WeldSaver™ 6
eVac™ COOLANT RETRACTION MODULE

Coolant control, leak detection and splash prevention for robotic welding systems

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- » eVac Coolant Retraction Module redirects coolant flow during cap change or cap loss, helping to keep expensive equipment dry.

- » Reduces unsafe coolant dumps by shutting off flow in less than 1 second after cap loss.

- » Ensures adequate electrode cooling by continuously monitoring and communicating coolant flow and temperature conditions.

- » Proprietary leak-detection algorithm is independent of flow calibration, sending alarm to weld controller in less than 0.4 seconds.

- » Continuous indication of actual coolant flow rate and temperature on browser-based user interface

- » User-selectable operating parameters and alarm settings

- » Remote control of valve and system states to support gun changers and weld-cap changers

- » Output display is compatible with robotic teach pendants through network connection

- » EtherNet/IP™ and PROFINET® control interface options

- » Flow ranges from 6–50 LPM / 1.5–13 GPM

- » Liquid temperatures from 4.0–110 °C / 39–230 °F

The WeldSaver™ 6 with eVac™ Coolant Retraction Module is the leading water-safety device for flow control, leak detection, and spillage prevention in robotic welding applications. Whether monitoring coolant flow to weld guns or to the entire cooling circuit for a weld cell, the WeldSaver rapidly and reliably detects changes in flow continuity created by slow leak, cap loss, hose burst, or other catastrophic event and significantly reduces or prevents coolant dumps on expensive equipment and weld cell floors.

The WeldSaver graphical user interface provides information on device status in real time, with clear visual indicators and descriptions. The interface can be accessed over a network using most JavaScript™-enabled web browsers by entering the working IP address of the device.
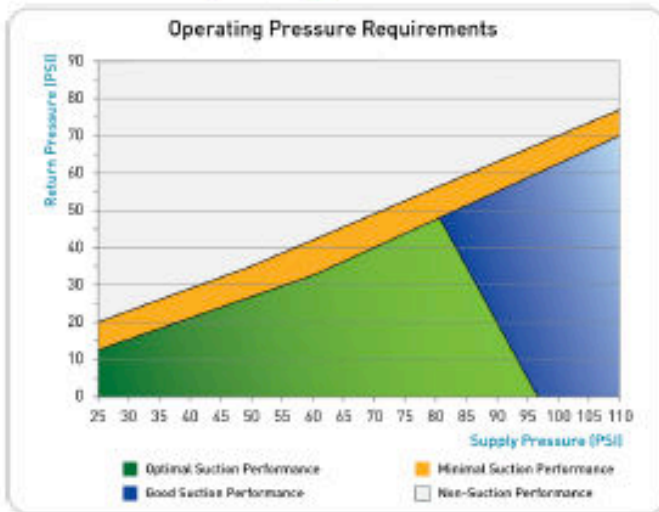
Intelligent Leak Detection

The WeldSaver's proprietary detection algorithm rapidly identifies subtle flow velocity changes that distinguish true leaks from pressure-, temperature-, and motion-induced effects, positively identifying a leak condition in less than 0.3 seconds. In the event of a cap loss or other leak, the WeldSaver6 signals a state change to immediately stop the weld process, and simultaneously closes an attached shutoff valve.
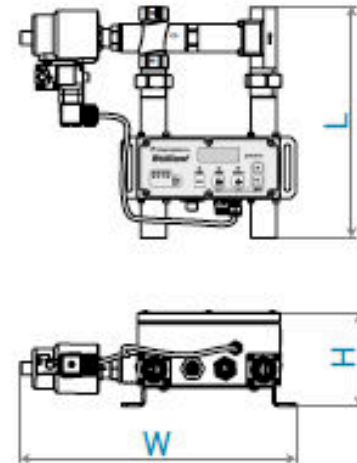
Performance Characteristics

Control Interface Options	EtherNet/IP™ • PROFINET®
User Interface	Browser-based UI • Local display with keypad
Flow Range	6.0 – 50 LPM / 1.5 – 13 GPM
Temperature Range	4.0 – 110 °C / 39 – 230 °F
Connection Options	G 3/4" (BSPP) • 3/4" NPT
Coolant Supply Pressure	83 – 689 kPa / 12 – 100 psig
Coolant Return Pressure	52 – 689 kPa / 7.5 – 100 psig
Differential Pressure	14 – 620 kPa / 2.0 – 90 psig
Compressed Air Pressure	300 – 800 kPa / 43.5-116 psig
Low Flow Response	< 0.2 sec.
Reset / Override Response	< 1.0 sec.
Leak Detection Response	0.3 – 1.0 sec. depending on response time selection and back pressure
Leak Sensitivity	Able to detect a loss of flow continuity from 1–20 balanced parallel flow paths
Accuracy	± 3% of full scale
Repeatability	± 1% of full scale from 0.1 to 1.0 × full scale
Operating Environment	Indoor use only
Ambient Temperature	4.0 – 50 °C / 39 – 122 °F
Max. Relative Humidity	80%
Enclosure Protection	IP66 / NEMA 4X

eVac Module Operating Pressures

Operating Pressure Requirements

Return Pressure (PSI)
Supply Pressure (PSI)

- Optimal Suction Performance
- Good Suction Performance
- Minimal Suction Performance
- Non-Suction Performance

Nominal Dimensions

L: 11.2 in / 284.5 mm W: 13.5 in / 343 mm H: 4.5 in/ 115 mm

Contact WeldSaver Applications Support at weldsaver@proteusind.com or (650) 964-4163 and let our experts create a product configured to your exact requirements!

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