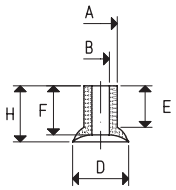
VACUUM CUPS

VACUUM CUPS WITH SUPPORTS

These traditional cup-shaped vacuum cups are suited for gripping and handling small objects with flat, slightly concave or convex surfaces.
This range of widely used cups has diameters ranging from 4 to 9 mm and are normally available in standard compounds: natural para rubber N, oil-resistant rubber A and silicon S.
They can be cold fitted with no adhesive onto a nickel-plated brass support.
The support has been specially shaped to perfectly fit with the vacuum cup and is equipped with a male threaded pin to facilitate fastening to the automation.
These cups are extremely easy to replace; simply request the cup indicated in the table in the desired compound when requesting the spare part.
Cups in special compounds, listed on pg. 31, and supports in different materials can be provided upon request in minimum quantities to be defined in the order.

VACUUM CUPS

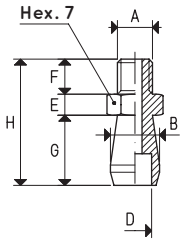
Item	Force Kg	Volume mm^3	A Ø	B Ø	D Ø	E	F	H
01 04 10 *	0.03	16	3	1.5	4	6.0	7.0	7.5
01 05 10 *	0.05	23	3	1.5	5	6.0	7.0	8.0
01 06 10 *	0.07	26	3	1.5	6	6.0	7.0	8.0
01 07 07 *	0.10	40	5	2.0	7	6.0	6.0	7.0
01 08 10 *	0.12	66	5	2.5	8	6.0	7.0	8.0
01 09 07 *	0.15	56	5	2.0	9	5.5	6.0	7.0



* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

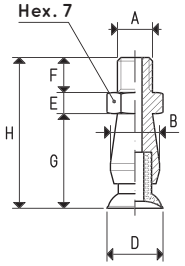
SUPPORTS

Item	A Ø	B Ø	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 01	M5	7	2.90	3	5	10	18	brass	01 04 10 01 05 10 01 06 10	4
00 08 02	M5	7	4.75	3	5	10	18	brass	01 07 07 01 08 10 01 09 07	4



VACUUM CUP WITH SUPPORT

Item	Force Kg	A Ø	B Ø	D Ø	E	F	G	H	Vacuum cup item	Support item	Weight g
08 04 10 *	0.03	M5	7	4	3	5	13.0	21.0	01 04 10	00 08 01	4
08 05 10 *	0.05	M5	7	5	3	5	13.5	21.5	01 05 10	00 08 01	4
08 06 10 *	0.07	M5	7	6	3	5	13.5	21.5	01 06 10	00 08 01	4
08 07 07 *	0.10	M5	7	7	3	5	13.5	21.5	01 07 07	00 08 02	4
08 08 10 *	0.12	M5	7	8	3	5	13.5	21.5	01 08 10	00 08 02	4
08 09 07 *	0.15	M5	7	9	3	5	12.5	20.5	01 09 07	00 08 02	4



* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

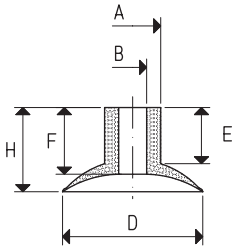
Adapters for GAS - NPT threading available on page 1.130

VACUUM CUPS WITH SUPPORTS

These traditional cup-shaped vacuum cups are suited for gripping and handling objects with flat, slightly concave or convex surfaces.
This range of widely used cups has diameters ranging from 10 to 45 mm and are normally available in standard compounds: natural para rubber N, oil-resistant rubber A and silicon S.
They can be cold fitted with no adhesive onto a nickel-plated brass or anodised aluminium support.
The support has been specially shaped to perfectly fit with the vacuum cup and is equipped with a male threaded pin to facilitate fastening to the automation.
These cups are extremely easy to replace; simply request the cup indicated in the table in the desired compound when requesting the spare part.
Cups in special compounds, listed on pg. 31, and supports in different materials can be provided upon specific request in minimum quantities to be defined in the order.

VACUUM CUPS

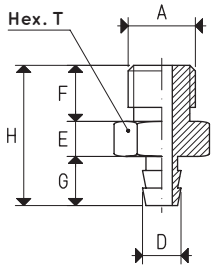
Item	Force Kg	Volume mm^3	A Ø	B Ø	D Ø	E	F	H
01 10 10 *	0.19	227	7	4.0	10	8.5	8.5	11.0
01 12 10 *	0.28	254	8	4.0	12	8.0	9.0	11.0
01 15 10 *	0.44	364	8	4.0	15	8.0	9.5	12.0
01 18 10 *	0.63	502	8	4.0	18	8.0	9.5	12.0
01 20 10 *	0.78	536	8	4.0	20	8.0	9.5	12.0
01 22 10 *	0.95	723	8	4.0	22	8.0	10.0	13.0
01 25 15 *	1.23	1628	12	6.0	25	10.0	11.5	16.0
01 30 15 *	1.76	2055	12	6.0	30	10.0	12.5	17.0
01 35 15 *	2.40	3292	15	10.0	35	10.0	11.5	16.0
01 40 15 *	3.14	4740	15	10.0	40	10.0	12.5	18.0
01 45 15 *	3.98	8553	15	10.0	45	10.0	14.5	23.0



* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

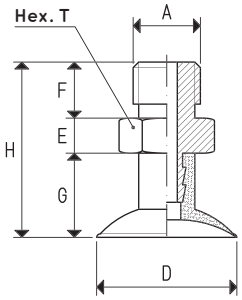
SUPPORTS

Item	A Ø	D Ø	E	F	G	H	T	Support material	For vacuum cup item	Weight g
00 08 03	G1/8"	5.5	5	8	7.0	20.0	12	brass	01 10 10 01 12 10 01 15 10 01 18 10 01 20 10 01 22 10	9
00 08 05	G1/8"	7.5	5	8	9.5	22.5	12	brass	01 25 15 01 30 15	10
00 08 20	G1/4"	12.0	8	14	10.0	32.0	17	aluminium	01 35 15 01 40 15 01 45 15	11



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A Ø	D Ø	E	F	G	H	T	Vacuum cup item	Support item	Weight g
08 10 10 *	0.19	G1/8"	10	5	8	11	24	12	01 10 10	00 08 03	9.0
08 12 10 *	0.28	G1/8"	12	5	8	11	24	12	01 12 10	00 08 03	9.6
08 15 10 *	0.44	G1/8"	15	5	8	12	25	12	01 15 10	00 08 03	9.7
08 18 10 *	0.63	G1/8"	18	5	8	12	25	12	01 18 10	00 08 03	9.7
08 20 10 *	0.78	G1/8"	20	5	8	12	25	12	01 20 10	00 08 03	9.8
08 22 10 *	0.95	G1/8"	22	5	8	13	26	12	01 22 10	00 08 03	10.2
08 25 15 *	1.23	G1/8"	25	5	8	16	29	12	01 25 15	00 08 05	12.0
08 30 15 *	1.76	G1/8"	30	5	8	17	30	12	01 30 15	00 08 05	12.7
08 35 15 *	2.40	G1/4"	35	8	14	16	38	17	01 35 15	00 08 20	13.6
08 40 15 *	3.14	G1/4"	40	8	14	18	40	17	01 40 15	00 08 20	14.1
08 45 15 *	3.98	G1/4"	45	8	14	23	45	17	01 45 15	00 08 20	17.6



* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

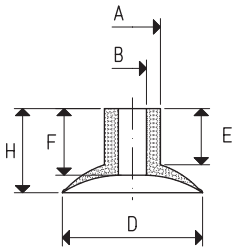
Adapters for GAS - NPT threading available on page 1.130

VACUUM CUPS WITH SUPPORTS

These traditional cup-shaped vacuum cups are suited for gripping and handling objects with flat, slightly concave or convex surfaces.
This range of widely used cups has diameters ranging from 10 to 45 mm and are normally available in standard compounds: natural para rubber N, oil-resistant rubber A and silicon S.
They can be cold fitted with no adhesive onto a nickel-plated brass or anodised aluminium support.
The support has been specially shaped to perfectly fit with the vacuum cup and is equipped with a female threaded pin to facilitate fastening to the automation.
These cups are extremely easy to replace; simply request the cup indicated in the table in the desired compound when requesting the spare part.
Cups in special compounds, listed on pg. 31, and supports in different materials can be provided upon specific request in minimum quantities to be defined in the order.

VACUUM CUPS

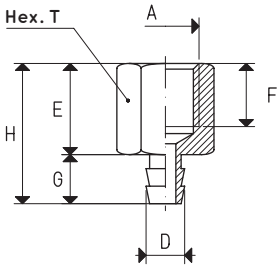
Item	Force Kg	Volume mm³	A Ø	B Ø	D Ø	E	F	H
01 10 10 *	0.19	227	7	4.0	10	8.5	8.5	11.0
01 12 10 *	0.28	254	8	4.0	12	8.0	9.0	11.0
01 15 10 *	0.44	364	8	4.0	15	8.0	9.5	12.0
01 18 10 *	0.63	502	8	4.0	18	8.0	9.5	12.0
01 20 10 *	0.78	536	8	4.0	20	8.0	9.5	12.0
01 22 10 *	0.95	723	8	4.0	22	8.0	10.0	13.0
01 25 15 *	1.23	1628	12	6.0	25	10.0	11.5	16.0
01 30 15 *	1.76	2055	12	6.0	30	10.0	12.5	17.0
01 35 15 *	2.40	3292	15	10.0	35	10.0	11.5	16.0
01 40 15 *	3.14	4740	15	10.0	40	10.0	12.5	18.0
01 45 15 *	3.98	8553	15	10.0	45	10.0	14.5	23.0



* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

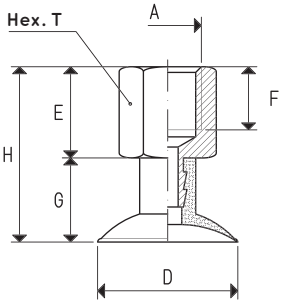
SUPPORTS

Item	A Ø	D Ø	E	F	G	H	T	Support material	For vacuum cup item	Weight g
00 08 04	G1/8"	5.5	13	10	7.0	20.0	12	brass	01 10 10 01 12 10 01 15 10 01 18 10 01 20 10 01 22 10	8.1
00 08 14	G1/8"	7.5	13	10	9.5	22.5	12	brass	01 25 15 01 30 15	9.8
00 08 21	G1/4"	12.0	17	13	10.0	27.0	17	aluminium	01 35 15 01 40 15 01 45 15	9.3



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A Ø	D Ø	E	F	G	H	T	Vacuum cup item	Support item	Weight g
08 10 25 *	0.19	G1/8"	10	13	10	11	24	12	01 10 10	00 08 04	8.1
08 12 25 *	0.28	G1/8"	12	13	10	11	24	12	01 12 10	00 08 04	8.7
08 15 25 *	0.44	G1/8"	15	13	10	12	25	12	01 15 10	00 08 04	8.8
08 18 25 *	0.63	G1/8"	18	13	10	12	25	12	01 18 10	00 08 04	8.8
08 20 25 *	0.78	G1/8"	20	13	10	12	25	12	01 20 10	00 08 04	9.3
08 22 25 *	0.95	G1/8"	22	13	10	13	26	12	01 22 10	00 08 04	9.3
08 25 25 *	1.23	G1/8"	25	13	10	16	29	12	01 25 15	00 08 14	11.8
08 30 25 *	1.76	G1/8"	30	13	10	17	30	12	01 30 15	00 08 14	12.5
08 35 25 *	2.40	G1/4"	35	17	13	16	33	17	01 35 15	00 08 21	11.9
08 40 25 *	3.14	G1/4"	40	17	13	18	35	17	01 40 15	00 08 21	12.4
08 45 25 *	3.98	G1/4"	45	17	13	23	40	17	01 45 15	00 08 21	15.9



* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

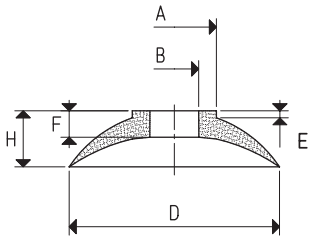
VACUUM CUPS WITH SUPPORTS

These traditional cup-shaped vacuum cups are suited for gripping and handling objects with flat, slightly concave or convex surfaces.
This range of widely used cups has diameters ranging from 25 to 35 mm and are normally available in standard compounds: natural para rubber N, oil-resistant rubber A and silicon S.
They can be cold fitted with no adhesive onto a nickel-plated brass support.
The support has been specially shaped to perfectly fit with the vacuum cup and is equipped with a male threaded pin to facilitate fastening to the automation.
These cups are extremely easy to replace; simply request the cup indicated in the table in the desired compound when requesting the spare part.
Cups in special compounds, listed on pg. 31, and supports in different materials can be provided upon specific request in minimum quantities to be defined in the order.

VACUUM CUPS

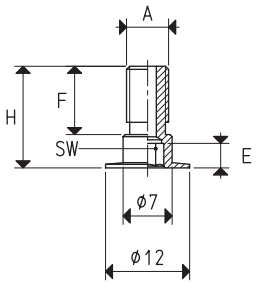
Item	Force Kg	Volume cm^3	A Ø	B Ø	D Ø	E	F	H
01 25 10 *	1.23	1.4	12	6	25	2	3.5	8
01 30 10 *	1.76	1.8	12	6	30	1	3.5	8
01 35 10 *	2.40	2.4	12	6	35	1	3.5	8

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SUPPORTS

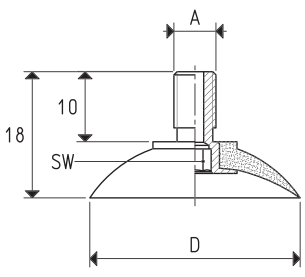
Item	A Ø	E	F	H	SW	Support material	For vacuum cup item	Weight g
00 08 08	M6	3.5	10	14.5	3	brass	01 25 10 01 30 10 01 35 10	2.7
00 08 60	G1/8"	4.0	10	14.5	4	brass	01 25 10 01 30 10 01 35 10	5.6



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A Ø	SW	D Ø	Vacuum cup item	Support item	Weight g
08 25 10 *	1.23	M6	3	25	01 25 10	00 08 08	3.9
08 25 11 *	1.23	G1/8"	4	25	01 25 10	00 08 60	6.8
08 30 10 *	1.76	M6	3	30	01 30 10	00 08 08	4.6
08 30 11 *	1.76	G1/8"	4	30	01 30 10	00 08 60	7.5
08 35 10 *	2.40	M6	3	35	01 35 10	00 08 08	5.1
08 35 11 *	2.40	G1/8"	4	35	01 35 10	00 08 60	8.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

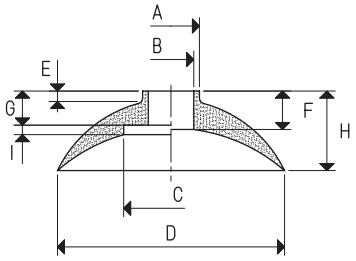
VACUUM CUPS WITH SUPPORTS

These traditional cup-shaped vacuum cups are suited for gripping and handling objects with flat, slightly concave or convex surfaces.
This range of widely used cups has diameters ranging from 45 to 60 mm and are normally available in standard compounds: natural para rubber N, oil-resistant rubber A and silicon S.
They can be cold fitted with no adhesive onto an anodised aluminium support.
The support has been specially shaped to perfectly fit with the vacuum cup and is equipped with a male threaded pin to facilitate fastening to the automation. Moreover, those with ¼" threading have a M8 threaded hole for any necessary insertion of a grub screw with calibrated hole (see pg. 1.129), having the function of reducing the quantity of air to be suctioned.
These cups are extremely easy to replace; simply request the cup indicated in the table in the desired compound when requesting the spare part.
Cups in special compounds, listed on pg. 31, and supports in different materials can be provided upon specific request in minimum quantities to be defined in the order.

VACUUM CUPS

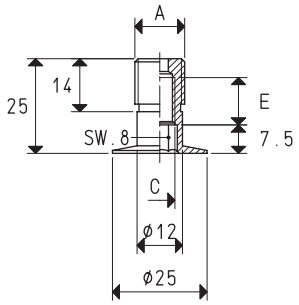
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	G	H	I
01 45 10 *	3.98	8.1	15	10	--	45	5	9.5	--	18	--
01 60 10 *	7.06	18.2	15	10	25	60	4	--	10	22	2.5

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SUPPORTS

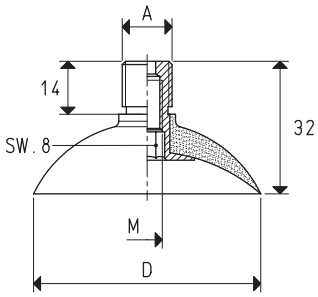
Item	A Ø	E	C Ø	Support material	For vacuum cup item	Weight g
00 08 22	G1/4"	10	M8	aluminium	01 45 10 01 60 10	5.9
00 08 44	G1/8"	--	--	aluminium	01 45 10 01 60 10	5.1
00 08 313	M6	--	--	brass	01 45 10 01 60 10	3.3
00 08 314	M8	--	--	brass	01 45 10 01 60 10	4.3
00 08 92	M10	--	--	brass	01 45 10 01 60 10	5.2



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A Ø	D Ø	M Ø	Vacuum cup item	Support item	Weight g
08 45 10 *	3.98	G1/4"	45	M8	01 45 10	00 08 22	12.6
08 45 11 *	3.98	G1/8"	45	--	01 45 10	00 08 44	11.8
08 45 12 *	3.98	M6	45	--	01 45 10	00 08 313	10.0
08 45 13 *	3.98	M8	45	--	01 45 10	00 08 314	11.0
08 45 14 *	3.98	M10	45	--	01 45 10	00 08 92	11.9

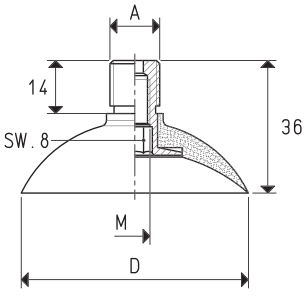
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A Ø	D Ø	M Ø	Vacuum cup item	Support item	Weight g
08 60 10 *	7.06	G1/4"	60	M8	01 60 10	00 08 22	20.8
08 60 11 *	7.06	G1/8"	60	--	01 60 10	00 08 44	20.0
08 60 12 *	7.06	M6	60	--	01 60 10	00 08 313	18.2
08 60 13 *	7.06	M8	60	--	01 60 10	00 08 314	19.2
08 60 14 *	7.06	M10	60	--	01 60 10	00 08 92	20.1

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

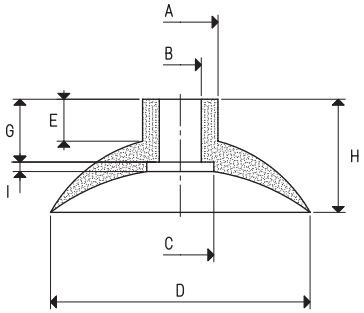
VACUUM CUPS WITH SUPPORTS

These traditional cup-shaped vacuum cups are suited for gripping and handling objects with flat, slightly concave or convex surfaces.
These widely used vacuum cups have a diameter of 85 mm and are normally available in standard compounds: natural para rubber N, oil-resistant rubber A and silicon S.
They can be cold fitted with no adhesive onto an anodised aluminium support.
The support has been specially shaped to perfectly fit with the vacuum cup and is equipped with a male threaded pin to facilitate fastening to the automation. Moreover, they have a M8 threaded hole for any necessary insertion of a grub screw with calibrated hole (see pg. 1.129), having the function of reducing the quantity of air to be suctioned.
These cups are extremely easy to replace; simply request the cup indicated in the table in the desired compound when requesting the spare part.
Cups in special compounds, listed on pg. 31, and supports in different materials can be provided upon specific request in minimum quantities to be defined in the order.

VACUUM CUPS

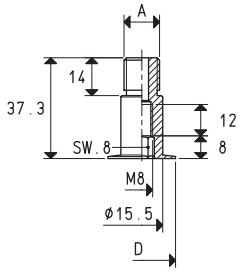
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	G	H	I
01 85 10 *	14.18	54.8	25	15	25	85	16	23	41	4.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SUPPORTS

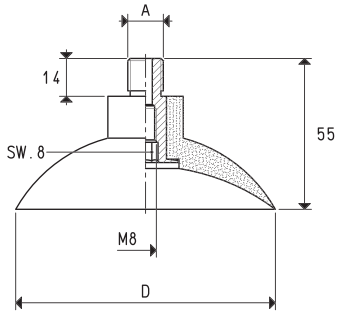
Item	A Ø	D Ø	Support material	For vacuum cup item	Weight g
00 08 28	G1/4"	25	aluminium	01 85 10	13.4
00 08 136	G1/8"	25	aluminium	01 85 10	9.2
00 08 91	M10x1,25	25	brass	01 85 10	38.4



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A Ø	D Ø	Vacuum cup item	Support item	Weight g
08 85 10 *	14.18	G1/4"	85	01 85 10	00 08 28	49.3
08 85 12 *	14.18	G1/8"	85	01 85 10	00 08 136	45.1
08 85 13 *	14.18	M10x1,25	85	01 85 10	00 08 91	73.4

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

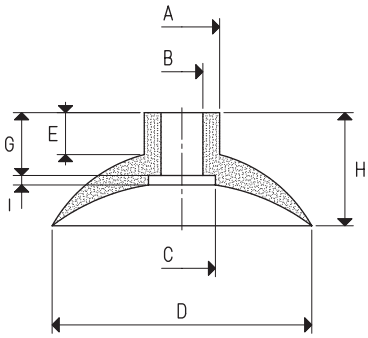
VACUUM CUPS WITH SUPPORTS

These traditional cup-shaped vacuum cups are suited for gripping and handling objects with flat, slightly concave or convex surfaces.
These widely used vacuum cups have a diameter of 85 mm and are normally available in standard compounds: natural para rubber N, oil-resistant rubber A and silicon S.
They can be cold fitted with no adhesive onto an anodised aluminium support.
The support has been specially shaped to perfectly fit with the vacuum cup and is equipped with a female threaded pin to facilitate fastening to the automation.
These cups are extremely easy to replace; simply request the cup indicated in the table in the desired compound when requesting the spare part.
Cups in special compounds, listed on pg. 31, and supports in different materials can be provided upon specific request in minimum quantities to be defined in the order.

VACUUM CUPS

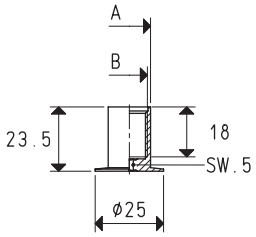
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	F	G	H	I
01 85 10 *	14.18	54.8	25	15	25	85	16	23	41	4.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SUPPORTS

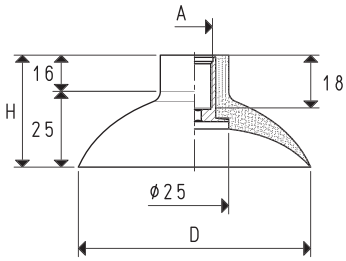
Item	A Ø	B Ø	Support material	For Vacuum cup item	Weight g
00 08 29	15.5	M12	aluminium	01 85 10	6.6
00 08 46	15.5	G1/4"	aluminium	01 85 10	6.5



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A Ø	D Ø	H	Vacuum cup item	Support item	Weight g
08 85 25 *	14.18	G1/4"	85	41	01 85 10	00 08 46	42.4
08 85 26 *	14.18	M12	85	41	01 85 10	00 08 29	42.5

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

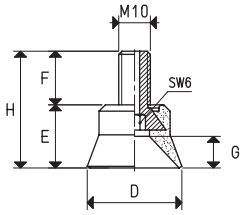
VACUUM CUPS WITH VULCANISED SUPPORT

This range of rather sturdy and deep cups is designed to handle bodywork parts and components in moulded steel sheet.
These cups are produced with a special compound called BENZ, which can withstand heavy-duty work and the chlorine usually contained in the oil used for moulding and drawing of steel sheets.
The galvanised steel support is vulcanised onto the cup. Galvanised steel adapters are also available in order to modify the suction connection from M10 to gas threading.
Cups in other special compounds, listed on pg. 31 can be provided upon request in minimum quantities to be defined in the order.

VACUUM CUPS WITH VULCANISED SUPPORT

Item	Force Kg	Volume cm^3	D Ø	E	F	G	H	Support material	Weight g
08 30 38 B	1.80	3.1	30	20	17	10	37	steel	20.8
08 40 41 B	3.20	6.4	40	23	18	12	41	steel	24.9
08 40 41 N	3.20	6.4	40	23	18	12	41	steel	24.9

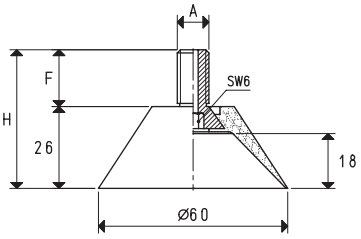
Compound: B= BENZ rubber; N= natural para rubber



VACUUM CUPS WITH VULCANISED SUPPORT

Item	Force Kg	Volume cm^3	A Ø	F	H	Support material	Weight g
08 60 45 B	7.10	25.9	M10	18	44	steel	29.5
08 60 45 1/4" B	7.10	25.9	G1/4"	10	44	steel	29.5

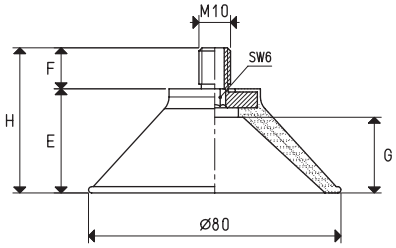
Compound: B= BENZ rubber



VACUUM CUPS WITH VULCANISED SUPPORT

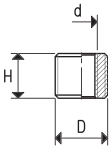
Item	Force Kg	Volume cm^3	E	F	G	H	Support material	Weight g
08 80 50 B	12.60	41.2	33	12.5	26	51	steel	58.0

Compound: B= BENZ rubber



ADAPTERS

Item	D Ø	d Ø	H	Support material	Weight g
00 08 130	G1/4"	M10	14	steel	4.9
00 08 131	G3/8"	M10	14	steel	12.8



Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

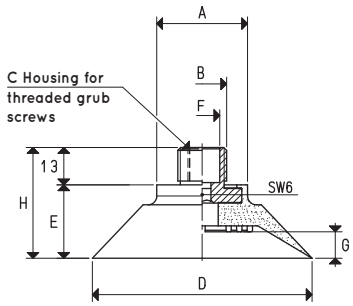
VACUUM CUPS WITH VULCANISED SUPPORT

These cups are specially designed for gripping moulded or drawn sheet metal and are largely used in the automotive sector.
Their ground lip allows an immediate gripping of the load even at the slightest resting pressure and ensures perfect vacuum seal.
These cups are produced in a special compound called BENZ, able to withstand the chlorine usually contained in the oils used for moulding and drawing the steel sheets.
The galvanised steel support is is vulcanised onto the cup.
The cups can be provided upon request in minimum quantities in natural para rubber, in silicon or in special compounds, listed on pg. 31.

VACUUM CUPS WITH MALE VULCANISED SUPPORT

Item	Force Kg	Volume cm³	A Ø	B Ø	C Ø	D Ø	E	F Ø	G	H	Support material	Weight g
08 50 40 *	4.90	10.3	31	G3/8"	--	50	16.0	12	6.5	29.0	steel	38.5
08 50 40 GR B	4.90	10.3	31	G3/8"	G1/8"	50	16.0	--	6.5	29.0	steel	38.5
08 75 40 *	11.04	29.3	31	G3/8"	--	75	25.0	12	9.0	38.0	steel	57.9
08 75 40 GR B	11.04	29.3	31	G3/8"	G1/8"	75	25.0	--	9.0	38.0	steel	57.9
08 75 40 GR N	11.04	29.3	31	G3/8"	G1/8"	75	25.0	--	9.0	38.0	steel	57.9
08 100 40 *	19.62	42.6	32	G3/8"	--	100	26.0	12	9.0	39.0	steel	78.3
08 100 50 *	19.62	70.6	32	G3/8"	--	100	30.5	12	15.0	43.5	steel	74.8
08 50 40 1/4" B	4.90	10.3	31	G1/4"	--	50	16.0	--	6.5	29.0	steel	37.4
08 75 40 1/4" B	11.04	29.3	31	G1/4"	--	75	25.0	--	9.0	38.0	steel	57.6
08 100 40 1/4" B	19.62	42.6	32	G1/4"	--	100	26.0	--	9.0	39.0	steel	76.8
08 50 40 M10 B	4.90	10.3	31	M10	--	50	16.0	--	6.5	29.0	steel	32.7
08 100 50 M10 B	19.62	70.6	32	M10	--	100	30.5	--	15.0	43.5	steel	70.2
08 75 40 M14 B	11.04	29.3	31	M14 x 1.5	--	75	25.0	--	9.0	38.0	steel	54.9
08 100 50 M14 B	19.62	70.6	32	M14 x 1.5	--	100	30.5	--	15.0	43.5	steel	74.9

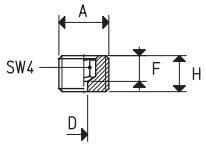
* Complete the code indicating the compound: B= BENZ rubber; N= natural para rubber; S = silicon



THREADED GRUB SCREWS WITH CALIBRATED HOLE

Item	A Ø	D Ø	F	H	Grub screw material	Weight g
00 08 427	G1/8"	1.0	5	11	brass	3.0
00 08 164	G1/8"	1.2	5	11	brass	3.0
00 08 165	G1/8"	1.5	5	11	brass	3.0
00 08 334	G1/8"	3.0	4	13	brass	4.0

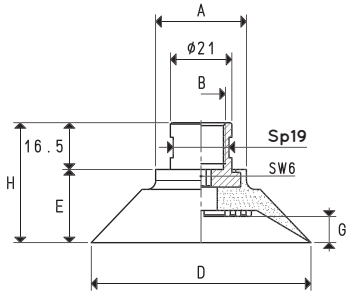
Threaded grub screws with calibrated hole, for vacuum cups with extension GR.



VACUUM CUPS WITH FEMALE VULCANISED SUPPORT

Item	Force Kg	Volume cm³	A Ø	B Ø	D Ø	E	G	H	Support material	Weight g
08 50 40 F B	4.90	10.3	31	G3/8"	50	16.0	6.5	32.5	steel	49.5
08 75 40 F B	11.04	29.3	31	G3/8"	75	25.0	9.0	41.5	steel	68.3
08 75 40 F S	11.04	29.3	31	G3/8"	75	25.0	9.0	41.5	steel	68.3
08 100 40 F B	19.62	42.6	32	G3/8"	100	26.0	9.0	42.5	steel	89.3
08 100 40 F S	19.62	42.6	32	G3/8"	100	26.0	9.0	42.5	steel	89.3
08 100 50 F B	19.62	70.6	32	G3/8"	100	30.5	15.0	47.0	steel	88.8
08 100 50 F S	19.62	70.6	32	G3/8"	100	30.5	15.0	47.0	steel	88.8

Compound: B= BENZ rubber; S = silicon



Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

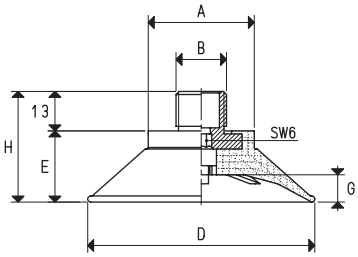
VACUUM CUPS WITH VULCANISED SUPPORT

These vacuum cups are very similar to those described on the previous page: they differ only for their round lip and their internal cleats.
These features allow them to be used even in the most heavy-duty conditions.
The field of use is the same.
They are also made with BENZ compound and the galvanised steel support is vulcanised onto the cup.
Also these cups can be provided upon request in minimum quantities and in other special compounds, listed on pg. 31, to be defined in the order.

VACUUM CUPS WITH MALE VULCANISED SUPPORT

Item	Force Kg	Volume cm³	A Ø	B Ø	D Ø	E	G	H	Support material	Weight g
08 50 99 B	4.90	10.3	30	G3/8"	50	23.5	9	36.5	steel	43.2
08 75 99 B	11.04	29.3	35	G3/8"	75	23.5	9	36.5	steel	59.2
08 100 99 B	19.62	42.6	35	G3/8"	100	40.0	12	53.0	steel	113.2
08 100 99 N	19.62	42.6	35	G3/8"	100	40.0	12	53.0	steel	113.2
08 50 99 1/4" B	4.90	10.3	30	G1/4"	50	23.5	9	36.5	steel	39.4
08 75 99 1/4" B	11.04	29.3	35	G1/4"	75	23.5	9	36.5	steel	55.2
08 100 99 1/4" B	19.62	42.6	35	G1/4"	100	40.0	12	53.0	steel	109.2

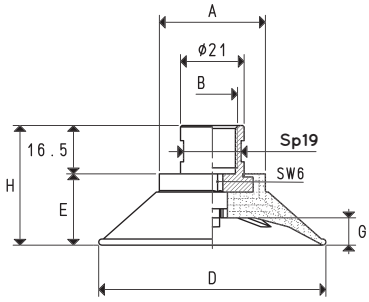
Compound: B= BENZ rubber; N= natural para rubber



VACUUM CUPS WITH FEMALE VULCANISED SUPPORT

Item	Force Kg	Volume cm³	A Ø	B Ø	D Ø	E	G	H	Support material	Weight g
08 50 99 F B	4.90	10.3	31	G3/8"	50	23.5	9	40.0	steel	55.6
08 50 99 F S	4.90	10.3	31	G3/8"	50	23.5	9	40.0	steel	55.6
08 75 99 F B	11.04	29.3	35	G3/8"	75	23.5	9	40.0	steel	70.5
08 75 99 F S	11.04	29.3	35	G3/8"	75	23.5	9	40.0	steel	70.5
08 100 99 F B	19.62	42.6	35	G3/8"	100	40.0	12	56.5	steel	118.8

Compound: B= BENZ rubber; S = silicon



Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

MAXIGRIP CUPS

These vacuum cups have been created as an alternative to the ordinary cups used in the robot-automotive field. They offer an excellent solution to gripping and handling problems that could arise on vacuum-driven handlers in every industry sector.
They can be both round and oval, flat and bellows-type, and equipped with support. The extremely flexible outside lip, which can be associated with the typical features of the bellows cups, helps them adapt on flat, concave and convex surfaces with no risk of deforming or breaking even the thinnest objects to be handled.
The innovative design of the inside of the cups, which facilitates the drainage of oil and water, ensures a high friction coefficient with the gripping surface and, in particular, a unique grip on oil-covered metal sheets or wet glass or marble sheets. This particular feature guarantees a firm grip and, therefore, accurate placement of the load to be handled.

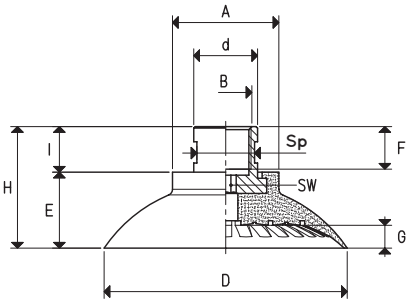
MAXIGRIP standard vacuum cups are made with our exclusive BENZ compound:
- Hardness 60-75°Sh.
- Working temperature between -40 and +170°C
- Stain-resistant
- Excellent resistance to abrasion, water and to oils containing chlorine.

Their aluminium support is vulcanised onto the cup. A wide range of accessories, such as adapters, couplers and articulated joints, allows them to be installed on any vacuum-driven handler.
These cups can also be provided in the special compounds listed on pg. 31, thanks to their universality of use.

ROUND FLAT AND BELLOWS VACUUM CUPS

VACUUM CUPS WITH VULCANISED SUPPORT

Item	Force Kg	Volume cm^3	A Ø	B Ø	Sp	D Ø	d Ø	E	F	G	H	I	SW	Support material	Weight g
VRP 40*	3.14	3.7	26	G1/4"	15	40	17	16	14	4.0	31	15	6	aluminium	33.6
VRP 50*	4.90	7.4	30	G3/8"	19	50	21	18	14	5.0	33	15	6	aluminium	49.3
VRP 60*	7.06	13.9	30	G3/8"	19	60	21	21	14	6.0	36	15	6	aluminium	55.3
VRP 80*	12.56	29.6	35	G3/8"	19	80	21	25	14	7.5	40	15	6	aluminium	74.9
VRP 100*	19.62	51.6	35	G3/8"	19	100	21	25	14	9.5	40	15	6	aluminium	80.7
VRP 125*	30.66	96.5	35	G3/8"	19	125	21	33	14	12.5	48	15	6	aluminium	139.6

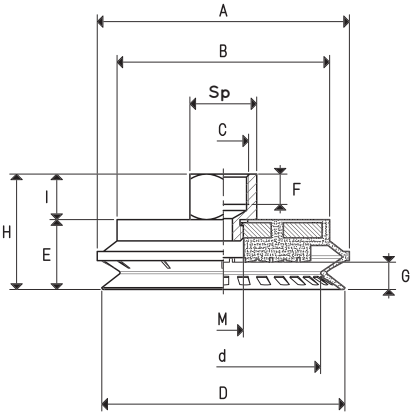


* Complete the code indicating the compound: B= BENZ rubber; N= natural para rubber; S = silicon

Note: Can be supplied with NPT threading for minimum quantities of 100 pieces per item.
Ordering example: VRP 80 NPT B

BELLOWS VACUUM CUPS WITH VULCANISED SUPPORT

Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	Sp	D Ø	d Ø	E	F	G	H	I	M Ø	Support material	Weight g
VRS 40*	3.14	9.7	43	30	G1/4"	17	40	24	21.0	10	7.0	35.0	14	G1/8"	aluminium	56.3
VRS 50*	4.90	15.6	53	40	G3/8"	22	50	34	21.0	10	7.0	36.0	15	G1/4"	aluminium	77.6
VRS 60*	7.06	22.8	63	50	G3/8"	22	60	44	21.0	10	7.0	36.0	15	G1/4"	aluminium	107.9
VRS 80*	12.56	47.3	83	70	G3/8"	22	80	64	23.0	10	9.0	38.0	15	G1/4"	aluminium	205.9
VRS 100*	19.62	104.2	103	80	G3/8"	22	100	79	29.0	10	13.0	44.0	15	G1/4"	aluminium	269.0
VRS 125*	30.66	202.5	128	105	G3/8"	22	125	100	32.5	10	16.5	47.5	15	G1/4"	aluminium	464.2



* Complete the code indicating the compound: B= BENZ rubber; N= natural para rubber; S = silicon

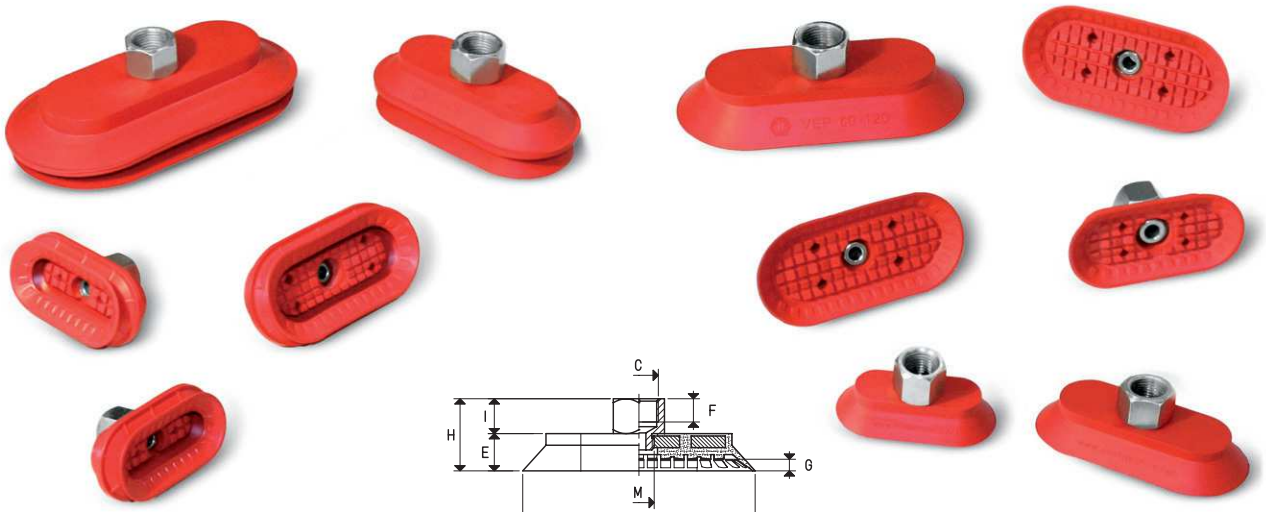
Note: Height "C" available with NPT threading. Ordering example: VRS 80 NPT B

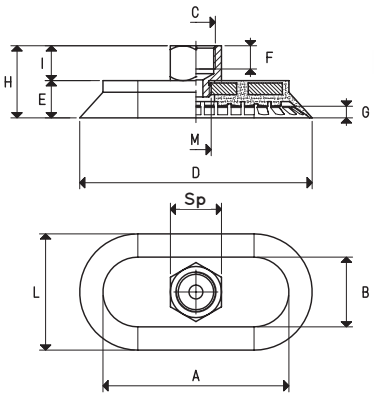
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

FLAT AND BELLOWS ELLIPTICAL VACUUM CUPS



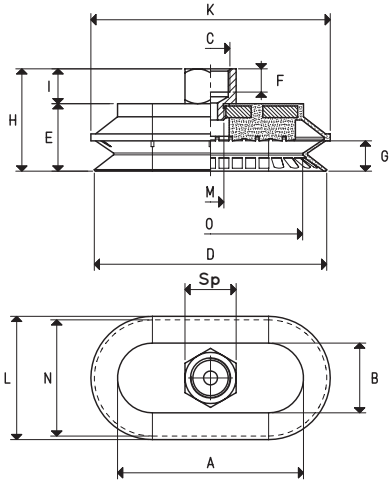


ELLIPTICAL VACUUM CUPS WITH VULCANISED SUPPORT

Item	Force Kg	Volume cm^3	A	B	C Ø	Sp	D	E	F	G	H	I	L	M Ø	Support material	Weight g
VEP 30 60 *	4.01	4.5	47	17	G1/4"	17	60	13	10	3	27	14	30	G1/8"	aluminium	42.6
VEP 30 90 *	6.26	7.0	77	17	G1/4"	17	90	13	10	3	27	14	30	G1/8"	aluminium	63.5
VEP 40 80 *	7.14	13.2	70	30	G1/4"	17	80	14	10	4	28	14	40	G1/8"	aluminium	68.0
VEP 50 100 *	11.15	15.0	80	30	G3/8"	22	100	16	10	5	31	15	50	G1/4"	aluminium	110.0
VEP 60 120 *	16.06	32.1	95	35	G3/8"	22	120	18	10	6	33	15	60	G1/4"	aluminium	156.1
VEP 70 140 *	21.86	53.5	110	40	G3/8"	22	140	19	10	7	34	15	70	G1/4"	aluminium	199.4

* Complete the code indicating the compound: B= BENZ rubber; N= natural para rubber; S = silicon

Note: Height "C" available with NPT threading. Ordering example: VEP 40 80 NPT B



BELLOWS ELLIPTICAL VACUUM CUPS WITH VULCANISED SUPPORT

Item	Force Kg	Volume cm^3	A	B	C Ø	Sp	D	E	F	G	H	K	I	L	M Ø	N	O	Support material	Weight g
VES 30 60 *	4.01	12.6	50	20	G1/4"	17	60	21	10	7.0	35	63	14	33	G1/8"	30	44.5	aluminium	49.5
VES 40 80 *	7.14	24.8	70	30	G1/4"	17	80	23	10	9.0	37	83	14	43	G1/8"	40	64.0	aluminium	91.9
VES 50 100 *	11.15	57.6	80	30	G3/8"	22	100	29	10	13.0	44	103	15	53	G1/4"	50	79.0	aluminium	125.3
VES 70 140 *	21.86	122.8	110	40	G3/8"	22	140	33	10	16.5	48	143	15	73	G1/4"	70	109.0	aluminium	227.8

* Complete the code indicating the compound: B= BENZ rubber; N= natural para rubber; S = silicon

Note: Height "C" available with NPT threading. Ordering example: VES 40 80 NPT B

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

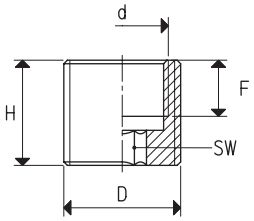
Adapters for GAS - NPT threading available on page 1.130

ADAPTERS FOR MAXIGRIP VACUUM CUPS

These standard accessories provide various MAXIGRIP CUP assembly options.
The galvanised steel adapters transform the female standard support thread connections into male and the gas ones into metric.
The internal hexagonal housing allows for an easy screwing on the supports.

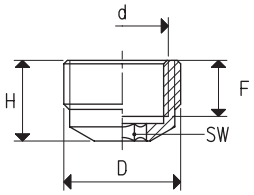
MF ADAPTER FOR VRP VACUUM CUPS

Item	D Ø	d Ø	F	H	SW	Weight g
00 08 215	G3/8"	G1/4"	8	14	6	11.5



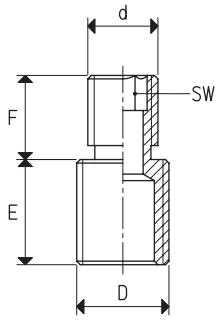
MF ADAPTER FOR VRS - VEP - VES VACUUM CUPS

Item	D Ø	d Ø	F	H	SW	Weight g
00 08 216	G3/8"	G1/4"	8	11.5	6	6.0



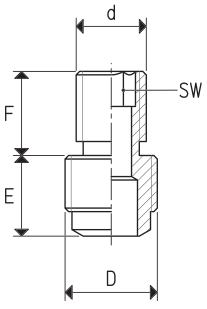
MM ADAPTER FOR VRP VACUUM CUPS

Item	D Ø	d Ø	E	F	SW	Weight g
00 08 217	G1/4"	G1/4"	15	10	6	16.7
00 08 218	G1/4"	M10 x 1.5	15	12	6	10.2
00 08 219	G1/4"	M14 x 1.5	15	12	6	16.0
00 08 220	G3/8"	G1/4"	14	10	6	18.4
00 08 221	G3/8"	M10 x 1.5	14	12	6	16.3
00 08 222	G3/8"	M14 x 1.5	14	12	6	22.5



MM ADAPTER FOR VRS - VEP - VES VACUUM CUPS

Item	D Ø	d Ø	E	F	SW	Weight g
00 08 223	G1/4"	G1/4"	11.5	10	6	13.9
00 08 224	G1/4"	M10 x 1.5	13.0	12	6	10.1
00 08 225	G1/4"	M14 x 1.5	13.0	12	6	15.8
00 08 226	G3/8"	G1/4"	10.5	11	6	16.6
00 08 227	G3/8"	M10 x 1.5	10.5	13	6	14.2
00 08 228	G3/8"	M14 x 1.5	10.5	13	6	20.2



Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

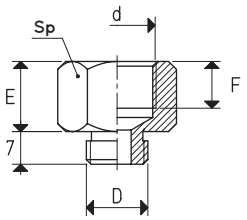
Adapters for GAS - NPT threading available on page 1.130

ACCESSORIES FOR MAXIGRIP VACUUM CUPS

The accessories shown on this page are suitable for the previously described MAXIGRIP CUPS.
MF adapters are suitable for increasing female connections of 1/8 "and 1/4" gas threaded connection vacuum cups to a larger size, still female, of 1/4" or 3/8" with gas or NPT threading, upon request.
Those that are galvanised steel and with gas threading and those with NPT threading are made of aluminium.
AQ adapters with square flange and male or female threaded connections made of anodised aluminium are suitable for robotic gripping systems to allow for quick installation of vacuum cups on the special profiles, used in the AUTOMOTIVE sector. The built-in seal guarantees perfect vacuum seal.

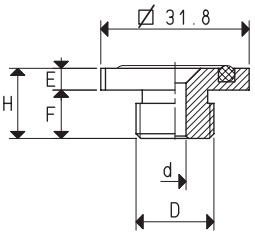
MF ADAPTER FOR VRP-VRS-VEP-VES VACUUM CUPS

Item	E	F	D Ø	d Ø	Sp	Adapter material	Weight g
00 08 207	14	10	G1/8"	G1/4"	17	aluminium	17.6
00 08 208	15	10	G1/4"	G3/8"	22	aluminium	31.0
00 08 329	17	12	G1/8"	1/4" NPT	17	steel	17.6
00 08 328	22	16	G1/4"	3/8" NPT	22	steel	31.0



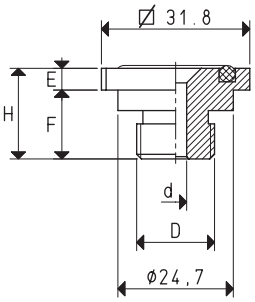
SQUARE ADAPTER FOR VRP-VRS-VEP-VES VACUUM CUPS

Item	H	E	F	D Ø	d Ø	Material	Weight g	O-ring spare part item
AQ 32 1/8"	13	4.6	8.4	G1/8"	5	aluminium	11.8	00 08 214
AQ 32 1/4"	13	4.6	8.4	G1/4"	5	aluminium	13.2	00 08 214
AQ 32 3/8"	13	4.6	8.4	G3/8"	5	aluminium	15.6	00 08 214
AQ 32 1/2"	13	4.6	8.4	G1/2"	5	aluminium	17.2	00 08 214



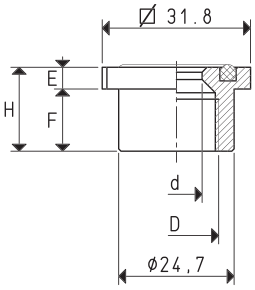
SQUARE ADAPTER FOR VRP-VRS-VEP-VES VACUUM CUPS

Item	H	E	F	D Ø	d Ø	Material	Weight g	O-ring spare part item
AQS 32 1/8"	16.1	4.6	11.5	G1/8"	5	aluminium	12.2	00 08 214
AQS 32 1/4"	20.0	4.6	15.4	G1/4"	5	aluminium	13.6	00 08 214
AQS 32 3/8"	20.0	4.6	15.4	G3/8"	5	aluminium	16.2	00 08 214
AQS 32 1/2"	20.0	4.6	15.4	G1/2"	5	aluminium	17.8	00 08 214



SQUARE ADAPTER FOR VRP-VRS-VEP-VES VACUUM CUPS

Item	H	E	F	D Ø	d Ø	Material	Weight g	O-ring spare part item
AQ 32 1/4" F	17.9	4.6	13.3	G1/4"	11	aluminium	15.2	00 08 214
AQ 32 3/8" F	17.9	4.6	13.3	G3/8"	11	aluminium	14.1	00 08 214



Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

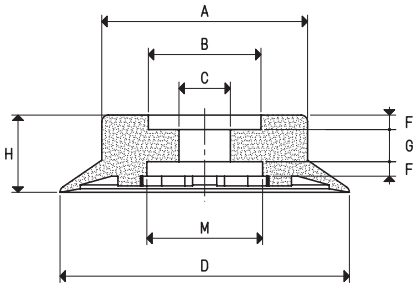
Adapters for GAS - NPT threading available on page 1.130

ROUND FLAT VACUUM CUPS WITH SUPPORTS

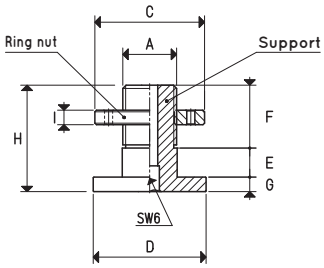
The cups described on this page have been designed to solve most of the gripping problems that can arise handling wooden or plastic panels, thin glass or marble sheets, fragile metal sheets, ceramic or baked clay tiles, etc.
Their low, strong and slightly tilted lip does not swipe on the loading surface during the gripping phase.
The cleats on the inside of these cups, along with reducing the volume of air to be sucked, create a perfect supporting surface which prevents any gripping surface deformation as well as vertically lifted loads from slipping. These cups can be cold fitted with no adhesives onto their anodised aluminium support and locked by the ring nut. These cups are extremely easy to replace; simply request the cup indicated in the table in the desired compound when requesting the spare part.

VACUUM CUPS

Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	F	G	H	M Ø
01 76 24 *	11.33	15.8	54	35	16	76	4.5	10	24	36
01 90 24 *	15.89	19.5	64	35	16	90	4.5	10	24	36
01 110 24 *	23.74	27.2	79	35	16	110	4.5	10	24	36
01 150 36 *	45.00	75.8	98	70	16	150	6.0	17	36	70



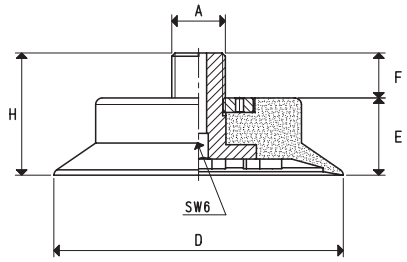
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SUPPORTS

Item	A Ø	C Ø	D Ø	E	F	G	H	I	Support/ring nut material	For vacuum cup item	Weight g
00 08 108	G1/4"	34	35	9	19.5	4.5	33.0	4.5	aluminium	01 76 24 01 90 24 01 110 24	31.2
00 08 110	G3/8"	34	35	9	19.5	4.5	33.0	4.5	aluminium	01 76 24 01 90 24 01 110 24	33.7
00 08 112	G3/8"	69	69	15	22.0	5.5	42.5	6.0	aluminium	01 150 36	132.1

Note: the ring nut is provided automatically when the support is ordered with its own item



VACUUM CUP WITH SUPPORT

Item	Force Kg	A Ø	D Ø	E	F	H	Vacuum cup item	Support item	Weight g
08 76 24 1/4" *	11.33	G1/4"	760	24	14	38	01 76 24	00 08 108	83.1
08 90 24 1/4" *	15.89	G1/4"	900	24	14	38	01 90 24	00 08 108	112.0
08 110 24 1/4" *	23.74	G1/4"	110	24	14	38	01 110 24	00 08 108	168.2
08 76 24 3/8" *	11.33	G3/8"	760	24	14	38	01 76 24	00 08 110	85.6
08 90 24 3/8" *	15.89	G3/8"	900	24	14	38	01 90 24	00 08 110	114.5
08 110 24 3/8" *	23.74	G3/8"	110	24	14	38	01 110 24	00 08 110	170.7
08 150 36 *	45.00	G3/8"	150	36	14	50	01 150 36	00 08 112	436.5

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

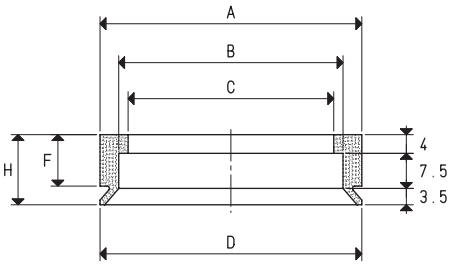
ROUND FLAT VACUUM CUP WITH SUPPORT

The cups described on this page have been designed for gripping soft drink cans. They can obviously be also used for gripping other objects with flat smooth or slightly rough surfaces.
The shape of its lip allows a firm grip of the surface of the load to be handled, eliminating any oscillation and reducing the air volume contained within, thus allowing quicker grip and release.
These cups can be cold fitted with no adhesives onto their anodised aluminium support equipped with a threaded hole in the centre to allow their fastening to the automation.
This cup is extremely easy to replace; simply request the cup indicated in the table in the desired compound when requesting the spare part.

VACUUM CUP

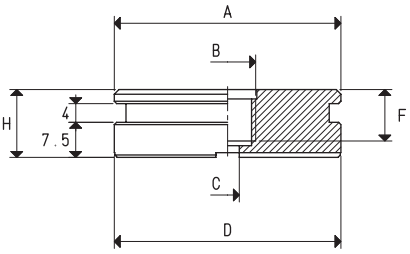
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	F	H
01 56 15 *	6.15	7.1	56	48	44	56	11	15

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SUPPORT

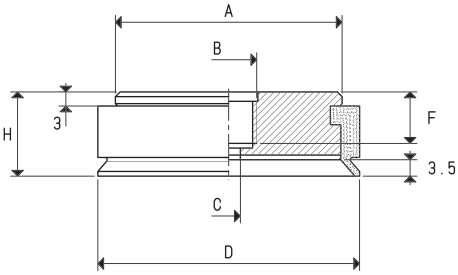
Item	A Ø	B Ø	C Ø	D Ø	F	H	Support material	For vacuum cup item	Weight g
00 08 83	48.5	M12	5	48.5	11	14.5	aluminium	01 56 15	67.4



VACUUM CUP WITH SUPPORT

Item	Force Kg	A Ø	B Ø	C Ø	D Ø	F	H	Vacuum cup item	Support item	Weight g
08 56 15 *	6.15	48.5	M12	5	56	11	18	01 56 15	00 08 83	78

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

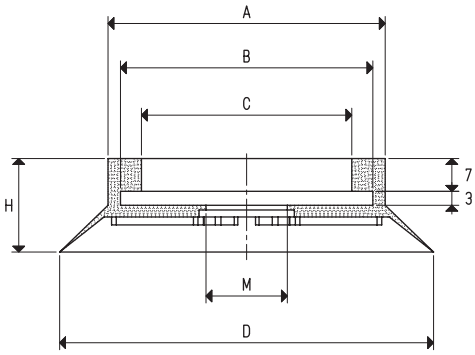
ROUND FLAT VACUUM CUP WITH SUPPORTS

These cups feature a particularly thin and soft lip, which allows it to grip very rough surfaces. Its supporting surface with cleats guarantees a firm grip on the load to be handled. These cups have been specially designed for gripping ceramic tiles with smooth, rough and non-slip surfaces, although, due to their features, they can also be used for handling glass, marble and cement objects.
These cups can be cold fitted with no adhesives onto their anodised aluminium support equipped with a threaded hole in the centre to allow their fastening to the automation.
This cup is extremely easy to replace; simply request the cup indicated in the table in the desired compound when requesting the spare part.

VACUUM CUP

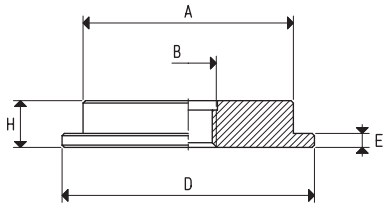
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	H	M Ø
01 80 20 *	12.56	27.2	58	54	45	80	20	17

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SUPPORTS

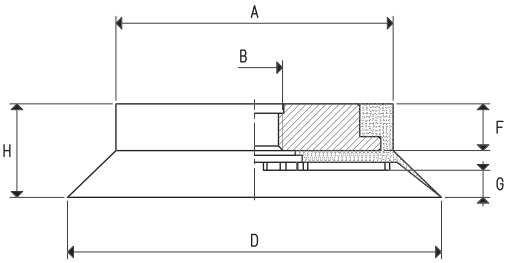
Item	A Ø	B Ø	D Ø	E	H	Support material	For vacuum cup item	Weight g
00 08 126	45	M12	54	3	10	aluminium	01 80 20	45.5
00 08 143	45	G1/2"	54	3	10	aluminium	01 80 20	41.5



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A Ø	B Ø	D Ø	F	G	H	Vacuum cup item	Support item	Weight g
08 80 20 *	12.56	58	M12	80	10	6	20	01 80 20	00 08 126	70.7
08 80 20 1/2" *	12.56	58	G1/2"	80	10	6	20	01 80 20	00 08 143	66.7

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

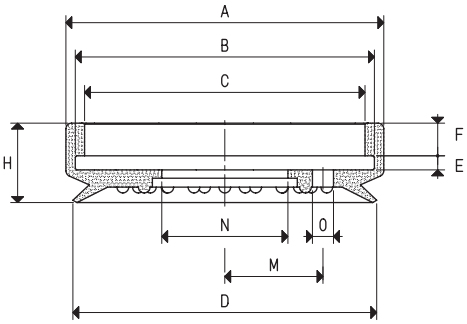
ROUND FLAT VACUUM CUPS WITH SUPPORTS

These cups have been designed in particular for handling metal sheets, glass, wooden panels, machined marble and granite and other similar materials.
The shape of their lips allows a firm grip of the surface of the load to be handled, eliminating any oscillation and significantly reducing the air volume contained within, thus allowing quicker grip and release. These cups are provided with cleats which, besides avoiding the load to bend in correspondence of the gripping point, also have the purpose of increasing the friction surface with the vertically lifted load, preventing it from slipping. They are normally available in the three standard compounds but can be supplied in special compounds listed on pg. 31 and in a minimum amount to be defined in the order, upon request.
These cups can be cold fitted with no adhesives onto their anodised aluminium support equipped with a threaded hole in the centre to allow its fastening to the automation and, upon request, can be supplied with a side hole with gas threading for the suction fitting.
These cups are extremely easy to replace; simply request the cup indicated in the table in the desired compound when requesting the spare part.

VACUUM CUPS

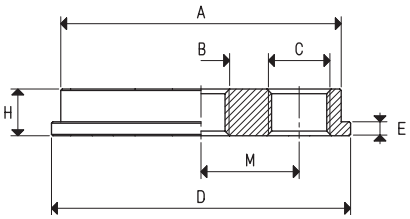
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	M	N Ø	O Ø
01 65 15 *	8.29	9.1	68	63	59	65	3	7	17	--	27	--
01 65 16 *	8.29	9.1	68	63	59	65	3	7	17	21	27	4.5

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SUPPORTS

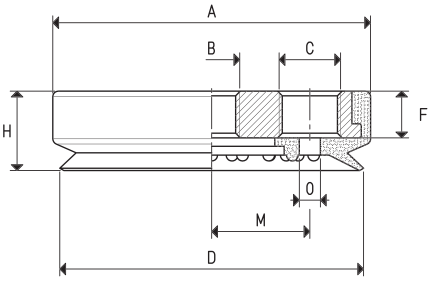
Item	A Ø	B Ø	C Ø	D Ø	E	H	M	For vacuum cup item	Support material	Weight g
00 08 32	60	M12	--	64	3	10	--	01 65 15	aluminium	80.6
00 08 424	60	G1/4"	--	64	3	10	--	01 65 15	aluminium	80.6
00 02 36	60	M8	G1/4"	64	3	10	21	01 65 16	aluminium	78.1
00 06 13	60	M12	G1/4"	64	3	10	21	01 65 16	aluminium	77.1



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A Ø	B Ø	C Ø	D Ø	F	H	M	O Ø	Vacuum cup item	Support item	Weight g
08 65 15 *	8.29	69	M12	--	65	10	17	--	--	01 65 15	00 08 32	102.0
08 65 15 1/4" *	8.29	69	G1/4"	--	65	10	17	--	--	01 65 15	00 08 424	102.0
08 65 16 *	8.29	69	M8	G1/4"	65	10	17	21	4.5	01 65 16	00 02 36	100.0
08 65 17 *	8.29	69	M12	G1/4"	65	10	17	21	4.5	01 65 16	00 06 13	98.5

* Complete the code indicating the compound: B= BENZ rubber; N= natural para rubber; S = silicon



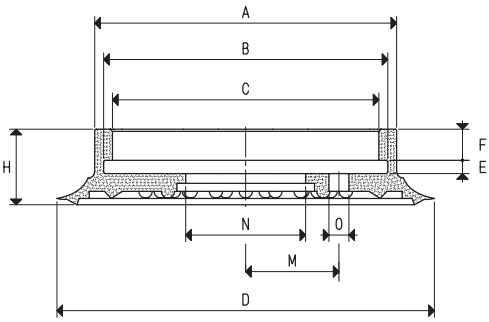
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

VACUUM CUPS

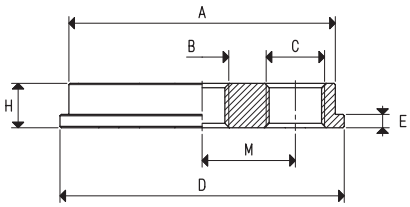
Item	Force Kg	Volume cm³	A Ø	B Ø	C Ø	D Ø	E	F	H	M	N Ø	O Ø
01 85 15 *	14.18	13.0	68	63	59	85	3	7	17	--	27	--
01 85 16 *	14.18	13.0	68	63	59	85	3	7	17	21	27	4.5



* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

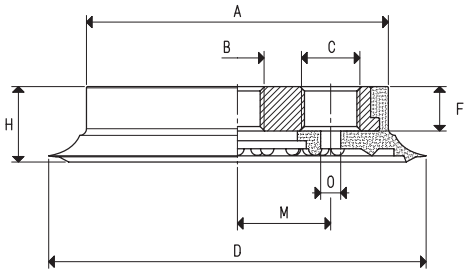
SUPPORTS

Item	A Ø	B Ø	C Ø	D Ø	E	H	M	For vacuum cup item	Support material	Weight g
00 08 32	60	M12	--	64	3	10	--	01 85 15	aluminium	80.6
00 08 234	60	G1/2"	--	64	3	10	--	01 85 15	aluminium	78.3
00 08 424	60	G1/4"	--	64	3	10	--	01 85 15	aluminium	80.6
00 08 233	60	G3/4"	--	64	3	10	--	01 85 15	aluminium	77.3
00 02 36	60	M8	G1/4"	64	3	10	21	01 85 16	aluminium	78.1
00 06 13	60	M12	G1/4"	64	3	10	21	01 85 16	aluminium	77.1



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A Ø	B Ø	C Ø	D Ø	F	H	M	O Ø	Vacuum cup item	Support item	Weight g
08 85 15 *	14.18	69	M12	--	85	10	17	--	--	01 85 15	00 08 32	110.3
08 85 15 1/2" *	14.18	69	G1/2"	--	85	10	17	--	--	01 85 15	00 08 234	108.0
08 85 15 1/4" *	14.18	69	G1/4"	--	85	10	17	--	--	01 85 15	00 08 424	107.0
08 85 15 3/4" *	14.18	69	G3/4"	--	85	10	17	--	--	01 85 15	00 08 233	107.0
08 85 16 *	14.18	69	M8	G1/4"	85	10	17	21	4.5	01 85 16	00 02 36	107.7
08 85 17 *	14.18	69	M12	G1/4"	85	10	17	21	4.5	01 85 16	00 06 13	106.7

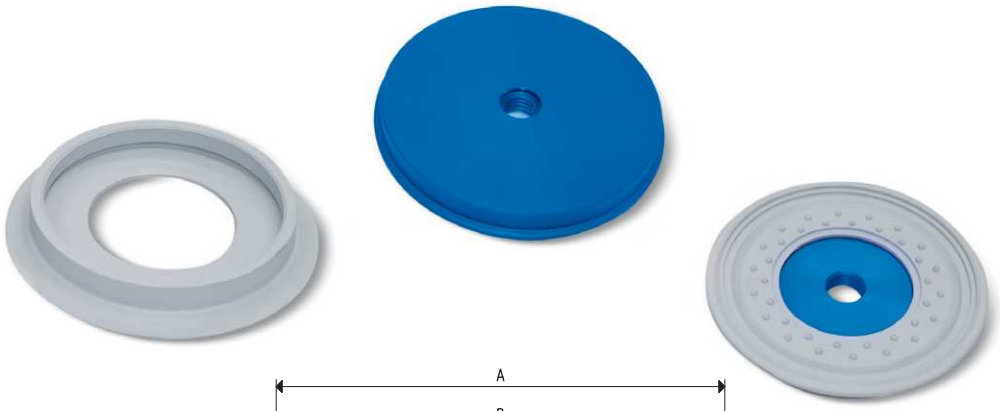


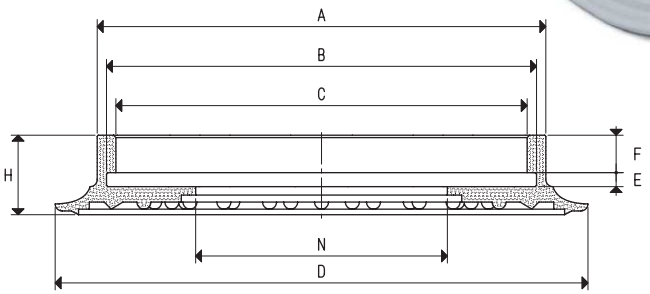
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

ROUND FLAT VACUUM CUP WITH SUPPORTS

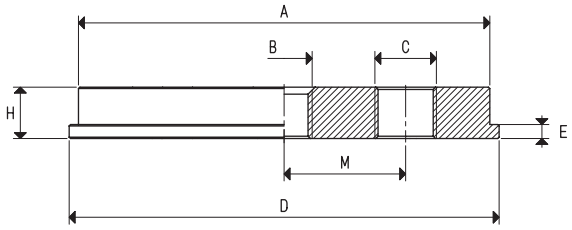




VACUUM CUP

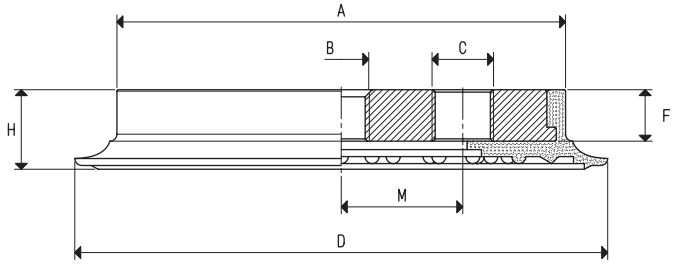
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	N Ø
01 110 10 *	23.74	24.9	96	91	87	114	3	8	17	54

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SUPPORTS

Item	A Ø	B Ø	C Ø	D Ø	E	H	M	For vacuum cup item	Support material	Weight g
00 08 33	88	M12	--	92	3	11	--	01 110 10	aluminium	188.9
00 02 37	88	M8	G1/4"	92	3	11	26	01 110 10	aluminium	188.8
00 06 14	88	M12	G1/4"	92	3	11	26	01 110 10	aluminium	185.8
00 08 123	88	G3/8"	--	92	3	11	--	01 110 10	aluminium	186.1



VACUUM CUPS WITH SUPPORT

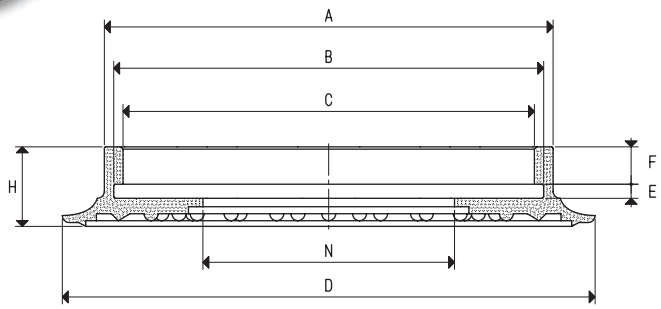
Item	Force Kg	A Ø	B Ø	C Ø	D Ø	F	H	M	Vacuum cup item	Support item	Weight g
08 110 10 *	23.74	97	M12	--	114	11	17	--	01 110 10	00 08 33	233.2
08 110 11 *	23.74	97	M8	G1/4"	114	11	17	26	01 110 10	00 02 37	233.1
08 110 12 *	23.74	97	M12	G1/4"	114	11	17	26	01 110 10	00 06 14	230.1
08 110 13 *	23.74	97	G3/8"	--	114	11	17	--	01 110 10	00 08 123	230.4

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

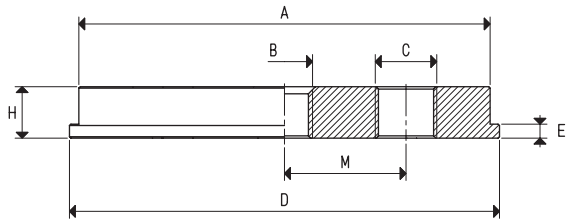
ROUND FLAT VACUUM CUP WITH SUPPORTS



VACUUM CUP

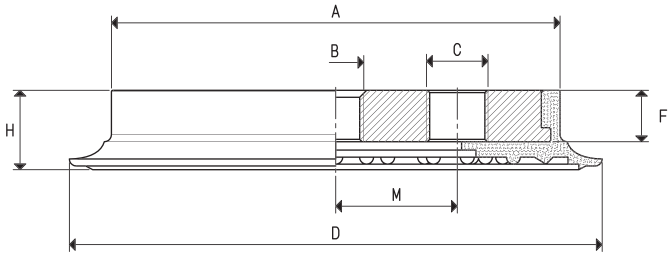
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	N Ø
01 150 10 *	45.00	75.7	133	125	118	154	4	11	23	64

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SUPPORTS

Item	A Ø	B Ø	C Ø	D Ø	E	H	M	For vacuum cup item	Support material	Weight g
00 08 35	120	M12	--	127	4	15	--	01 150 10	aluminium	471.3
00 08 107	120	M12	G3/8"	127	4	15	30	01 150 10	aluminium	476.9
00 08 119	120	G3/8"	--	127	4	15	--	01 150 10	aluminium	478.9
00 08 145	120	G3/8"	G3/8"	127	4	15	27	01 150 10	aluminium	471.9
00 06 15	120	M12	G1/4"	127	4	15	30	01 150 10	aluminium	476.3



VACUUM CUPS WITH SUPPORT

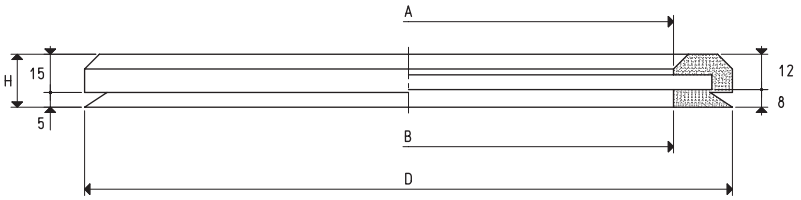
Item	Force Kg	A Ø	B Ø	C Ø	D Ø	F	H	M	Vacuum cup item	Support item	Weight g
08 150 10 *	45.00	135	M12	--	154	15	23	--	01 150 10	00 08 35	583.3
08 150 12 *	45.00	135	M12	G3/8"	154	15	23	30	01 150 10	00 08 107	588.9
08 150 13 *	45.00	135	G3/8"	--	154	15	23	--	01 150 10	00 08 119	590.9
08 150 14 *	45.00	135	G3/8"	G3/8"	154	15	23	27	01 150 10	00 08 145	583.9
08 150 16 *	45.00	135	M12	G1/4"	154	15	23	30	01 150 10	00 06 15	588.3

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

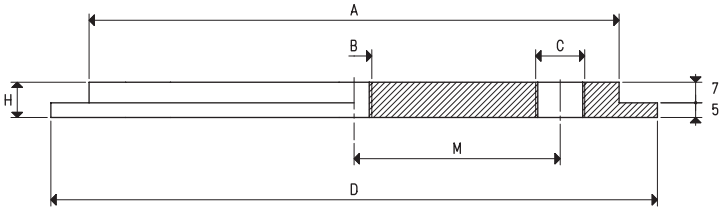
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

ROUND FLAT VACUUM CUP WITH SUPPORT



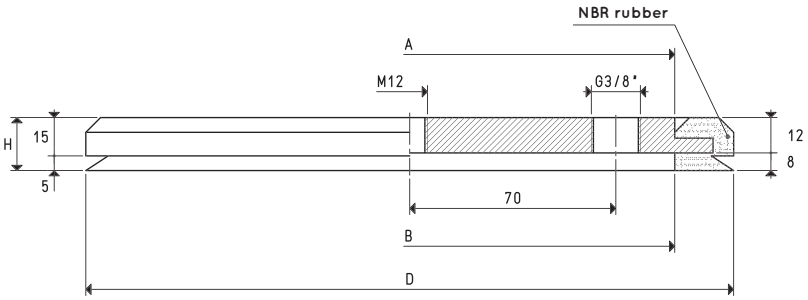
VACUUM CUP

Item	Force Kg	Volume cm^3	A Ø	B Ø	D Ø	H	Compound
01 220 10 A	78.5	203.4	180	180	220	20	oil-resistant rubber



SUPPORT

Item	A Ø	B Ø	C Ø	D Ø	H	M	Support material	For vacuum cup item	Weight Kg
00 08 37	180	M12	G3/8"	206	12	70	aluminium	01 220 10 A	0.95



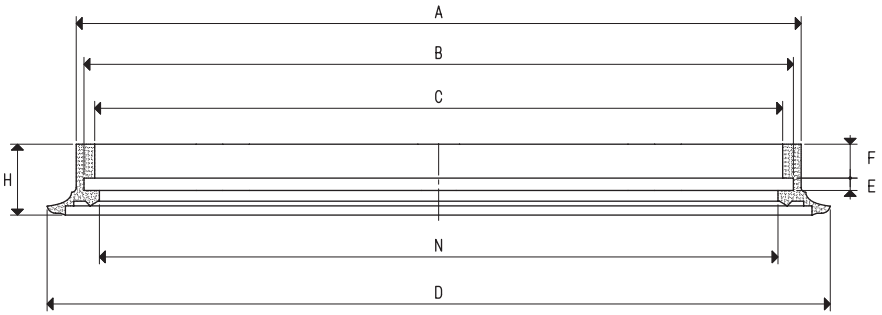
VACUUM CUP WITH SUPPORT

Item	Force Kg	A Ø	B Ø	D Ø	H	Vacuum cup item	Support item	Weight Kg
08 220 10 A	78.5	180	180	220	20	00 08 37	01 220 10 A	1.12

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

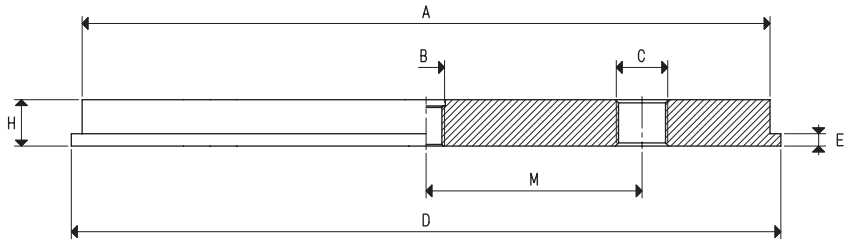
ROUND FLAT VACUUM CUP WITH SUPPORT



VACUUM CUP

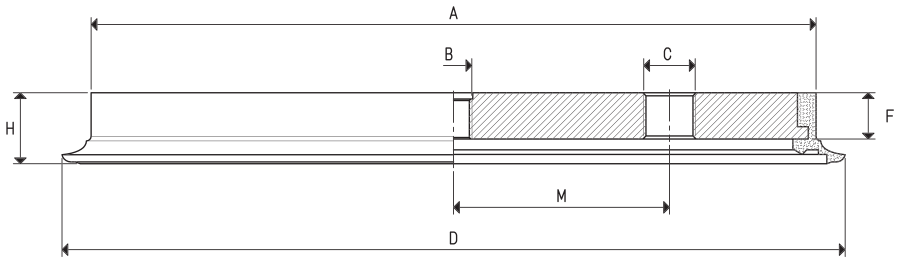
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	N Ø
01 250 20 *	122.60	200.0	235	227	220	254	4	11	23	220

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SUPPORT

Item	A Ø	B Ø	C Ø	D Ø	E	H	M	For vacuum cup item	Support material	Weight Kg
00 08 115	223	M12	G3/8"	230	4	15	70	01 250 20	aluminium	1.65



VACUUM CUP WITH SUPPORT

Item	Force Kg	A Ø	B Ø	C Ø	D Ø	F	H	M	Vacuum cup item	Support item	Weight Kg
08 250 20 *	122.60	237	M12	G3/8"	254	15	23	70	01 250 20	00 08 115	1.78

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

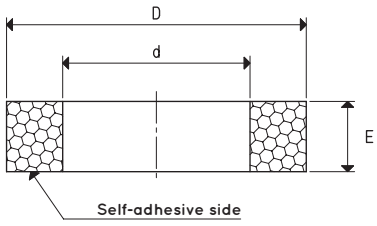
ROUND FLAT FOAM RUBBER VACUUM CUPS WITH SUPPORTS

These foam rubber cups are made with a special compound called GERANIUM, with a density that allows them to grip even uneven and very rough surfaces maintaining their elasticity also after many working cycles. They are provided with self-adhesive side for a quick fixing to their support. This series of cups has been designed for handling loads with raw or very rough surfaces (sawn, bush-hammered or flamed marble, textured, non-slip or profiled metal sheets, striped Plexiglass, raw cement manufactures, garden tiles with fret, etc.) and in all those cases in which traditional cups cannot be used.
In case of lubricated gripping surfaces, we recommend using NF neoprene foam rubber. The working temperature range is between -40°C and +80°C for OF GERANIUM foam rubber and between -20°C and +80°C for NF neoprene.
Their supports are made with anodised aluminium and are provided with a threaded hole in the centre for fastening them to the automation. The larger ones, on the other hand, have a side threaded hole for vacuum connection.
For the spare part, all you have to do is request the self-adhesive foam rubber cup indicated in the table in the required compound.

VACUUM CUPS

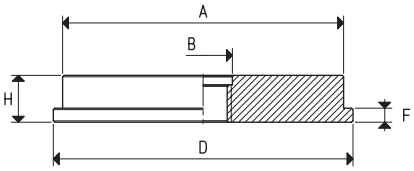
Item	Force Kg	Volume cm^3	D Ø	d Ø	E
01 42 15 *	0.78	4.7	40	20	15
01 64 15 *	3.5	18.8	64	40	15
01 92 15 *	8.5	48.2	92	64	15

* Complete the code indicating the compound: OF= geranium foam rubber; NF= neoprene foam rubber



SUPPORTS

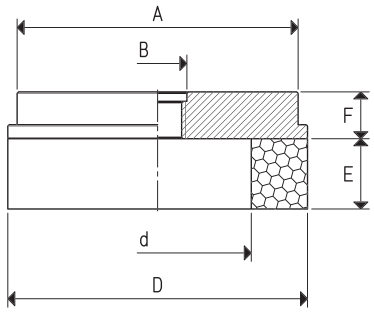
Item	A Ø	B Ø	D Ø	F	H	Support material	For vacuum cup item	Weight g
00 08 147	40	M12	40	--	10	aluminium	01 42 15	32.8
00 08 118	40	G1/4"	40	--	10	aluminium	01 42 15	32.8
00 08 32	60	M12	64	3	10	aluminium	01 64 15	80.6
00 08 424	60	G1/4"	64	3	10	aluminium	01 64 15	80.6
00 08 33	88	M12	92	3	11	aluminium	01 92 15	188.9
00 08 123	88	G3/8"	92	3	11	aluminium	01 92 15	186.1



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A Ø	B Ø	D Ø	d Ø	E	F	Vacuum cup item	Support item	Weight g
08 42 15 *	0.78	40	M12	40	20	15	10	01 42 15	00 08 147	35.6
08 42 15 1/4" *	0.78	40	G1/4"	40	20	15	10	01 42 15	00 08 118	35.6
08 64 15 *	3.5	60	M12	64	40	15	10	01 64 15	00 08 32	86.5
08 64 15 1/4" *	8.29	60	G1/4"	64	40	15	10	01 64 15	00 08 424	86.5
08 92 15 *	8.5	88	M12	92	64	15	11	01 92 15	00 08 33	199.1
08 92 15 3/8" *	8.5	88	G3/8"	92	64	15	11	01 92 15	00 08 123	196.3

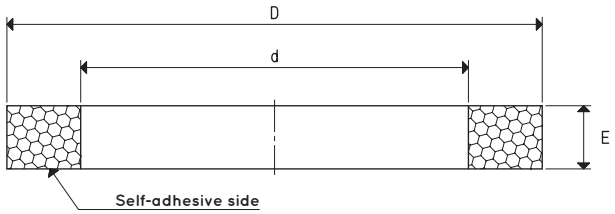
* Complete the code indicating the compound: OF= geranium foam rubber; NF= neoprene foam rubber



Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

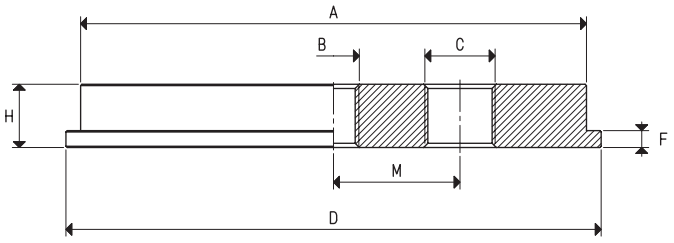
Adapters for GAS - NPT threading available on page 1.130



VACUUM CUPS

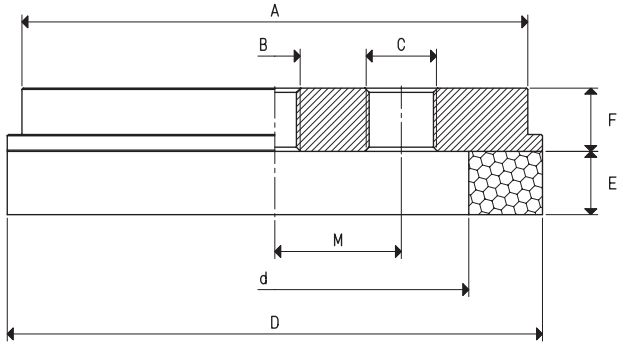
Item	Force Kg	Volume cm^3	D Ø	d Ø	E
01 127 15 *	17.5	99.6	127	92	15
01 180 15 *	38.5	230.7	180	140	15
01 220 15 *	63.6	381.5	220	180	15

* Complete the code indicating the compound: OF= geranium foam rubber; NF= neoprene foam rubber



SUPPORT

Item	A Ø	B Ø	C Ø	D Ø	F	H	M	Support material	For vacuum cup item	Weight Kg
00 08 107	120	M12	G3/8"	127	4	15	30	aluminium	01 127 15	0.48
00 08 58	160	M12	G3/8"	180	5	12	60	aluminium	01 180 15	0.74



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A Ø	B Ø	C Ø	D Ø	d Ø	E	F	M	Vacuum cup item	Support item	Weight Kg
08 127 15 *	17.5	120	M12	G3/8"	127	92	15	15	30	01 127 15	00 08 107	0.49
08 180 15 *	38.5	160	M12	G3/8"	180	140	15	12	60	01 180 15	00 08 58	0.78

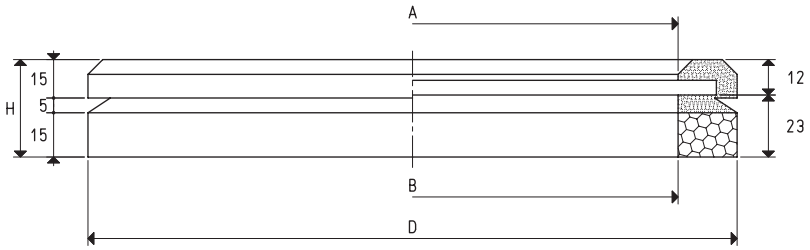
* Complete the code indicating the compound: OF= geranium foam rubber; NF= neoprene foam rubber

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

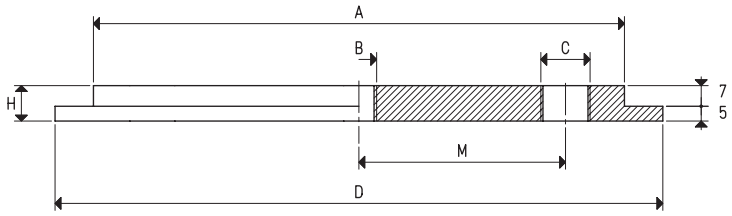
ROUND FLAT FOAM RUBBER VACUUM CUPS WITH SUPPORT

The detail that sets these cups apart from the previously described cups is its lip, made of nitrile rubber, combined with foam rubber in the GERANIUM compound or neoprene compound. This shape allows for gripping on very rough or even grooved surfaces. They are especially suitable for gripping and handling cement objects with surfaces finished with fret, marble and bush-hammered or flamed granites.
The working temperature range is between -40°C and +80°C for OF GERANIUM foam rubber and between -20°C and +80°C for NF neoprene.
The support is made with anodised aluminium and is provided with a threaded hole in the centre for fastening them to the automation, and a side threaded hole for vacuum connection. The cup is cold fitted on it without the use of adhesives. To replace, simply request the single vacuum cup indicated in the table in the desired compound.



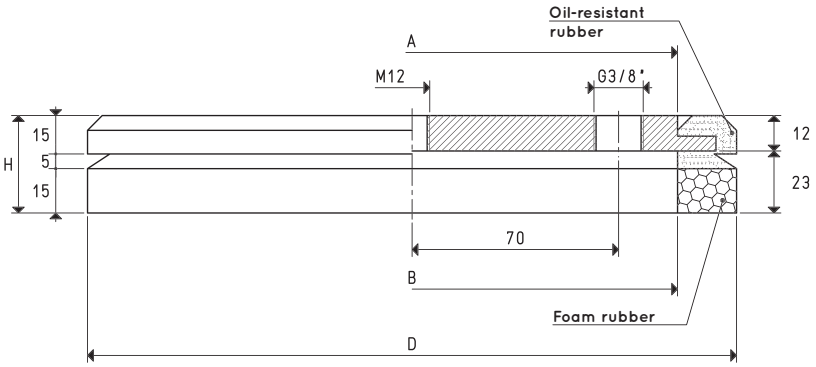
VACUUM CUPS

Item	Force Kg	Volume cm^3	A Ø	B Ø	D Ø	H	Compound
01 220 10 OF	63.6	585.0	180	180	220	35	geranium foam rubber
01 220 10 NF	63.6	585.0	180	180	220	35	neoprene foam rubber



SUPPORT

Item	A Ø	B Ø	C Ø	D Ø	H	M	Support material	For vacuum cup item	Weight Kg
00 08 37	180	M12	G3/8"	206	12	70	aluminium	01 220 10	0.95



VACUUM CUPS WITH SUPPORT

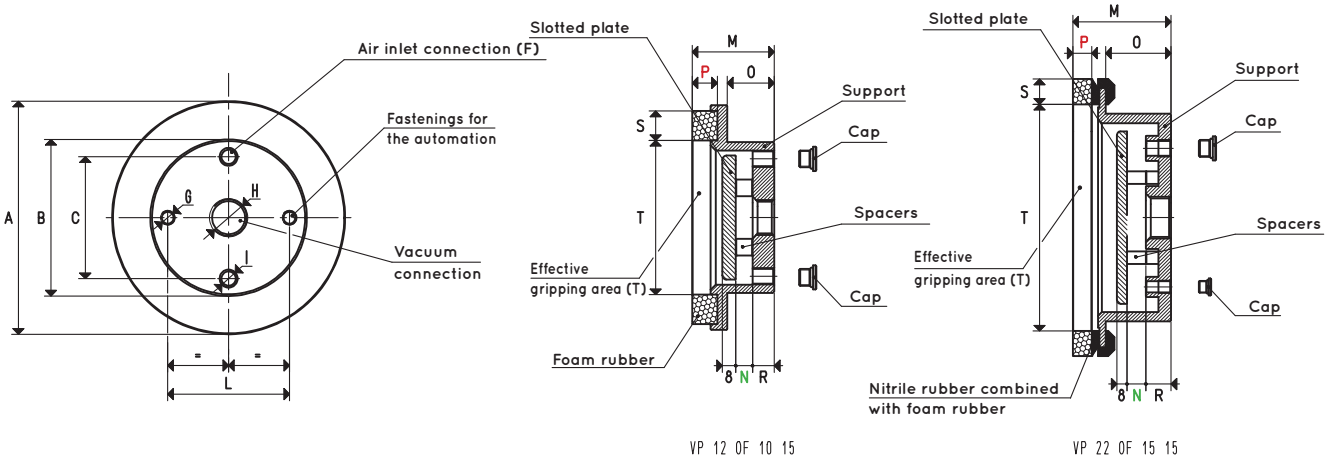
Item	Force Kg	A Ø	B Ø	D Ø	H	Vacuum cup item	Support item	Weight Kg
08 220 10 OF	63.6	180	180	220	35	00 08 37	01 220 10 OF	0.98
08 220 10 NF	63.6	180	180	220	35	00 08 37	01 220 10 NF	0.97

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

VACUPREDATOR VACUUM CUPS FOR GRIPPING BAGS, PACKS AND FLEXIBLE CONTAINERS

For the gripping of bags, packs and flexible containers in paper or plastic, containing powders, granulated products, loose or liquid products. These new vacuum cups have been designed and manufactured to safely grip even the most difficult and irregular packages. Made of anodised aluminium and equipped with a slotted plate inside them to allow flexible containers to perfectly adapt to the cup, as well as a special foam rubber seal which, following the inevitable creases that form on flexible containers during gripping, prevents perimeter vacuum losses.
They are especially suitable for gripping flow packs, flexible containers for intravenous therapy, bags of sweets or other similar products, plastic bags of granulated products, of cement, sugar or flour, etc.
The lifting force was calculated considering a level of vacuum of at least -75 Kpa, the total surface enclosed within the seal and a factor of safety 3.



ROUND VACUPREDATOR VACUUM CUPS

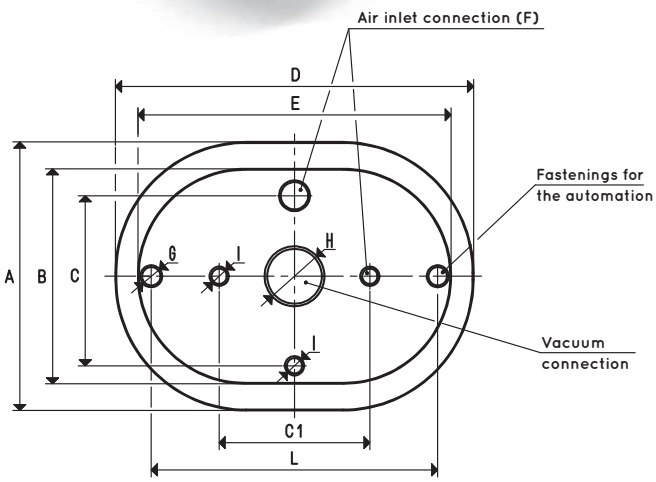
Item	Force Kg	A Ø	B Ø	C	F Ø	G Ø	H Ø	I Ø	L	M	N	O	P	R	S	T Ø	Weight Kg
VP 12 OF 10 15	17.5	134	89	70	G1/8"	M8	G1/2"	G1/8"	70	49	10	28	15	13	17.5	92	0.54
VP 22 OF 15 15	63.6	220	165	110	G1/4"	M12	G1"	G1/8"	120	78	15	52	15	20	20.0	180	1.55

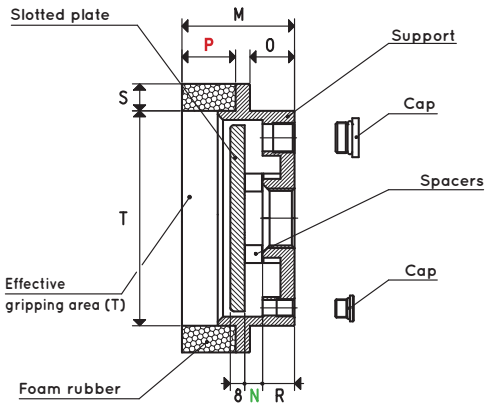
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

VACUPREDATOR VACUUM CUPS FOR GRIPPING BAGS, PACKS AND FLEXIBLE CONTAINERS





ELLIPTICAL VACUPREDATOR VACUUM CUPS

Item	Force Kg	A	B	C	C1	D	E	F Ø	G Ø	H Ø	I Ø	L	M	N	O	P	R	S	T	Weight Kg
VP 06 12 OF 10 15	9.4	60	40	---	---	120	111	---	M8	G3/8"	---	100	49	10	29	15	14	10	40 x 100	0.36
VP 09 16 OF 10 30	17.9	90	60	---	80	160	145	G1/4"	M8	G1/2"	G1/8"	130	63	10	25	30	18	15	60 x 130	0.63
VP 09 21 OF 10 30	27.4	95	60	---	80	210	185	G1/4"	M12	G1/2"	G1/8"	160	63	10	25	30	18	15	65 x 180	0.80
VP 15 20 OF 10 30	43.8	150	120	95	---	200	175	G3/8"	M12	G1"	G1/8"	160	63	10	25	30	18	15	120 x 170	1.10
VP 20 30 OF 15 30	82.5	200	150	115	---	300	250	G3/8"	M12	G1"	G1/8"	200	78	15	40	30	20	25	150 x 250	2.24
VP 30 40 OF 15 30	174.4	300	250	160	---	400	350	G3/8"	M12	G2"	G1/8"	300	78	15	40	30	20	30	240 x 340	3.85

CODING EXAMPLE:

VP 06 12 OF 10 15

Model:
Vacu Predator

Dimensions:
06 12 (60 x 120 mm)
09 16 (90 x 160 mm)
09 21 (95 x 210 mm)
15 20 (150 x 200 mm)
20 30 (200 x 300 mm)
30 40 (300 x 400 mm)
12 (ø 134 mm)
22 (ø 220 mm)

Foam rubber (P) height:
for VP0612-VP0916-VP0921-VP12-VP22
15-20-25-30 mm

for VP1520-VP2030-VP3040
20-25-30-40 mm

Spacer (N) height:
5 mm
10 mm
15 mm

Type of Foam Rubber compound:
OF: ORANGE FOAM
SB: EXTRA SOFT
NF: NEOPRENE

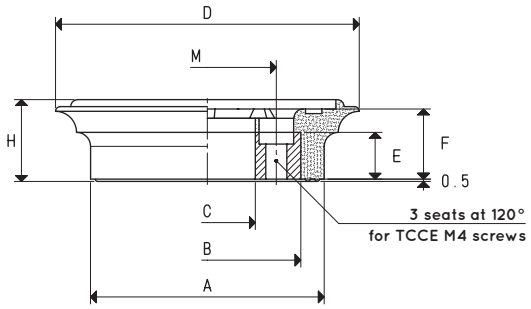
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

FLAT ROUND VACUUM CUPS WITH VULCANISED SUPPORT, FOR CLAMPING GLASS AND MARBLE

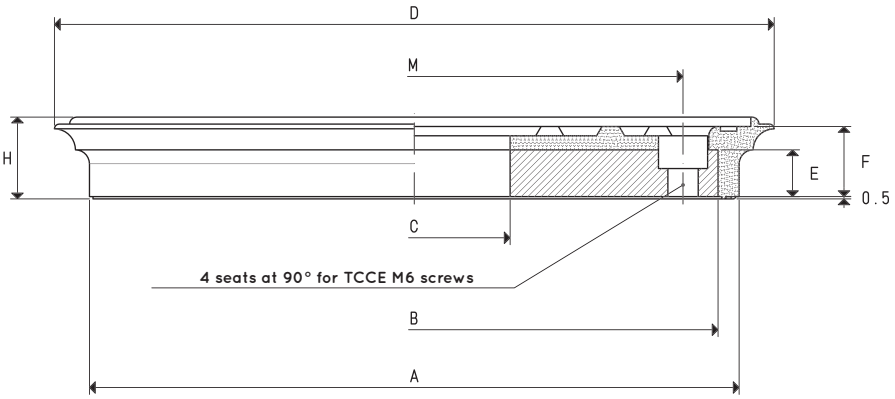
Glass and marble manufacturers' machining centres require increasingly accurate and safe clamping systems. This has led us to creating this new series of cups.
They are vulcanised onto a steel support and are provided with a hole in the centre for vacuum connection or for a ball valve, as well as with 3-4 holes on the internal circumference for housing Allen screws.
Their extremely flexible lip allows them to easily adapt to the sheets to be held, with no risk of deformation or rupture, even for the thinnest ones.
The particular shape of the internal support plane of these cups ensures a high friction coefficient with the gripping surface and especially a considerable grip on wet glass and marble sheets, thanks to the water drainage. All this guarantees a firm, safe grip.
Furthermore, these cups feature the highest accuracy of their thickness, whose nominal height has a tolerance of only five hundredths of millimetre.
They are normally produced with oil-resistant rubber A, but they can be ordered in other compounds, listed on pg. 31, upon request and in minimum quantities to be defined in the order.



VACUUM CUPS WITH VULCANISED SUPPORT

Item	Force Kg	Volume cm³	A Ø	B Ø	C Ø	D Ø	E	F	H	M Ø	Support material	Weight Kg
08 65 11 A	6.7	5.5	50	40	20.5	65	10	15	17.5	29.5	steel	0.09
08 85 11 A	12.0	7.7	70	60	40.5	85	10	15	17.5	49.5	steel	0.14

Compound: A = oil-resistant rubber



VACUUM CUP WITH VULCANISED SUPPORT

Item	Force Kg	Volume cm³	A Ø	B Ø	C Ø	D Ø	E	F	H	M Ø	Support material	Weight Kg
08 150 11 A	42.7	47.1	139	130	41	150	10	15	17.5	115	steel	1.0

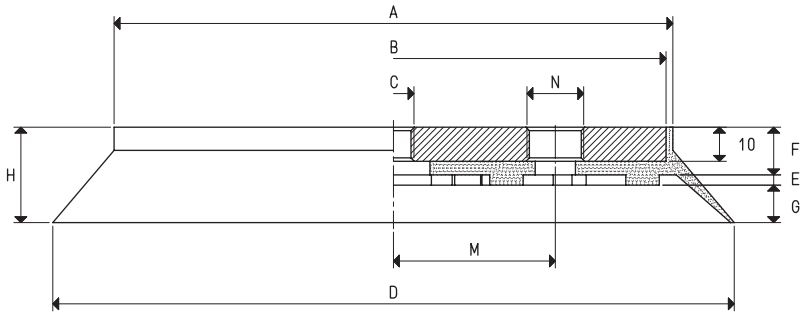
Compound: A = oil-resistant rubber

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

FLAT ROUND VACUUM CUPS WITH VULCANISED SUPPORT

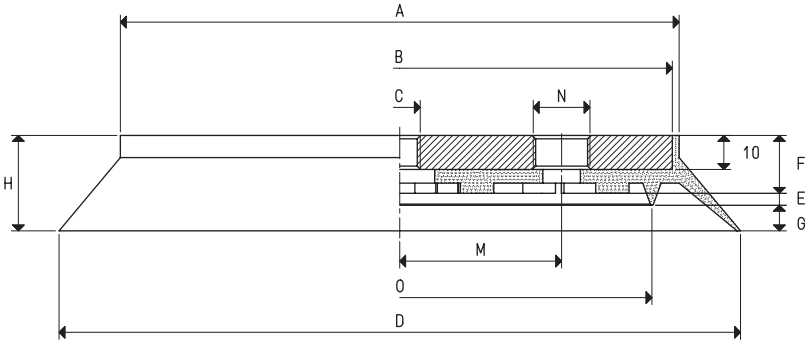
These cups have been designed for lifting and handling heavy loads, both vertically and horizontally. They are vulcanised onto a steel support and are provided with a central threaded hole for its fastening to the automation and with a side threaded hole for vacuum connection.
These cups have a labyrinth graved face made with the same compound as the cup, which allows gripping even the thinnest and most fragile glass and marble sheets, with no bending in the gripping area. The shape of its lip and the choice of the compound with which they are made ensure a firm grip on uneven and corrugated surfaces. The 08 .. 40 series, along with sharing the same features, has an internal vertical lip which allows them to grip extremely rough surfaces, such as embossed or profiled metal sheets, sawn marble or granite, wooden boards, precast cement, etc.



VACUUM CUPS WITH VULCANISED SUPPORT

Item	Force Kg	Volume cm³	A Ø	B Ø	C Ø	D Ø	E	F	G	H	M	N Ø	Support material	Weight Kg
08 110 15 M8 *	23.7	78.5	74	70	M8	110	2	14	10	26	26.0	G1/4"	steel	0.35
08 110 15 *	23.7	78.5	74	70	M12	110	2	14	10	26	26.0	G1/4"	steel	0.33
08 150 15 *	45.0	158.9	115	110	M12	150	2	14	10	26	40.0	G3/8"	steel	0.83
08 200 10 *	78.5	341.9	164	160	M12	200	3	14	11	28	47.5	G3/8"	steel	1.75
08 250 10 *	122.6	540.1	214	210	M12	250	3	14	11	28	72.5	G3/8"	steel	3.00
08 300 10 *	176.6	871.8	266	260	M16	300	5	15	11	31	89.0	G1/2"	steel	4.70
08 350 10 *	240.4	1210.1	316	310	M16	350	5	15	11	31	89.0	G1/2"	steel	6.60

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



VACUUM CUPS WITH VULCANISED SUPPORT

Item	Force Kg	Volume cm³	A Ø	B Ø	C Ø	D Ø	E	F	G	H	M	N Ø	O Ø	Support material	Weight Kg
08 110 40 M8*	9.07	77.7	74	70	M8	110	3	16	7	26	26.0	G1/4"	68	steel	0.36
08 110 40 *	9.07	77.7	74	70	M12	110	3	16	7	26	26.0	G1/4"	68	steel	0.34
08 150 40 *	21.60	156.0	115	110	M12	150	3	16	7	26	40.0	G3/8"	105	steel	0.85
08 200 40 *	42.90	334.6	164	160	M12	200	3	17	8	28	47.5	G3/8"	148	steel	1.70
08 250 40 *	75.30	546.2	214	210	M12	250	3	17	8	28	72.5	G3/8"	196	steel	3.00
08 300 40 *	120.70	874.4	266	260	M16	300	3	18	10	31	89.0	G1/2"	248	steel	4.60
08 350 40 *	174.20	1219.4	316	310	M16	350	3	18	10	31	89.0	G1/2"	298	steel	6.50

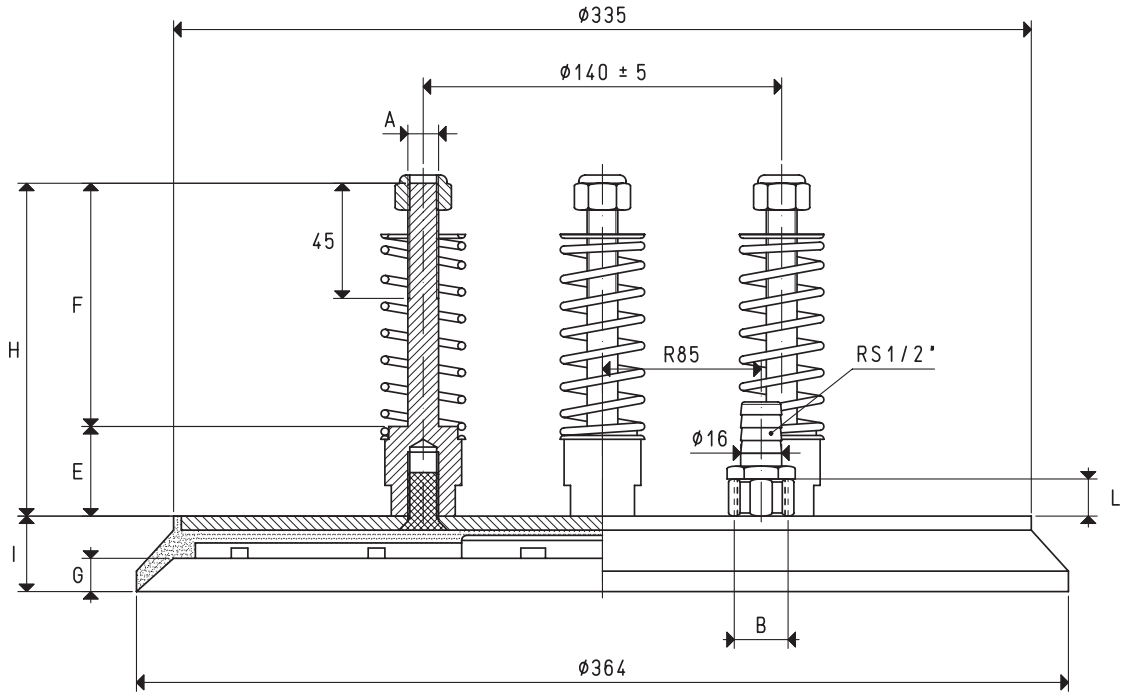
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

FLAT ROUND VACUUM CUP WITH VULCANISED SUPPORT

These cups are recommended for handling very heavy loads both vertically and horizontally.
They are vulcanised onto a steel support and have a labyrinth graved face made in the same compound as the cup.
The support is provided with four steel pins with as many self-locking nuts for guiding the cups and fastening them to the automation, as well as with a threaded sleeve for vacuum connection.
Moreover, these cups are provided with four springs to cushion its impact with the load to be lifted.
These cups are available in the three standard compounds.



VACUUM CUP WITH VULCANISED SUPPORT

Item	Force Kg	Volume cm^3	A Ø	B Ø	E	F	G	H	I	L	Support material	Weight Kg
08 360 10 *	254.3	1397.5	M12	G1/2"	35	95	13	130	29	16	steel	4.75

***** Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

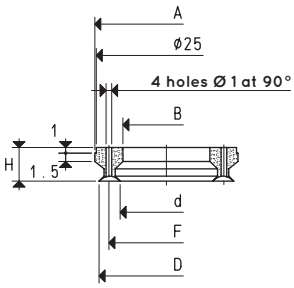
CIRCULAR RIM VACUUM CUPS WITH SUPPORTS

These cups have been designed to meet the need of lifting objects with a central hole.
Their very thin lip allows them to grip very rough surfaces, such as grinding wheels and discs.
They are particularly recommended for handling CDs, perforated discs, toothed wheels, pulleys and other similar objects.
Their supports are made with anodised aluminium and are provided with a threaded hole in the centre to allow suction, as well as its fastening to the automation.
The cups are cold fitted onto them without any adhesives.
To guarantee maximum flexibility, the cups for gripping grinding discs are made with natural para rubber N, while those for handling CDs are made with silicon S. Cups in special compounds, listed on pg. 31, can be provided upon request in minimum quantities to be defined in the order.
To replace, simply request the single vacuum cup indicated in the table in the desired compound.

VACUUM CUP

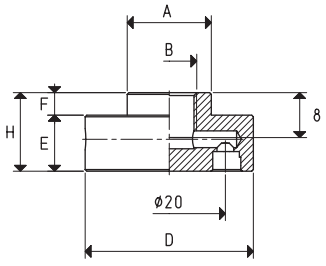
Item	Force Kg	Volume cm^3	A Ø	B Ø	D Ø	d Ø	F Ø	H
01 24 06 S	0.6	1.3	25.5	15.5	24	16.5	20	6

Compound: S= silicon



SUPPORT

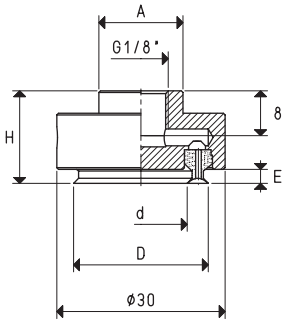
Item	A Ø	B Ø	D Ø	E	F	H	Support material	For vacuum cup item	Weight g
00 08 232	15	G1/8"	30	10	4	14	aluminium	01 24 06	16.7



VACUUM CUP WITH SUPPORT

Item	Force Kg	A Ø	D Ø	d Ø	E	H	Vacuum cup item	Support item	Weight g
08 24 06 S	0.6	15	24	16.5	2.5	16.5	01 24 06 S	00 08 232	18.1

Compound: S= silicon

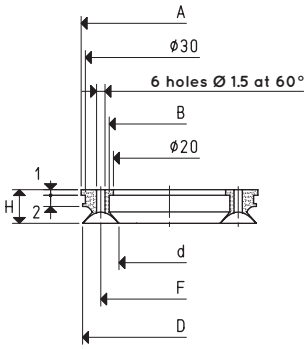


Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

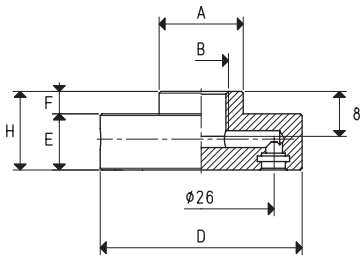
CIRCULAR RIM VACUUM CUP WITH SUPPORT



VACUUM CUP

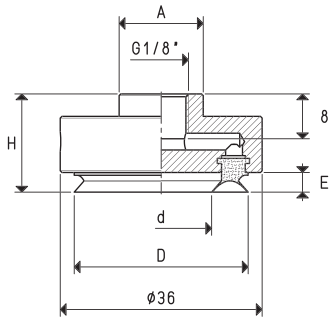
Item	Force Kg	Volume cm^3	A Ø	B Ø	D Ø	d Ø	F Ø	H
01 31 06 S	1.25	2.0	31.5	21.5	31	18	24.5	6

Compound: S= silicon



SUPPORT

Item	A Ø	B Ø	D Ø	E	F	H	Support material	For vacuum cup item	Weight g
00 08 231	15	G1/8"	36	10	4	14	aluminium	01 31 06	24.9



VACUUM CUP WITH SUPPORT

Item	Force Kg	A Ø	D Ø	d Ø	E	H	Vacuum cup item	Support item	Weight g
08 31 06 S	1.25	15	31	18	3.6	17.6	01 31 06 S	00 08 231	26.6

Compound: S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

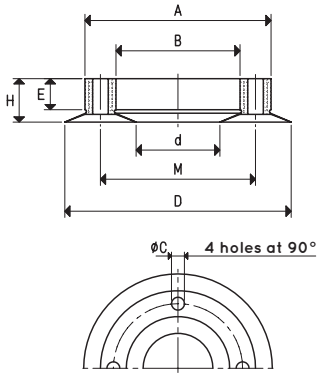
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

CIRCULAR RIM VACUUM CUPS WITH SUPPORTS

VACUUM CUPS

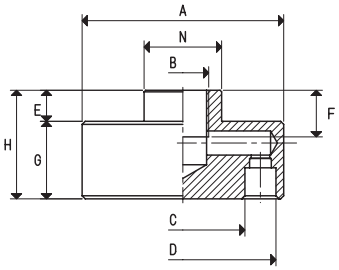
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	d Ø	E	H	M Ø
01 46 13 N	3.87	4.7	35	23	3	46	12	8.5	12.5	29
01 73 14 N	9.02	16.6	60	40	5	73	27	10.0	14.0	50
01 95 14 N	16.28	27.0	71	51	6	95	27	10.0	14.5	61

Compound: N = natural para rubber



SUPPORTS

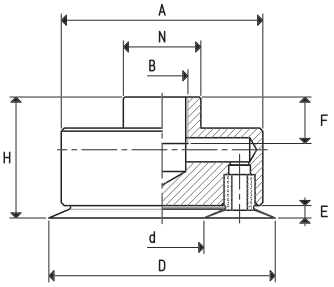
Item	A Ø	B Ø	C Ø	D Ø	E	F	G	H	N Ø	Support material	For vacuum cup item	Weight g
00 08 68	40	M12	23	35	7	10	18	25	20	aluminium	01 46 13	47.2
00 08 72	65	G3/8"	40	60	10	15	25	35	25	aluminium	01 73 14	169.1
00 08 73	76	G3/8"	51	71	10	15	27	37	25	aluminium	01 95 14	266.0



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A Ø	B Ø	D Ø	d Ø	E	F	H	N Ø	Vacuum cup item	Support item	Weight g
08 46 13 N	3.87	40	M12	46	12	4.5	10	29.5	20	01 46 13 N	00 08 68	53.1
08 73 14 N	9.02	65	G3/8"	73	27	4.0	15	39.0	25	01 73 14 N	00 08 72	189.4
08 95 14 N	16.28	76	G3/8"	95	27	5.5	15	42.5	25	01 95 14 N	00 08 73	292.9

Compound: N = natural para rubber



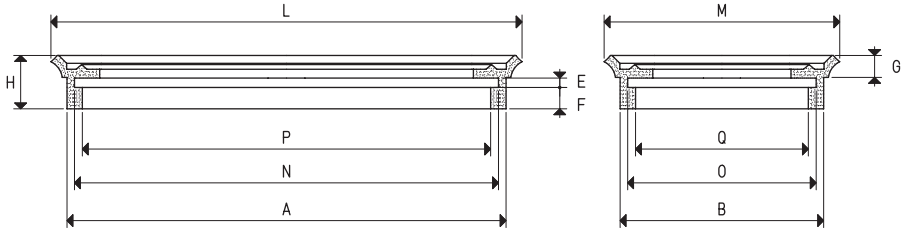
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

RECTANGULAR FLAT VACUUM CUPS WITH SUPPORTS

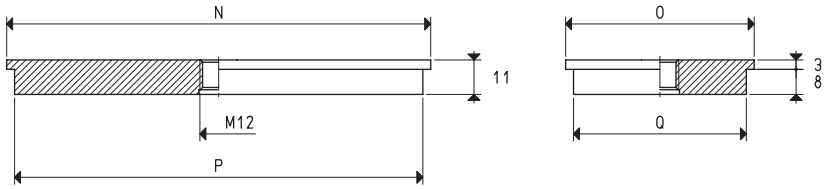
These cups are recommended for working surfaces for clamping wooden panels, marble, granite, ceramic, glass and other similar surfaces. They are naturally also used to handle these same materials. Their vertical and low lip allows for a firm grip on the surface to be clamped or handled, eliminating any oscillations and considerably reduces the air volume contained within, thus ensuring quicker gripping and release. They are normally available in the three standard compounds but, upon request and for minimum amounts defined in the order, can be ordered in special compounds, listed on pg. 31.
These cups can be cold fitted with no adhesives onto their anodised aluminium support equipped with a threaded hole in the centre to facilitate their fastening to the automation.
Larger supports are provided with two threaded holes equidistant from the centre, to allow for any necessary insertion of guiding anti-rotation pins. These cups are extremely easy to replace; simply request the cup indicated in the table in the desired compound when requesting the spare part.



VACUUM CUPS

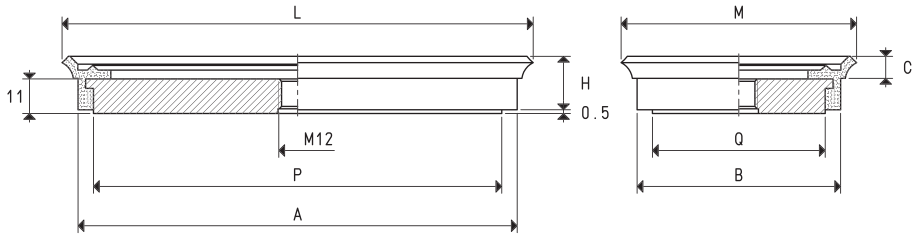
Item	Force Kg	Volume cm^3	A	B	E	F	G	H	L	M	N	O	P	Q
01 40 75 *	6.7	9.2	64	29	3	7.5	6.5	16.0	75	40	59	24	54	19
01 120 90 *	24.0	42.9	107	78	3	7.5	7.5	17.5	117	87	102	73	97	68
01 150 65 A	21.5	36.6	137	52	3	7.5	7.5	16.5	147	62	132	47	127	42
01 150 75 *	25.0	43.5	137	62	3	7.5	7.5	16.5	147	72	132	57	127	52

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SUPPORTS

Item	N	O	P	Q	Support material	For vacuum cup item	Weight g
00 08 31	60	25	55	20	aluminium	01 40 75	34.1
00 08 34	107	75	102	70	aluminium	01 120 90	215.5
00 08 144	135	50	130	45	aluminium	01 150 65	176.1
00 08 59	135	60	130	55	aluminium	01 150 75	218.4



VACUUM CUPS WITH SUPPORT

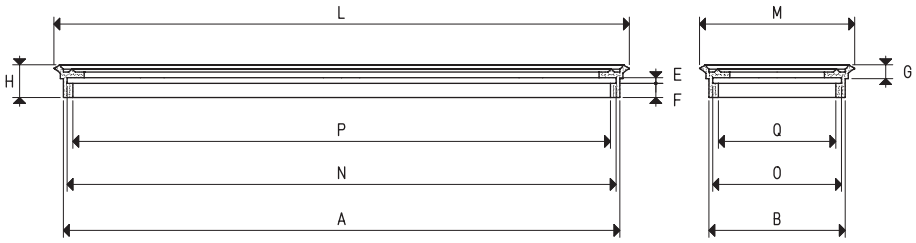
Item	Force Kg	A	B	C	H	L	M	P	Q	Vacuum cup item	Support item	Weight g
08 40 75 *	6.7	66	31	6.5	16.0	76	41	55	20	01 40 75	00 08 31	49.7
08 120 90 *	24.0	112	80	7.5	17.5	120	90	102	70	01 120 90	00 08 34	254.3
08 150 65 A	21.5	140	55	7.5	16.5	150	65	130	45	01 150 65	00 08 144	217.3
08 150 75 *	25.0	140	65	7.5	16.5	150	75	130	55	01 150 75	00 08 59	259.6

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

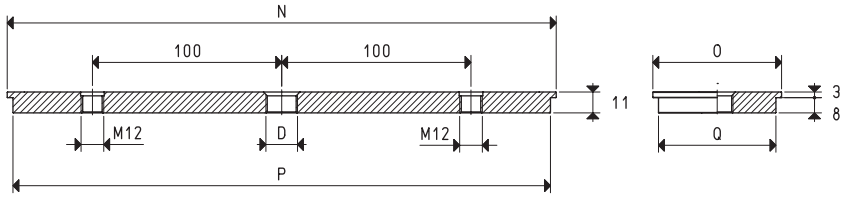
RECTANGULAR FLAT VACUUM CUPS WITH SUPPORTS



VACUUM CUPS

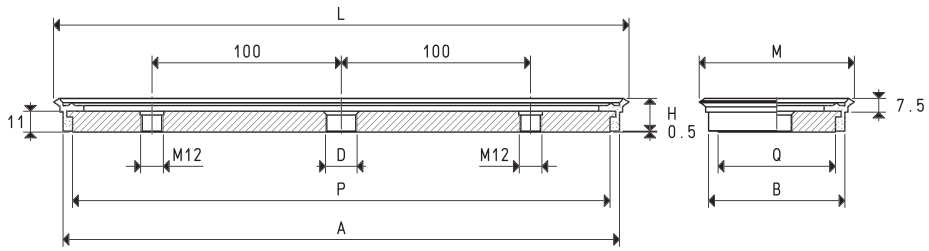
Item	Force Kg	Volume cm^3	A	B	E	F	G	H	L	M	N	O	P	Q
01 300 80 *	60.0	117.6	288	68	3	7.5	7.5	17.5	297	77	284	64	278	58
01 300 150 *	113.0	268.5	288	138	3	7.5	7.5	17.5	297	147	284	134	278	128

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SUPPORTS

Item	D Ø	N	O	P	Q	Support material	For vacuum cup item	Weight Kg
00 08 116	G3/8"	290	68	284	62	aluminium	01 300 80	0.53
00 08 117	G1/2"	290	140	284	134	aluminium	01 300 150	1.13



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A	B	D Ø	H	L	M	P	Q	Vacuum cup item	Support item	Weight Kg
08 300 80 *	60.0	290	70	G3/8"	17.5	300	80	284	62	01 300 80	00 08 116	0.61
08 300 150 *	113.0	290	140	G1/2"	17.5	300	150	284	134	01 300 150	00 08 117	1.22

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

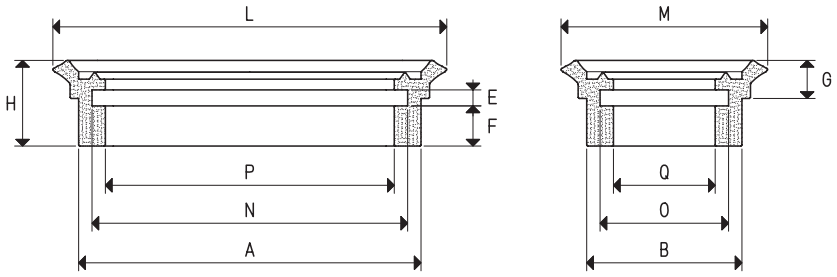
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

RECTANGULAR FLAT VACUUM CUPS WITH ANTI-SLIP SUPPORT

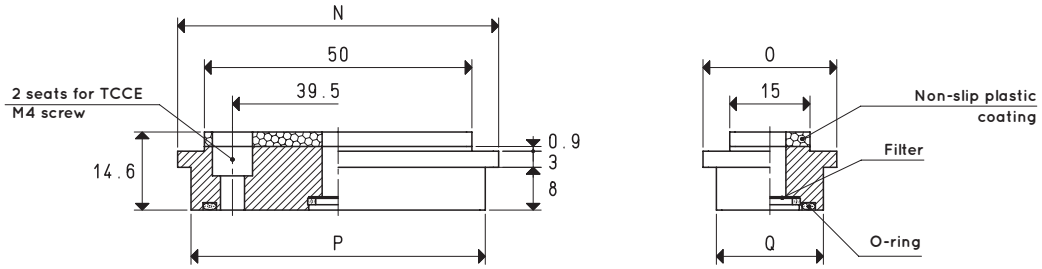
These cups share the same technical and mechanical features with the ones described above, but their support has a special non-slip plastic coating that make them particularly suited for clamping glass and smooth marble.
A built-in stainless steel mesh filter in the suction hole and an O-ring seal at the base of their support are the other special features of these cups.
They are also provided with two or for housings for TCCE screws, according to their size, for fixing them to the work surface.



VACUUM CUP

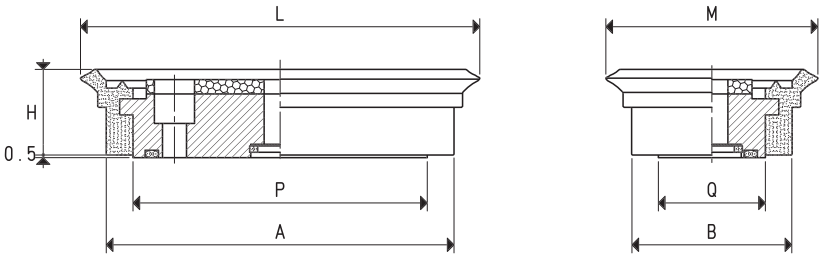
Item	Force Kg	Volume cm^3	A	B	E	F	G	H	L	M	N	O	P	Q
01 40 75 *	6.7	9.2	64	29	3	7.5	6.5	16.0	75	40	59	24	54	19

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SUPPORT

Item	N	O	P	Q	Support material	For vacuum cup item	Weight g
00 08 184	60	25	55	20	aluminium	01 40 75	38.7



VACUUM CUP WITH SUPPORT

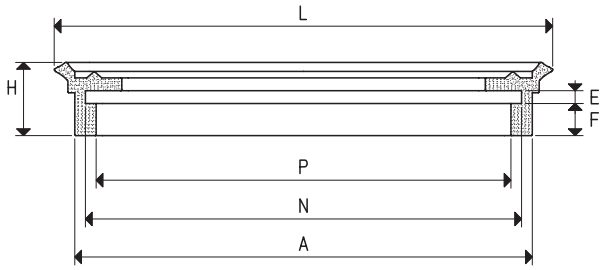
Item	Force Kg	A	B	H	L	M	P	Q	Vacuum cup item	Support item	Weight g
08 40 75 M1 *	6.7	66	31	16.0	76	41	55	20	01 40 75	00 08 184	53.5

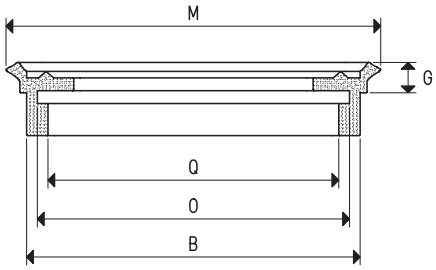
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

RECTANGULAR FLAT VACUUM CUPS WITH ANTI-SLIP SUPPORT

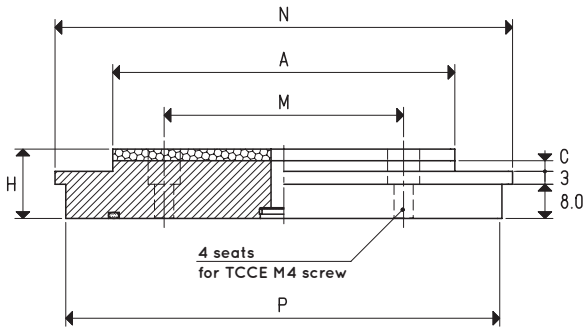


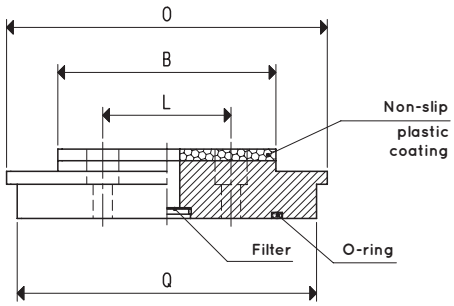


VACUUM CUPS

Item	Force Kg	Volume cm^3	A	B	E	F	G	H	L	M	N	O	P	Q
01 120 90 *	24.0	42.9	107	78	3	7.5	7.5	17.5	117	87	102	73	97	68
01 150 75 *	25.0	36.6	137	62	3	7.5	7.5	16.5	147	72	132	57	127	52

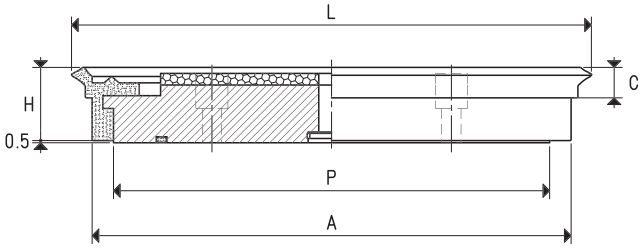
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

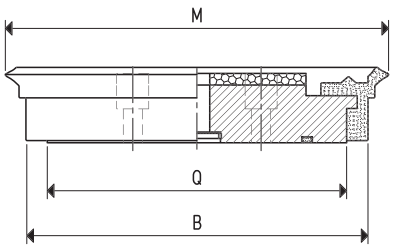




SUPPORTS

Item	A	B	C	H	L	M	N	O	P	Q	Support material	For vacuum cup item	Weight g
00 08 256	82	50	2.5	16.2	30	56	107	75	102	70	aluminium	01 120 90	244.5
00 08 257	110	35	2.3	16.4	20	92	135	60	130	55	aluminium	01 150 75	247.9





VACUUM CUPS WITH SUPPORT

Item	Force Kg	A	B	C	H	L	M	P	Q	Vacuum cup item	Support item	Weight g
08 120 90 M1 *	24.0	112	80	7.5	17.5	120	90	102	70	01 120 90	00 08 256	283.3
08 150 75 M1 *	25.0	140	65	7.5	16.5	150	75	130	55	01 150 75	00 08 257	289.1

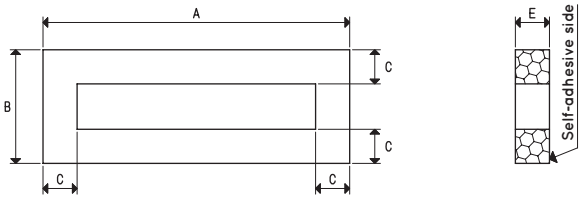
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

RECTANGULAR FLAT FOAM RUBBER VACUUM CUPS WITH SUPPORTS

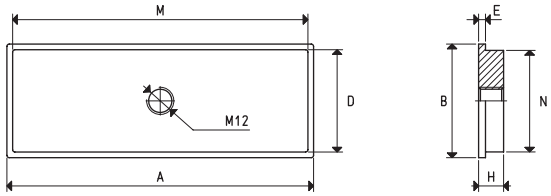
These foam rubber cups are made with a special compound called GERANIUM, with code OF, with a density that allows them to grip even uneven and very rough surfaces maintaining their elasticity also after many working cycles.
They are provided with self-adhesive side for a quick fixing to their support.
This series of cups has been designed for handling loads with raw or very rough surfaces (sawn, bush-hammered or flamed marble, textured, non-slip or profiled metal sheets, striped Plexiglass, raw cement manufactures, garden tiles with fret, etc.) and in all those cases in which traditional cups cannot be used.
In case of lubricated gripping surfaces, we recommend using NF neoprene foam rubber.
The working temperature range is between -40°C and +80°C for OF GERANIUM foam rubber and between -20°C and +80°C for NF neoprene.
Their supports are made with anodised aluminium and are provided with a threaded hole in the centre for fastening them to the automation. The larger ones, on the other hand, are provided with two threaded holes equidistant from the centre for any necessary insertion of guiding anti-rotation pins.
For the spare part, all you have to do is request the self-adhesive foam rubber cup indicated in the table in the required compound.



VACUUM CUPS

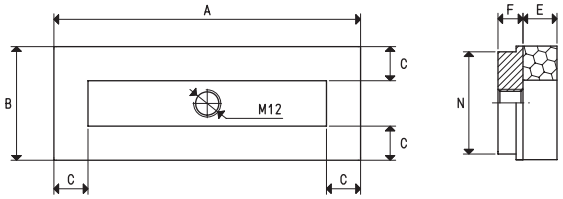
Item	Force Kg	Volume cm^3	A	B	C	E
01 107 75 *	9.0	55.6	107	75	15	15
01 135 50 *	6.0	34.0	135	50	15	15
01 135 60 *	8.0	50.0	135	60	15	15

* Complete the code indicating the compound: OF= geranium foam rubber; NF= neoprene foam rubber



SUPPORTS

Item	A	B	D	E	H	M	N	Support material	For vacuum cup item	Weight g
00 08 34	107	75	70	3	11	102	70	aluminium	01 107 75	215.5
00 08 144	135	50	45	3	11	130	45	aluminium	01 135 50	176.1
00 08 59	135	60	55	3	11	130	55	aluminium	01 135 60	218.4



VACUUM CUPS WITH SUPPORT

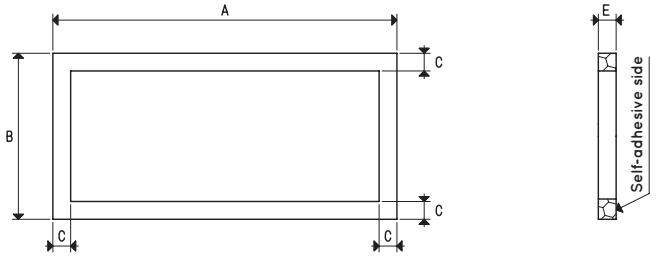
Item	Force Kg	A	B	C	E	F	N	Vacuum cup item	Support item	Weight g
08 107 75 *	9	107	75	15	15	11	70	01 107 75	00 08 34	229.5
08 135 50 *	6	135	50	15	15	11	45	01 135 50	00 08 144	190.6
08 135 60 *	8	135	60	15	15	11	55	01 135 60	00 08 59	233.0

* Complete the code indicating the compound: OF= geranium foam rubber; NF= neoprene foam rubber

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

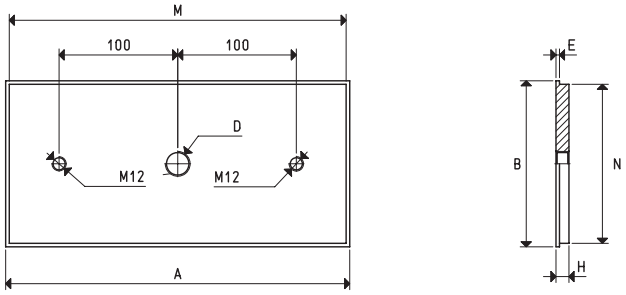
RECTANGULAR FLAT FOAM RUBBER VACUUM CUPS WITH SUPPORTS



VACUUM CUPS

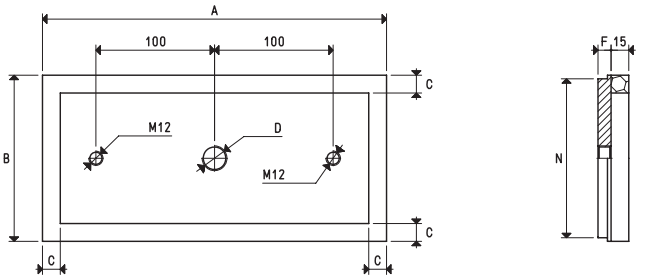
Item	Force Kg	Volume cm^3	A	B	C	E
01 290 68 *	25	152.6	290	68	15	15
01 290 140 *	72	434.5	290	140	15	15

* Complete the code indicating the compound: OF= geranium foam rubber; NF= neoprene foam rubber



SUPPORTS

Item	A	B	D Ø	E	H	M	N	Support material	For vacuum cup item	Weight Kg
00 08 116	290	68	G3/8"	3	11	284	62	aluminium	01 290 68	0.53
00 08 117	290	140	G1/2"	3	11	284	134	aluminium	01 290 140	1.13



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A	B	C	D Ø	F	N	Vacuum cup item	Support item	Weight Kg
08 290 68 *	25	290	68	15	G3/8"	11	62	01 290 68	00 08 116	0.56
08 290 140 *	72	290	140	15	G1/2"	11	134	01 290 140	00 08 117	1.15

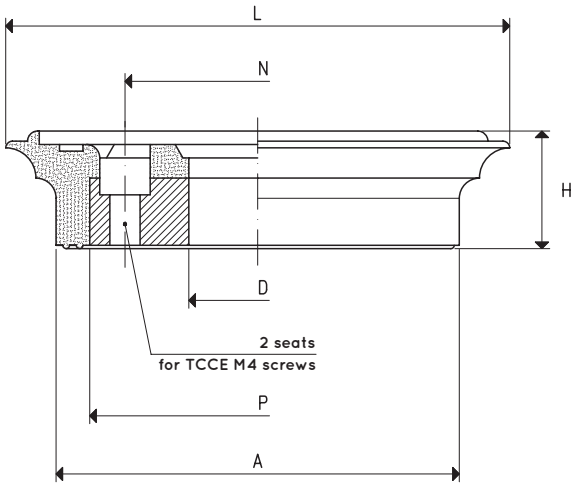
* Complete the code indicating the compound: OF= geranium foam rubber; NF= neoprene foam rubber

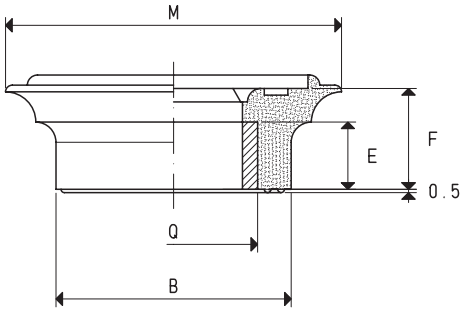
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

FLAT RECTANGULAR VACUUM CUPS WITH VULCANISED SUPPORT, FOR CLAMPING GLASS AND MARBLE

Glass and marble manufacturers' machining centres require increasingly accurate and safe clamping systems. This has led us to creating this new series of cups.
They are vulcanised onto a steel support and are provided with a hole in the centre for vacuum connection or for a ball valve, as well as with 2 holes on the internal circumference for housing Allen screws.
Their extremely flexible lip allows them to easily adapt to the sheets to be held, with no risk of deformation or rupture, even for the thinnest ones.
The particular shape of the internal support plane of these cups ensures a high friction coefficient with the gripping surface and especially a considerable grip on wet glass and marble sheets, thanks to the water drainage. All this guarantees a firm, safe grip. Furthermore, these cups feature the highest accuracy of their thickness, whose nominal height has a tolerance of only five hundredths of millimetre.
They are normally produced with oil-resistant rubber A, but they can be ordered in other compounds, listed on pg. 31, upon request and in minimum quantities to be defined in the order.





VACUUM CUP WITH VULCANISED SUPPORT

Item	Force Kg	Volume cm^3	A	B	D Ø	E	F	H	L	M	N	P	Q	Support material	Weight g
08 50 75 A	7.5	6.1	60	35	20.5	10	15	17.5	75	50	39.5	50	25	steel	92

Compound: A = oil-resistant rubber

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

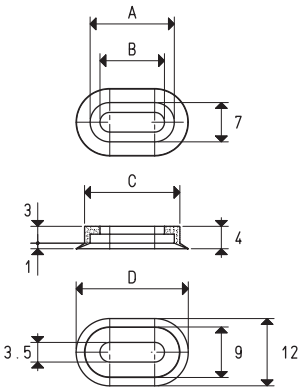
ELLIPTICAL FLAT VACUUM CUPS WITH SUPPORTS

These oval cups are are recessed on moulders in order to hold a side of the cardboard box during the moulding process by means of traditional cups on the opposite side. Once assembled with their support, however, they can be used for handling boxes, plastic objects or anything with a limited gripping surface.
Their anodised aluminium support has a central threaded hole to fasten it to the automation. They are also provided with a nickel-plated brass plate to hold the cup in its housing and with one or two stainless steel screws for fixing them.
To replace, simply request the single vacuum cup indicated in the table in the desired compound.

VACUUM CUP

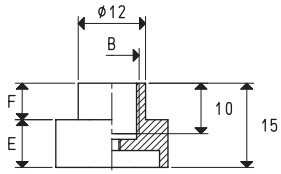
Item	Force Kg	Volume cm^3	A	B	C	D
01 12 20 *	0.52	0.3	15	11.5	17	20

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



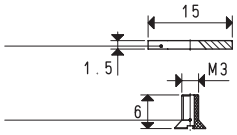
SUPPORT

Item	B Ø	E	F	Support material	For vacuum cup item	Weight g
00 08 70	G1/8"	8.5	6.5	aluminium	01 12 20	5.4

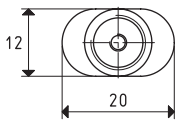


fixing plate item **00 08 97**

perforated TSP M3x5 screw item **00 08 103**



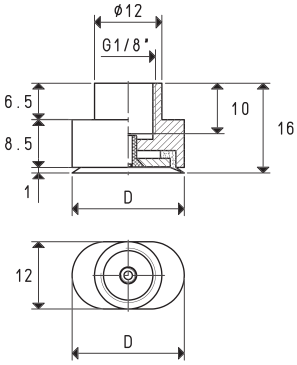
Note: Supplied automatically also with the fixing plate and the perforated TSP screw when ordering item **00 08 70**



VACUUM CUP WITH SUPPORT

Item	Force Kg	D	Vacuum cup item	Support item	Weight g
08 12 20 *	0.52	20	01 12 20	00 08 70	5.8

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

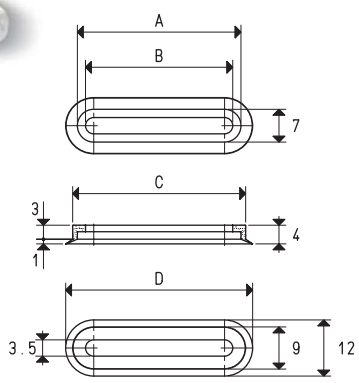
Adapters for GAS - NPT threading available on page 1.130

ELLIPTICAL FLAT VACUUM CUPS WITH SUPPORTS

VACUUM CUPS

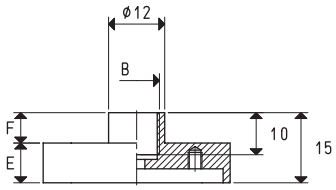
Item	Force Kg	Volume cm^3	A	B	C	D
01 12 30 *	0.82	0.5	25	21.5	27	30
01 12 40 *	1.12	0.7	35	31.5	37	40
01 12 50 *	1.57	1.0	50	46.5	52	55

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

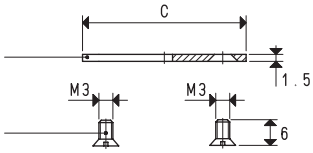


SUPPORTS

Item	A	B Ø	C	E	F	Support material	For vacuum cup item	Weight g
00 08 71	30	G1/8"	25	8.5	6.5	aluminium	01 12 30	7.8
00 08 75	40	G1/8"	35	8.5	6.5	aluminium	01 12 40	11.4
00 08 76	55	G1/8"	50	8.5	6.5	aluminium	01 12 50	15.5

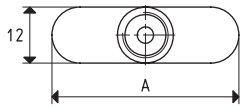


fixing plate item **00 08 98** for supp. **00 08 71**
item **00 08 99** for supp. **00 08 75**
item **00 08 100** for supp. **00 08 76**



2 TSP screws M3x5 item **00 08 102**

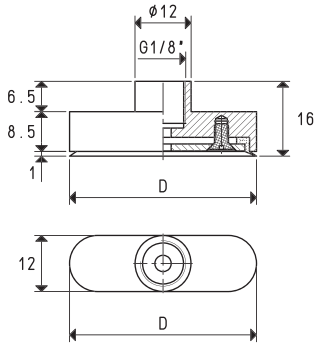
Note: Supplied automatically also with the fixing plate and the perforated TSP screw when ordering the item relative to the support



VACUUM CUPS WITH SUPPORT

Item	Force Kg	D	Vacuum cup item	Support item	Weight g
08 12 30 *	0.82	30	01 12 30	00 08 71	8.3
08 12 40 *	1.12	40	01 12 40	00 08 75	12.0
08 12 50 *	1.57	55	01 12 50	00 08 76	16.2

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



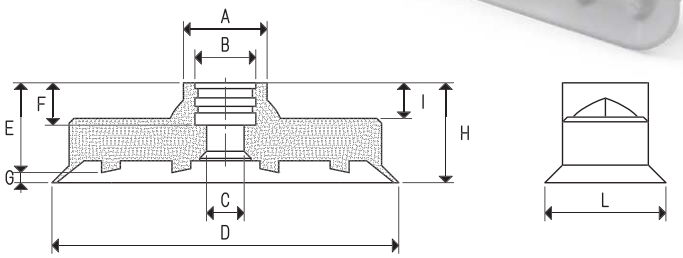
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

FLAT AND BELLOWS ELLIPTICAL VACUUM CUPS WITH SUPPORTS

Complete range of flat elliptical vacuum cups, normally used for gripping, handling and clamping cardboard cases and boxes, wood shingles, small ceramic or brick tiles, iron or stainless steel profiles, sheets and anything else present on long, narrow gripping surfaces.
Instead, bellows elliptical vacuum cups, in addition to having the same function as the flat cups described above, are able to adapt to the gripping plane, even if not perfectly perpendicular to the axis of the vacuum cup, and can recover evident unevenness of the loads to be lifted.
They are normally available in the three standard compounds but can be supplied in special compounds listed on pg. 31 and in a minimum amount to be defined in the order, upon request.
Both items can be supplied with or without automation fastening support. Upon request, special non-rotating vacuum cup holders on which to assemble them are able to prevent their rotation during use.



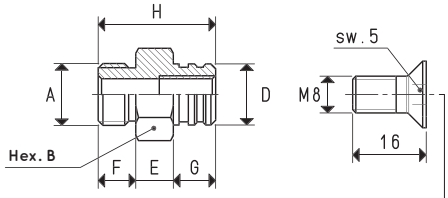
VACUUM CUPS

Item	Force Kg	A Ø	B Ø	C Ø	D	E	F	G	H	I	L	Volume cm^3
VOP 08 24 SR *	0.44	12.2	7.3	2.5	24	11.2	5.5	0.8	12.0	6.7	8.0	0.191
VOP 10 30 SR *	0.69	12.2	7.3	4.5	30	11.3	5.5	0.7	12.0	7.0	10.0	0.214
VOP 12 36 SR *	0.98	12.0	7.3	5.0	36	12.1	5.5	0.9	13.0	6.4	12.0	0.498
VOP 15 45 SR *	1.56	16.4	13.0	4.0	45	20.1	8.8	1.9	22.0	14,3	15.0	1.203
VOP 20 60 SR *	2.73	18.0	13.0	8.0	60	20.0	9.0	1.5	21.5	10.0	20.0	2.026
VOP 25 75 SR *	4.30	17.8	13.0	8.0	75	19.1	9.0	2.2	21.3	7.6	25.0	5.026
VOP 28 85 SR *	5.53	18.6	13.0	8.0	85	18.9	9.7	2.8	21.7	8.7	28.0	6.761
VOP 35 100 SR *	8.09	18.8	13.0	8.0	100	18.9	9.7	3.3	22.2	8.7	35.0	11.989

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

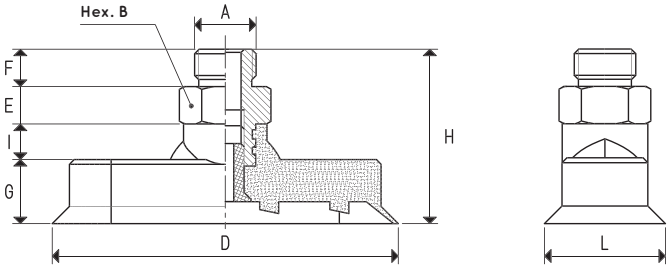
MALE SUPPORTS

Item	A Ø	B	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 344	G1/8"	14	7.3	7	7	5.5	19.5	aluminium	VOP 08 24 SR VOP 10 30 SR VOP 12 36 SR	18.5
00 08 346	G1/4"	17	13.0	8	8	9.0	25.0	aluminium	VOP 15 45 SR	25.0
00 08 404	G1/4"	17	13.0	8	8	9.0	25.0	aluminium	VOP 20 60 SR VOP 25 75 SR	29.8
00 08 402	G1/4"	17	13.0	8	8	9.0	25.0	aluminium	VOP 28 85 SR VOP 35 100 SR	30.7



screw
item **00 08 347** for supp.**00 08 402**
item **00 08 348** for supp.**00 08 404**

Note: Supplied automatically also with the screw when ordering the item relative to the support



VACUUM CUPS WITH MALE SUPPORT

Item	Force Kg	A Ø	B	D	E	F	G	H	I	L	Vacuum cup item	Support item	Weight g
VOP 08 24 *	0.44	G1/8"	14	24	7	7	5.3	26.0	6.7	8.0	VOP 08 24 SR	00 08 344	19.7
VOP 10 30 *	0.69	G1/8"	14	30	7	7	5.0	26.0	7.0	10.0	VOP 10 30 SR	00 08 344	19.8
VOP 12 36 *	0.98	G1/8"	14	36	7	7	6.6	27.0	6.4	12.0	VOP 12 36 SR	00 08 344	20.6
VOP 15 45 *	1.56	G1/4"	17	45	8	8	7.7	38.0	14.3	15.0	VOP 15 45 SR	00 08 346	29.2
VOP 20 60 *	2.73	G1/4"	17	60	8	8	11.5	37.5	10.0	20.0	VOP 20 60 SR	00 08 404	38.3
VOP 25 75 *	4.30	G1/4"	17	75	8	8	13.7	37.3	7.6	25.0	VOP 25 75 SR	00 08 404	43.5
VOP 28 85 *	5.53	G1/4"	17	85	8	8	13.0	37.7	8.7	28.0	VOP 28 85 SR	00 08 402	50.7
VOP 35 100 *	8.09	G1/4"	17	100	8	8	13.5	38.2	8.7	35.0	VOP 35 100 SR	00 08 402	62.7

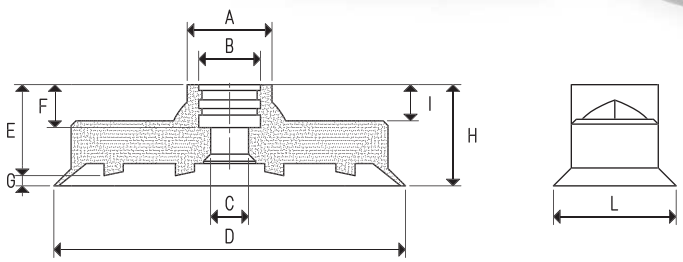
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

ELLIPTICAL FLAT VACUUM CUPS WITH FEMALE SUPPORTS



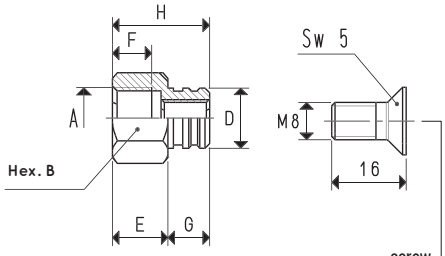
VACUUM CUPS

Item	Force Kg	A Ø	B Ø	C Ø	D	E	F	G	H	I	L	Volume cm^3
VOP 08 24 SR *	0.44	12.2	7.3	2.5	24	11.2	5.5	0.8	12.0	6.7	8.0	0.191
VOP 10 30 SR *	0.69	12.2	7.3	4.5	30	11.3	5.5	0.7	12.0	7.0	10.0	0.214
VOP 12 36 SR *	0.98	12.0	7.3	5.0	36	12.1	5.5	0.9	13.0	6.4	12.0	0.498
VOP 15 45 SR *	1.56	16.4	13.0	4.0	45	20.1	8.8	1.9	22.0	14,3	15.0	1.203
VOP 20 60 SR *	2.73	18.0	13.0	8.0	60	20.0	9.0	1.5	21.5	10.0	20.0	2.026
VOP 25 75 SR *	4.30	17.8	13.0	8.0	75	19.1	9.0	2.2	21.3	7.6	25.0	5.026
VOP 28 85 SR *	5.53	18.6	13.0	8.0	85	18.9	9.7	2.8	21.7	8.7	28.0	6.761
VOP 35 100 SR *	8.09	18.8	13.0	8.0	100	18.9	9.7	3.3	22.2	8.7	35.0	11.989

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

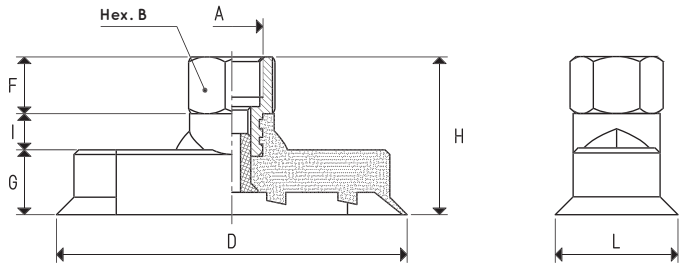
FEMALE SUPPORTS

Item	A Ø	B	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 343	G1/8"	14	7.3	10	8.0	5.5	15.5	aluminium	VOP 08 24 SR VOP 10 30 SR VOP 12 36 SR	16.8
00 08 345	G1/4"	17	13.0	12	8.5	9.0	21.0	aluminium	VOP 15 45 SR	19.9
00 08 405	G1/4"	17	13.0	12	8.5	9.0	21.0	aluminium	VOP 20 60 SR VOP 25 75 SR	24.7
00 08 403	G1/4"	17	13.0	12	8.5	9.0	21.0	aluminium	VOP 28 85 SR VOP 35 100 SR	25.6



screw
item **00 08 347** for supp.**00 08 403**
item **00 08 348** for supp.**00 08 405**

Note: Supplied automatically also with the screw when ordering the item relative to the support



VACUUM CUPS WITH FEMALE SUPPORT

Item	Force Kg	A Ø	B	D	F	G	H	I	L	Vacuum cup item	Support item	Weight g
VOP 08 24 F *	0.44	G1/8"	14	24	10	5.3	22.0	6.7	8.0	VOP 08 24 SR	00 08 343	18.0
VOP 10 30 F *	0.69	G1/8"	14	30	10	5.0	22.0	7.0	10.0	VOP 10 30 SR	00 08 343	18.1
VOP 12 36 F *	0.98	G1/8"	14	36	10	6.6	23.0	6.4	12.0	VOP 12 36 SR	00 08 343	18.9
VOP 15 45 F *	1.56	G1/4"	17	45	12	7.7	24.0	14.3	15.0	VOP 15 45 SR	00 08 345	23.9
VOP 20 60 F *	2.73	G1/4"	17	60	12	11.5	33.5	10.0	20.0	VOP 20 60 SR	00 08 405	33.2
VOP 25 75 F *	4.30	G1/4"	17	75	12	13.7	33.3	7.6	25.0	VOP 25 75 SR	00 08 405	38.4
VOP 28 85 F *	5.53	G1/4"	17	85	12	13.0	33.7	8.7	28.0	VOP 28 85 SR	00 08 403	45.6
VOP 35 100 F *	8.09	G1/4"	17	100	12	13.5	34.2	8.7	35.0	VOP 35 100 SR	00 08 403	57.6

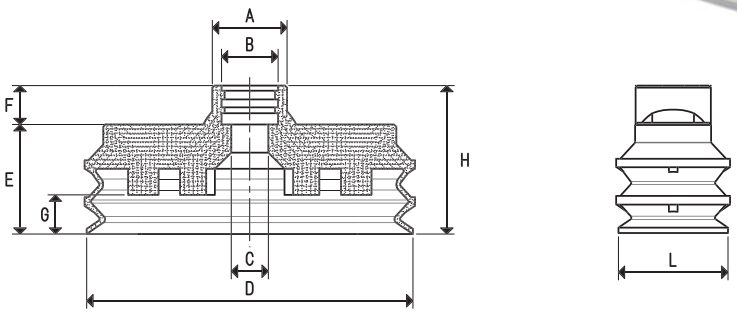
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

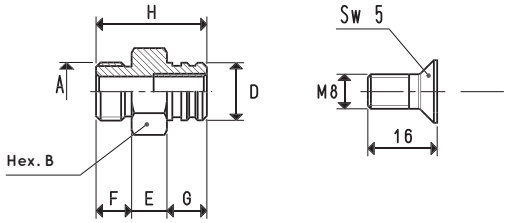
ELLIPTICAL BELLOWS VACUUM CUPS WITH MALE SUPPORTS



VACUUM CUPS

Item	Force Kg	A Ø	B Ø	C Ø	D	E	F	G bellows stroke	H	L	Volume cm^3
VOS 08 25 *	0.51	10.0	7.3	1.3	25.0	12.4	6.0	3.0	18.4	8.0	0.852
VOS 15 45 *	1.56	17.2	13.0	4.0	45.0	18.6	10.0	6.5	28.6	15.0	4.978
VOS 25 75 *	4.30	17.2	13.0	9.0	75.0	25.2	9.0	8.5	34.2	25.0	23.083

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

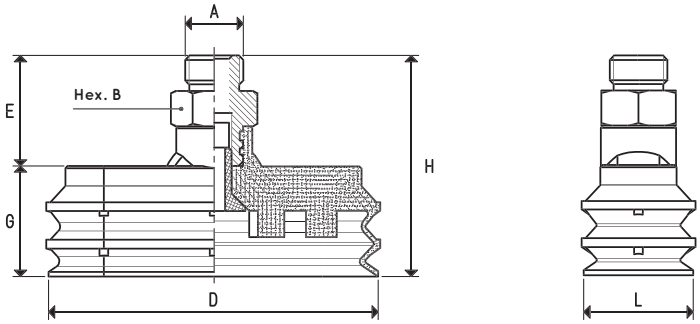


screw
item **00 08 347** for supp.**00 08 402**

Note: Supplied automatically also with the screw when ordering the item relative to the support

MALE SUPPORTS

Item	A Ø	B	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 344	G1/8"	14	7.3	7	7	5.5	19.5	aluminium	VOS 08 25	18.5
00 08 346	G1/4"	17	13.0	8	8	9.0	25.0	aluminium	VOS 15 45	25.0
00 08 402	G1/4"	17	13.0	8	8	9.0	25.0	aluminium	VOS 25 75	30.7



VACUUM CUPS WITH MALE SUPPORT

Item	Force Kg	A Ø	B	D	E	G	H	L	Vacuum cup item	Support item	Weight g
VOS 08 25 M *	0.51	G1/8"	14	25.0	20.0	12.4	32.4	8.0	VOS 08 25	00 08 344	20.0
VOS 15 45 M *	1.56	G1/4"	17	45.0	26.0	18.6	44.6	15.0	VOS 15 45	00 08 346	31.4
VOS 25 75 M *	4.30	G1/4"	17	75.0	25.0	25.2	50.2	25.0	VOS 25 75	00 08 402	47.3

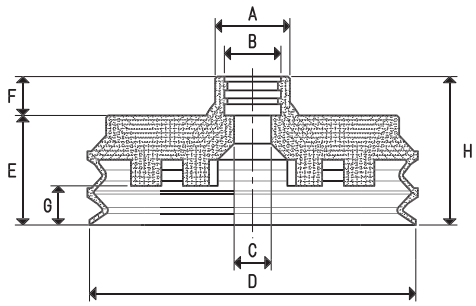
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

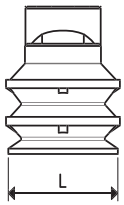
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

ELLIPTICAL BELLOWS VACUUM CUPS WITH FEMALE SUPPORTS

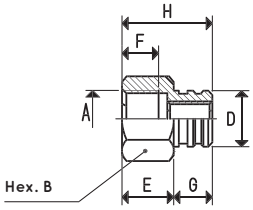


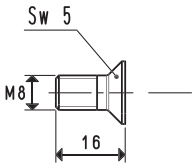


VACUUM CUPS

Item	Force Kg	A Ø	B Ø	C Ø	D	E	F	G bellows stroke	H	L	Volume cm^3
VOS 08 25 *	0.51	10.0	7.3	1.3	25.0	12.4	6.0	3.0	18.4	8.0	0.852
VOS 15 45 *	1.56	17.2	13.0	4.0	45.0	18.6	10.0	6.5	28.6	15.0	4.978
VOS 25 75 *	4.30	17.2	13.0	9.0	75.0	25.2	9.0	8.5	34.2	25.0	23.083

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



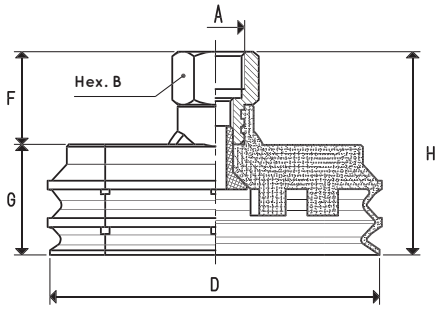


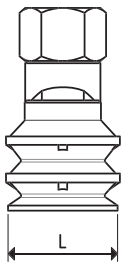
screw
item **00 08 347** for supp.**00 08 403**

Note: Supplied automatically also with the screw when ordering the item relative to the support

FEMALE SUPPORTS

Item	A Ø	B	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 343	G1/8"	14	7.3	10	8.0	5.5	15.5	aluminium	VOS 08 25	16.8
00 08 345	G1/4"	17	13.0	12	8.5	9.0	21.0	aluminium	VOS 15 45	19.9
00 08 403	G1/4"	17	13.0	12	8.5	9.0	21.0	aluminium	VOS 25 75	25.6





VACUUM CUPS WITH FEMALE SUPPORT

Item	Force Kg	A Ø	B	D	F	G	H	L	Vacuum cup item	Support item	Weight g
VOS 08 25 F *	0.51	G1/8"	14	25.0	16.0	12.4	28.4	8.0	VOS 08 25	00 08 343	18.3
VOS 15 45 F *	1.56	G1/4"	17	45.0	22.0	18.6	40.6	15.0	VOS 15 45	00 08 345	26.3
VOS 25 75 F *	4.30	G1/4"	17	75.0	21.0	25.2	46.2	25.0	VOS 25 75	00 08 403	42.2

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

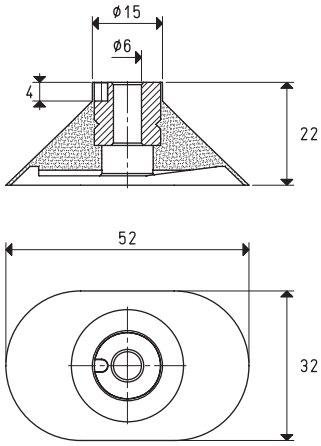
ELLIPTICAL VACUUM CUPS WITH VULCANISED SUPPORT

The cups described on this page have been designed for for handling X-ray sheets in hospital or other electrostatically charged films.
Their original shape allows them to pick up one sheet at a time without deforming or crumpling the gripping surface and without leaving stains or prints, thanks to the special compound with which they are made. Their aluminium supports are vulcanised onto the cups. One with a smooth hole for fixing the cup to the machine with an Allen screw, with the housing on the inside and one with a threaded hole. A side slot on the support prevents the cup from rotating. These cups are recommended for gripping and handling magnetic sheets, plastic sheets, thin rubber sheets, laminated cardboard, etc.

VACUUM CUP WITH VULCANISED SUPPORT

Item	Force Kg	Volume cm^3	Support material	Weight g
08 32 52 A	3.00	3.1	aluminium	12.1

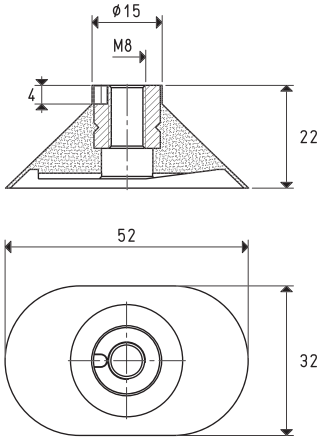
Compound: A = oil-resistant rubber



VACUUM CUP WITH VULCANISED SUPPORT

Item	Force Kg	Volume cm^3	Support material	Weight g
08 32 99 A	3.00	3.1	aluminium	11.9

Compound: A = oil-resistant rubber

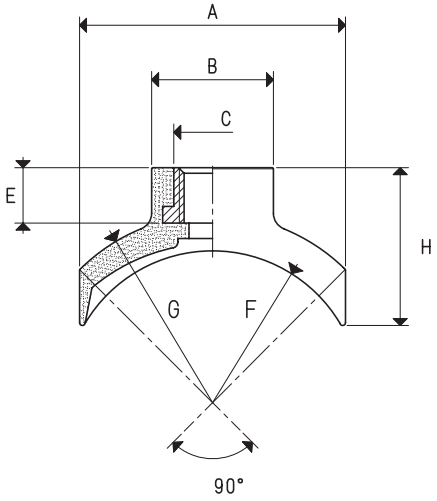


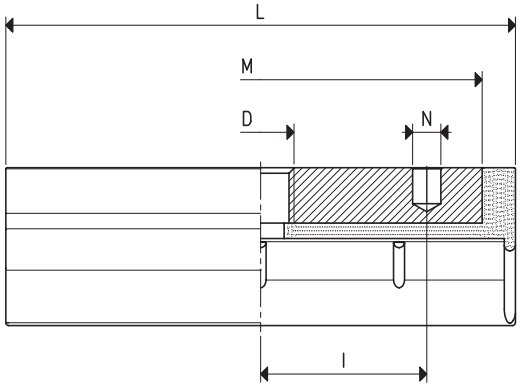
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

CONCAVE VACUUM CUPS WITH VULCANISED SUPPORT

These cups have been designed for gripping and handling cylindrical objects, such as pipes, bottles, round profiles, etc.
Their aluminium support is vulcanised onto the cup and it is provided with a central threaded hole to ease its fastening to the automation and with a side hole for insertion of an anti-rotation guide pin.
These cups can be provided in the three standard compounds: oil-resistant rubber A, natural para rubber N and silicon S.





CONCAVE VACUUM CUPS WITH VULCANISED SUPPORT

Item	Force Kg	Volume cm^3	gripping Ø min	gripping Ø max	A	B	C	D Ø	E	F	G	H	I	L	M	N Ø	Support material	Weight g
08 30 60 *	3.5	2.1	30	45	26	15	10	M8	8	16	19	20.0	20	60	50	4.1	aluminium	20.3
08 40 90 *	8.6	5.5	50	80	40	20	14	M12	10	23	28	25.0	30	92	80	5.1	aluminium	54.8
08 50 90 *	10.5	11.1	60	95	48	22	14	M12	10	28	34	28.5	30	92	80	5.1	aluminium	62.5

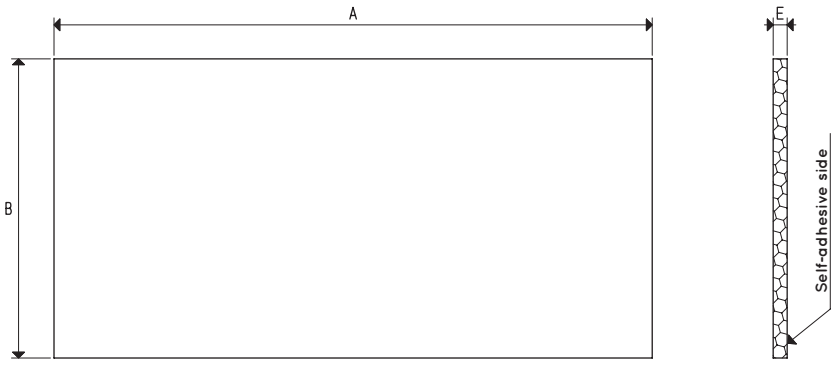
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

OF FOAM RUBBER SHEETS AND STRIPS

The foam rubber used for our cups can be provided in sheets or strips of the sizes indicated in the table.
Both the OF foam rubber strips and the sheets have a self-adhesive side which allows a quick and easy fixing to the metal support.
These sheets and strips can be used to make cups of every shape and to handle loads with raw or very rough surfaces. They can be supplied in different sizes and density upon request and in quantities to be defined in the order.
The working temperature ranges from -40°C to +80°C.
Excellent compressive and breaking strength, with elongation up to 350%. Poor resistance to oils, ozone and flame.
NOTE: OF foam rubber is obtained by the expansion of a natural rubber, subjected to leavening through a chemical-thermal treatment.
Surface porosity with the same density, therefore, can vary, not compromising its effectiveness.

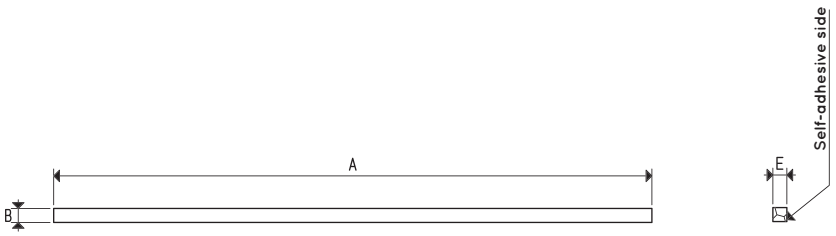


OF FOAM RUBBER SHEETS

Item	A	B	E
LGS 10 OF	2050/1950	920/880	10 ± 1.50
LGS 15 OF	2050/1950	920/880	15 ± 1.60
LGS 20 OF	2050/1950	920/880	20 ± 1.90
LGS 25 OF	2050/1950	920/880	25 ± 1.90
LGS 30 OF	2050/1950	920/880	30 ± 2.00
LGS 40 OF	2050/1950	920/880	40 ± 2.50
LGS 45 OF	2050/1950	920/880	45 ± 2.50

Note: The minimum size available is half a sheet.

Note: Considering the nature of OF rubber foam, the size of slabs in the table may vary, even beyond tolerances.



OF FOAM RUBBER STRIPS

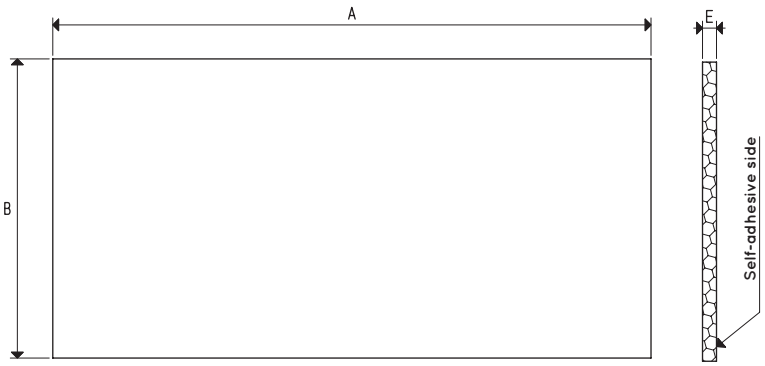
Item	A	B	E
SGS 10 10 OF	2050/1950	10 ± 1.50	10 ± 0,50
SGS 15 10 OF	2050/1950	15 ± 1.60	10 ± 0,50
SGS 20 10 OF	2050/1950	20 ± 1.90	10 ± 0,50
SGS 20 15 OF	2050/1950	20 ± 1.90	15 ± 0,75

Note: Considering the nature of OF rubber foam, the size of strips in the table may vary.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

SB EXTRA SOFT FOAM RUBBER SHEETS

Specifically designed for the production of OCTOPUS system gripping surface. This black foam rubber has an open cellular structure and is made of EPDM rubber.
SB extra soft foam rubber sheets have a self-adhesive side for quick, easy fixing to metal supports.
The temperature of use ranges from -40°C to + 130°C and it offers excellent resistance to heat, atmospheric agents, low temperatures and ageing.
The low density and softness of this foam rubber allows gripping surfaces to adapt to any kind of surface.



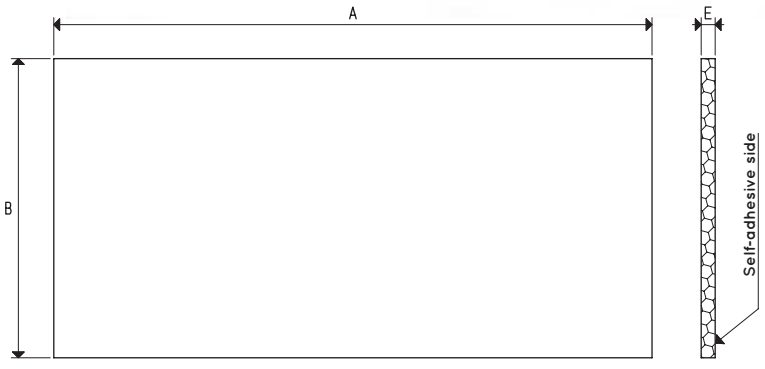
SB EXTRA SOFT FOAM RUBBER SHEETS

Item	A	B	E
LGS 10 SB	2050/1950	920/880	10 ± 1.50
LGS 15 SB	2050/1950	920/880	15 ± 1.60
LGS 20 SB	2050/1950	920/880	20 ± 1.90
LGS 30 SB	2050/1950	920/880	30 ± 2.00
LGS 40 SB	2050/1950	920/880	40 ± 2.50

Note: The minimum size available, half a sheet, is 1000 x 900 mm.

NF NEOPRENE FOAM RUBBER SHEETS

This type of foam rubber made with Neoprene rubber is black in colour and has a closed cellular structure, allowing it to offer greater compressive strength at the cost of less elasticity and a tendency to deform over time.
NF Neoprene foam rubber sheets have a self-adhesive side for quick, easy fixing to metal supports. Excellent resistance to oil products, sunlight, atmospheric agents, and ozone. Not recommended for food use.
This type of foam rubber allows for the use of vacuum cups for gripping coarse or very rough surfaces operating outside in contact with atmospheric agents.
The working temperature ranges for the foam are from -40°C to +100 °C.



NF NEOPRENE FOAM RUBBER SHEETS

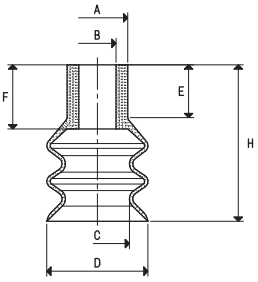
Item	A	B	E
LGS 10 NF	2050/1950	920/880	10 ± 1.50
LGS 15 NF	2050/1950	920/880	15 ± 1.60
LGS 20 NF	2050/1950	920/880	20 ± 1.90
LGS 30 NF	2050/1950	920/880	30 ± 2.00
LGS 40 NF	2050/1950	920/880	40 ± 2.50

Note: The minimum size available, half a sheet, is 1000 x 900 mm.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

BELLOWS CUPS WITH SUPPORTS FOR GRIPPING FLOW PACKS

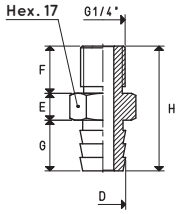
Thanks to their specific conformation and flexibility, the vacuum cups illustrated and described on this page are especially suitable for installation on automatic, high production machines in the packaging sector, and for the gripping and handling of flow packs.
The vacuum cups are available in different compounds for food use and can be cold fitted on their special supports without the aid of adhesives. Upon request, these cups can be provided upon request in minimum quantities and in other special compounds, listed on pg. 31, to be defined in the order.



VACUUM CUPS

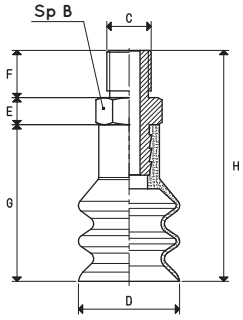
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	Bellows stroke mm
01 20 30 S	0.78	3.0	13	8	12	20	10	11.5	30	11
01 30 45 S	1.76	11.4	18	11	19	30	16	19.0	45	20

Compound: S= silicon



SUPPORTS

Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 18	9.5	8	14	10	32	aluminium	01 20 30	10.3
00 08 127	13.5	8	14	15	37	aluminium	01 30 45	11.5



VACUUM CUPS WITH SUPPORT

Item	Force Kg	B	C Ø	D Ø	E	F	G	H	Vacuum cup item	Support item	Weight g
08 20 30 S	0.78	17	G1/4"	20	8	14	30	52	01 20 30	00 08 18	12.5
08 30 45 S	1.76	17	G1/4"	30	8	14	45	67	01 30 45	00 08 127	18.4

Compound: S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

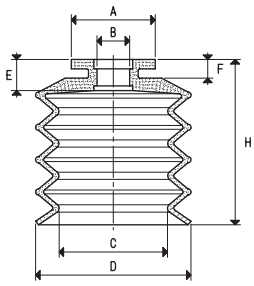
BELLOWS VACUUM CUPS WITH MALE AND FEMALE SUPPORTS

The bellows cups described on these pages have been specially designed for handling baked goods, such as biscuits, bread, pizza, etc., as well as plastic or paper bags containing chocolates, sweets, pasta, flour, powder, etc.
Thanks to their great flexibility, they can also be used to compensate flatness errors or for gripping on inclined surfaces. Their anodised aluminium supports are provided with a threaded male or female central pin to allow suction and to fasten it to the automation.
The vacuum cups can be fitted on them without the aid of adhesives.
To replace, simply request the single vacuum cup indicated in the table in the desired compound.

VACUUM CUPS

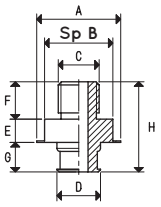
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	Bellows stroke mm
01 20 23 *	0.78	3.4	14.5	5.0	14	20	5	4	23	16
01 30 32 *	1.76	11.4	20.0	6.5	21	30	7	5	32	22
01 40 42 *	3.14	33.0	20.0	6.5	28	40	7	5	42	32
01 50 53 *	4.90	53.3	27.0	10.5	35	50	10	6	53	32

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



MALE SUPPORTS

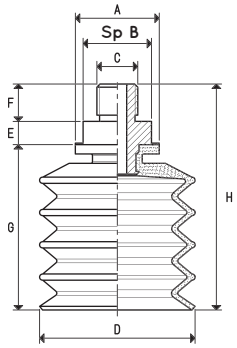
Item	A Ø	B	C Ø	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 133	14.5	13	G1/8"	8.5	5.5	8	5.0	18.5	aluminium	01 20 23	3.5
00 08 135	20.0	17	G1/4"	10.0	7.5	12	7.5	27.0	aluminium	01 30 32 01 40 42	9.5
00 08 142	27.0	22	G1/4"	14.0	7.5	12	9.5	29.0	aluminium	01 50 53	15.7



VACUUM CUPS WITH MALE SUPPORT

Item	Force Kg	A Ø	B	C Ø	D Ø	E	F	G	H	Vacuum cup item	Support item	Weight g
08 20 23 *	0.78	14.5	13	G1/8"	20	5.5	8	23	36.5	01 20 23	00 08 133	5.3
08 30 32 *	1.76	20.0	17	G1/4"	30	7.5	12	32	51.5	01 30 32	00 08 135	15.1
08 40 42 *	3.14	20.0	17	G1/4"	40	7.5	12	42	61.5	01 40 42	00 08 135	21.1
08 50 53 *	4.90	27.0	22	G1/4"	50	7.5	12	53	72.5	01 50 53	00 08 142	40.1

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



VACUUM CUP ACCESSORIES

STAINLESS STEEL DISC FILTERS

Item	D Ø	For vacuum cup item
00 08 295	17	01 20 23
00 08 293	27	01 30 32
00 08 279	35	01 40 42

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

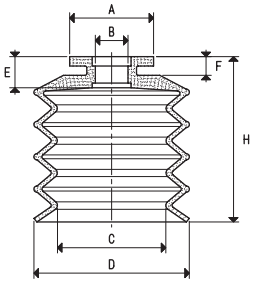
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

BELLOWS VACUUM CUPS WITH FEMALE SUPPORTS

VACUUM CUPS

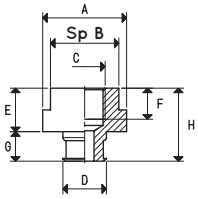
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	Bellows stroke mm
01 20 23 *	0.78	3.4	14.5	5.0	14	20	5	4	23	16
01 30 32 *	1.76	11.4	20.0	6.5	21	30	7	5	32	22
01 40 42 *	3.14	33.0	20.0	6.5	28	40	7	5	42	32
01 50 53 *	4.90	53.3	27.0	10.5	35	50	10	6	53	32

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



FEMALE SUPPORTS

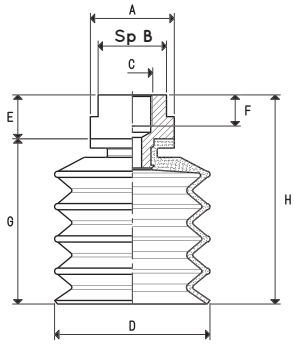
Item	A Ø	B	C Ø	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 132	14.5	13	G1/8"	8.5	12	8	5.0	17.0	aluminium	01 20 23	3.8
00 08 134	20.0	17	G1/4"	10.0	14	10	7.5	21.5	aluminium	01 30 32 01 40 42	8.3
00 08 141	27.0	22	G1/4"	14.0	14	10	9.5	23.5	aluminium	01 50 53	19.7



VACUUM CUPS WITH FEMALE SUPPORT

Item	Force Kg	A Ø	B	C Ø	D Ø	E	F	G	H	Vacuum cup item	Support item	Weight g
08 20 23 F *	0.78	14.5	13	G1/8"	20	12	8	23	35	01 20 23	00 08 132	5.6
08 30 32 F *	1.76	20.0	17	G1/4"	30	14	10	32	46	01 30 32	00 08 134	13.9
08 40 42 F *	3.14	20.0	17	G1/4"	40	14	10	42	56	01 40 42	00 08 134	19.9
08 50 53 F *	4.90	27.0	22	G1/4"	50	14	10	53	67	01 50 53	00 08 141	44.1

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



VACUUM CUP ACCESSORIES

STAINLESS STEEL DISC FILTERS

Item	D Ø	For vacuum cup item
00 08 295	17	01 20 23
00 08 293	27	01 30 32
00 08 279	35	01 40 42

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

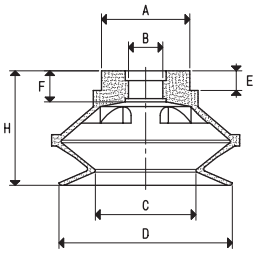
Adapters for GAS - NPT threading available on page 1.130

REINFORCED BELLOWS VACUUM CUPS WITH MALE AND FEMALE SUPPORTS

The particular shape of these bellows cups allows them to quickly crumple up when in contact with the surface of the load to be lifted and in presence of a vacuum. This quick movement prevents the load below from remaining stuck to the surfaces or load underneath.
Thanks to this particular feature, these bellows cups are recommended for handling paper and cardboard sheets, thin metal sheets, wooden panels, glass sheets etc.
Thanks to their great flexibility, they can also be used to compensate flatness errors or for gripping on inclined surfaces. Their anodised aluminium supports are provided with a threaded male or female central pin to allow suction and to fasten it to the automation. The vacuum cups can be fitted on them without the aid of adhesives.
To replace, simply request the single vacuum cup indicated in the table in the desired compound.

VACUUM CUPS

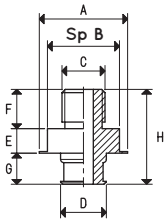
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	Bellows stroke mm
01 22 19 *	0.95	2.5	14.5	5.0	11.0	22	4	5.5	19	10
01 34 26 *	2.26	8.0	14.5	5.0	17.0	34	4	5.5	26	12
01 43 28 *	3.62	15.3	20.0	6.5	21.5	43	4	7.0	28	14
01 53 35 *	5.51	30.5	27.0	10.5	30.5	53	6	9.5	35	16



* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

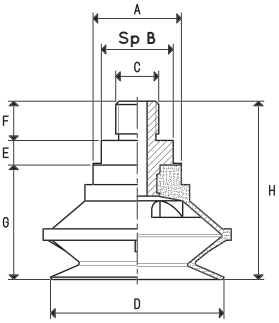
MALE SUPPORTS

Item	A Ø	B	C Ø	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 133	14.5	13	G1/8"	8.5	5.5	8	5.0	18.5	aluminium	01 22 19 01 34 26	3.5
00 08 135	20.0	17	G1/4"	10.0	7.5	12	7.5	27.0	aluminium	01 43 28	9.5
00 08 142	27.0	22	G1/4"	14.0	7.5	12	9.5	29.0	aluminium	01 53 35	15.7



VACUUM CUPS WITH MALE SUPPORT

Item	Force Kg	A Ø	B	C Ø	D Ø	E	F	G	H	Vacuum cup item	Support item	Weight g
08 22 19 *	0.95	14.5	13	G1/8"	22	5.5	8	19	32.5	01 22 19	00 08 133	6.2
08 34 26 *	2.26	14.5	13	G1/8"	34	5.5	8	26	39.5	01 34 26	00 08 133	15.2
08 43 28 *	3.62	20.0	17	G1/4"	43	7.5	12	28	47.5	01 43 28	00 08 135	18.5
08 53 35 *	5.51	27.0	22	G1/4"	53	7.5	12	35	54.5	01 53 35	00 08 142	33.3



* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

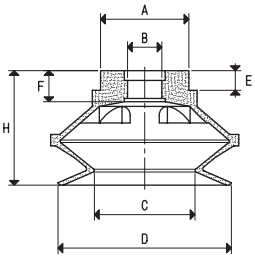
Adapters for GAS - NPT threading available on page 1.130

REINFORCED BELLOWS VACUUM CUPS WITH FEMALE SUPPORTS

VACUUM CUPS

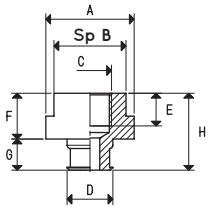
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	Bellows stroke mm
01 22 19 *	0.95	2.5	14.5	5.0	11.0	22	4	5.5	19	10
01 34 26 *	2.26	8.0	14.5	5.0	17.0	34	4	5.5	26	12
01 43 28 *	3.62	15.3	20.0	6.5	21.5	43	4	7.0	28	14
01 53 35 *	5.51	30.5	27.0	10.5	30.5	53	6	9.5	35	16

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



FEMALE SUPPORTS

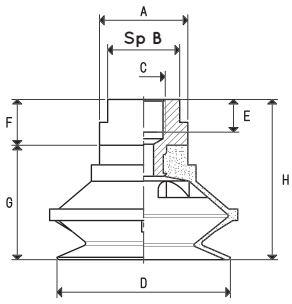
Item	A Ø	B	C Ø	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 132	14.5	13	G1/8"	8.5	8	12	5.0	17.0	aluminium	01 22 19 01 34 26	3.8
00 08 134	20.0	17	G1/4"	10.0	10	14	7.5	21.5	aluminium	01 43 28	8.3
00 08 141	27.0	22	G1/4"	14.0	10	14	9.5	23.5	aluminium	01 53 35	19.7



VACUUM CUPS WITH FEMALE SUPPORT

Item	Force Kg	A Ø	B	C Ø	D Ø	E	F	G	H	Vacuum cup item	Support item	Weight g
08 22 19 F *	0.95	14.5	13	G1/8"	22	8	12	19	31	01 22 19	00 08 132	6.5
08 34 26 F *	2.26	14.5	13	G1/8"	34	8	12	26	38	01 34 26	00 08 132	9.5
08 43 28 F *	3.62	20.0	17	G1/4"	43	10	14	28	42	01 43 28	00 08 134	17.3
08 53 35 F *	5.51	27.0	22	G1/4"	53	10	14	35	49	01 53 35	00 08 141	37.3

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



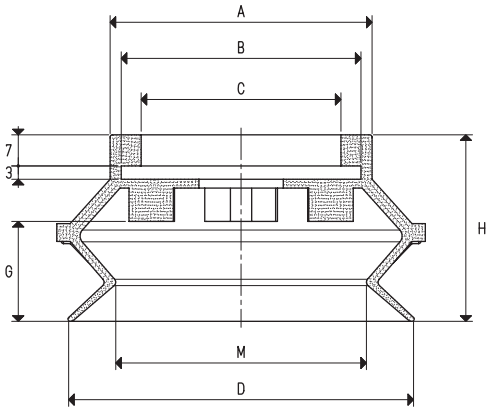
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

REINFORCED BELLOWS VACUUM CUPS WITH SUPPORTS

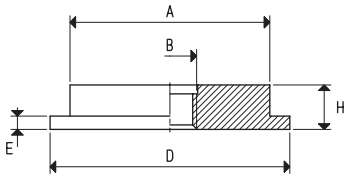
The cups described on these pages share the same features with the previously described bellows cups, only these have larger dimensions that allow them to lift much heavier loads; moreover, their anodised aluminium supports also have a central threaded hole for their fastening to the automation. The larger ones also have an additional side hole for vacuum connection. The difference is that these supports are provided with a disc instead of with a pin. These cups can be cold fitted onto their supports without any adhesives.
To replace, simply request the single vacuum cup indicated in the table in the desired compound.



VACUUM CUP

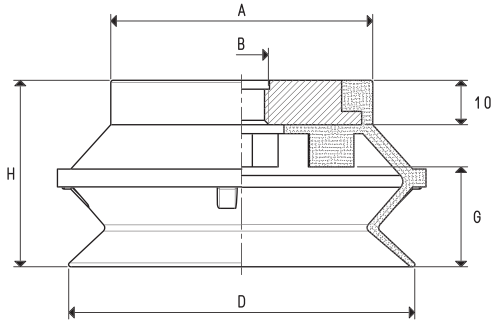
Item	Force Kg	Volume cm³	A Ø	B Ø	C Ø	D Ø	G	H	M Ø	Bellows stroke mm
01 75 42 *	11.93	89.4	59	54	45	78	22.5	42	56	22.5

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SUPPORTS

Item	A Ø	B Ø	D Ø	E	H	Support material	For vacuum cup item	Weight g
00 08 126	45	M12	54	3	10	aluminium	01 75 42	45.5
00 08 143	45	G1/2"	54	3	10	aluminium	01 75 42	41.5



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A Ø	B Ø	D Ø	G	H	Vacuum cup item	Support item	Weight g
08 75 42 *	11.93	59	M12	78	22.5	42	01 75 42	00 08 126	94.8
08 75 42 1/2" *	11.93	59	G1/2"	78	22.5	42	01 75 42	00 08 143	90.8

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

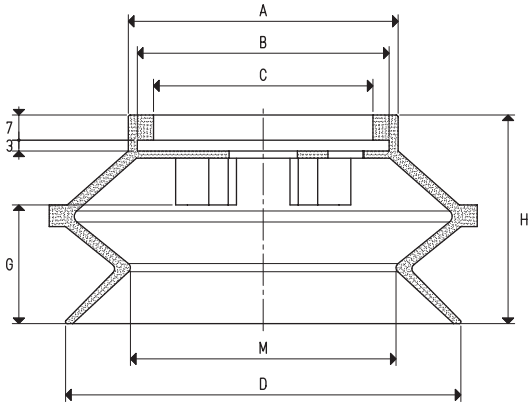
Adapters for GAS - NPT threading available on page 1.130

REINFORCED BELLOWS VACUUM CUPS WITH SUPPORTS

VACUUM CUPS

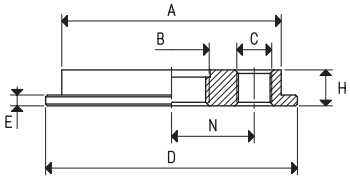
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	G	H	M Ø	Bellows stroke mm
01 110 58 *	23.70	281.9	75	70	61	110	33	58	74	33
01 150 74 *	45.00	726.1	112	107	98	150	49	74	103	49

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SUPPORTS

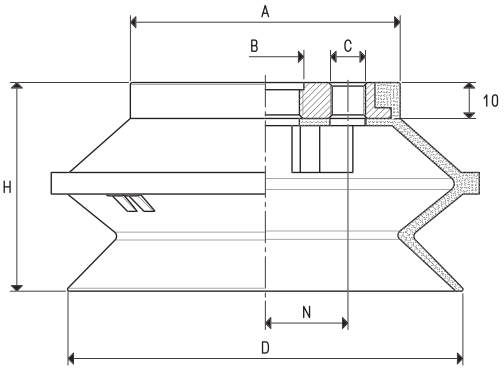
Item	A Ø	B Ø	C Ø	D Ø	E	N	H	Support material	For vacuum cup item	Weight g
00 08 162	61	G1/2"	G1/8"	70	3	23	10	aluminium	01 110 58	78.9
00 08 163	98	G1/2"	G1/8"	107	3	35	10	aluminium	01 150 74	211.8



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A Ø	B Ø	C Ø	D Ø	H	N	Vacuum cup item	Support item	Weight g
08 110 58 *	23.70	75	G1/2"	G1/8"	110	58	23	01 110 58	00 08 162	190.7
08 150 74 *	45.00	112	G1/2"	G1/8"	150	74	35	01 150 74	00 08 163	458.7

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



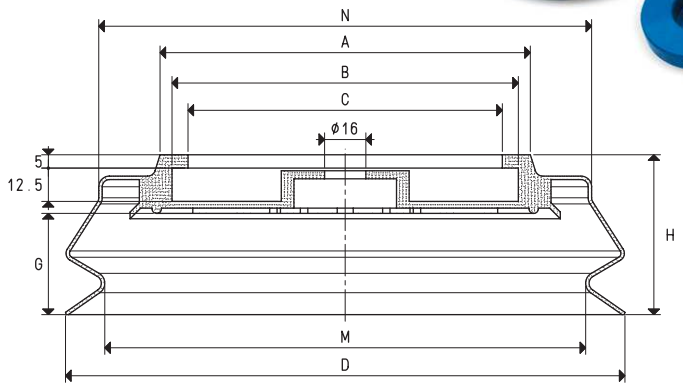
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

BELLOWS VACUUM CUPS FOR GLASS WITH SUPPORTS

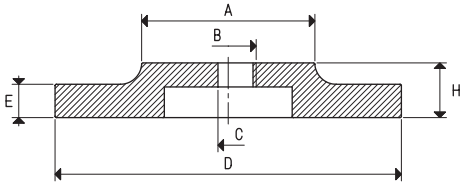
This range of cups has been designed for vertically gripping stocked glass sheets. By laying the cup on the glass surface and opening the vacuum, the sheet will place itself orthogonally to the floor perfectly adhering to the cup internal face. The glass sheet can then be handled in any direction in full safety.
Their aluminium aluminium support has a central threaded hole for fastening it to the machine and for the vacuum connection. These cups can be cold fitted onto their supports without any adhesives.



VACUUM CUPS

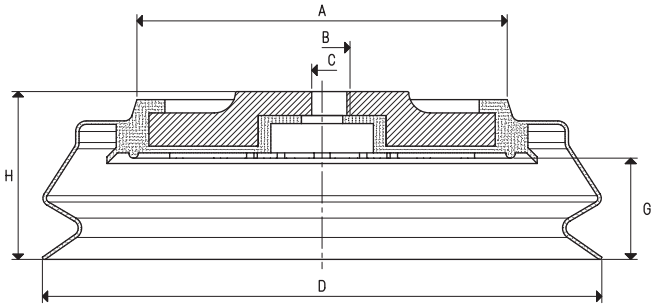
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	G	H	M Ø	N Ø	Bellows stroke mm
01 150 55 *	45.00	471.6	78	70	58	150	33	55	120	125	33
01 210 60 *	86.50	1220.6	138	130	118	210	38	61	180	185	38

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SUPPORTS

Item	A Ø	B Ø	C Ø	D Ø	E	H	Support material	For vacuum cup item	Weight g
00 08 280	35	G1/2"	--	70	12.5	22.5	aluminium	01 150 55	120
00 08 281	65	G1/2"	--	130	12.5	23.5	aluminium	01 210 60	465
00 08 286	35	---	8	70	12.5	22.5	aluminium	01 150 55	125
00 08 287	65	---	8	130	12.5	23.5	aluminium	01 210 60	470



VACUUM CUPS WITH SUPPORT

Item	Force Kg	A Ø	B Ø	C Ø	D Ø	G	H	Vacuum cup item	Support item	Weight g
08 150 55 *	45.00	78	G1/2"	--	150	33	60	01 150 55	00 08 280	245
08 210 60 *	86.50	138	G1/2"	--	210	38	67	01 210 60	00 08 281	650
08 150 56 *	45.00	78	---	8	150	33	60	01 150 55	00 08 286	250
08 210 61 *	86.50	138	---	8	210	38	67	01 210 60	00 08 287	655

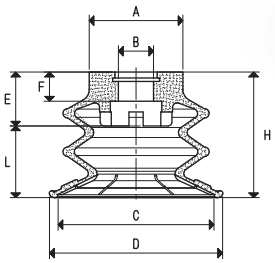
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

VACUUM CUPS WITH TWO BELLOWS FOR HEAVY-DUTY PACKAGING

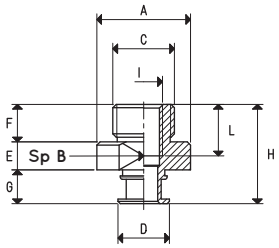
Specifically designed vacuum cups for tripping and handling particularly heavy boxes and cardboard packaging in general.
Their thick, sturdy lip absorbs tears and sudden accelerations, typical of robotised movements. The double bellows enables improved adaptability to the gripping surface, even if not perfectly perpendicular to the axis of the vacuum cup, and can recover evident unevenness of the loads to be lifted.
The supports, all made of anodised aluminium, are equipped with a male or female central threaded pin to allow suctioning and clamping to the automation. The vacuum cups can be fitted on them without the aid of adhesives.
To replace, simply request the single vacuum cup indicated in the table in the desired compound.



VACUUM CUPS

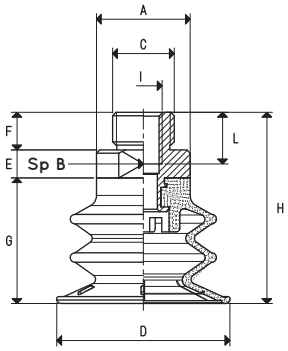
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	L	Bellows stroke mm
01 35 27 *	2.26	7.3	20	7.5	34	37	11.5	6.2	27	15.5	13
01 52 40 *	5.31	25.2	27	11.5	52	55	16.0	8.2	39	23.0	20

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



MALE SUPPORTS

Item	A Ø	B	C Ø	D Ø	E	F	G	H	I	L	Support material	For vacuum cup item	Weight g
00 08 394	20	17	G1/8"	11	6.0	8	7.2	21.2	M5	8	aluminium	01 35 27	6.2
00 08 395	27	20	G1/8"	15	7.5	8	9.2	24.7	M5	8	aluminium	01 52 40	13.2
00 08 366	20	17	G1/4"	11	6.0	8	7.2	21.2	M8	11	aluminium	01 35 27	6.2
00 08 364	27	20	G1/4"	15	7.5	8	9.2	24.7	M8	11	aluminium	01 52 40	13.2



VACUUM CUPS WITH MALE SUPPORT

Item	Force Kg	A Ø	B	C Ø	D Ø	E	F	G	H	I	L	Vacuum cup item	Support item	Weight g
08 35 27 1/8 *	2.26	20	17	G1/8"	37	6.0	8	27	41.0	M5	8	01 35 27	00 08 394	13.0
08 52 40 1/8 *	5.31	27	20	G1/8"	55	7.5	8	39	54.5	M5	8	01 52 40	00 08 395	34.5
08 35 27 *	2.26	20	17	G1/4"	37	6.0	8	27	41.0	M8	11	01 35 27	00 08 366	12.9
08 52 40 *	5.31	27	20	G1/4"	55	7.5	8	39	54.5	M8	11	01 52 40	00 08 364	34.3

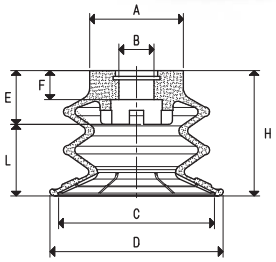
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

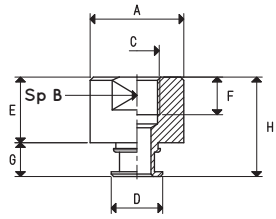
VACUUM CUPS WITH TWO BELLOWS WITH FEMALE SUPPORTS



VACUUM CUPS

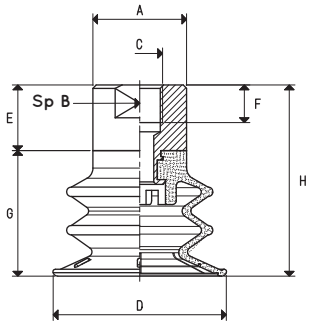
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	L	Bellows stroke mm
01 35 27 *	2.26	7.3	20	7.5	34	37	11.5	6.2	27	15.5	13
01 52 40 *	5.31	25.2	27	11.5	52	55	16.0	8.2	39	23.0	20

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



FEMALE SUPPORTS

Item	A Ø	B	C Ø	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 396	20	17	G1/8"	11	14	8	7.2	21.2	aluminium	01 35 27	9.7
00 08 397	27	20	G1/8"	15	14	8	9.2	23.2	aluminium	01 52 40	20.0
00 08 392	20	17	G1/4"	11	14	10	7.2	21.2	aluminium	01 35 27	7.8
00 08 393	27	20	G1/4"	15	14	10	9.2	23.2	aluminium	01 52 40	18.1



VACUUM CUPS WITH FEMALE SUPPORT

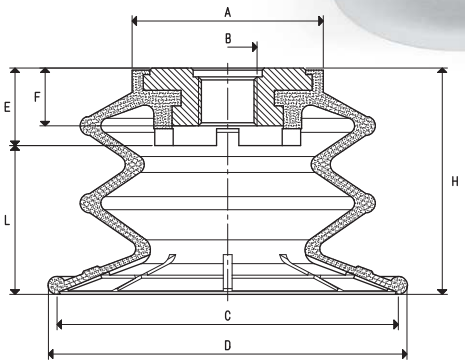
Item	Force Kg	A Ø	B	C Ø	D Ø	E	F	G	H	Vacuum cup item	Support item	Weight g
08 35 27 1/8 F *	2.26	20	17	G1/8"	37	14	8	27	41	01 35 27	00 08 396	16.5
08 52 40 1/8 F *	5.31	27	20	G1/8"	55	14	8	39	53	01 52 40	00 08 397	41.3
08 35 27 F *	2.26	20	17	G1/4"	37	14	10	27	41	01 35 27	00 08 392	14.6
08 52 40 F *	5.31	27	20	G1/4"	55	14	10	39	53	01 52 40	00 08 393	39.4

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

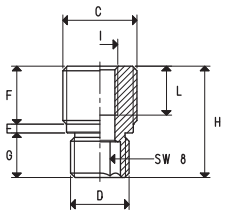
VACUUM CUPS WITH TWO BELLOWS WITH MALE SUPPORTS



VACUUM CUPS

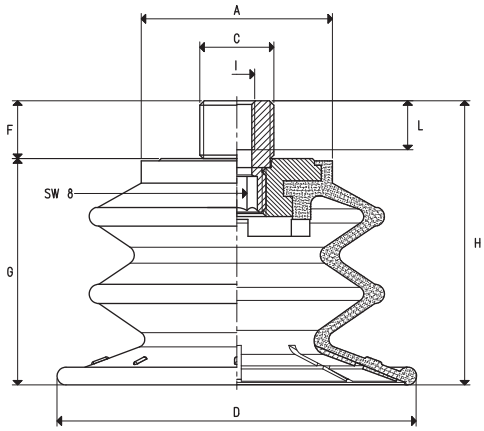
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	L	Bellows stroke mm
08 75 43 SR *	11.19	74.3	43.0	G1/4"	75.5	80.5	17.5	13.7	50	32.5	28
08 110 73 SR *	24.17	250.6	63.5	G3/8"	113.4	119.0	25.5	19.4	75	49.5	40

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



MALE SUPPORTS

Item	B	C Ø	D Ø	E	F	G	H	I	L	Support material	For vacuum cup item	Weight g
00 08 373	8	G1/4"	G1/4"	2	10	10	22	M8	11	aluminium	08 75 43 SR	4.1
00 08 372	8	G3/8"	G1/4"	2	13	10	25	M8	11	aluminium	08 75 43 SR	7.4
00 08 376	8	G3/8"	G3/8"	3	13	15.5	31.5	M8	11	aluminium	08 110 73 SR	14.1
00 08 375	8	G1/2"	G3/8"	3	13	15.5	31.5	M8	11	aluminium	08 110 73 SR	15.5



VACUUM CUPS WITH MALE SUPPORT

Item	Force Kg	A Ø	B	C Ø	D Ø	F	G	H	I	L	Vacuum cup item	Support item	Weight g
08 75 43 M *	11.19	43.0	8	G1/4"	80.5	10	50	60	M8	11	08 75 43 SR	00 08 373	75.0
08 75 43 3/8 M *	11.19	43.0	8	G3/8"	80.5	13	50	63	M8	11	08 75 43 SR	00 08 372	78.3
08 110 73 M *	24.17	63.5	8	G3/8"	119.0	13	75	88	M8	11	08 110 73 SR	00 08 376	220.3
08 110 73 1/2 M *	24.17	63.5	8	G1/2"	119.0	13	75	88	M8	11	08 110 73 SR	00 08 375	221.7

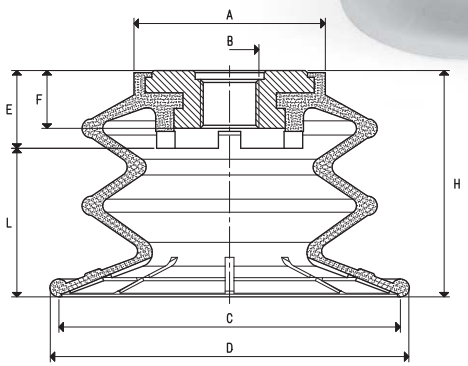
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

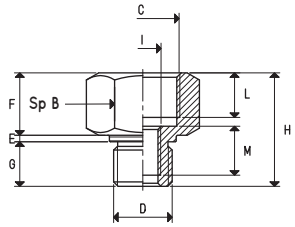
VACUUM CUPS WITH TWO BELLOWS WITH FEMALE SUPPORTS



VACUUM CUPS

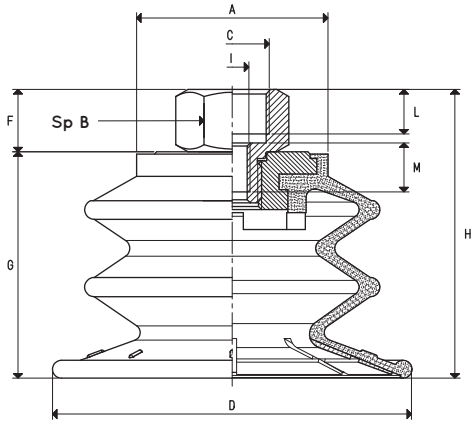
Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	L	Bellows stroke mm
08 75 43 SR *	11.19	74.3	43.0	G1/4"	75.5	80.5	17.5	13.7	50	32.5	28
08 110 73 SR *	24.17	250.6	63.5	G3/8"	113.4	119.0	25.5	19.4	75	49.5	40

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



FEMALE SUPPORTS

Item	B	C Ø	D Ø	E	F	G	H	I	L	M	Support material	For vacuum cup item	Weight g
00 08 374	22	G3/8"	G1/4"	1.5	14	10.0	25.5	M8	10	11	aluminium	08 75 43 SR	12.0
00 08 377	23	G1/2"	G3/8"	3.0	17	15.5	35.5	M8	13	11	aluminium	08 110 73 SR	17.8



VACUUM CUPS WITH FEMALE SUPPORT

Item	Force Kg	A Ø	B	C Ø	D Ø	F	G	H	I	L	M	Vacuum cup item	Support item	Weight g
08 75 43 3/8 *	11.19	43.0	22	G3/8"	80.5	14	50	64	M8	10	11	08 75 43 SR	00 08 374	82.9
08 110 73 1/2 *	24.17	63.5	23	G1/2"	119.0	17	75	92	M8	13	11	08 75 43 SR	00 08 377	224.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

VACUUM CUPS WITH ONE BELLOWS WITH VULCANISED SUPPORT

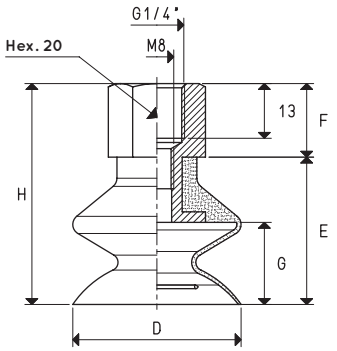
The cups described on this page, unlike the previous ones, are vulcanised onto an aluminium hexagonal support with a male or female threaded connector, inside of which there is an M8 threaded hole for the possible insertion of a calibrated grub screw (see page 1.129).

The main feature of these bellows cups is that they quickly crumple up during the grip, thus lifting the load for a few centimetres, independently of the movements of the lifting frame; this quick movement avoids that the load beneath,remains stuck to the lifted one.

Due to this feature, they are particularly suited for handling thin metal sheets, glass sheets, chipboard or compressed wood panels, laminated plastic etc.

Thanks to their great flexibility, they can also be used to compensate flatness errors or for gripping on inclined surfaces.

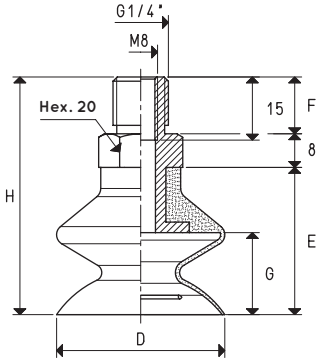
The cups are provided in standard compounds and, upon request, can be provided in minimum quantities and in other special compounds, listed on pg. 31, to be defined in the order.



VACUUM CUPS WITH ONE BELLOWS WITH WITH VULCANISED FEMALE SUPPORT

Item	Force Kg	Volume cm^3	D Ø	E	F	G	H	Bellows stroke mm	Support material	Weight g
08 40 30 *	3.14	16.2	40	35	17	18	52	12	aluminium	32.4
08 50 30 *	4.90	27.9	50	37	17	20	54	13	aluminium	40.9
08 60 30 *	7.06	46.8	60	39	17	21	56	14	aluminium	53.6
08 85 30 *	14.08	107.2	85	50	17	31	67	21	aluminium	122.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



VACUUM CUPS WITH ONE BELLOWS WITH WITH VULCANISED MALE SUPPORT

Item	Force Kg	D Ø	E	F	G	H	Support material	Weight g
08 40 30 M *	3.14	40	35	13.5	18	56.5	aluminium	29.1
08 50 30 M *	4.90	50	37	13.5	20	58.5	aluminium	39.0
08 60 30 M *	7.06	60	39	13.5	21	60.5	aluminium	51.2
08 85 30 M *	14.08	85	50	13.5	31	71.5	aluminium	115.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

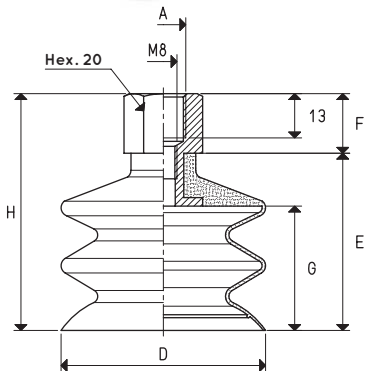
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

VACUUM CUPS WITH TWO BELLOWS WITH VULCANISED SUPPORT

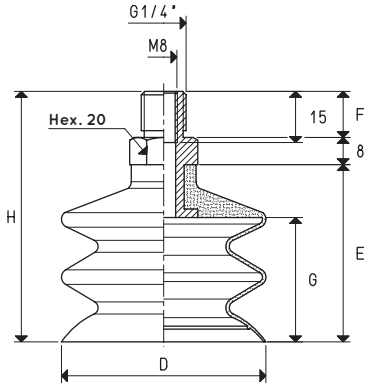
These cups are the same as the ones described in the previous page, only with an additional bellows.
The technical features and availability are the same.



VACUUM CUPS WITH TWO BELLOWS WITH FEMALE VULCANISED SUPPORT

Item	Force Kg	Volume cm^3	A Ø	D Ø	E	F	G	H	Bellows stroke mm	Support material	Weight g
08 40 60 *	3.14	23.6	G1/4"	40	52	17	35	69	20	aluminium	39.6
08 50 50 *	4.90	41.6	G1/4"	50	55	17	38	72	24	aluminium	49.6
08 60 50 *	7.06	63.0	G1/4"	60	58	17	41	75	25	aluminium	72.4
08 60 50M12 *	7.06	63.0	M12	60	58	17	41	75	25	aluminium	73.0
08 85 50 *	14.08	175.6	G1/4"	85	78	17	58	95	38	aluminium	168.0
08 85 50M12 *	14.08	175.6	M12	85	78	17	58	95	38	aluminium	169.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



VACUUM CUPS WITH TWO BELLOWS WITH MALE VULCANISED SUPPORT

Item	Force Kg	D Ø	E	F	G	H	Support material	Weight g
08 40 60M *	3.14	40	52	13.5	35	73.5	aluminium	35.5
08 50 50M *	4.90	50	55	13.5	38	76.5	aluminium	49.3
08 60 50M *	7.06	60	58	13.5	41	79.5	aluminium	66.0
08 85 50M *	14.08	85	78	13.5	58	99.5	aluminium	157.0

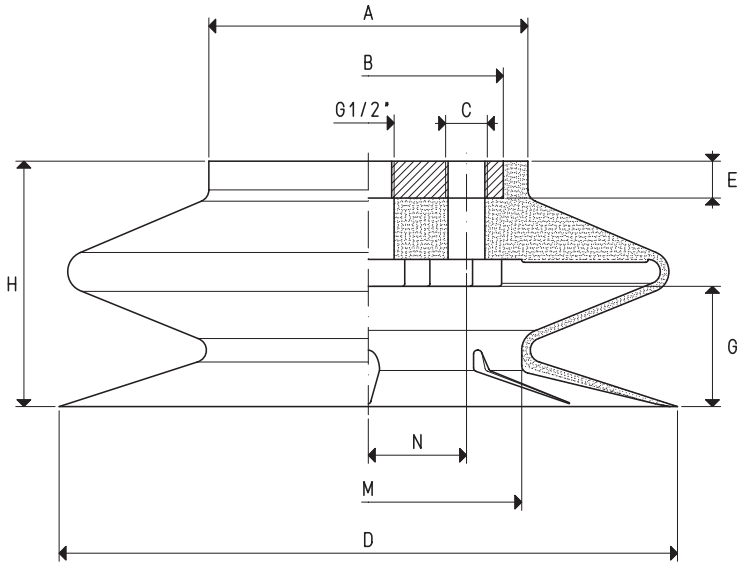
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

BELLOWS VACUUM CUPS WITH VULCANISED SUPPORT

The main feature of these bellows cups is that they quickly crumple up during the grip, thus lifting the load for a few centimetres, independently of the movements of the lifting frame; this quick movement avoids that the load beneath, remains stuck to the lifted one.
Due to this feature, they are particularly suited for handling thin metal sheets, glass sheets, chipboard or compressed wood panels, laminated plastic etc.
Thanks to their great flexibility, they can also be used to compensate flatness errors or for gripping on inclined surfaces. These bellows cups are vulcanised onto a galvanised steel support or aluminium support and are provided with a central threaded hole for its fastening to the automatism and with a side threaded hole for vacuum connection or vacuum degree detection.
This range of cups is available in the three standard compounds.



BELLOWS VACUUM CUPS WITH VULCANISED SUPPORT

Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	G	H	M Ø	N	Bellows stroke mm	Support material	Weight Kg
08 110 30 *	23.7	103.2	78	65	G1/8"	110	10	23	45	55	23	20	steel	0.35
08 150 30 *	45.0	323.3	78	65	G1/8"	150	10	33	60	75	23	31	steel	0.49
08 180 30 *	63.5	503.0	94	80	G1/8"	180	10	33	70	84	30	31	steel	0.81
08 250 30 *	122.6	1528.3	130	100	G3/8"	250	15	49	100	125	35	45	aluminium	1.54

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

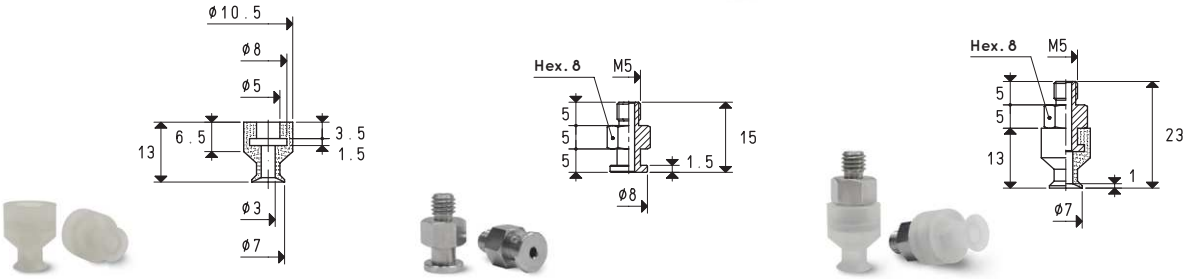
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

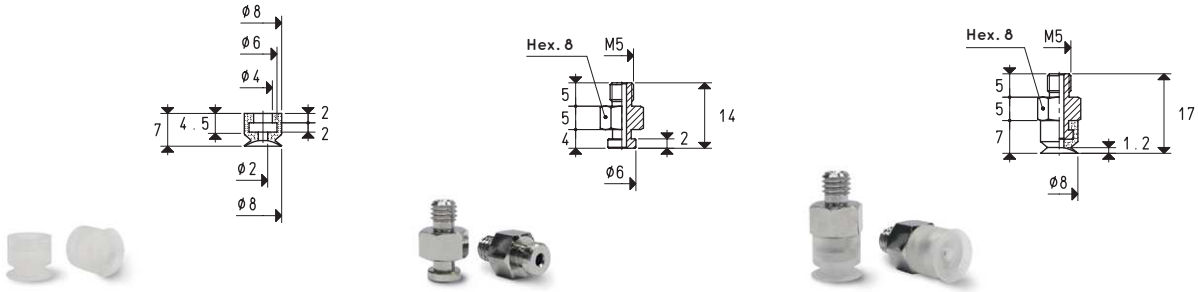
SPECIAL VACUUM CUPS WITH SUPPORTS

The cups shown on this page and on the next have been designed to solve many of the gripping and handling problems we have encountered in over thirty years of activity. They differ from all the other cups for the variety of their shapes.
They are suited for gripping CDs, labels, bags, paper or plastic sheets, stickers, chocolates, cardboard, tiles, small metal objects, plastic objects, etc.
Their nickel-plated brass or anodised aluminium supports are provided with a threaded male or female pin to enable suction and to fasten them to the automation.
These cups can be manually assembled onto their supports with no adhesives, simply by pressing them in. They are provided in standard compounds and, upon request, can be provided in minimum quantities and in other special compounds, listed on pg. 31, to be defined in the order.



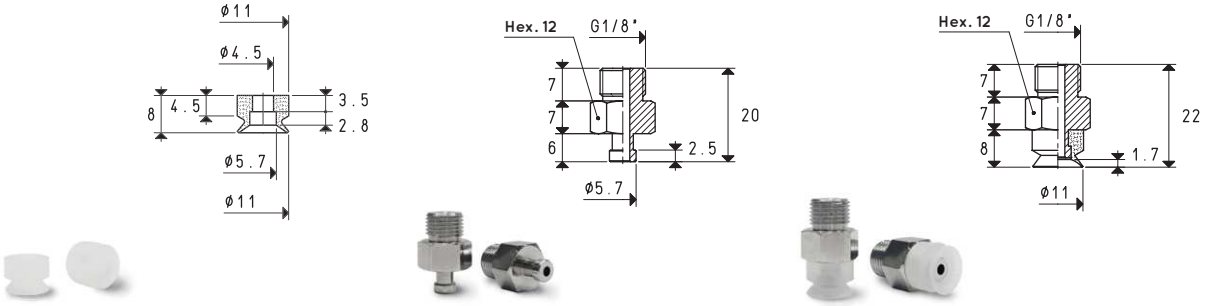
Vacuum cup item	Force Kg	Volume mm³	Support item	Support material	Weight g	Vacuum cup wit upport item	Weight g
01 07 13 *	0.10	19	00 08 236	brass	3	08 07 13 *	3.6

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Vacuum cup item	Force Kg	Volume mm³	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 08 07 *	0.13	31	00 08 237	brass	3	08 08 07 *	3.1

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

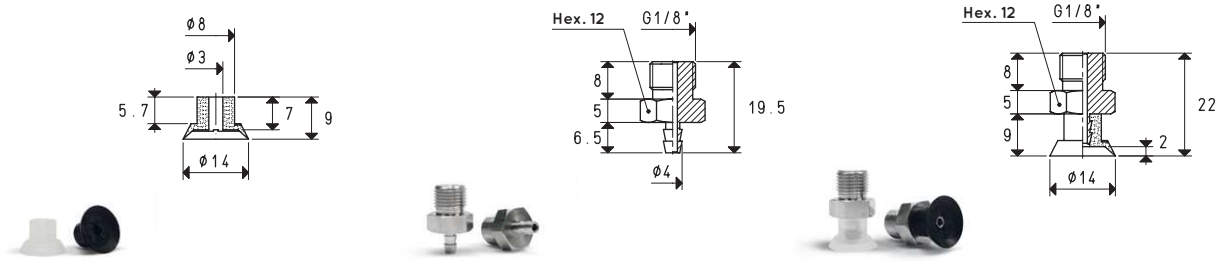


Vacuum cup item	Force Kg	Volume mm³	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 11 08 *	0.24	95	00 08 238	brass	7	08 11 08 *	7.6

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

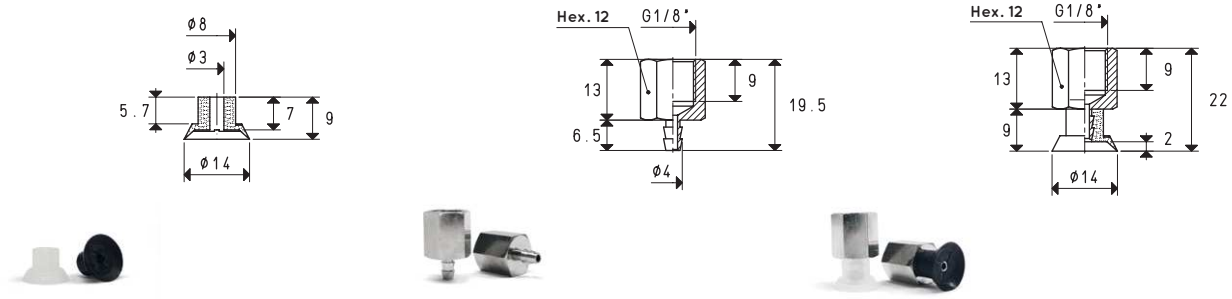
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130



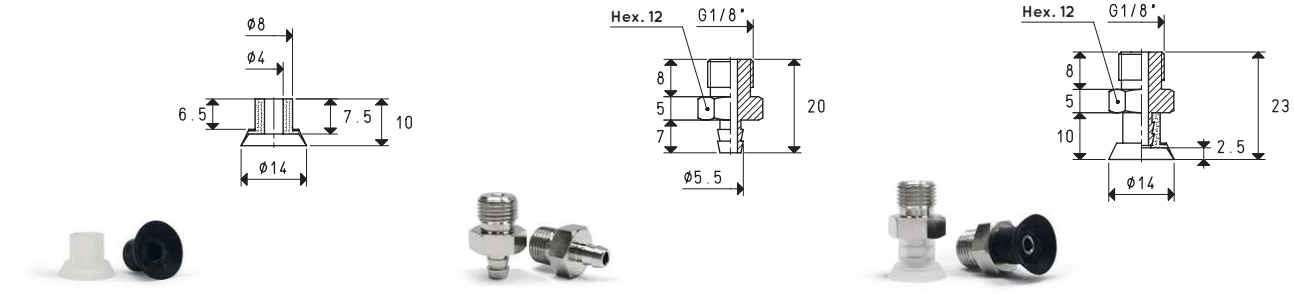
Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 14 09 *	0.38	220	00 08 239	brass	8.0	08 14 09 *	8.3

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



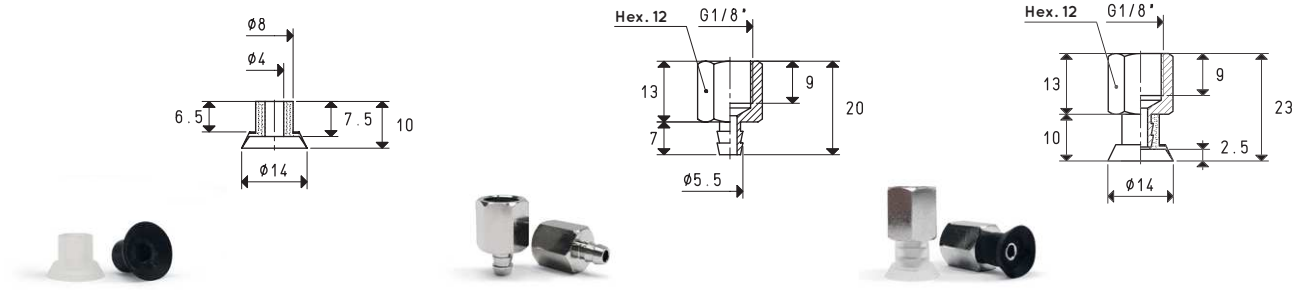
Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 14 09 *	0.38	220	00 08 240	brass	7.0	08 14 09 F *	7.3

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 14 10 *	0.38	301	00 08 03	brass	9.0	08 14 10 *	9.4

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



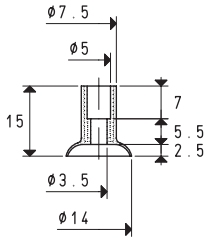
Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 14 10 *	0.38	301	00 08 04	brass	8.1	08 14 10 F *	8.5

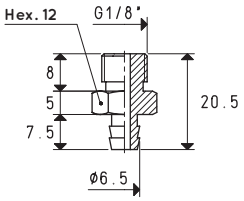
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

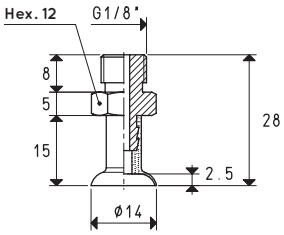
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

SPECIAL VACUUM CUPS WITH SUPPORTS

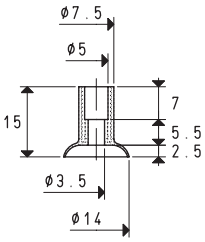


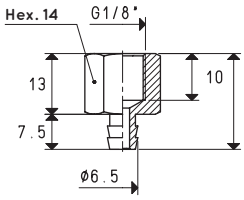


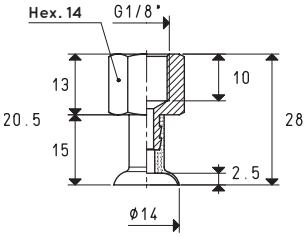


Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 14 15 *	0.38	270	00 08 67	brass	11.4	08 14 15 *	11.9

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

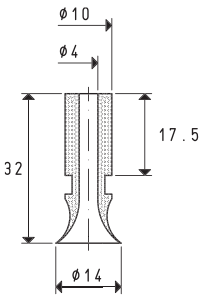


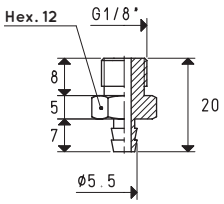


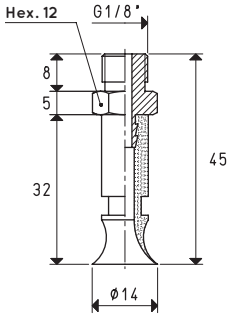


Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 14 15 *	0.38	270	00 08 64	brass	13.9	08 14 15 F *	14.4

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon





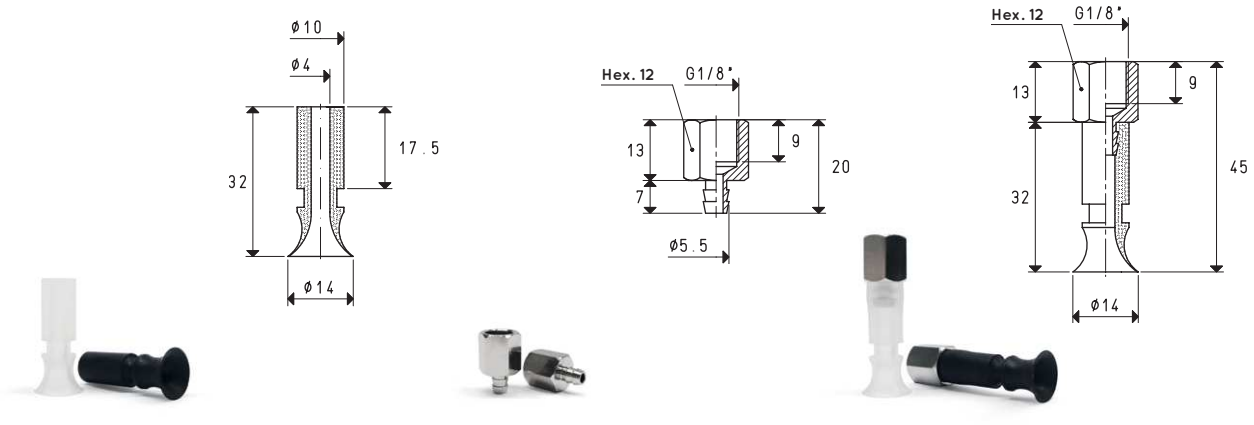


Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 14 32 *	0.38	397	00 08 03	brass	9.0	08 14 32 *	10.9

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

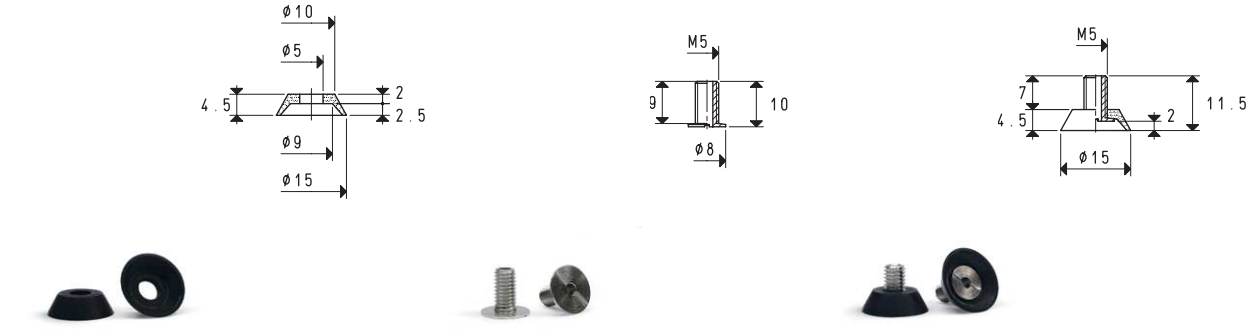
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130



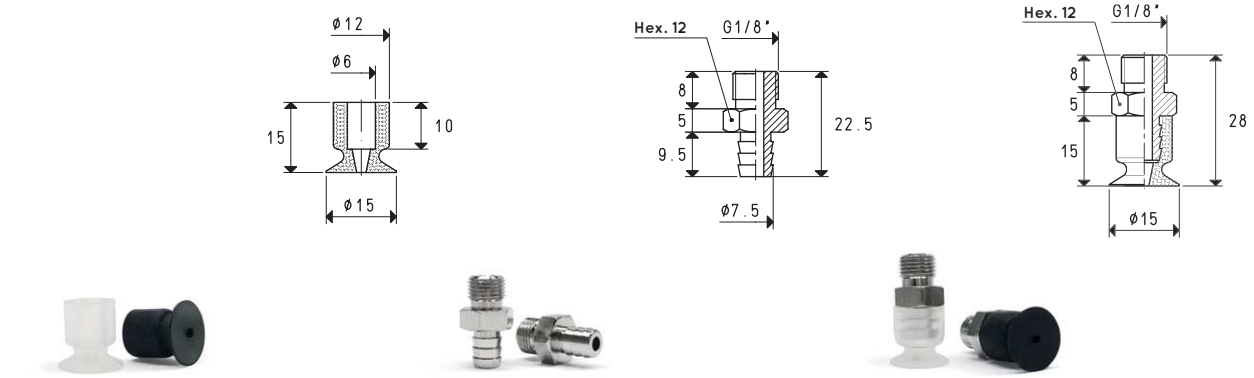
Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 14 32 *	0.38	397	00 08 04	brass	8.1	08 14 32 F *	10.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 15 04 *	0.44	250	00 08 241	brass	1.5	08 15 04 *	1.7

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



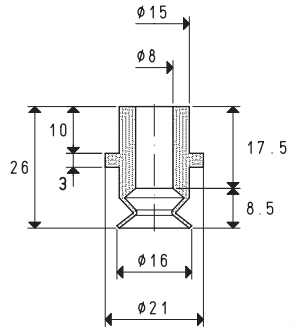
Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 15 15 *	0.03	14	00 08 05	brass	10.4	08 15 15 *	11.7

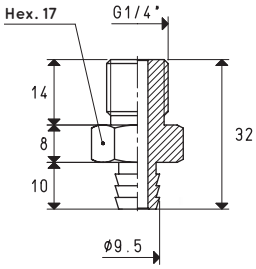
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

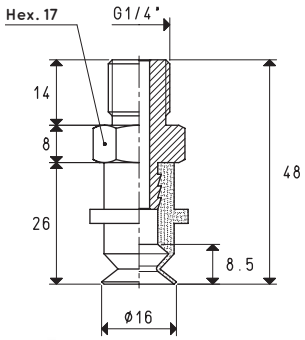
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

SPECIAL VACUUM CUPS WITH SUPPORTS

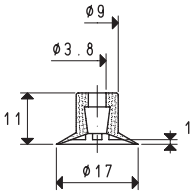


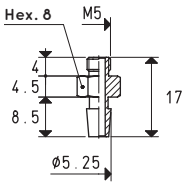


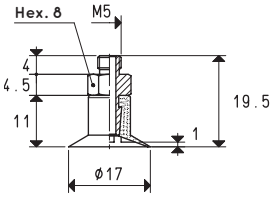


Vacuum cup item	Force Kg	Bellows stroke mm	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 16 26 *	0.50	7	293	00 08 18	aluminium	10.3	08 16 26 *	13.7

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

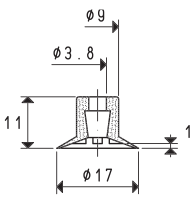


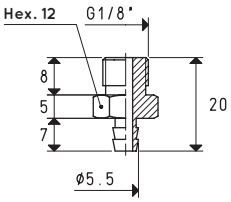


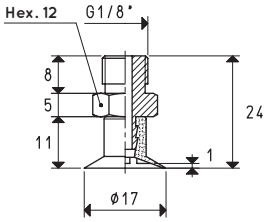


Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 17 12 *	0.60	213	00 08 06	brass	2.6	08 17 12 *	3.3

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon





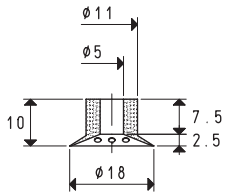


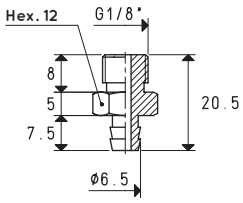
Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 17 12 *	0.60	213	00 08 03	brass	9.0	08 17 13 *	9.7

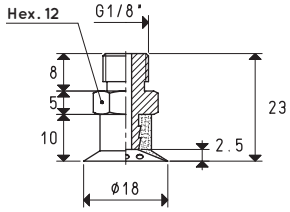
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

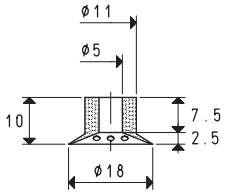


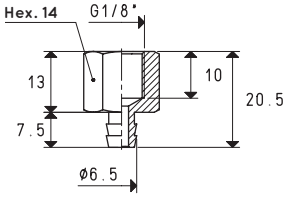


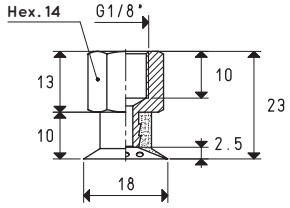


Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 18 12 *	0.63	459	00 08 67	brass	11.4	08 18 12 *	12.2

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

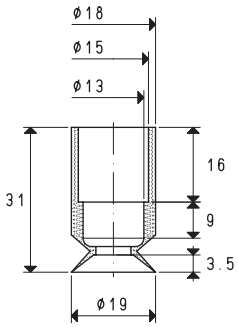


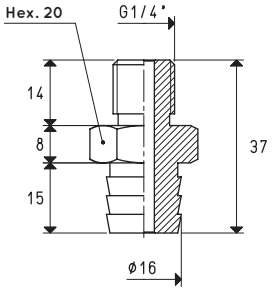


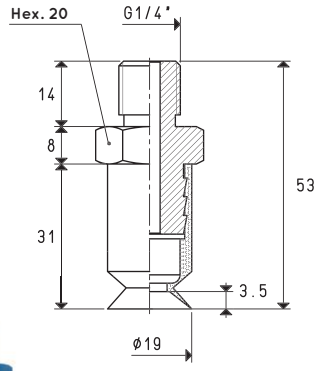


Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 18 12 *	0.63	459	00 08 64	brass	13.9	08 18 12 F *	14.7

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon







Vacuum cup item	Force Kg	Bellows stroke mm	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 19 31 *	0.70	5	532	00 08 09	aluminium	18.1	08 19 31 *	20.9

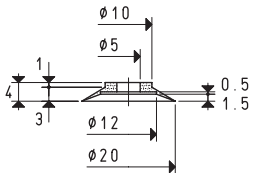
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

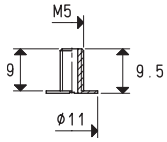
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

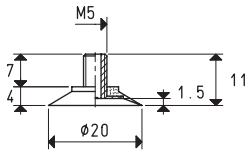
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

SPECIAL VACUUM CUPS WITH SUPPORTS

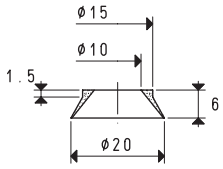


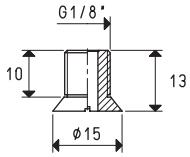


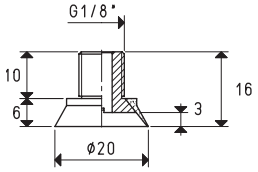


Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 20 04 *	0.78	365	00 08 242	brass	1.8	08 20 04 *	2.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

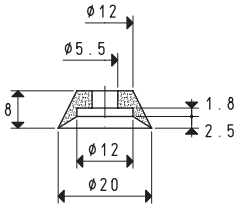


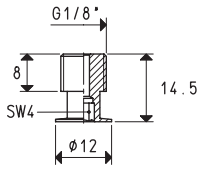


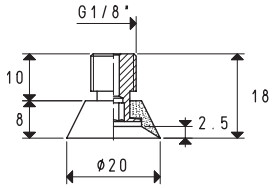


Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 20 06 *	0.78	1068	00 08 243	brass	6.0	08 20 06 *	6.3

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

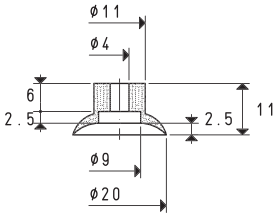


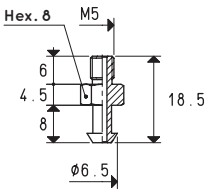


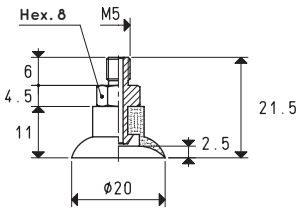


Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 20 08 *	0.78	804	00 08 60	brass	5.6	08 20 08 *	6.4

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon







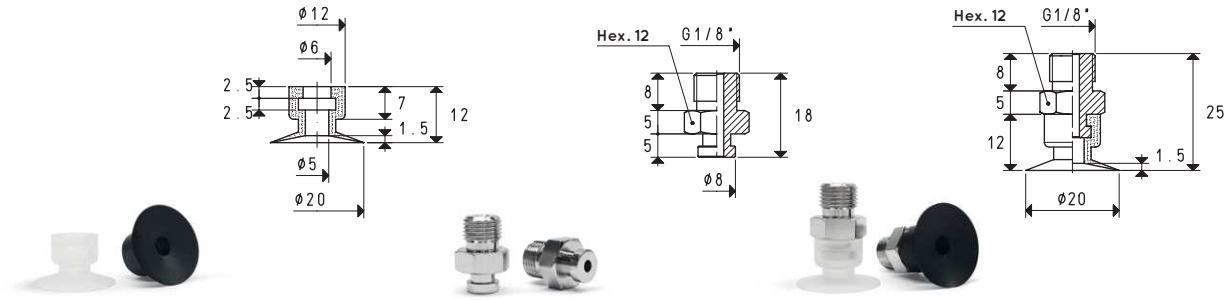
Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 20 11 *	0.78	784	00 08 245	brass	2.7	08 20 11 *	3.7

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

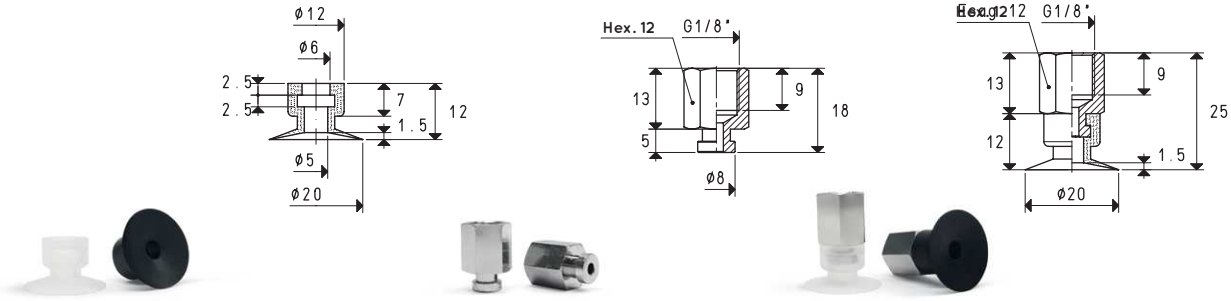
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

SPECIAL VACUUM CUPS WITH SUPPORTS



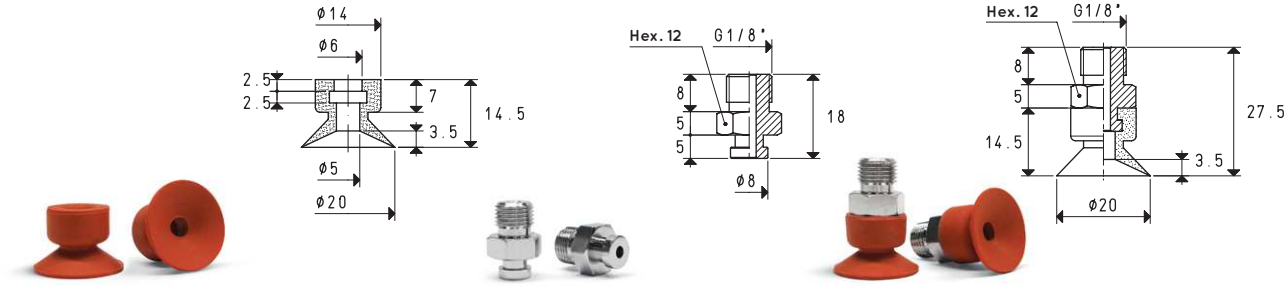
Vacuum cup item	Force Kg	Volume mm³	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 20 12 *	0.78	314	00 08 146	brass	9.8	08 20 12 *	10.7

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



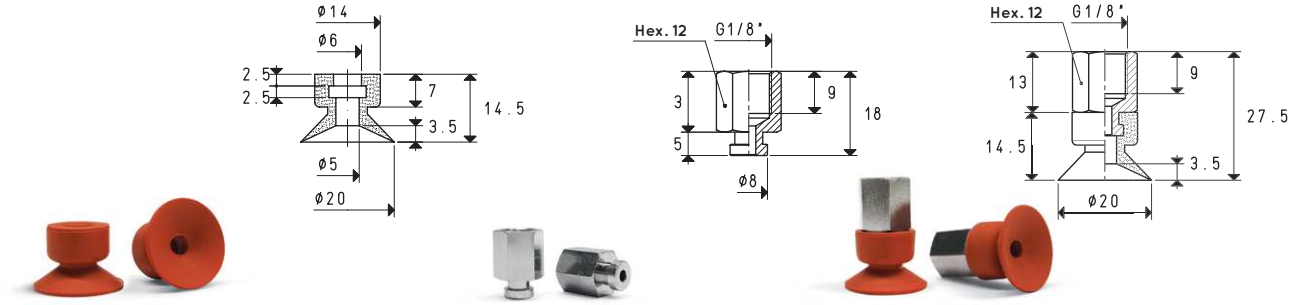
Vacuum cup item	Force Kg	Volume mm³	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 20 12 *	0.78	314	00 08 155	brass	9.1	08 20 12 F *	10.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Vacuum cup item	Force Kg	Volume mm³	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 20 14 N	0.78	589	00 08 146	brass	9.8	08 20 14 *	11.3

Compound: N= orange colour natural rubber



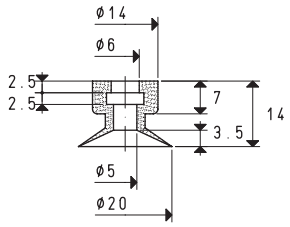
Vacuum cup item	Force Kg	Volume mm³	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 20 14 N	0.78	589	00 08 155	brass	9.1	08 20 14 F *	10.6

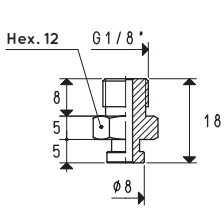
Compound: N= orange colour natural rubber

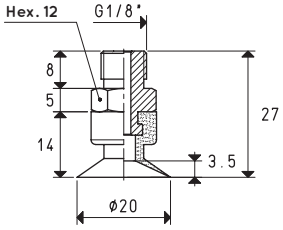
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

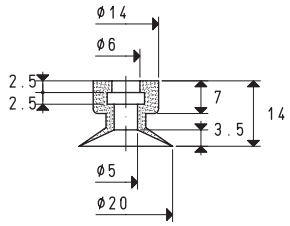


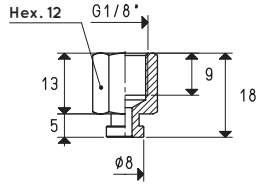


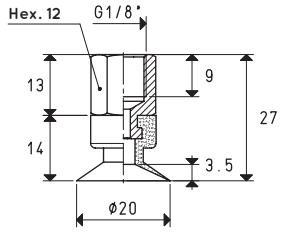


Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 20 15 *	0.78	599	00 08 146	brass	9.8	08 20 15 *	11.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

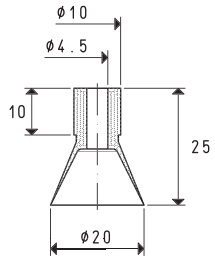


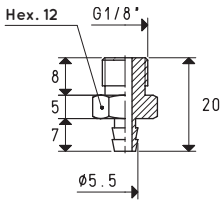


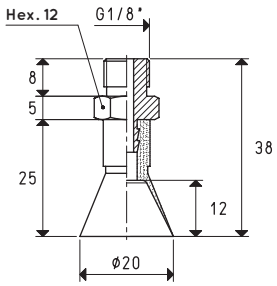


Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 20 15 *	0.78	599	00 08 155	brass	9.1	08 20 15 F *	10.3

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon







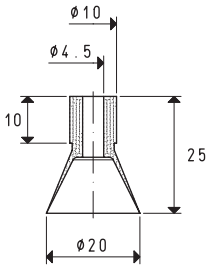
Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 20 24 *	0.78	1.9	00 08 03	brass	9.0	08 20 24 *	10.2

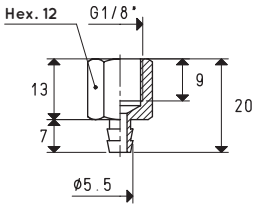
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

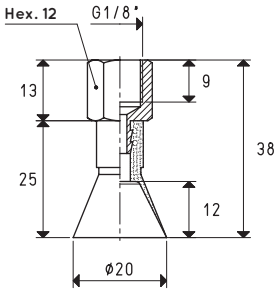
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

SPECIAL VACUUM CUPS WITH SUPPORTS

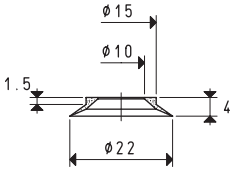


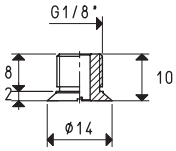


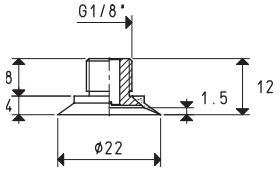


Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 20 24 *	0.78	1.9	00 08 04	brass	8.1	08 20 24 F *	9.3

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

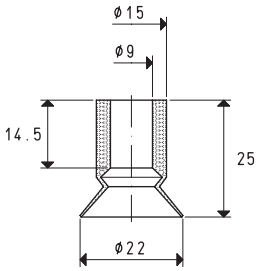


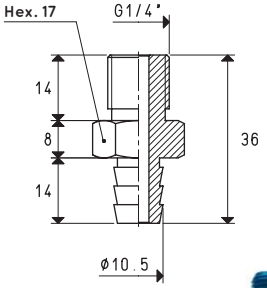


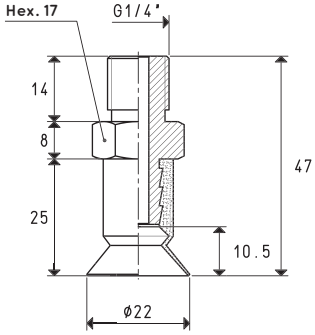


Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 22 06 *	0.95	681	00 08 246	brass	5.0	08 22 06 *	5.3

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon







Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 22 24 *	0.95	7	1.3	00 08 10	aluminium	11.0	08 22 24 *	13.6

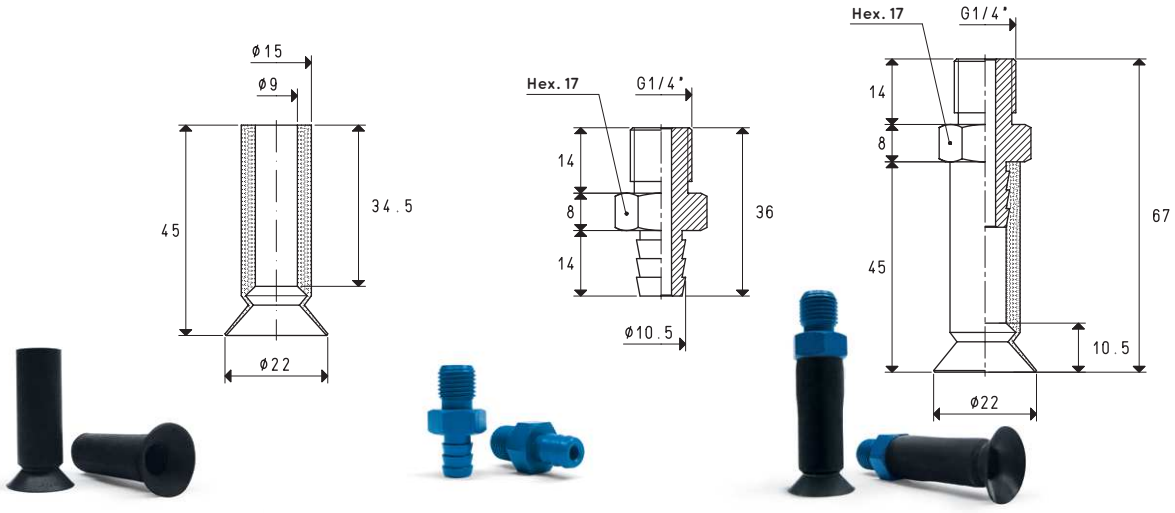
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

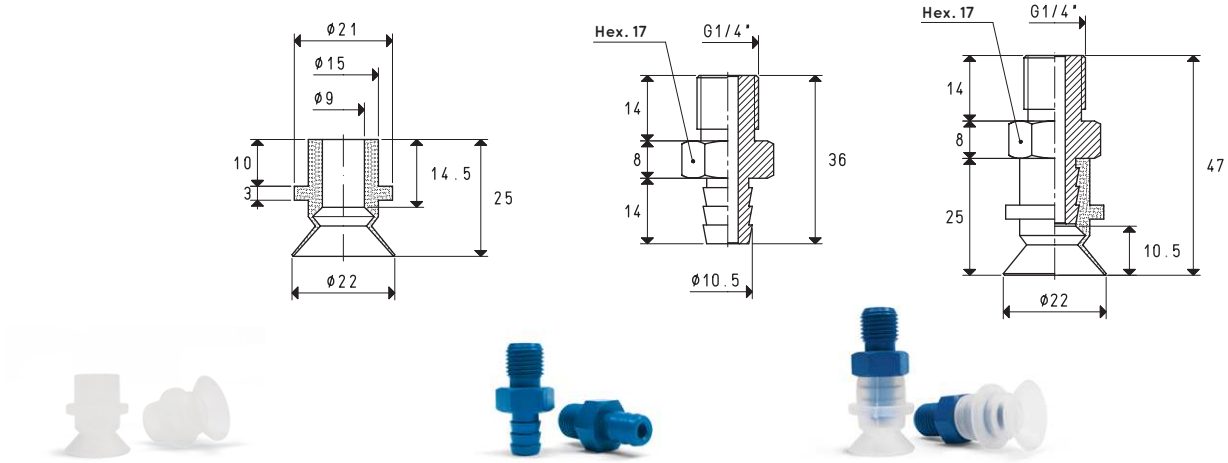
Adapters for GAS - NPT threading available on page 1.130

SPECIAL VACUUM CUPS WITH SUPPORTS



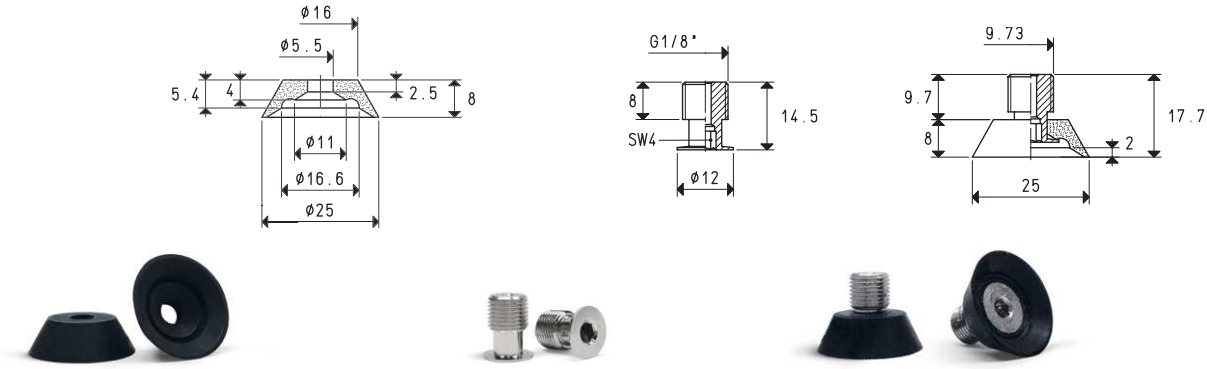
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 22 45 *	0.95	7	2.7	00 08 10	aluminium	11.0	08 22 45 *	16.1

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 22 99 *	0.95	7	1.7	00 08 10	aluminium	11.0	08 22 99 *	13.8

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



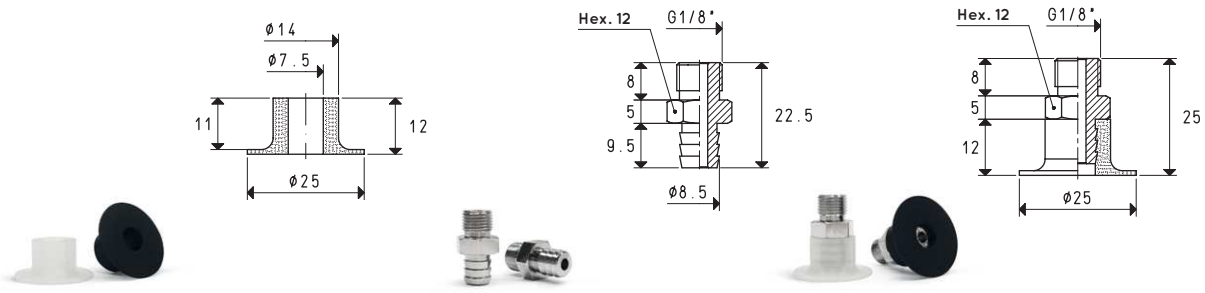
Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 25 08 *	1.23	1.1	00 08 60	brass	5.6	08 25 08 *	7.4

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

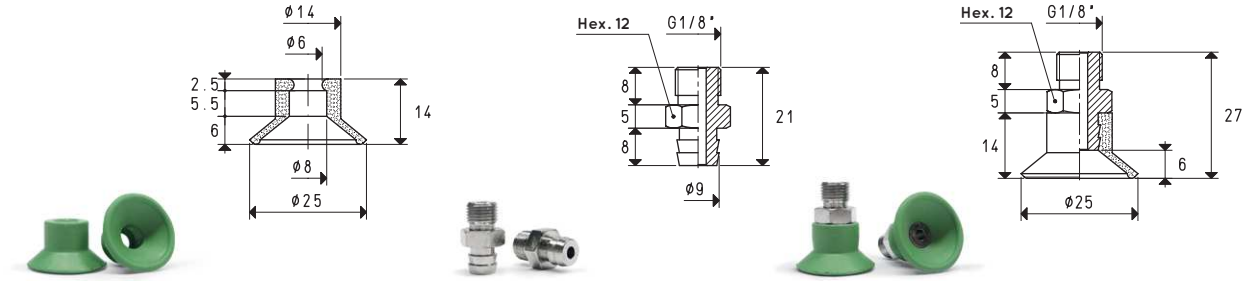
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130



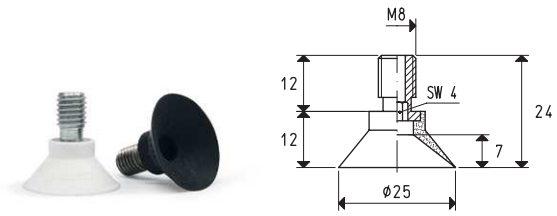
Vacuum cup item	Force Kg	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 25 12 *	0.11	125	00 08 82	brass	11.2	08 25 12 *	12.7

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



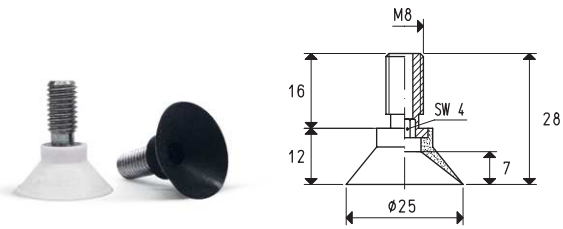
Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 25 14 N	1.23	1.1	00 08 101	brass	10.8	08 25 14 *	12.6

Compound: N= green colour natural rubber



Vacuum cup with vulcanised support Item	Force Kg	Volume cm^3	Support material	Weight g
08 25 22 *	1.23	1.6	steel	5.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

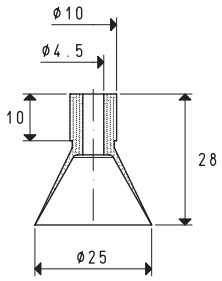


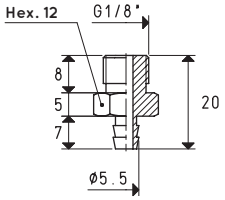
Vacuum cup with vulcanised support Item	Force Kg	Volume cm^3	Support material	Weight g
08 25 27 *	1.23	1.6	steel	5.2

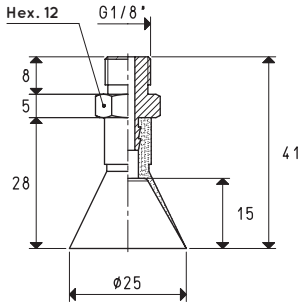
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

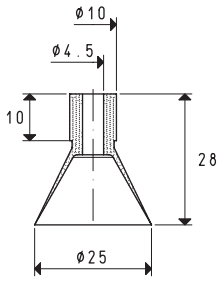


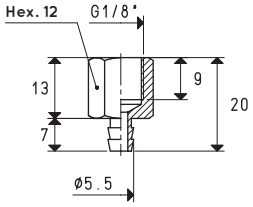


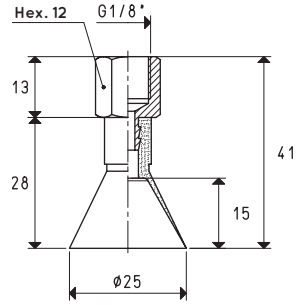


Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 25 28 *	1.23	3.4	00 08 03	brass	9.0	08 25 28 *	10.7

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

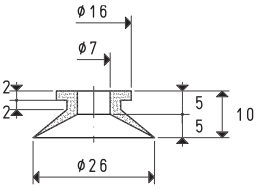


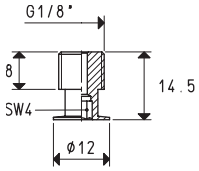


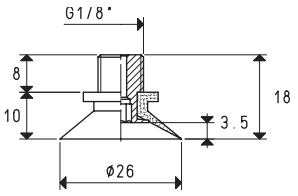


Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 25 28 *	1.23	3.4	00 08 04	brass	8.1	08 25 28 F *	9.8

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon







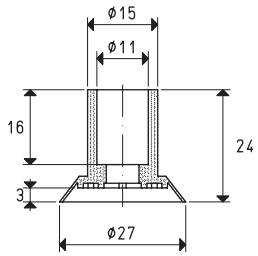
Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 26 10 *	1.33	1.1	00 08 60	brass	5.6	08 26 10 *	6.5

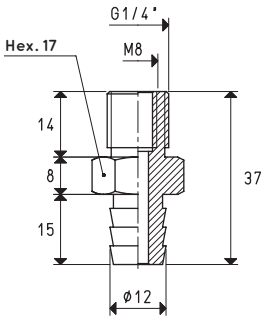
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

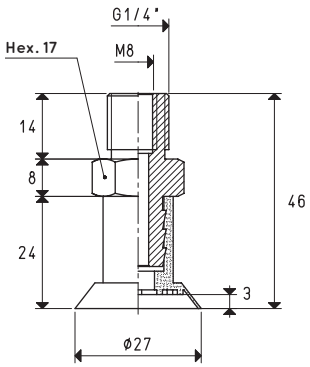
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

SPECIAL VACUUM CUPS WITH SUPPORTS

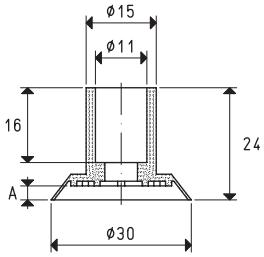


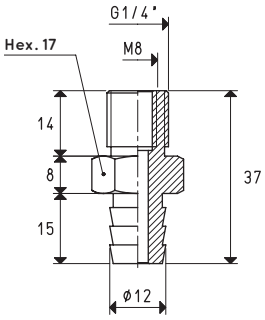


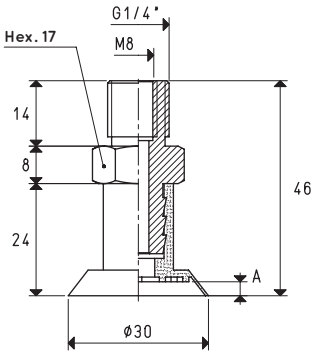


Vacuum cup item	Force Kg	Volume cm³	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 27 24 *	1.43	2.2	00 08 15	aluminium	12.3	08 27 24 *	15.1

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

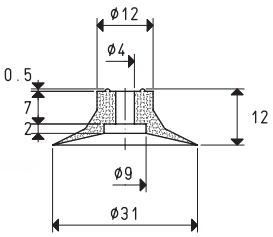


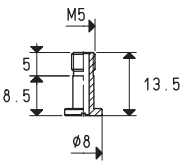


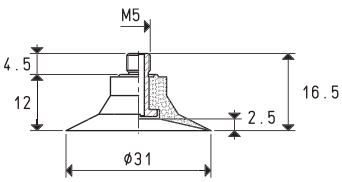


Vacuum cup item	Force Kg	A	Volume cm³	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 30 24 *	1.76	3.0	2.2	00 08 15	aluminium	12.3	08 30 24 *	15.2
01 30 24 L *	1.76	1.5	1.8	00 08 15	aluminium	12.3	08 30 24 L *	15.5

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon







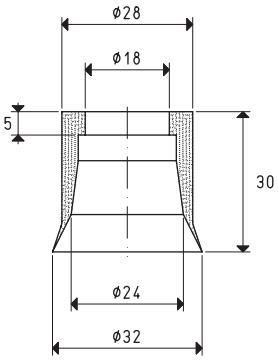
Vacuum cup item	Force Kg	Volume mm³	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 31 12 *	1.89	991	00 08 249	brass	1.8	08 31 12 *	3.4

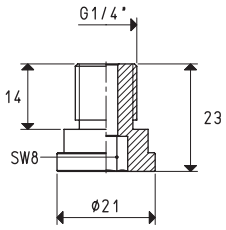
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

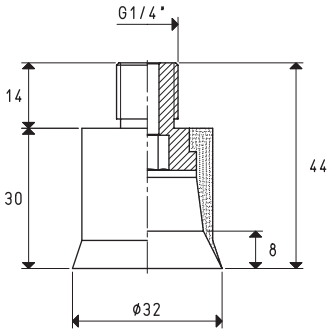
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

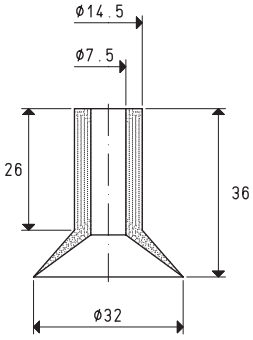


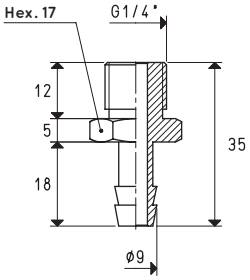


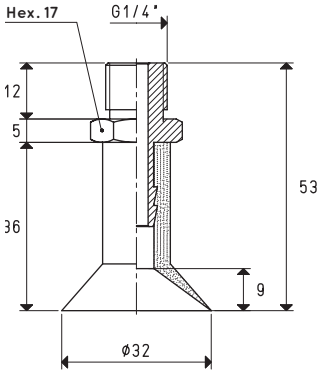


Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 32 30 *	2.00	11.4	00 08 250	aluminium	8.6	08 32 30 *	14.5

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon





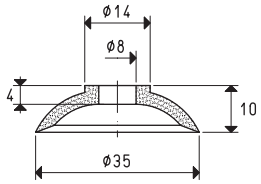


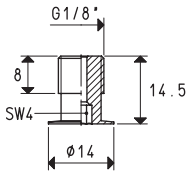
Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 32 36 *	2.00	3.4	00 08 19	brass	22.7	08 32 36 *	27.8

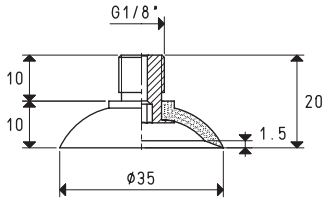
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

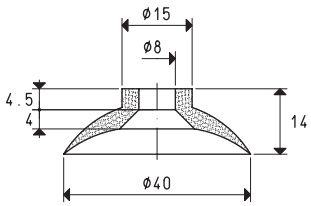


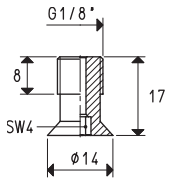


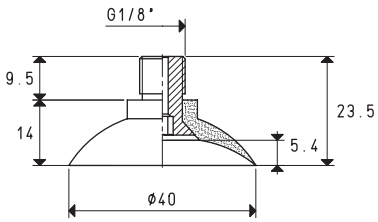


Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 35 12 *	2.40	2.9	00 08 244	brass	5.9	08 35 12 *	8.8

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

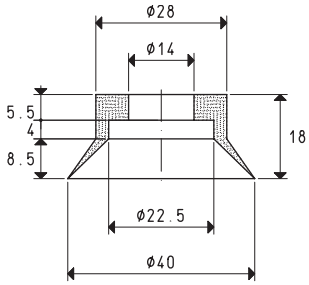


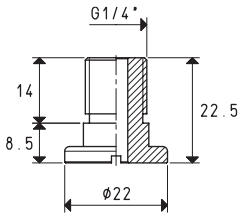


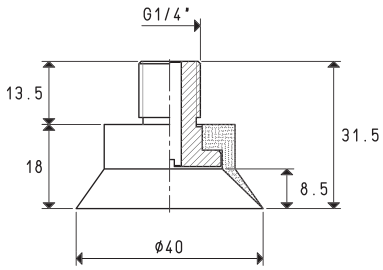


Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 40 14 *	3.14	4.8	00 08 247	brass	8.4	08 40 14 *	12.7

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon





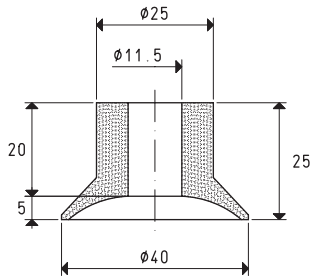


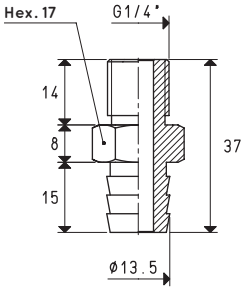
Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 40 18 *	3.14	8.2	00 08 81	aluminium	8.8	08 40 18 *	15.0

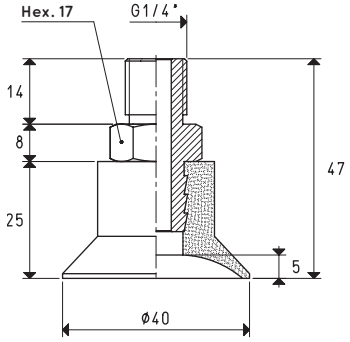
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

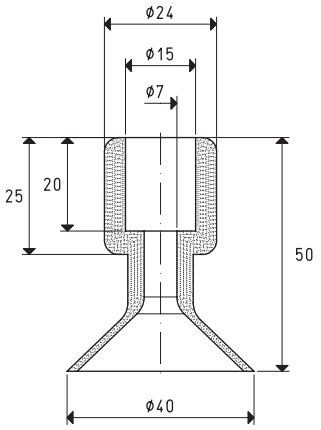


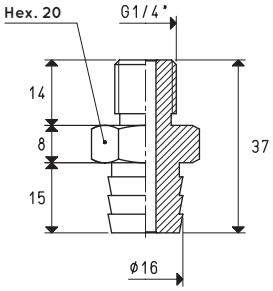


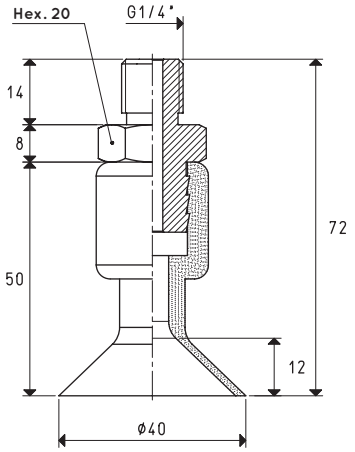


Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 40 25 *	3.14	3.4	00 08 127	aluminium	11.5	08 40 24 *	21.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon; NG= yellow rubber







Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 40 70 *	3.14	6.3	00 08 09	aluminium	18.1	08 40 70 *	32.0

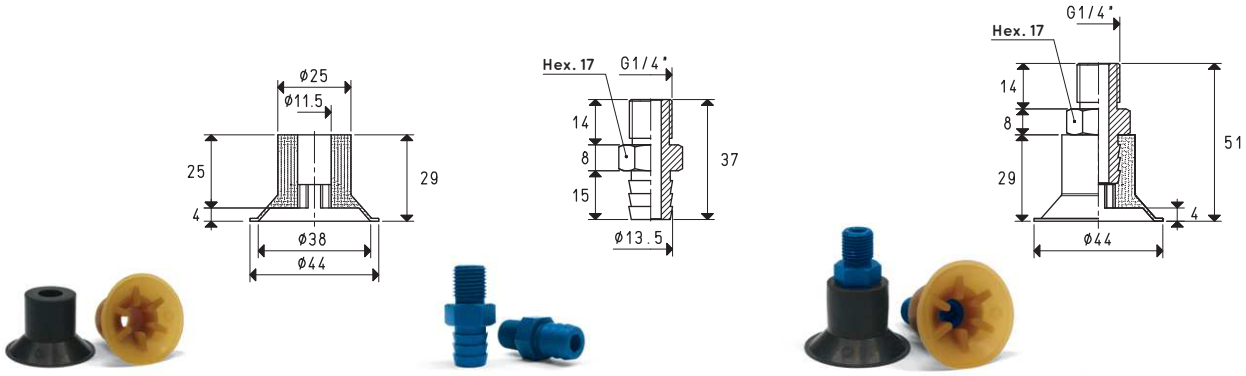
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

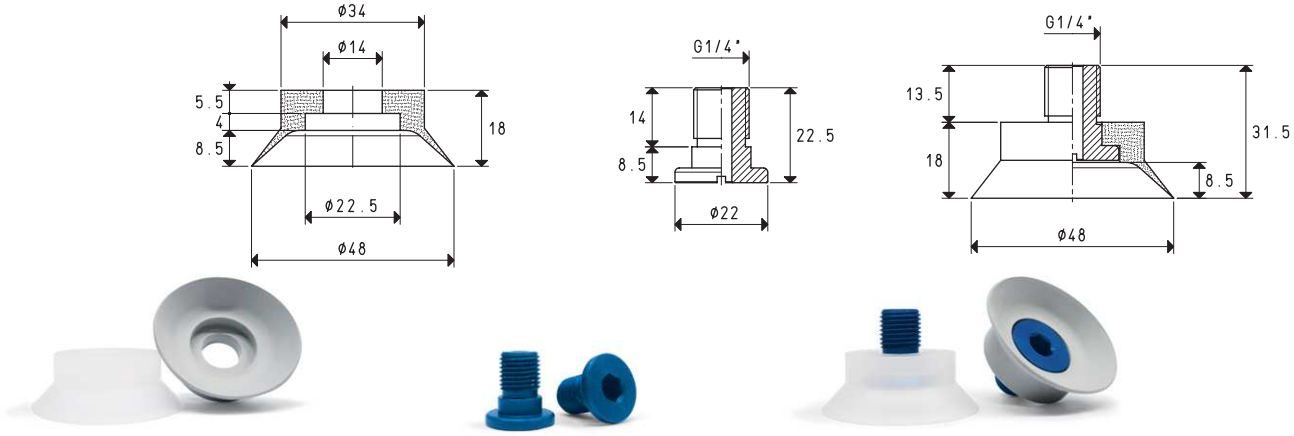
Adapters for GAS - NPT threading available on page 1.130

SPECIAL VACUUM CUPS WITH SUPPORTS



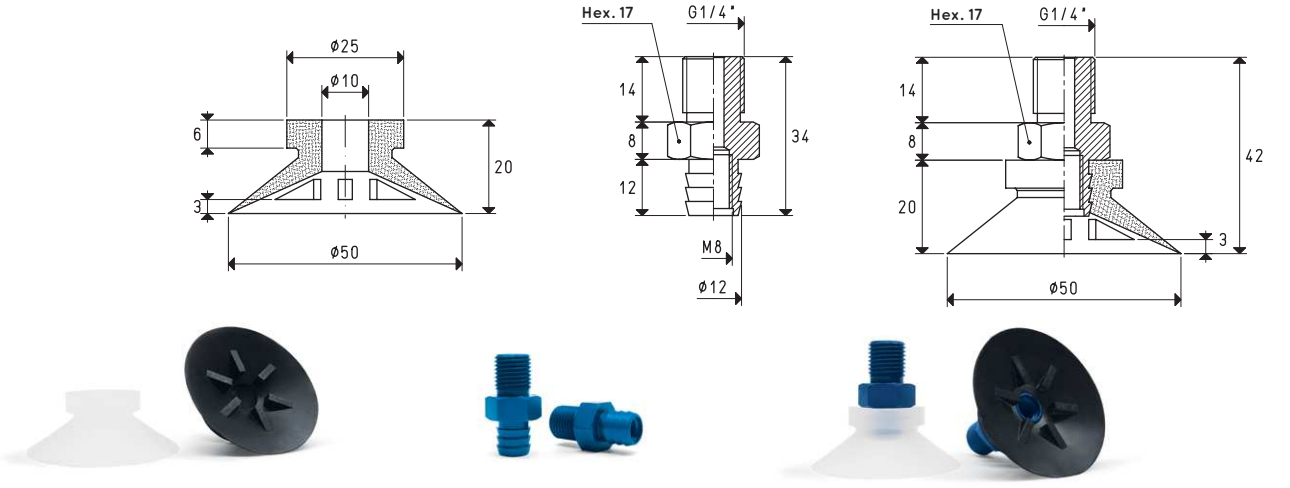
Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 44 30 N	3.80	6.7	00 08 127	aluminium	11.5	08 44 30 *	22.8
01 44 30 NG	3.80	6.7	00 08 127	aluminium	11.5	08 44 30 *	22.8

Compounds: N = natural para rubber; NG= yellow rubber



Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 48 18 *	4.52	11.6	00 08 81	aluminium	8.8	08 48 18 *	17.5

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



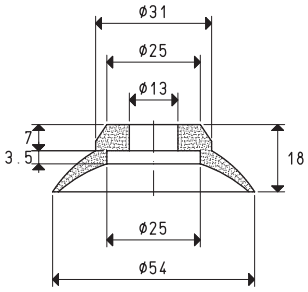
Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 50 20 *	4.90	7.0	00 08 24	aluminium	10.3	08 50 20 *	20.3

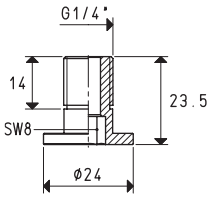
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

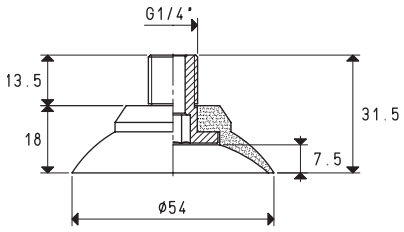
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

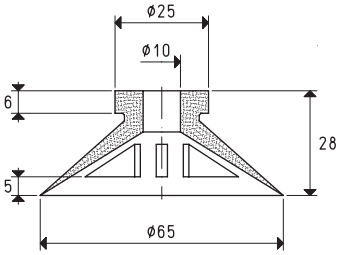


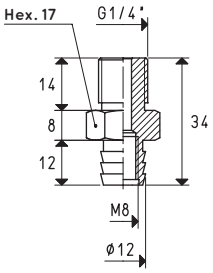


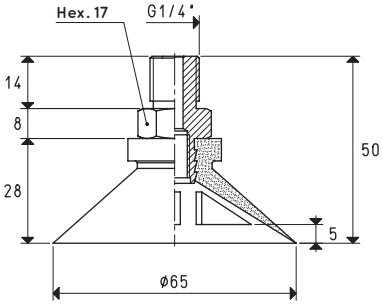


Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 54 18 *	5.72	11.4	00 08 248	aluminium	5.8	08 54 18 *	16.4

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon







Vacuum cup item	Force Kg	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 65 28 *	8.20	21.0	00 08 24	aluminium	10.3	08 65 28 *	26.0

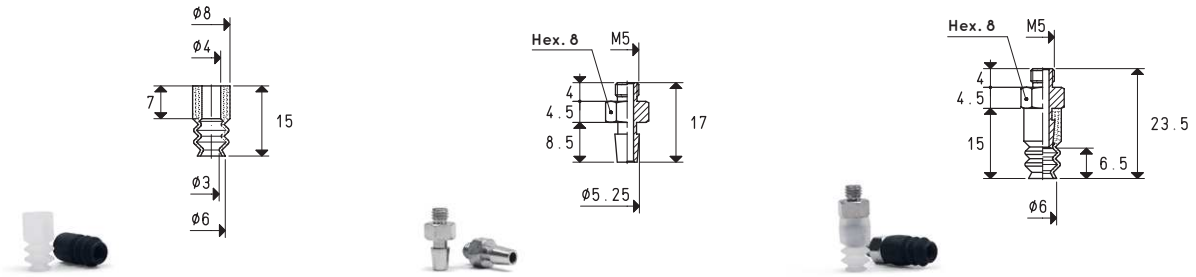
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

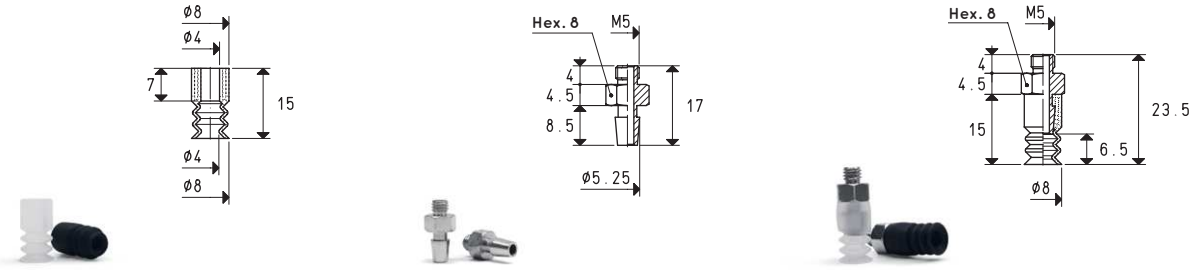
SPECIAL BELLOWS CUPS WITH SUPPORTS

These bellows cups crumple up when in contact with surface to be gripped and in presence of a vacuum, thus creating a quick lifting movement independently from the automation. This rapid movement prevents the load beneath from remaining stuck to the lifted one. Thanks to their great flexibility, they can also be used to compensate flatness errors or for gripping on inclined surfaces.
The cups shown on this page are the ideal solution for our customers; in fact, they have been designed for handling biscuits, stickers, crackers, sheets, labels, small metal and plastic objects, cardboard, paper and plastic bags,delicate products, chocolate and regular eggs, laminated plastic, etc.
Their nickel-plated brass or anodised aluminium supports are provided with a threaded male or female pin to enable suction and to fasten them to the automation.
These cups can be manually assembled onto their supports without any adhesives, simply by pressing them in. They are provided in standard compounds and, upon request, can be provided in minimum quantities and in other special compounds, listed on pg. 31, to be defined in the order.



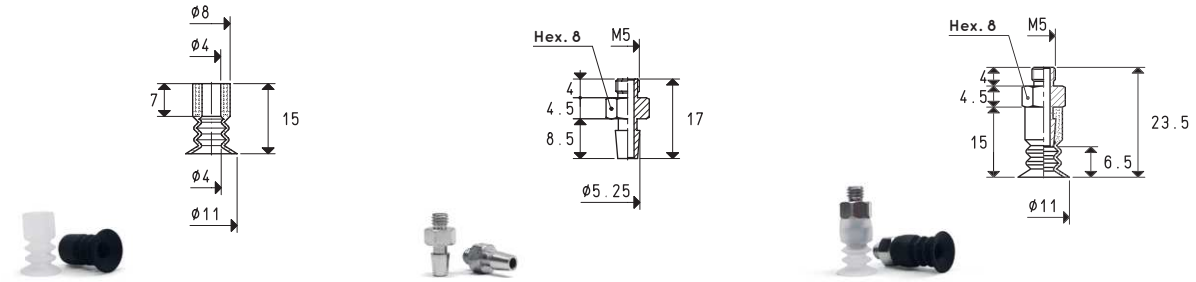
Vacuum cup item	Force Kg	Bellows stroke mm	Volume mm³	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 06 50 *	0.07	5	135	00 08 06	AVP	2.6	08 06 50 *	3.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Vacuum cup item	Force Kg	Bellows stroke mm	Volume mm³	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 08 50 *	0.12	5	155	00 08 06	AVP	2.6	08 08 50 *	3.1

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



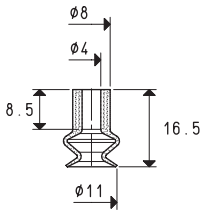
Vacuum cup item	Force Kg	Bellows stroke mm	Volume mm³	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 11 50 *	0.23	6	178	00 08 06	AVP	2.6	08 11 50 *	3.2

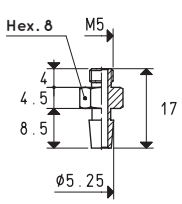
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

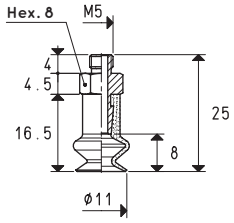
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

SPECIAL BELLOWS CUPS WITH SUPPORTS

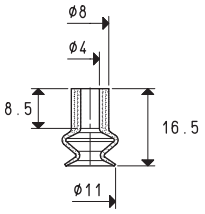


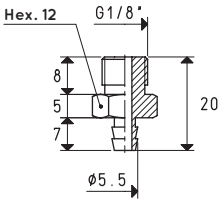


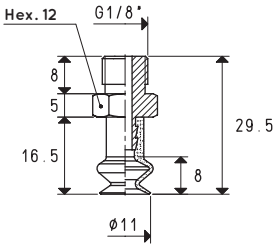


Vacuum cup item	Force Kg	Bellows stroke mm	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 11 16 *	0.23	6	319	00 08 06	AVP	2.6	08 11 16 *	3.3

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

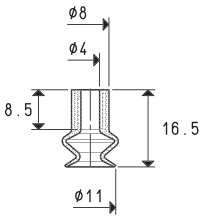


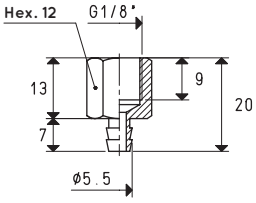


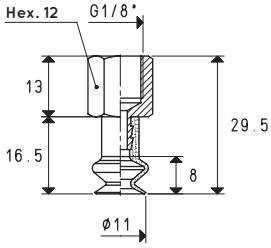


Vacuum cup item	Force Kg	Bellows stroke mm	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 11 16 *	0.23	6	319	00 08 03	brass	9.0	08 11 17 *	9.7

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon







Vacuum cup item	Force Kg	Bellows stroke mm	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 11 16 *	0.23	6	319	00 08 04	brass	8.1	08 11 17 F *	8.8

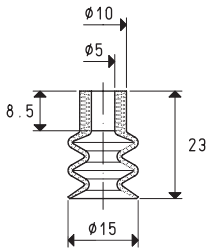
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

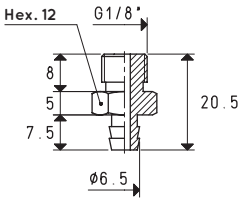
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

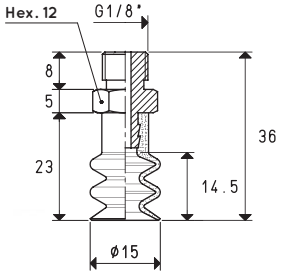
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

SPECIAL BELLOWS CUPS WITH SUPPORTS

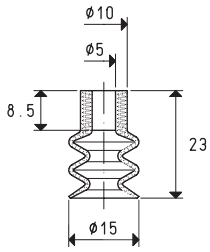


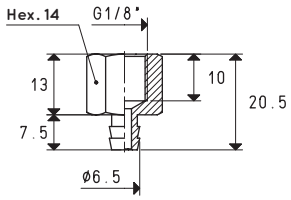


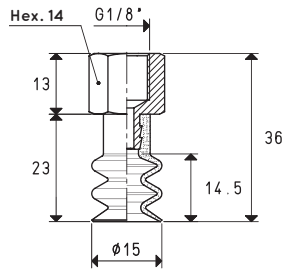


Vacuum cup item	Force Kg	Bellows stroke mm	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 15 23 *	0.44	10	952	00 08 67	brass	11.4	08 15 23 *	12.7

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

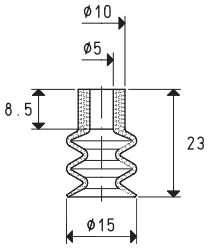


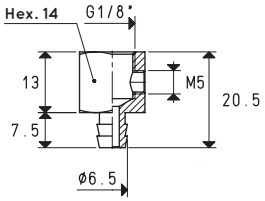


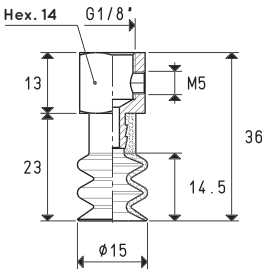


Vacuum cup item	Force Kg	Bellows stroke mm	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 15 23 *	0.44	10	952	00 08 64	brass	13.9	08 15 23 F *	15.2

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon







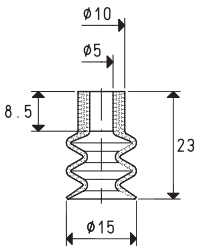
Vacuum cup item	Force Kg	Bellows stroke mm	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 15 23 *	0.44	10	952	00 08 65	brass	13.7	08 15 24 F *	15.0

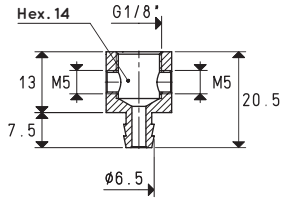
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

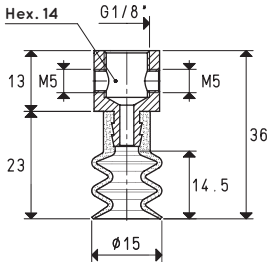
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

SPECIAL BELLOWS CUPS WITH SUPPORTS

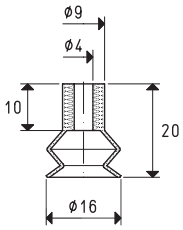


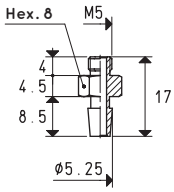


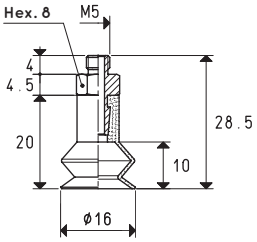


Vacuum cup item	Force Kg	Bellows stroke mm	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 15 23 *	0.44	10	952	00 08 66	brass	13.5	08 15 26 F *	14.8

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

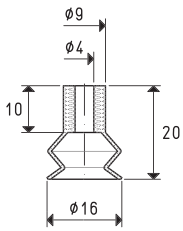


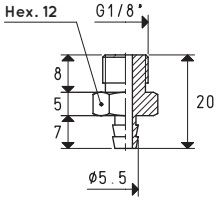


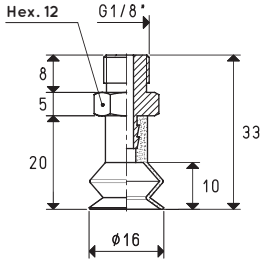


Vacuum cup item	Force Kg	Bellows stroke mm	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 16 20 *	0.50	7	970	00 08 06	AVP	2.6	08 16 20 *	3.6

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon







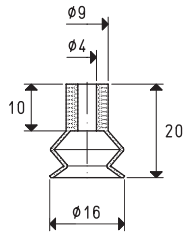
Vacuum cup item	Force Kg	Bellows stroke mm	Volume mm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 16 20 *	0.50	7	970	00 08 03	brass	9.0	08 16 21 *	10.0

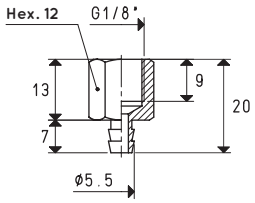
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

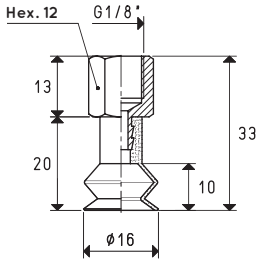
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

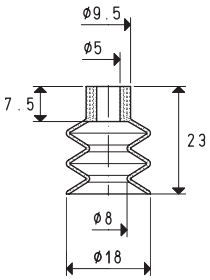


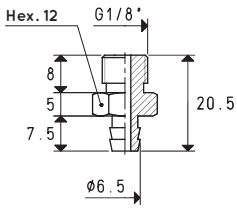


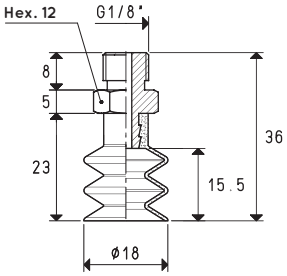


Vacuum cup item	Force Kg	Bellows stroke mm	Volume mm^3	support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 16 20 *	0.50	8	970	00 08 04	brass	8.1	08 16 21 F *	9.1

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

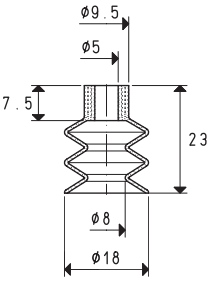


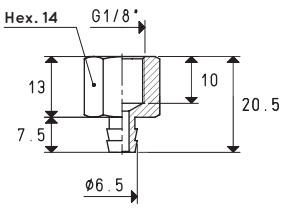


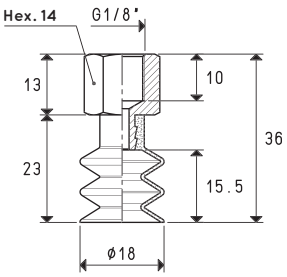


Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 18 23 *	0.63	11	1.8	00 08 67	brass	11.4	08 18 23 *	12.9

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon







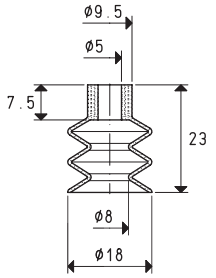
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 18 23 *	0.63	11	1.8	00 08 64	brass	13.9	08 18 23 F *	15.4

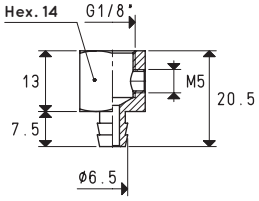
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

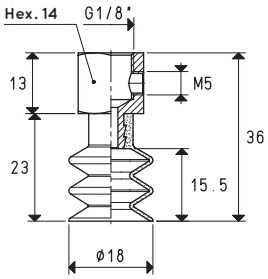
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

SPECIAL BELLOWS CUPS WITH SUPPORTS

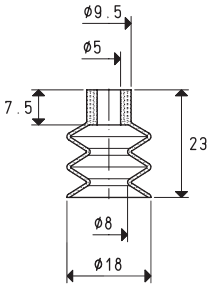


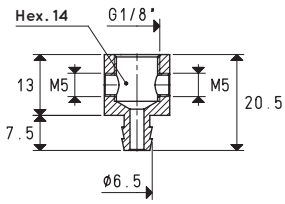


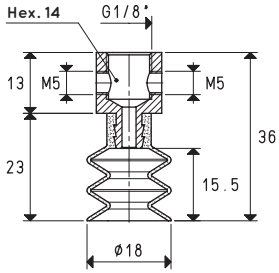


Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 18 23 *	0.63	11	1.8	00 08 65	brass	13.7	08 18 24 F *	15.2

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

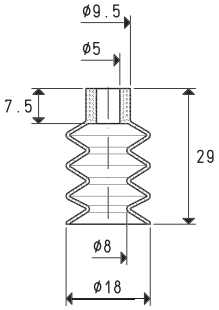


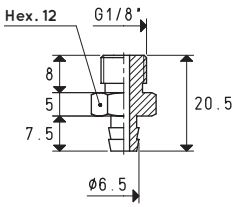


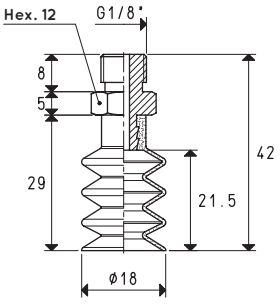


Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 18 23 *	0.63	11	1.8	00 08 66	brass	13.5	08 18 26 F *	15.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon







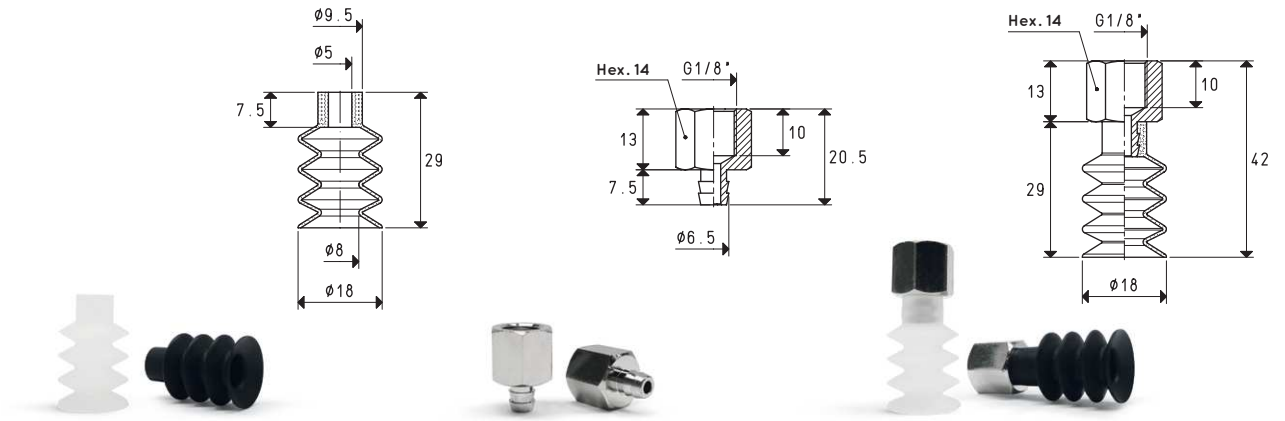
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 18 29 *	0.63	15	2.5	00 08 67	brass	11.4	08 18 29 *	13.2

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

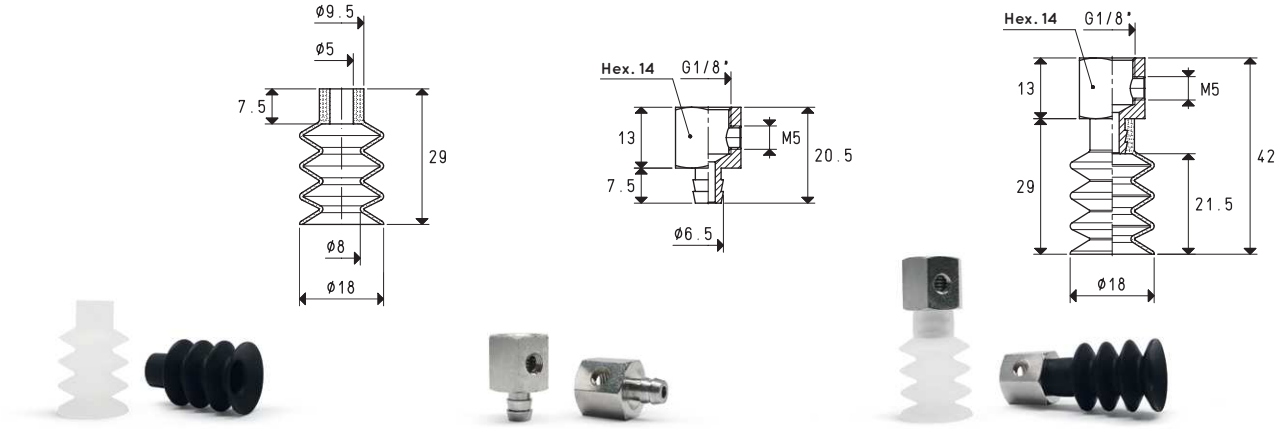
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

SPECIAL BELLOWS CUPS WITH SUPPORTS



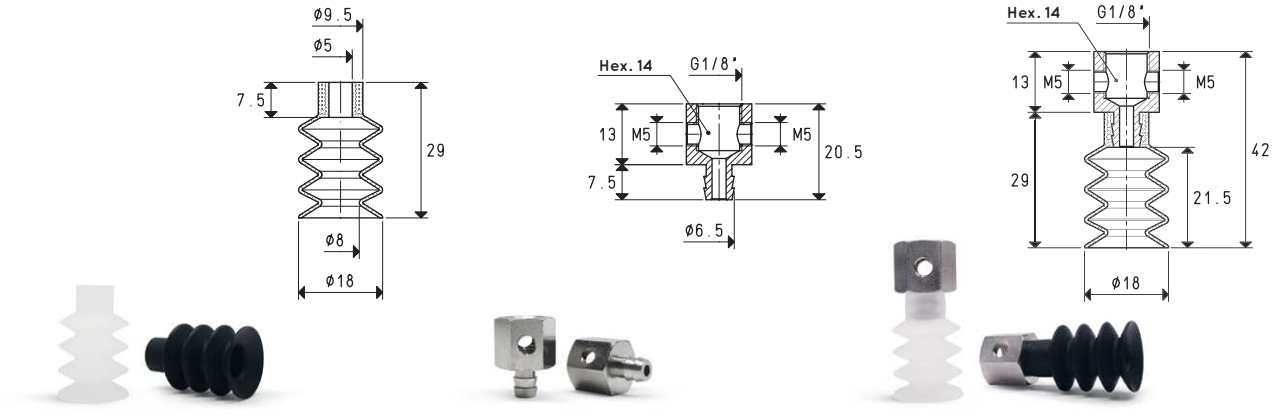
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 18 29 *	0.63	15	2.5	00 08 64	brass	13.9	08 18 29 F *	15.7

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 18 29 *	0.63	15	2.5	00 08 65	brass	13.7	08 18 30 F *	15.5

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



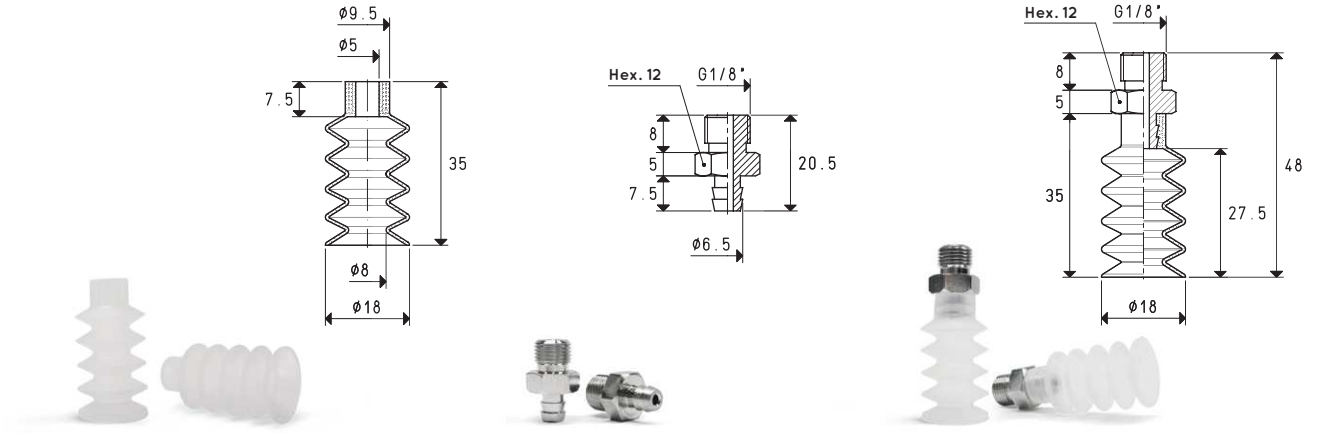
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 18 29 *	0.63	15	2.5	00 08 66	brass	13.5	08 18 31 F *	15.3

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

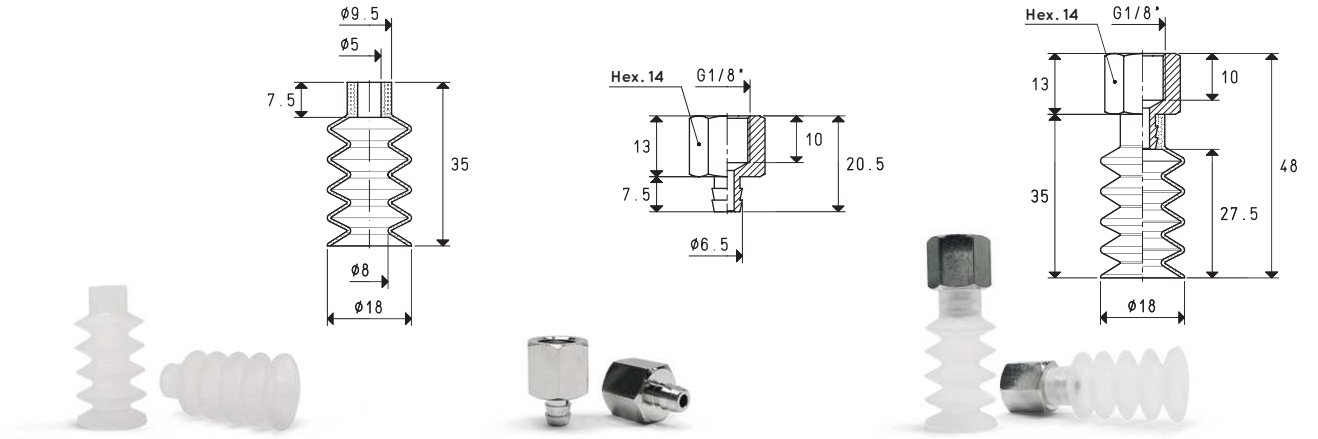
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

SPECIAL BELLOWS CUPS WITH SUPPORTS



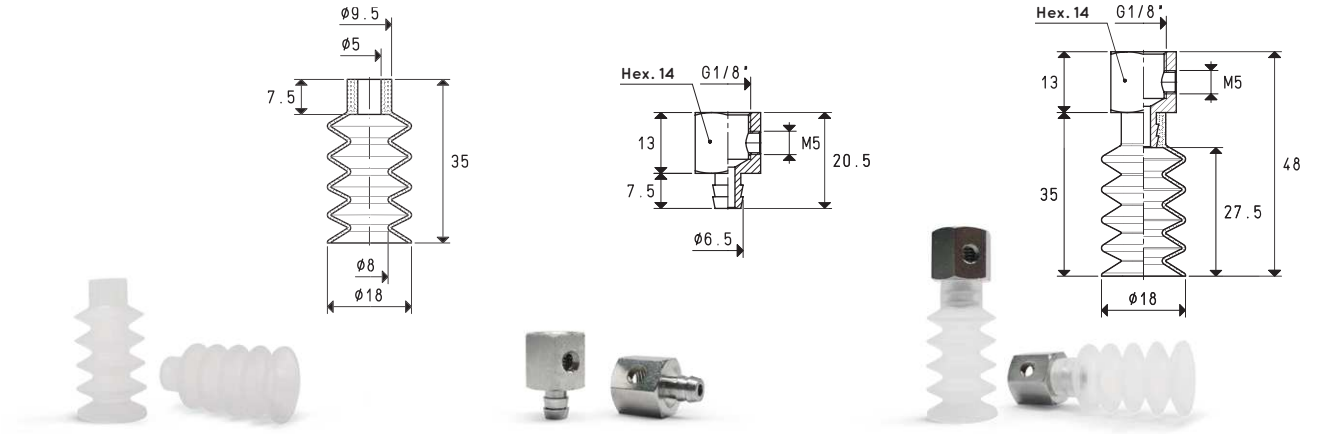
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 18 35 *	0.63	18	3.1	00 08 67	brass	11.4	08 18 35 *	13.7

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 18 35 *	0.63	18	3.1	00 08 64	brass	13.9	08 18 35 F *	16.2

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 18 35 *	0.63	18	3.1	00 08 65	brass	13.7	08 18 36 F *	16.0

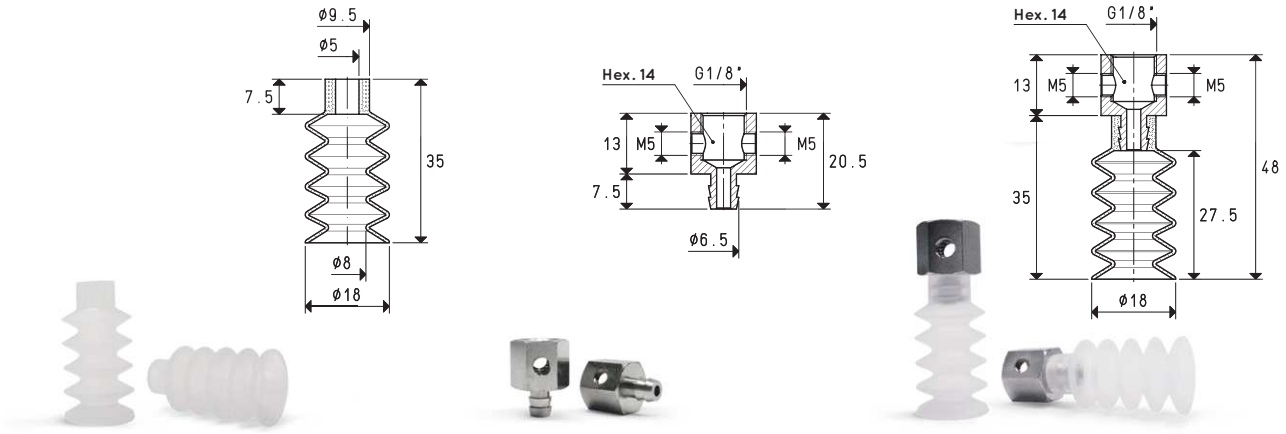
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

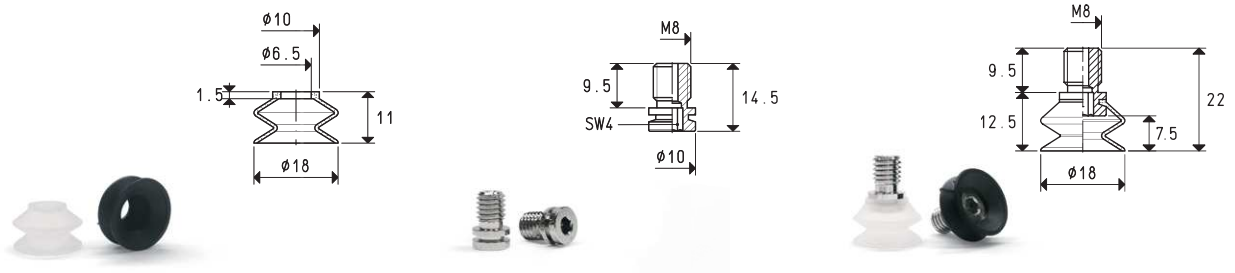
Adapters for GAS - NPT threading available on page 1.130

SPECIAL BELLOWS CUPS WITH SUPPORTS



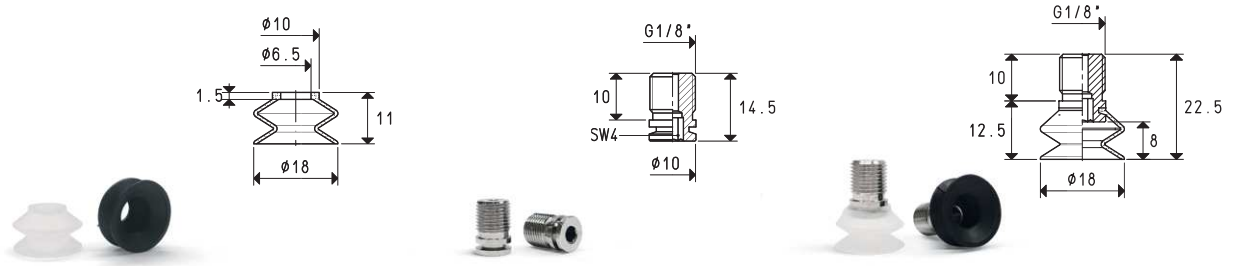
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 18 35 *	0.63	18	3.1	00 08 66	brass	13.5	08 18 37 F *	15.8

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



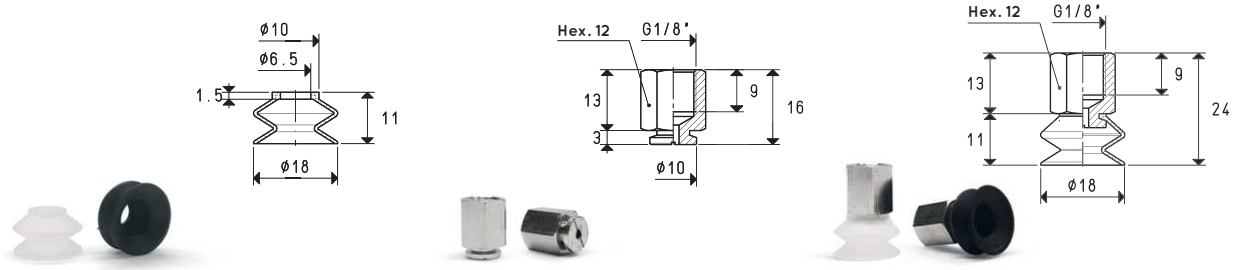
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 18 50 *	0.63	5.5	1.1	00 08 07	brass	4.8	08 18 50 *	5.5

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 18 50 *	0.63	5.5	1.1	00 08 61	brass	6.5	08 18 51 *	7.2

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

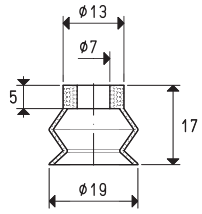


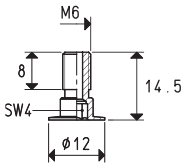
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 18 50 *	0.63	5.5	1.1	00 08 62	brass	9.4	08 18 52 *	10.1

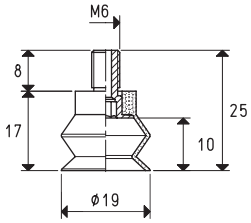
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

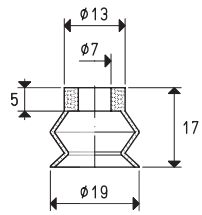


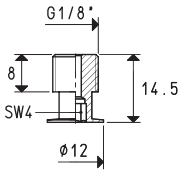


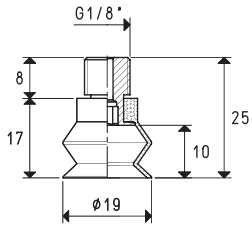


Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 19 17 *	0.70	8	1.9	00 08 08	brass	2.7	08 19 17 *	4.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

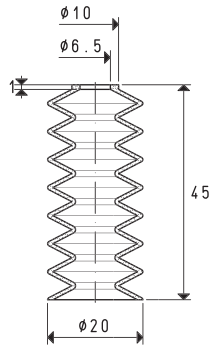


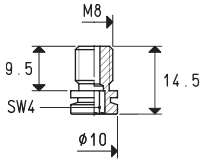


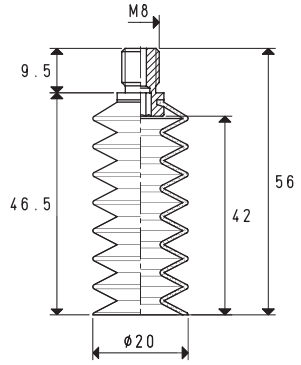


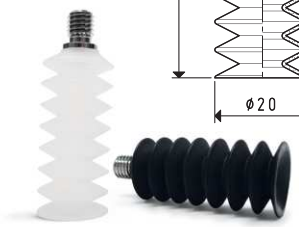
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 19 17 *	0.70	8	1.9	00 08 60	brass	5.6	08 19 18*	6.9

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon







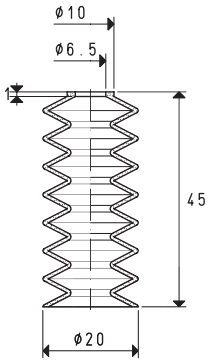


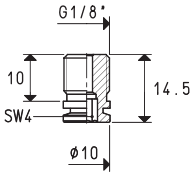
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 20 60 *	0.78	28	5.4	00 08 07	brass	4.8	08 20 60 *	9.0

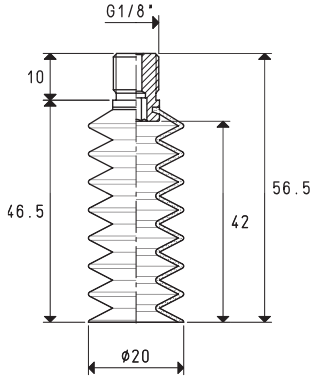
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

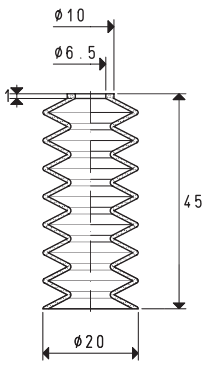


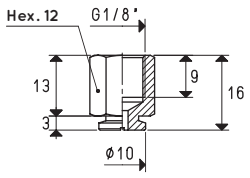


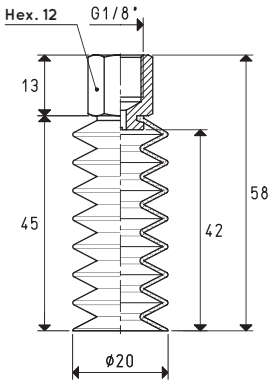


Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 20 60 *	0.78	28	5.4	00 08 61	brass	6.5	08 20 61 *	10.7

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon







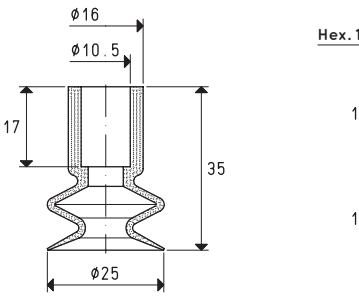
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 20 60 *	0.78	28	5.4	00 08 62	brass	4.4	08 20 62 *	8.6

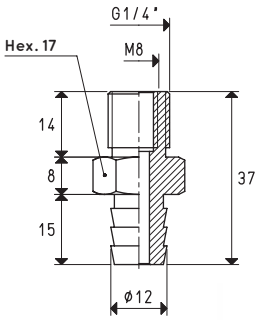
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

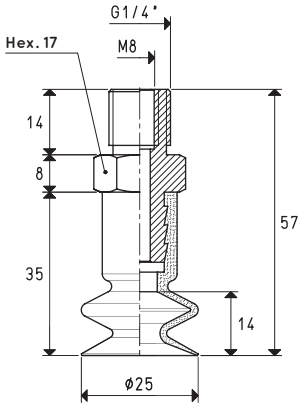
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

SPECIAL BELLOWS CUPS WITH SUPPORTS

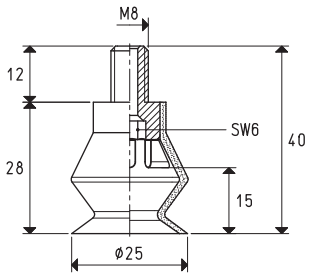






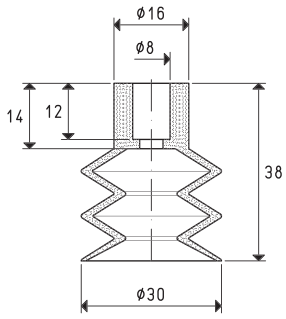
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 25 35 *	1.23	10	2.5	00 08 15	aluminium	12.3	08 25 35 *	17.3

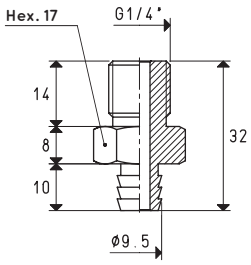
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

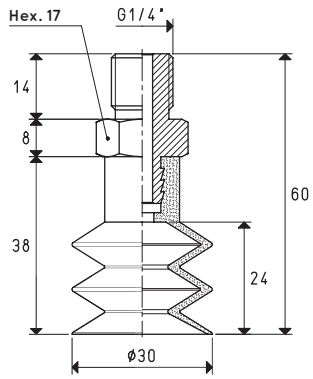


Vacuum cup with vulcanised support Item	Force Kg	Bellows stroke mm	Volume cm^3	Support material	Weight g
08 25 40 *	1.23	9	4.1	steel	13.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon





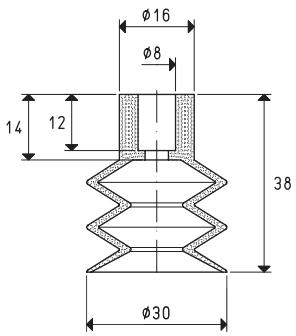


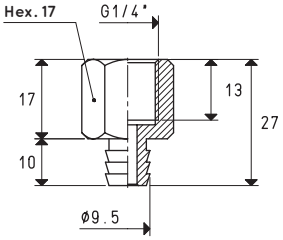
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 30 50 *	1.76	14	6.5	00 08 18	aluminium	10.3	08 30 50 *	17.9

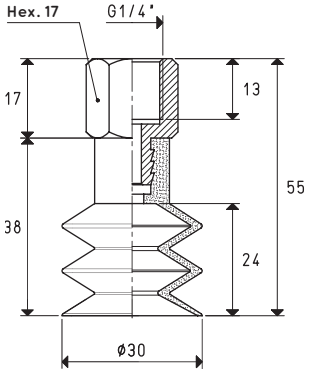
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

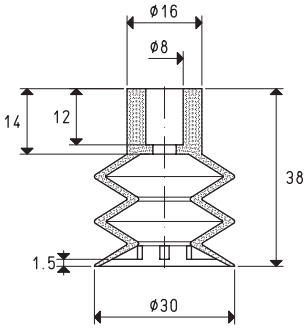


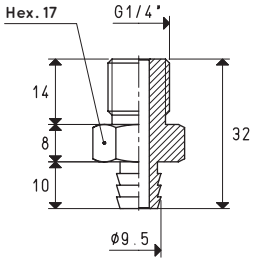


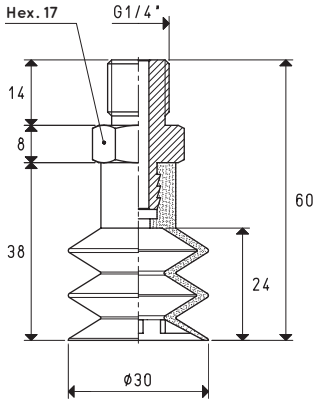


Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 30 50 *	1.76	14	6.5	00 08 50	aluminium	8.5	08 30 50 F *	16.1

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon





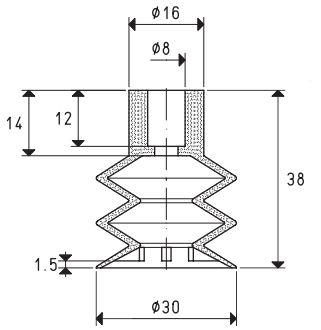


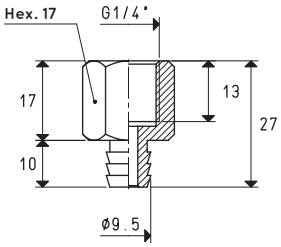
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 30 99 *	1.76	14	6.5	00 08 18	aluminium	10.3	08 30 99 *	18.5

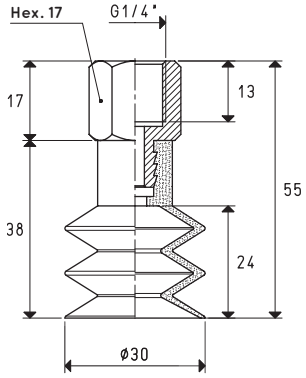
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

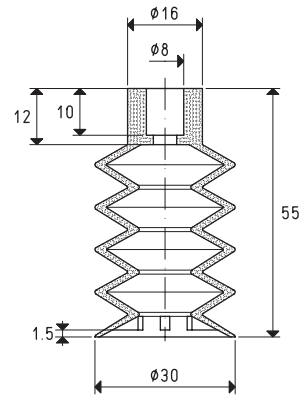


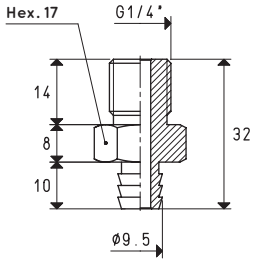


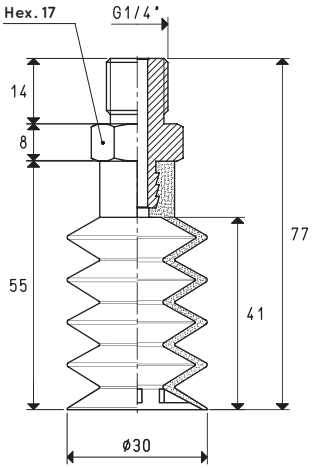


Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 30 99 *	1.76	14	6.5	00 08 50	aluminium	8.5	08 30 99 F *	16.7

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon





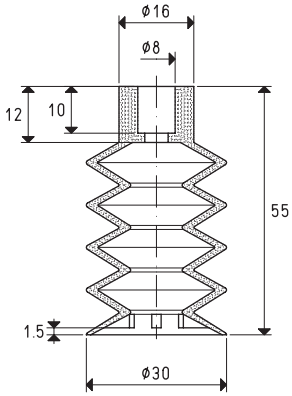


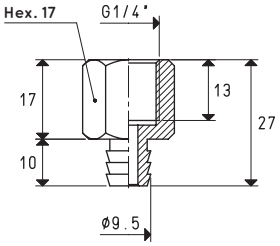
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 30 55 *	1.76	24	10.6	00 08 18	aluminium	10.3	08 30 55 *	23.1

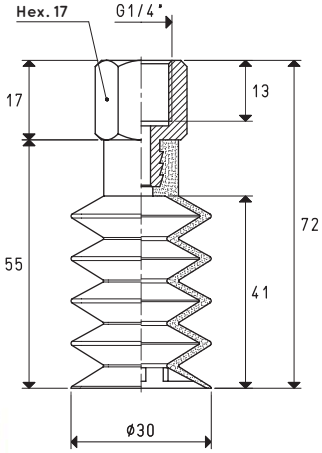
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

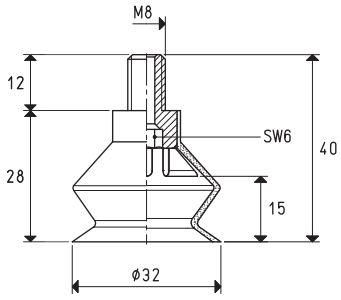






Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 30 55 *	1.76	24	10.6	00 08 50	aluminium	8.5	08 30 55 F *	21.3

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



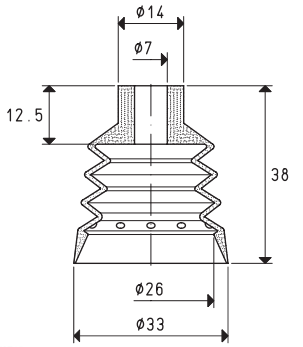
Vacuum cup with vulcanised support Item	Force Kg	Bellows stroke mm	Volume cm^3	Support material	Weight g
08 32 40 *	2.00	10	6.9	steel	14.0

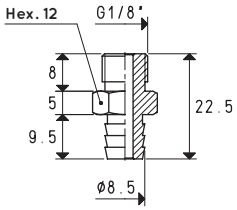
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

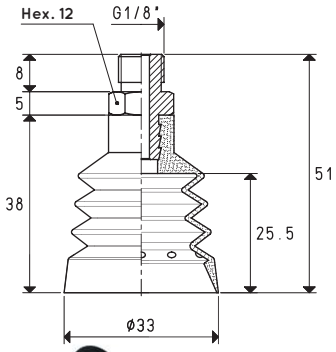
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

SPECIAL BELLOWS CUPS WITH SUPPORTS

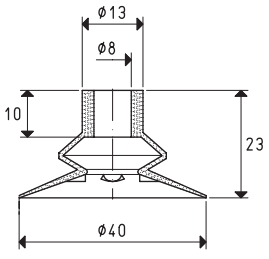


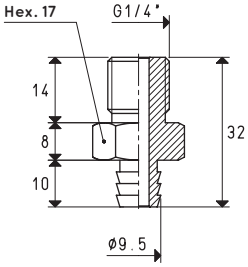


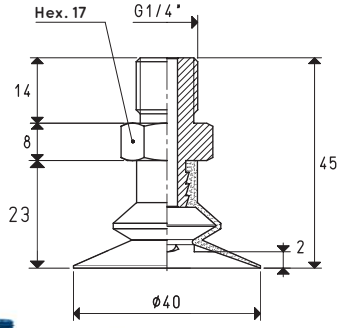


Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 33 50 *	2.13	9	12.0	00 08 82	brass	11.2	08 33 50 *	18.8

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

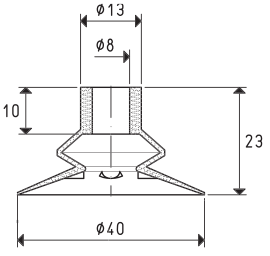


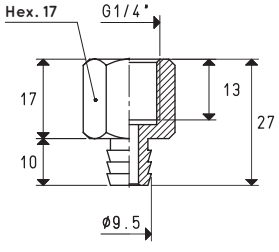


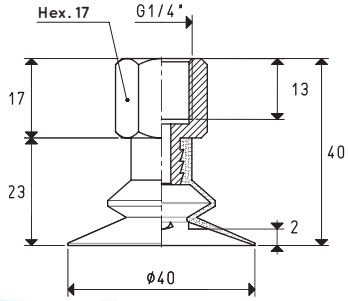


Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 40 50 *	2.40	7	4.3	00 08 18	aluminium	10.3	08 40 50 *	14.9

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon







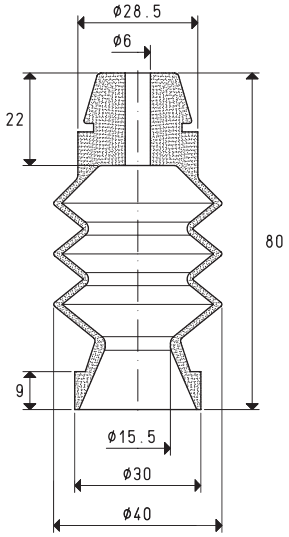
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 40 50 *	2.40	7	4.3	00 08 50	aluminium	8.5	08 40 50 F *	13.1

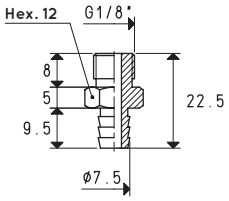
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

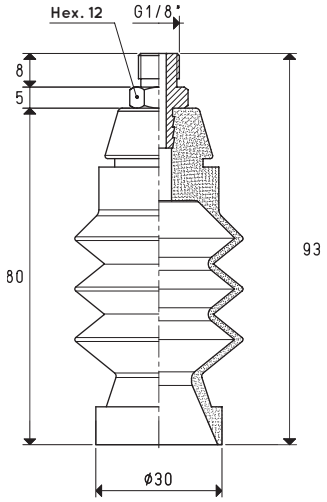
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

SPECIAL BELLOWS CUPS WITH SUPPORTS

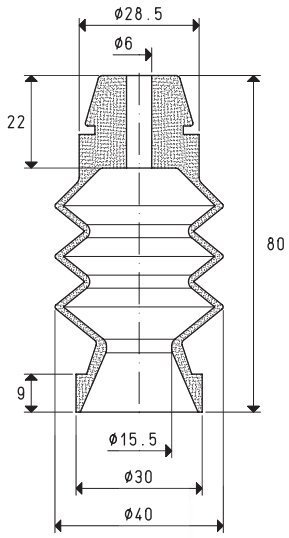


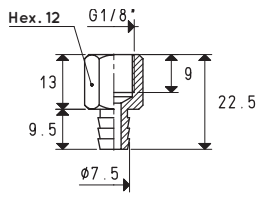


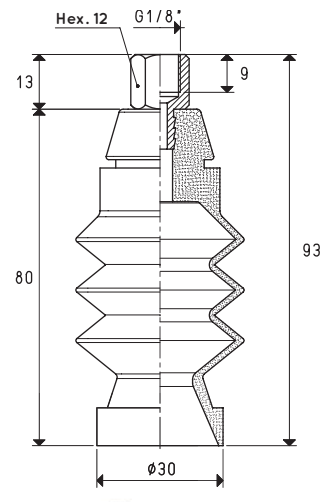


Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 40 80 *	1.76	32	32.4	00 08 05	brass	10.0	08 40 80 *	38.7

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon







Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 40 80 *	1.76	32	32.4	00 08 14	brass	9.8	08 40 80 F *	38.5

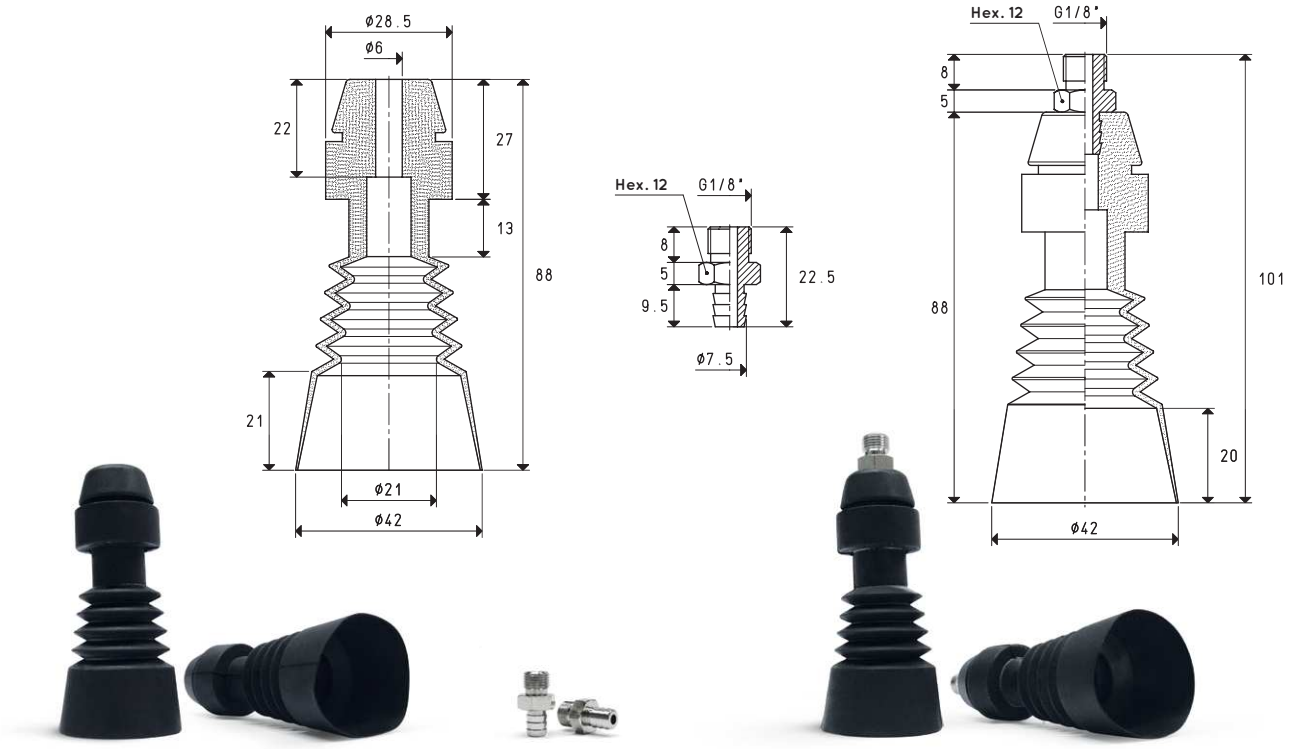
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

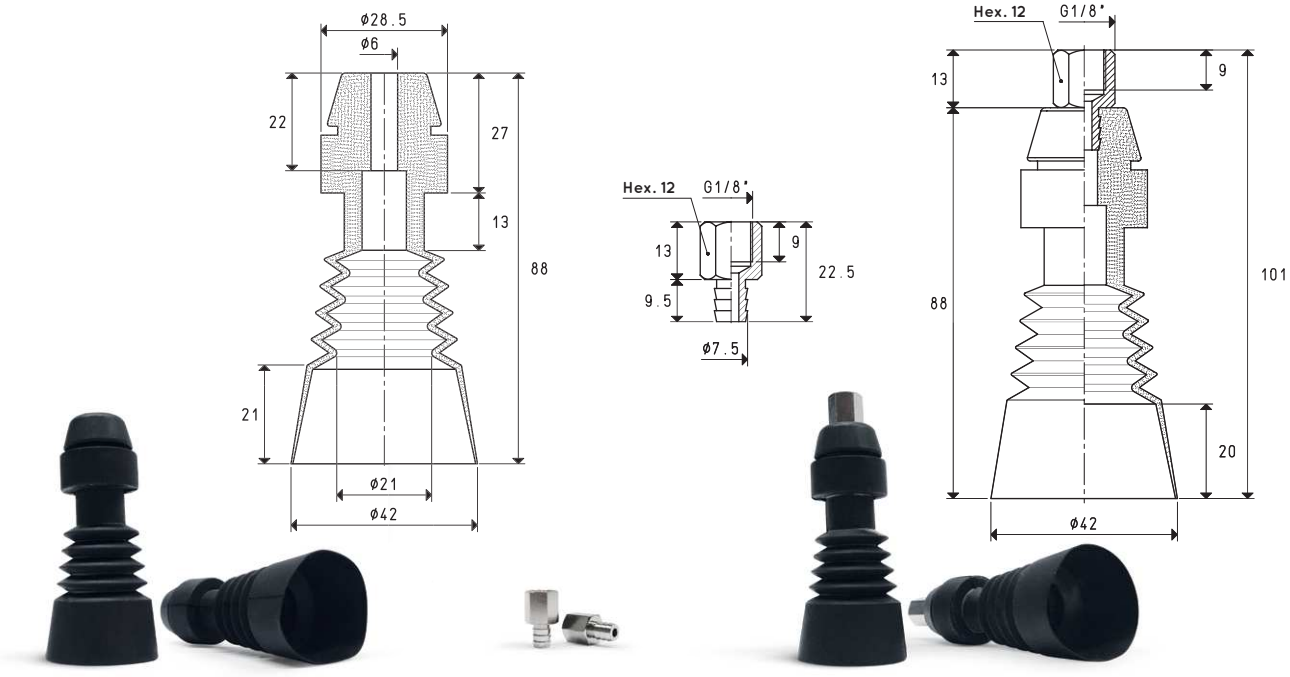
Adapters for GAS - NPT threading available on page 1.130

SPECIAL BELLOWS CUPS WITH SUPPORTS



Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 42 90 *	3.00	13	34.6	00 08 05	brass	10.0	08 42 90 *	34.5

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 42 90 *	3.00	13	34.6	00 08 14	brass	9.8	08 42 90 F *	34.3

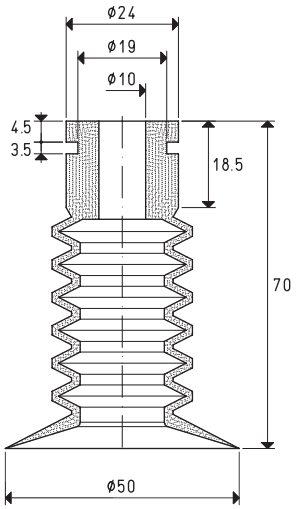
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

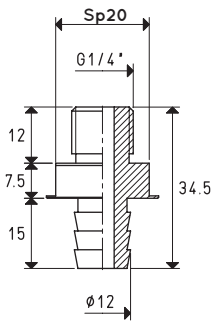
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

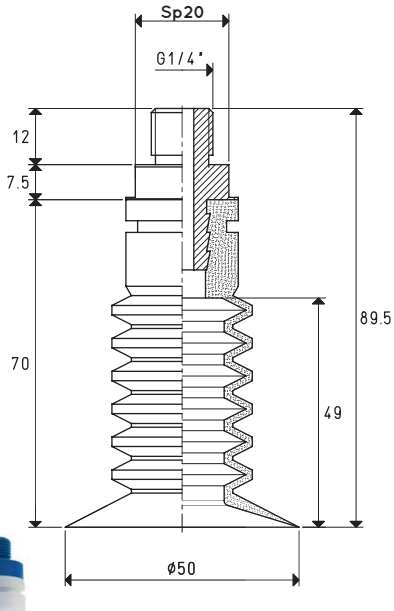
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

SPECIAL BELLOWS CUPS WITH SUPPORTS

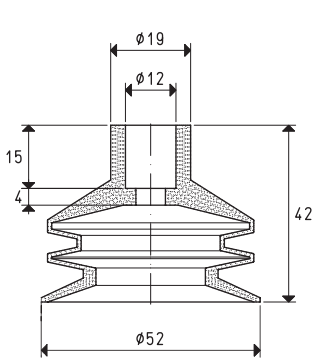


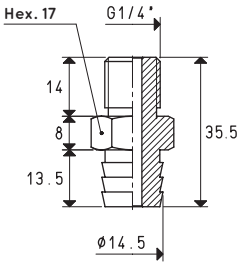


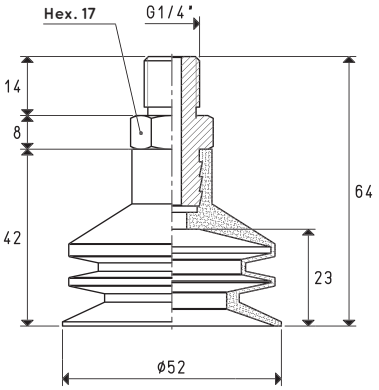


Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 50 70 *	4.90	28	32.2	00 08 148	aluminium	14.5	08 50 70 *	36.8

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon







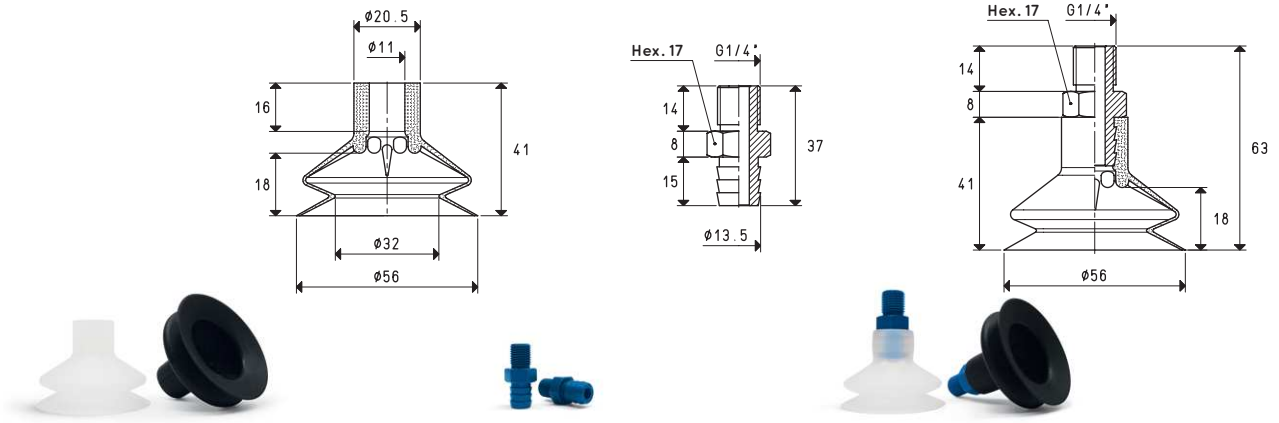
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 52 50 *	5.30	13	22.7	00 08 26	aluminium	13.5	08 52 50 *	38.2

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

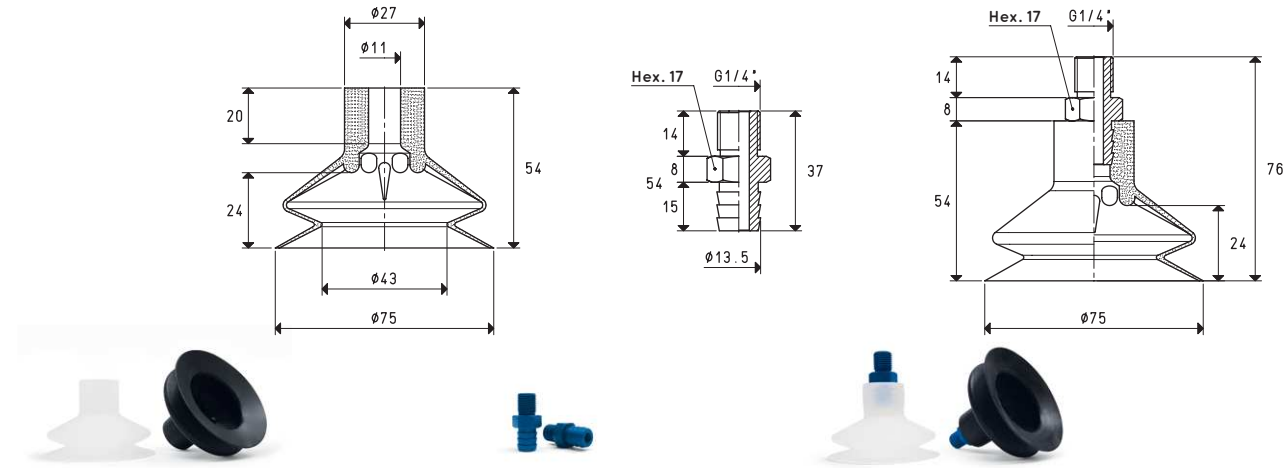
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

SPECIAL BELLOWS CUPS WITH SUPPORTS



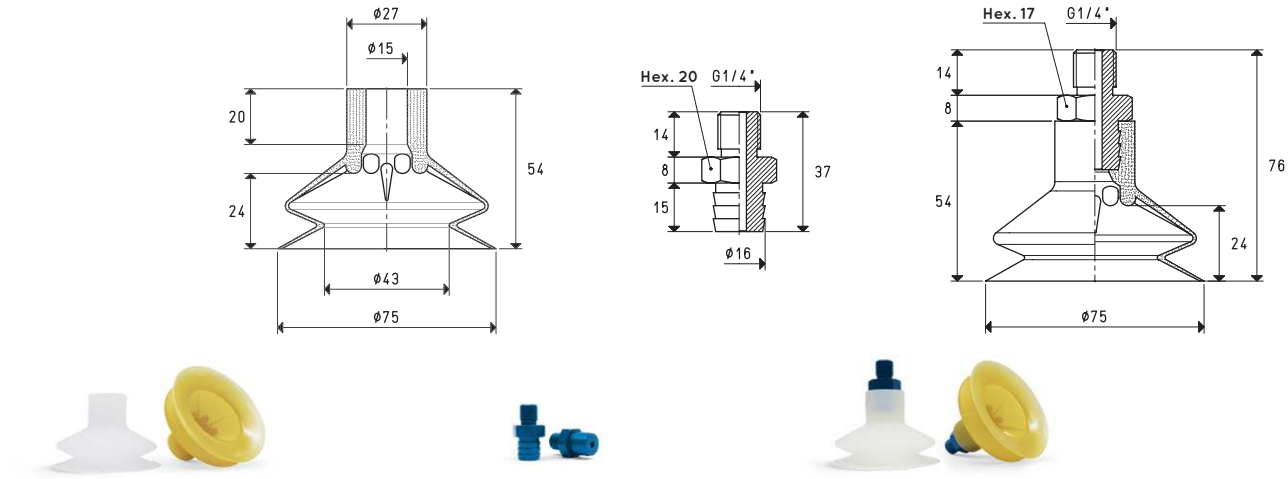
Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 56 30 *	6.15	18	28.0	00 08 127	aluminium	11.5	08 56 30 *	28.5

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 75 30 *	11.04	24	62.9	00 08 127	aluminium	11.5	08 75 30 *	48.1

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



Vacuum cup item	Force Kg	Bellows stroke mm	Volume cm^3	Support item	Support material	Weight g	Vacuum cup with support item	Weight g
01 75 31 *	11.04	24	63.1	00 08 09	aluminium	18.1	08 75 31 *	54.7

Compound: S= silicon

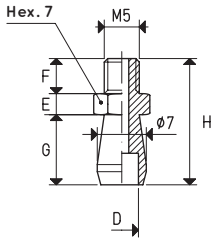
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.130

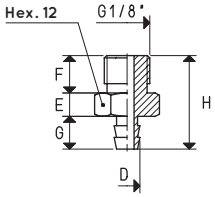
SUPPORTS FOR VACUUM CUPS

The supports and accessories shown and described on this page and on the following pages are the same as those already described in the previous pages, alongside their respective vacuum cups. On these pages, the customer can also find the list of the vacuum cups for which each support is suited. They are specially shaped to perfectly adhere to the internal profile of the cups and they are provided with a male or female axial pin in order to allow suction, as well as to fasten them to the automation.
These cups can be manually assembled onto their supports without any adhesives, simply by pressing them in.
They are made with nickel-plated brass or anodised aluminium or with special materials upon request.

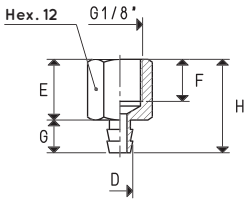
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 01	2.90	3	5	10	18	brass	01 04 10 01 05 10 01 06 10	4.0
00 08 02	4.75	3	5	10	18	brass	01 08 10 01 09 07	4.0



Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 03	5.5	5	8	7	20	brass	01 10 10 01 11 16 01 12 10 01 14 10 01 14 32 01 15 10 01 16 20 01 17 12 01 18 10 01 20 10 01 20 24 01 22 10 01 25 28	9.0



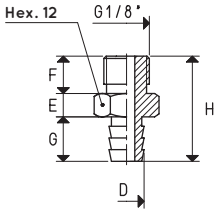
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 04	5.5	13	9	7	20	brass	01 10 10 01 11 16 01 12 10 01 14 10 01 14 32 01 15 10 01 16 20 01 17 12 01 18 10 01 20 10 01 20 24 01 22 10 01 25 28	8.1



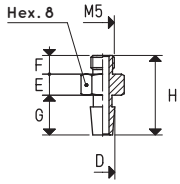
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

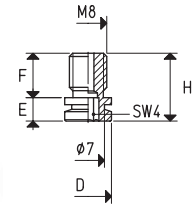
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 05	7.5	5	8	9.5	22.5	brass	01 15 15 01 25 15 01 30 15 01 40 80 01 42 90	10.0



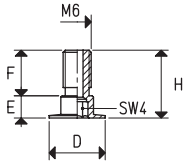
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 06	5.25	4.5	4	8.5	17	AVP	01 06 50 01 08 50 01 11 50 01 11 16 01 16 20 01 17 12	2.6



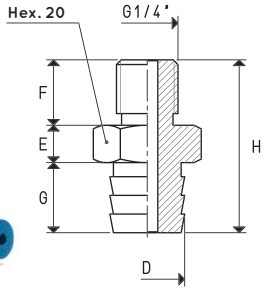
Item	D Ø	E	F	H	Support material	For vacuum cup item	Weight g
00 08 07	10	5	9.5	14.5	brass	01 18 50 01 20 60	4.8



Item	D Ø	E	F	H	Support material	For vacuum cup item	Weight g
00 08 08	12	4.5	10	14.5	brass	01 19 17 01 25 10 01 30 10 01 35 10	2.7



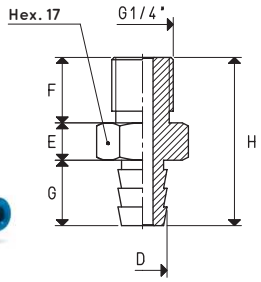
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 09	16	8	14	15	37	aluminium	01 19 31 01 40 70 01 75 31	18.1



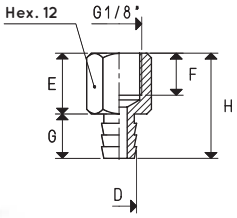
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

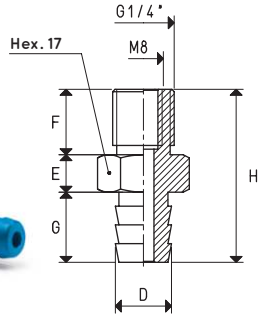
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 10	10.5	8	14	14	36	aluminium	01 22 24 01 22 45 01 22 99	11.0



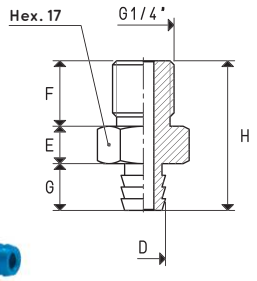
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 14	7.5	13	9	9.5	22.5	brass	01 25 15 01 30 15 01 40 80 01 42 90	9.8



Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 15	12	8	14	15	37	aluminium	01 25 35 01 27 24 01 30 24	12.3



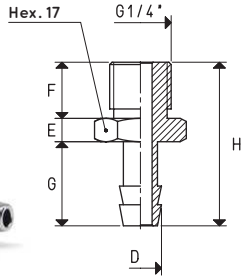
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 18	9.5	8	14	10	32	aluminium	01 16 26 01 20 30 01 30 50 01 30 55 01 30 99 01 40 50	10.3



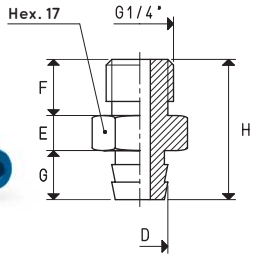
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

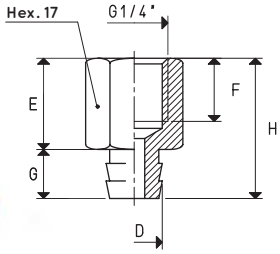
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 19	9	5	12	18	35	brass	01 32 36	22.7



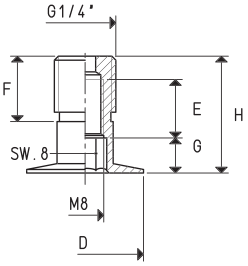
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 20	12	8	14	10	32	aluminium	01 35 15 01 40 15 01 45 15	11.0



Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 21	12	17	13	10	27	aluminium	01 35 15 01 40 15 01 45 15	9.3



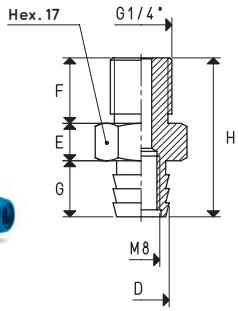
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 22	25	10	14	7.5	25	aluminium	01 45 10 01 60 10	5.9



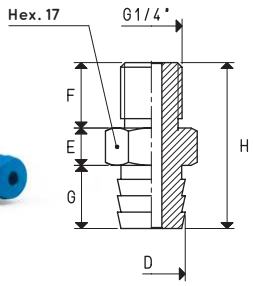
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

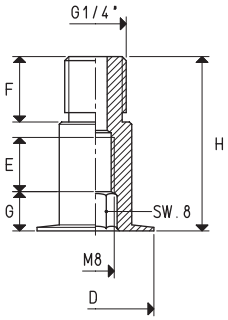
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 24	12	8	14	12	34	aluminium	01 50 20 01 65 28	10.3



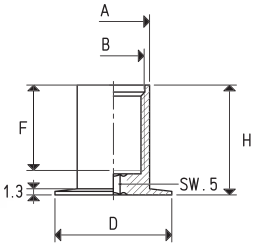
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 26	14.5	8	14	13.5	35.5	aluminium	01 52 50	13.5



Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 28	25	12	14	8	37.3	aluminium	01 85 10	13.4

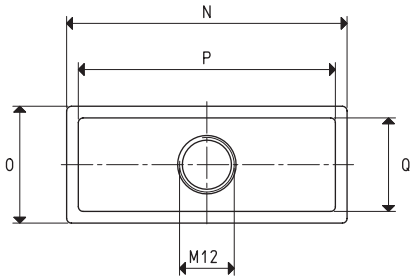


Item	A Ø	B Ø	D Ø	F	H	Support material	For vacuum cup item	Weight g
00 08 29	15.5	M12	25	18	23.5	aluminium	01 85 10	6.6

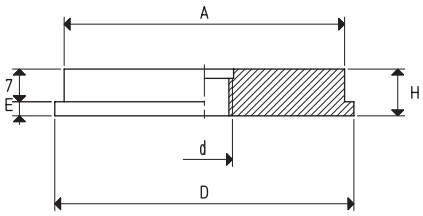


Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

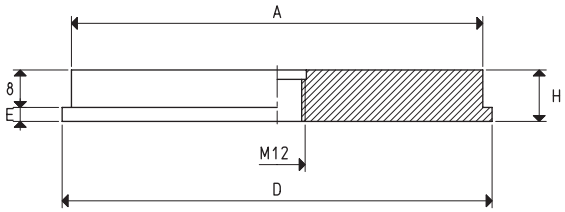
Adapters for GAS - NPT threading available on page 1.130



Item	N	O	P	Q	Support material	For vacuum cup item	Weight g
00 08 31	60	25	55	20	aluminium	01 40 75	34.1



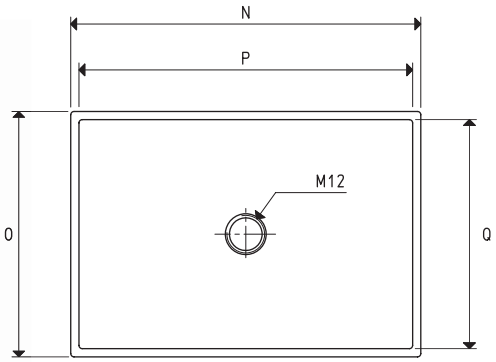
Item	A Ø	d Ø	D Ø	E	H	Support material	For vacuum cup item	Weight g
00 08 32	60	M12	64	3	10	aluminium	01 64 15 01 65 15 01 85 15	80.6
00 08 424	60	G1/4"	64	3	10	aluminium	01 64 15 01 65 15 01 85 15	80.6

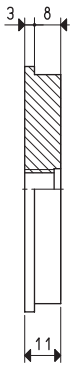


Item	A Ø	D Ø	E	H	Support material	For vacuum cup item	Weight g
00 08 33	88	92	3	11	aluminium	01 92 15 01 110 10	188.9

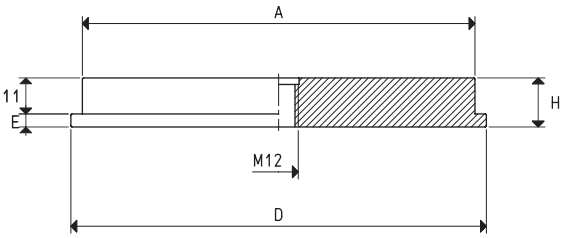
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

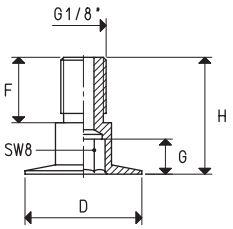




Item	N	O	P	Q	Support material	For vacuum cup item	Weight g
00 08 34	107	75	102	70	aluminium	01 107 75 01 120 90	215.5



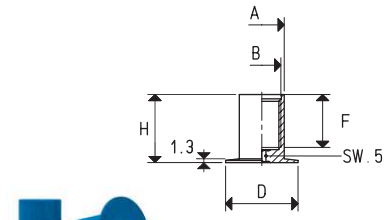
Item	A Ø	D Ø	E	H	Support material	For vacuum cup item	Weight g
00 08 35	120	127	4	15	aluminium	01 150 10	471.3



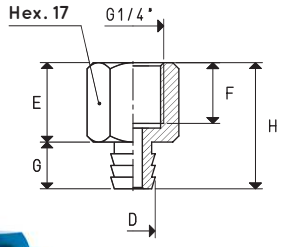
Item	D Ø	F	G	H	Support material	For vacuum cup item	Weight g
00 08 44	25	14	7.5	25	aluminium	01 45 10 01 60 10	5.1

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

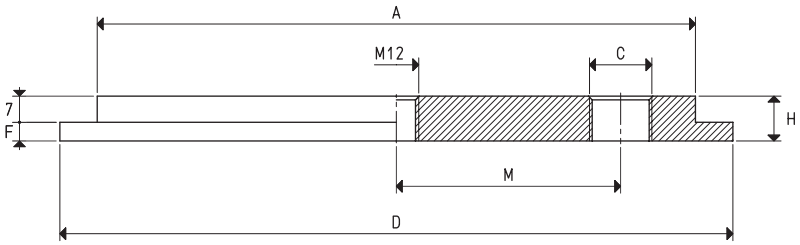
Adapters for GAS - NPT threading available on page 1.130



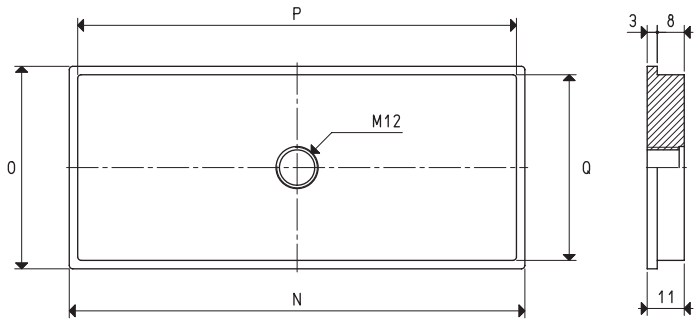
Item	A Ø	B Ø	D Ø	F	H	Support material	For vacuum cup item	Weight g
00 08 46	15.5	G1/4"	25	18	23.5	aluminium	01 85 10	6.5



Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 50	9.5	17	13	10	27	aluminium	01 16 26 01 30 50 01 30 55 01 30 99 01 40 50	8.5



Item	A Ø	C Ø	D Ø	F	H	M	Support material	For vacuum cup item	Weight g
00 08 58	160	G3/8"	180	5	12	60	aluminium	01 180 15	740.0

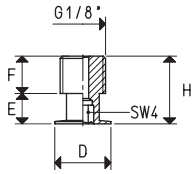


Item	N	O	P	Q	Support material	For vacuum cup item	Weight g
00 08 59	135	60	130	55	aluminium	01 135 60 01 150 75	218.4

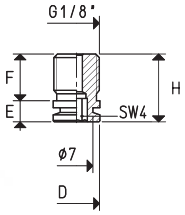
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

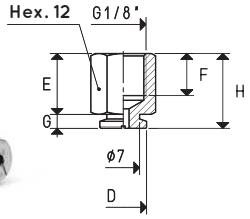
Item	D Ø	E	F	H	Support material	For vacuum cup item	Weight g
00 08 60	12	6.5	8	14.5	brass	01 19 17 01 20 08 01 20 60 01 25 08 01 25 10 01 26 10 01 30 10 01 35 10	5.6



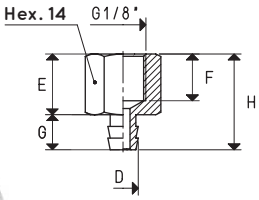
Item	D Ø	E	F	H	Support material	For vacuum cup item	Weight g
00 08 61	10	4.5	10	14.5	brass	01 18 50 01 20 60	6.5



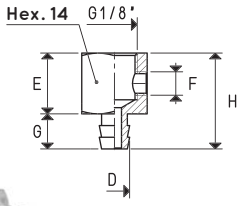
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 62	10	13	9	3	16	brass	01 18 50 01 20 60	9.4



Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 64	6.5	13	10	7.5	20.5	brass	01 14 15 01 15 23 01 18 12 01 18 23 01 18 29 01 18 35	13.9



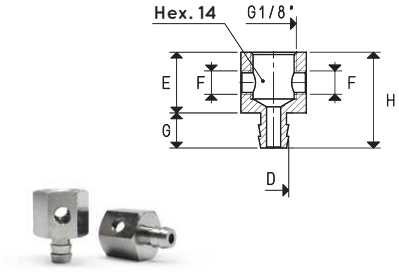
Item	D Ø	E	F Ø	G	H	Support material	For vacuum cup item	Weight g
00 08 65	6.5	13	M5	7.5	20.5	brass	01 14 15 01 15 23 01 18 12 01 18 23 01 18 29 01 18 35	13.7



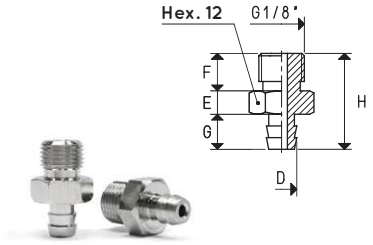
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

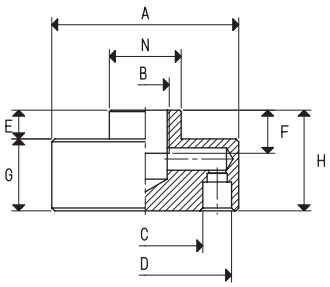
Adapters for GAS - NPT threading available on page 1.130

Item	D Ø	E	F Ø	G	H	Support material	For vacuum cup item	Weight g
00 08 66	6.5	13	M5	7.5	20.5	brass	01 14 15 01 15 23 01 18 12 01 18 23 01 18 29 01 18 35	13.5



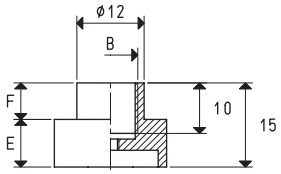
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 67	6.5	5	8	7.5	20.5	brass	01 14 15 01 15 23 01 18 12 01 18 23 01 18 29 01 18 35	11.4





Item	A Ø	B Ø	C Ø	D Ø	E	F	G	H	N Ø	Support material	For vacuum cup item	Weight g
00 08 68	40	M12	23	35	7	10	18	25	20	aluminium	01 46 13	47.2
00 08 72	65	G3/8"	40	60	10	15	25	35	25	aluminium	01 73 14	169.1
00 08 73	76	G3/8"	51	71	10	15	27	37	25	aluminium	01 95 14	266.0

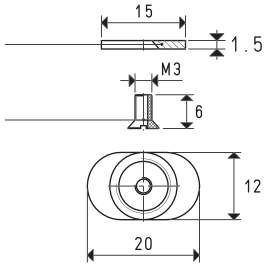
Item	B Ø	E	F	Support material	For vacuum cup item	Weight g
00 08 70	G1/8"	8.5	6.5	aluminium	01 12 20	5.4



Fixing plate item **00 08 97**

perforated TSP M3x5 screw item **00 08 103**

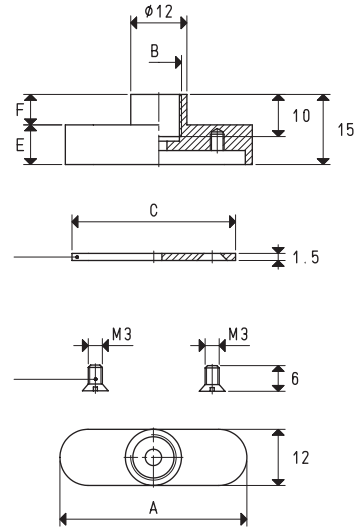
Note: Supplied automatically also with the fixing plate and the perforated TSP screw when ordering item **00 08 70**



Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

Item	A	B Ø	C	E	F	Support material	For vacuum cup item	Weight g
00 08 71	30	G1/8"	25	8.5	6.5	aluminium	01 12 30	7.8
00 08 75	40	G1/8"	35	8.5	6.5	aluminium	01 12 40	11.4
00 08 76	55	G1/8"	50	8.5	6.5	aluminium	01 12 50	15.5

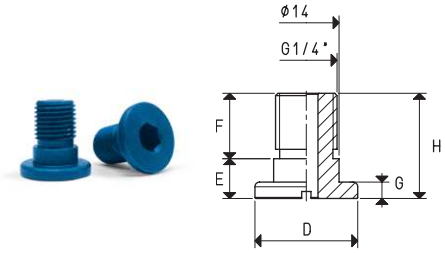


Fixing plate item **00 08 98** for supp. **00 08 71**
item **00 08 99** for supp. **00 08 75**
item **00 08 100** for supp. **00 08 76**

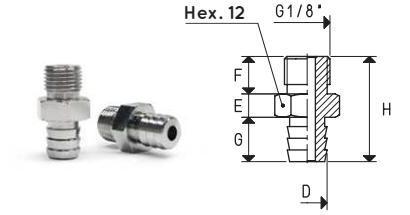
2 TSP screws M3x5 item **00 08 102**

Note: Supplied automatically also with the fixing plate and the TSP screws when ordering the item relative to the support

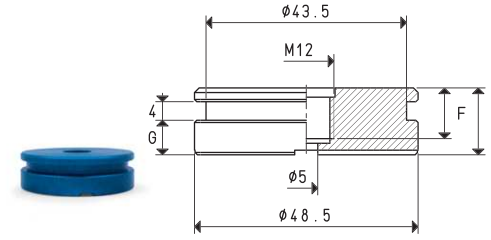
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 81	22	8.5	14	3.5	22.5	aluminium	01 40 18 01 48 18 01 54 18	8.8



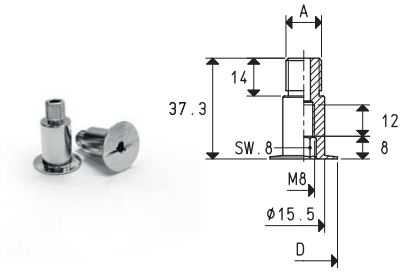
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 82	8.5	5	8	9.5	22.5	brass	01 25 12 01 33 50	11.2



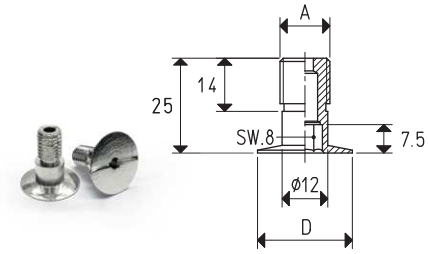
Item	F	G	H	Support material	For vacuum cup item	Weight g
00 08 83	11	7.5	14.5	aluminium	01 56 15	67.4



Item	A Ø	D Ø	Support material	For vacuum cup item	Weight g
00 08 91	M10x1,25	25	brass	01 85 10	38.4



Item	A Ø	D Ø	Support material	For vacuum cup item	Weight g
00 08 92	M10	25	brass	01 45 10 01 60 10	5.2

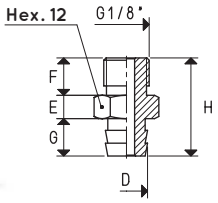


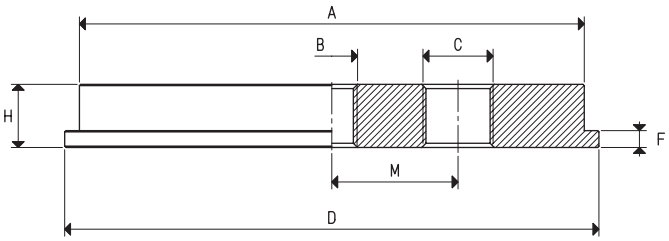
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 101	9	5	8	8	21	brass	01 25 14	10.8

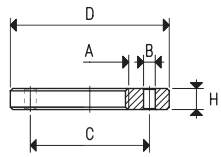




Item	A Ø	B Ø	C Ø	D Ø	F	H	M	Support material	For vacuum cup item	Weight g
00 08 107	120	M12	G3/8"	127	4	15	30	aluminium	01 127 15 01 150 10	476.9

RING NUT

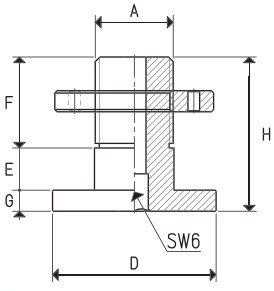
Item	A Ø	B Ø	C Ø	D Ø	H	Ring nut material	For support item	Weight g
00 08 109	G1/4"	2.5	25.5	34	4.5	aluminium	00 08 108	9.8
00 08 111	G3/8"	2.5	25.5	34	4.5	aluminium	00 08 110	8.7
00 08 113	G3/8"	4.0	45.0	69	6.0	aluminium	00 08 112	58.2



SUPPORT

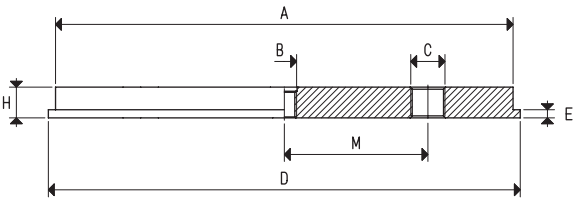
Item	A Ø	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 108	G1/4"	35	9	19.5	4.5	33.0	aluminium	01 76 24 01 90 24 01 110 24	21.4
00 08 110	G3/8"	35	9	19.5	4.5	33.0	aluminium	01 76 24 01 90 24 01 110 24	25.0
00 08 112	G3/8"	69	15	22.0	5.5	42.5	aluminium	01 150 36	73.9

Note: The ring nut is provided automatically when the support is ordered with its own item

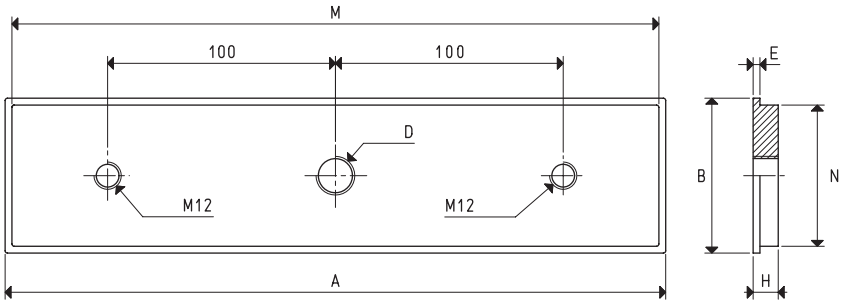


Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

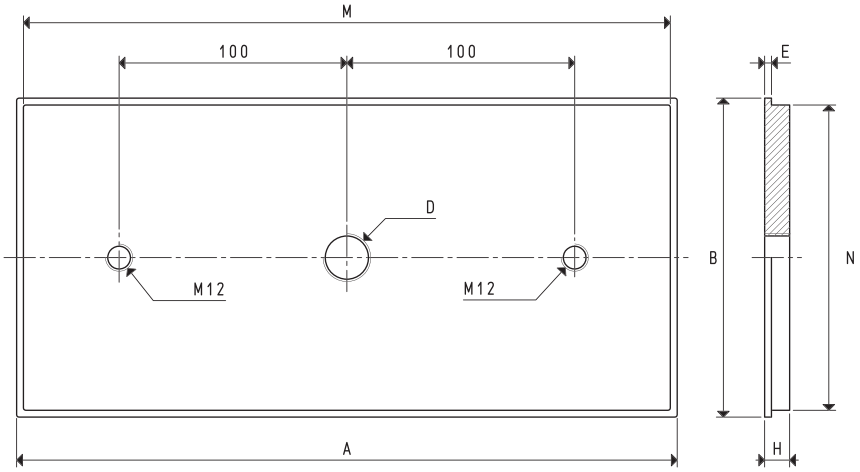
Adapters for GAS - NPT threading available on page 1.130



Item	A Ø	B Ø	C Ø	D Ø	E	H	M	Support material	For vacuum cup item	Weight Kg
00 08 115	223	M12	G3/8"	230	5	15	70	aluminium	01 250 20	1.65



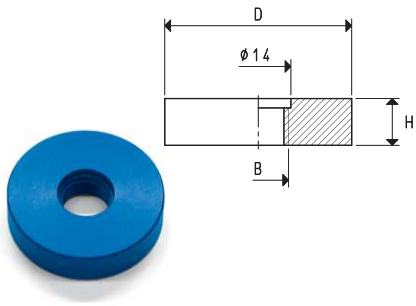
Item	A	B	D Ø	E	H	M	N	Support material	For vacuum cup item	Weight Kg
00 08 116	290	68	G3/8"	3	11	284	62	aluminium	01 290 68 01 300 80	0.53



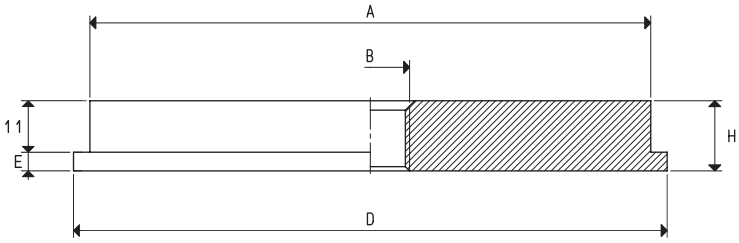
Item	A	B	D Ø	E	H	M	N	Support material	For vacuum cup item	Weight Kg
00 08 117	290	140	G1/2"	3	11	284	134	aluminium	01 290 140 01 300 150	1.13

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

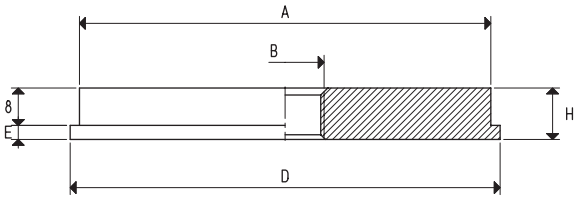
Adapters for GAS - NPT threading available on page 1.130



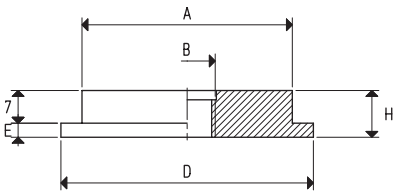
Item	B Ø	D Ø	H	Support material	For vacuum cup item	Weight g
00 08 118	G1/4"	40	10	aluminium	01 42 15	32.1



Item	A Ø	B Ø	D Ø	E	H	Support material	For vacuum cup item	Weight g
00 08 119	120	G3/8"	127	4	15	aluminium	01 150 10	478.9



Item	A Ø	B Ø	D Ø	E	H	Support material	For vacuum cup item	Weight g
00 08 123	88	G3/8"	92	3	11	aluminium	01 110 10 01 92 15	186.1

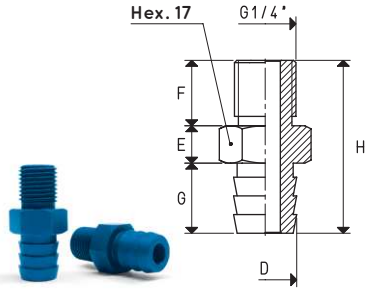


Item	A Ø	B Ø	D Ø	E	H	Support material	For vacuum cup item	Weight g
00 08 126	45	M12	54	3	10	aluminium	01 75 42 01 80 20	45.5

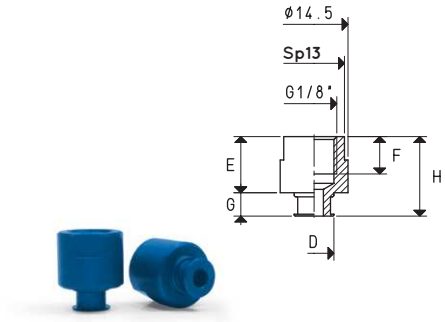
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

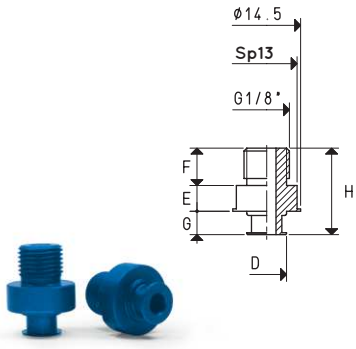
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 127	13.5	8	14	15	37	aluminium	01 30 45 01 40 25 01 44 30 01 56 30 01 75 30	11.5



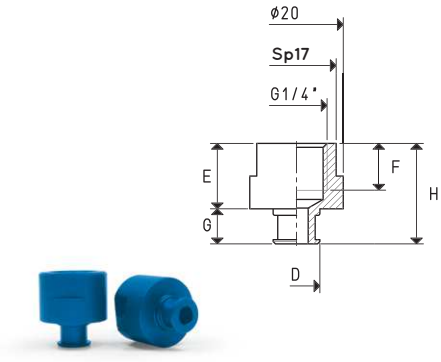
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 132	8.5	12	8	5	17	aluminium	01 20 23 01 22 19 01 34 26	3.8



Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 133	8.5	5.5	8	5	18.5	aluminium	01 20 23 01 22 19 01 34 26	3.5



Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 134	10	14	10	7.5	21.5	aluminium	01 30 32 01 40 42 01 43 28	8.3



Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

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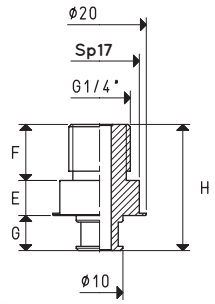
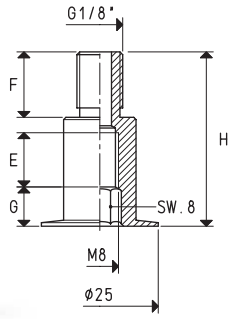
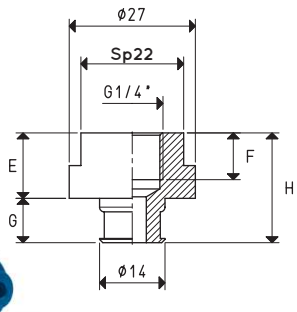
Item	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 135	7.5	12	7.5	27	aluminium	01 30 32 01 40 42 01 43 28	9.5



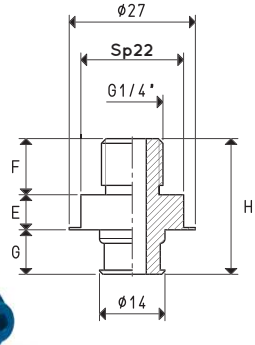
Item	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 136	12	14	8	37.3	aluminium	01 85 10	9.2



Item	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 141	14	10	9.5	23.5	aluminium	01 50 53 01 53 35	19.7

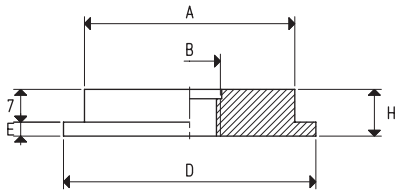


Item	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 142	7.5	12	9.5	29	aluminium	01 50 53 01 53 35	15.7

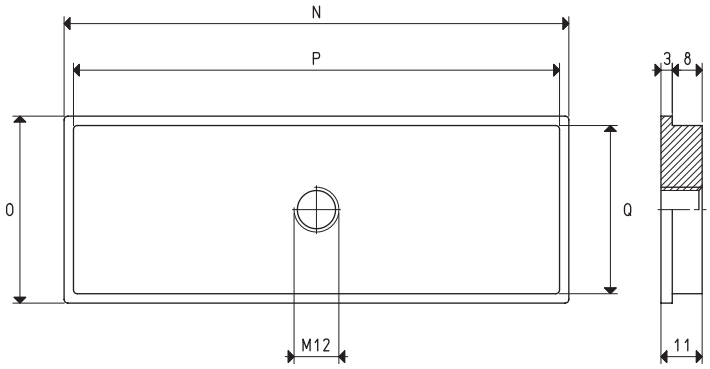


Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

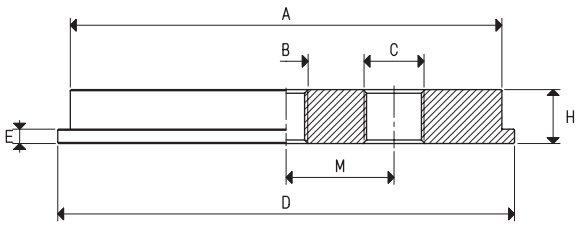
Adapters for GAS - NPT threading available on page 1.130



Item	A Ø	B Ø	D Ø	E	H	Support material	For vacuum cup item	Weight g
00 08 143	45	G1/2"	54	3	10	aluminium	01 75 42 01 80 20	41.5

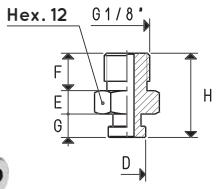


Item	N	O	P	Q	Support material	For vacuum cup item	Weight g
00 08 144	135	50	130	45	aluminium	01 135 50 01 150 65	176.1



Item	A Ø	B Ø	C Ø	D Ø	E	H	M	Support material	For vacuum cup item	Weight g
00 08 145	120	G3/8"	G3/8"	127	4	15	27	aluminium	01 150 10	471.9

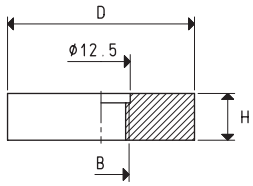
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 146	8	5	8	5	18	brass	01 20 12 01 20 14 01 20 15	9.8



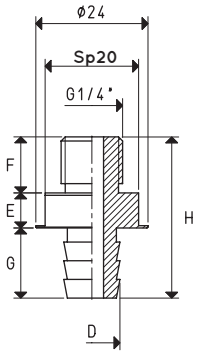
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

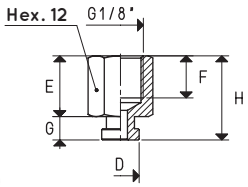
Item	B Ø	D Ø	H	Support material	For vacuum cup item	Weight g
00 08 147	M12	40	10	aluminium	01 42 15	32.8

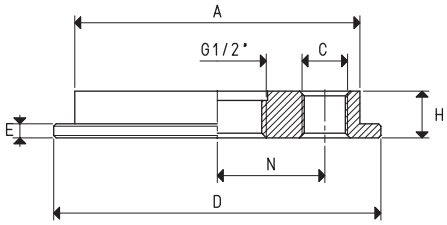


Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 148	12	7.5	12	15	34.5	aluminium	01 50 70	14.5



Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 155	8	13	9	5	18	brass	01 20 12 01 20 14 01 20 15	9.1





Item	A Ø	C Ø	D Ø	E	N	H	Support material	For vacuum cup item	Weight g
00 08 162	61	G1/8"	70	3	23	10	aluminium	01 110 58	78.9

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

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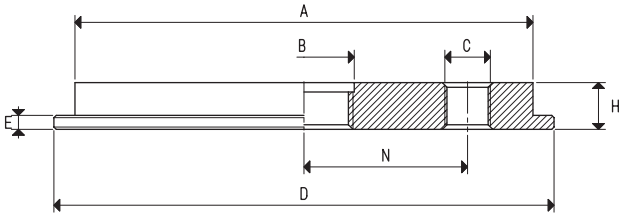
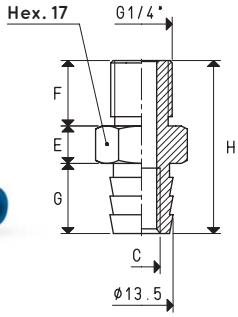
SUPPORTS FOR VACUUM CUPS

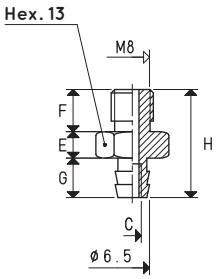


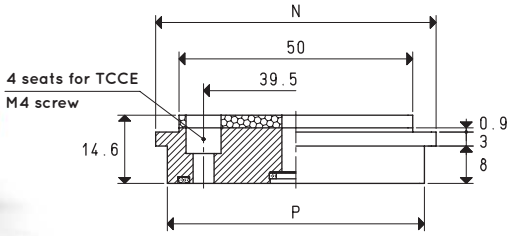
Item	A Ø	B Ø	C Ø	D Ø	E	N	H	Support material	For vacuum cup item	Weight g
00 08 163	98	G1/2"	G1/8"	107	3	35	10	aluminium	01 150 74	211.8

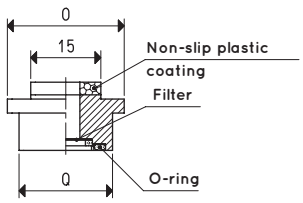
Item	C Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 172	M8	8	14	15	37	aluminium	01 40 25 01 56 30 01 75 30	15.2



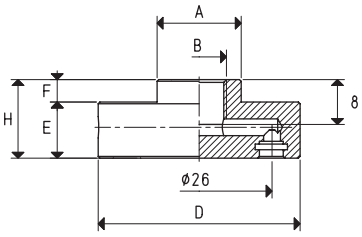
Item	C Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 173	5.5	5	8	7.5	20.5	aluminium	01 15 23 01 18 23 01 18 29 01 18 35	8.7







Item	N	O	P	Q	Support material	For vacuum cup item	Weight g
00 08 184	60	25	55	20	aluminium	01 40 75	38.7



Item	A Ø	B Ø	D Ø	E	F	H	Support material	For vacuum cup item	Weight g
00 08 231	15	G1/8"	36	10	4	14	aluminium	01 31 06	24.9

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

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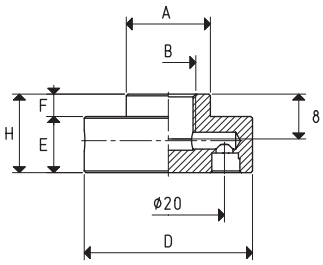
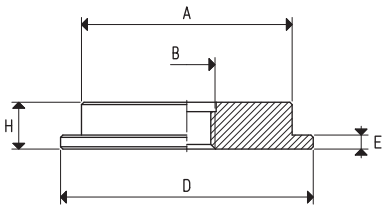
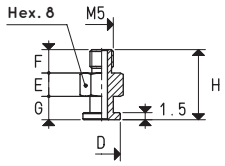


Item	A Ø	B Ø	D Ø	E	F	H	Support material	For vacuum cup item	Weight g
00 08 232	15	G1/8"	30	10	4	14	aluminium	01 24 06	16.7

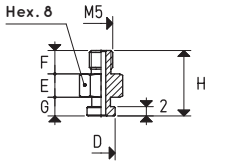


Item	A Ø	B Ø	D Ø	E	H	Support material	For vacuum cup item	Weight g
00 08 233	60	G3/4"	64	3	10	aluminium	01 85 15	77.3
00 08 234	60	G1/2"	64	3	10	aluminium	01 85 15	78.3

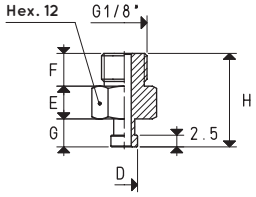
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 236	8	5	5	5	15	brass	01 07 13	3.0



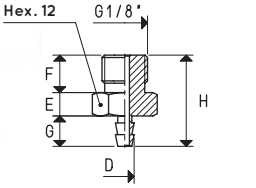
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 237	6	5	5	4	14	brass	01 08 07	3.0



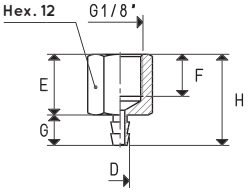
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 238	5.7	7	7	6	20	brass	01 11 08	7.0



Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 239	4	5	8	6.5	19.5	brass	01 14 09	8.0



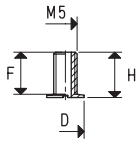
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 240	4	13	9	6.5	19.5	brass	01 14 09	7.0



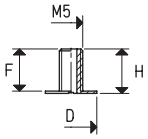
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

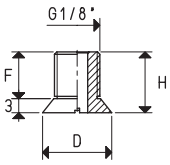
Item	D Ø	F	H	Support material	For vacuum cup item	Weight g
00 08 241	8	9	10	brass	01 15 04	1.5



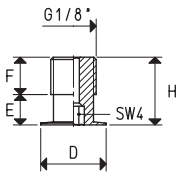
Item	D Ø	F	H	Support material	For vacuum cup item	Weight g
00 08 242	11	9	9.5	brass	01 20 04	1.8



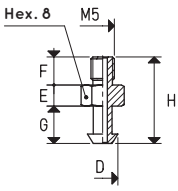
Item	D Ø	F	H	Support material	For vacuum cup item	Weight g
00 08 243	15	10	13	brass	01 20 06	6.0



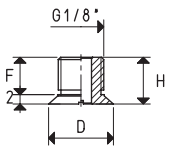
Item	D Ø	E	F	H	Support material	For vacuum cup item	Weight g
00 08 244	14	6.5	8	14.5	brass	01 35 12	5.9



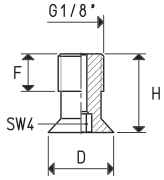
Item	D Ø	E	F	G	H	Support material	For vacuum cup item	g
00 08 245	6.5	4.5	6	8	18.5	brass	01 20 11	2.7



Item	D Ø	F	H	Support material	For vacuum cup item	Weight g
00 08 246	14	8	10	brass	01 22 06	5.0



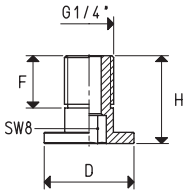
Item	D Ø	F	H	Support material	For vacuum cup item	Weight g
00 08 247	14	8	17	brass	01 40 14	8.4



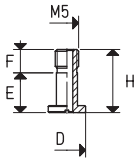
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

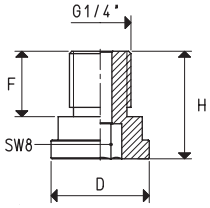
Item	D Ø	F	H	Support material	For vacuum cup item	Weight g
00 08 248	24	14	23.5	aluminium	01 54 18	5.8

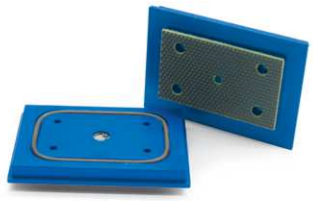


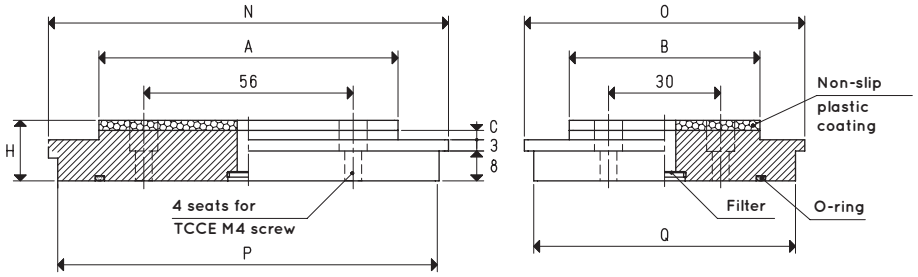
Item	D Ø	E	F	H	Support material	For vacuum cup item	Weight g
00 08 249	8	8.5	5	13.5	brass	01 31 12	1.8



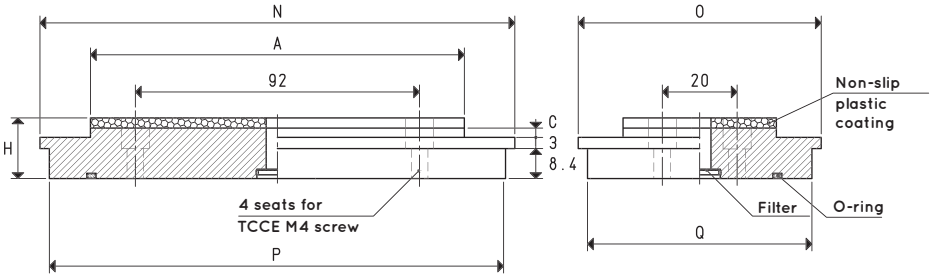
Item	D Ø	F	H	Support material	For vacuum cup item	Weight g
00 08 250	21	14	23	aluminium	01 32 30	8.6







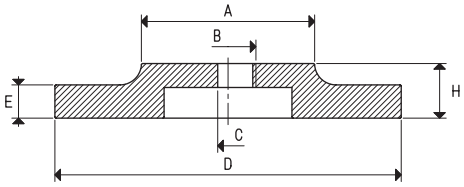
Item	A	B	C	H	N	O	P	Q	Support material	For vacuum cup item	Weight g
00 08 256	80	51	2.5	16.6	107	75	102	70	aluminium	01 120 90	244.5



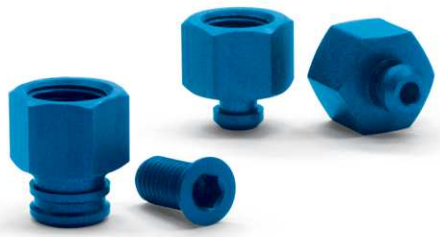
Item	A	B	C	H	N	O	P	Q	Support material	For vacuum cup item	Weight g
00 08 257	110	35	2.3	16.4	135	60	130	55	aluminium	01 150 75	247.9

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

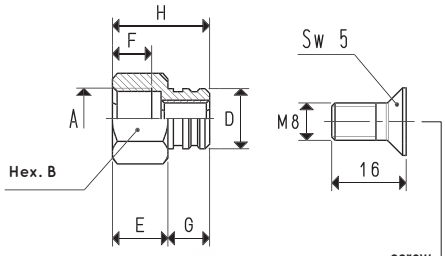
Adapters for GAS - NPT threading available on page 1.130



Item	A Ø	B Ø	C Ø	D Ø	E	H	Support material	For vacuum cup item	Weight g
00 08 280	35	G1/2"	--	70	12.5	22.5	aluminium	01 150 55	120
00 08 281	65	G1/2"	--	130	12.5	23.5	aluminium	01 210 60	465
00 08 286	35	--	8	70	12.5	22.5	aluminium	01 150 55	125
00 08 287	65	--	8	130	12.5	23.5	aluminium	01 210 60	470



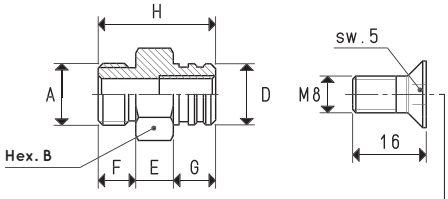
Item	A Ø	B	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 343	G1/8"	14	7.3	10	8.0	5.5	15.5	aluminium	VOP 08 24 SR VOP 10 30 SR VOP 12 36 SR	16.8
00 08 345	G1/4"	17	13.0	12	8.5	9.0	21.0	aluminium	VOP 15 45 SR	19.9
00 08 405	G1/4"	17	13.0	12	8.5	9.0	21.0	aluminium	VOP 20 60 SR VOP 25 75 SR	24.7
00 08 403	G1/4"	17	13.0	12	8.5	9.0	21.0	aluminium	VOP 28 85 SR VOP 35 100 SR	25.6



screw
item **00 08 347** for supp.**00 08 403**
item **00 08 348** for supp.**00 08 405**

Note: Supplied automatically also with the screw when ordering the item relative to the support

Item	A Ø	B	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 344	G1/8"	14	7.3	7	7	5.5	19.5	aluminium	VOP 08 24 SR VOP 10 30 SR VOP 12 36 SR	18.5
00 08 346	G1/4"	17	13.0	8	8	9.0	25.0	aluminium	VOP 15 45 SR	25.0
00 08 404	G1/4"	17	13.0	8	8	9.0	25.0	aluminium	VOP 20 60 SR VOP 25 75 SR	29.8
00 08 402	G1/4"	17	13.0	8	8	9.0	25.0	aluminium	VOP 28 85 SR VOP 35 100 SR	30.7

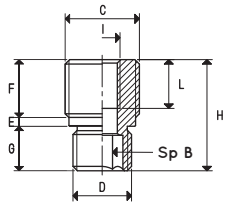


screw
item **00 08 347** for supp.**00 08 402**
item **00 08 348** for supp.**00 08 404**

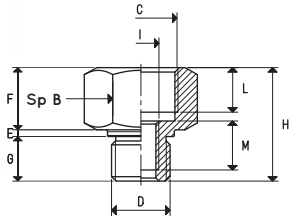
Note: Supplied automatically also with the screw when ordering the item relative to the support

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

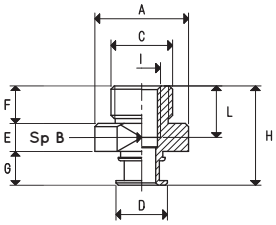
Adapters for GAS - NPT threading available on page 1.130



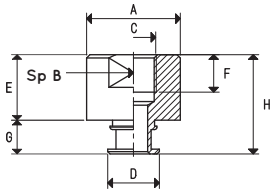
Item	B	C Ø	D Ø	E	F	G	H	I	L	Support material	For vacuum cup item	Weight g
00 08 373	8	G1/4"	G1/4"	2	10	10.0	22.0	M8	11	aluminium	08 75 43 SR	4.1
00 08 372	8	G3/8"	G1/4"	2	13	10.0	25.0	M8	11	aluminium	08 75 43 SR	7.4
00 08 376	8	G3/8"	G3/8"	3	13	15.5	31.5	M8	11	aluminium	08 110 73 SR	14.1
00 08 375	8	G1/2"	G3/8"	3	13	15.5	31.5	M8	11	aluminium	08 110 73 SR	15.5



Item	B	C Ø	D Ø	E	F	G	H	I	L	M	Support material	For vacuum cup item	Weight g
00 08 374	22	G3/8"	G1/4"	1.5	14	10.0	25.0	M8	10	11	aluminium	08 75 43 SR	12.0
00 08 377	23	G1/2"	G3/8"	3.0	17	15.5	35.5	M8	13	11	aluminium	08 110 73 SR	17.8



Item	A Ø	B	C Ø	D Ø	E	F	G	H	I	L	Support material	For vacuum cup item	Weight g
00 08 394	20	17	G1/8"	11	6.0	8	7.2	21.2	M5	8	aluminium	01 35 27	6.2
00 08 395	27	20	G1/8"	15	7.5	8	9.2	24.7	M5	8	aluminium	01 52 40	13.2
00 08 366	20	17	G1/4"	11	6.0	8	7.2	21.2	M8	11	aluminium	01 35 27	6.1
00 08 364	27	20	G1/4"	15	7.5	8	9.2	24.7	M8	11	aluminium	01 52 40	13.0



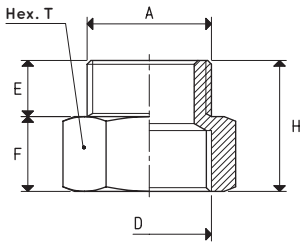
Item	A Ø	B	C Ø	D Ø	E	F	G	H	Support material	For vacuum cup item	Weight g
00 08 396	20	17	G1/8"	11	14	8	7.2	21.2	aluminium	01 35 27	9.7
00 08 397	27	20	G1/8"	15	14	8	9.2	23.2	aluminium	01 52 40	20.0
00 08 392	20	17	G1/4"	11	14	10	7.2	21.2	aluminium	01 35 27	7.8
00 08 393	27	20	G1/4"	15	14	10	9.2	23.2	aluminium	01 52 40	18.1

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

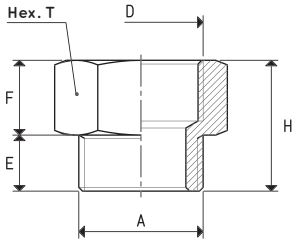
GAS - NPT ADAPTERS

These adapters allow using NPT threaded fittings on vacuum components with NPT threading, such as vacuum components like vacuum cup supports, valves and solenoid valves, filters etc. with gas threading.



FEMALE GAS - MALE NPT ADAPTER

Item	A Ø	D Ø	E	F	H	T	Adapter material	Weight g
00 08 259	1/8" NPT	G1/8"	10	12	22	14	brass	14
00 08 260	1/4" NPT	G1/4"	12	17	29	19	brass	34
00 08 261	3/8" NPT	G3/8"	16	18	34	22	brass	48
00 08 262	1/2" NPT	G1/2"	17	19	36	27	brass	72
00 08 263	3/4" NPT	G3/4"	19	20	39	32	brass	100
00 08 264	1" NPT	G1"	22	20	42	41	brass	176
00 08 265	1" 1/4 NPT	G1" 1/4	23	23	46	50	brass	274
00 08 266	1" 1/2 NPT	G1" 1/2	23	23	46	60	brass	470
00 08 267	2" NPT	G2"	25	24	49	70	brass	506



MALE GAS - FEMALE NPT ADAPTER

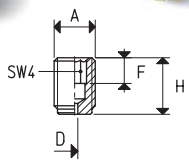
Item	A Ø	D Ø	E	F	H	T	Adapter material	Weight g
00 08 268	G1/8"	1/8" NPT	10	15	25	14	brass	16
00 08 269	G1/4"	1/4" NPT	11	17	28	19	brass	34
00 08 270	G3/8"	3/8" NPT	12	22	34	22	brass	52
00 08 271	G1/2"	1/2" NPT	14	23	37	27	brass	78
00 08 272	G3/4"	3/4" NPT	14	24	38	32	brass	110
00 08 273	G1"	1" NPT	17	28	45	41	brass	224
00 08 274	G1" 1/4	1" 1/4 NPT	18	28	46	50	brass	290
00 08 275	G1" 1/2	1" 1/2 NPT	19	29	48	60	brass	476
00 08 276	G2"	2" NPT	20	31	51	70	brass	550

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

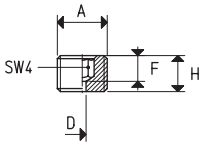
THREADED GRUB SCREWS WITH CALIBRATED HOLE

These threaded grub screws with calibrated hole are used to reduce the cup suction section, thus reducing vacuum losses in case the cup fails to grip.
They are made of brass and can be inserted in all the cup supports set for this application.

Item	A Ø	D Ø	F	H	Grub screw material	Weight g
00 08 122	M8	0.9	5	11	brass	2.5
00 08 121	M8	1.2	5	11	brass	2.4
00 08 120	M8	1.5	5	11	brass	2.3



Item	A Ø	D Ø	F	H	Grub screw material	Weight g
00 08 164	G1/8"	1.2	5	11	brass	3.0
00 08 165	G1/8"	1.5	5	11	brass	3.0
00 08 176	G1/4"	1.2	5	11	brass	4.0
00 08 334	G1/8"	3.0	4	13	brass	4.0

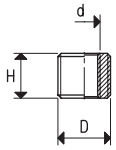


ADAPTERS

These standard accessories offer the user different assembly options.
The galvanised steel or brass adapters screwed onto the standard vacuum cup support connections can vary the threads from gas to metric or vice-versa, from male to female or vice-versa, in addition of course to increasing or decreasing the size of their threaded diameter.

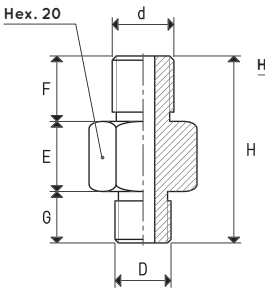
MF ADAPTER

Item	D Ø	d Ø	H	Support material	Weight g
00 08 130	G1/4"	M10	14	steel	4.0
00 08 131	G3/8"	M10	14	steel	12.0
00 08 230	G3/8"	G1/4"	14	steel	6.0
00 08 254	1/4" NPT	M10	14	steel	3.9
00 08 255	3/8" NPT	M10	14	steel	11.9
00 08 258	3/8" NPT	G1/4"	14	steel	5.9

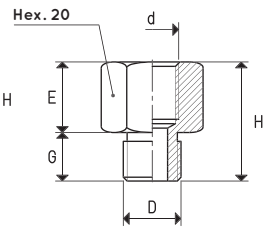


MM AND MF ADAPTER

Item	D Ø	d Ø	E	F	G	H	Adapter material	Weight g
00 08 129	M12	G1/4"	15	14	11	40	brass	58.0
00 08 296	M12	G3/8"	18	--	10	28	brass	34.0
00 08 297	G1/4"	M12	16	--	11	27	brass	40.0



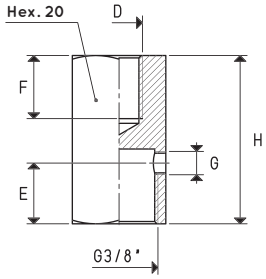
Item 00 08 129



Item 00 08 296
Item 00 08 297

FF ADAPTER FOR JOINT COUPLINGS GS

Item	D Ø	E	F	G Ø	H	Adapter material	Weight g
00 08 54	M10	13	13.5	M5	36	brass	72
00 08 251	M8	16	15.0	G1/8"	48	brass	102
00 08 252	M12	16	15.0	G1/8"	48	brass	90

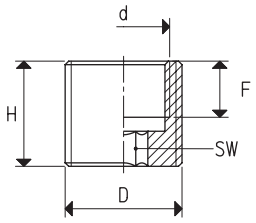


Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130

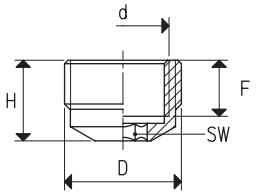
MF ADAPTER

Item	D Ø	d Ø	F	H	SW	Weight g
00 08 215	G3/8"	G1/4"	8	14	6	11.5



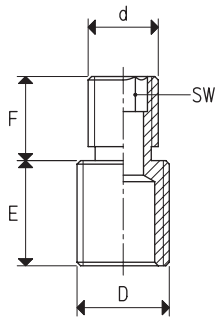
MF ADAPTER

Item	D Ø	d Ø	F	H	SW	Weight g
00 08 216	G3/8"	G1/4"	8	11.5	6	6.0



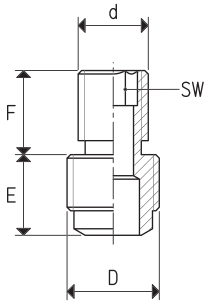
MM ADAPTER

Item	D Ø	d Ø	E	F	SW	Weight g
00 08 217	G1/4"	G1/4"	15	10	6	16.7
00 08 218	G1/4"	M10 x 1.5	15	12	6	10.2
00 08 219	G1/4"	M14 x 1.5	15	12	6	16.0
00 08 220	G3/8"	G1/4"	14	10	6	18.4
00 08 221	G3/8"	M10 x 1.5	14	12	6	16.3
00 08 222	G3/8"	M14 x 1.5	14	12	6	22.5



MM ADAPTER

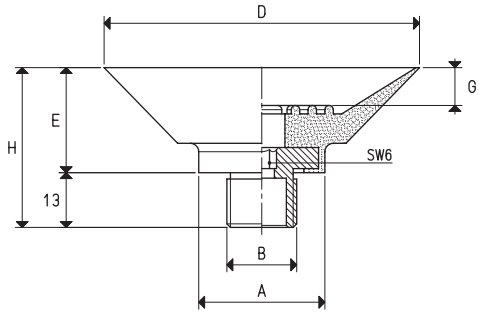
Item	D Ø	d Ø	E	F	SW	Weight g
00 08 223	G1/4"	G1/4"	11.5	10	6	13.9
00 08 224	G1/4"	M10 x 1.5	13.0	12	6	10.1
00 08 225	G1/4"	M14 x 1.5	13.0	12	6	15.8
00 08 226	G3/8"	G1/4"	10.5	11	6	16.6
00 08 227	G3/8"	M10 x 1.5	10.5	13	6	14.2
00 08 228	G3/8"	M14 x 1.5	10.5	13	6	20.2



Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

SELF-LOCKING VACUUM CUPS WITH TRACTION RELEASE

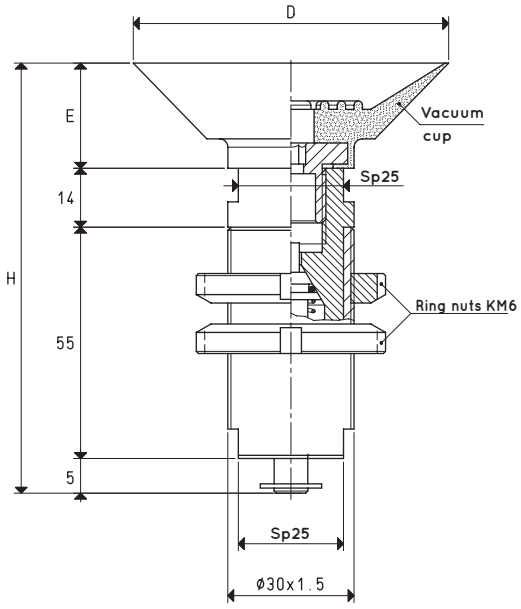
These cups do not require a connection to any vacuum source, since the object onto which they are laid on evacuates the air inside them. A built-in non-return valve prevents the air from entering again, thus maintaining the vacuum.
To release the piece, simply lift it a few millimetres, thus opening the non-return valve, which restores the atmospheric pressure inside the cup, by letting the air in.
Since possible losses cannot be recovered, these cups a recommended only for holding objects with smooth and impermeable surfaces, such as glass, polished sheets, and other similar objects. They are particularly suited for glass carrying trolleys feeding trolleys for robotic systems.
They are made with nickel-plated brass with a steel drive bush, which can be provided in the anti-rotation version upon request.



VACUUM CUPS WITH FEMALE VULCANISED SUPPORT, SPARE PART

Item	Force Kg	Volume cm³	A Ø	B Ø	D Ø	E	G	H	Support material	Weight g
08 50 40 *	4.90	9.8	31	G3/8"	50	16.0	6.5	29.0	steel	38.5
08 75 40 *	11.04	27.8	31	G3/8"	75	25.0	9.0	38.0	steel	57.9
08 100 40 *	19.62	41.3	32	G3/8"	100	26.0	9.0	39.0	steel	78.3
08 100 50 *	19.62	70.3	32	G3/8"	100	30.5	15.0	43.5	steel	74.8

* Complete the code indicating the compound: B= BENZ rubber; N= natural para rubber; S = silicon



SELF-LOCKING VACUUM CUPS WITH TRACTION RELEASE

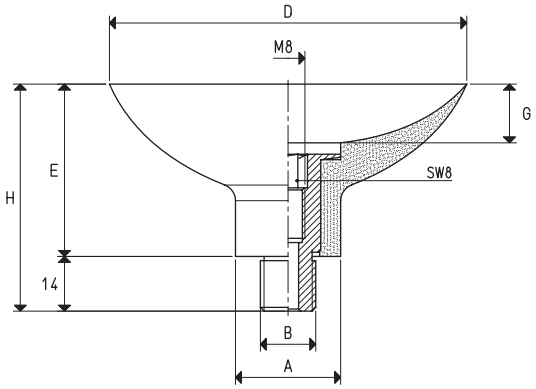
Item	Force Kg	D Ø	E	H	Vacuum cup item	Weight g
17 50 40 *	4.90	50	16	90	08 50 40	436
17 75 40 *	11.04	75	25	99	08 75 40	458
17 100 40 *	19.62	100	26	100	08 100 40	474
17 100 50 *	19.62	100	30	104	08 100 50	473

* Complete the code indicating the compound: B= BENZ rubber; N= natural para rubber; S = silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

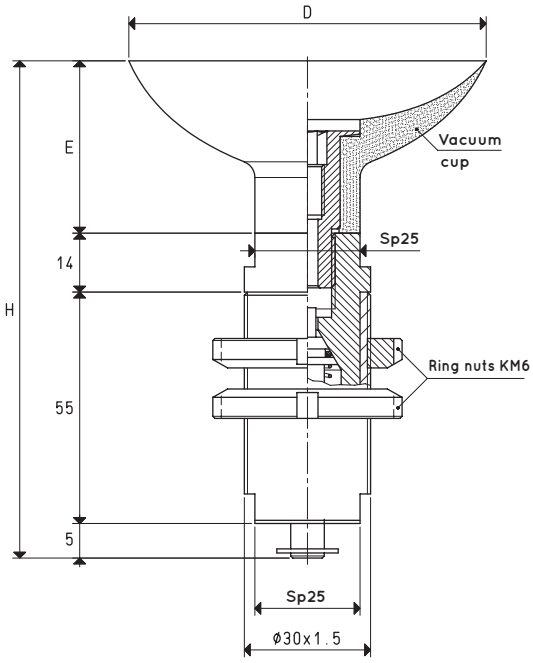
SELF-LOCKING VACUUM CUPS WITH TRACTION RELEASE



VACUUM CUPS WITH SUPPORT, SPARE PART

Item	Force Kg	Volume cm^3	A Ø	B Ø	D Ø	E	G	H	Vacuum cup item	Support item	Support material	Weight g
08 60 10 *	7.06	16.1	15	G1/4"	60	22	9.5	36	01 60 10	00 08 22	aluminium	20.8
08 85 10 *	14.18	48.8	25	G1/4"	85	41	14.0	55	01 85 10	00 08 28	aluminium	49.3

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SELF-LOCKING VACUUM CUPS WITH TRACTION RELEASE

Item	Force Kg	D Ø	E	H	Vacuum cup item	Weight g
17 60 10 *	7.06	60	22	96	08 60 10	415
17 85 10 *	14.18	85	41	115	08 85 10	444

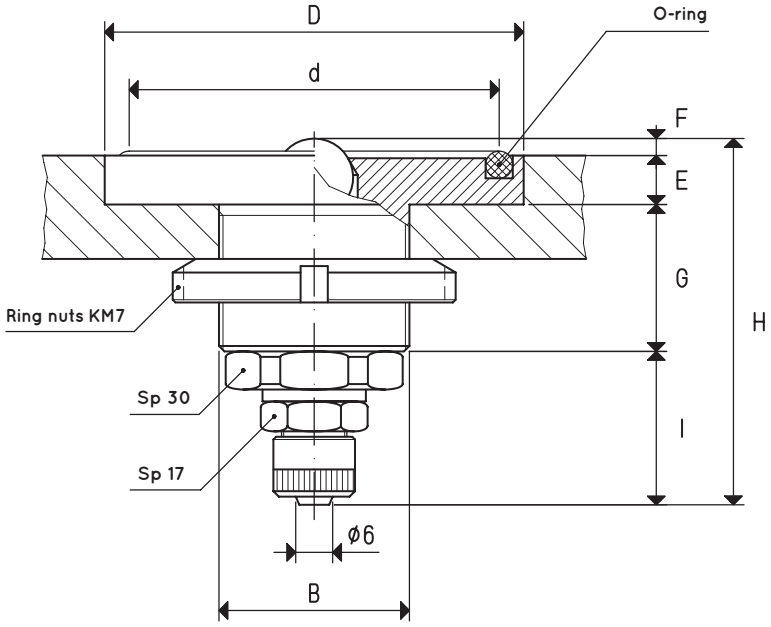
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

BUILT-IN VACUUM CUPS WITH BALL VALVE

The main feature of these cups is that they open, and therefore they produce a vacuum, only when the load to be handled activates the sealing ball. In this version, the gripping surface is limited by a silicon O-ring which guarantees the vacuum seal. They have been specially designed for vacuum beds and they are fully made with anodised aluminium.



BUILT-IN VACUUM CUPS WITH BALL VALVE

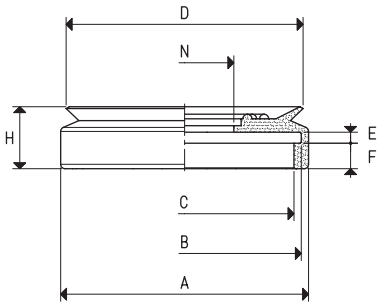
Item	Force Kg	Volume cm^3	B Ø	d Ø	D Ø	E	F	G	H	I	O-ring item	Weight g
05 01 10	9.80	2.1	35 x 1.5	50	59	9	3	27	66	27	00 05 14	248
05 02 10	13.60	3.0	35 x 1.5	59	68	9	3	27	66	27	00 05 15	268
05 03 10	18.10	3.9	35 x 1.5	68	77	9	3	27	66	27	00 05 16	294
05 04 10	29.70	6.3	35 x 1.5	87	96	9	3	27	66	27	00 05 19	358

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

BUILT-IN VACUUM CUPS WITH BALL VALVE

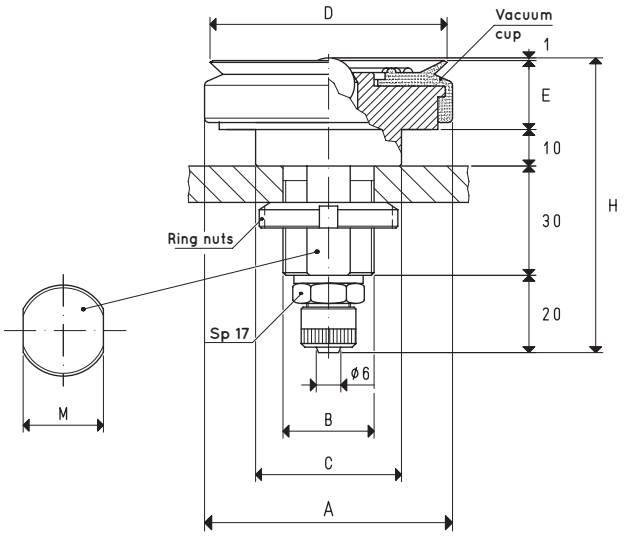
The main feature of the these cups is the same as described above; they differ only in the seal which, in these, consists of the flat vacuum cups listed in the table.
They are especially designed for the glass industry vacuum and in all those cases where the use of a magnetic plane is not possible.
They are made of anodised aluminium but can be manufactured with other metals upon request.



SPARE VACUUM CUP

Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	N Ø	Weight g
01 65 15 *	8.29	9.1	68	63	59	65	3	7	17	27	21.4

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



BUILT-IN VACUUM CUPS WITH BALL VALVE

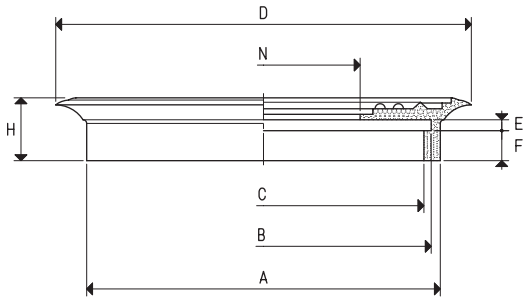
Item	Force Kg	A Ø	B Ø	C Ø	D Ø	E	H	M	Ring nut	Vacuum cup item	Weight g
05 65 15 *	8.29	69	25 x 1.5	40	65	19	80	22	KM 5	01 65 15	262

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

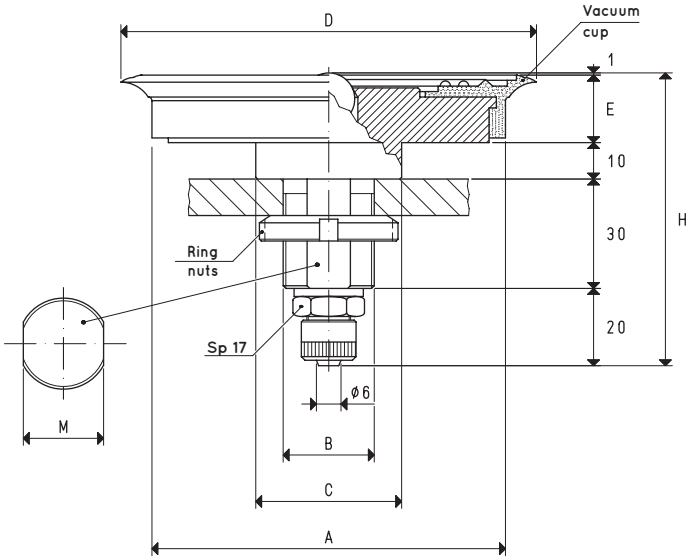
BUILT-IN VACUUM CUPS WITH BALL VALVE



SPARE VACUUM CUPS

Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	N Ø	Weight g
01 85 15 *	14.18	13.0	68	63	59	85	3	7	17	27	29.7
01 110 10 *	23.74	24.9	96	91	87	114	3	8	17	54	44.3
01 150 10 *	45.00	75.7	133	125	118	154	4	11	23	64	112.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



BUILT-IN VACUUM CUPS WITH BALL VALVE

Item	Force Kg	A Ø	B Ø	C Ø	D Ø	E	H	M	Ring nut	Vacuum cup item	Weight g
05 85 15 *	14.18	69	25 x 1.5	40	85	19	80	22	KM 5	01 85 15	272
05 110 10 *	23.74	97	25 x 1.5	40	114	19	80	22	KM 5	01 110 10	422
05 150 10 *	45.00	135	35 x 1.5	80	154	25	86	32	KM 7	01 150 10	894

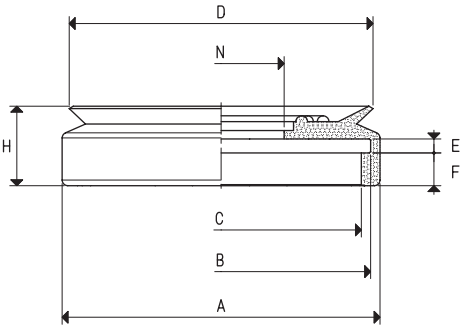
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

SPECIAL BUILT-IN VACUUM CUPS WITH BALL VALVE

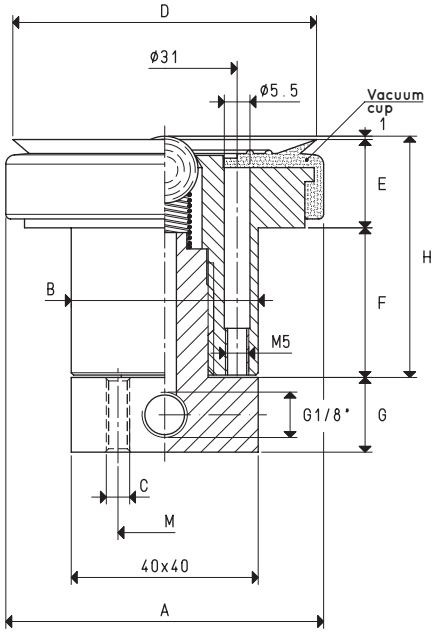
Their main feature is that they open suction and therefore they produce a vacuum, only when the load to be handled activates the sealing ball.
Especially designed for the vacuum operated beds of woodworking machines, they differ from the previously described ones because of the high precision of their cylindrical support, which is ground to size, and because of their square closing block, which prevents the cup from rotating and enables connection to vacuum.
The cold fitted cups are the flat ones listed in the table, in the various compounds.
The support of these cups is made of anodised aluminium, while the closing block is made of brass.



SPARE VACUUM CUP

Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	N Ø	Weight g
01 65 15 *	8.29	9.1	68	63	59	65	3	7	17	27	21.4

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SPECIAL BUILT-IN VACUUM CUP WITH BALL VALVE

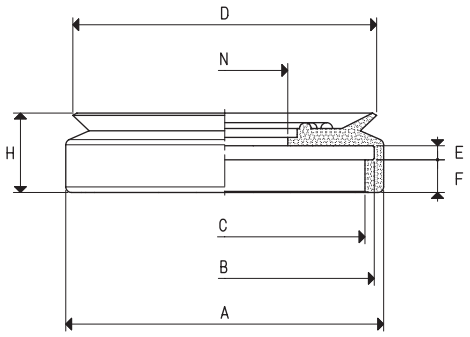
Item	Force Kg	A Ø	B Ø	C Ø	D Ø	E	F	G	H	M	Vacuum cup item	Weight g
05 65 15 M *	8.29	69	40	M5	65	19	31.5	16.0	51.5	20	01 65 15	456

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

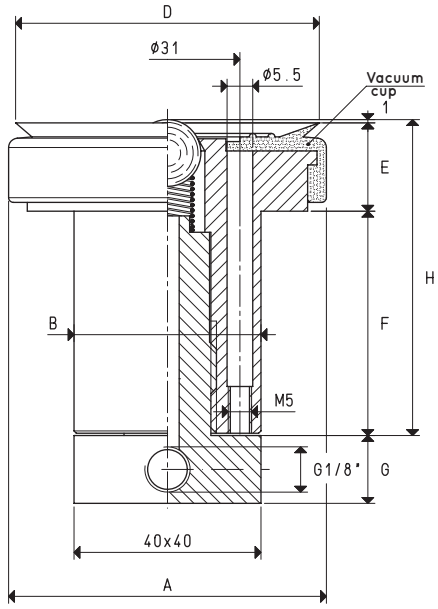
SPECIAL BUILT-IN VACUUM CUPS WITH BALL VALVE



SPARE VACUUM CUP

Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	N Ø	Weight g
01 65 15 *	8.29	9.1	68	63	59	65	3	7	17	27	21.4

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SPECIAL BUILT-IN VACUUM CUP WITH BALL VALVE

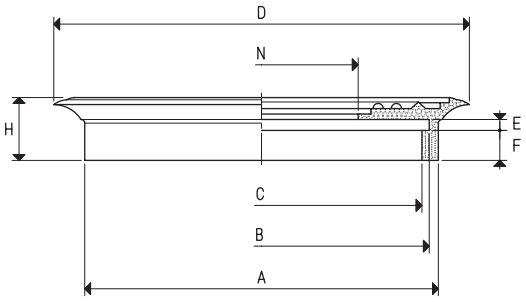
Item	Force Kg	A Ø	B Ø	D Ø	E	F	G	H	Vacuum cup item	Weight g
05 65 65 *	8.29	69	40	65	19	47.5	14.5	67.5	01 65 15	528

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

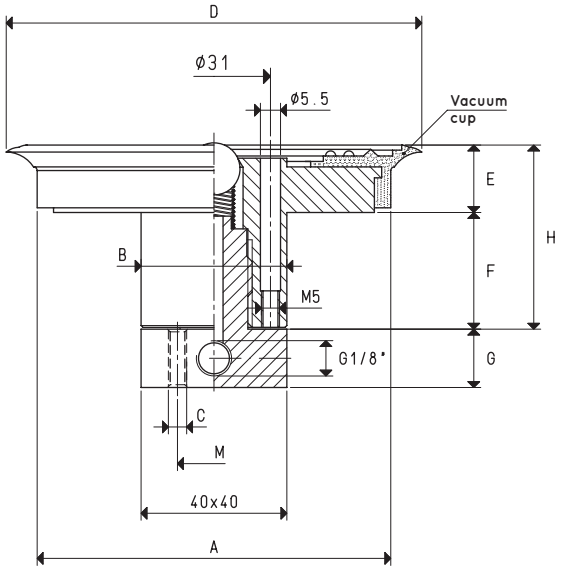
SPECIAL BUILT-IN VACUUM CUPS WITH BALL VALVE



SPARE VACUUM CUPS

Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	N Ø	Weight g
01 85 15 *	14.18	13.0	68	63	59	85	3	7	17	27	29.7
01 110 10 *	23.74	24.9	96	91	87	114	3	8	17	54	44.3

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SPECIAL BUILT-IN VACUUM CUPS WITH BALL VALVE

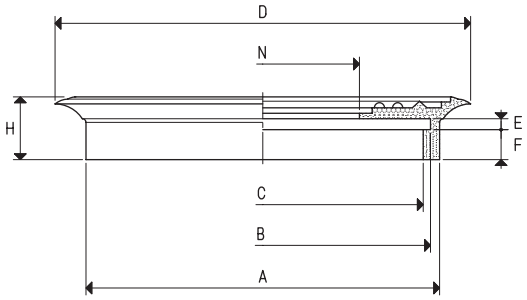
Item	Force Kg	A Ø	B Ø	C Ø	D Ø	E	F	G	H	M	Vacuum cup item	Weight g
05 85 15 M *	14.18	69	40	M5	85	19	31.5	16.0	51.5	20	01 85 15	466
05 110 10 M *	23.74	97	40	M5	114	19	32.0	16.0	52.0	20	01 110 10	614

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

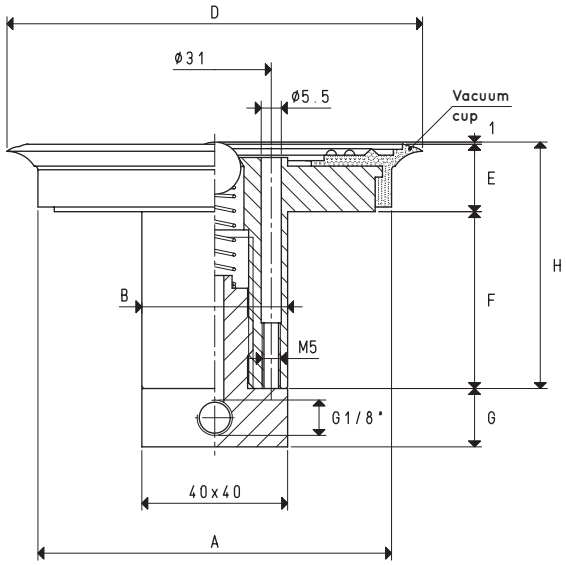
SPECIAL BUILT-IN VACUUM CUPS WITH BALL VALVE



SPARE VACUUM CUPS

Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	N Ø	Weight g
01 85 15 *	14.18	13.0	68	63	59	85	3	7	17	27	29.7
01 110 10 *	23.74	24.9	96	91	87	114	3	8	17	54	44.3

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



SPECIAL BUILT-IN VACUUM CUPS WITH BALL VALVE

Item	Force Kg	A Ø	B Ø	D Ø	E	F	G	H	Vacuum cup item	Weight g
05 85 65 *	14.18	69	40	85	19	47.5	14.5	67.5	01 85 15	536
05 110 65 *	23.74	97	40	114	19	48.0	14.5	68.0	01 110 10	674

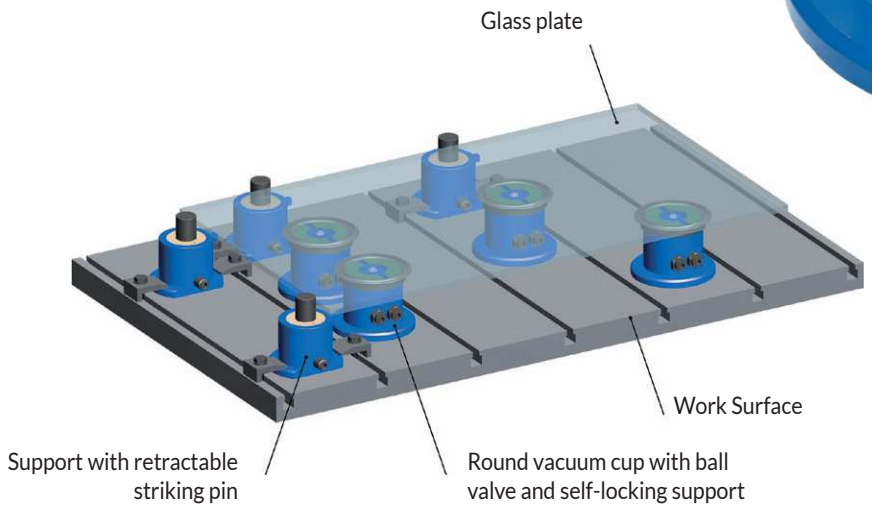
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

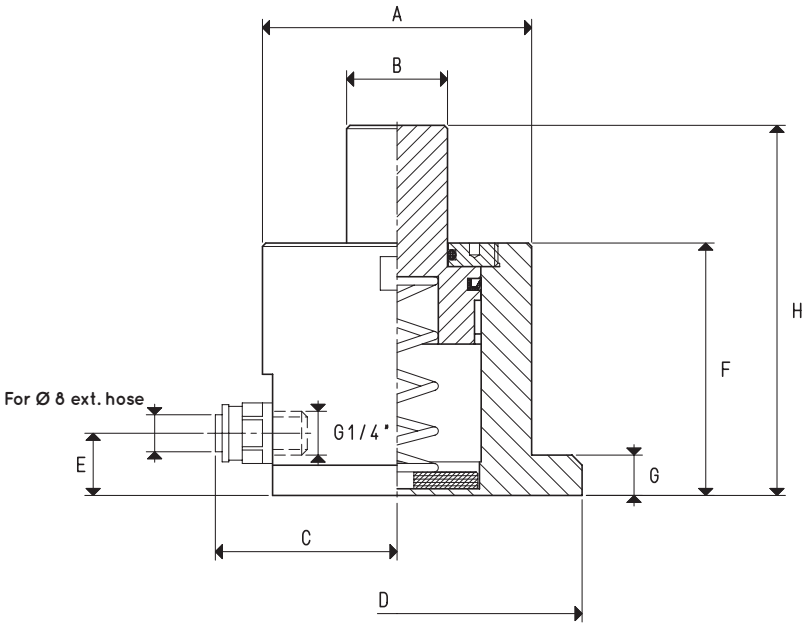
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

SUPPORTS WITH RETRACTABLE STRIKING PIN

These supports with retractable striking pins have been designed to allow a quick centring of the load to be clamped to the machine work surface via the cups.
The striking pin is solidly connected to a piston and it is activated by the vacuum while retracting and while remaining in its housing and also by a stainless steel spring while coming out.
These supports are mechanically fixed to the work surface.
The striking pin is made of plastic material, while the support is made of anodised aluminium.
They are supplied standard with a quick coupling for vacuum connection.





SUPPORTS WITH RETRACTABLE STRIKING PIN

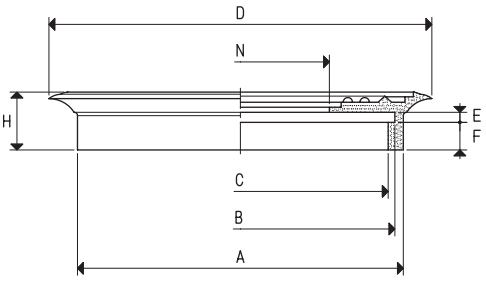
Item	A Ø	B Ø	C	D Ø	E	F	G	H	Weight Kg
23 01 10	80	30	53	110	18	45	12	63	0.690
23 01 15	80	30	53	110	18	64	12	99	0.846
23 02 10	80	30	53	110	18	75	12	110	0.956
23 05 10	80	30	53	110	18	110	12	180	1.280

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

ROUND VACUUM CUPS WITH SELF-LOCKING SUPPORT

These cups represent a true mobile clamping system. They are composed of:
- A sturdy anodised aluminium support with a wide surface at the base limited by a seal whose purpose is to fix it to the bearing surface.
- A standard circular flat cup which is cold fitted onto the upper part of the support for gripping the load.
- Two quick couplings for vacuum connection.

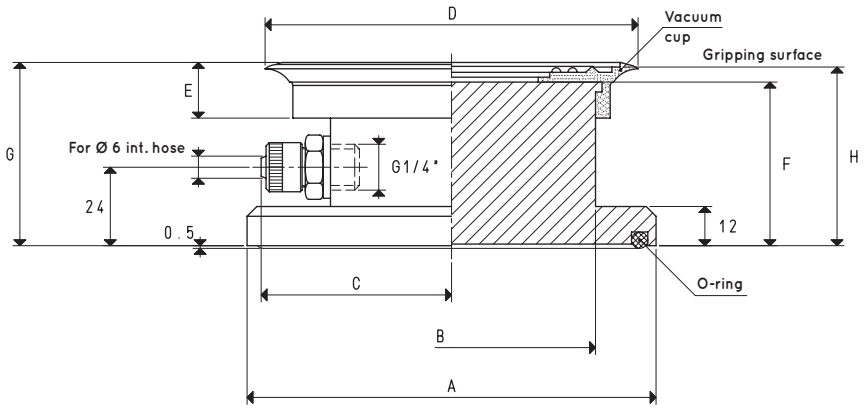
The detection of vacuum for gripping and releasing the support from the bearing surface and gripping and releasing the load can be made via three-way vacuum valves or solenoid valves.
All cups with self-locking support of this and other ranges with the gripping plane at the same height can be used simultaneously, even if they are of different types or have different sizes.



SPARE VACUUM CUPS

Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	N Ø	Weight g
01 85 15 *	14.18	13.0	68	63	59	85	3	7	17	27	29.7
01 110 10 *	23.74	24.9	96	91	87	114	3	8	17	54	44.3
01 150 10 *	45.00	75.7	133	125	118	154	4	11	23	64	112.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



VACUUM CUPS WITH SELF-LOCKING SUPPORT

Item	Force Kg	A Ø	B Ø	C	D Ø	E	F	G	H	Vacuum cup item	O-ring item	Weight Kg
16 85 15 *	14.5	98	60	41	85	17	49.0	56.0	54.5	01 85 15	00 16 06	0.542
16 110 10 *	24.0	125	88	58	114	17	50.0	56.0	54.5	01 110 10	00 16 07	1.056
16 150 10 *	45.0	165	120	76	154	23	49.5	57.5	54.5	01 150 10	00 16 08	1.858

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

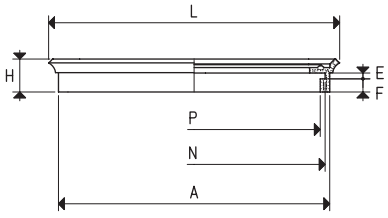
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

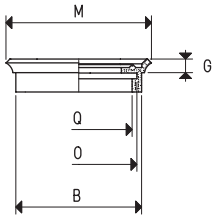
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

RECTANGULAR VACUUM CUPS WITH SELF-LOCKING SUPPORT

These cups represent a true mobile clamping system. They are composed of:
- A sturdy anodised aluminium support with a wide surface at the base limited by a seal whose purpose is to fix it to the bearing surface.
- A standard rectangular flat cup which is cold fitted onto the upper part of the support for gripping the load.
- Two quick couplings for vacuum connection.

The detection of vacuum, for gripping and releasing the support, can be made via three-way vacuum valves or solenoid valves.
All cups with self-locking support of this and other ranges with the gripping plane at the same height can be used simultaneously, even if they are of different types or have different sizes.

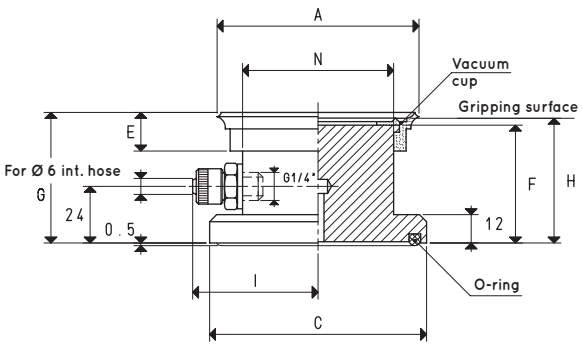


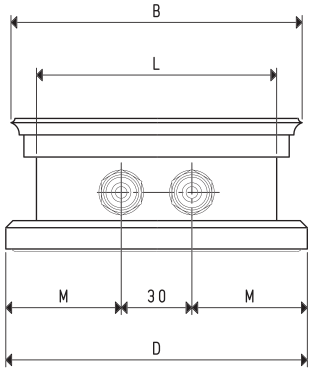


SPARE VACUUM CUPS

Item	Force Kg	Volume cm^3	A	B	E	F	G	H	L	M	N	O	P	Q	Weight g
01 40 75 *	6.7	9.2	64	29	3	7.5	6.5	16.0	75	40	59	24	54	19	15.6
01 120 90 *	24.0	42.9	107	78	3	7.5	7.5	17.5	117	87	102	73	97	68	38.8
01 150 75 *	25.0	43.5	137	62	3	7.5	7.5	16.5	147	72	132	57	127	52	41.2

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon





VACUUM CUPS WITH SELF-LOCKING SUPPORT

Item	Force Kg	A	B	C	D	E	F	G	H	I	L	M	N	Vacuum cup item	O-ring item	Weight Kg
16 40 75 *	6.7	41	76	48	83	16.0	51	56.5	54.5	30.5	55	26.5	20	01 40 75	00 16 09	0.260
16 120 90 *	24.0	90	120	98	128	17.5	50	57.0	54.5	56.0	102	49.0	70	01 120 90	00 16 10	1.166
16 150 75 *	25.0	75	150	83	144	16.5	50	57.0	54.5	48.0	130	57.0	55	01 150 75	00 16 10	1.177

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

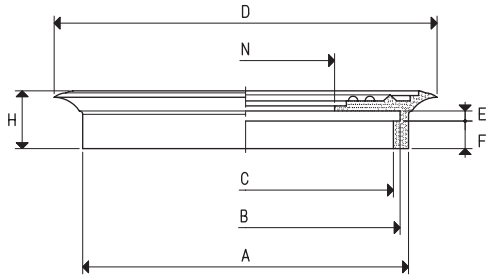
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

ROUND VACUUM CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT

These cups represent a true mobile clamping system. They are composed of:

- A sturdy anodised aluminium support with a wide surface at the base limited by a seal whose purpose is to fix it to the bearing surface.
- A standard circular flat cup which is cold fitted onto the upper part of the support for gripping the load.
- A ball valve that opens up creating vacuum, only when activated by the load to be gripped.
- Two quick couplings for vacuum connection.

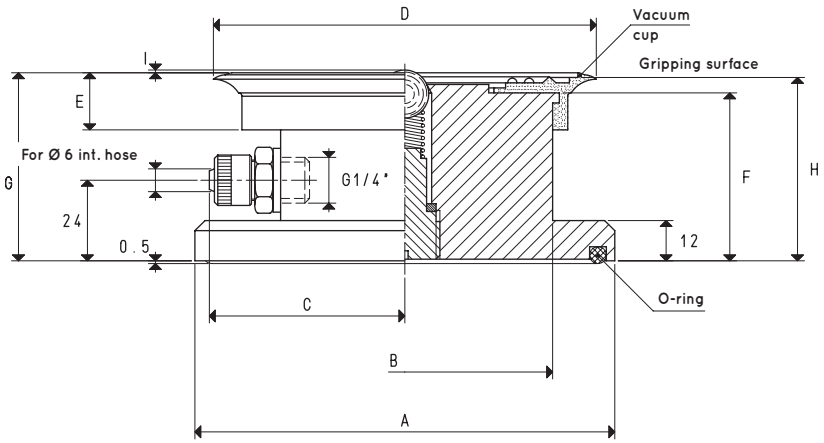
The detection of vacuum, for gripping and releasing the support, can be made via three-way vacuum valves or solenoid valves.
All cups with self-locking support of this and other ranges with the gripping plane at the same height can be used simultaneously, even if they are of different types or have different sizes.



SPARE VACUUM CUPS

Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	N Ø	Weight g
01 85 15 *	14.18	13.0	68	63	59	85	3	7	17	27	29.7
01 110 10 *	23.74	24.9	96	91	87	114	3	8	17	54	44.3
01 150 10 *	45.00	75.7	133	125	118	154	4	11	23	64	112.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



VACUUM CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT

Item	Force Kg	A Ø	B Ø	C	D Ø	E	F	G	H	I	Vacuum cup item	O-ring item	Weight Kg
18 85 15 *	14.5	98	60	41	85	17	49.0	56.0	54.5	1	01 85 15	00 16 06	0.580
18 110 10 *	24.0	125	88	58	114	17	50.0	56.0	54.5	1	01 110 10	00 16 07	1.106
18 150 10 *	45.0	165	120	76	154	23	49.5	57.5	54.5	1	01 150 10	00 16 08	1.926

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

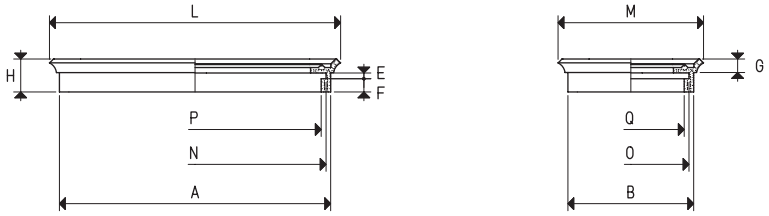
RECTANGULAR VACUUM CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT

These cups represent a true mobile clamping system. They are composed of:

- A sturdy anodised aluminium support with a wide surface at the base limited by a seal whose purpose is to fix it to the bearing surface.
- A standard rectangular flat cup which is cold fitted onto the upper part of the support for gripping the load.
- A ball valve that opens up creating vacuum, only when activated by the load to be gripped.
- Two quick couplings for vacuum connection.

The detection of vacuum, for gripping and releasing the support, can be made via three-way vacuum valves or solenoid valves.

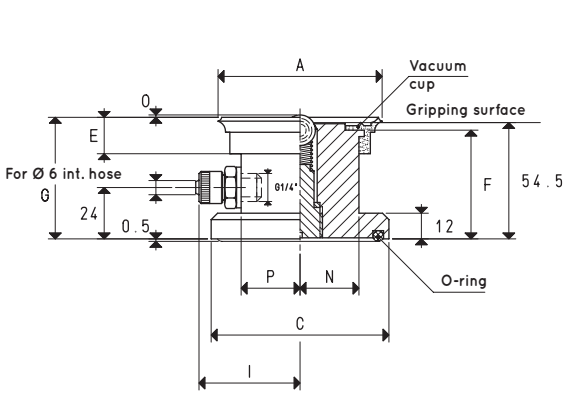
All cups with self-locking support of this and other ranges with the gripping plane at the same height can be used simultaneously, even if they are of different types or have different sizes.

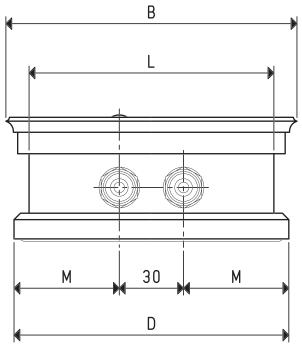


SPARE VACUUM CUPS

Item	Force Kg	Volume cm^3	A	B	E	F	G	H	L	M	N	O	P	Q	Weight g
01 40 75 *	6.7	9.2	64	29	3	7.5	6.5	16.0	75	40	59	24	54	19	15.6
01 120 90 *	24.0	42.9	107	78	3	7.5	7.5	17.5	117	87	102	73	97	68	38.8
01 150 75 *	25.0	43.5	137	62	3	7.5	7.5	16.5	147	72	132	57	127	52	41.2

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon





VACUUM CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT

Item	Force Kg	A	B	C	D	E	F	G	I	L	M	N	O	P	Vacuum cup item	O-ring item	Weight Kg
18 40 75 *	6.7	41	76	48	83	16.0	51	56.5	41.5	55	26.5	15.0	2	21.0	01 40 75	00 16 09	0.352
18 120 90 *	24.0	90	120	98	128	17.5	50	57.0	56.0	102	49.0	35.0	1	35.0	01 120 90	00 16 10	1.224
18 150 75 *	25.0	75	150	83	144	16.5	50	57.0	48.0	130	57.0	27.5	1	27.5	01 150 75	00 16 10	1.194

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

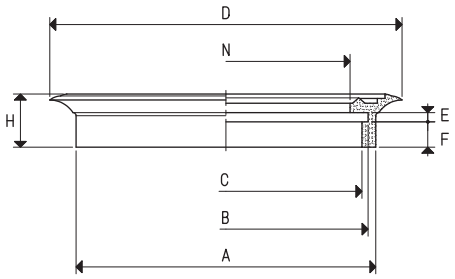
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

ROUND VACUUM CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT

These cups represent a true mobile clamping system.
They are composed of:
- A sturdy aluminium support with a wide surface at the base limited by a seal whose purpose is to fix it to the bearing surface.
- A standard circular flat cup which is cold fitted onto the upper part of the support for gripping the load.
- A ball valve that opens up creating vacuum, only when activated by the load to be gripped.
- Two quick couplings for vacuum connection.

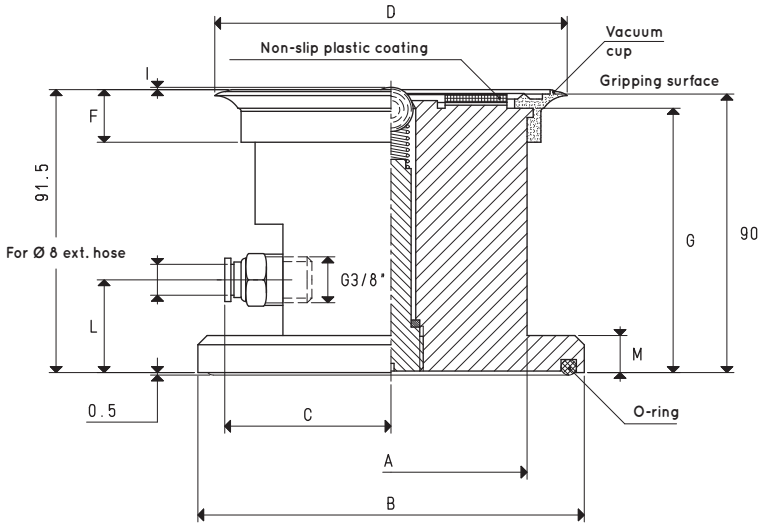
The gripping plane of these cups is covered with a special non-slip plastic coating, which is particularly suited for clamping glass and smooth marble.
The detection of vacuum, for gripping and releasing the support, can be made via three-way vacuum valves or solenoid valves.
All cups with self-locking support of this and other ranges with the gripping plane at the same height can be used simultaneously, even if they are of different types or have different sizes.
Note: Available with support for mechanical fixing with code 28, instead of 18.



SPARE VACUUM CUPS

Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	N Ø	Weight g
01 85 15 M *	14.18	13.0	68	63	59	85	3	7	17	53	26.2
01 110 10 M *	23.74	24.9	96	91	87	114	3	8	17	80	40.1
01 150 10 M *	45.00	75.7	133	125	118	154	4	11	23	117	98.3
01 250 20 *	122.60	200.0	235	227	220	254	4	11	23	220	188.6

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon; BA= stain-resistant Biond



VACUUM CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT

Item	Force Kg	A Ø	B Ø	C	D Ø	F	G	I	L	M	Vacuum cup item	O-ring item	Weight Kg
18 85 15/90 MT *	14.18	60	98	42	85	17	85.0	1	30	12	01 85 15 M	00 16 06	0.880
18 110 10/90 MT *	23.74	88	125	51	114	17	85.5	1	30	12	01 110 10 M	00 16 07	1.704
18 150 10/90 MT *	45.00	120	165	68	154	23	85.0	1	30	12	01 150 10 M	00 16 08	3.158
18 250 20/90 MT *	122.60	223	270	121	254	23	85.0	1	33	15	01 250 20	00 18 09	10.322

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon; BA= stain-resistant Biond

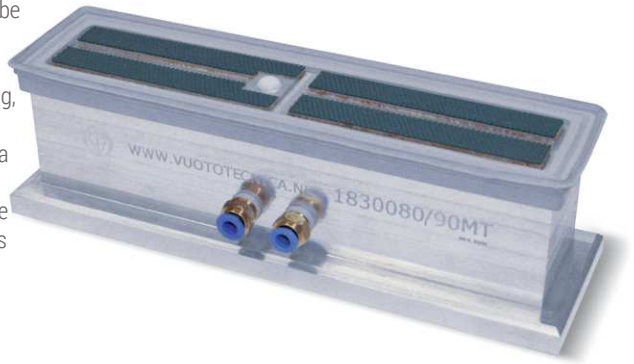
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

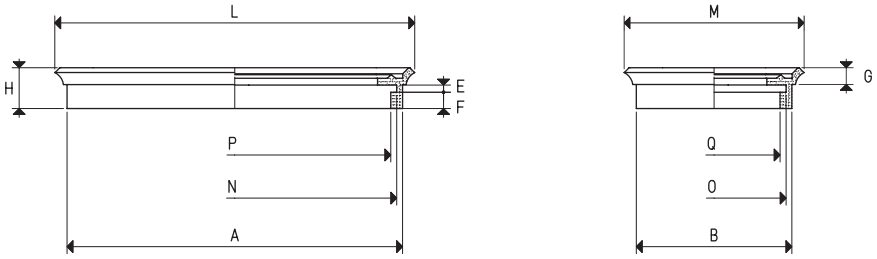
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

RECTANGULAR VACUUM CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT

These cups represent a true mobile clamping system.
They are composed of:
- A sturdy aluminium support with a wide surface at the base limited by a seal whose purpose is to fix it to the bearing surface.
- A standard rectangular flat cup which is cold fitted onto the upper part of the support for gripping the load.
- A ball valve that opens up creating vacuum, only when activated by the load to be gripped.
- Two quick couplings for vacuum connection.

The gripping plane of these cups is covered with a special non-slip plastic coating, which is particularly suited for clamping glass and smooth marble.
The detection of vacuum, for gripping and releasing the support, can be made via three-way vacuum valves or solenoid valves.
All cups with self-locking support of this and other ranges with the gripping plane at the same height can be used simultaneously, even if they are of different types or have different sizes.
Note: Available with support for mechanical fixing with code 28, instead of 18.

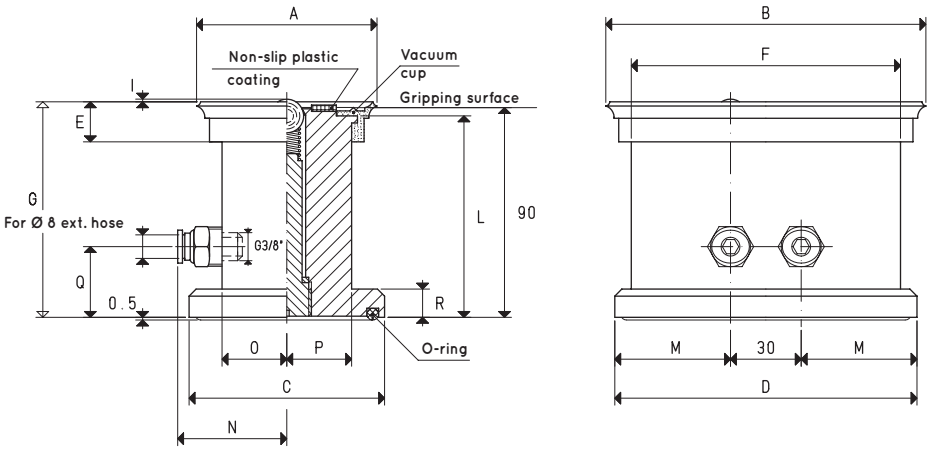




SPARE VACUUM CUPS

Item	Force Kg	Volume cm^3	A	B	E	F	G	H	L	M	N	O	P	Q	Weight g
01 40 75 *	6.7	9.2	64	29	3	7.5	6.5	16.0	75	40	59	24	54	19	15.6
01 120 90 *	24.0	42.9	107	78	3	7.5	7.5	17.5	117	87	102	73	97	68	38.8
01 150 75 *	25.0	43.5	137	62	3	7.5	7.5	16.5	147	72	132	57	127	52	41.2
01 300 80 *	60.0	117.6	288	68	3	7.5	7.5	17.5	297	77	284	64	278	58	80.0
01 300 150 *	113.0	268.5	288	138	3	7.5	7.5	17.5	297	147	284	134	278	128	90.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon; BA= stain-resistant Biond



VACUUM CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT

Item	Force Kg	A	B	C	D	E	F	G	I	L	M	N	O	P	Q	R	Vacuum cup item	O-ring item	Weight Kg
18 40 75/90 MT *	6.7	41	76	48	83	16.0	55	92.0	2	86.5	26.5	37.0	21.0	15.0	30	17	01 40 75	00 16 09	0.570
18 120 90/90 MT *	24.0	90	120	98	128	17.5	102	92.5	1	85.5	49.0	51.0	35.0	35.0	30	12	01 120 90	00 16 10	1.898
18 150 75/90 MT *	25.0	75	150	83	144	16.5	130	92.5	1	85.5	57.0	43.5	27.5	27.5	30	12	01 150 75	00 16 10	1.924
18 300 80/90 MT *	60.0	80	300	90	310	17.5	284	92.5	1	85.5	140.0	47.0	31.0	31.0	33	15	01 300 80	00 18 10	4.632
18 300 150/90 MT *	113.0	150	300	160	310	17.5	284	92.5	1	85.5	140.0	83.0	67.0	67.0	33	15	01 300 150	00 18 11	9.534

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon; BA= stain-resistant Biond

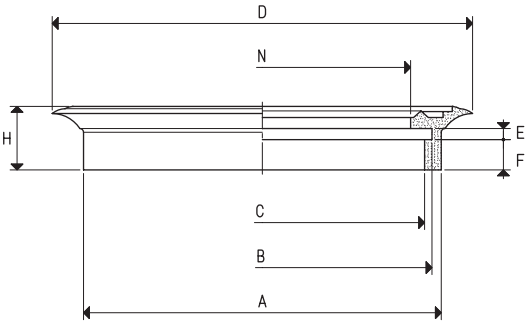
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

ROUND VACUUM CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT

These cups also represent a true mobile clamping system. They differ from the above cups for their exceptional height. They are composed of:
- A sturdy, tall aluminium support with a wide surface at the base limited by a seal whose purpose is to fix it to the bearing surface.
- A standard circular flat cup which is cold fitted onto the upper part of the support for gripping the load.
- A ball valve that opens up creating vacuum, only when activated by the load to be gripped.
- Two quick couplings for vacuum connection.

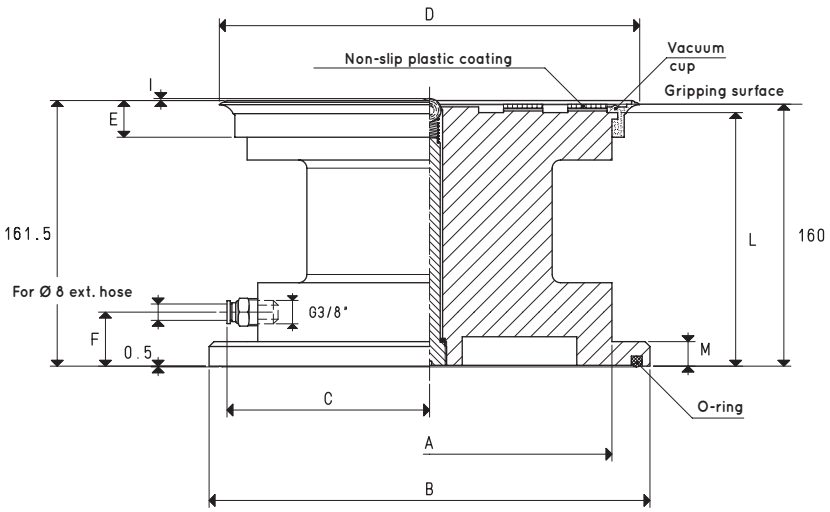
The gripping plane of these cups is covered with a special non-slip plastic coating, which is particularly suited for clamping glass and smooth marble.
The detection of vacuum for gripping and releasing the support from the bearing surface and gripping and releasing the load can be made via three-way vacuum valves or solenoid valves.
All cups with self-locking support of this and other ranges with the gripping plane at the same height can be used simultaneously, even if they are of different types or have different sizes.
Note: Available with support for mechanical fixing with code 28, instead of 18.



SPARE VACUUM CUPS

Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	N Ø	Weight g
01 110 10 M *	23.74	24.9	96	91	87	114	3	8	17	80	40.1
01 150 10 M *	45.00	75.7	133	125	118	154	4	11	23	117	98.3
01 250 20 *	122.60	200.0	235	227	220	254	4	11	23	220	188.6

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon; BA= stain-resistant Biond



ROUND VACUUM CUPS WITH BALL VALVE AND HIGH SELF-LOCKING SUPPORT

Item	Force Kg	A Ø	B Ø	C	D Ø	E	F	I	L	M	Vacuum cup item	O-ring item	Weight Kg
18 110 10/160 MT *	24.0	88	125	51	114	17	30	1	155.5	12	01 110 10 M	00 16 07	2.986
18 150 10/160 MT *	45.0	120	165	68	154	23	30	1	155.5	12	01 150 10 M	00 16 08	5.042
18 250 20/160 MT *	122.6	223	270	121	254	23	33	1	155.5	15	01 250 20	00 18 09	12.634

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon; BA= stain-resistant Biond

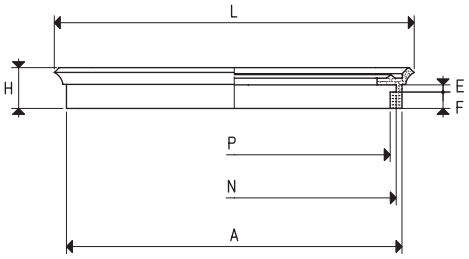
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

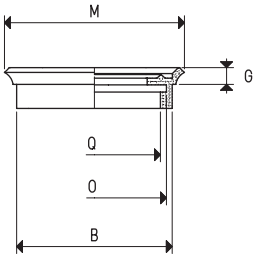
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

RECTANGULAR VACUUM CUPS WITH BALL VALVE AND HIGH SELF-LOCKING SUPPORT

These cups also represent a true mobile clamping system. They differ from the above cups for their exceptional height.
They are composed of:
- A sturdy, tall aluminium support with a wide surface at the base limited by a seal whose purpose is to fix it to the bearing surface.
- A standard rectangular flat cup which is cold fitted onto the upper part of the support for gripping the load.
- A ball valve that opens up creating vacuum, only when activated by the load to be gripped.
- Two quick couplings for vacuum connection.

The gripping plane of these cups is covered with a special non-slip plastic coating, which is particularly suited for clamping glass and smooth marble.
The detection of vacuum for gripping and releasing the support from the bearing surface and gripping and releasing the load can be made via three-way vacuum valves or solenoid valves.
All cups with self-locking support of this and other ranges with the gripping plane at the same height can be used simultaneously, even if they are of different types or have different sizes.
Note: Available with support for mechanical fixing with code 28, instead of 18.

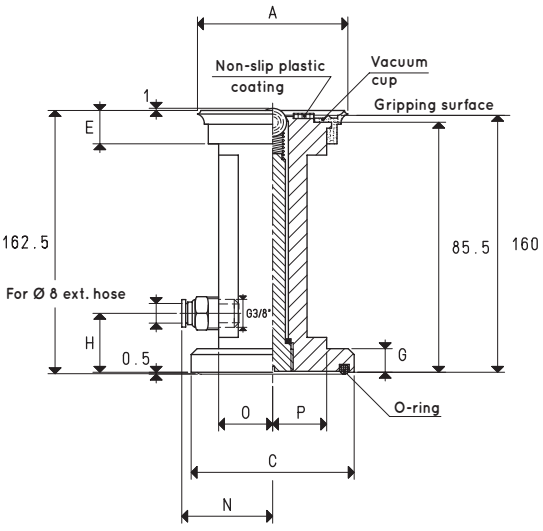


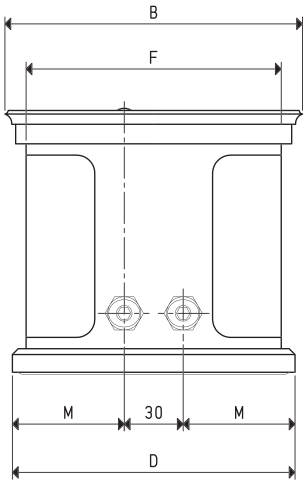


SPARE VACUUM CUPS

Item	Force Kg	Volume cm^3	A	B	E	F	G	H	L	M	N	O	P	Q	Weight g
01 120 90 *	24.0	42.9	107	78	3	7.5	7.5	17.5	117	87	102	73	97	68	38.8
01 150 75 *	25.0	43.5	137	62	3	7.5	7.5	16.5	147	72	132	57	127	52	41.2
01 300 80 *	60.0	117.6	288	68	3	7.5	7.5	17.5	297	77	284	64	278	58	80.0
01 300 150 *	113.0	268.5	288	138	3	7.5	7.5	17.5	297	147	284	134	278	128	90.0

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon; BA= stain-resistant Biond





ROUND VACUUM CUPS WITH BALL VALVE AND HIGH SELF-LOCKING SUPPORT

Item	Force Kg	A	B	C	D	E	F	G	H	M	N	O	P	Vacuum cup item	O-ring item	Weight Kg
18 120 90/160 MT *	24.0	90	120	98	128	17.5	102	12	30	49	51.0	35.0	35.0	01 120 90	00 16 10	3.450
18 150 75/160 MT *	25.0	75	150	83	144	16.5	130	12	30	57	43.5	27.5	27.5	01 150 75	00 16 10	3.262
18 300 80/160 MT *	60.0	80	300	90	310	17.5	284	15	33	140	47.0	31.0	31.0	01 300 80	00 18 10	7.906
18 300 150/160 MT *	113.0	150	300	160	310	17.5	284	15	33	140	83.0	67.0	67.0	01 300 150	00 18 11	13.110

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon; BA= stain-resistant Biond

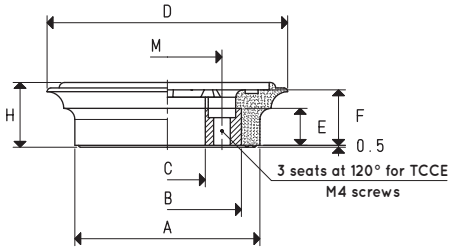
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

ROUND VACUUM CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT, FOR GLASS

Glass machinery manufacturers require increasingly accurate and safe clamping machines. This has led us to the creation of this series of cups.
The specially designed shape of this cup guarantees a firm grip.
The other main feature is the utmost precision in the height, whose nominal size has a tolerance of only five hundredths of millimetre.
They are composed of:
- A sturdy aluminium support with a wide surface at the base limited by a seal whose purpose is to fix it to the bearing surface.
- A standard round flat cup which is cold-assembled onto the upper part of the support for gripping the load.
- A ball valve that opens up creating vacuum, only when activated by the load to be gripped.
- Two quick couplings for vacuum connection.

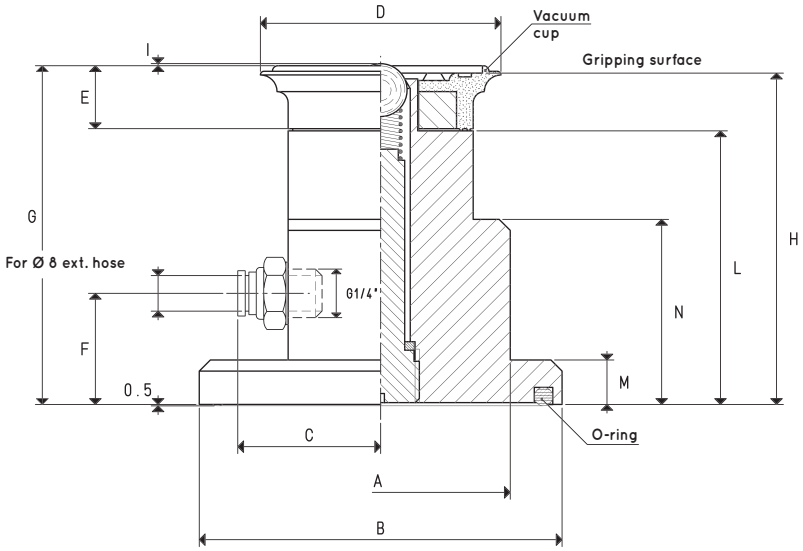
The detection of vacuum, for gripping and releasing the support from the bearing surface and for gripping and release of glass can be made via three-way vacuum valves or solenoid valves.



SPARE VACUUM CUP

Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	M Ø	Support material	Weight g
08 65 11 A	6.7	5.5	50	40	20.5	65	10	15	17.5	29.5	acciaio	90

Compound: A = oil-resistant rubber



VACUUM CUP WITH BALL VALVE AND SELF-LOCKING SUPPORT

Item	Force Kg	A Ø	B Ø	C	D Ø	E	F	G	H	I	L	M	N	Vacuum cup item	O-ring item	Weight Kg
18 65 11/90 A	6.7	70	98	45	65	17.5	30	92.5	90	1	75	12	50	08 65 11 A	00 16 06	1.090

Compound: A = oil-resistant rubber

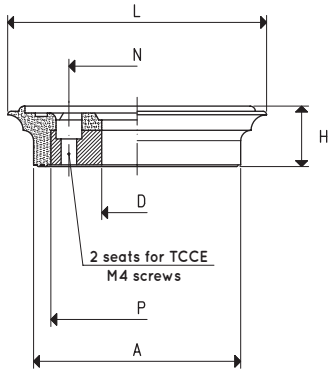
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

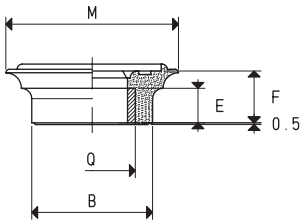
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

RECTANGULAR VACUUM CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT, FOR GLASS

Glass machinery manufacturers require increasingly accurate and safe clamping machines. This has led us to the creation of this series of cups.
The specially designed shape of this cup guarantees a firm grip.
The other main feature is the utmost precision in the height, whose nominal size has a tolerance of only five hundredths of millimetre.
They are composed of:
- A sturdy aluminium support with a wide surface at the base limited by a seal whose purpose is to fix it to the bearing surface.
- A standard rectangular flat cup which is cold-assembled onto the upper part of the support for gripping the load.
- A ball valve that opens up creating vacuum, only when activated by the load to be gripped.
- Two quick couplings for vacuum connection.

The detection of vacuum, for gripping and releasing the support from the bearing surface and for gripping and release of glass can be made via three-way vacuum valves or solenoid valves.

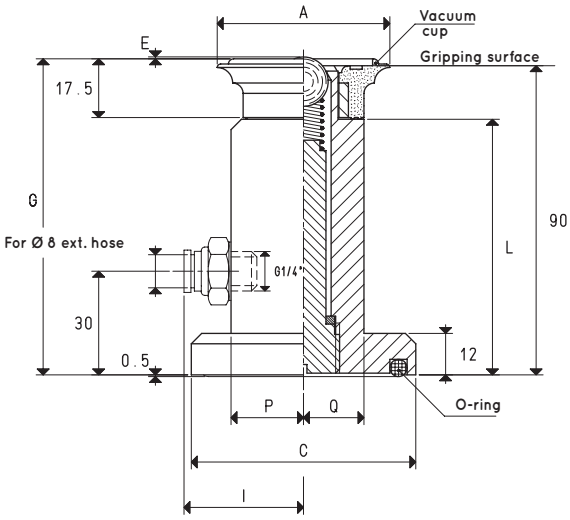


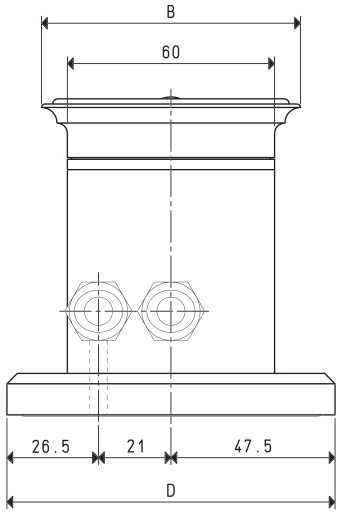


SPARE VACUUM CUP

Item	Force Kg	Volume cm^3	A	B	D Ø	E	F	H	L	M	N	P	Q	Support material	Weight g
08 50 75 A	7.5	6.1	60	35	20.5	10	15	17.5	75	50	39.5	50	25	steel	92

Compound: A = oil-resistant rubber





VACUUM CUP WITH BALL VALVE AND SELF-LOCKING SUPPORT

Item	Force Kg	A	B	C	D	E	G	I	L	P	Q	Vacuum cup item	O-ring item	Weight Kg
18 50 75/90 A	7.5	50	75	65	95	1	92.5	41	75	21	17.5	08 50 75 A	00 16 06	0.762

Compound: A = oil-resistant rubber

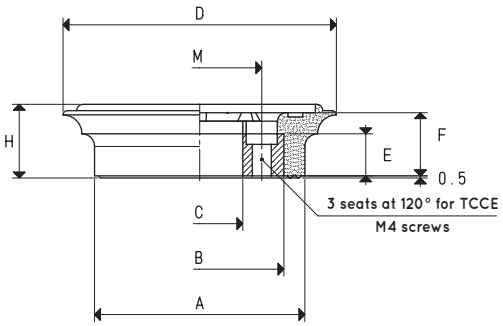
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$

ROUND VACUUM CUPS WITH BALL VALVE, SELF-LOCKING SUPPORT AND RELEASE BUTTON, FOR GLASS

Glass machinery manufacturers require increasingly accurate and safe clamping machines. This has led us to the creation of this series of cups.
The specially designed shape of this cup guarantees a firm grip.
The other main feature is the utmost precision in the height, whose nominal size has a tolerance of only five hundredths of millimetre.
They are composed of:
- A sturdy anodised aluminium support with a wide surface at the base limited by a seal whose purpose is to fix it to the bearing surface.
- A standard round flat cup which is cold-assembled onto the upper part of the support for gripping the load.
- A ball valve that opens up creating vacuum, only when activated by the load to be gripped.
- A release button that allows placing the support even with the vacuum inserted.
- Two quick couplings for vacuum connection.

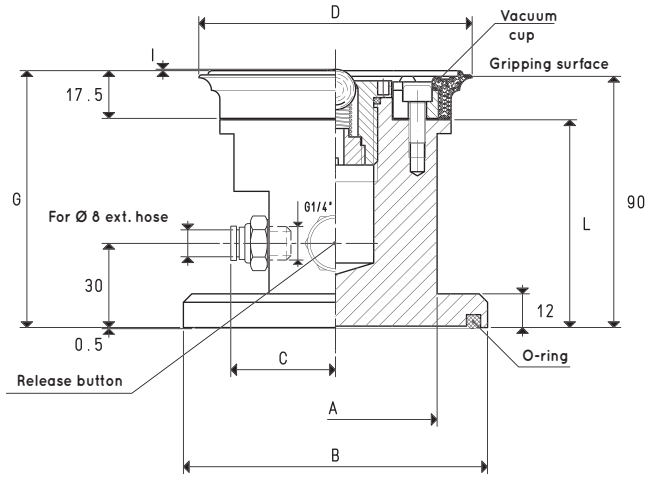
The detection of vacuum, for gripping and releasing the support from the bearing surface and for gripping and release of glass can be made via three-way vacuum valves or solenoid valves.



SPARE VACUUM CUP

Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	M Ø	Support material	Weight g
08 85 11 A	12	7.7	70	60	40.5	85	10	15	17.5	49.5	steel	92

Compound: A = oil-resistant rubber



VACUUM CUPS WITH BALL VALVE, SELF-LOCKING SUPPORT AND RELEASE BUTTON

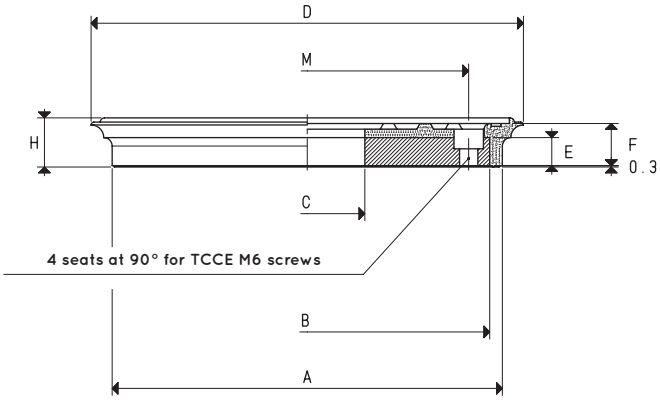
Item	Force Kg	A Ø	B Ø	C	D Ø	G	I	L	Vacuum cup item	O-ring item	Weight Kg
21 85 11/90 A	12.0	70	98	42	85	92.5	1	75	08 85 11 A	00 16 06	1.090

Compound: A = oil-resistant rubber

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

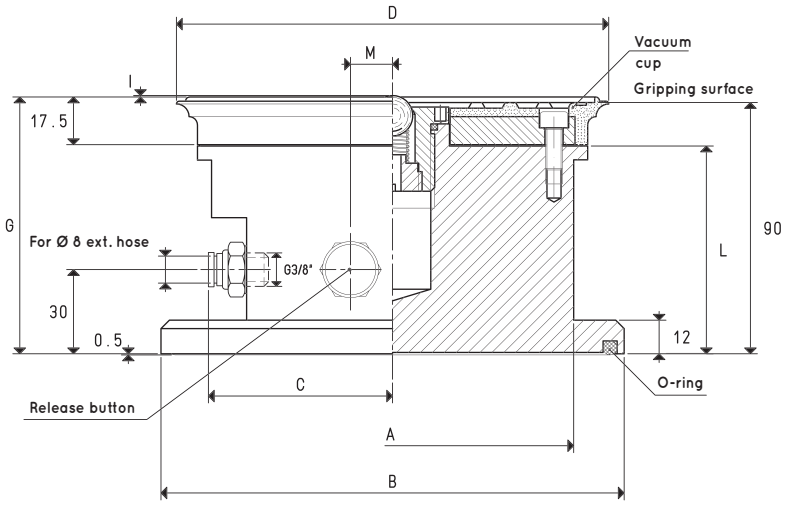
ROUND VACUUM CUPS WITH BALL VALVE, SELF-LOCKING SUPPORT AND RELEASE BUTTON, FOR GLASS



SPARE VACUUM CUP

Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	M Ø	Support material	Weight Kg
08 150 11 A	42.7	47.1	139	130	41.0	150	10	15	17.5	115.0	steel	1.0

Compound: A = oil-resistant rubber



VACUUM CUPS WITH BALL VALVE, SELF-LOCKING SUPPORT AND RELEASE BUTTON

Item	Force Kg	A Ø	B Ø	C	D Ø	G	I	L	M	Vacuum cup item	O-ring item	Weight Kg
21 150 11/90 A	42.7	129	165	73	150	92.5	1	75	15	08 150 11 A	00 16 08	3.938

Compound: A = oil-resistant rubber

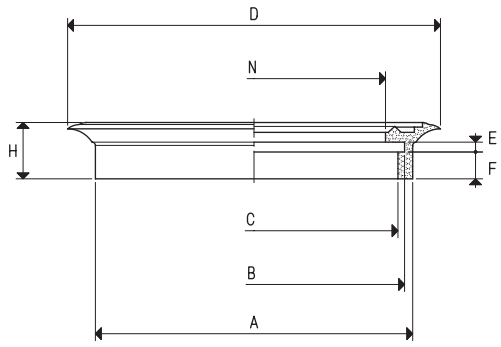
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

ROUND VACUUM CUPS WITH BALL VALVE, SELF-LOCKING SUPPORT AND RELEASE BUTTON

These cups represent a true mobile clamping system.
They are composed of:
- A sturdy anodised aluminium support with a wide surface at the base limited by a seal whose purpose is to fix it to the bearing surface.
- A standard circular flat cup which is cold fitted onto the upper part of the support for gripping the load.
- A ball valve that opens up creating vacuum, only when activated by the load to be gripped.
- A release button that allows placing the support even with the vacuum inserted.
- Two quick couplings for vacuum connection.

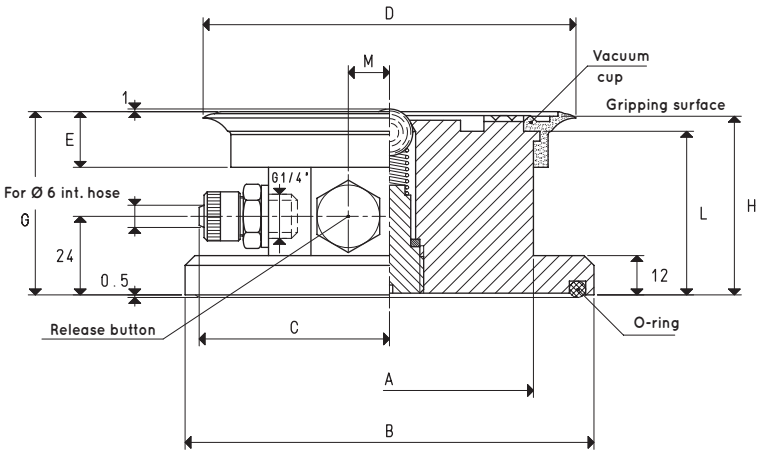
The detection of vacuum for gripping and releasing the support from the bearing surface and gripping and releasing the load can be made via three-way vacuum valves or solenoid valves.
All cups with self-locking support of this and other ranges with the gripping plane at the same height can be used simultaneously, even if they are of different types or have different sizes.



SPARE VACUUM CUPS

Item	Force Kg	Volume cm^3	A Ø	B Ø	C Ø	D Ø	E	F	H	N Ø	Weight g
01 110 10 M *	23.74	24.9	96	91	87	114	3	8	17	80	40.1
01 150 10 M *	45.00	75.7	133	125	118	154	4	11	23	117	98.3

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



VACUUM CUPS WITH BALL VALVE, SELF-LOCKING SUPPORT AND RELEASE BUTTON

Item	Force Kg	A Ø	B Ø	C	D Ø	E	G	H	L	M	Vacuum cup item	O-ring item	Weight Kg
21 110 10 *	24	88	125	58	114	17	56.0	54.5	50.0	10	01 110 10 M	00 16 07	1.148
21 150 10 *	45	120	165	76	154	23	57.5	54.5	49.5	28	01 150 10 M	00 16 08	2.042

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

RECTANGULAR VACUUM CUPS WITH BALL VALVE, SELF-LOCKING SUPPORT AND RELEASE BUTTON

These cups represent a true mobile clamping system.
They are composed of:
- A sturdy anodised aluminium support with a wide surface at the base limited by a seal whose purpose is to fix it to the bearing surface.
- A standard rectangular flat cup which is cold fitted onto the upper part of the support for gripping the load.
- A ball valve that opens up creating vacuum, only when activated by the load to be gripped.
- A release button that allows placing the support even with the vacuum inserted.
- Two quick couplings for vacuum connection.

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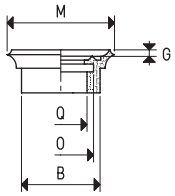
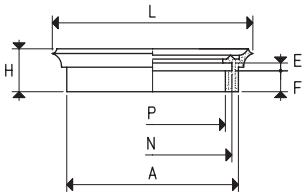


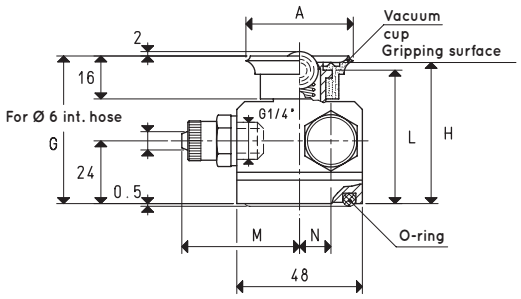


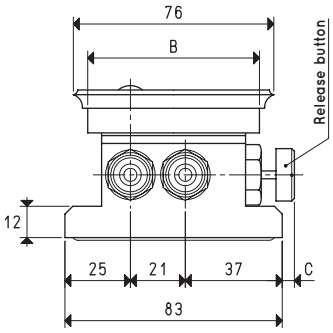
SPARE VACUUM CUPS

Item	Force Kg	Volume cm^3	A	B	E	F	G	H	L	M	N	O	P	Q	Weight g
01 40 75 *	6.7	9.2	64	29	3	7.5	6.5	16.0	75	40	59	24	54	19	15.6

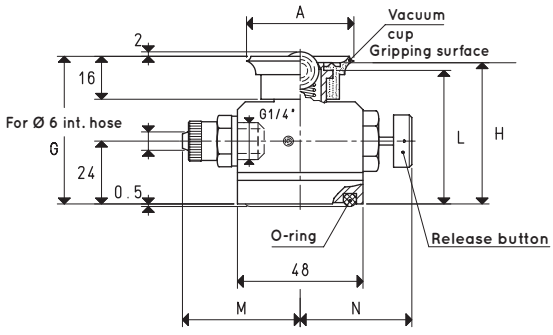
* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

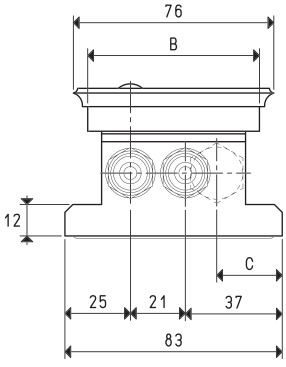
Item 21 40 75 PL





Item 21 40 75 PP





VACUUM CUPS WITH BALL VALVE, SELF-LOCKING SUPPORT AND RELEASE BUTTON

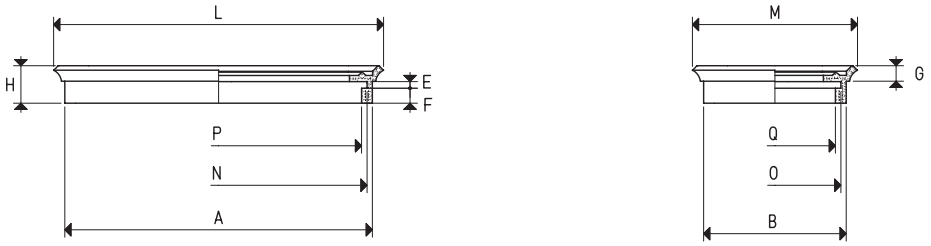
Item	Force Kg	A	B	C	G	H	L	M	N	Vacuum cup item	O-ring item	Weight Kg
21 40 75 PL *	6.7	41	55	7	56.5	54.5	51	45.5	12	01 40 75	00 16 09	0.460
21 40 75/84 PL *	6.7	41	55	7	86.5	84.0	81	45.5	12	01 40 75	00 16 09	0.702
21 40 75 PP *	6.7	41	55	25	56.5	54.5	51	45.5	45	01 40 75	00 16 09	0.460
21 40 75/ 84 PP *	6.7	41	55	25	86.5	84.0	81	45.5	45	01 40 75	00 16 09	0.702

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

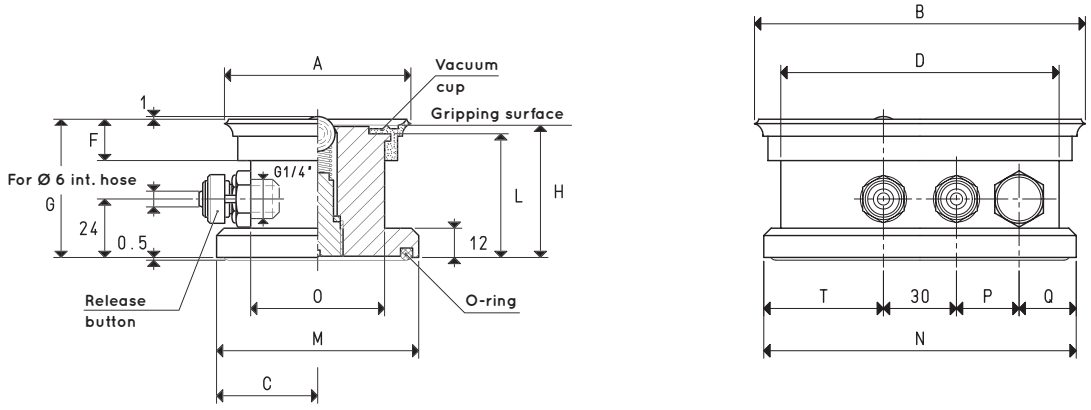
RECTANGULAR VACUUM CUPS WITH BALL VALVE, SELF-LOCKING SUPPORT AND RELEASE BUTTON



SPARE VACUUM CUPS

Item	Force Kg	Volume cm^3	A	B	E	F	G	H	L	M	N	O	P	Q	Weight g
01 120 90 *	24.0	42.9	107	78	3	7.5	7.5	17.5	117	87	102	73	97	68	38.8
01 150 75 *	25.0	43.5	137	62	3	7.5	7.5	16.5	147	72	132	57	127	52	41.2

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon



VACUUM CUPS WITH BALL VALVE, SELF-LOCKING SUPPORT AND RELEASE BUTTON

Item	Force Kg	A	B	C	D	F	G	H	L	M	N	O	P	Q	T	Vacuum cup item	O-ring item	Weight Kg
21 120 90 *	24	90	120	56	102	17.5	57.0	54.5	50	98	128	70	24	25	49	01 120 90	00 16 10	1.320
21 150 75 *	25	75	120	48	130	16.5	57.0	54.5	50	83	144	55	25	32	57	01 150 75	00 16 10	1.236
21 150 75/84 *	25	75	150	48	130	16.5	86.5	84.0	80	83	144	55	25	32	57	01 150 75	00 16 10	1.924

* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

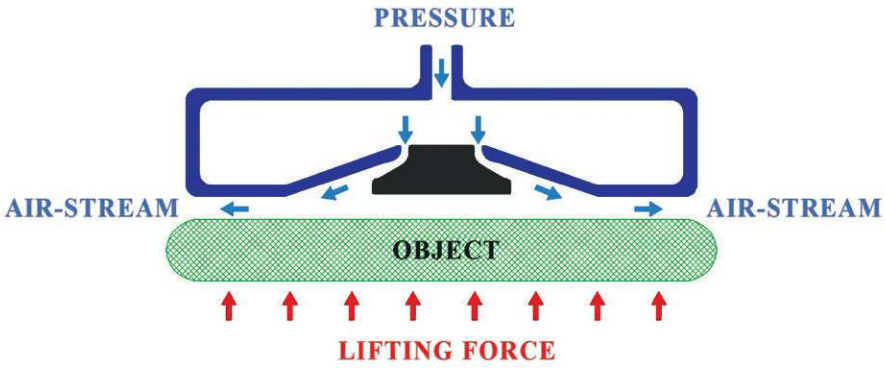
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

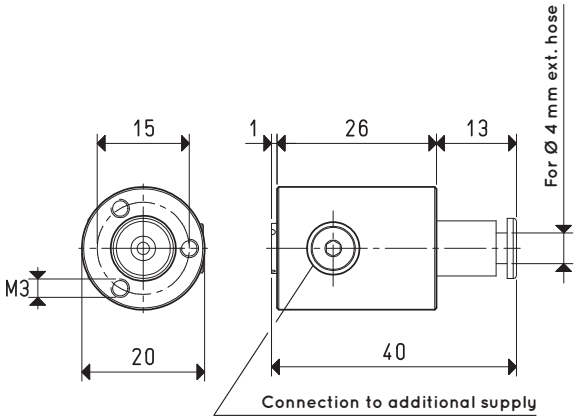
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

VACUUM CUPS BASED ON BERNOULLI'S THEOREM

Bernoulli's theorem explains many phenomena, such as the lifting of a plane's wing or of a light disc in front of a tube end from which air flows out quickly.
This apparently paradoxical phenomenon is exploited for manufacturing vacuum gripping systems (vacuum cups) and handling, with no contact, fragile objects, such as semiconductor plates, silica discs, solar cells, precious metal foils, films and whatever needs to be handled with the greatest care.
Our cups based on Bernoulli's principle are made with anodised aluminium, with stainless steel centre thrust disc.
The antistatic silicon spacers, located on the cup gripping plane, prevent transverse movements of the gripped object.
The compressed air supply connections can be axial and radial and the quick coupler for the flexible pipe is included in the package.
The unused holes are closed with brass threaded caps.
On the rear part of the cup there are 3 or 4 threaded holes for fitting it to the automation.

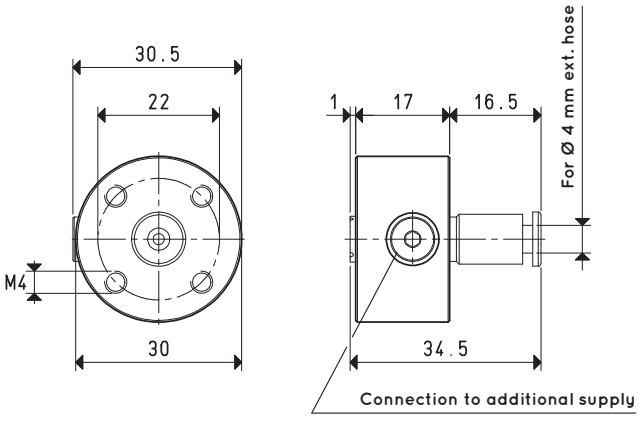
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$





Item	Max force g	Transverse force g	Operating pressure bar	Consumption of air Nl/s	Level of noise dB(A)	Weight g	Fitting included item	Spare rubber pad spacer item
BEC 20	220	145	5	2.3	66	21	00 BEC 13	00 BEC 10

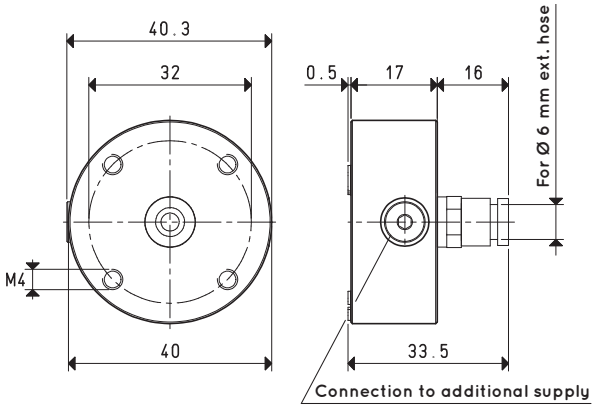
Note: BEC vacuum cups must be supplied with non-lubricated compressed air, 5 micron filtration, according to standard **ISO 8573-1 class 4**.



Item	Max force g	Transverse force g	Operating pressure bar	Consumption of air Nl/s	Level of noise dB(A)	Weight g	Fitting included item	Spare rubber pad spacer item
BEC 30	380	250	5	2.5	72	31	00 BEC 13	00 BEC 10

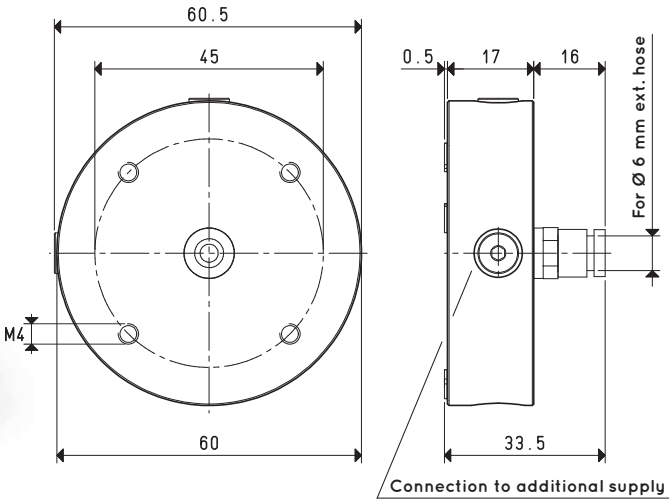
Note: BEC vacuum cups must be supplied with non-lubricated compressed air, 5 micron filtration, according to standard **ISO 8573-1 class 4**.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$



Item	Max force g	Transverse force g	Operating pressure bar	Consumption of air Nl/s	Level of noise dB(A)	Weight g	Fitting included item	Spare rubber pad spacer item
BEC 40	680	450	5	3.0	74	51	00 BEC 14	00 BEC 09

Note: BEC vacuum cups must be supplied with non-lubricated compressed air, 5 micron filtration, according to standard **ISO 8573-1 class 4**.



Item	Max force g	Transverse force g	Operating pressure bar	Consumption of air Nl/s	Level of noise dB(A)	Weight g	Fitting included item	Spare rubber pad spacer item
BEC 60	900	600	5	4.4	75	121	00 BEC 14	00 BEC 09

Note: BEC vacuum cups must be supplied with non-lubricated compressed air, 5 micron filtration, according to standard **ISO 8573-1 class 4**.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

VACUUM CUP QUESTIONNAIRE

For a correct dimensioning of a vacuum cup handler, it is important to know and assess the features of the load to be handled.
For this reason, please fill in the following form and send it back to us via e-mail or fax.
This way, we will be able to suggest you the best cups to solve your problem.
A drawing of the product to be handled or the product itself would allow us to offer the best solution.
E-mail: tecnico@vuototecnica.net
Fax: +39 039 5320015

Company

.....

Address

.....

Post code / City ***Country***

....

Contact person:

.....

Telephone ***Fax***

....

E-mail

.....

1) *In what industry sector are the vacuum cups utilised?*

☐ *Plastic* ☐ *Packaging* ☐ *Woodworking* ☐ *Cosmetics*
☐ *CD/DVD* ☐ *Glass/Solar* ☐ *Marble/Stone* ☐ *Automotive*
☐ *Electronics* ☐ *Graphic arts* ☐ *Medical/Pharmaceutical* ☐ *Ceramics/Porcelain*
☐ *Food* ☐ *Bottling* ☐ *Other sectors* .....

2) *With what material is the product to be handled made?*

☐ *Plastic* ☐ *Glass* ☐ *Wood* ☐ *Paper/Cardboard*
☐ *Steel sheet* ☐ *Marble/Granite* ☐ *Rubber* ☐ *Other*.....

3) *What is the surface of the product to be gripped like?*

☐ *Dry* ☐ *Moist* ☐ *Smooth* ☐ *Rough* ☐ *Creased*
☐ *Corrugated* ☐ *Flaky* ☐ *Porous* ☐ *Textured* ☐ *Bush-hammered*

4) *On the gripping surface there may be substances such as:*

☐ *Powder* ☐ *Water* ☐ *Oil* ☐ *Solvents* ☐ *Other* .....

5) *What shape is the product to be handled?*

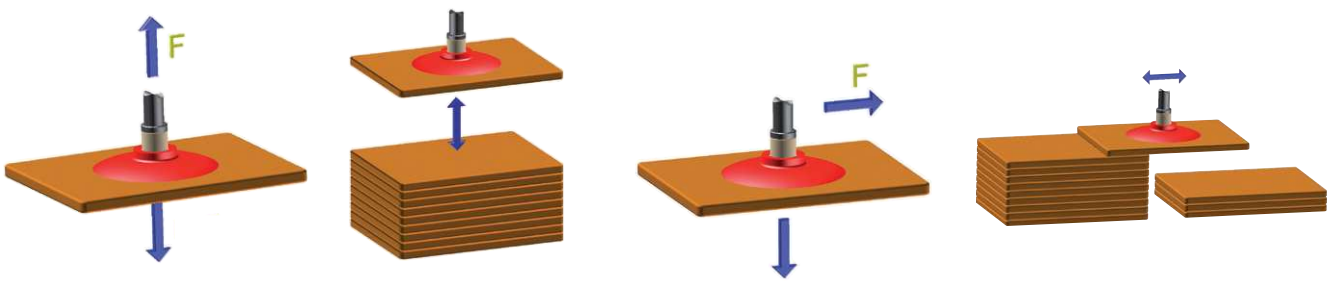
☐ *Square* ☐ *Rectangular* ☐ *Triangular* ☐ *Round*
☐ *Irregular* ☐ *Other* .....

6) *What dimensions and weight is it?*

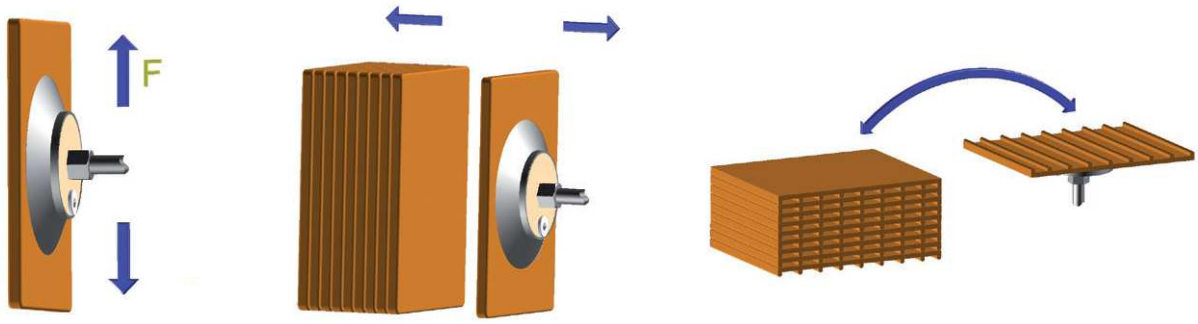
☐ *Length mm* ..... ☐ *Width mm* ..... ☐ *Thickness mm*..... ☐ *Weight Kg*.....

7) *Which position must the vacuum cups have with respect to the lifting force?*

☐ *Horizontal vacuum cups, vertical force* ☐ *Horizontal vacuum cups, horizontal force*



☐ *Vertical vacuum cups, vertical force* ☐ *Overturning*



8) What is the temperature of the object to be lifted?

From -.....°C to + ...°C ☐ *For a short time °C .....* ☐ *Continuously °C .....*

9) Other technical data

☐ *Gripping time sec .....* ☐ *Cycle time sec .....* ☐ *Acceleration m/s^2 .....*

10) At which height above sea level is the vacuum cup handler to be installed?

☐ *m .....*

11) By what means would you like to generate the vacuum?

☐ *Electric vacuum pump (dry or lubricated)* ☐ *Side channel blower*
☐ *Single-stage pneumatic vacuum generator* ☐ *Multi-stage*

12) System with vacuum cups already operating

☐ *Manufacturer.....* ☐ *Country.....*

13) Models of vacuum cups previously applied

☐ *Manufacturer.....* ☐ *Code .....*

14) Estimated annual quantity and requested delivery time

☐ *Approximately #..... pieces* ☐ *Fixed period .....*

15) Gripping tests and samples

We can perform free tests for gripping and handling on samples of products supplied by you. Alternatively, you can request samples of vacuum cups to perform your own tests.

16) Contact

☐ *Do you wish to be called back?* *Yes* ☐ *No* ☐
☐ *Are you interested in a visit?* *Yes* ☐ *No* ☐ *If yes, what date/time? .....*