

## Suction Cups

### HSB

1.5 fold corrugated suction cup

**HANWHA**



Universal



Packing



Plastic

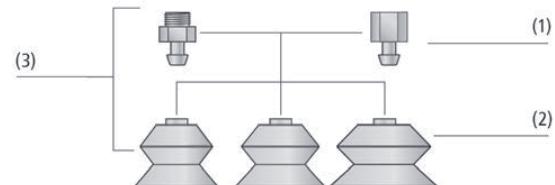
### Product characteristics

- \*Handling fragile and vulnerable workpieces, such as electronic components, injection molded parts, etc
- \*Handling workpieces with flat or uneven surfaces, such as cardboard boxes, pipes, etc
- \*Wide size range
- \*The top of the suction cup has a reinforced rib structure
- \*The suction cup is soft and can be customized with multiple materials



### Product structure

- \*Durable and wear-resistant 1.5-fold corrugated suction cup HSB (3), with special grooves and internal support structure
- \*The suction cup has multiple connection forms to choose from (1)
- \*Multiple sizes and materials of suction cups are available (2)



### Product advantages

- \*Suitable for workpieces of different shapes and sizes
- \*Strong adaptability to uneven surface workpieces
- \*Compensating for height differences in workpieces, providing good cushioning performance when in contact with workpieces
- \*Handling thin-walled workpieces will not cause permanent deformation



\*HSB moving car glass



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HSB Ordering NO

HSB - 5 - FG02 - SI

1-Series	Suction Cup	2-Diameter	5~150	φ5~150mm	3-Crew thread	G02-G1/4
HSB					F Internal thread	G04-G1/2

4-Material <sup>(1)</sup>	
SI	Silicon rubber
SI-W	Anti static (white)
NBR	Nitrile rubber
NBR-B	Anti static (black)
H1	High temperature material(blue)
H2	High temperature material(black)

M External thread	M5
	G01-G1/8
	G02-G1/4
	G03-G3/8

(1)Other materials can also be made, please contact us



HSB Selection specification

Models	F-G02-G1/4	F-G04-G1/2	M-M5	M-G01-G1/8	M-G02-G1/4	M-G03-G3/8
HSB5			◎			
HSB6			◎			
HSB8			◎			
HSB10			◎			
HSB11				◎		
HSB14				◎		
HSB16				◎		
HSB20				◎		
HSB22				◎		
HSB25				◎		
HSB33	◎				◎	
HSB43	◎				◎	
HSB53	◎				◎	
HSB63	◎				◎	
HSB78	◎				◎	◎
HSB110		◎				
HSB150		◎				



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### HSB Technical Data

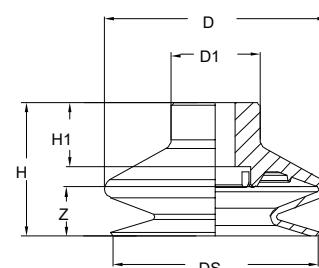
Models	Suction[N] <sup>(2)</sup> -60Kpa	Pull-out force[N] <sup>(2)</sup> -60Kpa	Internal volume [cm <sup>3</sup> ]
HSB-5	0.3	0.8	0.1
HSB-6	0.4	1.4	0.12
HSB-8	0.6	1.6	0.15
HSB-10	0.8	3.4	0.18
HSB-11	0.95	3.8	0.2
HSB-14	1.2	5	0.4
HSB-16	2.3	6.7	0.8
HSB-20	4.7	10.7	1.2
HSB-22	5.0	15.2	1.4
HSB-25	5.3	17.3	3.2
HSB-33	13.6	39.6	4.8
HSB-43	22.8	64.5	11.4
HSB-53	51.3	95	26
HSB-63	85	135	44
HSB-78	137.4	218	76
HSB-110	280	570	330
HSB-150	570	1000	800

(2) The measured surface of the workpiece is smooth and dry, with a vacuum degree of -60KPa.

The above data does not include the safety factor. The values may vary depending on the surface condition of the workpiece.



### HSB 5~78 Design Data



Size[mm]<sup>(3)</sup>

Models	D	H	H1	DS	D1	Z	Weight [g]
HSB5	6.2	6.9	2	5.2	7.4	2.3	0.07
HSB6	7.4	9	2	6	7.4	4	0.16
HSB8	9.8	12.9	2	8	7.4	4.4	0.44
HSB10	12	14.9	2	10	7.4	5.3	0.71
HSB11	12	16.2	7	10.3	10.3	5.8	0.87
HSB14	13.6	15.7	7	12.9	10.3	7	0.92
HSB16	17	19	7	15.7	10.3	7.5	1.18
HSB20	20	15	7	17.7	10.3	6	1.39
HSB22	24.3	18.5	7	22.4	10.3	7	1.76
HSB25	24.8	23	7	22.6	10.3	10.5	2.56
HSB33	36	27	13	32	18.4	10	6.98
HSB43	46	28	13	43	18.4	10	12.12
HSB53	58.5	33.8	13	52.7	18.4	14.3	18.82
HSB63	67	34	13	63.1	18.6	16.8	26.37
HSB78	83	47	21	78	25	21.5	60.9

HSB5~78 Dimension



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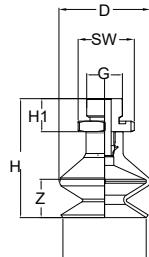
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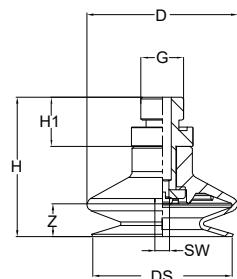
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HSB5~25 External thread

Size[mm]<sup>(3)</sup>

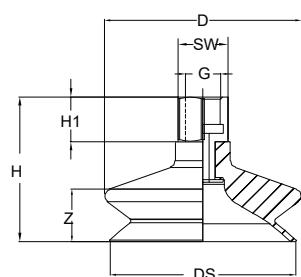
Models	D	H	H1	G	DS	SW	Z	Weight [g]
HSB5-M5-M	6.2	15.4	2	M5	5.2	8	2.3	0.8
HSB6-M5-M	7.4	18	2	M5	6	8	4	0.98
HSB8-M5-M	9.8	21.4	2	M5	8.2	8	4.4	1.26
HSB10-M5-M	12	23.4	2	M5	10.1	8	5.3	1.53
HSB11-MG01	12	25	7	G1/8"	10.3	14	5.8	3.19
HSB14-MG01	13.6	25	7	G1/8"	12.9	14	7	3.24
HSB16-MG01	17	28	7	G1/8"	15.7	14	7.5	3.45
HSB20-MG01	20	24	7	G1/8"	17.7	14	6	4.1
HSB22-MG01	24.3	27.4	7	G1/8"	22.4	14	7	4.47
HSB25-MG01	24.8	32.1	7	G1/8"	22.6	14	10.5	5.27



HSB33~78 External thread

Size[mm]<sup>(3)</sup>

Models	D	H	H1	G	DS	SW	Z	Weight [g]
HSB33-MG02	36	42	15	G1/4"	32	4	10	14.48
HSB43-MG02	46	43	15	G1/4"	43	4	10	19.62
HSB53-MG02	58.5	48.8	15	G1/4"	52.7	4	14.3	26.32
HSB63-MG02	67	49	15	G1/4"	63.1	4	16.8	33.87
HSB78-MG02	83	63	15	G1/4"	78	4	21.5	68.4
HSB78-MG03	83	64	16	G3/8"	78	4	21.5	76.88



HSB33~78 Internal thread

Size[mm]<sup>(3)</sup>

Models	D	H	H1	G	DS	SW	Z	Weight [g]
HSB33-FG02	36	42	15.2	G1/4"	32	17	10	14.68
HSB43-FG02	46	43	15.2	G1/4"	43	17	10	19.82
HSB53-FG02	58.5	49	15.2	G1/4"	52.7	17	14.3	26.52
HSB63-FG02	67	49	15.2	G1/4"	63.1	17	16.8	34.07
HSB78-FG02	83	62	15.2	G1/4"	78	17	21.5	68.6

(3) Compliant with DIN ISO 3302-1 M3 rubber parts allowable dimensional tolerances. Z is the trip



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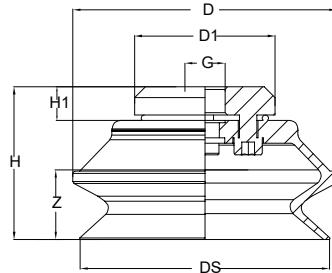
Packing



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### HSB110~150 Design Data



Size[mm]<sup>(3)</sup>

Models	D	H	H1	G	DS	D1	Z	Weight [g]
HSB110-FG-G04	112	70.5	16	G1/2"	115	65	32	32
HSB150-FG-G04	168	90	16	G1/2"	156	65	38	38

### HSB110~150 Internal thread

(3) Compliant with DIN ISO 3302-1 M3 rubber parts allowable dimensional tolerances. Z is the trip



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