

Valves



piSAVE® release

- Equalises pressure in the suction cups to provide fast release of the product.
- Extra fast release by accumulating and utilising the feed-air pressure as a boost.
- ON/OFF activated simultaneously with the ejector.
- No additional controls required — use a single 3/2 control valve for the ejector and piSAVE® release.



AQR

- Equalises pressure in vacuum gripper systems to provide fast release of product.
- Consumes no additional compressed air.
- ON/OFF activated simultaneously with the ejector.
- No additional controls required — use a single 3/2 control valve for the pump and AQR.



QR

- For vacuum pump P3010.
- Quick release by accumulating and utilising the feed-air pressure as a boost.
- ON/OFF activated simultaneously with the P3010
- Three sizes for optimising release volume with system volume.

TECHNICAL DATA

| Description | Flow, atmospheric | Volume (Quick-Release) |
|---------------------------------------|-------------------|------------------------|
| piSAVE® release G1/8" | 3.85 l/s | – |
| piSAVE® release G1/4" | 7.85 l/s | – |
| Atmospheric quick-release valve – AQR | 3.3 l/s | – |
| Quick-Release module P3010 | – | 3 cm ³ |
| Quick-Release tank module P3010 | – | 30 cm ³ |
| Quick-Release tank module P3010 | – | 60 cm ³ |

ORDERING INFORMATION

| Description | Item No. |
|---|----------|
| piSAVE® release G1/4" | 0119720 |
| piSAVE® release G1/8" | 0119721 |
| Atmospheric quick-release valve – AQR. | 0111236 |
| Quick-Release tank module P3010, 30 cm ³ | 0104272 |
| Quick-Release tank module P3010, 60 cm ³ | 0104273 |



piSAVE® sense

- Vacuum check valves which allows a few suction cups to miss the object(s) and still maintain enough vacuum level in the system with quick response and release times.
- The vacuum check valves shall be used in a centralized vacuum system, one for each suction cup.
- Designing with vacuum check valves will require a smaller vacuum pump and save energy.
- Suitable for handling different size or different number of leaking or sealed objects such as MDF boards, corrugated cardboards or metal sheets with a flexible handling device.
- Also suitable for objects with surface leakage around the lip of the suction cup.
- Available in four sizes with different flow performance/ characteristics to suit different degree of leakage on handled material and different size of cups.
- The smallest sizes are mainly suitable for sealed and smooth materials, such as metal and glass (02/06 for small cups and 03/60 for large cups).
- The valves are supplied separately for integration or mounted in an AI-fitting with female and male threaded connections to facilitate installation.



piSAVE® restrict

- Vacuum flow restrictors which allows a few suction cups to miss the object(s) and still maintain enough vacuum level in the system.
- Suitable for handling different size sealed sheets/objects with the same flexible lifting device.
- The vacuum flow restrictors shall be used in a centralized vacuum system, one for each suction cup.
- Designing with flow restrictors will require a smaller vacuum pump and save energy.
- Available in three sizes with different flow performance/ characteristics to suit different size suction cups.
- The restrictors are integrated in an AI-fitting with female and male threaded connections to facilitate installation.

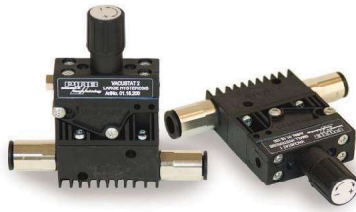
TECHNICAL DATA

| Description | Pump flow/cup min. | Pump flow/cup to close valve | Leakage flow, max. |
|--|------------------------|------------------------------|--------------------|
| piSAVE® sense 02/60 (yellow) | 0.001 (@ 45 -kPa) NI/s | 0.21 (@ 3 -kPa) NI/s | – |
| piSAVE® sense 03/60 (green) | 0.06 (@ 45 -kPa) NI/s | 0.37 (@ 3 -kPa) NI/s | – |
| piSAVE® sense 04/60 (blue) | 0.15 (@ 45 -kPa) NI/s | 0.55 (@ 7 -kPa) NI/s | – |
| piSAVE® sense 05/60 (red) | 0.25 (@ 45 -kPa) NI/s | 0.72 (@ 11 -kPa) NI/s | – |
| piSAVE® restrict multiple port fitting 0.7 | – | – | 0.08 NI/s |

| Description | Pump flow/cup min. | Pump flow/cup to close valve | Leakage flow, max. |
|--|--------------------|------------------------------|--------------------|
| piSAVE® restrict multiple port fitting 1.0 | – | – | 0.16 Nl/s |
| piSAVE® restrict multiple port fitting 1.3 | – | – | 0.27 Nl/s |

ORDERING INFORMATION

| Description | Item No. |
|---|----------|
| piSAVE® sense 02/60 (yellow), 100p, incl. Assembly tool | 0202395 |
| piSAVE® sense 02/60 (yellow), 10p, incl. Assembly tool | 0202394 |
| piSAVE® sense 03/60 (green), 100p, incl. Assembly tool | 0202427 |
| piSAVE® sense 03/60 (green), 10p, incl. Assembly tool | 0202424 |
| piSAVE® sense 04/60 (blue), 100p, incl. Assembly tool | 0202428 |
| piSAVE® sense 04/60 (blue), 10p, incl. Assembly tool | 0202425 |
| piSAVE® sense 05/60 (red), 100p, incl. Assembly tool | 0202429 |
| piSAVE® sense 05/60 (red), 10p, incl. Assembly tool | 0202426 |
| piSAVE® sense Assembly tool 16mm | 0202589 |
| piSAVE® sense Multiple port fitting 02/60 (yellow) | 0202396 |
| piSAVE® sense Multiple port fitting 03/60 (green) | 0128719 |
| piSAVE® sense Multiple port fitting 04/60 (blue) | 0128731 |
| piSAVE® sense Multiple port fitting 05/60 (red) | 0128733 |
| piSAVE® restrict multiple port fitting 0.7 | 0129339 |
| piSAVE® restrict multiple port fitting 1.0 | 0129340 |
| piSAVE® restrict multiple port fitting 1.3 | 0129341 |



piSAVE® onoff

- Independent pneumatic air-saving device for vacuum pumps.
- Adjustable vacuum controlled 2/2 NO valve.
- Available with large hysteresis for object handling and small hysteresis for process applications.
- The Vacustat is recommended for vacuum pumps in non-leaking systems.
- The vacuum pump must be fitted with a non-return valve.



Blow-off Check valve

- Prevents vacuum from being pulled through the blow-off lines, which means faster response time and completely independent vacuum units.
- Reliable quick-release function even in larger systems with several units, due to the very low feed pressure required to break away for blow-off.
- Suitable in applications where cleaning of the suction cup filters or cooling of the object to be picked is important.

TECHNICAL DATA

| Description | Flow | Flow rate |
|----------------------|------------------------------------|------------------------------|
| piSAVE® onoff | 7.3 NI/s (@ P1=6 bar & Δp=0.5 bar) | – |
| Blow-off Check valve | – | 1.5–2.8 NI/s (@ 0.3-0.7 MPa) |

ORDERING INFORMATION

| Description | Item No. |
|--|----------|
| piSAVE® onoff with small hysteresis | 0118100 |
| piSAVE® onoff with large hysteresis | 0118200 |
| Blow-off Check valve 1/8" NPSF female. | 0115314 |
| Blow-off Check valve G1/4" female | 0117337 |