

Universal family (U)



This family is designed for flat or slightly curved surfaces. They are available in a number of different materials such as DURAFLEX® silicone and also a material that is compliant by FDA (FDA 21 CFR 177.2600) and meets EU's regulation EU 1935/2004.

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
U2	0.01	0.02	0.03	—	—	—
U3	0.02	0.09	0.15	—	—	—
U4	0.04	0.20	0.29	0.04	0.18	0.22
U6	0.11	0.38	0.56	0.11	0.34	0.45
U8	0.22	0.65	0.88	0.22	0.65	0.76
U10	0.34	0.99	1.55	0.34	0.99	1.10
U15	0.79	1.89	2.47	0.79	1.21	1.33
U20	1.33	2.70	3.60	1.33	1.98	2.20
U30	2.70	5.62	6.74	1.75	2.20	2.47
U40-2	4.50	8.77	11.0	3.15	4.95	6.07
U50-2	7.87	16.4	20.7	4.50	8.32	9.89
U15-3	0.79	1.89	2.47	0.79	1.21	1.33
U20-2P	0.67/0.67/0.67*	2.36/2.59/3.15*	3.15/3.37/4.72*	0.34/0.34/0.67*	0.67/0.67/1.35*	1.35/1.35/1.80*

* PU40° / PU50° / PU60°.

General specifications

	Outer diameter, in	Height, in	Min. curve radius, in	Max. vertical movement, in	Volume, in³
U2	0.10	0.14	0.16	0.0039	0.0002
U3	0.15	0.18	0.20	0.01	0.0003
U4	0.20	0.24	0.12	0.01	0.002
U6	0.28	0.28	0.20	0.01	0.003
U8	0.35	0.28	0.24	0.02	0.01
U10	0.43	0.41	0.31	0.02	0.01

	Outer diameter, in	Height, in	Min. curve radius, in	Max. vertical movement, in	Volume, in ³
U15	0.65	0.45	0.31	0.06	0.03
U20	0.87	0.31	0.51	0.10	0.06
U30	1.26	0.37	0.79	0.14	0.12
U40-2	1.61	0.51	1.18	0.18	0.34
U50-2	2.02	0.69	1.38	0.24	0.73
U15-3	0.65	0.45	0.31	0.06	0.03
U20-2P	0.34	0.55	0.04/0.35/0.47*	0.20	0.04

* PU40° / PU50° / PU60°.

Available materials

	Chloroprene, CR	Conductive Silicone, CSIL	HNBR	Nitrile-PVC, NPV	PU40°	PU50°	PU60°	Silicone, SIL	Silicone, SIL FDA EU
U2									
U3		●							
U4	●							●	●
U6	●		●					●	●
U8	●							●	●
U10	●		●					●	●
U15	●		●					●	●
U20	●		●					●	●
U30				●				●	●
U40-2				●				●	●
U50-2				●				●	●
U15-3						●	●	●	
U20-2P					●	●	●		

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.

	Dry sheet metal	FDA EU-standard compliant	Electronic / semiconductor	Plastic injection molded parts	Mark Free	High/low temp cup (plastic)	Glass handling	Bag opening/thin paper - slip sheets/film
U2			●					
U3			●					
U4	●	●		●				
U6	●	●		●	●			

	Dry sheet metal	FDA EU-standard compliant	Electronic / semiconductor	Plastic injection molded parts	Mark Free	High/low temp cup (plastic)	Glass handling	Bag opening/thin paper - slip sheets/film
U8	●	●		●				
U10		●		●	●	●	●	
U15		●		●	●	●	●	
U20		●		●	●	●	●	
U30	●	●		●				
U40-2	●	●		●				
U50-2	●	●		●				
U15-3								●
U20-2P					●			●

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.