



Vacuum Lifting Cylinders

MORALI



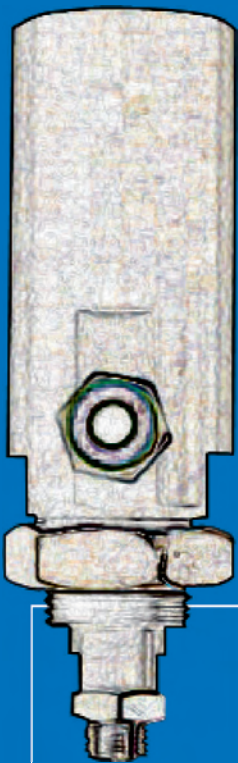
Vacuum Technology
Vacuum Suction Cups
Vacuum Lifting Cylinders



Vacuum Lifting Cylinders



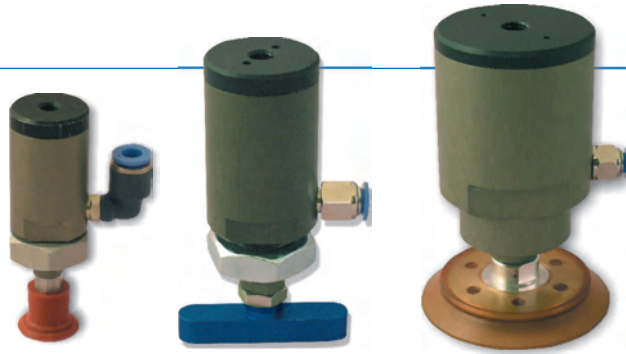
All-Purpose Models
non-twisting



High-Speed Models

Uses of Lifting Cylinders

- ☐ Lifting and stacking a great variety of flat workpieces (e.g. cardboard, veneer, wood, glass and metal sheets)
- ☐ Separating sheets of paper and plastic foil
- ☐ Removing parts from injection-molding dies
- ☐ Printing, packaging and CD/DVD industries are preferable fields of application



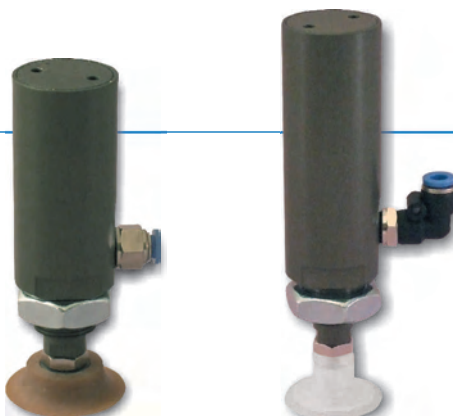
Three different sizes with non-twisting piston rod for positionally accurate lifting of workpieces.

Operating Principle of all Types

Vacuum lifting cylinders are connected to a vacuum generator (ejector or vacuum pump). The vacuum is applied through a three-way valve that should be mounted in close proximity to the lifting cylinder. The piston of the latter moves out instantaneously until the lip of the suction cup makes positive contact with the workpiece, whereupon it snaps back to its starting position. The workpiece is held until the valve cuts off the vacuum, causing the workpiece to drop.

Practical benefits

- ☐ The entire work cycle is controlled by application of the vacuum.
- ☐ No additional valves or cylinders are required.
- ☐ Brief cycle times, since additional lifting cylinders are not needed.
- ☐ Vacuum penetration of porous parts is prevented by brief cycle times.
- ☐ Leveling out of height differences on workpiece.
- ☐ Maintenance-free due to special slide bearings (IGUS®).



Two sizes without non-twisting feature. Lifting pistons with double slideways permit brief cycle times and good holding forces even in the case of lateral forces.

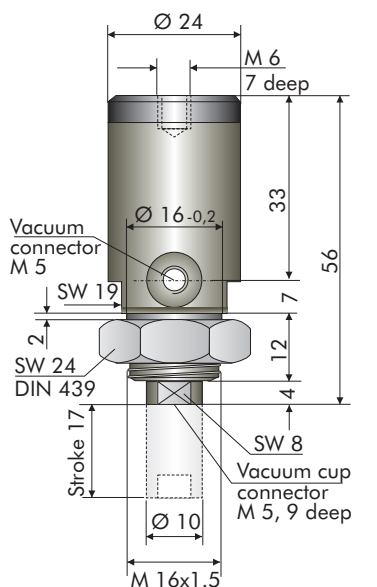
Vacuum Lifting Cylinders

non-twisting

All-purpose Models

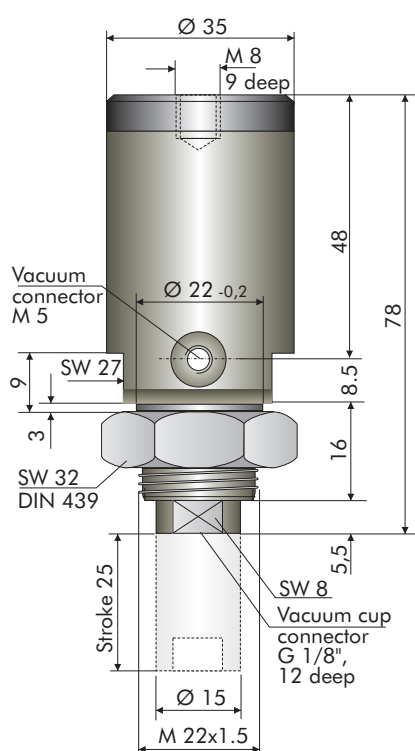


VHZ.17V

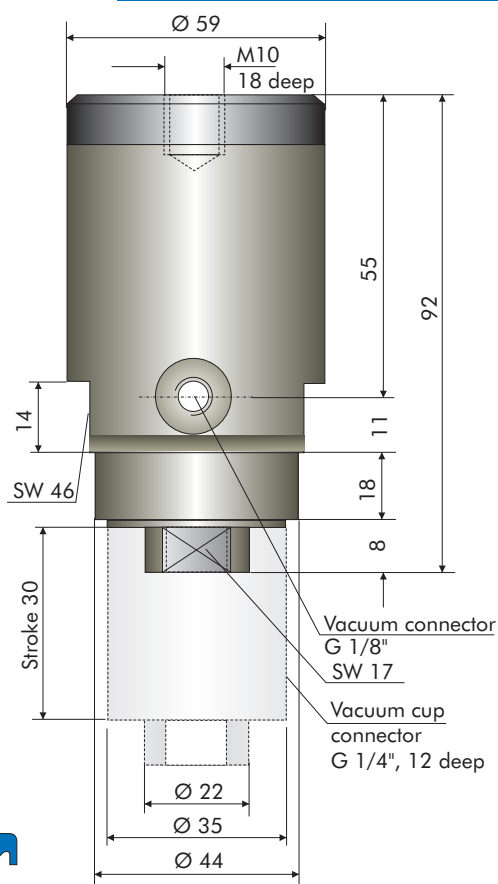


SW = width A/F

VHZ.25V



VHZ.30V



Mounting Variants

VHZ.17V+ VHZ.25V



VHZ.30V



Please specify your application and the workpiece or material to be lifted so that we may recommend suitable vacuum cups and fittings.

Specification

VHZ.17V

VHZ.25V

VHZ.30V

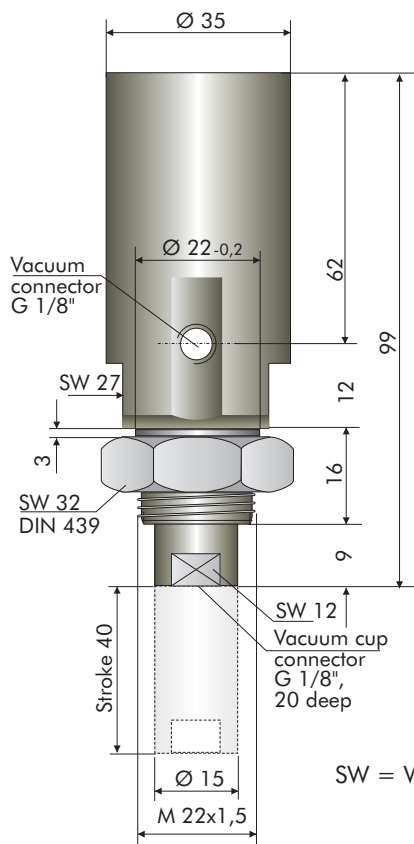
Stroke	mm	17	25	30
Lifting capacity at 80% vacuum	N / kg	5 / 0.5	12 / 1.2	70 / 7.0
Required volume flow at 60 % vacuum	NL/min	> 5	> 7.5	> 25
Cycle time/Up-and-down stroke	sec	< 0.3	< 0.4	< 0.7
Weight	g	50	145	310
Operating temperature	°C	5 - 80	5 - 80	5 - 80
Work cycles		approx. 30 Mio.	approx. 30 Mio.	approx. 30 Mio.
Recommended fitting		M 5 x Ø 6	M 5 x Ø 6	1/8" x Ø 8
Recommended vacuum hose	Art.No.	TPL4 (6x4)	TPL4 (6x4)	TPL6 (8x6)
Recommended vacuum generator	Art.No.	PVP2 (~2 m³/h)	PVP3 (~3 m³/h)	PVP7 (~7 m³/h)
Recommended 3/2-way-vacuum valve	Art.No.	07 01 16 (24 VDC or 230 VAC)		



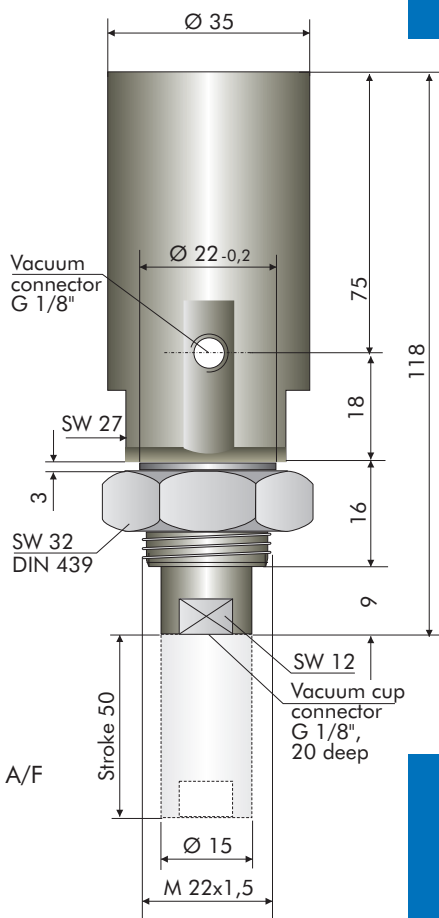
Vacuum Lifting Cylinders

High-Speed Models

VHZ.40



VHZ.50



Mounting Variants VHZ.40+ VHZ.50



Please specify your application and the workpiece or material to be lifted so that we may recommend suitable vacuum cups and fittings.

Specifications

VHZ.40

VHZ.50

Stroke	mm	40	50
Lifting capacity at 80 % vacuum	N / kg	35 / 3.5	35 / 3.5
Required volume flow at 60 % vacuum	NL/min	> 25	> 25
Cycle time/Up-and-down stroke	sec	< 0,25	< 0,25
Weight	g	190	215
Operating temperature	°C	5 - 80	5 - 80
Work cycles		approx. 40 Mio.	approx. 40 Mio.
Recommended fitting		1/8" x Ø 8 mm	1/8" x Ø 8 mm
Recommended vacuum hose	Art.No.	TPL6 (8x6)	TPL6 (8x6)
Recommended vacuum generator	Art.No.	PVP7 (~7 m³/h)	PVP7 (~7 m³/h)
Recommended 3/2-way-vacuum valve	Art.No.	07 01 16 (24 VDC or 230 VAC)	

Request for Information

Fax +49 (0)741-17 52 60-29

Company	Telephone
Name	Fax
Road	e-mail
ZIP Code/City	www.
Country	Industry:

We are interested in the products marked below and request

- ☐ Your telephone call
- ☐ Detailed documentation
- ☐ Your visit following appointment by telephone

☐ Flat vacuum cups



☐ Bellows vacuum cups



☐ Oval-/rectangular vacuum cups



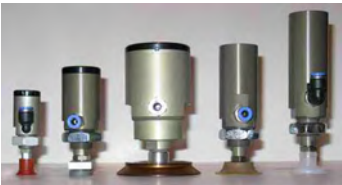
☐ Vacuum cup accessories



☐ Vacuum accessories

Vacuum generators
Vacuum valves, filters,
Special vacuum hoses
Quick-release couplers

☐ Vacuum lifting cylinders



☐ Dedicated grippers



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MORALI - Line of Products

We make vacuum cups, from mini-batches to large series, with consistently high quality, at reasonable prices.

MORALI GmbH not only has an extensive line of standard products but is also your competent partner for special solutions - worldwide.

We also make vacuum cups to customers' specifications, putting our extensive experience and technical expertise at your service.

Vacuum-Cup Materials

NBR, natural rubber, silicone, polyurethane, FKM (Viton®), chloroprene rubber, HNBR, EPDM, vinyl, SBR; antistatic suction cups of silicone or NBR

Additional Products

Vacuum Cups - directly from the manufacturer

Based on over 15 years of practical experience in vacuum technology, we supply the following industries with our products:

- Automation/robotics
- Wood/furniture
- Dairy
- Automotive
- Ceramics/porcelain
- Solar
- CD/DVD
- Cosmetics
- Special-purpose machinery
- Printing and paper
- Plastics
- Foodstuffs/beverages
- Stone working
- Electronics
- Medicine
- Packaging
- Glass

Flat Vacuum Cups

from Ø 1 to Ø 1000 mm and larger



Bellows Vacuum Cups

from Ø 4 to Ø 400 mm and larger



Oval-/Rectangular Vacuum Cups

from 4 x 2 to 400 x 1000 mm



Vacuum-Cup Accessories

Fittings, rigid or spring-loaded cup levelers, flow valves, plunger valves



Special-Purpose Vacuum Cups

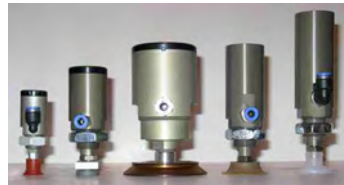
- **High-temperature cups** (up to +550°C) with felt coating from 25 to 350 mm dia.,
- **Detectable vacuum cups** for bakery industry
- **No marking flat, bellows and oval suction cups** from 8 mm dia. (on request).

Vacuum Accessories

We also supply: Vacuum generators, vacuum valves, filter, special vacuum hoses, quick-release fittings

Vacuum Lifting Cylinders

in five different sizes



Dedicated Grippers

(with and without query)



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