

LEAFLETS RF-PLUS/RF-SEMI



In some environments the products for material handling have to fulfil specific requirements. This could be environments with strict **hygiene requirements, aggressive environments, explosive atmospheres and environments being sensitive to static electricity**. The products might also have to

fulfil requirements of clean rooms.

As a result of close collaboration and feedback from our customers, we are able to tailor our products to meet their specifications if required.



Stainless highlifter ensures an optimum working height.



Stainless electric highlifter ensures an ergonomically correct working height in special environments.



Hygienic transport with the stainless stacker.

### Special environments – special requirements

#### Aggressive environments

In aggressive environments it is important that the material is corrosion-resistant and resistant to acids, salts and scratches. This requires a material with high chemical and mechanical resistance.

#### Strict hygiene requirements

In environments with strict hygiene requirements (EN 1672-1 and EN 1672-2), the hygiene zones are typically divided between low, medium and high level.

#### Explosive atmospheres

In explosive atmospheres it is important that the material conducts away static electricity and that it cannot be a source of ignition. At the same time the product has to fulfil the stipulations of the ATEX-directive.

#### Environments, sensitive to static electricity

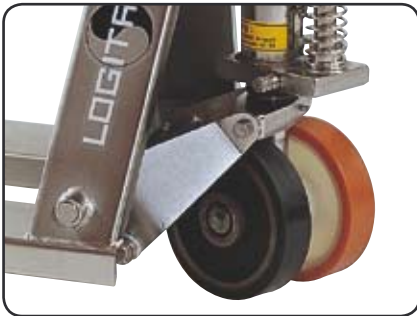
Electro-Static Discharge is important to avoid surface tension and to optimise conductivity (IEC 61340-5-1 and IEC 61340-5-2).

#### Clean rooms

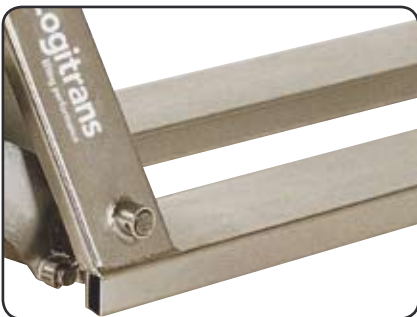
In clean rooms it is important that the products fulfil the requirements of the cleanliness of the air, meaning the contents of dust particles in the air.



EN 1.4404 steel is used for all fork chassis. For all other parts qualities EN 1.4305 & EN 1.4301 are used.



Trucks for explosive atmospheres have at least one anti-static wheel.



The acid-resistant fork chassis is electrically polished. This ensures the fine and shiny surface.

**The requirements for the stainless products are various, and Logitrans offers both RF-PLUS and RF-SEMI products.**

### **RF-PLUS products**

The RF-PLUS products are manufactured in stainless steel, which is subsequently electrically polished. The electric polishing gives the steel a strong surface and ensures that the corrosion-related qualities of the steel are rebuilt after the welding process. At the same time it ensures that it is very easy to clean and very resistant to cleaning materials with chlorides.

### **RF-SEMI products**

The RF-SEMI products are perfect for industries, which do not require RF-PLUS products. The hygiene demands on the parts, being in direct contact to e.g. the food, are here severe. These parts are made of stainless steel.

Where parts just have to resist moisture, corrosion-resistant steel is sufficient. Depending on the part in question, we use a polymer plastic coating (autoforese) or chromit treatment (Chromit 3).

### **Bearings and wheels**

All the RF-PLUS trucks have stainless bearings in the wheels. The wheels of RF-SEMI trucks have rubber-sealed ball bearings. The trucks have as standard white nylon wheels, but can also be delivered with polyurethane and vulkollan wheels.

### **Oil**

The stainless trucks must be able to operate in cold stores. Oil of the viscosity class ISO VG 15 is used, as it stays thin at cold temperatures.

All ball bearings and movable parts are lubricated with grease, approved for the food industry: NFS USDA class H1. The hydraulic oil is placed in a closed system.

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***In which environment do you want to use the product?***

<p><b>Very aggressive, wet environments</b> The product is wet due to liquid dissolutions (acid, base or brine) almost all the time.</p> <p><b>Cleaning</b> Aggressive cleaning. Cleaning with foam (acid or base) (washing) PH in the cleaning material is much lower or much higher than 7.0</p>	<p><b>Examples of industries in this environment:</b> Preparation processes in: Food and fish industries Slaughterhouses Dairies</p>		<p><b>GL RF-PLUS</b></p>	
<p><b>Aggressive, wet environments</b> The product is wet and moist most of the time.</p> <p><b>Cleaning</b> Aggressive cleaning. Cleaning with foam (acid or base) (washing). PH in the cleaning material is much lower or much higher than 7.0</p>	<p><b>Examples of industries in this environment:</b> Production processes in: Food industry Slaughterhouses Dairies</p>			
<p><b>Clean, moist environments</b> The product is moist only occasionally.</p> <p><b>Cleaning</b> Gentle cleaning when wiping or washing (only forks). Neutral water (PH7), when necessary with gentle cleaning materials.</p>	<p><b>Examples of industries in this environment:</b> Pharmaceutical industry Food industry</p>	<p><b>GL RF-SEMI, HS/EHS RF-SEMI HL/EHL RF-SEMI</b></p>		<p><b>EHL RF-PLUS HL RF-PLUS</b></p>
<p><b>Clean, dry environments</b> The product is dry all the time.</p> <p><b>Cleaning</b> Cleaning the products with dry or moist cloth.</p>	<p><b>Examples of industries in this environment:</b> Pharmaceutical Packaging in the food industry</p>	<p><b>All Logitrans stainless products</b></p>		
<p><b><i>Environments</i></b></p>	<p><b><i>Examples industries</i></b></p>	<p><b><i>Logitrans products managing these environments</i></b></p>		

## **Stainless stacker - hygienic handling of goods**

Optimum hygiene - with the stainless-semi stacker the risk of bacterial contamination is minimised.

The stainless-semi products are developed for environments where severe hygiene is needed on the surfaces that are in direct contact with the goods being handled, e.g. meat, fish or medicine.

The design focuses on the safety and ergonomic working conditions of the user. As an example, the ergonomically correct handle ensures the user a relaxed hold.

High quality is ensured through an extended test programme and in cooperation with experts in Health and Safety.



### Technical Specifications

Optimum safety for the user through

- central location of all control buttons on the handle
- transparent and impact-resistant safety screen on the mast
- location of parking brake

Strong construction ensures a long operating life and low maintenance costs.



The ergonomically correct handle ensures the user a relaxed hold.



Closed forks mean easy cleaning and few hiding places for bacteria.



EHS 1000 RF-SEMI has assisted wheel steering. Easy and hygienic operations.

Available with manual or electric lifting.

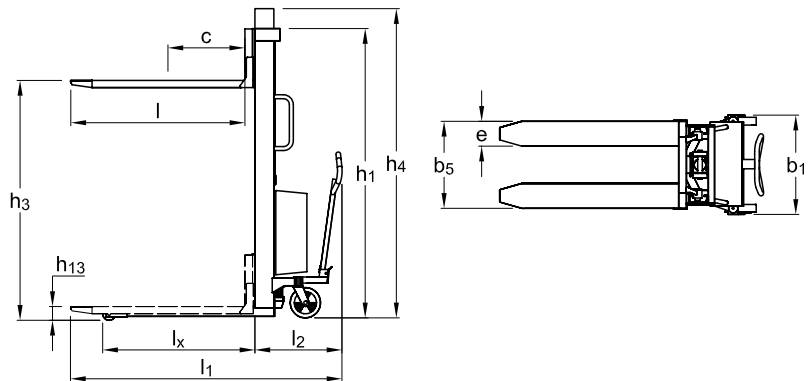
Product (measured in mm)	HS 1000 RF-SEMI					EHS 1000 RF-SEMI						
	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
Capacity in kg	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Lifting height $h_3$	1200	1400	1600	2050	2450	1200	1400	1600	2050	2450	2850	
Fork length $l$	1150					1150						
Overall height $h_1$	1530	1730	1930	1530	1730	1530	1730	1930	1530	1730	1930	
Overall width $b_1$	654				913	670					930	
Fork span $b_5$	560					560						
Length without forks $l_2$	390					500						
Overall length by 1150 forks $l_1$	1650			1660		1715			1725			
Overall height $h_4$	Without telescopic mast			2490	2890	Without telescopic mast			2490	2890	3290	
Lowered height $h_{13}$	90					90						
Load centre $c$	max. 600					max. 600						
Fork width $e$	163					163						
Run-in length $l_x$	1005					1005						
Gangway (pallet: 1200 x 800) $A_{st}$	2020*					2200**						
Free lift	190					190						
Turning angle of the wheels	180°					180°						
Pump motor						1,1 kW 12 V						
Lifting speed	normal/quick 17/54 mm per pump					with/without load: 0,07 m/s						
Lowering speed irrespective of load	0,21 m/s					0,08 m/s						
Weight in kg (without battery)	193	197	201	255	264	218	222	226	283	292	302	

\* Tests show that 1450 mm are enough.

\*\* Tests show that 1530 mm are enough.



RF-SEMI - for the food industry and other environments with strict hygiene demands.



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We also offer tailor-made solutions.



## **Stainless highlifter - hygiene at working height**

Focus on optimum hygiene - the stainless highlifters are developed for the use in environments with high hygiene demands. This is done in close cooperation with customers in industries where the trucks are exposed to an aggressive environment and thorough cleaning. With a stainless highlifter the risk of bacterial contamination is minimised.

High flexibility and efficiency - one product can transport and lift a pallet to the right working height.

The design prevents industrial injuries and strain on the user - focus is put on safety and ergonomics.

High quality is ensured through an extended test programme and in cooperation with experts in Health and Safety.



### Technical Specifications

Loads of 1,500 kg can be transported and lifted up to 470 mm with the high-lifter. From 470 mm the lifting capacity is 1,000 kg.

Easy to clean and optimum resistance

- acid-resistant and electric polished fork chassis (AISI 316L)

**HL RF-PLUS:** Stainless handle, legs and pump piston.

**EHL RF-PLUS:** IP54, stainless battery cover, legs, handle and cylinder housing.

**HL RF-SEMI:** Stainless handle, pump piston, axles and wheel holder. All other parts have a polymer plastic coating or are chromit-treated.

**EHL RF-SEMI:** Stainless handle, axles and wheel holder. All other parts have a polymer plastic coating or are chromit-treated. Battery indicator extra painted.



Optimum safety through supporting feet at steering wheel, foot protection and central location of all control buttons on the handle.



Closed forks mean easy cleaning and few hiding places for bacteria.



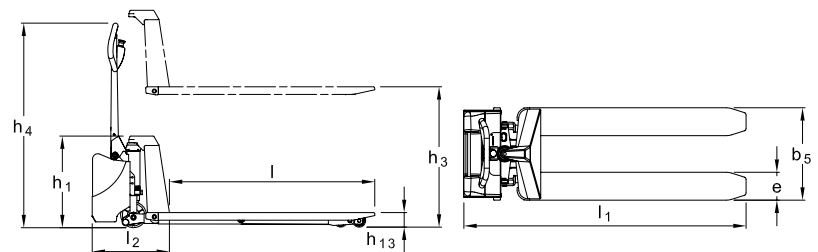
The manual highlifter is also available in an explosion proof version.

Product (measured in mm)	HL 1004RF-PLUS HL 1004RF-SEMI	EHL 1004RF-PLUS EHL 1004RF-SEMI
Capacity in kg	1500*	1500*
Lifting height	h <sub>3</sub> 800	800
Fork length	l 1200	1200
Overall height	h <sub>1</sub> 540	540
Fork span	b <sub>5</sub> 540, 680	540, 680
Length without forks	l <sub>2</sub> 340	445
Overall length	l <sub>1</sub> 1580	1645
Overall height with handle	h <sub>4</sub> 1220	1240
Lowered height	h <sub>13</sub> 90	90
Fork width	e 163	163
Turning angle of the wheels	210°	180°
Gangway	A <sub>st</sub> 1830 (pallet: 1200 x 800)	1890 (pallet: 1200 x 800)
Lifting speed with/without load		0,05/0,08 m/s
Lowering speed normal/quick	10/35 mm per pump	
Lowering speed	Without load 0,093 m/s	With/without load: 0,07/0,05 m/s
Pump motor		1,2 kW 12 V
Weight with 1140 mm forks (without battery)	125 kg	132 kg

\* The capacity changes from 1500 to 1000 kg at the lifting height 470 mm.



RF-PLUS - for the food industry and the pharmaceutical industry with severe demands for hygiene and cleaning.



RF-SEMI - for the food industry in areas, where hygiene demands are not so high, but corrosion resistance important.



Ergonomic handle ensures the user a relaxed hold.



Remote control, also wireless, is available as optional extra (EHL).



Watertight casing of the lifting motor (EHL RF-PLUS).

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## **Stainless Logitilt - when lifting and tilting hygienically**

Optimum hygiene - with the stainless-semi Logitilt the risk of bacterial contamination is minimised.

The stainless-semi products are developed for environments where severe hygiene is needed on the surfaces that are in direct contact with the goods being handled, e.g. meat, fish or medicine.

The design focuses on the safety and ergonomic working conditions of the user - the Logitilt can tilt boxes and crates up to 90°. The user does not have to bend down or stretch up to reach the components in the bottom of the crate or box - this applies to both standing and sitting work positions.

The ergonomically correct handle of the Logitilt ensures the user a relaxed hold.

High quality is ensured through an extended test programme and in cooperation with experts in Health and Safety.



### Technical Specifications

The Logitilt can carry, lift and tilt crates and boxes up to 90°, and the working height can be varied.

The handle can be turned to the side and locked, so that the user has free access to the contents of the crate or box.

Easy to clean and optimum resistance

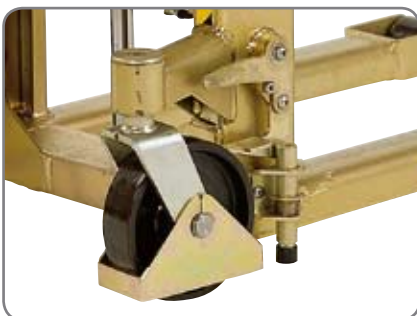
- acid-resistant and electric polished fork chassis
- strong surface
- corrosion resistant

Long operating life and low maintenance costs

- strong construction
- AISI316L steel used on the fork chassis



For the food industry in which hygiene and ergonomically correct working positions are important factors.



Foot protectors, parking brake, safety valve and emergency stop offer the operator optimum safety.



Remote control for the tilt function.

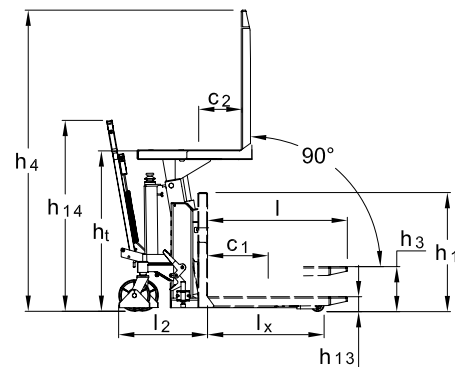
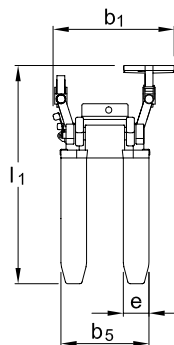


Closed forks mean easy cleaning and few hiding places for bacteria.



The handle can be turned to the side and locked, so that the user has free access to the contents of the crate or box.

Product (measured in mm)	LT 1000TE RF-SEMI	
Capacity in kg	1000	
Height, tilted	$h_t$	750-950
Lifting height	$h_3$	275
Fork length	$l$	800
Overall height with handle	$h_{14}$	1090
Overall height	$h_1$	680
Overall width	$b_1$	780
Fork span	$b_5$	560
Fork width	$e$	163
Overall length by 800 mm forks	$l_1$	1410
Length without forks	$l_2$	590
Run-in length	$l_x$	665
Overall height	$h_4$	$h_t + 1$
Lowered height	$h_{13}$	85
Load centre	$c_1$	max. $l/2$
Load centre	$c_2$	min. 200 - max. 420
Pump motor	0,8 KW 12V	
Lifting speed lift/tilt	4 s/14 s	
Lowering speed lift/tilt	3 s/11 s	
Weight by 800 mm forks (without battery)	176 kg	



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## **Stainless pallet truck - hygienic pallet transport**

Optimum hygiene - with a stainless pallet truck the risk of bacterial contamination is minimised. The stainless products were developed in cooperation with a Creamery for use in environments where the hygiene demands are severe and where the truck is exposed to an aggressive environment and thorough cleaning.

The design prevents industrial injuries and strain on the user - focus is put on safety and ergonomic working conditions of the user. The ergonomically correct shape of the handle ensures a relaxed hold for the user.

High quality is ensured through an extended test programme and in cooperation with experts in Health and Safety.



### Technical Specifications

The stainless pallet truck is available in a stainless-plus and a stainless-semi version

- RF-PLUS: Acid-resistant fork chassis. All other parts stainless steel
- RF-SEMI: Acid-resistant fork chassis. Stainless handle, wheel forks, lifting arm and thrust plate. The push rod has a polymer plastic coating and the pump is chromit-treated.

Easy to clean and optimum resistance

- acid-resistant and electric polished fork chassis
- strong surface
- corrosion resistant

Long operating life and low maintenance costs

- strong construction
- AISI316L steel used on the fork chassis



RF-PLUS - for the food industry and the pharmaceutical industry with strict hygiene and sanitation requirements.



RF-SEMI - for the food industry in areas, where hygiene demands are not so high, but corrosion resistance important.



Completely open or completely closed truck elements facilitate efficient cleaning.

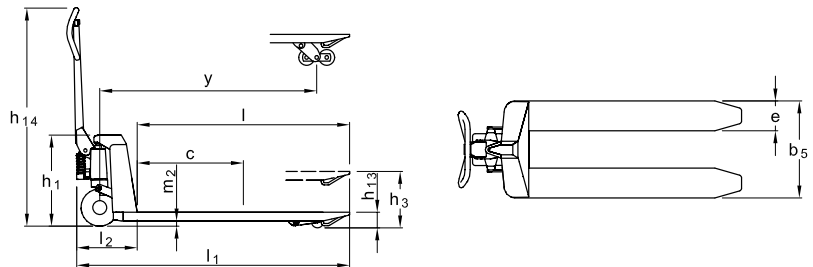


Closed forks mean easy cleaning and few hiding places for bacteria.



The pallet truck is also available in an explosion proof version.

Product (measured in mm)	GL 2081RF-PLUS	GL 2081RF-SEMI
Capacity in kg	2000	2000
Lifting height	200	200
Fork length	810, 970, 1140, 1220	810, 970, 1140, 1220, 1520
Overall height	530	530
Fork span	520, 680	520, 680
Length without forks	340	340
Overall length	1480	1480
Fork width	160	160
Wheelbase	1170	1170
Overall height	1220	1220
Lowered height	85	85
Load centre	1/2	1/2
Ground clearance	38	38
Turning angle of the wheels	230°	230°
Fork wheels - single	Ø80 x 90	Ø80 x 90
Fork wheels - tandem	Ø80 x 70	Ø80 x 70
Steering wheel	Ø200 x 50	Ø200 x 50
Weight	68 kg (520 x 1140)	



Ergonomic handle ensures the user a relaxed hold.



RF-PLUS pallet truck being used in the pharmaceutical industry.



Wheels with rubber-sealed bearings.

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