

Flat suction pads (round)

Suction plates SPU



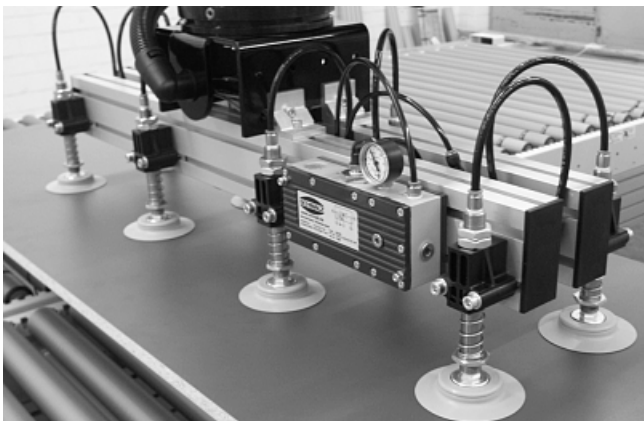
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Our highlights...

- Universal sealing lip
- Supports on the bottom
- Low internal volume
- Wide range of diameters
- Optimized shape

Your advantages...

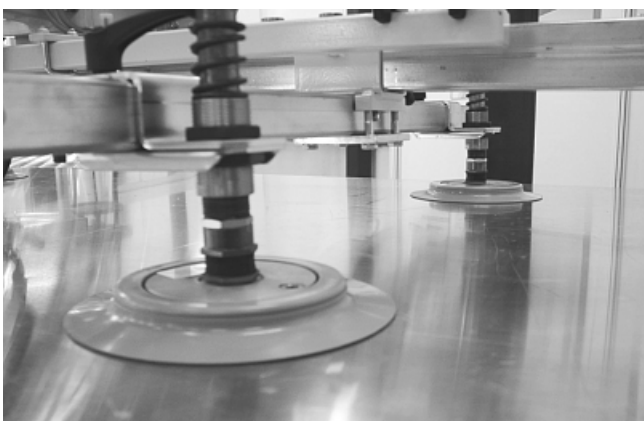
- > Suction pad for all smooth and flat workpieces, also suitable for workpieces with slightly rough or scaly surfaces (such as wood or sheet metal)
- > No permanent deformation of thin-walled workpieces
- > Very short cycle times
- > Wide range of versions for many different workpieces
- > High suction force in spite of small dimensions



Vacuum spider with suction plates SPU for handling coated chipboards

Applications

- Handling of smooth, flat workpieces such as sheets of glass and plastic
- Series SPU B with thicker sealing lip: handling of workpieces with a slightly rough surface, such as wood or scaly metal sheets
- Series SPU AE with integrated peeling insert: handling of thin metal sheets (approx. 1.0 - 2.5 mm); overcomes the self-adhesion between the sheets
- Series SPU TV with sensing valve: deactivation of unused suction pads to prevent the entry of unwanted air



Suction plate SPU mounted on a manually guided vacuum lifting device

Construction

- Robust, hard-wearing suction pad SPU with single sealing lip and additional sealing edge, consisting of seal and aluminium supporting plate
- Seal is clipped securely into the supporting plate with the aid of specially shaped sections
- When worn, the seal can be replaced separately
- Series SPU TV: sensing valve already installed
- Series SPU AE: peeling insert already installed on the bottom
- Excentric vacuum connector normally sealed with a plug (glued into position for extra safety)
- Suction pads are delivered assembled



Suitability for branch-specific applications

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Vacuum suction pads
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Designation code Suction plates SPU

Short designation	Diameter in mm	Material and shore hardness	Connection thread	Additional function
Example: SPU	160	NBR-55	G1/2-IG	TV
SPU	100 to 400	NBR-55 SI-60	G1/4-IG (IG = female) G1/2-IG	TV...sensing valve AE...peeling insert B...steep sealing lip



Ordering data Suction plates SPU

Type	Suction pad material * / hardness in Shore A	
	Perbunan NBR 55±5ShA	Silicone SI 60±5ShA
SPU 100 G1/4-IG	10.01.01.01107	10.01.01.01108
SPU 125 G1/4-IG	10.01.01.01102	10.01.01.01103
SPU 125 G1/4-IG TV	10.01.01.01157	10.01.01.01158
SPU 125 G1/4-IG AE	10.01.01.01159	10.01.01.01160
SPU 160 G1/2-IG	10.01.01.01116	10.01.01.01117
SPU 160 G1/2-IG TV	10.01.01.01153	10.01.01.01154
SPU 160 G1/2-IG AE	10.01.01.01155	10.01.01.01156
SPU 210 G1/2-IG	10.01.01.01092	10.01.01.01093
SPU 210 G1/2-IG B	10.01.01.10552	-
SPU 210 G1/2-IG TV	10.01.01.01149	10.01.01.01150
SPU 210 G1/2-IG AE	10.01.01.01151	10.01.01.01152
SPU 250 G1/2-IG	10.01.01.01097	10.01.01.01098
SPU 250 G1/2-IG B	10.01.01.10589	-
SPU 250 G1/2-IG TV	10.01.01.01209	10.01.01.01210
SPU 300 G1/2-IG	10.01.01.01134	10.01.01.01135
SPU 360 G1/2-IG B	10.01.01.10588	-
SPU 400 G1/2-IG	10.01.01.01138	-

*See Section 2, "Basic Principles of Suction-Pad Materials" for further details of materials



Ordering data spare parts suction pads

Type	Suction pad material * / hardness in Shore A	
	Perbunan NBR 55±5ShA	Silicone SI 60±5ShA
DR-SPU 100	10.01.01.01104	10.01.01.01105
DR-SPU 125	10.01.01.01099	10.01.01.01100
DR-SPU 160	10.01.01.01111	10.01.01.01112
DR-SPU 210	10.01.01.01089	10.01.01.01090
DR-SPU 210 B	10.01.01.10502	-
DR-SPU 250	10.01.01.01094	10.01.01.01095
DR-SPU 250 B	10.01.01.10579	-
DR-SPU 300	10.01.01.01131	10.01.01.01132
DR-SPU 360 B	10.01.01.10584	-
DR-SPU 400	10.01.01.01136	-

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Ordering data spare parts sensing valve

Type	Sensing valve
SPU 125 G1/4-IG TV	10.05.10.00061
SPU 160 G1/2-IG TV	10.05.10.00061
SPU 210 G1/2-IG TV	10.05.10.00061
SPU 250 G1/2-IG TV	10.05.10.00038

Technical data Suction plates SPU

Type	Suction force Ds [N]*	Suction force d2 [N]**	Volume [cm ³]	Min. curve radius [mm] (convex)	Recom. internal hose diameter d [mm]
SPU 100 G1/4-IG	425	185	40	130	9
SPU 125 G1/4-IG	660	365	70	220	9
SPU 125 G1/4-IG TV	660	365	70	220	9
SPU 125 G1/4-IG AE	660	365	60	-	9
SPU 160 G1/2-IG	1090	600	123	350	12
SPU 160 G1/2-IG TV	1090	600	123	350	9
SPU 160 G1/2-IG AE	1090	600	110	-	12
SPU 210 G1/2-IG	1870	1250	226	750	12
SPU 210 G1/2-IG B	1870	1190	301	750	12
SPU 210 G1/2-IG TV	1870	1250	226	750	9
SPU 210 G1/2-IG AE	1870	1250	205	-	12
SPU 250 G1/2-IG	2650	1940	332	-	12
SPU 250 G1/2-IG B	2650	1940	488	-	12
SPU 250 G1/2-IG TV	2650	1940	332	-	12
SPU 300 G1/2-IG	3810	3010	492	-	12
SPU 360 G1/2-IG B	5500	4730	1170	-	12
SPU 400 G1/2-IG	6780	5870	907	-	12

*The specified suction forces are theoretical values at a vacuum of -0.6 bar and with a smooth, dry workpiece surface - they do not include a safety factor

**Suction force referred to the sealing-edge diameter d2

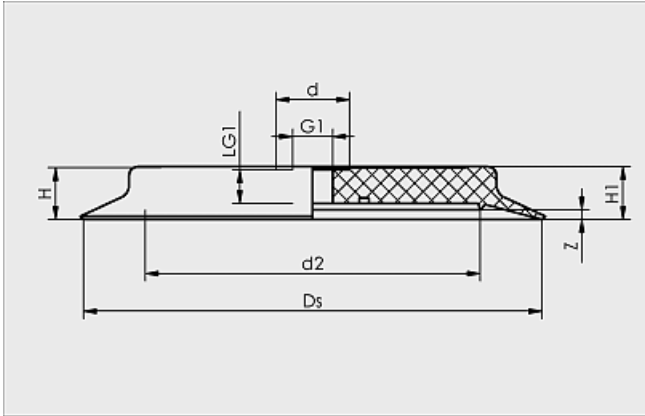
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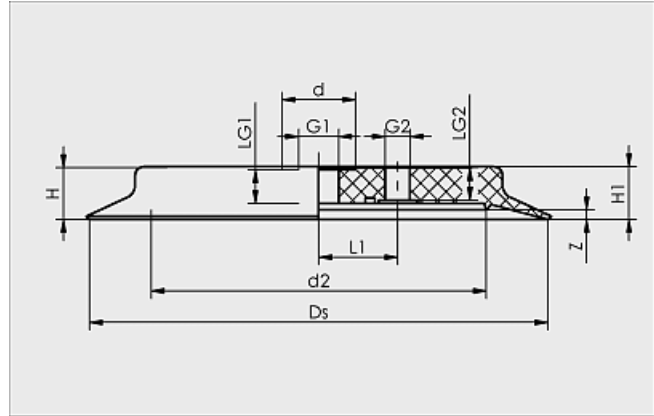


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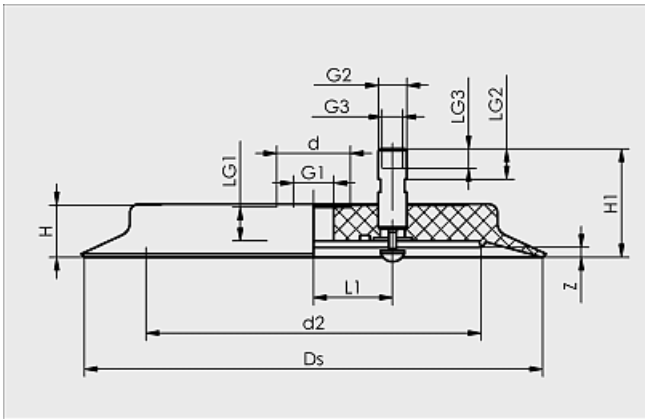
Design data Suction plates SPU



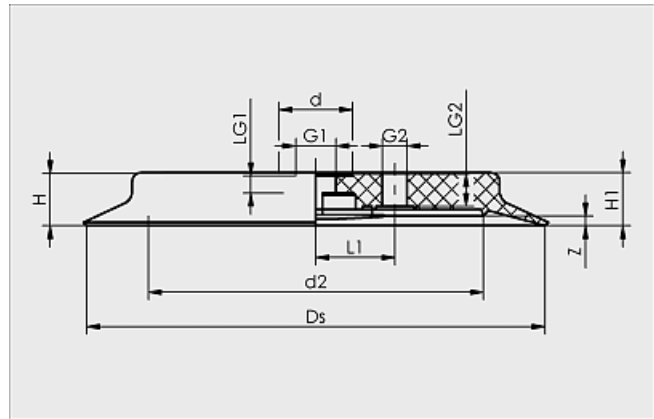
SPU 100



SPU 125 to 400



SPU 125 to 250 TV



SPU 125 to 210 AE

Type	Dimensions in mm*												
	d	d2	Ds	G1	G2	G3	H	H1	L1	LG1	LG2	LG3	Z
SPU 100 G1/4-IG	22	60	100	G1/4"-F	-	-	25,0	26,0	-	13,0	-	-	7
SPU 125 G1/4-IG	22	83	125	G1/4"-F	G1/4"-F	-	25,0	26,0	22,0	13,0	14	-	7
SPU 125 G1/4-IG TV	22	83	125	G1/4"-F	G1/4"-M	G1/8"-F	25,0	50,0	22,0	13,0	13	6	7
SPU 125 G1/4-IG AE	22	83	125	G1/4"-F	G1/4"-F	-	25,0	26,0	22,0	13,0	14	-	7
SPU 160 G1/2-IG	34	113	160	G1/2"-F	G1/4"-F	-	25,0	26,5	36,5	13,5	15	-	7
SPU 160 G1/2-IG TV	34	113	160	G1/2"-F	G1/4"-M	G1/8"-F	25,0	50,5	36,5	13,5	13	6	7
SPU 160 G1/2-IG AE	34	113	160	G1/2"-F	G1/4"-F	-	25,0	26,5	36,5	13,5	15	-	7
SPU 210 G1/2-IG	34	163	210	G1/2"-F	G1/4"-F	-	25,0	26,5	36,5	13,5	15	-	5
SPU 210 G1/2-IG B	34	159	210	G1/2"-F	G1/4"-F	-	29,0	29,5	36,5	13,5	15	-	10
SPU 210 G1/2-IG TV	34	163	210	G1/2"-F	G1/4"-M	G1/8"-F	25,0	51,0	36,5	13,5	13	6	5
SPU 210 G1/2-IG AE	34	163	210	G1/2"-F	G1/4"-F	-	25,0	26,5	36,5	13,5	15	-	5
SPU 250 G1/2-IG	34	203	250	G1/2"-F	G1/2"-F	-	25,0	26,5	76,0	13,5	15	-	7
SPU 250 G1/2-IG B	34	203	250	G1/2"-F	G1/2"-F	-	29,0	30,0	76,0	13,5	15	-	11
SPU 250 G1/2-IG TV	34	203	250	G1/2"-F	G1/2"-M	G3/8"-F	25,0	65,5	76,0	13,5	20	12	7
SPU 300 G1/2-IG	34	253	300	G1/2"-F	G1/2"-F	-	25,0	26,5	76,0	13,5	15	-	6
SPU 360 G1/2-IG B	-	309	360	G1/2"-F	G1/2"-F	-	35,0	35,5	86,0	17,0	17	-	12
SPU 400 G1/2-IG	-	349	400	G1/2"-F	G1/2"-F	-	28,5	29,0	86,0	15,5	17	-	6

*Acceptable dimensional tolerances for rubber parts concerning to DIN 7715 - M3