





PSP-G1

POWER STREAM PUMP, GENERATION 1

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Technical specifications may change without previous warning - Ed. 11/2024



Compliant with:

ISO 9237, EN 14683, EN 14385, CEN/TS 13649, EN 12919, EN 13284, EN 1911, EN 13211, EN 14790, ISO 9096, CEN/TS 16115-1, EN 1948, EN 17359.



PSP-G1 is a **rotary vane pump**, a mechanical device that moves fluids or gases by using rotating vanes mounted on a rotor inside a cavity.

Operation:

- As the rotor turns, the vanes slide outward due to centrifugal force or spring tension, maintaining contact with the pump housing.
- This creates variable chamber sizes between the rotor and the housing.
- In the larger chambers, air or fluid is drawn in; in the smaller chambers, it is compressed or pushed out through the outlet.

Why rotary vane pumps in Inhaler testing?

Rotary vane pumps play a crucial role in the production, testing, and operation of Inhalers used for delivering medications to the respiratory system. These pumps are essential in ensuring precision and reliability in processes related to inhaler technology.

Rotary vane pumps are indispensable in inhaler-related applications, supporting the production and performance of devices that are vital for treating respiratory conditions like asthma and COPD.

In various applications, such as **Aerosol Particle Size Distribution (APSD) testing using Next-Generation Impactors (NGIs)**, the pressure drop can be significant. To achieve the desired airflow, especially up to 100 L/min, high-capacity pumps are typically used. These pumps are crucial for maintaining consistent airflow while overcoming the resistance caused by the NGI stages, ensuring accurate particle sizing and reliable results during inhaler testing and other OINDPs measurements.

That is why our **PSP-G1 Pump** is ideal for inhaler testing and other applications. Designed for high performance, the PSP-G1 provides the required flow rate and pressure stability, even in challenging testing environments. Its advanced engineering ensures consistent airflow, enabling precise particle measurements and reliable drug delivery evaluations. Whether you're conducting in-vitro testing for inhalers, measuring aerosol particle size, or working with powders, the PSP-G1 delivers optimal performance, ensuring high-quality results every time.





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Technical Characteristics

| Pump Type | Manual |
|-----------------------------|----------------------------|
| Flowrate without load | 800 L/min (pump 48 m³ h-1) |
| Motor power, KW | 1,5 |
| Noise level, dB | 69 |
| Power supply | 230 VAC 50-60 Hz |
| Oil-Free vs. Oil-Lubricated | Oil-free |
| Weight, kg | 70 |
| Dimentions (w x d x h), mm | 425 x 655 x 440 |

Examples of Applications:

Inhaler testing with MDIs







Inhaler testing with DPIs



With its high-capacity capabilities, the PSP-G1 can handle the significant pressure drops often encountered in Inhaler testing, ensuring that the required airflow, up to 100 L/min, is consistently achieved. This precision is critical for accurate particle sizing and reliable drug delivery evaluations.

The pump's advanced engineering guarantees smooth operation with minimal maintenance, making it ideal for both routine testing and long-term reliability.

Codes:

TCR Tecora® division

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