



Vacuum Handling Systems Applications & Products



Schmalz – World of Vacuum Technology

Strict customer-orientation, trend-setting innovations, excellent quality and comprehensive advice make Schmalz the world's leading partner for vacuum technology in the areas of automation, handling and clamping.

As a worldwide active company with excellent products and services, we offer our customers in trade and industry trend-setting solutions. We have enthusiastic customers wherever production processes can be made more efficient with the aid of vacuum technology.

In order to meet the specific requirements of the various sectors of industry, we offer vacuum handling systems aimed primarily at the following branches:

Wood/plastics

Metal/sheet metal

Logistics/packing

Chemicals/pharmaceuticals

Glass

Aerospace industry






Renewable energies (wind power, solar systems)

With our international marketing network with subsidiary companies and sales partners in more than 50 countries, we have highly qualified sales personnel all over the world.

Many awards demonstrate the company's dedication to protection of the environment and to society in general.

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Schmalz vacuum handling systems

Vacuum handling systems from Schmalz rationalize and humanize production processes by permitting effortless and efficient workpiece handling. Their functionality, safety and ergonomic design prove their value in tasks such as the loading and unloading of machine tools. They are the connecting element between economical investment and an ergonomic working environment, since they help to avoid injuries which could otherwise result from the lifting and moving of heavy objects. Vacuum handling systems rationalize manufacturing and shorten the time needed for production and, at the same time, improve the motivation and performance of company employees.

Regardless of whether you need a standard product or a customer-specific solution, vacuum handling systems from Schmalz offer reliable support in solving your handling problems.

Selection assistant

Selection criterion	Jumbo (Page 4ff)	VacuMaster (Page 12ff)
Workpiece	Airtight and porous parts such as cardboard boxes, sacks, barrels, furniture, sheets of wood, etc..	Sheet metal, coils, sheets of wood, plastic and glass, concrete slabs
Weight	Workpieces weighing up to 300 kg	Workpieces weighing up to 2000 kg, primarily large, flat objects
Speed	Frequent, fast lifting and movement with a single medium	The unit grips the workpiece, while lifting and lowering is done by a chain hoist
Handling type	Horizontal, swivelling by 90°	Horizontal, swivelling by 90°, turning by 180°



Vacuum tube lifter Jumbo Sprint



Vacuum lifting device VacuMaster Basic

Vacuum tube lifter Jumbo

Versatile device for lifting and moving with a single medium



Jumbo Ergo, maximum load 85 kg, with double suction pad, for loading and unloading a CNC woodworking centre

The vacuum tube lifter Jumbo is particularly suitable for frequent and fast lifting and moving of cardboard boxes, sacks, barrels, sheets of wood and many other objects weighing up to 300 kg. The load is gripped and lifted with only a single medium, namely vacuum. Neither rope or chain hoists, manipulators nor lifting cylinders are needed for safe lifting and movement.

The first vacuum tube lifter Jumbo was awarded the German "Federal Prize for Excellent Innovations" and has been developed continually since then. A two-year warranty clearly demonstrates our confidence in this product.

Crane systems from Schmalz complement the system solutions designed for specific tasks.

Load classes

The various load classes permit selection of the best Jumbo for handling the desired workpiece.

Jumbo Type	Vacuum generator	Lifting height [mm]	Maximum load, horizontal							
			25 kg	50 kg	75 kg	100 kg	125 kg	150 kg	200 kg	300 kg
Handy 20	Pump/ejector	1700	→							
Handy 30	Pump/ejector	1700	→	→						
Ergo/Sprint 35	Blower/ejector	1700/2100	→	→						
Ergo/Sprint 45	Blower/ejector	1700/2100	→	→ 90° ½ *						
Ergo/Sprint 65	Blower/ejector	1700/2100	→	→ 90° ½ *	→					
Ergo/Sprint 85	Blower/ejector	1700/2100	→	→ 90° ½ *	→	→				
Ergo/Sprint 110	Blower	1700/2100	→	→ 90° ½ *	→	→	→			
Ergo/Sprint 140	Blower	1700/2100	→	→ 90° ½ *	→	→	→	→		
Ergo/Sprint 200	Blower	1700/2100	→	→	→	→	→	→	→	
Ergo/Sprint 300	Blower	1700/2100	→	→	→	→	→	→	→	→

* The maximum load for units with 90° swivelling is 15 to 20 kg lower.

Vacuum tube lifter Jumbo

Versatile device for lifting and moving with a single medium



JumboHandy, maximum load 30 kg, with double suction pad, for handling cardboard boxes



JumboErgo, maximum load 85 kg, with double suction pad, for handling cardboard boxes up to 4 m long



JumboErgo, maximum load 45 kg, with multiple vacuum gripper Compact, for handling non-rigid cardboard boxes



JumboErgo, maximum load 85 kg, with multiple vacuum gripper, for loading and unloading CNC woodworking machines



Jumbo Ergo, maximum load 90 kg, with pneumatic swivelling unit and quadruple suction pads, for handling sheets of wood



JumboErgo, maximum load 70 kg, with pneumatic swivelling unit, for lifting solar modules in a horizontal position and placing them vertically on a commissioning trolley



Jumbo Sprint, maximum load 45 kg, with sack gripper, for handling plastic and paper sacks



JumboSprint, maximum load 65 kg, with sack gripper, for handling sacks in explosion-hazard areas to ATEX



JumboErgo, maximum load 85 kg, with double suction pad, for handling air-conditioning units



JumboHandy, maximum load 30 kg, with single suction pad for commissioning camping tables



JumboErgo, maximum load 45 kg, with double suction pad, for loading gluing machines



JumboErgo, maximum load 65 kg, with round suction pad, for handling rolls of plastic film

The applications shown here are only a few examples of the many different possible applications of the Jumbo. Further applications can be found on our website www.schmalz.com under the link "Applications".

Vacuum tube lifter Jumbo

Construction, functions & performance of the Jumbo

Functionality:

- The load is gripped and lifted by a single medium, namely vacuum.
- A modular system of variable basic components which can be combined in many different ways permits simple adaptation of the unit to meet individual requirements.

Safety:

- A quick-acting non-return valve and the large area of the suction pad(s) ensure that the load is not dropped – even if the electric power or the compressed-air supply fails.
- The design complies with the German accident-prevention regulations (BGR/BGV 500).

Ergonomics:

- Compliance with the latest ergonomic considerations ensures that the use of the Jumbo does not endanger the health of the user.

Ergonomic controls for almost every application



JumboHandy pistol-grip

- Precise movement and positioning of loads at bench-top heights (horizontal movement)
- Ideal one-hand operation for light objects which have to be moved frequently



JumboSprint

- Accurate and precise handling of heavy and unwieldy loads in rough surroundings
- The load is lowered by pushing the handle down and lifted by raising the handle
- Safe positioning of sacks, slabs, bales of raw rubber, etc.
- Safety and a healthy posture at all working heights



JumboErgo

- Fast and precise handling of light and heavy loads with the aid of the twist grip (similar to that on a motorcycle)
- The load is lowered by lowering the wrist and lifted by raising it
- Safety and a healthy posture at all working heights



JumboHandy bow handle

- Ergonomic operation and guidance over a large lifting range (vertical movement)
- Ideal one-hand operation for light objects which have to be moved frequently



JumboSprint Mini

- Operation as for JumboSprint
- Compact shape for easy insertion into mesh boxes, cartons, etc.



JumboErgo with hinged operator handle

- Operation as for JumboErgo
- Ergonomical handling of loads at great heights or for picking up from the floor



Lifting unit

- A wide range of lifting units are available, depending on the maximum load, the lifting height and the workpiece weight.
- Compact design and easy handling thanks to the single-tube system.
- 2 standard lifting strokes:
 - 1700 mm
 - 2100 mm
- Optionally available in stainless steel.
- Optionally available for use in explosion-hazard areas to ATEX.



Long-life vacuum generators

Three different vacuum generators are available, depending on the surface finish and the weight of the workpieces to be lifted:



Vacuum pumps EVE 25/40

- Electrically powered vacuum generators for the JumboHandy



Ejectors SEM 100/300

- Pneumatically powered vacuum generators for the JumboHandy, JumboErgo and JumboSprint
- Optionally available for use in explosion-hazard areas to ATEX



Blowers SB-M, SB-L and SB-V

- Vacuum blowers for the handling of porous workpieces with the JumboSprint and JumboErgo.
- Blower SB-V is frequency-regulated for optimal adjustment of the suction capacity and the vacuum to the requirements of many different applications.
- Blower SB-L Ex is suitable for use in explosion-hazard areas to ATEX



Vacuum tube lifter Jumbo

Suction pads galore

Eight different standard suction pads and many customer-specific suction pads are available for your application.



Quick-change adapter SWA

- With the optional quick-change adapter SWA, all suction pads can be changed in a matter of seconds



Single suction pad EG

- For rigid cartons, sheets, furniture elements, etc.



Single suction pad EG-long

- For pallets, narrow cartons, beams, square-section tubes, etc.



Round suction pad RG

- For barrels, cans or stone slabs with rough surfaces



Sack gripper SG

- For paper and plastic sacks, raw-rubber bales, film-packed products, etc.



Double suction pad DG

- For stapled, glued, banded or open cartons, also for crates, pallets, etc.
- The two suction pads can be positioned freely on a cross beam



Quadruple suction pad VG

- For cartons, sheets and non-rigid objects.
- The suction pads can be positioned freely in both directions



Double suction pad FM

- For product layers, pallets, sheets with holes, aluminium sections, etc. Particularly for workpieces where the gripper does not have 100% coverage



Multiple suction pad Compact

- For soft cartons such as those with loose lids.
- The suction pads adapt themselves optimally to the shape of the workpiece and ensure very safe handling

Accessories



Dust filter STF

- For handling dirty objects or working in dusty surroundings
- Easy maintenance with replaceable filter cartridges
- Optionally available with filter monitoring



Motor protection switch MSS

- For switching the vacuum generator on and off.
- To protect the vacuum generator against excessively high currents



Radio remote control FFS

- For switching the vacuum generator on and off from a distance
- Integrated overcurrent protection
- Radio signal can penetrate thin walls, floors and ceilings



Schmalz BlowerBox SBB

- For installation of vacuum blowers and pumps
- Reduces the noise output to only 65 dB (A)
- Optionally available with kit for mounting on a crane column



Pneumatic swivelling unit PSE

- Smooth swivelling by 90°
- Low overall height due to compact design
- Workpiece remains swivelled even if the air supply fails
- Maximum load 120 kg



Manual swivelling unit SE

- For manual swivelling by 90°, e.g. for setting workpieces on end
- Maximum load 85 kg



Feed hose VSL

- Connects the vacuum generator to the vacuum tube lifter Jumbo
- Hoses lengths of up to 50 meters are possible if a hose with an internal diameter of 60 mm is used (as illustrated)



Protective sleeve

- To protect the lifting tube against mechanical damage
- Easy to clean

Parking net

- Space-saving parking of the lifter
- Protects the gripper and the lifting tube while the lifter is not being used



Tube-cylinder extension SZV

- For deep insertion into high-sided crates, cartons, open-grid boxes, etc.



Turning unit DE

- For horizontal turning of objects, e.g. for stacking in alternating orientations
- Handle remains stationary, load can be rotated endlessly
- Maximum load 200 kg

Vacuum tube lifter Jumbo

Customer-specific suction-pad solutions

Jumbo



JumboErgo, maximum load 45 kg, for unstacking canisters on a roller conveyor



JumboErgo, maximum load 140 kg, for lifting four barrels at once



JumboErgo, maximum load 45 kg, for commissioning rolls of textile materials packed in plastic film



JumboErgo, maximum load 85 kg, for handling 48 jam jars



JumboSprint, maximum load 65 kg, stainless steel, for handling foodstuffs in the food industry



JumboErgo, maximum load 140 kg, for commissioning small and medium-sized sheets of aluminum

Vacuum lifting devices VacuMaster

The trendsetting generation of vacuum lifting devices!



VacuMaster Basic, maximum load 250 kg, horizontal, for handling sheets of stainless steel

Vacuum lifting devices VacuMaster are the ideal tools for the handling of sheets of metal, wood and glass, stone slabs, weighing up to 2000 kg. The object to be lifted is gripped by the VacuMaster-and can then be lifted and moved safely with the aid of a crane.

Robustness and reliability are the most important features of this product series. A three-year warranty demonstrates our confidence in these devices. It goes without saying that we comply with all current standards and guidelines for vacuum handling devices; in many cases, we even surpass them.

Crane systems from Schmalz complement the system solution designed for a specific task.

Load classes

Various load classes permit selection of the optimum VacuMaster device for the weight of the load to be lifted

VacuMaster	Maximum load						
	100 kg	125 kg	250 kg	500 kg	1000 kg	1500 kg	2000 kg
VacuMaster horizontal	✓	✓	✓	✓	✓	✓	✓
VacuMaster 90° swivelling	✓	✓	✓	✓	✓		
VacuMaster 180° turning	✓	✓	✓				

Various VacuMaster models are available, depending on the application. These and their specific features are described in more detail on pages 16ff.

Vacuum lifting devices VacuMaster

The trendsetting generation of vacuum lifting devices



VacuMaster Basic, maximum load 250 kg, horizontal, for loading and unloading steel racks



VacuMaster Comfort, maximum load 750 kg, horizontal, for handling of metal sheets



VacuMaster Eco, maximum load 250 kg, horizontal, for loading and unloading of stoneworking machines



VacuMaster Vario, maximum load 1000 kg, horizontal, for loading and unloading plasma-cutting machines



VacuMaster Coil, maximum load 750 kg, horizontal, for handling stainless-steel coils



VacuMaster Comfort, maximum load 125 kg, with 180° turning, for loading CNC machines with sheets of glued wood

The various VacuMaster models and their specific features are described in more detail on pages 16ff.



VacuMaster Multi, maximum load 400 kg, horizontal, for loading a sheet saw with large sheets of wood



VacuMaster RE, maximum load 250 kg, for loading machine tools



VacuMaster Window, maximum load 170 kg, vertical, for handling of multi-casement windows



VacuMaster Light, maximum load 100 kg, horizontal, for loading and unloading CNC machine tools

Customer-specific solutions



VacuMaster, maximum load 140 kg, for moving barrels from a vehicle discharge point to a conveyor belt



VacuMaster Roto, maximum load 1500 kg, for handling moulded halves of rotor blades

The applications shown here are only a few examples of the many different jobs for which the VacuMaster series can be used. Further applications can be found on our website www.schmalz.com under the link "Applications".

Vacuum lifting devices VacuMaster

Construction, function and performance, examples of the VacuMaster Basic/Comfort

Functionality:

- Long lifetime due to extremely robust construction
- Individual adaptation of the device with a compact modular system

Safety:

- Audible warning in the case of a power failure
- Large vacuum reservoir
- Unique manual slide valve prevents incorrect operation
- Clearly visible manometer
- High availability due to maximum reliability

Ergonomy:

- Easy handling thanks to low intrinsic weight
- All controls easily accessible
- Compliance with the latest ergonomic knowledge protects user's health



Operator handle Basic



Operator handle Comfort

Ergonomic operator handle

- Fatigue-free work thanks to the ergonomic arrangement of all control elements
- Easy operation because all main controls are mounted directly on the handle
- Individual handle lengths to match the maximum workpiece dimensions



Unique manual slide valve

- Incorrect operation prevented by non-pinching locking element
- Easy operation, even when wearing gloves
- Double actuation prevents inadvertent dropping of the load



Aluminum main beam with integrated vacuum reservoir and distributor

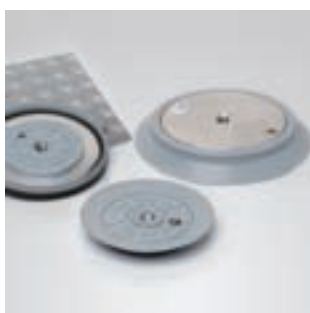
- Fast gripping of workpieces thanks to the large integrated vacuum reservoir
- Load is not dropped even in the case of a power failure
- Compact design due to integrated vacuum distributor
- Corrosion-resistant



Use of a modern technical plastic material

- Easy sliding of the cross beam and the suction pads without scratching
- Low intrinsic weight
- Tested functionality and high reliability





Large range of suction pads

- Individual adaptation of the suction pads to the size and weight of the workpiece
- Suction plates SPU for lifting workpieces with smooth surfaces
- Suction plates SPK for lifting workpieces with structured surfaces such as checker plates



Basic module with integrated functions

- Extremely insensitive to dirt
- Components protected by a robust sheet-metal cover
- Easy operation thanks to easily legible, integrated meters
- Vacuum generator easily accessible for maintenance



Long-life vacuum generators

- Pump size can be selected to match the properties of the workpiece
- Regulated vacuum generators, pump with energy-saving function (Comfort model)
- Country-specific voltages in the range 200-575 V, 50/60 Hz available



Electric linear drive

- Vibration-free swivelling by 90° or 180°
- Low overall height due to compact design
- Short cycle times due to high swivelling speed
- Load remains in swivelled position even if the power fails

Vacuum lifting devices VacuMaster

A wide range of products for almost every application



VacuMaster Basic, 250 kg maximum load, horizontal

VacuMaster Basic – comprehensive basic configuration

For handling of sheets, barrels etc.

- Extremely versatile vacuum lifting device
- Pump size, operator-handle length, suction pads, main and cross beam can be selected to match specific applications
- Main beam with integrated vacuum reservoir and distributor
- Ergonomic operator handle
- Electronic warning device, non-return valve
- Optionally with 90° swivelling or 180° turning of the load (see Page 17)
- Maximum load 125 to 750 kg

Type	Maximum load, horizontal/vertical [kg]	Workpiece format		Handling of the load	Number of suction pads	Overall height [mm]	Intrinsic weight [kg]
		Maximum [mm]	Minimum [mm]				
VacuMaster Basic 125	125 / 0	4000 x 2000	250 x 250	horizontal	1, 2, 4, 6, 8	410 - 555	34 - 82
VacuMaster Basic 250	250 / 0	4000 x 2000	360 x 360	horizontal	1, 2, 4, 6, 8	410 - 555	37 - 74
VacuMaster Basic 500	500 / 0	4000 x 2000	740 x 590	horizontal	2, 4, 6, 8	570 - 635	69 - 95
VacuMaster Basic 750	750 / 0	4000 x 2000	780 x 470	horizontal	4, 6, 8	570 - 635	89 - 106



VacuMaster Comfort, 750 kg maximum load, horizontal

VacuMaster Comfort – with "high-end" features

Basic configuration like the VacuMaster Basic – but with the following additional features:

- Ergonomically integrated push-button controls for "chain hoist up/down", "vacuum on/off" and, on devices with swivelling option, "vertical /horizontal"
- Solenoid valve with two-hand actuation for "vacuum off"
- Regulated vacuum generator, pump with automatic energy-saving function
- Delivered complete with chain hoist
- Optional: chain hoist with frequency-regulated motor
- Maximum load 125 to 750 kg

Type	Maximum load, horizontal/vertical [kg]	Workpiece format		Handling of the load	Number of suction pads	Overall height [mm]	Intrinsic weight [kg]
		Maximum [mm]	Minimum [mm]				
VacuMaster Comfort 125	125 / 0	4000 x 2000	250 x 250	horizontal	1, 2, 4, 6, 8	445 - 590	42 - 84
VacuMaster Comfort 250	250 / 0	4000 x 2000	360 x 360	horizontal	1, 2, 4, 6, 8	445 - 590	45 - 82
VacuMaster Comfort 500	500 / 0	4000 x 2000	740 x 590	horizontal	2, 4, 6, 8	605 - 670	82 - 108
VacuMaster Comfort 750	750 / 0	4000 x 2000	780 x 470	horizontal	4, 6, 8	605 - 670	103 - 120

Further information can be found in our brochure "Branch Solutions", which can be ordered free of charge with the reply fax on Page 29.

Swivelling by 90° or turning by 180°



VacuMaster Basic, maximum load 250 kg, with 90° swivelling, for handling sheets of plastic

Swivelling workpieces by 90°

VacuMaster Basic and VacuMaster Comfort

- Vibration-free swivelling of workpieces with electrically powered linear drive
- Ergonomic operation thanks to the very compact and weight-optimized design
- Maximum load 125 to 500 kg

Type	Maximum load, horizontal/vertical [kg]	Workpiece format		Handling of the load	Number of suction pads	Overall height [mm]	Intrinsic weight [kg]
		Maximum [mm]	Minimum [mm]				
VacuMaster Basic 125	125 / 125	4000 x 2000	720 x 440	horizontal/vertical	2, 4, 6, 8	720 - 800	78 - 89
VacuMaster Basic 250	250 / 250	4000 x 2000	870 x 720	horizontal/vertical	2, 4, 6, 8	720 - 800	94 - 100
VacuMaster Basic 500	500 / 500	4000 x 2000	1230 x 720	horizontal/vertical	6, 8	1030	160
VacuMaster Comfort 125	125 / 125	4000 x 2000	720 x 440	horizontal/vertical	2, 4, 6, 8	720 - 800	78 - 89
VacuMaster Comfort 250	250 / 250	4000 x 2000	870 x 720	horizontal/vertical	2, 4, 6, 8	720 - 800	94 - 100
VacuMaster Comfort 500	500 / 500	4000 x 2000	1230 x 720	horizontal/vertical	6, 8	1030	160



VacuMaster Comfort, maximum load 125 kg, with 180° turning, for handling panes of glass

Turning workpieces by 180°

VacuMaster Basic und VacuMaster Comfort

- Vibration-free turning of workpieces with electrically powered linear drive
- Narrow basic body provides a good view of the work-piece
- Adaptable to varying workpiece sizes and shapes
- Ergonomic operation thanks to the very compact and weight-optimized design
- Maximum load 75 to 250 kg

Type	Maximum load, horizontal/vertical [kg]	Workpiece format		Handling of the load	Number of suction pads	Overall height [mm]	Intrinsic weight [kg]
		Maximum [mm]	Minimum [mm]				
VacuMaster Basic 75	75 / 75	2500 x 1250	680 x 410	horizontal/vertical	2, 4, 6, 8	1025 - 1105	74 - 96
VacuMaster Basic 125	125 / 125	2500 x 1250	640 x 440	horizontal/vertical	2, 4, 6, 8	1025 - 1105	87 - 99
VacuMaster Basic 250	250 / 250	4000 x 2500	860 x 440	horizontal/vertical	4, 6, 8	1640	137 - 143
VacuMaster Comfort 75	75 / 75	2500 x 1250	680 x 410	horizontal/vertical	2, 4, 6, 8	1025 - 1105	75 - 96
VacuMaster Comfort 125	125 / 125	2500 x 1250	640 x 440	horizontal/vertical	2, 4, 6, 8	1025 - 1105	87 - 99
VacuMaster Comfort 250	250 / 250	4000 x 2500	860 x 440	horizontal/vertical	4, 6, 8	1640	139 - 145

Vacuum lifting devices VacuMaster

A wide range of products for almost every application



VacuMaster Vario, maximum load 1000 kg, horizontal, for loading and unloading plasma-cutting machines

VacuMaster Vario

For horizontal handling of heavy, mainly non-porous workpieces

- Particularly suitable for loading machines with sheets of metal
- Modular design permits easy adaptation to specific applications
- Safe operation thanks to the large vacuum reservoir and the electronic warning device
- Maximum load 1000 to 2000 kg

Type	Maximum load, horizontal/vertical [kg]	Workpiece format		Handling of the load	Number of suction pads	Overall height [mm]	Intrinsic weight [kg]
		Maximum [mm]	Minimum [mm]				
VacuMaster Vario 1000-1	1000 / -	2500 x 1500	900 x 520	horizontal	1	630	104
VacuMaster Vario 1000-4	1000 / -	3000 x 1500	1150 x 810	horizontal	4	750	162
VacuMaster Vario 1000-8	1000 / -	4000 x 2000	1580 x 500	horizontal	8	935	252
VacuMaster Vario 2000-2	2000 / -	3000 x 1500	1230 x 900	horizontal	2	820	229
VacuMaster Vario 2000-8	2000 / -	4000 x 2000	2030 x 760	horizontal	8	1000	345



VacuMaster Eco, maximum load 1000 kg, horizontal, for loading and unloading of laser-cutting machines

VacuMaster Eco

For horizontal handling of smooth, air-tight workpieces without an external energy supply

- Safe operation thanks to the battery-powered warning device with battery-test function
- Can be used anywhere, since it requires no external power
- Construction similar to the VacuMaster Basic/Vario
- Maximum load 250 to 1000 kg

Type	Maximum load, horizontal/vertical [kg]	Workpiece format		Handling of the load	Number of suction pads	Overall height [mm]	Intrinsic weight [kg]
		Maximum [mm]	Minimum [mm]				
VacuMaster Eco 250	250 / -	3000 x 1500	350 x 350	horizontal	1, 2, 4, 6	570 - 840	25 - 68
VacuMaster Eco 500	500 / -	4000 x 2000	480 x 480	horizontal	1, 4, 8	850 - 1120	82 - 131
VacuMaster Eco 750	750 / -	4000 x 2000	360 x 360	horizontal	4, 8	1050 - 1126	109 - 131
VacuMaster Eco 1000	1000 / -	4000 x 2000	625 x 625	horizontal	1, 4, 8	980 - 1390	138 - 309



VacuMaster Coil, 750 kg maximum load, with 90° swivelling, for handling coils and rings of split strip

VacuMaster Coil

For handling coils and rings of split strip

- Particularly suitable for lifting workpieces from a pallet in the horizontal position and placing them on the mandrel in the vertical position.
- Suitable for thin and very thin sheets, metal foil, steel, tin, aluminum, etc.
- Damage-free gripping without mechanical clamps
- Handling of coils with varying diameters with the aid of switchable annular chambers
- Precise, continuous swivelling of the load with the aid of an electromechanical linear drive
- Maximum load 500 to 1000 kg

Type	Maximum load, horizontal/vertical [kg]	Workpiece format		Handling of the load	Number of suction pads	Overall height [mm]	Intrinsic weight [kg]
		Maximum [mm]	Minimum [mm]				
VacuMaster Coil 500-90°	500 / 500	1100	410	horizontal/vertical	1 / 850	1300	150
VacuMaster Coil 750-90°	750 / 750	1300	410	horizontal/vertical	1 / 1050	1300	210
VacuMaster Coil 1000-90°	1000 / 1000	1400	410	horizontal/vertical	1 / 1200	1300	250



VacuMaster Box, 200 kg maximum load, for installation of kitchen elements in mobile homes

VacuMaster Box

For turning over metal boxes

- Particularly suitable for turning over safes, air-conditioner cabinets, large domestic appliances, switchgear cabinets, etc.
- Simple gripping and release of the load thanks to fold-away arm
- Optional: Load can be turned endlessly, either electrically or manually
- Easy adaptation to varying workpieces thanks to continuously adjustable gripping arms
- Maximum load 125 to 250 kg

Type	Maximum load, horizontal/vertical [kg]	Workpiece format		Handling of the load	Number of suction pads	Overall height [mm]	Intrinsic weight [kg]
		Maximum [mm]	Minimum [mm]				
VacuMaster Box 125-360°	125 / 125	1000 x 1200	750 x 360	Endless turning	2	1000	80
VacuMaster Box 250-360°	250 / 250	1000 x 1200	750 x 360	Endless turning	2	1000	150

Further information can be found in our brochure "Branch Solutions, Metal", which can be ordered free of charge with the reply fax on Page 29.

Vacuum lifting devices VacuMaster

A wide range of products for almost every application



VacuMaster Multi, maximum load 300 kg, vertical, for loading upright mechanical saws

VacuMaster Multi

For handling of large, air-tight or porous sheets and panels

- Particularly suitable for handling raw and coated chip-board, sheets of MDF and OSB, plasterboard and sheets of plastic
- Ergonomic handling thanks to swivelling operator handle (standard)
- Safe handling of porous sheets thanks to the powerful vacuum blower and the electronic warning device with load detection
- Quick release of the load thanks to the reversing valve on the blower
- Precise swivelling of the load with a geared electric motor
- Maximum load 150 to 400 kg

Type	Maximum load, horizontal/vertical [kg]	Workpiece format		Handling of the load	Number of suction pads	Overall height [mm]	Intrinsic weight [kg]
		Maximum [mm]	Minimum [mm]				
VacuMaster Multi 400-1	400 / -	4100 x 2100	1000 x 675	horizontal	1 / 1000 x 675	520	75
VacuMaster Multi 400-2	400 / -	5600 x 2100	1365 x 1000	horizontal	2 / 675 x 1000	600	105
VacuMaster Multi 400/150-90°-1	400 / 150	4100 x 2100	1000 x 675	horizontal/vertical	1 / 1000 x 675	535	118
VacuMaster Multi 400/300-90°-2	400 / 300	5600 x 2100	1475 x 1000	horizontal/vertical	2 / 675 x 1000	620	148
VacuMaster Multi 400/300-90°-8	400 / 300	5600 x 2100	2200 x 800	horizontal/vertical	8 / 400	635	195



VacuMaster RE, maximum load 250 kg, horizontal, for removing sheets of wood from cantilever-arm racks and placing them on CNC woodworking centres

VacuMaster RE

For horizontal handling of coated or uncoated sheets of wood and sheets of plastic

- Particularly suitable for loading horizontal mechanical saws with sheets from a pallet and for removal of sheets from cantilever-arm racks
- Vacuum generator (ejector) powered by compressed air, 2 vacuum circuits
- Safe handling thanks to an audible warning device and a vacuum reservoir
- Maximum load 250 kg

Type	Maximum load, horizontal/vertical [kg]	Workpiece format		Handling of the load	Number of suction pads	Overall height [mm]	Intrinsic weight [kg]
		Maximum [mm]	Minimum [mm]				
VacuMaster RE 250-4	250 / -	5200 x 2400	1450 x 650	horizontal	4	360	80



VacuMaster HHVM, maximum load 200 kg, swivelling by +/- 90°, for removing sheets from vertical storage racks

VacuMaster HHVM

For handling coated or uncoated sheets of wood and sheets of plastic

- Particularly suitable for removing sheets from vertical storage racks and loading upright or horizontal mechanical saws.
- Load can be swivelled 90° in either direction and locked there
- Damage-free handling by a single person
- Vacuum generator (ejector) powered by compressed air
- Safe handling thanks to an audible warning device and a vacuum reservoir
- Maximum load 100 to 200 kg

Type	Maximum load, horizontal/vertical [kg]	Workpiece format		Handling of the load	Number of suction pads	Overall height [mm]	Intrinsic weight [kg]
		Maximum [mm]	Minimum [mm]				
VacuMaster HHVM 100-4	100 / 100	3500 x 3050	2065 x 525	horizontal/vertical	4 / 315 x 245	325	44
VacuMaster HHVM 200-4	200 / 200	4100 x 3050	2400 x 500	horizontal/vertical	4 / 600 x 220	325	75



VacuMaster VHB, maximum load 500 kg, for handling of rough-sawn planks

VacuMaster VHB

For handling of planks, boards and beams

- Fatigue-free work thanks to the ergonomic operation
- Damage-free handling by a single person
- Problem-free handling of damp workpieces coated with sawdust thanks to water trap and filter
- Safe handling thanks to an electronic warning device and a vacuum reservoir
- Maximum load 250 to 500 kg

Type	Maximum load, horizontal/vertical [kg]	Workpiece format		Handling of the load	Number of suction pads	Overall height [mm]	Intrinsic weight
		Maximum [mm]	Minimum [mm]				
[kg]VacuMaster VHB 250-2	250 / -	6000 x 400	1200 x 120	horizontal	2 / 550 x 100	575	100
VacuMaster VHB 500-2	500 / -	6000 x 500	1200 x 220	horizontal	2 / 550 x 200	575	135
VacuMaster VHB 350/500-2	350 resp. 500 / -	6000 x 500	1200 x 220	horizontal	2 / 550 x 200	575	135

Further information can be found in our brochure "Branch Solutions, Wood", which can be ordered free of charge with the reply fax on Page 29.

Vacuum lifting devices VacuMaster

A wide range of products for almost every application



VacuMaster Window Comfort, maximum load 170 kg, vertical, for handling of multi-casement windows

VacuMaster Window

For handling sheets of glass and window frames

- Optionally available in Comfort version
- Workpiece can be turned 90° to the left and right
- Fatigue-free work thanks to ergonomic operation and low weight
- Handling of multi-casement windows with frame elements thanks to the intelligent arrangement of the suction pads (max. 45 mm)
- Safe handling thanks to an electronic warning device and a vacuum reservoir
- Electric swivelling drive available as an option
- Maximum load 170 to 300 kg

Type	Maximum load, horizontal/vertical [kg]	Workpiece format		Handling of the load	Number of suction pads	Overall height [mm]	Intrinsic weight [kg]
		Maximum [mm]	Minimum [mm]				
VacuMaster Window 170-2	- / 170	2000 x 2000	630 x 300	vertical	2 / 300	770	45 – 53
VacuMaster Window 225-4	- / 225	2000 x 2000	525 x 600	vertical	4 / 250	770	58 – 66
VacuMaster Window 300-4	- / 300	2000 x 2000	620 x 710	vertical	4 / 300	770	62 – 70



VacuMaster Light, maximum load 100 kg, horizontal, for handling painted furniture elements

VacuMaster Light

For handling of air-tight or slightly porous workpieces such as barrels, furniture elements or sections

- Typical applications: assembly of parts, packing, loading of machines, etc.
- Fatigue-free work thanks to ergonomic operation and low weight
- Handling of workpieces of varying shapes and sizes thanks to quick and easy suction-pad adjustment
- Quick commissioning thanks to simple installation (compressed-air supply required)
- Safe handling thanks to intelligent warning device
- Maximum load 100 kg

Type	Maximum load, horizontal/vertical [kg]	Workpiece format		Handling of the load	Number of suction pads	Overall height [mm]	Intrinsic weight [kg]
		Maximum [mm]	Minimum [mm]				
VacuMaster Light 100-1	100 / -	1500 x 800	250 x 250	horizontal	1	250	13
VacuMaster Light 100-4	100 / -	2000 x 800	1000 x 675	horizontal	4	310	15

Accessories



The valve for deactivating individual suction pads or beams simplifies the handling of workpieces of varying shapes and sizes



Swivelling, lockable operator handle for easy control even with a long lifting stroke



CEE plug and coupling for quick disconnect of power to the vacuum lifting device



Compressed-air hose for supplying the lifting device with compressed air



Parking feet for preventing damage to the suction pads

Crane systems and chain hoists

Safety and mobility for vacuum handling systems

Crane

- Designed specifically for use with Jumbo and VacuMaster
- High mobility thanks to low moving mass
- Optimized overall height, can also be used in head-rooms
- Perfect power connections (electricity, compressed air, vacuum)
- Suitable for heavy loads, optionally available with electrically driven movement of the trolley and crane and electric swiveling



Jib crane with Jumbo



Wall-mounted jib crane with chain hoist



Aluminum ceiling mounted bridge crane with chain hoist



Chain hoist

Chain hoists

- High safety level thanks to low voltage on the controls
- Long operating lifetime thanks to limit switches
- Precise and careful positioning thanks to two-speed control
- Fast working thanks to high lifting speeds
- Optionally with frequency regulation for very precise positioning, particularly suitable for handling fragile parts or for assembly operations
- 2-year warranty

Workshop equipment

Indispensable helpers in trade and industry

Damage-free clamping of parts for machining and manual work

- Particularly suitable for workpieces made of wood, glass, metal or plastic
- Simple clamping and release of the workpiece with a foot-operated valve
- Ergonomic working thanks to adjustable height
- Variable: a wide range of round and rectangular suction pads is available
- Vacuum generators powered by electricity or compressed air, optionally with energy-saving function!



Vacuum workbench for machining of sheets of wood

Vacuum workbench PVT

- Workpiece can be swivelled through 180° (vertical – horizontal – vertical)
- Locking at 45° increments with foot pedal
- Manual locking at any desired angle
- Integrated vacuum buffer
- Optionally available with four suction pads
- Optionally available with extension for large workpieces
- Maximum load 90 kg to 180 kg



Locking in 45° increments



Vacuum workbench PVT with elongation



Vacuum work stand PVS for machining of small workpieces

Vacuum workstand PVS

- Quick replacement of suction pads without tools
- Optionally available with 2 or 4 suction pads
- Can be turned endlessly and locked in any desired position
- Can be swivelled by 90° to the vertical position
- Cross-beam can be locked in 45° increments, with end stop
- Sensing valve activates the vacuum when a workpiece is placed on the stand; unused suction pads remain deactivated
- Maximum load 90 kg to 100 kg



Quick replacement of suction pads with the aid of clamping levers



Vacuum work stand PVS with 2 suction pads

Workshop equipment

Indispensable helpers in trade and industry



Vacuum turning bench VWT 180° for turning over workpieces

Vacuum turning bench VWT 180°

For turning over workpieces (by 180°)

- For large sheets of wood, plastic, glass, etc.
- Assembly work or machining of the sheet possible from both sides without releasing and reclamping
- Safety:
 - Workpiece can be released only in the end position
 - Audible warning device
 - Generously dimensioned vacuum reservoir
- Continuous swivelling by 180° in only 10 seconds
- Other suction pads available as option
- Maximum load 100 to 150 kg



Simple operation with clearly designed control panel



Easy adjustment of the suction pads



Transport trolley HW for storage and transport of workpieces

Transport trolley HW

Trolley for damage-free storage and transport of parts

- Suitable, for example, for furniture elements, sheets, section, metal/plastic parts, solar panels, etc.
- Easy transport thanks to four castors, two of which have parking brakes
- Shelf rods covered with solvent-resistant plastic tubes
- Number of levels, depending on model: 12, 16 or 20
- Options
 - Removable shelf rods
 - Additional sets of rods
- Maximum load 240 to 360 kg, depending on model



Transport trolley HW



Transport trolleys HW can be parked in minimum space

Workshop equipment

Indispensable helpers in trade and industry



Transport trolley HWZ for storage and transport of parts



Telescopic transport trolley HWZ



Transport trolley HWZ with robust castors

Transport trolley HWZ

Trolley for damage-free storage and transport of parts

- Suitable, for example, for furniture elements, sheets, section, metal/plastic parts, solar panels, etc.
- Easy transport thanks to four castors, two of which have parking brakes
- Shelf rods covered with solvent-resistant plastic tubes
- Space-saving storage through telescopic construction
- Distance between supports can be adjusted to any desired value
- Number of levels, depending on model: 12, 16 or 20
- Options
 - Loading from both sides
 - Removable shelf rods
 - Additional sets of rods
- Maximum load 240 to 360 kg, depending on model



Transport trolley HWV for storage and transport of workpieces



Transport trolley HWV with continuously adjustable shelf rods



Transport trolley HWV

Transport trolley HWV

Trolley with very high maximum load for damage free storage and transport of parts

- Can be used, for example, for furniture elements, sheets, sections, metal/plastic parts, solar panels, etc.
- Easy to move thanks to four castors, two of which have parking brakes
- Shelf rods covered with solvent-resistant plastic tubes
- Easy adjustment of the rod angle with tension rods and locks on each level
- Very robust design with rigid frame
- One set of rods fixed, one set adjustable
- Further sets of rods (fixed or adjustable) optionally available
- Maximum load up to 480 kg, depending on model

Workshop equipment

Indispensable helpers in trade and industry



Wall rack WA for storage of workpieces (two racks shown)

Wall rack WA

Easy-to-use wall-mounted rack for damage-free storage of workpieces

- Suitable, for example, for use in paint shops for drying of freshly painted workpieces such as doors, strips of wood, sections, furniture front panels, etc.
- Mounting brackets for easy mounting; drilling template included
- Support rods can be swung away to save space
- Rods covered with solvent-resistant plastic tube
- Removable rods as option
- Can be extended as desired
- Maximum load 120 kg per set of rods



Wall rack WA can be folded up to save space



Wall rack WA



Sheet transport trolley PTS 250 removal of sheets from vertical storage racks

Sheet transport trolley PTS 250

Transport trolley for loading and unloading of upright and horizontal mechanical saws

- Workpiece can be lifted and lowered to any desired height with easily-operated jack
- Mechanical swivelling unit for swivelling the workpiece between the vertical and horizontal positions
- Easy transport thanks to four castors, two of which have parking brakes
- Maximum sheet size 5200 x 2100 mm
- Maximum load 250 kg



Services related to vacuum technology

Comprehensive advice any where in the world



How you benefit from Schmalz

- System consultation, including on-site planning
- Fast delivery of devices and systems, and of spare parts
- Complete systems (including crane and, if applicable, chain hoist)
- High degree of flexibility, even for customer-specific solutions
- Comprehensive after-sales service with regular inspection and maintenance
- Worldwide presence
- At least two year's warranty on all products
- Reliable spare-parts management to ensure the shortest possible down times
- Inspection in accordance with BGR/BGV 500
- Further services can be found at www.schmalz.com

What can we do for you?

Do you have questions about the Schmalz vacuum handling systems?

Our team is at your service:

Tel. +49 (0)7443 2403 301

Would you like a personal consultation, or are you interested in further information?

If so, please fill out this reply fax and send it back:

Fax +49 (0)7443 2403 399

☐ I would like a personal consultation – please call me to arrange a time

I am interested in the branch solutions from Schmalz.

Please send me further information free of charge:

- ☐ Branch solutions, metal
- ☐ Branch solutions, wood
- ☐ Branch solutions, packing/logistics
- ☐ Branch solutions, chemical industry

Name: _____

Company: _____

Function: _____

Street: _____

Postcode/City: _____

Tel.: _____ Fax: _____

E-Mail: _____



Vacuum Components

Innovative vacuum components from Schmalz offer many users in various sectors of industry reliable support in the solution of automation and handling tasks. The wide range of components extends from suction pads and vacuum generators to mounting elements and system monitoring devices.

Tel. +49 (0)7443 2403 102

Fax +49 (0)7443 2403 597

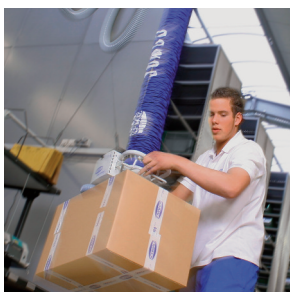


Vacuum Gripping Systems

Complex vacuum gripping systems from Schmalz permit decisive productivity improvements to be achieved. The range extends from layer and large-area gripping systems to complete vacuum spiders, delivered ready for connection, for use in all areas of automation.

Tel. +49 (0)7443 2403 107

Fax +49 (0)7443 2403 596



Vacuum Handling Systems

Ergonomical vacuum lifting devices Jumbo and VacuMaster for effortless, damage-free handling of workpieces. Crane systems to supplement these to form complete system solutions which are precisely matched to the planned application. Workshop equipment as practical aids in trade and industry.

Tel. +49 (0)7443 2403 108

Fax +49 (0)7443 2403 399



Vacuum Clamping Systems

Future-oriented vacuum clamping technology from Schmalz is the intelligent response to the continually increasing demands for more productivity and economic operation of CNC machine tools.

Tel. +49 (0)7443 2403 109

Fax +49 (0)7443 2403 595