

SOF Series

Oval Flat Suction Cup Special for Metal Sheet

AIRBEST



METAL
SHEET



LONG AND
NARROW OBJECT



SLIPPING
RESISTANCE



OILY
SURFACE

RoHS

Features

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

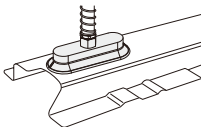
Advantages

- ◇ Handling long and narrow workpieces
- ◇ Effectively enhance friction force between suction cups and workpieces
- ◇ The max. temp of HK material is 250°C, it can be used to pick up high temp metal sheet
- ◇ The max. temp of HD material is 160°C, it can be used to pick up high temp glass without mark
- ◇ 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



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How to order

SOF 40x80 N - G3F

① Series	② Size	③ Material & Hardness	④ Connection thread
SOF	16x50	40x110 N - NBR	G2F - G1/4 female thread M10M - M10x1.5 male thread
	20x80	50x100 NG - NBR	G3F - G3/8 female thread M14M - M14x1.5 male thread
	23x60	60x120 HK - Extra high temp rubber	G2M - G1/4 male thread RA - Rectangular adapter
	30x90	70x140 HD - High temp/mark free material	
	40x80		

Selection

Model	Connection thread G2M	M10M	M14M	G2F	G3F	RA
SOF16x50□-□	SOF16x50□-G2M	SOF16x50□-M10M	SOF16x50□-M14M	SOF16x50□-G2F	SOF16x50□-G3F	SOF16x50□-RA
SOF20x80□-□	SOF20x80□-G2M	SOF20x80□-M10M	SOF20x80□-M14M	SOF20x80□-G2F	SOF20x80□-G3F	SOF20x80□-RA
SOF23x60□-□	SOF23x60□-G2M	SOF23x60□-M10M	SOF23x60□-M14M	SOF23x60□-G2F	SOF23x60□-G3F	SOF23x60□-RA
SOF40x80□-□	SOF40x80□-G2M	SOF40x80□-M10M	SOF40x80□-M14M	SOF40x80□-G2F	SOF40x80□-G3F	SOF40x80□-RA
SOF30x90□-□	SOF30x90□-G2M	SOF30x90□-M10M	SOF30x90□-M14M	SOF30x90□-G2F	SOF30x90□-G3F	SOF30x90□-RA
SOF40x110□-□	SOF40x110□-G2M	SOF40x110□-M10M	SOF40x110□-M14M	SOF40x110□-G2F	SOF40x110□-G3F	SOF40x110□-RA
SOF50x100□-□	SOF50x100□-G2M	SOF50x100□-M10M	SOF50x100□-M14M	SOF50x100□-G2F	SOF50x100□-G3F	SOF50x100□-RA
SOF60x120□-□	SOF60x120□-G2M	SOF60x120□-M10M	SOF60x120□-M14M	SOF60x120□-G2F	SOF60x120□-G3F	SOF60x120□-RA
SOF70x140□-□	SOF70x140□-G2M	SOF70x140□-M10M	SOF70x140□-M14M	SOF70x140□-G2F	SOF70x140□-G3F	SOF70x140□-RA

Model	Connection thread G2M	G2F	G3F	Model	Connection thread G2M	G2F	G3F
SOF16x50HK-□	SOF16x50HK-G2M	SOF16x50HK-G2F	SOF16x50HK-G3F	SOF16x50HD-□	SOF16x50HD-G2M	SOF16x50HD-G2F	SOF16x50HD-G3F
SOF20x80HK-□	SOF20x80HK-G2M	SOF20x80HK-G2F	SOF20x80HK-G3F	SOF20x80HD-□	SOF20x80HD-G2M	SOF20x80HD-G2F	SOF20x80HD-G3F
SOF23x60HK-□	SOF23x60HK-G2M	SOF23x60HK-G2F	SOF23x60HK-G3F	SOF23x60HD-□	SOF23x60HD-G2M	SOF23x60HD-G2F	SOF23x60HD-G3F
SOF40x80HK-□	SOF40x80HK-G2M	SOF40x80HK-G2F	SOF40x80HK-G3F	SOF40x80HD-□	SOF40x80HD-G2M	SOF40x80HD-G2F	SOF40x80HD-G3F
SOF30x90HK-□	SOF30x90HK-G2M	SOF30x90HK-G2F	SOF30x90HK-G3F	SOF30x90HD-□	SOF30x90HD-G2M	SOF30x90HD-G2F	SOF30x90HD-G3F
SOF40x110HK-□	SOF40x110HK-G2M	SOF40x110HK-G2F	SOF40x110HK-G3F	SOF40x110HD-□	SOF40x110HD-G2M	SOF40x110HD-G2F	SOF40x110HD-G3F
SOF50x100HK-□	SOF50x100HK-G2M	SOF50x100HK-G2F	SOF50x100HK-G3F	SOF50x100HD-□	SOF50x100HD-G2M	SOF50x100HD-G2F	SOF50x100HD-G3F
SOF60x120HK-□	SOF60x120HK-G2M	SOF60x120HK-G2F	SOF60x120HK-G3F	SOF60x120HD-□	SOF60x120HD-G2M	SOF60x120HD-G2F	SOF60x120HD-G3F
SOF70x140HK-□	SOF70x140HK-G2M	SOF70x140HK-G2F	SOF70x140HK-G3F	SOF70x140HD-□	SOF70x140HD-G2M	SOF70x140HD-G2F	SOF70x140HD-G3F

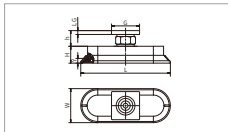
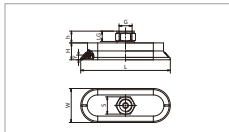
Technical parameters

Model	Vertical pull-out force N	Lateral pull-out force N	Lateral pull-out force (Oily surface) N	Inner volume cm ³	Min. curve radius of workpiece mm	Weight g	Recommended hose dia. mm	MPQ pcs
SOF16x50	33	24	12	2	8	17	4	1
SOF20x80	78	38	35	5	25	23	4	1
SOF23x60	57	37	33	3	20	29	4	1
SOF30x90	125	77	60	10	30	24	4	1
SOF40x80	141	110	100	11	50	43	6	1
SOF40x110	200	188	118	25	35	47	6	1
SOF50x100	217	181	121	20	75	56	6	1
SOF60x120	312	254	170	35	75	70	6	1
SOF70x140	445	344	230	52	90	77	8	1

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.

Oval Flat Suction Cup Speical for Metal Sheet

Dimensions(mm)



F - Female thread connection

RA-Rectangular adapter

Model/Size	L	W	H	G	LG	h	S	Y
SOF16x50□-G2F	50	16	19.5	G1/4	11	14	17	3
SOF16x50□-G3F	50	16	19.5	G3/8	11	14	22	3
SOF16x50□-RA	50	16	19.5	31.8×31.8	4.7	18.7	-	3
SOF20x80□-G2F	84	24	15.5	G1/4	11	14	17	5
SOF20x80□-G3F	84	24	15.5	G3/8	11	14	22	5
SOF20x80□-RA	84	24	15.5	31.8×31.8	4.7	18.7	-	5
SOF23x60□-G2F	61.5	22.5	12	G1/4	11	14	17	3
SOF23x60□-G3F	61.5	22.5	12	G3/8	11	14	22	3
SOF23x60□-RA	61.5	22.5	12	31.8×31.8	4.7	18.7	-	3
SOF30x90□-G2F	93	33	16	G1/4	11	14	17	5
SOF30x90□-G3F	93	33	16	G3/8	11	14	22	5
SOF30x90□-RA	93	33	16	31.8×31.8	4.7	18.7	-	5
SOF40x80□-G2F	82	43	14	G1/4	11	14	17	4
SOF40x80□-G3F	82	43	14	G3/8	11	14	22	4
SOF40x80□-RA	82	43	14	31.8×31.8	4.7	18.7	-	4
SOF40x110□-G2F	113	43	21.5	G1/4	11	14	17	6
SOF40x110□-G3F	113	43	21.5	G3/8	11	14	22	6
SOF40x110□-RA	113	43	21.5	31.8×31.8	4.7	18.7	-	6
SOF50x100□-G2F	102	49	16	G1/4	11	14	17	5
SOF50x100□-G3F	102	49	16	G3/8	11	14	22	5
SOF50x100□-RA	102	49	16	31.8×31.8	4.7	18.7	-	5
SOF60x120□-G2F	123	65	18	G1/4	11	14	17	6
SOF60x120□-G3F	123	65	18	G3/8	11	14	22	6
SOF60x120□-RA	123	65	18	31.8×31.8	4.7	18.7	-	6
SOF70x140□-G2F	141	67.5	19	G1/4	11	14	17	7
SOF70x140□-G3F	141	67.5	19	G3/8	11	14	22	7
SOF70x140□-RA	141	67.5	19	31.8×31.8	4.7	18.7	-	7

