside.

5.4.3 Erect the main post as per the position shown in the foundation drawing, screw on the flat washer, spring washer and screw nut on the pre-embedded screw to fix column baseplate, but do not tighten the screw nut so you can still adjust structure during installation work.

5.4.4 Assembly the main pulley frame onto the top of the main column, make sure the type and direction of this main pulley frame is correct according to wire ropes routing diagram in attachment 2.

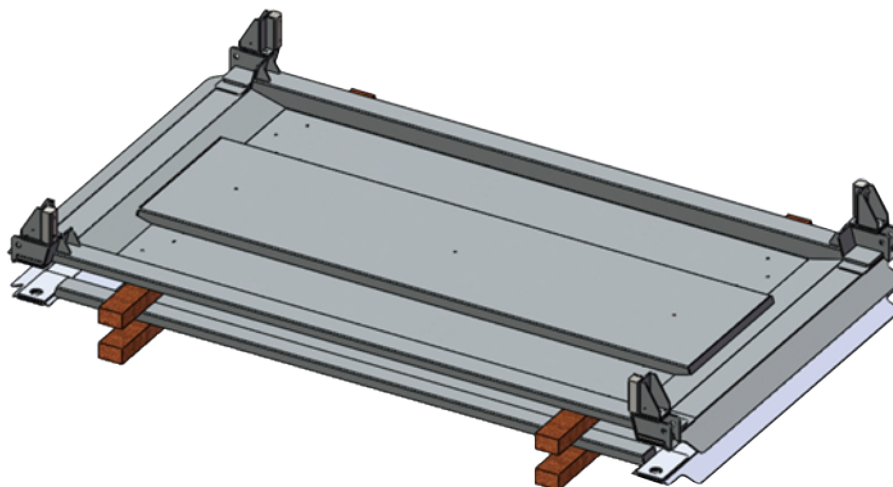


Chart 4 Platform decking for BR-6600T

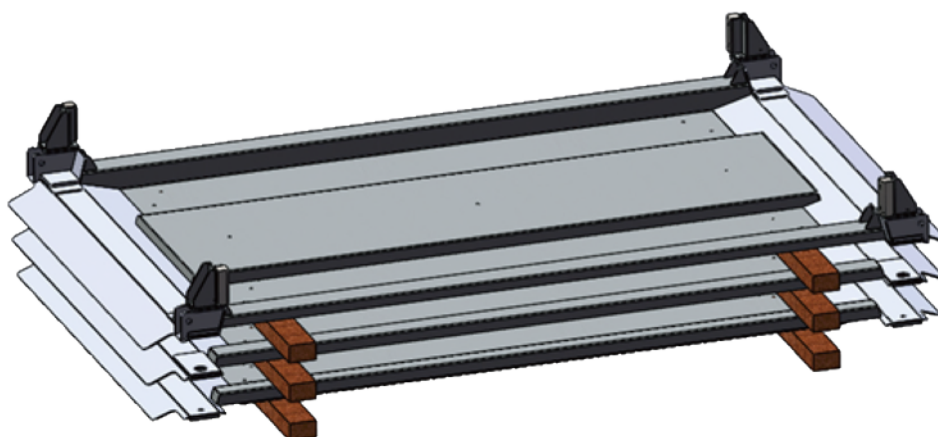


Chart 5 Platform decking for BR-6600Q

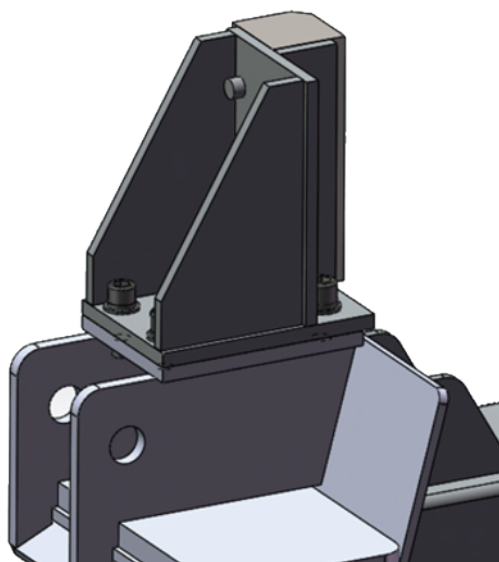


Chart 6 Assembling nylon sliders onto platform

5.4.6 Assemble the side beam and back beam onto the main pulley frame, as well as the two bracings related to the main column.

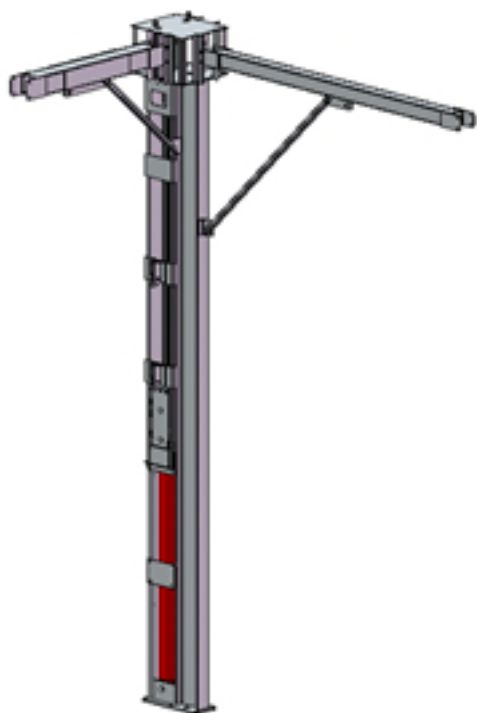


Chart 7 Erecting main post

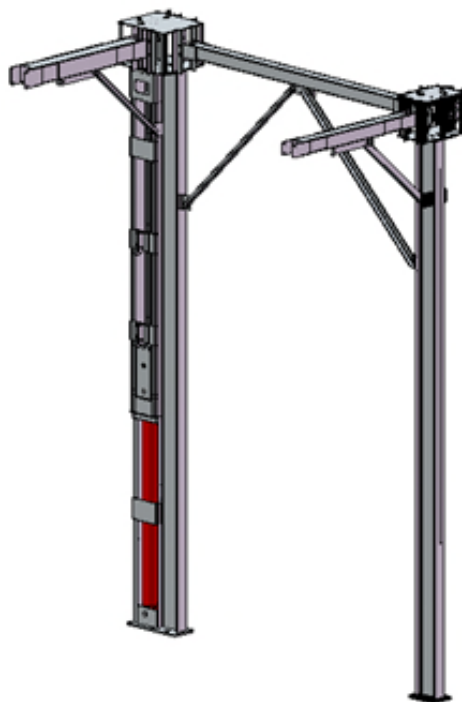


Chart 8 Erecting opposite column

5.4.7 Erect the opposite column with the control panel to exact position, connect the side beam and assemble the other bracing at this side, then assemble the front beam.

5.4.8 Place the platforms to the exact position beside the above mentioned two columns, and put the nylon sliders into the grooves of the columns.

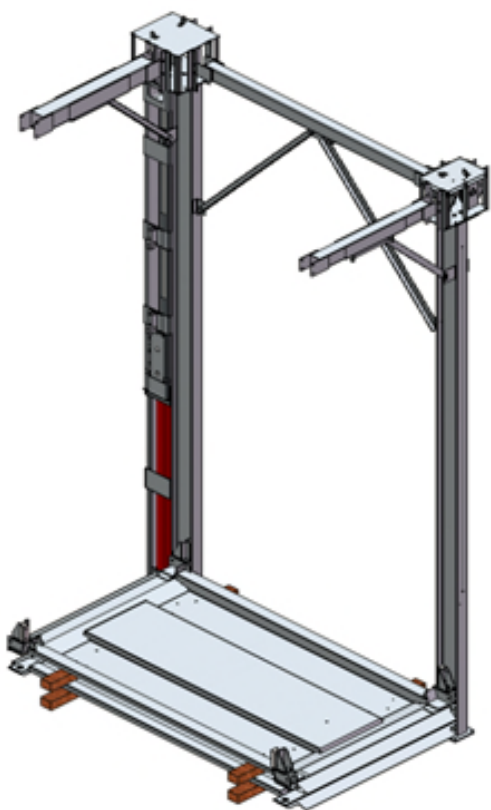


Chart 9 Placing platforms for BR-6600T

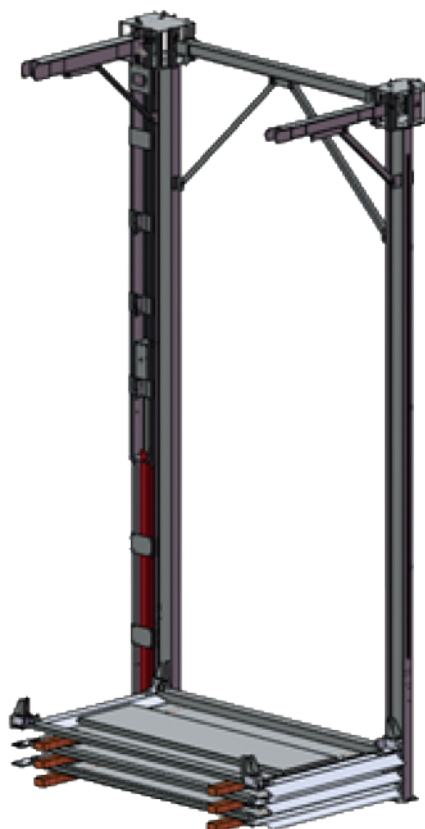


Chart 10 Placing platforms for BR-6600Q

5.4.9 Erect the last two columns, connect and assemble all of the beams and bracings. Adjust the parts to make sure all columns are 100% vertically standing at their correct positions, and all beams, bracings are assembled well. Then tighten all screws after adjusting.

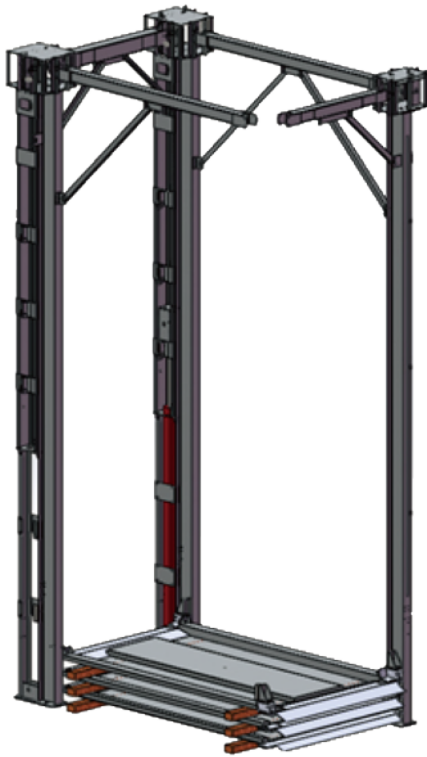


Chart 11 Erect last two columns (I)

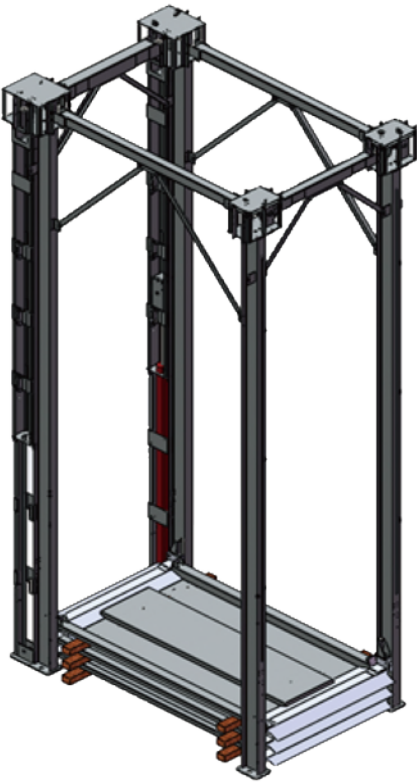


Chart 11 Erect last two columns (II)

5.4.10 Connect all wire rope cables as per wire rope cable routing diagram in Attachment 2.

5.4.11 Assemble the control box bracket and control box onto the main column, connect the wires for the control panel and the alarm light in the control box as per the Electrical Schematic Diagram in attachment 3 and Wiring Diagram in attachment 4.



Chart 13 Finishing Structure Assembly

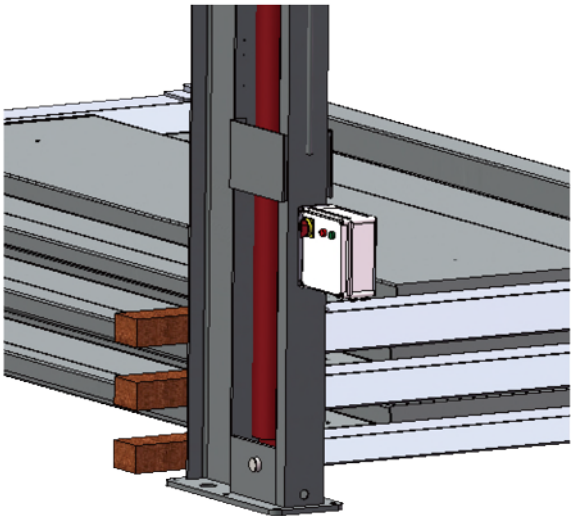


Chart 14 Assemble control box onto column

5.4.12 Assemble the locking release handle, control panel and alarm lamp as below photo.

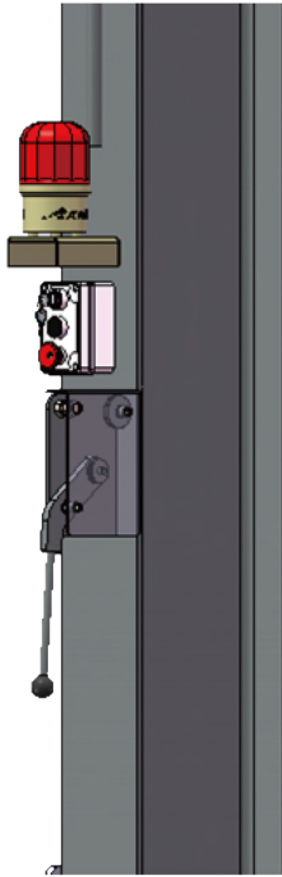


Chart 15 Assemble the locking release handle, control panel and alarm lamp

5.4.13 Take two pieces of locking release steel rope cables from the steel rope cables provided, connect the two locking steel rope cables as per below photos. Feed the locking steel rope cables through two pieces of tubes then connect to the locking release handle assembled on the front column, and wires for the control panel and alarm light will go through the long cable tube then connect to the control box on main column.

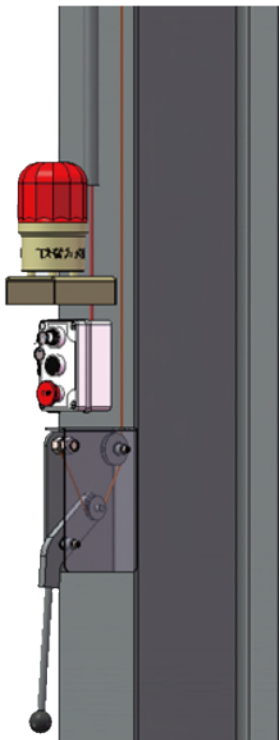


Chart 16 Routing of locking release steel rope cables (I)

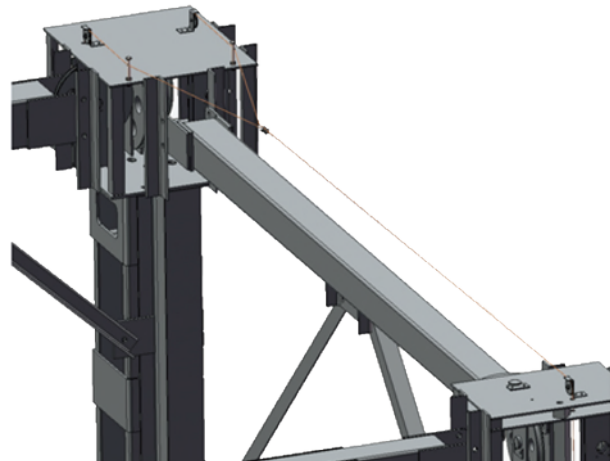


Chart 17 Routing of locking release steel rope cables (II)

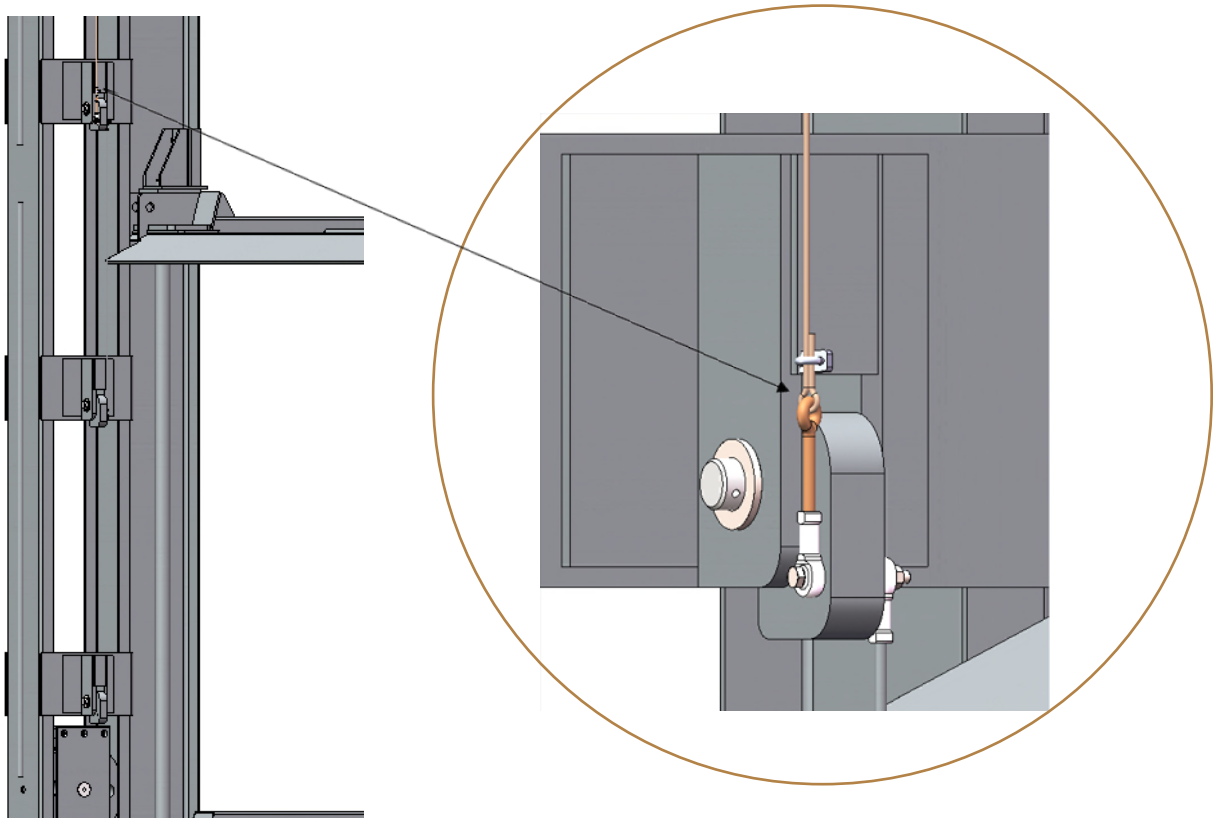


Chart 3 Standard dimension of BR-6600Q

5.4.14 Connect the wires for the power unit, two solenoid valves and limit switch into the control box according to Electrical Schematic Diagram in attachment 3 and Wiring Diagram in attachment 4. Assemble the solenoid valves to the power unit, and place the power unit at the appropriate position, then fix the limit switch to exact position as shown in below photo.

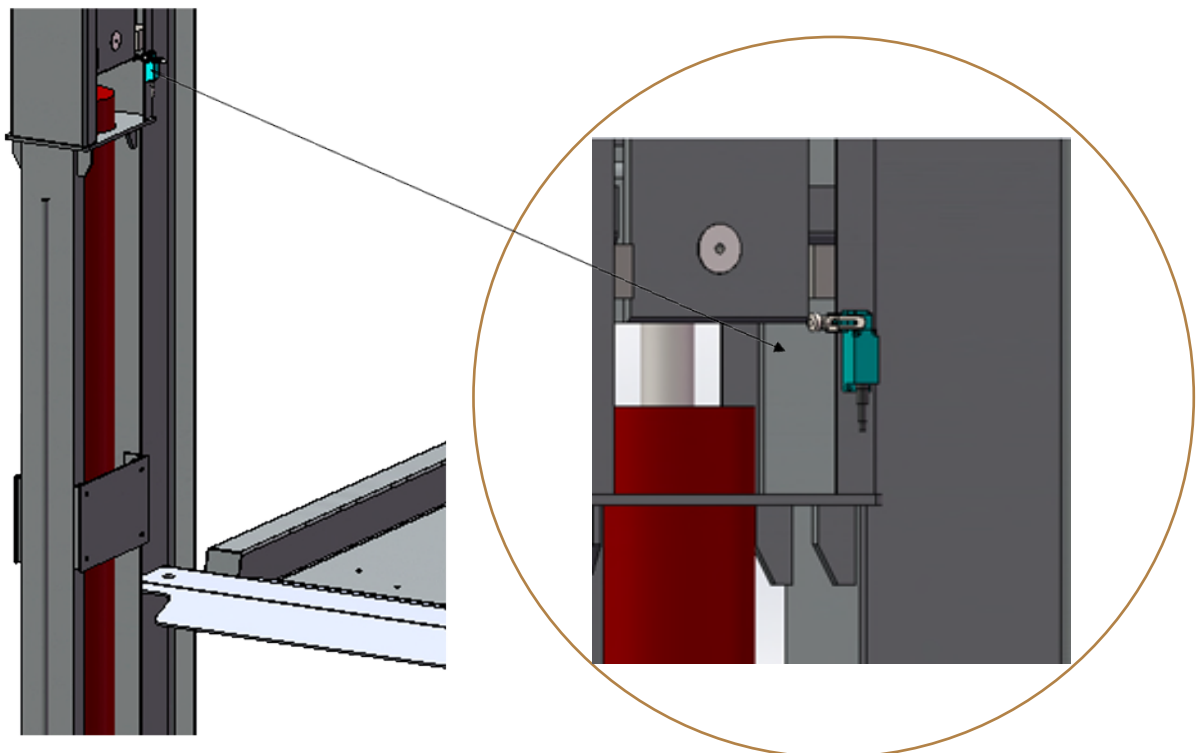


Chart 19 Assembling limit switch (I)

5.4.15 Connect the wire from the power unit to the power supply.

5.4.16 Assemble the lifting tubes at the four corners of the platforms.



Chart 20 Lifting tubes general view

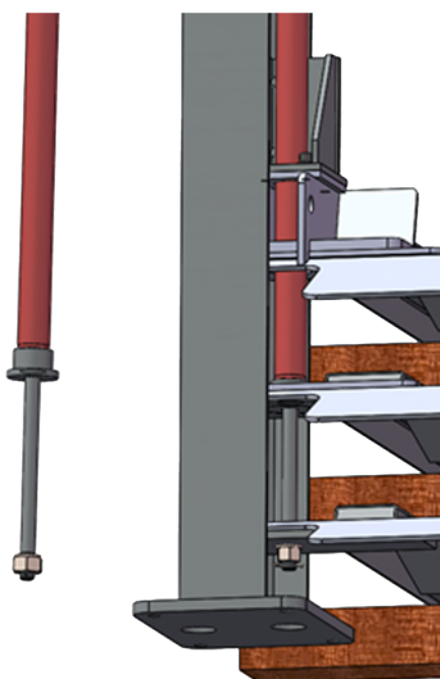


Chart 21 Assembling lifting tubes (I)

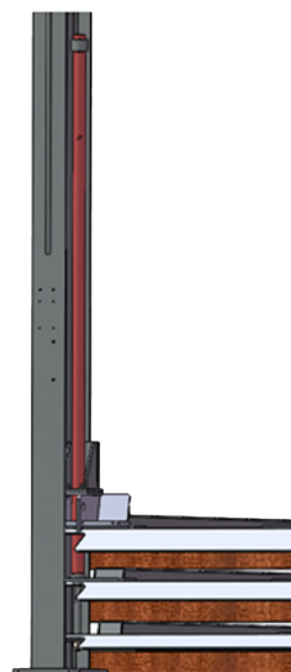


Chart 22 Assembling lifting tubes (II)

5.4.17 Adjustment:

a. Replace the filter to a joint, which is located on the bottom of the cylinder, a pneumatic gun is needed to push the piston to maximum stroke. After product finishes installation, discharge the oil or air in the cylinder then replace the filter.

b. Measure the height between the top platform to ground, secure all wire ropes to the four corners of the platforms according to wire ropes routing diagram in Attachment 2, with the end of wire ropes folded by a length more than the height from the top platform to the ground.

c. Operate the lift to make sure all platforms ascend to maximum lifting position, measure the height from top platform to ground again to check if the measured height is in accordance with the height marked in the drawing our company provided. If not, please adjust the folded length of wire ropes at each corner until the measured height is correct.

ATTENTION: during all operation, please carefully check on all moving parts to make sure they are assembled correctly and work well. Fix any problem before installation finishes.

6.1 General

- 6.1.1 If the equipment will be not in service for a prolonged period of time, the main power supply should be shutoff to avoid accident and to save energy.
- 6.1.2 If the lift has not been in service for a long time, please lubricate and check if there is any damage or rust corrosion before operating again. Check if the equipment is in good condition by no-load running.
- 6.1.3 Do not use the lift if the floor or any component is damaged.
- 6.1.4 Do not operate the lift if there are people or other obstacle underneath it.
- 6.1.5 Using the lift for other purpose than intended is strictly prohibited.
- 6.1.6 The safety lock device should be in a good working condition at all times.
- 6.1.7 Do not leave lift in the unlocked position at any height at any time.
- 6.1.8 Keep the motor dry. We are not responsible for motor damage caused by moisture.

6.2 Parking

- 6.2.1 Drive the vehicle into position of the platform.
- 6.2.2 Open the vehicle door carefully to avoid any collision.
- 6.2.3 Press UP to lift the platform to the targeted position, and the platform will be locked automatically.
- 6.2.4 Drive another car into position on the second platform. And repeat the procedure.

6.3 Operation

- 6.3.1 The inspection of the whole lift is necessary before operation, make sure to only operate the lift in a good working condition.
- 6.3.2 Before first operation, please turn on general power switch, secondly turn on the power switch on control box, and thirdly make sure the emergency stop button on control panel is open.
- 6.3.3 Make sure vehicle is parked in the middle of the platform.
- 6.3.4 Over loading is not allowed for vehicles parked on the platform, the rated capacity of BR-6600T/Q is 6,000lbs. (3000kg) per platform.
- 6.3.5 The wheel base of vehicles parked on the platform should not be more than 2900mm, and the total height of vehicles parked under the platform should not be more than 2000mm.
- 6.3.6 The power indicator light remains off until both the general power switch and the power switch on control box is turned on.
- 6.3.7 Please pay attention to the movement of the platform during operation. Stop operation immediately if any abnormal movement of is platform observed.
- 6.3.8 Keep holding the key switch to operate the equipment, which will stop once your hand releases.
- 6.3.9 Due to the top limit switch, the equipment can stop once the platform ascends to top position.
- 6.3.10 Please press the RED and ROUND button - emergency stop button, to stop the operation in case of emergency. Rotate the emergency stop button to reset it after being sure the equipment can be operated.

6.4 Maintenance

- 6.4.1 Lubricate wire rope cables once per month.
- 6.4.2 Change all the hydraulic oil three months after first operation; and change oil every nine months after first changing.
- 6.4.3 Frequently check the screw nuts of bolts, if any screw nut is loose please fasten it ASAP.
- 6.4.4 Before operation, please test the top limit switch, if not working please fix, and if it cannot cannot be fixed, replace.
- 6.4.5 The seal in the hydraulic cylinder should be replaced every two years.
- 6.4.6 The nylon sliders should be replaced every two years.
- 6.4.7 The valve element in solenoid valve and filter in the power unit should be cleaned every half year.

6.5 Service

6.5.1 If the platform tilts right-and-left when operating, please check and adjust the wire rope cables on both sides.

6.5.2 If the platform tilts fore-and-aft when operating, please check if vehicle is parked correctly; then check the perpendicularity of post; then check if the wire rope cables are loose; if the platform still tilts after the above fixes please replace the nylon sliders.

6.5.3 Adjust the compensated flow control valve on the power unit, if the lifting/descending speed is too fast or too slow.

6.5.4 Check if the emergency stop button is open and the air switch is closed, if the equipment doesn't lift up when trying to ascend.

6.5.5 Check if the solenoid valve is open if the platform only lifts up but doesn't descend.

6.5.6 Check if the locking blocks can be easily released, if the platform cannot descend.

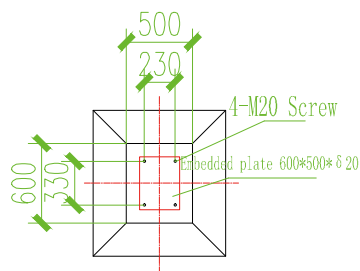
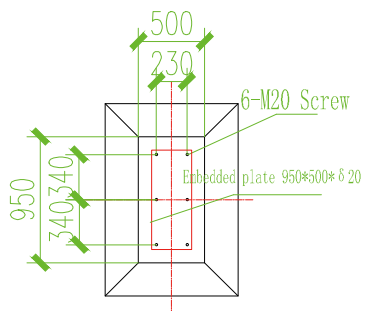
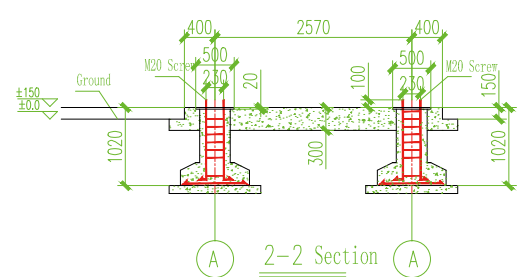
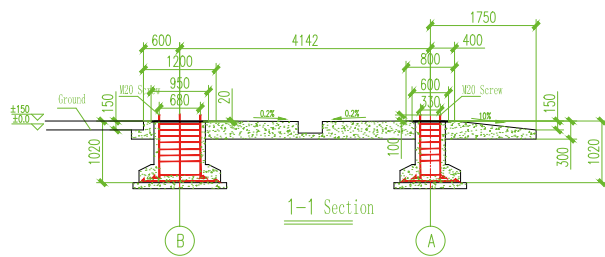
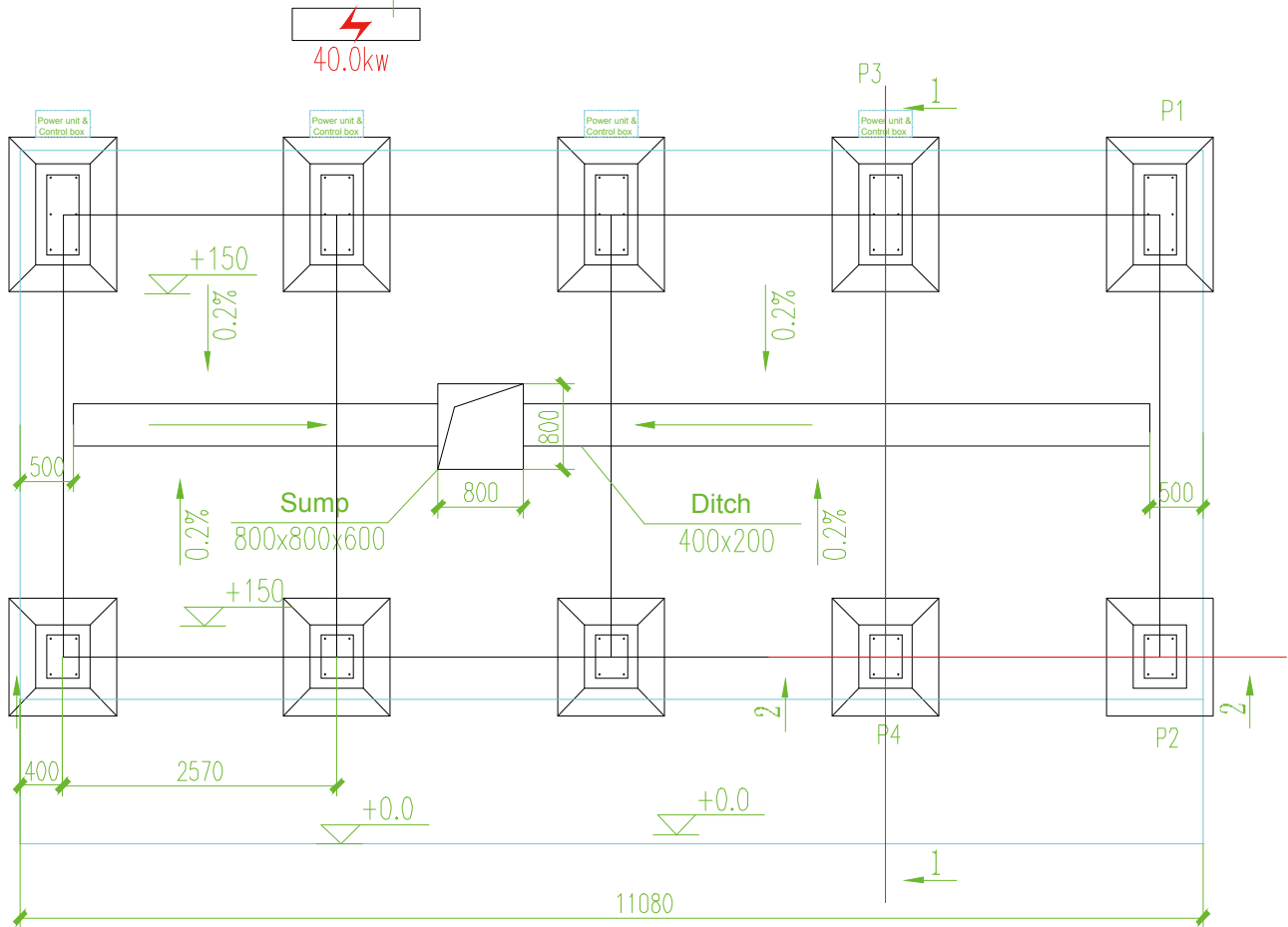
6.5.7 Open the vent valve on the cylinder to ensure air gets out of cylinder, if the platform jounces when lifting up.

6.5.8 Trouble shooting

| Description | Possible reason | Exclude method |
|--|--|---|
| The motor works, no hydraulic oil leakage, the sound is abnormal, but the platform can't rise. | There is air in the hydraulic oil. | Disconnect the oil hose, and let some oil out from cylinder. |
| | Hydraulic oil has solidified or the viscosity of the hydraulic oil is too high because the surrounding temperature is too low. | Discharge the hydraulic oil, refilling with qualified hydraulic oil, or change to oil used for lower temperature. |
| | Over loading | Make sure the vehicle weight is not more than rated capacity. |
| Oil leakage of oil hose connector. | The connector is loose. | Screw down the oil hose connector. |
| | The connector is damaged. | Change the connector. |
| Oil leakage of the cylinder. | The hydraulic seal is damaged. | Change the seal or cylinder. |
| Motor does not work. | The motor is burned out. | Change the motor after checking and confirm that the power is correct. |
| | The voltage is too low. | Check and confirm that the voltage is the regulated voltage. |

| | | |
|-----------------------------|--|---|
| | The fuse is burned. | Change the fuse. |
| | The limit switch is damaged. | Change the limit switch. |
| Platform can't move down. | The platform is locked. | Check if the locking blocks work well, then if the locking cable is loosened. |
| Platform moves down slowly. | The viscosity of hydraulic oil is too high. | Change to the regulated hydraulic oil or consult local hydraulic manufacture. |
| | The plug valve of the power unit is blocked. | Clean the valve plug (pay attention to dust proofing) |
| | The oil hose or the hose connector is blocked. | Dredge the oil hose and hose connector. |
| Motor rotates in reverse. | Wrong wiring | Rewiring according to the Electrical Schematic Diagram in attachment 3 and Wiring Diagram in attachment 4 |

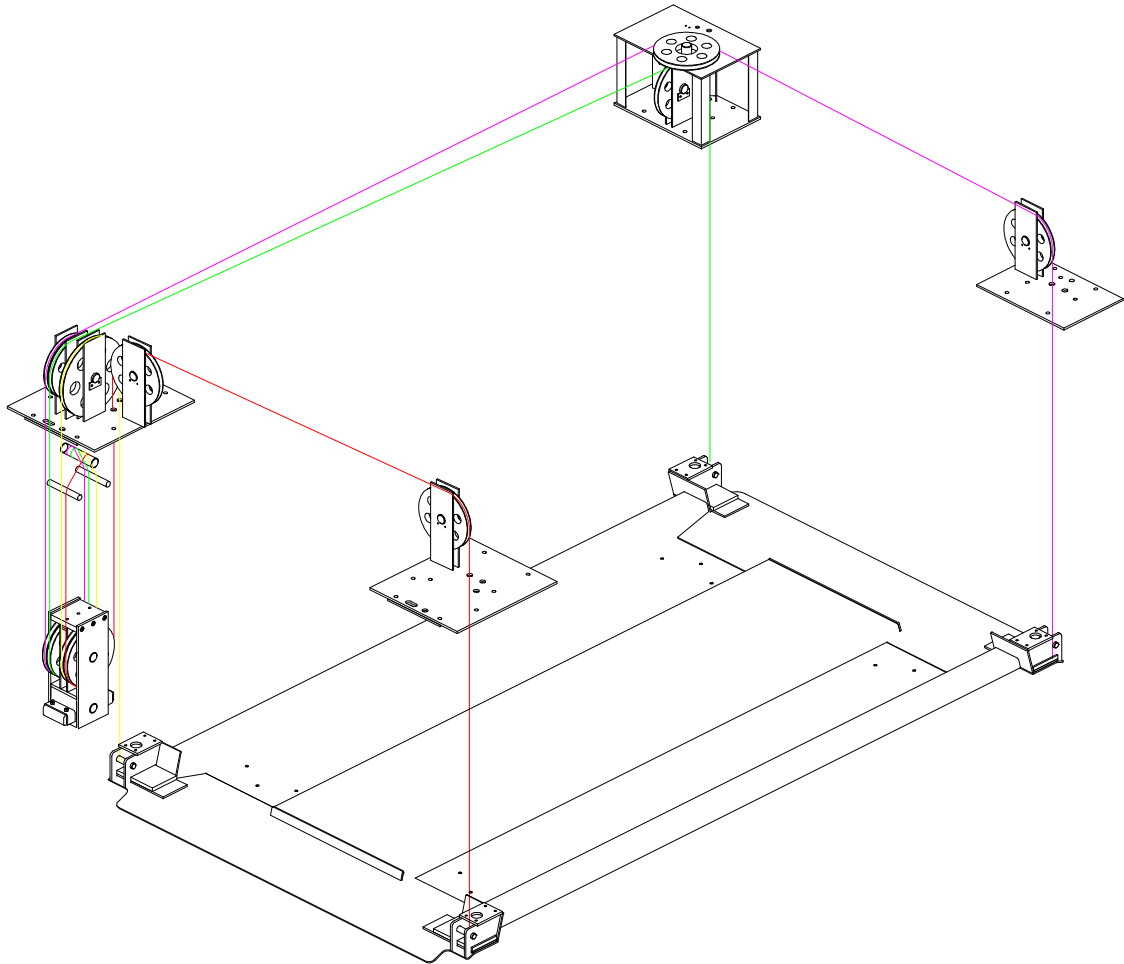
3 Phase 5-wire power distribution,
reserved with 2m long wires



Column loading point distribution diagram

| Point | Loading(unit : ton) |
|-------|---------------------|
| P1 | 4 |
| P2 | 3.3 |
| P3 | 6 |
| P4 | 5 |

Remark: 1. They are theoretical value of point loading.
2. The capacity for each platform is 3.0ton



BR-6600T

Cable 1: Yellow 12m

Cable 2: Red 14m

Cable 3: Green 16m

Cable 4: Magenta 18.5m

BR-6600Q

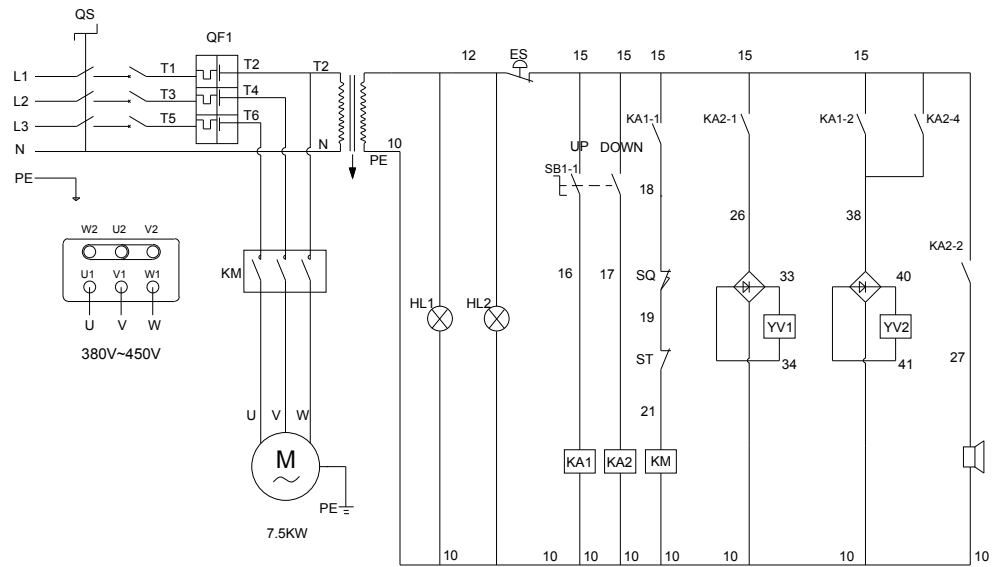
Cable 1: Yellow 14m

Cable 2: Red 16m

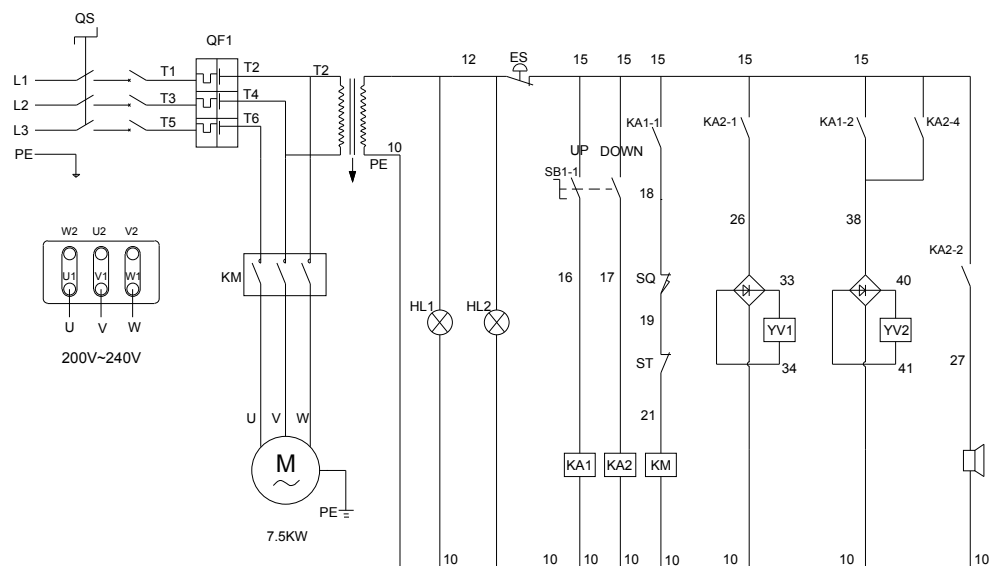
Cable 3: Green 18m

Cable 4: Magenta 20.5m

380V/50Hz/3P



220V/60Hz/3P



Attachment 4 - Wiring diagram

