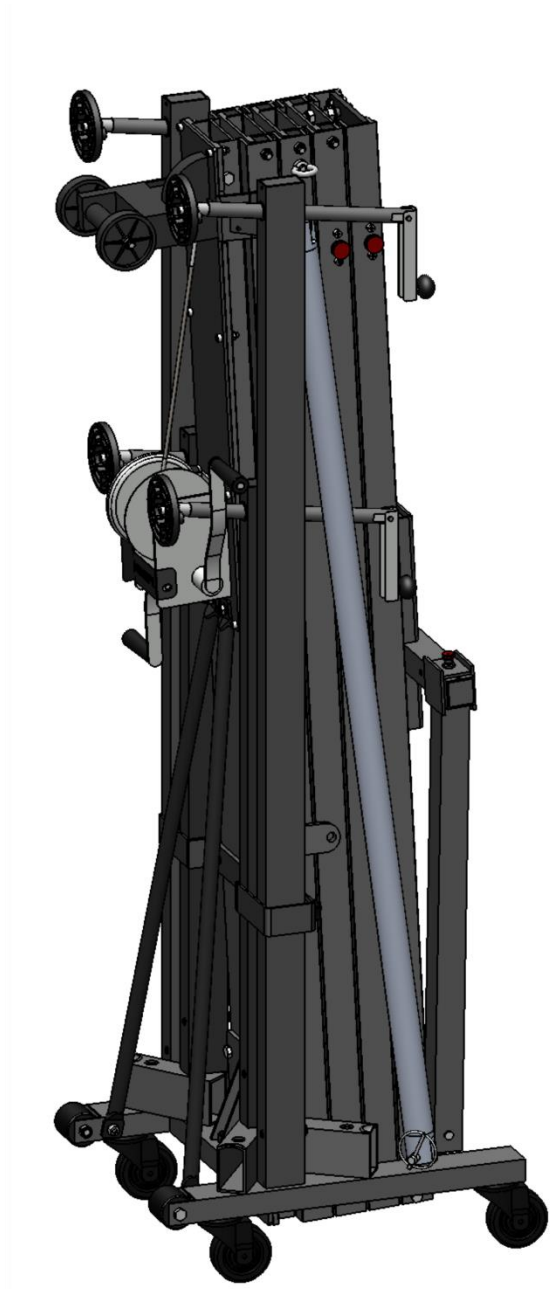




## MANUAL



ENGLISH

# MAT-350 Line Array Tower V2

Ordercode: 70871

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## Warning



**For your own safety, please read this user manual carefully  
before your initial start-up!**

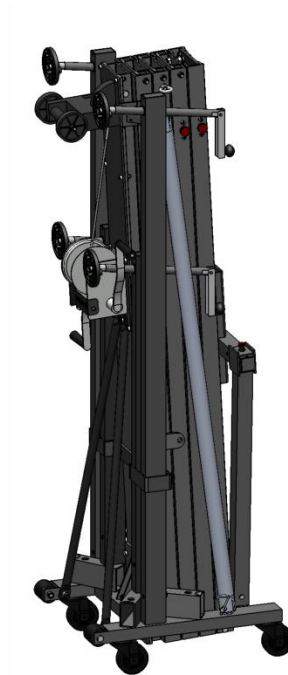


## Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

### Your shipment includes:

- Showtec MAT-350 Line Array Tower
- User manual



**CAUTION!**  
**Keep this device away from rain and moisture!**  
**Unplug mains lead before opening the housing!**



## Safety Instructions

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual

Before the initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes contained in this manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

### IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

- The lifting tower is an industrial element designed to raise loads vertically, it must NEVER be used as a platform elevator for people.
- Only place the lifting tower on firm flat grounds and make sure that it is in vertical position. Do not use wedges or any strange elements to balance the hoist.
- Check if legs are correctly assembled and secured with their safety pins.
- Never raise a load without first checking if it is correctly supported and centered on the appropriate lifting tower supports, so the load only acts vertically.
- Never surpass the maximum load capacity indicated on the lifting tower characteristics label and in this instruction manual.
- If there is a likelihood of strong wind or gusts, place the lifting tower on the ground and secure it with the aid of straps. Never fix a strap over a vehicle or any other element which might move.
- Never use a ladder over the lifting tower or lean against it for any kind of work.
- Beware of any kind of projection above the lifting tower like cornices, balconies, luminous signs, etc. It is very important to avoid the presence of cables below the lifting tower's working height.
- Never move the lifting tower when the load is raised. It is inadvisable to make any kind of movement, even small positioning adjustments.
- Never use the lifting tower over any mobile surface or vehicle.
- Before using the lifting tower, check the cable's state, which must not have any broken threads or compression. NEVER use defective cables and ALWAYS change the cable if there is any doubt. Only use steel cable as described in this manual.
- Fix the lever when the load is raised.
- The minimum load for the brake function without problems is 25kg. The brake will not function without this minimum load.
- Neither grease nor lubricate the winch brake mechanism. Braking disks were greased with a special heat and pressure resistant grease. No other products must be used to prevent negative influence on brake functioning.
- All sections of the lifting tower must be lowered to transport it.
- Never remove warning or informative labels from the unit.
- Never leave any cables lying around.
- Do not shake the device. Avoid brute force when installing or operating the device.
- Only use the device indoors, avoid contact with water or other liquids.
- Only operate the device after having familiarized with its functions.
- Avoid flames and do not put close to flammable liquids or gases.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- If device was dropped or struck. Have a qualified engineer inspect for safety before operating.
- If your Showtec device fails to work properly, discontinue the use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Showtec dealer for service.
- For adult use only. The fixture must be installed beyond the reach of children. Never leave the unit running unattended.
- The user is responsible for correct positioning and operating of the MAT-350. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this device.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.

### Rigging

Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

*Do not attempt the installation yourself !*

*Always let the installation be carried out by an authorized dealer !*

*Improper installation can cause serious injuries and/or damage of property!*



### Return Procedure



Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail [offersales@highlite.nl](mailto:offersales@highlite.nl) and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

**Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:**

- 01) Your name
- 02) Your address
- 03) Your phone number
- 04) A brief description of the symptoms

### Claims

The client has the obligation to check the delivered goods immediately upon delivery for any shortcomings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to report and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless agreed otherwise in writing.

Complaints against us must be prepared in writing or sent by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement from which the obligation is resulting.

## Description of the device

### Features

The Mammoth Series Stands are designed in the Netherlands and produced in Europe, ensuring the best price-performance ratio possible. All materials were carefully chosen to ensure a long lasting quality.

- Fixation of tower sections to working height by safety pins.
- Leg anchorage with safety pins
- Bubble level to adjust the tower's vertical position
- Rustproof protection and paint protective finish
- Certification: BGV C1 – BGG 912 – 2006/42/CE (Dekra)
- Maximum height: 6,5 m
- Maximum load @30 cm: 350 kg
- Maximum load @70 cm: 260 kg
- Minimum load: 25 kg
- Retracted height: 1,99 m
- Working area open base: 2,5 m x 2,25 m
- Closed base area: 0,51 m x 0,59 m
- Material: Aluminium AL Si 6106 / T6
- Winch: AL – KO 1.7 – WCH – 1700 kg
- Cable diameter: 6mm, galvanized steel under EN 12385-4. Resistance 1770N/mm<sup>2</sup>.
- Dimensions: 510 x 590 x 1990 mm (LxWxH) (Retracted)
- Weight: 184 kg

### Overview

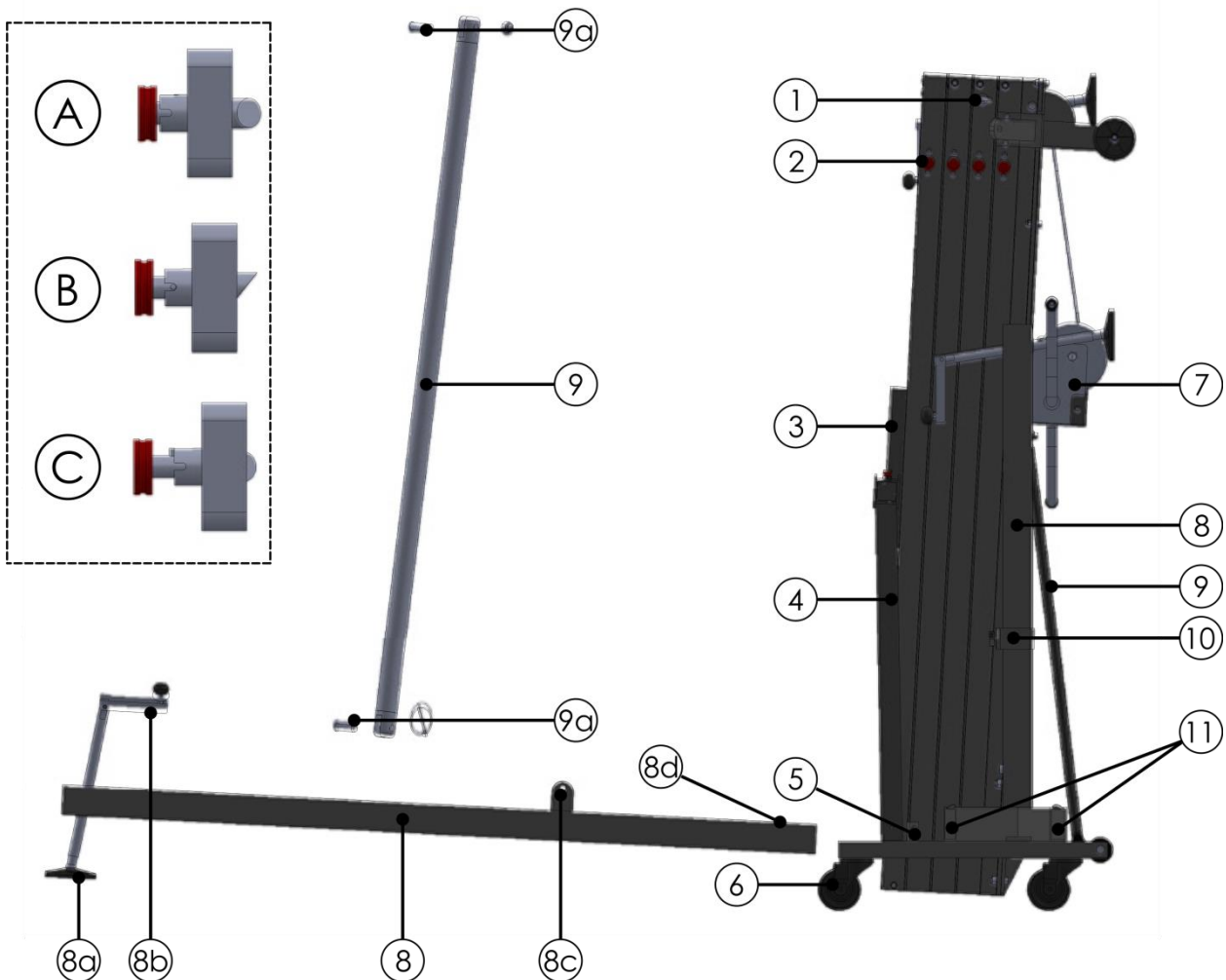


Fig. 01

- 01) Two fixing side rings for attaching supporting cables in case of outdoor use.
- 02) Safety pin profiles
- 03) Support carriage
- 04) Forklifts
- 05) Transport support
- 06) Transport wheels
- 07) Winch handle
- 08) Outriggers
  - 08a: Outrigger stabilizer
  - 08b: Cranks
  - 08c: Anchoring support
  - 08d: Safety pins
- 09) Front support bars
  - 09a: Safety pins
- 10) Transport support for the outriggers
- 11) Attachment positions for the outriggers

### Installation

Remove all packing materials from the MAT-350 Line Array Tower. Check if all foam and plastic padding is removed.

**Damages caused by non-observance are not subject to warranty.**

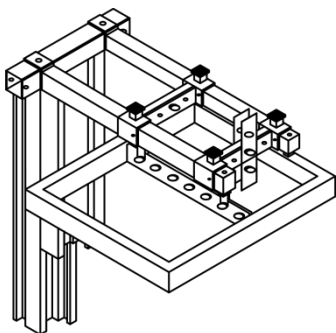
### Set Up and Operation

Follow the directions below, as they pertain to your preferred operation mode.

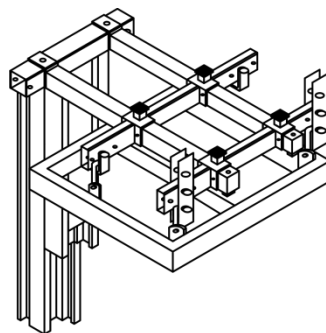
Read the directions carefully and follow these step by step in order to avoid accidents. Always make sure to use the safety pins during the wind-up, lowering and transport.

#### Winding Up

- 01) It's important to place the MAT-350 on a firm and flat surface before winding up.
- 02) Remove the outriggers **(08)** from their transport support **(10)** and insert them into the attachment positions **(11)**. Secure the outriggers **(08)** with the safety pins **(08d)**. The longest outriggers must be placed at the front, under the load.
- 03) Remove the front support bars **(09)** from their transport support **(05)** and place them in the anchoring supports **(08c)** on each front outrigger **(08)**. Secure them with the safety pins **(09a)**. In order to properly secure the front support bars **(09)**, adjust the support of the front outrigger by turning the stabiliser crank.
- 04) Adjust the outrigger stabilizers **(08a)** by turning the cranks **(08b)** to level the MAT-350. Use a bubble level to make sure that stabilizers are in vertical position.
- 05) Place the forklifts **(04)** in a horizontal position and secure them with the safety pins.
- 06) Use hanging system 1 if you want to fly a line array system with central anchoring by one or two hanging points (see fig. 02). If you want to fly the line array system with four hanging points, please use hanging system 2 (see fig. 02).



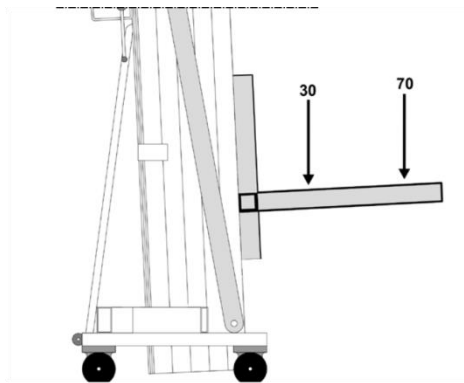
Hanging system 1



Hanging system 2

Fig. 02

07) To avoid accidents and dangerous situations, please follow the loading instructions (see fig.03). Place the load as close to the line array tower as possible.

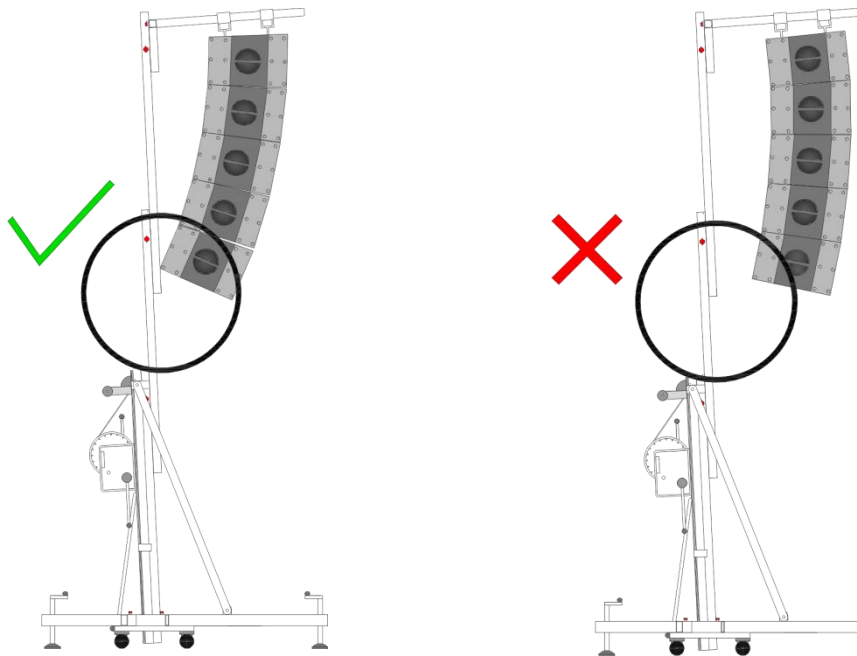


<i>Distance*</i>	<i>Maximum load</i>
30cm	350kg
70cm	260kg
<i>*Distance from the center of the load to the tower</i>	

**Fig. 03**

**Elevating**

- 01) Turn the winch handle **(07)** clockwise to lift the load in the desired position. Make sure that the safety pins are in position **(B)** while lifting. When the forklifts are lifted at the desired position secure the safety pins **(A)**.
- 02) To avoid overloading, do not separate the line array from the tower, see fig. 04.



**Fig. 04**



**Always hang the load as close as possible to the lifting tower**



**Note:** When using the line array tower outdoors, the risk of the wind speed is prevalent. If the wind speed exceeds 30 km/h, it is required to lower the tower. Use the two fixing side rings **(01)**, in the second profile, to attach the supporting cables and secure them on a firm surface.



## Lowering

- 01) Release the safety pins **(02)** in order to lower the line array tower. Make sure the pins are in position **(C)**.
- 02) To release the pins, slightly turn the winch handle **(07)** to elevate the load.
- 03) In the normal working position, the load's weight makes it impossible to release the safety pins.
- 04) If the safety pin **(02)** is unblocked, turn the winch handle **(07)** counterclockwise to lower the load until the second profile is completely down.
- 05) Release the safety pins **(02)** from the third profile and turn the winch handle **(07)** counterclockwise to lower the load until the third profile is completely down.
- 06) Release the next safety pins **(02)** and continue lowering the line array tower until it is completely retracted.
- 07) After lowering all profiles, block these profiles with the safety pins **(02)** in position **(A)**.
- 08) Place the forklifts **(04)** in their initial position.
- 09) Move the front support bars **(09)** from their anchoring supports **(08c)** and secure them to their transport supports **(05)** with the safety pins **(09a)**.
- 10) Remove the safety pins **(08d)** and move the outriggers **(08)** from their attachment positions **(11)**, secure them to their transport supports **(10)**.

## Maintenance

The operator has to make sure that safety-related and machine-technical installations are to be inspected by an expert after every year in the course of an acceptance test.

The operator has to make sure that safety-related and machine-technical installations are to be inspected by a skilled person once a year.

The following points have to be considered during the inspection:

- 01) Periodically check the status of the steel cable of the winch handle.



**If the cable seems to be broken or crushed, immediately replace it with a new one**



**Never use the line array tower with defective cables**



The specifications of the cable are: cable diameter: 6 mm, galvanized steel under EN 12385-4; resistance: 1770N/mm<sup>2</sup>.

- 02) The line array tower is greased by default. However, it is periodically necessary to grease the crown gear of the winch, the threaded bar of the stabilizer from the outriggers and the profiles.



**Do not grease the braking mechanism!!!**



**Note:** Braking disks were greased with a special heat and pressure resistant grease. No other product must be used to prevent negative influence on brake functioning.

- 03) Only original spare parts must be used to ensure continued safe use. Please consider that if the used spare parts are not original, the warranty will be void.
- 04) To obtain any spare part, contact your authorized Showtec dealer.

## Troubleshooting

This troubleshooting guide is meant to help solve simple problems.

If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

### No lifting

If the line array tower does not operate properly, refer servicing to a technician.

Suspect three potential problem areas as: the winch handle, the steel cable, the forklifts.

- 01) The winch handle. Return the line array tower to your Showtec dealer.
- 02) The steel cable. Return the line array tower to your Showtec dealer.
- 03) The forklifts. Return the line array tower to your Showtec dealer.
- 04) If you are unable to determine the cause of the problem, do not disassemble the line array tower yourself, as this may damage the unit and the warranty will become void.
- 05) Return the device to your Showtec dealer.

## Braking System Failure

It may occur due to braking system deficiencies or incorrect installation. It may lead to the raised load being out of control which may cause severe, potentially lethal, injuries and/or damage of property.

In order to prevent this problem, use only the winches compliant with the regulations mentioned in the BGV C1 directive (DIN EN ISO 12100:2011-03 and DIN EN ISO 12100-1:2004-04)

## Loss of Stability

If the tower is placed on a surface which is unstable or not completely flat, there is a risk of losing stability which would lead to a 90° overturn, which might cause severe, potentially lethal, injuries and/or damage of property.

In order to prevent this problem, the users need to be fully aware of all the potential risks. Follow the safety regulations and use different safety methods such as:

- Using safety pins
- Using a bubble level for vertical and horizontal adjustments
- Not exceeding the maximum load indications

## Falling Objects

The elevation equipment, due to its working height, creates a serious risk of raised objects falling down. This may be caused either by the securing mechanism failure, excessive wear, dirt or incorrect use of the lifting tower (e.g. exceeding the maximum load). Falling objects may cause severe, potentially lethal, injuries and/or damage of property.

In order to prevent this problem, do as follows:

- Use safety pins which fix the inner profile in its working position, so that the cable does not carry the load
- Use zinc-coated steel elements, to prevent oxidation and corrosion
- At least once a year, have the line array tower inspected by a professional, to eliminate any potential risks

## Product Specifications

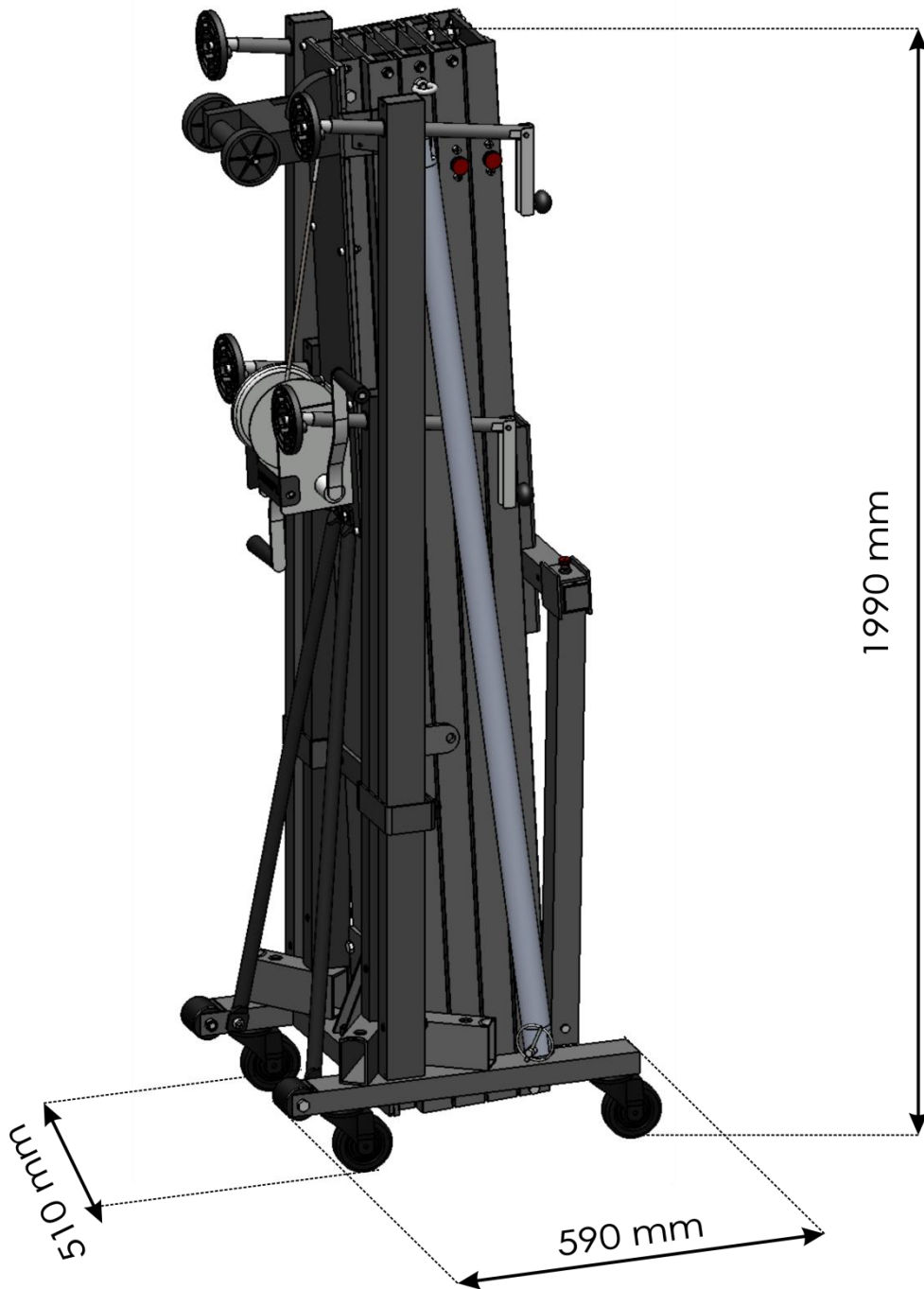
Model:	Showtec MAT-350 Line Array Tower
Maximum height:	6,5 m
Maximum load @30 cm:	350 kg
Maximum load @70 cm:	260 kg
Minimum load:	25 kg
Retracted height:	1,99 m
Working area open base:	2,5 m x 2,25 m
Closed base area:	0,51 m x 0,59 m
Certification:	BGV C1 – BGG 912 – 2006/42/CE (Dekra)
Material:	Aluminium AL Si 6106 / T6
Winch:	AL – KO 1.7 – WCH – 1700 kg
Cable diameter:	6mm, galvanized steel under EN 12385-4 Resistance 1770N/mm <sup>2</sup>
Dimensions:	510 x 590 x 1990 mm (LxWxH) (Retracted)
Weight:	184 kg

Design and product specifications are subject to change without prior notice.



Website: [www.Showtec.info](http://www.Showtec.info)  
Email: [service@highlite.nl](mailto:service@highlite.nl)

**Dimensions**





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