

Manufacturing Capabilities



We work in partnership with our clients to deliver high quality, innovative solutions to meet your business requirements.

TSP Engineering is a multidisciplinary solutions business that provides a full range of services from consultancy, design and engineering through to manufacture, refurbishment and project management.

Our Workington site, located on Britain's Energy Coast, is one of the largest engineering facilities in the UK. Comprising 19,200 square metres of workshop capacity, 2 x 5 metre deep manufacturing pits and a maximum lifting capability of 130 tonnes.

The many years experience of engineering, manufacturing and fabrication guarantee we will deliver exacting standards of quality and excellent levels of service.

TSP Engineering operates within the following market sectors:

- Nuclear
- Defence
- Oil and Gas
- Steelmaking
- Construction
- Industrial

TSP Engineering drives continuous improvement and is involved in the Civil Nuclear Sharing in Growth (CNSIG) and Fit 4 Nuclear programmes to streamline procedures and ensure best practices.

TSP Engineering operate to exacting standards of quality and excellent levels of service.

- BS EN ISO 9001 : 2008
- BS EN ISO 3834 Part 2
- BS EN ISO 1090 at execution level 4
- ISO 14001 : 2004
- SABRe Edition 2
- GS3001 v.23
- CQR (SLM 4.06.02 Issue 3)

We are valued members of:

- The National Skills Academy for Nuclear Manufacturing
- Nuclear Institute
- NIA
- Nuclear AMRC
- BECBC
- Supply Chain Charter for Nuclear Decommissioning Sites Signatory

Fabrication

Plating Envelope 5,500 m²
Level Floor Plate Envelope 900 m²
2 x 10 tonne manipulators
Assorted rotors from 10 to 25 tonne capacity

Welding and associated plant

- 2 submerged arc welding sets to 1400 amp
- 14 semi- automatic MIG welding sets complete with VR 123-1 wire feet units
- 4 manual TIG sets, to 500 amp
- 2 x 1000 amp gouging transformers suitable for arc air

Plate rolling

- 3m wide x up to 60mm thick cold rolling
- 3m wide x up to 150mm thick hot rolling

Heat Treatment

1 Furnace, maximum envelope: 10m x 4.3 x 4.3

Machining

8 large CNC Horizontal Boring/Milling machines
Maximum machine envelope: 6.0m x 3.0 x 1.6m
Maximum table capacity: 130 tonnes

2 small CNC Milling machines
Maximum machine envelope: 2.5m x 1.1m x 0.9m

1 large CNC Vertical Turning Machine
Maximum machine envelope: 5.170m swing x 2.8m height

2 CNC Lathes
Maximum machine envelope: 3.0m x 0.475m

All above fully CNC controlled, DNC linked, with a range of accessories.

8 Conventional Horizontal Boring/Milling/Turning machines
Maximum machine envelope: 7.8m x 5m x 3m

2 Deep Hole Drilling machines
Maximum machine envelope: 4m long x 16mm (min) to 125mm (max) dia.

Shot Blasting and Painting

Cabinet envelope: 4.6m x 4.6m x 9.1m

Assembly

Pipework systems: Lubrication, Hydraulics, water cooling

Pit facilities:
Heavy engineering assembly pit: 12m x 8m x 5.5m deep,
serviced by 2 x 75 tonne cranes

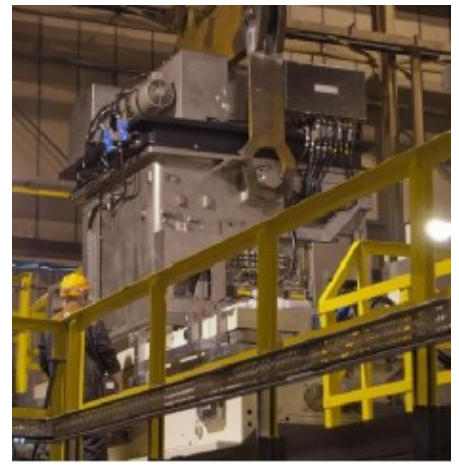
Bay 5 assembly pit: 16m x 14m x 5m deep,
serviced by 65 tonne crane

Control Panels

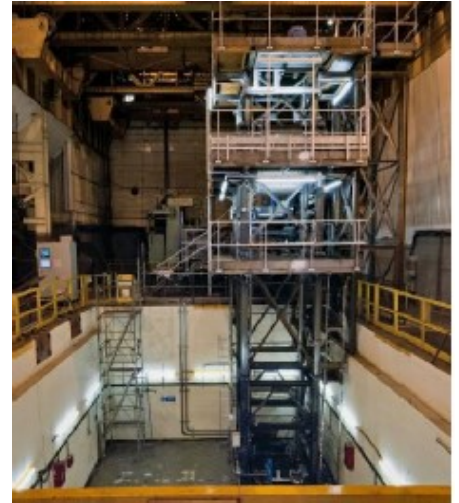
Motor control centres, programmable logic controller and I/O control cabinets,
instrument panels and operator control stations

Testing Facilities

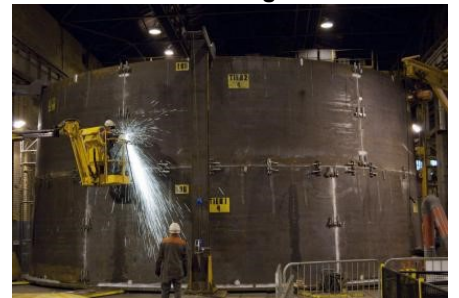
Pressure testing: up to 750 bar
Flow testing: up to 4500 L/min
Radiography: using X-Rat and Gamma Sources
Ultrasonic inspection
Magnetic and Dye Penetrant inspection



Nuclear Fuel Transport Flask



Test Rig



Large Vessel Shell



Large Cheek Plate being machined



Press Test Rig