

# XROSSWATER

Industrial Marine floating walkways

## 500m on Heavy metal mine Kwazulu Natal South Africa Shipped Semi Assembled in 5 containers

This project was located a significant distance from mine site and thus required a fast and efficient solution and included FRP Penstock frames to protect the penstock intake shaft. Xrosswater provide the best turnkey solutions, offering value for money and hands-on service. The company has always embraced challenging and custom projects which all require a product that is designed purposefully for the industrial marine market.



# XROSSWATER

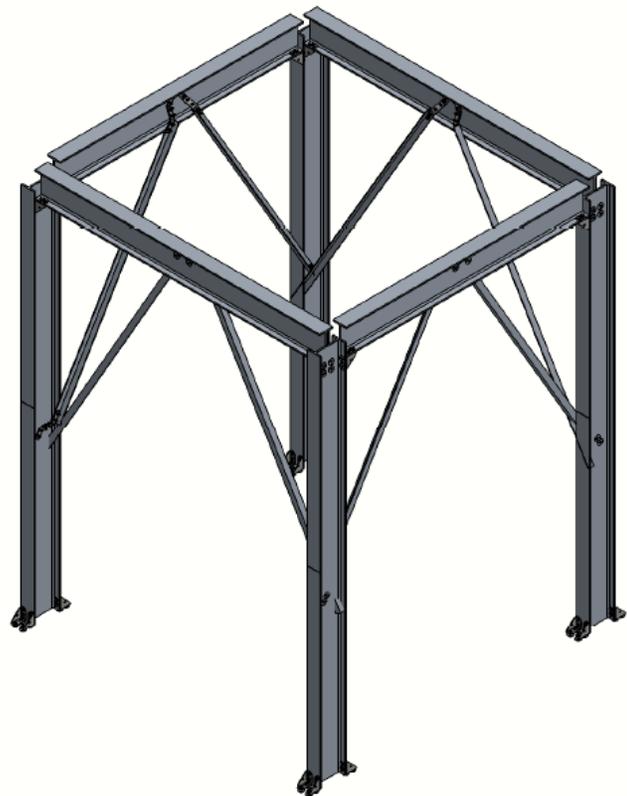
Industrial Marine floating walkways



Helical anchor inserted in 2 minutes.



FRP Penstock tower



# XROSSWATER

## Industrial Marine floating walkways

Helical angle pull = zero



### XROSSWATER WALKWAY

#### DESIGN ASSESSMENT – HEAVY METAL MINE, KZN, RSA

Tritec Marine Limited  
Alba House  
2 Central Avenue  
Clydebank  
G81 2QR  
United Kingdom

U.S. Agent:  
Tritec Marine USA LLC  
1010 Northern Boulevard, Suite 208  
Great Neck, NY 11021  
U.S.A.

Date: July 24, 2015

Document No.: 10466-101-01-2

QAF No.: 8.3



*Handwritten signature*

### XROSSWATER WALKWAY

#### DESIGN ASSESSMENT – HEAVY METAL MINE, KZN, RSA

#### INTRODUCTION

This report has been prepared at the request of Mr. Malcolm Harrison of Xrosswater Ltd. in response to a requirement from a client for a strength and stability assessment of the Xrosswater walkway system to be carried out by a qualified naval architect and registered professional engineer.

It has been proposed to install a 480 m long Xrosswater walkway, consisting of approximately 123 standard double-float walkway units, 41 single-float cross members, and 80 gratings. The walkways are based on Xrosswater's proprietary and patented design, the key elements of which are described in detail in the Xrosswater Assembly & Installation Instructions. An illustration of the walkway can be found in Fig. 1.

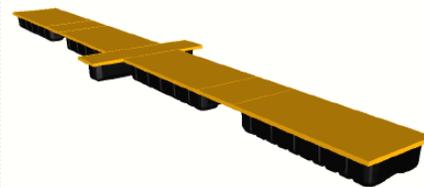


Fig 1 – The Xrosswater Walkway

In this assessment, the following items were evaluated:

- Weights and centers.
- Strength, including longitudinal strength, transverse strength, and a review of previous FEA calculations.
- Anchor loads.
- Handrail check.
- Stability.