

Oval Bellows family (OB)



The oval suction cups are suitable for handling of long and narrow objects and surfaces when maximum lifting force is desired. Oval suction cups are specially suitable for irregular surfaces and when level compensation is desired. This program of oval suction cups has characteristics that are specially suited for handling of metal-sheet material.

Lifting forces

	Lifting force vertical to the surface, lbf, at vacuum level			Lifting force parallel to the surface, lbf, at vacuum level		
	6 -inHg	18 -inHg	27 -inHg	6 -inHg	18 -inHg	27 -inHg
OB20x60P	2.92	7.64	12.8	2.92	8.32	10.8
OB35x90P (PU30°/PU60°)	9.44	26.8	39.1	10.8	16.4	22.5
OB35x90P (PU60°)	9.44	26.3	41.6	7.19	19.1	25.0
OB50x140P (PU30°/PU60°)	13.0	52.8	82.3	24.7	58.5	78.5
OB50x140P (PU60°)	17.3	51.9	82.7	27.4	65.6	89.0
OB65x170P (PU30°/PU60°)	26.8	75.3	121.6	31.7	85.2	119.6
OB65x170P (PU60°)	29.2	69.7	119.8	38.2	98.9	134.9
OBF35x90P	—	31.5/24.3*	44.5/35.3*	—	28.1/23.6*	40.2/33.9*
OBF50x140P	—	73.1/55.3*	98.5/83.6*	—	73.7/60.9*	93.3/78.0*
OBF65x170P	—	89.2/90.6*	128.1/112.9*	—	98.2/120.9*	139.2/149.5
OBL40x90P (PU60°)	9.89	23.6	36.0	8.99	19.6	27.2
OBL40x90P (PU70°)	11.0	26.3	40.0	10.1	21.8	30.3

* Dry metal sheet/Oily metal sheet.

General specifications

	Outer diameter, in	Height, in	Min. curve radius, in	Max. vertical movement, in	Volume, in ³
OB20x60P	2.44x0.93	0.93	0.28	0.18	1.46
OB35x90P	3.76x1.67	1.07	1.18	0.41	2.32
OB50x140P	5.75x2.32	1.36	0.91/1.02**	0.44	5.80
OB65x170P	6.97x2.99	1.63	1.50	0.63	10.68
OBF35x90P	4.13x1.97	1.54–1.89*	1.18	0.43	2.20

	Outer diameter, in	Height, in	Min. curve radius, in	Max. vertical movement, in	Volume, in ³
OBF50x140P	6.18x2.64	1.85–2.20*	1.97	0.51	5.80
OBF65x170P	7.36x3.23	2.13–2.47*	1.97	0.59	12.2
OBL40x90P	3.65x1.77	2.48–2.87*	1.10	1.22	6.41

* Height range includes fittings, ** PU30°/PU60° / PU60°.

Available materials

	PU30°/PU60°	PU55°/PU60°	PU60°	PU70°
OB20x60P			●	
OB35x90P	●		●	
OB50x140P	●		●	
OB65x170P	●		●	
OBF35x90P		●		
OBF50x140P		●		
OBF65x170P		●		
OBL40x90P			●	●

Material resistance

For more material information go to page 23.

Applications

Table shows typical applications for the suction cup. For more detailed information, please visit piab.com.

	Oily sheet metal	Corrugated / cardboard	Glass handling	Mark Free
OB20x60P				●
OB35x90P		●		●
OB50x140P		●		●
OB65x170P		●		●
OBF35x90P	●			
OBF50x140P	●			
OBF65x170P	●			
OBL40x90P			●	●

Fittings

For a table of possible fittings to use go to page 80 for technical information on all fittings visit piab.com.

Ordering information

For a complete list of available cups and combinations with further information visit piab.com. On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register to receive full access to all resources available.