



Operating Instructions

Translation of original operating instructions

Manhole Frame Clamp SRZ_M

SRZ-M



Bitte beachten Sie, dass das Produkt ohne vorliegende Betriebsanleitung in Landessprache nicht eingesetzt / in Betrieb gesetzt werden darf. Sollten Sie mit der Lieferung des Produkts keine Betriebsanleitung in Ihrer Landessprache erhalten haben, kontaktieren Sie uns bitte. In Länder der EU / EFTA senden wir Ihnen diese kostenlos nach. Für Länder außerhalb der EU / EFTA erstellen wir Ihnen gerne ein Angebot für eine Betriebsanleitung in Landessprache, falls die Übersetzung nicht durch den Händler/Importeur organisiert werden kann.

Please note that the product may not be used / put into operation without these operating instructions in the national language. If you did not receive operating instructions in your national language with the delivery of the product, please contact us. In countries of the EU / EFTA we will send them to you free of charge. For countries outside the EU / EFTA, we will be pleased to provide you with an offer for an operating manual in the national language if the translation cannot be organised by the dealer/importer.

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EC-Declaration of Conformity / UKCA-Declaration of Conformity

Manufacturer: Probst GmbH
Gottlieb-Daimler-Straße 6
71729 Erdmannhausen, Germany
info@probst-handling.de
www.probst-handling.com



Importer: Probst Ltd
Unit 2 Fletcher House
Stafford Park 17
Telford Shropshire TF3 3DG, United Kingdom
www.probst-handling.co.uk
sales@probst-handling.co.uk



The machine described above complies with the relevant requirements of the following EU directives:
The object of the declaration described above is in conformity with the relevant UK-Regulations and UK-Guidelines:

EC-machinery directive 2006/42/EC (Reference: OJ L 157, 09.06.2006)

UK-Regulation: Supply of Machinery (Safety) Regulations 2008 (SI 2008 No. 1597)

The following standards and technical specifications were used:

DIN EN ISO 12100

Safety of machinery - General principles for design - Risk assessment and risk reduction

UK-Regulation: BS EN ISO 12100-1:2003+A1:2009

DIN EN ISO 13857

Safety of machinery - safety distances to prevent hazard zones being reached by upper and lower limbs.

UK-Regulation: BS EN ISO 13857:2019


Authorized person for EC-documentation:

Name: Jean Holderied
Address: Probst GmbH; Gottlieb-Daimler-Straße 6; 71729 Erdmannhausen, Germany

Authorized person for UK-documentation:

Name: Nigel Hughes
Address: Probst Ltd ; Unit 2 Fletcher House; Stafford Park 17; Telford Shropshire TF3 3DG, United Kingdom

Signature, information to the subscriber:

Erdmannhausen, 02.08.2021.....
(Eric Wilhelm, Managing director)

3 Safety

3.1 Safety symbols



Danger to life!

Identifies imminent hazard. If you do not avoid the hazard, death or severe injury will result.



Hazardous situation!

Identifies a potentially hazardous situation. If you do not avoid the situation, injury or damage to property can result.



Prohibition!

Identifies imminent a prohibition. If you do not avoid the prohibition, death and severe injury, or damage to property will result.

3.2 Explanation of basic concepts

Gripping range:	<ul style="list-style-type: none"> specify the minimum and maximum product measurements of the gripping good, which can be gripped with this device.
Gripping good (s):	<ul style="list-style-type: none"> is the product, which will be gripped or transported.
Opening width:	<ul style="list-style-type: none"> consists of the gripping range and the measure to drive over the gripping good. <i>gripping range + measure to drive over the gripping good = opening width</i>
Immersion depth:	<ul style="list-style-type: none"> is the maximum gripping height of gripping goods, conditional of the height of the gripping arms of the device.
Device:	<ul style="list-style-type: none"> is the description for the gripping device.
Product dimensions:	<ul style="list-style-type: none"> Are the dimensions of the gripping good (e.g. length, breadth, height of the product).
Dead weight:	<ul style="list-style-type: none"> is the own weight (without gripping good) of the device.
Load capacity:	<ul style="list-style-type: none"> specify the maximum possible load of the device (lifting of gripping goods).

3.3 Definition skilled worker / specialist


Only skilled workers or specialists is it allowed to carry out the installation, - maintenance, - and repair work on these device!

Skilled workers or specialists must have for the following points (if it applies for these device), the necessary professional knowledge.


- for mechanic
- for hydraulics
- for pneumatics
- for electrics

3.4 Safety Marking



PROHIBITION SIGN

Symbol	Meaning	Order-No.:	Size:
	It is not allowed to be under hanging loads. Danger to life!	2904.0210 2904.0209 2904.0204	30 mm 50 mm 80 mm

WARNING SIGN

Symbol	Meaning	Order-No.:	Size:
	Danger of squeezing the hands.	2904.0221 2904.0220 2904.0107	30 mm 50 mm 80 mm

REGULATORY SIGN

Symbol	Meaning	Order-No.:	Size:
	Manual guiding is only allowed for machines with handles.	2904.0227 2904.0226 2904.0225	30 mm 50 mm 80 mm
	Read operating instructions before operating.	2904.0366 2904.0365	30x57 mm 50x95 mm

3.5 Personal safety requirements



- Each operator must have read and understood the operating instructions.
- Only qualified, authorized personal is allowed to operate the device and all devices which are connected (lifting equipment).
- The manual guiding is only allowed for machines with handles.

3.1 Protective equipment

The protective equipment must consist, according to the safety regulations of the following parts:

- Protective clothing
- Safety gloves
- Safety shoes

3.2 Accident prevention



- The workplace has to be covered for unauthorized persons, especially children.
- Take care in case of thunderstorm!



- The workplace has to be sufficiently illuminated.
- Take care with handling wet, dirty and not solidified components.



- The working with the device in case of atmospheric editions under 3° C (37,5° F) is forbidden! Because the goods could be fall down caused by dampness or freezing.

3.3 Function Control

3.3.1 General



- Before using the device check the functions and the working condition.
- Maintenance and lubrication are only permitted when device is shut down!



- Do not use the device, until all faults which can cause safety hazards are removed.
- If there are any cracks, splits or damaged parts on any parts of the device, **immediately** stop using it.



- The operating instructions must be available at the workplace every time.
- Do not remove the data-plates of the machine.
- Unrecognisable information signs must be replaced.

3.4 Safety procedures

3.4.1 General



- The use of the device is only permitted in proximity to the ground. Do not swing it over peoples heads.
- The manual guiding of is only allowed for devices with handles.
- The operator is not allowed to leave the control unit as long as the device loaded with load. The load must always be in the range of vision of the operator.



- While using the device is the stay of persons in the working area forbidden. Except it is indispensable. Caused of the way of using the device, e.g. if the device must be leaded by hand.
- The jerky lifting and lowering of the device with and without load. e.g. caused through driving fast with the support frame/lifting device over uneven grounds is **forbidden**. Because the gripping good could **fall down**. Unchecked movements of the device.



- While using the device be sure that there are no persons in the working area. **Danger to Life!**
- Do not pull out stuck or tightened loads with the device.
- Do not lift any components off-centre, because that **could fall down**.
- The device should not be opened if the opening path of the gripping arm is blocked by a resistance (e.g. other concrete blocks or the like)!
- **Never exceed the carrying capacity and the nominal width of the device.**
- **Never pull or drag loads sideways.** Otherwise parts of the device could be damaged. (see Fig. A →)

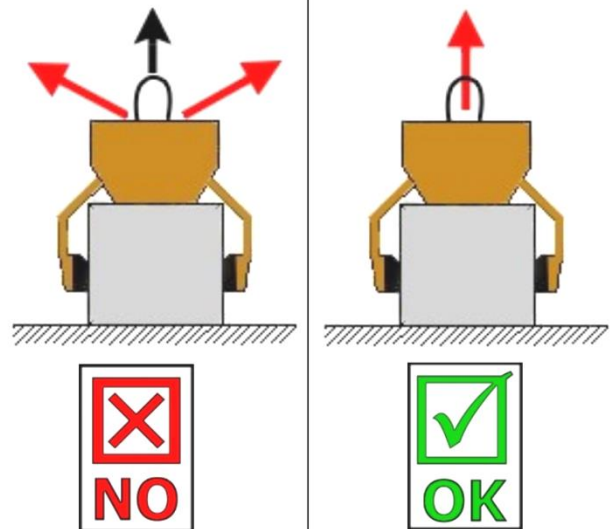


Fig. A

3.5 Hydraulic excavator and other support frames



- Hydraulic excavator and other support frames have to be in good, safe working condition.
- Only authorized and qualified personnel is allowed to operate the excavator and other support frame.
- The operator staff must have all the necessary qualifications.



- **Never exceed the maximum capacity of the hydraulic excavator and other support frame.**

3.6 General

4 Authorized use

The device (Manhole Frame Clamp SRZ-M) is only suitable for pick-up and installation of manhole frames and compensation rings (up to inner-Ø 625 mm/). Connected with lifting equipment e.g. a excavator or can be handled either by hand (2-men-operation on handles).

These device is series equipped with the following elements:

- Automatic release for fully- automatically switch over from „full“ to „empty“
- Lifting eye for attaching to crane hook
- Handles for guidance of the device (for two-men –operation) turnable by 90 °
- exchangeable rubber grippers



- The device is only designed for the use specified in this documentation.
- Every other use is not authorized and is forbidden!
- All relevant safety regulations, corresponding legal regulations, especially regulations of the declaration of conformity, and additional local health and safety regulations have to be observed.



Prior to every operation the user must ensure that:

- the equipment is suited to the intended operation, the functioning and the working condition of the equipment is examined, and the loads are suitable to be handled.

Any doubts about instructions should be raised with the manufacturer prior to use.



Only stone elements with parallel and plane surface are allowed to be picked-up and handled.
Because the gripping good could **fall down**.



ATTENTION: The use of this device is only permitted in proximity to the ground.



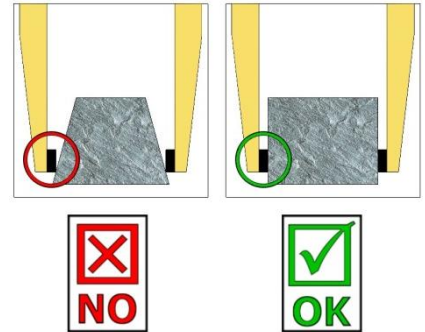
NOT ALLOWED AKTIVITIES:

Unauthorized alterations of the device and the use of any self-made additional equipment could cause danger and are therefore **forbidden!!**

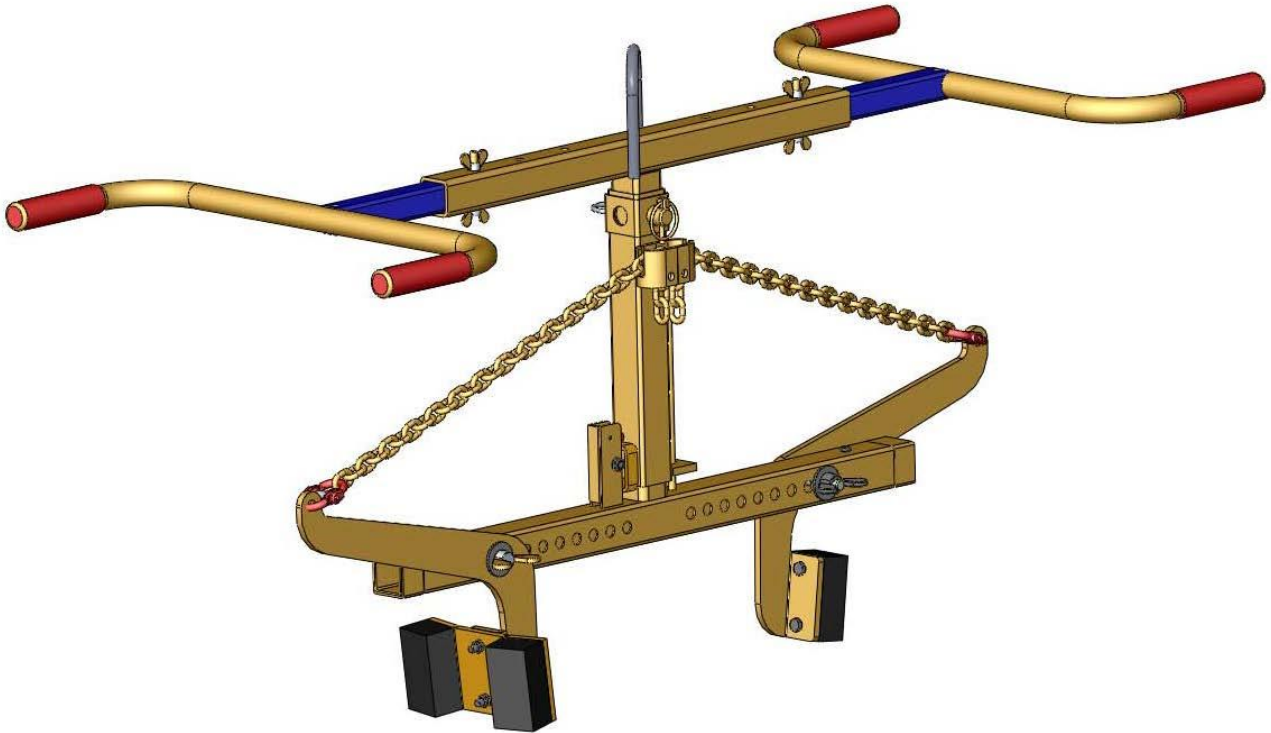
Never exceed the **carrying capacity** and the **nominal width/gripping range** of the device.

All unauthorized transportations with the device are not allowed:

- Transportation of people and animals.
- Transportation of other loads and materials than described in this manual.
- Never suspend any goods with ropes, chains or similar at the device.
- Transportation of **non rectangular** and **round** gripping goods, because they could fall down. (see figure to the right). →
- Gripping of gripping goods with **packaging foil**, because they could fall down.
- Transportation of material with “feet”, “bellies” and “blind spacers”.



4.1 Survey and construction



4.2 Technical data

Type	Gripping range	Carrying capacity	Dead weight
SRZ-M	200 – 620 mm (7¾ - 24½ “)	150 kg (330 lbs)	ca. 20 kg (approx. 44 lbs)

4.3 Installation

4.4 Mechanical connection

4.5 Suspension lug

- The device is equipped with a suspension lug and can be mounted on various support frames/lifting devices.



- Take careful that the suspension lug is safety joined with the crane hook and can not slip down.



- **The maximum carrying capacity of the support frame/lifting device is not allowed to cross over by the dead weight of the device and the maximum load.**

4.5.1 Load hook and chains



- Fit suspension ring in the load hook of the lifting equipment.
- **Ensure that the single chains are not twisted and may be easily pulled through the jaws**



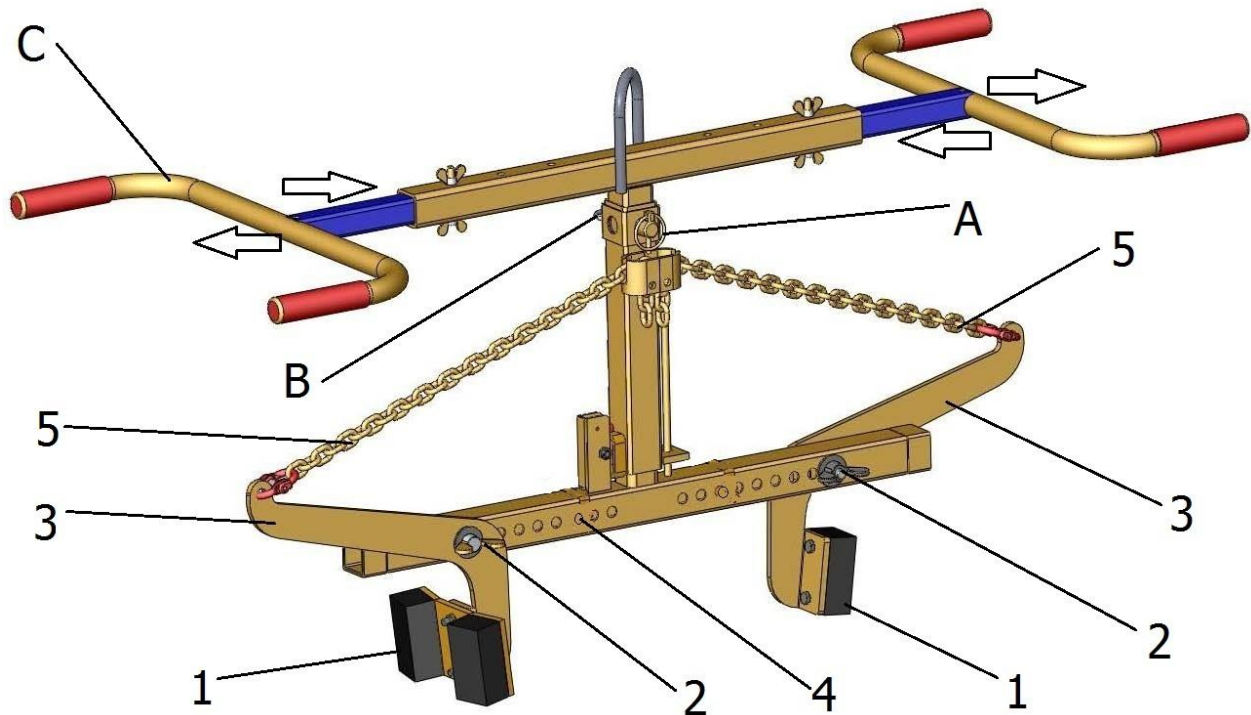
- Attaching the device to the lifting equipment take care that all local safety regulation is observed.
- **It is not allowed to exceed the carrying capacity of the lifting equipment with the device and the maximum load.**

5 Operation and Adjusting

5.1 Adjustment gripping range

Adjust the device (SRZ-M) over the gripping range adjustment in compliance with the dimensions of the gripping good (hollow slope block).

- Remove both wing nuts (1) and pull the threaded bolts (2) out.
- Move the gripping arm (3) to the corresponding hole in the gripping range adjustment (4).
- The adjustment of the gripping range must be always symmetrical on both sides. Otherwise the device hang inclined.
- Insert the threaded bolts (2) and fasten the wing nuts (1) again.
- Both adjusting chains (5) must be tightening taut when the device (SRZ-M) stands without a gripping good ("empty") on the ground. The rubber grippers (6) should be in rectangular position (approx.) to the ground. The adjusting chains (5) must be fit each with the same chain link, so that both have the same length



5.2 Adjustment handle

The handle (for 2-man operation) can be rotated round 90°.

- Remove the splint pin (A) and pull the socket pin (B) out.
- Remove the handle (C), rotate it round 90° and set it in again.
- Stick the socket pin (B) in again and secure it with the splint pin (A).



Danger of squeezing the hands during adjustments on the device!



5.3 One-man operation

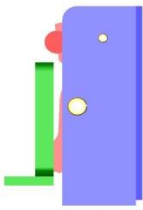
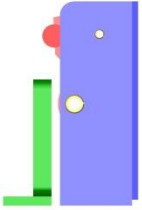
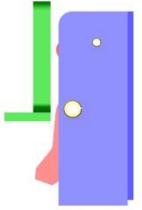
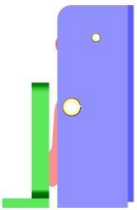
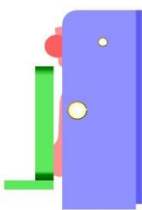
- The device is connected to the lifting equipment/support frame (e.g. excavator).
- Before lifting the device, the gripping range has to be adjusted.
- The device is placed over the product, set down, the device closes round the product and it can be lifted.
- Set down on the ground again, the device opens automatically, the automatic release locks it into position so that the device can be lifted without closing up.
- Placed over the next product, the automatic release disengages itself and the product can be lifted.
- The device therefore is a ONE-MAN-MACHINE.



Shut-down the device without lifting equipment/support frame only on even ground. The gripping arms must be opened enough, to ensure a secure standing of the device. Otherwise exists danger of overturning!

The device is mounted with a automatic release, that means the opening and closing of the gripping arms results through the set down and lifting of the device.

Pictures the positions of the automatic release

<p>①</p> 	<p>②</p> 	<p>③</p> 
<ul style="list-style-type: none"> • Device is lifted through the support frame. • Gripping arms are opened. 	<ul style="list-style-type: none"> • Device is set up on the gripping good. • Gripping arms are opened. 	<ul style="list-style-type: none"> • Device is lifted through the support frame. • Gripping good is clamped and can be transported to the destination.
<p>④</p> 	<p>⑤/①</p> 	
<ul style="list-style-type: none"> • Device is set down with the gripping good (on the ground). • Gripping arms are opened. 	<ul style="list-style-type: none"> • Device is lifted through the support frame. • Gripping arms are opened. (laydown position of the device on the ground) 	

5.4 Maintenance and care

6 Maintenance



To ensure the correct function, safety and service life of the device the following points must be executed in the maintenance interval.

Used **only original spare parts**, otherwise the warranty expires.



All operations may only be made in closed state of the device!

For all operations you have to make sure, that the device will not close unintended. Danger of injury!!!

6.1 MECHANICAL

SERVICE INTERVAL	Maintenance work
First inspection after 25 operating hours	<ul style="list-style-type: none"> Control and tighten all screws and connections. (The implementation is only allowed by an expert).
All 50 operating hours	<ul style="list-style-type: none"> Tighten all screws and connections (take care that the tightening torques according to the property class of the screws are observed). Check all joints, bolts, guidance's and gears for correct function, if necessary adjust or replace it. Check all Grippers (if available) for signs of wear. Grease all slidings (if available) when the device is in opened position with a spatula. Grease all grease nipples (if available) with a grease gun.
Minimum 1x per year (at rough conditions shorten the interval)	<ul style="list-style-type: none"> Check of all the suspension parts, bolts and straps. Check for corrosion and safety by an expert.

AUTOMATIC-RELEASE



Never grease the automatic-release, if necessary use oil!

6.2 Trouble shooting

ERROR	CAUSE	REPAIR
The clamping-power is not big enough, the load is slipping out		
(optional)	<ul style="list-style-type: none"> The grippers are worn 	<ul style="list-style-type: none"> Replace the grippers
(optional)	<ul style="list-style-type: none"> The maximum load is exceed 	<ul style="list-style-type: none"> Reduce the weight of. the load
(Adjustment of the gripping range) (optional)	<ul style="list-style-type: none"> The actual opening width is not correct 	<ul style="list-style-type: none"> Adjust the gripping range according to the load you want to transport
(Property of material)	<ul style="list-style-type: none"> The surface of the material is dirty or the material is not suitable / allowed for this device. 	<ul style="list-style-type: none"> Check the surface of the material or ask the manufacturer, if you the material is allowed for this device.
Unbalanced load		
	<ul style="list-style-type: none"> The device is not loaded symmetrically 	<ul style="list-style-type: none"> Adjust the position of the load
(Adjustment of the gripping range) (optional)	<ul style="list-style-type: none"> The adjustment of the gripping range is not symmetrical. 	<ul style="list-style-type: none"> Correct the adjustment of the gripping range
Automatic release does not work		
mechanical (optional)	<ul style="list-style-type: none"> Automatic release does not work 	<ul style="list-style-type: none"> Clean automatic release with high pressure-cleaner Oil the automatic release (never with grease) Change the inset of the automatic release

6.3 Repairs

- Only persons with the appropriate knowledge and ability are allowed to repair the device.
- Before the device is used again, it has to be checked by an expert.

6.4 Safety procedures

- It is the contractors responsibility to ensure that the device is checked by an expert in periods of max. 1 year and all recognized errors are removed (→ see BGR 500).
- The corresponding legal regulations and the regulations of the declaration of conformity have to be observed!
- We recommend, that after checking the device the badge „Safety checked“ is put on the device. (Order-No.: 2904.0056+inspection sticker with date).
- You can receive these badges from us.



The check by an expert must be proved!

Device	Year	Date	Expert	Company

6.1 Hints to the identification plate



Type, serial-number and production year are very important for the identification of your device. If you need information to spare-parts, warranty or other specific details please refer to this information.

The maximum carrying capacity is the maximum load which can be handled with the device. Do not exceed this carrying capacity.

If you use the device in combination with other lifting equipment (Crane, chain hoist, forklift truck, excavator) consider the deadweight of the device.

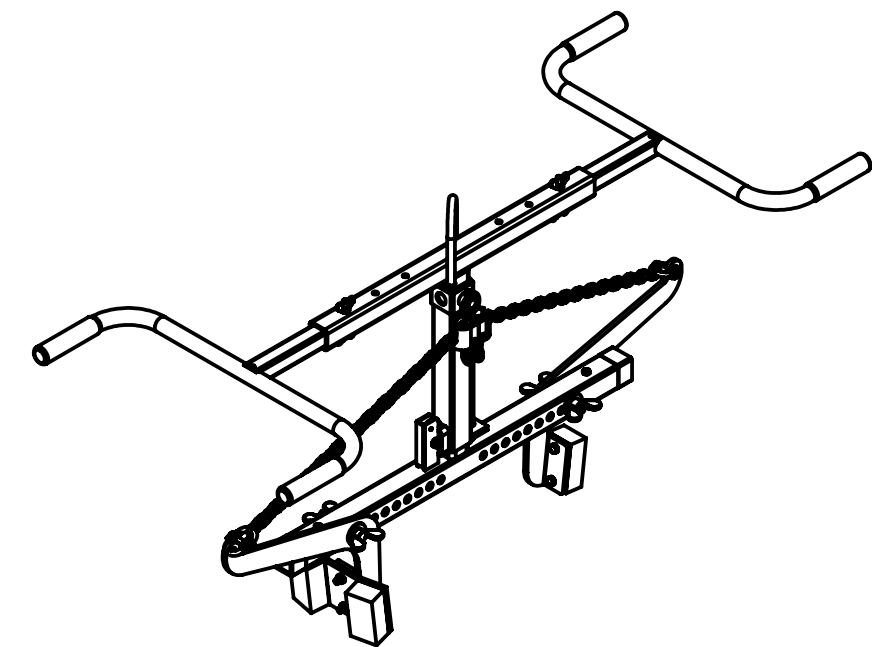
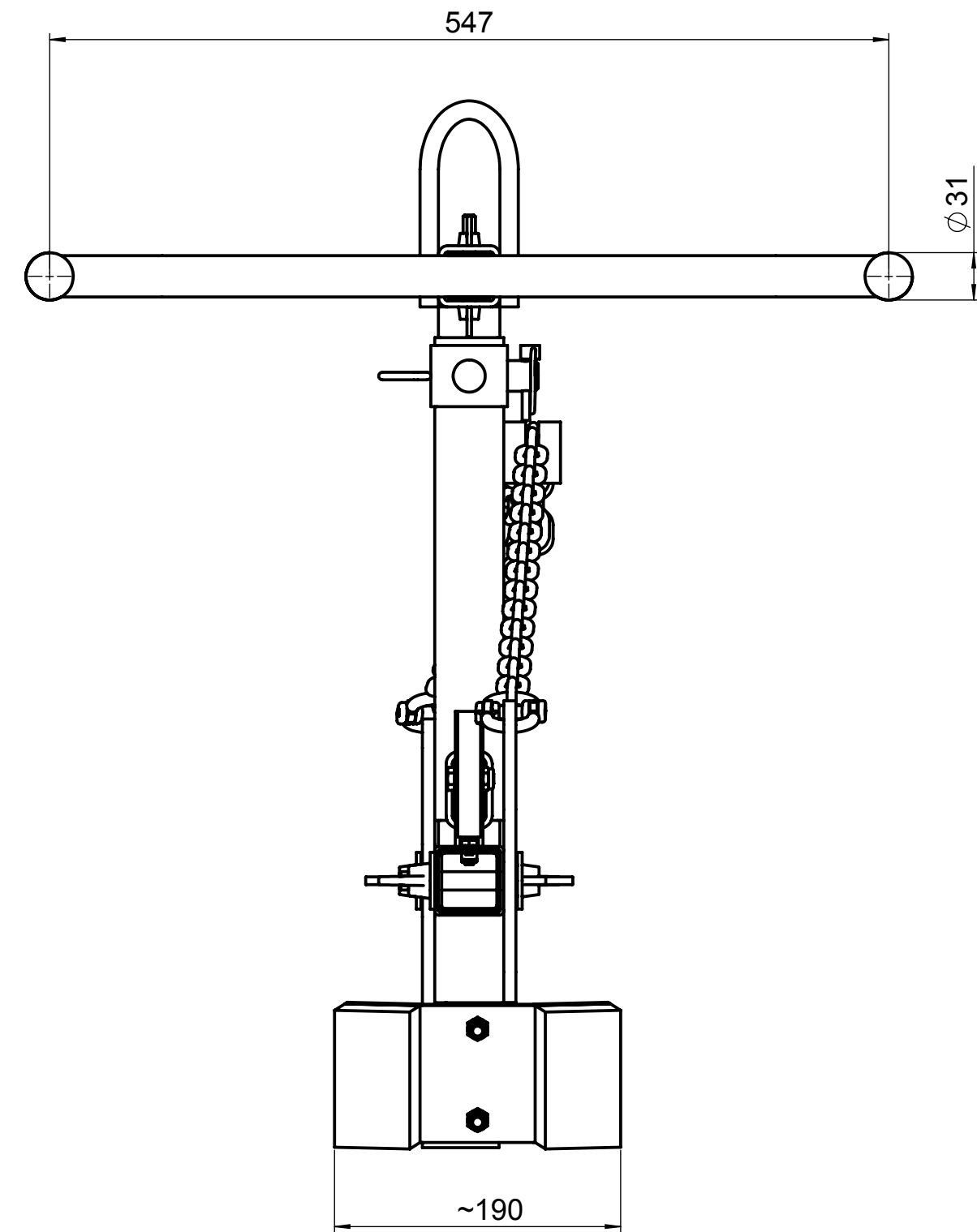
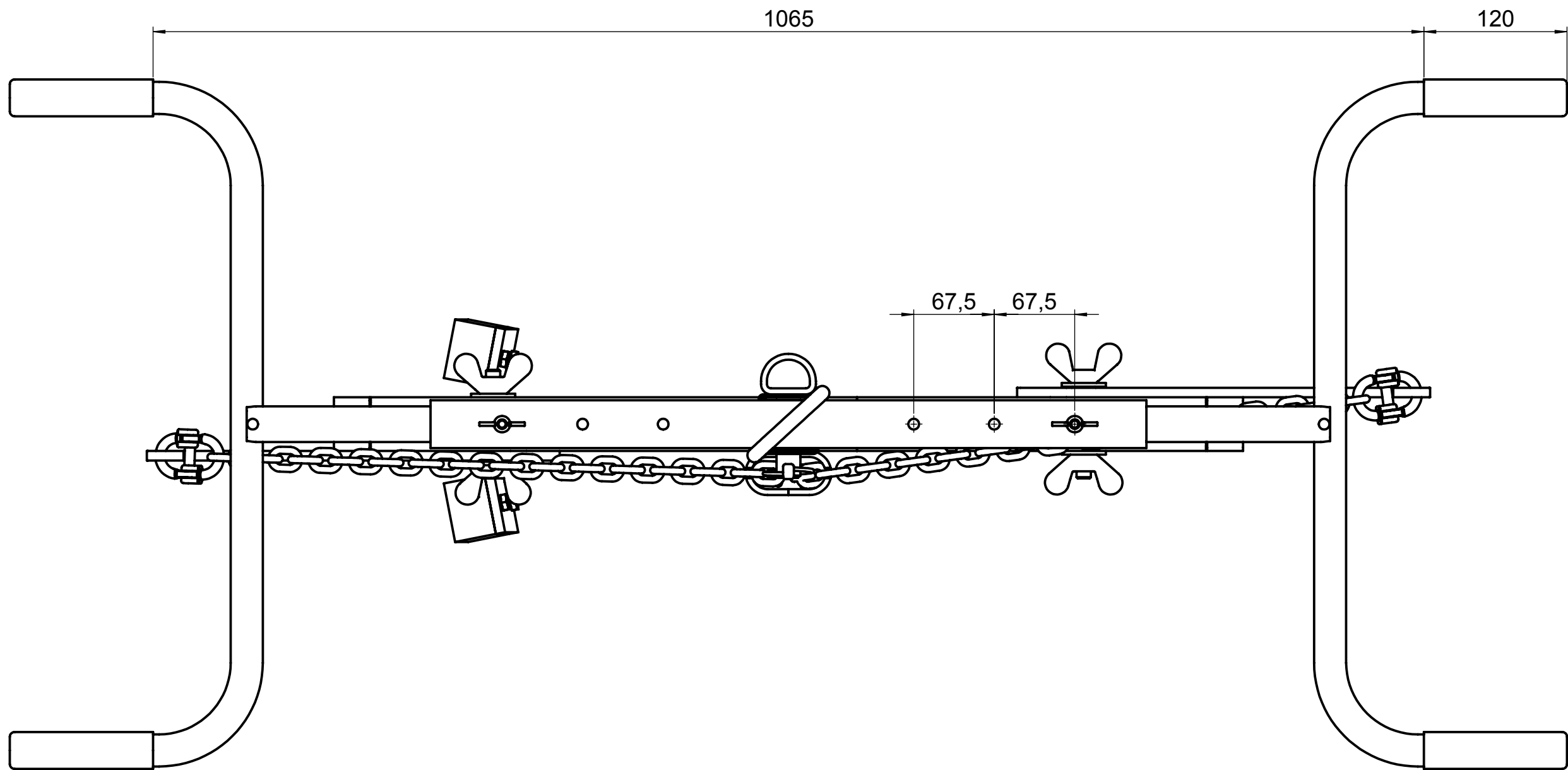
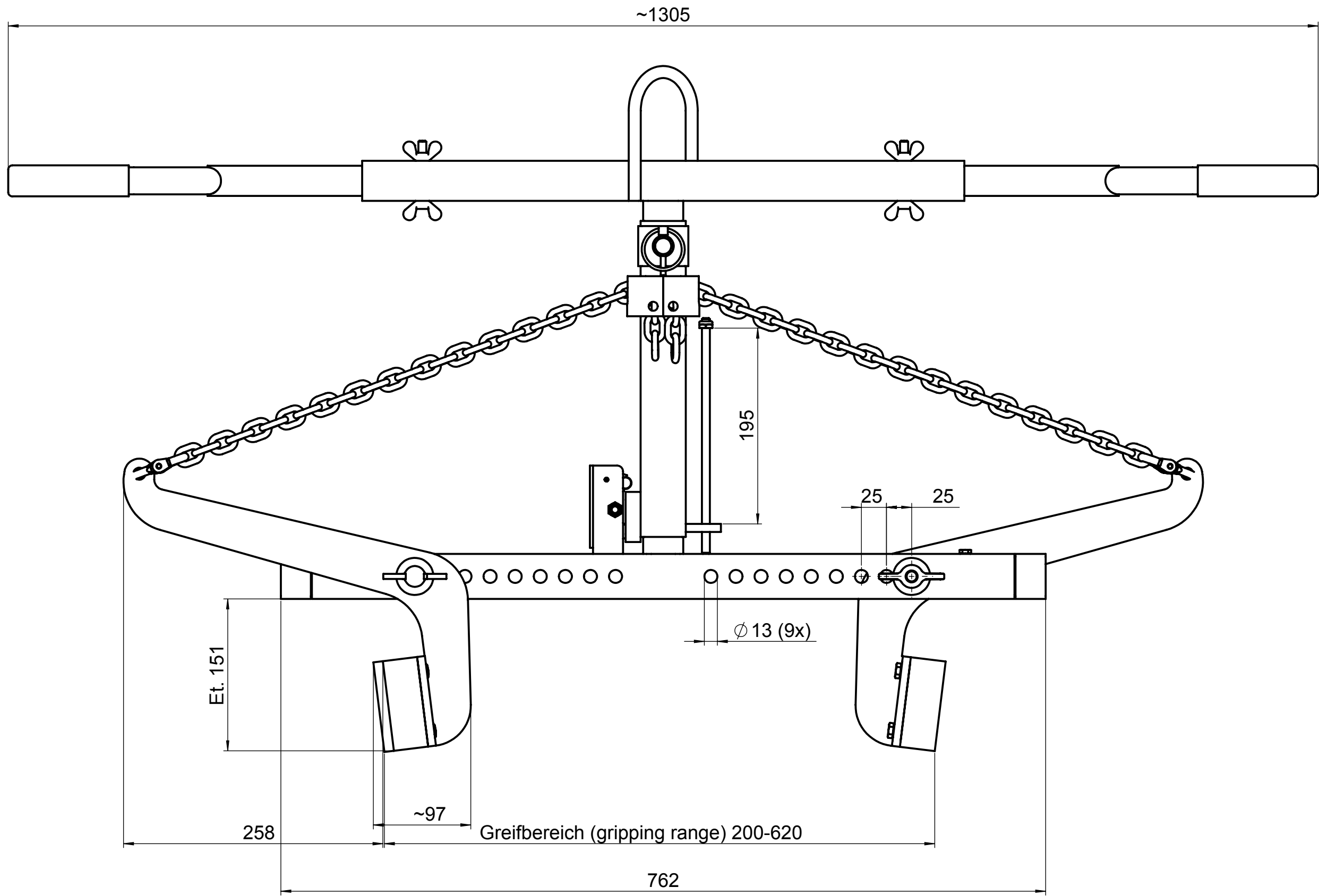


Example:


6.2 Hints to the renting/leasing of PROBST devices

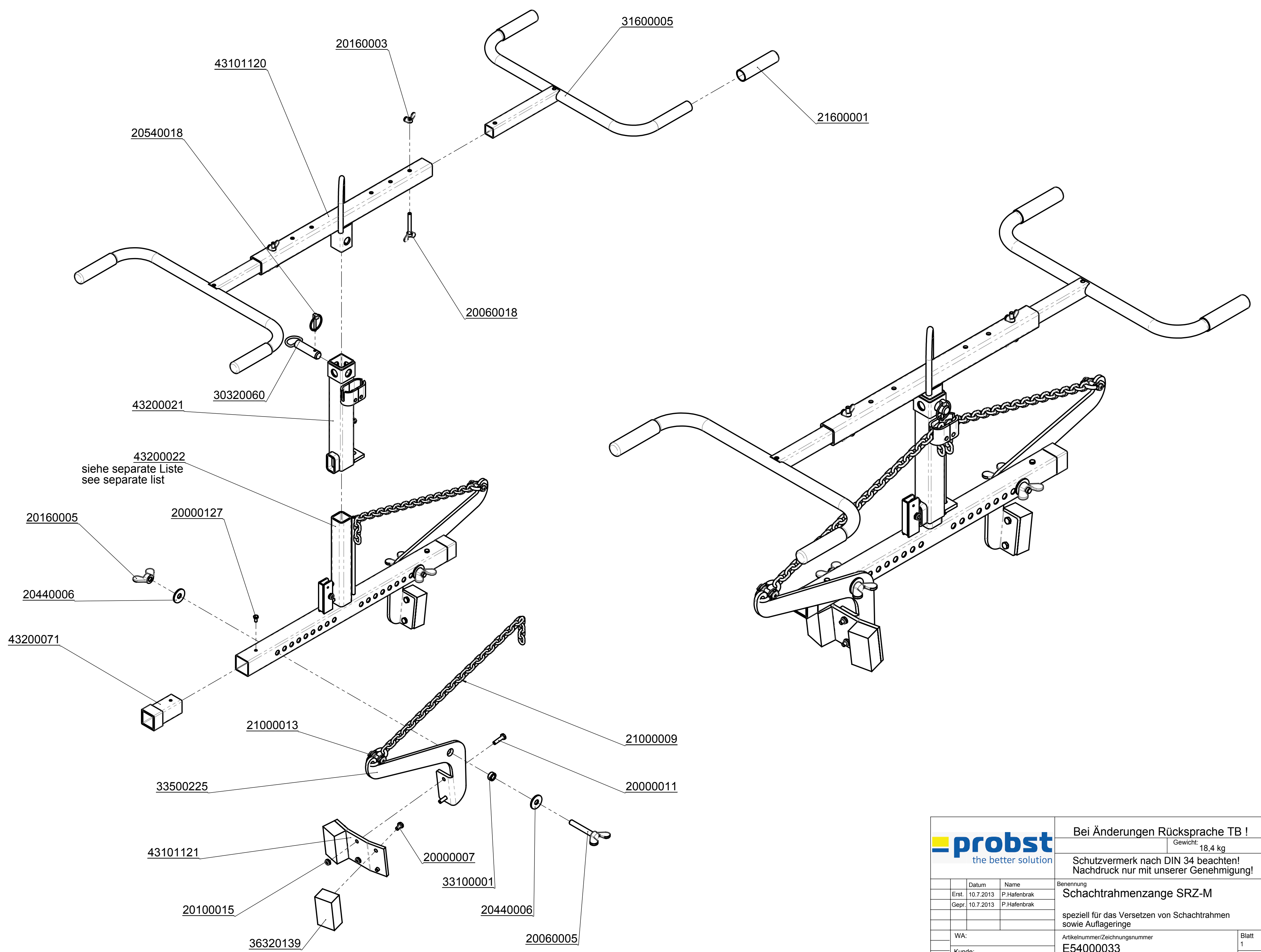



With every renting/leasing of PROBST devices the original operating instructions must be included unconditionally (in deviation of the users country's language, the respective translations of the original operating instructions must be delivered additionally)!

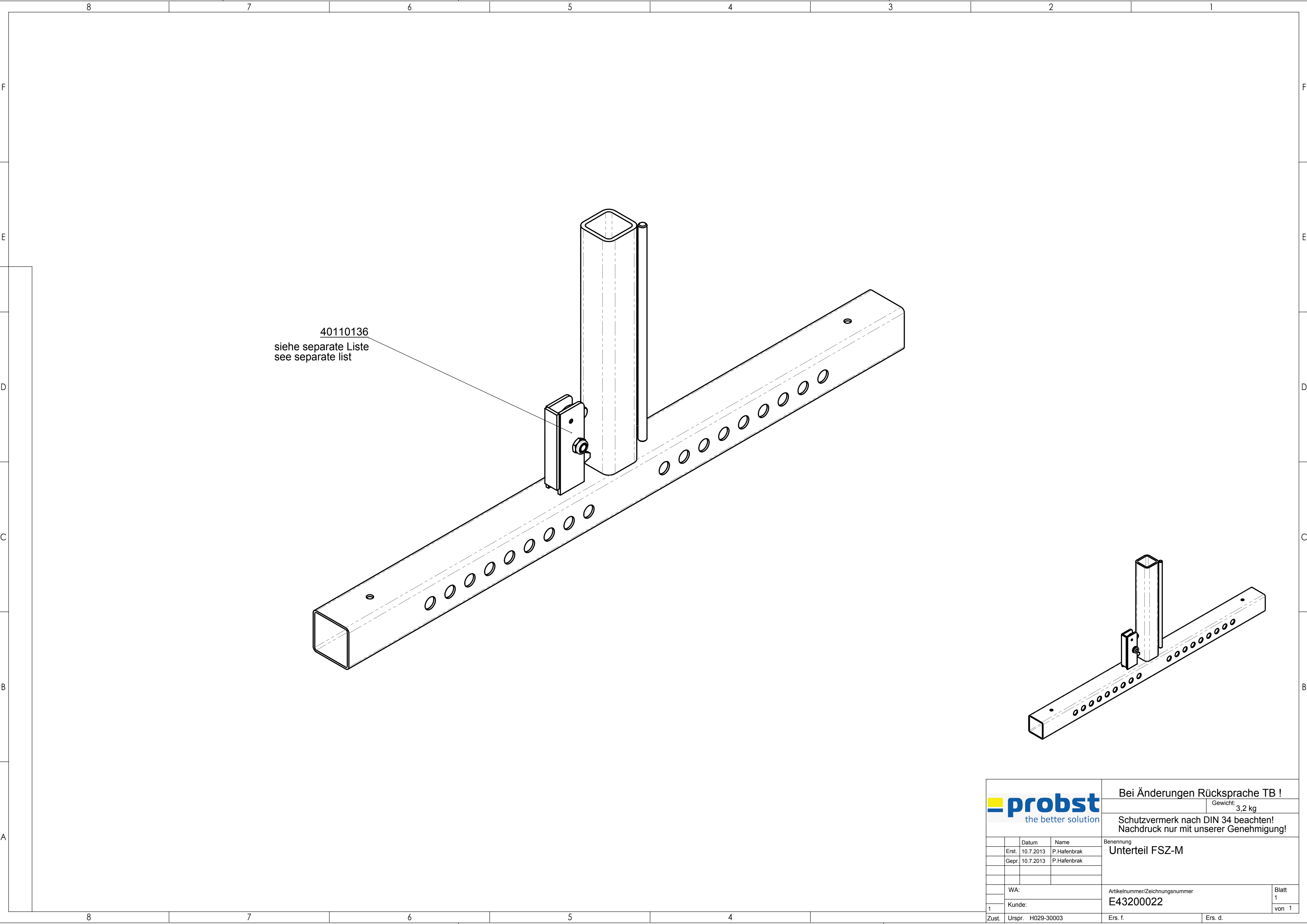


Tragfähigkeit: 150 [kg]
Carrying Capacity: 150 [kg] / (330 [lbs.])


		Bei Änderungen Rücksprache TB !	
		Gewicht: 18,3 kg	
		Schutzvermerk nach DIN 34 beachten! Nachdruck nur mit unserer Genehmigung!	
		Benennung	
		Schachtrahmenzange SRZ-M	
		speziell für das Versetzen von Schachtrahmen sowie Auflageringe	
		Artikelnummer/Zeichnungsnummer	
		D54000033	
		Blatt	
		1	
		von 1	
Zust.		Ers. f.	
Urspr.		Ers. d.	
53200002			

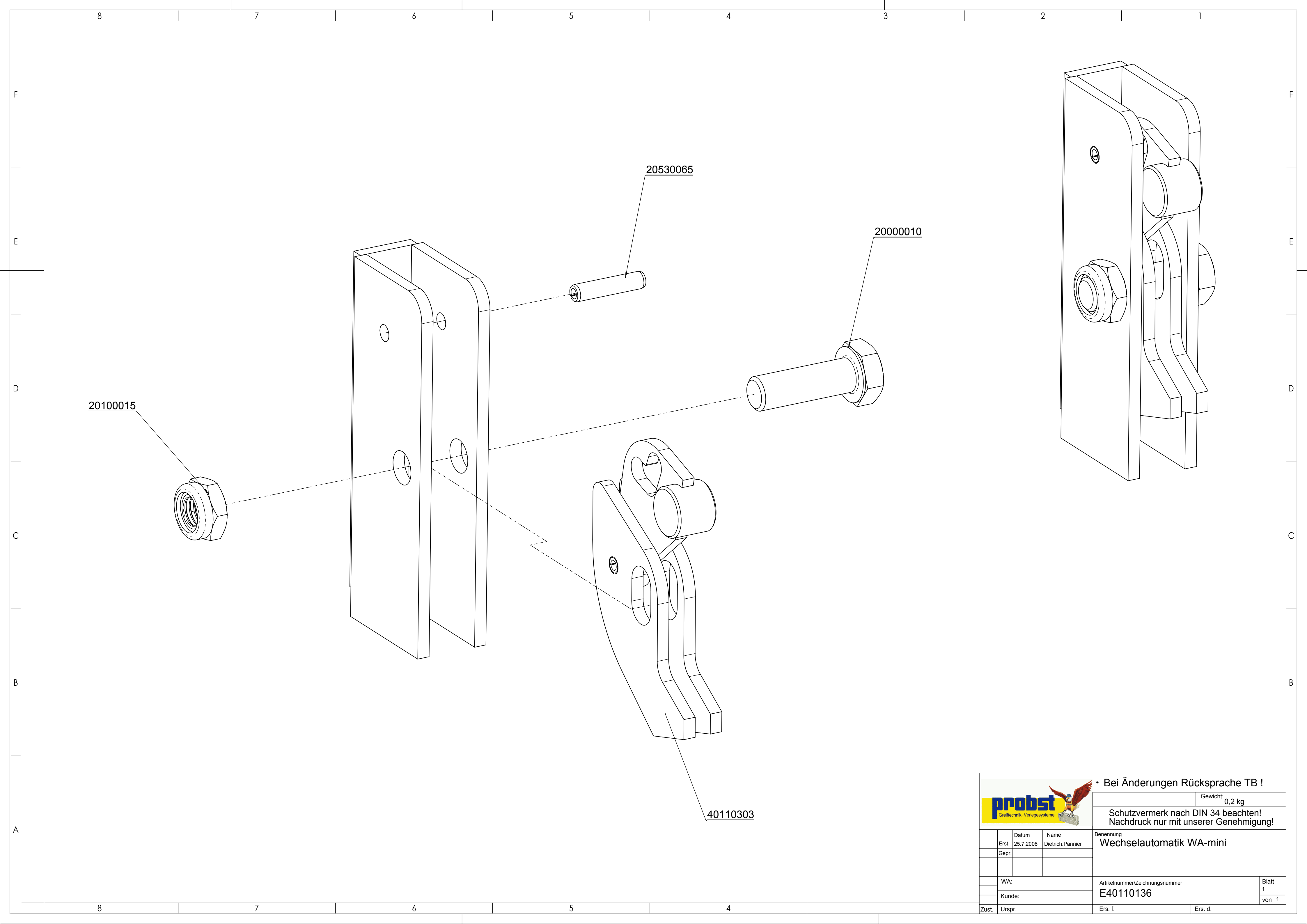


		Bei Änderungen Rücksprache TB !	
			Gewicht: 18,4 kg
		Schutzvermerk nach DIN 34 beachten! Nachdruck nur mit unserer Genehmigung!	
		Benennung	
	Datum	Name	
Erst.	10.7.2013	P.Hafenbrak	
Gepr.	10.7.2013	P.Hafenbrak	
	WA:	speziell für das Versetzen von Schachtrahmen sowie Auflageringe	
		Artikelnummer/Zeichnungsnummer	
	Kunde:	E54000033	
		Blatt 1	
		von 1	
Zust.	Urspr.	53200002	Ers. f.
			Ers. d.



40110136
siehe separate Liste
see separate list

		Bei Änderungen Rücksprache TB !	
		Gewicht: 3,2 kg	
		Schutzvermerk nach DIN 34 beachten! Nachdruck nur mit unserer Genehmigung!	
	Datum	Benennung	
Erst.	10.7.2013	Unterteil FSZ-M	
Gepr.	10.7.2013		
	WA:	Artikelnummer/Zeichnungsnummer	
	Kunde:	E43200022	
1		Blatt 1	
Zust.	Urspr. H029-30003	Ers. f.	von 1
		Ers. d.	



			• Bei Änderungen Rücksprache TB !		
			Gewicht:		0,2 kg
			Schutzvermerk nach DIN 34 beachten! Nachdruck nur mit unserer Genehmigung!		
	Datum	Name	Benennung Wechselauswahlmechanismus WA-mini		
Erst.	25.7.2006	Dietrich.Pannier			
Gepr.					
	WA:		Artikelnummer/Zeichnungsnummer E40110136		Blatt 1
	Kunde:				von 1
Zust.	Urspr.		Ers. f.		Ers. d.

Proof of maintenance

The claim under guarantee for this device only exists and is subject to the proper execution of the mandatory maintenance works. (In case of warranty request please always attach a copy of the proof of maintenance)

Operator: _____

Device type: _____

Device-No.: _____

Article -No.: _____

Year of make: _____

First inspection after 25 operating hours

Date:	Maintenance work:	Inspection by company:
		Company stamp
	
		Name Signature

After 50 operating hours

Date:	Maintenance work:	Inspection by company:
		Company stamp
	
		Name Signature
		Company stamp
	
		Name Signature
		Company stamp
	
		Name Signature

Minimum 1x per year

Date:	Maintenance work:	Inspection by company:
		Company stamp
	
		Name Signature
		Company stamp
	
		Name Signature

Proof of maintenance

The claim under guarantee for this device only exists and is subject to the proper execution of the mandatory maintenance works. (In case of warranty request please always attach a copy of the proof of maintenance)

Operator: _____

Device type: _____

Device-No.: _____

Article -No.: _____

Year of make: _____

First inspection after 25 operating hours

Date:	Maintenance work:	Inspection by company:
		Company stamp
		Name _____ Signature _____

After 50 operating hours

Date:	Maintenance work:	Inspection by company:
		Company stamp
		Name _____ Signature _____
		Company stamp
		Name _____ Signature _____
		Company stamp
		Name _____ Signature _____

Minimum 1x per year

Date:	Maintenance work:	Inspection by company:
		Company stamp
		Name _____ Signature _____
		Company stamp
		Name _____ Signature _____

Proof of maintenance

The claim under guarantee for this device only exists and is subject to the proper execution of the mandatory maintenance works. (In case of warranty request please always attach a copy of the proof of maintenance)

Operator: _____

Device type: _____

Device-No.: _____

Article -No.: _____

Year of make: _____

First inspection after 25 operating hours

Date:	Maintenance work:	Inspection by company:
		Company stamp
	
		Name Signature

After 50 operating hours

Date:	Maintenance work:	Inspection by company:
		Company stamp
	
		Name Signature
		Company stamp
	
		Name Signature
		Company stamp
	
		Name Signature

Minimum 1x per year

Date:	Maintenance work:	Inspection by company:
		Company stamp
	
		Name Signature
		Company stamp
	
		Name Signature