



U type – Without efficiency valve

Features and Strengths

Suitable for flat and slightly curved surface products

Examples of use

Thin metal sheets, Carton boxes, Veneer sheets, Glasses



Recommended Lifting Force (Max.)

Model	Volume (cm³)	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
B1.5/20-U25	1.83	0.83	2.20	3.06
B1.5/20-U30	2.63	1.22	2.45	3.06
B1.5/40-U45	12.1	2.55	5.66	9.18
B1.5/40-U55	17	3.78	7.09	9.56
B1.5/60-U65	28.8	5.30	13.30	19.40
B1.5/60-U75	40.4	6.60	15.00	20.50
B2.5/20-U25	3.94	0.83	2.20	3.06
B2.5/20-U30	4.74	1.22	2.45	3.06
B2.5/40-U45	19.5	2.55	5.66	9.18
B2.5/40-U55	24.4	3.78	7.09	9.56
B2.5/60-U65	49.6	5.30	13.30	19.40
B2.5/60-U75	61.2	6.60	15.00	20.50
B4.0/20-U25	3.67	0.83	2.20	3.06
B4.0/20-U30	4.47	1.22	2.45	3.06
B4.0/40-U45	25.3	2.55	5.66	9.18
B4.0/40-U55	30.2	3.78	7.09	9.56
B5.0/20-U25	4.83	0.83	2.20	3.06
B5.0/20-U30	5.63	1.22	2.45	3.06
B5.0/40-U45	32.1	2.55	5.66	9.18
B5.0/40-U55	37	3.78	7.09	9.56
B5.0/60-U65	49.6	5.30	13.30	19.40
B5.0/60-U75	61.2	6.60	15.00	20.50
B6.0/20-U25	6.92	0.83	2.20	3.06
B6.0/20-U30	7.72	1.22	2.45	3.06
B6.0/40-U45	39.4	2.55	5.66	9.18
B6.0/40-U55	44.3	3.78	7.09	9.56
B6.0/60-U65	126.6	5.30	13.30	19.40
B6.0/60-U75	146.1	6.60	15.00	20.50



I Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
N6 - NBR (Nitrile)	60	Blue	-20~110
S3 - Silicone	30	Translucent White	-70~200
S5 - Silicone	50	Red	-70~200
W3 - White Silicone	30	Translucent White	-70~200
W5 - White Silicone	50	Translucent White	-70~200
W3(FDA) - White Silicone(FDA)	30	Translucent White	-70~200
W5(FDA) - White Silicone(FDA)	50	Translucent White	-70~200
U6 - Urethane	60	Dark Grey	0~100
PU - Polyurethane	60	Translucent Orange	0~60

* The temperature data is only for suction lip. Please contact us if it is used in over 60°C

** For additional materials, please contact us

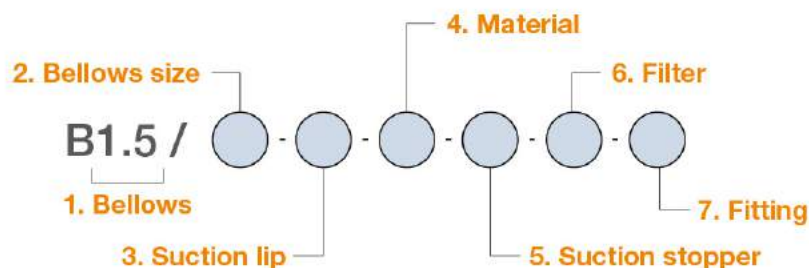
I Material Resistance

Description	NBR	Silicone	White Silicone	Urethane	Polyurethane
Wear Resistance	Excellent	Good	Good	Excellent	Excellent
Oil	Excellent	Poor	Poor	Excellent	Excellent
Weather / Ozone	Fair	Excellent	Excellent	Excellent	Excellent
Alcohol	Good	Good	Good	Fair	Fair
Acid	Fair	Poor	Poor	Poor	Fair

SUCTION CUPS / Magic suction cup



Build an Ordering No.



1. Bellows	Description	Symbol
	Top bellows 1.5 folds	B1.5
	Top bellows 2.5 folds	B2.5
	Top bellows 1.5 folds + Middle bellows 2.5 folds	B4.0
	Top bellows 1.5 folds + Middle bellows 3.5 folds	B5.0
	Top bellows 2.5 folds + Middle bellows 3.5 folds	B6.0
2. Bellows size	Description	Symbol
	20mm bellows diameter: For U25 & U30	20
	40mm bellows diameter: For U45 & U55	40
	60mm bellows diameter: For U65 & U75	60
3. Suction lip	Description	Symbol
	U type lip, 25mm diameter	U25
	U type lip, 30mm diameter	U30
	U type lip, 45mm diameter	U45
	U type lip, 55mm diameter	U55
	U type lip, 65mm diameter	U65
	U type lip, 75mm diameter	U75
4. Material	Description	Symbol
	NBR (Nitrile), 60° hardness	N6
	Silicone, 30° hardness	S3
	Silicone, 50° hardness	S5
	White Silicone, 30° hardness	W3
	White Silicone, 50° hardness	W5
	White Silicone, 30° hardness (FDA)	W3(FDA)
	White Silicone, 50° hardness (FDA)	W5(FDA)
	Urethane, 60° hardness	U6
	Polyurethane: Not available for U65 & U75	PU
5. Suction stopper	Description	Symbol
	B type	B
	C type	C
	D type	D
6. Filter	Description	Symbol
	No filter	Blank
	Mesh disk filter (200mesh)	F2
7. Fitting	Description	Symbol
	Fitting, G1/8 female	18F
	Fitting, G1/4 female	14F
	Fitting, G1/8 male	18M
	Fitting, G1/4 male	14M
	Fitting, G3/8 male	38M
	Fitting, G3/8 female: Only for 60mm bellow diameter	38F

Spare Parts – Top Bellows

Part No.	Description
TB1.5/20	Top bellows 1.5 folds for U25 & U30 without efficiency valve
TB1.5/40	Top bellows 1.5 folds for U45 & U55 without efficiency valve
TB1.5/60	Top bellows 1.5 folds for U65 & U75 without efficiency valve
TB2.5/20	Top bellows 2.5 folds for U25 & U30 without efficiency valve
TB2.5/40	Top bellows 2.5 folds for U45 & U55 without efficiency valve
TB2.5/60	Top bellows 2.5 folds for U65 & U75 without efficiency valve



I Spare Parts – Middle Bellows

Part No.	Description	Part No.	Description
MB2.5/20	Middle bellows 2.5 folds for U25 & U30	MB3.5/20	Middle bellows 3.5 folds for U25 & U30
MB2.5/40	Middle bellows 2.5 folds for U45 & U55	MB3.5/40	Middle bellows 3.5 folds for U45 & U55
		MB3.5/60	Middle bellows 3.5 folds for U65 & U75

I Spare Parts – Suction Stoppers

Part No.	Description	Part No.	Description
MS20-B	Stopper B type for U25 & U30	MS60-B	Stopper B type for U65 & U75
MS20-C	Stopper C type for U25 & U30	MS60-C	Stopper C type for U65 & U75
MS20-D	Stopper D type for U25 & U30	MS60-D	Stopper D type for U65 & U75
MS40-B	Stopper B type for U45 & U55		
MS40-C	Stopper C type for U45 & U55		
MS40-D	Stopper D type for U45 & U55		

I Spare Parts – Filters

Part No.	Description
VTFE20	Mesh disk filter (200mesh) for 20mm bellows diameter
VTFE40	Mesh disk filter (200mesh) for 40mm bellows diameter
VTFE60	Mesh disk filter (200mesh) for 60mm bellows diameter

I Spare Parts – Suction Lips

Part No.	Description	Part No.	Description
U25-N6	U type - 25mm diameter, NBR, 60° hardness	U25-W3(FDA)	U type - 25mm diameter, White Silicone, 30° hardness (FDA)
U30-N6	U type - 30mm diameter, NBR, 60° hardness	U30-W3(FDA)	U type - 30mm diameter, White Silicone, 30° hardness (FDA)
U45-N6	U type - 45mm diameter, NBR, 60° hardness	U45-W3(FDA)	U type - 45mm diameter, White Silicone, 30° hardness (FDA)
U55-N6	U type - 55mm diameter, NBR, 60° hardness	U55-W3(FDA)	U type - 55mm diameter, White Silicone, 30° hardness (FDA)
U65-N6	U type - 65mm diameter, NBR, 60° hardness	U65-W3(FDA)	U type - 65mm diameter, White Silicone, 30° hardness (FDA)
U75-N6	U type - 75mm diameter, NBR, 60° hardness	U75-W3(FDA)	U type - 75mm diameter, White Silicone, 30° hardness (FDA)
U25-S3	U type - 25mm diameter, Silicone, 30° hardness	U25-W5(FDA)	U type - 25mm diameter, White Silicone, 50° hardness (FDA)
U30-S3	U type - 30mm diameter, Silicone, 30° hardness	U30-W5(FDA)	U type - 30mm diameter, White Silicone, 50° hardness (FDA)
U45-S3	U type - 45mm diameter, Silicone, 30° hardness	U45-W5(FDA)	U type - 45mm diameter, White Silicone, 50° hardness (FDA)
U55-S3	U type - 55mm diameter, Silicone, 30° hardness	U55-W5(FDA)	U type - 55mm diameter, White Silicone, 50° hardness (FDA)
U65-S3	U type - 65mm diameter, Silicone, 30° hardness	U65-W5(FDA)	U type - 65mm diameter, White Silicone, 50° hardness (FDA)
U75-S3	U type - 75mm diameter, Silicone, 30° hardness	U75-W5(FDA)	U type - 75mm diameter, White Silicone, 50° hardness (FDA)
U25-S5	U type - 25mm diameter, Silicone, 50° hardness	U25-U6	U type - 25mm diameter, Urethane, 60° hardness
U30-S5	U type - 30mm diameter, Silicone, 50° hardness	U30-U6	U type - 30mm diameter, Urethane, 60° hardness
U45-S5	U type - 45mm diameter, Silicone, 50° hardness	U45-U6	U type - 45mm diameter, Urethane, 60° hardness
U55-S5	U type - 55mm diameter, Silicone, 50° hardness	U55-U6	U type - 55mm diameter, Urethane, 60° hardness
U65-S5	U type - 65mm diameter, Silicone, 50° hardness	U65-U6	U type - 65mm diameter, Urethane, 60° hardness
U75-S5	U type - 75mm diameter, Silicone, 50° hardness	U75-U6	U type - 75mm diameter, Urethane, 60° hardness
U25-W3	U type - 25mm diameter, White Silicone, 30° hardness	U25-PU	U type - 25mm diameter, Polyurethane
U30-W3	U type - 30mm diameter, White Silicone, 30° hardness	U30-PU	U type - 30mm diameter, Polyurethane
U45-W3	U type - 45mm diameter, White Silicone, 30° hardness	U45-PU	U type - 45mm diameter, Polyurethane
U55-W3	U type - 55mm diameter, White Silicone, 30° hardness	U55-PU	U type - 55mm diameter, Polyurethane
U65-W3	U type - 65mm diameter, White Silicone, 30° hardness		
U75-W3	U type - 75mm diameter, White Silicone, 30° hardness		
U25-W5	U type - 25mm diameter, White Silicone, 50° hardness		
U30-W5	U type - 30mm diameter, White Silicone, 50° hardness		
U45-W5	U type - 45mm diameter, White Silicone, 50° hardness		
U55-W5	U type - 55mm diameter, White Silicone, 50° hardness		
U65-W5	U type - 65mm diameter, White Silicone, 50° hardness		
U75-W5	U type - 75mm diameter, White Silicone, 50° hardness		

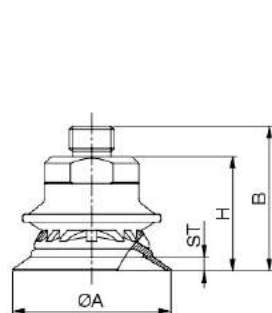
I Spare Parts – Fittings

Part No. (Code No.)	Fitting size	Description
350 003 1101	18F	G1/8 female for 20mm bellows diameter
350 003 1501	14F	G1/4 female for 20mm bellows diameter
350 003 1201	18M	G1/8 male for 20mm bellows diameter
350 003 1301	14M	G1/4 male for 20mm bellows diameter
350 003 1401	38M	G3/8 male for 20mm bellows diameter
350 003 1102	18F	G1/8 female for 40mm bellows diameter
350 003 1502	14F	G1/4 female for 40mm bellows diameter
350 003 1202	18M	G1/8 male for 40mm bellows diameter
350 003 1302	14M	G1/4 male for 40mm bellows diameter
350 003 1402	38M	G3/8 male for 40mm bellows diameter
350 003 1107	18F	G1/8 female for 60mm bellows diameter
350 003 1307	14M	G1/4 male for 60mm bellows diameter
350 003 1407	38M	G3/8 male for 60mm bellows diameter
350 003 1707	38F	G3/8 female for 60mm bellows diameter

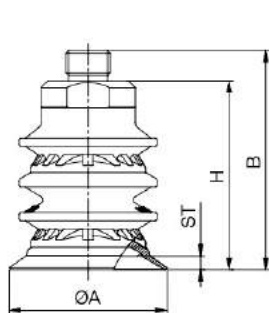
SUCTION CUPS / Magic suction cup



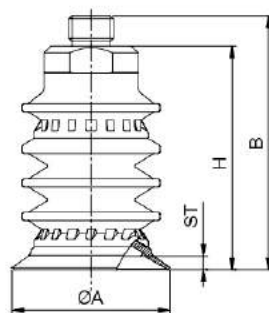
Dimensional Data



[B1.5 / 20 & 40 & 60 series]



[B4.0 / 20 & 40 & 60 series]



[B5.0 / 20 & 40 & 60 series]

Fitting

18F

18M

14F

14M

38F

38M

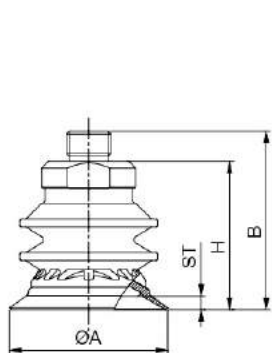
[Unit : mm]

Model	Ø A	G	ST	H *	B *
B1.5/20-U25	26	Female thread : 1/8", 1/4", 3/8" Male thread : 1/8", 1/4", 3/8"	2	22.9	31.9
B1.5/20-U30	33		3	23.8	32.8
B1.5/40-U45	47		4	34.1	43.1
B1.5/40-U55	55		6.8	36.9	45.9
B1.5/60-U65	65		5.6	45.4	54.4
B1.5/60-U75	75		9.3	49.1	58.1
B4.0/20-U25	26		2	33.5	42.5
B4.0/20-U30	33		3	34.5	43.5
B4.0/40-U45	47		4	56.2	65.2
B4.0/40-U55	55		6.8	59	68
B5.0/20-U25	26		2	38.5	47.5
B5.0/20-U30	33		3	39.5	48.5
B5.0/40-U45	47		4	66.4	75.4
B5.0/40-U55	55		6.8	68.9	77.9
B5.0/60-U65	65		5.6	91.9	100.9
B5.0/60-U75	75		9.3	95.6	104.6

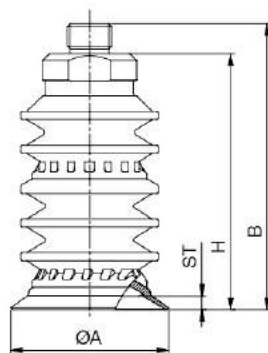
* Dimension "H" and "B" is measured with 14M fitting option



Dimensional Data



[B2.5 / 20 & 40 & 60 series]



[B6.0 / 20 & 40 & 60 series]

Fitting

18F

18M

14F

14M

38F

38M

[Unit : mm]

Model	Ø A	G	ST	H *	B *
B2.5/20-U25	26	Female thread : 1/8", 1/4", 3/8" Male thread : 1/8", 1/4", 3/8"	2	30.8	39.8
B2.5/20-U30	33		3	31.8	40.8
B2.5/40-U45	47		4	44	53
B2.5/40-U55	55		6.8	46	55
B2.5/60-U65	65		5.6	59.8	68.8
B2.5/60-U75	75		9.3	63.5	72.5
B6.0/20-U25	26		2	46.5	55.5
B6.0/20-U30	33		3	47.6	56.6
B6.0/40-U45	47		4	76.5	85.5
B6.0/40-U55	55		6.8	79.3	88.3
B6.0/60-U65	65		5.6	106.3	115.3
B6.0/60-U75	75		9.3	110	119

* Dimension "H" and "B" is measured with 14M fitting option



U type – With efficiency valve (EB type)

Features and Strengths

Suitable for flat and slightly curved surface products

Examples of use

Thin metal sheets, Carton boxes, Veneer sheets, Glasses



Recommended Lifting Force (Max.)

Model	Volume (cm³)	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
EB1.5/20-U25	2.6	0.83	2.20	3.06
EB1.5/20-U30	3.4	1.22	2.45	3.06
EB1.5/40-U45	13.9	2.55	5.66	9.18
EB1.5/40-U55	18.8	3.78	7.09	9.56
EB4.0/20-U25	4.4	0.83	2.20	3.06
EB4.0/20-U30	5.2	1.22	2.45	3.06
EB4.0/40-U45	27.1	2.55	5.66	9.18
EB4.0/40-U55	32	3.78	7.09	9.56
EB5.0/20-U25	5.6	0.83	2.20	3.06
EB5.0/20-U30	6.4	1.22	2.45	3.06
EB5.0/40-U45	33.9	2.55	5.66	9.18
EB5.0/40-U55	38.8	3.78	7.09	9.56



I Material Specifications

Material	Hardness Shore (°)	Color	Temperature (°C)
N6 - NBR (Nitrile)	60	Blue	-20~110
S3 - Silicone	30	Translucent White	-70~200
S5 - Silicone	50	Red	-70~200
W3 - White Silicone	30	Translucent White	-70~200
W5 - White Silicone	50	Translucent White	-70~200
W3(FDA) - White Silicone(FDA)	30	Translucent White	-70~200
W5(FDA) - White Silicone(FDA)	50	Translucent White	-70~200
U6 - Urethane	60	Dark Grey	0~100
PU - Polyurethane	60	Translucent Orange	0~60

* The temperature data is only for suction lip. Please contact us if it is used in over 60°C

** For additional materials, please contact us

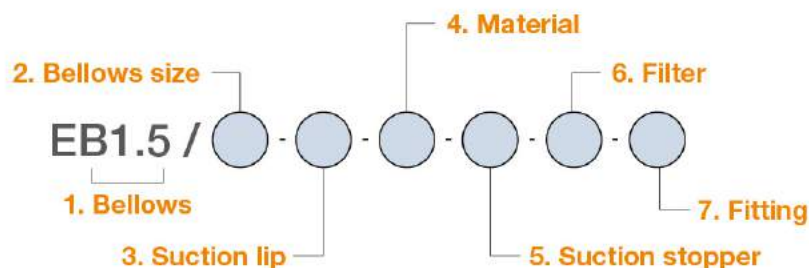
I Material Resistance

Description	NBR	Silicone	White Silicone	Urethane	Polyurethane
Wear Resistance	Excellent	Good	Good	Excellent	Excellent
Oil	Excellent	Poor	Poor	Excellent	Excellent
Weather / Ozone	Fair	Excellent	Excellent	Excellent	Excellent
Alcohol	Good	Good	Good	Fair	Fair
Acid	Fair	Poor	Poor	Poor	Fair

SUCTION CUPS / Magic suction cup



Build an Ordering No.



1. Bellows	Description	Symbol
	Top bellows 1.5 folds with efficiency valve	EB1.5
	Top bellows 1.5 folds with efficiency valve + Middle bellows 2.5 folds	EB4.0
	Top bellows 1.5 folds with efficiency valve + Middle bellows 3.5 folds	EB5.0
2. Bellows size	Description	Symbol
	20mm bellows diameter: For U25 & U30	20
	40mm bellows diameter: For U45 & U55	40
3. Suction lip	Description	Symbol
	U type lip, 25mm diameter	U25
	U type lip, 30mm diameter	U30
	U type lip, 45mm diameter	U45
	U type lip, 55mm diameter	U55
4. Material	Description	Symbol
	NBR (Nitrile), 60° hardness	N6
	Silicone, 30° hardness	S3
	Silicone, 50° hardness	S5
	White Silicone, 30° hardness	W3
	White Silicone, 50° hardness	W5
	White Silicone, 30° hardness (FDA)	W3(FDA)
	White Silicone, 50° hardness (FDA)	W5(FDA)
	Urethane, 60° hardness	U6
	Polyurethane	PU
5. Suction stopper	Description	Symbol
	B type	B
	C type	C
	D type	D
6. Filter	Description	Symbol
	No filter	Blank
	Mesh disk filter (200mesh)	F2
7. Fitting	Description	Symbol
	Fitting, G1/8 female	18F
	Fitting, G1/4 female	14F
	Fitting, G1/8 male	18M
	Fitting, G1/4 male	14M
	Fitting, G3/8 male	38M

Spare Parts – Top Bellows

Part No.	Description
EB1.5/20	Top bellows 1.5 folds for U25 & U30 with efficiency valve
EB1.5/40	Top bellows 1.5 folds for U45 & U55 with efficiency valve



I Spare Parts – Middle Bellows

Part No.	Description	Part No.	Description
MB2.5/20	Middle bellows 2.5 folds for U25 & U30	MB3.5/20	Middle bellows 3.5 folds for U25 & U30
MB2.5/40	Middle bellows 2.5 folds for U45 & U55	MB3.5/40	Middle bellows 3.5 folds for U45 & U55

I Spare Parts – Suction Stoppers

Part No.	Description	Part No.	Description
MS20-B	Stopper B type for U25 & U30	MS40-B	Stopper B type for U45 & U55
MS20-C	Stopper C type for U25 & U30	MS40-C	Stopper C type for U45 & U55
MS20-D	Stopper D type for U25 & U30	MS40-D	Stopper D type for U45 & U55

I Spare Parts – Filters

Part No.	Description	Part No.	Description
VTFE20	Mesh disk filter (200mesh) for 20mm bellows diameter	VTFE40	Mesh disk filter (200mesh) for 40mm bellows diameter

I Spare Parts – Suction Lips

Part No.	Description	Part No.	Description
U25-N6	U type - 25mm diameter, NBR, 60° hardness	U25-W3(FDA)	U type - 25mm diameter, White Silicone, 30° hardness (FDA)
U30-N6	U type - 30mm diameter, NBR, 60° hardness	U30-W3(FDA)	U type - 30mm diameter, White Silicone, 30° hardness (FDA)
U45-N6	U type - 45mm diameter, NBR, 60° hardness	U45-W3(FDA)	U type - 45mm diameter, White Silicone, 30° hardness (FDA)
U55-N6	U type - 55mm diameter, NBR, 60° hardness	U55-W3(FDA)	U type - 55mm diameter, White Silicone, 30° hardness (FDA)
U25-S3	U type - 25mm diameter, Silicone, 30° hardness	U25-W5(FDA)	U type - 25mm diameter, White Silicone, 50° hardness (FDA)
U30-S3	U type - 30mm diameter, Silicone, 30° hardness	U30-W5(FDA)	U type - 30mm diameter, White Silicone, 50° hardness (FDA)
U45-S3	U type - 45mm diameter, Silicone, 30° hardness	U45-W5(FDA)	U type - 45mm diameter, White Silicone, 50° hardness (FDA)
U55-S3	U type - 55mm diameter, Silicone, 30° hardness	U55-W5(FDA)	U type - 55mm diameter, White Silicone, 50° hardness (FDA)
U25-S5	U type - 25mm diameter, Silicone, 50° hardness	U25-U6	U type - 25mm diameter, Urethane, 60° hardness
U30-S5	U type - 30mm diameter, Silicone, 50° hardness	U30-U6	U type - 30mm diameter, Urethane, 60° hardness
U45-S5	U type - 45mm diameter, Silicone, 50° hardness	U45-U6	U type - 45mm diameter, Urethane, 60° hardness
U55-S5	U type - 55mm diameter, Silicone, 50° hardness	U55-U6	U type - 55mm diameter, Urethane, 60° hardness
U25-W3	U type - 25mm diameter, White Silicone, 30° hardness	U25-PU	U type - 25mm diameter, Polyurethane
U30-W3	U type - 30mm diameter, White Silicone, 30° hardness	U30-PU	U type - 30mm diameter, Polyurethane
U45-W3	U type - 45mm diameter, White Silicone, 30° hardness	U45-PU	U type - 45mm diameter, Polyurethane
U55-W3	U type - 55mm diameter, White Silicone, 30° hardness	U55-PU	U type - 55mm diameter, Polyurethane
U25-W5	U type - 25mm diameter, White Silicone, 50° hardness		
U30-W5	U type - 30mm diameter, White Silicone, 50° hardness		
U45-W5	U type - 45mm diameter, White Silicone, 50° hardness		
U55-W5	U type - 55mm diameter, White Silicone, 50° hardness		

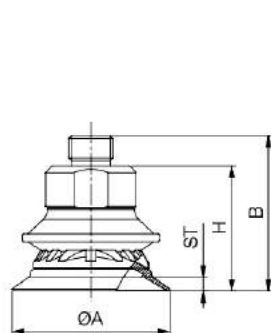
I Spare Parts – Fittings

Part No. (Code No.)	Fitting size	Description
350 006 1101	18F	EB type, G1/8 female for 20mm bellows diameter
350 006 1501	14F	EB type, G1/4 female for 20mm bellows diameter
350 006 1201	18M	EB type, G1/8 male for 20mm bellows diameter
350 006 1301	14M	EB type, G1/4 male for 20mm bellows diameter
350 006 1401	38M	EB type, G3/8 male for 20mm bellows diameter
350 006 1102	18F	EB type, G1/8 female for 40mm bellows diameter
350 006 1502	14F	EB type, G1/4 female for 40mm bellows diameter
350 006 1202	18M	EB type, G1/8 male for 40mm bellows diameter
350 006 1302	14M	EB type, G1/4 male for 40mm bellows diameter
350 006 1402	38M	EB type, G3/8 male for 40mm bellows diameter

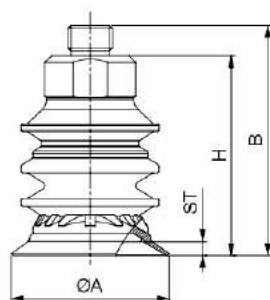
SUCTION CUPS / Magic suction cup



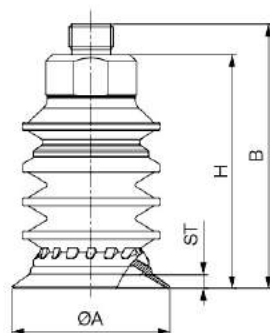
Dimensional Data



[EB1.5 / 20 & 40 series]



[EB4.0 / 20 & 40 series]



[EB5.0 / 20 & 40 series]

Fitting

18F

18M

14F

14M

38M

[Unit : mm]

Model	Ø A	G	ST	H *	B *
EB1.5/20-U25	26	Female thread : 1/8", 1/4" Male thread : 1/8", 1/4", 3/8"	2	23.3	32.3
EB1.5/20-U30	33		3	24.3	33.3
EB1.5/40-U45	47		4	37.2	46.2
EB1.5/40-U55	55		6.8	40	49
EB4.0/20-U25	26		2	34	43
EB4.0/20-U30	33		3	35	44
EB4.0/40-U45	47		4	59.9	68.9
EB4.0/40-U55	55		6.8	62.7	71.7
EB5.0/20-U25	26		2	39	48
EB5.0/20-U30	33		3	40	49
EB5.0/40-U45	47		4	69.9	78.9
EB5.0/40-U55	55		6.8	72.7	81.7

* Dimension "H" and "B" is measured with 14M fitting option

