



## PRESSURE TEST CERTIFICATE

Project: Helicoid Epoxy Sleeve Qualification

Client: Merit Technologies Sdn Bhd (655607-U)

Office: Kuala Lumpur

Client's Order Number: PG/17.22/296/00

Date: 12 July 2018

Order Status: Complete

**Inspection Dates**

First: 11 June 2018

Final: 20 June 2018

This certificate is issued to Merit Technologies Sdn Bhd (655607-U), No. 8, Jalan PJU 3/45, Seksyen 12, Sunway Damansara, 47810 Petaling Jaya, Selangor Darul Ehsan, Malaysia. THIS IS TO CERTIFY THAT the undersigned surveyors of LLOYD'S REGISTER TECHNICAL SERVICES SDN BHD, have witnessed and verified the calculations, drawings, preparation, installation and subsequent Short Term Hydrostatic Pressure Test of the Helicoid Epoxy Sleeve which has survived the test up to 170 bar @ ambient temperature with holding time of 10 minutes in accordance to the Finite Element Analysis Report (TR-18-37)

Procedure	: Procedure for Short Term Hydrostatic Test (17.22/HES/006/P3/00)
Date of Test	: 20th June 2018
Place of Test	: No 8, Jalan PJU 3/45, Sunway Damansara Technology Park, 47810 Petaling Jaya, Malaysia
Reference Document	: Doc. 17.22/HES/006/C1/00 Doc. 17.22/HES/006/P1/00 Doc. 17.22/HES/006/P2/00 Doc. 17.22/HES/006/P3/00 Doc. 17.22/HES/006/R1/00 Certificate No. Calibration Certificate No. Recorder Doc. TR-18-37
	- Short Term Hydrostatic Test - Design Calculation - Short Term Hydrostatic Test - Specimen Preparation Procedure - Short Term Hydrostatic Test - Helicoid System Installation Procedure - Short Term Hydrostatic Test - Hydrostatic Test Procedure - Short Term Hydrostatic Test - Hydrostatic Test Report - Mill Certificate – 30023289/01 - Refer to doc.17.22/HES/006/P3/00 Appendix A - Yokogawa FX 106-4-2 - Finite Element Analysis Part II

Remarks: Helicoid Epoxy Sleeve successfully survive the Hydrostatic test in accordance to the Finite Element Analysis predictions and results. Highest pressure achieved during test is 180 bar @ ambient temperature with 8 minutes holding time before leakage occurs.

Date: 12<sup>th</sup> July 2018.

Maran Periyasamy, Matthew Lim,  
Surveyor to Lloyd's Register Technical Services Sdn. Bhd.

a member of the Lloyd's Register group.

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