

Deep family (D)



This family is designed for curved and irregular surfaces. Can lift even over corners and edges. This product is also available in 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, N, at vacuum level					Lifting force parallell to the surface, N, at vacuum level				
	10 -kPa	20 -kPa	40 -kPa	60 -kPa	90 -kPa	10 -kPa	20 -kPa	40 -kPa	60 -kPa	90 -kPa
D15-2	—	2.9	—	7.8	11	—	—	—	—	—
D20-2	—	5.9	—	15	18	—	—	—	—	—
D30-2	—	14	—	26	31	—	—	—	—	—
D50	—	36	—	78	98	—	—	—	—	—
P-D27	3.2	5.5	8.1	—	—	7.6	13.5	21.4	—	—
P-D36	4.5	8.6	19	—	—	12.2	16.8	28.3	—	—





GENERAL SPECIFICATIONS

	Outer diameter, mm	Height, mm	Min. curve radius, mm	Max. vertical movement, mm	Volume, cm ³
D15-2	16	16.6	6	3	0.9
D20-2	22	13.2	8	4.5	2.5
D30-2	32	19.2	13	5	5
D50	53	31.5	25	10	15
P-D27	26.9	31.5	28	–	6.6
P-D36	35.8	41.3	37	–	16.2

AVAILABLE MATERIALS AND INDUSTRIES

An explanation of the industry icons is available on the cover fold out.

Cup	Material					MSF
D15-2	Chloroprene, CR	●		●	●	●
D15-2	Silicone, SIL	●	●			
D15-2	Silicone FDA EU, SIL FDA	●	●			
D20-2	Chloroprene, CR	●		●	●	●
D20-2	Silicone, SIL	●	●			
D20-2	Silicone FDA EU, SIL FDA	●	●			
D30-2	Chloroprene, CR	●		●	●	●
D30-2	Silicone, SIL	●	●			
D30-2	Silicone FDA EU, SIL FDA	●	●			
D50	Chloroprene, CR	●		●	●	●
D50	Silicone, SIL	●	●			
D50	Silicone FDA EU, SIL FDA	●	●			

Cup	Material					MSF
P-D27	Silicone (SIL detectable FCM)	●	●			
P-D36	Silicone (SIL detectable FCM)	●	●			

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	Plastic injection molded parts
D15-2	●	●	●
D20-2	●	●	●
D30-2	●	●	●
D50	●	●	●
P-D27		●	
P-D36		●	

FITTINGS

For a table of possible fittings to use go to pages 198–200, for technical information on all fittings visit piab.com.

ORDERING INFORMATION

Description	Item no.
Suction cup D15-2 Chloroprene, M5 male	3150010
Suction cup D15-2 Silicone	3150135S
Suction cup D15-2 Silicone FCM	0200266
Suction cup D15-2 Silicone FCM, M5 male	9909674
Suction cup D15-2 Silicone, M5 male	3150010S
Suction cup D15-2 Silicone	3150135S
Suction cup D20-2 Chloroprene	0101123

Description	Item no.
Suction cup D20-2 Chloroprene, G1/8" male, with mesh filter	0101216
Suction cup D20-2 Chloroprene, G1/8" male/M5 female, with mesh filter	0101220
Suction cup D20-2 Chloroprene, M5 female	0101215
Suction cup D20-2 Silicone	0101124
Suction cup D20-2 Silicone FCM	0200444
Suction cup D20-2 Silicone FCM, G1/8" male, with mesh filter	9909712
Suction cup D20-2 Silicone FCM, G1/8" male/M5 female, with mesh filter	9909713
Suction cup D20-2 Silicone, G1/8" male, with mesh filter	0101227
Suction cup D20-2 Silicone, G1/8" male/M5 female, PA	0110331
Suction cup D20-2 Silicone, G1/8" male/M5 female, with mesh filter	0101231
Suction cup D20-2 Silicone, M5 female	0101226
Suction cup D20-2 Silicone, M5 female, with dual flow control valve	0101232
Suction cup D30-2 Chloroprene	0101125
Suction cup D30-2 Chloroprene, G1/8" male, with mesh filter	0101238
Suction cup D30-2 Chloroprene, G1/8" male, with mesh filter and dual flow control valve	0101244
Suction cup D30-2 Chloroprene, G1/8" male/M5 female, with dual flow control valve	0101246
Suction cup D30-2 Chloroprene, G1/8" male/M5 female, with mesh filter	0101242
Suction cup D30-2 Chloroprene, M5 female	0101237
Suction cup D30-2 Silicone	0101126
Suction cup D30-2 Silicone FCM	0200446
Suction cup D30-2 Silicone FCM, G1/8" male, with mesh filter	9909714

Description	Item no.
Suction cup D30-2 Silicone FCM, G1/8" male/M5 female, with mesh filter	9909715
Suction cup D30-2 Silicone, 5xM5 female	0101252
Suction cup D30-2 Silicone, G1/8" male, with mesh filter	0101249
Suction cup D30-2 Silicone, G1/8" male/M5 female, with mesh filter	0101253
Suction cup D30-2 Silicone, M5 female	0101248
Suction cup D30-2 Silicone, G1/8" male/M5 female, PA	0110332
Suction cup D50 Chloroprene	0101127
Suction cup D50 Chloroprene, 1/8" NPSF female, PA	0109841
Suction cup D50 Chloroprene, 1/8" NPSF female, with mesh filter	0101727
Suction cup D50 Chloroprene, G1/4" male, with mesh filter	0101722
Suction cup D50 Chloroprene, G3/8" male, with mesh filter	0101724
Suction cup D50 Silicone	0101128
Suction cup D50 Silicone FCM	0200445
Suction cup D50 Silicone FCM, 1/8" NPSF female, with mesh filter	9909676
Suction cup D50 Silicone FCM, G1/4" male, with mesh filter	9909675
Suction cup D50 Silicone, 1/4" NPT male, with mesh filter	0101736
Suction cup D50 Silicone, 1/8" NPSF female, with mesh filter	0101740
Suction cup D50 Silicone, G1/4" male, with mesh filter	0101735
Suction cup D50 Silicone, G3/8" male, with mesh filter	0101737
Suction cup P-D27 Silicone detectable, FCM	0206371
Suction cup P-D27 Silicone 1/4" NPT male composite, detectable, FCM	0207027

Description	Item no.
Suction cup P-D27 Silicone 1/4" NPT male SS, detectable, FCM	0207023
Suction cup P-D27 Silicone 1/8" NPT male composite, detectable, FCM	0207028
Suction cup P-D27 Silicone 1/8" NPT male SS, detectable, FCM	0207024
Suction cup P-D27 Silicone G1/4" male composite, detectable, FCM	0207025
Suction cup P-D27 Silicone G1/4" male SS, detectable, FCM	0207021
Suction cup P-D27 Silicone G1/8" male composite, detectable, FCM	0207026
Suction cup P-D27 Silicone G1/8" male SS, detectable, FCM	0207022
Suction cup P-D36 Silicone detectable, FCM	0206372
Suction cup P-D36 Silicone 1/4" NPT male composite, detectable, FCM	0207035
Suction cup P-D36 Silicone 1/4" NPT male SS, detectable, FCM	0207031
Suction cup P-D36 Silicone 3/8" NPT male composite, detectable, FCM	0207036
Suction cup P-D36 Silicone 3/8" NPT male SS, detectable, FCM	0207032
Suction cup P-D36 Silicone G1/4" male composite, detectable, FCM	0207033
Suction cup P-D36 Silicone G1/4" male SS, detectable, FCM	0207029
Suction cup P-D36 Silicone G3/8" male SS, detectable, FCM	0207030
Suction cup P-D36 Silicone G3/8" male composite, detectable, FCM	0207034

Deep family (DC)



This family is designed for flat, convex or concave surfaces, e.g., such as those encountered when handling metal sheets in later stages of a press line. The suction cups have a thin design that easily follows the curved metal sheet. A special inner pattern gives maximum shear force grip even on oily/slippery surfaces. DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane. The material does not leave any marks on the objects handled and has a fantastic elastic memory.

LIFTING FORCES

	Lifting force vertical to the surface, N, at vacuum level		Lifting force parallell to the surface, N, at vacuum level	
	60 -kPa	90 -kPa	60 -kPa	90 -kPa
DCF65P	143/141	193/191	146/100	196/134
DCF90P	255/222	311/310	256/183	358/248
DCF110P	315/313	436/433	377/286	573/358


GENERAL SPECIFICATIONS

	Outer diameter, mm	Height, mm*	Min. curve radius, mm	Max. vertical movement, mm	Volume, cm ³
DCF65P	67.5	28.2– 47.7	95	9	23.9
DCF90P	92.5	34.2– 51.7	130	13	57.5
DCF110P	112.5	40.6– 59.8	153	16	110.2

* Height range includes fittings.

AVAILABLE MATERIALS AND INDUSTRIES

An explanation of the industry icons is available on the cover fold out.

Cup	Material		MSF
DCF65P	PU60°	●	●
DCF90P	PU60°	●	●
DCF110P	PU60°	●	●

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	Oily sheet metal	Mark Free
DCF65P	●	●	●
DCF90P	●	●	●
DCF110P	●	●	●

FITTINGS

For a table of possible fittings to use go to pages 198–200, for technical information on all fittings visit piab.com.

ORDERING INFORMATION

Description	Item no.
Suction cup DCF65P Polyurethane 60 G1/4" male with mesh filter	0207678
Suction cup DCF65P Polyurethane 60 G3/8" female with mesh filter, 17 mm thread	0209185
Suction cup DCF65P Polyurethane 60 M10x1,5 male with mesh filter	0207654
Suction cup DCF65P Polyurethane 60, 3/8" NPT female, with mesh filter	0206535
Suction cup DCF65P Polyurethane 60, G1/4" female, with mesh filter	0206794
Suction cup DCF65P Polyurethane 60, G3/8" female plastic	0206538
Suction cup DCF65P Polyurethane 60, G3/8" female, with mesh filter	0206537
Suction cup DCF65P Polyurethane 60, G3/8" male, 1/8" NPSF female, with mesh filter	0206536

Description	Item no.
Suction cup DCF65P Polyurethane 60, T-slot, with mesh filter	0206539
Suction cup DCF90P Polyurethane 60 G1/4" male with mesh filter	0207679
Suction cup DCF90P Polyurethane 60 G3/8" female with mesh filter, 17 mm thread	0209186
Suction cup DCF90P Polyurethane 60 M10x1,5 male with mesh filter	0207655
Suction cup DCF90P Polyurethane 60, 3/8" NPT female, with mesh filter	0206540
Suction cup DCF90P Polyurethane 60, G1/4" female, with mesh filter	0206795
Suction cup DCF90P Polyurethane 60, G3/8" female plastic	0206543
Suction cup DCF90P Polyurethane 60, G3/8" female, with mesh filter	0206542
Suction cup DCF90P Polyurethane 60, G3/8" male, 1/8" NPSF female, with mesh filter	0206541
Suction cup DCF90P Polyurethane 60, T-slot, with mesh filter	0206544
Suction cup DCF110P Polyurethane 60 G1/4" male with mesh filter	0207680
Suction cup DCF110P Polyurethane 60 G3/8" female with mesh filter, 17 mm thread	0209187
Suction cup DCF110P Polyurethane 60 M10x1,5 male with mesh filter	0207660
Suction cup DCF110P Polyurethane 60, 3/8" NPT female, with mesh filter	0206545
Suction cup DCF110P Polyurethane 60, G1/4" female, with mesh filter	0206796
Suction cup DCF110P Polyurethane 60, G3/8" female plastic	0206548
Suction cup DCF110P Polyurethane 60, G3/8" female, with mesh filter	0206547
Suction cup DCF110P Polyurethane 60, G3/8" male, 1/8" NPSF female, with mesh filter	0206546
Suction cup DCF110P Polyurethane 60, T-slot, with mesh filter	0206549