

# SOF Series



## Oval Flat Suction Cup Special for Metal Sheet



METAL SHEET



LONG AND NARROW OBJECT



SLIPPING RESISTANCE



OILY SURFACE



Suction Cup

### Features

- ◇ Oval flat suction cup
- ◇ Internal large area pattern support structure
- ◇ Various sizes are available

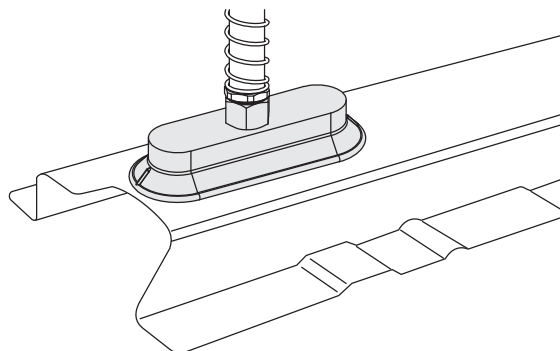
### Advantages

- ◇ Handling long and narrow workpieces
- ◇ Effectively enhance friction force between suction cups and workpieces
- ◇ Suitable for workpieces with different sizes and shapes



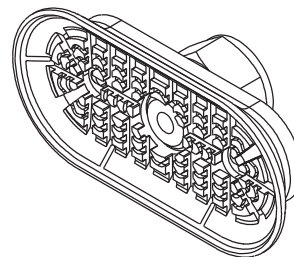
### Applications

- ◇ Handling narrow and long metal parts in fast speed, short cycle time
- ◇ Handling metal sheet and aluminum plates without deformation
- ◇ Handling automotive stamping metal parts



### Structure

- ◇ Suction cup and fitting are one-piece structure



SZ  
SP3  
SUF  
SAN  
SAO  
SOFA  
STP  
SFT  
SFA  
SBT  
SBL  
SBLP  
SBS  
SFP  
SBP  
SXP  
SGP  
SBOF  
STC  
SFF  
**SOB**  
**SOF**  
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

# SOF Series



## Oval Flat Suction Cup Speical for Metal Sheet

### How to order

### SOF 40×80 N - G3F

①                      ②                      ③                      ④

① Series	② Size	③ Material & Hardness	④ Connection thread
SOF	16×50 40×110	N - NBR <span style="background-color: #ff9933; padding: 2px;">60</span>	G2F - G1/4 female thread
	20×80 50×100	NG - NBR <span style="background-color: #99cc33; padding: 2px;">45</span>	G3F - G3/8 female thread
	23×60 60×120		G2M - G1/4 male thread
	30×90 70×140		M10M - M10×1.5 male thread
	40×80		M14M - M14×1.5 male thread
			RA - Rectangular adapter

### Selection

Model	Connection thread					
	G2M	M10M	M14M	G2F	G3F	RA
SOF16×50□-□	SOF16×50□-G2M	SOF16×50□-M10M	SOF16×50□-M14M	SOF16×50□-G2F	SOF16×50□-G3F	SOF16×50□-RA
SOF20×80□-□	SOF20×80□-G2M	SOF20×80□-M10M	SOF20×80□-M14M	SOF20×80□-G2F	SOF20×80□-G3F	SOF20×80□-RA
SOF23×60□-□	SOF23×60□-G2M	SOF23×60□-M10M	SOF23×60□-M14M	SOF23×60□-G2F	SOF23×60□-G3F	SOF23×60□-RA
SOF40×80□-□	SOF40×80□-G2M	SOF40×80□-M10M	SOF40×80□-M14M	SOF40×80□-G2F	SOF40×80□-G3F	SOF40×80□-RA
SOF30×90□-□	SOF30×90□-G2M	SOF30×90□-M10M	SOF30×90□-M14M	SOF30×90□-G2F	SOF30×90□-G3F	SOF30×90□-RA
SOF40×110□-□	SOF40×110□-G2M	SOF40×110□-M10M	SOF40×110□-M14M	SOF40×110□-G2F	SOF40×110□-G3F	SOF40×110□-RA
SOF50×100□-□	SOF50×100□-G2M	SOF50×100□-M10M	SOF50×100□-M14M	SOF50×100□-G2F	SOF50×100□-G3F	SOF50×100□-RA
SOF60×120□-□	SOF60×120□-G2M	SOF60×120□-M10M	SOF60×120□-M14M	SOF60×120□-G2F	SOF60×120□-G3F	SOF60×120□-RA
SOF70×140□-□	SOF70×140□-G2M	SOF70×140□-M10M	SOF70×140□-M14M	SOF70×140□-G2F	SOF70×140□-G3F	SOF70×140□-RA

### Technical parameters

Model	Vertical pull-out force N	Lateral pull-out force N	Lateral pull-out force (Oily surface)N	Inner volume cm <sup>3</sup>	Min.curve radius of workpiece mm	Weight g	Recommended hose dia. mm	MPQ pcs
SOF16×50	33	24	12	2	8	17	4	1
SOF20×80	78	38	35	5	25	23	4	1
SOF23×60	57	37	33	3	20	29	4	1
SOF30×90	125	77	60	10	30	24	4	1
SOF40×80	141	110	100	11	50	43	6	1
SOF40×110	200	188	118	25	35	47	6	1
SOF50×100	217	181	121	20	75	56	6	1
SOF60×120	312	254	170	35	75	70	6	1
SOF70×140	445	344	230	52	90	77	8	1

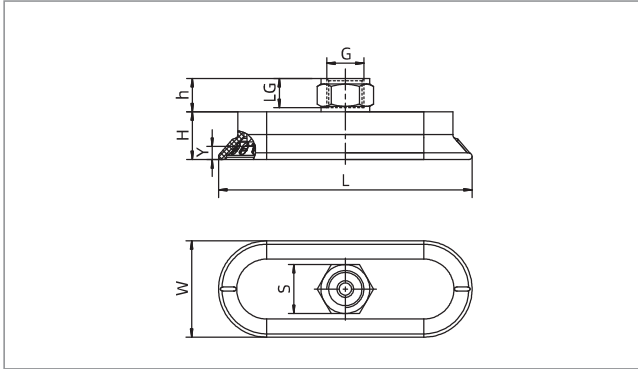
◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces.

# SOF Series

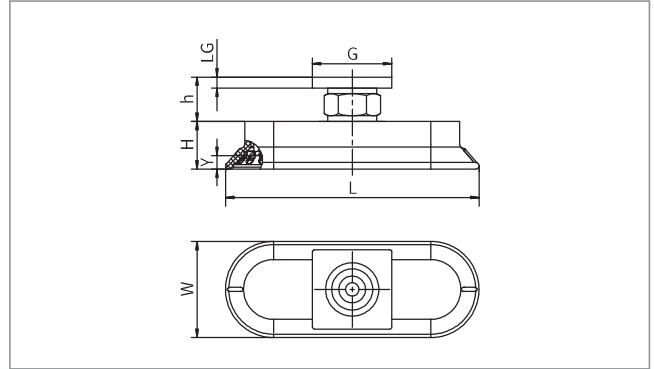
## Oval Flat Suction Cup Special for Metal Sheet



### Dimensions(mm)



F - Female thread connection



RA-Rectangular adapter

Model/Size	L	W	H	G	LG	h	S	Y
SOF16×50□-G2F	50	16	19.5	G1/4	11	14	17	3
SOF16×50□-G3F	50	16	19.5	G3/8	11	14	22	3
SOF16×50□-RA	50	16	19.5	31.8×31.8	4.7	18.7	-	3
SOF20×80□-G2F	84	24	15.5	G1/4	11	14	17	5
SOF20×80□-G3F	84	24	15.5	G3/8	11	14	22	5
SOF20×80□-RA	84	24	15.5	31.8×31.8	4.7	18.7	-	5
SOF23×60□-G2F	61.5	22.5	12	G1/4	11	14	17	3
SOF23×60□-G3F	61.5	22.5	12	G3/8	11	14	22	3
SOF23×60□-RA	61.5	22.5	12	31.8×31.8	4.7	18.7	-	3
SOF30×90□-G2F	93	33	16	G1/4	11	14	17	5
SOF30×90□-G3F	93	33	16	G3/8	11	14	22	5
SOF30×90□-RA	93	33	16	31.8×31.8	4.7	18.7	-	5
SOF40×80□-G2F	82	43	14	G1/4	11	14	17	4
SOF40×80□-G3F	82	43	14	G3/8	11	14	22	4
SOF40×80□-RA	82	43	14	31.8×31.8	4.7	18.7	-	4
SOF40×110□-G2F	113	43	21.5	G1/4	11	14	17	6
SOF40×110□-G3F	113	43	21.5	G3/8	11	14	22	6
SOF40×110□-RA	113	43	21.5	31.8×31.8	4.7	18.7	-	6
SOF50×100□-G2F	102	49	16	G1/4	11	14	17	5
SOF50×100□-G3F	102	49	16	G3/8	11	14	22	5
SOF50×100□-RA	102	49	16	31.8×31.8	4.7	18.7	-	5
SOF60×120□-G2F	123	65	18	G1/4	11	14	17	6
SOF60×120□-G3F	123	65	18	G3/8	11	14	22	6
SOF60×120□-RA	123	65	18	31.8×31.8	4.7	18.7	-	6
SOF70×140□-G2F	141	67.5	19	G1/4	11	14	17	7
SOF70×140□-G3F	141	67.5	19	G3/8	11	14	22	7
SOF70×140□-RA	141	67.5	19	31.8×31.8	4.7	18.7	-	7

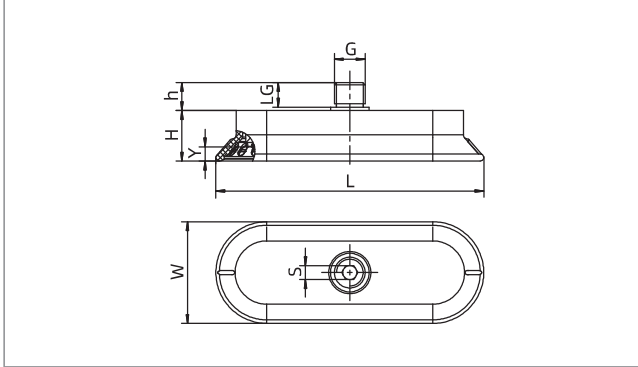
- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF**
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

# SOF Series



## Oval Flat Suction Cup Special for Metal Sheet

### Dimensions(mm)



M - Male thread connection

Model/Size	L	W	H	G	LG	h	S	Y
SOF16×50□-G2M	50	16	19.5	G1/4	9	11	5	3
SOF16×50□-M10M	50	16	19.5	M10×1.5	12	13.5	5	3
SOF16×50□-M14M	50	16	19.5	M14×1.5	12	13.5	5	3
SOF20×80□-G2M	84	24	15.5	G1/4	9	11	5	5
SOF20×80□-M10M	84	24	15.5	M10×1.5	12	13.5	5	5
SOF20×80□-M14M	84	24	15.5	M14×1.5	12	13.5	5	5
SOF23×60□-G2M	61.5	22.5	12	G1/4	9	11	5	3
SOF23×60□-M10M	61.5	22.5	12	M10×1.5	12	13.5	5	3
SOF23×60□-M14M	61.5	22.5	12	M14×1.5	12	13.5	5	3
SOF30×90□-G2M	93	33	16	G1/4	9	11	5	5
SOF30×90□-M10M	93	33	16	M10×1.5	12	13.5	5	5
SOF30×90□-M14M	93	33	16	M14×1.5	12	13.5	5	5
SOF40×80□-G2M	82	43	14	G1/4	9	11	5	4
SOF40×80□-M10M	82	43	14	M10×1.5	12	13.5	5	4
SOF40×80□-M14M	82	43	14	M14×1.5	12	13.5	5	4
SOF40×110□-G2M	113	43	21.5	G1/4	9	11	5	6
SOF40×110□-M10M	113	43	21.5	M10×1.5	12	13.5	5	6
SOF40×110□-M14M	113	43	21.5	M14×1.5	12	13.5	5	6
SOF50×100□-G2M	102	49	16	G1/4	9	11	5	5
SOF50×100□-M10M	102	49	16	M10×1.5	12	13.5	5	5
SOF50×100□-M14M	102	49	16	M14×1.5	12	13.5	5	5
SOF60×120□-G2M	123	65	18	G1/4	9	11	5	6
SOF60×120□-M10M	123	65	18	M10×1.5	12	13.5	5	6
SOF60×120□-M14M	123	65	18	M14×1.5	12	13.5	5	6
SOF70×140□-G2M	141	67.5	19	G1/4	9	11	5	7
SOF70×140□-M10M	141	67.5	19	M10×1.5	12	13.5	5	7
SOF70×140□-M14M	141	67.5	19	M14×1.5	12	13.5	5	7

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