





CLEAN STUTE ULTRASONIC CLEANING & PASSIVATION





William Hughes Group

The cleanest clean there's ever been

ULTRASONIC CLEANING, PASSIVATION AND PACKAGING

William Hughes has been a provider of sub contract specialised cleaning, finishing and passivation services for a number of years, catering for the aerospace, defence, nuclear, oil and gas, medical and electronics industries where precision cleaning for parts and assemblies is an essential part of the production process.

In 2015, the company considerably expanded its cleaning capability with the take-over of Yeovil-based AC Services (South West) Ltd, a company with over 30 years' experience in ultrasonic cleaning.



OUR SERVICES

We offer a range of specialist services including ultrasonic cleaning of critical components to the highest international and governmental approval standards. We use ultrasonic and also non-ultrasonic cleaning techniques for applications including LOX, Oxygen critical parts and hydraulic hoses. We can also work to custom procedures for customers with special requirements and offer bespoke packing such as hermetically sealed bags that will maintain the product until point of use.

Solvent cleaning is used predominantly for metallics and we can cater for most of the solvents on the market. We can vapour clean and ultrasonic clean in the solvent or a combination of both.

Aqueous cleaning is used predominantly for non-metallics such as rubbers or plastics or a combination of these with metal eg a hose.

Oxygen, LOX, Hydraulic and other critical components can be cleaned to the most demanding quality standards, approvals and specifications.

Degreasing of parts and components can be undertaken using a variety of ultrasonic and non-ultrasonic methods.

Kitting & Packaging including kits of parts in a build sequence to assist build efficiency, the design and manufacture of specialised packaging and special packaging for commercial or industrial manufactured products.

Inspection techniques include visual, ultraviolet, microscope, endoscope and probe light so customers can rest assured that their components will always meet the specified particulate count.















NEW ISO CLASS 7 CLEANROOM

In 2015, William Hughes upgraded its facilities with the building of a new 80m² Class 7 clean room constructed in accordance with ISO 14644-1, the equivalent of a Class 10,000 clean room using the Fed Stan 209E. Our Class 7 clean room ensures that hydraulic, LOX (liquid oxygen), oxygen and other critical components can be cleaned to the most demanding quality standards, approvals and specifications.

Typically this plant is used for high precision machined components, springs and other parts that go into oxygen equipment such as breathing apparatus, face masks and ducting for such customers as the aerospace giant Honeywell.

QUALITY

Specifications include:

MTS PRO 597 ARP 1176 **WHPS 196**

R10-6065 NGPS256

BS F69

Def Stan 02-341 (NES 341) Def Stan 02-372 Part 2

BSP-O-100 Rev (T)

Approvals include:

Honeywell Aerospace, Meggitt Aerospace, Eaton Aerospace, Augusta Westland, GE

PS 1004

ASTM G93

NGPS 151

MATERIALS

The following are just some of the materials we are able to process:

- Inconel
- **Stainless Steels**
- **Carbon Steels**
- Copper and Copper Alloys
- Aluminium & Aluminium Alloys
- Nickel and Nickel Alloys
- **Titanium and Titanium Alloys**
- Plated or Anodised
- Ceramics
- Plastics e.g. PEEK, PTFE, ABS
- Rubbers e.g. Polysulfide, EPDM

or in any combination.

PASSIVATION

Our facility at Stalbridge incorporates a state-of-the-art automated passivation plant offering novel functionality in that there is no manual 'dunking' of component baskets from station-to-station, as with traditional systems. Instead, the plant performs 'fluid transfer', moving chemical solutions from holding tanks into the main processing unit as required, thus helping to prevent damage as parts do not move. The entire process is automatic and PLC controlled. Typical treatments are nitric acid/sodium dichromate, and rinse cycles. These are followed by a final rinse in deionised water before a drying cycle all covered under our NADCAP accreditation.

The working envelope size available is $520 \times 300 \times 200$ mm.





LEAD TIMES

Our lead times are guaranteed 5 working days from receipt of parts although we do offer an express three-day premium and super express 24 hours [subject to any testing] service.

QUALITY ASSURANCE

Our aim at William Hughes is to meet and exceed the expectations of our customers in every way adhering to principles of continuous improvement and zero defect. Quality systems to ISO 9001:2000, ISO/TS 16949:2002, the latest automotive standard, and AS9100 for aerospace ensure consistency and accuracy of supply.







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