

# FIBROX 3D

TECHNOLOGIES PVT. LTD.



## COMPANY PROFILE

[www.fibrox3d.com](http://www.fibrox3d.com)





↖ 0.1 m / sq.m.

### Ein Scan White light/ Structured light 3D Scanner

- Scan Speed: 20 fps/100,000 Points/s
- Point Distance: 0.2 mm-2 mm
- Accuracy: 30Micron

- › Product Design And Prototyping
- › Reverse Engineering
- › Inspection



↖ 2.5m / sq.m.

### Hexagon Scan ARM 85 Series 3D Laser scanner

- Point Acquisition Rate: 752 000 Points/s
- Minimum Point Spacing: 0.011 mm
- Accuracy: 50Micron



↖ <1km / sq.km.

### FARO FOCUS M70 3D Laser scanner

- Point Acquisition Rate: Up to 488,000points/s
- Point spacing: 0.6mm
- Ranging Error: +/-3mm

- › Laser Scanning
- › Bim / As Built Modeling

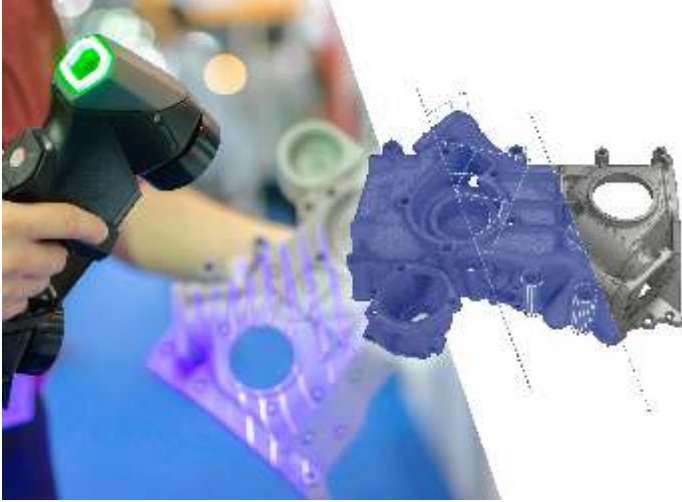


↖ 500km / sq.km. or, more

### Drone – RTK DJI MAVIC 3 ENTERPRISE DJI PHANTOM 4 PRO

- 25km Per Day in Linear or
- 200 Acre Per Day in Area
- Positional Accuracy: Horizontal: 1 cm + 1 ppm; Vertical: 1.5 cm + 1 ppm

- › Surveying / Photogrammetry
- › Gis Mapping



## REVERSE ENGINEERING

- › When Customer have the exact thing which he want to manufacture
- › We capture its dimension with the help of 3D Laser Scanner
- › We prepare as built model first than improve it according to clients requirements
- › After finalizing we prepare manufacturing drawings

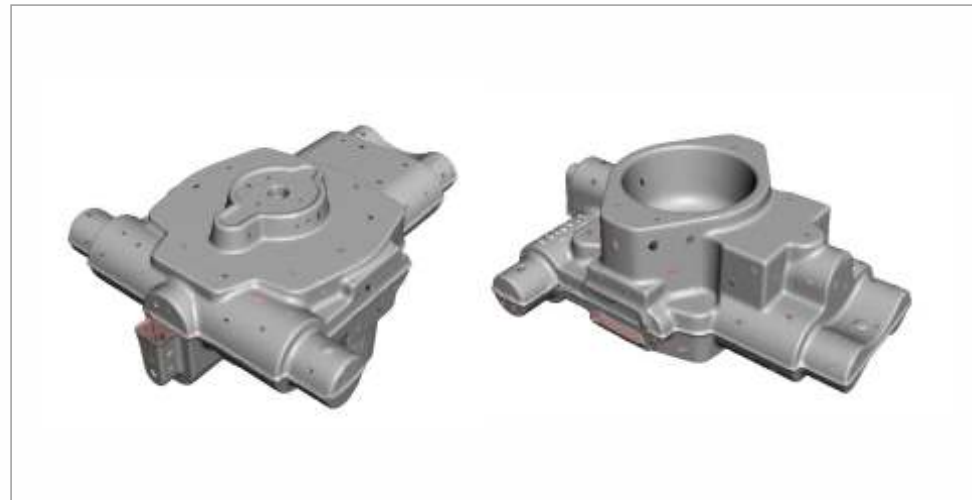
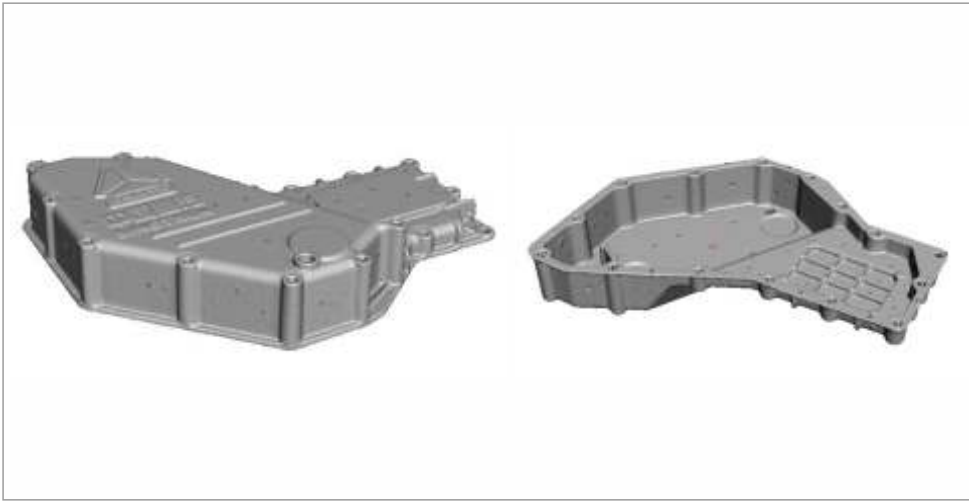
### WORK FLOW/FLOW CHART

- 01 Customer came up with some concepts and reference products
- 02 We design the best out of 3D Scanned data and prepare 3D model
- 03 Afterwards on client's request we 3D Print prototype
- 04 On final approval; we prepare manufacturing drawings

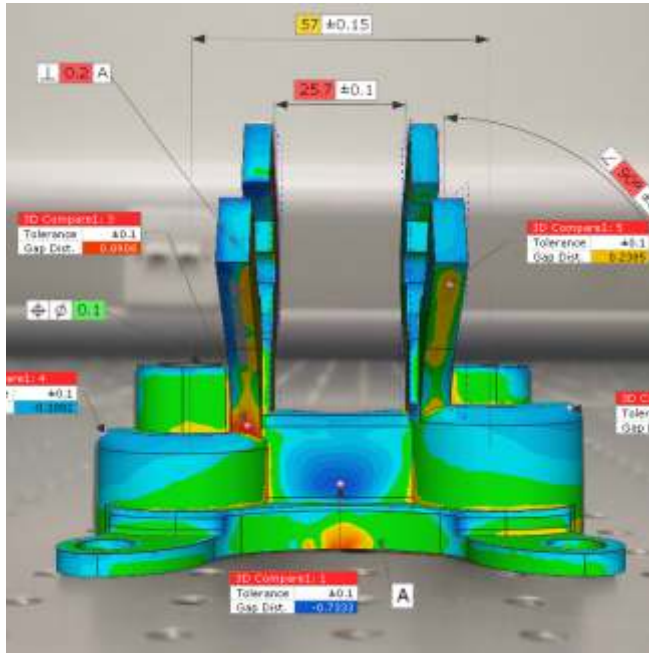
STATISTICS : Reverse Engineered The Product Till Date:

**7000+**

## Reverse Engineering



# 3D INSPECTION



- › When customer have 3d model and product
- › We do scanning and superimpose it on the CAD Model after that we spot the difference
- › This helps customer to improve their product

## WORK FLOW

01

Customer came up with his Product / Die / Tool / Casting

02

We do scan it

03

We do find the defects and cause behind it

04

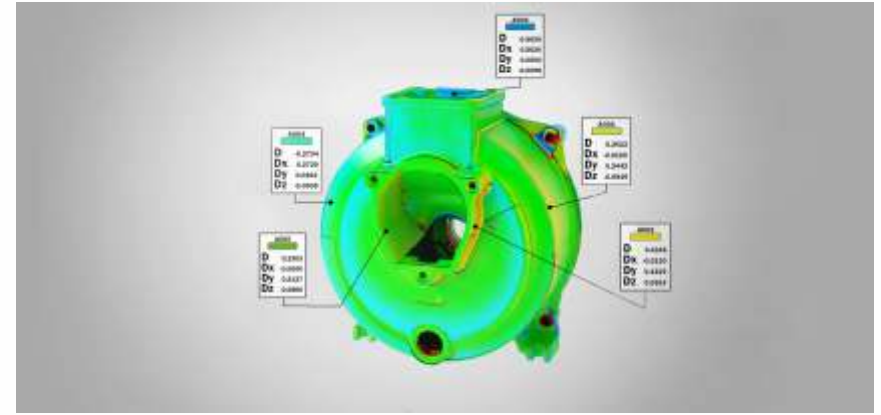
We do prepare a detailed report.

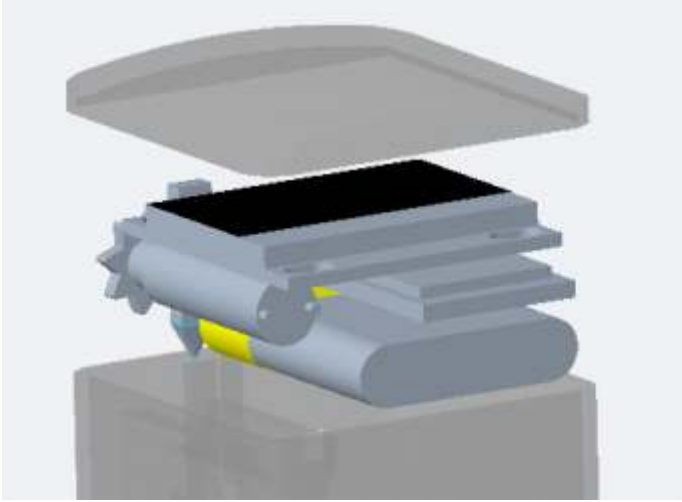
STATISTICS : Inspection Done Till Date:

**8000+ PRODUCTS**



# 3D Inspection





## NEW PRODUCT DESIGN AND PROTOTYPING

- › We design & develop a product based on customer's requirements
- › You share the concept we will share manufacturing drawings
- › Whether it a product/machine of 100 components or 1000 components we will do it with accuracy and time

### WORK FLOW

01

Customer came up with some concepts and reference products

02

We design the best out of it and prepare 3d model

03

We make one prototype and take market review, after some iteration we do final design

04

Based on Final design, we prepare manufacturing drawings

STATISTICS : Product Designed Till Date:

25+

## New Product Design And Prototyping





## 3D LASER SCANNING



- › When customer wants measurements of a building, heritage property, Plant or, Ship's Engine room; we fulfill all their requirements using 3D laser scanning technology.
- › We provide 3D Point cloud data based on client's requisite.

### WORK FLOW

01

Customer wants to measure/verify/model existing facility.

02

We scan on-site client location.

03

We process off-site, clean and prepare colored point cloud data.

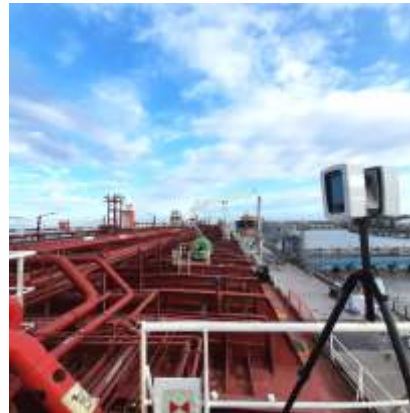
04

We deliver the data based on client's required format. (.RCP , .RCS, .E57, .POD, .LSPROJ , .FLS etc.)

STATISTICS : Projects Completed Till Date:

**120+**

# 3D Laser Scanning





## 3D LASER SCANNING - BWTS

- › 3D Laser Scanning/Feasibility survey for Ballast water treatment system installation onboard vessel(ship)
- › Using this 3D Scanned data, Marine Engineering consultant do reverse modeling & placement of equipments & pipe routing in Engine room of ship.
- › Along with 3D Model; we also do Surveying also to collect the required information from vessel(ship).

### WORK FLOW

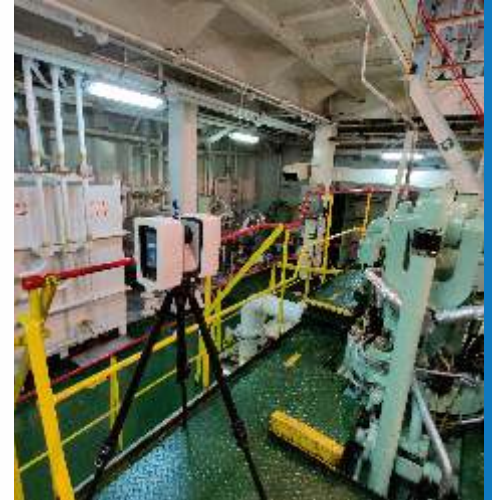
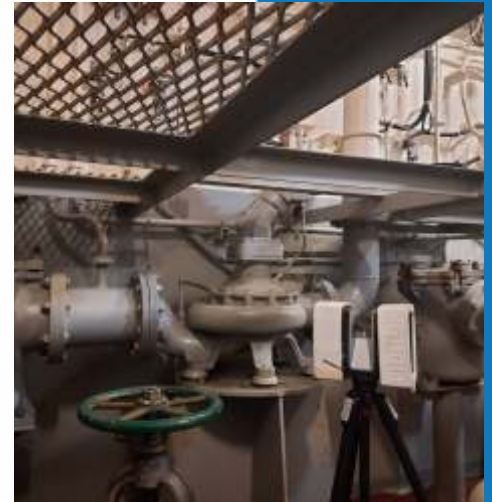
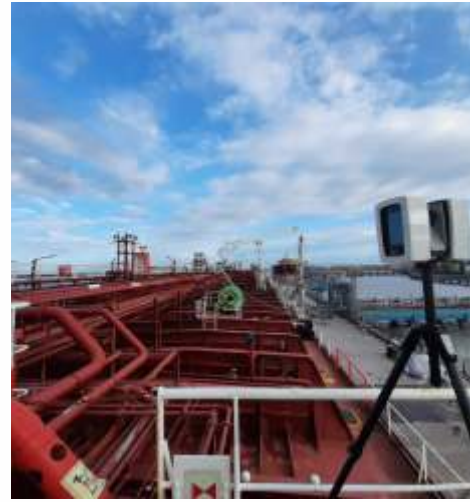
- 01 Customer finalize the project on urgent basis.
- 02 We scan on-site client's vessel(ship) location.
- 03 We process off-site, clean and prepare colored point cloud data.
- 04 We deliver the data based on client's required format. (.RCP , .RCS, .E57, .POD, .LSPROJ , .FLS etc.)

STATISTICS : Projects Completed Till Date:

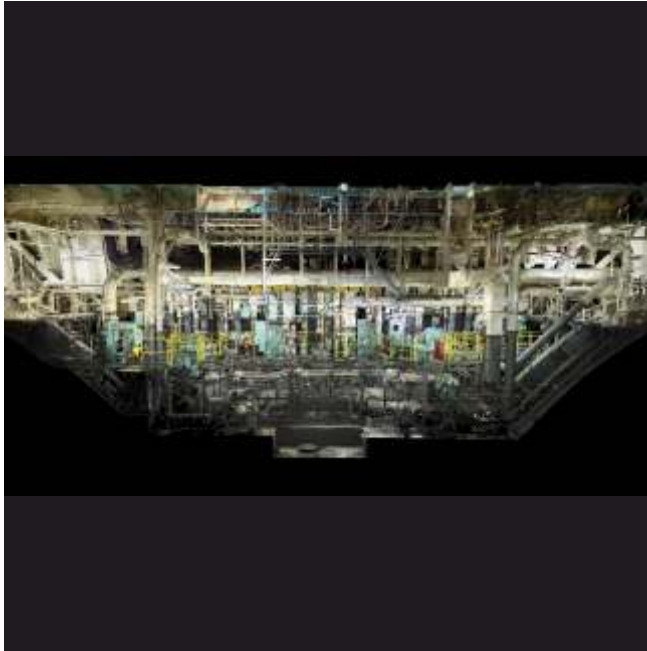
**100+**



## 3D Laser Scanning - BWTS



## 3D LASER SCANNING - EGCS



- › 3D Laser Scanning/Feasibility survey for Exhaust Gas cleaning system onboard vessel(ship)
- › Using this 3D Scanned data, Marine Engineering consultant do reverse modeling & placement of equipments & pipe routing in Engine room of ship.
- › Along with 3D Model; we also do Surveying also to collect the required information from vessel(ship).

### WORK FLOW

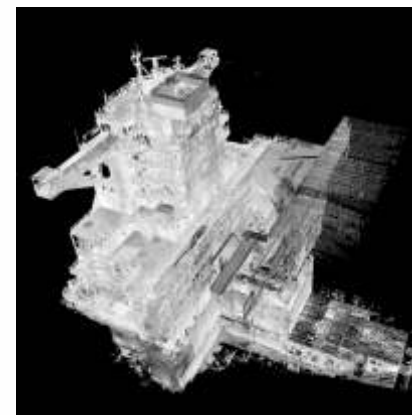
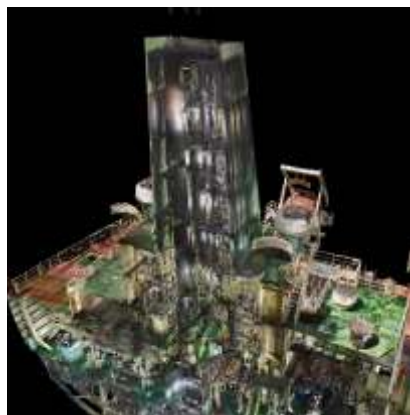
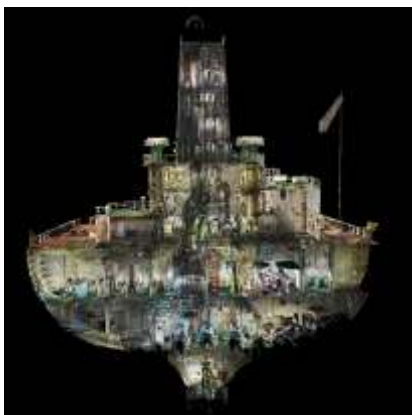
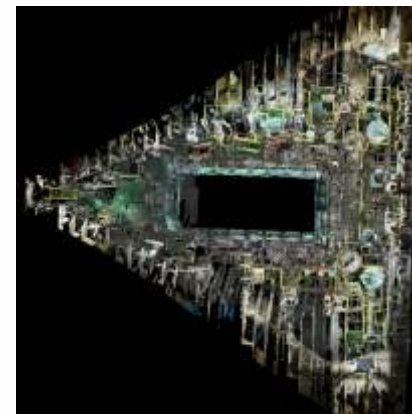
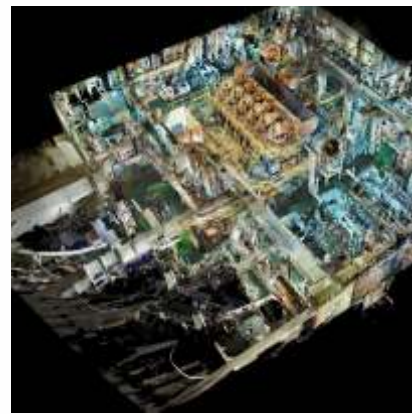
- 01** Customer finalize the project on urgent basis.
- 02** We scan on-site client's vessel(ship) location.
- 03** We process off-site, clean and prepare colored point cloud data.
- 04** We deliver the data based on client's required format. (.RCP , .RCS, .E57, .POD, .LSPROJ , .FLS etc.)

STATISTICS : Projects Completed Till Date:

**25+**



# 3D Laser Scanning - EGCS

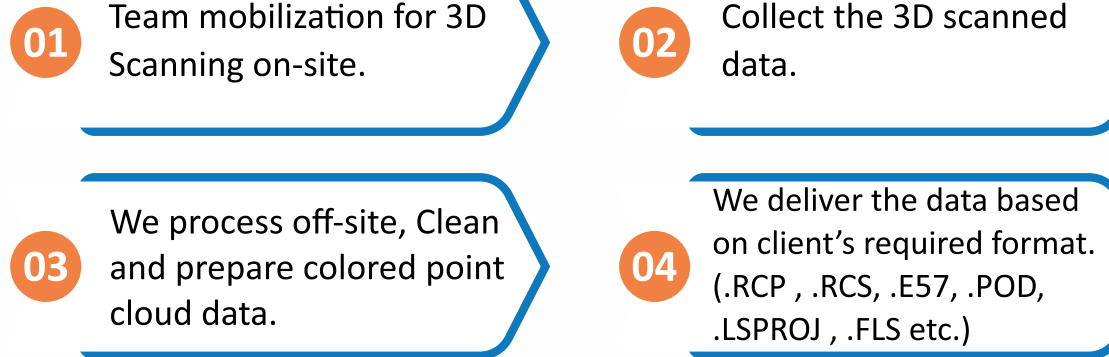




## 3D LASER SCANNING - PLANT

- › 3D Laser Scanning of existing plant, processing plant, manufacturing facility to digitally store the plant.
- › Brown-field projects – where new equipment, unit, plant unit need to be commission/de-commission.
- › Re-develop an existing plant facility, strengthen the existing plant requires digital information(3D Models, ISOs) with measurements

### WORK FLOW

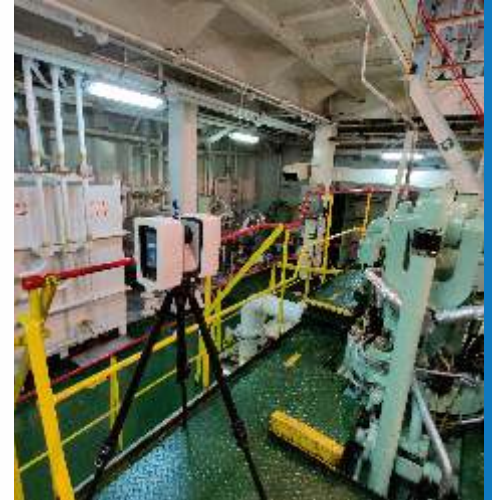


STATISTICS : Projects Completed Till Date:

15+



## 3D Laser Scanning - Plant



# 3D LASER SCANNING - HERITAGE



- › 3D Laser Scanning of heritage site, monument, artefacts, ancient temples, Palaces for digital documentation and analyze
- › Sometimes client want us to prepare the 2D drawings (All side elevation, Top-Plan & ceiling plan).

## WORK FLOW

- 01** Team mobilization for 3D Scanning on-site.
- 02** Collect the 3D scanned data.
- 03** We process off-site, Clean and prepare colored point cloud data.
- 04** We deliver the data based on client's required format. (.RCP , .RCS, .E57, .POD, .LSPROJ , .FLS etc.)

**STATISTICS : Projects Completed Till Date:**

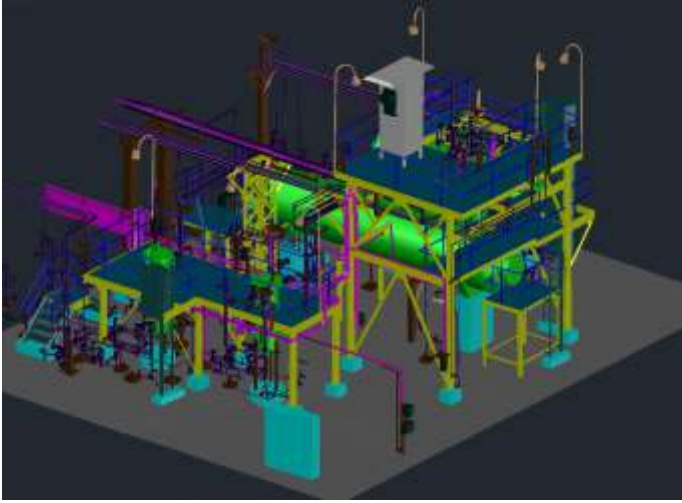
**20+**



# 3D Laser Scanning - Heritage



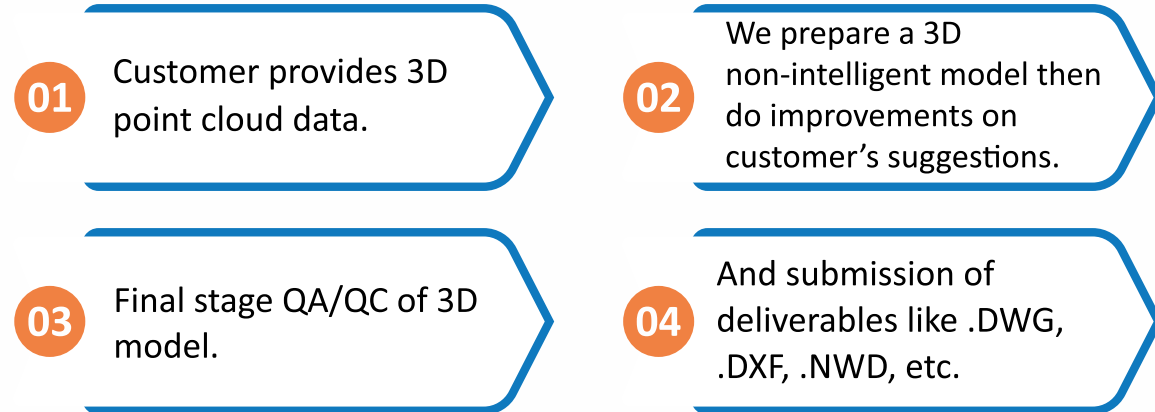




## CYCLONE MODELING

- › When customer wants digital replica of what we scanned or, have point cloud data and wanted us to prepare an As-built model.
- › Our team do As-built modelling on Cyclone software/Intelligent modelling software - AutoCAD plant3D, PDMS, E3D, etc. based on customer's requirement.

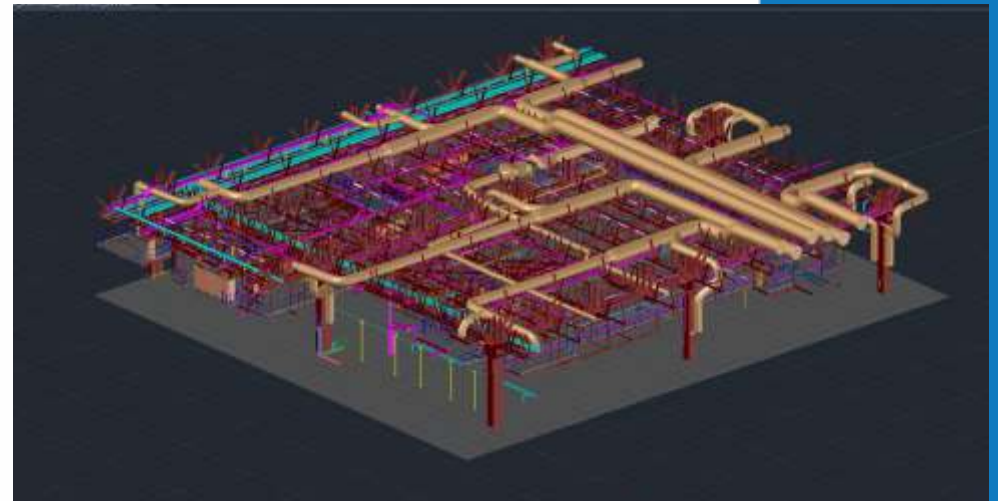
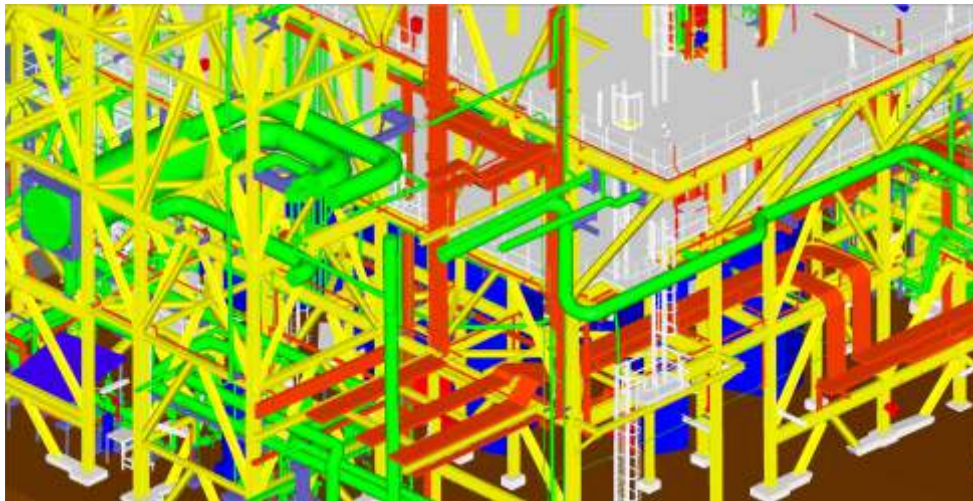
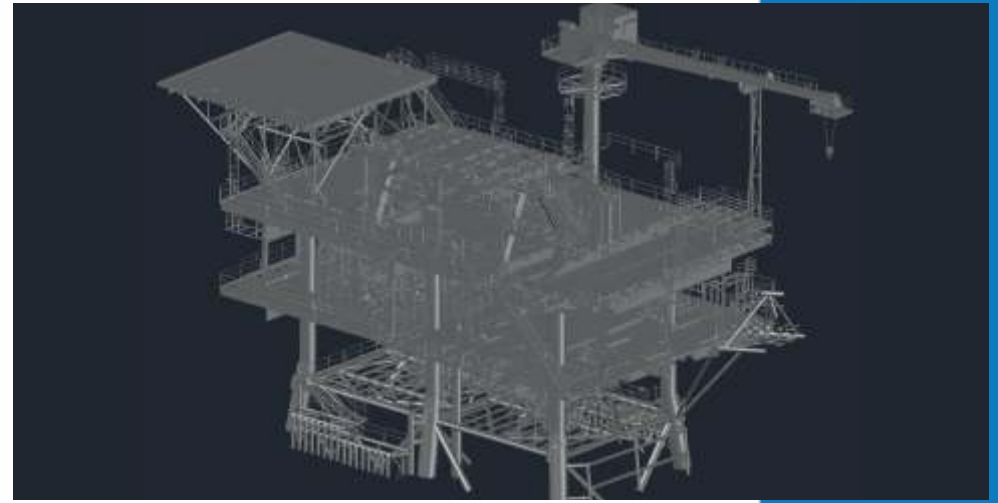
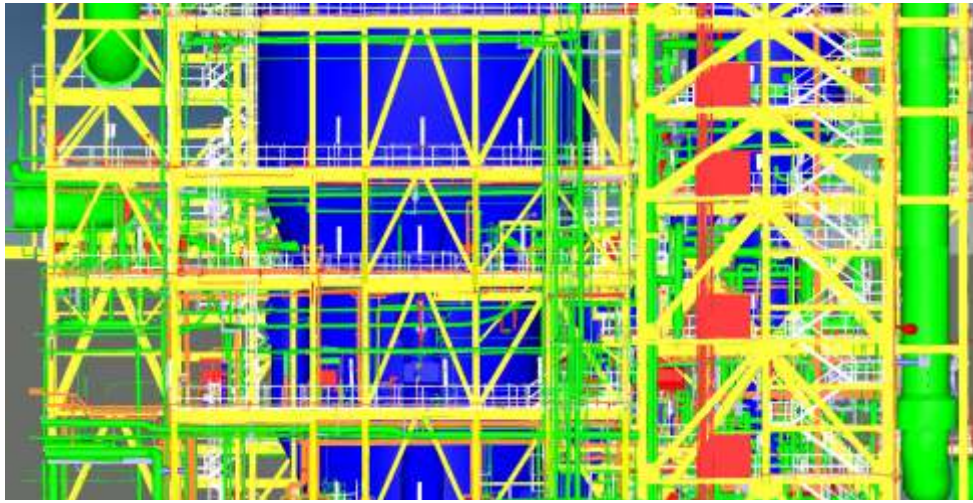
### WORK FLOW



STATISTICS : Projects Completed Till Date:

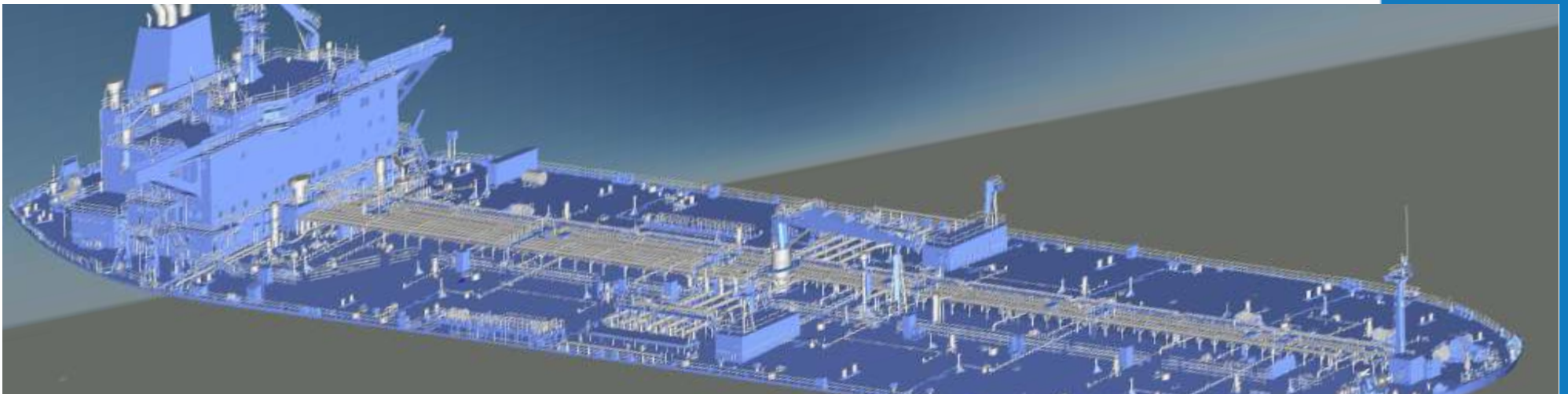
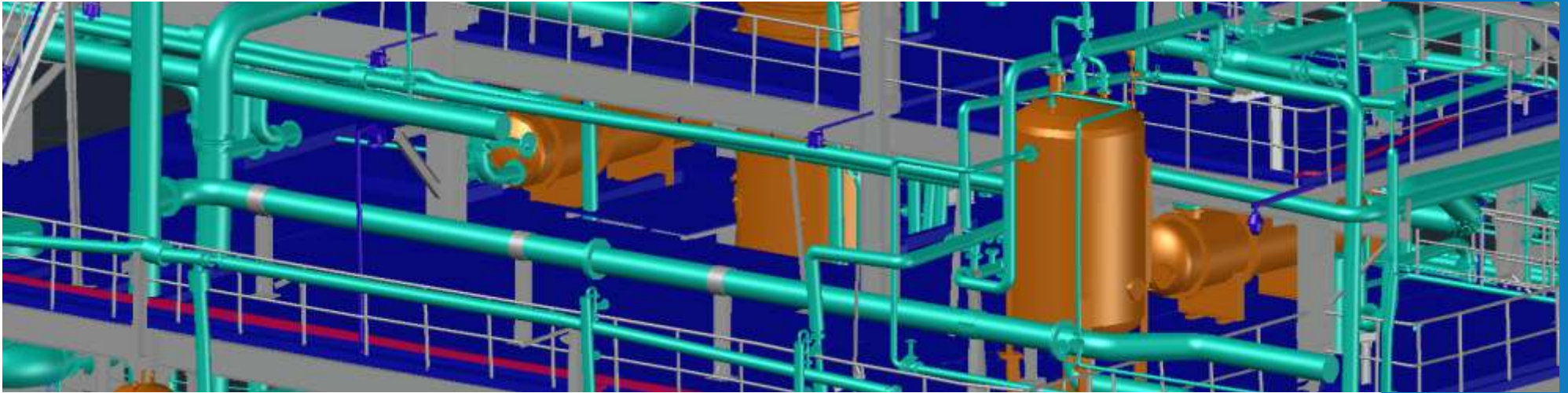
**10+**

## 3D Laser Scanning – Cyclone Modeling





## 3D Laser Scanning – Cyclone Modeling

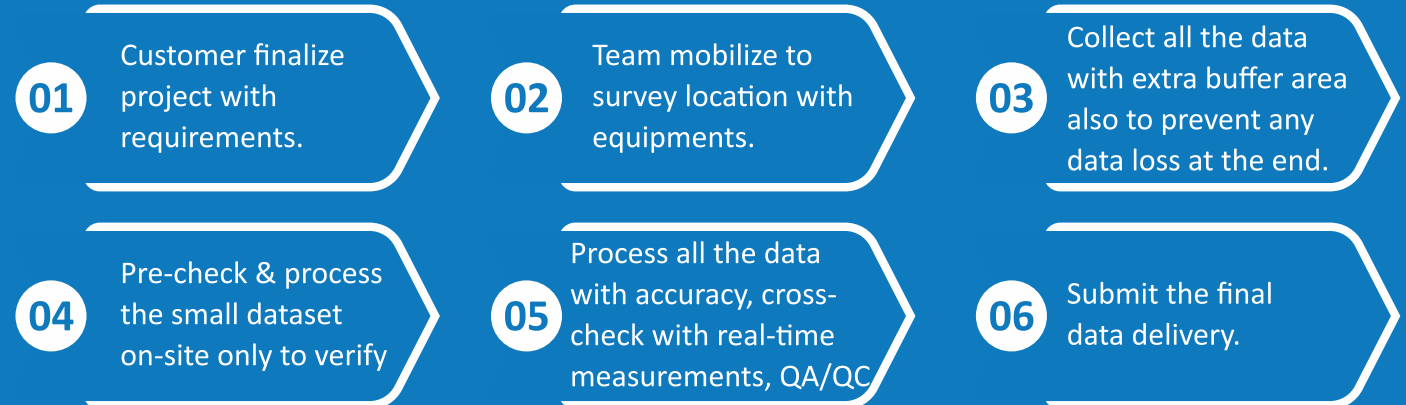


# DRONE SURVEYING



- › When customer requirement is to map/survey the larger area; we use Drone as an instrument for measuring/mapping/surveying. (DJI MAVIC 3 ENTERPRISE RTK)
- › When 3D mesh model of heritage monument/site needed to be captured using photogrammetry technique. (DJI PHANTOM 4 PRO)
- › Survey of Mines, Linear railway-line projects, Large area mapping ,etc.

## WORK FLOW



**STATISTICS : Projects Completed Till Date:**

**15+**



# Drone Surveying







## DRONE SURVEY – POST PROCESSING

- › Drone images stitching using GIS processing software and applying Ground controls to place the data into exact geo location.
- › We cross check all the measurements with total station, DGPS points to verify the accuracy for the project registered.
- › Usually client requires, contour levels and Topographic feature oriented map.

### WORK FLOW

01

Customer provides geo-tagged images of project.

02

We process the whole Dataset on client's requirements.

03

We deliver as per client's requisite. (Orthomosaic, Point cloud, 3D mesh model, DSM, DTM, DEM, Contours, L-section, AutoCAD features line drawing, etc.)

## Drone Data Post Processing



# Thank You!