

VACUUM TECHNOLOGY

OVERVIEW OF SERIES

SUCTION CUPS

ROUND

| Series | Suction cup shape | Design | Diameter |
|-------------|-------------------|--------------------------|-----------------|
| Series ZU | round | Flat suction cup | 1.5 mm - 80 mm |
| Series ZF | round | Flat suction cup | 15 mm - 300 mm |
| Series ZFCF | round | Flat suction cup | 30 mm - 125 mm |
| Series ZLF | round | Flat suction cup | 150 mm - 300 mm |
| Series ZDF | round | Bell-shaped suction cup | 25 mm - 100 mm |
| Series ZFC | round | Bell-shaped suction cup | 50 mm - 100 mm |
| Series ZD | round | Bell-shaped suction cup | 30 mm - 90 mm |
| Series ZB | round | Bellows suction cup | 5 mm - 150 mm |
| Series ZBF | round | Bellows suction cup | 25 mm - 100 mm |
| Series ZBU | round | Bellows suction cup | 35 mm - 55 mm |
| Series ZBL | round | Bellows suction cup | 10 mm - 50 mm |
| Series ZBX | round | Bellows suction cup | 35 mm - 55 mm |
| Series ZFBL | round | Bellows suction cup | 50 mm - 50 mm |
| Series ZS | round | Sealing foam suction cup | 35 mm - 400 mm |

OVAL

| Series | Suction cup shape | Design | Dimensions |
|-------------|-------------------|-------------------------|----------------------|
| Series ZOU | oval | Flat suction cup | 4x10 mm - 20x60 mm |
| Series ZOC | oval | Bell-shaped suction cup | 11x23 mm - 60x180 mm |
| Series ZOBF | oval | Bellows suction cup | 30x60 mm - 55x110 mm |
| Series ZOBL | oval | Bellows suction cup | 35x90 mm - 35x90 mm |

VACUUM GRIPPING SYSTEM

| | Dimensions | Vacuum level max. | Volume flow |
|------------|--------------------------|-------------------|------------------------|
| Series ZGA | 80x150 mm - 300x1200 mm | -85 kPa - -75 kPa | 171 l/min - 2896 l/min |
| Series ZGB | 130x220 mm - 130x1200 mm | -75 kPa | 800 l/min - 2896 l/min |
| Series ZGM | 16x60 mm - 50x600 mm | -92 kPa - -75 kPa | 41 l/min - 724 l/min |

VACUUM GENERATOR

| | Vacuum level max. | Volume flow | Air consumption at 2.2 bar |
|--|-------------------|-------------|----------------------------|
|--|-------------------|-------------|----------------------------|

VACUUM EJECTOR

| | | | |
|------------------|-------------------|-------------------------|------------------------|
| Series ZTP | -92 kPa - -75 kPa | 341 l/min - 1448 l/min | |
| Series ZPG | -94 kPa - -90 kPa | 85 l/min - 343 l/min | 20 l/min - 194 l/min |
| Series ZKM / ZKX | -92 kPa - -85 kPa | 23 l/min - 135 l/min | |
| Series ZMP | -92 kPa | 1364 l/min - 5456 l/min | 388 l/min - 1568 l/min |
| Series ZTM | -85 kPa | 74 l/min - 220 l/min | |
| Series ZCS | -90 kPa - -83 kPa | 16 l/min - 40 l/min | 10 l/min - 20 l/min |
| Series ZQ | -90 kPa | 44 l/min - 85 l/min | 26 l/min |
| Series ZPS | -87 kPa - -35 kPa | 171 l/min - 175 l/min | |

VACUUM CARTRIDGE

| | | | |
|------------|-------------------|----------------------|---------------------|
| Series ZVC | -95 kPa - -75 kPa | 16 l/min - 362 l/min | 10 l/min - 97 l/min |
|------------|-------------------|----------------------|---------------------|

SMART CUPS + SMART LOCK

SMART CUPS

| | | | |
|------------|--|--|--|
| Series ZSC | | | |
|------------|--|--|--|

SMART LOCK

| | | | |
|------------|--|--|--|
| Series ZSL | | | |
|------------|--|--|--|



| Material | Weight |
|----------------------------------------------------|---------------------|
| NBR / Silicone / Silicone food-safe | 0.001 kg - 0.036 kg |
| NBR / Polyurethane / Silicone / Silicone food-safe | 0.001 kg - 2.7 kg |
| NBR / Polyurethane / Silicone | 0.012 kg - 0.13 kg |
| NBR / Silicone | 0.35 kg - 2 kg |
| Polyurethane | 0.012 kg - 0.065 kg |
| NBR / Polyurethane / Silicone / Silicone food-safe | 0.012 kg - 0.15 kg |
| NBR / Polyurethane / Silicone / Silicone food-safe | 0.01 kg - 0.086 kg |
| NBR / Polyurethane / Silicone / Silicone food-safe | 0.001 kg - 0.66 kg |
| NBR / Polyurethane / Silicone | 0.01 kg - 0.13 kg |
| NBR / Polyurethane / Silicone / Silicone food-safe | 0.004 kg - 0.021 kg |
| NBR / Silicone / Silicone food-safe | 0.001 kg - 0.043 kg |
| Polyurethane | 0.006 kg - 0.031 kg |
| NBR / Silicone / Silicone food-safe | 0.022 kg - 0.036 kg |
| EPDM | 0.006 kg - 3.4 kg |

| Material | Weight |
|-------------------------------------|---------------------|
| NBR / Silicone / Silicone food-safe | 0.001 kg - 0.029 kg |
| NBR / Silicone / Silicone food-safe | 0.002 kg - 0.214 kg |
| Polyurethane | 0.023 kg - 0.088 kg |
| NBR / Silicone / Silicone food-safe | 0.021 kg - 0.025 kg |

| Air consumption at 4 bar | Air consumption at 6 bar | Weight | UL | CE | UKCA | LABS | REACH | RoHS |
|--------------------------|--------------------------|-------------------|----|----|------|------|-------|------|
| 64 l/min | 208 l/min - 832 l/min | 1 kg - 18 kg | | | | ● | ● | ● |
| | 416 l/min - 832 l/min | 1.3 kg - 6.2 kg | | | | ● | ● | ● |
| 152 l/min - 304 l/min | 32 l/min - 208 l/min | 0.049 kg - 3.5 kg | | | | ● | ● | ● |

| Air consumption at 4 bar | Air consumption at 5.5 bar | Air consumption at 6 bar | Weight | UL | CE | UKCA | LABS | REACH | RoHS |
|--------------------------|----------------------------|--------------------------|---------------------|----|----|------|------|-------|------|
| 140 l/min - 608 l/min | | 208 l/min - 416 l/min | 0.41 kg - 1.1 kg | | | | ● | ● | ● |
| 32 l/min - 304 l/min | 77 l/min - 154 l/min | 84 l/min - 167 l/min | 0.05 kg - 0.21 kg | | | | ● | ● | ● |
| | | 21 l/min - 88 l/min | 0.096 kg - 0.21 kg | | | | ● | ● | ● |
| 608 l/min - 2144 l/min | | | 1.5 kg - 4.5 kg | | | | ● | ● | ● |
| | 42 l/min - 126 l/min | | 0.032 kg - 0.054 kg | | | | ● | ● | ● |
| 32 l/min | | | 0.047 kg - 0.23 kg | | | | ● | ● | ● |
| 40 l/min | | | 0.15 kg - 0.16 kg | | | | ● | ● | ● |
| 197 l/min - 350 l/min | | | 0.2 kg - 0.25 kg | | | | ● | ● | ● |

| | Swivel angle | Stroke | Weight | UL | CE | UKCA | LABS | REACH | RoHS |
|----------------------|---------------|----------------------|--------------------|----|----|------|------|-------|------|
| 32 l/min - 152 l/min | 77 l/min | 84 l/min - 140 l/min | 0.001 kg - 0.1 kg | | | | ● | ● | ● |
| | 20 mm - 30 mm | 21° | 0.029 kg - 0.62 kg | | | | ● | ● | ● |
| | 0.623 kg | 21° | 70 mm | | | | ● | ● | ● |

VACUUM TECHNOLOGY

OVERVIEW OF SERIES

ACCESSORIES

| | |
|--------------------------|------------------------|
| Vacuum filter | Filter rate |
| Series ZVF | 5 µm - 20 µm |
| Sensor unit | No. of contacts |
| Series ZSU | 6 |
| Vacuum switch | No. of contacts |
| Series ZSA | 4 |
| Series ZSB | 4 |
| Solenoid valve | |
| Series ZSV | |
| Silencer | |
| Series ZTS | |
| Level compensator | |
| Series ZLC | |



| | | | | | | |
|----------------------------------------------------------------------------------------------------------------------|---------------|---------------------------|--------------------|---|---|---|
| Vacuum connection | | | Weight | | | |
| 4 mm / 6 mm / 8 mm / G3/8" internal / G1 1/2" female / G1" female / G2" female / G3/4" female / G1/2" internal | | | 0.004 kg - 4.9 kg | ● | ● | ● |
| Fixing thread | | | Weight | | | |
| M8 | | | 0.12 kg | ● | ● | ● |
| Fixing thread | | | Weight | | | |
| M8 | | | 0.135 kg - 0.14 kg | ● | ● | ● |
| M8 | | | 0.05 kg | ● | ● | ● |
| Fixing thread | | | Weight | | | |
| G1/4" / G1/8" / G3/8" | | | 0.025 kg - 0.22 kg | ● | ● | ● |
| Fixing thread | | | Weight | | | |
| G1" external / G1/2" external / G1/4" external / G1/8" external / G2 1/2" external / G3/4" external / G3/8" external | | | 0.005 kg - 0.89 kg | ● | ● | ● |
| | Stroke | Number of hex nuts | Weight | | | |
| | 5 mm - 70 mm | 1 - 3 | 0.011 kg - 0.3 kg | ● | ● | ● |