

### Suction Plates ESP

Consists of:

- For the direct coupling to the operating valve unit or the hose cylinder extension.
- One or more suction plates with attached foam rubber seal, including lifter for tactile steering.

Type	Dimension		Working Load Limit WLL		Order-Number
	mm	(in)	kg**	(lbs)	
ESP-35-20/20	200 x 200	(7 <sup>3</sup> / <sub>4</sub> " x 7 <sup>3</sup> / <sub>4</sub> ")	35***	(75)***	4210.0050
ESP-50-23/23	230 x 230	(9" x 9")	50***	(110)***	4210.0561
ESP-85-25,5/25,5	255 x 255	(10" x 10")	85***	(185)***	4210.0051
ESP-150-31/31	310 x 310	(12 <sup>1</sup> / <sub>4</sub> " x 12 <sup>1</sup> / <sub>4</sub> ")	150***	(330)***	4210.0145
ESP-150-40/27,5	400 x 275	(15 <sup>3</sup> / <sub>4</sub> " x 10 <sup>3</sup> / <sub>4</sub> ")	150***	(330)***	4210.0116
ESP-150-50/19	500 x 190	(19 <sup>3</sup> / <sub>4</sub> " x 7 <sup>1</sup> / <sub>2</sub> ")	150***	(330)***	5230.0019
ESP-150-92,4/13,4	924 x 134	(36 <sup>1</sup> / <sub>2</sub> " x 5 <sup>1</sup> / <sub>4</sub> ")	150***	(330)***	5230.0008
ESP-150-100/12,4	1000 x 124	(39 <sup>1</sup> / <sub>2</sub> " x 5")	150***	(330)***	5230.0007
ESP-200-33/33	330 x 330	(13" x 13")	200***	(440)***	4210.0331
ESP-250-40/40	400 x 400	(15 <sup>3</sup> / <sub>4</sub> " x 15 <sup>3</sup> / <sub>4</sub> ")	250***	(550)***	4210.0054

For more suction plates contact us for professional advice, or refer to type list 13.5

### Angled Suction Plates WSP

Type	Dimension		Working Load Limit WLL		Order-Number
	mm	in	kg**	lbs	
WSP-150-52/15-12-98°	520x150-120	(20 <sup>1</sup> / <sub>2</sub> "x6"-4 <sup>3</sup> / <sub>4</sub> ")	150***	(330)***	5250.0184
WSP-150-70/8-11-143°	700x80-110	(27 <sup>1</sup> / <sub>2</sub> "x3"-4 <sup>1</sup> / <sub>4</sub> ")	150***	(330)***	4210.0238
WSP-150-70/11-17-143°	700x110-170	(27 <sup>1</sup> / <sub>2</sub> "x4"-6 <sup>3</sup> / <sub>4</sub> ")	150***	(330)***	4210.0126
WSP-150-85/7-7-135°	850x70-70	(33 <sup>1</sup> / <sub>2</sub> "x2 <sup>3</sup> / <sub>4</sub> "-2 <sup>3</sup> / <sub>4</sub> ")	150***	(330)***	5230.0018
WSP-150-70/13-10-143°	700x130-100	(27 <sup>1</sup> / <sub>2</sub> "x5"-4")	150***	(330)***	5250.0131
WSP-150-90/10-14-93°	900x100-140	(35 <sup>1</sup> / <sub>2</sub> "x4"-5 <sup>1</sup> / <sub>2</sub> ")	150***	(330)***	5230.0033

### Multiple Suction Plates MSP

A modular design system, working with mainly standardised elements. We can therefore produce the appropriate suction plates fast and cost efficient according to customers needs.

- Exchangeable rubber seals with low wearing material, quick and easy to change and without the need for gluing.

► **MSP-X-V... (movable):** multiple suction plate with distance control. If a certain distance between stones is needed, you can fix the distance of the suction pad with a lever at a set distance e.g. 10 mm, so the stones will always have the correct spacing

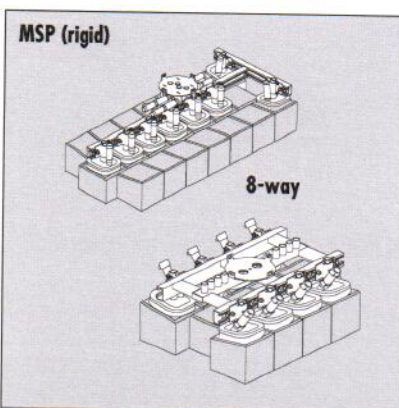
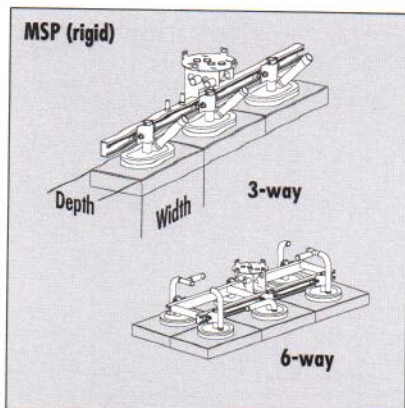
► **MSP-X-S... (rigid):** multiple suction plate with fixed spacing of the suction pads.

Type	Dimension mm (in)	Number of suction plates	Working Load Limit WLL kg (lbs)	Order-Number
MSP-5-V-150-5 x SPS- 24/16-a-24	240 x 160 (9 <sup>1</sup> / <sub>2</sub> " x 6 <sup>1</sup> / <sub>4</sub> ")	8	150*** (330)***	4210.1097
MSP-5-V-150-5 x SPS- 24/16-a-25	240 x 160 (9 <sup>1</sup> / <sub>2</sub> " x 6 <sup>1</sup> / <sub>4</sub> ")	5	150*** (330)***	4210.1077
MSP-5-V-150-5 x SPS- 22/12-a-23,5	220 x 120 (8 <sup>1</sup> / <sub>2</sub> " x 4 <sup>3</sup> / <sub>4</sub> ")	5	150*** (330)***	4210.1083
MSP-7-V-150-7 x SPS-17/16-a-16	170 x 160 (6 <sup>3</sup> / <sub>4</sub> " x 6 <sup>1</sup> / <sub>4</sub> ")	7	150*** (330)***	4210.1096
MSP-7-V-150-7 x SPS-16/14-a-16	160 x 140 (6 <sup>1</sup> / <sub>4</sub> " x 5 <sup>1</sup> / <sub>2</sub> ")	7	150*** (330)***	4210.1078

\*\* Caution: It is forbidden to use suction plates with a smaller working load limit than the lifting unit HE!  
It is permissible to use suction plates with a higher working load limit than the lifting unit.

\*\*\* Value at 420 mbar low pressure

① Durable surface protection by galvanizing



Type	Dimension mm (in)	Number of suction plates	Working Load Limit WLL kg (lbs)	Order-Number
MSP-3-S-85-3 x SPS 23/13-a 35-40	230 x 130 (9" x 6")	3	85*** (185)***	4210.1058
MSP-6 (2x3)-S-200-6 x 19 Rd-a-40	∅ 190 (7 1/2")	6	200*** (440)***	4210.1087

### Accessories

► To speed up laying with high positioning accuracy and thus reduce alignment work, stops can optionally be attached to the multiple suction plates.

Type	Adjustment range mm (in) for	Dead Weight kg (lbs)	Order-Number
MSP-SA Lateral stop (usable on both sides)	Slab width 85 – 330 (3 1/4" – 13")	0,5 (1)	4210.1035
MSP-LA Longitudinal stop	Slab depth 120 – 280 (5" – 11")	3 (7)	4210.1036
MSP-FLA Flexible Longitudinal stop (For movable MSP only)	Slab depth 80 – 280 (3" – 11")	3 (7)	4210.1037

► Special multiple suction plates with fixed spacing. Specially designed to lay gutter stones.

Type	Dimension mm (in)	Number of suction plates	Working Load Limit WLL kg (lbs)	Order-Number
MSP-8-S-150-8 x SPS 13/15-a 15	130 x 150 (5" x 6")	8	150*** (330)***	4210.1088
MSP-8 (2x4)-S-150-8 x SPS 13/15	130 x 150 (5" x 6")	8	150*** (330)***	4210.1086

Additional suction plates on request.

### Large-Area Suction Plates FSP

A universal suction plate for the broadest range of stone configurations, regardless of the number of individual stones, regardless of how the joints run: the highly innovative FSP surface suction plate now covers this task for all devices and machines with vacuum tube lifters. The vacuum tube lifting devices such as JUMBO-BV-VARIO, JUMBOMOBIL JM-VARIO, TRANSMOBIL TM and UNIPOSE UP-1204 can therefore be used on a considerably wider scale for laying stone elements.

For direct coupling to the operating unit or hose cylinder extension.

Comprising:

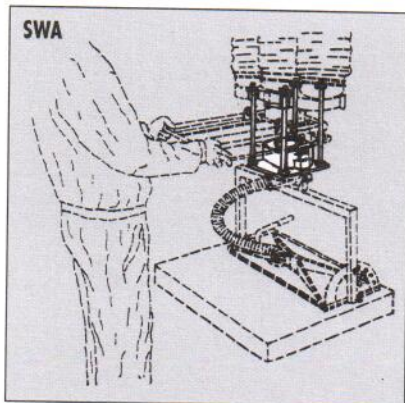
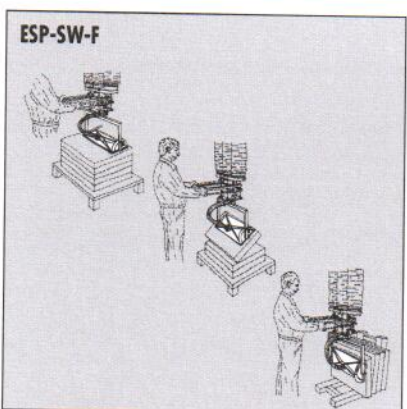
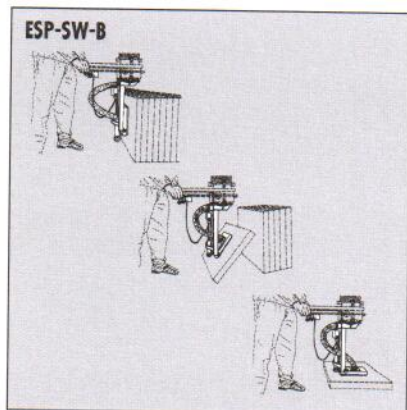
► Suction box with stuck-on sponge rubber mat. The sponge rubber layer is easy to replace. Careful handling of the vacuum seal is essential.

Type	Dimension mm (in)	Working Load Limit WLL kg (lbs)**	Order-Number
FSP-150-56/61	560 x 610	150***	4211.0017
FSP-150-82/20	820 x 200	150***	4211.0004

Additional suction plates on request.

\*\* Caution: It is forbidden to use the suction plates with a smaller working load limit than the lifting unit HE! It is permissible to use suction plates with a higher working load limit than the lifting unit.  
\*\*\* Value at 420 mbar low pressure

● Durable surface protection by galvanizing



## Vacuum Hose Lifter Components

### Tiltable suction plate ESP-SW

Suitable for different applications of vacuum hose lifting devices:

#### with automatic retraction ESP-SW-B

- ▷ Specially designed for the laying of slabs, which are delivered to site in vertical position, but have to be placed in horizontal position.
- ▷ Slabs can be lifted in vertical position.

▷ Tilting into the horizontal position controlled by pulling a hand lever.

▷ After the installation of the slab in horizontal position, the suction plate retracts itself into vertical position by a gas spring, when the hand lever is pulled once more.

Type	Dimension mm (in)	Working Load Limit WLL kg (lbs)	Order-Number
ESP-SW-B-H-VH-150-33/33-0	330 x 330 (13" x 13")	150* (330)*	4210.0096

#### with free swiveling action EG-SW-F

- ▷ Specially designed for handling of slabs in natural stone processing factories.
- ▷ When positioning the suction plate out of the center of gravity on a horizontal slab, the slab is tilting itself into the vertical position when lifted. In this position, the slab can be stored vertically on a transportation pallet.
- ▷ When positioning in the center of gravity, the slab stays in the horizontal position when lifted.

▷ Suction plate can be locked in different positions by spring loaded bolt.

▷ With integrated suction release device for easier release of the suction plate from the slab element. Operating of the suction release device only when no load is lifted!

▷ Fastening suitable for Quick Change Adapter SWA 200.

Type	Dimension mm (in)	Working Load Limit WLL kg (lbs)	Order-Number
ESP-SW-F-F-250-75/30-A	750 x 300 (29 1/2" x 11 3/4")	250* (550)*	4210.0095
ESP-SW-F-F-150-40/25-A	400 x 250 (15 3/4" x 9 3/4")	150* (330)*	4210.0190

### Quick Change Adapter SWA

- ▷ Allows exchange of different suction plates within seconds.
- ▷ Essentially necessary for lifting loads of 200 kg and more.

▷ Short design as against SZV (page 5.21), specially suitable for in-plant paketeize works in use with ESP-SW-F-F-250-75/30-A.

Type	Length mm (in)	Max. Working Load Limit WLL kg (lbs)	Order-Number
SWA 200 (long version)	300 (11 3/4")	250* (550)*	4210.0097
SWA 200 (short version)	100 (4")	250* (550)*	4210.0104

\* Value at 420 mbar low pressure