# 安裝手册 Installation Manual



氣體熱水爐 Gas Water Heater

Giw-12N2(TG)、Giw -12UPN2(TG)······FOR TOWN GAS 煤氣適用Giw-12N2(LPG)、Giw -12UPN2(LPG)······FOR LP GAS 石油氣適用

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World Engineering Limited http://www.worldhk.com.hk

### ■ 測試操作

- 當完成安裝之後,依照以下的步驟試爐
- 注意:
  - 1. 測試操作前,一定確定以下幾點:
    - a. 熱水爐/排氣喉與易燃物體之間的距離是否足夠?
    - b. 熱水爐四周環境的情況是否妥當?
    - c. 熱水爐的四周是否留有足夠空間以方便維修?
    - d. 是否已經達到安裝要求?
- 2. 檢查水管

開水掣及熱水龍頭,確定有水供應,並留意是否有漏水。檢查時,一定要拔去電源

- 3. 用鹼水或洗潔精塗在氣喉接駁處,檢查是否有泄漏氣體
- 4. 檢查地線是否導電性能良好
- 5. 檢查爐面板是否已上緊

#### 步驟:

1. 將氣喉內的空氣清除

要將氣喉內的空氣排出,熱水爐才可打著火

將熱水龍頭打開五秒鐘,然後關上三秒鐘

再重覆以上步驟直至爐頭被打著為止

- 2. 按使用説明書第九頁及十頁的開爐程序來打著熱水爐
- 3. 如有任何問題,翻閱使用説明書第十三頁的修理指南檢驗

### ■ Trial Operation

- After the installation is completed, carry out trial run following the below procedures
- CAUTIONS:
- 1. Confirm the following points before trial operation
  - a. Is there enough distance between the heater / exhaust pipe and inflammable?
  - b. Is ambient condition for the heater all right?
  - c. Is there enough servicing space around the heater?
  - d. Are the installation requirements satisfied?
- 2. Confirm the water pipings

Open the water main valve and hot water faucet and confirm that water is flowing out from the faucet. Also confirm whether there is any water leakage. At this time, make sure to plug out the power supply

- 3. Confirm whether there is any gas leakage by applying soap sud or detection solution to piping connections
- 4. Confirm whether grounding is correctly conducted
- 5. Confirm whether the front panel is firmly screwed

#### Procedures:

1. Remove air in the gas pipe

The heater does not ignite until the air in the pipe is removed. Open the hot water faucet for 5 seconds and close it for 3 seconds. Repeat them until the main burner ignites

- 2. Follow the ignition procedures as described in page 9 and page 10 of Operation Manual to ignite heater
- 3. If any trouble should take place, confirm and repair it refering to Trouble Shooting guide on page 13 of Operation Manual

### 適用於香港

注意!根據香港氣體安全規例,任何氣體裝置工程,包括爐具和接駁喉管的安裝,必須由註冊氣體裝置技工執行,而該技工已於相關的氣體工程類別註冊及受聘於註冊氣體工程承辦商。

### For Use in Hong Kong

Attention! According to the Gas Safety Regulations of Hong Kong, any gas installation works including the installation of appliances and connection tubing, must be undertaken by registered gas installers who are registered for that appropriate classes and be employed by registered gas contractors.

### 安裝後之檢查

Inspection after installation

### ● 檢查項目表

Check List

項目 Itmes	內容 Content		
氣體種類 Gas type	所用之氣體是否熱水爐上標貼所標明的氣體? Does gas type used correspond to the one specified in the speciication label on the heater?		
電源(電壓/頻率) Power supply (Voltage/Frequency)	所供應的電源是否熱水爐上標明的電源 (AC220V/50Hz)? Does power supply correspond to the one described in the specification label (AC220V/50Hz) on the heater?		
與易燃物品的距離 Distance from inflammables	熱水爐與易燃物品的距離是否足夠?是否有適當防火措施? Is there enough distance between the heater and inflammables? Are appropriate measures taken for fire prevention?		
安裝的條件	熱水爐與窗口及障礙物品的距離是否足夠?		
Conditions of installation	Is there enough distance between heater and windows or obstacles?		
維修空間	是否有足夠空間供檢查及維修工作?		
Maintenance space	Is there enough space for inspection and repair work?		
煙道系統	熱水爐的煙道系統是否正常工作?		
Flue system	Is the heater installed where the flue system work properly?		
安裝(水平地)	熱水爐是否水平安裝?		
Installation(level with ground)	Is the heater installed level with ground?		

#-1.72 #-1.95 ** 7.45	你是否開啟主水閥門來測試有沒有水供應? Did you check water supply by opening main water valve?	
供水及熱水管道系統 Water supply and hot water piping system	濾水器內是否有雜物? Is there any foreign material in the water filiter?	
	水管接駁位有沒有漏水? Is there any water leakage at water connection?	
氣體管道系統 Gas piping system	氣體管道是否安裝妥當? 是否有氣體泄漏? Is gas piping system installed properly? Is there any gas leakage?	
電力安裝	電力安裝是否跟指示進行? Is electric work completed in accordance with instructions?	
Electric work	地線是否緊固接駁? Is grounding connection firm?	

# 給註冊氣體裝置技工 To Registered Gas Installer

安裝熱水爐必須遵照本安裝手冊之要求以確保熱水爐安全操作

若不遵照本安裝手冊之要求,將會收取熱水爐維修費。安裝完成後須將安裝手冊給與用戶Installation of the heater must comply with this manual for safety operations.

If the installation does not comply with this manual, repairs required to fixing heater will be charged. Make sure to give this manual to user after installation is completed.

### 給用戶 To User

此熱水爐是家用式,請勿作商業用途(如酒樓...等)

This heater is for domestic use, do not use it for commercial purposes (restaurant, etc.)

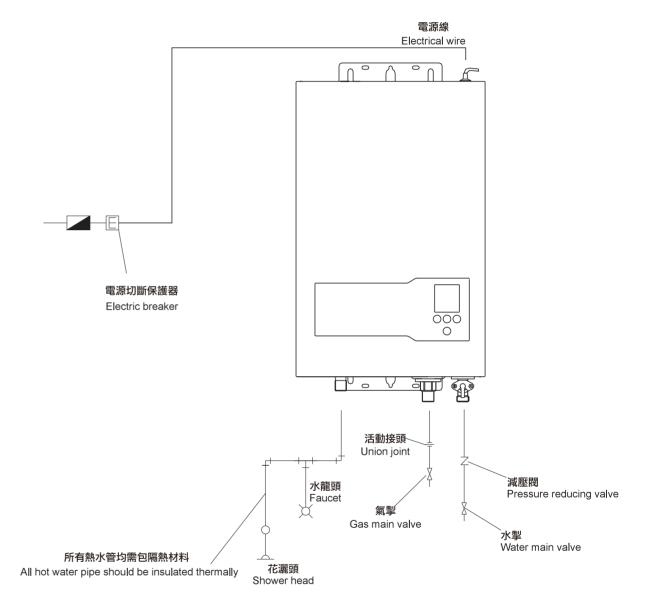
# 配件 Accessories

零件名稱 Parts Name	外 觀 Appearance	數 量 Quantity
使用説明書 Operation Manual		1
安裝手冊 Installation Manual		1
保證書 Warranty Card		1
螺絲 Screws		1

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### ■ 安裝範例

# Example of Installation



#### Hot Water Piping

- Use copper pipe. Do not use iron pipe. They may burst when used
- Install the heater near where hot water is frequently used and make hot water piping as short as possible
- The number of joints used in the piping should be as minimum as possible. Do not have a complicated piping arrangement
- Do not allow any air pocket or trap during piping. If there is any air pocket, it may take a rather long time before the main burner flame goes out after the faucet is closed. Even, there may be a case that the heater will be ignited instantly when the other faucet is opened even if the hot water faucet is closed
- Arrange hot water piping so that it has a falling gradient. (1/100~1/200)
- Use a shower head with minimum water pressure loss
- When arranging hot water piping to the second floor, the minumum required water pressure at the water inlet of the heater should be more than 1.5kg/cm
- When the hot water piping is arranged as described in Fig.1 draining water is not possible. Make sure to have a drain cock at appropriate place

#### ■ 氣體喉管

- 在熱水爐氣體入口一定要安裝氣掣
- 接駁氣喉至入氣口時,要用活動接頭以預留生位
- 氣喉系統不應超過20米,否則要用3/4寸或更大喉管

#### Gas Piping

- Make sure to have gas main valve under the heater
- Use union when connecting gas pipe with gas inlet
- Gas piping system should be no longer than 20m, or otherwise use 3/4" or larger pipe

#### ■ 電力安裝 Electric Work

#### ■ 注意

- 此熱水爐是使用AC 220/50Hz電源來操作,在接駁前一定要檢查清楚電源類別
- 線路系統已有漏電斷路裝置RCD(15mA)

#### Cautions

- This heater is operated on AC220/50Hz, confirm the power supply before electrical connection is made
- There is a safety device RCD(15mA) in the circuit system

#### ■ 電源接駁 Electric Wire Connection

請將電源線與電源正確連接

• The electric wire must be connected with the power supply correctly

### 安全指示

### Safety instructions

#### 必須嚴格遵照以下項目以避免用戶或他人受到傷害及財物受到損壞

The below listed items shall be strictly followed to prevent user and other people from suffering an injury and to prevent your property from being damaged

■ 當不遵照 "注意事項"而發生意外,表示受傷及破壞之程度的標誌如下:
The below markings show the level of injury and damage caused when cautions are not followed



# 警告

項目有此標誌表示可能會有生命危險及嚴重受傷

WARNING This marking is labeled on those items that any death or a serious injury is expected



注意

項目有此標誌表示可能會有受傷及財物受到破壞

CAUTIONS This marking is labeled on those items that any injury and material damage is expected

#### ■ 以下標誌會用於安裝手冊

The below listed markings are used in the installation manual



此標誌表示須提高警覺

This marking is given to those items to call your attention



此標誌給禁止項目使用

This markings is given to those items banned



此標誌代表這些項目必須確實遵從

This markings is given to those items to be strictly followed

熱水爐安裝標準

Standards for heater installation

■ 熱水爐安裝必須遵照當地的條例,標準,法例及指引

Installation must comply with local laws, standards, regualtions and guidelines



**整**生

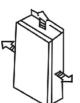
熱水爐旁:超過45毫米 Side: more than 45mm

WARNING

確定熱水爐安裝位置旁的牆壁及屋頂是由防火物料製造及與熱水爐之間有足夠距離達到防火效能

Confirm that walls and ceiling where heater is installed are made of the fire preventive materials and that enough distances between heater and walls and ceiling are secured for fire prevention





若沒有足夠距離,可能導致火警

If not enough distances, a fire may be caused

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Installation Manual

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Installation Manual

### 安全指示

# Safety instructions

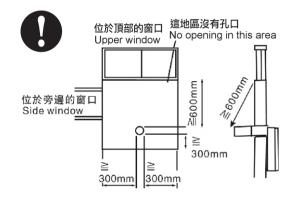


# 警告

### WARNING

■ 確定熱水爐安裝位置四周沒有窗口。(若有窗口,熱水爐須與窗口保持足夠距離。熱水爐 頂之窗口:超過600毫米,熱水爐旁之窗口:超過300毫米)

Make sure to install heater where there is no window around the heater. (If there is a window, make sure to secure enough distance between heater and window. Window above heater: more than 600mm. Window at side of heater: more than 300mm)

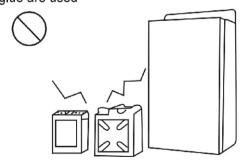


若廢氣回氣入室內,可能導致產生有毒一氧化碳

If the exhaust air returns inside the room, a carbon monoxide toxication may be caused

■ 切勿安裝熱水爐在使用易燃物品之地方,如 汽油、苯、火水及黏合劑

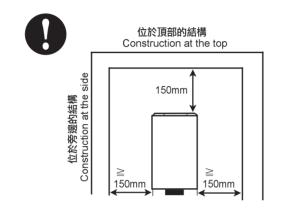
Do not install the heater where, inflammables including gasoline, benzene, kerosene and glue are used



可能導致火警 A fire may be cuased

■ 確定熱水爐與易燃物品之間有足夠距離,如 下述:

Make sure to secure enough distance between heater and inflammables as described below



若足夠距離不能維持,熱水爐或結構材料會因受熱而導致火警 If enough distance is not secured, heater or construction materials may be heated to cause fire

■ 切勿安裝熱水爐在可燃物品附近,如衣物 Do not install heater near combustibles like cloth





可能導致火警 A fire may be cuased

- Do not connect water supply pipe with hot water outlet. The heater will not operate
- Before connecting pipes with water inlet, make sure any dust in the piping will be poured out.
- Standard pressure loss in piping ststem

Straight pipe (G1/2 / per meter): 0.012kg/cm<sup>2</sup> (at flowrate of 10 liters/min)

Straight pipe (vertical rise) : additional 0.1kg/cm² per meter 90° Elbow : equivalent to 0.6m straight pipe

45° Elbow : equivalent to 0.36m straight pipe
T pipe (direct flow) : equivalent to 0.18m straight pipe

Allowance in total piping system: 0.3kg/cm<sup>2</sup>

- Example
  - 1) When faucet is used :

Straight pipe : 8m x 0.012 = 0.096kg/cm<sup>2</sup>

Elbow : 2 x 0.012 x 0.6 = 0.0144kg/cm<sup>2</sup>

T pipe : 2 x 0.012 x 0.18 = 0.00432kg/cm<sup>2</sup>

faucet A : 0,125 x kg/cm<sup>2</sup>

Minimum operating pressure : 0.2kg/cm²

Allowance : 0.3kg/cm²
Total : Approx 0.7kg/cm²

2) When shower head is used

Straight pipe :  $3.8 \text{m x } 0.012 + 0.18 = 0.2256 \text{kg/cm}^2$ 

90° Elbow :  $0.012 \times 0.6 = 0.0072 \text{kg/cm}^2$ 90° T pipe :  $0.012 \times 0.9 = 0.0108 \text{kg/cm}^2$ 

Shower head: 0.5kg/cm<sup>2</sup>

Minimum operaing pressure + allowance = 0.5kg/cm<sup>2</sup>

Total : Approx 1.24kg/cm<sup>2</sup>

Note: Shower head pressure loss is subject to type of shower head used

### ■熱水喉管

應用銅喉,切勿使用鐵喉或塑膠喉,因使用時可能會爆裂。

盡量縮短喉管,及將熱水爐安裝於最常使用熱水的地方。

喉管越少接駁位越簡單越好。

駁喉時切勿留有氣阱。如果有氣槽或氣阱,熱水龍頭被關閉後,還要等一段長時間爐火才會熄滅。

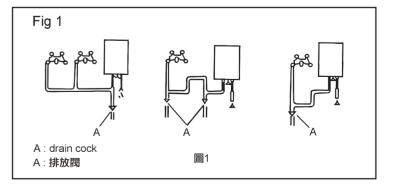
甚至即使熱水龍頭已被關閉,當其他水龍頭開啟時,熱水爐也可能會立即被燃點著。

安裝熱水管要保持一個向下的傾斜度。(1/100~1/200)

使用一個阻力最少的花灑。

如伸延熱水喉管上樓時,熱水爐入水口的水壓最少要有1.5公升/平方厘米。

如熱水爐管排列如(圖1)是不可能排水,一定需要有個排放閥。



#### ■ 供水喉管

安裝喉管時需要考慮到減除喉管系統內的壓力損失後,仍有足夠的水壓操作熱水爐 需要最低的水壓=操作時需要的水壓(0.2公斤/平方厘米)

+喉管系統內所損失的水壓

+0.3公斤/平方厘米(多預的壓力)

- 在熱水爐供水入口一定要安裝水掣,因檢修熱水爐及排水時都是要關閉掣
- 切勿將供水喉管接駁到熱水出口,這樣熱水爐是不能操作的
- 將喉管接駁至入口前,一定要確定所有喉管內的污垢都己被沖出
- 喉管系統內通常的壓力損失

直喉 (G1/2寸/米) : 0.012千克/平方厘米(如果每分鐘流量是10公升)

: 以上的數字再加每平方厘米0.1千克 直喉(垂直升高,每米) 90°曲尺 : 相等於0.6米直喉所減低的壓力 45°曲尺 : 相等於0.36米直喉所減低的壓力 三叉 (直流) : 相等於0.18米直喉所減低的壓力

整個喉管系統再多預的壓力損失 : 0.3千克/平方厘米

1 當使用水龍頭

: 8米 x 0.012 = 0.096千克/平方厘米 直喉 90°曲尺 : 2 x 0.012 x 0.6 = 0.0144千克/平方厘米 90°三叉 : 2 x 0.012 x 0.18 = 0.00432千克/平方厘米

水龍頭A : 0.125千克/平方厘米 最低操作水壓 : 0.2千克/平方厘米 再多預的壓力損失: 0.3千克/平方厘米 總數 : 大約0.74千克/平方厘米

2. 使用花灑

直喉 : 3.8米 x 0.012 + 0.18 = 0.2256千克/平方厘米

90°曲尺 : 0.012 x 0.6 = 0.0072千克/平方厘米 90°=⊽ : 0.012 x 0.9 = 0.0108千克/平方厘米

花灑 : 0.5千克/平方厘米

最低操作水壓 + 再多預的壓力損失 : 0.5千克/平方厘米

: 大約1,24千克/平方厘米 注意:花灑耗用多少水壓是要視乎花灑的類型

#### ■ Water Supply Piping

During fix the water pipe, please consider the water pressure lossing inside piping, and need to keep enough water pressure for ignition.

Minimum required water pressure = operating water pressure (0.2kg/cm²) (At water inlet)

+ pressure loss in piping system

+ 0.3kg/cm<sup>2</sup> (Allowance)

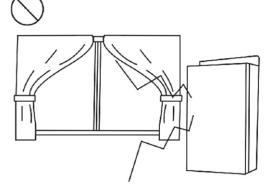
Be sure to have main water valve under the heater. It is necessary when servicing or draining water.

### 安全指示

# Safety instructions

■ 切勿安裝熱水爐在有可燃物品的地方,如窗簾

Do not install heater where combustible materials like curtains and furniture are installed



可能導致火警 A fire may be caused

■ 切勿使用非熱水爐上標貼所標明之電力(伏特/ 頻率)及氣體供應

Do not use gas and power supply (voltage/ frequency) other than specified in the specification lable on heater

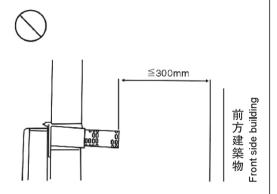


若使用其他電力及氣體,熱水爐可能不正常操作,而不正常 燃燒可產生有毒一氧化碳及可能導致火警

If other type of gas and electricity is used, heater may not operate properly and carbon monoxide toxication and fire may be caused by an abnormal combustion

■ 排煙管前面需與障礙物保持300毫米,若不能 達到,切勿安裝

Do not install the flue when there is any obstacle (wall, ect) within 300mm in front of the heater



廢氣回流可能導致不正常燃燒而引致火警 Abnormal combustion may take place by returned exhaust air to cause fire

■ 煙道必須密氣及安裝穩固

Flue duct must be airtight and firmly fixed



若煙道安裝不妥當,廢氣可能回流室內或煙道不能正常操作 而導致不正常燃燒,缺氧或產生有毒一氧化碳可能發生

If the flue duct is not installed properly, exhaust air may return into the room or flue system may not work properly to cause an abnormal combustion. A oxygen depletion or a carbon monoxide toxication may be caused

# 警告 WARNING

■ 安裝必須由專業註冊氣體裝置技工執行 Installation must be done by a Registered Gas Installer



■ 確定使用生產商指定之煙道

Make sure to use the flue duct specified by the manufacturer

若使用不是生產商指定之煙道,煙道安裝不妥當,

manufacturer, or the flue is not installed

properly, exhausted air may reflux into room,

and the flue may not operate properly, this

cause abnormal combustion. Hypoxia and

carbon monoxide toxication may be caused



廢氣可能回流室內或煙道不能正常操作而導致不正常燃燒,缺氧或產生有毒一氧化碳可能發生由非認可專業計冊氣體裝置技工安裝不當的熱水爐 If using a flue which is not specified by the

If the installation is not carried out properly by a RGI, an oxygen depletion or a carbon monoxide toxication may be caused

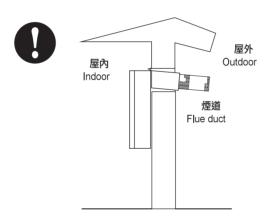
,可能產生缺氫或有毒一氫化碳

■ 安裝煙道時,確定煙道不會滑出其位置 When the flue duct is installed, make sure that flue duct will not slip out of position



■ 確定安裝煙道面向室外

Make sure to install the flue duct so that the duct faces outdoor



若廢氣回流入室內,可能導致缺氧或產生有毒一氧 化碳

If exhaust air returns into rooms, an oxygen depletion or a carbon monoxide toxication may be caused

若廢氣回流入室內,可能導致缺氧或產生有毒一 氧化碳

If exhaust air returns into rooms, an oxygen depletion or a carbon monoxide toxication may be caused

#### ■ 更換原有之對衡式熱水爐

- 1 關閉冷水來水掣及氣掣
- 2. 打開熱水龍頭及熱水爐的排水閥,將原有熱水爐內之水排去
- 3 拆除原有所有連接喉管,熱水爐及通氣管,但保留原有通氣管套通
- 4. 將新爐之通氣管套通裝於原有套通上,用絲母收緊,並將突出之螺絲切平
- 5. 新舊套通間之隙須用適當之防水物料如海棉膠邊等封好,以免雨水進入
- 6 其餘安裝方法與新安裝相同

### ■ Replacement of existing balanced flue heater

- 1. Close the cold water supply valve and gas supply valve
- 2. Open the hot water faucet and the drain cook of the heater to drain the water inside the existing water heater
- 3. Dismantle the existing connecting piping, water heater and flue terminal, but keep the flue sleeve
- 4. Install the new sleeve onto the existing sleeve, fix all the bolts with nuts and out the protruded bolts after tightening the nuts
- 5. Sell the gap between the two sleeves with suitable water proofing materials such as foamed rubber tape to avoid rain water from passing through into the bathroom
- 6. Install the water heater following the same procedures for new installations

#### ■ 喉管

- 本熱水爐使用銅喉
- 須確定喉管接駁於正確的入口及出口
- 使用以下尺碼的喉管

供水喉: G1/2 熱水喉: G1/2 供氣喉: G1/2

#### Piping

- · Piping of this heater is made of copper
- Be sure to connect each pipe with a correct inlet / outlet as described
- Use below size of pipes:
   Water supply : G1/2
   Hot water supply : G1/2
   Gas supply : G1/2

### ■ 頂排式熱水爐安裝步驟

### Top flue installation procedure of the heater

 確定熱水爐的安裝位置後,按圖示位置和要求鑽孔, 所鑽的孔應能保證熱水爐安裝後垂直

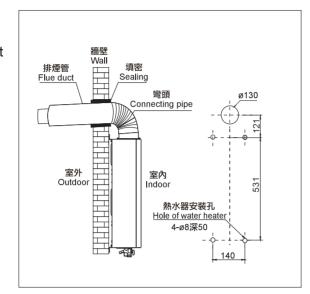
Ensure the water heater installation position, drill out holes as drawing required and be sure the drill out position can install the water heater vertically

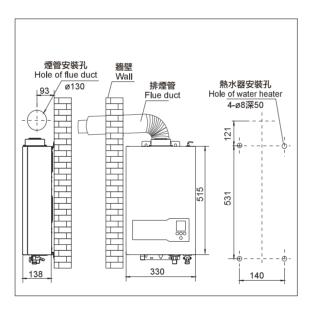
- 2. 4-ø8孔用螺釘固定 Fixing with 4-ø8 screws
- 3. 煙管背向安裝時,將煙管插入鑽好的煙管安裝孔, 排煙口向外,將彎頭插進熱水爐的出煙口,彎頭的 另一端正對準煙管,煙管套入彎頭,然後一齊向後 移,熱水爐的安裝孔對準膨脹螺釘,將其掛在螺釘 上,擰緊螺母固定。(注意彎頭有方向性,並且彎 頭兩端接口處應用箔紙密封固定)

When install the flue duct opposite to the wall, please plug in the flue duct into drilled hole, and the outlet part towards outside, and then plug the connecting pipe in the flue outlet of the water heater. Connect the connecting pipe with the flue duct, and then mount the water heater onto the plastic plug, and fix it by using the nut. (Please mind that the connecting pipe could turn multi-directional and please seal and fix it by using aluminium-foil paper.)

4. 煙管側安裝時將熱水的安裝孔對準膨脹螺釘,將其 掛在螺釘上,擰緊螺母將熱水爐固定好,將煙管放 入煙管煙管安裝孔中,彎管插進熱水爐出煙口上, 再將煙管套入彎管中(同樣也要在彎頭兩端貼鋁箔 紙密封固定)。

When install the flue duct in side direction, please mount the water heater onto the plastic plug, and fix it by using the nut. Put the flue duct into the drilled hole in the wall and connect it with the water heater by connecting pipe (Please seal and fix it by using aluminium-foil paper.)

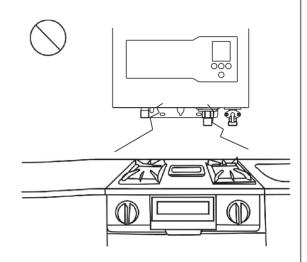




### 安全指示

# Safety instructions

■ 切勿安裝熱水爐在煮食爐具頂部
Do not install the heater above cooking appliances

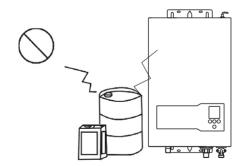


#### 煮食爐具的廢氣及油膩物質可能損壞熱水爐

The heater may be damaged by exhaust air and oily materials produced by cooking appliances

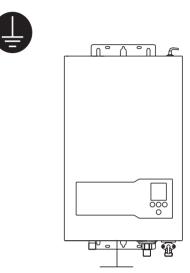
■ 切勿安裝熱水爐在使用特別化學物品的 地方,如一般洗衣工場及工廠所使用的 氨,硫磺及酸等

Do not install the heater where special chemicals are used such ammonia, sulfur, acidic materials, etc., which are generally used at laundry and factory



#### 氨氣混合物對人體有害及損壞熱水爐

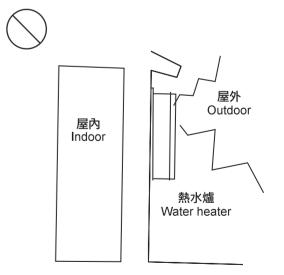
A corrosive gas produced by chlorine compound is harmful to human body and the heater may also be damaged ■ 確定熱水爐已接地 Make sure to ground the heater



#### 漏雷可能道致觸雷

Any electric leakage may cause an electric shock

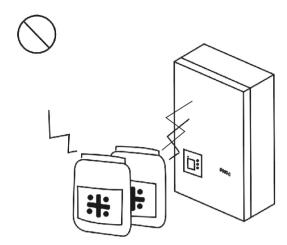
■ 熱水爐切勿安裝於室外 Do not install the heater outdoor



若安裝於室外,風雨可能導致熱水爐產生問題或火警 If it is installed outdoor, it may cause a fire or trouble by wind and rian

### 注意 **CAUTIONS**

■熱水爐切勿安裝在煮食器皿及食物上面 Do not install the heater above cooking utensils and foods



#### 當熱水爐殘舊時,鐵銹及煤粒可能脱落

Rust and soot may fall off from the heater when it becmoes old

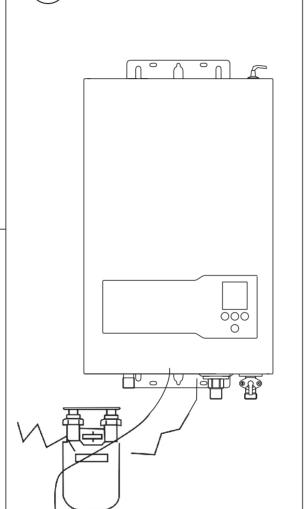
■切勿將熱水爐安裝在車輛或船上 Do not install the heater on vehicles and vessels



熱水爐可能受震盪而趺下來

The heater may fall down accidentally due to vibration

■切勿將電源線接駁在氣體喉管上 Do not connect electrical wirings to the gas piping



#### 漏雷可能導致觸雷或火警

An electrical leakage may cause an electrical shock or a fire

# 熱水爐安裝

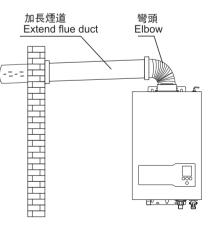
### Heater Installation

### ■ 煙道安裝指引 Instructions on flue duct installation

- 1. 確定煙道安裝是否符合下列要求 Make sure to confirm whether flue duct installation meets the below requirements
- 煙道是否面向室外? Is flue duct facing outdoor?
- 煙道孔道是否有防火結構? Does flue duct hole on the wall have a fire preventive construction?
- 2. 安裝熱水爐必須沒有傾斜 The heater must be installed without any inclination
- 3. 煙道切勿安裝於下部潮濕的地方 Do not install the flue duct where humidity and vapor comes from underneath

### 4、加长煙道

- 4.Extend flue duct
- 煙道材料:壁厚不小於0.3mm的不銹鋼或同等級以上其它材料。 flue duct material: the minimum thickness of flue duct should be in 0.3mm stainless steel or same grade others material.
- 如對煙道進行加長,中間必須用同一直徑的煙道連接,且煙道總長度不大於1.5m。與 彎頭及原煙道連接處用鋁箔不乾貼密封,煙道的彎曲次數應盡量少,只可以有一個彎頭。
- \* if need to extend the flue duct, the exactly same diameter of extended duct must be connected between the elbow and the orginal flue duct, which maxumum length is 1.5m. pls used the aluminium-foil- paper for sealed all connection. the whole flue duct need to be keep straight as possible and being bend no more than 1 elbow.
- 加長管只能接在彎頭與煙道中間,切不可接在煙道外端 extended duct only could be fixed between elbow and oiginal flue duct, do not connected with the end of original flue duct..

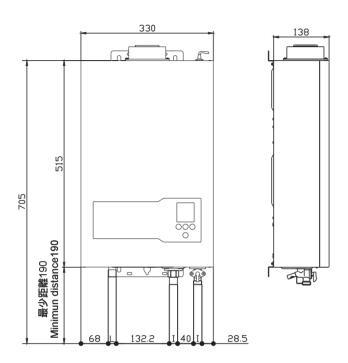


# 尺寸 Dimensions

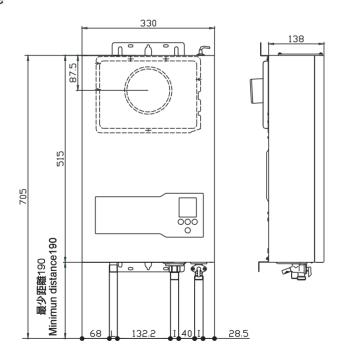
單位:毫米

Unit: mm

#### 頂排Top Flue



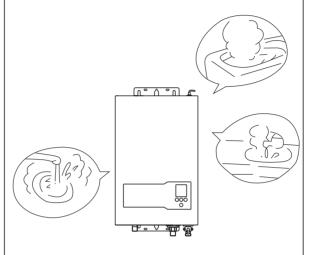
### 背排Back Flue



# 安裝注意事項

# Cautions for installation

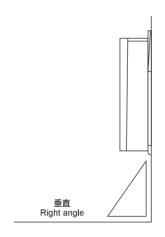
■ 安裝熱水爐在常用熱水附近的地方 Install the heater near where hot water is frequently used



#### 若安裝較長的熱水喉管,熱損失將會較大

If hot water piping becomes longer, the thermal wastage becomes greater

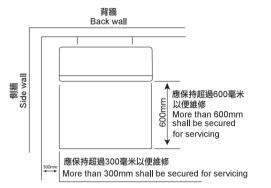
■ 確定熱水爐安裝在垂直的牆身 Make sure to install the heater on a vertical wall



若不是,不正常燃燒可能產生。同時排水來防止結冰也困難 If not, an abnormal combustion may be caused. It is also difficult to drain water for freeze prevention

■ 確定有足夠空間供檢查及維修工作 (距離熱水爐前面超過600毫米及四周超過 300毫米)

Make sure to secure enough space for inspection and service (more that 600mm in front of the heater and more than 300mm at sides)

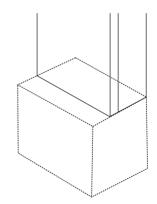


若不是,維修工作可能不能進行

If not, service and maintenance work may not be carried out

■ 確定熱水爐底部有足夠空間供喉管安裝 及排水用

Make sure to secure enough space under the heater for piping installation and water draining

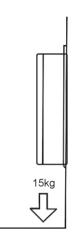


若不是,維修工作可能不能進行

If not, service and maintenance work may not be carried out

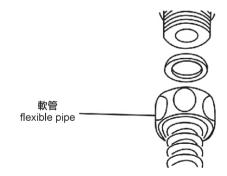
### ■ 安裝熱水爐的牆身必須能夠承擔15公斤 重的熱水爐

The wall on which the heater will be installed must be strengthened so that 15kg heater can be mounted

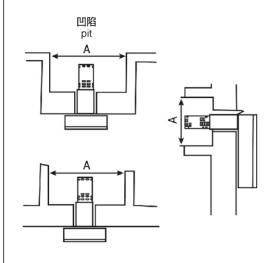


若不是,熱水爐可能跌下來 If not, the heater may fall down

■ 確定使用軟管接駁冷熱水位以便日後維修 Make sure to use flexible pipe for hot water connections so that repair work will be carried out smoothly



■ 熱水爐切勿安裝在空氣不流通的坑道內 Do not install the heater in a pit where air flow is disturbed



若 "A" 的距離多過1500毫米,是可接受的 It is acceptable if the distance "A" is longer than 1500mm

■ 確定煙道四周800毫米內沒有障礙物阻礙

Make sure that there is no obstacle within 800mm from the flued duct, which disturbs air flow



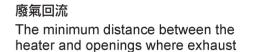
**Installation Manual** 

# 安裝注意事項

### Cautions for installation

若不能維持足夠距離,空氣吸入及廢氣排出系統可能不能正常運用而引致不完全燃燒 If the enough distance is not secured, the air intake and exhaust system may not work properly to cause the incomplete combustion

■ 於熱水爐頂上600毫米沒有障礙物的地方安裝 Install the heater where there is not obstacle within 600mm above the heater



■ 下列為煙道與開口位之間最低限度距離以免

air may flow in must be kept as descibed below

