

Furmanite On-site Machining

Flange Facing Machine



Case Study

On-site and ship shape

Our on-site machining division was asked to repair and re-profile the can tracks on the hanger lift of the aircraft carrier. The life design incorporates a steel curved track fitted in segments each 178mm wide and 610mm long. Hydraulic rams push rollers along the track operating the lift like a scissor jack. Problems with the track joints were causing an even lift operation.

Sea Trials

Our solution? Specially designed brackets to mount a 1500mm milling rail and borer slide arms. This enabled the machine to follow the cam track. The existing damage was repaired and the solution installed in record time so that the ship could commence sea trials.



*Cost effective
precision machining
solutions on-site*

Furmanite's on-site Machining service is geared to provide industry with fast, economical solutions to in-situ maintenance.

From the smallest plant maintenance project to large-scale new-build turnkey packages we can help. Our equipment has the capacity to machine circular structures up to 30m in diameter as well as turbine half joints and bedplates up to 12m square using laser controlled milling machines.

Our standard and special application machine tools, designed and manufactured in-house to appropriate national and international standards, are ready to handle a wide range of challenges. For general advice and guidance relating to specific areas of manufacturing and processing, contact us today.

- Flange Facing
- Milling
- Pipe Cutting
- Journal Turning
- Drilling, Trepanning Fine Boring and Reaming
- Line Boring
- Grinding and Polishing
- Stud Drilling



Milling Sonar Mount

On-site solutions to workshop tolerances

The goal of the Furmanite on-site machining service is to deliver on-site solutions to workshop tolerances anywhere in the world. Our teams are ready to work in the most demanding environments. Whether its sub-sea, remote controlled or CNC automated, Furmanite leads the world.

FURMANITE™

MAXIMISING ASSET UPTIME

Case Study

Meeting the Biggest Challenge

Size matters. And when we received the call from a customer in Belgium asking us to machine four vessel flanges of 5.8 metres in diameter, we knew we had to deliver a large-scale solution.

We have the technology - almost

To start with, we needed to modify our largest on-site machine. Originally it was capable of creating flanges of up to 4 metres - now that figure is 5.8 metres. Next we had to transport our operation to Belgium, and to a point where it could machine the flanges that were six metres above the workshop floor. Finally, everything was in place and each flange was completed within 48 hours - this included some additional machining to remove ovality from the flange diameters.

Flange Facing



Delivering the service you need

Flange Facing

Whether it's flanges, heat exchangers, cover joints, boiler manways, industrial pipelines or vessel joints, we can help. Our externally and internally mounted machines, designed and manufactured in-house to ISO9001 quality standards, are capable of facing, turning, grooving and weld preparation. They are lightweight, strong and flexible and most are pneumatically driven for use in hazardous areas.

In addition we are able to machine hub profiles, the front and back faces of heat exchangers, oval manways, oval handholes and sealing surfaces of pressure vessels and boilers. Finished machine surfaces can be flat, recessed, spigotted, raised, face or ring grooved, and surface finishes from fine to gramophone.

Milling

For in-situ milling we use purpose built two and three dimensional machines that are suitable for the milling of pump and motor bedplates, heat exchanger division plates, including external and internal keyways in shafts and bores, hatch covers and square flange machining. For larger applications we have two large capacity milling machines often used within the steel industry.

Journal Turning

Worn or damaged journals of various diameters can be repaired quickly and efficiently. Our pneumatically driven portable machines are capable of turning inboard and outboard journals and shafts in a variety of applications. In fact it is often only necessary to expose the area of plant to be remachined so that a stripdown of equipment is avoided.

Drilling, Trepanning, Fine Boring and Reaming

Whether you need stud drilling, screw cutting, core sampling or fine boring, our portable drilling and boring equipment will meet the challenge. The service covers working sizes in excess of 150mm in diameter and 1000mm in depth and extends to drilling operations on major structures, any type of straight or tapered reaming, drilling and tapping on steel rolling mills and the trepanning of holes in blast furnaces and pressure vessels.

Pipe Cutting

Using a wide range of purpose built internally and externally mounted cutting equipment, we are able to cut pipes of any diameter and wall thickness as well as excavating and removing defective weld material. If required, the remaining pipe or vessel ends can be profiled and prepared for welding.

Line Boring

On-site line boring can help reduce plant maintenance downtime considerably in applications requiring the machining of two or more in-line bores. Typical applications include parallel and taper bores we offer a range of additional boring bar attachments.

Grinding and Polishing

Furmanite's tyre grinding service provides a quick and cost-effective method for the in-situ renewal of the surface finishes of large diameter steel tyres on rotating plant such as kilns and dryers.

Serving every sector

- Fossil, hydro and nuclear power
- Marine and offshore
- Steelworks
- Ship repair
- Food Industry
- Ministry of Defence
- Pulp and paper plants

Furmanite East Asia Ltd.

Units A & B, 18/F, Nathan Tower,
518-520 Nathan Road, Kowloon, Hong Kong
Tel: +852 2388 3366
Fax: +852 2388 5023
E-mail: sales@furmanite.com.hk

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www.furmanitehk.com