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General safety information and instructions

The data and information provided in this application guide are for product description purposes only. The information does not release the user from their own assessments and tests. Please note that our products are subject to natural wear and tear and ageing.

According to DGUV Regulation 68, industrial trucks must be “operated in such a way that stability is maintained.”

You must therefore read and follow the safety instructions set out below.

- All work on and with the Base Cart must be performed with “safety first” in mind.
- Observe the regulations pertaining to accident prevention and environmental protection that apply in the country and workplace where the product is being used.
- Use only item products that are in perfect working order.
- Failure to use original spare parts will invalidate the product warranty!
- Check the product for obvious defects.
- Use the product only within the performance range described in the technical data.
- Ensure all the safety equipment associated with the product is present, properly installed and in full working order.
- You must not alter the position of safety devices, bypass them or render them ineffective.

Failure to observe the safety instructions and warning notices in this guide is always associated with a risk of personal injury and damage to property. We will assume no liability for any resulting damage or injury. We reserve the right to make changes that represent technical advances.

Correct use

The Base Carts are components within the meaning of the Machinery Directive and may only be used in accordance with the technical data and safety specifications of this application guide.

Internal company requirements and the regulations that apply in the country where the product is being used must be observed. You must not make any design modifications yourself. We will assume no liability for any resulting damage or injury.

You may only install, operate and maintain the Base Cart if:

- the components have been integrated into their surroundings in a proper and safe manner.
- the top module (any structure on the Base Cart) does not protrude beyond the Base Cart.
- you have carefully read and understood this guide. (This document is intended solely as a guide; no guarantee is given.)
- you are appropriately qualified.
- you are authorised to do so by your company.
- you are using only original equipment from the manufacturer.
- das Transportgut gesichert ist und sich während der Fahrt nicht bewegt.
- you choose the lowest possible centre of gravity: transport heavy goods at the bottom and light goods at the top.
- you choose the most central possible centre of gravity, which increases stability.
- you have calculated/determined the stability in a practical case.

The Base Cart is designed for indoor use.

Improper use

Improper use is defined as any use of the product for purposes other than those authorised in this guide and under the definition of correct use. We will assume no liability for any resulting damage or injury.

Description

We do not guarantee its accuracy. Stability must also be calculated or determined in real-life situations.

This design aid serves as a support for determining the stability of Base Carts in operation with customer-specific configurations.

Cases considered:

- Braking and starting when driving straight ahead
- Continuous cornering with the smallest possible turning radius

Scope of application

- The application guide does not take any safety factor into account! (Therefore, $S = 1$ applies.)
- The application guide does not take inclines into account.
- The application guide applies up to a height of 1800 mm.
- The application guide only applies to the area between the inward-facing swivel castors. The load is therefore always taken into account as a standing moment.
- The application guide applies subject to compliance with Base Cart-specific and robot manufacturer-specific conditions:
 1. Maximum accelerations/decelerations occurring in the robot model
 2. Geschwindigkeit bei kleinster Kurvenfahrt (0.3 m/s)
 3. Load capacity on the Base Cart
 4. Weight of the Base Cart
 5. Geometry of the Base Cart

Instructions for use

- The customer calculates the position of the centre of gravity of the superstructure (TopModule).



NOTE! Note the position of the coordinate system in the diagrams.

- Compare with the diagrams. If the centre of gravity lies within the corresponding graph area, the structure will not tip over mathematically.
- If in doubt, please contact your item consultant.

Diagrams

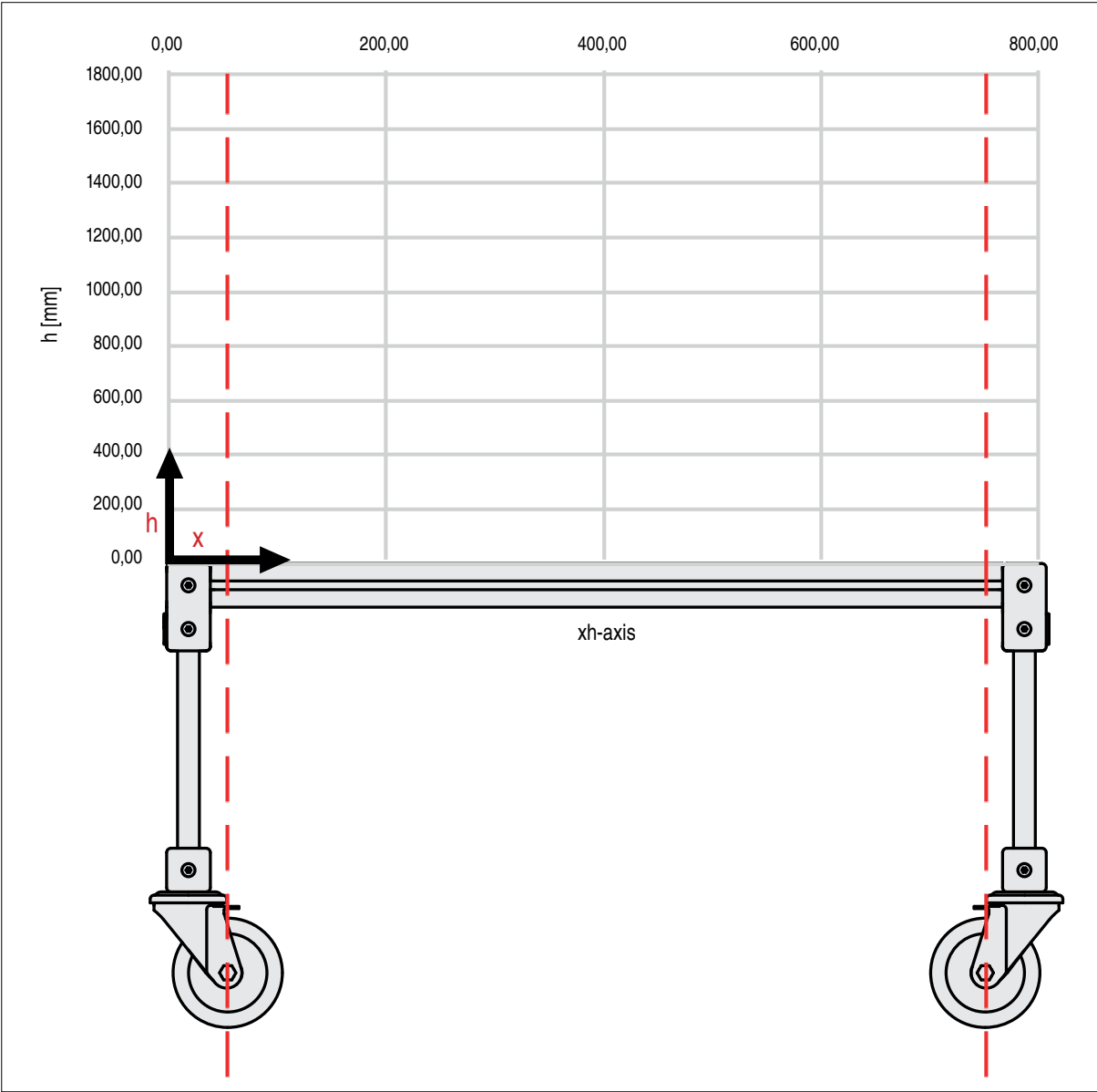
- h = Height of the centre of gravity of the payload from the profile surface. (in mm)
- x = Centre of gravity bearing transverse to the Base Cart. (in mm)
- y = Centre of gravity bearing lengthwise to the Base Cart. (in mm)
- Origin (0, 0) on the surface of the Base Cart in the left-hand corner of the profile.
- In the side view (yh -plane), the direction of travel of the Base Cart always points to the left.

MiR Short

Colour legend:

● 100 kg ● 200 kg ● 300 kg — Static limits

Front view:



[illegible]

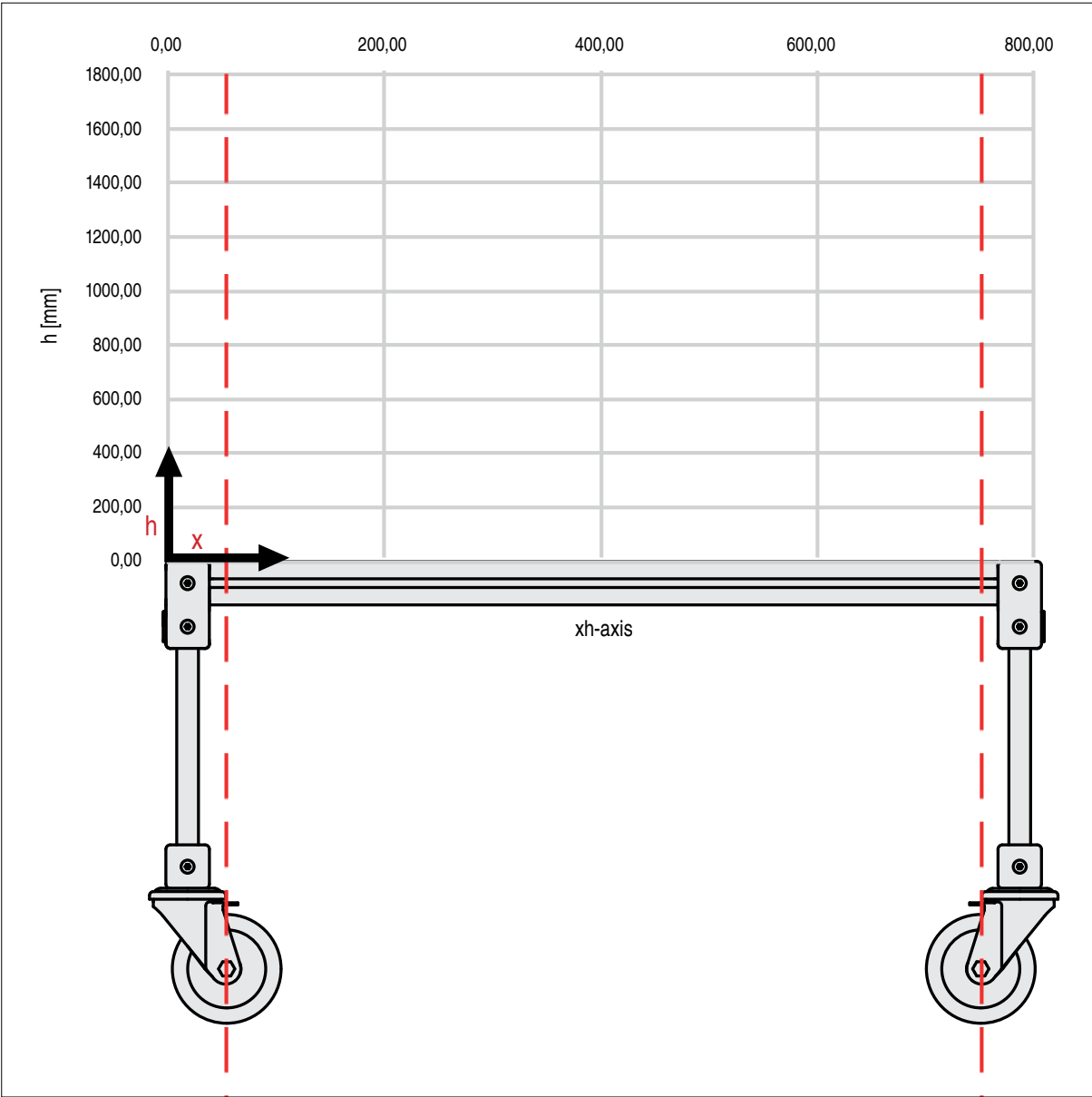
Load capacity [kg]	x [mm]	h(x) [mm]	y [mm]	h(y) [mm]	Remark
300 kg	56,00	1800,00	121,00	223,84	At the left static limit
	749,00	1800,00	661,00	1162,99	At the right static limit
250 kg	56,00	1800,00	121,00	272,61	At the left static limit
	749,00	1800,00	661,00	1223,01	At the right static limit
200 kg	56,00	1800,00	121,00	345,76	At the left static limit
	749,00	1800,00	661,00	1313,03	At the right static limit
150 kg	56,00	1800,00	121,00	467,68	At the left static limit
	749,00	1800,00	661,00	1463,08	At the right static limit
100 kg	56,00	1800,00	121,00	711,52	At the left static limit
	749,00	1800,00	661,00	1763,17	At the right static limit
50 kg	56,00	1800,00	121,00	1443,03	At the left static limit
	749,00	1800,00	661,00	1800,00	At the right static limit

MiR Long

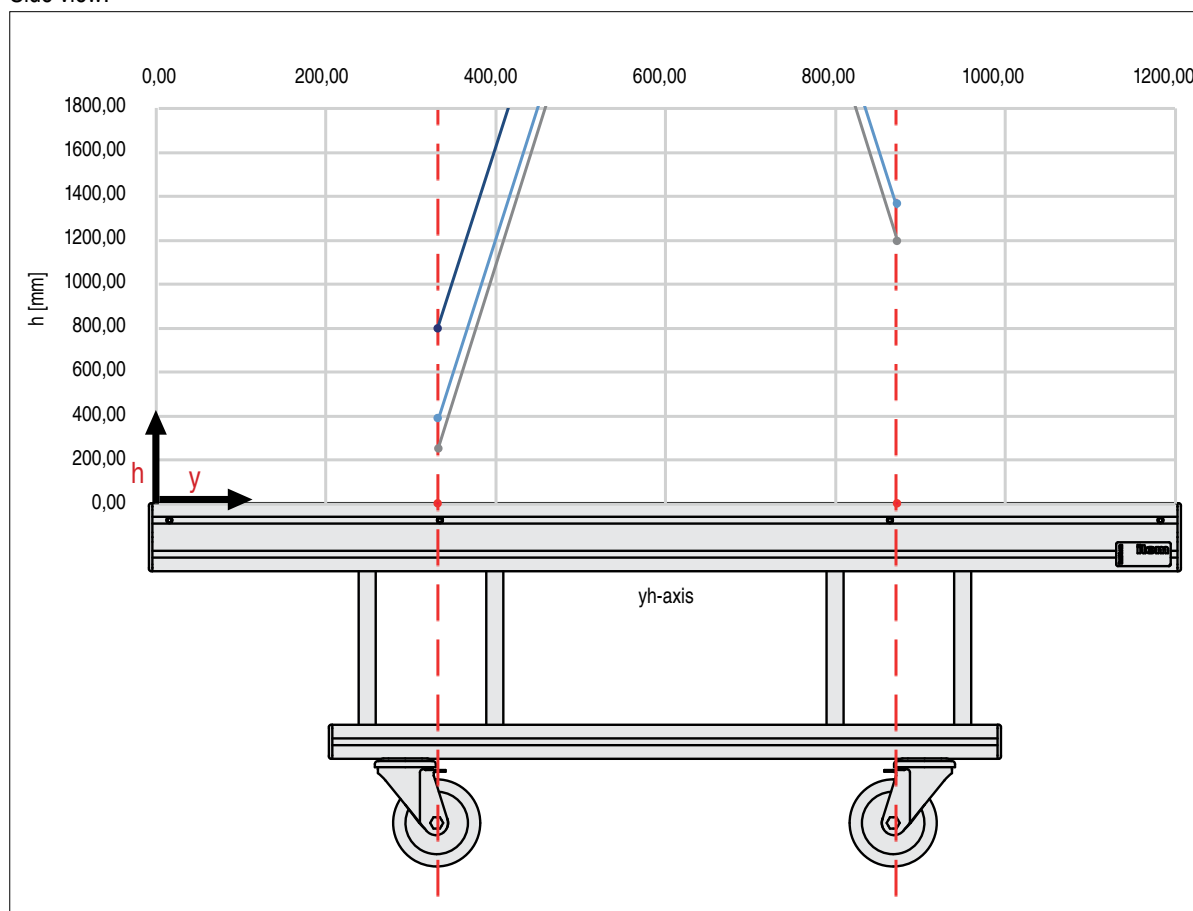
Colour legend:

● 100 kg ● 200 kg ● 300 kg - - - Static limits

Front view:



Side view:



Load capacity [kg]	x [mm]	h(x) [mm]	y [mm]	h(y) [mm]	Remark
300 kg	56,00	1800,00	332,50	252,35	At the left static limit
	749,00	1800,00	872,50	1199,08	At the right static limit
250 kg	56,00	1800,00	332,50	306,81	At the left static limit
	749,00	1800,00	872,50	1266,31	At the right static limit
200 kg	56,00	1800,00	332,50	388,52	At the left static limit
	749,00	1800,00	872,50	1367,17	At the right static limit
150 kg	56,00	1800,00	332,50	524,69	At the left static limit
	749,00	1800,00	872,50	1535,25	At the right static limit
100 kg	56,00	1800,00	332,50	797,04	At the left static limit
	749,00	1800,00	872,50	1800,00	At the right static limit
50 kg	56,00	1800,00	332,50	1614,07	At the left static limit
	749,00	1800,00	872,50	1800,00	At the right static limit

Repair and Maintenance



The Base Carts are essentially maintenance-free.

If operating conditions are unusual, e.g. special type of installation, dust, vibrations, heat, influence of solvents etc., the structural integrity of the Base Carts must be checked and maintenance work may be required.

This information does not discharge users from the obligation to carry out their own assessments and checks. It is also important to bear in mind that our products are subject to a natural process of wear and ageing.

Disposal



The product can be recycled or re-used (after any necessary refurbishment and replacement of parts).

The use of appropriate materials and easy dismantling ensure the product can be recycled. Improper disposal of item components can pollute the environment.



Dispose of the Base Carts in accordance with the national regulations that apply in your country.

Transport packaging:

Dispose of the packaging using the return and collection systems that are available to you.

Product development and documentation

A process of continuous product development ensures that products from item Industrietechnik GmbH always exhibit a high standard of innovation.

Consequently, there could be inconsistencies between this guide and the product you have acquired. item Industrietechnik GmbH can also not exclude the possibility of errors. We therefore ask for your understanding that the information, illustrations and descriptions provided here cannot constitute an entitlement to any claims.

You will find the latest version of this guide on the relevant product page in the Online Shop at: www.item24.com

item

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