

LIFTING TECHNOLOGY

2017.2018 HT02-FL | English

FiPA
challenge accepted

Lifting technology – FIPALIFT

Our contribution to high efficiency and health preservation in the movement of loads



For the past 30 years, FIPA GmbH has been the innovator in vacuum technology and End-of-Arm-Tooling (EOAT) for the handling of various types of goods.

Based on our wealth of experience, we offer solutions for lifting small and large loads. We cover all areas of internal logistics and production – from heavy boxes and bags to workpieces made of wood and sheet steel.

Our FIPALIFT tube lifters and FIPA Spider offer manually directed lifting that can be individually matched to your sector's requirements. These permit efficient, rapid working and also provide physical relief for your employees.

An additional characteristic of our lifting devices is their compatibility with components throughout the entire range of FIPA vacuum technology and End-of-Arm-Tooling (EOAT). Thus, we can create customized special solutions for you quickly and efficiently.

Just like our tube lifters and vacuum traverses, our services are also tailored to your specific needs: Take advantage of our competence from the planning phase to installation or simply buy the components required and install them using your own resources.

However you decide to proceed, and whatever your requirement may be, any tailored solution can be realized using FIPALIFT.

We look forward to providing you and your employees with problem-free work solutions.

A handwritten signature in black ink, appearing to read 'Rainer Mehrer', written in a cursive style.

Rainer Mehrer,
President of FIPA GmbH

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FIPA: YOUR SERVICE POINT

FIPA places the highest value on an excellent service culture that includes personal contact and professional project management. Just call us! We'll happily provide the appropriate information, service or product you require.



Training and seminars

So that no questions go unanswered



E-academy

Your flexible FIPA continual training scheme



Tests and loan equipment

Doing is better than studying



Service package with extended guarantee

For long-term satisfaction



Personal advice

You have the choice: An initial consultation or an expert-level meeting



Goods management

Order stock goods Monday - Thursday by 2 p.m. (CET) for same-day dispatch



Installation and commissioning

"Doesn't work" isn't an option



Hotline

Manned continuously from 7 a.m. to 6 p.m. (CET), Monday to Friday



Weekend installation

Nobody wants a machine that's doing nothing



FIPA Service

For all information about our services, see www.fipa.com



At FIPA, service is always individualized and at the customer's level. This is the best way to find solutions to any problems relating to vacuum, lifting and End-of-Arm-Tooling technologies.

Thomas Trefzer | Chief Operating Officer, Authorized Signatory

KEY ELEMENTS

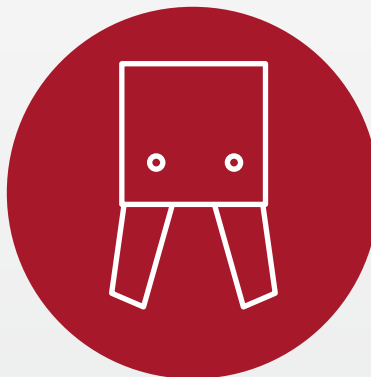
The potential of modular systems is that a limited number of elements can give rise to endless possibilities for new developments. These can be achieved in the shortest possible time frame with reliable results.

VACUUM TECHNOLOGY



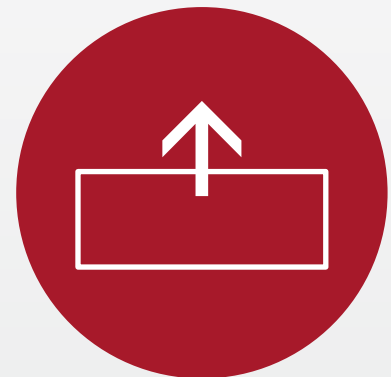
Suction | Control and regulation
Vacuum generation

END-OF-ARM-TOOLING



Gripping | Cutting

LIFTING TECHNOLOGY



Lifting | Moving
Transporting



You can find all the information you need about FIPA components at www.fipa.com or in the corresponding product catalog.



Whether in robotics, crane and lifting technology, or general handling tasks, our modular construction kit covers practically every situation with its standard components. This makes everything wonderfully simple and efficient.

Michael Kaltenecker | Business Development Manager Lifting & Crane Technology

OUR INDUSTRY FOCUS

Plastics

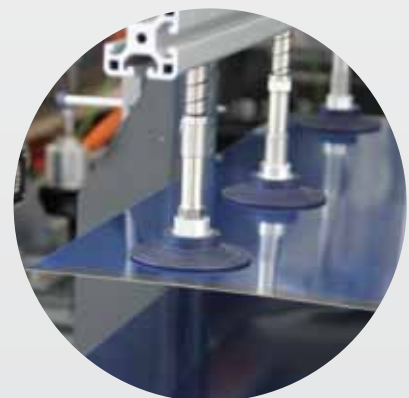
- Market-leading innovation of low-marking HNBR pads to handle sensitive parts with sprue grippers
- Silicone-free HNBR pads and vacuum cups that are suitable for high temperatures (max. 160 °C) and ideal for the handling of plastic automotive components that require painting
- Process reliability with the SAFE-LOCK mechanism for quick-change systems
- Market leader for miniature sprue grippers in the 80 series for extremely small gates or products
- Custom solutions to meet today's requirements in the plastics industry
- Wear-resistant Varioflex® vacuum cups to enable the safe handling of irregular or structured surfaces



INJECTION MOULDED PART REMOVAL
GATE CUTTING
LIFTING BAGS OF GRANULAR MATERIAL

Sheet Metal

- Highly wear-resistant materials for the dynamic handling of dry and oiled sheet metal parts in pressing plants and for shell construction and body construction
- Vacuum cups that are free from silicone and PWIS for low-marking handling and trouble-free subsequent painting
- Gripping spiders "FIPA Spider" for robot-aided or manual handling of large sheet metal parts
- Efficient vacuum generation with integrated parts control for maximum process safety in sheet metal processing
- Innovative gripper systems that intelligently combine suction technology with pneumatic End-of-Arm-Tooling (for example, rubberized grippers for the gentle handling of optically high-quality surfaces)



SHEET METAL TRANSFER
AUTO BODY PANEL HANDLING
MACHINERY LOADING

Packaging

- The world's largest range of vacuum cups
- Highly wear-resistant vacuum cups, e.g. made from vinyl or Varioflex®, for uneven or rough surfaces
- Vacuum gripping systems that are not sensitive to dirt, deal with layered or single products without a gripper change and with minimum maintenance
- Bag grippers for products with unstable shapes – for robot-aided or manual handling
- Energy-saving vacuum generators with quick-switching valves – efficient vacuum formation for very short cycle times, e.g. for delta robots such as FlexPicker™
- Vacuum cups and gripper systems for direct contact with foodstuffs meet the requirements of the FDA and EC 1935/2004
- Specialized vacuum cups for products such as pralines and eggs
- Customized gripper solutions, e.g. for sensitive products, such as croissants, from a lot size of 1



PICK & PLACE
CARDBOARD BOX HANDLING
PALLET HANDLING
BAG HANDLING
FOOD & BEVERAGE

Wood

- Easy movement of heavy and bulky loads up to 230 kg with FIPALIFT tube lifters for ideal handling panels
- Largest range of low-marking and highly abrasion-resistant vacuum cups with the most diverse shapes and materials
- Ideal sealing for rough surfaces due to vacuum cups specialized for the wood industry
- No deformation of thin-walled products due to bracing
- Safe handling as a result of large diameter vacuum cups with integrated steel or aluminum plates – for light to heavy loads
- Multi-chamber ejectors with high suction power for process-safe handling of porous and non porous materials
- Heavy-duty ejectors for an interruption-free vacuum supply, even in the most difficult conditions





WOOD TRANSFER
PALLET HANDLING
LOADING MACHINERY

FIPALIFT Tube lifters – Overview

FIPALIFT Tube lifters



FIPALIFT Expert	FIPALIFT Smart
	
Weight ranges	
30 to 230 kg	5 to 65 kg
Application ranges	
<p>The expert in heavy and awkward loads</p> <p>Suitable for:</p> <ul style="list-style-type: none"> > Wood or plastic panels > Glass panels and metal sheets > Overweight bags and containers > and much more 	<p>The smart solution for logistics processes</p> <p>Suitable for:</p> <ul style="list-style-type: none"> > Cartons and boxes > Food products, e.g. wheels of cheese > Lighter bags > Containers in shrink-wrap packaging > and much more
Frequent application fields	
<ul style="list-style-type: none"> > Carpentry > Joinery > Glazing > Window manufacture > Sheet metal working > Chemical industry > Food production etc. 	<ul style="list-style-type: none"> > Storage and logistics > Intralogistics > Chemical industry > Food production etc.
Details starting from page	
9	29

FIPALIFT Basic	FIPALIFT Easy
	
Weight ranges	
5 to 55 kg	5 to 65 kg
Application ranges	
<p>The versatile one among the tube lifters</p> <p>Suitable for:</p> <ul style="list-style-type: none"> > Cartons and boxes > Food products, e.g. wheels of cheese > Lighter bags > Containers in shrink-wrap packaging > Open storage boxes, jerrycans, small barrels > and much more 	<p>The specialist one among the tube lifters</p> <p>Suitable for:</p> <ul style="list-style-type: none"> > High stacking and unstacking of palletized goods > Efficient use of cargo space
Frequent application fields	
<ul style="list-style-type: none"> > Storage and logistics > Intralogistics > Chemical industry > Food production etc. 	<ul style="list-style-type: none"> > Logistics > Intralogistics
Details starting from page	
39	57

FIPALIFT Tube lifters – Overview

Health protection with FIPALIFT tube lifters and vacuum lifting devices

FIPALIFT – Maintain physical performance throughout the work day

Lifting and carrying heavy loads is part of everyday work in many professions frequently back pain, and even injuries. Oftentimes the right techniques are not used, or weight limits are simply ignored. Musculoskeletal disorders are ranked first on the list of reasons for days of absence from work due to incapacity published in the 2012 BKK health report.

On this page, we would like to provide a brief guide to correct lifting and carrying techniques, as well as an overview of recommended load weights. Look after yourself and the health of your employees – with FIPA as your perfect partner.

Recommendations for load weights when lifting and carrying by hand

Source: Bayerisches Landesamt für Arbeitsschutz, Arbeitsmedizin und Sicherheitstechnik

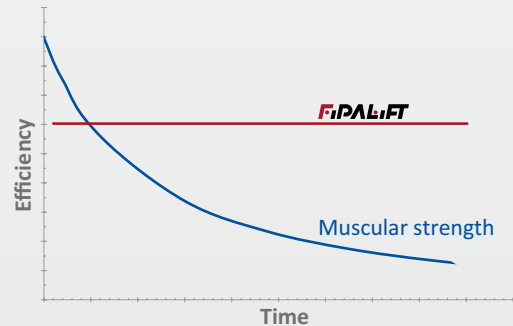


Type	Lifting						Carrying					
	Men			Women			Men			Women		
Sex												
Share per shift (%)	< 5	5 - 10	> 10 - 35	< 5	5 - 10	> 10 - 35	< 5	5 - 10	> 10 - 35	< 5	5 - 10	> 10 - 35
Age (year) / max. weight (kg)												
-16	20	13	--	13	9	--	20	13	--	13	9	--
17 - 19	35	25	20	13	9	8	30	20	15	13	9	8
20 - 45	55	30	25	15	10	9	50	30	20	15	10	9
> 45	50	25	20	13	9	8	40	25	15	13	9	8

When transporting loads by hand you must generally move your entire body weight, and ensure upright posture by tensing the muscles. It is not just large loads that are difficult to transport. Small loads can also impose considerable strain if body positioning is incorrect. In addition, employees' performance decreases dramatically with each carrying or lifting task.

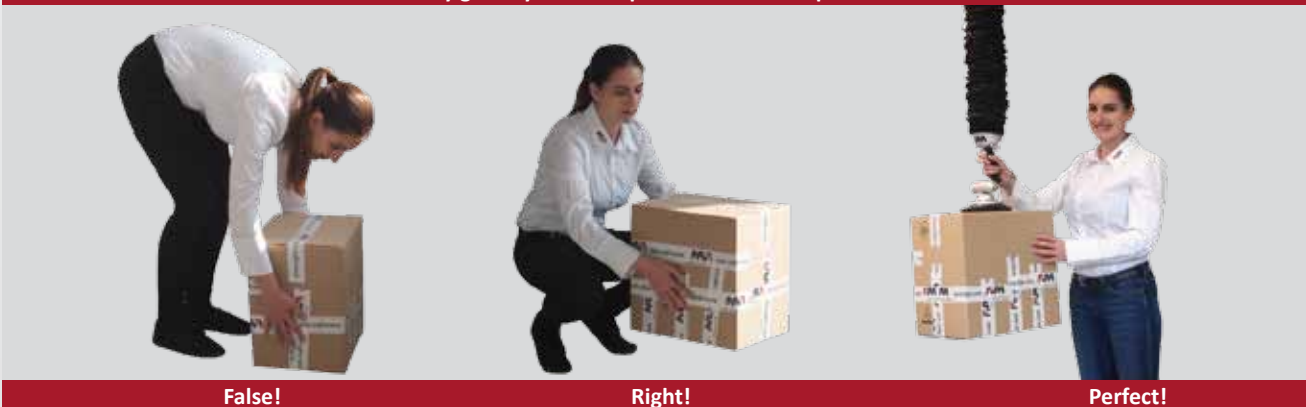
According to Section 2 Para. 1 of the **German ordinance on the handling of loads** (Lastenhandhabungsverordnung), employers are generally required to avoid manual handling of heavy loads that could pose a health risk.

Section 5 of the **German occupational safety act** (Arbeitsschutzgesetz) states that if the above conditions cannot be met, the risk posed by heavy lifting and carrying must be assessed. This can lead to temporal and quantitative restrictions on activity.



Our experts will be happy to advise you on ergonomic material flows in warehousing, production, and dispatch, even coming to your premises if required. Our FIPALIFT tube lifter and FIPA Spider vacuum lifters provide the perfect aids to relieve the strain on you and your employees in the long term.

Say goodbye to back pain – with the help of FIPA!



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FIPALIFT Expert

The FIPALIFT Expert, with a lifting force of **30 kg to 230 kg** is particularly suited for handling heavy work loads such as: metal sheets, ceramic slabs, wood materials, overweight sacks and containers.

The rigid design permits heavy-duty use in a production environment that makes the unit versatile and in demand in industries such as: carpentry, sheet metal working, bakeries, and logistics where heavy loads are involved.

The innovative design and use of special adapters allow us to design customized load-carrying systems with the integration of FIPA End-of-Arm-Tooling components. Take advantage of our experience in EOAT design and adapt the unit to your individual needs without adding excessive extra cost.

The basic models are equipped with an easy-to-operate controller. Pulling the operating lever lifts the load and pushing it down moves the tube down again.

The wide range of already included options allows us to configure the unit to suit your demand:

- > Automatic vacuum shut-off feature. If the system is inactive for an extended period of time, the vacuum supply is interrupted to save energy. An adjustable switch is used in conjunction with the compressor to control its operation.
- > Optional stainless steel construction. Partial or complete stainless steel construction is available for use in the food industry or corrosive environments.



FIPALIFT Expert



Special designs

- > A wide range of vacuum cups, gripper solutions and cross beams allow the FIPALIFT Expert to be used in a wide range of applications
- > The cross beams are available both as accessories or, on request, as fitted options
- > For special requirements that cannot be solved using the standard program, we can offer custom solutions



Our full range of vacuum cups can be seen in the FIPA Vacuum Technology catalog or at www.fipa.com.

FIPALIFT Expert

FIPALIFT Expert standard versions

FIPALIFT Expert standard versions



Product notes

- > The standard versions have the standard control handle, a stroke of 2.50 m and a suspension with eyelet
- > We can offer a wide variety of factory-made options in addition to the standards. These can be seen below in the "Factory mounted options" table.
- > The rotary blower required for the supply of vacuum and the vacuum cups are not included in the scope of delivery – please order separately
- > Please take note of the combination table "Combination of lifting tube diameter and pump". It can be used to establish the best combination for the lifting force that you need.
- > We would be pleased to help you with the design of your system

Technical data

Item no.	Ø Lifting tube [mm]	Number of lifting tubes
SH.BAS.EXP.100/SU	100	Single tube
SH.BAS.EXP.120/SU	120	Single tube
SH.BAS.EXP.140/SU	140	Single tube
SH.BAS.EXP.160/SU	160	Single tube
SH.BAS.EXP.180/SU	180	Single tube
SH.BAS.EXP.200/SU	200	Single tube
SH.BAS.EXP.160/DU	160	Double tube
SH.BAS.EXP.180/DU	180	Double tube
SH.BAS.EXP.200/DU	200	Double tube

Application example – Glass handling



More application examples



Factory mounted options for FIPALIFT Expert

Item no.	Description
SH.OPT.EXP.0010	FIPALIFT EXPERT, metal parts made of stainless steel
SH.OPT.EXP.0011	FIPALIFT EXPERT, control handle made of stainless steel
SH.OPT.EXP.0012	Lifting tube for EXPERT, optional in 3 m
SH.OPT.EXP.0013	Lifting tube for EXPERT, optional in 4 m
SH.OPT.EXP.0014	Protection valve
SH.OPT.EXP.0015	Quick balance device EXPERT, 3 positions
SH.OPT.EXP.0016	Split control handle
SH.OPT.EXP.0017	Release valve for standard control handle
SH.OPT.EXP.0018	Release valve for extended control handle
SH.OPT.EXP.0019	Cardan joint
SH.OPT.EXP.0022	Grounded lift unit
SH.OPT.EXP.0023	Automatic turn off vacuum pump
SH.OPT.EXP.0050	Reinforced balance valve for heavy cross beams
SH.OPT.EXP.0051	Access for additional compressed air line

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FIPALIFT Expert

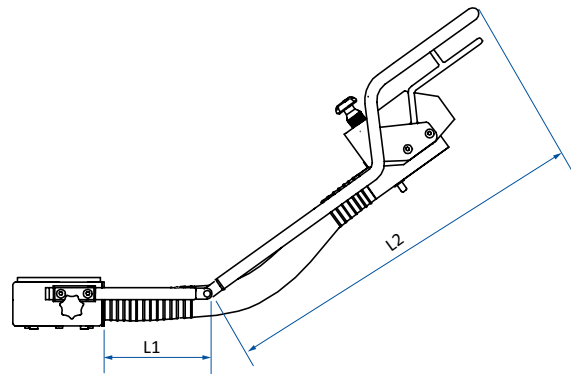
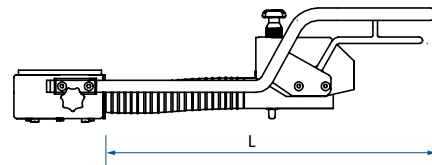
FIPALIFT Expert standard versions

Stainless steel design



Factory mounted options for control handle FIPALIFT Expert

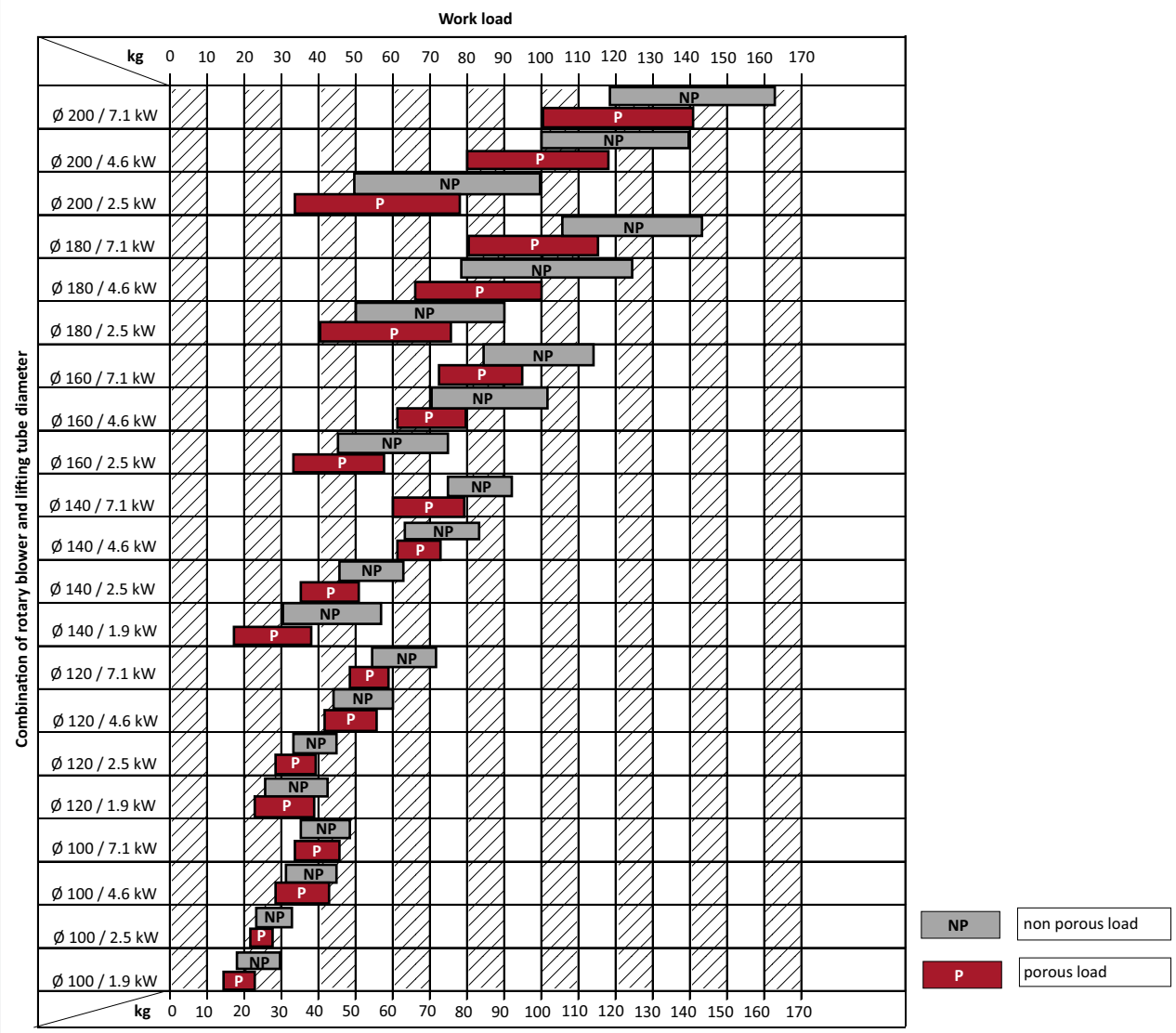
Item no.	Description
SH.OPT.EXP.0024	Rigid extended control handle Expert 500 mm (L)
SH.OPT.EXP.0025	Rigid extended control handle Expert 600 mm (L)
SH.OPT.EXP.0026	Rigid extended control handle Expert 700 mm (L)
SH.OPT.EXP.0027	Rigid extended control handle Expert 900 mm (L)
SH.OPT.EXP.0028	Rigid extended control handle Expert 1200 mm (L)
SH.OPT.EXP.0029	Flexible extended control handle Expert 200/500 (L1/L2)
SH.OPT.EXP.0030	Flexible extended control handle Expert 200/600 (L1/L2)
SH.OPT.EXP.0031	Flexible extended control handle Expert 200/700 (L1/L2)
SH.OPT.EXP.0032	Flexible extended control handle Expert 200/900 (L1/L2)
SH.OPT.EXP.0033	Flexible extended control handle Expert 300/500 (L1/L2)
SH.OPT.EXP.0034	Flexible extended control handle Expert 300/600 (L1/L2)
SH.OPT.EXP.0035	Flexible extended control handle Expert 300/700 (L1/L2)
SH.OPT.EXP.0036	Flexible extended control handle Expert 300/900 (L1/L2)
SH.OPT.EXP.0037	Flexible extended control handle Expert 400/500 (L1/L2)
SH.OPT.EXP.0038	Flexible extended control handle Expert 400/600 (L1/L2)
SH.OPT.EXP.0039	Flexible extended control handle Expert 400/700 (L1/L2)
SH.OPT.EXP.0040	Flexible extended control handle Expert 400/900 (L1/L2)
SH.OPT.EXP.0041	Flexible extended control handle Expert 500/500 (L1/L2)
SH.OPT.EXP.0042	Flexible extended control handle Expert 500/600 (L1/L2)
SH.OPT.EXP.0043	Flexible extended control handle Expert 500/700 (L1/L2)
SH.OPT.EXP.0044	Flexible extended control handle Expert 500/900 (L1/L2)
SH.OPT.EXP.0045	Flexible extended control handle Expert 700/500 (L1/L2)
SH.OPT.EXP.0046	Flexible extended control handle Expert 700/600 (L1/L2)
SH.OPT.EXP.0047	Flexible extended control handle Expert 700/700 (L1/L2)
SH.OPT.EXP.0048	Flexible extended control handle Expert 700/900 (L1/L2)



Extended control handle

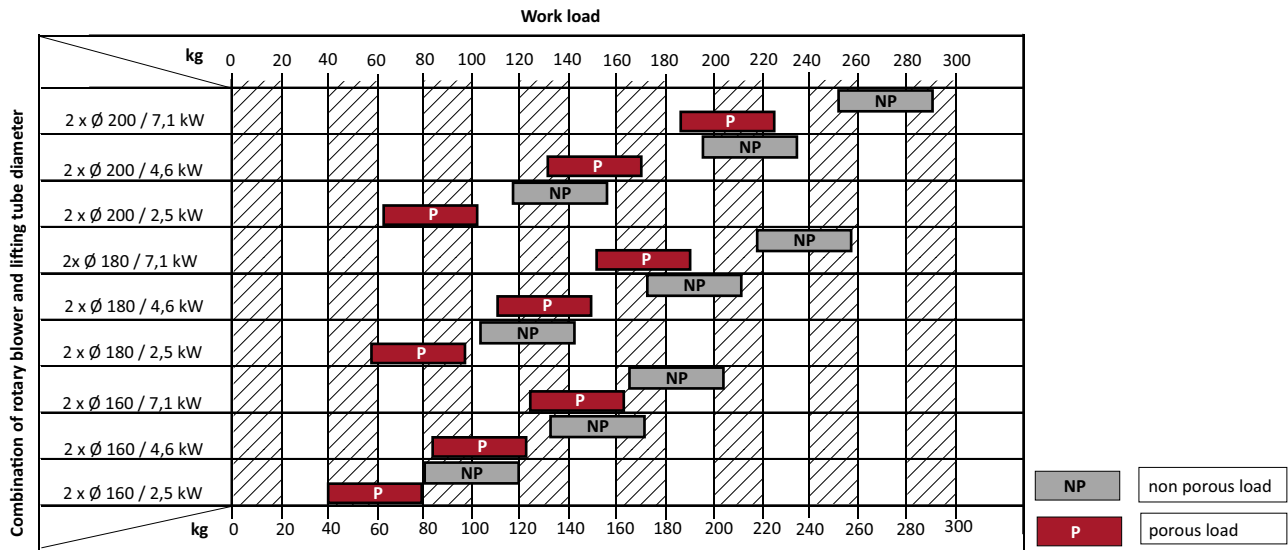


Combination of lifting tube diameter and pump – single tube



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Combination of lifting tube diameter and pump – double tube



The bars in the diagram show the recommended load weights that can be handled by the individual combination of lifting tube diameter and pump. The recommendations are based on appropriate lifting speeds. A light load will be lifted faster than a heavy load. A non porous load (NP), for example a metal sheet, will be lifted faster than a porous load (P), for example a carton. Do not use the combination of lifting tube diameter and pump for loads heavier than recommended.

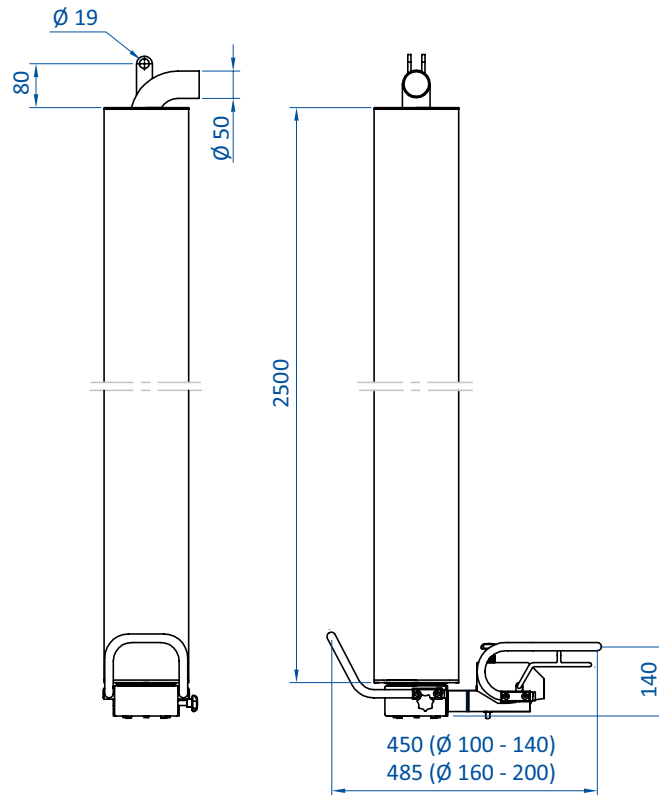
An example of how to use the diagram:

A tube lifter FIPALIFT Expert 160 / 4.6 kW (lifting tube diameter 160 mm, pump size 4.6 kW) is recommended for lifting non porous loads in the range from 70 kg to 102 kg and for porous loads in the range from 61 kg to 80 kg. The combination with a larger tube lifter and a smaller pump is recommended for softer lifting. The selection is also highly dependent on the consistency of the load to be lifted, lifting trials may be required. Please contact our technical sales department.

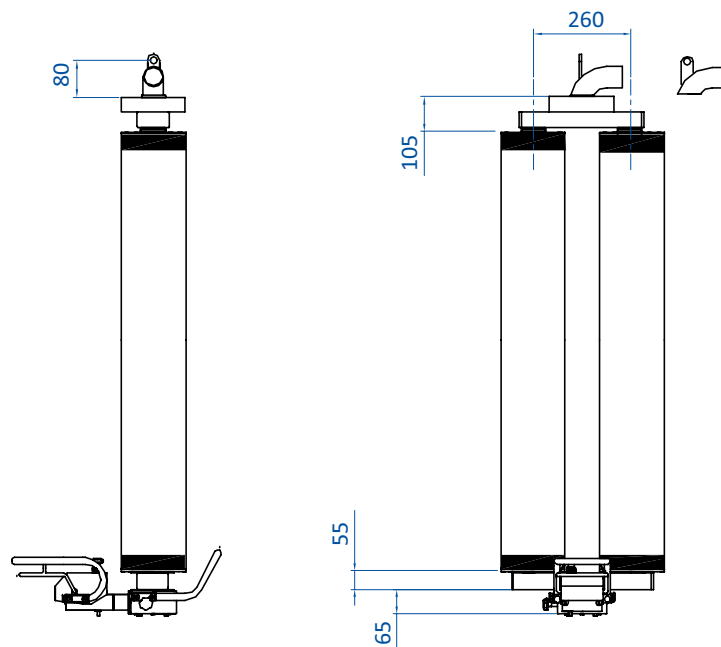
FIPA will carry out suction trials on your lifting equipment to determine the porosity of the material to be handled.

Calculation aid for calculating the stroke for shortened tubes can be found on page 62 – 63.

Dimensions



SH.BAS.EXP.100/SU | SH.BAS.EXP.120/SU | SH.BAS.EXP.140/SU | SH.BAS.EXP.160/SU | SH.BAS.EXP.180/SU | SH.BAS.EXP.200/SU



SH.BAS.EXP.160/DU | SH.BAS.EXP.180/DU | SH.BAS.EXP.200/DU

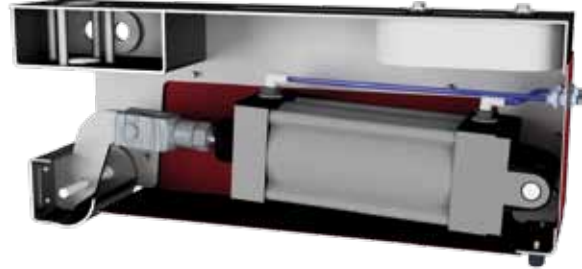
FIPALIFT Expert

Pneumatic tilting tool

Pneumatic tilting tool

NEW

90° TRAVERSING UP TO 180 KG



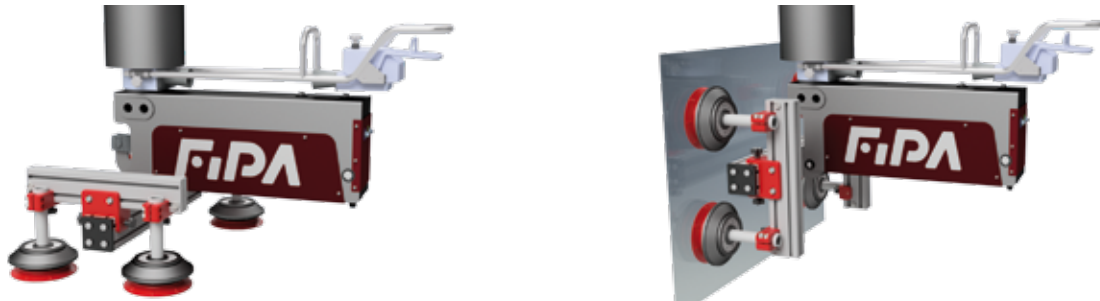
Product notes

- > Energy-saving traversing
- > Ideal for panel saws, etc.
- > All angles from 0 to 90° can be accessed
- > Fast and safe traversing by one operator
- > Traversing speed is fully adjustable in both directions via adjustable throttles
- > Inclines due to different cross beam attachments can be compensated by a counterweight
- > Four vacuum connections, therefore no or fewer distribution manifolds are needed and weight is saved
- > Safe, due to fixed enclosure of the cylinder unit
- > Plug & play through color-coded bulkhead connectors
- > Operated via a spring-loaded manual valve in zero position, which is attached to the operating handle of the FIPALIFT Expert
- > Driven by a double-acting pneumatic cylinder
- > Manageable panel sizes depend on the environmental conditions

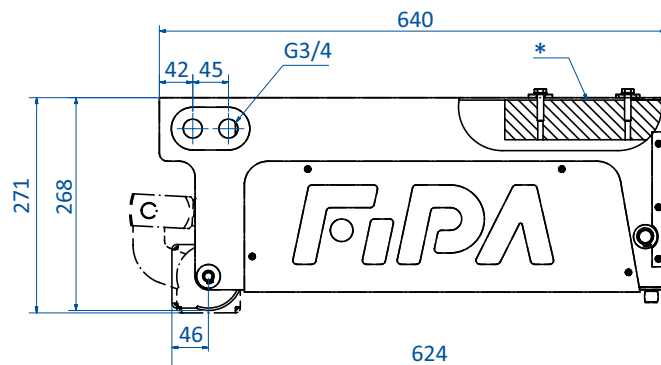
Technical data

Item no.	Suitable for	Medium	Operating pressure [bar (psi)]	Pivoting range [°]	Admissible work load [kg]	Weight [kg]
SH.TT.EXP.0180	Lifting tube \varnothing 200 SU / 200 DU	Filtered and oiled / unoiled air	1.5 - 9 (21.8 - 130.5)	90	180	15

Application example



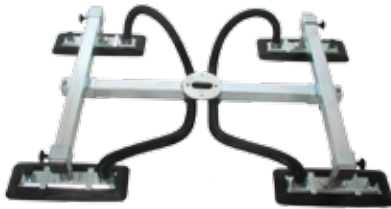
Dimensions



* = Counterweight (optional)

H-traverses – quad, adjustable

NEW



Product notes

- > Adjustable cross beam for handling sheet materials
- > Strong tubular steel construction
- > G1/2 connections for using a wide range of FIPA vacuum cups
- > Vacuum cups are not included in the scope of delivery. We will be pleased to help you with your selection.

Technical data

Item no.	Length [mm]	Width [mm]	Connection for vacuum cup
SH.ACC.EXP.0125-1/2	1,200	600	G1/2
SH.ACC.EXP.0126-1/2	1,800	600	G1/2

Inline-traverses – quad, adjustable



Product notes

- > Adjustable cross beam for handling sheet materials
- > Strong tubular steel construction
- > G1/2 connections for using a wide range of FIPA vacuum cups
- > Vacuum cups are not included in the scope of delivery. We will be pleased to help you with your selection.

Technical data

Item no.	Length [mm]	Connection for vacuum cup
SH.ACC.EXP.0117-1/2	1,200	G1/2
SH.ACC.EXP.0118-1/2	1,800	G1/2

FIPALIFT Expert

Suction shells round – Expert

Suction shells round – Expert



Product notes

- > Suction shells made from sheet metal with sealing foam
- > Suitable for handling barrels, cans, drums, stone, tiles and much more
- > Sealing foam can be easily replaced without the need for tools
- > We would be pleased to provide advice on the selection of suitable vacuum cups and to carry out vacuum tests
- > Cups without a safety factor statement must not be used with this lifting tube diameter
- > A safety factor of at least 2.5 is necessary for horizontal handling and at least 4.0 for vertical handling

Technical data

Item no.	Material	Diameter [mm]	Suitable replacement foam
SH.ACC.EXP.0053	Steel	250	SH.SPP.EXP.0010 (p.22)
SH.ACC.EXP.0054	Steel	300	SH.SPP.EXP.0011 (p.22)
SH.ACC.EXP.0055	Steel	320	SH.SPP.EXP.0012 (p.22)
SH.ACC.EXP.0056	Steel	360	SH.SPP.EXP.0013 (p.22)

Safety factor by lifting tube \varnothing

Item no.	\varnothing 100 mm	\varnothing 120 mm	\varnothing 140 mm	\varnothing 160 mm	\varnothing 180 mm	\varnothing 200 mm
SH.ACC.EXP.0053	4.8	3.4	2.5	--	--	--
SH.ACC.EXP.0054	7.3	5.1	3.7	2.8	--	--
SH.ACC.EXP.0055	8.4	5.8	4.3	3.3	2.6	--
SH.ACC.EXP.0056	10.9	7.6	5.6	4.3	3.4	2.7

Suction shells oval – Expert



Product notes

- > Suction shells made from sheet metal with sealing foam
- > Also available in stainless steel
- > Suitable for handling sacks and shrink-wrapped goods
- > Sealing foam can be easily replaced without the need for tools
- > We would be pleased to provide advice on the selection of suitable vacuum cups and to carry out vacuum tests
- > Cups without a safety factor statement must not be used with this lifting tube diameter
- > A safety factor of at least 2.5 is necessary for horizontal handling and at least 4.0 for vertical handling

Technical data

Item no.	Material	Width [mm]	Length [mm]	Suitable replacement foam
SH.ACC.EXP.0057	Steel	175	275	SH.SPP.EXP.0014 (p.22)
SH.ACC.EXP.0058	Steel	205	370	SH.SPP.EXP.0015 (p.22)
SH.ACC.EXP.0059	Steel	260	455	SH.SPP.EXP.0016 (p.22)
SH.ACC.EXP.0057.VA	Stainless steel	175	275	SH.SPP.EXP.0014 (p.22)
SH.ACC.EXP.0058.VA	Stainless steel	205	370	SH.SPP.EXP.0015 (p.22)
SH.ACC.EXP.0059.VA	Stainless steel	260	455	SH.SPP.EXP.0016 (p.22)

Safety factor by lifting tube \varnothing

Item no.	\varnothing 100 mm	\varnothing 120 mm	\varnothing 140 mm	\varnothing 160 mm	\varnothing 180 mm	\varnothing 200 mm
SH.ACC.EXP.0057	3.9	2.7	--	--	--	--
SH.ACC.EXP.0058	6.7	4.7	3.4	2.6	--	--
SH.ACC.EXP.0059	11	7.6	5.6	4.3	3.4	2.8
SH.ACC.EXP.0057.VA	3.9	2.7	--	--	--	--
SH.ACC.EXP.0058.VA	6.7	4.7	3.4	2.6	--	--
SH.ACC.EXP.0059.VA	11	7.6	5.6	4.3	3.4	2.8

FIPALIFT Expert

Replacement foam for suction shells – Expert

Replacement foam for suction shells – Expert



Product notes

- > Easily replaced without the need for tools if worn out
- > Simply pull the foam out of the suction shell and slide in the new one

Technical data

Item no.	Suitable for	Suitable for suction shell
SH.SPP.EXP.0010	SH.ACC.EXP.0053	Round Ø 250
SH.SPP.EXP.0011	SH.ACC.EXP.0054	Round Ø 300
SH.SPP.EXP.0012	SH.ACC.EXP.0055	Round Ø 320
SH.SPP.EXP.0013	SH.ACC.EXP.0056	Round Ø 360
SH.SPP.EXP.0014	SH.ACC.EXP.0057	Oval 175x275
SH.SPP.EXP.0015	SH.ACC.EXP.0058	Oval 205x370
SH.SPP.EXP.0016	SH.ACC.EXP.0059	Oval 455x260

Grid for suction shells oval – Expert



Product notes

- > Support element in the suction shells in order to prevent the goods to be lifted from being drawn in
- > Important aid when handling loosely filled bags

Technical data

Item no.	Material	Width [mm]	Length [mm]
SH.ACC.EXP.0063	Steel	175	275
SH.ACC.EXP.0064	Steel	205	370
SH.ACC.EXP.0065	Steel	260	455
SH.ACC.EXP.0063.VA	Stainless steel	175	275
SH.ACC.EXP.0064.VA	Stainless steel	205	370
SH.ACC.EXP.0065.VA	Stainless steel	260	455

FIPALIFT Expert

Quick-change systems – Expert

Quick-change systems – Expert



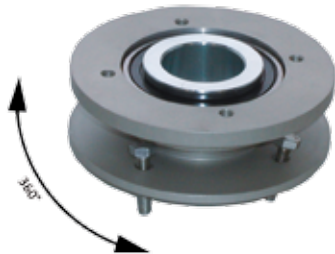
Product notes

- > Quick-change system for rapid tool-free replacement of the vacuum cups and gripper systems on the FIPALIFT Expert
- > Operates with a bayonet fitting
- > Ideally suited to frequently changing handling tasks

Technical data

Item no.	Design	Load capacity [kg]
SH.ACC.EXP.0066	Upper	100
SH.ACC.EXP.0067	Lower	100
SH.ACC.EXP.0068	Upper	160
SH.ACC.EXP.0069	Lower	160

Swivel joint – Expert



Product notes

- > Joint for stepless 360° rotation of goods
- > Ideal for repositioning of goods to be lifted, e.g. when loading a machine

Technical data

Item no.	Pivoting range S [°]
SH.ACC.EXP.0070	360

Cardan joint – Expert



Product notes

- > For level equalization

Technical data

Item no.	Description
SH.ACC.EXP.0081	Cardan joint

Release valves – Expert



SH.ACC.EXP.0079



SH.ACC.EXP.0080

Product notes

- > Additional valve for rapid lowering of goods to be lifted
- > Recommended for use with large vacuum cups and lighter goods
- > Available for the standard control handle and elongated control handle
- > The vacuum can be released via push button on the operating unit

Technical data

Item no.	Suitable for
SH.ACC.EXP.0079	Control handle standard
SH.ACC.EXP.0080	Control handle elongated

FIPALIFT Expert

Suction plates rectangular – Expert

Suction plates rectangular – Expert



SH.ACC.EXP.0010



SH.ACC.EXP.0015

Product notes

- > Rectangular suction plates for direct mounting on the control handle of the FIPALIFT Expert
- > Suitable for handling of cartons, boxes and smaller flat products
- > Steel plate with exchangeable gasket made from natural rubber (NR) black
- > Gasket can be easily replaced without the need for tools
- > Concave shape available for lifting pipes or bars
- > Cups without a safety factor statement must not be used with this lifting tube diameter
- > A safety factor of at least 2.5 is necessary for horizontal handling and at least 4.0 for vertical handling
- > The appropriate replacement gaskets are available as accessories for all types

Technical data

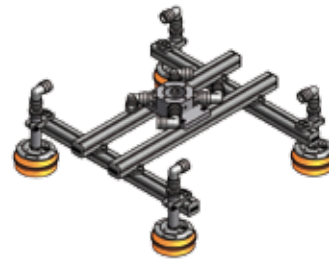
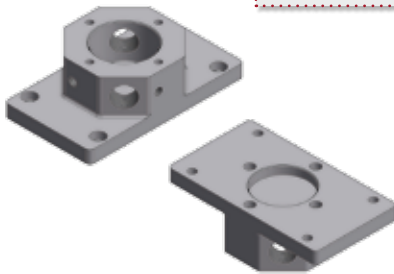
Item no.	Design	Width [mm]	Length [mm]
SH.ACC.EXP.0010	Flat	150	210
SH.ACC.EXP.0011	Flat	120	315
SH.ACC.EXP.0012	Flat	95	430
SH.ACC.EXP.0013	Flat	200	290
SH.ACC.EXP.0014	Flat	210	330
SH.ACC.EXP.0015	Concave	120	315

Safety factor by lifting tube \varnothing

Item no.	\varnothing 100 mm	\varnothing 120 mm	\varnothing 140 mm	\varnothing 160 mm	\varnothing 180 mm	\varnothing 200 mm
SH.ACC.EXP.0010	4	2.8	--	--	--	--
SH.ACC.EXP.0011	4.8	3.3	2.5	--	--	--
SH.ACC.EXP.0012	5.2	3.6	2.7	--	--	--
SH.ACC.EXP.0013	7.4	5.1	3.8	2.9	--	--
SH.ACC.EXP.0014	8.8	6.1	4.5	3.4	2.7	--
SH.ACC.EXP.0015	4.8	3.3	2.5	--	--	--

EOAT Adapter – Expert

SPECIAL SOLUTIONS



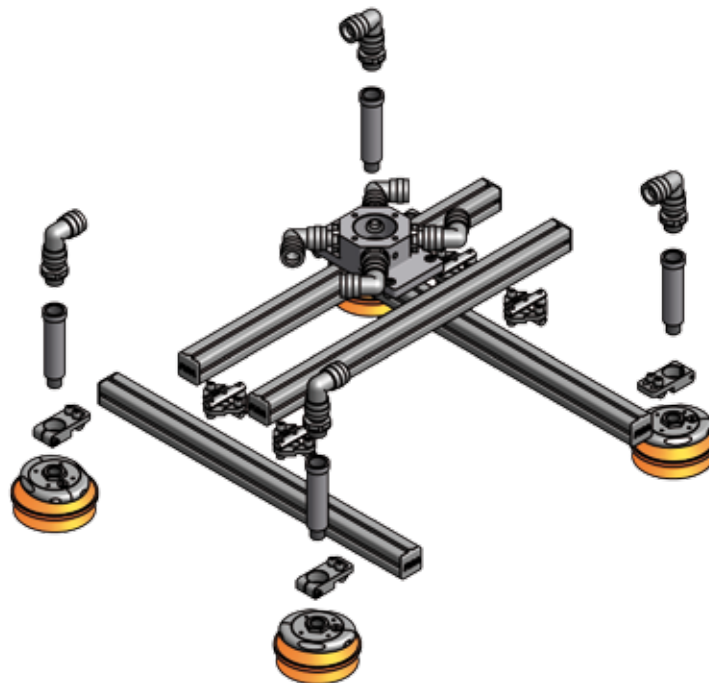
Product notes

- > For adapting the FIPA End-of-Arm-Tooling kit to the FIPALIFT Expert
- > Can be used with FIPA XLine profile and the corresponding connecting elements
- > Enables the installation of special solutions for non standard goods
- > Four G 3/4 connections for vacuum supply to vacuum cups
- > Two G 1/8 connections for the use of vacuum gauges
- > The appropriate EOAT components can be found at www.fipa.com in the End-of-Arm-Tooling section and in our End-of-Arm-Tooling catalog

Technical data

Item no.	Material	Weight [kg]	Suitable quick connectors
SH.ACC.EXP.0090	Aluminum anodized	1.08	30.027-G 30.123-G 30.124-G

Application examples with components from the FIPA gripper systems kit



Continued on the next page →

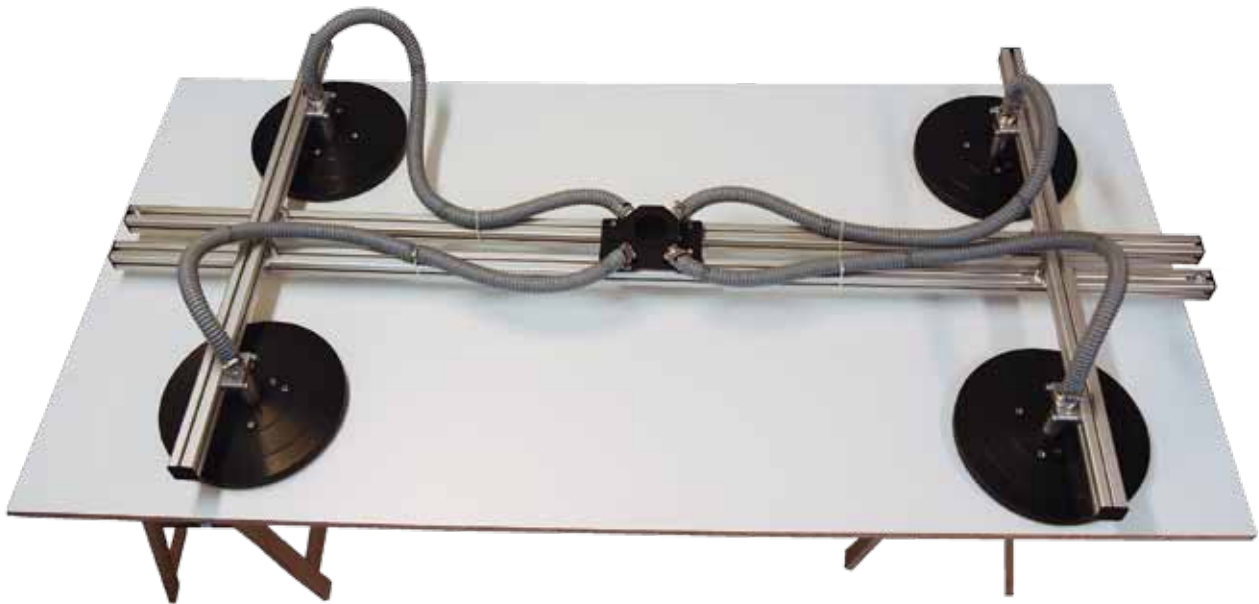
FIPALIFT Expert

EOAT Adapter – Expert

Application example: Customized cross beam for handling of rough sawn boards



Special cross beam with flat vacuum suction plates



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FIPALIFT Smart

The highly ergonomic FIPALIFT Smart, with a lifting force of **up to 65 kg**, is often used for stacking or relocating packages and boxes in a production environment. However, the application capability extends to cover a wide variety of products.

The operator-friendly interface reduces work effort and improves motion control and product handling.

The versatile handle design incorporates a 90° pivot for top or side access to loads and a 360° rotation capability for precise positioning or placing of an item.

If you have right-handed or left-handed operators, the FIPALIFT Smart works for you:

- > Simply remove the trigger and reinsert on the required side, no tools required

A wide range of factory-made options and accessories are available to configure the system to suit your needs:

- > Automatic vacuum shut-off feature. If the system is inactive for an extended period of time, the vacuum supply is interrupted to save energy. An adjustable switch is used in conjunction with the compressor to control its operation.
- > Optional stainless steel construction. Partial or complete stainless steel construction is available for use in the food industry or corrosive environments.
- > Easily adaptable to all of the FIPALIFT Basic accessories via the special Basic-Smart adapter



FIPALIFT Smart



> Low headroom clearance option for 100 mm diameter FIPALIFT Smart system, which utilizes a special 90° support roller to transfer a portion of the required lift travel horizontally. This reduces the minimum headroom required.



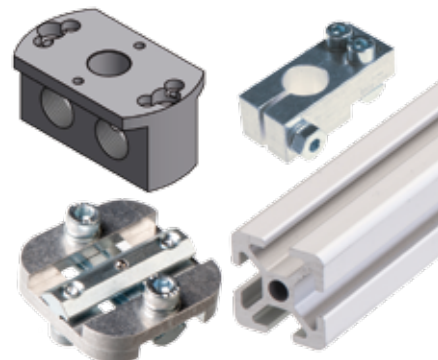
> FIPALIFT meets Varioflex®. For our Smart we have extended the well-known Varioflex® bellows vacuum cup range by two sizes Ø 115 mm and Ø 160 mm. The cups, with two hardness zones 30° Shore A at the sealing lip and 60° Shore A at the bellows body have been tried and tested over a long period in different sizes in the packaging industry. The low-wear PUR is particularly well suited for abrasive surfaces, such as cardboard and wood. The very soft and smooth sealing lip ensures secure handling, even if there is minor unevenness on the surface.



> We have vacuum cups available in FDA approved silicone material with stainless steel plates for food products applications according to EU1935 and FDA



> Is your handling task not covered by the components in the catalog range? Our experienced design team will develop a tailor-made solution for you.



Our full range of vacuum cups can be seen in the FIPA Vacuum Technology catalog or at www.fipa.com.

FIPALIFT Smart

FIPALIFT Smart standard versions

FIPALIFT Smart standard versions



Smart-Basic adapter

Product notes

- > The standard versions have the standard control handle, a stroke of 2.50 m and a suspension with eyelet
- > We offer a wide variety of factory-made options in addition to the standards. These can be seen below in the "Factory mounted options" table.
- > The required vacuum supply is not included in the scope of delivery
- > Please take note of the combination table "Combination of lifting tube diameter and pump". It can be used to establish the best combination for the lifting force that you need.
- > We would be pleased to help you with the design of your system

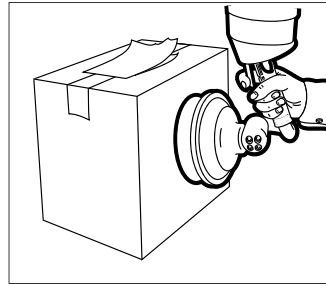
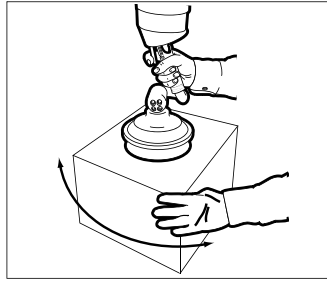
Technical data

Item no.	Ø Lifting tube [mm]	Delivery with	Suitable spare vacuum cups
SH.BAS.SMA.100	100	Varioflex® Ø 160 mm	23.160.273.16
SH.BAS.SMA.120	120	Smart-Basic adapter	--
SH.BAS.SMA.140	140	Smart-Basic adapter	--

Application example



Rotating and slewing



Factory mounted options for FIPALIFT Smart

For lifting tube Ø 80 to 100 mm

Item no.	Description
SH.OPT.SMA.0010	FIPALIFT SMART, all metal parts made of stainless steel
SH.OPT.SMA.0011	FIPALIFT SMART, control handle made of stainless steel
SH.OPT.SMA.0012	Lifting tube SMART, optional in 3 m
SH.OPT.SMA.0013	Lifting tube SMART, optional in 4 m
SH.OPT.SMA.0014	Protection valve SMART opt.
SH.OPT.SMA.0015	Cardan joint SMART
SH.OPT.SMA.0017	Grounded lift unit SMART
SH.OPT.SMA.0018	Automatic turn off vacuum pump SMART
SH.OPT.SMA.0019	Protection regulator SMART opt.
SH.OPT.SMA.0020	Accessory adapter SMART to BASIC
SH.OPT.SMA.0021	Extended control handle SMART

For lifting tube Ø 120 to 140 mm

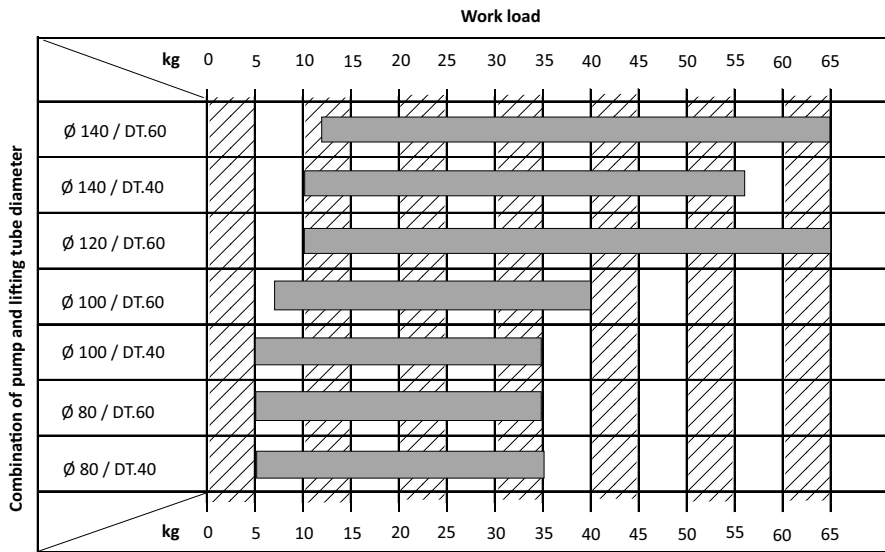
Item no.	Description
SH.OPT.SMA.0022	FIPALIFT SMART, all metal parts made of stainless steel
SH.OPT.SMA.0023	FIPALIFT SMART, control handle made of stainless steel
SH.OPT.SMA.0024	Lifting tube SMART, optional in 3 m
SH.OPT.SMA.0025	Lifting tube SMART, optional in 4 m
SH.OPT.SMA.0026	Cardan joint SMART
SH.OPT.SMA.0028	Grounded lift unit SMART
SH.OPT.SMA.0029	Automatic turn off vacuum pump SMART
SH.OPT.SMA.0030	Protection regulator SMART opt.
SH.OPT.SMA.0031	Accessory adapter SMART to BASIC
SH.OPT.SMA.0032	Extended control handle SMART

Extended control handle | Safety valve



Continued on the next page →

Combination of lifting tube diameter and pump



The bars in the diagram show the recommended load weights that can be handled by the individual combination of lifting tube diameter and pump. The recommendations are based on appropriate lifting speeds. A light load will be lifted faster than a heavy load. A non porous load (NP), for example a metal sheet, will be lifted faster than a porous load (P), for example a carton. Do not use the combination of lifting tube diameter and pump for loads heavier than recommended.

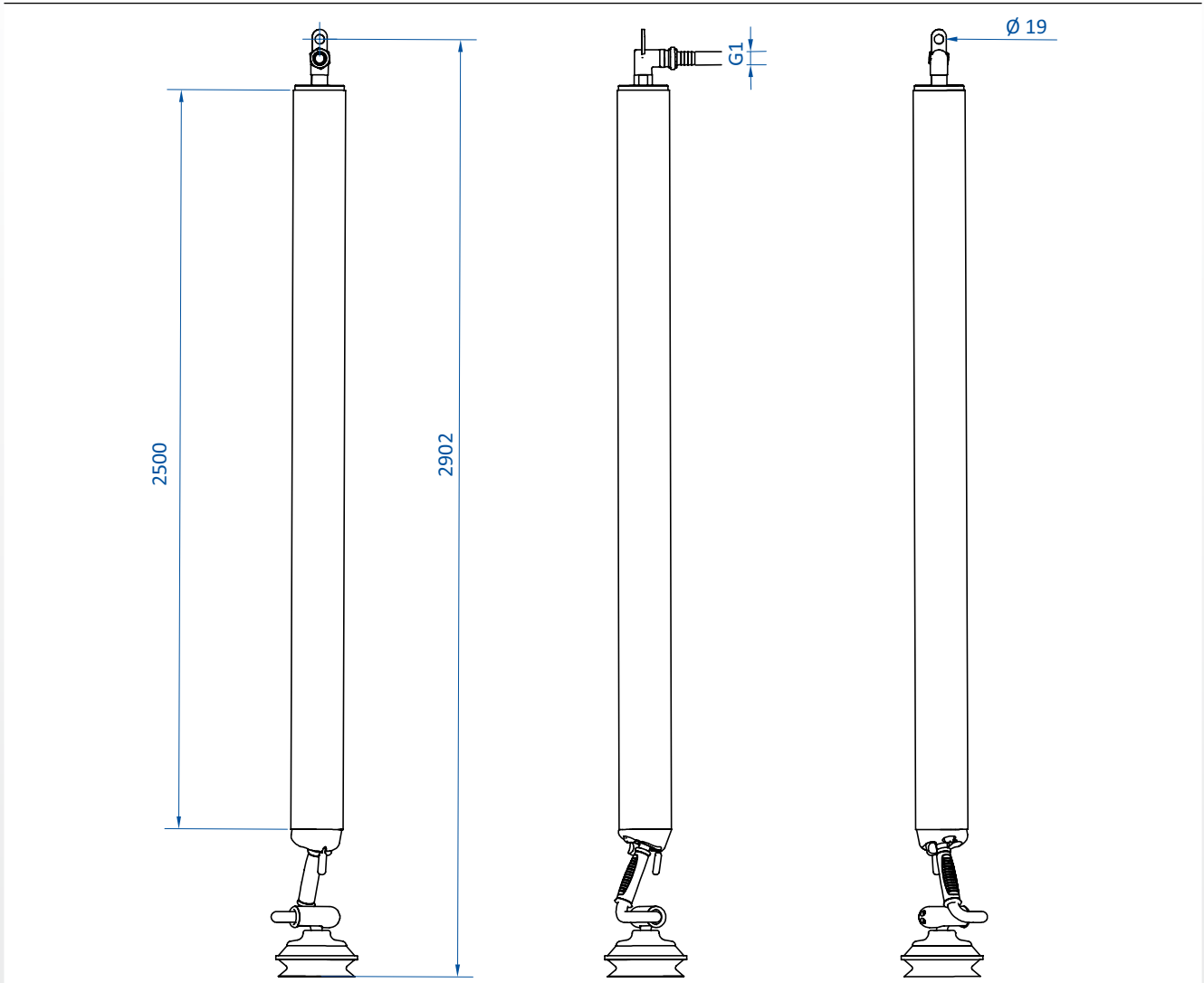
An example of how to use the diagram:

A tube lifter FIPALIFT Smart 120 with a pump DT.60 (lifting tube diameter 120 mm, pump size 60 m³/h) is recommended for lifting non porous loads in the range from 10 kg to 65 kg and for porous loads in the range from 3 kg to 25 kg. The combination with a larger tube lifter and a smaller pump is recommended for softer lifting. The selection is also highly dependent on the consistency of the load to be lifted, lifting trials may be required. Please contact our technical sales department.

FIPA will carry out suction trials on your lifting equipment to determine the porosity of the material to be handled.

Calculation aid for calculating the stroke for shortened tubes can be found on page 62 – 63.

Dimensions



FIPALIFT Smart

Suction shell oval – Smart

Suction shell oval – Smart



Product notes

- > Suction shell made from sheet metal with sealing foam
- > Suitable for handling bags and shrink-wrapped goods and much more
- > Sealing foam can be easily replaced without the need for tools
- > We would be pleased to provide advice on the selection of suitable vacuum cups and to carry out vacuum tests
- > Cups without a statement of safety factor must not be used with this lifting tube diameter
- > A safety factor of at least 2.5 is necessary for horizontal handling and at least 4.0 for vertical handling

Technical data

Item no.	Material	Width [mm]	Length [mm]	Suitable replacement foam
SH.ACC.SMA.0010	Steel	245	125	SH.SPP.BAC.0024 (p.48)

Safety factor by lifting tube \varnothing

Item no.	\varnothing 80 mm	\varnothing 100 mm	\varnothing 120 mm	\varnothing 140 mm
SH.ACC.SMA.0010	5.1	3.3	--	--

Vacuum grippers fourfold rigid – Smart



Product notes

- > Rigid pipe structure for use with four bellows vacuum cups
- > Suitable for large cartons, boxes and flat goods
- > Levels minor unevenness of the surfaces
- > Cups without a statement of safety factor must not be used with this lifting tube diameter
- > A safety factor of at least 2.5 is necessary for horizontal handling and at least 4.0 for vertical handling

Technical data

Item no.	Suitable for	Width [mm]	Length [mm]
SH.ACC.SMA.0011	Bellow vacuum cup \varnothing 75 mm	230	190
SH.ACC.SMA.0012	Bellow vacuum cup \varnothing 115 mm	270	150

Safety factor by lifting tube \varnothing

Item no.	\varnothing 80 mm	\varnothing 100 mm	\varnothing 120 mm	\varnothing 140 mm
SH.ACC.SMA.0011	3.5	2.3	--	--
SH.ACC.SMA.0012	--	4.8	3.4	2.5

Notes:

A vertical red line is positioned on the left side of the page. Below the 'Notes:' label, there are 25 horizontal lines for writing.

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FIPALIFT Basic

The FIPALIFT Basic, with a lifting force of **up to 55 kg** offers a modular design with low investment costs.

Its special safety valve also allows the use of load-handling devices that make it possible to lift loads that do not have a suitable surface for suction attachment, e.g. open storage boxes or beverage crates.

The wide range of factory installed options and accessories allow the system to be configured to suit your every need:

- > Automatic vacuum shut-off feature. If the system is inactive for an extended period of time, the vacuum supply is interrupted to save energy. An adjustable switch is used in conjunction with the compressor to control its operation.
- > Optional stainless steel construction. Partial or complete stainless steel construction is available for use in the food industry or in corrosive environments.
- > The FIPALIFT Basic is also available with a vacuum generator or ejector supply option. This allows the use of compressed air to generate the vacuum required through the use of the Venturi principle.
- > The Basic unit design allows for easy integration of FIPA End-of-Arm-Tooling components to provide a great range of options and customization capability for our customers
- > Take advantage of our experience in End-of-Arm-Tooling design and adapt the unit to your individual needs without adding a lot of extra cost



FIPALIFT Basic



- > The FIPALIFT Basic is also available with an adapter for using the FIPA gripper systems kit to build a custom solution
- > Take advantage of our competence in the field of gripper manufacture and adapt the unit to your need without incurring major expenditure



- > A wide range of vacuum cups, gripper solutions, and cross beams allow the FIPALIFT Basic to be used for an wide range of applications
- > They are available as accessories or, on request, as fitted options
- > For special requirements that cannot be solved using the standard product range, we can offer custom solutions



Our full range of vacuum cups can be seen in the FIPA Vacuum Technology catalog or at www.fipa.com.

FIPALIFT Basic

FIPALIFT Basic standard versions

FIPALIFT Basic standard versions



Product notes

- > The standard versions have the standard control handle, a stroke of 2.50 m and suspension with eyelet
- > We offer a wide variety of factory-made options in addition to the standards. These can be seen below in the "Factory mounted options" table.
- > The required vacuum supply, vacuum cups and gripper equipment are not included in the scope of delivery
- > Please take note of the combination table "Combination of lifting tube diameter and pump". It can be used to establish the best combination for the lifting force that you need.
- > We would be pleased to help you with the right system design

Technical data

Item no.	Ø Lifting tube [mm]
SH.BAS.BAC.60	60
SH.BAS.BAC.80	80
SH.BAS.BAC.100	100
SH.BAS.BAC.120	120

Application example – Sheet metal handling



Application example – Shrink-wrapped containers



Factory mounted options for FIPALIFT Basic

Item no.	Description
SH.OPT.BAC.0010	FIPALIFT BASIC, metal parts made of stainless steel
SH.OPT.BAC.0011	FIPALIFT BASIC, control handle made of stainless steel
SH.OPT.BAC.0012	Lifting tube BASIC, optional in 3 m
SH.OPT.BAC.0013	Lifting tube BASIC, optional in 4 m
SH.OPT.BAC.0014	Protection valve BASIC opt.
SH.OPT.BAC.0015	Split control handle
SH.OPT.BAC.0016	Release valve for standard control handle opt.
SH.OPT.BAC.0017	Release valve for extended control handle opt.
SH.OPT.BAC.0019	Grounded lift unit
SH.OPT.BAC.0020	Automatic turn off vacuum pump
SH.OPT.BAC.0021	Protection regulator

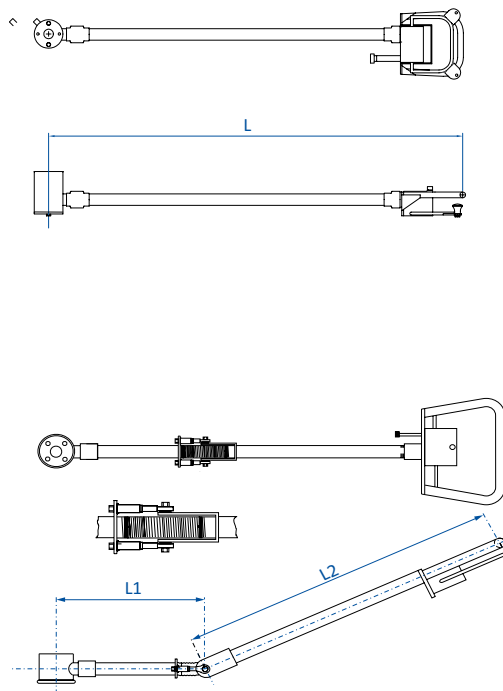
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FIPALIFT Basic

FIPALIFT Basic standard versions

Factory mounted options for FIPALIFT Basic

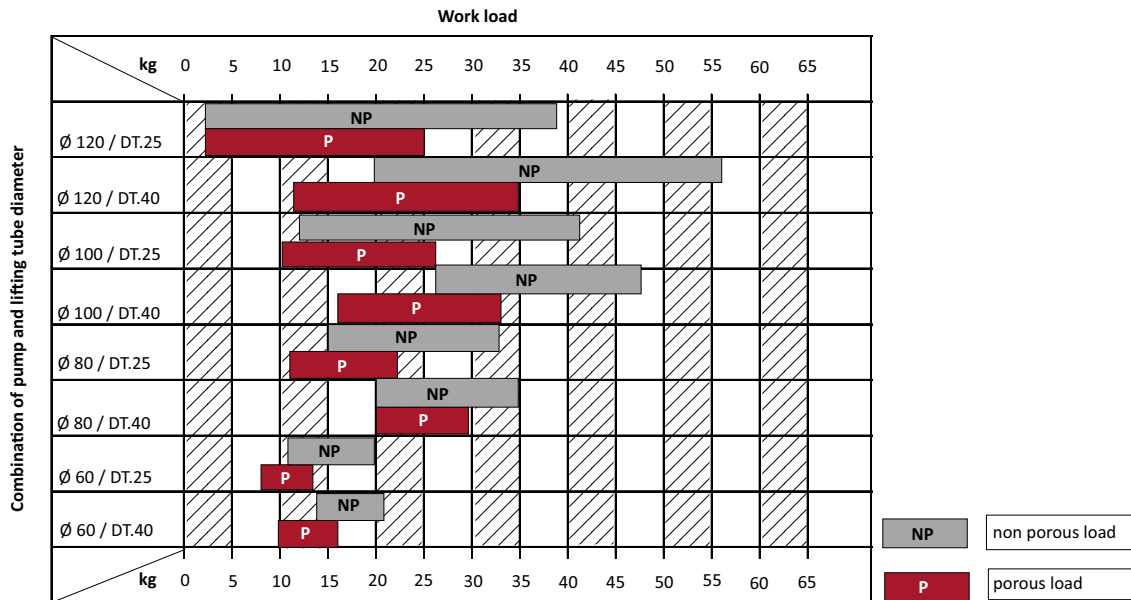
Item no.	Description
SH.OPT.BAC.0022	Rigid extendend control handle Basic 250 mm (L)
SH.OPT.BAC.0023	Rigid extendend control handle Basic 350 mm (L)
SH.OPT.BAC.0024	Rigid extendend control handle Basic 450 mm (L)
SH.OPT.BAC.0025	Rigid extendend control handle Basic 650 mm (L)
SH.OPT.BAC.0026	Rigid extendend control handle Basic 850 mm (L)
SH.OPT.BAC.0027	Flexible extendend control handle Basic 200/300 (L1/L2)
SH.OPT.BAC.0028	Flexible extendend control handle Basic 200/500 (L1/L2)
SH.OPT.BAC.0029	Flexible extendend control handle Basic 200/600 (L1/L2)
SH.OPT.BAC.0030	Flexible extendend control handle Basic 200/700 (L1/L2)
SH.OPT.BAC.0031	Flexible extendend control handle Basic 300/300 (L1/L2)
SH.OPT.BAC.0032	Flexible extendend control handle Basic 300/500 (L1/L2)
SH.OPT.BAC.0033	Flexible extendend control handle Basic 300/600 (L1/L2)
SH.OPT.BAC.0034	Flexible extendend control handle Basic 300/700 (L1/L2)
SH.OPT.BAC.0035	Flexible extendend control handle Basic 400/300 (L1/L2)
SH.OPT.BAC.0036	Flexible extendend control handle Basic 400/500 (L1/L2)
SH.OPT.BAC.0037	Flexible extendend control handle Basic 400/600 (L1/L2)
SH.OPT.BAC.0038	Flexible extendend control handle Basic 400/700 (L1/L2)
SH.OPT.BAC.0039	Flexible extendend control handle Basic 500/300 (L1/L2)
SH.OPT.BAC.0040	Flexible extendend control handle Basic 500/500 (L1/L2)
SH.OPT.BAC.0041	Flexible extendend control handle Basic 500/600 (L1/L2)
SH.OPT.BAC.0042	Flexible extendend control handle Basic 500/700 (L1/L2)
SH.OPT.BAC.0043	Flexible extendend control handle Basic 700/300 (L1/L2)
SH.OPT.BAC.0044	Flexible extendend control handle Basic 700/500 (L1/L2)
SH.OPT.BAC.0045	Flexible extendend control handle Basic 700/600 (L1/L2)
SH.OPT.BAC.0046	Flexible extendend control handle Basic 700/700 (L1/L2)



Extended control handles



Combination of lifting tube diameter and pump



The bars in the diagram show the recommended load weights that can be handled by the individual combination of lifting tube diameter and pump. The recommendations are based on appropriate lifting speeds. A light load will be lifted faster than a heavy load. A non porous load (NP), for example a metal sheet, will be lifted faster than a porous load (P), for example a carton. Do not use the combination of lifting tube diameter and pump for loads heavier than recommended.

An example of how to use the diagram:

A tube lifter FIPALIFT Basic 120 with a pump DT.25 (lifting tube diameter 120 mm, pump size 25 m³/h) is recommended for lifting non porous loads in the range from 3 kg to 38 kg and for porous loads in the range from 3 kg to 25 kg. The combination with a larger tube lifter and a smaller pump is recommended for softer lifting. The selection is also highly dependent on the consistency of the load to be lifted, lifting trials may be required. Please contact our technical sales department.

FIPA will carry out suction trials on your lifting equipment to determine the porosity of the material to be handled.

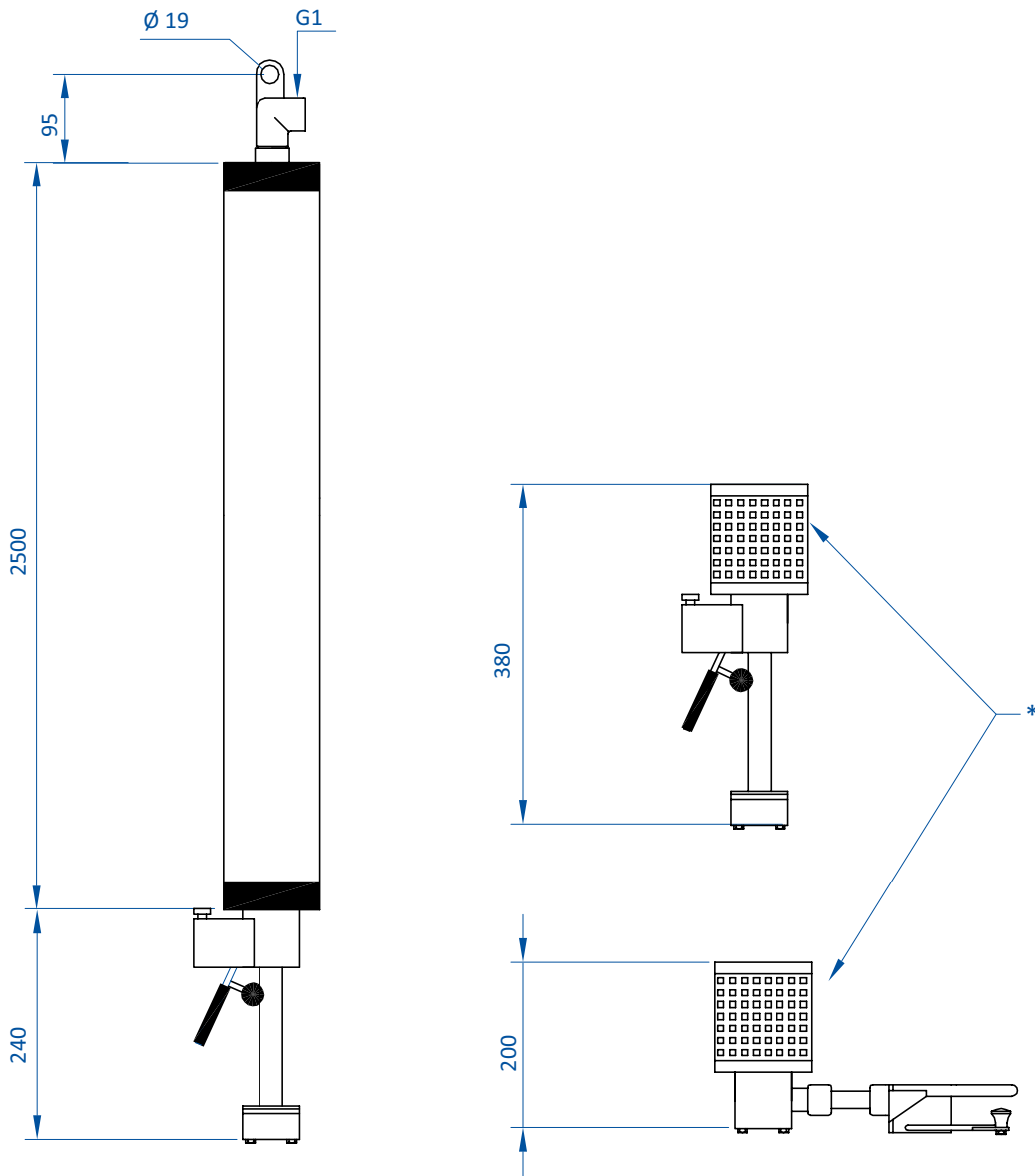
Calculation aid for calculating the stroke for shortened tubes can be found on page 62 – 63.

Continued on the next page →

FIPALIFT Basic

FIPALIFT Basic standard versions

Dimensions



* = Safety valve

Suction shells oval – Basic



Product notes

- > Suction shells made from sheet metal with sealing foam
- > Suitable for handling bags and shrink-wrapped goods and much more
- > Sealing foam can be easily replaced without the need for tools
- > We would be pleased to provide advice on the selection of suitable vacuum cups and to carry out vacuum tests
- > Cups without a safety factor statement must not be used with this lifting tube diameter
- > A safety factor of at least 2.5 is necessary for horizontal handling and at least 4.0 for vertical handling

Technical data

Item no.	Material	Width [mm]	Length [mm]	Suitable replacement foam
SH.ACC.BAC.0023	Steel	115	185	SH.SPP.BAC.0023 (p.48)
SH.ACC.BAC.0024	Steel	125	245	SH.SPP.BAC.0024 (p.48)
SH.ACC.BAC.0025	Steel	150	290	SH.SPP.BAC.0025 (p.48)

Safety factor by lifting tube Ø

Item no.	Ø 60 mm	Ø 80 mm	Ø 100 mm	Ø 120 mm
SH.ACC.BAC.0023	2.6	--	--	--
SH.ACC.BAC.0024	9.1	5.1	3.3	--
SH.ACC.BAC.0025	13	7.3	4.7	3.3

FIPALIFT Basic

Replacement foam for suction shells – Basic

Replacement foam for suction shells – Basic



Product notes

- > Easily replaced without the need for tools if worn out
- > Simply pull the foam out of the suction shell and slide in the new one

Technical data

Item no.	Suitable for	Suitable for suction shell
SH.SPP.BAC.0023	SH.ACC.BAC.0023	Oval 115x185
SH.SPP.BAC.0024	SH.ACC.BAC.0024	Oval 125x245
SH.SPP.BAC.0025	SH.ACC.BAC.0025	Oval 150x290

Suction plates rectangular – Basic



Product notes

- > Rectangular suction plates for direct mounting on the control handle of the FIPALIFT Basic
- > Suitable for handling cartons, boxes and smaller flat products
- > Steel plate with exchangeable gasket made from natural rubber (NR) black
- > Gasket can be easily replaced without the need for tools
- > Cups without a statement of safety factor must not be used with this lifting tube diameter
- > A safety factor of at least 2.5 is necessary for horizontal handling and at least 4.0 for vertical handling
- > The appropriate replacement gaskets are available as accessories for all models

Technical data

Item no.	Design	Width [mm]	Length [mm]
SH.ACC.BAC.0010	Flat	95	200
SH.ACC.BAC.0011	Flat	150	210

Safety factor by lifting tube Ø

Item no.	Ø 60 mm	Ø 80 mm	Ø 100 mm	Ø 120 mm
SH.ACC.BAC.0010	6.7	3.8	--	--
SH.ACC.BAC.0011	11.1	6.3	4	2.8

FIPALIFT Basic

Cross beams double rigid – Basic

Cross beams double rigid – Basic



Product notes

- > Small cross beams each having two rectangular suction plates 95 mm x 200 mm
- > Suitable for handling large cartons, boxes and medium-sized flat goods
- > Cups without a safety factor statement must not be used with this lifting tube diameter
- > A safety factor of at least 2.5 is necessary for horizontal handling and at least 4.0 for vertical handling
- > The appropriate replacement gaskets are available as accessories for all models

Technical data

Item no.	Width [mm]	Length [mm]
SH.ACC.BAC.0012	200	200
SH.ACC.BAC.0013	200	250
SH.ACC.BAC.0014	200	370
SH.ACC.BAC.0015	200	620

Safety factor by lifting tube \varnothing

Item no.	\varnothing 60 mm	\varnothing 80 mm	\varnothing 100 mm	\varnothing 120 mm
SH.ACC.BAC.0012	13.4	7.6	4.8	3.4
SH.ACC.BAC.0013	13.4	7.6	4.8	3.4
SH.ACC.BAC.0014	13.4	7.6	4.8	3.4
SH.ACC.BAC.0015	13.4	7.6	4.8	3.4

Cross beams fourfold rigid – Basic



Product notes

- > Small cross beams for use with bellows vacuum cups
- > Suitable for handling large cartons, boxes and medium-sized flat goods
- > Levels minor unevenness of the surfaces
- > Cups without a safety factor statement must not be used with this lifting tube diameter
- > A safety factor of at least 2.5 is necessary for horizontal handling and at least 4.0 for vertical handling
- > Vacuum cups are not included in scope of delivery, please see accessories for all models

Technical data

Item no.	Suitable for	Width [mm]	Length [mm]
SH.ACC.BAC.0017	Bellow vacuum cup Ø 75 mm	190	230
SH.ACC.BAC.0018	Bellow vacuum cup Ø 75 mm	235	325
SH.ACC.BAC.0019	Bellow vacuum cup Ø 75 mm	160	320
SH.ACC.BAC.0020	Bellow vacuum cup Ø 115 mm	280	370
SH.ACC.BAC.0021	Bellow vacuum cup Ø 115 mm	330	500

Safety factor by lifting tube Ø (based on the above vacuum cup diameter)

Item no.	Ø 60 mm	Ø 80 mm	Ø 100 mm	Ø 120 mm
SH.ACC.BAC.0017	6.3	3.5	--	--
SH.ACC.BAC.0018	6.3	3.5	--	--
SH.ACC.BAC.0019	6.3	3.5	--	--
SH.ACC.BAC.0020	13.4	7.6	4.8	3.4
SH.ACC.BAC.0021	13.4	7.6	4.8	3.4

FIPALIFT Basic

Cross beam sixfold rigid – Basic

Cross beam sixfold rigid – Basic



Product notes

- > Small cross beams for use with six bellows vacuum cups \varnothing 75 mm
- > Suitable for handling large cartons, boxes and medium-sized flat goods
- > Levels minor unevenness of the surfaces
- > Cups without a safety factor statement must not be used with this lifting tube diameter
- > A safety factor of at least 2.5 is necessary for horizontal handling and at least 4.0 for vertical handling
- > Vacuum cups are not included in scope of delivery, please see accessories for all models

Technical data

Item no.	Suitable for	Width [mm]	Length [mm]
SH.ACC.BAC.0022	Bellow vacuum cup \varnothing 75 mm	170	260

Safety factor by lifting tube \varnothing

Item no.	\varnothing 60 mm	\varnothing 80 mm	\varnothing 100 mm	\varnothing 120 mm
SH.ACC.BAC.0022	9.4	5.3	3.4	--

Hook tool for FIPALIFT Basic

NEW



Product notes

- > Mechanical load-handling attachment for lifting containers or buckets, for example
- > Load-handling attachment e.g. for the lifting lugs of jerrycans
- > The load hook is movable
- > Please note that mechanical gripping tools should be used only in conjunction with the SH.OPT.BAC.0014 safety valve

Technical data

Item no.	Admissible work load [kg]	Weight [kg]
SH.ACC.BAC.0050	25	0.4

Quick-change systems – Basic



Product notes

- > Quick-change system for rapid tool-free replacement of the vacuum cups and gripper systems on the FIPALIFT Basic
- > Operates with a bayonet fitting
- > Ideally suited to frequently changing handling tasks

Technical data

Item no.	Design	Load capacity [kg]
SH.ACC.BAC.0026	Upper	100
SH.ACC.BAC.0027	Lower	100

FIPALIFT Basic

Swivel joint – Basic

Swivel joint – Basic



Product notes

- > Joint for stepless 360° rotation of goods
- > Ideal for repositioning of goods to be lifted, e.g. when loading a machine or palletizing cartons

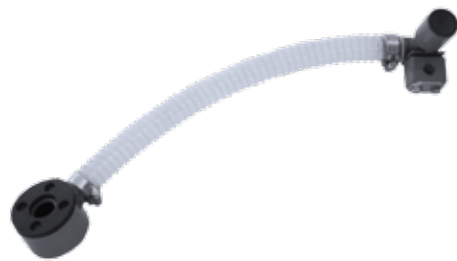
Technical data

Item no.	Pivoting range [°]
SH.ACC.BAC.0029	360

Release valves – Basic



SH.ACC.BAC.0031



SH.ACC.BAC.0032

Product notes

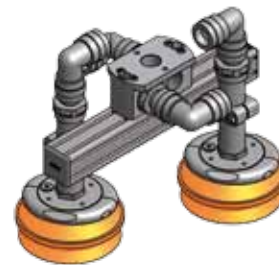
- > Additional valve for rapid lowering of goods to be lifted
- > Particularly suitable for use with large vacuum cups and lighter goods
- > Available for the standard control handle and elongated control handle
- > Vacuum can be released via push button control on the operation unit

Technical data

Item no.	Suitable for
SH.ACC.BAC.0031	Control handle standard
SH.ACC.BAC.0032	Control handle elongated

EOAT Adapter – Basic

SPECIAL SOLUTIONS



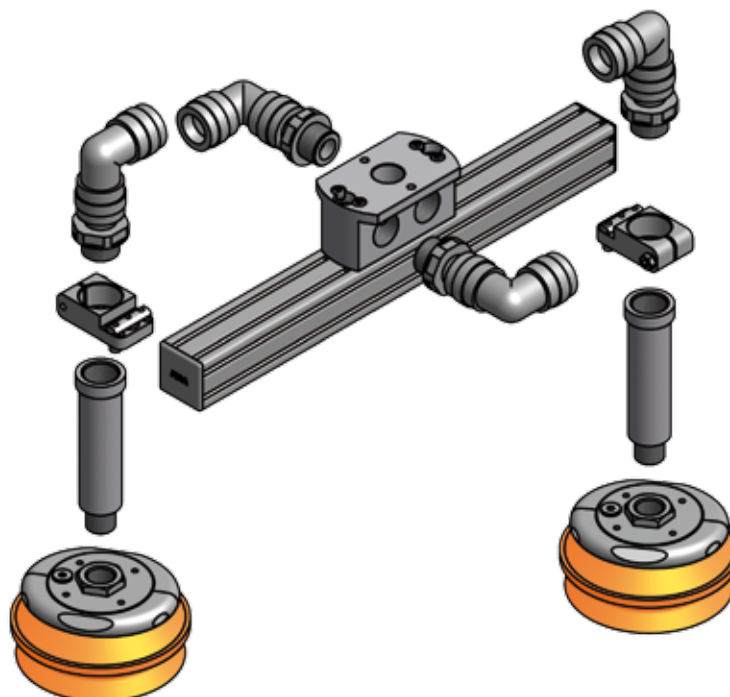
Product notes

- > For adapting the End-of-Arm-Tooling toolkit of FIPA on the FIPALIFT Basic
- > Can be used with FIPA XLine and SLine profile and the associated connecting elements
- > Facilitates easy construction of custom solution for non standard goods
- > Four G3/4 connections for vacuum supply to vacuum cups
- > Can also be used on FIPALIFT Smart with Smart-Basic adapter
- > The appropriate EOAT components can be found at www.fipa.com in the End-of-Arm-Tooling section in our End-of-Arm-Tooling catalog

Technical data

Item no.	Material	Weight [kg]	Suitable quick connectors
SH.ACC.BAC.0035	Aluminum anodized	0.351	30.027-G 30.123-G 30.124-G

Application examples with components from the FIPA gripper systems kit



Additional accessories can be found starting on page 65.

FIPALIFT Easy at a glance	58
FIPALIFT Easy standard versions	60
Calculation aid for calculating the stroke	63



The specialist for efficient logistics processes

FIPALIFT Easy, with a lifting force of **up to 65 kg**, was developed to make the most efficient use possible of the freight and cargo space in trucks and containers.

With a classic tube lifter, it is often not possible to stack goods high without sacrificing ergonomics.

The L-shaped operating handle, specially designed for this requirement, facilitates ergonomic working – even in the case of overhead stack heights, without the operator having to stretch or bend over the pallet.

The shape of the operating handle thus allows the operator to lift the load from the floor and place it at a considerable height while remaining upright at all times.

The fully integrated release valve enables the rapid placement of lifted goods.



FIPALIFT Easy



- > Transport costs are high and often depend on both the used and unused freight volumes
- > FIPALIFT Easy facilitates the most efficient use of freight volumes and thus helps you save on transport costs



- > FIPALIFT Easy is based on FIPALIFT Basic technology, so that all its accessories also fit the Easy



Our full range of vacuum cups can be seen in the FIPA Vacuum Technology catalog or at www.fipa.com.

FIPALIFT Easy

FIPALIFT Easy standard versions

FIPALIFT Easy standard versions

NEW



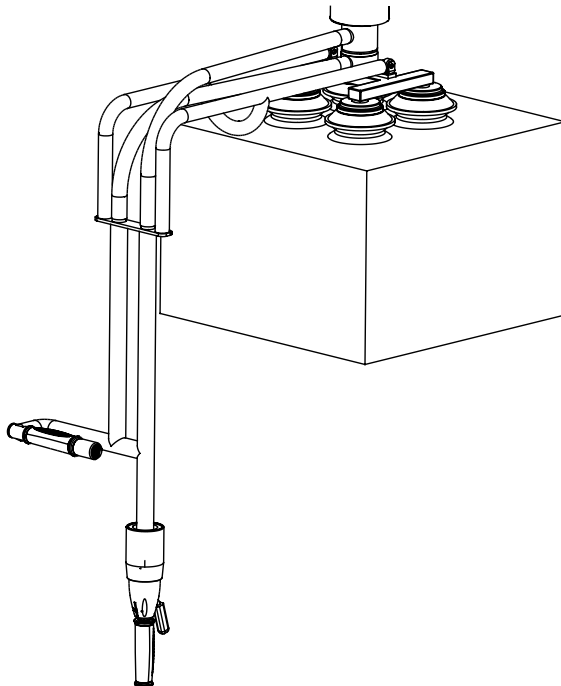
Product notes

- > The basic versions include standard equipment such as a control handle, a stroke of 2.5 m and a suspension with eyelet
- > Apart from standard equipment, we also offer a wide range of factory-fitted options
- > The necessary vacuum supply, vacuum cups and gripper device are not included in the scope of delivery
- > Please note the table of combinations for "Combination of lifting tube diameter and pump" which can be used to establish the best possible combination for the required lifting force
- > All the accessories for the FIPALIFT Basic can be used for the FIPALIFT Easy
- > Other lifting tube lengths are available as an option
- > We would be pleased to help you choose the right system design

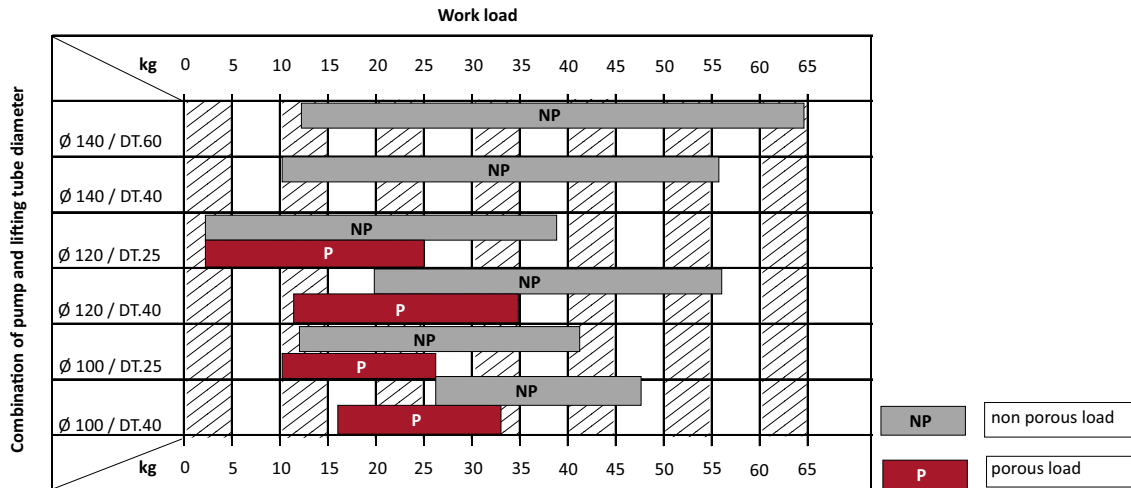
Technical data

Item no.	Ø Lifting tube [mm]	Mounting height at lifting tube length 2.5 m [mm]	Mounting height at lifting tube length 3 m [mm]
SH.BAS.EAS.100	100	2,800	3,000
SH.BAS.EAS.120	120	2,800	3,000
SH.BAS.EAS.140	140	2,800	3,000

Gripping the load from above



Combination of lifting tube diameter and pump



The bars in the diagram show the recommended load weights that can be handled by the individual combination of lifting tube diameter and pump. The recommendations are based on appropriate lifting speeds. A light load will be lifted faster than a heavy load. A non porous load (NP), for example a metal sheet, will be lifted faster than a porous load (P), for example a carton. Do not use the combination of lifting tube diameter and pump for loads heavier than recommended.

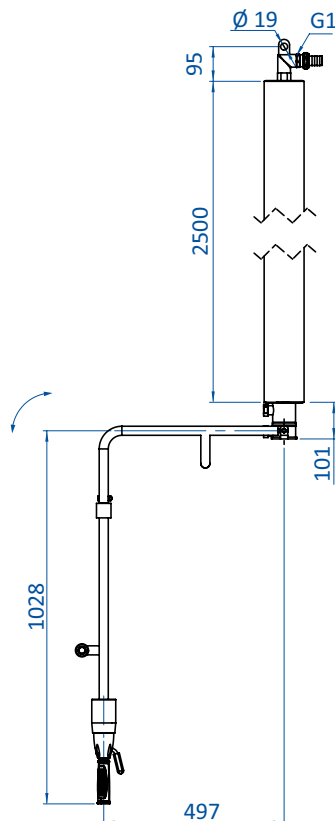
An example of how to use the diagram:

A tube lifter FIPALIFT Easy 120 with a pump DT.25 (lifting tube diameter 120 mm, pump size 25 m³/h) is recommended for lifting non porous loads in the range from 3 kg to 38 kg and for porous loads in the range from 3 kg to 25 kg. The combination with a larger tube lifter and a smaller pump is recommended for softer lifting. The selection is also highly dependent on the consistency of the load to be lifted, lifting trials may be required. Please contact our technical sales department.

FIPA will carry out suction trials on your lifting equipment to determine the porosity of the material to be handled.

Calculation aid for calculating the stroke for shortened tubes can be found on page 62 – 63.

Dimensions



Calculation aid for calculating the stroke

FIPALIFT Expert

Ø Lifting tube [mm]	Length lifting tube [mm]	A max * [mm]	A min ** [mm]	Vertical movement [mm]	B [mm]	C [mm]	Ø D [mm]	E [mm]	F [mm]	G (Stroke) [mm]
100	2,500	2,520	800	1,720	40	15	38	(A max-90) x0.29+90	(A min-90):0.29+90	(Stroke:0.71)+70
100	3,000	3,020	940	2,080	40	15	38			
100	4,000	4,020	1,230	2,790	40	15	38			
120	2,500	2,520	770	1,750	40	15	38	(A max-90) x0.28+90	(A min-90):0.28+90	(Stroke:0.72)+70
120	3,000	3,020	910	2,110	40	15	38			
120	4,000	4,020	1,190	2,830	40	15	38			
140	2,500	2,520	800	1,720	40	15	38	(A max-90) x0.29+90	(A min-90):0.29+90	(Stroke:0.71)+70
140	3,000	3,020	940	2,080	40	15	38			
140	4,000	4,020	1,230	2,790	40	15	38			
160	2,500	2,520	870	1,650	50	20	51	(A max-90) x0.32+90	(A min-90):0.32+90	(Stroke:0.68)+70
160	3,000	3,020	1,030	1,990	50	20	51			
160	4,000	4,020	1,350	2,670	50	20	51			
180	2,500	2,520	850	1,670	50	20	51	(A max-90) x0.31+90	(A min-90):0.31+90	(Stroke:0.69)+70
180	3,000	3,020	1,000	2,020	50	20	51			
180	4,000	4,020	1,310	2,710	50	20	51			
200	2,500	2,520	940	1,580	50	20	51	(A max-90) x0.35+90	(A min-90):0.35+90	(Stroke:0.65)+70
200	3,000	3,020	1,110	1,910	50	20	51			
200	4,000	4,020	1,465	2,555	50	20	51			

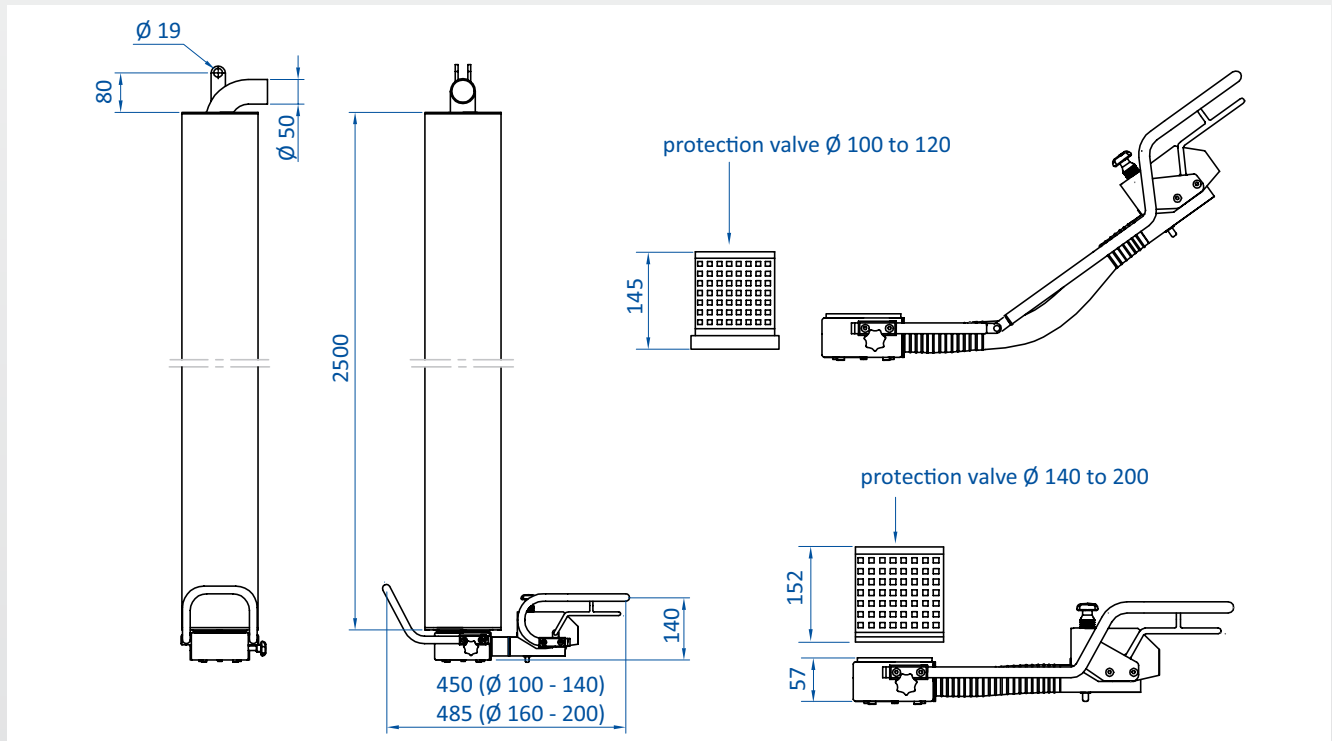
E = You know A max and want to know A min

F = You know A min and want to know A max

G = You know requested stroke and want to know how long the lifting tube must be

* A max = Lifting tube fully relaxed, without vacuum

** A min = Lifting tube fully compressed, with vacuum (block dimension)



Calculation aid for calculating the stroke

FIPALIFT Basic, Smart and Easy

∅ Lifting tube [mm]	Length lifting tube [mm]	A max * [mm]	A min ** [mm]	Stroke [mm]	E [mm]	F [mm]	G (Stroke) [mm]
60	2,500	2,520	680	1,840	(A max-90)x0.24+90	(A min-90):0.24+90	(Stroke:0.76)+70
60	3,000	3,020	780	2,240			
60	4,000	4,020	1,030	2,990			
80	2,500	2,520	680	1,840	(A max-90)x0.24+90	(A min-90):0.24+90	(Stroke:0.76)+70
80	3,000	3,020	780	2,240			
80	4,000	4,020	1,030	2,990			
100	2,500	2,520	800	1,720	(A max-90)x0.29+90	(A min-90):0.24+90	(Stroke:0.71)+70
100	3,000	3,020	940	2,080			
100	4,000	4,020	1,230	2,790			
120	2,500	2,520	770	1,750	(A max-90)x0.28+90	(A min-90):0.28+90	(Stroke:0.72)+70
120	3,000	3,020	910	2,110			
120	4,000	4,020	1,190	2,830			

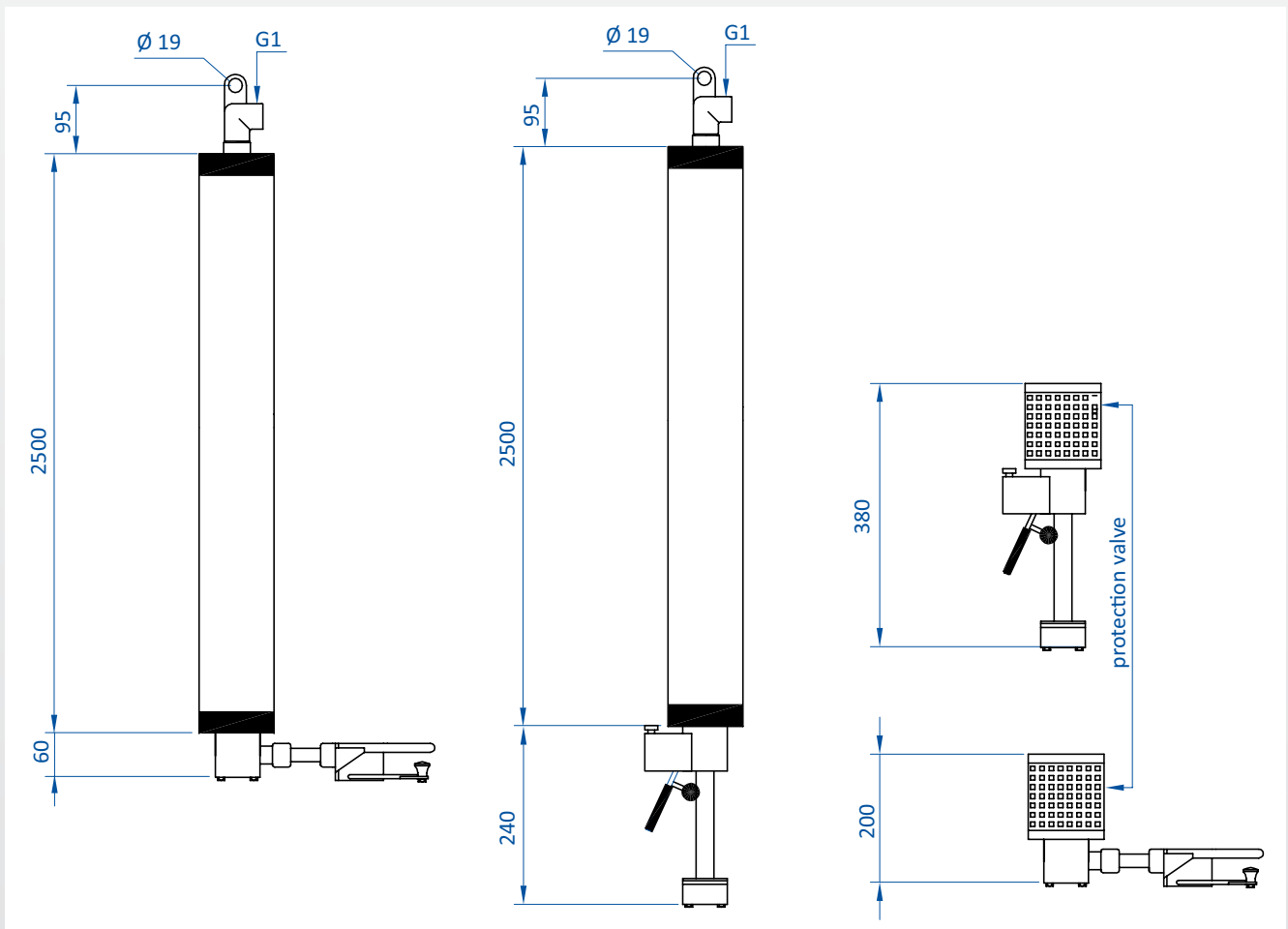
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FIPALIFT Accessories at a glance	66
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FIPALIFT Vacuum supply



Replacement lifting and vacuum tubes

- > Lifting tubes as a replacement or if you need a different length
- > Spiral vacuum tubes for vacuum supply to your FIPALIFT tube lifter

> See Page 68



Hose couplers

- > Tube couplings for rapid tube replacement e.g. when using different pump sizes

> See Page 70



Rotary vane vacuum pumps – oil-free

- > Recommended for FIPALIFT Smart and Basic
- > Suitable for load change and continuous use
- > Very low maintenance

> See Page 72

FIPALIFT Vacuum supply



Rotary blowers with reduction

- > Recommended for FIPALIFT Expert
- > High volume flow at low motor power
- > Very low maintenance

> See Page 76



Silencing boxes

- > Reduces noise caused by the vacuum pump

> See Page 79

Filter units and cartridges

- > Reliable protection of the vacuum supply from dust and other contaminants
- > Available in various versions and sizes
- > Suitable filter inserts

> See Page 80



Radio controls

- > For switching the vacuum pumps on and off from a remote location
- > Your FIPALIFT tube lifter is available as soon as you need it
- > Saves energy and reduces vacuum pump wear

> See Page 81



FIPALIFT Accessories suitable for all models

Replacement lifting tubes

Replacement lifting tubes



Adhesive tape reinforced SH.SPP.ALL.0034

Product notes

- > Lifting tubes suitable for all tube lifter types
- > For replacement if worn out or if a different lifting tube length is required
- > "Reinforced adhesive tape" SH.SPP.ALL.0034 is required for fixing and sealing. Please order separately.

Technical data

Item no.	Ø Lifting tube [mm]	Length [mm]
SH.SPP.ALL.0010	60	2,500
SH.SPP.ALL.0011	60	3,000
SH.SPP.ALL.0012	60	4,000
SH.SPP.ALL.0013	80	2,500
SH.SPP.ALL.0014	80	3,000
SH.SPP.ALL.0015	80	4,000
SH.SPP.ALL.0016	100	2,500
SH.SPP.ALL.0017	100	3,000
SH.SPP.ALL.0018	100	4,000
SH.SPP.ALL.0019	120	2,500
SH.SPP.ALL.0020	120	3,000
SH.SPP.ALL.0021	120	4,000
SH.SPP.ALL.0022	140	2,500
SH.SPP.ALL.0023	140	3,000
SH.SPP.ALL.0024	140	4,000
SH.SPP.ALL.0025	160	2,500
SH.SPP.ALL.0026	160	3,000
SH.SPP.ALL.0027	160	4,000
SH.SPP.ALL.0028	180	2,500
SH.SPP.ALL.0029	180	3,000
SH.SPP.ALL.0030	180	4,000
SH.SPP.ALL.0031	200	2,500
SH.SPP.ALL.0032	200	3,000
SH.SPP.ALL.0033	200	4,000

Vacuum hoses



Product notes

- > Flexible hoses for connecting the vacuum generator and the FIPALIFT
- > Well-suited to installation in cable carriages with strips
- > When using a vacuum hose with inner diameter 38 mm (SH.ACC.ALL.0021) and the tube lifter FIPALIFT Expert, an adapter (SH.ACC.EXP.0140) is required. It is not included in the scope of delivery.
- > Order in meter lengths

Notes

Calculation of the required length = ((length of crane track + length of crane bridge) x 1.25) + distance to vacuum pump

Technical data

Item no.	Suitable for	Ø Lifting tube [mm]	Outer diameter [mm]	Inner diameter [mm]
SH.ACC.ALL.0020	Smart, Basic, Easy	all	31	25
SH.ACC.ALL.0021	Expert	to 140	45	38
SH.ACC.ALL.0022	Expert	from 160	58	50

FIPALIFT Accessories suitable for all models

Hose couplers

Hose couplers



Coupler socket



Coupler plug

Product notes

- > For connection to the upper rotary connector on the FIPALIFT Smart and Basic in combination with the pumps DT.25, DT.40 and DT.60
- > For rapid connection or hose replacement
- > Coupler socket with hose sleeves and coupling plug with female thread
- > The use of the hose coupler also has an effect on the volumetric flow. In limit cases you should use a larger vacuum pump!

Technical data

Item no.	Description	Connection thread	For hose inner \varnothing [mm]	Material	Usage temperature [°C (°F)]	Weight [kg]
SH.ACC.ALL.0030	Coupler socket	Without	25	Brass blank	-20 - 100 (-4 - 212)	0.667
SH.ACC.ALL.0031	Coupler plug	G1	25	Brass blank	-20 - 100 (-4 - 212)	0.298

Application example



FIPALIFT Accessories suitable for all models

Gaskets for suction plates

Gaskets for suction plates



Product notes

- > Replacement for rectangular vacuum plates and cross beams
- > Natural rubber (NR) black in 50° Shore A
- > Easy replacement without the need for tools

Technical data

Item no.	Width [mm]	Length [mm]
SH.SPP.ALL.0050	95	300
SH.SPP.ALL.0051	100	435
SH.SPP.ALL.0052	120	315
SH.SPP.ALL.0053	150	210
SH.SPP.ALL.0054	200	290
SH.SPP.ALL.0055	200	315

FIPALIFT Accessories suitable for all models

Rotary vane vacuum pumps – oil-free

Rotary vane vacuum pumps – oil-free

Handling in dry areas



IE3

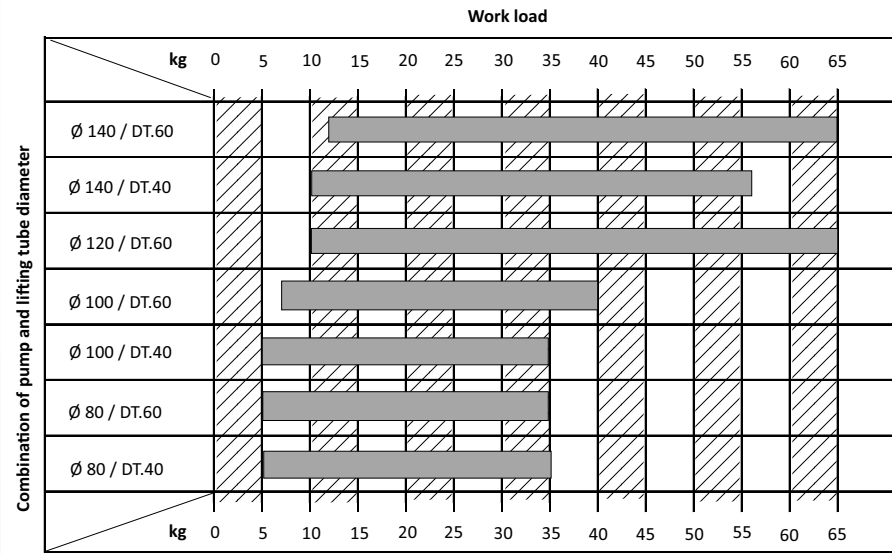
Product notes

- > High reliability and low maintenance costs due to simple design
- > Universal application: Continuous operation at different vacuum levels
- > Cooling with powerful fan at the rear of the motor
- > Compact design and low weight
- > Available in single-phase and three-phase designs (Index -1 or -3)
- > Included in scope of delivery:
 - Safety filter on suction side
 - Silencer on pressure side
- > Complies with energy efficiency class IE3 according to EC regulation 640/2009
- > Electric cables not included

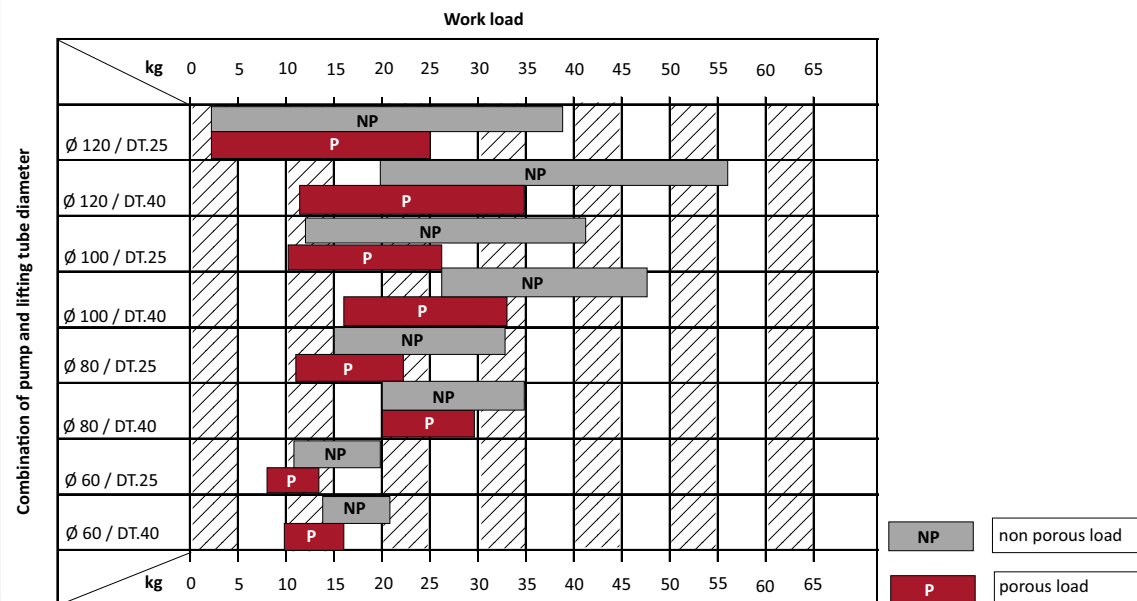
Technical data

Item no.	DT.25B-1	DT.25B-3	DT.40B-1	DT.40B-3	DT.60C-3
Suction power at 50 Hz [m ³ /h]	25	25	40	40	60
Suction power at 60 Hz [m ³ /h]	29	29	46	46	70
Final vacuum [%]	88	88	88	88	88
Power supply at 50 (60) Hz [V]	220 - 240	Delta: 220-255 (220-266) Star: 380-440 (380-460)	220 - 240	Delta: 220-255 (220-266) Star: 380-440 (380-460)	Delta: 230 (265) Star: 400 (460)
Current consumption at 50 (60) Hz [A]	5.8 (6.2)	Delta: 3.8-4.2 (4.4-4.2) Star: 2.2-2.4 (2.5-2.4)	9.8 (9)	Delta: 7 (7.1-7) Star: 4 (4.1-4.0)	Delta: 5.91 (5.6) Star: 3.4 (3.23)
Rated power at 50 Hz [kW]	0.75	0.75	1.5	1.5	1.5
Rated power at 60 Hz [kW]	0.9	0.9	1.8	1.8	1.8
Noise level at 50 Hz [dB(A)]	65	65	68	68	70
Noise level at 60 Hz [dB(A)]	67	67	70	70	72
Operating temperature at 50 Hz [°C (°F)]	65 - 70 (149 - 158)	65 - 70 (149 - 158)	75 - 80 (167 - 176)	75 - 80 (167 - 176)	70 - 73 (158 - 163)
Operating temperature at 60 Hz [°C (°F)]	70 - 75 (158 - 167)	70 - 75 (158 - 167)	80 - 85 (176 - 185)	80 - 85 (176 - 185)	72 - 75 (162 - 167)
Weight [kg]	29	28.5	40	37.5	66
Accessories	Spare part kit: KIT-DT.25B* Vacuum regulator: 73.003 Pre-filter: FC 25F		Spare part kit: KIT-DT.40B* Vacuum regulator: 73.003 Pre-filter: FC 30F		Spare part kit: KIT-DT.60C Silencer: 72.003 Pre-filter: FC 30F

Combination of lifting tube diameter and pump for FIPALIFT Smart



Combination of lifting tube diameter and pump for FIPALIFT Basic

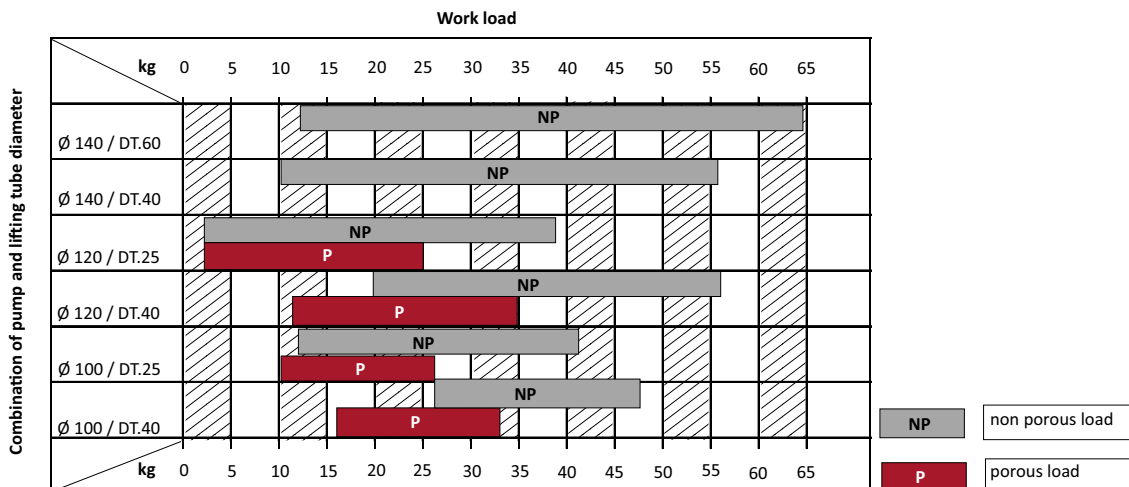


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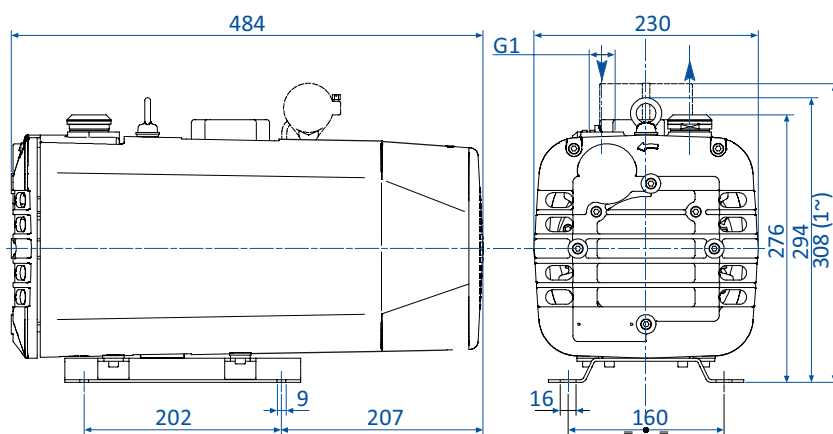
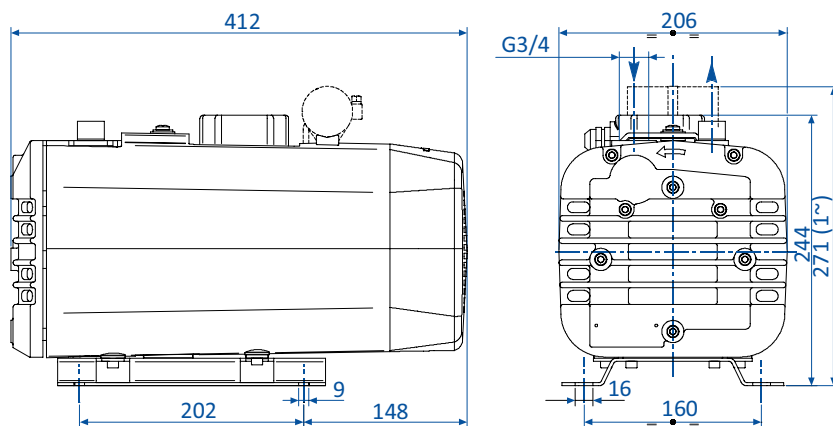
FIPALIFT Accessories suitable for all models

Rotary vane vacuum pumps – oil-free

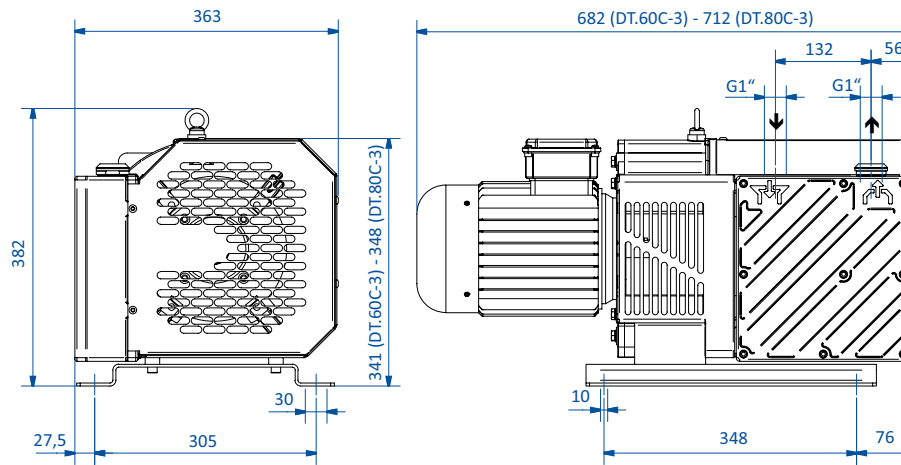
Combination of lifting tube diameter and pump for FIPALIFT Easy



Dimensions



Dimensions



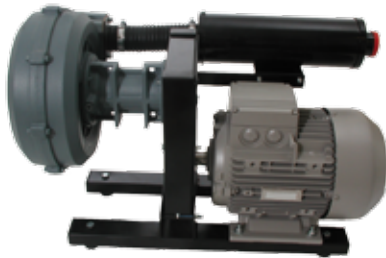
DT.60C-3

FIPALIFT Accessories suitable for all models

Rotary blowers

Rotary blowers

IE3



Product notes

- > Compressor housing with separate motor with reduction via belt drive
- > Generates high volume flow at low motor power
- > For use with the FIPALIFT Expert
- > High volume flow at medium vacuum level
- > Please consult the combination table "Combination of rotary blower and lifting tube diameter"
- > The ratio between these two combinations influences the lifting force and the sensitivity of the system
- > If you need help in designing the system, please contact FIPA – we would be pleased to advise you
- > Complies with energy efficiency class IE3 according to EC regulation 640/2009

Notes

- > Please note: Rotary blowers are not suitable for continuous operation at end vacuum levels

Technical data

Item no.	Suction power [m ³ /h]	Power supply [V]	Operating frequency [Hz]	Rated power [kW]	Radial power system
SKV.85-1.9-C-3-RT50.220D	85	200 - 220	50	1.9	Delta
SKV.85-1.9-C-3-RT50.240D	85	220 - 240	50	1.9	Delta
SKV.85-1.9-C-3-RT50.420Y	85	380 - 420	50	1.9	Star
SKV.85-1.9-C-3-RT60.220D	85	200 - 220	60	1.9	Delta
SKV.85-1.9-C-3-RT60.275D	85	255 - 275	60	1.9	Delta
SKV.85-1.9-C-3-RT60.480Y	85	440 - 480	60	1.9	Star
SKV.85-1.9-C-3-RT60.380Y	85	380	60	1.9	Star
SKV.120-2.5-C-3-RT50.220D	120	200 - 220	50	2.5	Delta
SKV.120-2.5-C-3-RT50.240D	120	220 - 240	50	2.5	Delta
SKV.120-2.5-C-3-RT50.420Y	120	380 - 420	50	2.5	Star
SKV.120-2.5-C-3-RT60.220D	120	200 - 220	60	2.5	Delta
SKV.120-2.5-C-3-RT60.275D	120	255 - 275	60	2.5	Delta
SKV.120-2.5-C-3-RT60.480Y	120	440 - 480	60	2.5	Star
SKV.120-2.5-C-3-RT60.380Y	120	380	60	2.5	Star
SKV.170-4.6-C-3-RT50.220D	170	200 - 220	50	4.6	Delta
SKV.170-4.6-C-3-RT50.240D	170	220 - 240	50	4.6	Delta
SKV.170-4.6-C-3-RT50.420Y	170	380 - 420	50	4.6	Star
SKV.170-4.6-C-3-RT60.220D	170	200 - 220	60	4.6	Delta
SKV.170-4.6-C-3-RT60.275D	170	255 - 275	60	4.6	Delta
SKV.170-4.6-C-3-RT60.480Y	170	440 - 480	60	4.6	Star
SKV.170-4.6-C-3-RT60.380Y	170	380	60	4.6	Star

Technical data

Item no.	Suction power [m³/h]	Power supply [V]	Operating frequency [Hz]	Rated power [kW]	Radial power system
SKV.250-7.1-C-3-RT50.220D	250	200 - 220	50	7.1	Delta
SKV.250-7.1-C-3-RT50.240D	250	220 - 240	50	7.1	Delta
SKV.250-7.1-C-3-RT50.420Y	250	380 - 420	50	7.1	Star
SKV.250-7.1-C-3-RT60.220D	250	200 - 220	60	7.1	Delta
SKV.250-7.1-C-3-RT60.275D	250	255 - 275	60	7.1	Delta
SKV.250-7.1-C-3-RT60.480Y	250	440 - 480	60	7.1	Star
SKV.250-7.1-C-3-RT60.380Y	250	380	60	7.1	Star

Application example

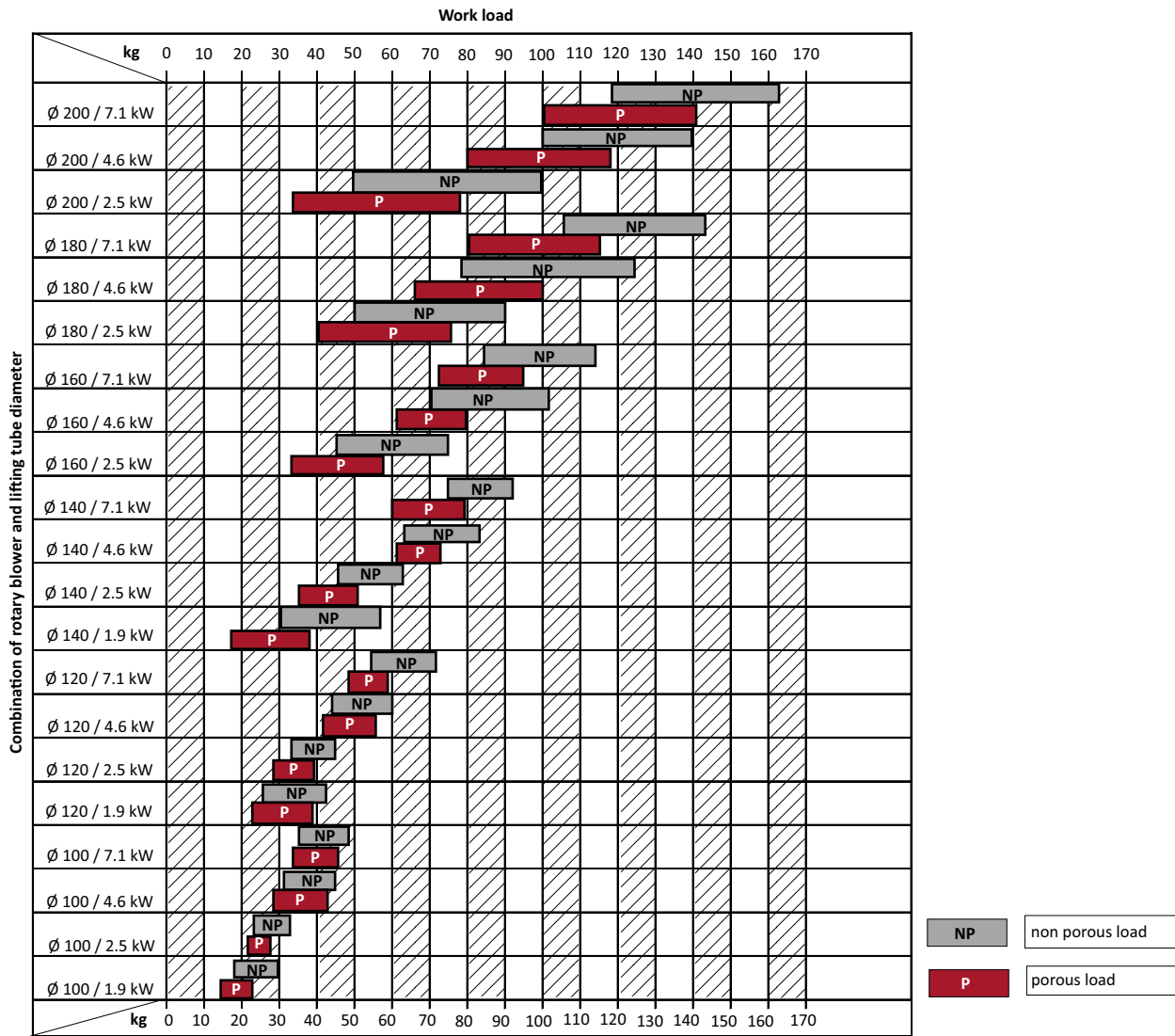


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FIPALIFT Accessories suitable for all models

Rotary blowers

Combination of rotary blower and lifting tube diameter for FIPALIFT Expert



Silencing boxes

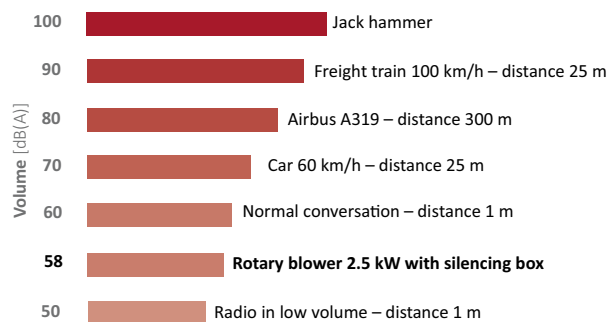


Product notes

- > Reduces the noise level generated by the rotary blowers and thus provides a more pleasant working environment
- > Example reading: Rotary blowers 2.5 kW with silencer box 58 dB/A, without silencer box 70 dB/A
- > Comparison values: Vacuum cleaner at 1 m distance 70 dB/A, normal speech at 1 m distance 60 dB/A
- > Continuous noise pollution can lead to hearing damage. We can help you minimize the noise pollution for your employees, and we would be pleased to provide advice.
- > Available for all vacuum pumps and rotary blowers that fit the FIPALIFT
- > Available partially with electric fans – recommended for ambient air temperatures, above 30 °C (86 °F)

Technical data

Item no.	Design	Suitable for
SH.ACC.EXP.0082	Without fan	SKV 1.9 kW
SH.ACC.EXP.0083	With fan	SKV 1.9 kW
SH.ACC.EXP.0084	Without fan	SKV 2.5 kW
SH.ACC.EXP.0085	With fan	SKV 2.5 kW
SH.ACC.EXP.0086	Without fan	SKV 4.6 kW
SH.ACC.EXP.0087	With fan	SKV 4.6 kW
SH.ACC.EXP.0088	Without fan	SKV 7.1 kW
SH.ACC.EXP.0089	With fan	SKV 7.1 kW
SH.ACC.ALL.0010	Without fan	DT.25, DT.40
SH.ACC.ALL.0011	Without fan	DT.60



FIPALIFT Accessories suitable for all models

Filter units

Filter units



Product notes

- > Protection of your vacuum supply from dust and other contaminants
- > Available in two sizes
- > In order to ensure safe operation of the vacuum supply, a filter between the tube lifter and the vacuum supply is required!
- > The XL filter is recommended as a pre-separator when handling bags

Technical data

Item no.	Design	Pipe connection [mm]	Material	Suitable adapter Ø 50 to Ø 38 mm
SH.ACC.EXP.0072	Standard	50	Steel	SH.ACC.EXP.0140
SH.ACC.EXP.0072.VA	Standard	50	Stainless steel	SH.ACC.EXP.0140
SH.ACC.SMA.0020	Standard	25	Steel	--
SH.ACC.EXP.0074	XL	50	Steel	SH.ACC.EXP.0140

Filter cartridges



Filter cartridges – standard



Filter cartridges – big

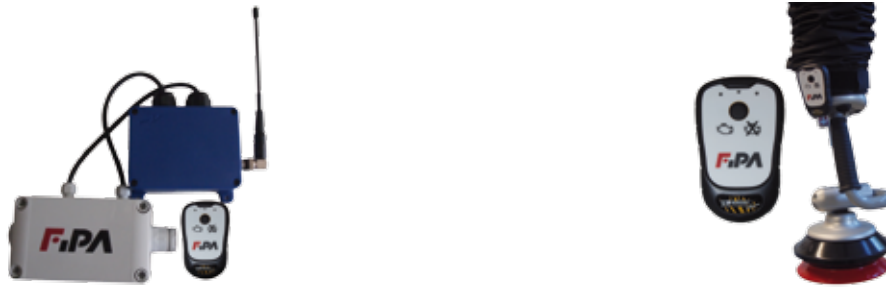
Product notes

- > Replacement or reserve filter inserts for filter units
- > Filter cartridges for standard and large filter units
- > Filter bag for large filter unit

Technical data

Item no.	Design	Suitable for
SH.ACC.EXP.0073	Filter cartridge	Filter unit standard
SH.ACC.EXP.0075	Filter bag	Filter unit big
SH.ACC.EXP.0076	Filter cartridge	Filter unit big

Radio controls



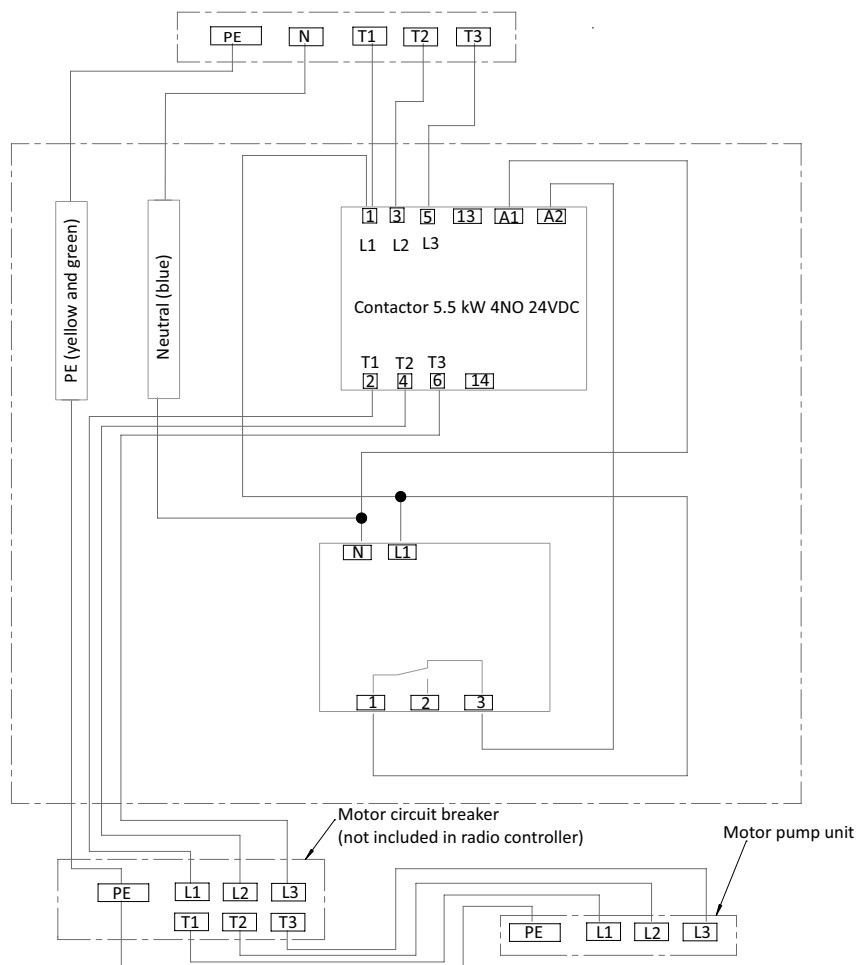
Product notes

- > For switching the vacuum pumps on and off from a remote location
- > Avoids unnecessary pump running time and thus saves energy, minimizes pump wear and noise pollution
- > Simply attaches to the lifting tube

Technical data

Item no.	Effective range [m]	Suitable for
SH.ACC.ALL.0200	100	to 7.5 kW

Wiring diagram



FIPA Spider an chain hoists at a glance	84
Vacuum lifter FIPA Spider	86
Signal lamp and holder for chain hoist control	89
Cross beam retrofit and manual shut-off valve	90
Spiral cable	91
Hinge for handle	92
Chain hoists	93

FIPA Spider and chain hoists | At a glance

FIPA Spider for load up to 500 kg



Vacuum lifters are superior to classic lifting devices with slings due to their faster and easier handling. Place the vacuum cup, press the manual slide valve and wait two to three seconds until the vacuum is generated. It is this easy to work with the vacuum lifter FIPA Spider!

The vacuum lifter FIPA Spider is a vacuum traverse that was developed with „plug & play“ for use on a chain hoist.

Vacuum traverses, also called vacuum lifters in general, are used for **handling plates, panes and sheets**. Vacuum lifters are especially used in the **wood, sheet metal and glass processing industries**. They make the loading of processing machines and the storage of various goods much easier.

The FIPA Spider is available as standard for loads up to 250 and 500 kg. We can adapt the cross beam to meet your needs with a variety of accessories.

- > **Fitting for the crane** bulb for fastening the chain control on the operating handle
- > **Signal lamp** for optical warning in loud working environments
- > **Hinge** for a flexible control panel ensures an upright position, even at a low working height
- > **Additional cross beams** ensure a large suction area and improve the support of deformed materials
- > **Variable selection of vacuum cups**, depending on the application

The modular construction makes it possible to **develop special versions quickly and easily** – we will be happy to consult you! FIPA also offers chain hoists and cranes that are compatible with our vacuum traverses. The competent FIPA team takes care of the complete system, from planning through to turnkey installation.

FIPA Chain hoists



- > Lifting tackle to complement the FIPA crane system
- > With two lifting speeds
- > Suitable for FIPA Spider



Electric chain hoists

Electric chain hoists are lifting units which use round steel chains as the carrying equipment. They are used for lifting and lowering of freely moving loads.

The advantages of chain hoists are their positioning accuracy and continuous maintenance of height, which is particularly significant for assembly work.



FIPA Spider and chain hoists

Vacuum lifter FIPA Spider

Vacuum lifter FIPA Spider

NEW



PLUG & PLAY

Product notes

- > Suitable for the horizontal handling of plates, sheets or panes
- > Easy to operate per manual slide valve, only one person required to safely lift the load
- > Easy to install: hang – plug in – done
- > Low dead weight through lightweight construction with aluminum
- > Loads up to 250 kg and 500 kg with suction-tight surfaces
- > The vacuum lifter is used on a chain hoist
- > The DT.5 vacuum pump is included with delivery
- > Using the ergonomic operating handle, the length of the control rod can be adjusted up to 2 m
- > Special versions can be produced to meet customer needs
- > The load is handled in a way that protects the material and avoids damage
- > Fast and efficient work through the omission of the fastening
- > Please enter the desired length of the operating unit if needed (up to 2 m)
- > If desired, the FIPA accessories can be installed in the factory when a new order is placed
- > The weight may vary depending on the choice of vacuum cup
- > Recommended vacuum cups:
 - Flat vacuum cups 152.191.025.1, for sheet metal for example
 - Bellows vacuum cups Varioflex® 22.160.265.16 for wood and rough surfaces
- > Vacuum cups are not included in the scope of delivery

Notes

- > The vacuum lifter satisfies DIN EN 13155
- > Single-phase electrical connection over the chain hoist (spiral cable is available as an accessory) – the FIPA Spider has a Schuko plug
- > The specified load values refer to the suction-tight surfaces. Suction trials must be implemented if the material is porous or rough. We can also implement the trials for you if requested.

Technical data

Item no.	TR01.250-2000-2-1000	TR01.500-2000-3-1000
Admissible work load [kg]	250	500
Suction power at 50 Hz [m ³ /h]	5	5
Power supply at 50 Hz [V]	220-240	220-240
Rated power [kW]	0.12	0.12
Noise level at 50 Hz [dB(A)]	60	60
Vacuum reserves [l]	5.35	5.35
Number of vacuum cups	4	6
Connection thread vacuum cups	G1/2	G1/2
Weight [kg]	60	65

Operator control unit



The operator control unit is ergonomically shaped. We will adapt the length to your needs.

Application example

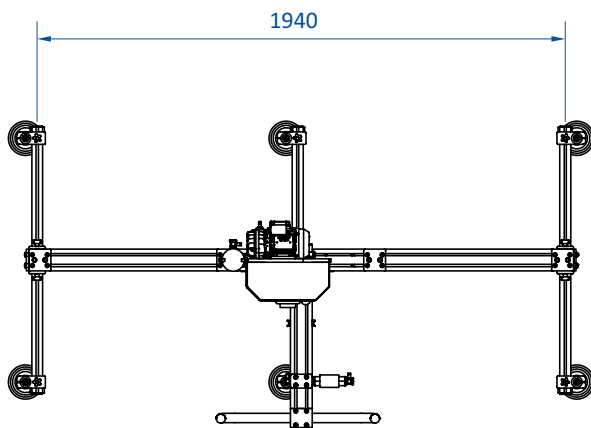
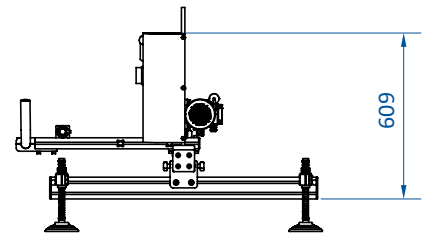
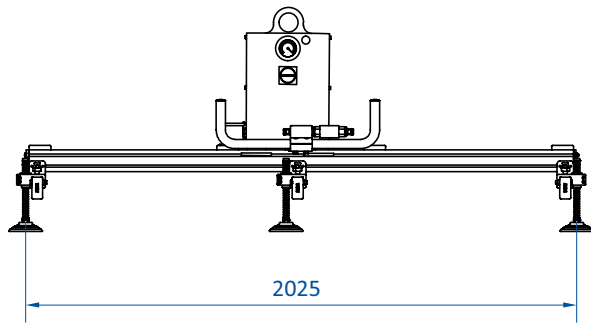


Continued on the next page →

FIPA Spider and chain hoists

Vacuum lifter FIPA Spider

Dimensions



Signal lamp

NEW



SAFETY FEATURE

Product notes

- > Additional warning device for safety for the vacuum lifter FIPA Spider
- > Signal flashes if the vacuum supply is too low
- > Ideal in especially loud work environments or when working with ear protection
- > If desired, the FIPA accessories can be installed in the factory when ordering a new FIPA Spider

Technical data

Item no.	Type of lamp
TR.ACC.0010	LED

Holder for chain hoist control

NEW



Product notes

- > The fitting serves to fasten the chain hoist control on the operating handle
- > If desired, the FIPA accessories can be installed in the factory when ordering a new FIPA Spider

Technical data

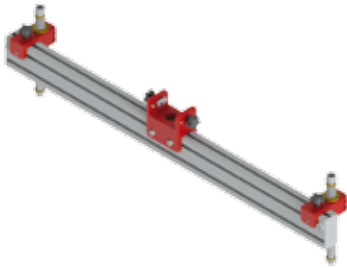
Item no.	Material
TR.ACC.0015	Aluminum

FIPA Spider and chain hoists

Cross beam retrofit

Cross beam retrofit

NEW



Product notes

- > The number of vacuum cups on an existing FIPA Spider can be expanded with the module
- > Enlarges the suction area
- > Improves the support for deformed materials
- > If desired, the FIPA accessories can be installed in the factory when ordering a new FIPA Spider
- > Vacuum cups are not included in the scope of delivery

Technical data

Item no.	Length [mm]
TR.ACC.0020	980

Manual shut-off valve

NEW



Product notes

- > Individual vacuum cups are shut off with the manual shut-off valve for changing plate sizes or parts with recesses
- > The load diminishes when individual vacuum cups are shut off. The operator is responsible for ensuring that the load corresponds to the holding force of the remaining suction area.
- > The operator must ensure that the manual shut-off valves are opened again when they are no longer being used
- > If desired, the FIPA accessories can be installed in the factory when ordering a new FIPA Spider

Technical data

Item no.	Weight [g]
TR.ACC.0025	131

NEW



Product notes

- > The spiral cable serves to offset the electrical energy from the chain hoist
- > Cable type: PUR 3G 1.5 black
- > Cable end 1: screwed Schuko plug made of solid rubber
- > Cable end 2: 400 mm bare end

Technical data

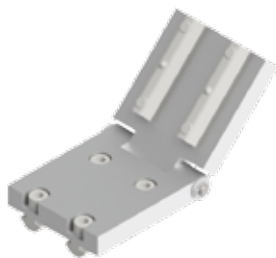
Item no.	Length [mm]	Spiral length [mm]	Length extended [mm]
TR.ACC.0030	3,000	1,500	6,000

FIPA Spider and chain hoists

Hinge for handle

Hinge for handle

NEW



Product notes

- > Stable hinge so that the rod on the operating component can be swiveled up or down
- > The position is chosen at will
- > Compatible with FIPA XLine extrusions
- > Makes an upright position possible, even at low working heights
- > If desired, the FIPA accessories can be installed in the factory when ordering a new FIPA Spider

Technical data

Item no.	Pivoting range [°]
TR.ACC.0040	45

Application example



Chain hoists



Product notes

- > Electric chain hoists with appropriate connection to the carriages on FIPA crane systems
- > High degree of positioning accuracy
- > For applications where an elevation needs to be maintained continuously
- > With two lifting speeds, main lift and fine lift
- > Low noise level and long service life as a result of carburized gears running in oil-bath lubrication
- > IP 65 and 42V control switch
- > Motor in protection rating IP 55, connection for flat cable
- > Adjustable slipping clutch to protect against overload
- > Electromagnetic spring brake to stop the load, also in the event of a power failure
- > Chain store included in scope of delivery
- > Optional meter-length stroke extension for the load chain and the control cable available
- > Stroke extension for chain hoist 250 kg (Item no. CH.03.0010-250)
- > Stroke extension for chain hoist 500 kg (Item no. CH.03.0010-500)
- > Remote control, stainless steel chain and synchronization control available on request

Notes

- > Not approved for passenger transport!

Technical data

Item no.	CH.01.250.3.1	CH.01.500.3.2
Load capacity [kg]	250	500
Number of chain strands	1	2
Speed one [m/min]	8	4
Speed two [m/min]	2	1
Group of mechanism [°]	1Am / M4	1Am / M4
Stroke [m]	3	3
Duty ratio [%]	33 - 17	33 - 17
Rated power [kW]	0.37 - 0.09	0.37 - 0.09
Weight [kg]	19	19

Questionnaire | Tube lifter FIPALIFT

To:

FIPA GmbH | Germany
Fax +49 89 962489-11 | info@fipa.com

FIPA Inc. | USA
Fax +1 919 5730871 | sales.us@fipa.com

FIPA Ltd. | Thailand
Fax +66 2 294-4149 | sales.th@fipa.com

From:

Company: _____

Name: _____

Street: _____

City/Country/Zipcode: _____

Phone/Fax: _____

Email: _____

Industry: _____

FIPALIFT Tube lifter

Enquiry No. (internal): _____

Please answer the following questions carefully so that we can select the optimal tube lifter for you.

1. What loads need to be lifted?

Packages

Panes/Plates/Sheet metal

Sacks

Foodstuffs

Other: _____

2. What materials are involved?

Cardboard

Wood

Glass

Plastic

Metal

Other: _____

3. Dimensions of loads?

Minimum: Length _____ Width _____ Height _____ mm

Maximum: Length _____ Width _____ Height _____ mm

Note: _____

4. What are the weights to be lifted?

Maximum weight: _____ kg

Minimum weight: _____ kg

5. What height level needs to be overcome?

Height difference total: _____ mm

Lowest position from the ground: _____ mm

Highest position from the ground: _____ mm

6. Do you already have a crane system?

- yes no

If yes: What is the distance between ground level and the suspension device (carriage)?

Distance: _____ mm

If no: Please consult our crane system questionnaire.

7. Are there any special conditions that need to be taken into account?

- Dusty environment Direct contact with foodstuffs Explosive environment (ATEX)
- Special requirements concerning noise generation Particularly low headroom (less than 3 m)
- Load needs to be tilted by 90° Load rotation required
- Apply the load to 180° required

8. Desired accessories?

- Radio control ATOP
- Filter unit XL Silencing box for vacuum pump

9. Description of the application:

10. Notes and instructions:

Questionnaire | Vacuum lifter FIPA Spider

To:

FIPA GmbH | Germany
Fax +49 89 962489-11 | info@fipa.com

FIPA Inc. | USA
Fax +1 919 5730871 | sales.us@fipa.com

FIPA Ltd. | Thailand
Fax +66 2 294-4149 | sales.th@fipa.com

From:

Company: _____

Name: _____

Street: _____

City/Country/Zipcode: _____

Phone/Fax: _____

Email: _____

Industry: _____

Vacuum lifter

Enquiry No. (internal): _____

Please answer the following questions carefully so that we can select the optimal vacuum lifting system for you.

1. What loads need to be lifted?

Flat goods like discs/plates/sheets

Long goods like boards/blanks/beams

Pipes

Other: _____

Workpiece description: _____

2. What materials are involved?

Metal

Coated wood

Uncoated MDF/OSB/Particle board

Plastic

Uncoated solid wood

Glass

Other/Notes: _____

3. Dimensions of loads?

Minimum: Length _____

Width _____

Height (thickness) _____ mm

Maximum: Length _____

Width _____

Height (thickness) _____ mm

Comments: _____

4. What are the weights to be lifted?

Minimum weight: _____ kg

Maximum weight: _____ kg

5. Surface and material qualities (multiple responses possible)

- | | | |
|---|---------------------------------|--------------------------------------|
| <input type="checkbox"/> Rough | <input type="checkbox"/> Smooth | <input type="checkbox"/> Uneven |
| <input type="checkbox"/> Dry | <input type="checkbox"/> Wet | <input type="checkbox"/> Oily |
| <input type="checkbox"/> Suction-tight | <input type="checkbox"/> Porous | <input type="checkbox"/> Very porous |
| <input type="checkbox"/> High surface temperature: _____ °C (_____ °F) | | |

Comments: _____

6. What height level needs to be overcome?

Height difference total: _____ mm

Lowest position from the ground: _____ mm Highest position from the ground: _____ mm

7. Do you already have a suitable crane?

- | | | |
|--|---|---------------------------------|
| <input type="checkbox"/> Yes, with chain hoist | <input type="checkbox"/> Yes, without chain hoist | Maximum lifting force: _____ kg |
| <input type="checkbox"/> No | | |

Comments: _____

8. Are there any special conditions that need to be taken into account?

- | | | |
|--|--|---|
| <input type="checkbox"/> Dusty environment | <input type="checkbox"/> Corrosive ambient air | <input type="checkbox"/> Explosive environment (ATEX) |
|--|--|---|

9. Desired accessories

- | | | |
|---------------------------------------|---|---------------------------------------|
| <input type="checkbox"/> Signal light | <input type="checkbox"/> Additional crossbars: _____ piece(s) | |
| <input type="checkbox"/> Spiral cable | <input type="checkbox"/> Fitting for crane bulb | <input type="checkbox"/> Parking feet |

10. Description of the application and special notes:

Item numbers index

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