

Training Poster

Weld Purge Monitors®

for **Stainless and Duplex Steels, Corrosion Resistant Alloys, Titanium and Exotic Metals**

Introduction

Weld Purge Monitors® can ensure that you get the best possible environment to carry out high quality welding of those metals mentioned above. It is essential to measure and monitor oxygen content when welding, so that the welds are safe, clean and meet industry standards. To avoid costly errors and bad welds, only monitors specifically made for weld purging purposes should be used.

Weld Purge Monitors® vs oxygen meters

Beware: Many monitors used for weld purging are actually oxygen meters and are not suited for weld purging. They are slow to react and are calibrated at atmospheric oxygen levels, not at low oxygen levels that are necessary for welding.

Advantages of using Weld Purge Monitors®

- Operators quickly alerted to faults and performance variations.
- Much faster reaction time compared with oxygen "safety" monitors.
- Production of scrap is reduced or eliminated, loss of corrosion resistance is avoided.
- Accuracy better than 0.1% of reading can be achieved.
- Sensors are accurately calibrated for weld purging levels - not atmospheric oxygen levels.
- Can be used with any inert gas.

Consequences of poor weld purge conditions

- Oxidised welds, traces of porosity and pitting can occur.
- Welds can be rejected and result in scrap.
- Incorrect welds can lead to expensive re-welding.
- The need to re-weld can result in a loss of time.
- Wasted materials and gas may prove very costly.

Purged weld



Unpurged weld



Tips for consistent weld purging and good weld quality

- Purge gas should be set at a consistent flow rate avoiding turbulence within the purge volume.
- Argon is denser than air, so should be introduced at the lowest point possible in a purge environment.
- Monitor the oxygen levels throughout the welding process to ensure conditions remain constant.
- Use the Weld Purge Monitor® to isolate the weld process in the event of oxygen levels rising above presets.

Monitor maintenance - Argweld® PurgeEye® Weld Purge Monitors®

- Family Range of Argweld® Weld Purge Monitors® for accurate measurement of oxygen at levels down to 1 ppm.
- Your Weld Purge Monitors® should show oxygen level in a normal air environment prior to measuring the purge gas.
- Sensor performance improves and the life expectancy is maintained in a low oxygen environment.
- Sensors should be treated as a consumable item and be ordered as and when needed.
- They are available for immediate delivery.
- Sensors must not be pressurised or exposed to water / moisture.



INVENTORS, INNOVATORS, DEVELOPERS and MANUFACTURERS of WELD PURGE MONITORS®

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