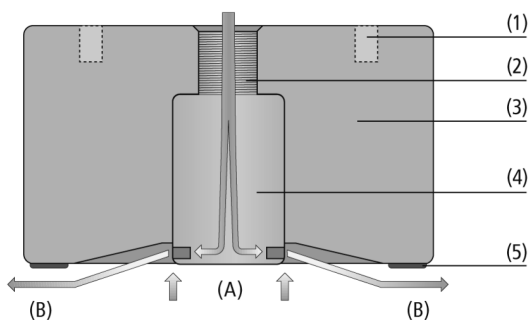


# Floating Suction Cups SBS

Diameter (Ø) from 10 mm to 120 mm



Floating Suction Cups SBS



System Design Floating Suction Cups SBS



Floating suction cups SBS being used for handling thin wood veneer

## Suitability for Industry Specific Applications

### Applications

- Floating suction cup for handling and separation of extremely thin workpieces without permanent deformation (e.g. film, paper, wood veneer)
- Handling of very porous workpieces (e.g. printed circuit board)
- Handling of highly sensitive workpieces (e.g. wafer, solar cells)

### Design

- Connection directly via four mounting threads on the top side (1); vertical (2) and horizontal compressed air connections
- Anodized aluminum main body with integrated Bernoulli nozzle (3)
- Streaming element (4) in two versions: Standard Flow SF for airtight workpieces and High Flow HF for higher leakage compensation on porous workpieces
- Mark-free rubber buffer of special material HT1 on the bottom side of the suction cup (5)
- Optional available with central support
- Vacuum (A), exhaust-air (B)

### Product Highlights

- Operation without ejector, as vacuum is generated according to Bernoulli's principle
- Low-touch handling, as suction cup "floats" on an air cushion
- High leakage compensation due to high volume flow at low vacuum
- Safe separation of thin, porous workpieces
- Elastomer buffers made of HT1 on the underside of the suction cup optimally absorb transverse forces

# Floating Suction Cups SBS

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## Designation Code Floating Suction Cups SBS



### 1 – Abbreviated designation

Code	Version
SBS	SBS

### 4 – Connection

Code	Connection
M5-IG	M5-IG (IG = female (F))
G1/8-IG	G1/8-IG

### 2 – Diameter

Code	Diameter in mm
10...120	ø 10 to 120

### 5 – Product addition

Code	Type
CS	Central support

### 3 – Streaming element

Code	Type
HF	High Flow
SF	Standard Flow

### 6 – Material

Code	Material
AL	Aluminum

Floating suction cup SBS is delivered assembled. The assembly consists of:

- Floating suction cup of type SBS – available in various diameters
- Elastomer buffer made of the material HT1
- Optional product addition: central support

Available spare parts: Elastomer buffer, friction ring

## Ordering Data Floating Suction Cups SBS

Type	Part no.
SBS 10 SF M5-IG AL	10.01.01.12986
SBS 20 HF M5-IG AL	10.01.01.12650
SBS 20 SF M5-IG AL	10.01.01.12633
SBS 30 HF M5-IG AL	10.01.01.12651
SBS 30 SF M5-IG AL	10.01.01.12636
SBS 40 HF G1/8-IG AL	10.01.01.12653
SBS 40 SF G1/8-IG AL	10.01.01.12638
SBS 40 SF G1/8-IG CS AL	10.01.01.12776
SBS 60 HF G1/8-IG AL	10.01.01.12655
SBS 60 SF G1/8-IG AL	10.01.01.12641
SBS 60 SF G1/8-IG CS AL	10.01.01.12777
SBS 100 HF G1/8-IG AL	10.01.01.12689
SBS 100 SF G1/8-IG AL	10.01.01.12688
SBS 120 HF G1/8-IG AL	10.01.01.13139
SBS 120 SF G1/8-IG AL	10.01.01.13136

# Floating Suction Cups SBS

Diameter (Ø) from 10 mm to 120 mm

## Ordering Data Spare Parts Floating Suction Cups SBS

Type	Spare Parts		Part no.
SBS 20 HF M5-IG AL	Rubber buffer	REIB-FL SBS HT1-60	10.01.01.12585
SBS 20 SF M5-IG AL	Rubber buffer	REIB-FL SBS HT1-60	10.01.01.12585
SBS 30 HF M5-IG AL	Rubber buffer	REIB-FL SBS HT1-60	10.01.01.12585
SBS 30 SF M5-IG AL	Rubber buffer	REIB-FL SBS HT1-60	10.01.01.12585
SBS 40 HF G1/8-IG AL	Rubber buffer	REIB-FL SBS HT1-60	10.01.01.12593
SBS 40 SF G1/8-IG AL	Rubber buffer	REIB-FL SBS HT1-60	10.01.01.12593
SBS 40 SF G1/8-IG CS AL	Rubber buffer	REIB-FL SBS HT1-60	10.01.01.12593
SBS 60 HF G1/8-IG AL	Rubber buffer	REIB-FL SBS HT1-60	10.01.01.12593
SBS 60 SF G1/8-IG AL	Rubber buffer	REIB-FL SBS HT1-60	10.01.01.12593
SBS 60 SF G1/8-IG CS AL	Rubber buffer	REIB-FL SBS HT1-60	10.01.01.12593
SBS 100 HF G1/8-IG AL	Rubber buffer	REIB-FL SBS HT1-60	10.01.01.12593
SBS 100 SF G1/8-IG AL	Rubber buffer	REIB-FL SBS HT1-60	10.01.01.12593
SBS 120 HF G1/8-IG AL	Rubber buffer	REIB-FL SBS HT1-60	10.01.01.12593
SBS 120 SF G1/8-IG AL	Rubber buffer	REIB-FL SBS HT1-60	10.01.01.12593

Type	Spare Parts		Part no.
SBS 40 SF G1/8-IG CS AL	Central support	REIB-FL SBS HT1-60	10.01.01.12780
SBS 60 SF G1/8-IG CS AL	Central support	REIB-FL SBS HT1-60	10.01.01.12780

Type	Spare Parts		Part no.
SBS 10 SF M5-IG AL	Friction ring	REIB-RING SBS 10 HT1-60	10.01.01.12999

## Ordering Data Accessories Floating Suction Cups SBS

Type	Accessories		Part no.
SBS 10 SF M5-IG AL	Cross-beam connection	HTR-STA 47 1N D10/16 FL	10.08.03.00085

## Technical Data Floating Suction Cups SBS

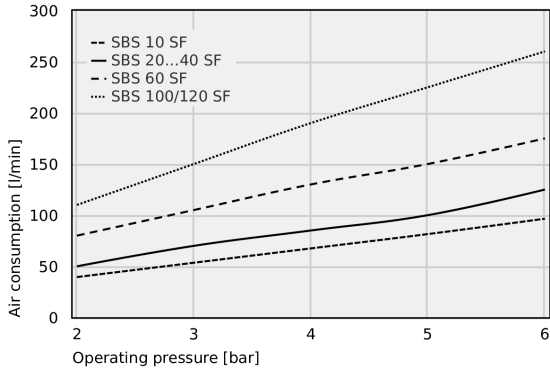
Type	Holding force [N]*	Air consumption [l/min] [l/min]**	Pressure range (operating pressure) [bar]	Operating temperature [°C]	Weight [g]
SBS 10 SF M5-IG AL	1.4	85	1.0 ... 6.0 bar	0 ... 80 °C	8
SBS 20 HF M5-IG AL	3.0	140	1.0 ... 6.0 bar	0 ... 80 °C	12
SBS 20 SF M5-IG AL	2.0	100	1.0 ... 6.0 bar	0 ... 80 °C	12
SBS 30 HF M5-IG AL	5.0	140	1.0 ... 6.0 bar	0 ... 80 °C	31
SBS 30 SF M5-IG AL	4.0	100	1.0 ... 6.0 bar	0 ... 80 °C	31
SBS 40 HF G1/8-IG AL	10.5	190	1.0 ... 6.0 bar	0 ... 80 °C	51
SBS 40 SF G1/8-IG AL	6.5	100	1.0 ... 6.0 bar	0 ... 80 °C	51
SBS 40 SF G1/8-IG CS AL	6.5	100	1.0 ... 6.0 bar	0 ... 80 °C	53
SBS 60 HF G1/8-IG AL	18.5	225	1.0 ... 6.0 bar	0 ... 80 °C	118
SBS 60 SF G1/8-IG AL	13.0	150	1.0 ... 6.0 bar	0 ... 80 °C	118
SBS 60 SF G1/8-IG CS AL	13.0	150	1.0 ... 6.0 bar	0 ... 80 °C	120
SBS 100 HF G1/8-IG AL	55.5	420	1.0 ... 6.0 bar	0 ... 80 °C	295
SBS 100 SF G1/8-IG AL	46.0	225	1.0 ... 6.0 bar	0 ... 80 °C	295
SBS 120 HF G1/8-IG AL	104.0	420	1.0 ... 6.0 bar	0 ... 80 °C	390
SBS 120 SF G1/8-IG AL	89.0	225	1.0 ... 6.0 bar	0 ... 80 °C	390

\*The values provided are based on an operating pressure of 5 bar, measured on a suction-tight workpiece. The actual values may differ depending on the properties of the workpiece.  
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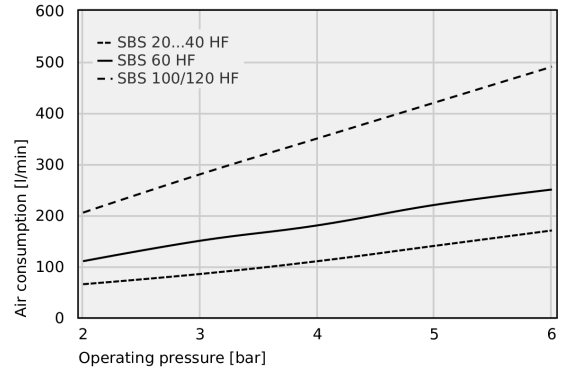
# Floating Suction Cups SBS

Diameter (Ø) from 10 mm to 120 mm

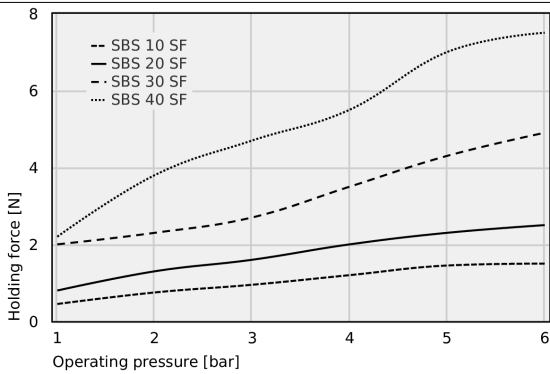
## Performance Data Floating Suction Cups SBS



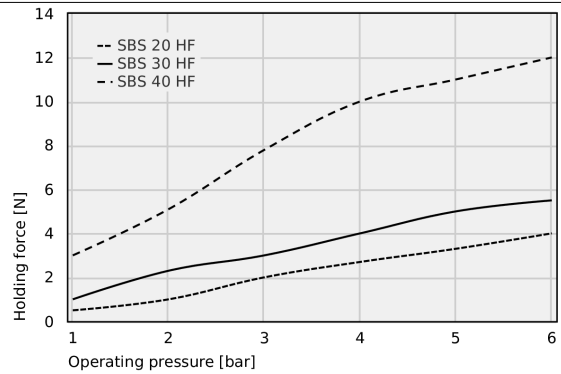
Air consumption



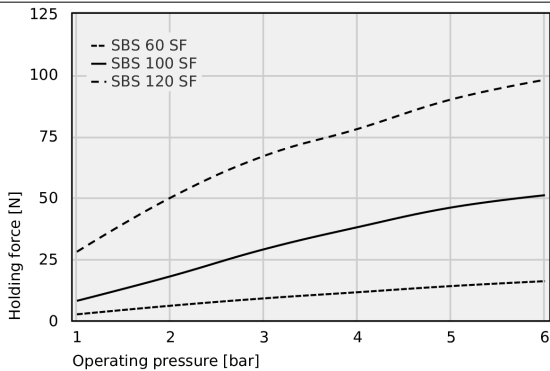
Air consumption



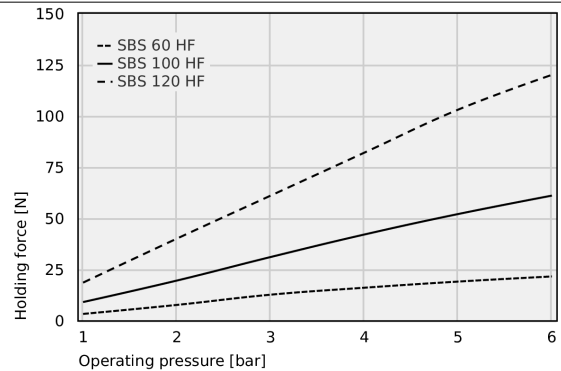
Holding force



Holding force



Holding force



Holding force

# Floating Suction Cups SBS

Diameter (Ø) from 10 mm to 120 mm

## Air consumption

Typ	2	3	4	5	6
SBS 10 SF	39.50	53.50	67.50	81.50	96.50
SBS 20...40 SF	50.00	70.00	85.00	100.00	125.00
SBS 60 SF	80.00	105.00	130.00	150.00	175.00
SBS 100/120 SF	110.00	150.00	190.00	225.00	260.00

Typ	2	3	4	5	6
SBS 20...40 HF	65	85	110	140	170
SBS 60 HF	110	150	180	220	250
SBS 100/120 HF	205	280	350	420	490

## Holding force

Typ	1	2	3	4	5	6
SBS 10 SF	0.45	0.75	0.95	1.20	1.45	1.50
SBS 20 SF	0.80	1.30	1.60	2.00	2.30	2.50
SBS 30 SF	2.00	2.30	2.70	3.50	4.30	4.90
SBS 40 SF	2.20	3.80	4.70	5.50	7.00	7.50

Typ	1	2	3	4	5	6
SBS 20 HF	0.50	1.00	2.00	2.70	3.30	4.00
SBS 30 HF	1.00	2.30	3.00	4.00	5.00	5.50
SBS 40 HF	3.00	5.10	7.80	10.00	11.00	12.00

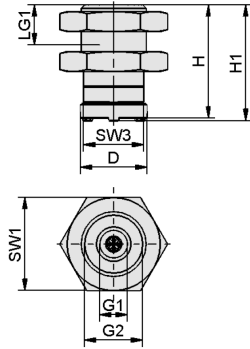
Typ	1	2	3	4	5	6
SBS 60 SF	2.50	6.00	9.00	11.50	14.00	16.00
SBS 100 SF	8.00	18.00	29.00	38.00	46.00	51.00
SBS 120 SF	28.00	50.00	67.00	78.00	90.00	98.00

Typ	1	2	3	4	5	6
SBS 60 HF	3.20	7.60	12.60	16.00	19.00	21.50
SBS 100 HF	9.00	19.50	31.00	42.00	52.00	61.00
SBS 120 HF	18.50	40.00	61.00	82.00	103.00	120.00

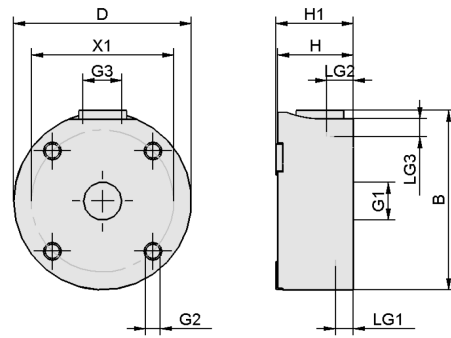
# Floating Suction Cups SBS

Diameter ( $\varnothing$ ) from 10 mm to 120 mm

## Design Data Floating Suction Cups SBS



SBS 10



SBS 20...120

# Floating Suction Cups SBS

Diameter (Ø) from 10 mm to 120 mm

## Design Data Floating Suction Cups SBS

Type	B [mm]	D [mm]	G1	G2	G3	H [mm]	H1 [mm]	LG1 [mm]	LG2 [mm]	LG3 [mm]	SW1 [mm]	SW3 [mm]	X1 [mm]
SBS 10 SF M5-IG AL	-	10	M5-F	G1/8"-M	-	17	17.4	5	-	-	14	9	-
SBS 20 HF M5-IG AL	22.2	20	M5-F	M3-F	M5-F	17	17.5	5	6	6	-	-	15
SBS 20 SF M5-IG AL	22.2	20	M5-F	M3-F	M5-F	17	17.5	5	6	6	-	-	15
SBS 30 HF M5-IG AL	32.0	30	M5-F	M4-F	M5-F	17	17.5	5	6	6	-	-	22
SBS 30 SF M5-IG AL	32.0	30	M5-F	M4-F	M5-F	17	17.5	5	6	6	-	-	22
SBS 40 HF G1/8-IG AL	41.0	40	G1/8"-F	M4-F	G1/8"-F	17	17.4	5	6	6	-	-	32
SBS 40 SF G1/8-IG AL	41.0	40	G1/8"-F	M4-F	G1/8"-F	17	17.4	5	6	6	-	-	32
SBS 40 SF G1/8-IG CS AL	41.0	40	G1/8"-F	M4-F	G1/8"-F	17	17.4	5	6	6	-	-	32
SBS 60 HF G1/8-IG AL	61.6	60	G1/8"-F	M4-F	G1/8"-F	17	17.4	5	6	6	-	-	45
SBS 60 SF G1/8-IG AL	61.6	60	G1/8"-F	M4-F	G1/8"-F	17	17.4	5	6	6	-	-	45
SBS 60 SF G1/8-IG CS AL	61.6	60	G1/8"-F	M4-F	G1/8"-F	17	17.4	5	6	6	-	-	45
SBS 100 HF G1/8-IG AL	101.0	100	G1/8"-F	M4-F	G1/8"-F	17	17.4	5	6	6	-	-	75
SBS 100 SF G1/8-IG AL	101.0	100	G1/8"-F	M4-F	G1/8"-F	17	17.4	5	6	6	-	-	75
SBS 120 HF G1/8-IG AL	121.5	120	G1/8"-F	M4-F	G1/8"-F	17	17.4	5	10	6	-	-	105
SBS 120 SF G1/8-IG AL	121.5	120	G1/8"-F	M4-F	G1/8"-F	17	17.4	5	10	6	-	-	105