## Bellows Vacuum Cups

|  |  | Cup Size |  | Cup Material ${ }^{1}$ | Cup Fitting |  | Filter |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| XP-B | 15 |  | CS |  | -10M |  | -FD |  |
|  | 5 | $\emptyset 5 \mathrm{~mm}$ | A | Ameriflex ${ }^{4}$ | (Blank) | None | (Blank) | None |
|  | 8 | $\emptyset 8$ mm | CS | Conductive Silicone ${ }^{3}$ | See cup fittings for available threads. |  | -FD | PE Filter Disc |
|  | 10 | $\emptyset 10 \mathrm{~mm}$ | D | Duramax ${ }^{4}$ |  |  | -FS | SS Filter Screen |
|  | 15 | $\emptyset 15 \mathrm{~mm}$ | N | Nitrile |  |  | See cup fittings for availability. |  |
|  | 20 | Ø 20 mm | S | Silicone |  |  |  |  |
|  |  |  | V | Viton |  |  |  |  |

${ }^{1}$ All cups are available in Nitrile and Silicone. Check availability for other materials before ordering. ${ }^{2}$ All figures for shear load are 18 " Hg . using a 0.5 coefficient of friction. Adjust coefficient of friction to suit your conditions, then apply a generous factor of safety (3:1 or greater) to shear loads. ${ }^{3}$ Not available on XP-B15 or XP-B20.
${ }^{4}$ Not available on XP-B5, XP-B8, XP-B10, or XP-B15.




XP-B20

| Cup Diameter: in [mm] | 20 mm |
| :--- | :---: |
| Thru Hole: in [mm] | 0.20 [5.1] |
| Stroke: in [mm] | 0.39 [9.9] |
| Cup Weight: oz [g] | 0.08 [2.3] |
| Internal Volume: cu in [cc] | 0.16 [2.6] |
| Force @ 6 inHG: lb [n] | 1.30 [5.8] |
| Force @ 18 inHG: lb [n] | 2.20 [9.8] |
| Minimum Radius: in [mm] | 0.39 [9.9] |
| Shear Load²: lb [n] | 1.10 [4.8] |

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|  |  | up Size |  | Material ${ }^{1}$ | Cup F | ting |  | ter Option |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| XP-B |  | 50 |  | V | -38 |  |  | -FS |
|  | 30 | $\emptyset 30 \mathrm{~mm}$ | A | Ameriflex | (Blank) | None | (Blank) | None |
|  | 40 | $\emptyset 40 \mathrm{~mm}$ | D | Duramax | See cup fittings for available threads. |  | -FD | PE Filter Disc |
|  | 50 | $\emptyset 50 \mathrm{~mm}$ | N | Nitrile |  |  | -FS | SS Filter Screen |
|  | 65 | $\emptyset 65$ mm | S | Silicone ${ }^{3}$ |  |  | See cup fittings for availability. |  |
|  |  |  | V | Viton ${ }^{3}$ |  |  |  |  |

${ }^{1}$ All cups are available in Nitrile and Silicone. Check availability for other materials before ordering. ${ }^{2}$ All figures for shear load are 18 " Hg . using a 0.5 coefficient of friction. Adjust coefficient of friction to suit your conditions, then apply a generous factor of safety ( $3: 1$ or greater) to shear loads. ${ }^{3}$ Not available on XP-B65.

| Cup Diameter: in [mm] | 30 mm |
| :--- | :---: |
| Thru Hole: in [mm] | 0.20 [5.1] |
| Stroke: in [mm] | 0.59 [14.9] |
| Cup Weight: oz [g] | 0.25 [7.1] |
| Internal Volume: cu in [cc] | 0.61 [10.0] |
| Force @ 6 inHG: lb [n] | 2.70 [12.0] |
| Force @ 18 inHG: Ib [n] | 4.90 [21.8] |
| Minimum Radius: in [mm] | 0.59 [15.0] |
| Shear Load²: Ib [n] | 2.50 [11.1] |



XP-B50

| Cup Diameter: in [mm] | 50 mm |
| :--- | :---: |
| Thru Hole: in [mm] | $0.36[9.1]$ |
| Stroke: in [mm] | 0.79 [20.0] |
| Cup Weight: oz [s] | 0.75 [21.3] |
| Internal Volume: cu in [cc] | 2.00 [32.8] |
| Force @ 6 inHG: lb [n] | 7.40 [32.9] |
| Force @ 18 inHG: lb [n] | 14.60 [64.9] |
| Minimum Radius: in [mm] | 0.98 [24.9] |
| Shear Load²: Ib [n] | 7.30 [32.4] |



XP-B65

| Cup Diameter: in [mm] | 65 mm |
| :--- | :---: |
| Thru Hole: in [mm] | $0.50[12.7]$ |
| Stroke: in [mm] | $0.90[22.9]$ |
| Cup Weight: oz [g] | $1.29[36.5]$ |
| Internal Volume: cu in [cc] | $3.90[63.9]$ |
| Force @ $\mathbf{6}$ inHG: lb [n] | 13.30 [59.2] |
| Force @ 18 inHG: lb [n] | $26.30[117.0]$ |
| Minimum Radius: in [mm] | 1.22 [31.0] |
| Shear Load²: lb [n] | 13.1 [58.3] |

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|  |  | Cup Size |  | Material | Cup Fit | ting |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| XP-B | 75 |  |  | S | -12F |  |
|  | 75 | $\varnothing 75 \mathrm{~mm}$ | N | Nitrile | (Blank) | None |
|  | 110 | $\emptyset 110 \mathrm{~mm}$ | S | Silicone | See cup fittings for available threads. |  |
|  | 150 | $\varnothing 150 \mathrm{~mm}$ | v | Viton |  |  |

${ }^{2}$ All figures for shear load are $18 " \mathrm{Hg}$. using a 0.5 coefficient of friction. Adjust coefficient of friction to suit your conditions, then apply a generous factor of safety ( $3: 1$ or greater) to shear loads.


XP-B75

| Cup Diameter: in [mm] | 75 mm |
| :--- | :---: |
| Stroke: in [mm] | $0.79[20.0]$ |
| Cup Weight: oz [g] | $1.80[51.0]$ |
| Internal Volume: cu in [cc] | $6.70[110.0]$ |
| Force @ 6 inHG: lb [n] | $16.00[71.2]$ |
| Force @ 18 inHG: lb [n] | $37.00[164.0]$ |
| Minimum Radius: in [mm] | $1.60[40.6]$ |
| Shear Load²: lb [n] | $19.00[84.5]$ |



XP-B110

| Cup Diameter: in [mm] | 110 mm |
| :--- | :---: |
| Stroke: in [mm] | $1.32[33.2]$ |
| Cup Weight: oz [g] | $5.10[145.0]$ |
| Internal Volume: cu in [cc] | $19.00[311.0]$ |
| Force @ 6 inHG: lb [n] | $30.00[133.0]$ |
| Force @ 18 inHG: lb [n] | $77.00[342.0]$ |
| Minimum Radius: in [mm] | $2.40[61.0]$ |
| Shear Load2: lb [n] | $39.00[173.5]$ |



## Bellows Vacuum Cups

|  | Cup Material |  |  | Mount |
| :---: | :---: | :---: | :---: | :---: |
| XP-B250 |  | N |  | AQ |
|  | N | Nitrile | AQ | Quad Mount, Side Port |
|  | S | Silicone | P | Quad Mount, Centered Port |

${ }^{2}$ All figures for shear load are 18 " Hg . using a 0.5 coefficient of friction. Adjust coefficient of friction to suit your conditions, then apply a generous factor of safety (3:1 or greater) to shear loads.



| Cup Diameter: in [mm] | 250 mm |
| :--- | :---: |
| Stroke: in [mm] | 1.44 [36.6] |
| Cup Weight: oz [g] | 3.57 [1.62] |
| Internal Volume: cu in [cc] | 85.40 [1400.0] |
| Force @ 18 inHG: lb [n] | 450.00 [2002.0] |
| Minimum Radius: in [mm] | 10.00 [254.0] |
| Shear Load²: lb [n] | 225.00 [1001.0] |



