# **Repair & Maintenance** Subsea & Surface Equipment





## **Repair & Maintenance Services**



## About Oil States Industries, Inc.

Marine Riser Slip Joint

Oil States Industries, Inc. operate in more than nine countries worldwide. For more than 70 years, the company has maintained a reputation as a key source of innovative products and services to the global oil and gas industry.

Oil States repair and manufacturing divisions are well known for creative solutions in refurbishing, repairing, maintaining and recertifying surface and subsea equipment.

## **Complete Support Services**

In conjunction with our repair facility, we provide a full range of spare parts tailor-made to your requirements. We also offer stocking services to reduce downtime and inventory costs.

All key services are provided in-house, including design, machining, welding, hardfacing, heat treatment, NDE inspection, QA/QC, shot blasting and painting to marine standards.

#### **Rental Equipment**

Oil States offer equipment on a rental basis during repair and to accommodate changes in wellhead connector requirements not

covered by the rig's own equipment list. Our rental solutions include most types of wellhead connector, diverter ball joints, annular BOPs and valves.

#### **OEM** spares

Oil States supplies replacement parts and seals for all leading wellhead and pressure control companies, including CX- and AX-style gaskets.

## **Offshore Support**

Oil States' personnel and equipment are available to travel offshore to carry out inspections, NDE, heat treatment, welding, on-site machining repairs and hydrostatic pressure testing of marine riser, BOPs and subsea equipment at customer request.

## Repair & Maintenance Services

- Marine drilling riser systems
- Diverter systems
- HP & LP wellhead housings
- Flex joints
- Ball joints
- Wellhead connectors
- Manual and hydraulic
  actuated valves
- High pressure clamps
- Spool pieces
- Actuators
- Chokes
- Telescopic joints
- Manifold systems
- Ram and annular BOPs
- SKAGIT Smatco offshore mooring and anchor handling equipment
- BOP mandrels
- Buoyancy systems



Surface BOP stack

de most types of wel

## **Workshop Facilities**





Horizontal machining centre



Situ machining

Fronious orbital automated welding system

## Three global divisions to meet your needs

## **Oil States Industries (UK) Ltd**

### Aberdeen

Aberdeen houses our sales and engineering office for worldwide support of products, services and spare parts for Oil States Industries (UK) Ltd, Oil States Industries, Inc. and Oil States Skagit Smatco. In-house engineering design, upgrade and modification support are all based at the Aberdeen facility.



Oil States Bathgate's eight-acre facility comprises:

- Inward goods and storage shop 2,500 ft<sup>2</sup>
- Inspection shop 2,500 ft<sup>2</sup>
- Dismantling and repair shop 16,000 ft<sup>2</sup>
- Test and assembly area complete with test pit 6,500 ft<sup>2</sup>
- Five segregated yard storage areas
- Shot blast area 3,000 ft<sup>2</sup>
- Paint shop 3,000 ft<sup>2</sup>
- Environmental interception tank

## Las Palmas

Oil States Las Palmas is located in Puerto de la Luz, Gran Canaria, Spain. This is a free-trade area in the docks, fully accessible by sea and located in one of the main commercial routes



Singapore workshop

in the North Atlantic. Extensive storage areas can accommodate large orders if required, and the local climate is well suited to long-term storage. Facilities comprise:

- 2 workshops totaling 17,711 ft<sup>2</sup>
- 29,000 ft<sup>2</sup> central inspection yard
- Lifting cranes
- Blasting cabin 623.77 ft<sup>2</sup>
- Painting cabin 623.77 ft<sup>2</sup>
- High pressure wash area 1921.90 ft<sup>2</sup>
- A storage area 215,000 ft<sup>2</sup>
- 30,000 PSI hydrostatic test bay



**Buoyancy system** 



Singapore facility waterfront



Blast bay



Finished riser stack



Paint shop

### Oil States Industries (Asia) Pte, Ltd

## Penjuru, Singapore

Oil States 156,000 ft<sup>2</sup> purpose-built facility incorporates an 80m wide waterfront, complete with jetty, allowing barge access, and high-capacity load bearing areas, specially designed for Subsea BOP stacking and testing. Overhead gantry cranes extend over the waterfront with capability of handling loads of 50 ton. 600 ton mobile cranes move equipment such as Risers & BOPS from barge to inspection/storage site. Paint & blast bays are suited to 90 ft long marine riser joints.

## Oil States Industries do Brasil Ltda

## Macaé, RJ Brazil

Oil States' repair and manufacturing based in Macaé specializes in the repair and maintenance of marine risers and oilfield equipment. Servicing drilling contractors since 2000, Oil States do Brasil provides complete support services including a full range of spare parts and stocking services as well as specialised welding services.

The current 215,000 ft<sup>2</sup> facility, located in the Novo Cavaleiros area, is in the process of expanding with two new facilities:

- Service Facility at Linha Azul, Macaé area with 860,000 ft<sup>2</sup>
- Manufacturing Facility in Santa Cruz, Rio de Janeiro with 1,350,000 ft<sup>2</sup>

## Machine Tools

- Horizontal bore mill
- Vertical boring machines
- Milling machines
- Centre & turning lathes
- Radial drills
- High pressure washing equipment
- Auto band saws

## **Welding Equipment**

- Sub arc machines
- Manual metal arc welding plant
- Hot wire TIG welding
- Custom built PTA hardfacing NC centre for riser pins
- Turntables
- Manipulators
- Conventional rotators
- Columns and booms
- Fabrication and boring
- Fronius orbital automated welding system c/w hot wire TIG
- Auto gas, plasma and bevel cutting
- Roller beds
- Electro slag welding (Singapore)
- Induction heating system (Singapore)
- Grinding
- Electric top hat furnace
- Capacity for electric & gas fired PWJT

## Handling Equipment

- 40 ton test and assembly overhead crane
- 20 ton workshop overhead
  crane
- 2 x 10 ton workshop overhead cranes
- 5 ton workshop overhead crane
- Fork lifts
- 25 ton side loader
- 15 ton side loader
- 15 ton front loader
- 2 x 3 ton front loaders

## **Welding Processes**

- GTAW/TIG
- SMAW/MMA
- FCAW
- GMAW/MIG
- SAW
- 100+ ASME qualified WPS



BOP welding

## **One Source... Diversified Solutions**

## **Quality Service**





Component identifiation marking



GTAW/TIG welding

PMI Positive Material Identification

## **Providing a quality service**

Oil States are commited to quality in all we do and to meeting the highest industry standards. All UK work is carried out to relevant offshore regulations and certified by Det Norske Veritas, Lloyds Register of Shipping, the American Bureau of Shipping or customer authority.

All welders are qualified to ASME IX for manual, submerged arc, MIG and TIG and Plasma Transferred Arc welding in high tensile low alloy, stainless steel and Inconel.

Both Oil States Industries UK Ltd and Oil States Las Palmas facilities operate an independent third party-certified Quality Management System in accordance with BS EN ISO 9001:2008, and Health & Safety Management system in accordance with OHSAS 18001, and Environment Management System in accordance with BS EN ISO 14001.

The scope of our certification includes the design, manufacture, inspection, repair and refurbishment of oilfield drilling equipment.

Oil States Industries (Asia) Pte Ltd are API Q1/API ISO/TS 29001 certified and operate an Occupational Health & Safety Management System in accordance with API OHSAS 18001 and Environmental Management System API ISO 14001 and in addition are licenced for API Monogram for:

- Spec 6A Tees and Crosses, Adapter & Spacer Spools, Flanged Connectors, Other End Connectors
- Spec 16A Manufacture of Drilling Spools, Adapters, Loose Connections, Clamps
- Spec 16C Manufacture of Rigid Choke & Kill Lines

Oil States Industries do Brasil Ltda is CRCC (Petrobras) registered and certified to API ISO 9001:2008 and is currently working towards API Q1 and API Monogram Specs 6A & 16A certification.



## **Specialised Welding**

Oil States offers a wide array of Full Scale Production Services, Specialty Welding and Engineering Services

- Worldwide welding and full scale production services:
- Welding of super duplex and high alloy materials for subsea systems
- Manual, orbital and mechanized welding capabilities
- Welding of critical components for deepwater production applications
- Narrow gap GTA welding for high fatigue riser applications
- Manual and orbital welding of topside control systems
- Welding of high strength coiled pipe and tubing for flowline and downhole operations
- Full scale production welding support

## Welding Engineering Consulting Services

- Welding engineering for deepwater systems
- Materials and welding specification development
- Field welding engineering and inspection services
- Quality Systems Management
- Welding systems specification and application training
- Non-Destructive Testing (NDT)

## Welding Research and Development

- Welding procedure development and qualification
- Specialised weldability testing
- Welding metallurgy and failure analysis
- Welding process and systems development
- Welding consumable evaluation and development
- Training and certification welder qualification testing



Oil States Industries (Asia) Pte, Singapore facility



**Oil States Bathgate, UK facility** 



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### SALES & SERVICE

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#### **Oil States Industries UK Ltd**

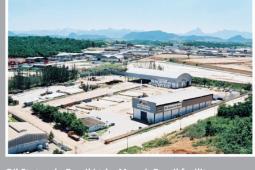
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Oil States do Brasil Ltda, Macaé, Brazil facility



Oil States do Brasil Ltda, Linha Azul site under construction, Macaé, Brazil



Oil States do Brasil Ltda, Santa Cruz site under construction, Rio do Janeiro, Brazil



Oil States Las Palmas facility, Gran Canaria, Spain