



祥興鑄鐵有限公司

CHEUNG HING FOUNDRY (HK) LIMITED

**Eco- Cast Iron Rainwater Two-way Side Outlets - Alu Series**  
with S. S. / C. I. Elbow Grating or S. S. / C. I. Slant Grating  
For Aboveground Surface, Rooftop and Other Areas



香港外觀設計專利號碼：

0010312.3 及 0010313.5

中華人民共和國外觀設計專利號碼：

ZL00303076.8 及 ZL00303075.X



祥興鑄鐵有限公司

CHEUNG HING FOUNDRY (HK) LIMITED

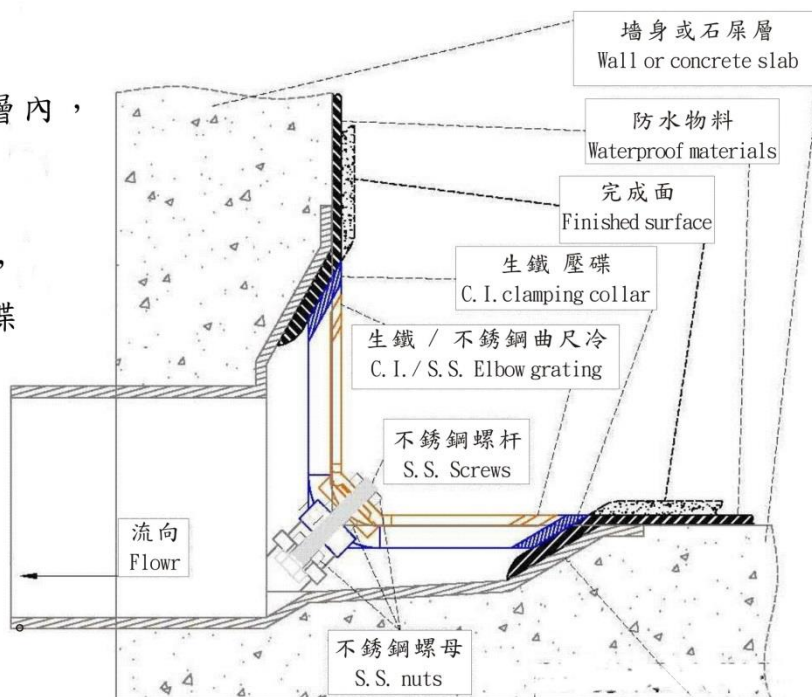


## 安裝指南 Installation Guide

### ALU-雙向水斗(斗身)安裝指南

程序：

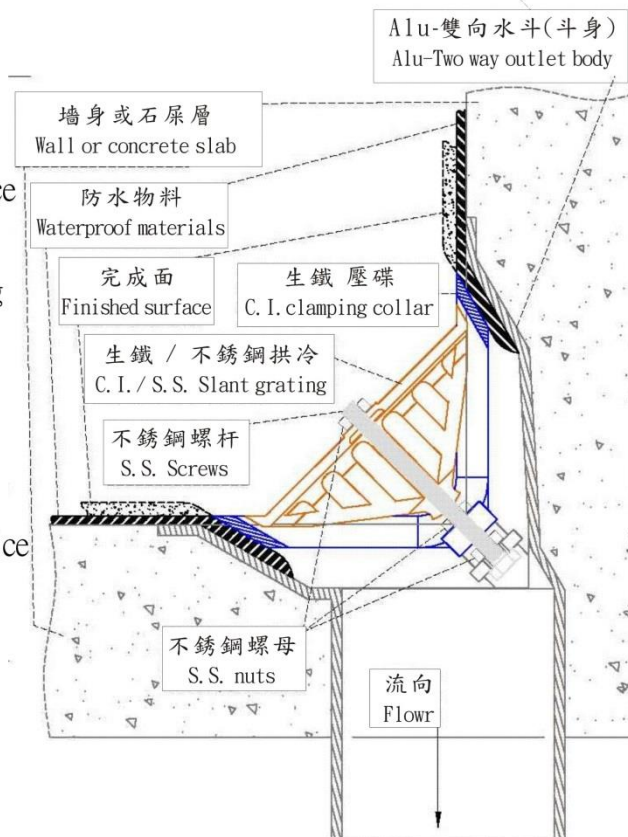
- 1) 斗身依設計已藏於牆身或石屎層內，
- 2) 防水物料鋪於斗身內週邊與地板層或牆身上，
- 3) 生鐵壓碟則壓在防水物料之上，及用不銹鋼螺桿及絲母栓緊壓碟作保護防水物料之用，
- 4) 壓碟可視乎完成面厚薄而可作出調整，
- 5) 蓋上生鐵 / 不銹鋼拱冷或曲尺冷後用不銹鋼螺母栓緊，
- 6) 拱冷及曲尺冷，需要時可互換 (只供參考)



### ALU-Two-way outlet body (body) Installation Guide

Procedures:

- 1) Embed the body into the wall and concrete slab.
- 2) Apply waterproofing materials around the circumference of the outlet body and the surrounding concrete.
- 3) Place the clamping collar on top of the waterproofing materials and to tighten the S.S. set of screws and nuts to join with the outlet body.
- 4) The clearance between the clamping collar and Concrete level can be adjusted by means of the set of S.S. screws and nuts to accommodate different choice of floor finishing materials such as tiles, etc.
- 5) Place the C.I.or S.S. Elbow and Stant Grating in position with the collar and fasten the S.S. nuts to complete the installation.
- 6) The C.I.or S.S. Elbow and Stant Grating are interchangeable to suit on site drainage requirement.  
(For reference)



# Cast Iron Rainwater Two-way Side Outlets - Alu series

with Stainless Steel / Cast Iron Elbow Grating or Stainless Steel / Cast Iron Slant Grating

For Aboveground Surface, Rooftop and Other Areas



香港外觀設計專利號碼：0010312.3 及 0010313.5

中華人民共和國外觀設計專利號碼：ZL00303076.8 及 ZL00303075.X

## TECHNICAL SPECIFICATIONS

### A. MATERIALS (Stainless Steel Grating - complete of SS 316) (Cast Iron - comply of BS EN 1561:2011/EN-GJL-150)

1.	Outlet Body	Cast Iron
2.	Clamping Collar	Cast Iron
3.	Removable Grating Elbow Type/Slant Type *Both gratings are interchangeable	Stainless Steel 316 / Cast Iron
4.	Screws	Stainless Steel 304

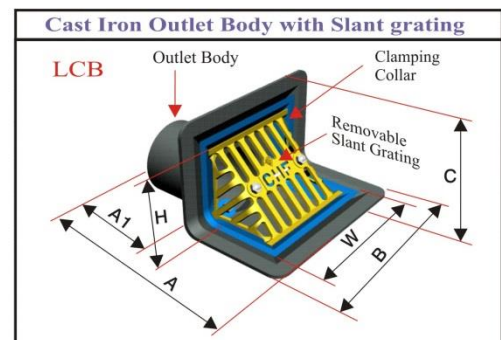
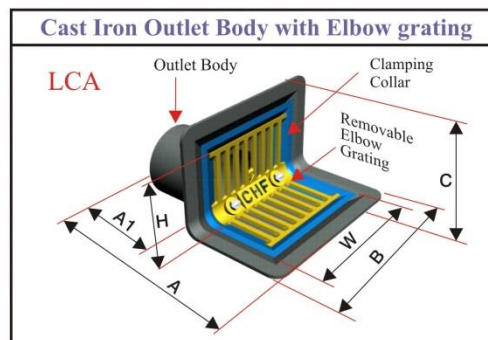
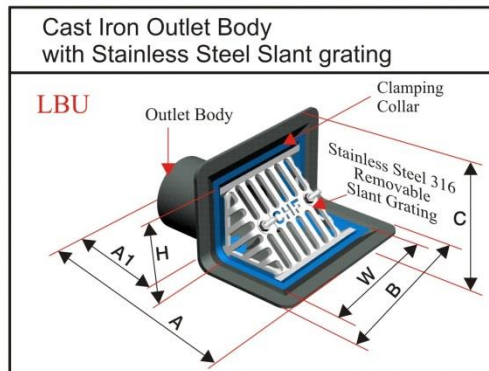
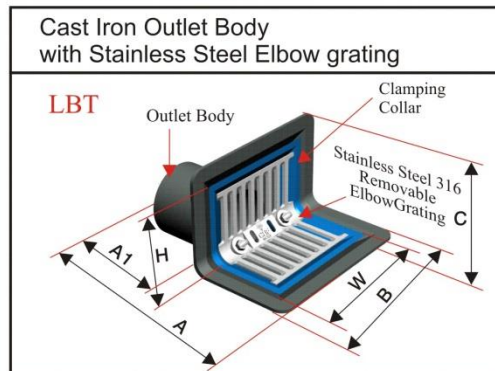
### B. PROTECTIVE COATINGS

1.	Outlet Body	Primer/Bitumen
2.	Clamping Collar	Primer
3.	Removable Grating Elbow Type/Slant Type	Stainless Steel / Primer

### C. DIMENSIONS (For Reference only)

Cast Iron Outlet Body with Stainless Steel & Cast Iron Grating (Elbow/Slant)											
Item	With Stainless Steel Grating Code No.	Cast Iron Code No.	Type	DN mm	Outlet Body Spigot End					S. S. / C. I. Grating Elbow / Slant	
					Length A mm	Length A1 mm	Net Tail Length mm	Width B mm	Height C mm	Width W mm	Height H mm
1.	LBT075	LCA075	Elbow grating	75	395/485	245/335	210/300	250	190	158	96
2.	LBT100	LCA100	Elbow grating	100	395/485	245/335	210/300	250	190	158	96
3.	LBT150	LCA150	Elbow grating	150	360	160	125	290	245	197	152
4.	LBU075	LCB075	Slant grating	75	395/485	245/335	210/300	250	190	158	96
5.	LBU100	LCB100	Slant grating	100	395/485	245/335	210/330	250	190	158	96
6.	LBU150	LCB150	Slant grating	150	360	160	125	290	245	197	152

### D. DRAWINGS



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CHEUNG HING FOUNDRY (HK) LIMITED



## TECHNICAL SPECIFICATIONS

### E. STANDARDS

Cast Iron comply with BS EN 1561-2011 - EN-GJL-150  
Stainless Steel Grating - complete of SS 316

### F. APPLICATIONS

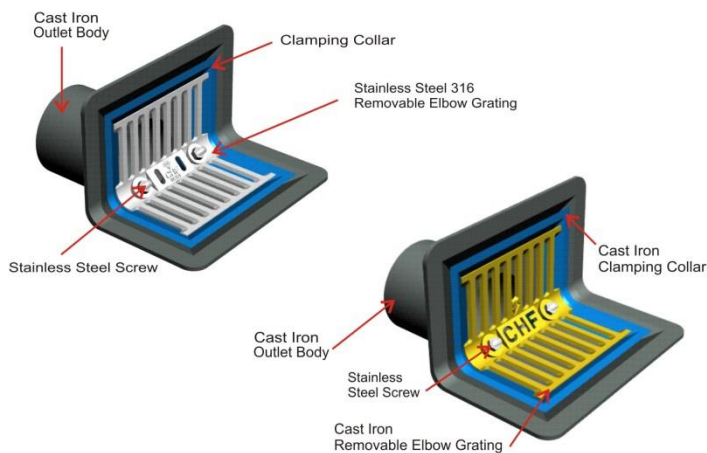
ALU Two-way Side Outlets are designed for applications where an angle is formed at the intersection of vertical and horizontal wall surfaces.

ALU Two-way Side Outlets can be connected to spigot and socket pipework, socketless cast iron pipework and other pipework system with appropriate application and proper installation method.

### G. DESIGN REGISTRATION

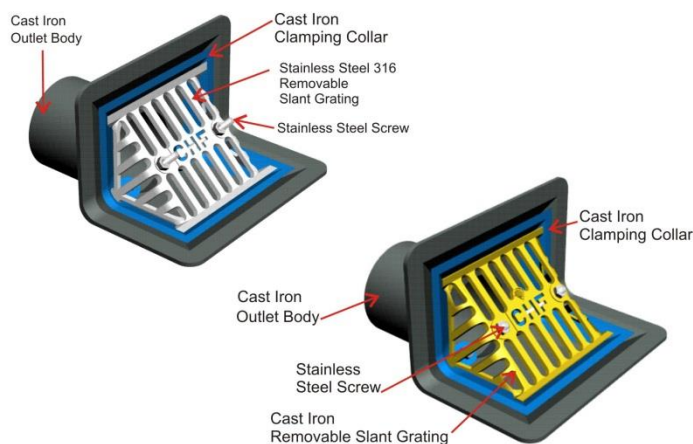
ALU Rainwater Side Outlets have successfully registered their designs in China and Hong Kong

**Fig. 1 ALU Cast Iron Rainwater Two-way Side Outlet with Stainless Steel / Cast Iron Elbow Grating**



Design Registration No. in HK: 0010312.3  
中華人民共和國外觀設計專利號碼: ZL00303076.8

**Fig. 2 ALU Cast Iron Rainwater Two-way Side Outlet with Stainless Steel / Cast Iron Slant Grating**



Design Registration No. in HK: 0010313.5  
中華人民共和國外觀設計專利號碼: ZL00303075.X

**CASTCO** 佳力高試驗中心有限公司  
**CASTCO TESTING CENTRE LTD.**  
香港粉嶺安樂街33號 33, On Kai Street, Fanling, Hong Kong Tel: 2677 2138  
香港粉嶺安樂街29A號 29A, On Chuen Street, Fanling, Hong Kong Fax: 2677 0351  
E-mail: castco@netvigator.com Website: www.castco.com.hk

**HKAS**  
ISO 9001:2015

**Test Certificate**  
Dimension check on discharge and ventilating pipes and fittings, sand-cast or spun in cast iron (Based on BS416: Part 1: 1990, Clause 4)

Date of issue: 26-03-2007  
Page 1 of 1 page  
Castco LRN: DP270314-0189 DIM

**Details as supplied by client**  
Client: Cheung Hing Foundry Ltd. Job title: --  
Contract no.: -- Client's ref. no.: --  
Sample description: DN100 Rainwater Side Outlet with Elbow / Slant Grating "ALU"  
Manufacturer: Cheung Hing Foundry Ltd. Brand: CHF  
Remark: Sample Submitted by: Asia Development (H.K.) Ltd.

**Laboratory test result**  
Date sample received: 14-03-2007 Date of test: 14-03-2007  
Dimensions Check  
Specimen no.: DP270314-0189

Dimensions	BS requirement from figure	Product requirement from code no. LCA100 LCB100	Measured mean value
A (LCA)	--	295 mm	295 mm
A1 (LCA)	--	145 mm	146 mm
B (LCA)	--	250 mm	249 mm
C (LCA)	--	190 mm	193 mm
H (LCA)	--	96 mm	96 mm
W (LCA)	--	158 mm	158 mm
A (LCB)	--	295 mm	295 mm
A1 (LCB)	--	145 mm	146 mm
B (LCB)	--	250 mm	249 mm
C (LCB)	--	190 mm	193 mm
H (LCB)	--	96 mm	96 mm
W (LCB)	--	158 mm	157 mm

Remarks: 1. Test result relates only to the specimen tested.

Checked by: **K. N. SIT**  
From the PIPE 22041-1, 21.02.01/02/2006 Item no. 027031

Approved Signature: **LEE WAI KWOK**  
B.Sc., C. Eng., MICE, MIMIE  
Registered Professional Engineer  
General Manager

Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HKLAS) for specific laboratory activities as listed in the HKLAS Directory of Accredited Laboratories. The results shown in this report are for use only by this laboratory in accordance with its terms of accreditation. This report shall not be reproduced unless with prior written approval from this laboratory.

**Eco-Casting-Products**



**祥興鑄鐵有限公司**  
**CHEUNG HING FOUNDRY (HK) LIMITED**

## TECHNICAL SPECIFICATIONS

### A. MATERIALS (Stainless Steel Grating - complete of SS 316) (Cast Iron - comply of BS EN 1561:2011/EN-GJL-150)

1.	Outlet Body	Cast Iron
2.	Removable Grating	Cast Iron
	Elbow Type/Slant Type	/
	*Both gratings are interchangeable	Stainless Steel
3.	Stainless Steel Screws & Nut	SS 304

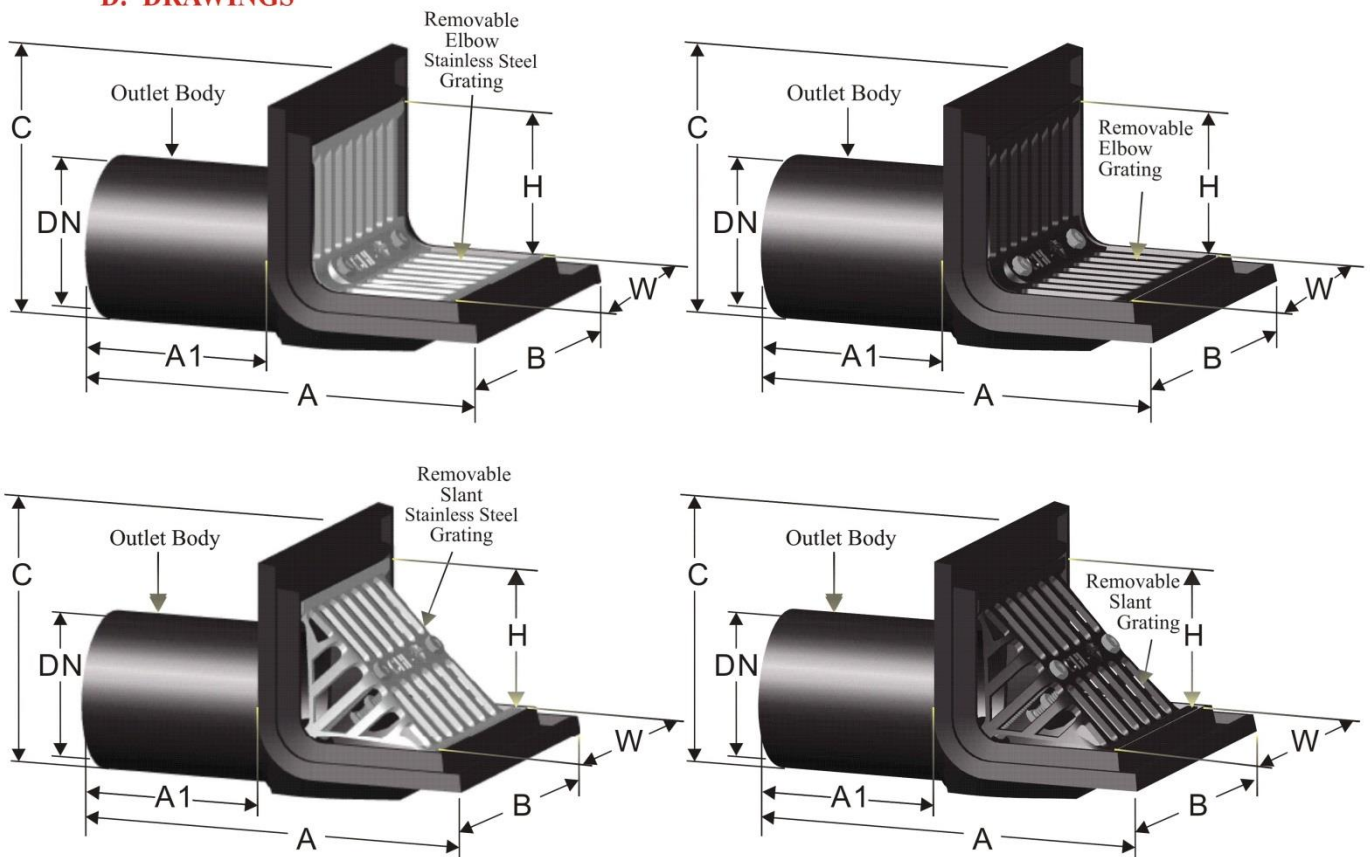
### B. PROTECTIVE COATINGS

1.	Outlet Body	Bitumen
2.	Removable Grating	Bitumen
	Elbow Type/Slant Type	Bitumen

### C. DIMENSIONS (For Reference only)

Cast Iron Outlet Body with Stainless Steel & Cast Iron Grating (Elbow/Slant)											
Item	With Stainless Steel Grating Code No.	Cast Iron Code No.	Type	DN mm	Outlet Body Spigot End					C. I. / S. S. Grating Elbow / Slant	
					Length A mm	Length A1 mm	Net Tail Length mm	Width B mm	Height C mm	Width W mm	Height H mm
1.	LAAT075	LAA075	Elbow grating	75	300/470	150/320	130/300	222	177	158	96
2.	LAAT100	LAA100	Elbow grating	100	300/470	150/320	130/300	222	177	158	96
4.	LABU075	LAB075	Slant grating	75	300/470	150/320	130/300	222	177	158	96
5.	LABU100	LAB100	Slant grating	100	300/470	150/320	130/300	222	177	158	96

### D. DRAWINGS





**佳力高試驗中心有限公司**  
**CASTCO TESTING CENTRE LTD.**

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

**HOKLAS**  
TEST

**Test Certificate**  
**Dimension check on discharge and ventilating pipes and fittings, sand-cast or spun in cast iron**  
(Based on BS416 : Part 1 : 1990, Clause 4)

Date of issue : 22 September 2014  
Page 1 of 1 page  
Castco LRN : DP0140915-083 DIM

**Details as supplied by client**  
Client : Cheung Hing Foundry (HK) Limited  
Contract no. : -- Job title : --  
Sample description : DN75 Rainwater two-way side double seal series outlet with elbow / slant grating  
Manufacturer : Cheung Hing Foundry (HK) Limited Brand : CHF  
Remark : Sample Submitted by : Asia Development (HK) Limited

**Laboratory test result**  
Date sample received : 15 September 2014 Date of test : 19 September 2014

**Dimensions Check**  
Specimen no. : DP0140915-083

Dimensions	BS requirement from figure --	Product requirement from code no. LAA075 / LAD075	Measured mean value
A	--	305 mm	302 mm
A1	--	130 mm	127 mm
B1	--	150 mm	150 mm
B2	--	100 mm	100 mm
D	>74 mm	--	77 mm
H	--	177 mm	175 mm
T	5 (+0, -1.5) mm	--	3.61 mm
W1	--	222 mm	224 mm
W2	--	165 mm	164 mm
b1	--	150 mm	150 mm
b2	--	100 mm	100 mm

Remarks : 1. Test result relates only to the specimen tested.  
2. Compliance of the test results to the specification is an opinion of the laboratory and is not covered by HOKLAS accreditation.  
3. Test results of the sample comply with the requirement of BS416 : Part 1 : 1990, Clause 4.

Checked by : Approved Signatory :   
SIT KWAN NING Laboratory Supervisor  
LEE WAI KWAN B.Sc., C. Eng., M.C.S. Registered Professional Engineer  
Form No. PIPE DIM416, T1 & 01/09/2006 Item no. DP01501

**End of Report**

HOKLAS has accredited this laboratory (Reg. No. 032 - TEST) under HOKLAS for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. This laboratory is accredited in accordance with the recognised International Standard ISO 9001:2005. The accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAP Communication dated January 2009).

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**CASTCO TESTING CENTRE LTD.**

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

**HOKLAS**  
TEST

**Test Certificate**  
**Dimension check on discharge and ventilating pipes and fittings, sand-cast or spun in cast iron**  
(Based on BS416 : Part 1 : 1990, Clause 4)

Date of issue : 22 September 2014  
Page 1 of 1 page  
Castco LRN : DP0140915-084 DIM

**Details as supplied by client**  
Client : Cheung Hing Foundry (HK) Limited  
Contract no. : -- Job title : --  
Sample description : DN100 Rainwater two-way side double seal series outlet with elbow / slant grating  
Manufacturer : Cheung Hing Foundry (HK) Limited Brand : CHF  
Remark : Sample Submitted by : Asia Development (HK) Limited

**Laboratory test result**  
Date sample received : 15 September 2014 Date of test : 19 September 2014

**Dimensions Check**  
Specimen no. : DP0140915-084

Dimensions	BS requirement from figure --	Product requirement from code no. LAA100 / LAD100	Measured mean value
A	--	305 mm	304 mm
A1	--	130 mm	130 mm
B1	--	150 mm	150 mm
B2	--	100 mm	101 mm
D	>99 mm	--	102 mm
H	--	177 mm	173 mm
T	5 (+0, -1.5) mm	--	3.70 mm
W1	--	222 mm	223 mm
W2	--	165 mm	164 mm
b1	--	150 mm	151 mm
b2	--	100 mm	100 mm

Remarks : 1. Test result relates only to the specimen tested.  
2. Compliance of the test results to the specification is an opinion of the laboratory and is not covered under the HOKLAS accreditation.  
3. Test results of the sample comply with the requirement of BS416 : Part 1 : 1990, Clause 4.

Checked by : Approved Signatory :   
SIT KWAN NING Laboratory Supervisor  
LEE WAI KWAN B.Sc., C. Eng., M.C.S. Registered Professional Engineer  
Form No. PIPE DIM416, T1 & 01/09/2006 Item no. DP01501

**End of Report**

HOKLAS has accredited this laboratory (Reg. No. 032 - TEST) under HOKLAS for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. This laboratory is accredited in accordance with the recognised International Standard ISO 9001:2005. The accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAP Communication dated January 2009).

## TECHNICAL SPECIFICATIONS

### A. MATERIALS

1.	Outlet Body	Cast Iron
2.	Removable Grating	Comply of
	Elbow Type/Slant Type	BS EN1561:2011
	*Both gratings are interchangeable	/ EN-GJL-150
3.	Stainless Steel Screws	S. S. (304)

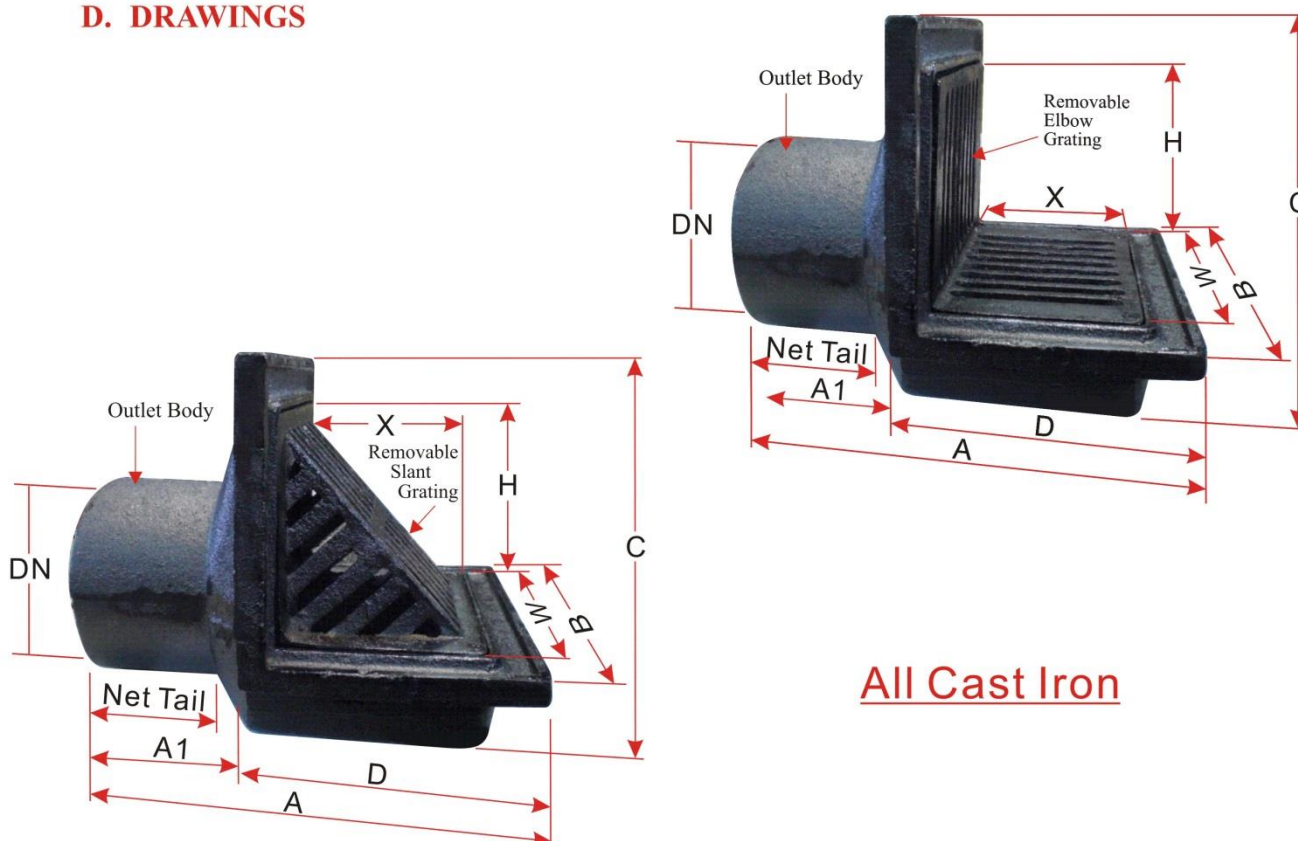
### B. PROTECTIVE COATINGS

1.	Outlet Body	Bitumen
2.	Removable Grating	Bitumen
	Elbow Type/Slant Type	

### C. DIMENSIONS (For Reference only)

Cast Iron Outlet Body with Cast Iron Grating (Elbow/Slant)												
Item	Cast Iron Code No.	Type	DN mm	Outlet Body Spigot End						C. I. Grating Elbow / Slant		
				Length A mm	Length A1 mm	Net Tail Length mm	Width B mm	Height C mm	Height D mm	Width X mm	Width W mm	Height H mm
1.	LAA150	Elbow grating	150	340	140	100/300	290	260	200	145	210	157
4.	LAB150	Slant grating	150	340	140	100/300	290	260	200	145	210	157

### D. DRAWINGS



**All Cast Iron**



**CASTCO**

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

香港粉嶺安居街33號 33, On Kui Street, Fanling, Hong Kong. Tel : 2677 2138  
香港粉嶺安全街29A號 29A, On Chuen Street, Fanling, Hong Kong. Fax: 2677 0351  
E-mail: castco@netvigator.com Website: www.castco.com.hk



### Test Report

### Dimension check on discharge and ventilating pipes and fittings, sand-cast or spun in cast iron

(Based on BS416 : Part 1 : 1990, Clause 4)

Date of issue : 01 September 2016

Page 1 of 1 page(s)

Castco LRN : DP0160823-106 DIM

### Details as supplied by customer

Customer: Cheung Hing Foundry (HK) Limited

Customer's ref. no. : --

Address: P.O. Box 1323, Yuen Long Delivery Office, Yuen Long

Contract no. : --

Job title : --

Sample description : DN150 Rainwater Double Seal Series Outlet with Elbow / Slant Grating

Manufacturer : Cheung Hing Foundry (HK) Limited

Brand : CHF

Remark : Sample submitted by : Asia Development (HK) Limited

Sample marking : BS416 150 CHF

### Laboratory test result

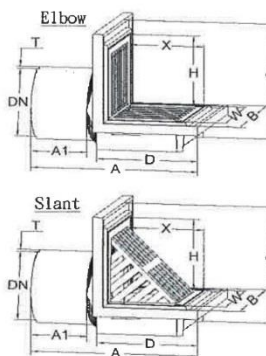
Date sample received : 23 August 2016

Date of test : 31 August 2016

### Dimensions Check

Specimen no. : DP0160823-106

Dimensions	BS requirement from figure --	Product requirement from code no. LAA150 / LAB150	Measured mean value
A	--	340 mm	336 mm
A1	--	100 mm	105 mm
B	--	290 mm	290 mm
C	--	260 mm	260 mm
D	--	200 mm	200 mm
T	5 (+0.0 / -1.5) mm	5 mm	4.75 mm
X	--	140 mm	140 mm
W	--	210 mm	212 mm
H	--	155 mm	153 mm
DN	≥150 mm	150 mm	150 mm



- Remarks :
1. Test result relates only to the specimen tested.
  2. Compliance of the test results to the specification is an opinion of the laboratory and is not covered under the HOKLAS accreditation.
  3. Test results of the sample comply with the requirement of BS416 : Part 1 : 1990, Clause 4.

Checked by :

SIT KWAN NING  
Laboratory Supervisor

Approved Signatory :

End of Report

WONG KA MAN  
Laboratory Manager

Form No. PIPE DIM416\_T3 dd 20/08/2015

Item no. DP0501

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