



**WELDLOGIC**  
Automated Welding Systems

# BLACK DIAMOND™

The Ultimate Workshop Utility Welding Chamber



A welding chamber which offers engineers the tools for quality, productivity and performance at an affordable cost.

Features,

- ✓ Large work space with stainless steel work surface.
- ✓ Large transfer load-lock with automatic timed gas purge.
- ✓ Oxygen meter display in parts per million for assured gas quality welding.

**A "MUST HAVE" WELDING CHAMBER FOR QUALITY WORKING.**

# Key Features of the BLACK DIAMOND welding chamber.

- Ready to operate workstation, just fit your weld system and hook up to gas and power.
- Attainable gas purity below 5ppm oxygen for bright nickel weld finish.
- Fully automatic load-lock gas management control system.
- Install on bench top for standing or low seated operation.

## Technical Data Bulletin

### Description

The BLACK DIAMOND™ welding chamber provides a system design that is a cost-effective solution to TIG welding materials reactive to atmospheric contamination. High end materials that require a controlled and verified welding environment for minimal defect and tarnished work pieces.

Designed with functionality to give welders the tools they need to achieve proficiency through control.

### General Data

#### Weld Chamber

A bench top mounted workstation with two 6" x 8" oval polypropylene glove ports mounted below a polycarbonate window 10mm thick. Weld Chamber manufactured in virtually indestructible textured copolymer fully welded and leak tested. Welding Chamber fitted with stainless steel floor plate over box length 950mm and depth 550 within a height of 650mm. Weld Chamber rear panel removable for occasional cleaning or installing large welding aids. Weld cable connectors ready for hook up to torch, ground and power source, includes gas feedthrough fitting for torch shield gas. Additional auxiliary valve and gas feedthrough for backing gas on complex weld structures.

## Load-lock

Load-lock constructed in same virtually indestructible textured copolymer fully welded and leak tested. Inner and outer doors in same material reinforced for ensuring effective sealing with captive 'O' ring seal. Door operation open/close using lever latch clamping. Rectangular design provides a 380mm length load-lock with 280mm depth and 280mm height for easy transfer of most large weld pieces. Stainless steel floor plate supplied for ease of weld piece transfers.

Push button initiates a gas purge to remove air and replace with Argon gas for transfer of weld pieces into the weld chamber without degrading the main chamber Argon gas purity. Set time and gas flow ensures quality controlled transfer with minimum gas usage, and audible sounder announces completion of the gas purge process.

## Lighting

The **BLACK DIAMOND™** glove box workstation is equipped with a twin fluorescent light, externally top mounted over a polycarbonate window to provide over 700 lux of lighting within the glove box at the working plane.

## Glove Box Purge

The **BLACK DIAMOND™** weld chamber is supplied with a gas flow regulating valve and flow gauge to adjust amount of Argon passing through. This regulation allows for the chamber to be set at a flow rate to reduce and hold the oxygen levels to below 5 parts per million.

Argon gas consumption varies according to use but averages below 10 litres per minute during operation and 1 to 2 litres per minute on standby.

Initial gas purge of the weld chamber from air down to weld quality is less than 60 minutes at less than 50 litres per minute gas flow.

## Gauntlets

Neoprene rubber, ambidextrous, hand size 9, medium weight (0.4-0.6mm)

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# UK Mainland Delivery and Export

## Domestic Delivery

Domestic deliveries normally carried out by our own transport to customer stores for off-loading by forklift. Delivery by arrangement only.

## Shipping Details

Export crate dimensions for the **BLACK DIAMOND™** weld chamber 160 cm long x 80 cm deep x 110 cm high, inclusive of pallet base. Shipping weight 125 kg. Shipping by arrangement only.

## Contact Details

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