

D. I. Step Iron (Twist Test)

CASTCO

佳力高試驗中心有限公司
CASTCO TESTING CENTRE LIMITED

Test Report

Steps for Underground Man Entry Chambers - Twist Test
(BS EN 13101 : 2002 Clause 4.3.6 Annex A)

Date of issue : 02 July 2020

Page 1 of 2 page(s)

Castco I RN : NW0200609-004

Details as supplied by customer

Customer : Cheung Hing Foundry (HK) Limited

Address : 299 Pak Shui Tsuen, Kwun Um Road, Yuen Long, N. T.

Job title : - -

Sample description : Hot Dip Galvanized Ductile Iron Step Iron

Manufacturer : Cheung Hing Foundry (HK) Limited

Brand name : CHF

Sample submitted by : Asia Development (HK) Limited

Customer's ref. no. : - -

Contract no. : - -

Laboratory test results

Date of sample received : 09 June 2020

Date of test : 12 June 2020

Specimen no.	1
Maximum difference of height of front edge of the thread from surface (mm)	1.22
Requirement	The height of the front edge of the tread from the level surface shall not vary along its length by more than 3.0 mm

Remark(s) :

1. Test results relate only to the specimen tested.
2. Test results of sample comply with the requirement of BS EN 13101 : 2002 Clause 4.3.6 (effect of measurement uncertainty has not been taken into account).

Checked by : _____

FU HO MAN
Assistant Technical Manager

Certified by : _____

WONG KA MAN
Senior Manager

D. I. Step Iron (Twist Test)

CASTCO

佳力高試驗中心有限公司
CASTCO TESTING CENTRE LIMITED

Test Report

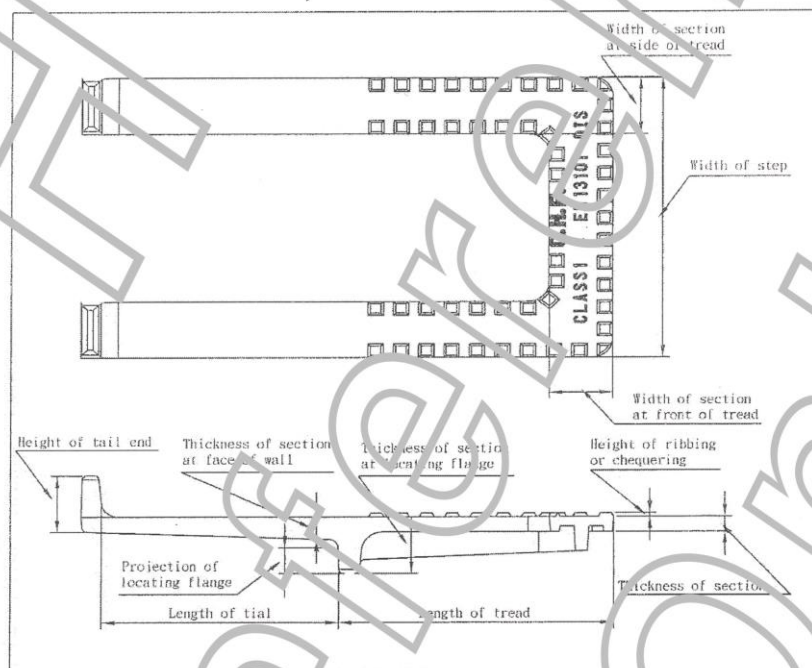
Steps for Underground Man Entry Chambers - Twist Test
(BS EN 13101 : 2002 Clause 4.3.6 Annex A)

Date of issue : 02 July 2020

Page 2 of 2 page(s)

Castco LRN : NW0200609-004

Appendix A



Form no. : NW_STEP_TWIST_BSEN13101-2002_T_dd_13/05/2020

香港粉嶺安居街33號得利中心6樓 • 6/F, Techno Centre, 33, On Kui Street, Fanling, Hong Kong.
香港粉嶺安居街30號新寧中心1樓 • 1/F, Sun Ling Plaza, 30, On Kui Street, Fanling, Hong Kong.
香港粉嶺安全街29A號 • 29A, On Chuen Street, Fanling, Hong Kong.
Tel: 2597 8333 Fax: 2597 8399 E-mail: info@castco.com.hk Website: www.castco.com.hk

D. I. Step Iron (Pull-out Test)

CASTCO

佳力高試驗中心有限公司
CASTCO TESTING CENTRE LIMITED

Test Report
Steps for Underground Man Entry Chambers - Resistance to Pull-out
(BS EN 13101 : 2002 Annex D)

Date of issue : 02 July 2020

Page 1 of 1 page(s)

Castco LRN : NW0200609-006

Details as supplied by customer

Customer : Cheung Hing Foundry (HK) Limited
Address : 299 Pak Shui Tsuen, Kwun Um Road, Yuen Long, N. T.

Customer's ref. no. : - -

Contract no. : - -

Job title : - -

Sample description : Hot Dip Galvanized Ductile Iron Step Iron

Manufacturer : Cheung Hing Foundry (HK) Limited

Brand name : CHF

Sample submitted by : Asia Development (HK) Limited

Laboratory test results

Date of sample received : 09 June 2020

Date of test : 13 to 27 June 2020

Specimen no	2
Nominal dimensions of concrete block (mm)	100 x 200 x 250
Date of concrete block casted	13/06/2020
Age of concrete block at test (days)	14
Apply the load of 5 kN and sustain for 1 minute	Step resisted the load
Requirement	Step shall resist a force of 5kN

Remark(s) :

1. Test results relate only to the specimen tested.
2. Test results of sample comply with the requirement of BS EN 13101 : 2002 Clause 4.3.9 (effect of measurement uncertainty has not been taken into account).

Checked by : _____

FU HO MAN
Assistant Technical Manager

Certified by : _____

WONG KA MAN
Senior Manager

End of Report

Form no. : NW_STEP_PULL-OUT_BSEN13101-2002_T_dd_13/05/2020

香港粉嶺安居街33號
香港粉嶺安全街29A號

33, On Kui Street, Fanling, Hong Kong.
29A, On Chuen Street, Fanling, Hong Kong.

Tel : 2597 8333
Fax: 2597 8399

E-mail: info@castco.com.hk Website: www.castco.com.hk

D. I. Step Iron (Vertical Loading Test)

CASTCO

佳力高試驗中心有限公司
CASTCO TESTING CENTRE LIMITED

Test Report
Steps for Underground Man Entry Chambers - Vertical Loading Test
(BS EN 13101 : 2002 Annex B)

Date of issue : 02 July 2020

Page 1 of 1 page(s)

Castco LRN : NW0200609-005

Details as supplied by customer

Customer : Cheung Hing Foundry (HK) Limited
Address : 299 Pak Shui Tsuen, Kwun Um Road, Yuen Long, N. T.

Customer's ref. no. : - -

Contact no. : - -

Job title : - -

Sample description : Hot Dip Galvanized Ductile Iron Step Iron

Manufacturer : Cheung Hing Foundry (HK) Limited

Brand name : CHF

Sample submitted by : Asia Development (HK) Limited

Laboratory test results

Date of sample received : 09 June 2020

Date of test : 13 June 2020

Specimen no.	1
Initial load	Apply load (kN)
	Deflection (mm)
	0.5
	0.15
	1.0
	0.96
	1.5
Ultimate load	1.28
	2.0
	1.89
	Hold for 1 minute & remove load
	Permanent deflection (mm) :
Ultimate load	0.11
	Present of cracking
	No
	Apply load (kN)
Ultimate load	4.0
	Hold for 1 minute & remove load
	Permanent deflection (mm) :
Ultimate load	0.47
	Present of cracking
Ultimate load	No

Compliance :-

1. Step shall support of both initial and ultimate load without visible cracking and the deflection under load shall not exceed 5mm.
2. After removal of the load, the permanent deflection shall not exceed 1mm of Initial load and 5mm of Ultimate load.

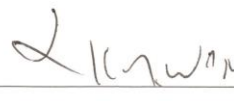
Remark(s) :

1. Test results relate only to the specimen tested.
2. Test results of sample comply with the requirement of BS EN 13101 : 2002 Clause 3.3.7 (effect of measurement uncertainty has not been taken into account).

Checked by :


FU HO MAN
Assistant Technical Manager

Certified by :


WONG KA MAN
Senior Manager

End of Report

Form no. : NW_STEP_VERTICAL_LOAD_BSEN13101-2002_T_dd_13/05/2020

香港粉嶺安居街33號
香港粉嶺安全街29A號

33, On Kui Street, Fanling, Hong Kong.
29A, On Chuen Street, Fanling, Hong Kong.

Tel : 2597 8333
Fax: 2597 8399

E-mail: info@castco.com.hk Website: www.castco.com.hk

D. I. Step Iron (Zine Coating Test)

CASTCO

香港粉嶺安居街33號
香港粉嶺安全街29A號
E-mail: info@castco.com.hk

佳力高試驗中心有限公司
CASTCO TESTING CENTRE LIMITED

13, On Kui Street, Fanling, Hong Kong.
29A, On Chien Street, Fanling, Hong Kong.
Website: www.castco.com.hk

Tel : 2597 8033
Fax: 2597 3395



TEST REPORT

Determination of Zinc and Zinc Alloy Coatings on Iron and Steel Articles by Gravimetric Method (BS EN ISO 1460 : 1995)

Date of issue : 24-06-2020

Page 1 of 1 pages

Castco I RN MS0200612-2

Sample details as supplied by customer

Customer : Cheung Hing Foundry (HK) Limited

Customer Ref. No. : --

Address : 299 Pak Shui Tsuen, Kung Um Road, Yuen Long, Hong Kong

Job Title : --

Sample Description : Hot Dip Galvanized Ductile Iron Step Iron

Contract No. : --

Sample Identification No. : --

Place of Sampling : --

Type : Hot Dip Galvanized (Non-Centrifugal)

Date of Sampling : --

Manufacturer : Cheung Hing Foundry (HK) Limited

Brand name: CHF

Laboratory test result

Date Received : 12-06-2020

Test Period : 19-06-2020

Specimen No.		12-2 (1)	12-2 (2)
Mass of coating	g/m ²	665	633
Average mass of coating for specimens	g/m ²	649	

- Remarks :
1. Test results relate only to the specimens tested
 2. Average thickness of coating for specimen is 11mm.
 3. Test results of the specimen comply with BS EN ISO 1460:2009, Table 3 articles and its thickness for Steel >6mm, minimum of mean coating mass: 610g/m².

Checked by :

Lau Hin Yat
Assistant Technical Manager

Approved Signatory

Lai Peter Shu Hung
B.Sc, MSc, PhD, PEng, CEng,
MHKIE, MICE, RPE, (CVL, MAT)
Deputy General Manager

End of Report

Form No. CHM BS EN ISO 1460:2009/01/2016