

# PurgElite®

## Inflatable Tube and Pipe WELD PURGING SYSTEM

From 1 to 24 inch (25 to 610 mm) diameters



**Incorporating a “NEW” 1 inch (25 mm) system, a first to the market place, another great innovation by Huntingdon Fusion Techniques HFT®.**

Inert gas is expensive; it's probably the second most costly contribution to welding after filler wire. Care needs to be taken when selecting a purging technique since the majority of pipe purging systems are flagrant abusers, particularly home made systems.

The most efficient systems are those such as **PurgElite®** and based on twin inflatable dams. The designs are such as to minimise the purge volume and incorporate automatic advanced gas flow and control technology. Losses due to leakage are insignificant.

After 40 years of manufacturing expertise in the field of Tube and Pipe Weld Purging Systems, Huntingdon Fusion Techniques HFT® brings to the market yet another great advanced innovation.

**PurgElite®** is designed to help tube and pipe welders save money, time, gas and achieve better welds.

These superior systems, which have many unique features, keep us right at the forefront of technical innovation by bringing you a simple, low cost solution to make the cleanest of welds.

Due to the new design, we have significantly reduced prices whilst continuing to bring you a technically superior product.

The volume to purge is kept small, resulting in valuable savings in both time and cost of inert gas used.

The **PurgElite®** Inflatable Pipe Weld Purging Systems have two heavily protected inflatable dams connected by a newly designed, high temperature resistant, inert gas purging tube.

The inert gas purges oxygen as well as other unwanted gases and vapours out of the space between the dams with inert gas replacing it through **IntaCal®**, a unique, much lower cost, simpler, trouble free valve than used elsewhere.

This new, low profile valve allows us to manufacture a 1" Inflatable Pipe Purging System which has never been previously achieved.

Don't use old fashioned purge bladders or homemade devices like cardboard, paper dams or foam bungs. They contain a lot of water, water vapour and air, which put your weld at risk and end up costing you more money

Use the proper tool for the job! **Purge the 'Elite' way!**

## KEY FEATURES and BENEFITS

Quick and easy to install.

### **IntaCal® innovative purge gas feed device**

No complicated valve to set.

### **Inflation and purging with only one line**

Maximum operating temperature 80°C (179°F).

Low vapour pressure material.

No scratching of polished surfaces.

For all grades of stainless steel and duplex, polished interiors, titanium, zirconium, exotic metals and alloys.

**PurgElite®** cost saving systems can be positioned accurately.

### **RootGlo® centrepiece glow positioning indicator**

The glow strip in the centre of each system gives ease of use when positioning the device underneath the weld.

**RootGlo®** is resistant to high temperatures whereas competitors material shrivels up to nothing, outgassing into the purgespace.

**RootGlo®** gives 20 hours of illumination for only 10 minutes exposure to daylight.

### **Faster**

The **PurgElite®** system is very quick and easy to install. It can be positioned accurately and the dams inflate instantly.

Purging time is a fraction of that required by conventional methods leading to significant savings and waiting costs. Return on Investment charts are available on request.

The volume to be purged is localised.

### **Flexible Spinal Hose**

The hose can bend to go through the tightest of angles. For further information see the last page of this leaflet.



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Size range: 1 to 24 inch (25 to 610 mm) OD

The first ever 1 inch (25 mm)  $\varnothing$  system to the market place. Another innovation by Huntingdon Fusion Techniques HFT® is leading the way in Weld Purging Technology!



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### **Low Price**

Dramatic decrease in prices over all similar models.

Cost-effective in less than only one weld.

### **Repeatability**

Highly reliable, giving regular, repeatable, controlled high quality results, with zero colour welds.

Gas pressure control ensures an even positive root bead with no notching.

Manufactured to nuclear quality standards with nuclear approved materials, these systems guarantee bright, shiny, coke and oxide-free welds.

Because **PurgElite®** Inflatable Pipe Weld Purging Systems have no metal parts exposed, internally polished stainless steel tubes are protected from contamination and scratching.



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## OUT OF DATE

- Large metal valve
- Complicated valve adjustment
- Occasional burst bladders
- Metal parts scratch interiors of polished pipes
- High vapour pressure materials that outgas when heated



## NEW PURGELITE® SYSTEM

- No metal parts to scratch interior of polished pipes
- No large complicated valve
- No wasted time setting valve
- Low vapour pressure materials



## MIX and MATCH

Any one size of dam can be connected with any other diameter, see example below:



**PurgElite® Inflatable Pipe Weld Purge Systems** in use together with the latest state of the art technology **PurgEye® Weld Purge Monitor®**. The PurgEye® Monitors allow the user to see when the conditions are perfect for welding.

In this way, bright clean welds are easily achieved.



This range of PurgElite® Tube and Pipe Purging Systems are for pipes of nominal diameters from 1 inch (25 mm) to 24 inch (610 mm).

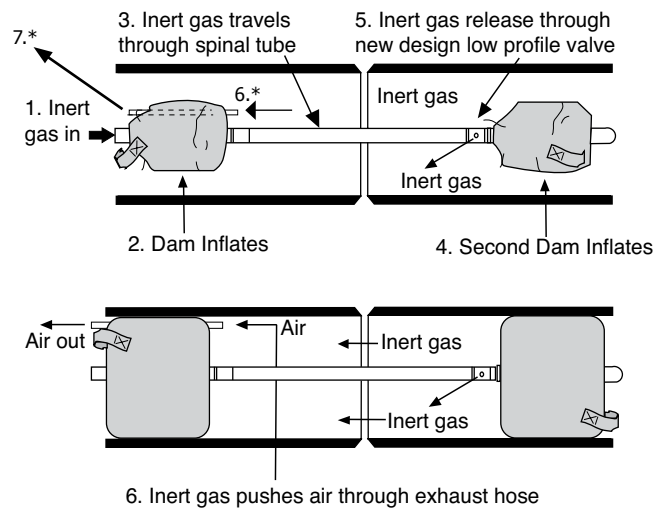
The connecting spinal tube can be shortened or lengthened to accommodate specific requirements.



## Simple steps for tube and pipe weld purging for that perfect oxide free clean weld!

6\*. Air is pushed out of the exhaust tube to Weld Purge Monitor®.

7\*. Exhausting air can be measured by Weld Purge Monitor® or it can be just emptied to atmosphere.





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*Suitable for fabrications with bends*

## HEAT PROTECTIVE COVERS

The Heat Resistant Covers are held on with ties and there are holes provided for the PurgElite® fittings, such as inlet, exhaust and crimped end.

Temperature rating up to 300°C / 572°F.

The heat covers are provided in sets of two and they are available for each specific diameter from 1 - 24 inch.



## PURGE TIME (to 0.1% oxygen and less)

By using PurgElite® Tube and Pipe Purging Systems, the main savings are obtained in reduced purging and waiting time, and in the much lower quantity of inert gas used.

Purging with old fashioned systems and home made devices will require a flow rate of at least 24 ltrs/min (50 cu ft/hr) for longer periods.

The chart below shows a typical purge time to reduce the air space to less than 0.01% oxygen.

TEST PIPE	
Diameter 4" (102 mm) - 316 Stainless Steel	
<b>Old fashioned or home made devices:</b>	
Purge time to 1000 ppm	40 - 60 minutes
Inert gas usage at 25 l/m	1000 - 1,500 litres

PURGELITE® 2015 RESULT	
Purge Time to 100 ppm	0.36 mins
Inert gas usage at 15 l/m	5.4 litres

CONCLUSION	
Welding a 4" pipe joint with PurgElite® Systems will save about 1 hour per joint and approx. 1000 litres of argon per joint at £ 0.23 per litre = £ 230.00 plus 1 hour labour, say £ 250.00 total.	
Cost of 4" PurgElite® System is £ 112.00	
Cost-effective in less than one weld.	

Do not use old fashioned purge bladders that burst or homemade devices like cardboard, paper dams or foam bungs. They contain a lot of water, water vapour and air, which put your weld at risk and end up costing you more money.

Use the proper tools for the job!

**A PurgElite® System to Purge your tubes and pipes the 'Elite' way!**

## HUNTINGDON FUSION TECHNIQUES ■ HFT

### Other HFT® Weld Purging Products

- Argweld® Inflatable Tube Pipe & Pipeline Weld Purging Systems
- Argweld® PurgEye® Weld Purge Monitors®
- Argweld® Weld Purge Film® & Weld Purge Super Adhesive®
- Argweld® Weld Backing Tape® & Weld Purge Tape®
- Argweld® Weld Trailing Shields®
- Argweld® Flexible Welding Enclosures®
- Argweld® Weld Purge Plugs™ & Orbital Welding Plugs
- Techweld® MultiStrike® Tungsten Electrodes

### Our HFT Pipestoppers® Division

Nylon, Aluminium, Steel and Rubber Pipe Plugs and Inflatable Stoppers