

Balancers & Manipulators



Lifting & Handling Equipment

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Powered & Balanced Lifters

Pneu-lifts enable the safe, ergonomic and efficient handling of many products up to a maximum weight of 650 kg.

Pneu-lifts incorporate a pneumatic cylinder to achieve the lifting action, and are normally custom built to suit the relevant working environment.

Low noise levels and low maintenance make Pneu-lifts the ideal solution for your material handling problems.

Three control styles ensure maximum flexibility. Auto balance, powered lift/lower, and pre-set loaded/unloaded options allow the most suitable control style to be used for each handling application.

Pneumatic systems are ideal for installation in explosive risk environments, and can be finished to a high stainless steel specification suitable for the pharmaceutical or food industries.

The versatile Pneu-Lift is suitable for use with a variety of attachments, including powered grippers, vacuum grippers, and simple mechanical attachments like hooks.

- ❑ Pneumatically powered
- ❑ Low operating noise levels – 65dB(A) at 1m
- ❑ Optional controls for raising and lowering
- ❑ Non-return safety system incorporated to prevent instantaneous loss of load in case of rupture to main air supply line – with in-built audible alarm warning system
- ❑ Low friction balance cylinders mean minimum operator effort is used at all times
- ❑ Vertical stroke range available up to 2,000 mm
- ❑ Mild steel and stainless steel manufactured units available
- ❑ Easy to operate
- ❑ Low maintenance – virtually no wearing parts
- ❑ 12 month warranty on non-wearing parts
- ❑ Eliminates health and safety issues around the lifting and handling of heavy, awkward loads
- ❑ ATEX options



Vacuum Grip



Drum Lifter



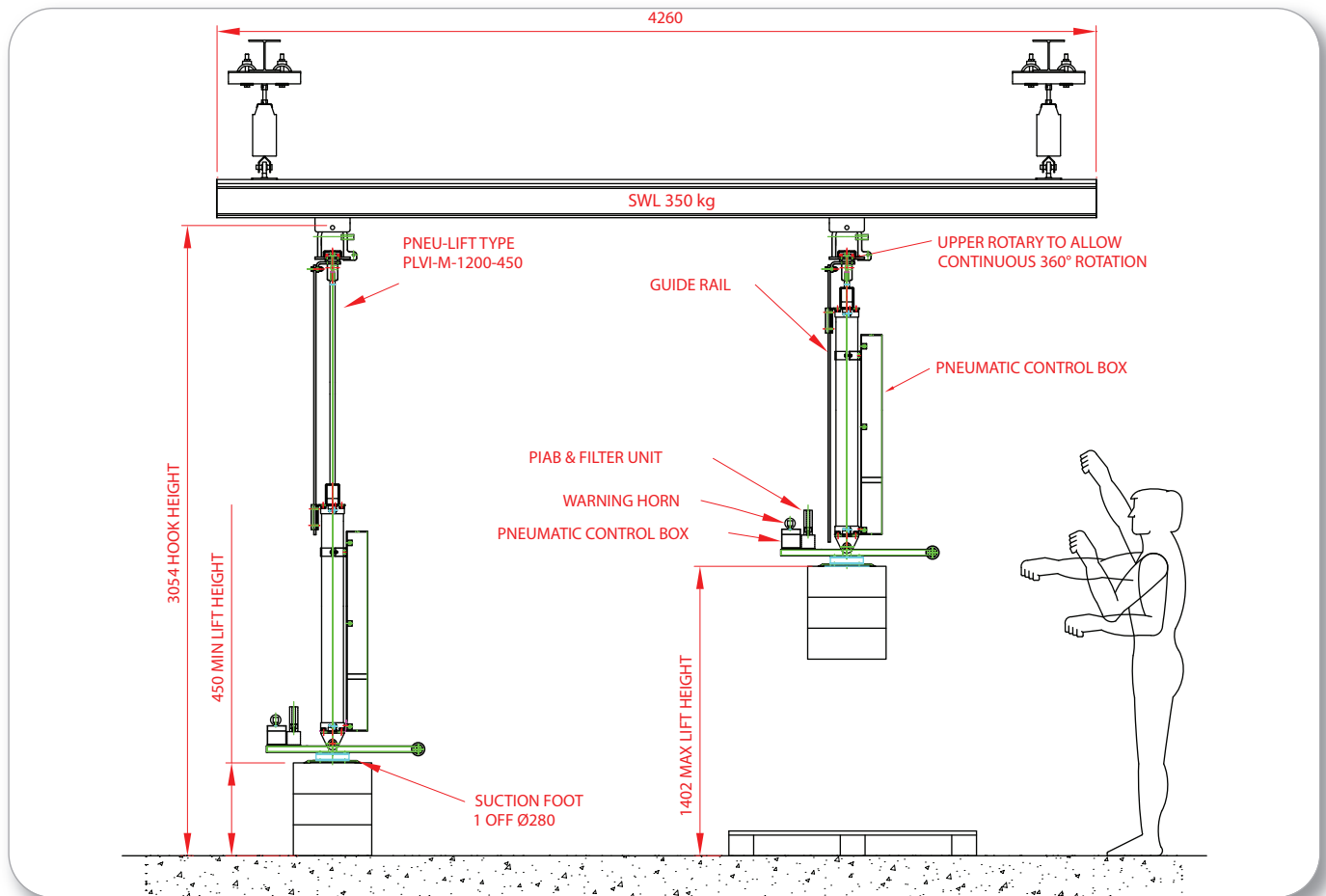
Pneu-lift Balancer



Controls



Stainless Steel Pneu-lift



Pneu-lift supported by overhead crane

Warehouse Drum Lifter - Application Details

This is one of the most versatile drum lifters available on the market. Designed to transfer drums from pallet to scales and from wooden pallet to steel pallet. Supported by a light crane suspended from above by existing steelwork.

Drums are top lifted, so no extra space is required, drums can simply be picked straight from the pallet and moved to their new location without any awkward manoeuvres. Because the vacuum and lift are independently powered, a high vacuum level can be generated in the suction feet to allow heavy and light drums to be lifted by the same system.

The standard safety circuit requires an operator to press two buttons to release a drum, it also inhibits release if the drum is in the air, via interlock.

Suction feet are changed via quick release fittings without the use of tools, allowing drums with different style lids to be handled when required.

Features

- ❑ Push button controlled grip and lift
- ❑ Air powered vacuum pump
- ❑ Lift stroke 950 mm
- ❑ 360° continuous rotation
- ❑ Pneumatically powered / 6 bar / 20 cfm required
- ❑ Capacity 350 kg
- ❑ Min. Lift 450 mm / max. lift 1,400 mm
- ❑ ATEX zone 21 certified

Pneumatic Balancers

Pneumatic air balancers are designed for many lifting applications and can offer product lift and float in one combined system.

In float mode the operator experiences virtually no weight or resistance in moving the load.

Their simple design is practically maintenance free. Air balancers are extremely economical to run thus reducing energy costs.

Pneumatic air balancers are the perfect option when high speed, precise handling of a load is required.



Floor Mounted Style



Simple Balanced Hook

Typical Applications

- ❑ Attaching a vacuum gripping device
- ❑ Attaching a magnetic gripping device
- ❑ Balancing heavy tools like welding plant
- ❑ Component part handling using gripping device or hook

Features

- ❑ Easy to operate
- ❑ Low maintenance – virtually no wearing parts
- ❑ Eliminates health and safety issues around the lifting and handling of heavy, awkward loads

Features

- ❑ Pneumatically powered
- ❑ Low operating noise levels – 65dB(A)
- ❑ Pendant controls for raising and lowering – single operator use
- ❑ High speed operation up to 100 mm/sec, with adjustable speed by control valve
- ❑ A braked floating action allows load to be suspended at any height
- ❑ Check valves fitted in case of air failure
- ❑ Maximum lifting capacity of 300 kg
- ❑ Vertical stroke range available up to 3,000 mm
- ❑ Mild steel standard with stainless steel option
- ❑ Overload protection
- ❑ Suitable for mounting on slewing jib crane or overhead crane mounting
- ❑ Suitable for use with mechanical, magnetic, pneumatic or vacuum gripping attachments
- ❑ Manufactured in accordance with ISO 9001
- ❑ Floaty by design – push button raise/lower plus balanced control so the load can be lifted and lowered manually with minimal effort over a 200 mm range while suspended.



Pneumatic Gripper



Handle Hook



Custom Gripper



Vacuum Grip

Spring Balancers

Tool Balancers

Tool balancers are the ideal solution for many applications where there is a requirement to hold or position a tool or work-piece without excessive manual effort

Balancers are available in a range of capacities from 0.4 kg up to 180 kg with working strokes from 1.3 – 3 m.

Applications vary from light bench work to heavy industrial applications in areas such as foundries and assembly plants

- Standard and ATEX Certified Models



Light Duty Tool Balancers (0.4 - 14kg)

An economical and light weight range of balancers with capacities from 0.4 – 14 kg and maximum working stroke 2,500 mm, ideal for general bench work.

Features

- Simple rugged construction
- Cast aluminium body
- Adjustable capacity
- Self lubricating bushes
- Adjustable stroke limiting device
- Rotary hook
- Auxiliary safety cable
- Stainless steel cable
- Anti-friction cable guide



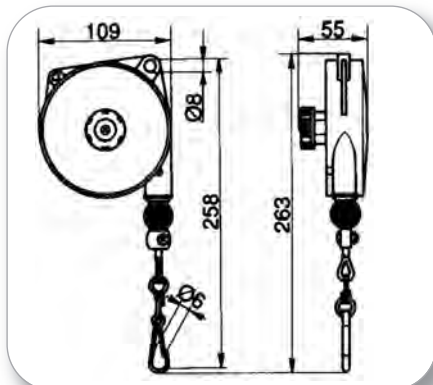
Light Duty Model

Light Duty Models

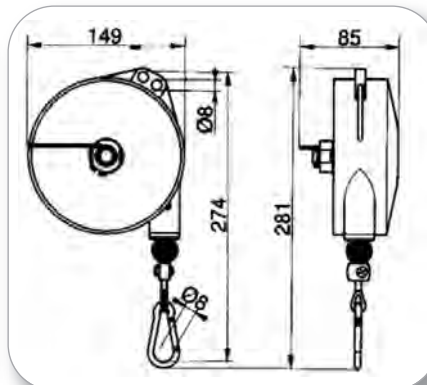
- Series 31: 0.4 – 3.0 kg capacity / 1,600 mm working stroke
- Series 32: 1.0 – 8.0 kg capacity / 2,000 mm working stroke
- Series 33: 2.0 – 14.0 kg capacity / 2,500 mm working stroke
- Series 34: 2.0 – 14.0 kg capacity / 2,500 mm working stroke locking device for instant locking and release at any height



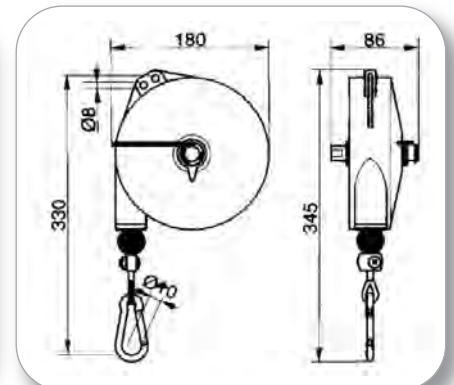
Lance & Hose Balancing



Series 31



Series 32



Series 33/34

Heavy Duty Tool Balancers

A range of tool balancers with 'anti load-drop' safety device suitable for working strokes up to 3,000 mm.

Features

- ❑ Capacity 4 – 180 kg
- ❑ Safety device prevents the load from dropping in the event of spring failure
- ❑ Taper drum rotating on ball bearings
- ❑ Precision guided cable winding avoids entanglement and jamming
- ❑ Anti-friction cable guide
- ❑ Ribbed, sealed mono-block construction
- ❑ Inert spring drum assembly for easy replacement
- ❑ Cast aluminium body
- ❑ Adjustable capacity by means of a worm screw
- ❑ Auxiliary safety cable
- ❑ Suspension by safety hook
- ❑ Stainless steel cable
- ❑ Anti-friction cable guide
- ❑ Latching device to hold load in position at different levels (optional)
- ❑ Load hook with ball bearing swivel (optional)

Heavy Duty Models

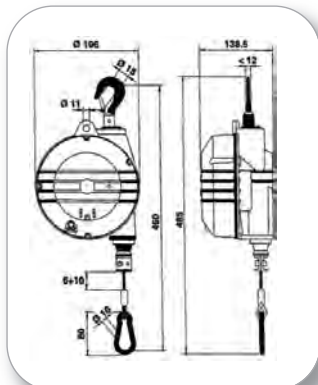
- ❑ Series 35: 4 – 25 kg capacity / 2,000 mm working stroke
- ❑ Series 36: 10 – 105 kg capacity / 2,000 mm working stroke locking device for instant locking and release at any height
- ❑ Series 40: 15 – 180 kg capacity / 2,500 mm working stroke locking device for instant locking and release at any height
- ❑ Series 43: 15 – 180 kg capacity / 3,000 mm working stroke locking device for instant locking and release at any height



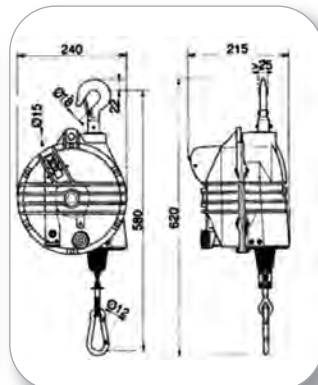
Heavy Duty Model



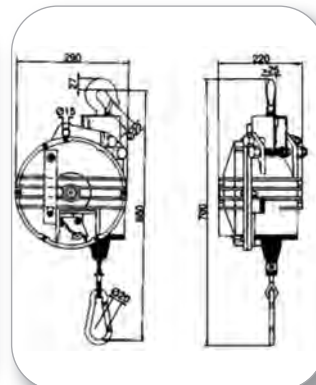
ATEX Spring Balancer



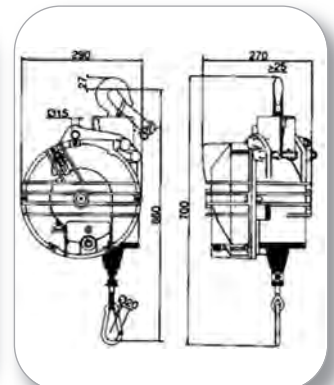
Series 35



Series 36



Series 40



Series 43

Manipulators

Manipulators are used for controlled, ergonomic and efficient handling of many products, up to a maximum weight of 300 kg and can perform almost any material handling task with the minimum of effort from an operator.

Control of all functions is by push button or auto-balance. Manipulators are pneumatically powered.

Manipulators are used for handling applications which demand precise picking and positioning, rather than speed of operation and would generally be used within heavy industrial environments.

A range of finishes are available, the standard finish is mild steel painted, but high specification stainless steel 304 is available with all grades of polish.

Floor, wall and ceiling mounted versions are available.

Manipulators are ideally suited to the handling of off-set or cantilevered loads.



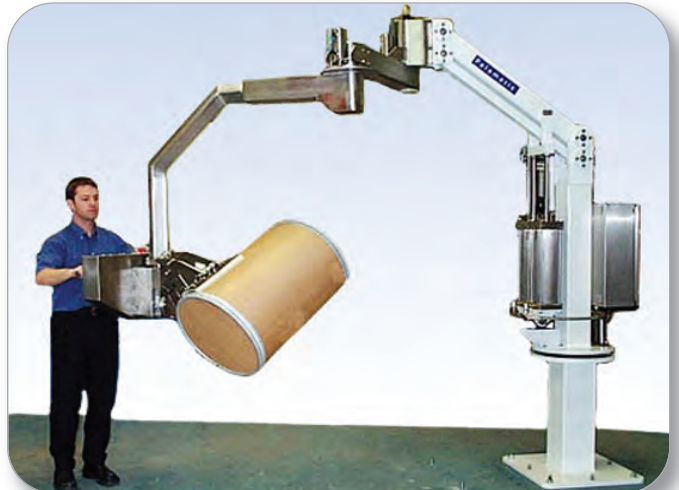
90° Tilt End Effector



Drum Grip



Off-set Load



Stainless Steel Contact Parts



Stainless Steel Manipulator



Drum Pour



Reel Turning Manipulator