

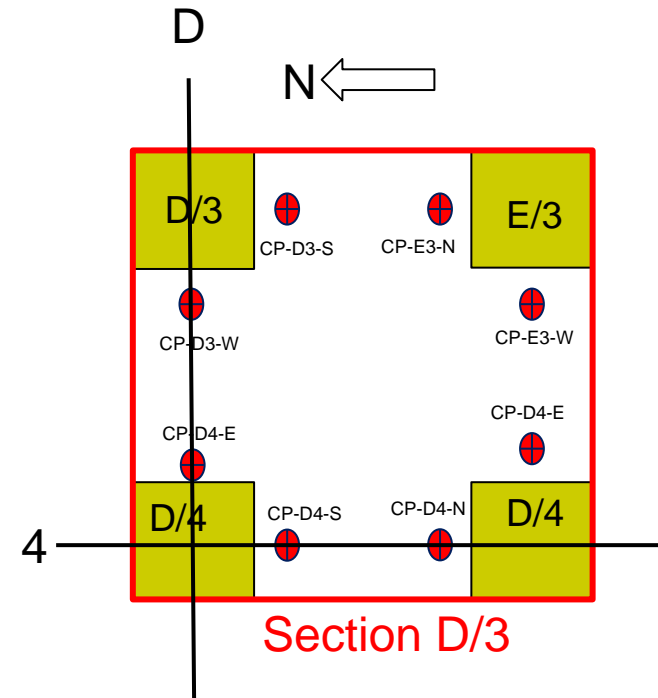
Bay 700 Pilot – update

3D Pilot bay 700

- We have completed the scanning process - approx. 100 scans - and working on registering and stitching – diluting and sectioning.
- Looking for best program compatibility in order to achieve clear superposition of point cloud and pop-out design package.

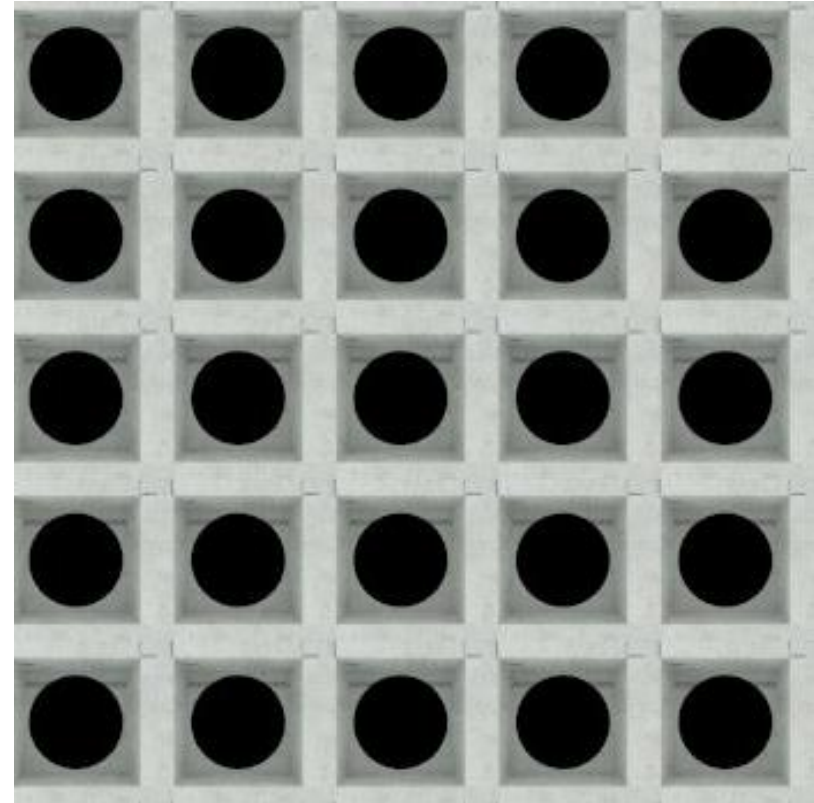
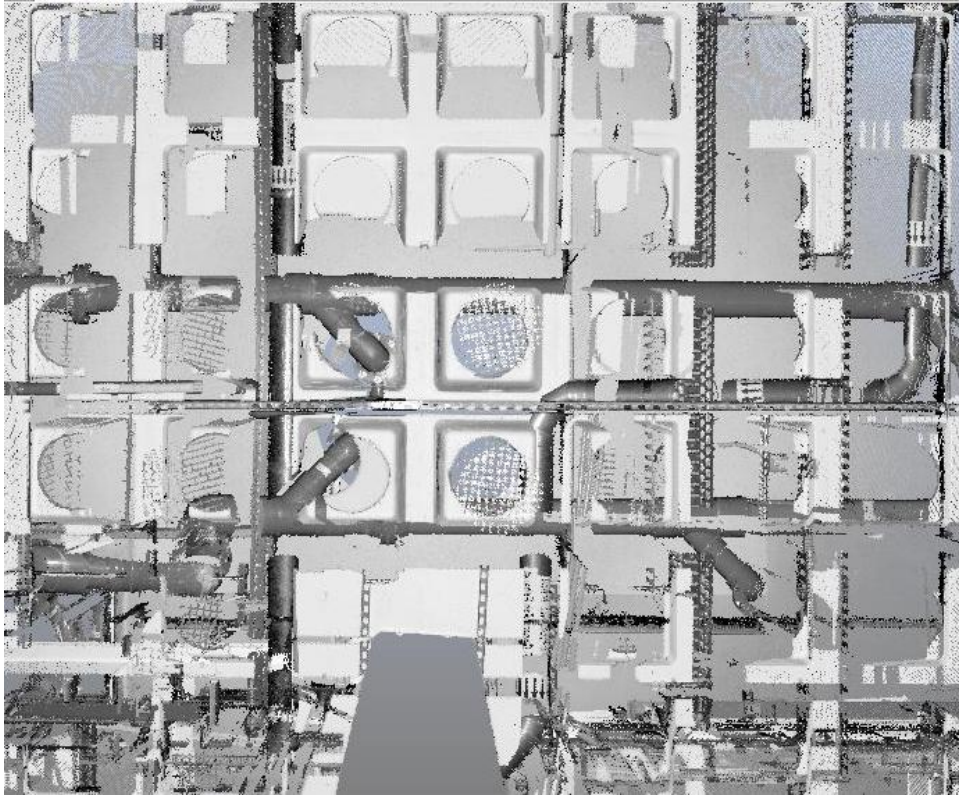
CP- Project

- CPs have been marked. We have decided to get as close to Fab true grids as possible.
- The special drill bit has arrived and the mock-up has been done – the results are not perfect. Another mock-up drilling is planned for today after this meeting.
- All Brass Caps will be installed next week.
- We will conduct an as-built survey in order to get the accurate coordinates xyz for each CP. We will then be able to check at what accuracy the brass caps have been installed and collect accurate coordinates for each CP.
- An excel sheet will be prepared with CP# / x / y / z for later use of scan tie in.
- Naming convention: see illustration



Proposed naming convention





Pipe Scanning Process for GST104/105

GST104

8 scans done

GST105

3 scans done

Used 6 scans: not connected – no spheres for stitching

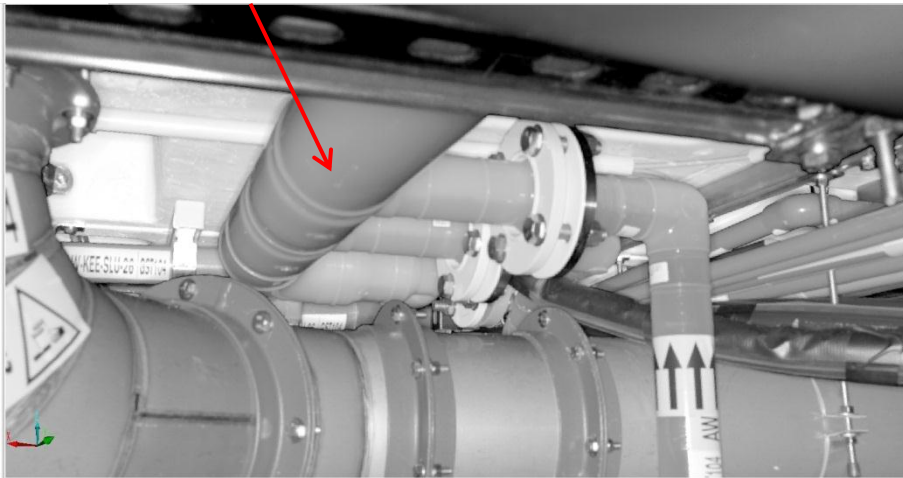
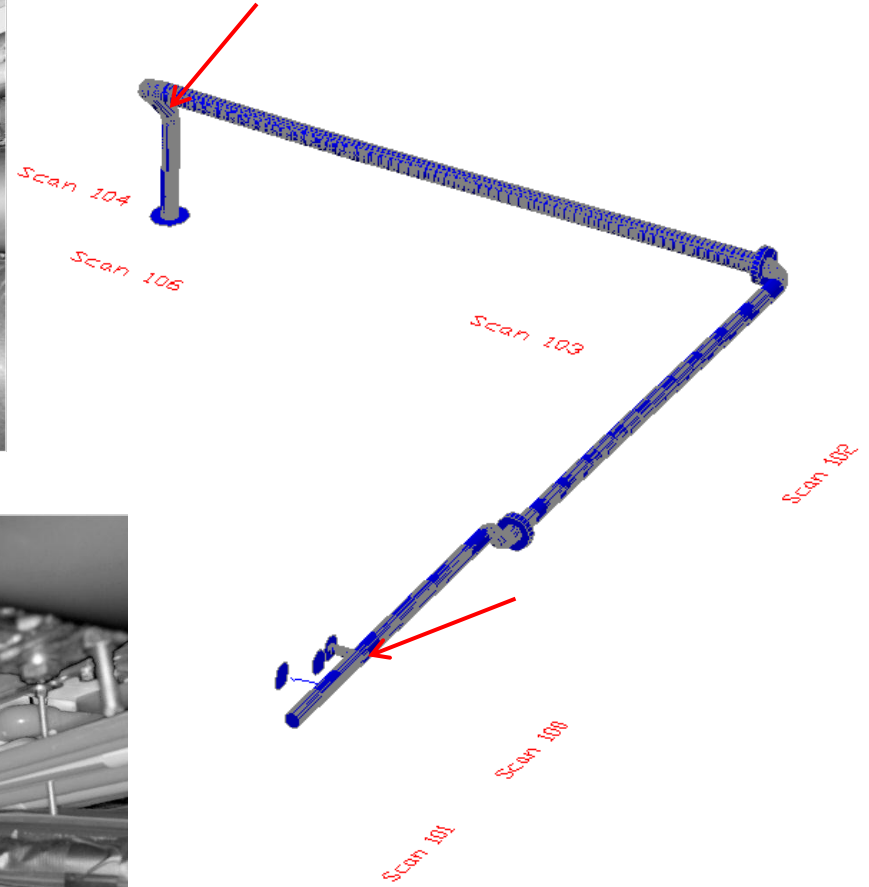
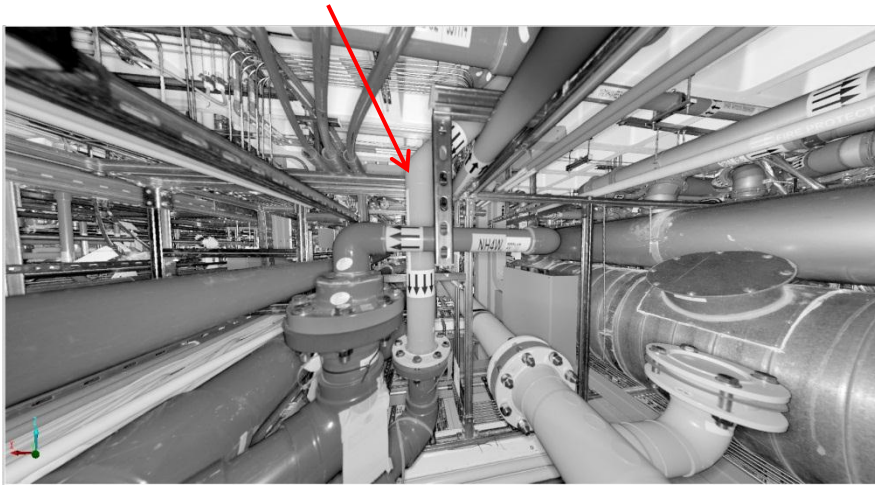
Used 2 scans: not connected – no spheres for stitching

How we worked

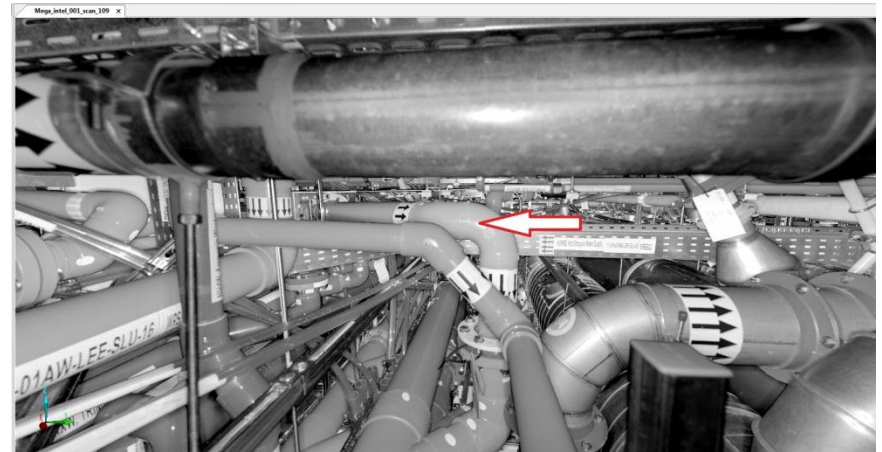
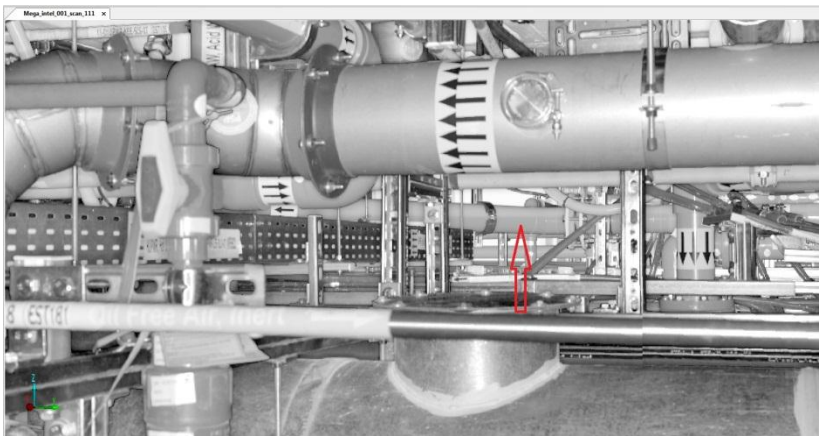
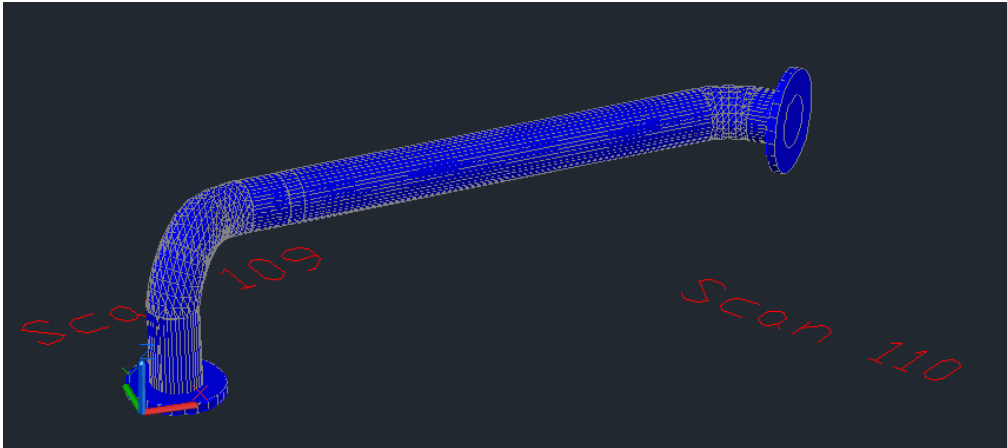
- Used 6 scans: not connected – no spheres for stitching
- Sokkia survey using arrows on pipes as targets
- Model of each scan and placement into coordinate system using Total Station coordinates.
- Some areas could not be modeled because of lack of visibility.

Lessons Learned

- Need placement of spheres for accurate stitching – result: One point cloud – Scene viewer – Easy modeling with Kubit to pipe dwg
- Need possibility to view results during scanning session – Computer
- Possibly work from CR down through Pop-outs
- Tripods for spheres from below or installation through pop-out from CR
- Intel Photo Permit?



Pipe Scanning Process for GST104/105



Scanning Stations

Programs

1. Scene – Viewer – comes with scanner – download at:
<http://www.faro.com/faro-3d-app-center/stand-alone-apps/scene-lt>
2. Kubit - Point Sense Plant – From Point Cloud to AutoCad – needs to be purchased
<http://www.youtube.com/watch?v=ziujvVRv4QA&list=PL7CF9DF4CDB7859F2>
3. AutoCAD Plant 3D – Intel BIM room
4. Navisworks – Clash - Intel BIM room

Courses available for all programs