# 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.
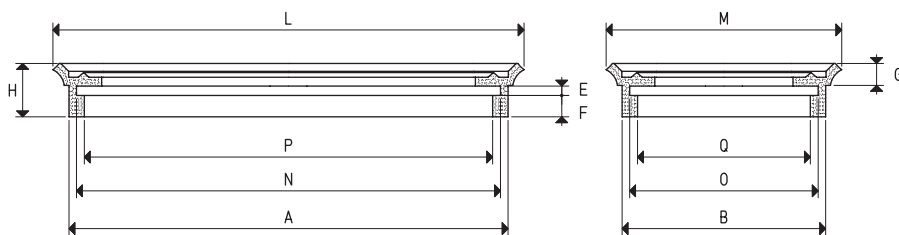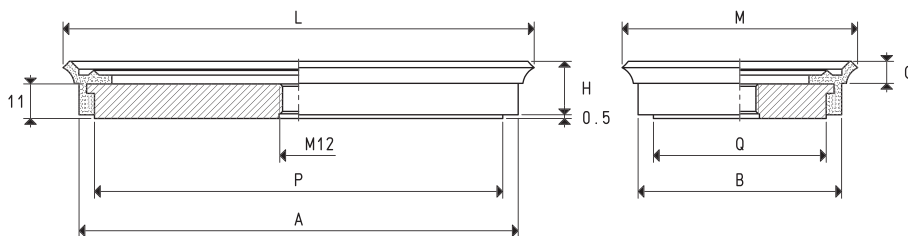
VACUUM CUPS

Item	Force Kg	Volume cm³	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
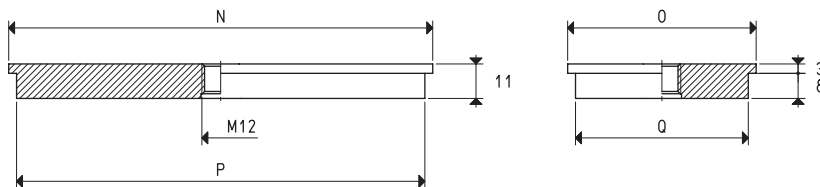
SUPPORTS

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) $inch = \dfrac{mm}{25.4}$; $pounds = \dfrac{g}{453.6} = \dfrac{Kg}{0.4536}$

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.
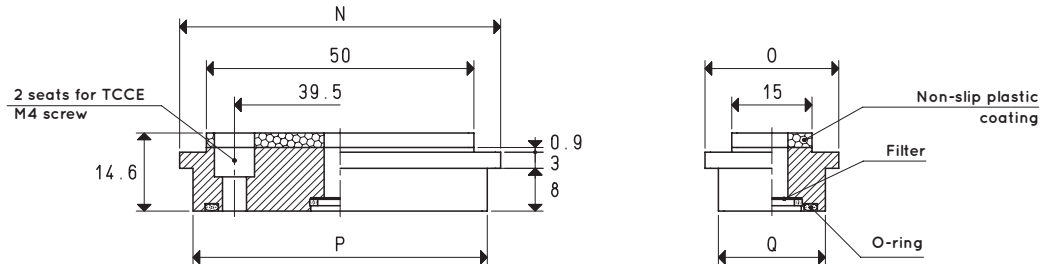They are also provided with two or for housings for TCCE screws, according to their size, for fixing them to the work surface.
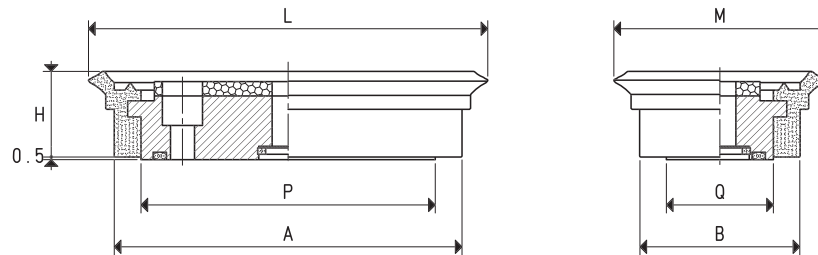
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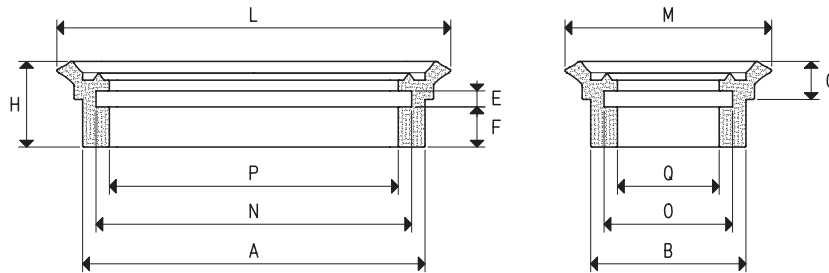
VACUUM CUP

Item	Force Kg	Volume cm³	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 = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$
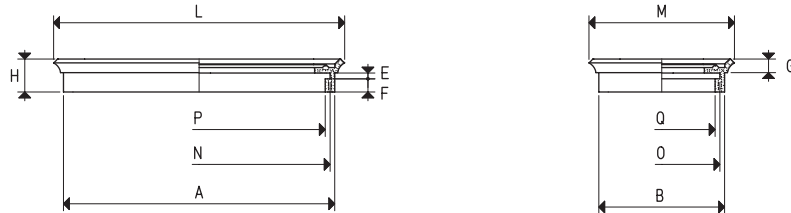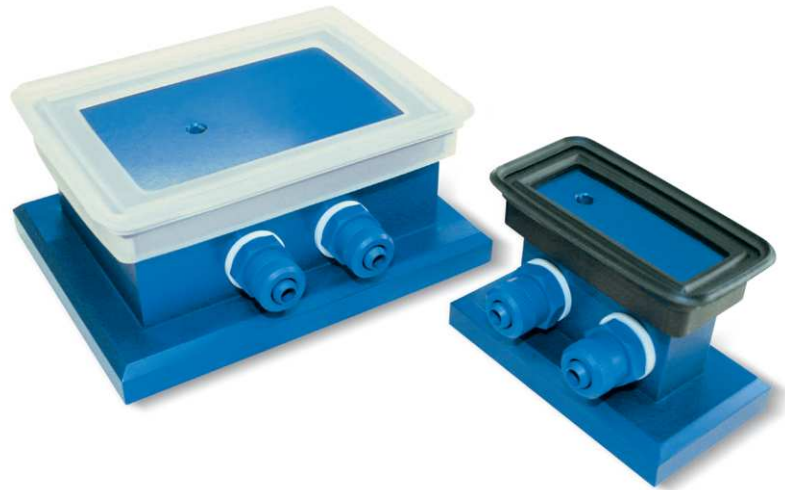
1

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.
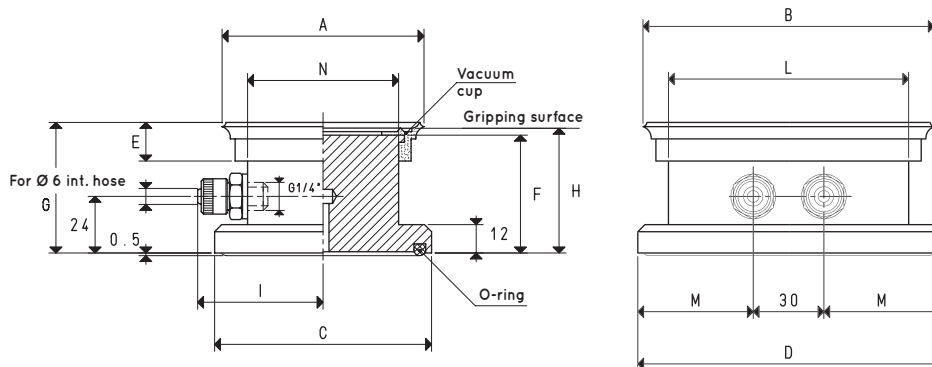
All cups with self-locking support of this and other ranges with the gripping plane at the same height can be used simultaneously, even if they are of different types or have different sizes.

SPARE VACUUM CUPS

Item	Force Kg	Volume cm³	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 = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$
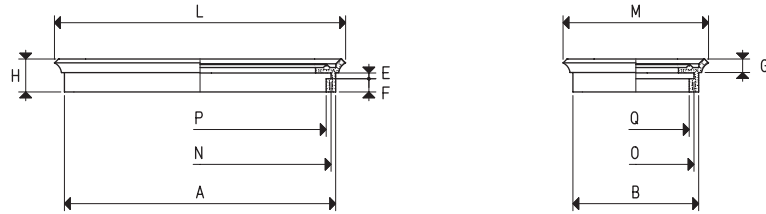
1

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.
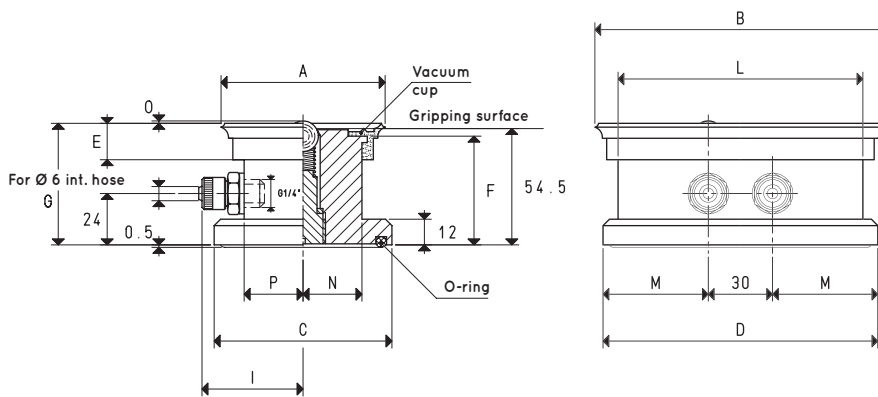
All cups with self-locking support of this and other ranges with the gripping plane at the same height can be used simultaneously, even if they are of different types or have different sizes.

SPARE VACUUM CUPS

Item	Force Kg	Volume cm³	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 = $\dfrac{mm}{25.4}$; pounds = $\dfrac{g}{453.6} = \dfrac{Kg}{0.4536}$

1

RECTANGULAR VACUUM CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT

These cups represent a true mobile clamping system.
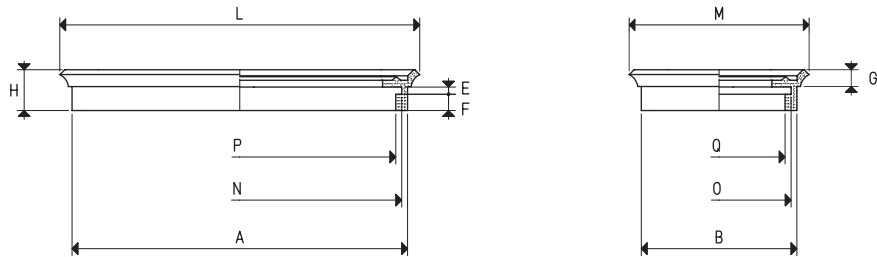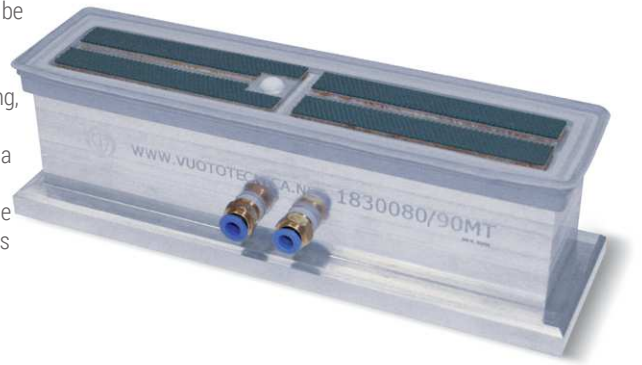They are composed of:
- A sturdy aluminium support with a wide surface at the base limited by a seal whose purpose is to fix it to the bearing surface.
- A standard rectangular flat cup which is cold fitted onto the upper part of the support for gripping the load.
- A ball valve that opens up creating 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 cm³	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
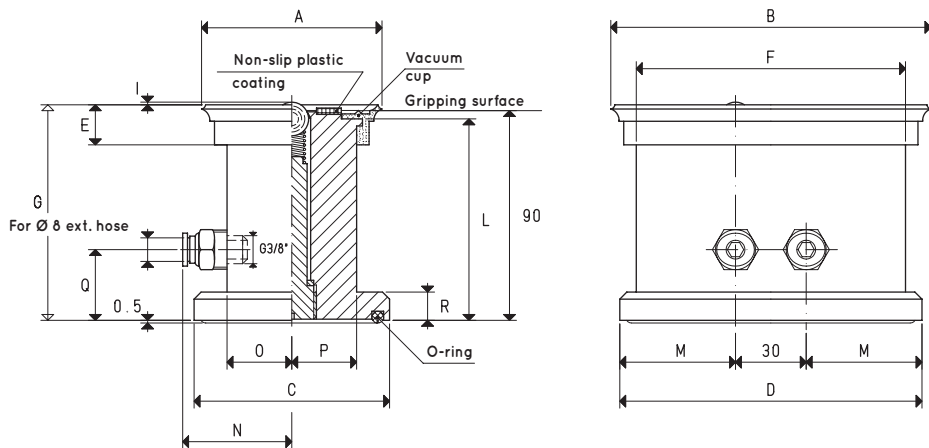
VACUUM CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT

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 = $\dfrac{mm}{25.4}$; pounds = $\dfrac{g}{453.6}$ = $\dfrac{Kg}{0.4536}$

1

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.

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.
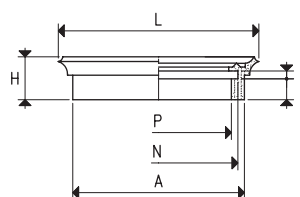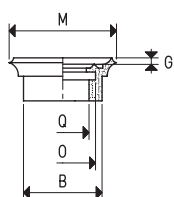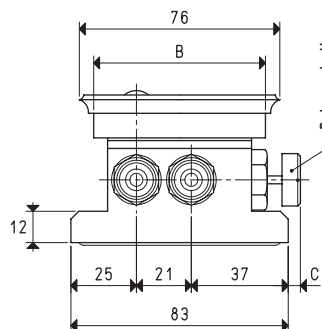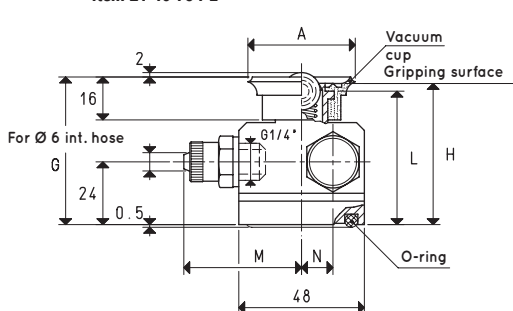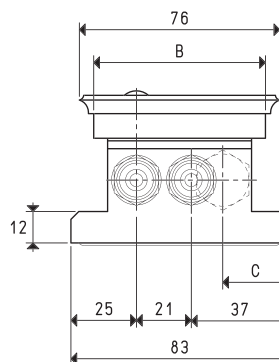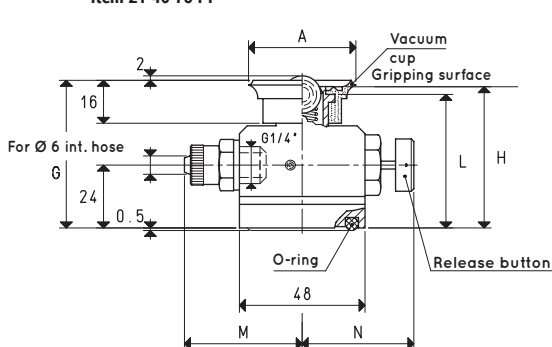
SPARE VACUUM CUPS

Item	Force Kg	Volume cm³	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 = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$