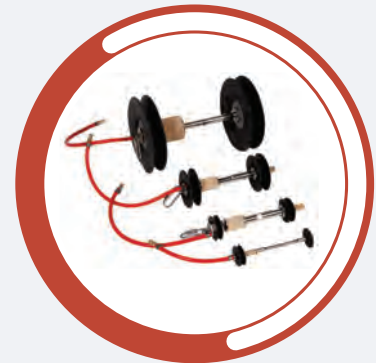




PIPE EQUIPMENT SPECIALISTS LTD

PIPE PURGING EQUIPMENT



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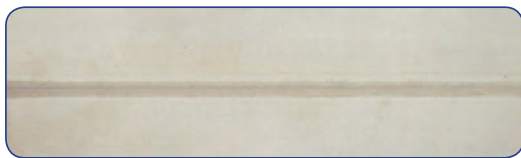
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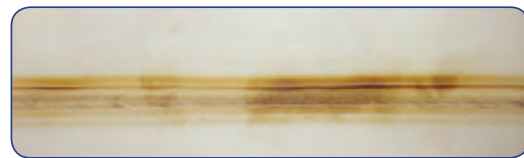
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WHY PURGE?

When welding stainless steel, titanium and other corrosion resistant materials, the perfect environment for welding is paramount to maintaining the corrosion resistant properties. During the welding process, the weld seam is subjected to heat and air which causes oxidation, if the correct processes are not adhered to. For the best results, oxidation must be prevented. The quality of the exotic corrosion resistant material welding is dependent on the correct purging methods to minimise or eliminate oxidation.



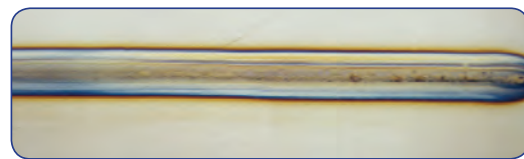
Argon Purge 12ppm
Vol. O² Content



Argon Purge 60ppm
Vol. O² Content



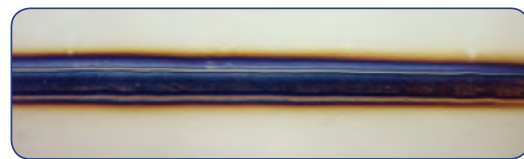
Argon Purge 70ppm
Vol. O² Content



Argon Purge 200ppm
Vol. O² Content



Argon Purge 250ppm
Vol. O² Content



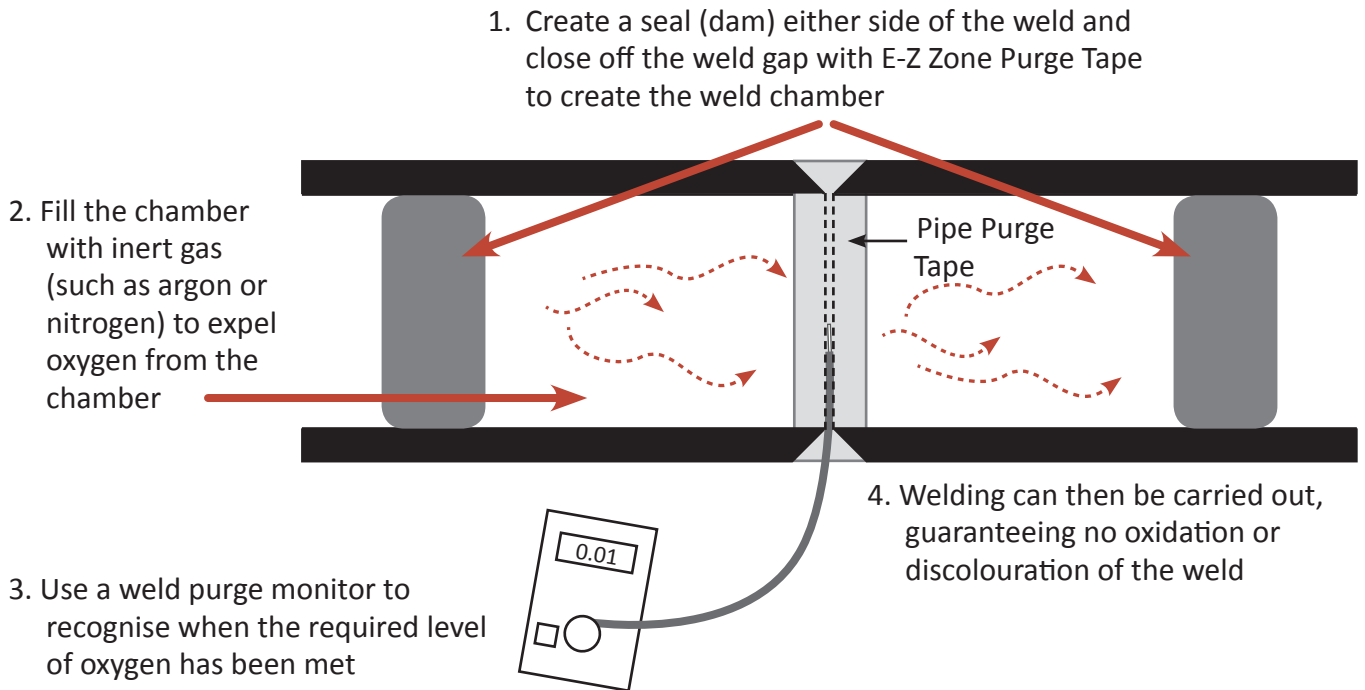
Argon Purge 500ppm
Vol. O² Content

Weld Quality

The effective welding of stainless steel, titanium and other exotic materials for the nuclear, petrochemical, pharmaceutical, semi-conductor, aerospace and food industries requires the proper tools to create a perfect weld environment. Purging equipment and its use has a major impact on preventing oxidation and improving final weld quality. The basic principles of purging can be seen below. TAG supply a comprehensive range of systems to create the correct welding environment, whatever the application.



Principles of Purging



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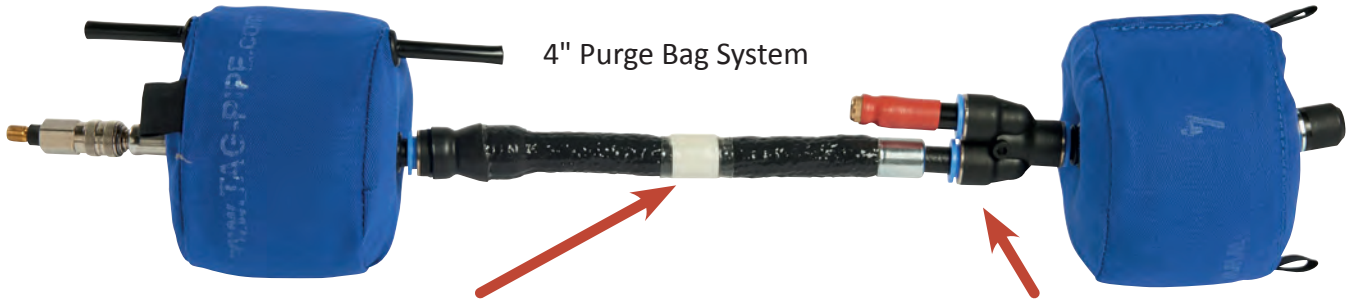
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TAG PURGE BAG SYSTEM

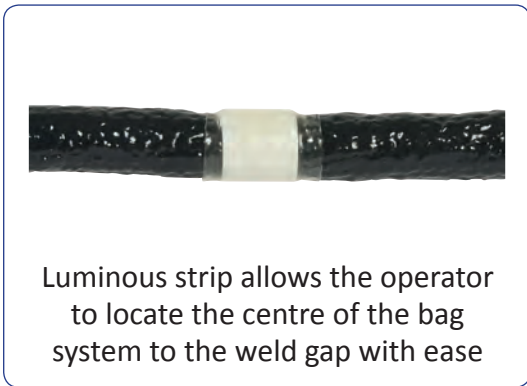
Sizes: 2 - 24" (50 - 610mm)

Double Inflatable Pipe Weld Purging Systems

Used for 90% of the traditional pipe weld purging applications to provide bright, shiny, oxide free weld roots. The TAG Pipe Purge System are quick and easy to use providing a very rapid weld purge. High quality materials are used in the manufacture of these systems guaranteeing perfect oxide-free weld roots in very little time.



4" Purge Bag System



Luminous strip allows the operator to locate the centre of the bag system to the weld gap with ease



The Gas Release Valve is pre-set and sealed, so requires no adjustment

Due to the design of these systems, the volume of gas used to purge is minimised, resulting in significant savings in both time and the quantity of inert gas used. Return on investment can be achieved in as little as just one or two welds. These robust systems can be used over and over again paying for themselves in very little time.

Features and Advantages

- TAG's Inflatable Pipe Purging Systems dramatically reduce purging times leading to significant savings in labour costs
- **Typical purge times for 4" pipe = 1½ mins; 8" pipe = 4 mins; 12" pipe = 8 mins**
- Ready to use, connects to a dedicated and regulated gas supply. Choose any flow rate up to 20l a min. Through the pre-set purge valve
- Gas pressure control ensures an even positive root bead with no notching
- Quick and easy to install simplifying the process of inert gas purging
- Heat resistant up to 70°C continuously
- Use less inert gas. The volume of purge gas used is less than 2% of that required for a conventional purge

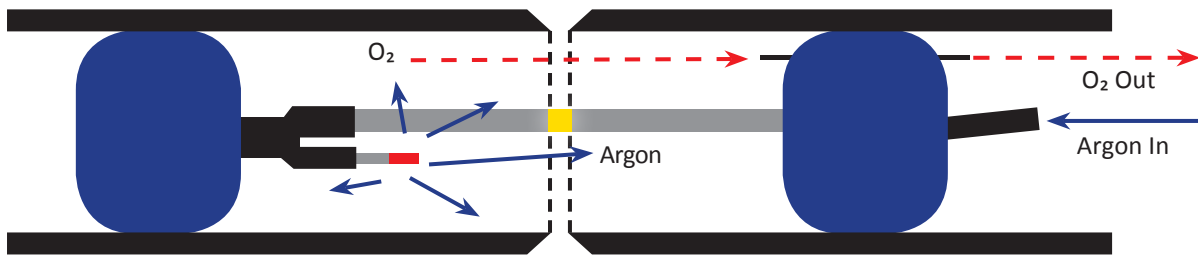


How it works

The Purge Bag Systems in the range manufactured by TAG are designed around the principle of using 2 dams to create a seal either side of the weld, just far enough away from the weld not to be effected by heat but close enough to the joint to provide the fastest weld purge time. These dams are connected by an armoured spinal tube.

Once ready to start purging, the system is inserted into the bore of the pipe using the luminous strip to centre the system to the weld gap.

When the gas flow is started, the dams inflate and, upon reaching the pre-set pressure, the valve releases the gas gently into the weld chamber, to purge the interspace without turbulence. The Oxygen is removed from the weld chamber through the integral exhaust tubes in the bags. Used in conjunction with TAG's Oxygen Monitors to indicate when the required low level of oxygen has been reached, welding can then commence, with the inert gas enabling the welder to produce an even oxidation free penetration weld bead. Afterwards, the dams are deflated simply by disconnecting the purge gas feed and the system easily withdrawn. The design of these systems means that only one gas connection is required for both dam inflation and weld purging.



Sizing and Specification

PART NO.	NOMINAL PIPE SIZE (MM / INCH)		WEIGHT (KG)	INTERNAL DIAMETER RANGE (MM)
PB02	50mm	2"	0.34kg	44 - 57mm
PB03	75mm	3"	0.34kg	58 - 84mm
PB04	100mm	4"	0.34kg	80 - 110mm
PB05	125mm	5"	0.38kg	103 - 135mm
PB06	150mm	6"	0.38kg	124 - 162mm
PB08	200mm	8"	0.90kg	175 - 213mm
PB10	250mm	10"	1.0kg	230 - 265mm
PB12	300mm	12"	1.1kg	265 - 305mm
PB14	350mm	14"	1.3kg	330 - 355mm
PB16	400mm	16"	1.7kg	380 - 405mm
PB18	450mm	18"	1.8kg	430 - 455mm
PB20	500mm	20"	1.9kg	485 - 510mm
PB22	550mm	22"	2.2kg	535 - 560mm
PB24	600mm	24"	2.5kg	585 - 610mm
PBS401	30 meter argon feed hose assembly for The TAG Pipe Purge Bag System to dedicated and regulated gas supply. Fitted at one end with a 3/8" female gas regulator connector and at the other end with a fitting to attach to the inflation hose.			

*** Larger sizes and specials available on request, however Rapid Purge on pages 32 & 33 strongly recommended over 12"**





RAPID PURGE™ SYSTEM

Sizes: 8 - 80" (190 - 2044mm)



Purge larger diameter pipes faster than ever!

Used for stainless, duplex, chrome steels, titanium, nickel and other alloy materials, the TAG Pipe Purge Bag System™ systems enable high speed welding of larger diameter pipe joints that have to be purged.

Designed to enable the user to produce high quality, reliable and repeatable welding of stainless steel tube and pipe joints to ensure a very fast weld purge time and a very high quality weld root, free from oxidation and discolouration.

A 36" diameter pipe will purge to below 0.1% oxygen in less than 10 minutes and all smaller pipes correspondingly faster.

Dramatic savings of time, gas and money can be made by using these systems.

Due to the quality of the materials used, the Rapid Purge™ systems can be used over and over again further reducing manufacturing costs.

As with all of the TAG Pipe Purge Bag System inflatable purging systems, the Rapid Purge™ come with pre-set valves, so are ready to use 'straight out of the box'.

Rapid Purge™ has been developed specifically to enable high speed purging for any pipe welding application.



Features and Advantages

- **Typical purge times of less than 10 minutes!!!**
- The unique "thru-bore" design of the central sleeve minimises the area to be purged, dramatically reducing the volume of gas required
- Friction free coatings allow easy movement through pipes from one joint to another, even around bends and elbows
- Ready to use, connects to a dedicated and regulated gas supply. Choose any flow rate up to 80l/min. through the twin pre-set purge valve
- A central (glow in the dark) strip allows fast and accurate alignment of the system to the centre-point of the weld area
- The inflatable dams and imbelical hose are covered with a heat resistant material and insulated accordingly for use at temperatures up to 250°C



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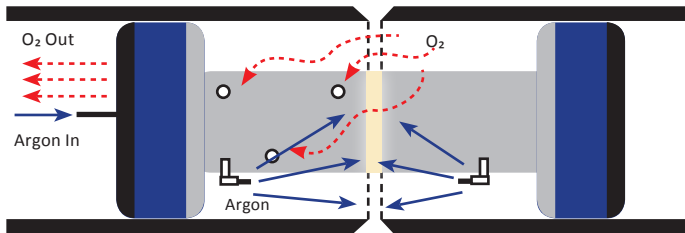
How it works

The Rapid Purge™ Inflation Pipe Purging Systems for pipe and vessel purging comprises a tandem inflatable dam system connected by an umbilical hose and collar to reduce the volume being purged.

A gas exhaust valve is installed between the primary and secondary dam, along with an auxiliary argon purge line.

Each Rapid Purge™ System is covered with heat protective material, so that the higher temperatures closer to the weld do not damage the system.

The robust design of the Rapid Purge™ Inflation Pipe Weld Purging Systems allows for many years of repeatable trouble free use.



Sizing and Specification

PART NO.	DESCRIPTION	PRODUCT SIZES (MM / INCH)		EXPANSION RANGE (MM)	WEIGHT (KG)
RP08	Rapid Purge™	200mm	8"	190 - 15mm	1.4kg
RP10	Rapid Purge™	250mm	10"	242 - 267mm	1.7kg
RP12	Rapid Purge™	300mm	12"	291 - 316mm	2.1kg
RP14	Rapid Purge™	350mm	14"	318 - 343mm	2.5kg
RP16	Rapid Purge™	400mm	16"	369 - 394mm	2.7kg
RP18	Rapid Purge™	450mm	18"	420 - 445mm	3.0kg
RP20	Rapid Purge™	500mm	20"	471 - 496mm	3.4kg
RP22	Rapid Purge™	550mm	22"	553 - 577mm	3.6kg
RP24	Rapid Purge™	600mm	24"	572 - 597mm	3.8kg
RP26	Rapid Purge™	650mm	26"	620 - 645mm	4.5kg
RP28	Rapid Purge™	700mm	28"	671 - 696mm	5.5kg
RP30	Rapid Purge™	750mm	30"	722 - 747mm	6.0kg
RP32	Rapid Purge™	800mm	32"	772 - 797mm	8.0kg
RP36	Rapid Purge™	900mm	36"	874 - 899mm	9.1kg
RP40	Rapid Purge™	1000mm	40"	990 - 1015mm	9.9kg
RP42	Rapid Purge™	1050mm	42"	1023 - 1048mm	13.2kg
RP44	Rapid Purge™	1100mm	44"	1125 - 1150mm	13.7kg
RP48	Rapid Purge™	1200mm	48"	1175 - 1200mm	15.0kg
RP54	Rapid Purge™	1371mm	54"	1359 - 1384mm	18.0kg
RP60	Rapid Purge™	1524mm	60"	1512 - 1537mm	20.0kg
RP72	Rapid Purge™	1828mm	72"	1816 - 1841mm	28.0kg
RP80	Rapid Purge™	2031mm	80"	2019 - 2044mm	30.0kg

* Larger sizes and specials available on request



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HEAT RESISTANT PURGING SYSTEMS

Sizes: 3 - 80" (63 - 2044mm)

Systems for the fast Purging of High Temperature Pipework

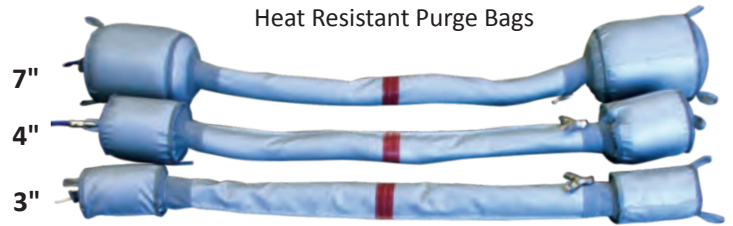
The TAG Pipe Purge Bag and Rapid Purge Systems are both available as heat resistant versions.

Designed for use when high temperatures will be encountered during the process of pipe welding; such as pre-heated pipework, and pipes where very high temperatures are required for welding.

These versions of our inflatable Pipe purging systems are heat resistant up to 350°C (572°F) for up to 24 hours, or up to 500°C for short periods of time, as with the standard systems, the heat resistant systems are available for all pipe diameters from 3 - 80" (75 - 2035mm).

Mirroring the features of the standard range of inflatable purging systems, the heat resistant range comes with a central band for rapid centering of the system to the weld root for the fastest set up times.

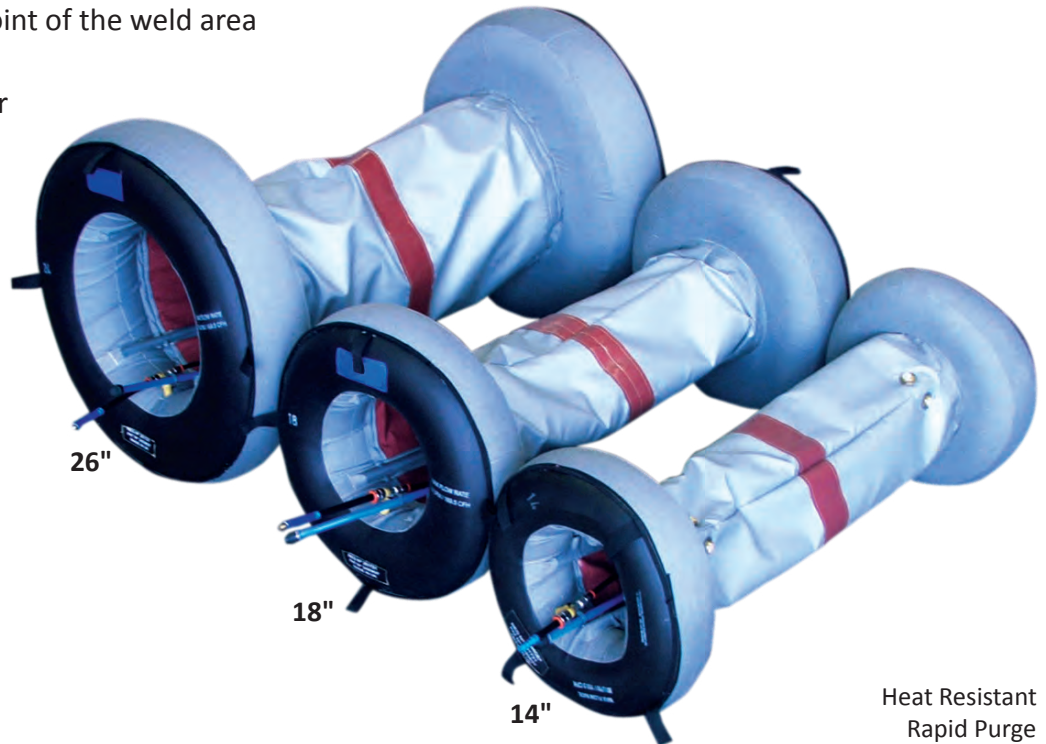
The welder can position these systems prior to pre-heating and leave them in place throughout the pre-heating, welding and post-heat treatment cycles, allowing the weld to be purged continuously for up to 24 hours if necessary.



e.g. 7" Pipe will purge in less than 4 minutes!

Features and Advantages

- Heat resistant up to 350°C (572°F) for up to 24 hours, or up to 500°C for short periods
- Available for all pipe diameters from 3 to 80" (63 to 2044mm)
- Designed to be flexible, for ease of insertion, use and withdrawal from pipes, bends, elbows etc. Suitable for 24 hour cycles including pre-heat, welding and post-weld heat treatment
- A central strip allows fast and accurate alignment of the system to the centre-point of the weld area
- Manufactured to Nuclear Quality Standards with nuclear approved materials, these systems guarantee bright, shiny, coke and oxide-free welds
- Designed and manufactured specifically for the power industry where high strength chrome alloy steels are more frequently used
- Ready to use, connects to a dedicated and regulated gas supply. Choose any flow rate (Purge Bags - up to 20l/min/Rapid Purge up to 80l/min) through the twin pre-set purge valve



Heat Resistant Rapid Purge
e.g. 36" Pipe will purge in less than 10 minutes!



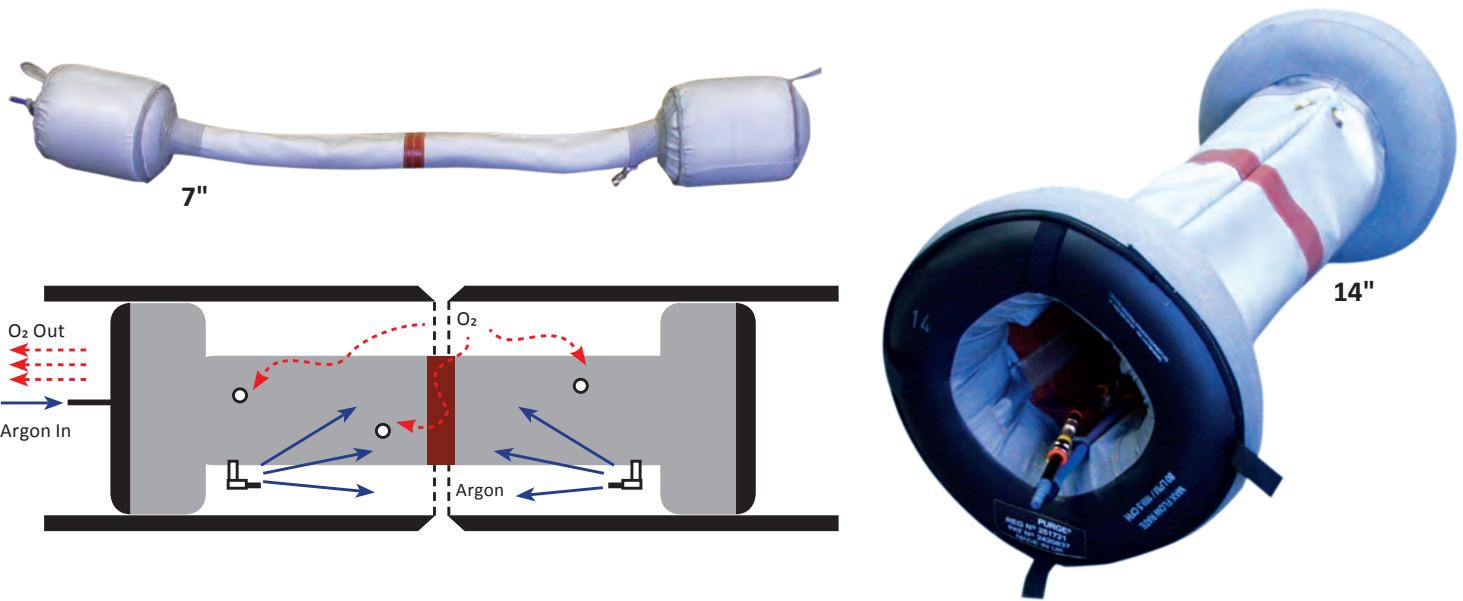
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How it works

Both the Heat Resistant TAG Pipe Purge System and the Heat Resistant Rapid Purge™ System work identically to the standard systems, but are made using a purposely designed Nomex and Kevlar mix material to withstand the temperatures typically encountered when welding exotic materials.



Sizing and Specification

PART NO.	DESCRIPTION	PRODUCT SIZES (MM / INCH)		EXPANSION RANGE (MM)	WEIGHT (KG)
PB03/HR	Purge Bag Heat Resistant	75mm	3"	63 - 75mm	1.1kg
PB04/HR	Purge Bag Heat Resistant	100mm	4"	92 - 100mm	1.2kg
PB05/HR	Purge Bag Heat Resistant	125mm	5"	113 - 125mm	1.25kg
PB06/HR	Purge Bag Heat Resistant	150mm	6"	138 - 150mm	1.3kg
PB07/HR	Purge Bag Heat Resistant	175mm	7"	163 - 175mm	1.4kg
RP08/HR	Rapid Purge™ Heat Resistant	200mm	8"	190 - 215mm	1.4kg
RP10/HR	Rapid Purge™ Heat Resistant	250mm	10"	242 - 267mm	1.7kg
RP12/HR	Rapid Purge™ Heat Resistant	300mm	12"	291 - 316mm	2.1kg
RP14/HR	Rapid Purge™ Heat Resistant	350mm	14"	318 - 343mm	2.5kg
RP16/HR	Rapid Purge™ Heat Resistant	400mm	16"	369 - 394mm	2.7kg
RP18/HR	Rapid Purge™ Heat Resistant	450mm	18"	420 - 445mm	3.0kg
RP20/HR	Rapid Purge™ Heat Resistant	500mm	20"	471 - 496mm	3.4kg
RP22/HR	Rapid Purge™ Heat Resistant	550mm	22"	553 - 577mm	3.6kg
RP24/HR	Rapid Purge™ Heat Resistant	600mm	24"	572 - 597mm	3.8kg
RP26/HR	Rapid Purge™ Heat Resistant	650mm	26"	620 - 645mm	4.5kg
RP28/HR	Rapid Purge™ Heat Resistant	700mm	28"	671 - 696mm	5.5kg
RP30/HR	Rapid Purge™ Heat Resistant	750mm	30"	722 - 747mm	6.0kg
RP32/HR	Rapid Purge™ Heat Resistant	800mm	32"	772 - 797mm	8.0kg
RP36/HR	Rapid Purge™ Heat Resistant	900mm	36"	874 - 899mm	9.1kg
RP40/HR	Rapid Purge™ Heat Resistant	1000mm	40"	990 - 1015mm	9.9kg
RP42/HR	Rapid Purge™ Heat Resistant	1050mm	42"	1023 - 1048mm	13.2kg
RP44/HR	Rapid Purge™ Heat Resistant	1100mm	44"	1125 - 1150mm	13.7kg
RP48/HR	Rapid Purge™ Heat Resistant	1200mm	48"	1175 - 1200mm	15.0kg
RP54/HR	Rapid Purge™ Heat Resistant	1371mm	54"	1359 - 1384mm	18.0kg
RP60/HR	Rapid Purge™ Heat Resistant	1524mm	60"	1512 - 1537mm	20.0kg
RP72/HR	Rapid Purge™ Heat Resistant	1828mm	72"	1816 - 1841mm	28.0kg
RP80/HR	Rapid Purge™ Heat Resistant	2031mm	80"	2019 - 2044mm	30.0kg

* Larger sizes and specials available on request



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TAG DOUBLE SEAL SYSTEMS

Sizes: ¾" to 12" (16 to 320mm)

Purge pipes fast with minimal gas usage

TAG also manufactures The Silicone Double Seal purging system that has been designed to further reduce both inert gas use and purging time. These systems, use silicon discs to form an air tight seal, reducing purge times, and gas usage for maximum efficiency.

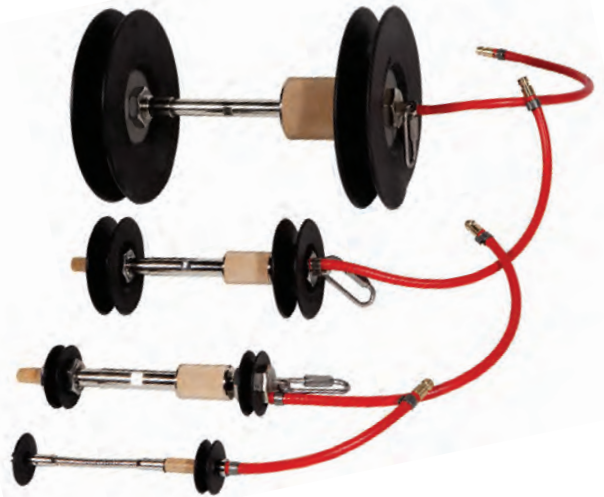


There are 2 styles of silicon double seal systems available:

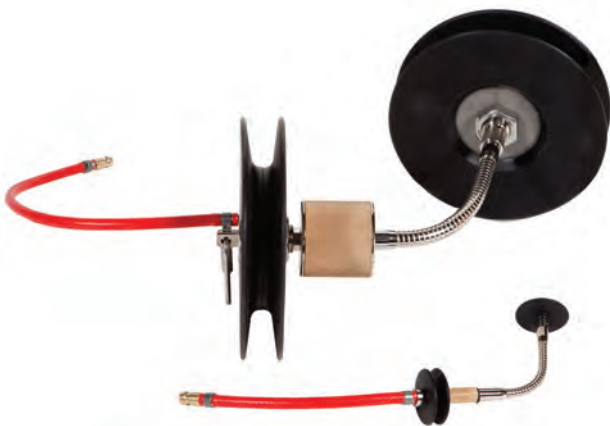
- The Gas Finger system is designed for small pipes and tubes from 16 - 38mm i/d
- The Double Seal systems are made for pipes from ¾" - 12" (16 - 320mm)

Features and Advantages

- Typical purge times of less than 2 minutes (e.g. an 8" Pipe will purge to below 0.01% Oxygen in less than 2 minutes)
- High quality silicon sealing disks that prevent them tilting or falling over inside the pipe
- Guaranteed gas tight seal
- UV and temperature resistant up to 330°C continuously or 450°C for short periods
- Suitable for purging pipes, elbows and fittings
- The silicon seal units can be separated and used as a gas finger and pipe stopper respectively



Single Gas Finger for smaller pipe and tubes



Show with flexible hose connection for purging elbows and fittings.



Available as a kit for 16 - 165mm (DSK16-165)



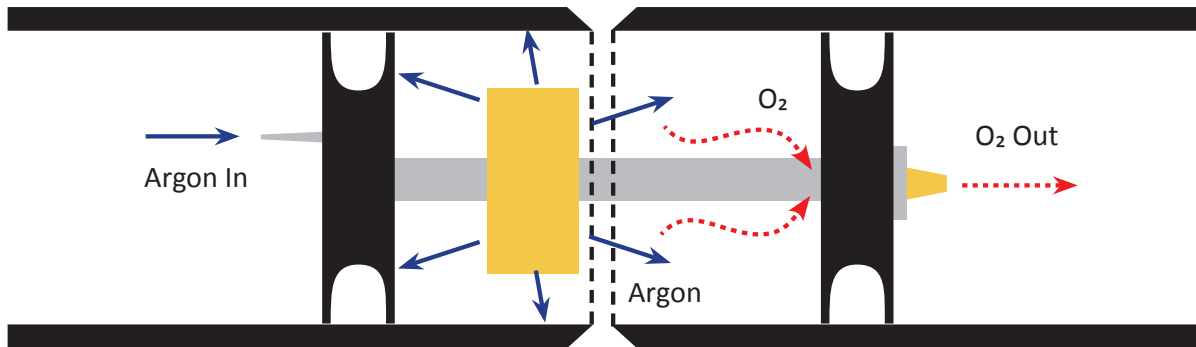
How it works

The gas inlet and outlet are provided with twin sealing discs separated by a flexible, rigid or a spring-type tube. The design also guarantees that at least one disc will always remain tight to the pipe wall creating a 100% seal. The discs are UV and temperature-resistant up to 330°C for up to one hour. The gas is diffused into the chamber via the built in sintered diffuser and exits through the exhaust holes in the secondary twin disc unit.

This process of gas diffusion provides an even flow of gas and prevents any gas turbulence behind the weld, thereby minimising the risk of oxygen in the welding chamber while, at the same time, achieving an extremely short purge time. These extremely short purge times result in valuable cost savings in gas and time.

Besides the very short purging time, the Silicon Seal System also offers the possibility to cover various nominal pipe diameters by one pair of baffles enabling highly economic use of the device.

The double seal system can be purchased individually or in kit form for a range of pipe diameters.



Sizing and Specification

PART NO.	DESCRIPTION	PIPE I/D RANGE (MM)	HOSE LENGTH (MM)
DS16-19	Flex	16 - 19mm	100mm
DS19-24	Flex	19 - 24mm	100mm
DS24-29	Flex	24 - 29mm	100mm
DS29-34	Flex	29 - 34mm	100mm
DS34-38	Flex	34 - 38mm	100mm
DS38-43	Flexible and Rigid	38 - 43mm	120/60mm
DS43-48	Flexible and Rigid	43 - 48mm	120/60mm
DS47-53	Flexible and Rigid	47 - 53mm	120/60mm
DS52-58	Flexible and Rigid	52 - 58mm	120/60mm
DS64-72	Flexible and Rigid	64 - 72mm	120/60mm
DS78-86	Flexible and Rigid	78 - 86mm	120/60mm
DS90-101	Flexible and Rigid	90 - 101mm	150/100mm
DS100-112	Flexible and Rigid	100 - 112mm	150/100mm
DS120-130	Flexible and Rigid	120 - 130mm	150/100mm
DS124-138	Flexible and Rigid	124 - 138mm	150/100mm
DS144-155	Flexible and Rigid	144 - 155mm	150/100mm
DS150-165	Flexible and Rigid	150 - 165mm	150/100mm
DS197-206	Flexible and Rigid	197 - 206mm	150/100mm
DS209-220	Flexible and Rigid	209 - 220mm	150/100mm
DS246-257	Flexible and Rigid	246 - 257mm	150/100mm
DS260-280	Flexible and Rigid	260 - 280mm	150/100mm
DS290-320	Flexible and Rigid	290 - 320mm	150/100mm
DSK16-165	Complete Kit	16 - 165mm	120/60 150/100mm
DSK16-220	Complete Kit	16 - 220mm	120/60 150/100mm
DSK16-320	Complete Kit	16 - 320mm	120/60 150/100mm



FLANGE DOUBLE SEAL SYSTEMS

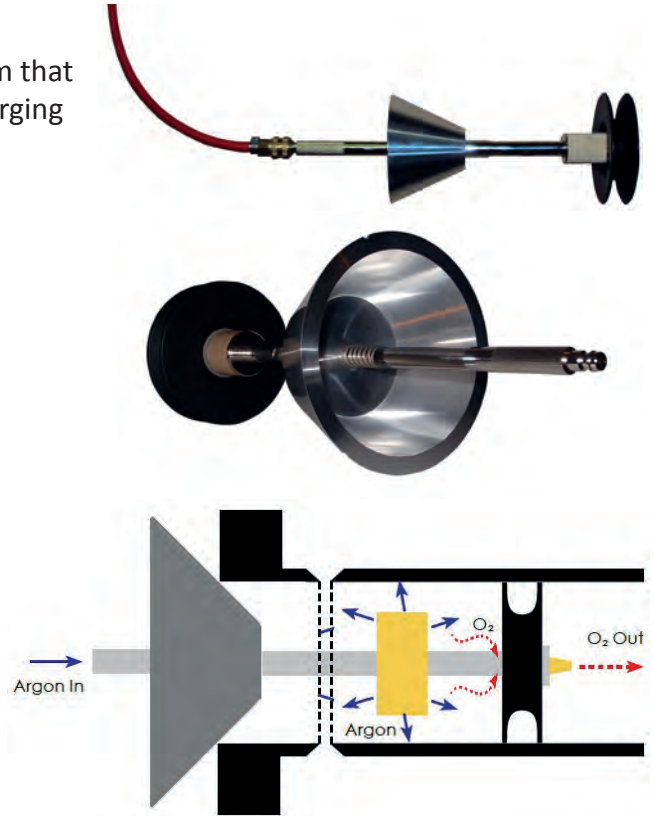
The perfect solution for purging pipe to flange

Purge pipes fast with minimal gas usage

TAG also manufactures The Silicone Double Seal purging system that has been designed to further reduce both inert gas use and purging time. These systems, use silicon discs to form an air tight seal, reducing purge times, and gas usage for maximum efficiency.

Features and Advantages

- Typical purge times of less than 2 minutes (e.g. an 8" Pipe will purge to below 0.01% Oxygen in less than 2 minutes)
- High quality silicon sealing disks that prevent them tilting or falling over inside the pipe
- Guaranteed gas tight seal
- UV and temperature resistant up to 330°C continuously or 450°C for short periods
- Suitable for purging pipes to flanges



Sizing and Specification

PART NO.	DESCRIPTION	PIPE I/D RANGE (MM)	HOSE LENGTH (MM)
FDS16-19	Flex	16 - 19mm	100mm
FDS19-24	Flex	19 - 24mm	100mm
FDS24-29	Flex	24 - 29mm	100mm
FDS29-34	Flex	29 - 34mm	100mm
FDS34-38	Flex	34 - 38mm	100mm
FDS38-43	Flexible and Rigid	38 - 43mm	120/60mm
FDS43-48	Flexible and Rigid	43 - 48mm	120/60mm
FDS47-53	Flexible and Rigid	47 - 53mm	120/60mm
FDS52-58	Flexible and Rigid	52 - 58mm	120/60mm
FDS64-72	Flexible and Rigid	64 - 72mm	120/60mm
FDS78-86	Flexible and Rigid	78 - 86mm	120/60mm
FDS90-101	Flexible and Rigid	90 - 101mm	150/100mm
FDS100-112	Flexible and Rigid	100 - 112mm	150/100mm
FDS120-130	Flexible and Rigid	120 - 130mm	150/100mm
FDS124-138	Flexible and Rigid	124 - 138mm	150/100mm
FDS144-155	Flexible and Rigid	144 - 155mm	150/100mm
FDS150-165	Flexible and Rigid	150 - 165mm	150/100mm
FDS197-206	Flexible and Rigid	197 - 206mm	150/100mm
FDS209-220	Flexible and Rigid	209 - 220mm	150/100mm
FDS246-257	Flexible and Rigid	246 - 257mm	150/100mm
FDS260-280	Flexible and Rigid	260 - 280mm	150/100mm
FDS290-320	Flexible and Rigid	290 - 320mm	150/100mm
FDSK16-165	Complete Kit	16 - 165mm	120/60 150/100mm
FDSK16-220	Complete Kit	16 - 220mm	120/60 150/100mm
FDSK16-320	Complete Kit	16 - 320mm	120/60 150/100mm



Large diameter silicon seal purging systems

The Gas Cylinder system has been designed to further reduce gas usage on larger diameter pipes by localising the purge area to the weld root.

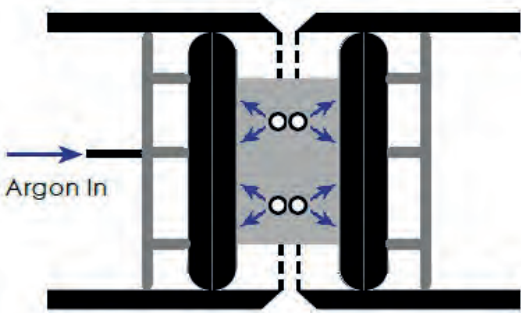
The Gas Cylinders are available for pipes from 200 to 705mm diameter. These tools use two heat-resistant sealing lips to form the seal capable of coping with 300°C for up to one hour. Due to their design, these cylinders have extremely short purge times of 1½ - 2½ minutes for all dimensions.

The Gas cylinders are designed with pull-through balls to enable the unit to be easily retrieved out of a straight section of pipe, or a pipe with a series of bends or elbows.

The purge area is isolated, so there is no need to purge the entire length of pipe to be welded, thereby minimizing gas usage.

Features and Advantages

- Minimal gas usage, the purge area is localised to the weld root
- Typical purge times of 1½ to 2½ mins
- Strong and robust
- Lightweight aluminium construction



Sizing and Specification

PART NO.	RANGE (MM)
PC-1	350 - 380mm i/d
PC-2	400 - 430mm i/d
PC-3	440 - 470mm i/d
PC-4	490 - 520mm i/d
PC-5	590 - 620mm i/d
PC-6	645 - 670mm i/d
PC-7	690 - 720mm i/d
PC-8	730 - 750mm i/d
PC-9	780 - 800mm i/d
PC-10	830 - 850mm i/d

* Larger sizes and specials available on request





HANDY PURGE 100 SELF CALIBRATING WELD PURGE MONITOR

Measures oxygen levels down to 0.01% (100ppm)



The entry level, welders' toolbox monitor

Inert gas welding requires the exclusion of oxygen from the weld zone during the welding process. Prior to the welding process, the residual oxygen concentration must be reduced to a required minimum. The Handy Purge is specifically designed to indicate oxygen concentration up to 0.01% and to exactly measure oxygen concentration up to 0.1%. Within this range, it is absolutely safe to weld and produce an oxygen-free weld seam (exceptions include special metals such as titanium, zirconium, etc.).

The Handy Purge can be used both for continuous monitoring during the welding process and for taking samples. Routine inspections for quality control are extremely simplified using this device.

The analyser works with all purge systems and argon welding systems. It is small, easy to handle and has a rugged enclosure.



Replacement sensors and spares available from stock



Features and Advantages

- Self calibrating
- Minimum waiting time. The device tells you exactly when the residual oxygen concentration of a purge gas is low enough to start welding. You need no longer rely on rough estimations. This saves both time and gas
- Reduced purge gas consumption. Exact monitoring of the residual oxygen avoids unnecessary purge gas consumption and allows you to produce oxygen-free weld seams
- Top-quality weld seams
- Top quality is guaranteed, as too early welding and hence porous, coloured or even charred weld seams can be avoided
- Duplex / Stainless steel. The Handy Purge Weld Purge Monitor can be used for all stainless steel, duplex and certain titanium welding applications
- Eliminates guess work



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How it works

The TAG Handy Purge™ Weld Purge Monitor comes complete and ready to use straight out of the box. It is the most economical user friendly monitor in the market accurately measuring the Oxygen levels in the purged weld areas, to let the welder know when is the correct time to start welding. This reduces waiting time and gas consumption and ensures perfect oxide free welds.

For continuous monitoring during the welding process connect one end of the rubber hose to the sensor adapter and leave the other end outside the purging area to let the residual oxygen flow away from the welding area.

For taking samples connect the stainless steel probe to the sensor adapter. The probe then measures the residual oxygen concentration in the purging/welding area. Also connect the vacuum hand pump to the sensor adapter and squeeze it a couple of times to let a sample of the gas flow to the sensor.

The device's LCD is 13 mm high, which is big enough to identify the displayed values easily also from a distance of a few meters. As soon as the residual oxygen concentration is down to the required minimum, you may start with the welding process.



TECHNICAL SPECIFICATIONS

Part No.	HP100SC
Measuring range	0.01 % - 20.9 % Oxygen (O2) (100 ppm - 209000 ppm)
Accuracy	at 20% \pm 0.2% at 2% \pm 0.02%
Dimensions	155 x 81 x 38mm
Power source	Battery Type PP3 9V
Display	LCD (Liquid Crystal Display)
Weight	210 g
DIMENSIONS AND WEIGHT FOR SHIPMENT	
Dimensions	310 x 260 x 80mm
Weight	870g

The kit consists of:

- Handy Purge Weld Purge Monitor
- 1m hose with flow adapter
- Stainless steel probe
- Vacuum hand pump
- Plastic Carry Case
- Instructions
- Calibration Certificate



HANDY PURGE PRO 5 WELD PURGE MONITOR

*The most accurate hand-held digital oxygen monitor.
Measures oxygen levels down to 0.0005% (5ppm)*

For applications where minimal oxidation is critical

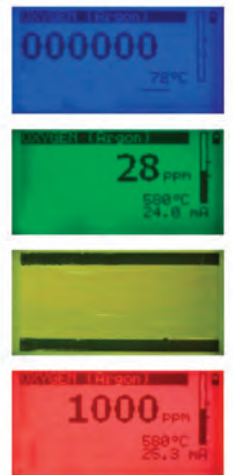
The Handy Purge Pro 5 is the ultimate hand-held Oxygen monitor, measuring the level of oxygen in the designated atmosphere down to 5ppm (parts per million)!!! The new Handy Purge Pro 5 Weld Purge Monitor is essential for reading oxygen levels for titanium welding.

The interface option enables the Handy Purge Pro 5 to be connected (via a cable or Bluetooth dongle) to a PC & printer to record the readings. A rechargeable battery pack and multi range power plug are standard features of the Handy Purge Pro 5, and its light weight and ergonomic shape make it the ideal portable instrument for all orbital welding applications.

The unit incorporates an internal pump and is designed for measuring rest oxygen in inert gases such as argon. This unit can be used up to 4 hours before recharging is necessary.

Key Features

- Measures oxygen levels down to 5ppm (parts per million)
- Rechargeable batteries, standby life approx. 4hrs
- Temperature regulated zirconium cell (maintenance free)
- Graphic display screen changes colour relative to process and function
- Built-in recognition for 110V - 240V power sources
- Portable for remote and difficult access sites using rechargeable batteries (supplied)
- Integrated programmable sound function
- Multi language: English, French, German
- Low permeability measuring hose for accurate measurements
- Data logging of up to 250 entries - Connects via RS 232 interface or Bluetooth



Colour changing display for quick reference to monitor status

TECHNICAL DATA	
Part No.	HPP5
Measuring Range	5 - 999ppm
Dimensions	290 mm x 130 mm x 60 mm (L x W x H)
Weight	0.8kg
Supply Voltage	7 VDC, 2850 mAh rechargeable batteries



Supplied in a durable carry case



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PRO PURGE 1 WELD PURGE MONITOR

Measures oxygen levels down to 0.00005% (0.5ppm)

The top of the range portable, digital oxygen monitor

- Accuracy to 0.5 ppm
- Temperature regulated maintenance free zirconium cell
- Graphic display (blue & white)
- Built-in recognition for 110v - 240v power sources
- Internal battery power for up to 90min
- Integrated programmable sound function
- Date and time function for data logging
- Easy to use software
- Low permeability measure hose (FPM) for accurate measurements
- Connects via RS 232 interface, Bluetooth, CAN-Bus, AUX (AMI)
- Can be calibrated to ambient oxygen
- Software updateable
- Multi language: English, French, German, Dutch, Czech, Danish
- Data logging up to 250 entries internally or externally on a PC



The Pro Purge 1 Weld Purge Monitor is the ideal tool for many welding applications where critical weld standards are required.

Used for Production of Semi-conductors, Nuclear, Aerospace, Pharmaceutical, Energy, Dairy, Brewery and Food processing where strict welding guide lines to eliminate weld-quality issues associated with atmosphere contaminated welds are required.

The Pro Purge 1 Weld Purge Monitor enables Welders and Welding Engineers on site or in the workshop to precisely monitor rest oxygen levels to the point where precision welding can take place, resulting in “perfect conditions” for consistent high-quality repeatable welds.

The Pro Purge 1 Weld Purge Monitor contains a stabilised zirconium oxide cell with a regulated heater to maintain a cell temperature of 750°C which enables it to accurately measure levels from 206400 ppm down to as low as 0.5 ppm.

The zirconium oxide ceramic sensor in the Pro Purge 1 provides very accurate readings, with a deviation of less than 5% in the 1 to 10 ppm range. This means that its resolution is ½ a part per million (0.5ppm).

The Pro Purge 1 Weld Purge Monitor can be unplugged for up to one hour, before the internal battery must be recharged. Making it ideal for testing weld joints in the shop, or in the field.



Connected via a Bluetooth Dongle with a range of up to 100m to a mobile phone.

Via the phone all relevant data including rest oxygen level, sensor temperature will be displayed. Using simple commands the PRO PURGE 1 can be operated remotely



Connecting a printer via the RS232 interface. Capable of readout documentation (per second) that can be logged via a printer

TECHNICAL DATA	
Part No	PP1
Measuring Range	0.5 - 206,400ppm
Dimensions	220 x 165 x 85cm
Weight	3.3kg
Supply Voltage	110V/240V





TRAILING SHIELDS

Supplimentary gas shielding for exotic & reactive metals

Aluminium Trailing Shields

Trailing Shields enable the welder to weld faster, saving time and money allows the production of bright shiny welds. Suitable for welding all types of exotic materials including titanium, nickel and cobalt alloys, stainless and duplex steels and other reactive metals.

Trailing Shields reduce gas consumption due to the gas being isolated to the weld area only and save wasted time, effort and expense by avoiding rejected welds due to oxidation.

Flat models for sheet or plate work are available as well as profiled models for the welding of both internal and external pipes, vessels and tanks. The gas is diffused via a perforated plate.

PART NO.	DESCRIPTION
ATS1	Trailing Shield 1"
ATS1.5	Trailing Shield 1¼" — 1½"
ATS2	Trailing Shield 2"
ATS3	Trailing Shield 3"
ATS4	Trailing Shield 4"
ATS6	Trailing Shield 6"
ATS8	Trailing Shield 8"
ATS10	Trailing Shield 10"
ATS14	Trailing Shield 12—14"
ATS16	Trailing Shield 16"
ATS18	Trailing Shield 18"
ATS22	Trailing Shield 20"—22"
ATS28	Trailing Shield 24"—28"
ATSS	Trailing Shield Straight



Stainless Steel Trailing Shields

These shields are made from Stainless Steel and utilise a stainless steel sinter-metal gas diffuser. The advantage of the Stainless Steel Shields is they can be used for more than one pipe size, making them more versatile than other simpler systems available.

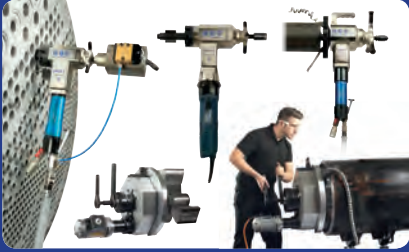
PART NO.	DESCRIPTION
SSTS3/8	Trailing Shield 3/8"
SSTS0.5	Trailing Shield ½"
SSTS0.75	Trailing Shield ¾"
SSTS1	Trailing Shield 1"
SSTS1.5	Trailing Shield 1¼" — 1½"
SSTS2	Trailing Shield 2"
SSTS3	Trailing Shield 2½" — 3"
SSTS4	Trailing Shield 3½" — 4"
SSTS8	Trailing Shield 5" — 8"
SSTS16	Trailing Shield 8" — 16"
SSTS	Trailing Shield Straight
SSTSI	Trailing Shield 90° Internal
SSTSO	Trailing Shield 90° Outside





PIPE EQUIPMENT SPECIALISTS LTD PRODUCTS INCLUDE:

PIPE BEVELLING MACHINES



PIPE CUTTING MACHINES



PIPE ALIGNMENT CLAMPS



PIPE STANDS AND ROLLERS



PIPE PURGING EQUIPMENT



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Asia

Middle East

India

Africa

South America

Australia



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