

PA-Tower



Herzlichen Dank,
dass Sie ein Voice-Acoustic Produkt gekauft haben.
Seit dem Jahr 2006 entwickeln wir unsere Produkte
in der Überzeugung, dass es auf die Details ankommt.
Wir wünschen Ihnen viel Freude mit diesem Produkt.

Thank you very much,
for purchasing a Voice-Acoustic product.
Since 2006 we have been developing our
products in the firm belief that details matter.
May we wish you a lot of pleasure with this product.

Muchas gracias
por haber comprado un producto de Voice-Acoustic.
Desde el año 2006 estamos desarrollando nuestros productos
estando convencidos, que son los detalles que cuentan.
Le(s) deseamos mucha alegría usando este producto.

Merci beaucoup
d' avoir acheté un produit Voice-Acoustic.
Depuis 2006, nous développons des produits
avec la ferme conviction que les détails comptent.
Nous vous souhaitons beaucoup de plaisir à utiliser ce produit.



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Intended use

The Voice-Acoustic PA-Tower is a tower construction made of aluminium trusses by HOF-Alute (system HOF-Kon 290-4) to accommodate loudspeakers with a total weight of max. 300 kg Outdoor (Indoor 400 kg) and a wind contact area of max. 1.5 m² with a maximum lifting height of 4.7 m to the upper edge of the loudspeakers.

The wind load of the tower is limited to wind forces up to 15 m/sec!

When using your own truss elements, the overall height of 5 m must not be exceeded, otherwise a construction book is required.

Not intended use

Do not use the Voice-Acoustic PA Tower:

- Outdoor with higher loads than 300 kg, Indoor max. 400 kg
- With wind attack areas of the loudspeakers of more than max. 1.5 m².
- At wind speeds above 15 m/sec
- For person transport
- For the transport of equipment that is not intended for use, such as scenery, flags, etc.

- The assembly and disassembly may only be carried out by qualified personnel or instructed persons!
- Observe the instructions in the manual when assembling and disassembling!
- Before each installation of the load, carry out a visual inspection for proper installation!
- Only use material supplied by the manufacturer or at least equivalent material!
- The state and trade association regulations must be observed!

Connection

The individual components of the PA tower are connected with cone connectors which are fastened with conical bolts in the ends of the belt tubes. The result is a completely non-positive connection with power transmission in the axes of the main belts.

Non-positive connections require a normal force on the surfaces to be connected. Their mutual displacement is prevented as long as the counter-force caused by the static friction is not exceeded.

The advantages of the conical connection include quick and easy assembly, backlash-free connection and the compensation of wear in the bores by the conical bolts.

Floor loading

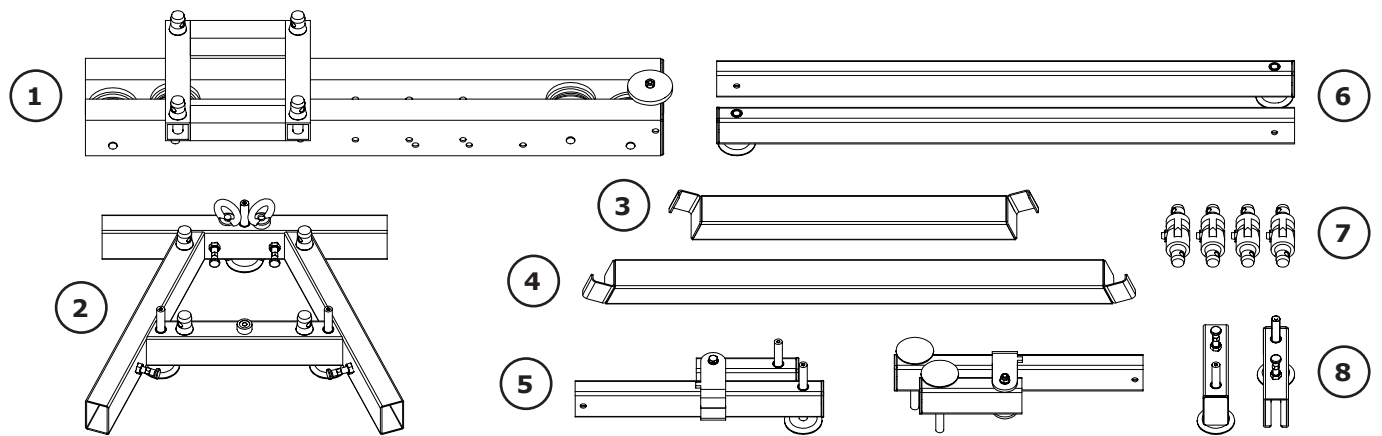
Before installing the PA tower on a level surface, the load-bearing capacity of the floor must be ensured.

The construction on solid ground such as stone, concrete, asphalt is unproblematic, when building on green areas, sand or gravel / gravel it must be ensured that none of the spindle feet can sink in.

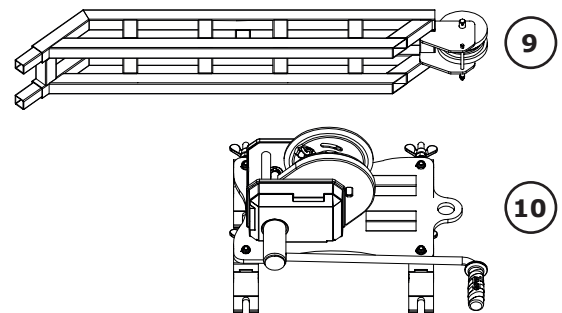
If the contact surface of the spindle feet must be increased due to a „soft“ floor in order to prevent them from sinking in, this may only be done by means of suitable measures, e.g. multiplex underlays or equivalent, not less than 30 mm thick!

If only steel plates are available for underlaying, the mast must be additionally secured against slipping.

Components



1. Head section made of aluminium
2. Tower-Base
3. Cross bar short on plug-in feet in front
4. Cross bar long on plug-in feet in front
5. Double rear plug-in feet
6. Long plug-in feet in front
7. Hinge Element
8. Gala clip-on feet
9. Assembly aid
10. Winch section

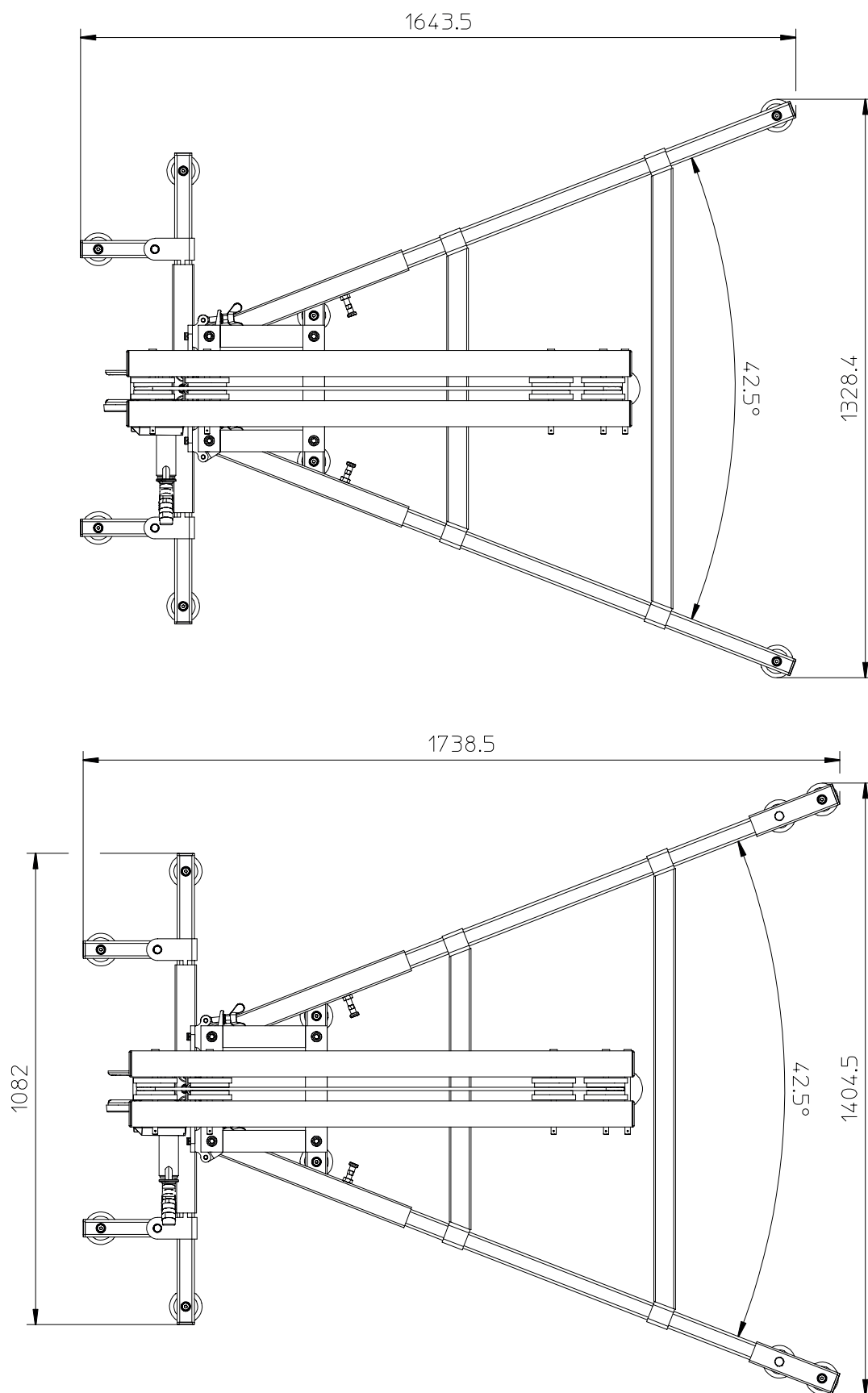


Note: The assembly aid (8) and winch section (9) are included depending on the mounting variant. The assembly aid is only required once and can be used for several PA towers.

Technical data

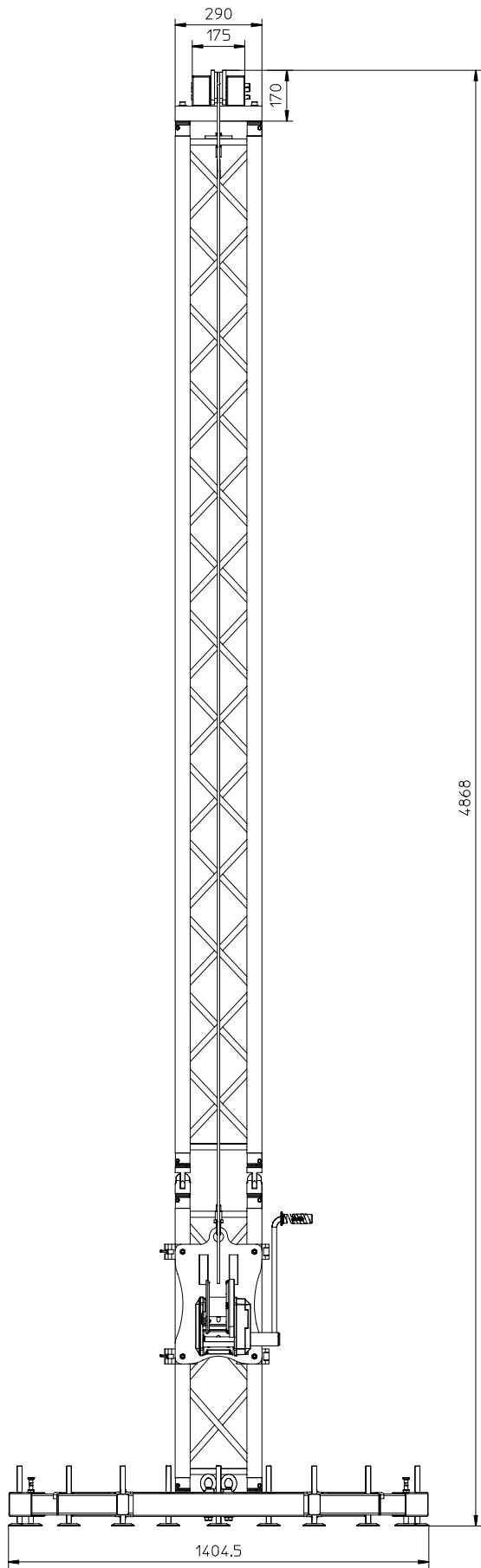
Construction height	4.9 m
Lifting height	4.7 m
Load capacity	Indoor without dynamic load up to 400 kg / Outdoor max. 300 kg
Floor area	133 (w) x 165 (d) cm / 140 (w) x 174 (d) cm with Gala clip-on feet
Ballasting	Recommendation: With indoor or operating wind a minimum ballast 60 kg
Stability	up to max. wind force of 15 m/sec with max. 1.5 m ² wind attack area

Dimensions

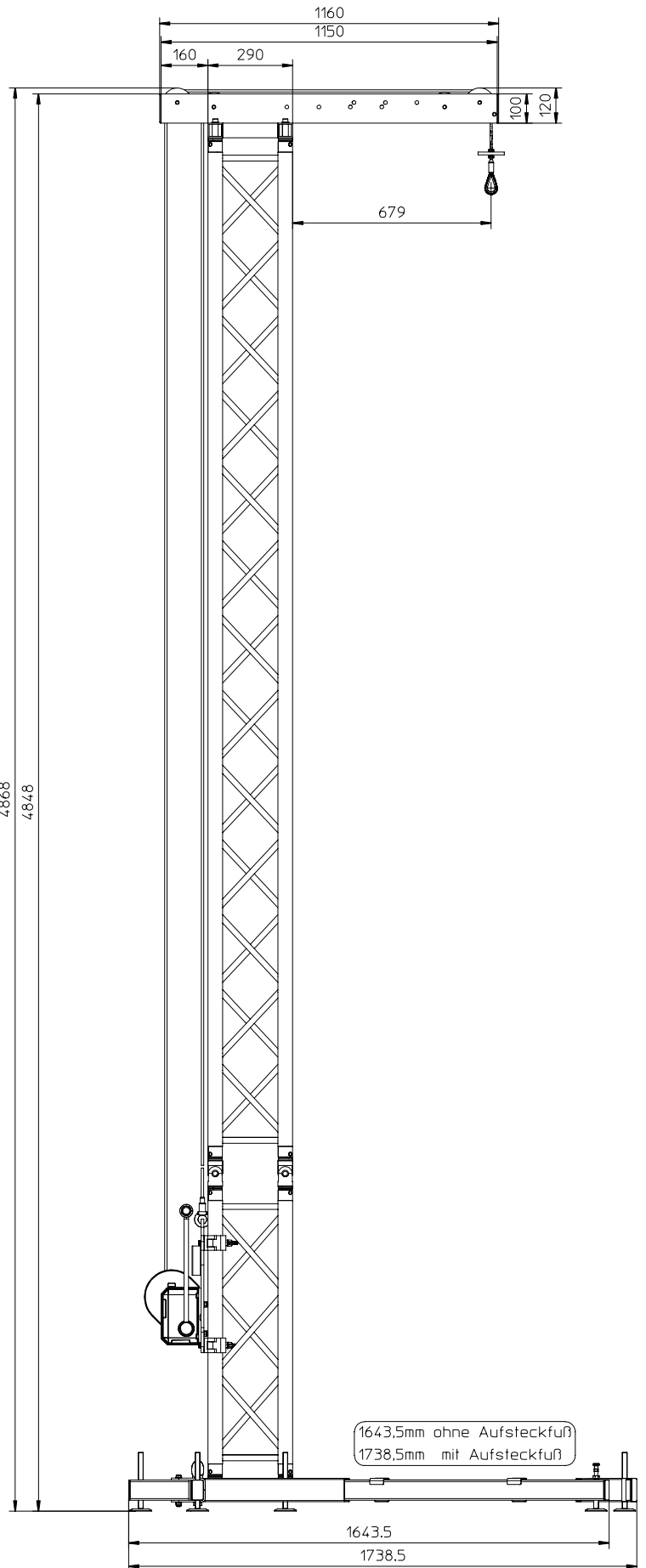


Plan view with and without gala clip-on feet

*All dimensions in mm



Rear view

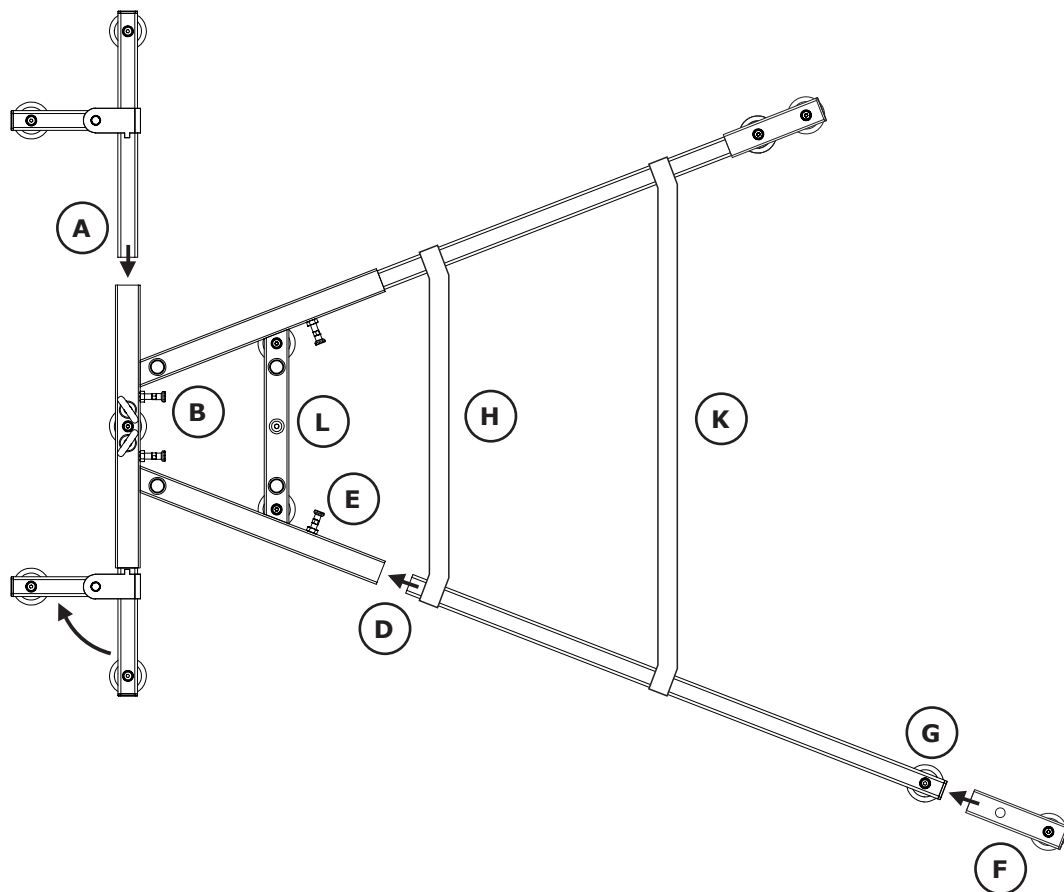


Side view

Assemble base frame

After ensuring the bearing capacity of the floor and the location is an even surface, you can begin with the assembly of the foot frame.

1. Insert the double plug-in foot (A) on both sides into the rear part of the tower base until the locking bolt (B) can be snapped into the double plug-in foot for securing.
2. Fold out the extension arm (C) of the double plug-in foot to the rear.
3. Insert the long plug-in feet (D) into the front of the tower base on both sides until the locking bolts (E) are engaged in the plug-in feet for securing.
4. For outdoor use, additionally attach the two short plug-in feet (F) to the long plug-in feet until the locking bolts (G) are engaged in the long plug-in feet for securing.
5. Position the two crossbars short (H) and long (K).
6. Place the foot frame in the balance using the circular bubble (L) and the adjustable feet.



Mounting mast with assembly aid

After assembly and alignment of the base frame, the mast can be mounted.

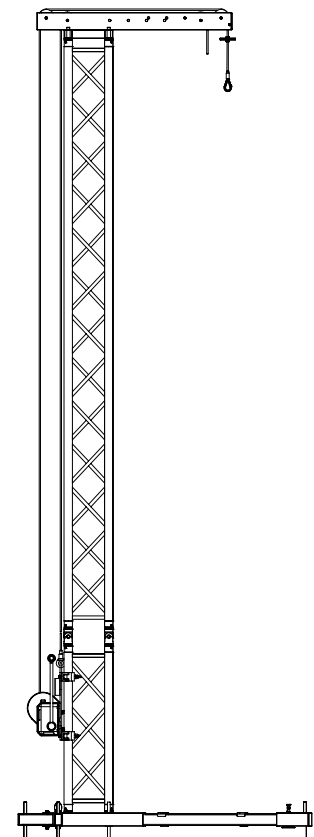
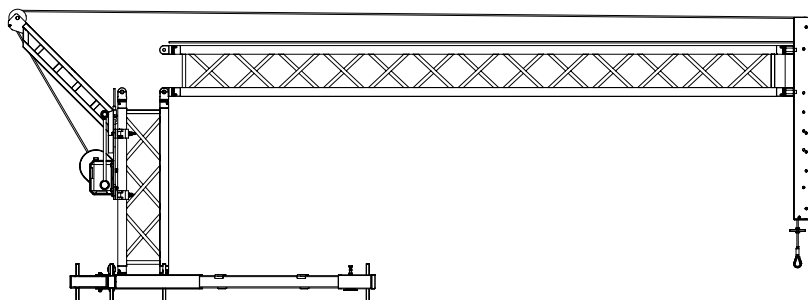
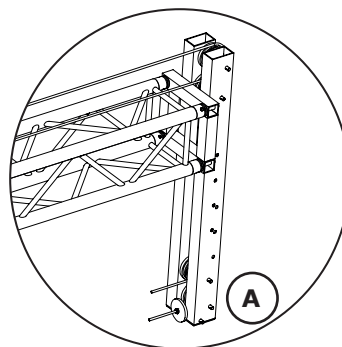
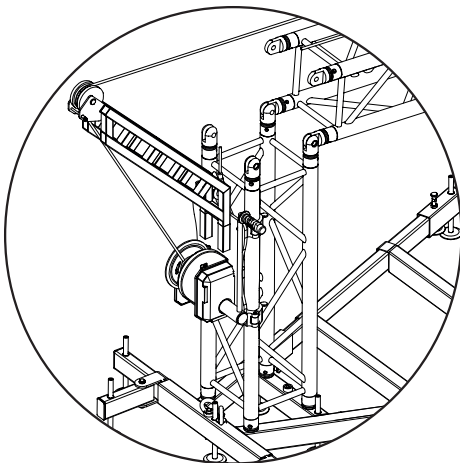
1. Insert a 1 m truss element (system HOFKon 290-4) into the tower base and secure it with pins in the provided half cones.
2. Mount the winch section and the lower part of the four buckling elements to the truss element.

Note: The next truss element can be assembled from several elements, but must not exceed a length of 3.5 m. The construction book must otherwise be prepared. Otherwise the permissible construction height of the PA tower would exceed 5 m and a construction book would be required.

3. Attach the four upper parts of the buckling elements and the head section to the 3.5 m truss element (HOFKon 290-4 system) and secure everything with pins.
4. Insert the assembly aid into the mounting provided on the winch section.
5. Connect the truss elements to the front buckling elements.

Note: In the ideal case, the head section is sufficient as a support when connecting the truss elements. However, if the floor is sloping, the head section must be lined accordingly in order to relieve the two front buckling elements.

6. The steel cable for assembly is guided over both outer rollers of the head section and the assembly aid. Insert the safety pin (A) at the head section to prevent the steel cable from jumping off!
7. The additional secondary safety device is guided over both inner rollers of the head section.
8. Hook the steel cable into the winch and erect the mast by cranking it.
9. Secure the two rear buckling elements with the corresponding pins.
10. Loosen the steel cable a little and remove the assembly aid.



Ballasting

It is recommended to always apply a minimum ballast of approx. 60 kg to the crossbars between the long plug-in feet when used with indoor or operating wind!

Note: *At wind speeds above 15 m/sec a higher ballasting is not decisive, the operation has to be stopped!*

Dismantling of the PA Tower

1. Remove bass loudspeaker or ballast.
2. Unlocking, shutting down and removing the load.
3. Loosen the steel cable, attach the assembly aid and guide it over its roll.
4. Tension the steel cable so that the mast does not tip over uncontrolled.

Note: *Make sure that nobody is in the tipping area of the tower!*

5. Remove the pins from the rear buckling elements.
6. Slowly lower the mast forward by cranking.

Note: *In the ideal case, the head section is sufficient as a support when separating the truss elements. However, if the floor is sloping, the head section must be lined accordingly in order to relieve the two front buckling elements.*

7. Remove the assembly aid and separate the two truss elements at the buckling elements.
8. Dismantle the PA tower for transport.

Overview Accessories



Heavy-duty flightcase for a PA tower without truss (Art.-Nr. 500003000)



VAPATO BASE ADD ON - 2 x Gala clip-on feet (Art.-Nr. 112290472)



VAPATO TOWERLIFTER - Plug-in assembly aid (Art.-Nr. 112290473)



Stacking board (Art.-Nr. 500015000)



Truss-Bag-100 square truss 100 cm, Dimensions: 30 x 30 x 100 cm (Art.-Nr. 999930100)



Truss-Bag-150 square truss 150 cm, Dimensions: 30 x 30 x 150 cm (Art.-Nr. 999930150)



Truss-Bag-200 square truss 200 cm, Dimensions: 30 x 30 x 200 cm (Art.-Nr. 999930200)



Wire rope holder for 8 mm steel rope, 240 kg (Art.-Nr. 999908240)



Shackle with nut and cotter pin, 2.000 kg (Art.-Nr. 999916200)



Steel Rope 8/10000 (Art.-Nr. 999981000)

Imprint

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All specifications in this manual are based on information available at the time of publishing for the features and safety guidelines of the described products. Technical specifications, measurements, weights and properties are not guaranteed.

The manufacturer reserves the right to make technical modifications according to legal regulations stipulating the continual improvement of product features. For the safe operation of the unit, this manual and all other required information must be available to all users at the time of assembly and disassembly of the unit, and during operation. Assemble or operate the unit only after reading and understanding this manual, and keeping it at hand at all times at the site.

We are happy to receive your suggestions and proposals for the enhancement of this manual.

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