

# Fugro Spatial Solutions Pty Ltd

## Precision 3D Survey Dimensional Control



Fugro Spatial Solutions offers comprehensive Dimensional Control services specialising in precision 3D surveys.

### what is dimensional control?

The basis of modern Dimensional Control is the combination of measurements with 3-dimensional mathematical modelling, to analyse the item surveyed and compare it with another object, or with its design.

Dimensional Control methodology originated in the offshore industry, and is now used by our surveyors in the engineering, manufacturing, marine, aeronautical and automotive industries.

### specialised services

The combination of our experience and the vast resources available to us in measuring equipment and methodologies, enable us to provide the best and most cost effective solution to your measuring needs.

Our experience in Dimensional Control surveys is broadened by providing our services to many different industries.

- petroleum (onshore & offshore)
- engineering
- ship building
- aeronautical
- mining
- manufacturing

This gives us the ability to adapt efficient measuring techniques from one industry sector or client to another.



### benefits of dimensional control

The objective of any Dimensional Control survey is to facilitate correct design, fabrication, installation and fit up, before, during and after design, construction and / or fabrication of relevant components.

Some benefits in using Dimensional Control methodologies are:

- accurate, quick & efficient collection of 3-dimensional data
- highly mobile measuring systems enabling surveys in congested places & allowing surveys on objects in situ rather than having to remove object to measuring device
- cost savings & improved safety as a result of eliminating hot work on site by facilitating accurate design
- reduce wear & tear on equipment & resultant early replacement on associated production line facilities or equipment like conveyors, rollers, bearings, earth moving equipment & process machinery by having 3-dimensional alignments & symmetry surveys with analysis
- mathematical fit-ups of two or more components by survey



### SERVICES OFFERED:

- dimensional fabrication checks & 3-D as-built survey on anything from an object less than 1 metre to one over 200 metres in size to accuracy's typically about 1mm
- high precision industrial metrology measuring system used for measuring objects down to an accuracy of 2 thou (0.05mm)
- monitoring surveys of objects, structures or buildings for possible settlement or deformation
- 3-D alignment & symmetry surveys with three dimensional data analysis
- piping route & tie-in surveys for design & fabrication



# Fugro Spatial Solutions Pty Ltd

## Precision 3D Survey Piping



Fugro Spatial Solutions offers a precise, fast and cost effective means to measure piping, whatever your requirements.

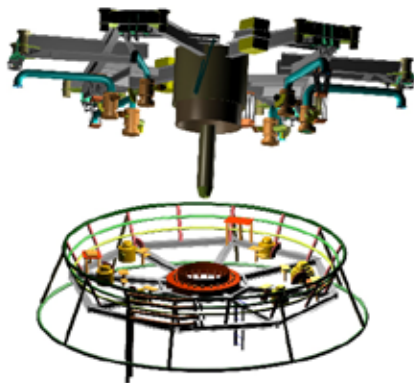
### experience

With the latest in instrumentation, powerful mathematical analysis software and experience in both the onshore and offshore environment, we are geared to provide a quick solution to your piping needs.

### accuracy

Maximum accuracy is achieved by combining our highly skilled operators with extremely precise equipment.

The Dimensional Control section have in their possession some of the most precise instruments on the market. This equipment gives us the ability to consistently and reliably measure any point in 3 dimensions, to an accuracy of 1mm.



### benefits of our technology

- ensure dimensional compliance to fabrication specification tolerance
- reduced shut down times
- safety improvement
- reduce wear & tear stress on piping with stress-free fit-ups
- more accurate estimation for materials procurement
- reduced on site work scope & labour requirements

### advantages of our technology

- digital data collection, storage & processing from start to finish
- highly portable measuring instruments
- access to congested/awkward places
- ability to measure on vibrating &/or floating structures
- high accuracy
- customised reporting styles developed in-house
- speed of service

### SERVICES OFFERED:

- pipe routing surveys & clash detection
- pipe spool surveys
- flange inclinations & bolt hole rotations
- interface analysis fabricated piping to offshore tie-ins
- vessel surveys



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