

SECONDARY AIR INJECTION (SAI) PUMPS



DC MOTOR SAI PUMPS

Pierburg's electrically driven Secondary Air Injection (SAI) Pumps are engineered to significantly reduce emissions during the critical engine cold-start phase, when the majority of harmful exhaust gases are generated.

By delivering fresh air directly into the exhaust system immediately after engine start, the SAI pump accelerates catalytic converter warm-up and light-off, enabling faster conversion of harmful emissions into environmentally friendly exhaust gases.

How it works

The SAI pump provides fresh air injected into the exhaust stream immediately after engine start. The pump generates the required airflow and pressure to promote the oxidation of unburned fuel components, helping the catalytic converter to reach its operating temperature faster and improving overall emission performance.

Accelerating catalytic converter efficiency. Reducing emissions. Enabling cleaner mobility.

BENEFITS

- Faster catalytic converter warm-up and activation
- Reduced hydrocarbon (HC) and carbon monoxide (CO) emissions during cold start
- Reliable and consistent airflow performance
- Compact, robust, and maintenance-free design
- Optimized for rapid response in short operating cycles
- Supports compliance with increasingly stringent emission standards
- Excellent sealing performance with internal leakage below

TECHNICAL DATA

SAI Pump 85 mm Impeller

Operating voltage	8 – 16 V DC
Air flow rate @ 100 mbar	> 40 kg/h
Current consumption @ 13.5V; 1013mbar/50%/23 °C;) (= 100 mbar; 45 kg/h	< 43
Temperature range	-40 °C to 120 °C
Start-up time to nominal flow	< 0.5 s
Size	~ 115 x 139 x 159 mm
Weight	1.2 kg

Compact SAI Pump 70 mm Impeller

Operating voltage	8 – 16 V DC
Air flow rate @ 100 mbar	≥ 15 kg/h
Current consumption @ 12.7V; 1013mbar/50%/23 °C;) (= 110 mbar; 18.5 kg/h	≤ 32 A
Temperature range	-40 °C to 120 °C
Start-up time to nominal flow	< 0.5 s
Size	~ 98 x 113 x 148 mm
Weight	0.75 kg

CONTACT

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