

# PurgElite®

## Inflatable Tube and Pipe WELD PURGING SYSTEM



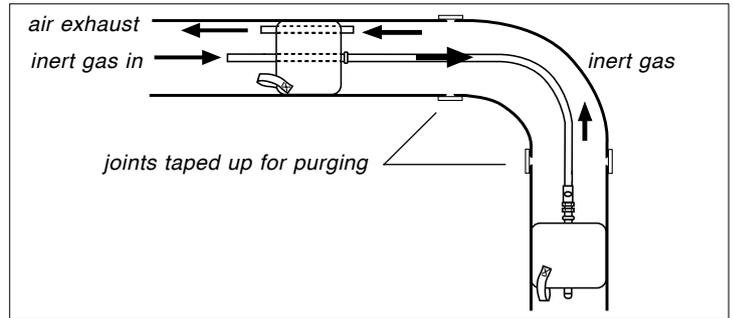
### Data Application Sheet

**PurgElite®** Inflatable Tube and Pipe Weld Purge System is inserted into the bore and positioned in the area to be welded. It is inflated to form a seal. In all instances, once the devices are inflated, the flexline should follow the centreline of the tube allowing the system to be positioned in elbows and radii. **PurgElite®** range 15 sizes covering 1 to 24" (25 to 610 mm).

#### **PURGING A 90° BEND** (tacked into position with pipes each side of a bend or elbow)

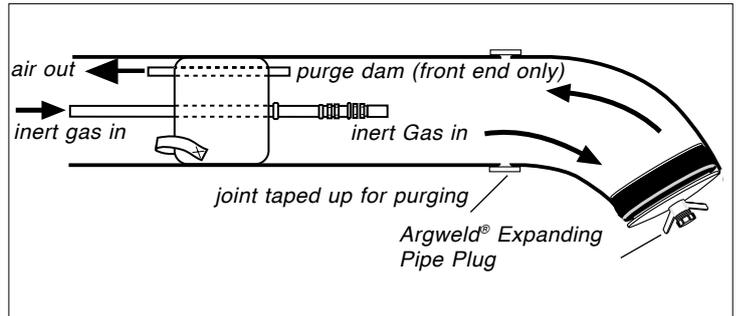
A correctly purged root area can be achieved with the **PurgElite®** system. The flexline can be supplied to any length to suit the components being welded.

Note: the exhaust port is in the front end. The exhaust hose and gas inlet are installed into the primary end, to allow inflation and oxygen measurement to be carried out at the same end.



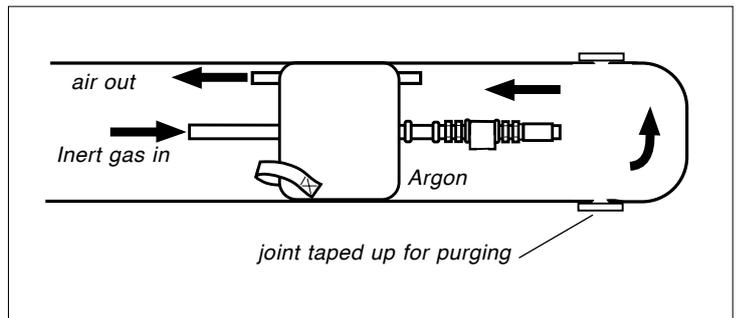
#### **PURGING A 90° SHORT ELBOW** (when only one pipe is in place and the elbow is too short for a standard tandem inflatable system).

When required, Huntingdon Fusion Techniques HFT® can deliver a single inflatable dam for one side and an Argweld® **Purge Plug™** can be used for the other side. Standard sizes from 1 - 72".



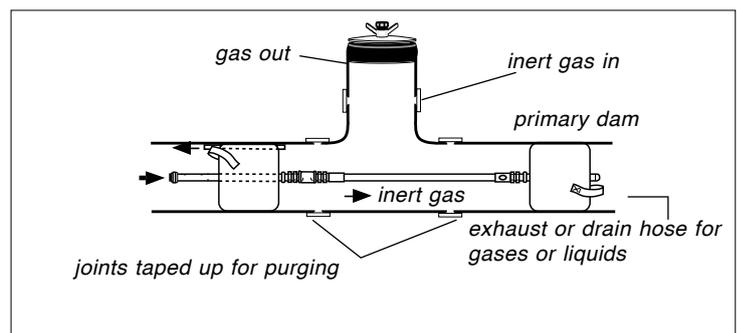
#### **PURGING A DOME ENDED PIPE OR VESSEL** (when only a single dam is needed)

If a dome is being welded to either a pipe or a vessel and a tandem device is inappropriate, we can supply a single inflatable dam fitted with a gas release valve and an exhaust for all sizes 1 - 72".



#### **PURGING A TEE PIECE**

For this application we can offer a triple dam assembly with flexible connecting tubes. The connecting tubes can be provided to the required length to suit the application. Dams are inserted through the tee piece and positioned inside the main pipeline. Inflation, purging and oxygen monitoring occurs at the primary end. If the pipeline contains gas or liquid residue, an exhaust hose is fitted through the pipeline dams to prevent any pressure build up.



## HEAT RESISTANT COVER VERSION

Ask for details of Argweld® **HotPurge®** for Heat Treated Chrome and High Strength Stainless Steels.



© HFT®

## ARGWELD® PURGE TIME (to 1% oxygen)

By using **Argweld®** Inflatable Pipe Purging Systems, the main savings, over any other system, are obtained in reduced purging and waiting time and in the much lower quantity of inert gas used. Purging conventionally will require a flow rate of at least 24 ltrs/min (50 cu ft/hr) for longer periods, whereas the purge bladders require only half that flow rate. The chart below shows Argweld's® purge times for various pipe diameters to reduce the atmosphere content to less than 1% oxygen.

Pipe Length	Pipe Diameter	Normal Purge Time at 24 L/M (50 CFH)	Argweld® Time at 10 L/M (CFH)
10 m (33")	100 mm (4")	26 mins	1.5 mins
10 m (33")	200 mm (8")	83 mins	4 mins
10 m (33")	300 mm (12")	173 mins	8 mins

*Purge time for Argweld® Purge System to 1% oxygen*

## STOPPERS

**Argweld®** Nylon Plugs are also available from HFT® to suit all diameters up to 2 metres (80").



Nylon Plugs



inflatable stoppers

For larger pipe diameter sizes, it is recommended that an inflatable stopper is used. Sizes are available up to 1.8 m (72") and various designs suit different applications.



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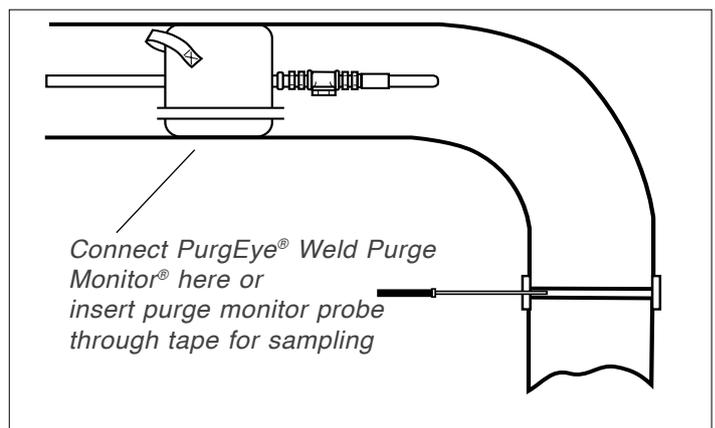
## PurgEye® 100 IP65 Dustproof and Waterproof WELD PURGE MONITOR®

Before welding can begin using an inert gas, it is essential to know that the oxygen content at the weld area has been reduced to a satisfactory low level.

Using evolving scientific technology to manufacture a 'State of the Art' instrument, the **PurgEye® 100 IP65** Weld Purge Monitor® is specifically designed to measure oxygen content of below 0.1% with a high degree of accuracy.

An oxygen content of below 0.1% is normally considered suitable to ensure that there is no oxidation of the weld, although there may be some exceptions to this when welding materials such as titanium and zirconium.

The instrument can be used in a continuously monitoring mode by connecting the rubber tube to the exhaust port of the purging device or chamber and allowing the exhausted gas to free flow over the sensor.



Alternatively, the monitor can be used in the sampling mode. The stainless steel probe is inserted either into the volume being purged or the exhaust port. The rubber bulb is then used to draw a sample of the gas across the sensor.

Once the desired oxygen level has been reached, welding can begin.