

SP3 Series

Suction Cup

AIRBEST



ELECTRONICS

RoHS

Features

- ◇ Suction cups of same diameter among U/C/B types use same fitting
- ◇ Small size, short height
- ◇ Available in conductive material

Advantages

- ◇ Used in various occasions, suction cups are interchangeable
- ◇ Suitable for occasions with limited space
- ◇ Discharge static electricity gently to protect workpieces from damage



U-Flat



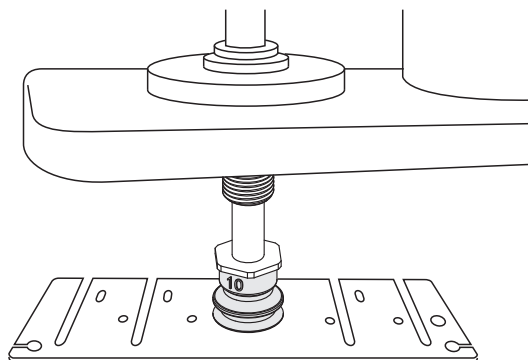
C-Flat with ribs



B-1.5 bellows

Applications

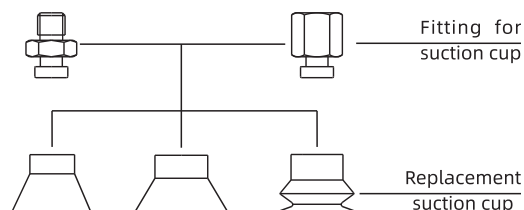
- ◇ U type suitable for workpieces with even surface and without deformation
- ◇ C type suitable for easily deformed workpieces
- ◇ B type suitable for workpieces with inclined surface
- ◇ Suitable for handling of workpieces with small size and light weight
- ◇ Conductive material suitable for 3C industry



Structure

- ◇ Split structure for easy replacement of wearing parts

In the same series, replacement suction cup and locking fitting can be combined as required



SP3 Series

Suction Cup

How to order

SP3 B 10 N - M5M
① ② ③ ④ ⑤

① Series	② Suction cup type	③ Diameter	④ Material & Hardness	⑤ Connection thread
SP3	U - Flat	1.5 - ϕ 1.5mm 2 - ϕ 2mm	N - NBR 55	Nil - Suction cup only
	C - Flat with ribs	3.5 - ϕ 3.5mm 4 - ϕ 4mm	WS - White silicone 50	M3F - M3×0.5 female thread
	B - 1.5 Bellows	10 - ϕ 10mm 6 - ϕ 6mm	CN - Conductive NBR 55	M5F - M5×0.8 female thread
		13 - ϕ 13mm 8 - ϕ 8mm	CS - Conductive silicone 55	M3M - M3×0.5 male thread
		16 - ϕ 16mm	HP - Mark free rubber 55	M5M - M5×0.8 male thread

◇ Note: HP material is not for all sizes. Please contact AIRBEST if need

Selection

Diameter of suction cup	Suction cup type			Connection thread				MPQ pcs
	U	C	B	M3F	M3M	M5F	M5M	
ϕ 1.5	●	-	-	●	●	-	-	10
ϕ 2	●	-	-	●	●	-	-	10
ϕ 3.5	●	-	-	●	●	-	-	10
ϕ 4	-	●	●	-	-	●	●	10
ϕ 6	-	●	●	-	-	●	●	10
ϕ 8	-	●	●	-	-	●	●	10
ϕ 10	-	●	●	-	-	●	●	10
ϕ 13	-	●	●	-	-	●	●	10
ϕ 16	-	●	●	-	-	●	●	10

◇ Note: "●" default, in stock, "-" unavailable

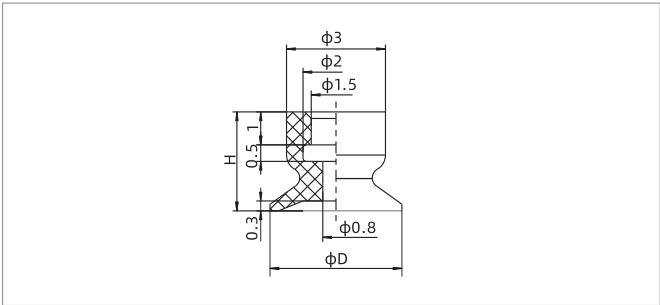
SZ
SP3
SUF
SAN
SAO
SOFA
STP
SFT
SFA
SBL
SBLP
SBS
SFP
SBP
SXP
SGP
SBOF
STC
SFF
SOB
SOF
SOG
SFM
SOM
SBF
SDM
SFU
SFK
SHT
SDL
SFG
SFD
SB
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SPA
SPF
SPC
SPJ
SPU
SH
SHB
SBB
SOP
SNP

SP3 Series

Suction Cup

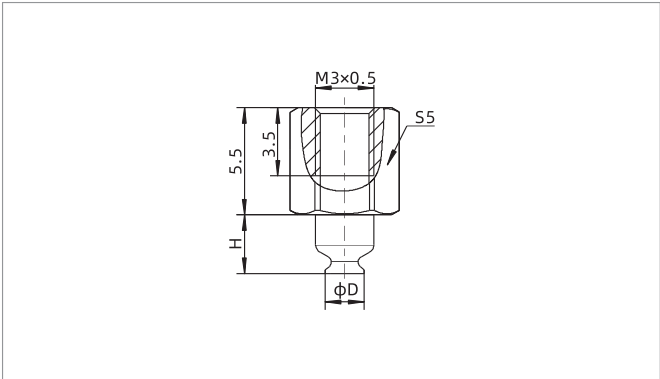


Dimensions(mm) - U type



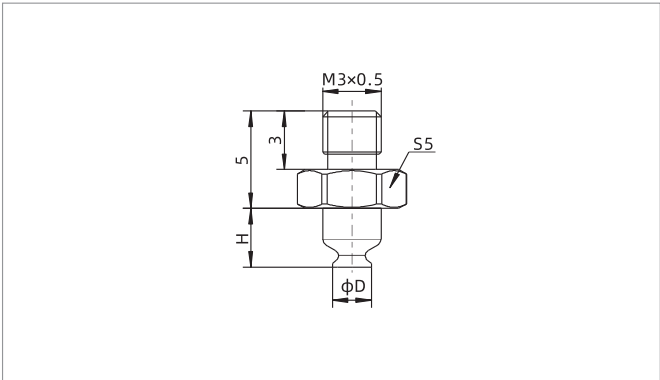
SP3U1.5-3.5

Model/Size	D	H	Weight g
SP3U1.5□	2.0	3.0	0.1
SP3U2□	2.5	3.0	0.1
SP3U3.5□	4.0	3.0	0.1



SP3U1.5-3.5 F - Female thread connection

Model/Size	D	H	Weight g
SP3U1.5□-M3F	2.0	3.0	0.9
SP3U2□-M3F	2.5	3.0	0.9
SP3U3.5□-M3F	4.0	3.0	0.9



SP3U1.5-3.5 M - Male thread connection

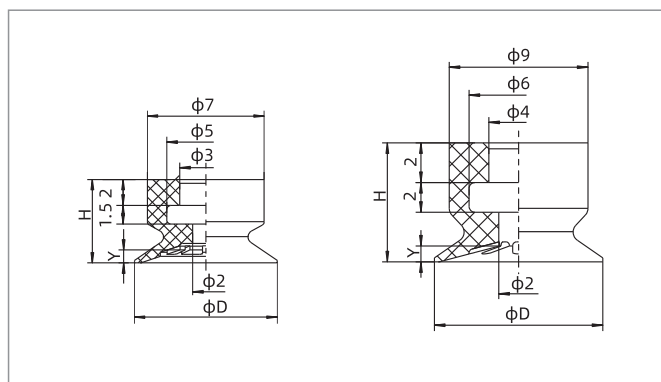
Model/Size	D	H	Weight g
SP3U1.5□-M3M	2.0	3.0	0.6
SP3U2□-M3M	2.5	3.0	0.6
SP3U3.5□-M3M	4.0	3.0	0.6

SP3 Series

Suction Cup

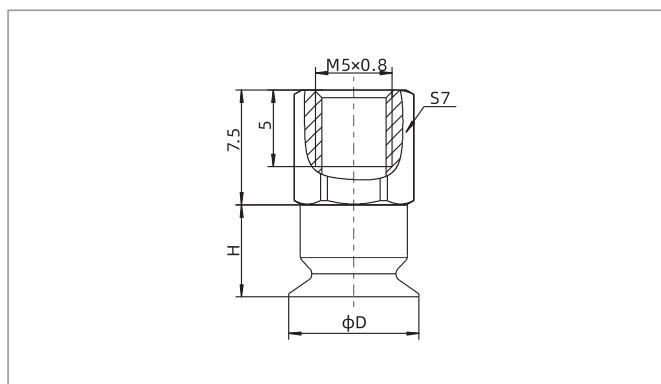
AIRBEST

Dimensions(mm) - C type

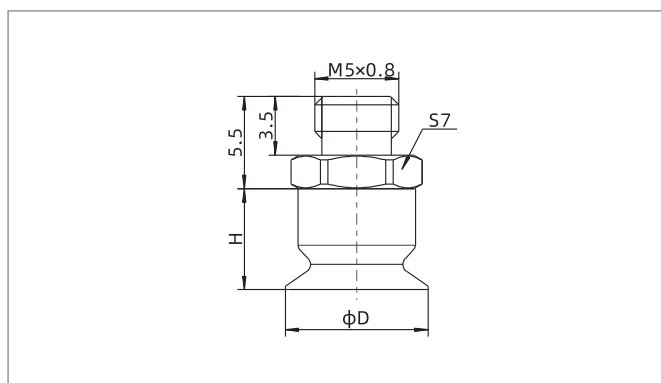


SP3C4-8

SP3C10-16



SP3C4-16 F - Female thread connection



SP3C4-16 M - Male thread connection

Model/Size	D	H	Y	Weight g
SP3C4□	4.5	6.0	0.5	0.3
SP3C6□	6.5	6.0	0.8	0.3
SP3C8□	8.5	6.0	0.8	0.3
SP3C10□	11.0	7.0	1.0	0.6
SP3C13□	14.0	7.0	1.2	0.7
SP3C16□	17.0	7.0	1.2	0.8

Model/Size	D	H	Weight g
SP3C4□-M5F	4.5	6.0	2.3
SP3C6□-M5F	6.5	6.0	2.3
SP3C8□-M5F	8.5	6.0	2.3
SP3C10□-M5F	11.0	7.0	5.7
SP3C13□-M5F	14.0	7.0	5.8
SP3C16□-M5F	17.0	7.0	5.9

Model/Size	D	H	Weight g
SP3C4□-M5M	4.5	6.0	1.7
SP3C6□-M5M	6.5	6.0	1.7
SP3C8□-M5M	8.5	6.0	1.7
SP3C10□-M5M	11.0	7.0	3.0
SP3C13□-M5M	14.0	7.0	3.1
SP3C16□-M5M	17.0	7.0	3.2

Suction Cup

SZ

SP3

SUF

SAN

SAO

SOFA

STP

SFT

SFA

SBL

SBLP

SBS

SFP

SBP

SXP

SGP

SBOF

STC

SFF

SOB

SOF

SOG

SFM

SOM

SBF

SDM

SFU

SFK

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SBA

SF

SU

SPA

SPF

SPC

SPJ

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SH

SHB

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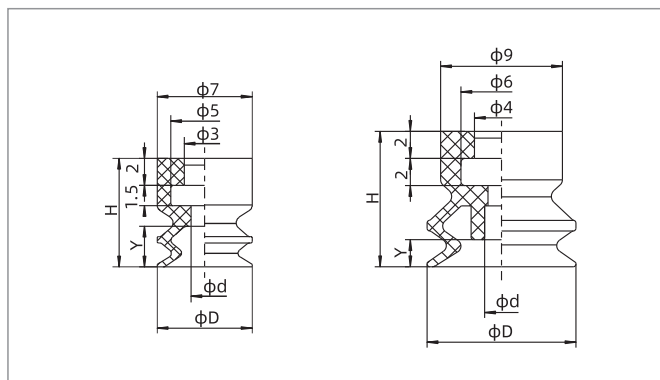
SOP

SNP

SP3 Series

Suction Cup

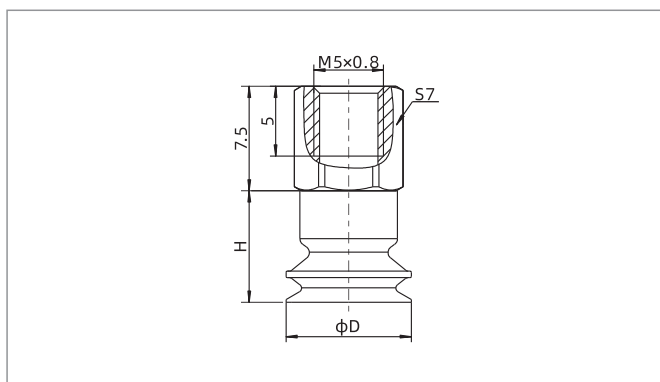
Dimensions(mm) - B type



SP3B4-8

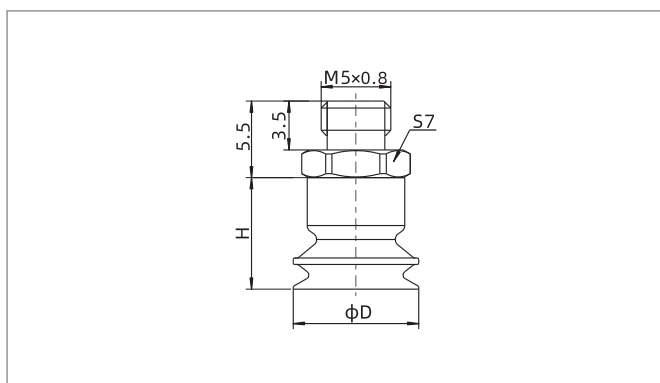
SP3B10-16

Model/Size	D	H	d	Y	Weight g
SP3B4□	4.5	8.0	1.8	2.2	0.3
SP3B6□	7.0	8.0	2.0	3.0	0.3
SP3B8□	9.0	8.0	2.0	3.0	0.4
SP3B10□	11.0	10.0	2.0	2.0	0.8
SP3B13□	14.0	10.0	3.0	2.0	1.0
SP3B16□	17.0	10.0	3.0	2.0	1.1



SP3B4-16 F - Female thread connection

Model/Size	D	H	Weight g
SP3B4□-M5F	4.5	8.0	2.3
SP3B6□-M5F	7.0	8.0	2.3
SP3B8□-M5F	9.0	8.0	2.4
SP3B10□-M5F	11.0	10.0	5.9
SP3B13□-M5F	14.0	10.0	6.1
SP3B16□-M5F	17.0	10.0	6.2



SP3B4-16 M - Male thread connection

◇ Note: The dimensional tolerance conforms to the GB/T 3672.1-2002-1 M3 rubber product dimensional tolerance standard

Model/Size	D	H	Weight g
SP3B4□-M5M	4.5	8.0	1.7
SP3B6□-M5M	7.0	8.0	1.7
SP3B8□-M5M	9.0	8.0	1.8
SP3B10□-M5M	11.0	10.0	3.2
SP3B13□-M5M	14.0	10.0	3.4
SP3B16□-M5M	17.0	10.0	3.5

Mounting parts

Item	Model Female thread	Male thread	Applicable suction cup
Fitting for suction cup	PJS-M3F-ST0.5	PJS-M3M-ST0.5	SP3U1.5, 2, 3.5
	PJS-M5F-ST1.5	PJS-M5M-ST1.5	SP3C4, 6, 8; SP3B4, 6, 8
	PJS-M5F-ST2	PJS-M5M-ST2-A	SP3C10, 13, 16; SP3B10, 13, 16

SP3 Series

Suction Cup with Locking Fitting

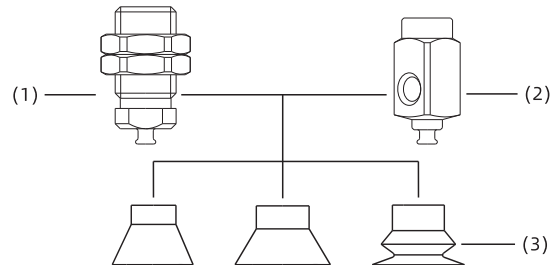
AIRBEST

Suction Cup

Structure

- ◇ Consisting of replacement suction cup(3) and locking fitting(1 or 2)
- ◇ Plug-in fitting for suction cup
- ◇ Vertical vacuum port(1), male thread for mounting
- ◇ Lateral vacuum port(2), female thread for mounting

In the same series, replacement suction cup and locking fitting can be combined as required



How to order

SP3B10N - L M5F - M5F
① ② ③ ④

① Model	② Vacuum port direction	③ Vacuum port connection	④ Mounting thread
SP3B10N	Nil - Vertical	M3F - M3×0.5 female thread	M3F - M3×0.5 female thread
	L - Lateral	M5F - M5×0.8 female thread	M5F - M5×0.8 female thread
			M6M - M6×0.75 male thread
			M10M - M10×1 male thread
			M12M - M12×1 male thread

◇ Please refer to page 154 for suction cup selection

Selection

Model	Nil-Vertical Vacuum port connection	Mounting thread	L- Lateral Vacuum port connection	Mounting thread
SP3U1.5-3.5	M3F	M6M	M3F	M3F
SP3C4-8	M5F	M10M	M5F	M5F
SP3C10-16	M5F	M12M	M5F	M5F
SP3B4-8	M5F	M10M	M5F	M5F
SP3B10-16	M5F	M12M	M5F	M5F

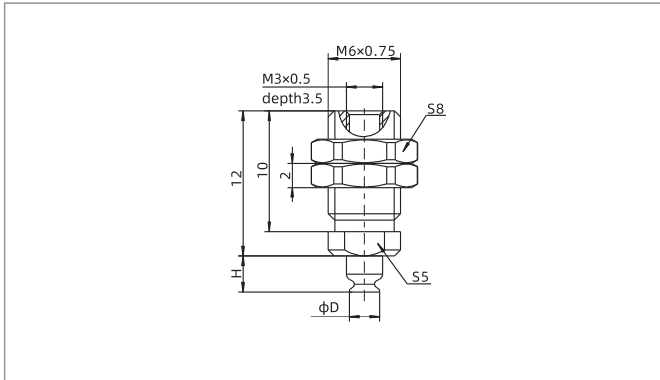
SZ
SP3
SUF
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SOFA
STP
SFT
SFA
SBL
SBLP
SBS
SFP
SBP
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SBOF
STC
SFF
SOB
SOF
SOG
SFM
SOM
SBF
SDM
SFU
SFK
SHT
SDL
SFG
SFD
SB
SBA
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SPU
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SHB
SBB
SOP
SNP

SP3 Series

Suction Cup with Locking Fitting

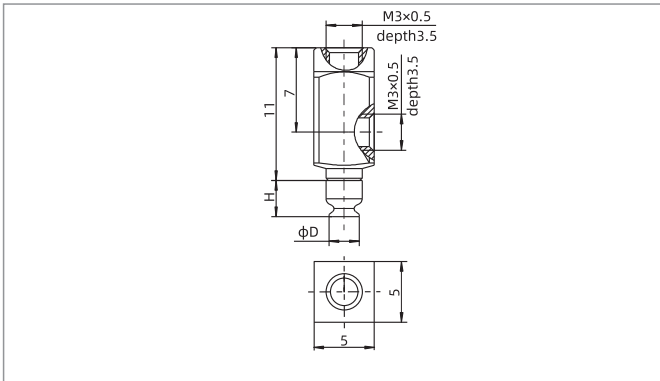


Dimensions(mm) - U type



SP3U1.5-3.5 Vertical-Male thread connection

Model/Size	D	H	Weight g
SP3U1.5□-M3F-M6M	2.0	3.0	2.8
SP3U2□-M3F-M6M	2.5	3.0	2.8
SP3U3.5□-M3F-M6M	4.0	3.0	2.8



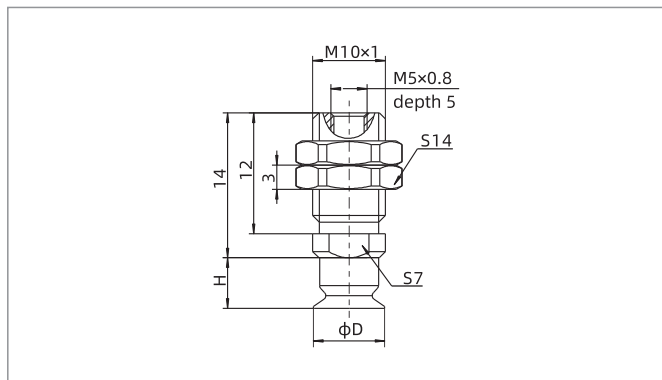
SP3U1.5-3.5 Lateral-Female thread connection

Model/Size	D	H	Weight g
SP3U1.5□-LM3F-M3F	2.0	3.0	1.9
SP3U2□-LM3F-M3F	2.5	3.0	1.9
SP3U3.5□-LM3F-M3F	4.0	3.0	1.9

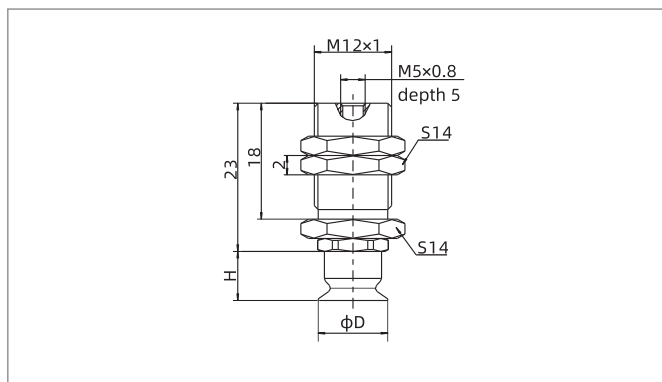
SP3 Series

Suction Cup with Locking Fitting

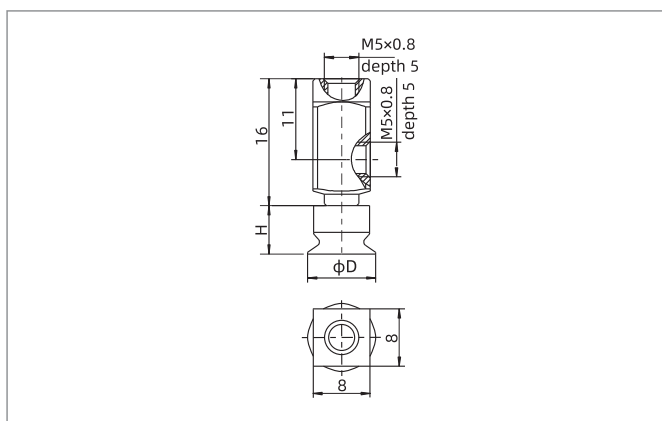
Dimensions(mm) - C type



SP3C4-8 Vertical-Male thread connection



SP3C10-16 Vertical-Male thread connection



SP3C4-16 Lateral-Female thread connection

Model/Size	D	H	Weight g
SP3C4□-M5F-M10M	4.5	6.0	11.0
SP3C6□-M5F-M10M	6.5	6.0	11.0
SP3C8□-M5F-M10M	8.5	6.0	11.0

Model/Size	D	H	Weight g
SP3C10□-M5F-M12M	11.0	7.0	18.8
SP3C13□-M5F-M12M	14.0	7.0	18.9
SP3C16□-M5F-M12M	17.0	7.0	19.0

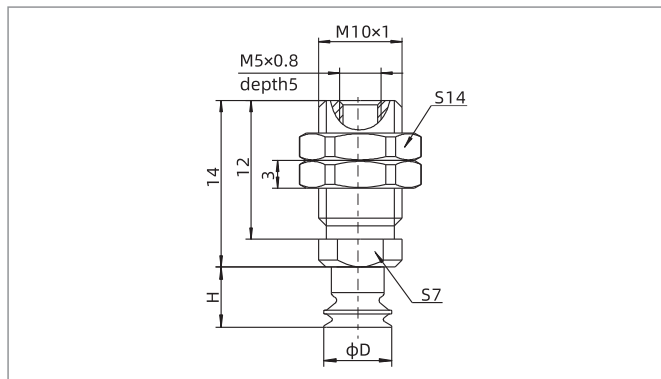
Model/Size	D	H	Weight g
SP3C4□-LM5F-M5F	4.5	6.0	7.0
SP3C6□-LM5F-M5F	6.5	6.0	7.0
SP3C8□-LM5F-M5F	8.5	6.0	7.0
SP3C10□-LM5F-M5F	11.0	7.0	7.7
SP3C13□-LM5F-M5F	14.0	7.0	7.8
SP3C16□-LM5F-M5F	17.0	7.0	7.9

SP3 Series

AIRBEST

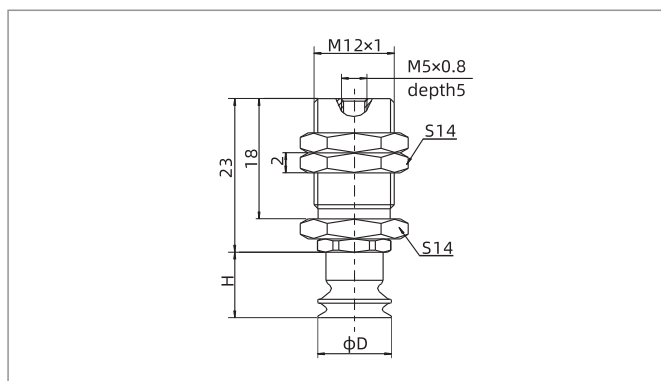
Suction Cup with Locking Fitting

Dimensions(mm) -B type



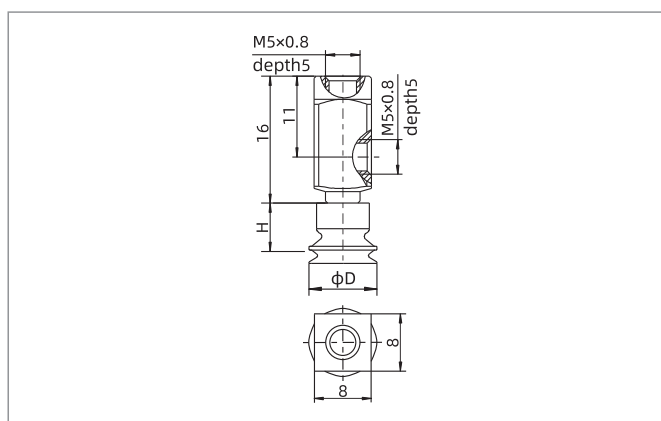
SP3B□□-M5F-M10M

Model/Size	D	H	Weight g
SP3B4□-M5F-M10M	4.5	8.0	11.0
SP3B6□-M5F-M10M	7.0	8.0	11.0
SP3B8□-M5F-M10M	9.0	8.0	11.1



SP3B□□-M5F-M12M

Model/Size	D	H	Weight g
SP3B10□-M5F-M12M	11.0	10.0	19.0
SP3B13□-M5F-M12M	14.0	10.0	19.2
SP3B16□-M5F-M12M	17.0	10.0	19.3



SP3B□□-LM5F-M5F

Model/Size	D	H	Weight g
SP3B4□-LM5F-M5F	4.5	8.0	7.0
SP3B6□-LM5F-M5F	7.0	8.0	7.0
SP3B8□-LM5F-M5F	9.0	8.0	7.1
SP3B10□-LM5F-M5F	11.0	10.0	7.9
SP3B13□-LM5F-M5F	14.0	10.0	8.1
SP3B16□-LM5F-M5F	17.0	10.0	8.2

Mounting parts

Item	Model Vertical direction	Lateral direction	Applicable suction cup
Locking fitting	PJF-M3F-M6M-ST0.5	PJF-LM3F-M3F-ST0.5	SP3U1.5, 2, 3.5
	PJF-M5F-M10M-ST1.5	PJF-LM5F-M5F-ST1.5	SP3C4, 6, 8; SP3B4, 6, 8
	PJF-M5F-M12M-ST2	PJF-LM5F-M5F-ST2	SP3C10, 13, 16; SP3B10, 13, 16

SP3 Series

Suction Cup with Level Compensator

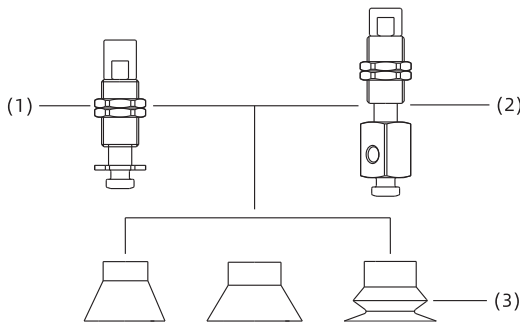


Suction Cup
SZ
SP3
SUF
SAN
SAO
SOFA
STP
SFT
SFA
SBL
SBLP
SBS
SFP
SBP
SXP
SGP
SBOF
STC
SFF
SOB
SOF
SOG
SFM
SOM
SBF
SDM
SFU
SFK
SHT
SDL
SFG
SFD
SB
SBA
SF
SU
SPA
SPF
SPC
SPJ
SPU
SH
SHB
SBB
SOP
SNP

Structure

- ◇ Consisting of replacement suction cup(3) and level compensator(1 or 2)
- ◇ Plug-in fitting for suction cup
- ◇ Vertical vacuum port(1), male thread for mounting
- ◇ Lateral vacuum port(2), male thread for mounting

In the same series, replacement suction cup and level compensator can be combined as required



How to order

SP3B10N - I 10 R - M8

① ② ③ ④ ⑤

① Model	② Vacuum port direction	③ Buffer stroke		④ Rotary type	⑤ Mounting thread
SP3B10N	I - Vertical	3	15	Nil - Rotating	M6 - M6×0.75
	L - Lateral	6	20	R - Non-rotating	M8 - M8×0.75
		10			

◇ Please refer to page 154 for suction cup selection

Selection

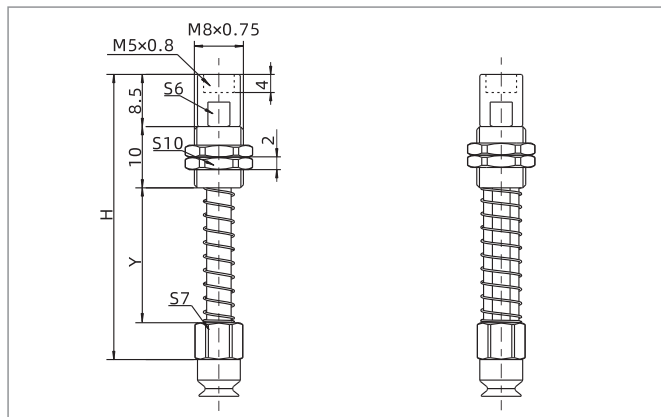
Model	Vacuum port direction		Rotary type		Buffer stroke	Mounting thread
	I-Vertical	L-Lateral	Nil-Rotating	R-Non-rotating		
SP3U1.5-3.5	●	●	●	-	3 6	M6
SP3U1.5-3.5	●	●	-	●	3 6	M8
SP3C4-16	●	●	●	●	3 6 10 15 20	M8
SP3B4-16	●	●	●	●	3 6 10 15 20	M8

◇ Note: "●" default, in stock, "-" unavailable

SP3 Series

Suction Cup with Level Compensator

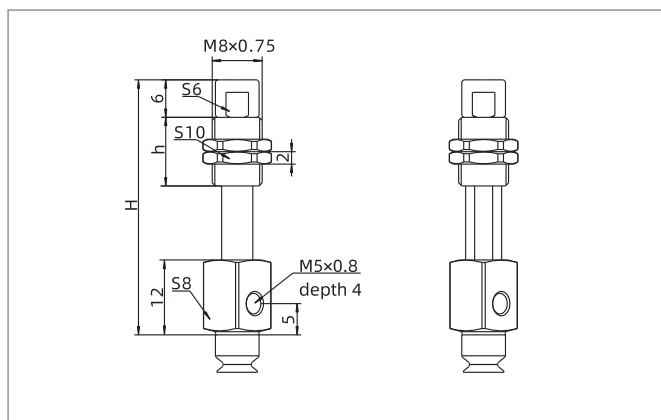
Dimensions(mm) -C type



SP3C4-16 Vertical rotating

SP3C4-16 Vertical non-rotating

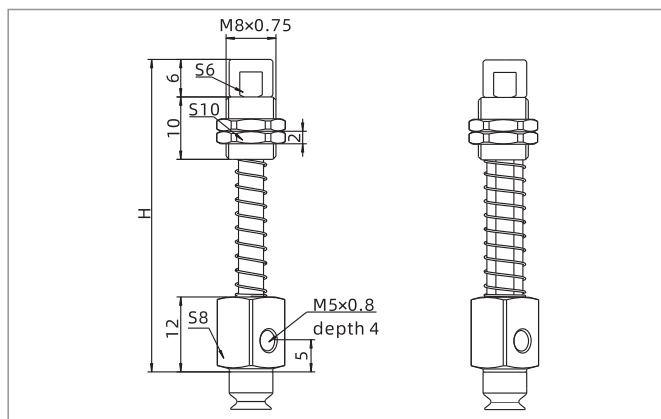
Model/Size	H	Y	Buffer stroke	F1 N	F2 N	Weight g
SP3C□-I15-M8	49.0	24.5	15	0.2	0.5	10.3
SP3C□-I15R-M8	49.0	24.5	15	0.2	0.5	12.3
SP3C□-I20-M8	56.5	32.0	20	0.2	0.5	10.9
SP3C□-I20R-M8	56.5	32.0	20	0.2	0.5	13.4



SP3C4-16 Lateral rotating

SP3C4-16 Lateral non-rotating

Model/Size	H	h	Buffer stroke	F1 N	F2 N	Weight g
SP3C□-L3-M8	33.0	11.0	3	0.2	0.5	12.8
SP3C□-L3R-M8	33.0	11.0	3	0.2	0.5	12.2
SP3C□-L6-M8	39.5	14.5	6	0.2	0.5	14.2
SP3C□-L6R-M8	39.5	14.5	6	0.2	0.5	13.4
SP3C□-L10-M8	49.5	20.5	10	0.2	0.5	16.6
SP3C□-L10R-M8	49.5	20.5	10	0.2	0.5	15.4



SP3C4-16 Lateral rotating

SP3C4-16 Lateral non-rotating

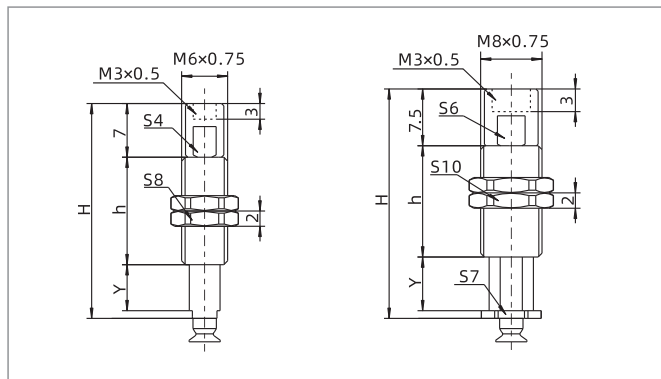
Model/Size	H	Buffer stroke	F1 N	F2 N	Weight g
SP3C□-L15-M8	52.5	15	0.2	0.5	16.3
SP3C□-L15R-M8	52.5	15	0.2	0.5	15.5
SP3C□-L20-M8	60.0	20	0.2	0.5	15.1
SP3C□-L20R-M8	60.0	20	0.2	0.5	16.6

◇ Note: 1. Please refer to page 154 for suction cup selection
2. "F1" means spring force at 0 stroke, "F2" means spring force at max. stroke

SP3 Series

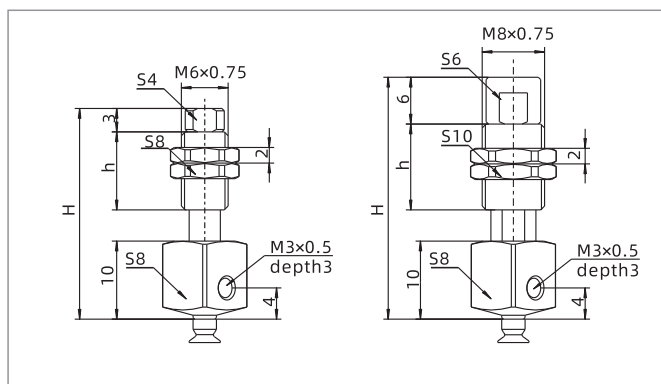
Suction Cup with Level Compensator

Dimensions(mm) -U type



SP3U1.5-3.5 Vertical rotating

SP3U1.5-3.5 Vertical non-rotating



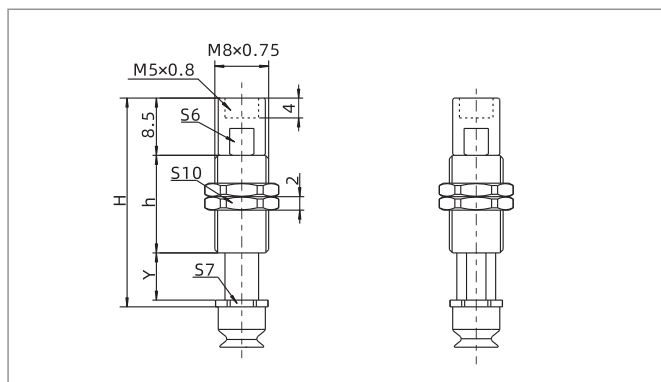
SP3U1.5-3.5 Lateral rotating

SP3U1.5-3.5 Lateral non-rotating

Model/Size	H	h	Y	Buffer stroke	F1 N	F2 N	Weight g
SP3U□-I3-M6	21.0	10.0	3.0	3	0.2	0.4	3.4
SP3U□-I3R-M8	23.5	11.0	3.0	6	0.2	0.5	6.8
SP3U□-I6-M6	28.0	14.0	6.0	3	0.2	0.5	4.4
SP3U□-I6R-M8	30.0	14.5	6.0	6	0.2	0.5	8.2

Model/Size	H	h	Buffer stroke	F1 N	F2 N	Weight g
SP3U□-L3-M6	27.0	10.0	3	0.2	0.4	7.7
SP3U□-L3R-M8	31.0	11.0	6	0.2	0.5	11.0
SP3U□-L6-M6	34.0	14.0	3	0.2	0.5	8.6
SP3U□-L6R-M8	37.5	14.5	6	0.2	0.5	12.2

Dimensions(mm) -C type



SP3C4-16 Vertical rotating

SP3C4-16 Vertical non-rotating

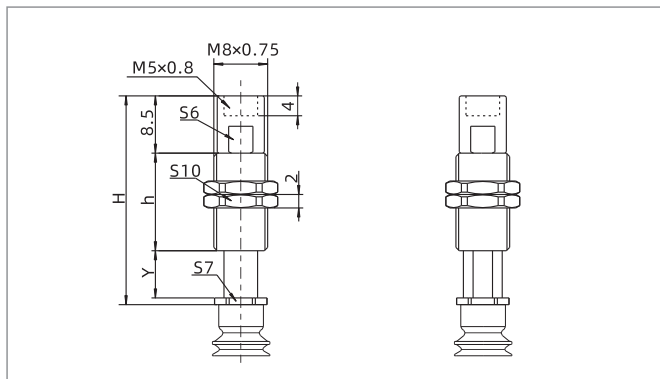
Model/Size	H	h	Y	Buffer stroke	F1 N	F2 N	Weight g
SP3C□-I3-M8	24.5	11.0	4.0	3	0.2	0.5	7.4
SP3C□-I3R-M8	24.5	11.0	4.0	3	0.2	0.5	7.3
SP3C□-I6-M8	31.0	14.5	7.0	6	0.2	0.5	8.6
SP3C□-I6R-M8	31.0	14.5	7.0	6	0.2	0.5	8.6
SP3C□-I10-M8	41.0	20.5	11.0	10	0.2	0.5	10.5
SP3C□-I10R-M8	41.0	20.5	11.0	10	0.2	0.5	10.5

◇ Note: 1. Please refer to page 154 for suction cup selection
2. "F1" means spring force at 0 stroke, "F2" means spring force at max. stroke

SP3 Series

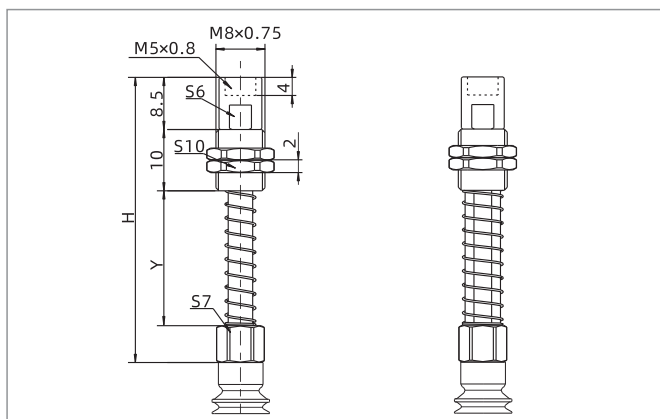
Suction Cup with Level Compensator

Dimensions(mm) -B type



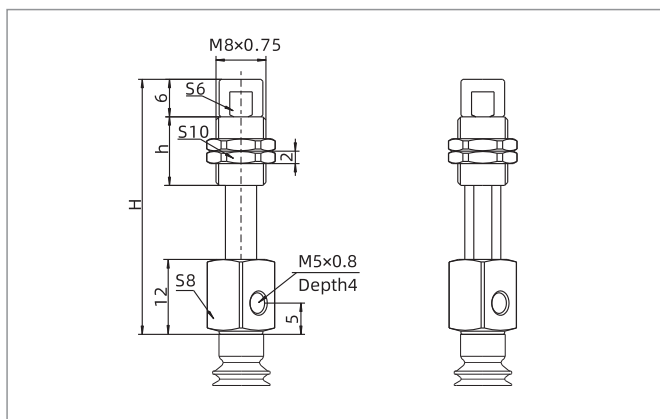
SP3B4-16 Vertical rotating

SP3B4-16 Vertical non-rotating



SP3B4-16 Vertical rotating

SP3B4-16 Vertical non-rotating



SP3B4-16 Lateral rotating

SP3B4-16 Lateral non-rotating

Model/Size	H	h	Y	Buffer stroke	F1 N	F2 N	Weight g
SP3B□-I3-M8	24.5	11.0	4	3	0.2	0.5	7.4
SP3B□-I3R-M8	24.5	11.0	4	3	0.2	0.5	7.3
SP3B□-I6-M8	31.0	14.5	7	6	0.2	0.5	8.6
SP3B□-I6R-M8	31.0	14.5	7	6	0.2	0.5	8.6
SP3B□-I10-M8	41.0	20.5	11	10	0.2	0.5	10.5
SP3B□-I10R-M8	41.0	20.5	11	10	0.2	0.5	10.5

Model/Size	H	Y	Buffer stroke	F1 N	F2 N	Weight g
SP3B□-I15-M8	49.0	24.5	15	0.2	0.5	10.3
SP3B□-I15R-M8	49.0	24.5	15	0.2	0.5	12.3
SP3B□-I20-M8	56.5	32.0	20	0.2	0.5	10.9
SP3B□-I20R-M8	56.5	32.0	20	0.2	0.5	13.4

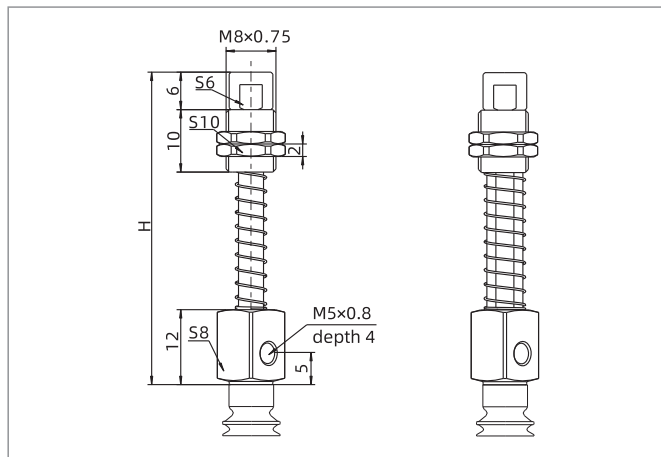
Model/Size	H	h	Buffer stroke	F1 N	F2 N	Weight g
SP3B□-L3-M8	33.0	11.0	3	0.2	0.5	12.8
SP3B□-L3R-M8	33.0	11.0	3	0.2	0.5	12.2
SP3B□-L6-M8	39.5	14.5	6	0.2	0.5	14.2
SP3B□-L6R-M8	39.5	14.5	6	0.2	0.5	13.4
SP3B□-L10-M8	49.5	20.5	10	0.2	0.5	16.6
SP3B□-L10R-M8	49.5	20.5	10	0.2	0.5	15.4

◇ Note: 1. Please refer to page 154 for suction cup selection
2. "F1" means spring force at 0 stroke, "F2" means spring force at max. stroke

SP3 Series

Suction Cup with Level Compensator

Dimensions(mm) -B type



SP3B4-16 Lateral rotating

SP3B4-16 Lateral non-rotating

Model/Size	H	Buffer stroke	F1 N	F2 N	Weight g
SP3B□-L15-M8	52.5	15	0.2	0.5	16.3
SP3B□-L15R-M8	52.5	15	0.2	0.5	15.5
SP3B□-L20-M8	59.5	20	0.2	0.5	15.1
SP3B□-L20R-M8	59.5	20	0.2	0.5	16.6

◇ Note: 1. Please refer to page 154 for suction cup selection
2. "F1" means spring force at 0 stroke, "F2" means spring force at max. stroke

Mounting parts - Level compensator

Model Vertical rotating	Vertical non-rotating	Model Lateral rotating	Lateral non-rotating	Buffer stroke	Applicable suction cup
PSP3-I3ST0.5-M6	PSP3-I3RST0.5-M8	PSP3-L3ST0.5-M6	PSP3-L3RST0.5-M8	3	SP3U1.5, 2, 3.5
PSP3-I6ST0.5-M6	PSP3-I6RST0.5-M8	PSP3-L6ST0.5-M6	PSP3-L6RST0.5-M8	6	
PSP3-I3ST1.5-M8	PSP3-I3RST1.5-M8	PSP3-L3ST1.5-M8	PSP3-L3RST1.5-M8	3	SP3C4, 6, 8; SP3B4, 6, 8
PSP3-I6ST1.5-M8	PSP3-I6RST1.5-M8	PSP3-L6ST1.5-M8	PSP3-L6RST1.5-M8	6	
PSP3-I10ST1.5-M8	PSP3-I10RST1.5-M8	PSP3-L10ST1.5-M8	PSP3-L10RST1.5-M8	10	
PSP3-I15ST1.5-M8	PSP3-I15RST1.5-M8	PSP3-L15ST1.5-M8	PSP3-L15RST1.5-M8	15	
PSP3-I20ST1.5-M8	PSP3-I20RST1.5-M8	PSP3-L20ST1.5-M8	PSP3-L20RST1.5-M8	20	
PSP3-I3ST2-M8	PSP3-I3RST2-M8	PSP3-L3ST2-M8	PSP3-L3RST2-M8	3	SP3C10, 13, 16; SP3B10, 13, 16
PSP3-I6ST2-M8	PSP3-I6RST2-M8	PSP3-L6ST2-M8	PSP3-L6RST2-M8	6	
PSP3-I10ST2-M8	PSP3-I10RST2-M8	PSP3-L10ST2-M8	PSP3-L10RST2-M8	10	
PSP3-I15ST2-M8	PSP3-I15RST2-M8	PSP3-L15ST2-M8	PSP3-L15RST2-M8	15	
PSP3-I20ST2-M8	PSP3-I20RST2-M8	PSP3-L20ST2-M8	PSP3-L20RST2-M8	20	

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