

SBA Series

1.5 Bellows Suction Cup

AIRBEST



UNIVERSAL

RoHS

Features

- ◇ 1.5 Bellows
- ◇ Special material with high temperature resistance is optional
- ◇ Various sizes for option

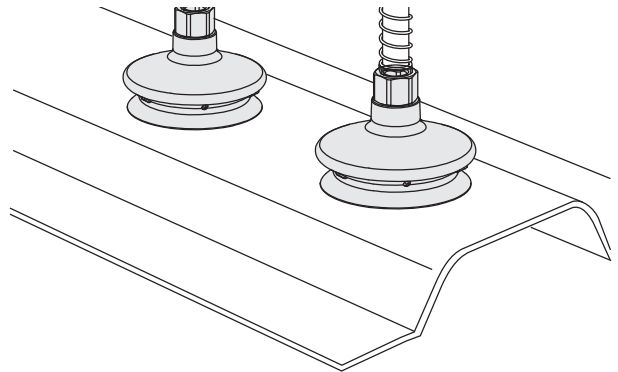
Advantages

- ◇ Easy to fit uneven surface of workpiece, has buffer effect
- ◇ Can handle workpiece with high temperature
- ◇ Fitting can be used repeatedly, greatly reducing customer's cost
- ◇ Suitable for workpieces with different sizes and shapes



Applications

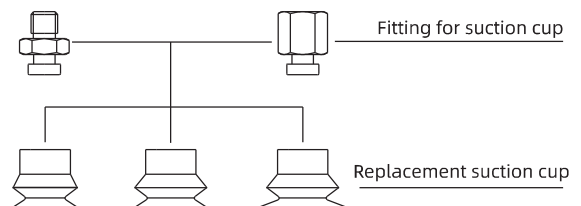
- ◇ Handling of workpieces with uneven surface, such as carton, cardboard, cambered workpiece, pipe, etc.
- ◇ Handling high temperature plastic injection parts, metal sheet, glass, etc.
- ◇ Handling smooth wood plate, smooth steel plate and so on



Structure

- ◇ 1.5 Bellows, large compressed stroke
- ◇ Suction cup and fitting are split structure design, wearing parts can be replaced separately
- ◇ Mark free plug is optional, for grasping without any mark

In same series, replacement suction cup and fitting can be combined on request.



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How to order

SBA 33 N - G2M - PK

① ② ③ ④ ⑤

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread | ⑤ Special specification | |
|----------|------------|-----------------------|--------------------------|-----------------------------|--------------------------|
| SBA | 6 - φ6mm | 27 - φ27mm | N - NBR | 55 Nil - Suction cup only | Nil - Standard type |
| | 11 - φ11mm | 33 - φ33mm | WS - White silicone | 50 M5M - M5×0.8 male thread | PK - With mark free plug |
| | 14 - φ14mm | 43 - φ43mm | HD - High temp/Mark free | 60 G1M - G1/8 male thread | |
| | 16 - φ16mm | 53 - φ53mm | NR - Natural rubber | 40 G2M - G1/4 male thread | |
| | 20 - φ20mm | 63 - φ63mm | | M5F - M5×0.8 female thread | |
| | 22 - φ22mm | 78 - φ78mm | | G1F - G1/8 female thread | |
| | 25 - φ25mm | | | G2F - G1/4 female thread | |

Selection

| Model | Connection thread | | F - Female thread | |
|--------|-------------------|------------|-------------------|------------|
| | M - Male thread | | | |
| SBA6□ | SBA6□-M5M | | SBA6□-M5F | |
| SBA11□ | SBA11□-M5M | SBA11□-G1M | SBA11□-M5F | SBA11□-G1F |
| SBA14□ | SBA14□-M5M | SBA14□-G1M | SBA14□-M5F | SBA14□-G1F |
| SBA16□ | SBA16□-M5M | SBA16□-G1M | SBA16□-M5F | SBA16□-G1F |
| SBA20□ | SBA20□-M5M | SBA20□-G1M | SBA20□-M5F | SBA20□-G1F |
| SBA22□ | SBA22□-M5M | SBA22□-G1M | SBA22□-M5F | SBA22□-G1F |
| SBA25□ | SBA25□-M5M | SBA25□-G1M | SBA25□-M5F | SBA25□-G1F |
| SBA27□ | SBA27□-G2M | | SBA27□-G2F | |
| SBA33□ | SBA33□-G2M | | SBA33□-G2F | |
| SBA43□ | SBA43□-G2M | | SBA43□-G2F | |
| SBA53□ | SBA53□-G2M | | SBA53□-G2F | |
| SBA63□ | SBA63□-G2M | | SBA63□-G2F | |
| SBA78□ | SBA78□-G2M | | SBA78□-G2F | |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA**
- SF
- SU
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SBA Series

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Selection - With mark free plug

| Model | M - Male thread | | F - Female thread | |
|-----------|-----------------|---------------|-------------------|---------------|
| SBA11□-PK | SBA11□-M5M-PK | SBA11□-G1M-PK | SBA11□-M5F-PK | SBA11□-G1F-PK |
| SBA14□-PK | SBA14□-M5M-PK | SBA14□-G1M-PK | SBA14□-M5F-PK | SBA14□-G1F-PK |
| SBA16□-PK | SBA16□-M5M-PK | SBA16□-G1M-PK | SBA16□-M5F-PK | SBA16□-G1F-PK |
| SBA20□-PK | SBA20□-M5M-PK | SBA20□-G1M-PK | SBA20□-M5F-PK | SBA20□-G1F-PK |
| SBA22□-PK | SBA22□-M5M-PK | SBA22□-G1M-PK | SBA22□-M5F-PK | SBA22□-G1F-PK |
| SBA25□-PK | SBA25□-M5M-PK | SBA25□-G1M-PK | SBA25□-M5F-PK | SBA25□-G1F-PK |
| SBA27□-PK | SBA27□-G2M-PK | | SBA27□-G2F-PK | |
| SBA33□-PK | SBA33□-G2M-PK | | SBA33□-G2F-PK | |
| SBA43□-PK | SBA43□-G2M-PK | | SBA43□-G2F-PK | |
| SBA53□-PK | SBA53□-G2M-PK | | SBA53□-G2F-PK | |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Min. curved radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|-------|---------------------|---------------------------------|--|-------------|-----------------------------|------------|
| SBA6 | 1.4 | 0.1 | 2 | 0.2 | 4 | 10 |
| SBA11 | 3.8 | 0.2 | 10 | 1.0 | 6 | 10 |
| SBA14 | 5.0 | 0.4 | 13 | 1.1 | 6 | 10 |
| SBA16 | 6.7 | 0.8 | 20 | 1.4 | 6 | 10 |
| SBA20 | 10.7 | 1.2 | 30 | 1.5 | 6 | 5 |
| SBA22 | 15.2 | 1.4 | 25 | 2.2 | 6 | 5 |
| SBA25 | 17.3 | 3.2 | 20 | 3.1 | 6 | 5 |
| SBA27 | 24.0 | 3.4 | 23 | 4.7 | 6 | 5 |
| SBA33 | 39.6 | 4.8 | 40 | 7.2 | 6 | 5 |
| SBA43 | 64.5 | 11.4 | 60 | 11.9 | 6 | 5 |
| SBA53 | 95.0 | 26.0 | 75 | 20.2 | 8 | 1 |
| SBA63 | 135.0 | 44.0 | 75 | 25.5 | 8 | 1 |
| SBA78 | 218.0 | 76.0 | 70 | 52.6 | 8 | 1 |

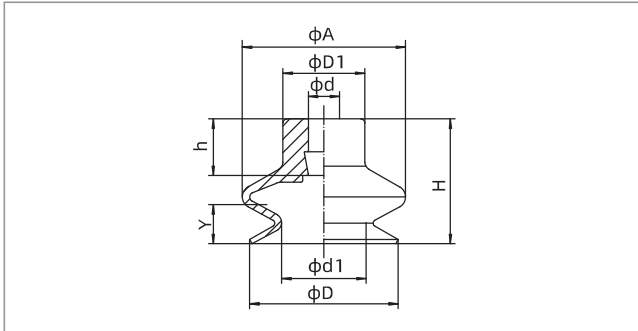
◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

SBA Series

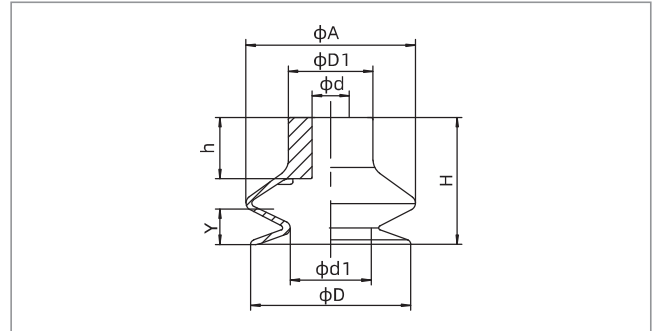
1.5 Bellows Suction Cup



Dimensions(mm) - Suction cup only



SBA6-25



SBA27-78

| Model/Size | D | H | A | D1 | d | d1 | h | Y |
|------------|------|------|------|----|-----|------|----|------|
| SBA6□ | 5.5 | 9 | 6 | 7 | 3.7 | 2.7 | 5 | 3 |
| SBA11□ | 10.5 | 16 | 12 | 10 | 4 | 5 | 7 | 4 |
| SBA14□ | 13 | 15.5 | 13.5 | 10 | 4 | 5 | 7 | 6 |
| SBA16□ | 15.5 | 19 | 17 | 10 | 4 | 8 | 7 | 7 |
| SBA20□ | 18 | 15 | 20 | 10 | 4 | 11 | 7 | 8 |
| SBA22□ | 22 | 19 | 24 | 10 | 4 | 11 | 9 | 9 |
| SBA25□ | 24 | 23 | 25 | 10 | 4 | 9.5 | 9 | 11.5 |
| SBA27□ | 26 | 25 | 27.5 | 16 | 8 | 14 | 13 | 9 |
| SBA33□ | 35 | 27 | 36 | 18 | 8 | 17 | 13 | 10 |
| SBA43□ | 43 | 28 | 45 | 18 | 8 | 21.5 | 13 | 11.5 |
| SBA53□ | 53 | 34 | 58 | 18 | 8 | 32 | 13 | 15.5 |
| SBA63□ | 63 | 33.5 | 66 | 18 | 8 | 43.5 | 13 | 15 |
| SBA78□ | 78 | 46.5 | 83 | 25 | 12 | 54.5 | 20 | 14.5 |

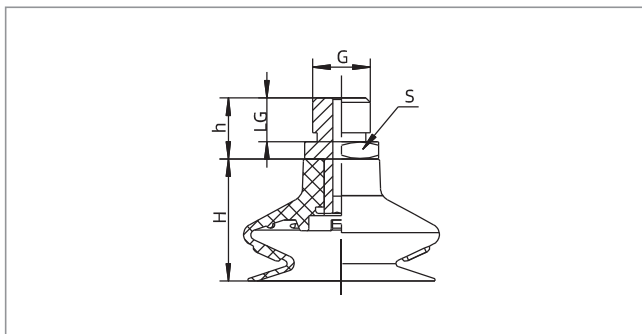
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- SFG
- SFGT
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SBA Series

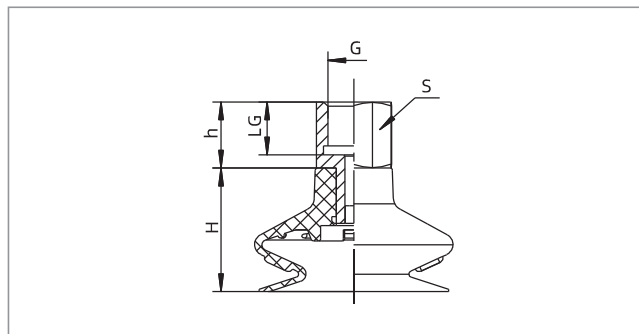


1.5 Bellows Suction Cup

Dimensions(mm) - Suction cup with fitting



SBA - Male thread connection



SBA - Female thread connection

| Model/Size | H | h | G | LG | S |
|------------|------|------|--------|-----|----|
| SBA6□-M5M | 9 | 7.5 | M5×0.8 | 3.5 | 7 |
| SBA11□-M5M | 16 | 7.5 | M5×0.8 | 3.5 | 7 |
| SBA11□-G1M | 16 | 13.5 | G1/8 | 7.5 | 14 |
| SBA14□-M5M | 15.5 | 7.5 | M5×0.8 | 3.5 | 7 |
| SBA14□-G1M | 15.5 | 13.5 | G1/8 | 7.5 | 14 |
| SBA16□-M5M | 19 | 7.5 | M5×0.8 | 3.5 | 7 |
| SBA16□-G1M | 19 | 13.5 | G1/8 | 7.5 | 14 |
| SBA20□-M5M | 15 | 7.5 | M5×0.8 | 3.5 | 7 |
| SBA20□-G1M | 15 | 13.5 | G1/8 | 7.5 | 14 |
| SBA22□-M5M | 19 | 7.5 | M5×0.8 | 3.5 | 7 |
| SBA22□-G1M | 19 | 13.5 | G1/8 | 7.5 | 14 |
| SBA25□-M5M | 23 | 7.5 | M5×0.8 | 3.5 | 7 |
| SBA25□-G1M | 23 | 13.5 | G1/8 | 7.5 | 14 |
| SBA27□-G2M | 25 | 15 | G1/4 | 11 | 17 |
| SBA33□-G2M | 27 | 15 | G1/4 | 11 | 17 |
| SBA43□-G2M | 28 | 15 | G1/4 | 11 | 17 |
| SBA53□-G2M | 34 | 15 | G1/4 | 11 | 17 |
| SBA63□-G2M | 33.5 | 15 | G1/4 | 11 | 17 |
| SBA78□-G2M | 46.5 | 15 | G1/4 | 11 | 21 |

| Model/Size | H | h | G | LG | S |
|------------|------|----|--------|-----|----|
| SBA6□-M5F | 9 | 10 | M5×0.8 | 5.5 | 7 |
| SBA11□-M5F | 16 | 10 | M5×0.8 | 5.5 | 8 |
| SBA11□-G1F | 16 | 12 | G1/8 | 8 | 14 |
| SBA14□-M5F | 15.5 | 10 | M5×0.8 | 5.5 | 8 |
| SBA14□-G1F | 15.5 | 12 | G1/8 | 8 | 14 |
| SBA16□-M5F | 19 | 10 | M5×0.8 | 5.5 | 8 |
| SBA16□-G1F | 19 | 12 | G1/8 | 8 | 14 |
| SBA20□-M5F | 15 | 10 | M5×0.8 | 5.5 | 8 |
| SBA20□-G1F | 15 | 12 | G1/8 | 8 | 14 |
| SBA22□-M5F | 19 | 10 | M5×0.8 | 5.5 | 8 |
| SBA22□-G1F | 19 | 12 | G1/8 | 8 | 14 |
| SBA25□-M5F | 23 | 10 | M5×0.8 | 5.5 | 8 |
| SBA25□-G1F | 23 | 12 | G1/8 | 8 | 14 |
| SBA27□-G2F | 25 | 15 | G1/4 | 12 | 17 |
| SBA33□-G2F | 27 | 15 | G1/4 | 12 | 17 |
| SBA43□-G2F | 28 | 15 | G1/4 | 12 | 17 |
| SBA53□-G2F | 34 | 15 | G1/4 | 12 | 17 |
| SBA63□-G2F | 33.5 | 15 | G1/4 | 12 | 17 |
| SBA78□-G2F | 46.5 | 15 | G1/4 | 12 | 21 |

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

Mounting parts

| Item | Model M - Male thread | F - Female thread | Applicable suction cup |
|-------------------------|--------------------------|-------------------|------------------------|
| Fitting for suction cup | PJS-M5M-SBA6 | PJS-M5F-SBA6 | SBA6 |
| | PJS-M5M-SC3 | PJS-M5F-SC3 | SBA11,14,16,20,22,25 |
| | PJS-G1M-SC3 | PJS-G1F-SC3 | SBA11,14,16,20,22,25 |
| | PJS-G2M-ST5 | PJS-G2F-ST5 | SBA27,33,43,53,63 |
| | PJS-G2M-ST8 | PJS-G2F-ST8 | SBA78 |