

Innovation Engineering Services (IES)

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In pharmaceutical, agrochemical and industrial chemical testing, specific systems are desirable in order to effectively handle all quantities of test articles in a complete range of physical states. Purpose-designed and built systems enable optimal control of test atmosphere generation, coupled with online chamber monitoring, ensure optimal data collection that is well above current guideline requirements.



Completed atomisers in stainless steel



Atomiser ends waiting to be assembled



Atomiser nozzles available in 7 sizes

Atomisers are designed and manufactured in-house. A complete range starting from as small as 0.1 mm with interchangeable nozzles allows complete control of test materials. Plastic injection moulded mouse tube.

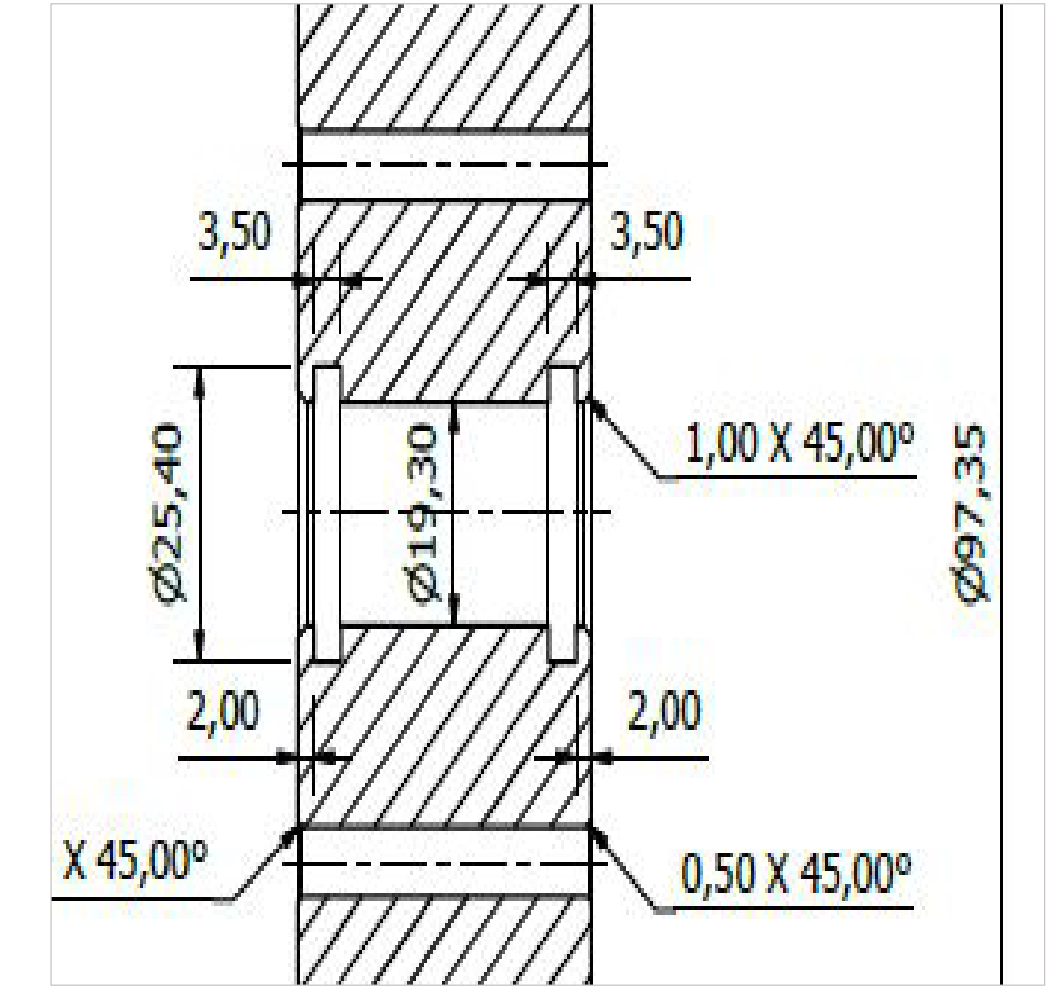


Inhalation mouse tubes

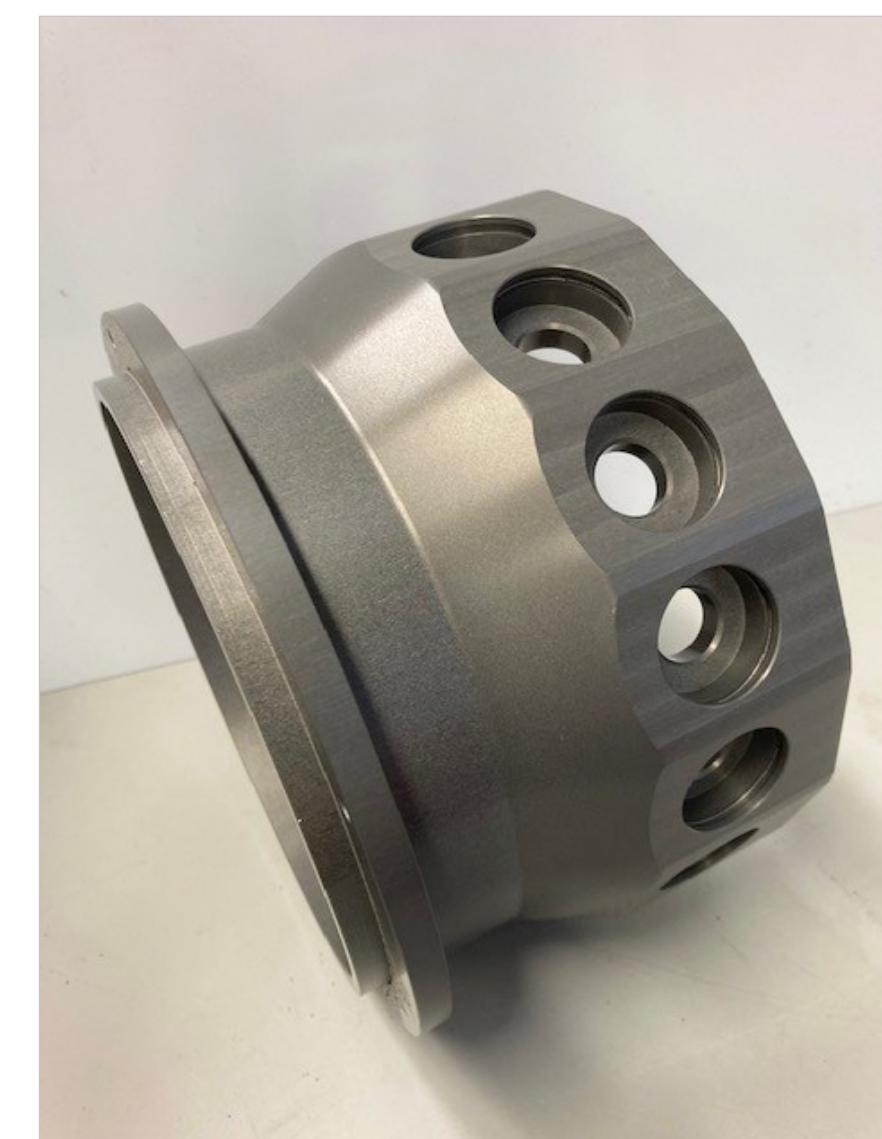
Offering the complete end-to-end solution from design to installation, IES have the unique ability to provide the expertise, extensive portfolio of equipment and advice to internal and external customers alike, both in the UK and working closely with our Somerset, NJ, site in the U.S.



Inhalation pre-chambers



Complete CAD package



All manufactured in-house – 16-port flow-past inhalation chambers, aluminium hard anodised



Plethysmography non-invasive lung pressure monitoring

We can scan and 3D-print any shape needed to assist in the manufacture of a wide range of plastics up to 30 cm³.

- EinScan© body scanner
- ProJet® MJP 2500 Plus 3D printer allows us to print in clear or coloured
- Example of a mask design printed in clear without the in-house manufactured seal and strap
- Ability to scan gives us a perfect fit



EinScan© 3D body scanner



ProJet® MJP 2500 Plus 3D printer



Printed mask for inhalation



3 axis CNC machine



4 axis CNC machine



3 m NC controlled guillotine

Shown are examples of the up-to-date, computer-controlled machinery at our disposal. Recent and continued investment in the latest technology allows us to manufacture a complete range of products in-house.

- 3 and 4 axis CNC milling
- CNC turning
- Manual mill
- Manual turning
- 3 m cutting and bending of sheet materials up to 6 mm thick
- MIG and TIG welding
- Complete electrical and mechanical installation



135-ton CNC press brake, allows the ability to bend all materials up to 3-m long and 12-mm thick