item

Lift Module 8 120x120 HF

Installation guide

Contents

Symbols, safety 2
General safety information 3
Correct use 4
Improper use 4
Personnel qualifications 5
Safety instructions 5
Product description 6
Operating data 6
Installation and set-up 7
Commissioning and operation 9
Maintenance and servicing work 10
Disposal 12
Hydraulic oil 12
Warranty 13
Development and documentation 13

Symbols, safety



Important information



Observe directions for disposal



Observe directions for disposal



Note! Failure to observe this safety instruction can result in material damage



Warning! Failure to observe this safety instruction can result in material damage, serious injury or death



Caution! Failure to observe this safety instruction can result in material damage, serious injury or death



Caution! Failure to observe this safety instruction can result in material damage or injury



Environmentally hazardous! May pollute the environment – disposal must be handled by an approved specialist company

General safety information

The details and information in this installation guide are provided for the purposes of describing the product and its installation only. This information does not discharge users from the obligation to conduct 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. This guide contains important information that will enable you to use the product safely and appropriately. When this product is sold, rented out or otherwise passed on to another party, it must be handed over with this installation guide. When installing, operating and maintaining Lift Module 8 120x120 HF, it is important to ensure that all moving elements are secured to prevent unintentional movement. Moving parts can cause serious injury! You must therefore read and follow the safety instructions set out below.

All work on and with Lift Module 8 120x120 HF must be performed with “safety first” in mind.

Do not place your hand within the operating range of the height-adjustable Lift Module’s moving parts. 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. Do not alter the position of safety equipment, circumvent it or render it ineffective.

- Keep clear of suspended loads.
- Use lifting gear with sufficient load-bearing capacity (see delivery paperwork for product weight).
- Carefully secure lifting gear.
- Attach lifting gear to the product only at sufficiently stable points.
- Observe environmental conditions.

During installation

Avoid areas that pose slip, trip, fall and jamming hazards. Secure the working area.

During commissioning

Allow the product to acclimatise for a few hours before starting to use it. Ensure that the partly completed machine satisfies internal company requirements. Only start using a product that has been installed in full.

During operation

Ensure that only persons who have been authorised by the operator have access to the immediate operating area of the hydraulically height-adjustable Lift Module. This also applies when the system is not in operation. It must not be possible to actuate moving parts unintentionally. Prevent access below the working surface of the hydraulically height-adjustable Lift Module. The hydraulically height-adjustable Lift Module is not suitable for lifting people.

During cleaning

Close all openings with suitable covers to ensure that cleaning agents cannot penetrate the system. Do not use aggressive cleaning substances. Do not use a high-pressure cleaner for cleaning.

During maintenance and servicing work

Carry out the prescribed maintenance work at the intervals stipulated in the user guide. Ensure no cables, connections or components are detached or removed. Secure the hydraulically height-adjustable table to prevent uncontrolled movement.

During disposal

Dispose of the product in accordance with the national and international regulations that apply in your country.

Correct use

Lift Module 8 120x120 HF is a partly completed machine as defined in the Machinery Directive (2006/42/EC). Hydraulically height-adjustable Lift Module 8 120x120 HF must be used only in accordance with the technical data and safety requirements set out in this document. Lift Module 8 120x120 HF is a technical item of factory equipment and is not intended for private use. If major modifications are made, the documentation will need to be renewed or supplemented in accordance with the Machinery Directive.

Lift Module 8 120x120 HF is a lifting device designed to permit simple manual ergonomic adjustment. The product is used in industrial environments to convert hydraulic pressure into linear movement and/or force. It must only be operated using hydraulic oil. 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 to the hydraulically height-adjustable Lift Module yourself. We will assume no liability for any resulting damage or injury.

The declaration of incorporation pursuant to Machinery Directive 2006/42/EC Annex II 1. B for partly completed machinery can be found on the relevant product page in our Online Shop.

You may only install, operate and maintain the hydraulically height-adjustable Lift Module if:

- You integrate Lift Module 8 120x120 HF into its surroundings in a proper and safe manner. The Lift Module must be operated only when vertical and upright. The operator is responsible for ensuring proper and safe installation.
- The range of use falls within the performance limits described in the technical data.
- You use the Lift Module in the manner described in the installation guide.
- You have carefully read and understood the installation guide.
- You are appropriately qualified.
- You are mentally and physically capable of doing so.
- You are authorised to do so by your company.
- You are using only original equipment from the manufacturer.
- You comply with the maintenance intervals.

Unsafe or inappropriate use of the hydraulically height-adjustable Lift Module runs a risk of serious injury and bruising caused by crushing and cuts.

Improper use

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

The following foreseeable types of misuse are expressly classed as improper:

- The foot pedal must not be driven by a motor.
- The attachment or integration of third-party products must trigger a new risk assessment.
- The Lift Module must not be subjected to tensile loads.
- The Lift Module is not suitable for transporting people.
- The Lift Module is not suitable for lifting people.
- The Lift Module is not suitable for private use.
- The intended fastening elements on the preconfigured components must not be replaced.
- Any modification made to the preassembled and preconfigured components shall invalidate the warranty.
- Usage on pallets or tool tables in primary forming and reforming machines
- When physical/chemical effects (vibration, welding currents and similar) could damage the product or its seals.
- Usage on pallets or tool tables that are used to change material properties (magnetisation, radiation, photochemical processes, etc.).

Take note of working areas where separate guidelines apply, particularly with regard to equipment and machinery:

- For use at funfairs and amusement parks.
- In food preparation or where special hygiene stipulations apply.
- For military purposes.
- In mining.
- In potentially explosive and aggressive environments (e.g. ATEX).
- In medical technology.
- In aerospace applications.
- For transporting people.

Personnel qualifications

Installation, commissioning, operation, disassembly and maintenance work (including servicing and care) require an adequate knowledge of mechanical and hydraulic engineering and an understanding of the relevant technical terminology. To ensure operational safety, these activities must therefore be carried out only by a qualified person or by trained personnel under the direction of a qualified person. Qualified persons are individuals who – by virtue of their specialist training, know-how, experience and knowledge of pertinent provisions – are able to assess the work that is assigned to them, identify potential hazards and put in place appropriate safety measures. Such qualified persons must comply with the applicable specialist regulations.

Safety instructions



Observe the safety instructions and handling descriptions in this installation guide to avoid personal injury and damage to property.

- Keep this installation guide in a place where it can be accessed by all users at any time.
- Observe the regulations pertaining to safety, accident prevention and environmental protection that are applicable in the country where the product is being used.
- Use the item product only when in perfect working order.
- Follow all directions on the product.
- To exclude any risks to people caused by unsuitable spare parts, use only accessories and spare parts that have been approved by the manufacturer.
- Always ensure the product is used correctly.
- You may start up the product only when it has been ascertained that the partly completed machine into which the product is to be installed satisfies the local provisions, safety regulations and technical standards.
- Conduct a risk assessment for the newly formed partly completed machine or machine.
- Interplay between the product on the one hand and the machine/fixture and surroundings on the other can result in risks that only the user is able to identify and minimise, e.g.:
  - Forces generated,
  - Movement generated,
  - Influence of hydraulic and electrical controls,
  - etc.

Personal protective equipment

Wear safety eyewear when working on and with the product!

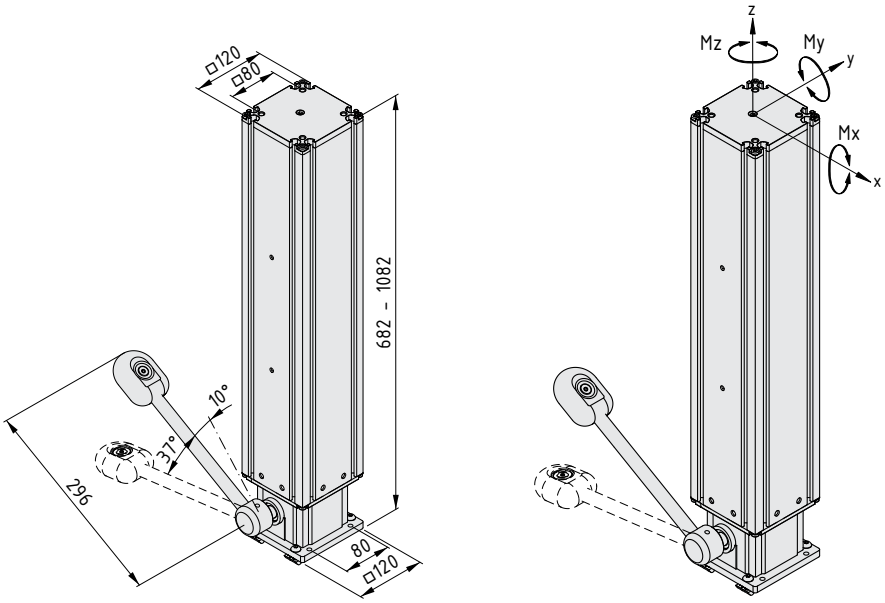
Wear safety gloves when working on and with the product!

Wear safety footwear when working on and with the product!

Product description

The product is used in industrial applications to convert hydraulic pressure into linear movement and/or force. It must only be operated using hydraulic oil.

Lift Module 8 120x120 HF offers stepless height adjustment without an electric drive. It is ideal for mobile work benches and environments where there is no direct power source. The Lift Module is adjusted using a foot pedal. Other components such as table tops, supporting struts and fixtures can be used to create ergonomic solutions with ease.



Operating data

Lift Module 8 120x120 HF

Working height:	682 mm to 1082 mm
Travel:	400 mm
Restoring force/minimum load:	200 N
Max. static load:	3000 N (observe maximum bending load)
Max. dynamic load:	1000 N (observe maximum bending load)
Max. moment load Mx, My:	100 Nm (static)
Max. moment load Mz:	50 Nm (static)
Lift per pump actuation:	approx. 11 mm/pump actuation
Max. lift 400 mm:	Approx. 36±1 pump actuations
Weight:	Approx. 8.5 kg

If eccentric loads occur, it is advisable to compensate for these with counterweights.

The maximum moments indicated apply to the product when in its rest position. Forces and moments caused by the user must be taken into account. 50 percent of the maximum values are permissible during travel (dynamic load).

Service life/cycles:

The hydraulically height-adjustable Lift Module is subject to regular endurance testing. During these tests, an average of approximately 5000 lift cycles are achieved. One lift cycle is equivalent to the Lift Module travelling up and down.

These tests are carried out under ideal laboratory conditions and provide only limited insight into the actual performance in the ultimate application scenario. Application-specific influences such as side loads, temperatures, soiling and canting have a negative impact on the anticipated performance.

Ambient conditions:

Operating temperature range: +5°C to +40°C

Storage temperature: -20°C to +70°C

Relative humidity: 5% to 85%

The hydraulically height-adjustable Lift Module is intended for use in an area that is protected from the weather.

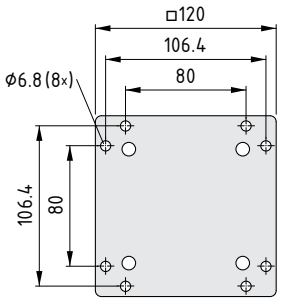
- The area should be free from mould and fungus and show no traces of rodents or other pests.
- Do not install or use in close proximity to industrial plants that produce chemical emissions.
- Do not install or use near sources of sand or dust.
- Do not install or use in an area that is regularly exposed to high-energy surges such as those caused by presses or heavy machinery, for example.
- The product is resistant to many of the substances usually encountered in the production area, such as water, mineral oil, grease and detergents. In case of doubt regarding resistance to certain chemicals such as test oil, alloyed oils, aggressive cleaning substances, solvents or brake fluid, we advise that you contact your local item GmbH branch or distribution partner.
- Avoid long periods of contact with highly acidic or alkaline substances.
- Consult the manufacturer if using in very salty air.

We recommend consulting item Industrietechnik GmbH before using this product in critical areas.

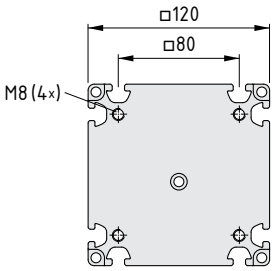
Installation and set-up

Checklist	✓
Do not subject the hydraulically height-adjustable Lift Module to tensile loads.	
When operating the height-adjustment mechanism, ensure no objects (e.g. furniture) or body parts can become trapped.	
To prevent crushing and cuts, nearby objects should be kept at least 50 mm away from the mechanism.	
A minimum safety area must be kept clear on the ground around the Lift Module to allow for the movement of the foot pedal.	
The travel range and possible collision area around and under the Lift Module must be kept clear, as the structure could otherwise be damaged or tip over.	
Load values must not be exceeded.	
Any unintentional loosening of the connections must be prevented.	
The components must not be exposed to any aggressive chemicals.	
Do not expose the Lift Module to heat, corrosive influences, sharp edges or direct UV radiation (consult your local item GmbH branch or distribution partner if necessary).	

Installing the Lift Module



Base plate



Top plate

To avoid unintentionally extending the Lift Module, do not pick it up by its base plate or top plate. If the outer profile is pulled out by hand, the foot pedal must be pumped up to the top end position to vent the system.

Lift Module 8 120x120 HF must be incorporated into a stable frame. Install Lift Module 8 120x120 HF so that it is vertical and upright (flatness 0.20 mm). This ensures it functions correctly and will prevent premature wear.

Do not depress the foot pedal of the Lift Module beyond the lower edge of the base plate. A stop to limit the travel of the foot pedal should be fitted to the substructure. If a stop is missing or has been incorrectly installed, the Lift Module may fail prematurely.

M6 bolts are to be used to firmly screw the product's base plate to the customer's connecting structure as appropriate to the anticipated loads. The Lift Module set contains four Button-Head Screw M6x20 (8.0.000.08) and the corresponding T-slot Nut V 8 St M6 (0.0.480.50).

The position of the foot pedal must be taken into account from the viewpoint of its orientation. The Lift Module is prefilled with hydraulic oil.

When determining the position of the Lift Module, ensure there is adequate space to operate the foot pedal.

The column profiles (outer/inner) must not be mechanically altered or fitted with additional guides. Overdetermination of the guide leads to premature wear. Connections to the outer Lift Module profile can be made by twisting T-Slot Nuts 8 into the groove or by using Automatic Fastener 8.

Caution: A lack of fixings or incorrect fastenings will cause the product to fall over!

Caution: Injury caused by falling product!

Caution: Product may fall over due to eccentric load caused by user application!

There are four M8 threaded bores on the top plate for fixing the product to the customer's connecting structure. The maximum screw-in depth is 10 mm. Use all the holes provided.

The customer must take design steps to prevent any hazards caused by the customer's connecting structure, such as crushing points. Observe the permissible loads. The product must only be subjected to compressive loads. The hydraulic unit in the Lift Module does not need to be vented.

Commissioning and operation

Visually inspect all components before and after installation to identify potential damage caused during transport and/or installation. Individuals without the proper authorisation are not permitted to disassemble system components.

If components are found to be damaged, please contact your local item GmbH branch or distribution partner.

Caution: Failure to observe instructions in the installation guide can result in injury.

Users are permitted to operate the product only after they have read and understood the installation guide, particularly the "Safety instructions" section.

Caution: Injury caused by crushing!

Elements of this product move during use.

Caution: Injury caused by improper use, incorrect use and misuse!

Injuries can occur if the product is not used correctly or within its technical performance parameters. If any changes occur to the product that compromise its safety, the user is obligated to report them immediately to the safety officer or the person who is responsible for safety and stop using the product.

Caution: Injury caused by raising or lowering movement!

Reaching into the travel range while the product is raising or lowering is prohibited.

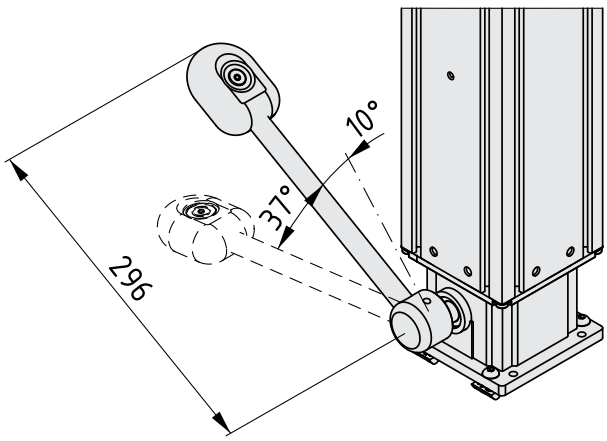
Raising

The raising motion is generated by the inner, hermetically sealed hydraulic lifting unit and foot pedal. A piston is used to pump the oil into a plunger cylinder. To raise the top plate, press the foot pedal down by approximately 30° several times. A reset spring returns the foot pedal to its starting position.

Caution – it is advisable to use a limit stop for the foot pedal. Attempting to depress the foot pedal beyond the lower stop when pumping it exerts stress on the pin in the connection between the pedal and column and can result in damage.

Lowering

To lower the top plate, lift the foot pedal by approximately 10°. This allows the weight of the user application to force the oil out of the plunger cylinder and back to its reservoir. The top plate will sink down.



Maintenance and servicing work



Warning notice for maintenance work.

Before commencing maintenance work on the system, ensure that it is unloaded and retracted. Stabilise the table/application into which the system has been integrated. This avoids the risk of potential personal injury and material damage during maintenance work.

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.

When maintaining the Lift Module, it is important to ensure that all moving elements are secured so that they cannot be moved. Rotating and moving parts can cause serious injury!

All work carried out with and on the Lift Module must be performed with “safety first” in mind.



Visual checks and functional tests should be performed regularly according to the level of utilisation and environmental conditions. Due to the way the hydraulic cylinder works, the entire Lift Module will need to be replaced if it stops functioning properly and is no longer able to complete its task.

Please contact your local item GmbH branch or distribution partner.

Take note of the following maintenance instructions

Maintenance work	Frequency	Person responsible
Cleaning, visually inspecting the Lift Module and checking the guide unit	Daily	User
Checking the fastening screws, retightening them if necessary Checking the guide unit	Half-yearly inspections	Expert
Checking the screw fittings, retightening them if necessary	Half-yearly inspections	Expert
Checking the wear on the guide unit based on play in the guide. If play is more than 0.5 mm, the guide elements must be replaced (see Repair section)	Half-yearly inspections	Expert
Checking for smooth operation over the entire travel range under a low load • Lift the foot pedal until the top plate is fully lowered. • Secure the test weight to the top plate (15 kg). • Press down on the foot pedal several times until the top plate is fully raised. • Lift the foot pedal until the top plate is fully lowered.	Yearly	Expert

Maintenance work	Frequency	Person responsible
Checking the hold valve of the inner lifting unit when under load **Caution: If the product's top plate sinks down on its own, stop using the product!** Lift the foot pedal until the top plate is fully lowered. • Secure the test weight to the top plate (100 kg). • Press down on the foot pedal several times until the top plate is fully raised. • The top plate must not sink down on its own	Yearly	Expert
Checking for smooth operation over the entire travel range when under load	Yearly	Expert
Inspection by the manufacturer (recommended)	After 50000 cycles (raising and lowering)	item GmbH branch/distribution partner
Repair Repair work must be carried out only by item GmbH.	In the event of damage	item GmbH branch/distribution partner

The following cleaning work is to be carried out on the mechanical components on a daily basis:

- Cleaning using cleaning cloths or rags.
- Lightly greasing the metallic components (e.g. plates, guides, etc.)

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 this height-adjustable application can pollute the environment.

Please dispose of your height-adjustable Lift Module in full accordance with the laws of your country.

Caution: Environmentally hazardous. The disposal of individual components must be handled by an approved specialist company due to the potential for environmental pollution.

Always follow the local statutory regulations and provisions when disposing of electrical and electronic components (e.g. travel measuring systems, sensors, etc.).



Environmentally hazardous

The disposal of individual components must be handled by an approved specialist company due to the potential for environmental pollution. Individual materials must be disposed of in accordance with the applicable directives and regulations and environmental conditions.

Special attention must be given to the disposal of components that contain residues of hydraulic fluids. The disposal instructions in the safety data sheet must be observed. The safety data sheet can be found on the relevant product page in our Online Shop.

Hydraulic oil

The widely sold HLP32 V hydraulic oils are made by Shell.

The following details are provided by the manufacturer. The complete safety data sheet can be found on the relevant product page in our Online Shop. If you have any questions, please contact your local item GmbH branch or distribution partner.

Shell Tellus Oil 32

Product code	001B0667
InfoSafe No.	ACKQ4DE/ger/deu/C
Issued date	29 April 2004
Product Type/Use	Hydraulic oil
Supplier	Shell Deutschland
Emergency Tel.	+49 (0)40-6324-5110

Warranty

Warranty: 12 months. The warranty covers free delivery of parts or complete units ex-works. However, this is conditional on receipt of a written notice from the customer that includes a description of the fault. The replaced parts must be returned to item Industrietechnik GmbH within six weeks for inspection, otherwise the cost of the replacements and their shipping will be charged.

Start of warranty: Day of delivery, but no later than three months after delivery!

Documentation and development

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 can find the latest version of this installation guide at item24.com.

item

item Industrietechnik GmbH
Friedenstrasse 107-109
42699 Solingen
Germany
Phone +49 212 6580 0
info@item24.com
item24.com

0.0.710.63 item Industrietechnik GmbH Made in Germany 01/2021