



Cokebusters

**Leading innovation
for cleaner energy**

www.cokebusters.com

Our Ethos

Innovate

Cokebusters designs and builds its own specialist equipment. We continuously innovate and improve the tools we use to service our clients' needs.

By internalising the manufacturing of our equipment we reduce supply chain dependency, affording more flexibility and agency over our production process.



Design, build & test

- Double pumping unit
- Water filtration unit
- Mechanical pigs
- Intelligent pigs
- Test loop



Deploy

In order to respond promptly to our clients' needs we have positioned our pumping units at key strategic locations, including Europe, Middle East, North & South America.

Being directly involved in the build process, our skilled operators are also experts in maintaining and troubleshooting the equipment on site, thus minimising downtime.



Develop

Client and site feedback informs future design for our equipment. This also challenges us to solve new problems, innovating further to produce the technology needed to deliver our world class service.



Founded in the field of mechanical cleaning and piping inspection...

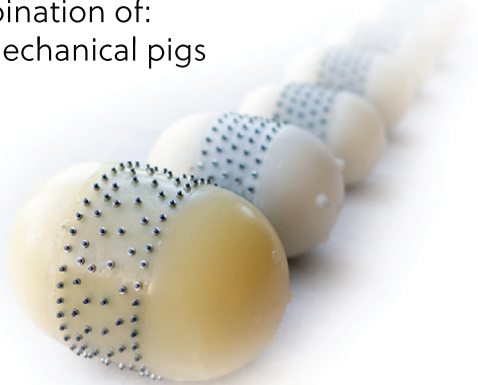


Mechanical Cleaning

Fouling within piping systems compromises flow assurance and can lead to accelerated corrosion. Within heat exchanger systems this can also cause overheating and ultimately rupture.

Cokebusters has developed an integrated solution to comprehensively clean such systems, using a combination of:

- patented mechanical pigs



- purpose built double pumping unit
- competent and experienced operators

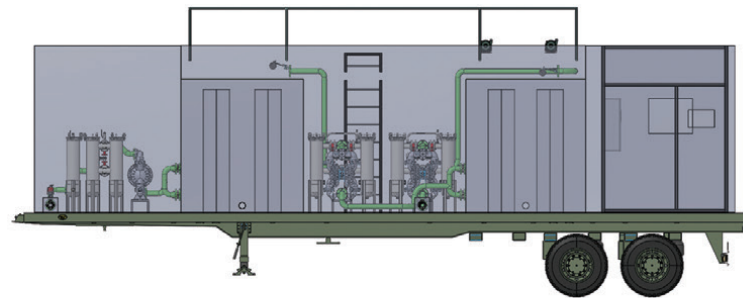
Benefits to our approach:

- least likely to create tube wall damage
- 2 stage filtration, minimising atmospheric loss
- bespoke mechanical pig designs available
- test loops enable operators to be process trained and new technologies to be evaluated



Water Filtration

Mechanical cleaning generates significant quantities of contaminated water.



Cokebusters has designed, built and successfully patented a water filtration machine for use in mechanical cleaning operations.

Our system is based on a 4 stage process capable of progressive filtration down to 1µm. At this level the water is considered suitably clean for re-use or improved environmental disposal.



Why water filtration matters:

- reduces the amount of contaminated waste water targeted for disposal
- through recycling, reduces the demand for continuous water supply
- can be utilised for other water filtration projects

...Cokebusters offers practical solutions and expert consultancy...



Cleanliness Verification

Many of the current methods used are qualitative, subject to human error and exaggerated claims.

By deploying the Cokebusters' intelligent pig it is now possible to 'see' inside the process tubing and verify cleaning effectiveness.

The data gathered can be used to locate and quantify residual areas of fouling. Equipped with this knowledge, the operators are then able to perform a safer and more efficient service.



Piping Inspection

The Cokebusters' intelligent pig is unique; a single bodied, untethered, bi-direction inspection tool.

The intelligent pig is suited not only to the complex serpentine coil networks found within heaters and steam generators, but also to other process piping systems and pipelines.

Ultrasonic in nature, the intelligent pig is propelled by liquid flow.

Data is post processed to create informed reporting and the generation of navigable 3D image files.



Why our clients opt for cleanliness verification:

- eliminates the judgement based approach
- scientifically informs the end user
- provides for precise location of fouling
- enables quantification of fouling thickness
- maximises cleaning efficiency and speed

- operates range 1.5" to 12" internal diameter
- running speed up to 2km/hr
- detects through thickness corrosion as well as diametric anomalies
- resolves through coatings and insulation
- data export for integrity analytics

...in one internationally renowned combined service.



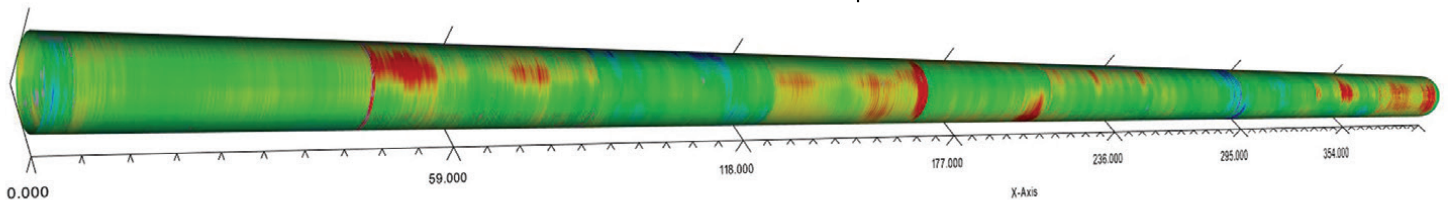
Containment Integrity



Asset Assurance

Ensuring integrity of the operating envelope is a fundamental requirement for the avoidance of a process safety event and environmental releases.

Operators, shareholders, insurers and regulators are seeking a greater degree of confidence that the portfolio is competent, compliant and sustainable.



Integrity threats arise from corrosion, erosion, mechanical damage and operational excursions.

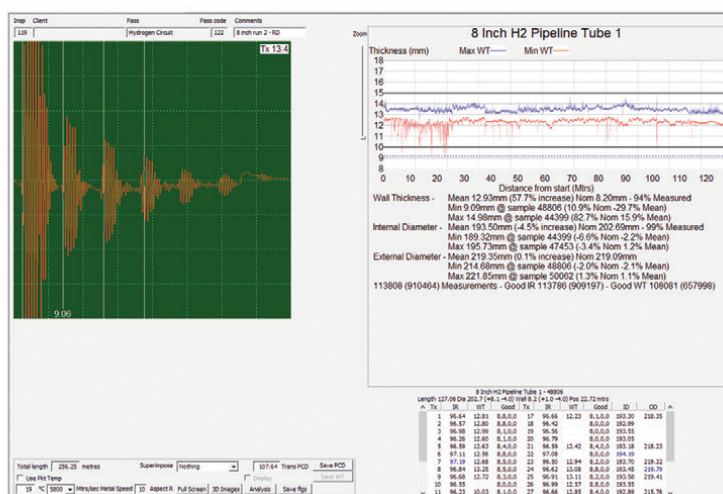
Cokebusters is uniquely placed to collect and analyse inspection data, providing a route to independent integrity assurance.

To gain greater insight into the status of operational integrity, the opportunity for informed calculative assessment is available eg. Level 1 and 2 fitness for service and remaining life assessments, carried out in accordance with API 579 / ASME FFS-1 standards.



Cokebusters also provides a competence for Level 3 analysis, corrosion risk and management, as well as the opportunity for risk based decision making.

A change of asset ownership creates an opportunity to independently assess the competence of equipment.



Many businesses have also identified 'unpiggable' stock:

- outside inspectable diameter range
- accessibility challenges
- complex geometries
- in-line diametric changes
- economics of short length inspection

The Cokebusters' single bodied design facilitates an opportunity to bring such inventory into the realms of inspectability. As such the opportunity to ensure and assure such portfolio can be exploited.



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Cokebusters also has several international affiliates, a full list of which can be found on our website.

If you'd like to learn more about Cokebusters
or have any questions about the services we provide please get in touch...

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