



Vacuum Tube Lifter Range



## Vacuum Tube Lifter Range

Palamatic's philosophy has always been to push the boundaries of technology - This is how we learn and grow

Materials such as foodstuffs, chemicals, wooden panels, building products, rolls, drums and barrels present safety problems when they need to be moved rapidly during production processes.

The Palamatic vacuum lifter range can lift loads from 10kg (22lb) up to 350kg (772lb) and can be customised to suit your application.

Vacuum tube lifters effectively neutralise the weight of the object load for the operator, resulting in a significant reduction in the risk of personal injury associated with poor manual handling techniques. The use of a vacuum lifter also reduces the risk of damage to the product.

With a Palamatic vacuum tube lifter, the operator does not suffer fatigue at the same rate as during a manual handling process and will allow the operator to maintain performance for their whole shift.

#### WHY CHOOSE A PALAMATIC VACUUM TUBE LIFTER?

- Established in 1985, with UK based engineering, manufacturing, service and spare parts
- Proven Health and Safety solution
- Efficient use of labour
- Eliminate costly claims
- Effortless repetitive lifting
- Minimal running costs
- Range of finishes available
- Increased operator safety & performance
- Increased productivity and quality
- Low maintenance
- Available with ATEX/IEC Certification
- Systems specifically for use in clean process areas

#### WHAT CAN I LIFT?

Palamatic vacuum tube lifters can lift almost anything from boxes, bags, sacks and drums to boards, reels, crates, pallets and sheets. The most common applications are:













#### CRANE SYSTEM

Options are
Swing Jib,
H-Style or
Articulated Jib
supporting up to
350kg (772lb)
in weight.

## 1

#### VACUUM PUMP

With electric or compressed air powered options the vacuum pump provides the suction to lift and hold the product

2

#### FILTER

Filters are used to stop dust particles entering the pump & atmosphere.
ATEX and clean room options are available

3

#### LIFT TUBE

Carries the vacuum to the control head and comes in a variety of diameters dependant upon application

4

#### CONTROL HEAD

Allows the operator to regulate the vacuum flow to lift or lower the product safely

Multiple options available

5

#### END EFFECTOR

Provides an air tight seal or clamp on to the product to hold it safely without damage

Multiple options available

6



Versatile options that satisfy the widest range of industrial handling solutions but based on a minimum number of components

The S-LINE is our streamlined, simple to configure system that can effortlessly lift boards, boxes, drums, pallets, sacks and many more items.

A vacuum control assembly with side handle is generally the most popular design for many handling processes. Suitable for loads from 20kg (44lb) to 350kg (772lb) the design mimics the operators natural action and can be specified as either left or right handed operation.

1

#### LIFT TUBE

The choice of standard, extended and high compaction tubes in 7 different diameters from 140mm up to 300mm

2

#### HANDLE OPTIONS

Control handle with or without counter-balance weight and optional assisted release control are available

3

#### **CONTROL BODY**

ONE standard control head rated for all capacities.
Options for low headroom available

4

#### **CONTROL VALVE**

Choice of 4 standard control valves

5

#### SUCTION FOOT

Large range of interchangeable suction feet & end effectors available to enable the lifting of almost anything



The S-LINE features a full range of Control Valves, Control Handles and Suction Feet options designed to handle a wide variety of applications. All valves, handles and feet are interchangeable in minutes, extended and flexible handles are available with counterbalance weights for increased operator control and comfort. Low headroom compact handles where height is limited can also be specified.

Manufactured in mild steel or stainless steel, the S-LINE can be supplied to hygienic grade for use in clean room, food and pharmaceutical environments.

#### HANDLE OPTIONS

#### SLINE-CH-STD

#### Single side handle

Left or right handed options



#### SLINE-OVAL-STD

#### Oval shaped control handle

Full 360° rotation for ease of use



#### SLINE-EX550-STD

#### Extended reach handle

550mm & 850mm options



#### SLINE-FLEX550-STD

#### **Extended & flexible** reach handle

550mm or 850mm. Shown with optional counter balance



#### **CONTROL VALVE OPTIONS**

#### SLINE-CV1

#### Stay put lever quadrant valve

Benefit to the operator:

- Ability to balance the load.
- Suitable for varying product weights



#### SLINE-CV2

#### Spring loaded lever cone valve

Benefit to the operator:

Release of valve returns the lift tube to the default position



#### SLINE-CV3

#### Hygienic Stay put lever quadrant valve

Benefit to the operator:

- Ability to balance the load.
- Suitable for varying product weights



#### SLINE-CV4

#### Hygienic Spring loaded lever cone valve

Benefit to the operator:

Release of valve returns the lift tube to the default position



#### **SUCTION FEET OPTIONS** - Large range of options available

#### SLINE-400X240DV-STD

#### Single sack foot

Available in multiple sizes and with spiked gripper options for hessian, jute and polywoven sacks

#### SLINE-2x320x120F

#### Fixed twin foot

Available in multiple sizes with options for mild steel or hygienic stainless steel

#### SLINE-320X200F-MS

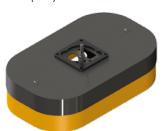
#### Rectangle foot

Available in multiple sizes as singles, doubles or quadruples to suit application

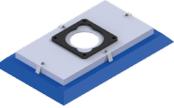
#### SLINE-4X150BI-MS

#### Inline bellows foot

Available in multiple sizes as in-line or H-Frame to suit application











## Lightweight single handed solutions that make repetitive heavy tasks easier for your operatives

The new Palamatic LITE uses a one handed operation and is ideal for fast, speedy operations utilising a trigger control valve design and control head adaptors that fit like a glove.

The spring loaded easy to operate trigger provides effortless control of the vacuum with one hand leaving the other hand free to perform other actions. Suitable for loads from 5kg (11lbs) to 30kg (66lbs) the ergonomic design can be specified with several configurable options including a variety of suction cups to lift and tilt products with maximum control and safety.

Manufactured in stainless steel the LITE can be supplied to a hygienic grade for use in clean room, food and pharmaceutical environments. The LITE system is also suitable for use with a number of Palamatic crane systems including Swing Jib, H-Style & Articulated Jib.

# LIFTING CAPACITY **5-30**ka (11 to 66lb)

#### LIFT TUBE

The choice of standard or extended tubes in either 100 or 120mm tube diameter

2

#### **CONTROL HANDLE**

One handed operation trigger control with sensitivity adjustment. Can be used either left or right handed

3

#### **CONTROL ARM**

Fixed or pivoting control arm for all capacities with optional 360° rotation below the trigger valve. Options for extended flexible control handles

4

#### **SUCTION FOOT**

Wide variety of quick release feet available to enable the lifting of almost anything The LITE features a range of Control Handle and Suction Feet options designed to handle a wide variety of applications. All feet are interchangeable in under a minute.

#### **VACUUM PUMP OPTIONS**

EVG840-3-50

Standard Vacuum Pump



Increased flow Vacuum Pump



#### VPDD52050

Vacuum Pump for Wide **Bodied Trigger assembly** 



#### **CONTROL HANDLE OPTIONS**

#### LITE - TRIGGER

#### Wide bodied spring loaded trigger

Benefit to operator:

- Ability to balance the load
- Singlé handed operation



#### LITE-FLEX700CBH

Extended control handle with trigger operation

Benefit to operator:

Ability to balance the load Extra height & reach

Pivoting design ensures



**SUCTION FEET OPTIONS** - Large range of options available

LITE-220X160V-STD

LITE-140x70DBA-STD

LITE-320X80-STD

#### LITE-150B-STD

#### Single sack foot

Available in multiple sizes

#### Twin foot

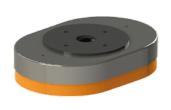
Available in multiple sizes with options for mild steel or hygienic stainless steel

#### Rectangle foot

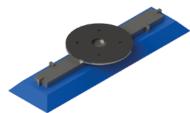
Available in multiple sizes as singles, doubles or quadruples to suit application

#### **Bellows foot**

Available in multiple sizes and with single, double or quadruple feet styles









## Choosing the Right System

We can help you find the right solution for your operational needs from off the shelf systems to fully customised applications

Choosing the right system could not be any easier. For a free tailored budget quote simply give us a call or **click to complete our assessment form online**. We can then help determine whether we have a stock system available that suits your requirements or if you require a bespoke solution.



#### Click to complete the online Form



#### OR CONTACT US BY PHONE/EMAIL:

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For 30 years Palamatic has been at the leading edge of innovation and design in the lifting and handling industry. Our design philosophy is born out of the desire to continually improve, innovate and invent. The success of our products means they are often imitated but never bettered.

The secret to our success starts in our state of the art design studio where our talented design engineers have access to all the latest 3D hardware and software. The design philosophy is the same whether they are working on our own core products or your bespoke lifting and handling solution.

Whether you require a unique or off the shelf solution our engineers and designers work with you and your project teams. Ensuring that your operational requirements, project deadlines and financial budgets are met. As experts in health & safety legislation and ATEX regulations you can also rest assured that our solutions are fully compliant, your legal obligations are met and your product and workforce will be protected.

With our own on site fabrication and manufacturing teams we can effectively control the full process from initial design conception right through to final manufacture and delivery. With a dedicated installation team we can ensure your project runs smoothly right up to the point of handover and even further with our exceptional skilled Service Technicians

Over the years we have assisted many organisations in achieving their project goals in an efficient, organised and innovative way to help them deliver world class products and services. Some of the organisations we have collaborated with are:

- Arla Foods
- Aston Martin
- B&W Bowers & Wilkins
- Costa Coffee
- Cotswold
- GEC General Electric GSK GlaxoSmithKlien
- Merck

- Mamas & Papas
- Next
- Pfizer
- Premdor
- Premier Foods
- Rolls Royce Shell Oil
- Statoil













## Health & Safety Comes First

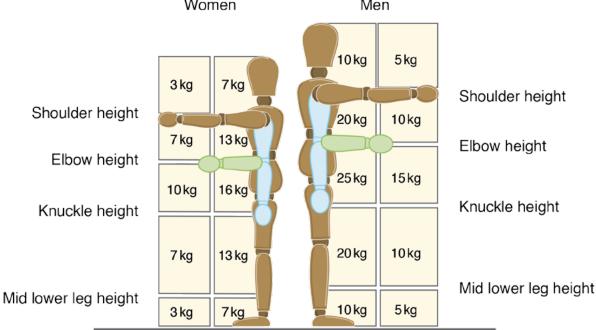
## Protecting your workforce from injury and helping you comply with Health & Safety legislation is our priority

The Manual Handling Operations Regulations 1992, as amended in 2002 apply to a wide range of manual handling activities, including lifting and moving of objects.

The Health & Safety Executive (HSE) estimated 909,000 working days were lost in 2013/14 due to handling injuries just in the UK alone;

- 6.6 days were lost for each handling injury
- 24% of all reported injuries are handling related
- 8% of major/specified and 25% of over-7-day injuries to employees involved handling
- Over-7-day injuries accounted for more than nine in ten of the total (18,354)
- An estimated 54,000 reportable handling injuries resulted in more than three days' absence from work - this was a rate of 190 per 100,000 workers (Labour Force Survey 2014)

#### LIFTING AND LOWERING GUIDELINES AS PUBLISHED BY THE HSE ARE: Women Men



#### **TWISTING**

Reduce the guideline weights if the handler twists to the side during the operation. As a rough guide, reduce them by 10% if the handler twists beyond 45°, and by 20% if the handler twists beyond 90°.

#### FREQUENT LIFTING AND LOWERING

The guideline weights are for infrequent operations – up to about 30 operations per hour – where the pace of work is not forced, adequate pauses to rest or use different muscles are possible, and the load is not supported by the handler for any length of time. Reduce the weights if the operation is repeated more often. As a rough guide, reduce the weights by 30% if the operation is repeated once or twice a minute, by 50% if it is repeated 5–8 times a minute, and by 80% where it is repeated more than 12 times a minute.

#### THE PALAMATIC SOLUTION

All our vacuum tube lifters are designed to exceed the HSE guidelines and reduce operator effort and fatigue which reduces the chance of manual handling injuries and repetitive strain injuries of the arms, hands and wrists.

<sup>\*</sup>Contains public sector information licensed under the Open Government Licence v3.0.

### Hazardous Environments

## Palamatic can configure applications for hazardous environments that require ATEX certification

Explosive atmospheres can be caused by flammable gases, mists or vapours or by combustible dusts. If there is enough of the substance mixed with air, then all it needs is a source of ignition to cause an explosion.

Explosions can cause loss of life and serious injuries as well as significant damage. Preventing releases of dangerous substances, which can create explosive atmospheres, and preventing sources of ignition are two widely used ways of reducing the risk. Using the correct equipment can help greatly in this.

Palamatic understand the specific process requirements when working in hazardous environments. We can build and install a full turn-key system or work with your system integrators to ensure compliance in ATEX zones 1/21 and 2/22 is met.

Not only are we fully experienced in Directive 99/92/ EC (ATEX 137) and Directive 94/9/EC (ATEX 95) but we are also able to supply equipment to meet the requirements of ICEX standards with National Deviations so can provide a solution wherever you are worldwide.

We can configure Vacuum tube lifters to operate in specialised environments where ATEX and International standard recommendations must be considered. Fully compliant, safe and robust components are used to meet regulations, such as;

- Air operated vacuum generators
- Earth bonding
- Non-sparking crane trolleys

For further information on how we can help with your ATEX installation please contact one of our Technical Consultants, Worldwide Distributors or **click here to complete an online ATEX questionnaire.** 





Palamatic manufactures lifting and handling solutions for all general industries including Woodworking, Chemicals, Food, Packaging, Refractory, White Goods, Printing and Logistics.

Our tailored and off the shelf solutions save you time, increase your productivity, protect your product and help prevent injury to your workforce.

#### Contact Us

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