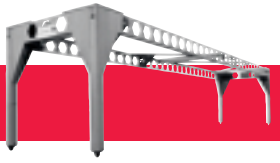


FULLY AUTOMATIC AND FIXED
OVERHEIGHT FRAME
OHF



SORT + STORE 

OHF - FULLY AUTOMATIC OVER HEIGHT FRAME

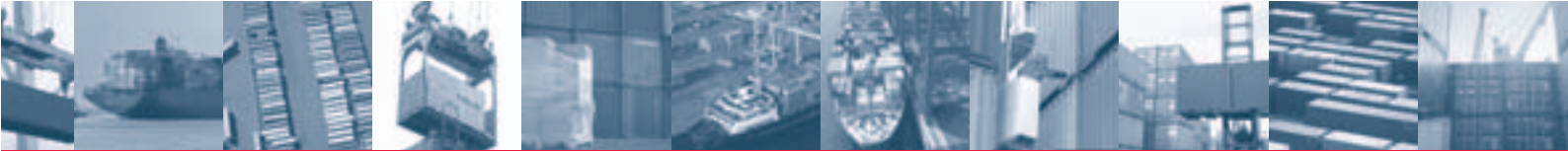


Function

- Pick-up by the master spreader (same procedure as for a standard box).
- Placement on the out-of-gauge cargo and simple locking by unlocking and relocking the spreader twistlocks.
- The twisting of the OHF's twistlocks is only possible if they are correctly aligned. All four safety pins have to be pushed in simultaneously.
- Clear optical indication of OHF twistlock position. All four TWLs rotate simultaneously and lock at a exactly 90° position. The spreader twistlock activation angle is only 65°.
- After having put down the cargo, the driver decides whether the OHF remains on the container or if the handling device takes it away.

Product benefits

- No need for internal or external energy supply; the OHF system is supplied solely by the torque of the master spreader's twistlocks.
- No need for extensions or modifications on the spreader, very flexible application regardless of the spreader brand and no interference with warranty issues of third parties.
- No need for storage facility, the device can be kept anywhere and is always ready for use.
- Simple operation mode, the driver can concentrate fully on his or her job at hand.
- Significantly increased operational safety during cargo handling, due to automated process.
- Function is independent of the direction of rotation of the master spreader's TWLs.
- Sturdy and stable construction, designed for the rough operating conditions.
- Consistent lightweight construction enables maximum payload capacity on the spreader.
- Manual emergency operation possible for all OHF TWL's together or each one separately.
- Low maintenance cost and high availability.
- Product advantages have been proven by many years of terminal servicing under different climate conditions.
- A world-wide network of sales partners guarantees reliable service and quick spare part deliveries.



Structure

- ST-52-3 steel construction.
- Consists of four posts screwed on carrier frame.
- 42CrMo4V twistlocks with 3.1b certificate.
- Hydraulic circuit for safety check of correct alignment.
- Ratchet gear box for switching the OHF twistlocks, activated by the hydraulic system.
- Optical indicators for position of the OHF twistlocks (2 on upper and 2 on narrow front side).
- Steel construction sand-blasted.
- Coating with rust inhibiting primer – double top coating with a thickness of up to 200µm

Hydraulics

The hydraulic system serves only for the activation of the mechanical ratchet gearbox when all four posts are correctly placed on the container. The pump-unit is driven by one of the master spreader twistlocks.

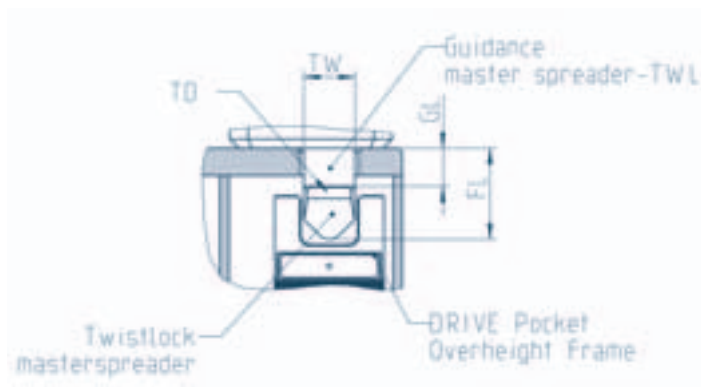
Operating pressure: max. 30 bar

Requirements

Required torque of the master spreader has to be at least 150 Nm.

The master spreader TWLs have to meet the following dimensions:

Width TWL:	TW	50 – 60 mm
Diameter TWL:	TD	100 – 120 mm
Length Guidance:	GL	40 – 50 mm
Full Length TWL:	FL	max. 104 mm

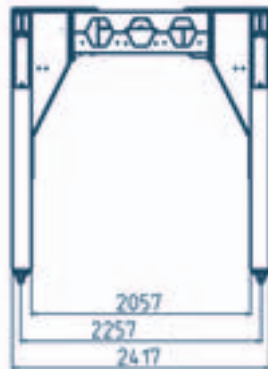
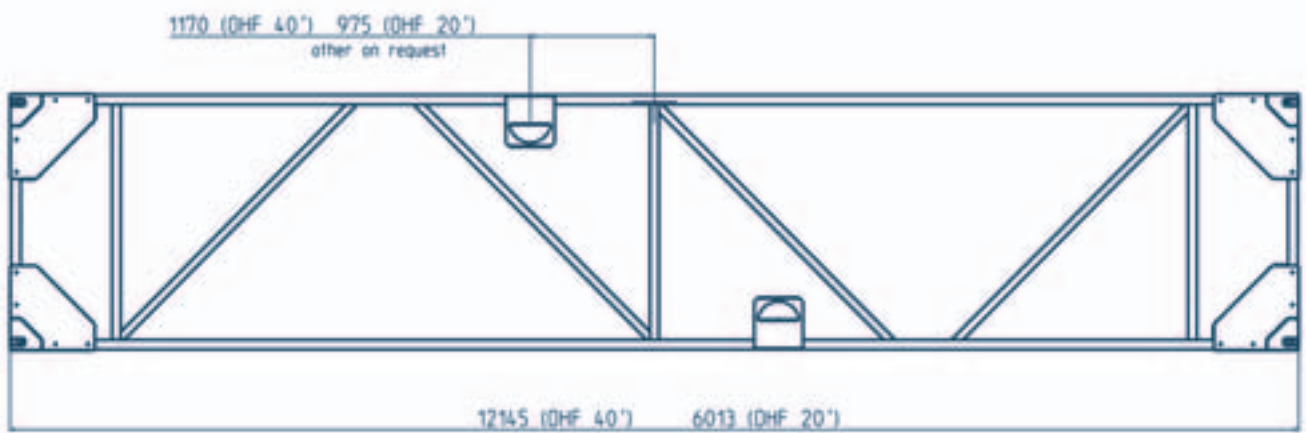
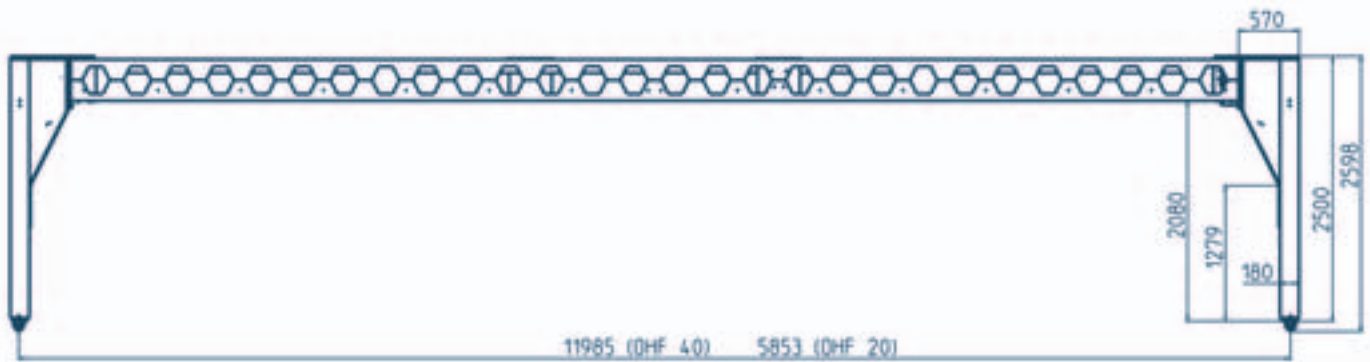


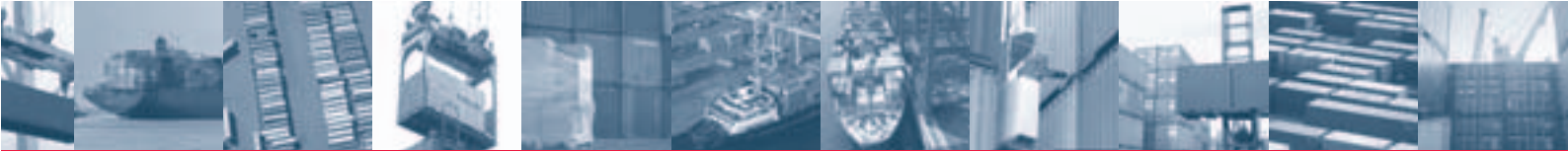


OHF - FULLY AUTOMATIC AND FIXED OVERHEIGHT FRAME

S3

OHF-S3 Main Dimensions overheight 2.08 m





OHF-S3 ...the workhorse

S3

The OHF-S3 has been conceived as a consistent lightweight construction in order to facilitate maximum payload. Being a sturdy drudge, the frame can be operated either on

the bridge crane, under straddle carriers or reach stackers. Thanks to this device the handling of out-of-gauge cargo is as simple as dealing with standard containers.

Technical Data

Length:	20 ft / 40 ft	
Lifting capacity: (tested to 25% overload)	40,000 kg	classification: H2B4 eccentric: 2/5 : 3/5
	50,000 kg	classification: H1B2 centric
Net weight:	2.4 t (OHF 20')	2.9 t (OHF 40')
Temperature range:	- 20°C up to 55°C	
Brake deceleration operation:	0.8 m/s ²	
Max.Brake deceleration:	4.9 m/s ²	(emergency stop straddle carrier)

Regulations

EC machinery guidelines (98/37/EC)

EN 292-1 and EN 292-2

UVV 18 load pick-up devices in hoisting operations VBG 9a

Steel construction DIN 15018 and 18800

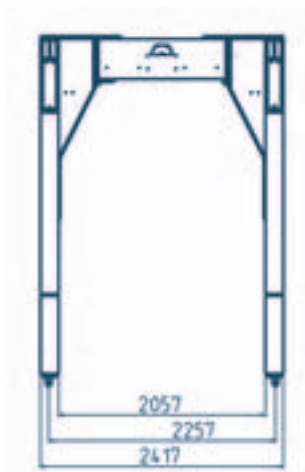
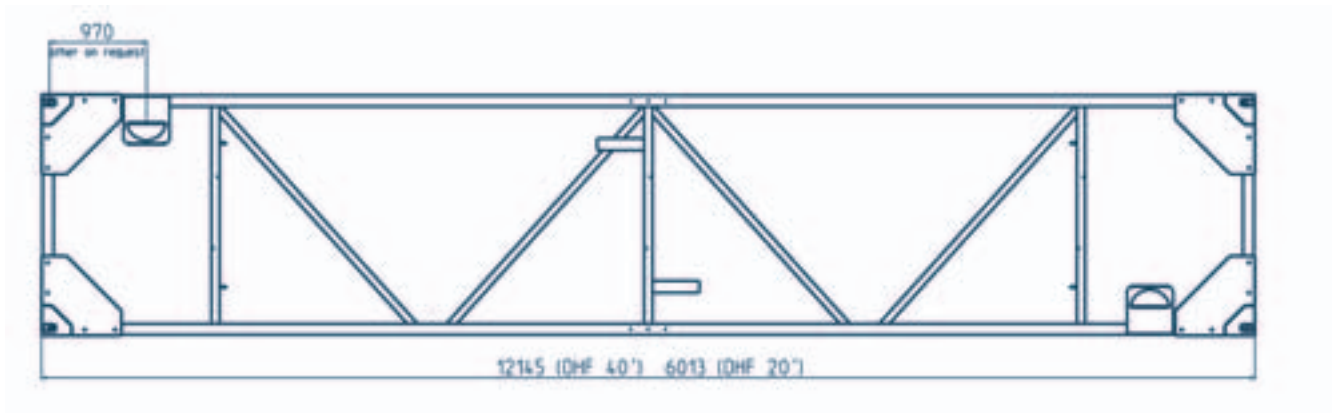
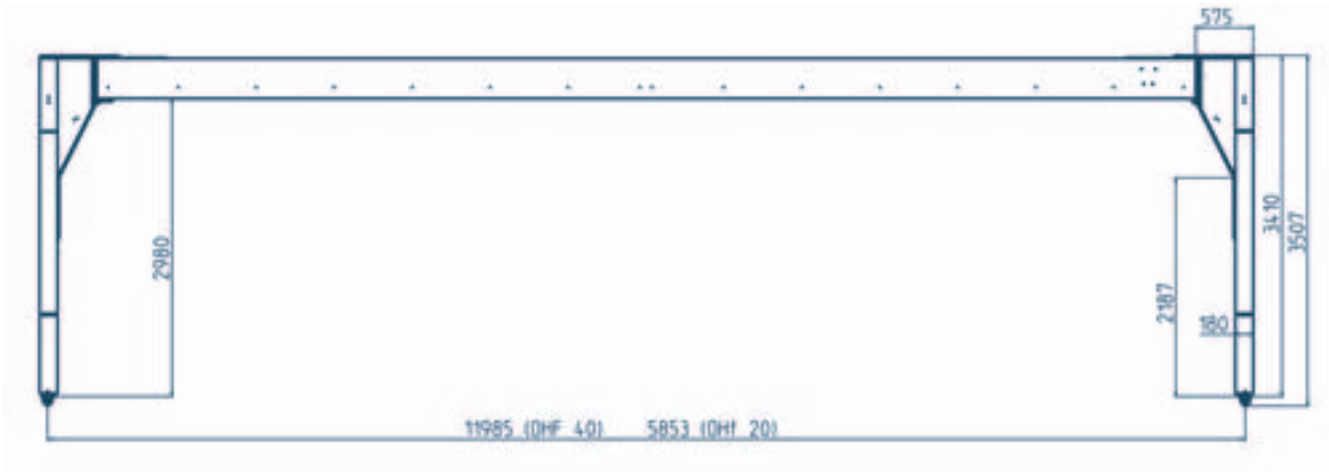
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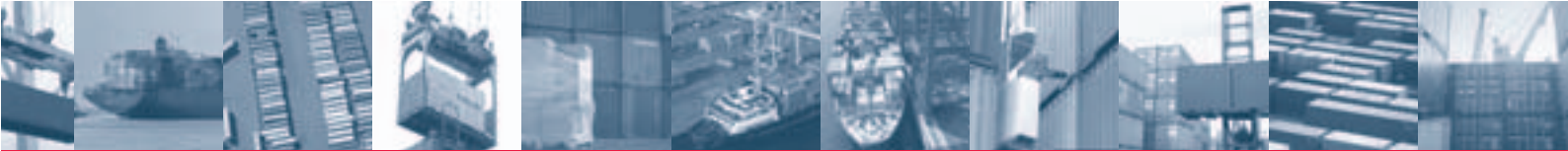


OHF - FULLY AUTOMATIC AND FIXED OVERHEIGHT FRAME

S4

OHF-S4 Main Dimensions overheight up to 2.98 m





OHF-S4 ...with overheight update

S4

OHF-S4 is the ideal equipment for those terminals that have to deal with so-called "super overheight" cargo on a regular basis. With a free over height of 2,100 mm up to

2,980 mm – according to the customer's requirements – it easily handles even unusually bulky goods.

Technical Data

Length:	20 ft / 40 ft	
Lifting capacity: (tested to 25% overload)	40,000 kg	classification: H2B4 eccentric: 2/5 : 3/5
	50,000 kg	classification: H1B2 centric
Net weight:	3.6 t (OHF 20')	4.5 t (OHF 40')
Temperature range:	- 20°C up to 55°C	
Brake deceleration operation:	0.8 m/s ²	
Max. brake deceleration:	4.9 m/s ²	(emergency stop straddle carrier)

Regulations

EC machinery guidelines (98/37/EC)

EN 292-1 and EN 292-2

UVV 18 load pick-up devices in hoisting operations VBG 9a

Steel construction DIN 15018 and 18800

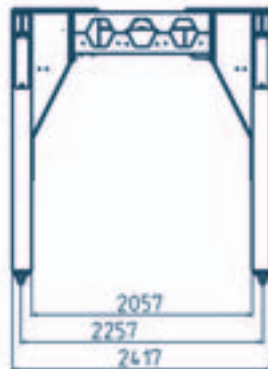
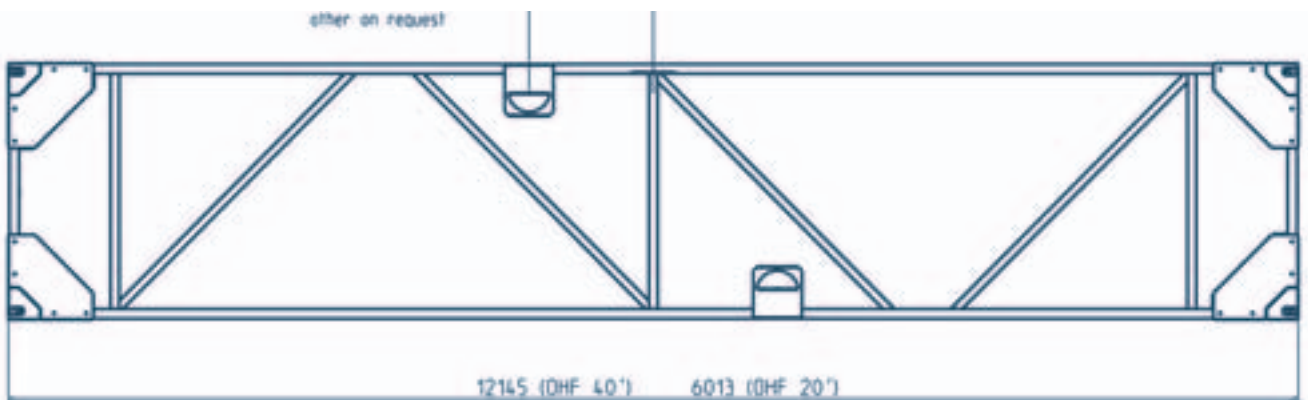
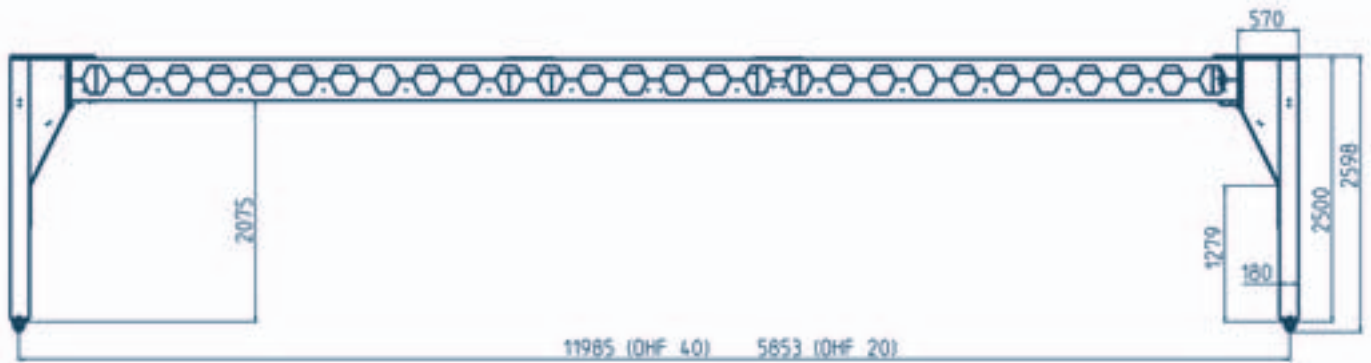
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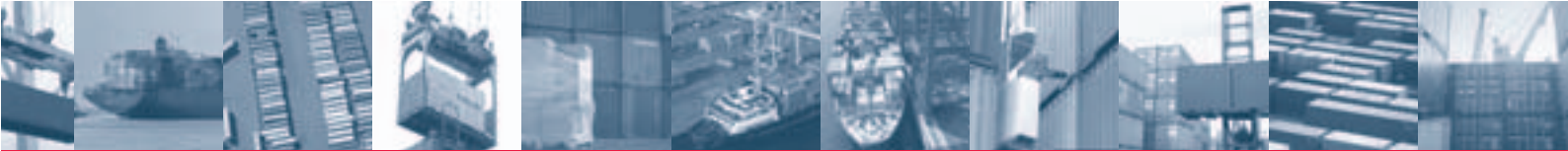


OHF - FULLY AUTOMATIC AND FIXED OVERHEIGHT FRAME

S5

OHF-S5 Main Dimensions load capacity 50 t





OHF-S5 ...the heavyweight champion

S5

OHF-S5 is the right choice wherever extremely heavy loads have to be handled or an increased stability level is required of the handling

device. The frame offers 10 t more payload and therefore has a very robust structure.

Technical Data

Length:	20 ft / 40 ft	
Lifting capacity: (tested to 25% overload)	50,000 kg	classification: H2B4 eccentric: 2/5 : 3/5
	60,000 kg	classification: H1B2 centric
Net weight:	2.6 t (OHF 20')	3.1 t (OHF 40')
Temperature range:	- 20°C up to 55°C	
Brake deceleration operation:	0.8 m/s ²	
Max. brake deceleration:	4.9 m/s ²	(emergency stop straddle carrier)

Regulations

EC machinery guidelines (98/37/EC)

EN 292-1 and EN 292-2

UVV 18 load pick-up devices in hoisting operations VBG 9a

Steel construction DIN 15018 and 18800

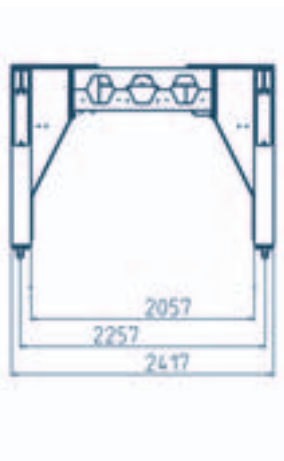
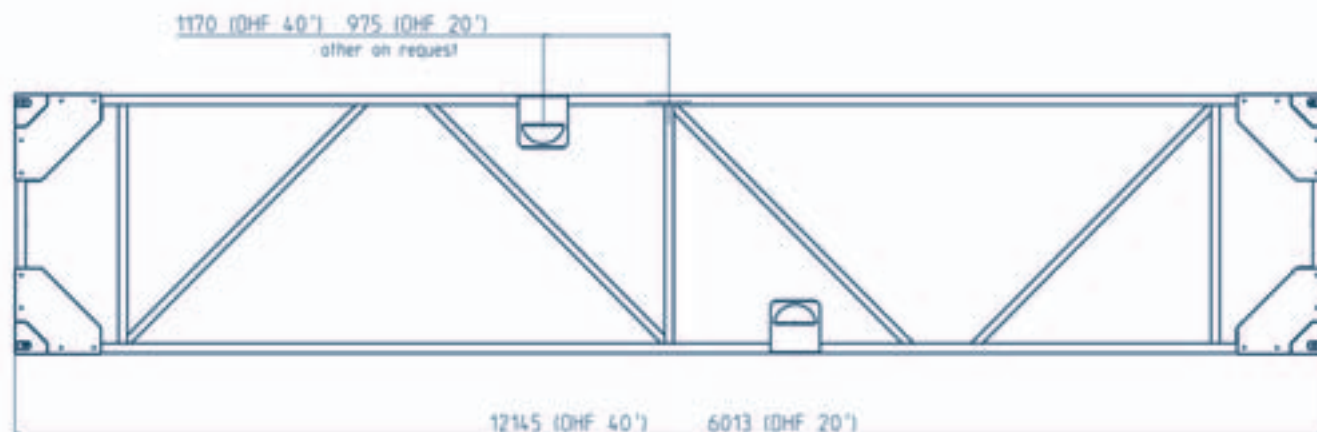
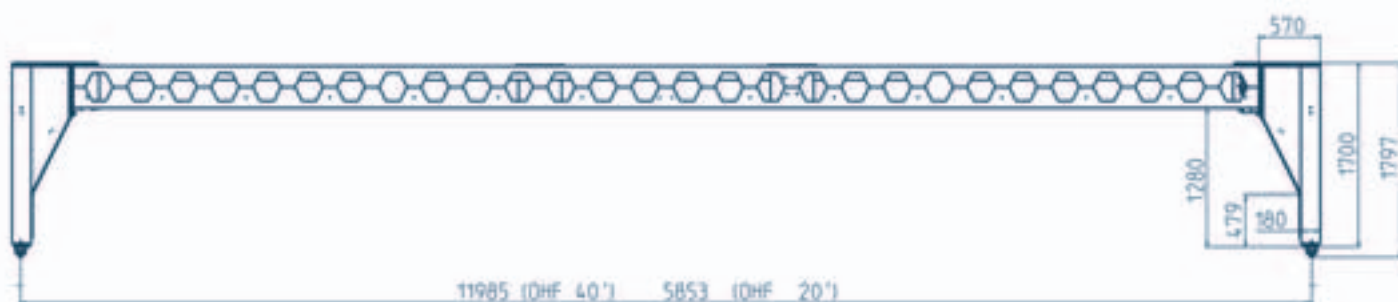
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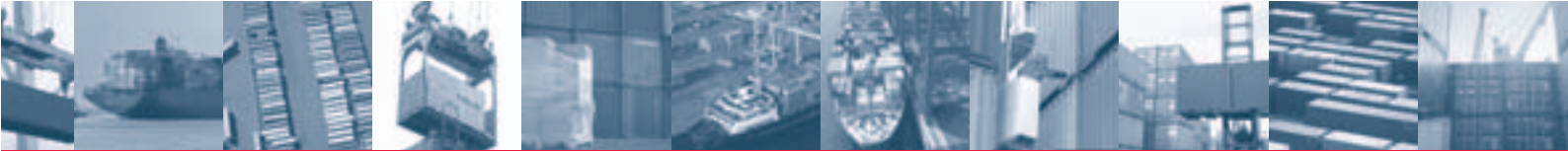


OHF - FULLY AUTOMATIC AND FIXED OVERHEIGHT FRAME

FHF

FHF Main Dimensions ovh 1.28 m cargo 20t





FHF ...the flatrack worker bee

FHF

Stacked empty flatracks can easily be transported with the FHF. Its short posts allow easy manoeuvring and the twistlocks'

special form guarantees a safe and jam-free locking procedure.
Please note: the other OHF models are not suitable for flatrack handling.

Technical Data

Length:	20 ft / 40 ft	
Lifting capacity: (tested to 25% overload)	20,000 kg	classification: H2B4 eccentric: 2/5 : 3/5
Net weight:	2.2 t (FHF 20')	2.7 t (FHF 40')
Temperature range:	- 20°C up to 55°C	
Brake deceleration operation:	0.8 m/s ²	
Max. brake deceleration:	4.9 m/s ²	(emergency stop straddle carrier)

Regulations

EC machinery guidelines (98/37/EC)

EN 292-1 and EN 292-2

UVV 18 load pick-up devices in hoisting operations VBG 9a

Steel construction DIN 15018 and 18800

Materials DIN 17100

About us

For ten years SORT + STORE have been active in the field of container handling. Our engineers are experts who know exactly how container handling in the terminals works and what requirements have to be met there.

Advanced Container Handling

Throughout the world modern container terminals strive for quicker cargo handling and, simultaneously, enhanced occupational safety. The fully automatic overhead frames and telescopic lashing gondolas offered by SORT + STORE succeed in providing both. They help to automate handling processes carried out manually up to now and set standards in terms of ergonomics.

A close co-operation between development and user from the very beginning of the design of new handling equipment is our top priority and leads to the creation of market-oriented products. Furthermore, we are in steady contact with the harbors' operations and maintenance divisions. We take all kinds of input and integrate it into our product development in order to constantly optimize the features of our products.

German engineering

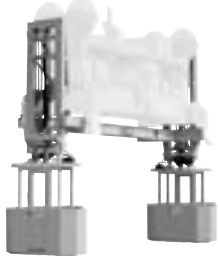
In our eyes, the most important characteristics of SORT + STORE products are sturdiness and durability. The applications in container handling and the extreme productivity requirements container terminals have to meet demand equipment that is conceived especially for this working environment.

That's why we have decided to offer mechanical engineering "made in Germany". Therefore, we are capable of delivering a consistently high quality level. Equipment still working flawlessly after ten years of service proves this decision right.

Protected connections

SORT + STORE equipment is compatible with almost 100% of the container handling devices used in large sea harbors world-wide – regardless of brands. Many of the renowned operators count on this flexibility: e.g. MAERSK/Sealand, P&O Ports, PSA, Maher, Axis, Patrick Stevedores and, of course, the German groups EUROGATE and HHLA. We are proud of the confidence our customers show in us and feel obligated to create "protected connections" in the future as well.

TPC



Telescopic
Personnel
Cage

OHF



Overheight
Frame

SORT + STORE



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Technical specifications are subject to change without prior notice.

SORT + STORE hold worldwide patents on all products.

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