

These traditional cup-shaped vacuum cups are suited for gripping and handling small objects with flat, slightly concave or convex surfaces.
This series of widely used cups have 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-assembled with no adhesive onto a nickelplated brass support. The support has been specially shaped to perfectly fit with the cup and it is equipped with a male threaded pin to optimise the fastening to the machine. These cups are extremely easy to replace; for the spare part, in fact, all you have to do is request the cup indicated in the table in the desired compound. Cups in special compounds indicated at page 21 and supports in different materials can be provided upon request in minimum quantities to be defined in the order.

| Art. | Force | A | B | D | E | F | H |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |
| 010410 * | 0.03 | 3 | 1.5 | 4 | 6.0 | 7.0 | 7.5 |
| 010510 * | 0.05 | 3 | 1.5 | 5 | 6.0 | 7.0 | 8.0 |
| 010610 * | 0.07 | 3 | 1.5 | 6 | 6.0 | 7.0 | 8.0 |
| 010707 * | 0.10 | 5 | 2.0 | 7 | 6.0 | 6.0 | 7.0 |
| 010810 * | 0.12 | 5 | 2.5 | 8 | 6.0 | 7.0 | 8.0 |
| 010907 * | 0.15 | 5 | 2.0 | 9 | 5.5 | 6.0 | 7.0 |



* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

| SUPPORTS |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | A | B | D | E | F | G | H | Support <br> material | Cup <br> art. | Weight <br> g |
| $\mathbf{0 0 0 0 0 1 0 1}$ | M5 | 7 | 2.90 | 3 | 5 | 10 | 18 | brass | 010410 | 4 |
|  |  |  |  |  |  |  |  |  |  | 010510 |



| Art. | Force | A | B | D | E | F | G | H | Cup | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  | Art. | Art. | g |
| 080410 * | 0.03 | M5 | 7 | 4 | 3 | 5 | 13.0 | 21.0 | 010410 | 000801 | 4 |
| 080510 * | 0.05 | M5 | 7 | 5 | 3 | 5 | 13.5 | 21.5 | 010510 | 000801 | 4 |
| 080610 * | 0.07 | M5 | 7 | 6 | 3 | 5 | 13.5 | 21.5 | 010610 | 000801 | 4 |
| 080707 * | 0.10 | M5 | 7 | 7 | 3 | 5 | 13.5 | 21.5 | 010707 | 000802 | 4 |
| 080810 * | 0.12 | M5 | 7 | 8 | 3 | 5 | 13.5 | 21.5 | 010810 | 000802 | 4 |
| 080907 * | 0.15 | M5 | 7 | 9 | 3 | 5 | 12.5 | 20.5 | 010907 | 000802 | 4 |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


## CUPS WITH SUPPORT

These traditional cup-shaped vacuum cups are suited for gripping and handling small objects with flat, slightly concave or convex surfaces.
This series of widely used cups have diameters ranging from 10 to 45 mm and are normally available in standard compounds: natural para rubber N, oilresistant rubber $A$ and silicon S.
They can be cold-assembled with no adhesive onto a nickel-plated brass or anodised aluminium support. The support has been specially shaped to perfectly fit with the cup and it is equipped with a male threaded pin to optimise the fastening to the machine.
These cups are extremely easy to replace; for the spare part, in fact, all you have to do is request the cup indicated in the table in the desired compound. Cups in special compounds indicated at page 21 and supports in different materials can be provided upon request in minimum quantities to be defined in the order.



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

| Art. | $\begin{aligned} & \mathrm{A} \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \mathrm{D} \\ & \emptyset \end{aligned}$ | E | F | G | H | T | Support material | Cup art. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 000803 | G1/8" | 5.5 | 5 | 8 | 7.0 | 20.0 | 12 | brass | 011010 | 9 |
|  |  |  |  |  |  |  |  |  | 011210 |  |
|  |  |  |  |  |  |  |  |  | 011510 |  |
|  |  |  |  |  |  |  |  |  | 011810 |  |
|  |  |  |  |  |  |  |  |  | 012010 |  |
|  |  |  |  |  |  |  |  |  | 012210 |  |
| 000805 | G1/8" | 7.5 | 5 | 8 | 9.5 | 22.5 | 12 | brass | 012515 | 10 |
|  |  |  |  |  |  |  |  |  | 013015 |  |
| 000820 | G1/4" | 12.0 | 8 | 14 | 10.0 | 32.0 | 17 | aluminium | 013515 | 11 |
|  |  |  |  |  |  |  |  |  | 014015 |  |
|  |  |  |  |  |  |  |  |  | 014515 |  |


| Art. | Force | A | D | E | F | G | H | T | Cup | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ |  |  |  |  |  | Art. | Art. | g |
| 081010 * | 0.19 | G1/8" | 10 | 5 | 8 | 11 | 24 | 12 | 011010 | 000803 | 9.0 |
| 081210 * | 0.28 | G1/8" | 12 | 5 | 8 | 11 | 24 | 12 | 011210 | 000803 | 9.6 |
| 081510 * | 0.44 | G1/8" | 15 | 5 | 8 | 12 | 25 | 12 | 011510 | 000803 | 9.7 |
| 081810 * | 0.63 | G1/8" | 18 | 5 | 8 | 12 | 25 | 12 | 011810 | 000803 | 9.7 |
| 082010 * | 0.78 | G1/8" | 20 | 5 | 8 | 12 | 25 | 12 | 012010 | 000803 | 9.8 |
| 0822 10* | 0.95 | G1/8" | 22 | 5 | 8 | 13 | 26 | 12 | 012210 | 000803 | 10.2 |
| 082515 * | 1.23 | G1/8" | 25 | 5 | 8 | 16 | 29 | 12 | 012515 | 000805 | 12.0 |
| 083015 * | 1.76 | G1/8" | 30 | 5 | 8 | 17 | 30 | 12 | 013015 | 000805 | 12.7 |
| 083515 * | 2.40 | G1/4" | 35 | 8 | 14 | 16 | 38 | 17 | 013515 | 000820 | 13.6 |
| 084015 * | 3.14 | G1/4" | 40 | 8 | 14 | 18 | 40 | 17 | 014015 | 000820 | 14.1 |
| 084515 * | 3.98 | G1/4" | 45 | 8 | 14 | 23 | 45 | 17 | 014515 | 000820 | 17.6 |

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These traditional cup-shaped vacuum cups are suited for gripping and handling small objects with flat, slightly concave or convex surfaces.
This series of widely used cups have 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-assembled with no adhesive onto a nickelplated brass or anodised aluminium support. The support has been specially shaped to perfectly fit with the cup and it is equipped with a male threaded pin to optimise the fastening to the machine. These cups are extremely easy to replace; for the spare part, in fact, all you have to do is request the cup indicated in the table
in the desired compound.
Cups in special compounds indicated at page 21 and supports in different materials can be provided upon request in minimum quantities to be defined in the order.

| Art. | Force | A | B | D | E | F | H |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |
| 0110 10* | 0.19 | 7 | 4.0 | 10 | 8.5 | 8.5 | 11.0 |
| 0112 10* | 0.28 | 8 | 4.0 | 12 | 8.0 | 9.0 | 11.0 |
| 0115 10 | 0.44 | 8 | 4.0 | 15 | 8.0 | 9.5 | 12.0 |
| 011810 * | 0.63 | 8 | 4.0 | 18 | 8.0 | 9.5 | 12.0 |
| 0120 10 | 0.78 | 8 | 4.0 | 20 | 8.0 | 9.5 | 12.0 |
| 0122 10* | 0.95 | 8 | 4.0 | 22 | 8.0 | 10.0 | 13.0 |
| 0125 15 | 1.23 | 12 | 6.0 | 25 | 10.0 | 11.5 | 16.0 |
| 013015 * | 1.76 | 12 | 6.0 | 30 | 10.0 | 12.5 | 17.0 |
| 013515 * | 2.40 | 15 | 10.0 | 35 | 10.0 | 11.5 | 16.0 |
| 0140 15 | 3.14 | 15 | 10.0 | 40 | 10.0 | 12.5 | 18.0 |
| 0145 * | 3.98 | 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


CUPS WITH SUPPORT

| Art. | Force | A | D | E | F | G | H | T | $\begin{aligned} & \text { Cup } \\ & \text { Art. } \end{aligned}$ | Support Art. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ |  |  |  |  |  |  |  |  |
| 081025 * | 0.19 | G1/8" | 10 | 13 | 10 | 11 | 24 | 12 | 011010 | 000804 | 8.1 |
| 081225 * | 0.28 | G1/8" | 12 | 13 | 10 | 11 | 24 | 12 | 011210 | 000804 | 8.7 |
| 081525 * | 0.44 | G1/8" | 15 | 13 | 10 | 12 | 25 | 12 | 011510 | 000804 | 8.8 |
| 081825 * | 0.63 | G1/8" | 18 | 13 | 10 | 12 | 25 | 12 | 011810 | 000804 | 8.8 |
| 082025 * | 0.78 | G1/8" | 20 | 13 | 10 | 12 | 25 | 12 | 012010 | 000804 | 9.3 |
| 082225 * | 0.95 | G1/8" | 22 | 13 | 10 | 13 | 26 | 12 | 012210 | 000804 | 9.3 |
| 082525 * | 1.23 | G1/8" | 25 | 13 | 10 | 16 | 29 | 12 | 012515 | 000814 | 11.8 |
| 083025 * | 1.76 | G1/8" | 30 | 13 | 10 | 17 | 30 | 12 | 013015 | 000814 | 12.5 |
| 083525 * | 2.40 | G1/4" | 35 | 17 | 13 | 16 | 33 | 17 | 013515 | 000821 | 11.9 |
| 084025 * | 3.14 | G1/4" | 40 | 17 | 13 | 18 | 35 | 17 | 014015 | 000821 | 12.4 |
| 084525 * | 3.98 | G1/4" | 45 | 17 | 13 | 23 | 40 | 17 | 014515 | 000821 | 15.9 |

[^1]
## CUPS WITH SUPPORT

These traditional cup-shaped vacuum cups are suited
for gripping and handling small objects with flat,
slightly concave or convex surfaces.
This series of widely used cups have 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-assembled with no adhesive onto a nickel-plated brass support.
The support has been specially shaped to perfectly fit with the cup and it is equipped with a male threaded pin to optimise the fastening to the machine.
These cups are extremely easy to replace; for the spare part, in fact, all you have to do is request the cup indicated in the table in the desired compound.
Cups in special compounds indicated at page 21 and
 supports in different materials can be provided upon request in minimum quantities to be defined in the order.


| Art. | Force | A | B | D | E | F | H |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |
| 012510 * | 1.23 | 12 | 6 | 25 | 2 | 3.5 | 8 |
| 013010 * | 1.76 | 12 | 6 | 30 | 1 | 3.5 | 8 |
| 013510 * | 2.40 | 12 | 6 | 35 | 1 | 3.5 | 8 |

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


| SUPPORTS |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | A | E | F | H | SW | Support <br> material | Cup <br> art. | Weight <br> g |
| $\mathbf{0 0 0 8 0 8}$ | M6 | 3.5 | 10 | 14.5 | 3 | brass | 012510 | 2.7 |
|  |  |  |  |  |  |  | 013010 |  |
| $\mathbf{0 0 0 8 6 0}$ | G1/8" | 4.0 | 10 | 14.5 | 4 | brass | 013510 | 012510 |
|  |  |  |  |  |  |  | 5.6 |  |
|  |  |  |  |  |  |  | 013010 |  |

3D drawings available at www.vuototecnica.net
CUPS WITH SUPPORT

| Art. |  | Force <br> Kg | A <br> $\emptyset$ | SW | D <br> $\emptyset$ | Cup <br> Art. | Support <br> Art. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 8 \mathbf { 2 5 } \mathbf { 1 0 } \text { * }}$ | 1.23 | M6 | 3 | 25 | 012510 | 000808 | Weight |
| $\mathbf{0 8} \mathbf{2 5} \mathbf{1 1}$ * | 1.23 | G1/8" | 4 | 25 | 012510 | 000860 | 6.8 |
| $\mathbf{0 8} \mathbf{3 0} \mathbf{1 0}$ * | 1.76 | M6 | 3 | 30 | 013010 | 000808 | 4.6 |
| $\mathbf{0 8} \mathbf{3 0} \mathbf{1 1}$ * | 1.76 | G1/8" | 4 | 30 | 013010 | 000860 | 7.5 |
| $\mathbf{0 8} \mathbf{3 5} \mathbf{1 0}$ * | 2.40 | M6 | 3 | 35 | 013510 | 000808 | 5.1 |
| $\mathbf{0 8} \mathbf{3 5} \mathbf{1 1}$ * | 2.40 | G1/8" | 4 | 35 | 013510 | 000860 | 8.0 |

* Complete the code indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon 60 mm and are normally available in standard compounds: natural para rubber $N$, oil-resistant rubber $A$ and silicon S. They can be cold-assembled with no adhesive onto an anodised aluminium support.
The support has been specially shaped to perfectly fit with the cup and it is equipped with a male threaded pin to optimise the fastening to the machine. Moreover, those with $1 / 4$ " thread have an M8 threaded hole, to allow the possible insertion of a calibrated grub screw (see page 1.118) to reduce the amount of sucked air. These cups are extremely easy to replace; for the spare part, in fact, all you have to do is request the cup indicated in the table in the
desired compound.
Cups in special compounds indicated at page 21 and supports in different materials can be provided upon request in minimum quantities to be defined in the order.

| CUPS |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force | A | B | C | D | E | F | G | H | I |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  |
| $\mathbf{0 1 4 5 \mathbf { 1 0 }}$ | 3.98 | 15 | 10 | -- | 45 | 5 | 9.5 | -- | 18 | -- |
| $\mathbf{0 1 6 0 1 0}$ | 7.06 | 15 | 10 | 25 | 60 | 4 | -- | 10 | 22 | 2.5 |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

SUPPORTS

| Art. | A | E | C | Support | Cup | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\emptyset$ |  | $\emptyset$ | material | art. | g |
| $\mathbf{0 0 0 8 \mathbf { 0 2 }}$ | G1/4" | 10 | M8 | aluminium | 014510 | 5.9 |
|  |  |  |  |  | 016010 |  |
| $\mathbf{0 0 0 8 4 4}$ | G1/8" | -- | - | aluminium | 014510 | 5.1 |
|  |  |  |  |  | 016010 |  |

CUPS WITH SUPPORT

| Art. | Force | A | D | M | Cup | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | Art. | Art. | g |
| 084510 * | 3.98 | G1/4" | 45 | M8 | 014510 | 000822 | 12.6 |
| 084511 * | 3.98 | G1/8" | 45 | -- | 014510 | 000844 | 11.8 |

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

CUPS WITH SUPPORT

| Art. |  | Force | A | D | M | Cup | Support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | Art. | Art. | Weight |
| $\mathbf{0 8 6 0 1 0}$ | 7.06 | $\mathrm{G} 1 / 4^{\prime \prime}$ | 60 | M 8 | 016010 | 000822 | 20.8 |
| $\mathbf{0 8 6 0 1 1 *}$ | 7.06 | $\mathrm{G} 1 / 8^{\prime \prime}$ | 60 | -- | 016010 | 000844 | 20.0 |

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




## CUPS WITH SUPPORT

These traditional cup-shaped vacuum cups are suited for gripping and handling small objects with flat, slightly concave or convex surfaces.
This series of widely used cups have diameters 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-assembled with no adhesive onto an anodised aluminium support.
The support has been specially shaped to perfectly fit with the cup and it is equipped with a male threaded pin to optimise the fastening to the machine. Moreover, those with $1 / 4$ " thread have an M8 threaded hole, to allow the possible insertion of a calibrated grub screw (see page 1.118) to reduce the amount of sucked air.
These cups are extremely easy to replace; for the spare part, in fact, all you have to do is request the cup indicated in the table in the desired compound.
Cups in special compounds indicated at page 21 and supports in different materials can be provided upon request in minimum quantities to be defined in the order.


CUPS

| Art. | Force | A | B | C | D | E | G | H | I |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |
| $\mathbf{0 1 \mathbf { 8 5 1 0 } \text { * }}$ | 14.18 | 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


3D drawings available at www.vuototecnica.net


| SUPPORTS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | A | D | Support | Cup | Weight |
|  | $\emptyset$ | $\emptyset$ | material | art. | g |
| $\mathbf{0 0 0 \mathbf { 0 8 } \mathbf { 2 8 }}$ | $\mathrm{G} 1 / 4^{\prime \prime}$ | 25 | aluminium | 018510 | 13.4 |
| $\mathbf{0 0 0 0 1 3 6}$ | $\mathrm{G1} / 8^{\prime \prime}$ | 25 | aluminium | 018510 | 9.2 |


| Art. | Force | A | D | Cup | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | Art. | Art. | g |
| 088510 * | 14.18 | G1/4" | 85 | 018510 | 000828 | 49.3 |
| 088512 * | 14.18 | G1/8" | 85 | 018510 | 0008136 | 45.1 |

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

These traditional cup-shaped vacuum cups are suited for gripping and handling small objects with flat, slightly concave or convex surfaces.


This series of widely used cups have diameters 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-assembled with no adhesive onto an anodised aluminium support.
IThe support has been specially shaped to perfectly fit with the cup and it is equipped with a female threaded pin to optimise the fastening to the machine.
These cups are extremely easy to replace; for the spare part, in fact, all you have to do is request the cup indicated in the table in the desired compound.
Cups in special compounds indicated at page 21 and supports in different materials can be provided upon request in minimum quantities to be defined in the order.

| CUPS |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force | A | B | C | D | E | G | H | I |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |
| $\mathbf{0 1 \mathbf { 8 5 1 0 }}$ | 14.18 | 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



## CUPS WITH VULCANISED SUPPORT

These sturdy and rather deep cups are designed to handle bodywork components in moulded sheet steel.
These cups are produced with a special compound called BENZ, which can resist to heavy loads and to the chlorine usually contained in the oil used for moulding and drawing of the sheet steel.
The galvanised steel support is vulcanised onto the cup. Galvanised steel adapters are also available to allow modifying the suction connection from M10 to gas or NPT threads.
Cups in special compounds indicated at page 21 can be provided upon request in minimum quantities to be defined in the order.


CUPS WITH VULCANISED SUPPORT

| Art. | Force <br> Kg | D <br> $\emptyset$ | E | F | G | H | Support <br> material | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 8 \mathbf { 3 0 } \mathbf { 3 8 } \text { * }}$ | 1.80 | 30 | 20 | 17 | 10 | 37 | steel | 20.8 |
| $\mathbf{0 8 4 0} \mathbf{4 1}$ * | 3.20 | 40 | 23 | 18 | 12 | 41 | steel | 24.9 |

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


3D drawings available at www.vuototecnica.net


| CUPS WITH VULCANISED SUPPORT |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force <br> Kg | E | F | G | H | Support <br> material | Weight <br> g |  |
| $\mathbf{0 8 \mathbf { 8 0 } \mathbf { 5 0 }}$ | 12.60 | 33 | 18 | 26 | 51 | steel | 58.0 |  |

* Complete the code indicating the compound: $\mathrm{B}=\mathrm{BENZ}$ rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

| REDUCTIONS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | D | d | H | Reduction | Weight |
|  | $\emptyset$ | $\emptyset$ |  | material | g |
| 0008130 * | G1/4" | M10 | 14 | steel | 4.9 |
| 0008131 * | G3/8" | M10 | 14 | steel | 12.8 |
| 0008254 * | $1 / 4^{\prime \prime}$ NPT | M10 | 14 | steel | 4.8 |
| 0008255 * | 3/8" NPT | M10 | 14 | steel | 12.7 |



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 to be lifted as soon as contact is made and ensures perfect vacuum seal.
These cups are produced in a special compound called BENZ, able to withstand chlorine usually contained in the oils used for moulding and drawing the sheet metal.
The galvanised steel support is vulcanised onto the cup.
They are obviously available also in natural para rubber and

| Art. | Force | A | B | C | D | E | G | H | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ |  | $\emptyset$ |  |  |  | material | g |
| 0850 40* | 4.90 | 31 | G3/8" | -- | 50 | 16.0 | 6.5 | 29.0 | steel | 38.5 |
| 085040 GR * | 4.90 | 31 | G3/8" | G1/8" | 50 | 16.0 | 6.5 | 29.0 | steel | 38.5 |
| 087540 * | 11.04 | 31 | G3/8" | -- | 75 | 25.0 | 9.0 | 38.0 | steel | 57.9 |
| 087540 GR * | 11.04 | 31 | G3/8" | G1/8" | 75 | 25.0 | 9.0 | 38.0 | steel | 57.9 |
| 0810040 * | 19.62 | 32 | G3/8" | -- | 100 | 26.0 | 9.0 | 39.0 | steel | 78.3 |
| 0810040 GR * | 19.62 | 32 | G3/8" | G1/8" | 100 | 26.0 | 9.0 | 39.0 | steel | 78.3 |
| 0810050 * | 19.62 | 32 | G3/8" | -- | 100 | 30.5 | 15.0 | 43.5 | steel | 74.8 |
| 0810050 GR * | 19.62 | 32 | G3/8" | G1/8" | 100 | 30.5 | 15.0 | 43.5 | steel | 74.8 |
| 085040 1/4"* | 4.90 | 31 | G1/4" | -- | 50 | 16.0 | 6.5 | 29.0 | steel | 37.4 |
| 087540 1/4"* | 11.04 | 31 | G1/4" | -- | 75 | 25.0 | 9.0 | 38.0 | steel | 57.6 |
| 0810040 1/4"* | 19.62 | 32 | G1/4" | -- | 100 | 26.0 | 9.0 | 39.0 | steel | 76.8 |
| 0810050 1/4"* | 19.62 | 32 | G1/4" | -- | 100 | 30.5 | 15.0 | 43.5 | steel | 74.3 |
| $085040 \mathrm{M10}$ * | 4.90 | 31 | M10 | -- | 50 | 16.0 | 6.5 | 29.0 | steel | 32.7 |
| $087540 \mathrm{M10}$ * | 11.04 | 31 | M10 | -- | 75 | 25.0 | 9.0 | 38.0 | steel | 49.9 |
| $0810040 \mathrm{M10}$ * | 19.62 | 32 | M10 | -- | 100 | 26.0 | 9.0 | 39.0 | steel | 72.1 |
| $0810050 \mathrm{M10}$ * | 19.62 | 32 | M10 | -- | 100 | 30.5 | 15.0 | 43.5 | steel | 70.2 |
| $085040 \mathrm{M14}$ * | 4.90 | 31 | M14 | -- | 50 | 16.0 | 6.5 | 29.0 | steel | 34.8 |
| 087540 M14 * | 11.04 | 31 | M14 | -- | 75 | 25.0 | 9.0 | 38.0 | steel | 54.9 |
| 0810050 M14* | 19.62 | 32 | M14 | -- | 100 | 30.5 | 15.0 | 43.5 | steel | 74.9 |



* Complete the code indicating the compound: $\mathrm{B}=\mathrm{BENZ}$ rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

| Art. | Force | A | B | D | E | G | H | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | material | g |
| 085040 F * | 4.90 | 31 | G3/8" | 50 | 16.0 | 6.5 | 32.5 | steel | 49.5 |
| 087540 F * | 11.04 | 31 | G3/8" | 75 | 25.0 | 9.0 | 41.5 | steel | 68.3 |
| 0810040 F * | 19.62 | 32 | G3/8" | 100 | 26.0 | 9.0 | 42.5 | steel | 89.3 |
| 0810050 F * | 19.62 | 32 | G3/8" | 100 | 30.5 | 15.0 | 47.0 | steel | 88.8 |

[^2]

## CUPS WITH VULCANISED SUPPORT

These cups are very similar to those described in the previous page, they differ only for their round lip and their internal cleats.
These features allow them to be used even in the heaviest conditions.
The field of use is the same.
They are also made with BENZ compond and the galvanised steel support is vulcanised onto the cup. These cups are also available in natural para rubber and silicon.


| Art. | Force | A | B | D | E | G | H | Support material | Weight g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  |
| 0850 99* | 4.90 | 30 | G3/8" | 50 | 23.5 | 9 | 36.5 | steel | 43.2 |
| 087599 * | 11.04 | 35 | G3/8" | 75 | 23.5 | 9 | 36.5 | steel | 59.2 |
| 0810099 * | 19.62 | 35 | G3/8" | 100 | 40.0 | 12 | 53.0 | steel | 113.2 |
| 085099 1/4" * | 4.90 | 30 | G1/4" | 50 | 23.5 | 9 | 36.5 | steel | 39.4 |
| 087599 1/4"* | 11.04 | 35 | G1/4" | 75 | 23.5 | 9 | 36.5 | steel | 55.2 |
| 0810099 1/4"* | 19.62 | 35 | G1/4" | 100 | 40.0 | 12 | 53.0 | steel | 109.2 |

* Complete the code indicating the compound: $\mathrm{B}=\mathrm{BENZ}$ rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Art. | Force | A | B | D | E | G | H | Support material | Weight g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  |
| 085099 F * | 4.90 | 31 | G3/8" | 50 | 23.5 | 9 | 40.0 | steel | 55.6 |
| 087599 F * | 11.04 | 35 | G3/8" | 75 | 23.5 | 9 | 40.0 | steel | 70.5 |
| 0810099 F * | 19.62 | 35 | G3/8" | 100 | 40.0 | 12 | 56.5 | steel | 118.8 |

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

These cups have been created as an alternative to the ordinary cups used in the robot-automotive field and 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 flat and bellow-type, round and oval and equipped with support. The extremely flexible outside lip, can be associated with the typical features of the bellow cups, allow them to adapt themselves 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, an accurate placemet of the load to be handled. The MAXIGRIP standard cups are made with our exclusive BENZ compound:

- Hardness $60 \div 75^{\circ}$ Sh.;
- Working temperature between -40 and $+170{ }^{\circ} \mathrm{C}$;
- Stain-resistant;
- Excellent resistance to abrasion, water and to oils containing chlorine.

Their galvanised steel 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.
Because of their universality of use, these cups can also be provided in the special compounds listed at page 21.

## CIRCULAR FLAT AND BELLOW CUPS

| Art. | Force <br> Kg | $\begin{aligned} & \mathrm{A} \\ & \emptyset \end{aligned}$ | $\begin{aligned} & { }^{\circ} B \\ & \emptyset \end{aligned}$ | Ch | $\begin{aligned} & \mathrm{D} \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \mathrm{d} \\ & \emptyset \end{aligned}$ | E | F | G | H | I | SW | Support material | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| VRP 40* | 3.14 | 26 | G1/4" | 15 | 40 | 17 | 16 | 14 | 4.0 | 31 | 15 | 6 | steel | 33.6 |
| VRP 50* | 4.90 | 30 | G3/8" | 19 | 50 | 21 | 18 | 14 | 5.0 | 33 | 15 | 6 | steel | 49.3 |
| VRP 60* | 7.06 | 30 | G3/8" | 19 | 60 | 21 | 21 | 14 | 6.0 | 36 | 15 | 6 | steel | 55.3 |
| VRP 80 * | 12.56 | 35 | G3/8" | 19 | 80 | 21 | 25 | 14 | 7.5 | 40 | 15 | 6 | steel | 74.9 |
| VRP 100* | 19.62 | 35 | G3/8" | 19 | 100 | 21 | 25 | 14 | 9.5 | 40 | 15 | 6 | steel | 80.7 |
| VRP 125* | 30.66 | 35 | G3/8" | 19 | 125 | 21 | 33 | 14 | 12.5 | 48 | 15 | 6 | steel | 139.6 |

* Complete the code indicating the compound: $\mathrm{B}=\mathrm{BENZ}$ rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon
${ }^{\circ}$ Available with NPT thread. Order example: VRP 80 NPT B


BELLOW CUP WITH VULCANISED SUPPORT

| Art. | Force <br> Kg |  | $\begin{aligned} & \hline \mathrm{B} \\ & \emptyset \end{aligned}$ | $\begin{aligned} & { }^{\circ} \mathrm{C} \\ & \emptyset \end{aligned}$ |  | $\begin{aligned} & \mathrm{D} \\ & \emptyset \end{aligned}$ | $\emptyset$ | E | F | G | H |  | $\emptyset$ | Support material | Veight $\mathrm{g}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| VRS 40 * | 3.14 | 3 | 30 | G1/4" | 17 | 40 | 24 | 21.0 | 10 | 7.0 | 35.0 | 14 | G1/8" | steel | 56.3 |
| VRS 50 * | 4.90 |  | 40 | G3/8" | 22 | 50 | 34 | 21.0 | 10 | 7.0 | 36.0 | 15 | G1/4" | steel | 77.6 |
| VRS 60 * | 7.066 |  | 50 | G3/8" | 22 | 60 | 44 | 21.0 | 10 | 7.0 | 36.0 | 15 | G1/4" | steel | 107.9 |
| VRS 80 * | 12.56 |  | 70 | G3/8" | 22 | 80 | 64 | 23.0 | 10 | 9.0 | 38.0 | 15 | G1/4" | steel | 205.9 |
| VRS 100* | 19.6210 |  | 80 | G3/8" | 22 | 100 | 79 | 29.0 | 10 | 13.0 | 44.0 | 15 | G1/4" | steel | 269.0 |
| VRS 125 * | 30.6612 |  | 105 | G3/8" | 22 | 125 | 100 | 32.5 | 10 | 16.5 | 47.5 | 15 | G1/4" | steel | 464.2 |

[^3]

OVAL CUPS WITH VULCANISED SUPPORT

| Art. | Force | A | B | ${ }^{\circ} \mathrm{C}$ | Ch | D | E | F | G | H | I | L | M | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg |  |  | $\emptyset$ |  |  |  |  |  |  |  |  | $\emptyset$ | Material | g |
| VEP 30 60* | 4.01 | 47 | 17 | G1/4" | 17 | 60 | 13 | 10 | 3 | 27 | 14 | 30 | G1/8" | steel | 42.6 |
| VEP 30 90* | 6.26 | 77 | 17 | G1/4" | 17 | 90 | 13 | 10 | 3 | 27 | 14 | 30 | G1/8" | steel | 63.5 |
| VEP 4080 * | 7.14 | 70 | 30 | G1/4" | 17 | 80 | 14 | 10 | 4 | 28 | 14 | 40 | G1/8" | steel | 68.0 |
| VEP 50100 * | 11.15 | 80 | 30 | G3/8" | 22 | 100 | 16 | 10 | 5 | 31 | 15 | 50 | G1/4" | steel | 110.0 |
| VEP 60120 * | 16.06 | 95 | 35 | G3/8" | 22 | 120 | 18 | 10 | 6 | 33 | 15 | 60 | G1/4" | steel | 156.1 |
| VEP 70 140* | 21.86 | 110 | 40 | G3/8" | 22 | 140 | 19 | 10 | 7 | 34 | 15 | 70 | G1/4" | steel | 199.4 |

* Complete the code indicating the compound: $\mathrm{B}=\mathrm{BENZ}$ rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon
${ }^{\circ}$ Available with NPT thread. Order example: VEP 4080 NPT B


OVAL BELLOW CUPS WITH VULCANISED SUPPORT

| Art. | Force Kg | A | B | $\begin{aligned} & { }^{\circ} \mathrm{C} \\ & 0 \end{aligned}$ | Ch | D | E | F | G | H | K | I | L | $\begin{gathered} M \\ \emptyset \end{gathered}$ | N | 0 | Support material | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| VES 30 60* | 4.01 | 50 | 20 | G1/4" | 17 | 60 | 21 | 10 | 7.0 | 35 | 63 | 14 | 33 | G1/8" | 30 | 44.5 | steel | 49.5 |
| VES 4080 * | 7.14 | 70 | 30 | G1/4" | 17 | 80 | 23 | 10 | 9.0 | 37 | 83 | 14 | 43 | G1/8" | 40 | 64.0 | steel | 91.9 |
| VES 50100 * | 11.15 | 80 | 30 | G3/8" | 22 | 100 | 29 | 10 | 13.0 | 44 | 103 | 15 | 53 | G1/4" | 50 | 79.0 | steel | 125.3 |
| VES 70140 * | 21.86 | 110 | 40 | G3/8" | 22 | 140 | 33 | 10 | 16.5 | 48 | 143 | 15 | 73 | G1/4" | 70 | 109.0 | steel | 227.8 |

[^4]

| MF REDUCTIONS FOR VRP CUPS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | D | d | F | H | SW | Weight <br> g |
| $\mathbf{0 0 0 8 \mathbf { 0 8 1 5 }}$ | $\emptyset$ | $\mathrm{G} / 8^{\prime \prime}$ | $\mathrm{G} 1 / 4^{\prime \prime}$ | 8 | 14 | 6 |



MF REDUCTIONS FOR VRS - VEP - VES CUPS

| Art. | D | d | F | H | SW | Weight <br> $g$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\emptyset$ | $\emptyset$ |  |  |  |  |
| $\mathbf{0 0 0 8 2 1 6}$ | $G 3 / 8^{\prime \prime}$ | $G 1 / 4^{\prime \prime}$ | 8 | 11.5 | 6 | 6.0 |



| Art. | D | d | E | F | SW | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\emptyset$ | $\emptyset$ |  |  |  | g |
| 0008217 | G1/4" | G1/4" | 15 | 10 | 6 | 16.7 |
| 0008218 | G1/4" | $\mathrm{M} 10 \times 1.5$ | 15 | 12 | 6 | 10.2 |
| 0008219 | G1/4" | M14 $\times 1.5$ | 15 | 12 | 6 | 16.0 |
| 0008220 | G3/8" | G1/4" | 14 | 10 | 6 | 18.4 |
| 0008221 | G3/8" | $\mathrm{M} 10 \times 1.5$ | 14 | 12 | 6 | 16.3 |
| 0008222 | G3/8" | M14 $\times 1.5$ | 14 | 12 | 6 | 22.5 |



| Art. | D | d | E | F | SW | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\emptyset$ | $\emptyset$ |  |  |  |  |
| 0008223 | G1/4" | G1/4" | 11.5 | 10 | 6 | 13.9 |
| 0008224 | G1/4" | M10 $\times 1.5$ | 13.0 | 12 | 6 | 10.1 |
| 0008225 | G1/4" | M14 $\times 1.5$ | 13.0 | 12 | 6 | 15.8 |
| 0008226 | G3/8" | G1/4" | 10.5 | 11 | 6 | 16.6 |
| 0008227 | G3/8" | M10 $\times 1.5$ | 10.5 | 13 | 6 | 14.2 |
| 0008228 | G3/8" | M14 $\times 1.5$ | 10.5 | 13 | 6 | 20.2 |



## MAXIGRIP CUP ACCESSORIES

In this page are described accessories for MAXIGRIP CUPS. The galvanised steel MF reduction is suited for all cups with female 1/4" gas thread connection and allows increasing it to $3 / 8$ " gas, always female.
The AQ adapters with square, flange and male and female thread connections are made with anodised aluminium and are suited for robotic gripping systems. They allow quick installation of the cups on the profiles used in the automotive sector.
The built-in seal guarantees perfect vacuum seal.


SQUARE REDUCTION FOR VRP-VRS-VEP-VES CUPS

| Art. | H | E | F | D | d | Material | Weight | Spare |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | 0 -ring |
|  |  |  |  | $\emptyset$ | $\emptyset$ |  | g | art. |
| AQ 32 1/8" | 13 | 4.6 | 8.4 | G1/8" | 5 | aluminium | 11.8 | 0008214 |
| AQ 32 1/4" | 13 | 4.6 | 8.4 | G1/4" | 5 | aluminium | 13.2 | 0008214 |
| AQ 32 3/8" | 13 | 4.6 | 8.4 | G3/8" | 5 | aluminium | 15.6 | 0008214 |
| AQ 32 1/2" | 13 | 4.6 | 8.4 | G3/8" | 5 | aluminium | 17.2 | 0008214 |



| Art. | H | E | F | D | d | Material | Weight | Spare <br> 0 -ring |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  | $\emptyset$ | $\emptyset$ |  | g | art. |
| AQS 32 1/8" | 16.1 | 4.6 | 11.5 | G1/8" | 5 | aluminium | 12.2 | 0008214 |
| AQS 32 1/4" | 20.0 | 4.6 | 15.4 | G1/4" | 5 | aluminium | 13.6 | 0008214 |
| AQS 32 3/8" | 20.0 | 4.6 | 15.4 | G3/8" | 5 | aluminium | 16.2 | 0008214 |
| AQS 32 1/2" | 20.0 | 4.6 | 15.4 | G1/2" | 5 | aluminium | 17.8 | 0008214 |

SQUARE REDUCTION FOR VRP-VRS-VEP-VES CUPS

| Art. | H | E | F | D | d | Material | Weight | Spare <br> 0-ring |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
| art. |  |  |  |  |  |  |  |  |

## FLAT CIRCULAR CUPS WITH SUPPORT

The cups described in 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, stong 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 the vertically lifted load from slipping. These cups can be coldassembled, with no adhesives, onto their anodised aluminium support and locked by the ring nut.
These cups are extremely easy to replace; for the spare part, in fact, all you have to do is request the cup indicated in the table in the desired compound.

*omplete the code indicating the compound: A= oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Art. | A | C | D | E | F | G | H | I | Support/ring nut material | Cup art. | Ring nut art. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0008108 | G1/4" | 34 | 35 | 9 | 19.5 | 4.5 | 33.0 | 4.5 | aluminium | 017624 | 0008109 | 31.2 |
|  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & 019024 \\ & 0111024 \end{aligned}$ |  |  |
| 0008110 | G3/8" | 34 | 35 | 9 | 19.5 | 4.5 | 33.0 | 4.5 | aluminium | 017624 | 0008111 | 33.7 |
|  |  |  |  |  |  |  |  |  |  | 019024 |  |  |
|  |  |  |  |  |  |  |  |  |  | 0111024 |  |  |
| 0008112 | G3/8" | 69 | 69 | 15 | 22.0 | 5.5 | 42.5 | 6.0 | aluminium | 0115036 | 0008113 | 132.1 |

Note: By ordering the support, the ring nut will be automatically provided


| Art. | Force | A | D | E | F | H | Cup | Support | Ring nut | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ |  |  |  | Art. | Art. | Art. | g |
| 087624 1/4"* | 11.33 | G1/4" | 76 | 24 | 14 | 38 | 017624 | 0008108 | 0008109 | 83.1 |
| 089024 1/4"* | 15.89 | G1/4" | 90 | 24 | 14 | 38 | 019024 | 0008108 | 0008109 | 112.0 |
| 0811024 1/4"* | 23.74 | G1/4" | 110 | 24 | 14 | 38 | 0111024 | 0008108 | 0008109 | 168.2 |
| $0876243 / 8$ " * | 11.33 | G3/8" | 76 | 24 | 14 | 38 | 017624 | 0008110 | 0008111 | 85.6 |
| $0890243 / 8^{\prime \prime}$ * | 15.89 | G3/8" | 90 | 24 | 14 | 38 | 019024 | 0008110 | 0008111 | 114.5 |
| 0811024 3/8" * | 23.74 | G3/8" | 110 | 24 | 14 | 38 | 0111024 | 0008110 | 0008111 | 170.7 |
| 0815036 * | 45.00 | G3/8" | 150 | 36 | 14 | 50 | 0115036 | 0008112 | 0008113 | 436.5 |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

The cups described in this page has 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 load to be handled, eliminating any oscillation and reducing the air volume contained within, thus allowing a quicker grip and release.
These cups can be cold-assembled, with no adhesives, onto their anodised aluminium support equipped with a threaded hole in the centre to allow their fastening to the machine. These cups are extremely easy to replace; for the spare part, in fact, all you have to do is request the cup indicated in the table in the desired compound.

| CUP |  |  |  | B | C | D | F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force | A | B | H |  |  |  |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |
| $\mathbf{0 1 5 6 \mathbf { 1 5 } \text { * }}$ | 6.15 | 56 | 48 | 44 | 56 | 11 | 15 |

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



| CUPS WITH SUPPORT |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force | A | B | C | D | F | H | Cup | Support. | Weight |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  | Art. | Art. | g |
| 0856 15 * | 6.15 | 48.5 | M12 | 5 | 56 | 11 | 18 | 015615 | 000883 | 78 |

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



## FLAT CIRCULAR CUPS WITH SUPPORT

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 manufactures.
These cups can be cold-assembled, with no adhesives, onto their anodised aluminium support equipped with a threaded hole in the centre to allow their fastening to the machine.
These cups are extremely easy to replace; for the spare part, in fact, all you have to do is request the cup indicated in the table in the desired compound


| Art. | Force | A | B | C | D | H | M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  | $\emptyset$ |
| 0180 20 | 12.56 | 58 | 54 | 45 | 80 | 20 | 17 |

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


SUPPORTS

| Art. | A | B | D | E | H | Support material | Cup art. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  |
| 0008126 | 45 | M12 | 54 | 3 | 10 | aluminium | 018020 | 45.5 |
| 0008143 | 45 | G1/2" | 54 | 3 | 10 | aluminium | 018020 | 41.5 |

These cups have been designed, in particular, for handling metal sheets, glass, wooden panels, marble granite and other similar
 materials.
The shape of its lip allows a firm grip of the load to be handled, eliminating any oscillation and reducing the air volume contained within, thus allowing a 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 to increase 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 and in a minimum amount to be defined in the order, upon request.
These cups can be cold-assembled, with no adhesives, on their anodised aluminium support equipped with a threaded hole in the centre to allow its fastening to the machine and, upon request, it can be supplied with a side hole with gas thread for the suction fitting.

These cups are extremely easy to replace; for the spare part,
in fact, all you have to do is request the cup indicated in the table in the desired compound.

| CUPS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force | A | B | C | D | E | F | H | M | N | 0 |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  | $\emptyset$ | $\emptyset$ |
| 0165 15* | 8.29 | 68 | 63 | 59 | 65 | 3 | 7 | 17 | -- | 27 | -- |
| 016516 * | 8.29 | 68 | 63 | 59 | 65 | 3 | 7 | 17 | 21 | 27 | 4.5 |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| SUPPORTS |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | A | B | C | D | E | H | M | Cup art. | Support material | Weight <br> g |
|  | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  |  |
| 000832 | 60 | M12 | -- | 64 | 3 | 10 | -- | 016515 | aluminium | 80.6 |
| 000236 | 60 | M8 | G1/4" | 64 | 3 | 10 | 21 | 016516 | aluminium | 78.1 |
| 000613 | 60 | M12 | G1/4" | 64 | 3 | 10 | 21 | 016516 | aluminium | 77.1 |



| Art. | Force | A | B | C | D | F | H | M | 0 | Cup | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | $\emptyset$ | Art. | Art. | g |
| 0865 15 * | 8.29 | 69 | M12 | -- | 65 | 10 | 17 | -- | -- | 016515 | 000832 | 102.0 |
| 086516 * | 8.29 | 69 | M8 | G1/4" | 65 | 10 | 17 | 21 | 4.5 | 016516 | 000236 | 100.0 |
| 086517 * | 8.29 | 69 | M12 | G1/4" | 65 | 10 | 17 | 21 | 4.5 | 016516 | 000613 | 98.5 |

[^5]
## FLAT CIRCULAR CUPS WITH SUPPORT



| Art. | Force | A | B | C | D | E | F | H | M | $N$ | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  | $\emptyset$ | $\emptyset$ |
| 0185 15* | 14.18 | 68 | 63 | 59 | 85 | 3 | 7 | 17 | -- | 27 | -- |
| 0185 16 * | 14.18 | 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 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | A | B | C | D | E | H | M | Cup | Support | Weight |
|  | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | art. | material | g |
| 000832 | 60 | M12 | -- | 64 | 3 | 10 | -- | 018515 | aluminium | 80.6 |
| 000236 | 60 | M8 | G1/4" | 64 | 3 | 10 | 21 | 018516 | aluminium | 78.1 |
| 000613 | 60 | M12 | G1/4" | 64 | 3 | 10 | 21 | 018516 | aluminium | 77.1 |



CUPS WITH SUPPORT

| Art. | Force | A | B | C | D | F | H | M | 0 | $\begin{aligned} & \text { Cup } \\ & \text { Art. } \end{aligned}$ | Support Art. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | $\emptyset$ |  |  |  |
| 088515 * | 14.18 | 69 | M12 | -- | 85 | 10 | 17 | -- | -- | 018515 | 000832 | 110.3 |
| 088516 * | 14.18 | 69 | M8 | G1/4" | 85 | 10 | 17 | 21 | 4.5 | 018516 | 000236 | 107.7 |
| 088517 * | 14.18 | 69 | M12 | G1/4" | 85 | 10 | 17 | 21 | 4.5 | 018516 | 000613 | 106.7 |

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


CUPS

| Art. | Force | A | B | C | D | E | F | H |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |
| $\mathbf{0 1 1 1 0 1 0 *}$ | 23.74 | 96 | 91 | 87 | 114 | 3 | 8 | 17 | 54 |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


SUPPORTS

| Art. | A | B | C | D | E | H | M | Cupart. | Support material | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  |  |
| 000833 | 88 | M12 | -- | 92 | 3 | 11 | -- | 0111010 | aluminium | 188.9 |
| 000237 | 88 | M8 | G1/4" | 92 | 3 | 11 | 26 | 0111010 | aluminium | 188.8 |
| 000614 | 88 | M12 | G1/4" | 92 | 3 | 11 | 26 | 0111010 | aluminium | 185.8 |
| 0008123 | 88 | G3/8" | -- | 92 | 3 | 11 | -- | 0111010 | aluminium | 186.1 |



| Art. | Force | A | B | C | D | F | H | M | $\begin{aligned} & \text { Cup } \\ & \text { Art. } \end{aligned}$ | Support Art. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  |  |
| 0811010 * | 23.74 | 97 | M12 | -- | 114 | 11 | 17 | -- | 0111010 | 000833 | 233.2 |
| 0811011 * | 23.74 | 97 | M8 | G1/4" | 114 | 11 | 17 | 26 | 0111010 | 000237 | 233.1 |
| 0811012 * | 23.74 | 97 | M12 | G1/4" | 114 | 11 | 17 | 26 | 0111010 | 000614 | 230.1 |
| 0811013 * | 23.74 | 97 | G3/8" | -- | 114 | 11 | 17 | -- | 0111010 | 0008123 | 230.4 |

[^6]
## FLAT CIRCULAR CUPS WITH SUPPORT



| CUPS |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force | A | B | C | D | E | F | H |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |
| $\mathbf{0 1 1 5 0 1 0 *}$ | 45.00 | 133 | 125 | 118 | 154 | 4 | 11 | 23 |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| SUPPORTS |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | A | B | C | D | E | H | M | Cup | Support | Weight |
|  | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | art. | material | g |
| 000835 | 120 | M12 | -- | 127 | 4 | 15 | -- | 0115010 | aluminium | 471.3 |
| 0008107 | 120 | M12 | G3/8" | 127 | 4 | 15 | 30 | 0115010 | aluminium | 476.9 |
| 0008119 | 120 | G3/8" | -- | 127 | 4 | 15 | -- | 0115010 | aluminium | 478.9 |
| 0008145 | 120 | G3/8" | G3/8" | 127 | 4 | 15 | 27 | 0115010 | aluminium | 471.9 |
| 000615 | 120 | M12 | $\mathrm{G} 1 / 4^{\prime \prime}$ | 127 | 4 | 15 | 30 | 0115010 | aluminium | 476.3 |



CUPS WITH SUPPORT

| Art. | Force | A | B | C | D | F | H | M | Cup | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | Art. | Art. | g |
| 08150 10* | 45.00 | 135 | M12 | -- | 154 | 15 | 23 | -- | 0115010 | 000835 | 583.3 |
| 0815012 * | 45.00 | 135 | M12 | G3/8" | 154 | 15 | 23 | 30 | 0115010 | 0008107 | 588.9 |
| 0815013 * | 45.00 | 135 | G3/8" | -- | 154 | 15 | 23 | -- | 0115010 | 0008119 | 590.9 |
| 08150 14* | 45.00 | 135 | G3/8" | G3/8" | 154 | 15 | 23 | 27 | 0115010 | 0008145 | 583.9 |
| 0815016 * | 45.00 | 135 | M12 | G1/4" | 154 | 15 | 23 | 30 | 0115010 | 000615 | 588.3 |

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


| CUPS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force | A | B | D | Compound |  |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |
| $\mathbf{0 1 \mathbf { 2 2 0 1 0 ~ A }}$ |  | 78.5 | 180 | 180 | 220 | oil-resistant rubber |



SUPPORTS

| Art. | A | B | C | D | H | M | Support <br> material | Cup <br> art. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 0 0 8 3 7}$ | 1 | 180 | M 12 | $\mathrm{G} 3 / 8^{\prime \prime}$ | 206 | 12 | 70 | aluminium | 0122010 A |



## FLAT CIRCULAR CUPS WITH SUPPORT



| CUPS |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force | A | B | C | D | E | F | H |  |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |
| $\mathbf{0 1 \mathbf { 2 5 0 2 0 } \boldsymbol { * }}$ | 122.60 | 235 | 227 | 220 | 254 | 4 | 11 | 23 | 220 |

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


| Art. | A | B | C | D | E | H | M | Cupart. | Support material | Weight Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  |  |
| 0008115 | 223 | M12 | G3/8" | 230 | 4 | 15 | 70 | 0125020 | aluminium | 1.65 |



CUPS WITH SUPPORT

| Art. | Force | A | B | C | D | F | H | M | Cup <br> Art. | Support <br> Art. |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 8 2 5 0 ~ 2 0 ~ * ~}$ | 122.60 | 237 | M 12 | $\mathrm{G} 3 / 8^{\prime \prime}$ | 254 | 15 | 23 | 70 | 0125020 | 0008115 |

[^7]

These foam rubber cups are made with a special compound called GERANIUM, with a density that allows them to grip even uneven
 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, bushammered or flamed marble, textured, non-slip or profiled metal sheets, striped plexiglas, 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 $-40^{\circ} \mathrm{C}$ and $+80^{\circ} \mathrm{C}$ for OF GERANIUM foam rubber and between $-20^{\circ} \mathrm{C}$ and $+80^{\circ} \mathrm{C}$ 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 machine. 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.

| Art. | Force | D | d | E |
| :---: | :---: | :---: | :---: | :---: |
|  | Kg | 0 | $\emptyset$ |  |
| 0142 15 | 0.78 | 40 | 20 | 15 |
| 0164 15* | 3.5 | 64 | 40 | 15 |
| 0192 15* | 8.5 | 92 | 64 | 15 |

* Complete the code indicating the compound: $\mathrm{OF}=$ geranium foam rubber; $\mathrm{NF}=$ neoprene foam rubber



## SUPPORTS

| Art. | A | B | D | F | H | Support <br> material | Cupart. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  |
| 0008147 | 40 | M12 | 40 | -- | 10 | aluminium | 014215 | 32.8 |
| 000832 | 60 | M12 | 64 | 3 | 10 | aluminium | 016415 | 80.6 |
| 000833 | 88 | M12 | 92 | 3 | 11 | aluminium | 019215 | 188.9 |
| 0008123 | 88 | G3/8" | 92 | 3 | 11 | aluminium | 019215 | 186.1 |



| Art. | Force | A | B | D | d | E | F | Cup | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  | Art. | Art. | g |
| 0842 15* | 0.78 | 40 | M12 | 40 | 20 | 15 | 10 | 014215 | 0008147 | 35.6 |
| 086415 * | 3.5 | 60 | M12 | 64 | 40 | 15 | 10 | 016415 | 000832 | 86.5 |
| 0892 15* | 8.5 | 88 | M12 | 92 | 64 | 15 | 11 | 019215 | 000833 | 199.1 |
| 089215 3/8" * | 8.5 | 88 | G3/8" | 92 | 64 | 15 | 11 | 019215 | 0008123 | 196.3 |

[^8]

| Art. | Force | D | d | E |
| :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ |  |
| 01127 15* | 17.5 | 127 | 92 | 15 |
| 01180 15* | 38.5 | 180 | 140 | 15 |
| 0122015 * | 63.6 | 220 | 180 | 15 |

* Complete the code indicating the compound: $\mathrm{OF}=$ geranium foam rubber; $\mathrm{NF}=$ neoprene foam rubber


SUPPORTS

| Art. | A | B | C | D | F | H | M | Support <br> material | Cup <br> art. |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 0 0 8 1 0 7}$ | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | Weight |  |
| Kg |  |  |  |  |  |  |  |  |  |



CUPS WITH SUPPORT

| Art. | Force | A | B | C | D | d | E | F | M | Cup | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | Art. | Art. | Kg |
| 08127 15* | 17.5 | 120 | M12 | G3/8" | 127 | 92 | 15 | 15 | 30 | 0112715 | 0008107 | 0.49 |
| 0818015 * | 38.5 | 160 | M12 | G3/8" | 180 | 140 | 15 | 12 | 60 | 0118015 | 000858 | 0.78 |

* Complete the code indicating the compound: $\mathrm{OF}=$ geranium foam rubber; $\mathrm{NF}=$ neopropene foam rubber


# FLAT CIRCULAR FOAM RUBBER CUPS WITH SUPPORT 

The distinctive feature of these cups is its lip made with nitrile rubber
 associated with GERANIUM or neoprene compounds. This allows a perfect grip on very rough or slotted surfaces. For this reason they are particularly suited for gripping and handling cement manufactures with with grit finished surfaces, marbles and bushammered or flamed granites.
The working temperature ranges between $-40^{\circ} \mathrm{C}$ and $+80^{\circ} \mathrm{C}$ for the GERANIUM OF compound and between $-20^{\circ} \mathrm{C}$ and $+80^{\circ} \mathrm{C}$ for the neoprene NF compound. The anodised aluminium support has a central threaded hole for fastening it to the machine and a side one, also threaded, for the vacuum connection. The cup is cold-assembled onto the support with no adhesives. For the spare part, you can simply request the desired cup indicated in the table in the desired compound.


CUPS

| Art. | Force | A | B | D | H | Compound |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |
| 0122010 OF | 63.6 | 180 | 180 | 220 | 35 | geranium foam rubber |
| 0122010 NF | 63.6 | 180 | 180 | 220 | 35 | neoprene foam rubber |



SUPPORTS

| Art. | A | B | C | D | H | M | Support material | Cupart. | Weight <br> Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  |
| 000837 | 180 | M12 | G3/8" | 206 | 12 | 70 | aluminium | 0122010 | 0.95 |



## FLAT CIRCULAR CUPS WITH VULCANISED SUPPORT, FOR CLAMPING GLASS AND MARBLE

The manufacturers of glass and marble 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 $3 \div 4$ holes on the internal circumference for housing allen screws.
Their extremely flexible lip allows them to easily adapt themselves to the sheets to be held, with no risk of deformation or rupture, even for the thinnest ones. The particular internal support plane of these cups ensure 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 and 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 at page 21, upon request and in minimum quantities to be defined in the order.


CUPS WITH VULCANISED SUPPORT

| Art. | Force | A | B | C | D | E | F | H | M | Support <br> material | Weight <br> Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6.7 | 50 | 40 | 20.5 | 65 | 10 | 15 | 17.5 | 29.5 | steel | 0.09 |
| $\mathbf{0 8} \mathbf{8 5 \mathbf { 1 1 ~ A }}$ | 12.0 | 70 | 60 | 40.5 | 85 | 10 | 15 | 17.5 | $\mathbf{4 9 . 5}$ | steel | 0.14 |



CUP WITH VULCANISED SUPPORT

| Art. | Force | A | B | C | D | E | F | H | M | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | $\emptyset$ | material | Kg |
| 0815011 A | 42.7 | 139 | 130 | 41 | 150 | 10 | 15 | 17.5 | 115 | steel | 1.0 |



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 machine 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 whith which they are made with, ensure a firm
grip on uneven and corrugated surfaces. The 08 .. 40 series, along with sharing the same features, have 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.


CUPS WITH VULCANISED SUPPORT

| Art. | Force | A | B | C | D | E | F | G | H | M | N | Support material | Weight Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  | $\emptyset$ |  |  |
| 0811015 M8* | 23.7 | 74 | 70 | M8 | 110 | 2 | 14 | 10 | 26 | 26.0 | G1/4" | steel | 0.35 |
| 0811015 * | 23.7 | 74 | 70 | M12 | 110 | 2 | 14 | 10 | 26 | 26.0 | G1/4" | steel | 0.33 |
| 0815015 * | 45.0 | 115 | 110 | M12 | 150 | 2 | 14 | 10 | 26 | 40.0 | G3/8" | steel | 0.83 |
| 0820010 * | 78.5 | 164 | 160 | M12 | 200 | 3 | 14 | 11 | 28 | 47.5 | G3/8" | steel | 1.75 |
| 0825010 * | 122.6 | 214 | 210 | M12 | 250 | 3 | 14 | 11 | 28 | 72.5 | G3/8" | steel | 3.00 |
| 0830010 * | 176.6 | 266 | 260 | M16 | 300 | 5 | 15 | 11 | 31 | 89.0 | G1/2" | steel | 4.70 |
| 0835010 * | 240.4 | 316 | 310 | M16 | 350 | 5 | 15 | 11 | 31 | 89.0 | G1/2" | steel | 6.60 |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Art. | Force | A | B | C | D | E | F | G | H | M | $\begin{aligned} & N \\ & \emptyset \end{aligned}$ | $\begin{aligned} & 0 \\ & \emptyset \end{aligned}$ | Support material | Weight <br> Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  |  |  |  |  |
| 0811040 M8* | 15.5 | 74 | 70 | M8 | 110 | 3 | 16 | 7 | 26 | 26.0 | G1/4" | 68 | steel | 0.36 |
| 0811040 * | 15.5 | 74 | 70 | M12 | 110 | 3 | 16 | 7 | 26 | 26.0 | G1/4" | 68 | steel | 0.34 |
| 0815040 * | 22.8 | 115 | 110 | M12 | 150 | 3 | 16 | 7 | 26 | 40.0 | G3/8" | 105 | steel | 0.85 |
| 0820040 * | 45.0 | 164 | 160 | M12 | 200 | 3 | 17 | 8 | 28 | 47.5 | G3/8" | 148 | steel | 1.70 |
| 0825040 * | 78.5 | 214 | 210 | M12 | 250 | 3 | 17 | 8 | 28 | 72.5 | G3/8" | 196 | steel | 3.00 |
| 0830040 * | 122.6 | 266 | 260 | M16 | 300 | 3 | 18 | 10 | 31 | 89.0 | G1/2" | 248 | steel | 4.60 |
| 0835040 * | 176.6 | 316 | 310 | M16 | 350 | 3 | 18 | 10 | 31 | 89.0 | G1/2" | 298 | steel | 6.50 |

[^9]Conversion ratio: inch $=\frac{\mathrm{mm}}{25.4} ;$ pounds $=\frac{\mathrm{g}}{453.6}=\frac{\mathrm{Kg}}{0.4536}$

## FLAT CIRCULAR 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 self-locking nuts for guiding the cups and fastening them to the machine, as well as with a threaded sleeve for vacuum connection.
Morever, 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.



CUPS WITH VULCANISED SUPPORT

| Art. | Force | A | B | E | F | G | H | I | L <br> Kg | $\emptyset$ | $\emptyset$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

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

These cups have been designed for lifting objects with a central hole. Their very thin lip allow 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 machine.
The cups are cold-assembled onto them, with no 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 indicated at page 21 can be provided upon request in minimum quantities to be defined in the order. For the spare part, all you have to do is request the cup indicated in the table in the desired compound.


| CUP |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force | A | B | D | D | H |  |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |
| $\mathbf{0 1 \mathbf { 2 4 } \mathbf { 0 6 ~ S }}$ | 0.6 | 25.5 | 15.5 | 24 | 16.5 | 20 |  |



SUPPORTS

| Art. | A | B | D | E | F | H | Support <br> material | Cup <br> art. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 0 0 8 \mathbf { 0 8 2 3 2 }}$ | 15 | G1/8" | 30 | 10 | 4 | 14 | aluminium | 012406 |



CUP WITH SUPPORT

| Art. | A | D | d | E | H | Cup | Support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\emptyset$ | $\emptyset$ | $\emptyset$ |  | Art. | Weight |  |
| $\mathbf{0 8 \mathbf { 0 4 } \mathbf { 0 6 ~ S ~ }}$ | 15 | 24 | 16.5 | 2.5 | 16.5 | 012406 S | 0008232 |

## CIRCULAR RIM CUPS WITH SUPPORT



| CUPS |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force | A | B | D | d | F | H |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |
| $\mathbf{0 1 3 1 0 6 ~ S}$ | 1.25 | 31.5 | 21.5 | 31 | 18 | 24.5 | 6 |



| SUPPORTS |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | A | B | D | E | F | H | Support <br> material | Cup <br> art. | Weight <br> g |
| $\mathbf{0 0 0 8 \mathbf { 0 8 1 }}$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | G1/8" | 36 | 10 |



SUPPORTS

| Art. | A | B | C | D | E | F | G | H | N$\emptyset$ | Support material | $\begin{aligned} & \text { Cup } \\ & \text { art. } \end{aligned}$ | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  |  |  |  |
| 000868 | 40 | M12 | 23 | 35 | 7 | 10 | 18 | 25 | 20 | aluminium | 014613 | 47.2 |
| 000872 | 65 | G3/8" | 40 | 60 | 10 | 15 | 25 | 35 | 25 | aluminium | 017314 | 169.1 |
| 000873 | 76 | G3/8" | 51 | 71 | 10 | 15 | 27 | 37 | 25 | aluminium | 019514 | 266.0 |




# FLAT RECTANGULAR CUPS WITH SUPPORT 

These cups are recommended for working surfaces for clamping wooden panels, marble, granite, ceramic, glass, etc. They are obviously used to handle these materials. Their vertical and low lip allows for a firm grip on the surface to be clamped or handled, eliminating any oscillation and considerably reduces the air volume contained within, thus ensuring a quicker gripping and release. Cups in special compounds indicated at page 21 can be provided upon request in minimum quantities to be defined in the order.
They can be cold-assembled, with no adhesives, onto an anodised aluminium support, provided with a central threaded hole to ease its fastening to the machine.
Larger supports are provided with two threaded holes equidistant from the centre, to allow the possible insertion of guiding anti-rotation pins.
For the spare part, all you have to do is request the cup indicated in the table in the desired compound.


CUPS

| Art. | Force <br> Kg | A | B | E | F | G | H | L | M | N | 0 | P | Q |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 014075 * | 6.7 | 64 | 29 | 3 | 7.5 | 6.5 | 16.0 | 75 | 40 | 59 | 24 | 54 | 19 |
| 0112090 * | 24.0 | 107 | 78 | 3 | 7.5 | 7.5 | 17.5 | 117 | 87 | 102 | 73 | 97 | 68 |
| 0115065 * | 21.5 | 137 | 52 | 3 | 7.5 | 7.5 | 16.5 | 147 | 62 | 132 | 47 | 127 | 42 |
| 0115075 * | 25.0 | 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

| Art. | N | 0 | P | Q | Support <br> material | Cup art. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 000831 | 60 | 25 | 55 | 20 | aluminium | 014075 | 34.1 |
| 000834 | 107 | 75 | 102 | 70 | aluminium | 0112090 | 215.5 |
| 0008144 | 135 | 50 | 130 | 45 | aluminium | 0115065 | 176.1 |
| 000859 | 135 | 60 | 130 | 55 | aluminium | 0115075 | 218.4 |



CUPS WITH SUPPORT

| Art. | Force Kg | A | B | C | H | L | M | P | Q | Cup <br> Art. | Support Art. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 084075 * | 6.7 | 66 | 31 | 6.5 | 16.0 | 76 | 41 | 55 | 20 | 014075 | 000831 | 49.7 |
| 0812090 * | 24.0 | 112 | 80 | 7.5 | 17.5 | 120 | 90 | 102 | 70 | 0112090 | 000834 | 254.3 |
| 0815065 * | 21.5 | 140 | 55 | 7.5 | 16.5 | 150 | 65 | 130 | 45 | 0115065 | 0008144 | 217.3 |
| 0815075 * | 25.0 | 140 | 65 | 7.5 | 16.5 | 150 | 75 | 130 | 55 | 0115075 | 000859 | 259.6 |

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


| CUPS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force Kg | A | B | E | F | G | H | L | M | N | 0 | P | Q |
| 01300 80 * | 60.0 | 288 | 68 | 3 | 7.5 | 7.5 | 17.5 | 297 | 77 | 284 | 64 | 278 | 58 |
| 01300150 * | 113.0 | 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

| Art. | D | N | 0 | P | Q | Support <br> material | Cup <br> art. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 0 0 8 1 1 6}$ | G3/8" | 290 | 68 | 284 | 62 | aluminium | 0130080 |
| $\mathbf{0 0 0 8 1 1 7}$ | $G 1 / 2^{\prime \prime}$ | 290 | 140 | 284 | 134 | aluminium | 01300150 |



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


| CUPS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force Kg | A | B | E | F | G | H | L | M | N | 0 | P | Q |
| 01120 90 * | 24.0 | 107 | 78 | 3 | 7.5 | 7.5 | 17.5 | 117 | 87 | 102 | 73 | 97 | 68 |
| 0115075 * | 25.0 | 137 | 62 | 3 | 7.5 | 7.5 | 16.5 | 147 | 72 | 132 | 57 | 127 | 52 |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| SUPPORTS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | A | B | C | H | L | M | N | 0 | P | Q | Support material | Cup art. | Weight <br> g |
| 0008256 | 80 | 51 | 2.5 | 16.2 | 30 | 56 | 107 | 75 | 102 | 70 | aluminium | 0112090 | 244.5 |
| 0008257 | 110 | 35 | 2.3 | 16.4 | 20 | 92 | 135 | 60 | 130 | 55 | aluminium | 0115075 | 247.9 |



| Art. | Force Kg | A | B | C | H | L | M | P | Q | $\begin{aligned} & \text { Cup } \\ & \text { Art. } \end{aligned}$ | $\begin{gathered} \hline \text { Support } \\ \text { Art. } \\ \hline \end{gathered}$ | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0812090 M1 * | 24.0 | 112 | 80 | 7.5 | 17.5 | 120 | 90 | 102 | 70 | 0112090 | 0008256 | 283.3 |
| 0815075 M1 * | 25.0 | 140 | 65 | 7.5 | 16.5 | 150 | 75 | 130 | 55 | 0115075 | 0008257 | 289.1 |

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


## FLAT RECTANGULAR FOAM RUBBER CUPS WITH SUPPORT

Foam rubber cups are made with a special compound called GERANIUM indicated with $O F$, with a density that allows them to grip uneven and very rough surfaces and still maintain their elasticity even after many working cycles.
These foam rubber cups have a self-adhesive side for a quick fixing to their support. These cups have been designed for handling loads with raw or very rough surfaces (sawn, bushammered or flamed marble, textured, non-slip or profiled metal sheet, striped plexiglas, raw cement manufactures, garden tiles with fret, etc.) and for all those cases in which traditional cups cannot be used. In case of lubricated gripping surfaces, we recommend using neoprene foam rubber NF.
The working temperature ranges from $-40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$ for GERANIUM foam rubber OF and from $-20^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$ for neoprene foam rubber NF.
Their supports are made with anodised aluminium and they are provided with a central threaded hole to allow its fastening to the machine.
Larger supports, on the other hand, are provided with two threaded holes equidistant from the centre, for the possible insertion of guiding, anti-rotation pins.
For the spare part, all you have to do is request the cup indicated in the table in the desired compound.


CUPS

| Art. | Force <br> Kg | A | B | C |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 1 \mathbf { 1 0 7 } \mathbf { 7 5 } *}$ | 9.0 | 107 | 75 | 15 |
| $\mathbf{0 1 \mathbf { 1 3 5 } \mathbf { 5 0 }}$ | 6.0 | 135 | 50 | 15 |
| $\mathbf{0 1 \mathbf { 1 3 5 } \mathbf { 6 0 }}$ | 8.0 | 135 | 60 | 15 |

* Complete the code indicating the compound: $\mathrm{OF}=$ geranium foam rubber; $\mathrm{NF}=$ neoprene foam rubber


SUPPORTS

| Art. | A | B | D | E | H | M | N | Support material | Cup art. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 000834 | 107 | 75 | 70 | 3 | 11 | 102 | 70 | aluminium | 0110775 | 215.5 |
| 0008144 | 135 | 50 | 45 | 3 | 11 | 130 | 45 | aluminium | 0113550 | 176.1 |
| 000859 | 135 | 60 | 55 | 3 | 11 | 130 | 55 | aluminium | 0113560 | 218.4 |



CUPS WITH SUPPORT

| Art. | Force | A | B | C | E | F | N | Cup <br> Art. | Support. <br> Art. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 8 1 0 7} \mathbf{7 5}$ * | 9 | 107 | 75 | 15 | 15 | 11 | 70 | 0110775 | 000834 | 229.5 |
| $\mathbf{0 8 1 3 5} \mathbf{5 0}$ * | 6 | 135 | 50 | 15 | 15 | 11 | 45 | 0113550 | 0008144 | 190.6 |
| $\mathbf{0 8 1 3 5} \mathbf{6 0}$ * | 8 | 135 | 60 | 15 | 15 | 11 | 55 | 0113560 | 000859 | 233.0 |

* Complete the code indicating the compound: $\mathrm{OF}=$ geranium foam rubber; $\mathrm{NF}=$ neoprene foam rubber


| Art. | Force | A | B | C | E |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg |  |  |  |  |
| 0129068 * | 25 | 290 | 68 | 15 | 15 |
| 01290140 * | 72 | 290 | 140 | 15 | 15 |

* Complete the code indicating the compound: $\mathrm{OF}=$ geranium foam rubber; $\mathrm{NF}=$ neoprene foam rubber


| Art. | A | B | D | E | H | M | N | Support material | Cupart. | Weight Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\emptyset$ |  |  |  |  |  |  |  |
| 0008116 | 290 | 68 | G3/8" | 3 | 11 | 284 | 62 | aluminium | 0129068 | 0.53 |
| 0008117 | 290 | 140 | G1/2" | 3 | 11 | 284 | 134 | aluminium | 01290140 | 1.13 |



| Art. | Force | A | B | C | D | F | N | Cup | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg |  |  |  | $\emptyset$ |  |  | Art. | Art. | Kg |
| 0829068 * | 25 | 290 | 68 | 15 | G3/8" | 11 | 62 | 0129068 | 0008116 | 0.56 |
| 08290140 * | 72 | 290 | 140 | 15 | G1/2" | 11 | 134 | 01290140 | 0008117 | 1.15 |

[^10]
## FLAT RECTANGULAR FOAM RUBBER CUPS WITH SUPPORT

Foam rubber cups are made with a special compound called GERANIUM indicated with $O F$, with a density that allows them to grip uneven and very rough surfaces and still maintain their elasticity even after many working cycles.
These foam rubber cups have a self-adhesive side for a quick fixing to their support. These cups have been designed for handling loads with raw or very rough surfaces (sawn, bushammered or flamed marble, textured, non-slip or profiled metal sheet, striped plexiglas, raw cement manufactures, garden tiles with fret, etc.) and for all those cases in which traditional cups cannot be used. In case of lubricated gripping surfaces, we recommend using neoprene foam rubber NF.
The working temperature ranges from $-40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$ for GERANIUM foam rubber OF and from $-20^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$ for neoprene foam rubber NF.
Their supports are made with anodised aluminium and they are provided with a central threaded hole to allow its fastening to the machine.
Larger supports, on the other hand, are provided with two threaded holes equidistant from the centre, for the possible insertion of guiding, anti-rotation pins.
For the spare part, all you have to do is request the cup indicated in the table in the desired compound.


CUPS

| Art. | Force <br> Kg | A | B | C |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 1 \mathbf { 1 0 7 } \mathbf { 7 5 } *}$ | 9.0 | 107 | 75 | 15 |
| $\mathbf{0 1 \mathbf { 1 3 5 } \mathbf { 5 0 }}$ | 6.0 | 135 | 50 | 15 |
| $\mathbf{0 1 \mathbf { 1 3 5 } \mathbf { 6 0 }}$ | 8.0 | 135 | 60 | 15 |

* Complete the code indicating the compound: $\mathrm{OF}=$ geranium foam rubber; $\mathrm{NF}=$ neoprene foam rubber


SUPPORTS

| Art. | A | B | D | E | H | M | N | Support material | Cup art. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 000834 | 107 | 75 | 70 | 3 | 11 | 102 | 70 | aluminium | 0110775 | 215.5 |
| 0008144 | 135 | 50 | 45 | 3 | 11 | 130 | 45 | aluminium | 0113550 | 176.1 |
| 000859 | 135 | 60 | 55 | 3 | 11 | 130 | 55 | aluminium | 0113560 | 218.4 |



CUPS WITH SUPPORT

| Art. | Force | A | B | C | E | F | N | Cup <br> Art. | Support. <br> Art. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 8 1 0 7} \mathbf{7 5}$ * | 9 | 107 | 75 | 15 | 15 | 11 | 70 | 0110775 | 000834 | 229.5 |
| $\mathbf{0 8 1 3 5} \mathbf{5 0}$ * | 6 | 135 | 50 | 15 | 15 | 11 | 45 | 0113550 | 0008144 | 190.6 |
| $\mathbf{0 8 1 3 5} \mathbf{6 0}$ * | 8 | 135 | 60 | 15 | 15 | 11 | 55 | 0113560 | 000859 | 233.0 |

* Complete the code indicating the compound: $\mathrm{OF}=$ geranium foam rubber; $\mathrm{NF}=$ neoprene foam rubber


| Art. | Force | A | B | C | E |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg |  |  |  |  |
| 0129068 * | 25 | 290 | 68 | 15 | 15 |
| 01290140 * | 72 | 290 | 140 | 15 | 15 |

* Complete the code indicating the compound: $\mathrm{OF}=$ geranium foam rubber; $\mathrm{NF}=$ neoprene foam rubber


| Art. | A | B | D | E | H | M | N | Support material | Cupart. | Weight Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\emptyset$ |  |  |  |  |  |  |  |
| 0008116 | 290 | 68 | G3/8" | 3 | 11 | 284 | 62 | aluminium | 0129068 | 0.53 |
| 0008117 | 290 | 140 | G1/2" | 3 | 11 | 284 | 134 | aluminium | 01290140 | 1.13 |



| Art. | Force | A | B | C | D | F | N | Cup | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg |  |  |  | $\emptyset$ |  |  | Art. | Art. | Kg |
| 0829068 * | 25 | 290 | 68 | 15 | G3/8" | 11 | 62 | 0129068 | 0008116 | 0.56 |
| 08290140 * | 72 | 290 | 140 | 15 | G1/2" | 11 | 134 | 01290140 | 0008117 | 1.15 |

[^11]
## FLAT RECTANGULAR CUPS WITH VULCANISED SUPPORT, FOR CLAMPING GLASS AND MARBLE

The manufacturers of glass and marble 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 themselves to the sheets to be held, with no risk of deformation or rupture, even for the thinnest ones. The particular internal support plane of these cups ensure a high friction coefficient with the gripping surface and a considerable grip on wet glass and marble sheets, thanks to the water drainage. All this guarantees a firm and 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 at page 21, upon request and in minimum quantities to be defined in the order.


CUP WITH VULCANISED SUPPORT

| Art. | Force <br> Kg | A | B | D <br> $\emptyset$ | E | F | H | $\mathbf{L}$ | $\mathbf{M}$ | $\mathbf{N}$ | P | Q | Support <br> material | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 8 5 0 7 5 ~ A}$ | 7.5 | 60 | 35 | 20.5 | 10 | 15 | 17.5 | 75 | 50 | 39.5 | 50 | 25 | steel | 92 |

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, they can be used for handling boxes, plastic objects or anything with a limited gripping suface.
Their anodised aluminium support have a central threaded hole to fasten it to the machine. They are also provided with a nickelplated brass plate to hold the cup in its housing and with one or two stainless steel screws for fixing them. For the spare part, all you have to do is request the cup indicated in the table in the desired compound.

| CUP |  | B | B | C | D |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force <br> Kg | A |  |  |  |
| $\mathbf{0 1 1 2 \mathbf { 1 2 } \text { * }}$ | 0.52 | 15 | 11.5 | 17 | 20 |

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

SUPPORT

| Art. | B | E | F | Support | Cup | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\emptyset$ |  |  | material | art. | g |
| 000870 | G1/8" | 8.5 | 6.5 | aluminium | 011220 | 5.4 |

fixing plate art. 000897

TSP M3x5 screw art. 0008103

Note: By ordering art. 0008 70, the fixing plate and the TSP screw will also be provided.

## CUP WITH SUPPORT

| Art. | Force <br> Kg | D | Cup | Support | Art. |
| :---: | :---: | :---: | :---: | :---: | :---: |

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



## FLAT OVAL CUPS WITH SUPPORT

| CUPS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force | A | B | C | D |
| $\mathbf{0 1 1 2 ~ 3 0}$ | 0.82 | 25 | 21.5 | 27 | 30 |
| $\mathbf{0 1 1 2 ~ 4 0}$ | 1.12 | 35 | 31.5 | 37 | 40 |
| $\mathbf{0 1 1 2 ~ 5 0}$ | 1.57 | 50 | 46.5 | 52 | 55 |



* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

fixing plate
art. $\mathbf{0 0 0 8 9 8}$ for supp. 000871
art. 000899 for supp. 000875 art. 0008100 for supp. 000876

2 TSP screws M3x5 art. $\mathbf{0 0} \mathbf{0 8 1 0 2}$


Note: By ordering the art. referring to the support, the fixing plate and the TSP screws will also be provided

# OVAL CUPS WITH VULCANISED SUPPORT 

The cups described in this page have been designed for for 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


CUP WITH VULCANISED SUPPORT

| Art. | Force <br> Kg | Support <br> material | Weight <br> g |
| :---: | :---: | :---: | :---: |
| $\mathbf{0 8 \mathbf { 3 2 5 2 } \text { * }}$ | 3.00 | aluminium | 12.1 |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


## CUP WITH VULCANISED SUPPORT

| Art. | Force <br> Kg | Support <br> material | Weight <br> g |
| :---: | :---: | :---: | :---: |
| $\mathbf{0 8 \mathbf { 3 2 9 9 } \text { * }}$ | 3.00 | aluminium | 11.9 |

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

handling X-ray sheets in hospital or other electrostatically charged films.
Their 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 hole. A side slot on the support prevents the cup from rotating. These cups are recommended for gripping and handling magnetic sheets, plastic sheets, thiin rubber sheets, laminated cardboard ,etc.


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

$90^{\circ}$

| Art. | Force | gripping $\emptyset$ |  | A | B | C | D | E | F | G | H | I | L | M | N | Support <br> material | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | min | max |  |  |  | $\emptyset$ |  |  |  |  |  |  |  |  |  |  |
| 0830 60* | 3.5 | 30 | 45 | 26 | 15 | 10 | M8 | 8 | 16 | 19 | 20.0 | 20 | 60 | 50 | 4.1 | aluminium | 20.3 |
| 0840 90* | 8.6 | 50 | 80 | 40 | 20 | 14 | M12 | 10 | 23 | 28 | 25.0 | 30 | 92 | 80 | 5.1 | aluminium | 54.8 |
| 085090 * | 10.5 | 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


# BELLOW CUPS WITH MALE AND FEMALE SUPPORTS 

The BELLOW CUPS described in these pages have been specially designed for handling baked goods, such as bisuits, 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 machine.
The cups can be assembled onto them with no adhesives. For the spare part, all you have to do is request the cup indicated in the table in the desired compound.


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


3D drawings available at www.vuototecnica.net


| CUPS |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force | A | B | C | D | E | F | H |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |
| 012023 * | 0.78 | 14.5 | 5.0 | 14 | 20 | 5 | 4 | 23 |
| 013032 * | 1.76 | 20.0 | 6.5 | 21 | 30 | 7 | 5 | 32 |
| 014042 * | 3.14 | 20.0 | 6.5 | 28 | 40 | 7 | 5 | 42 |
| 015053 * | 4.90 | 27.0 | 10.5 | 35 | 50 | 10 | 6 | 53 |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


FEMALE SUPPORTS

| Art. | A | B | C | D | E | F | G | H | Support material | Cupart. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\emptyset$ |  | $\emptyset$ | $\emptyset$ |  |  |  |  |  |  |  |
| 0008132 | 14.5 | 13 | G1/8" | 8.5 | 12 | 8 | 5.0 | 17.0 | aluminium | 012023 | 3.8 |
| 0008134 | 20.0 | 17 | G1/4" | 10.0 | 14 | 10 | 7.5 | 21.5 | aluminium | 013032 | 8.3 |
|  |  |  |  |  |  |  |  |  |  | 014042 |  |
| 0008141 | 27.0 | 22 | G1/4" | 14.0 | 14 | 10 | 9.5 | 23.5 | aluminium | 015053 | 19.7 |

CUPS WITH FEMALE SUPPORT

| Art. | Force Kg | A | B | C | D | E | F | G | H | $\begin{aligned} & \text { Cup } \\ & \text { Art. } \end{aligned}$ | Support <br> Art. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 082023 F * | 0.78 | 14.5 | 13 | G1/8" | 20 | 12 | 8 | 23 | 35 | 012023 | 0008132 | 5.6 |
| 083032 F * | 1.76 | 20.0 | 17 | G1/4" | 30 | 14 | 10 | 32 | 46 | 013032 | 0008134 | 13.9 |
| 084042 F * | 3.14 | 20.0 | 17 | G1/4" | 40 | 14 | 10 | 42 | 56 | 014042 | 0008134 | 19.9 |
| 085053 F * | 4.90 | 27.0 | 22 | G1/4" | 50 | 14 | 10 | 53 | 67 | 015053 | 0008141 | 44.1 |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


# REINFORCED BELLOW CUPS WITH MALE AND FEMALE SUPPORT 

The particular shape of these BELLOW 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 BELLOW 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 machine.
The cups can be assembled onto them with no adhesives. For the spare part, all you have to do is request the cup indicated in the table in the desired compound.


| Art. |  | Force | A | B | C | D | E | F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  | H |
| $\mathbf{0 1 \mathbf { 2 2 } \mathbf { 1 9 } \text { * }}$ | 0.95 | 14.5 | 5.0 | 11.0 | 22 | 4 | 5.5 | 19 |
| $\mathbf{0 1 3 4} \mathbf{2 6}$ * | 2.26 | 14.5 | 5.0 | 17.0 | 34 | 4 | 5.5 | 26 |
| $\mathbf{0 1 \mathbf { 4 3 } \mathbf { 2 8 }}$ * | 3.62 | 20.0 | 6.5 | 21.5 | 43 | 4 | 7.0 | 28 |
| $\mathbf{0 1 5 3} \mathbf{3 5}$ * | 5.51 | 27.0 | 10.5 | 30.5 | 53 | 6 | 9.5 | 35 |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Art. | A | B | $\begin{aligned} & C \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \mathrm{D} \\ & \emptyset \end{aligned}$ | E | F | G | H | Support material | Cup art. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0008133 | 14.5 | 13 | G1/8" | 8.5 | 5.5 | 8 | 5.0 | 18.5 | aluminium | 012219 | 3.5 |
|  |  |  |  |  |  |  |  |  |  | 013426 |  |
| 0008135 | 20.0 | 17 | G1/4" | 10.0 | 7.5 | 12 | 7.5 | 27.0 | aluminium | 014328 | 9.5 |
| 0008142 | 27.0 | 22 | G1/4" | 14.0 | 7.5 | 12 | 9.5 | 29.0 | aluminium | 015335 | 15.7 |


| Art. | Force | A | B | C | D | E | F | G | H | Cup | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ |  | $\emptyset$ | $\emptyset$ |  |  |  |  | Art. | Art. | g |
| 0822 19* | 0.95 | 14.5 | 13 | G1/8" | 22 | 5.5 | 8 | 19 | 32.5 | 012219 | 0008133 | 6.2 |
| 083426 * | 2.26 | 14.5 | 13 | G1/8" | 34 | 5.5 | 8 | 26 | 39.5 | 013426 | 0008133 | 15.2 |
| 084328 * | 3.62 | 20.0 | 17 | G1/4" | 43 | 7.5 | 12 | 28 | 47.5 | 014328 | 0008135 | 18.5 |
| 0853 35* | 5.51 | 27.0 | 22 | G1/4" | 53 | 7.5 | 12 | 35 | 54.5 | 015335 | 0008142 | 33.3 |

[^12]

| CUPS |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force | A | B | C | D | E | F | H |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |
| 0122 19* | 0.95 | 14.5 | 5.0 | 11.0 | 22 | 4 | 5.5 | 19 |
| 013426 * | 2.26 | 14.5 | 5.0 | 17.0 | 34 | 4 | 5.5 | 26 |
| 014328 * | 3.62 | 20.0 | 6.5 | 21.5 | 43 | 4 | 7.0 | 28 |
| 015335 * | 5.51 | 27.0 | 10.5 | 30.5 | 53 | 6 | 9.5 | 35 |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Art. | A | B | C | D | E | F | G | H | Support material | Cupart. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\emptyset$ |  | $\emptyset$ | $\emptyset$ |  |  |  |  |  |  |  |
| 0008132 | 14.5 | 13 | G1/8" | 8.5 | 8 | 12 | 5.0 | 17.0 | aluminium | 012219 | 3.8 |
|  |  |  |  |  |  |  |  |  |  | 013426 |  |
| 0008134 | 20.0 | 17 | G1/4" | 10.0 | 10 | 14 | 7.5 | 21.5 | aluminium | 014328 | 8.3 |
| 0008141 | 27.0 | 22 | G1/4" | 14.0 | 10 | 14 | 9.5 | 23.5 | aluminium | 015335 | 19.7 |



| Art. | Force <br> Kg | $\begin{aligned} & \mathrm{A} \\ & \emptyset \end{aligned}$ | B | $\begin{aligned} & C \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \mathrm{D} \\ & \emptyset \end{aligned}$ | E | F | G | H | $\begin{aligned} & \text { Cup } \\ & \text { Art. } \end{aligned}$ | Support Art. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 082219 F | 0.95 | 14.5 | 13 | G1/8" | 22 | 8 | 12 | 19 | 31 | 012219 | 0008132 | 6.5 |
| 083426 F * | 2.26 | 14.5 | 13 | G1/8" | 34 | 8 | 12 | 26 | 38 | 013426 | 0008132 | 9.5 |
| 084328 F * | 3.62 | 20.0 | 17 | G1/4" | 43 | 10 | 14 | 28 | 42 | 014328 | 0008134 | 17.3 |
| 085335 F * | 5.51 | 27.0 | 22 | G1/4" | 53 | 10 | 14 | 35 | 49 | 015335 | 0004141 | 37.3 |

[^13]

## REINFORCED BELLOW CUPS WITH SUPPORT

The cups described in these pages share the same features with the previously described BELLOW 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 machine. 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-assembled onto their supports with no adhesives.
For the spare part, all you have to do is request the cup indicated in the table in the desired compound.


|  | CUP |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force | A | B | C | D | G | H | M |  |  |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  | $\emptyset$ |  |  |

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


| SUPPORTS |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | A | B | D | E | H | Support | Cup | Weight |
|  | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  | material | art. | g |
| 0008126 | 45 | M12 | 54 | 3 | 10 | aluminium | 017542 | 45.5 |
| 0008143 | 45 | G1/2" | 54 | 3 | 10 | aluminium | 017542 | 41.5 |



| Art. | Force | A | B | D | G | H | Cup | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  | Art. | Art. | g |
| 087542 * | 11.93 | 59 | M12 | 78 | 22.5 | 42 | 017542 | 0008126 | 94.8 |
| 087542 1/2" * | 11.93 | 59 | G1/2" | 78 | 22.5 | 42 | 017542 | 0008143 | 90.8 |

[^14]
## REINFORCED BELLOW CUPS WITH SUPPORT



| SUPPORTS |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | A | B | C | D | E | N | H | Support | Cup | Weight |
|  | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | material | art. | g |
| 0008162 | 61 | G1/2" | G1/8" | 70 | 3 | 23 | 10 | aluminium | 0111058 | 78.9 |
| 0008163 | 98 | G1/2" | G1/8" | 107 | 3 | 35 | 10 | aluminium | 0115074 | 211.8 |



## BELLOW CUPS FOR GLASS WITH SUPPORT

This range of cups has been designed for gripping vertically 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.
The cups can be cold-assembled onto their support with no adhesives.


| Art. | Force | A | B | C | D | G | H | M | N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  | $\emptyset$ | $\emptyset$ |
| 0115055 * | 45.00 | 78 | 70 | 58 | 150 | 33 | 55 | 120 | 125 |
| 01210 60 | 86.50 | 138 | 130 | 118 | 210 | 38 | 61 | 180 | 185 |

* Complete the code indicating the compound: $\mathrm{A}=$ oill-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


SUPPORTS

| Art. | A | B | C | D | E | H | Support <br> material | Cup art. | Weight$\mathrm{g}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  |
| 0008280 | 35 | G1/2" | -- | 70 | 12.5 | 22.5 | aluminium | 0115055 | 120 |
| 0008281 | 65 | G1/2" | -- | 130 | 12.5 | 23.5 | aluminium | 0121060 | 465 |
| 0008286 | 35 | --- | 8 | 70 | 12.5 | 22.5 | aluminium | 0115055 | 125 |
| 0008287 | 65 | --- | 8 | 130 | 12.5 | 23.5 | aluminium | 0121060 | 470 |



CUPS WITH SUPPORT

| Art. | Force | A | B | C | D | G | H | $\begin{aligned} & \text { Cup } \\ & \text { Art. } \end{aligned}$ | Support Art. | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  |
| 0815055 * | 45.00 | 78 | G1/2" | -- | 150 | 33 | 60 | 0115055 | 0008280 | 245 |
| 08210 60 * | 86.50 | 138 | G1/2" | -- | 210 | 38 | 67 | 0121060 | 0008281 | 650 |
| 0815056 * | 45.00 | 78 | --- | 8 | 150 | 33 | 60 | 0115055 | 0008286 | 250 |
| 0821061 * | 86.50 | 138 | --- | 8 | 210 | 38 | 67 | 0121060 | 0008287 | 655 |

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


## VACUUM CUP WITH ONE BELLOW AND WITH VULCANISED SUPPORT

The cups described in 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 1.118).
The main feature of these BELLOW 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.
Due to their high flexibility they can also be used to compensate flatness errors or for the grip of inclined surfaces.
These cups are available in the standard compounds and can be supplied in special compounds listed at page 21 in minimum amounts to be defined in the order.


CUPS WITH ONE BELLOW WITH FEMALE VULCANISED SUPPORT

| Art. | Force | D | E | F | G | H | Support material | Weight g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ |  |  |  |  |  |  |
| 084030 * | 3.14 | 40 | 35 | 17 | 18 | 52 | aluminium | 32.4 |
| 085030 * | 4.90 | 50 | 37 | 17 | 20 | 54 | aluminium | 40.9 |
| 086030 * | 7.06 | 60 | 39 | 17 | 21 | 56 | aluminium | 53.6 |
| 088530 * | 14.08 | 85 | 50 | 17 | 31 | 67 | aluminium | 122.0 |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Art. | Force | D | E | F | G | H | Support material | Weight$\mathrm{g}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ |  |  |  |  |  |  |
| 084030 M * | 3.14 | 40 | 35 | 13.5 | 18 | 56.5 | aluminium | 29.1 |
| 085030 M * | 4.90 | 50 | 37 | 13.5 | 20 | 58.5 | aluminium | 39.0 |
| 086030 M * | 7.06 | 60 | 39 | 13.5 | 21 | 60.5 | aluminium | 51.2 |
| 088530 M * | 14.08 | 85 | 50 | 13.5 | 31 | 71.5 | aluminium | 115.0 |

[^15]These cups are the same as the ones described in the previous page, only with an additional bellow.
The technical features and availability are the same.


| Art. | Force | A | D | E | F | G | H | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ |  |  |  |  | material | g |
| 0840 60 * | 3.14 | G1/4" | 40 | 52 | 17 | 35 | 69 | aluminium | 39.6 |
| 085050 * | 4.90 | G1/4" | 50 | 55 | 17 | 38 | 72 | aluminium | 49.6 |
| 086050 * | 7.06 | G1/4" | 60 | 58 | 17 | 41 | 75 | aluminium | 72.4 |
| 0860 50M12 * | 7.06 | M12 | 60 | 58 | 17 | 41 | 75 | aluminium | 73.0 |
| 088550 * | 14.08 | G1/4" | 85 | 78 | 17 | 58 | 95 | aluminium | 168.0 |
| 0885 50M12 * | 14.08 | M12 | 85 | 78 | 17 | 58 | 95 | aluminium | 169.0 |

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


CUPS WITH TWO BELLOWS WITH VULCANISED MALE SUPPORT

| Art. | Force | D | E | F | G | H | Support material | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ |  |  |  |  |  | 9 |
| 0840 60M * | 3.14 | 40 | 52 | 13.5 | 35 | 73.5 | aluminium | 35.5 |
| 085050 M * | 4.90 | 50 | 55 | 13.5 | 38 | 76.5 | aluminium | 49.3 |
| 086050 M * | 7.06 | 60 | 58 | 13.5 | 41 | 79.5 | aluminium | 66.0 |
| 0885 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


The main feature of these BELLOW 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.
Due to their high flexibility they can also be used to compensate flatness errors or for the grip of inclined surfaces.
These BELLOW CUPS are vulcanised onto a galvanised steel or aluminium support provided with a central threaded hole for fastening it to the machine and a side one for the vacuum connection or for detecting the vacuum level. Also these cups are available in the three standard compounds.


| Art. | Force | A | B | C | D | E | G | H | M | N | Support material | Weight Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | $\emptyset$ |  |  |  |
| 08110 30* | 23.7 | 78 | 65 | G1/8" | 110 | 10 | 23 | 45 | 55 | 23 | steel | 0.35 |
| 0815030 * | 45.0 | 78 | 65 | G1/8" | 150 | 10 | 33 | 60 | 75 | 23 | steel | 0.49 |
| 0818030 * | 63.5 | 94 | 80 | G1/8" | 180 | 10 | 33 | 70 | 84 | 30 | steel | 0.81 |
| 0825030 * | 122.6 | 130 | 100 | G3/8" | 250 | 15 | 49 | 100 | 125 | 35 | aluminium | 1.54 |

[^16]
## SPECIAL CUPS WITH SUPPORT

These cups 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, cardboard, metal and plastic objects, biscuits, chocolates, 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 machine.
These cups can be manually assembled onto their supports with no adhesives. They are available in the standard compounds, but they can also be provided in the special compounds listed at page 21 in minimum amounts to be defined in the order.


| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. | Weight |
| $\mathbf{0 1 0 7 1 3 *}$ | 0.10 | 0008236 | brass | 3 | $080713^{*}$ |  |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon
* Complete the code indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon


| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |  |
| $\mathbf{0 1 0 8 0 7 *}$ | 0.13 | 0008237 | brass | 3 | Art. | $080807^{*}$ |



| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 1 1 0 8 *}$ | 0.24 | 0008238 | brass | 7 | 081108 * |

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

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 \mathbf { 1 4 0 9 } \boldsymbol { 0 9 }}$ | 0.38 | 0008240 | brass | 7.0 | $081409 \mathrm{~F}^{*}$ |

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

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


[^17]
## SPECIAL CUPS WITH SUPPORT



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

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* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | geight |  |  |
| $\mathbf{0 1 \mathbf { 1 5 0 4 } \text { * }}$ | 0.44 | 0008241 | brass | 1.5 | Art. | $081504^{*}$ |

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



## SPECIAL CUPS WITH SUPPORT



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


| Cup | Force | Support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. |  |  |

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


| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. | Weight |
| $\mathbf{0 1 1 7 1 2 *}$ | 0.60 | 000803 | brass | 9.0 | $081713^{*}$ |  |

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

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

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


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 \mathbf { 1 9 } \mathbf { 3 1 * }}$ | 0.70 | 000809 | aluminium | 18.1 | Art. |

[^18]
## SPECIAL CUPS WITH SUPPORT



| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |  |
| $\mathbf{0 1 \mathbf { 2 0 ~ 0 4 } *}$ | 0.78 | 0008242 | brass | 1.8 | Art. | 082004 * |

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

|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cup | Force | Support | Support | Weight | Cup with support | Weight |
| Art. | Kg | Art. | material | g | Art. | g |
| 012006 * | 0.78 | 0008243 | brass | 6.0 | 0820 06 * | 6.3 |

* Complete the code indicating the compound: $\mathrm{A}=$ oill-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Cup | Force | Support | Support | Weight | Cup with support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. | g |
| 012008 * | 0.78 | 000860 | brass | 5.6 | 082008 * | 6.4 |

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


ल * Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


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

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


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 \mathbf { 2 0 1 4 }}$ | 0.78 | 0008146 | brass | 9.8 | $082014{ }^{*}$ |

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


| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. | Weight |
| $\mathbf{0 1 \mathbf { 2 0 1 4 } \boldsymbol { ~ * ~ }}$ | 0.78 | 0008155 | brass | 9.1 | $082014 \mathrm{~F}^{*}$ |  |

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


## SPECIAL CUPS WITH SUPPORT



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

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon



| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 \mathbf { 2 0 } \mathbf { 2 4 } \text { * }} 1$ | 0.78 | 000803 | brass | 9.0 | $082024^{*}$ |

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

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


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 \mathbf { 2 2 ~ 0 6 } \text { * }}$ | 0.95 | 0008246 | brass | 5.0 | 082206 * |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

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


## SPECIAL CUPS WITH SUPPORT



* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Cup | Force | Support | Support | Weight | Cup with support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. | g |
| 0122 99* | 0.95 | 000810 | brass | 30.3 | 0822 29 * | 33.1 |

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


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. |
| $\mathbf{0 1 \mathbf { 2 5 0 8 } \text { * }}$ | 1.23 | 000860 | brass | 5.6 | 082508 * |

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


| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |  |
| $\mathbf{0 1 \mathbf { 2 5 1 2 } \boldsymbol { * }}$ | 0.11 | 000882 | brass | 11.2 | 082512 * | g |

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

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

| Cup with vulcanised support | Force | Support <br> art. | mg |
| :---: | :---: | :---: | :---: | | Weight |
| :---: |
| g |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Cup with vulcanised support | Force | Support | Weight |
| :---: | :---: | :---: | :---: |
| art. | Kg | material | g |
| 0825 27 * | 1.23 | steel | 5.2 |

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


## SPECIAL CUPS WITH SUPPORT



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



| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. | Weight |
| $\mathbf{0 1 \mathbf { 2 5 ~ 2 8 * }}$ | 1.23 | 000804 | brass | 8.1 | $082528 \mathrm{~F}^{*}$ |  |

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


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 \mathbf { 2 6 } \mathbf { 1 0 }}$ | 1.33 | 000860 | brass | 5.6 | 082610 * |

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

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


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 3 1 \mathbf { 1 2 } *}$ | 1.89 | 0008249 | brass | 1.8 | $08311^{*}$ |

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


## SPECIAL CUPS WITH SUPPORT



| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 3 2 ~ 3 0 ~ * ~}$ | 2.00 | 0008250 | aluminium | 8.6 | 083230 * |

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




| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. |
| $\mathbf{0 1 \mathbf { 3 5 1 2 } \boldsymbol { ~ * ~ }}$ | 2.40 | 0008244 | brass | 5.9 | 083512 * |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon



## SPECIAL CUPS WITH SUPPORT



| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. |
| $\mathbf{0 1 4 0 2 5}$ | 3.14 | 0008127 | aluminium | 15.2 | 084024 * |

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


| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. | g |
| $\mathbf{0 1 4 0 7 0}$ * | 3.14 | 000809 | aluminium | 18.1 | 084070 * |  |

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


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 4 8 \mathbf { 1 8 } *}$ | 4.52 | 000881 | aluminium | 8.8 | $084818{ }^{*}$ |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 5 0 2 0}$ | 4.90 | 000824 | aluminium | 10.3 | 085020 * |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


## SPECIAL CUPS WITH SUPPORT



| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. | Weight |
| $\mathbf{0 1 5 4 \mathbf { 1 8 }}$ | 1 | 5.72 | 0008248 | aluminium | 5.8 | 085418 * |

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


| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |  |
| $\mathbf{0 1 6 5 \mathbf { 2 8 } \text { * }} 1$ | 8.20 | 000824 | aluminium | 10.3 | Art. | 086528 * |

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

The main feature of these BELLOW CUPS is that they 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 machine. This rapid movement prevents the load beneath from remaining stuck to the lifted one. Due to their high flexibility they can also be used to compensate flatness errors or for the grip of inclined surfaces.
The cups shown in these pages are the ideal solution for our customers; in fact, they have been designed for handling biscuits, chocolate, eggs, stickers, labels, metal and plastic objects, laminated plastic, paper and plastic bags, etc. Their nickel-plated brass or anodised aluminium supports are provided with a central male or female threaded pin that enables suction and allows to fasten them to the machine.
These cups can be manually assembled onto their supports with a simple pressure and with no adhesives. They are available in the standard compounds and in the special ones listed at page 21 upon request.


* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon
* Complete the code indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 0 8 5 0 *}$ | 0.12 | 000806 | brass | 2.6 | $080850^{*}$ |





* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. |  |
| $\mathbf{0 1 1 1 1 6}$ * | 0.23 | 000803 | brass | 9.0 | $081117^{*}$ | 9.7 |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon
* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. |
| $\mathbf{0 1 \mathbf { 1 5 ~ 2 3 } *}$ | 0.44 | 000864 | brass | 13.9 | $081523 \mathrm{~F}^{*}$ |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


## SPECIAL BELLOW CUPS WITH SUPPORT



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

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. | Weight |
| $\mathbf{0 1 1 6 \mathbf { 2 0 }}$ | 0.50 | 000803 | brass | 9.0 | 081621 * | 10.0 |

[^19]

| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |  |
| $\mathbf{0 1 \mathbf { 1 6 2 0 }}$ |  | 0.50 | 000804 | brass | 8.1 | $081621 \mathrm{~F}^{*}$ |

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

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon



## SPECIAL BELLOW CUPS WITH SUPPORT



* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

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


| Cup | Farce | Sup)port | Support | Weight | Cup with support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | kH | art. | material | g | Art. | g |
| 011829 * | 0.63 | 000867 | brass | 11.4 | 0818 29 * | 13.2 |

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

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 \mathbf { 1 8 2 9 } \text { * }}$ | 0.63 | 000865 | brass | 13.7 | 081830 F * |

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

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


## SPECIAL BELLOW CUPS WITH SUPPORT



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

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

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* Complete the code indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon
* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

|  | $\frac{\varnothing 10}{\varnothing 6}$ <br> 1.5 |  | $\begin{aligned} & \text { Hex. } 12 \\ & \hline \end{aligned}$ |  |  |  |  | 24 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cup | Force | Support |  | Support | Weight |  | Cup with support |  | Weight |
| Art. | Kg | Art. |  | material | g |  | Art. |  | g |
| 0118 50 | 0.63 | 000862 |  | brass | 9.4 |  | 0818 52 * |  | 10.1 |

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


## SPECIAL BELLOW CUPS WITH SUPPORT



* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

* Complete the code indicating the compound: $\mathrm{A}=$ oill-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

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


| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |  |
| $\mathbf{0 1 \mathbf { 2 0 } \mathbf { 6 0 }}$ |  | 0.78 | 000861 | brass | 6.5 | $0820611^{*}$ |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 \mathbf { 2 0 } \mathbf { 6 0 } *}$ | 0.78 | 000862 | brass | 4.4 | $082062 *$ |

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


## SPECIAL BELLOW CUPS WITH SUPPORT



| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |  |
| $\mathbf{0 1 \mathbf { 2 5 } \mathbf { 3 5 } \text { * }}$ | 1.23 | 000815 | aluminium | 12.3 | Art. | 082535 * |

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

$\left.\begin{array}{cccc}\hline \text { Cup with vulcanised support } & \text { Force } & \text { Support } \\ \text { art. } & \mathrm{Kg} & \text { material }\end{array} \begin{array}{c}\text { Weight } \\ \mathrm{g}\end{array}\right]$
* Complete the code indicating the compound: $\mathrm{A}=$ oill-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

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


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 3 0 5 0}$ | 1.76 | 000850 | aluminium | 8.5 | Art. |

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


| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art | material | g | Weight |  |
| $\mathbf{0 1 3 0 9 9 *}$ | 1.76 | 000818 | aluminium | 10.3 | Art | 083099 * |

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


## SPECIAL BELLOW CUPS WITH SUPPORT



| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. | Weight |
| $\mathbf{0 1 \mathbf { 3 0 } \mathbf { 9 9 } \text { * }}$ | 1.76 | 000850 | aluminium | 8.5 | $083099 \mathrm{~F}^{*}$ |  |

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


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. |
| $\mathbf{0 1 3 0 5 5}$ * | 1.76 | 000818 | aluminium | 10.3 | $083055^{*}$ |

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


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 3 0 5 5}$ * | 1.76 | 000850 | aluminium | 8.5 | $083055 \mathrm{~F}^{*}$ |

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


| Cup with vulcanised support | Force | Support |  |
| :---: | :---: | :---: | :---: |
| art. | Kg | material | Weight |
| $\mathbf{0 8 3 2 4 0}$ | 2.00 | steel | g |

[^20]
## SPECIAL BELLOW CUPS WITH SUPPORT



| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. | Weight |
| $\mathbf{0 1 3 3 5 0}$ |  | 2.13 | 000882 | brass | 11.2 | 083350 * |

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


| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. | Weight |
| $\mathbf{0 1 4 0 5 0}$ | 2.40 | 000818 | aluminium | 10.3 | 084050 * |  |

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


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 4 0 5 0}$ | 2.40 | 000850 | aluminium | 8.5 | $084050 \mathrm{~F}^{*}$ |

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

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

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


## SPECIAL BELLOW CUPS WITH SUPPORT



| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |  |
| $\mathbf{0 1 4 2 9 0}$ | 1 | 3.00 | 000805 | brass | 10.0 | 084290 * |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon
3D drawings available at www.vuototecnica.net


| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |  |
| $\mathbf{0 1 4 2 9 0}$ | 1 | 3.00 | 000814 | brass | 9.8 | 084290 F * |

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


| Cup | Force | Support | Support | Weight | Cup with support |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |
| $\mathbf{0 1 5 0 7 0}$ | 4.90 | 0008148 | aluminium | 14.5 | Art. |

* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Art. |  |
| $\mathbf{0 1 5 2 5 0}$ |  | 5.30 | 000826 | aluminium | 13.5 | 085250 * |

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


## SPECIAL BELLOW CUPS WITH SUPPORT



* Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


| Cup | Force | Support | Support | Weight | Cup with support |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Kg | Art. | material | g | Weight |  |
| $\mathbf{0 1 7 5 3 0}$ * | 11.04 | 0008127 | aluminium | 11.5 | Art. | 087530 * |

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

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


## SELF-LOCKING 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, it is sufficient to lift it a few millimetres, so to open 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.


SPARE CUPS WITH VULCANISED SUPPORT

| Art. | Force | A | B | D | E | G | H | Support material | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  |
| 085040 * | 4.90 | 31 | G3/8" | 50 | 16.0 | 6.5 | 29.0 | steel | 38.5 |
| 087540 * | 11.04 | 31 | G3/8" | 75 | 25.0 | 9.0 | 38.0 | steel | 57.9 |
| 0810040 * | 19.62 | 32 | G3/8" | 100 | 26.0 | 9.0 | 39.0 | steel | 78.3 |
| 0810050 * | 19.62 | 32 | G3/8" | 100 | 30.5 | 15.0 | 43.5 | steel | 74.8 |

* Complete the code by indicating the compound: $B=B E N Z$ rubber; $N=$ natural para rubber; $S=$ silicon


SELF-LOCKING CUPS WITH TRACTION RELEASE

| Art. | Force | D | E | H | Cup | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ |  |  | Art. | g |
| 175040 * | 4.90 | 50 | 16 | 90 | 085040 | 436 |
| 177540 * | 11.04 | 75 | 25 | 99 | 087540 | 458 |
| 17100 40* | 19.62 | 100 | 26 | 100 | 0810040 | 474 |
| 1710050 * | 19.62 | 100 | 30 | 104 | 0810050 | 473 |

* Complete the code by indicating the compound: $B=B E N Z$ rubber; $N=$ natural para rubber; $S=$ silicon


SPARE CUPS WITH SUPPORT

| Art. | Force | A | B | D | E | G | H | Cup <br> Art. | Support Art. | Support material | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  |  |  |
| 0860 10* | 7.06 | 15 | G1/4" | 60 | 22 | 9.5 | 36 | 016010 | 000822 | aluminium | 20.8 |
| 088510 * | 14.18 | 25 | G1/4" | 85 | 41 | 14.0 | 55 | 018510 | 000828 | aluminium | 49.3 |

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


SELF-LOCKING CUPS WITH TRACTION RELEASE

| Art. | Force | D | E | H | Cup |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{1 7 \mathbf { 6 0 1 0 }}$ | Kg | 7.06 | $\emptyset$ |  | Art. |
| $\mathbf{1 7 \mathbf { 8 5 } \mathbf { 1 0 }}$ | 14.18 | 60 | 22 | 086010 |  |

[^21]
## BUILT-IN CUPS WITH BALL VALVE

The main feature of these cups is that they open, and
therefore they produce vacuum, only when the
load to be handled activates the sealing ball.
In this version, the gripping surface is limited by a silicon
0 -ring which guarantees the vacuum seal.
They have been specially designed for vacuum beds and they are fully made with anodised aluminium.


| Art. | Force | B | d | D | E | F | G | H | I | 0 -ring Art. | Weight g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  |  |  |
| 050110 | 9.80 | $35 \times 1.5$ | 50 | 59 | 9 | 3 | 27 | 66 | 27 | 000514 | 248 |
| 050210 | 13.60 | $35 \times 1.5$ | 59 | 68 | 9 | 3 | 27 | 66 | 27 | 000515 | 268 |
| 050310 | 18.10 | $35 \times 1.5$ | 68 | 77 | 9 | 3 | 27 | 66 | 27 | 000516 | 294 |
| 050410 | 29.70 | $35 \times 1.5$ | 87 | 96 | 9 | 3 | 27 | 66 | 27 | 000519 | 358 |


These cups differ only for the seal, which is made up by
the flat cups listed in the table.
They are especially recommended for the glass industries and for all those cases in which magnetic tables cannot be used. They are made with anodised aluminium, but can be supplied in other metals upon request.

SPARE CUP

| Art. | Force | A | B | C | D | E | F | H | N | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | $\emptyset$ | g |
| 0165 15* | 8.29 | 68 | 63 | 59 | 65 | 3 | 7 | 17 | 27 | 21.4 |

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


BUILT-IN CUPS WITH BALL VALVE

| Art. | Force | A | B | C | D | E | H | M | Ring nut | Cup <br> Art. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 5 6 5 1 5 *}$ | 8.29 | 69 | $25 \times 1.5$ | 40 |  |  |  |  | Weight |  |
| g |  |  |  |  |  |  |  |  |  |  |

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


## BUILT-IN CUPS WITH BALL VALVE



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



## BUILT-IN CUPS WITH BALL VALVE

| Art. | Force | A | B | C | D | E | H | M | Ring nut | Cup | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  | art. | g |
| 0585 15* | 14.18 | 69 | $25 \times 1.5$ | 40 | 85 | 19 | 80 | 22 | KM 5 | 018515 | 272 |
| 0511010 * | 23.74 | 97 | $25 \times 1.5$ | 40 | 114 | 19 | 80 | 22 | KM 5 | 0111010 | 422 |
| 0515010 * | 45.00 | 135 | $35 \times 1.5$ | 80 | 154 | 25 | 86 | 32 | KM 7 | 0115010 | 894 |

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


The main feature of the special built-in cups is that they open, and therefore produce vacuum, only when the load to be clamped 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-assembled cups are the flat ones listed in the table in the various compounds. Their support is made with anodised aluminium, while the closing block is made with brass.


SPARE CUP

| Art. | Force | A | B | C | D | E | F | H | N |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  | Weight |  |  |
| $\mathbf{0 1 6 5 1 5}$ * | 8.29 | 68 | 63 | 59 | 65 | 3 | 7 | 17 | 27 | 21.4 |

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


SPECIAL BUILT-IN CUPS WITH BALL VALVE

| Art. | Force | A | B | C | D | E | F | G | H | M | Cup <br> Art. |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8.29 | 69 | 40 | M5 | 65 | 19 | 31.5 | 16.0 | 51.5 | 20 | 016515 | 456 |

[^22]

| SPARE CUP |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force | A | B | C | D | E | F | H | N | Weight |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | $\emptyset$ | g |
| 016515 * | 8.29 | 68 | 63 | 59 | 65 | 3 | 7 | 17 | 27 | 21.4 |

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


SPECIAL BUILT-IN CUPS WITH BALL VALVE

| Art. | Force | A | B | D | E | F | G | H | Cup | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  | Art. |  |
| 056565 * | 8.29 | 69 | 40 | 65 | 19 | 47.5 | 14.5 | 67.5 | 016515 | 528 |

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


| Art. | Force | A | B | C | D | E | F | H | N | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | $\emptyset$ |  |
| 0185 15* | 14.18 | 68 | 63 | 59 | 85 | 3 | 7 | 17 | 27 | 29.7 |
| 0111010 * | 23.74 | 96 | 91 | 87 | 114 | 3 | 8 | 17 | 54 | 44.3 |

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


| Art. | Force | A | B | C | D | E | F | G | H | M | Cup | Weight g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  |  | Art. |  |
| 058515 M * | 14.18 | 69 | 40 | M5 | 85 | 19 | 31.5 | 16.0 | 51.5 | 20 | 018515 | 466 |
| 0511010 M * | 23.74 | 97 | 40 | M5 | 114 | 19 | 32.0 | 16.0 | 52.0 | 20 | 0111010 | 614 |

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


| Art. | Force | A | B | C | D | E | F | H | N | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | $\emptyset$ |  |
| 018515 * | 14.18 | 68 | 63 | 59 | 85 | 3 | 7 | 17 | 27 | 29.7 |
| 0111010 * | 23.74 | 96 | 91 | 87 | 114 | 3 | 8 | 17 | 54 | 44.3 |

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


SPECIAL BUILT-IN CUPS WITH BALL VALVE

| Art. | Force | A | B | D | E | F | G | H | Cup | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  |  | Art. | g |
| 0585 65 | 14.18 | 69 | 40 | 85 | 19 | 47.5 | 14.5 | 67.5 | 018515 | 536 |
| 0511065 * | 23.74 | 97 | 40 | 114 | 19 | 48.0 | 14.5 | 68.0 | 0111010 | 674 |

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


## CIRCULAR 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-assembled 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.


| Art. | Force | A | B | C | D | E | F | H | N | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | $\emptyset$ | g |
| 018515 * | 14.18 | 68 | 63 | 59 | 85 | 3 | 7 | 17 | 27 | 29.7 |
| 0111010 * | 23.74 | 96 | 91 | 87 | 114 | 3 | 8 | 17 | 54 | 44.3 |
| 0115010 * | 45.00 | 133 | 125 | 118 | 154 | 4 | 11 | 23 | 64 | 112.0 |

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


CUPS WITH SELF-LOCKING SUPPORT

| Art. | Force | A | B | C | D | E | F | G | H | Cup Art. | 0 -ring <br> Art. | Weight <br> Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ |  | $\emptyset$ |  |  |  |  |  |  |  |
| 1685 15 * | 14.5 | 98 | 60 | 41 | 85 | 17 | 49.0 | 56.0 | 54.5 | 018515 | 001606 | 0.542 |
| 1611010 * | 24.0 | 125 | 88 | 58 | 114 | 17 | 50.0 | 56.0 | 54.5 | 0111010 | 001607 | 1.056 |
| 1615010 * | 45.0 | 165 | 120 | 76 | 154 | 23 | 49.5 | 57.5 | 54.5 | 0115010 | 001608 | 1.858 |

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

CIRCULAR 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-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, 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 CUPS

| Art. | Force | A | B | C | D | E | F | H | N | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | $\emptyset$ |  |
| 0185 15* | 14.18 | 68 | 63 | 59 | 85 | 3 | 7 | 17 | 27 | 29.7 |
| 0111010 * | 23.74 | 96 | 91 | 87 | 114 | 3 | 8 | 17 | 54 | 44.3 |
| 0115010 * | 45.00 | 133 | 125 | 118 | 154 | 4 | 11 | 23 | 64 | 112.0 |

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


CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT

| Art. | Force | A | B | C | D | E | F | G | H | I | Cup <br> Art. | 0 -ring Art. | Weight <br> Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ |  | $\emptyset$ |  |  |  |  |  |  |  |  |
| 188515 * | 14.5 | 98 | 60 | 41 | 85 | 17 | 49.0 | 56.0 | 54.5 | 1 | 018515 | 001606 | 0.580 |
| 1811010 * | 24.0 | 125 | 88 | 58 | 114 | 17 | 50.0 | 56.0 | 54.5 | 1 | 0111010 | 001607 | 1.106 |
| 1815010 * | 45.0 | 165 | 120 | 76 | 154 | 23 | 49.5 | 57.5 | 54.5 | 1 | 0115010 | 001608 | 1.926 |

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

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-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 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 CUPS

| Art. | Force | A | B | C | D | E | F | H | N | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | $\emptyset$ | g |
| 018515 M * | 14.18 | 68 | 63 | 59 | 85 | 3 | 7 | 17 | 53 | 26.2 |
| 0111010 M * | 23.74 | 96 | 91 | 87 | 114 | 3 | 8 | 17 | 80 | 40.1 |
| 0115010 M * | 45.00 | 133 | 125 | 118 | 154 | 4 | 11 | 23 | 117 | 98.3 |
| 0125020 * | 122.60 | 235 | 227 | 220 | 254 | 4 | 11 | 23 | 220 | 188.6 |

* Complete the code by indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon; $B A=$ stain-resistant Biond


CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT

| Art. | Force | A | B | C | D | F | G | 1 | L | M | $\begin{aligned} & \text { Cup } \\ & \text { Art. } \end{aligned}$ | 0 -ring Art. | Weight <br> Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ |  | $\emptyset$ |  |  |  |  |  |  |  |  |
| 1885 15/90 MT * | 14.18 | 60 | 98 | 42 | 85 | 17 | 85.0 | 1 | 30 | 12 | 018515 M | 001606 | 0.880 |
| 18110 10/90 MT * | 23.74 | 88 | 125 | 51 | 114 | 17 | 85.5 | 1 | 30 | 12 | 0111010 M | 001607 | 1.704 |
| 18150 10/90 MT * | 45.00 | 120 | 165 | 68 | 154 | 23 | 85.0 | 1 | 30 | 12 | 0115010 M | 001608 | 3.158 |
| 18250 20/90 MT * | 122.60 | 223 | 270 | 121 | 254 | 23 | 85.0 | 1 | 33 | 15 | 0125020 | 001809 | 10.322 |

* Complete the code by indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon; $B A=$ stain-resistant Biond


## CIRCULAR CUPS WITH BALL VALVE AND

## HIGH SELF-LOCKING SUPPORT

These cups represent a true mobile clamping system. Their distinctive feature, with respect to the previous ones, is their exceptional height.
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-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 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 CUPS

| Art. | Force | A | B | C | D | E | F | H | N | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | $\emptyset$ |  |
| 0111010 M * | 23.74 | 96 | 91 | 87 | 114 | 3 | 8 | 17 | 80 | 40.1 |
| 0115010 M * | 45.00 | 133 | 125 | 118 | 154 | 4 | 11 | 23 | 117 | 98.3 |
| 0125020 * | 122.60 | 235 | 227 | 220 | 254 | 4 | 11 | 23 | 220 | 188.6 |

* Complete the code by indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon; $B A=$ stain-resistant Biond


CUPS WITH BALL VALVE AND HIGH SELF-LOCKING SUPPORT

| Art. | Force | A | B | C | D | E | F | I | L | M | Cup | 0 -ring art. | Weight Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ |  | $\emptyset$ |  |  |  |  |  | art. |  |  |
| 18110 10/160 MT * | 24.0 | 88 | 125 | 51 | 114 | 17 | 30 | 1 | 155.5 | 12 | 0111010 M | 001607 | 2.986 |
| 18150 10/160 MT * | 45.0 | 120 | 165 | 68 | 154 | 23 | 30 | 1 | 155.5 | 12 | 0115010 M | 001608 | 5.042 |
| 18250 20/160 MT * | 122.6 | 223 | 270 | 121 | 254 | 23 | 33 | 1 | 155.5 | 15 | 0125020 | 001809 | 12.634 |

* Complete the code by indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon; $B A=$ stain-resistant Biond

CIRCULAR 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 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-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 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.


| SPARE CUP |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force | A | B | C | D | E | F | H | M | Support | Weight |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | $\emptyset$ | material | g |
| 086511 A | 6.7 | 50 | 40 | 20.5 | 65 | 10 | 15 | 17.5 | 29.5 | steel | 90 |



CUP WITH BALL VALVE AND SELF-LOCKING SUPPORT

| Art. | Force <br> Kg | A <br> $\emptyset$ | B | C | D | E | F | G | H | I | L | M | N | Cup <br> Art. | 0-ring <br> Art. | Weight <br> Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{1 8 6 5 1 1 / 9 0}$ | 6.7 | 70 | 98 | 45 | 65 | 17.5 | 30 | 92.5 | 90 | 1 | 75 | 12 | 50 | 086511 A | 001606 | 1.090 |

# CIRCULAR 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 circular 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 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.


SPARE CUP

| Art. | Force | A | B | C | D | E | F | H | M | Support <br> material | Weight <br> g |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 12 | 12 | 70 | 60 | 40.5 | 85 | 10 | 15 | 17.5 | 49.5 | steel |



CUP WITH BALL VALVE AND SELF-LOCKING SUPPORT AND RELEASE BUTTON

| Art. | Force | A | B | C | D | G | I | L | Cup art. | 0 -ring art. | Weight <br> Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ |  | $\emptyset$ |  |  |  |  |  |  |
| 2185 11/90 A | 12.0 | 70 | 98 | 42 | 85 | 92.5 | 1 | 75 | 088511 A | 001606 | 1.090 |

CIRCULAR CUPS WITH BALL VALVE, SELF-LOCKING SUPPORT AND RELEASE BUTTON, FOR GLASS


SPARE CUP

| Art. | Force | A | B | C | D | E | F | H | M | Support material | Weight Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | $\emptyset$ |  |  |
| 0815011 A | 42.7 | 139 | 130 | 41.0 | 150 | 10 | 15 | 17.5 | 115.0 | steel | 1.0 |



| Art. | Force | A | B | C | $\begin{array}{ll}\text { D } & \text { G } \\ 0\end{array}$ |  | D G | L | M | $\begin{aligned} & \text { Cup } \\ & \text { Art. } \end{aligned}$ | 0-ring Art. | Weight <br> Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ |  |  |  |  |  |  |  |  |  |
| 1150 11/90 A | 42.7 | 129 | 165 | 73 | 150 | 92.5 | 1 | 75 | 15 | 0815011 A | 001608 | 3.938 |

CIRCULAR 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-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, 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 CUPS

| Art. | Force | A | B | C | D | E | F | H | N | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ | $\emptyset$ | $\emptyset$ |  |  |  | $\emptyset$ | g |
| 0111010 M * | 23.74 | 96 | 91 | 87 | 114 | 3 | 8 | 17 | 80 | 40.1 |
| 0115010 M * | 45.00 | 133 | 125 | 118 | 154 | 4 | 11 | 23 | 117 | 98.3 |

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


CUPS WITH BALL VALVE, SELF-LOCKING SUPPORT AND RELEASE BUTTON

| Art. | Force | A | B | C | D | E | G | H | L | M | Cup | 0 -ring | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg | $\emptyset$ | $\emptyset$ |  | $\emptyset$ |  |  |  |  |  | Art. | Art. | Kg |
| 2111010 * | 24 | 88 | 125 | 58 | 114 | 17 | 56.0 | 54.5 | 50.0 | 10 | 0111010 M | 001607 | 1.148 |
| 2115010 * | 45 | 120 | 165 | 76 | 154 | 23 | 57.5 | 54.5 | 49.5 | 28 | 0115010 M | 001608 | 2.042 |

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

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-assembled 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 CUPS

| Art. | Force Kg | A | B | E | F | G | H | L | M | N | 0 | P | Q | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 014075 * | 6.7 | 64 | 29 | 3 | 7.5 | 6.5 | 16.0 | 75 | 40 | 59 | 24 | 54 | 19 | 15.6 |
| 0112090 * | 24.0 | 107 | 78 | 3 | 7.5 | 7.5 | 17.5 | 117 | 87 | 102 | 73 | 97 | 68 | 38.8 |
| 0115075 * | 25.0 | 137 | 62 | 3 | 7.5 | 7.5 | 16.5 | 147 | 72 | 132 | 57 | 127 | 52 | 41.2 |

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


CUPS WITH SELF-LOCKING SUPPORT

| Art. | Force Kg | A | B | C | D | E | F | G | H | I | L | M | N | $\begin{aligned} & \text { Cup } \\ & \text { Art. } \end{aligned}$ | 0-ring Art. | Weight Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 164075 * | 6.7 | 41 | 76 | 48 | 83 | 16.0 | 51 | 56.5 | 54.5 | 30.5 | 55 | 26.5 | 20 | 014075 | 001609 | 0.260 |
| 1612090 * | 24.0 | 90 | 120 | 98 | 128 | 17.5 | 50 | 57.0 | 54.5 | 56.0 | 102 | 49.0 | 70 | 0112090 | 001610 | 1.166 |
| 1615075 * | 25.0 | 75 | 150 | 83 | 144 | 16.5 | 50 | 57.0 | 54.5 | 48.0 | 130 | 57.0 | 55 | 0115075 | 001610 | 1.177 |

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


# RECTANGULAR CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT 



These cups represent a true mobile clamping system. Sono
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-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, 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 CUPS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force | A | B | E | F | G | H | L | M | N | 0 | P | Q | Weightg |
|  | Kg |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 014075 * | 6.7 | 64 | 29 | 3 | 7.5 | 6.5 | 16.0 | 75 | 40 | 59 | 24 | 54 | 19 | 15.6 |
| 0112090 * | 24.0 | 107 | 78 | 3 | 7.5 | 7.5 | 17.5 | 117 | 87 | 102 | 73 | 97 | 68 | 38.8 |
| 01150 75 * | 25.0 | 137 | 62 | 3 | 7.5 | 7.5 | 16.5 | 147 | 72 | 132 | 57 | 127 | 52 | 41.2 |

* Complete the code by indicating the compound: $\mathrm{A}=$ oill-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT

| Art. | Force Kg | A | B | C | D | E | F | G | I | L | M | N | 0 | P | $\begin{aligned} & \text { Cup } \\ & \text { Art. } \\ & \hline \end{aligned}$ | 0-ring Art. | Weight Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 184075 * | 6.7 | 41 | 76 | 48 | 83 | 16.0 | 51 | 56.5 | 41.5 | 55 | 26.5 | 15.0 | 2 | 21.0 | 014075 | 001609 | 0.352 |
| 18120 90 * | 24.0 | 90 | 120 | 98 | 128 | 17.5 | 50 | 57.0 | 56.0 | 102 | 49.0 | 35.0 | 1 | 35.0 | 0112090 | 001610 | 1.224 |
| 1815075 * | 25.0 | 75 | 150 | 83 | 144 | 16.5 | 50 | 57.0 | 48.0 | 130 | 57.0 | 27.5 | 1 | 27.5 | 0115075 | 001610 | 1.194 |

[^23]
# RECTANGULAR 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-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, 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 CUPS

| Art. | Force Kg | A | B | E | F | G | H | L | M | N | 0 | P | Q | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 014075 * | 6.7 | 64 | 29 | 3 | 7.5 | 6.5 | 16.0 | 75 | 40 | 59 | 24 | 54 | 19 | 15.6 |
| 01120 90* | 24.0 | 107 | 78 | 3 | 7.5 | 7.5 | 17.5 | 117 | 87 | 102 | 73 | 97 | 68 | 38.8 |
| 0115075 * | 25.0 | 137 | 62 | 3 | 7.5 | 7.5 | 16.5 | 147 | 72 | 132 | 57 | 127 | 52 | 41.2 |
| 0130080 * | 60.0 | 288 | 68 | 3 | 7.5 | 7.5 | 17.5 | 297 | 77 | 284 | 64 | 278 | 58 | 80.0 |
| 01300150 * | 113.0 | 288 | 138 | 3 | 7.5 | 7.5 | 17.5 | 297 | 147 | 284 | 134 | 278 | 128 | 90.0 |

* Complete the code by indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon; $B A=$ stain-resistant Biond


CUPS WITH BALL VALVE AND SELF-LOCKING SUPPORT

| Art. | Force Kg | A | B | C | D | E | F | G | I | L | M | N | 0 | P | Q | R | $\begin{aligned} & \text { Cup } \\ & \text { Art. } \end{aligned}$ | 0 -ring Art. | Weight <br> Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1840 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 | 014075 | 001609 | 0.570 |
| 18120 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 | 0112090 | 001610 | 1.898 |
| 18150 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 | 0115075 | 001610 | 1.924 |
| 18300 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 | 0130080 | 001810 | 4.632 |
| 18300 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 | 01300150 | 001811 | 9.534 |

[^24]
# RECTANGULAR CUPS WITH BALL VALVE AND HIGH SELF-LOCKING SUPPORT 

These cups represent a true mobile clamping system. Their distinctive feature, with respect to the previous ones, is their exceptional height.

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-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, 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.



* Complete the code by indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silcon $B A=$ shain-messtant Biond


CUPS WITH BALL VALVE AND HIGH SELF-LOCKING SUPPORT

| Art. | Force Kg | A | B | C | D | E | F | G | H | M | $N$ | 0 | P | $\begin{aligned} & \text { Cup } \\ & \text { Art. } \end{aligned}$ | 0 -ring Art. | Weight Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18120 90/160 MT * | 24.0 | 90 | 120 | 98 | 128 | 17.5 | 102 | 12 | 30 | 49.0 | 51.0 | 35.0 | 35.0 | 0112090 | 001610 | 3.450 |
| 18150 75/160 MT * | 25.0 | 75 | 150 | 83 | 144 | 16.5 | 130 | 12 | 30 | 57.0 | 43.5 | 27.5 | 27.5 | 0115075 | 001610 | 3.262 |
| 18300 80/160 MT * | 60.0 | 80 | 300 | 90 | 310 | 17.5 | 284 | 15 | 33 | 140 | 47.0 | 31.0 | 31.0 | 0130080 | 001810 | 7.906 |
| 18300 150/160 MT * | 113.0 | 150 | 300 | 160 | 310 | 17.5 | 284 | 15 | 33 | 140 | 83.0 | 67.0 | 67.0 | 01300150 | 001811 | 13.110 |

[^25]
# RECTANGULAR 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 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-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, can be made via three-way vacuum valves or solenoid valves.


SPARE CUP

| Art. | Force | A | B | D | E | F | H | L | M | N | P | Q | Support | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg |  |  | $\emptyset$ |  |  |  |  |  |  |  |  | material | g |
| 085075 A | 7.5 | 60 | 35 | 20.5 | 10 | 15 | 17.5 | 75 | 50 | 39.5 | 50 | 25 | steel | 92 |



CUP WITH BALL VALVE AND SELF-LOCKING SUPPORT

| Art. | Force Kg | A | B | C | D | E | G | I | L | P | Q | $\begin{aligned} & \hline \text { Cup } \\ & \text { Art. } \\ & \hline \end{aligned}$ | 0-ring Art. | Weigh Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $185075 / 90$ A | 7.5 | 50 | 75 | 65 | 95 | 1 | 92.5 | 41 | 75 | 21 | 17.5 | 085075 A | 001606 | 0.762 |

# RECTANGULAR 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-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, 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 CUPS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Art. | Force <br> Kg | A | B | E | F | G | H | L | M | N | $\mathbf{0}$ | P | Q |
| $\mathbf{0 1 4 0 7 5 *}$ | 6.7 | 64 | 29 | 3 | 7.5 | 6.5 | 16.0 | 75 | 40 | 59 | 24 | 54 | 19 |

* Complete the code by indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

Art. 214075 PL


CUPS WITH BALL VALVE, SELF-LOCKING SUPPORT AND RELEASE BUTTON

| Art. | Force <br> Kg | A | B | C | G | H | L | M | N | $\begin{aligned} & \text { Cup } \\ & \text { Art. } \end{aligned}$ | 0 -ring <br> Art. | Weight <br> Kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 214075 PL | 6.7 | 41 | 55 | 7 | 56.5 | 54.5 | 51 | 45.5 | 12 | 014075 | 001609 | 0.460 |
| 2140 75/84 PL * | 6.7 | 41 | 55 | 7 | 86.5 | 84.0 | 81 | 45.5 | 12 | 014075 | 001609 | 0.702 |
| 214075 PP * | 6.7 | 41 | 55 | 25 | 56.5 | 54.5 | 51 | 45.5 | 45 | 014075 | 001609 | 0.460 |
| 2140 75/ 84 PP * | 6.7 | 41 | 55 | 25 | 86.5 | 84.0 | 81 | 45.5 | 45 | 014075 | 001609 | 0.702 |

[^26]Conversion ratio: inch $=\frac{\mathrm{mm}}{25.4} ;$ pounds $=\frac{\mathrm{g}}{453.6}=\frac{\mathrm{Kg}}{0.4536}$

RECTANGULAR CUPS WITH BALL VALVE, SELF-LOCKING SUPPORT AND RELEASE BUTTON


SPARE CUPS

| Art. | Force <br> Kg | A | B | E | F | G | H | L | M | $N$ | 0 | P | Q | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01120 90 * | 24.0 | 107 | 78 | 3 | 7.5 | 7.5 | 17.5 | 117 | 87 | 102 | 73 | 97 | 68 | 38.8 |
| 0115075 * | 25.0 | 137 | 62 | 3 | 7.5 | 7.5 | 16.5 | 147 | 72 | 132 | 57 | 127 | 52 | 41.2 |

* Complete the code by indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon


CUPS WITH BALL VALVE, SELF-LOCKING SUPPORT AND RELEASE BUTTON

| Art. | Force | A | B | C | D | $F$ | G | H | L | M | $N$ | 0 | P | Q | T | Cup | 0 -ring | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kg |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Art. | Art. | Kg |
| 2112090 * | 24 | 90 | 120 | 56 | 102 | 17.5 | 57.0 | 54.5 | 50 | 98 | 128 | 70 | 24 | 25 | 49 | 0112090 | 001610 | 1.320 |
| 2115075 * | 25 | 75 | 120 | 48 | 130 | 16.5 | 57.0 | 54.5 | 50 | 83 | 144 | 55 | 25 | 32 | 57 | 0115075 | 001610 | 1.236 |
| 21150 75/84 * | 25 | 75 | 150 | 48 | 130 | 16.5 | 86.5 | 84.0 | 80 | 83 | 144 | 55 | 25 | 32 | 57 | 0115075 | 001610 | 1.924 |

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

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 fiving it to
the machine.

## BERNOULLI'S THEOREM

Lifting of a light disc in front of a tube end from which air flows out at high speed:

1) Air duct
2) Body of the device
3) Disc to be lifted


3D drawings available at www.vuototecnica.net



[^0]:    * Complete the code indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon

[^1]:    * Complete the code indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon

[^2]:    * Complete the code indicating the compound: $\mathrm{B}=\mathrm{BENZ}$ rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

[^3]:    * Complete the code indicating the compound: $\mathrm{B}=\mathrm{BENZ}$ rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon
    ${ }^{\circ}$ Available with NPT thread. Order example: VRS 80 NPT B

[^4]:    * Complete the code indicating the compound: $B=B E N Z$ rubber; $N=$ natural para rubber; $S=$ silicon
    ${ }^{\circ}$ Available with NPT thread. Order example: VES 4080 NPT B

[^5]:    * Complete the code indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon

[^6]:    * Complete the code indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon

[^7]:    * Complete the code indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon

[^8]:    * Complete the code indicating the compound: $\mathrm{OF}=$ geranium foam rubber; $\mathrm{NF}=$ neoprene foam rubber

[^9]:    * Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

[^10]:    * Complete the code indicating the compound: $\mathrm{OF}=$ geranium foam rubber; $\mathrm{NF}=$ neoprene foam rubber

[^11]:    * Complete the code indicating the compound: $\mathrm{OF}=$ geranium foam rubber; $\mathrm{NF}=$ neoprene foam rubber

[^12]:    * Complete the code indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon

[^13]:    * Complete the code indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon

[^14]:    * Complete the code indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

[^15]:    * Complete the code indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon

[^16]:    * Complete the code indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon

[^17]:    * Complete the code indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon

[^18]:    * Complete the code indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon

[^19]:    * Complete the code indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon

[^20]:    * Complete the code indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon

[^21]:    * Complete the code by indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

[^22]:    * Complete the code by indicating the compound: $\mathrm{A}=$ oil-resistant rubber; $\mathrm{N}=$ natural para rubber; $\mathrm{S}=$ silicon

[^23]:    * Complete the code by indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon

[^24]:    * Complete the code by indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon; $B A=$ stain-resistant Biond

[^25]:    * Complete the code by indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon; $B A=$ stain-resistant Biond

[^26]:    * Complete the code by indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicon

