

ON-SITE MACHINING AND DRILLING THREE ABB THRUSTER FLANGES

FLANGE FACING 3 X 2.8M DIAMETER FLANGES IN SINGAPOREAN SHIPYARD

Goltens was asked to perform on-site machining and drilling for three 2,810mm diameter flanges as well as machine the internal column diameters for three ABB thrusters on a vessel in a local Singaporean shipyard. With a capability to machine flanges up to over 6 meters in diameter, this job was well within Goltens' routine range.

Goltens deployed one of its 3 meter flange facing machines along with its laser alignment equipment and on-site machinists to the yard to carry out the work.

Goltens performed laser alignment checks on all three thruster surfaces and then machined the 2,810mm diameter flange surfaces and the thruster column inside diameter.

After alignment & dimensions checks, Goltens specialists carried out final machining on Thruster surface.

Lastly, Goltens machining specialists marked and drilled PCD for 114 holes on each flange, tapping M30 on all 342 holes.

ON-SITE MACHINING CONSISTED OF:

- Laser Alignments of three (FWD, AFT and Center) Thruster surfaces.
- On-site flange machining and removal of an average of 10mm of materials from each of the flange surfaces.
- On-site machining of thruster column depth by 350mm and an average of 5mm of material removed.
- Marking thruster PCD with templates.
- On-site drilling and tapping a total of 114 holes per thruster.

RESULTS:

Goltens completed this job on time with all results within the required tolerances. The customer commented that the final results on this complex job were extremely accurate.

PROJECT FACTS: ABB THRUSTER FLANGES

Outside Flange Diameter:	2810 mm
Inside Column Diameter:	2610 mm
Number of Flanges:	3
Number of M3 Holes:	114 per Flange

Drilling and Tapping one of 114 holes in flange



In-Situ machinists adjust flange facer during job