## SPECIAL BUILT-IN VACUUM CUPS WITH BALL VALVE

Their main feature is that they open suction and therefore they produce a vacuum, only when the load to be handled activates the sealing ball.
Especially designed for the vacuum operated beds of woodworking machines, they differ from the previously described ones because of the high precision of their cylindrical support, which is ground to size, and because of their square closing block, which prevents the cup from rotating and enables connection to vacuum.
The cold fitted cups are the flat ones listed in the table, in the various compounds.
The support of these cups is made of anodised aluminium, while the closing block is made of brass.


SPARE VACUUM CUP

| Item | Force Kg | Volume $\mathrm{cm}^{3}$ | $\begin{aligned} & \text { A } \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \mathbf{B} \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \mathbf{C} \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \mathbf{D} \\ & \emptyset \end{aligned}$ | E | F | H | $\begin{aligned} & N \\ & \emptyset \end{aligned}$ | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 016515 * | 8.29 | 9.1 | 68 | 63 | 59 | 65 | 3 | 7 | 17 | 27 | 21.4 |

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


SPECIAL BUILT-IN VACUUM CUP WITH BALL VALVE

| Item | Force Kg | $\begin{aligned} & \mathbf{A} \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \mathbf{B} \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \text { C } \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \mathbf{D} \\ & \emptyset \end{aligned}$ | E | F | G | H | M | Vacuum cup item | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 056515 M * | 8.29 | 69 | 40 | M5 | 65 | 19 | 31.5 | 16.0 | 51.5 | 20 | 016515 | 456 |

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

Note: The force of the vacuum cups indicated in the table represents $1 / 3$ of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3 .
Transformation ratio: N (newton) $=\mathrm{Kg} \times 9.81$ (force of gravity) $\quad$ inch $=\frac{\mathrm{mm}}{25.4}$; pounds $=\frac{\mathrm{g}}{453.6}=\frac{\mathrm{Kg}}{0.4536}$

## SPECIAL BUILT-IN VACUUM CUPS WITH BALL VALVE



SPARE VACUUM CUP

| Item | Force <br> Kg | Volume <br> $\mathrm{cm}^{3}$ | $\mathbf{A}$ <br> $\emptyset$ | B <br> $\emptyset$ | C <br> $\emptyset$ | D <br> $\emptyset$ | $\mathbf{E}$ | $\mathbf{F}$ | $\mathbf{H}$ | $\mathbf{N}$ <br> $\emptyset$ | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 1 \mathbf { 6 5 1 5 } \boldsymbol { 1 5 }}$ | 8.29 | 9.1 | 68 | 63 | 59 | 65 | 3 | 7 | 17 | 27 | 21.4 |

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


SPECIAL BUILT-IN VACUUM CUP WITH BALL VALVE

| Item | Force <br> Kg | A | B <br> $\emptyset$ | D | $\mathbf{~ E}$ | F | G | Hacuum cup <br> item | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 5 6 5 6 5 *}$ | 8.29 | 69 | 40 | 65 | 19 | 47.5 | 14.5 | 67.5 | 016515 |

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

Note: The force of the vacuum cups indicated in the table represents $1 / 3$ of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3 .
Transformation ratio: N (newton) $=\mathrm{Kg} \times 9.81$ (force of gravity) $\quad$ inch $=\frac{\mathrm{mm}}{25.4} ;$ pounds $=\frac{\mathrm{g}}{453.6}=\frac{\mathrm{Kg}}{0.4536}$


SPARE VACUUM CUPS

| Item | Force Kg | Volume $\mathrm{cm}^{3}$ | $\begin{aligned} & \mathbf{A} \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \text { B } \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \mathbf{C} \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \mathbf{D} \\ & \emptyset \end{aligned}$ | E | F | H | $\begin{aligned} & \mathbf{N} \\ & \emptyset \end{aligned}$ | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0185 15* | 14.18 | 13.0 | 68 | 63 | 59 | 85 | 3 | 7 | 17 | 27 | 29.7 |
| 0111010 * | 23.74 | 24.9 | 96 | 91 | 87 | 114 | 3 | 8 | 17 | 54 | 44.3 |

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


SPECIAL BUILT-IN VACUUM CUPS WITH BALL VALVE

| Item | Force Kg | $\begin{aligned} & \mathbf{A} \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \text { B } \\ & \emptyset \end{aligned}$ | $\begin{aligned} & C \\ & \varnothing \end{aligned}$ | $\begin{aligned} & \text { D } \\ & \emptyset \end{aligned}$ | E | F | G | H | M | Vacuum cup item | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicone

Note: The force of the vacuum cups indicated in the table represents $1 / 3$ of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3 .
Transformation ratio: N (newton) $=\mathrm{Kg} \times 9.81$ (force of gravity) $\quad$ inch $=\frac{\mathrm{mm}}{25.4} ;$ pounds $=\frac{\mathrm{g}}{453.6}=\frac{\mathrm{Kg}}{0.4536}$

## SPECIAL BUILT-IN VACUUM CUPS WITH BALL VALVE




SPARE VACUUM CUPS

| Item | Force Kg | Volume $\mathrm{cm}^{3}$ | $\begin{aligned} & \mathbf{A} \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \text { B } \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \mathbf{C} \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \mathbf{D} \\ & \emptyset \end{aligned}$ | E | F | H | $\begin{aligned} & \mathbf{N} \\ & \emptyset \end{aligned}$ | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 018515 * | 14.18 | 13.0 | 68 | 63 | 59 | 85 | 3 | 7 | 17 | 27 | 29.7 |
| 0111010 * | 23.74 | 24.9 | 96 | 91 | 87 | 114 | 3 | 8 | 17 | 54 | 44.3 |

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


SPECIAL BUILT-IN VACUUM CUPS WITH BALL VALVE

| Item | Force Kg | $\begin{aligned} & \mathbf{A} \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \text { B } \\ & \emptyset \end{aligned}$ | $\begin{aligned} & \text { D } \\ & \emptyset \end{aligned}$ | E | F | G | H | Vacuum cup item | Weight <br> g |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 058565 * | 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 indicating the compound: $A=$ oil-resistant rubber; $N=$ natural para rubber; $S=$ silicone

Note: The force of the vacuum cups indicated in the table represents $1 / 3$ of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3 .
Transformation ratio: N (newton) $=\mathrm{Kg} \times 9.81$ (force of gravity) $\quad$ inch $=\frac{\mathrm{mm}}{25.4}$; pounds $=\frac{\mathrm{g}}{453.6}=\frac{\mathrm{Kg}}{0.4536}$

