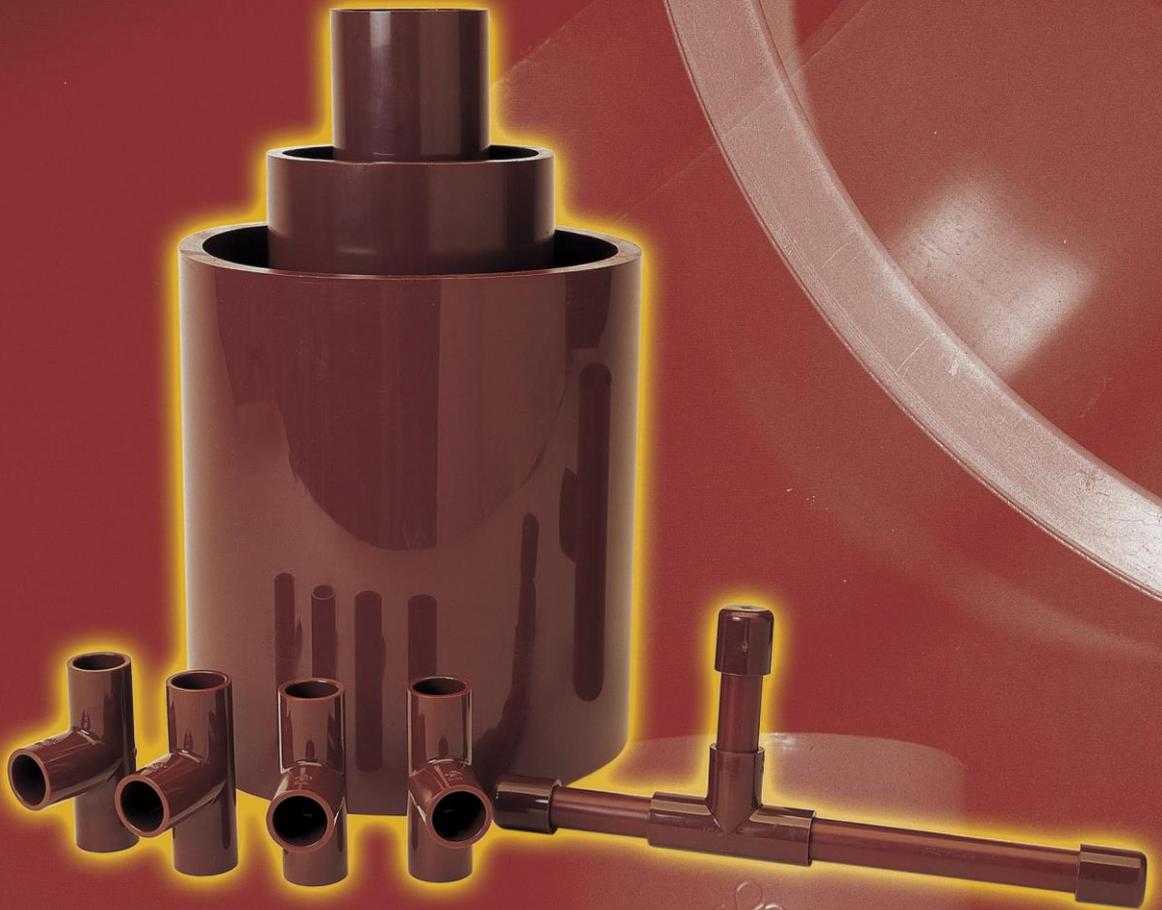




耐熱CPVC管&接頭

CPVC Pipes and Fittings



目錄

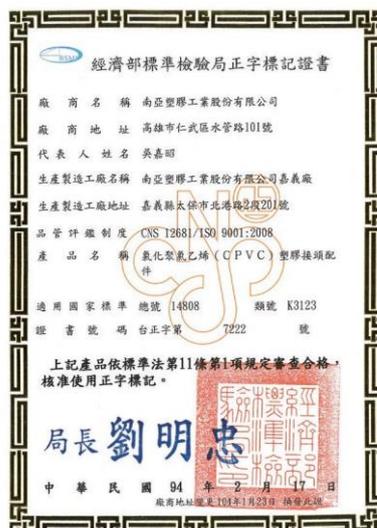
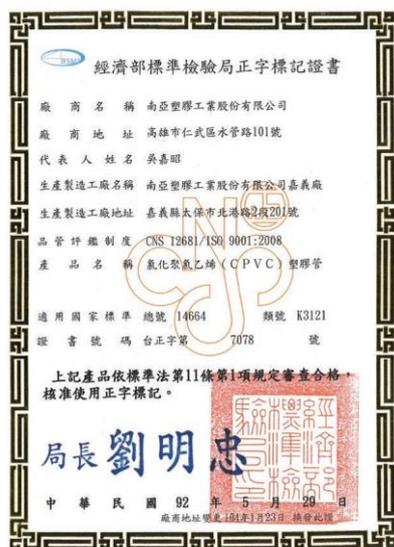
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前言 Preface

- CPVC管具有優異的耐酸、耐鹼、耐腐蝕、強度高，流體阻力小，不影響水質，質輕，搬運施工簡便，更具有耐熱特性，可廣泛應用於家庭熱水、溫泉水、化工熱流體輸送、工業熱廢水排放及半導體電子工廠的熱水與熱溫化學藥液輸送等工程的配管與消防配管。
- 本公司生產的CPVC管與接頭，品質優良，其成品各種規格、物理與化學特性均符合CNS 14664 CPVC管、CNS 14808 CPVC接頭、ASTM F441 CPVC管 SCH40、SCH80的標準要求，CPVC材質符合CNS14442表1所規定之23447(ASTM D-1784)等級要求，深獲業界一致的好評與愛用。
- 目前本公司擁有全國規模最大，最新式的CPVC管與CPVC接頭的生產設備，其產能高居全國之冠，銷售市場亦遍佈全球，在國內亦可利用密集的經銷網來作最佳的售後服務。
- Featuring excellent acid, alkali and corrosion resistance, high rigidity, minimum fluid resistance and no influence on water quality, the heat-resistant CPVC is a lightweight material for easy handling and installation. It meets a wide range of applications that include household hot water, hot spring water, chemical engineering works, heated fluid supply in semi-conductor Fab. or chemical factories; industrial heated waste water drainage as well as fire fighting works.
- As best-selling products, the CPVC pipes and fittings produced by NAN YA feature a full range of both physical and chemical properties that meet CNS 14664, CNS 14808 and ASTM F441 for SCH40 and SCH80 standards. CPVC material meet cell classification 23447 of CNS14442(ASTM D-1784).
- Currently, we have the largest and finest production equipment for CPVC pipes and fittings in Taiwan. The overall output, which is second to none in the local industry, is sold worldwide. At the same time, the intensive local marketing network is delivering satisfactory service as well.



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CPVC管·接頭特性 Characteristics of CPVC Pipe and Fitting

- 1. 耐熱性高:**
可應用於93°C以下的熱水，化工熱溫流體的輸送。
 - 2. 耐腐蝕性，耐化學藥品性優良:**
耐酸、耐鹼、耐腐蝕性優異，熱水熱溫化學藥液配管均很適合。
 - 3. 具有優異的保溫性:**
熱傳導率很小，約為鋼管的1/360，對於管內流體有保溫作用。
 - 4. 不附著水垢:**
管壁光滑，不會附著水垢，與同口徑之金屬管比較，其流量較大。
 - 5. 不影響水質:**
長期使用，不會影響水質，可符合溶解試驗的各項要求。
 - 6. 富有電氣絕緣性:**
電氣絕緣性良好，可應用於高壓電耐熱電力用管。
 - 7. 施工簡便:**
與一般之PVC管相同，施工簡便，施工費用低廉。
- 1. Optimal heat resistance:**
This makes the product apt for the supply of heated water or heated chemical fluids, which under 93°C.
 - 2. Good pharmacopoeia and corrosion resistance:**
The optimal resistance to acids, alkalis and corrosion makes the product apt for piping works for hot water and heated chemical fluids.
 - 3. Optimal heat insulation:**
At minimum heat transmittance: The minimum heat transmittance that is rated at approximately 1/360 that of steel pipes, delivers heat insulation to the fluid inside the pipe.
 - 4. No incrustation:**
Due to the glossy wall that cause no incrustation, the pipe delivers larger flow when compared with metal pipes of identical diameters.
 - 5. Water quality unaffected.**
When used for long period of time, the pipe meets all extraction requirements.
 - 6. Good electrical insulation:**
The good electrical insulation makes the pipe apt for high-voltage and heat-resistant applications.
 - 7. Easy installation:**
As other PVC pipes, this pipe is installable by using a simple method at lower cost.

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CPVC管·接頭用途

Applications of CPVC pipe and fitting

1. 家庭、餐廳、大飯店等建築物的熱水用管。
2. 一般工廠的熱水用管。
3. 化學工廠的熱溫化學藥液輸送用管與熱溫廢水排放用管。
4. 溫泉配管。
5. 消防用管。
6. 空調系統，熱水循環配管。
7. 高壓電纜，耐熱性電力用管。
8. 半導體電子工廠的熱水與熱溫化學藥品輸送配管。
9. 電鍍工廠的熱溫電鍍藥液配管。
10. 埋地式高壓電力電纜用套管。
11. 其他各種熱溫液體輸送配管。

1. Hot water piping for households, restaurants and hotels.
2. Hot water piping works for manufacturing plants.
3. Delivery pipe for heated chemical fluids and wastewater in chemical plants.
4. Hot spring piping
5. Fire fighting pipes
6. A/C systems, hot water circulation piping system
7. High-voltage cable and heat-resistant power pipes
8. Piping for transfer heated water or heated chemical fluids in semi-conductor Fab.
9. Piping for heated chemical fluids in electroplating plant.
10. Buried piping for high voltage power cable.
11. Other types of heated fluid delivery pipes.



熱水用管 Hot water piping



石化工廠 Petrochemical plant



溫泉配管 Hot Spring piping



半導體廠 Semi-conductor Fab.

Physical property of CPVC pipe and fitting

1. PVC管線/CPVC管線之使用溫度與操作壓力對照表

Temperature Pressure De-rating For Thermoplastic Materials

Elevated temperature fluid mediums require a de-rating of thermoplastic pipe maximum internal pressure ratings at 73°F. To determine the maximum internal pressure rating at an elevated temperature, simply multiply the product pressure rating at 73°F by the percentage specified for the desired temperature.

本表係以常溫73°F(23°C)時，PVC管線/CPVC管線之使用操作壓力為100%，隨著使用溫度升高，其操作壓力殘餘的百分比。

System Operating Temperature F (°C) 管線使用溫度	73 (23)	80 (27)	90 (32)	100 (38)	110 (43)	120 (49)	130 (54)	140 (60)	150 (66)	160 (71)	170 (77)	180 (82)	190 (88)	200 (93)	210 (99)
UPVC	100%	90%	75%	62%	50%	40%	30%	22%	-0-	-0-	-0-	-0-	-0-	-0-	-0-
CPVC	100%	100%	91%	82%	73%	65%	57%	50%	45%	40%	32%	25%	22%	20%	-0-

2. CPVC硬管SCH40、SCH80、W系列規格成品物性表：

Physical property of CPVC pipe :

試驗項目 Test Item		品質標準 Test Value
長期水壓試驗 Sustained Pressure		符合CNS14664，如下表所示
爆破水壓試驗 Burst Pressure		符合CNS14664，如下表所示
壓扁試驗 Flattening		符合CNS14664，加壓外徑變形至原來40%時，不破裂
溶出性 Solubility	鉛溶出量 Pb extraction	0.008mg/L以下 0.008mg/L and below
	鋅溶出量 Zinc extraction	0.5mg/L以下 0.5mg/L and below
	餘氯之減量 Loss of reduced residual chlorine	1.0mg/L以下 1.0mg/L and below
	氯乙烯單體(VCM)溶出量 Molten extraction	0.0015mg/L以下 0.0015mg/L and below
浸漬性 Immersion	蒸餾水 Distilled water	±0.20mg/cm ² 以內 Within ±0.20mg/cm ²
	10%氯化鈉溶液 10% sodium chloride solution	
	30%硫酸 30% sulfuric acid solution	
	40%氫氧化鈉溶液 10% sodium hydroxide solution	
	40%硝酸 40% nitric acid solution	

註：(1)自來水用不必試浸漬試驗。 (2)No immersion test required for drinking water. (2)No solution test for regular applications.
(2)一般用不必試溶出試驗。

CPVC硬管SCH40、SCH80、W系列規格之各種耐水壓力值比較表：

單位Unit : PSI (MPa)

標準管徑 Size	SCH40			SCH80			W系列		
	長期水壓試驗值 Sustained Pressure	爆破水壓試驗值 Burst Pressure	使用操作壓力 Water Pressure Ratings	長期水壓試驗值 Sustained Pressure	爆破水壓試驗值 Burst Pressure	使用操作壓力 Water Pressure Ratings	長期水壓試驗值 Sustained Pressure	爆破水壓試驗值 Burst Pressure	使用操作壓力 Water Pressure Ratings
10 3/8"	1310(9.03)	1990(13.72)	620(4.27)	1930(13.31)	2940(20.27)	920(6.34)	-	-	-
15 1/2"	1250(8.62)	1910(13.17)	600(4.14)	1780(12.27)	2720(18.76)	850(5.86)	1250(8.62)	1910(13.17)	600(4.14)
20 3/4"	1010(6.96)	1540(10.62)	480(3.31)	1440(9.93)	2200(15.17)	690(4.76)	1010(6.96)	1540(10.62)	480(3.31)
25 1"	950(6.55)	1440(9.93)	450(3.10)	1320(9.10)	2020(13.93)	630(4.34)	950(6.55)	1440(9.93)	450(3.10)
32 1 1/4"	770(5.31)	1180(8.14)	370(2.55)	1090(7.52)	1660(11.45)	520(3.59)	-	-	-
40 1 1/2"	690(4.76)	1060(7.31)	330(2.28)	990(6.83)	1510(10.41)	470(3.24)	690(4.76)	1060(7.31)	330(2.28)
50 2"	580(4.00)	890(6.14)	280(1.93)	850(5.86)	1290(8.89)	400(2.76)	580(4.00)	890(6.14)	280(1.93)
65 2 1/2"	640(4.41)	970(6.69)	300(2.07)	890(6.14)	1360(9.38)	420(2.90)	640(4.41)	970(6.69)	300(2.07)
80 3"	590(4.07)	840(5.79)	260(1.79)	790(5.45)	1200(8.27)	370(2.55)	590(4.07)	840(5.79)	260(1.79)
100 4"	470(3.24)	710(4.90)	220(1.52)	680(4.69)	1040(7.17)	320(2.21)	470(3.24)	710(4.90)	220(1.52)
125 5"	410(2.83)	620(4.27)	190(1.31)	610(4.21)	930(6.41)	290(2.00)	410(2.83)	620(4.27)	190(1.31)
150 6"	370(2.55)	560(3.86)	180(1.24)	590(4.07)	890(6.14)	280(1.93)	370(2.55)	560(3.86)	180(1.24)
200 8"	330(2.28)	500(3.45)	160(1.10)	520(3.59)	790(5.45)	250(1.72)	330(2.28)	500(3.45)	160(1.10)
250 10"	300(2.07)	450(3.10)	140(0.97)	490(3.38)	750(5.17)	230(1.59)	300(2.07)	450(3.10)	140(0.97)
300 12"	280(1.93)	420(2.90)	130(0.90)	480(3.31)	730(5.03)	230(1.59)	280(1.93)	420(2.90)	130(0.90)
350 14"	270(1.89)	410(2.87)	130(0.90)	470(3.29)	720(4.97)	220(1.54)	-	-	-
400 16"	270(1.89)	410(2.87)	130(0.90)	470(3.29)	710(4.90)	220(1.54)	-	-	-

註：(1)以上資料來源：CNS14664。 (2) Remarks: (1) The above data comes from CNS14664.
(2) Testing and Water Pressure Rating's temperature is 73°F (23°C).
(3) 試驗及操作溫度為73°F (23°C)。 (3) 使用操作壓力係指非螺紋之管線。 (4) W系列規格之CPVC管材、接頭，因考量溫泉等熱流體輸送配管系統之安全性與實用性，建議管線23°C使用操作壓力維持7.65kgf/cm²以下，隨著使用溫度升高，使用操作壓力，依照CPVC管線之使用溫度與操作壓力對照表的百分比進行遞減，以確保管線正常使用。
(4) For the CPVC pipes and fittings of the W series specifications, considering the safety and practicability of the piping system for thermal fluid transportation such as hot springs, it is recommended that the operating pressure of the pipeline be kept below 7.65kgf/cm² at 23°C. Decrease the residual ratio in accordance with table of Temperature Pressure De-rating for Thermoplastic Materials normal use of the pipeline.

Physical property of CPVC pipe and fitting

3. CPVC接頭W系列成品物性表：

Physical property of CPVC fitting :

試驗項目 Test Item		品質標準 Test Value
爆破水壓試驗 Burst Pressure		符合CNS14808, 如下表所示
溶出性 Solubility	鉛溶出量 Pb extraction	0.008mg/L以下 0.008mg/L and below
	鋅溶出量 Zinc extraction	0.5mg/L以下 0.5mg/L and below
	餘氯之減量 Loss of reduced residual chlorine	1.0mg/L以下 1.0mg/L and below
	氯乙烯單體(VCM)溶出量 Molten extraction	0.0015mg/L以下 0.0015mg/L and below
浸漬性 Immersion	蒸餾水 Distilled water	±0.20mg/cm ² 以內 Within±0.20mg/cm ²
	10%氯化鈉溶液 10%sodium chloride solution	
	30%硫酸 30% sulfuric acid solution	
	40%氫氧化鈉溶液 10%sodium hydroxide solution	
	40%硝酸 40% nitric acid solution	

註：(1)自來水用不必試浸漬試驗。 Note: (1)No immersion test required for drinking water.
 (2)一般用不必試溶出試驗。 (2)No solution test for regular applications.
 (3)以上資料來源：CNS2334。 (3)The above data comes from CNS14664.

CPVC接頭W系列耐水壓力值比較表：

單位Unit : PSI (MPa)

標準管徑 Size		W 系列		
		長期水壓試驗值 Sustained Pressure	爆破水壓試驗值 Burst Pressure	使用操作壓力 Water Pressure Ratings
15	½"	1250(8.62)	1910(13.17)	600(4.14)
20	¾"	1010(6.96)	1540(10.62)	480(3.31)
25	1"	950(6.55)	1440(9.93)	450(3.10)
40	1½"	690(4.76)	1060(7.31)	330(2.28)
50	2"	580(4.00)	890(6.14)	280(1.93)

註：(1)以上資料來源：CNS14808。
 (2)試驗及操作溫度為73°F (23°C)。
 (3)使用操作壓力係指非螺紋之管線。
 (4)W系列規格之CPVC管材、接頭，因考量溫泉等熱流體輸送配管系統之安全性與實用性，建議管線23°C使用操作壓力維持7.65kgf/cm²以下，隨著使用溫度升高，使用操作壓力，依照CPVC管線之使用溫度與操作壓力對照表的分比進行遞減，以確保管線正常使用。

Remarks: (1) The above data comes from CNS14808.
 (2) Testing and Water Pressure Rating's temperature is 73°F (23°C).
 (3) Water Pressure rating means unthread piping.
 (4) For the CPVC pipes and fittings of the W series specifications, considering the safety and practicability of the piping system for thermal fluid transportation such as hot springs, it is recommended that the operating pressure of the pipeline be kept below 7.65kgf/cm² at 23°C. Decrease the residual ratio in accordance with table of Temperature Pressure De-rating for Thermoplastic Materials normal use of the pipeline.

CPVC Chemical Properties

CPVC管對大部分的酸、鹼、鹽具有優良抗化學藥品性，但是如用於有機溶劑時，物性將顯著降低。

CPVC pipes shows an excellent chemical resistance to most acids, alkaline and salts. But when it is used for organic solvents, it is remarkably swelled and physical properties fall down.

化學品/Chemicals	濃度/Concentration	20°C/68°F	60°C/140°F	80°C/176°F
鹽酸/Hydrochloric acid	20%	Excellent	Excellent	Good
鹽酸/Hydrochloric acid	35%	Excellent	Excellent	Good
硝酸/Nitric acid	40%	Excellent	Fair	Fair
硝酸/Nitric acid	60%	Good	Fair	Not good
硫酸/Sulfuric acid	30%	Excellent	Good	Good
硫酸/Sulfuric acid	50%	Excellent	Good	Not Good
亞硫酸/Sulphurous acid	100%	Good	Not good	Not good
醋酸/Acetic acid	60%	Excellent	Fair	Fair
醋酸/Acetic acid	95%	Good	Not good	Not good
碳酸/Carbonic acid	100%	Excellent	Fair	Fair
苛性鈉(氫氧化鈉)/Caustic soda	40%	Excellent	Excellent	Good
苛性鈉(氫氧化鈉)/Caustic soda	60%	Excellent	Excellent	Good
氯化鈉(食鹽)/Sodium chloride	Saturate/高飽合度	Excellent	Excellent	Good
碳酸鈉/Sodium carbonate	Saturate/高飽合度	Excellent	Excellent	Good
硫酸鈉/Sodium sulfate	Saturate/高飽合度	Excellent	Excellent	Good
過氧化氫/Hydrogen peroxide	Less than 30%/ 30%以下	Excellent	Good	Not good
碳酸銨/Ammonium carbonate	Saturate/高飽合度	Excellent	Excellent	Good
甲醇/Methanol	100%	Excellent	Fair	Unavailable
乙醇/Ethanol	100%	Excellent	Good	Unavailable
異丙醇/Isopropanol	100%	Excellent	Good	Good
丁醇/Butanol	100%	Excellent	Good	Fair
甘油(丙三醇)/Glycerine	100%	Excellent	Excellent	Excellent
丙酮/Acetone	100%	Unavailable	Unavailable	Unavailable
乙酮/Methyl ethyl ketone	100%	Unavailable	Unavailable	Unavailable
甲苯/Toluene	100%	Unavailable	Unavailable	Unavailable

Specifications of CPVC pipes

1. CPVC管 CNS規格: (CNS 14664)

CNS 14664 Specifications of CPVC pipes :

單位:mm Unit: mm

W系列						
標稱管徑 Normal pipe size		外徑及許可差 ⁽¹⁾ Outside diameter & tolerance ⁽¹⁾	厚度 Wall thickness		近似內徑 (參考) Approx. inside diameter	質量(kg/m) ⁽²⁾ (參考) Approx. weight (kg/m) ⁽²⁾
			最小 Minimum	許可差 Tolerance		
15	½"	22±0.1	2.86	+0.5	16	0.279
20	¾"	26±0.1	2.80	+0.6	20	0.337
25	1"W	32±0.13	3.20	+0.6	25	0.473
40	1½"	48±0.15	3.70	+0.6	40	0.835
50	2"	60±0.15	4.10	+0.8	51	1.185
65	2½"	76±0.18	5.40	+0.8	65	1.932
80	3"	89±0.18	5.50	+0.8	77	2.326
100	4"	114±0.2	6.60	+0.8	100	3.553
125	5"	140±0.25	7.00	+1.0	125	4.714
150	6"	165±0.28	12.45	+1.2	139	9.407
200	8"	216±0.38	12.52	+1.4	190	12.717
250	10"	267±0.38	14.73	+1.8	236	18.638
300	12"	318±0.38	17.13	+2.2	282	25.924

註/ Note :

1. 外徑係指任意垂直兩方向之外徑算術平均值。
 2. 質量之計算係以最小厚度加厚度許可差之1/2為計算厚度，並以比重為1.51而計算者。
1. Outer diameter shall refer to the arithmetic mean value of any 2 given O.D. at the right angle to each other.
 2. Approximate weight shall be estimated by adding the minimum thickness to 1/2 of the allowable thickness tolerance at the specific gravity of 1.51.

Specifications of CPVC pipes

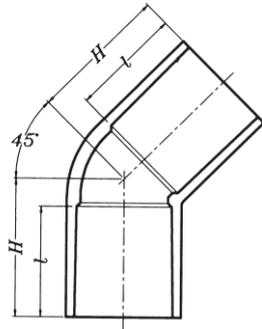
2. CPVC管 ASTM規格(CNS14664):

ASTM Specifications of CPVC pipes (CNS14664) :

單位: 吋 (mm) Unit: Incs (mm)

ASTM標準					
規格 SIZE	外徑及公差 Outside Diameter & Tolerance	SCH40		SCH80	
		厚度及公差 Thickness & Tolerance	參考重量(Kg/m) Weight	厚度及公差 Thickness & Tolerance	參考重量(Kg/m) Weight
3/8"	0.675±0.004 (17.1±0.10)	0.091+0.020 (2.31+0.51)	0.179	0.126+0.020 (3.20+0.51)	0.226
1/2"	0.840±0.004 (21.3±0.10)	0.109+0.020 (2.77+0.51)	0.265	0.147+0.020 (3.73+0.51)	0.330
3/4"	1.050±0.004 (26.7±0.10)	0.113+0.020 (2.87+0.51)	0.351	0.154+0.020 (3.91+0.51)	0.448
1"	1.315±0.005 (33.4±0.13)	0.133+0.020 (3.38+0.51)	0.517	0.179+0.021 (4.55+0.53)	0.657
1 1/4"	1.660±0.005 (42.2±0.13)	0.140+0.020 (3.56+0.51)	0.699	0.191+0.023 (4.85+0.58)	0.909
1 1/2"	1.900±0.006 (48.3±0.15)	0.145+0.020 (3.68+0.51)	0.833	0.200+0.024 (5.08+0.61)	1.103
2"	2.375±0.006 (60.3±0.15)	0.154+0.020 (3.91+0.51)	1.117	0.218+0.026 (5.54+0.66)	1.526
2 1/2"	2.875±0.007 (73.0±0.18)	0.203+0.024 (5.16+0.61)	1.763	0.276+0.033 (7.01+0.84)	2.327
3"	3.500±0.007 (88.9±0.18)	0.216+0.026 (5.49+0.66)	2.309	0.300+0.036 (7.62+0.91)	3.117
4"	4.500±0.008 (114.3±0.20)	0.237+0.028 (6.02+0.71)	3.285	0.337+0.040 (8.56+1.02)	4.558
5"	5.563±0.010 (141.3±0.25)	0.258+0.031 (6.55+0.79)	4.456	0.375+0.045 (9.52+1.14)	6.322
6"	6.625±0.011 (168.3±0.28)	0.280+0.034 (7.11+0.86)	5.787	0.432+0.052 (10.97+1.32)	8.700
8"	8.625±0.015 (219.1±0.38)	0.322+0.039 (8.18+0.99)	8.716	0.500+0.060 (12.70+1.52)	13.216
10"	10.750±0.015 (273.1±0.38)	0.365+0.044 (9.27+1.12)	12.377	0.593+0.071 (15.06+1.80)	19.628
12"	12.750±0.015 (323.9±0.38)	0.406+0.049 (10.31+1.24)	16.332	0.687+0.082 (17.45+2.08)	26.961
14"	14.000±0.015 (355.6±0.38)	0.437+0.053 (11.10+1.35)	19.333	0.750+0.090 (19.05+2.29)	32.345
16"	16.000±0.019 (406.4±0.48)	0.500+0.060 (12.70+1.52)	25.256	0.843+0.101 (21.14+2.57)	41.584

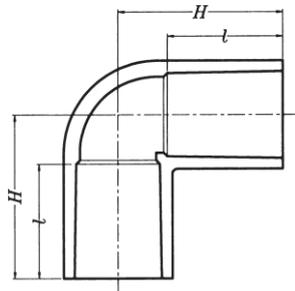
Specification of CPVC Fittings



45° L 型給水接頭 45° Elbow

單位：mm

規格 Size			<i>l</i>	<i>H</i>
○	15	½"	30	38
○	20	¾"	35	44
○	25	1"W	40	51
○	40	1½"	55	69
○	50	2"	63	80
◇	65	2½"	69	90
◇	80	3"	72	95
◇	100	4"	92	121
◇	125	5"	112	150
◇	150	6"	140	186
◇	200	8"	172	224



90° L 型給水接頭 90° Elbow

單位：mm

規格 Size			<i>l</i>	<i>H</i>
○	15	½"	30	43
○	20	¾"	35	50
○	25	1"W	40	58
○	40	1½"	55	82
○	50	2"	63	96
◇	65	2½"	69	110
◇	80	3"	72	120
◇	100	4"	92	152
◇	125	5"	112	188
◇	150	6"	140	228
◇	200	8"	172	288

註 / Note:

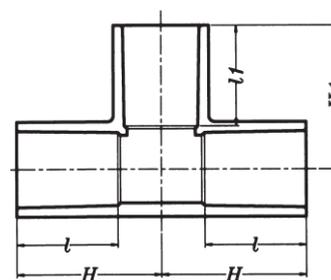
- 符合CNS14808氯化聚氯乙烯塑膠管件2018年10月新版標準(正字標誌認證)W系列CPVC管件。
- ◇ 材質符合CNS14442(CPVC氯化聚氯乙烯原料等級23447)，20℃使用壓力7.65kgf/cm²↓，實際使用等級詳洽南亞客服人員。
- Comply with the new version (October, 2018) of CNS 14808 standards—Chlorinated poly (vinyl chloride) plastic fittings.
- ◇ CPVC fittings comply with CNS 23447 standards (materials)— Grade of CPVC raw materials below 7.65kg/cm² of hydrostatic pressure resistance (20℃).Please contact our specialist for the actual grade of materials at any time.

Specification of CPVC Fittings

T型同徑給水接頭 Tee

單位：mm

規格	Size	<i>l</i>	<i>l</i> ₁	<i>H</i>	<i>H</i> ₁
○	15 ½"	30	30	43	43
○	20 ¾"	35	35	50	50
○	25 1"W	40	40	58	58
○	40 1½"	55	55	82	82
○	50 2"	63	63	96	96
◇	65 2½"	61	61	110	110
◇	80 3"	64	64	120	120
◇	100 4"	84	84	152	152
◇	125 5"	112	112	188	188
◇	150 6"	140	140	228	228
◇	200 8"	172	172	287.5	287



T型異徑給水接頭 Reducer Tee

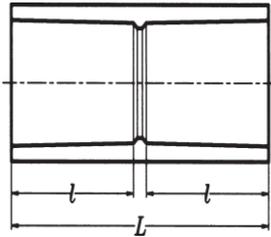
單位：mm

規格	Size	<i>l</i>	<i>l</i> ₁	<i>H</i>	<i>H</i> ₁
◇	65X40 2½"X1½"	61	55	100	96
◇	65X50 2½"X2"	61	63	101	104
◇	80X20 3"X¾"	72	35	90	82
◇	80X40 3"X1½"	64	55	100	102
◇	80X50 3"X2"	72	63	105	115
◇	80X65 3"X2½"	72	69	113	117
◇	100X40 4"X1½"	92	55	120	115
◇	100X50 4"X2"	92	63	125	122
◇	100X80 4"X3"	92	72	140	132
◇	125X80 5"X3"	112	72	160	148
◇	125X100 5"X4"	112	92	174	168
◇	150X80 6"X3"	140	72	193	155
◇	150X100 6"X4"	140	92	202	182
◇	150X125 6"X5"	140	112	214.5	200
◇	200X100 8"X4"	172	92	236.5	204
◇	200X150 8"X6"	172	140	264	252

註 / Note:

- 符合CNS14808氯化聚氯乙烯塑膠管件2018年10月新版標準(正字標誌認證)W系列CPVC管件。
- ◇ 材質符合CNS14442(CPVC氯化聚氯乙烯原料等級23447)，20℃使用壓力7.65kg/cm²↓，實際使用等級詳洽南亞客服人員。
- Comply with the new version (October, 2018) of CNS 14808 standards—Chlorinated poly (vinyl chloride) plastic fittings.
- ◇ CPVC fittings comply with CNS 23447 standards (materials)— Grade of CPVC raw materials below 7.65kg/cm² of hydrostatic pressure resistance (20℃).Please contact our specialist for the actual grade of materials at any time.

Specification of CPVC Fittings



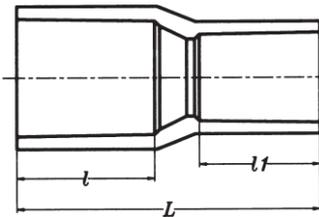
同徑普通給水接頭 COUPLING

單位：mm

規格	Size	<i>l</i>	<i>L</i>
○ 15	½"	30	67
○ 20	¾"	35	77
○ 25	1"-W	40	87
○ 40	1½"	55	117
○ 50	2"	63	133
○ 65	2½"	61	151
◇ 80	3"	72	152
◇ 100	4"	92	200
◇ 125	5"	112	235
◇ 150	6"	140	300
◇ 200	8"	172	360

異徑普通給水接頭 REDUCER COUPLING

單位：mm



規格	Size	<i>l</i>	<i>l</i> ₁	<i>L</i>
○ 20X15	¾"X½"	35	30	71
○ 25X20	1"WX¾"	40	35	84
◇ 28X25	1"X1"W	40	40	90
○ 40X25	1½"X1"W	55	40	114
○ 50X40	2"X1½"	63	55	136
◇ 65X40	2½"X1½"	69	55	150
◇ 65X50	2½"X2"	69	63	153
◇ 80X40	3"X1½"	72	55	165
◇ 80X50	3"X2"	72	63	165
◇ 80X65	3"X2½"	72	69	165
◇ 100X40	4"X1½"	92	55	190
◇ 100X50	4"X2"	92	63	208
◇ 100X80	4"X3"	92	72	190
◇ 125X100	5"X4"	112	92	225
◇ 150X80	6"X3"	140	72	260
◇ 150X100	6"X4"	140	92	280
◇ 150X125	6"X5"	140	112	295
◇ 200X100	8"X4"	172	92	340
◇ 200X125	8"X5"	172	112	345
◇ 200X150	8"X6"	172	140	350

註 / Note:

- 符合CNS14808氯化聚氯乙烯塑膠管件2018年10月新版標準(正字標誌認證)W系列CPVC管件。
- ◇ 材質符合CNS14442(CPVC氯化聚氯乙烯原料等級23447)，20℃使用壓力7.65kgf/cm²↓，實際使用等級詳洽南亞客服人員。
- Comply with the new version (October, 2018) of CNS 14808 standards—Chlorinated poly (vinyl chloride) plastic fittings.
- ◇ CPVC fittings comply with CNS 23447 standards (materials)—Grade of CPVC raw materials below 7.65kg/cm² of hydrostatic pressure resistance (20℃). Please contact our specialist for the actual grade of materials at any time.

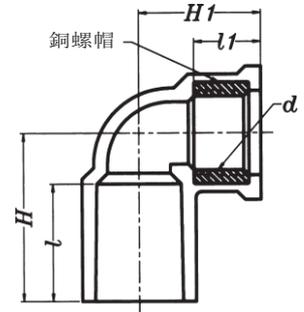
Specification of CPVC Fittings

L 型水龍頭接頭 FAUCET FITTING - 90° Elbow

單位 : mm

規格 Size	l	H	螺牙 THREAD		H1	
			d	l1		
○ 15	1/2"	30	43	PF1/2"	17	32
○ 20	3/4"	35	51	PF3/4"	19	36
○ 25	1"W	40	59	PF1"	21	40

入銅產品
(Insert bronze nut)

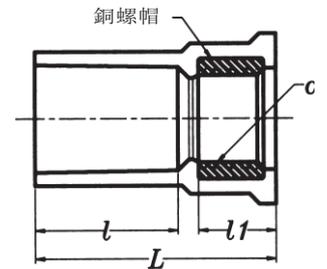


S 型水龍頭接頭 FAUCET FITTING - Female Adapter

單位 : mm

規格 Size	l	螺牙 THREAD		L	
		d	l1		
○ 15	1/2"	30	PF 1/2"	17	52
○ 20	3/4"	35	PF 3/4"	19	59
○ 25	1"W	40	PF 1"	21	68

入銅產品
(Insert bronze nut)

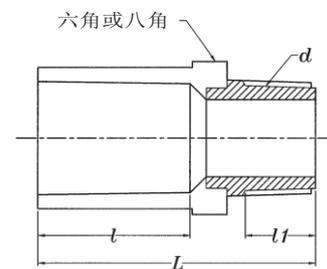


止閥接頭 MALE ADAPTER

單位 : mm

規格 Size	l	螺牙 THREAD		L	
		d	l1		
○ 15	1/2"	30	PF 1/2"	14	65
○ 20	3/4"	35	PF 3/4"	15	75
○ 25	1"W	40	PF 1"	17	85
○ 40	1 1/2"	55	PF 1 1/2"	19	110
○ 50	2"	63	PF 2"	24	125

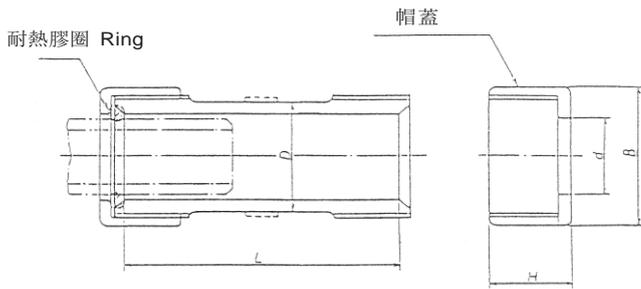
入銅產品
(Insert bronze nut)



註 / Note:

- 符合CNS14808氯化聚氯乙烯塑膠管件2018年10月新版標準(正字標誌認證)W系列CPVC管件。
- ◇ 材質符合CNS14442(CPVC氯化聚氯乙烯原料等級23447), 20°C使用壓力7.65kgf/cm² ↓, 實際使用等級詳洽南亞客服人員。
- Comply with the new version (October, 2018) of CNS 14808 standards—Chlorinated poly (vinyl chloride) plastic fittings.
- ◇ CPVC fittings comply with CNS 23447 standards (materials)— Grade of CPVC raw materials below 7.65kg/cm² of hydrostatic pressure resistance (20°C). Please contact our specialist for the actual grade of materials at any time.

Specification of CPVC Fittings



伸縮接頭 EXPANSION ADAPTER

單位：mm

規格	Size	D	L	H (最小值)	d	B (最小值)
1/2"	15	33.8	90	28	22.8	42
3/4"	20	37.8	90	29	26.8	47
1"W (開模中)						
2"	50	73	144	40	61.5	90
2 1/2"	65	93	183	49	77.5	112
3"	80	108	223	58	90.8	135
4"	100	138	251	67	116.0	168

圖1 FIG.1

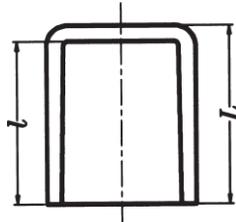
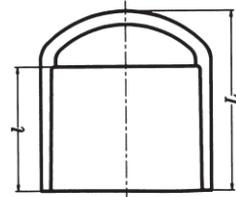
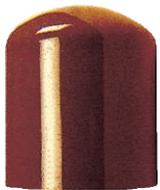


圖2 FIG.2



塞頭 CAP

單位：mm

規格		Size	t	l	L	
圖1 FIG.1	○	15	1/2"	3.5	30	33.5
	○	20	3/4"	3.5	35	38.5
	○	25	1"W	4.0	40	44
	○	40	1 1/2"	4.5	55	59.5
	○	50	2"	5.0	63	68
圖2 FIG.2	◇	65	2 1/2"	6.6	69	100
	◇	80	3"	8.0	72	107
	◇	100	4"	10.0	92	137
	◇	125	5"	11.0	112	166
	◇	150	6"	13.0	140	202
◇	200	8"	15.0	172	257	

註 / Note:

- 符合CNS14808氯化聚氯乙烯塑膠管件2018年10月新版標準(正字標誌認證)W系列CPVC管件。
- ◇ 材質符合CNS14442(CPVC氯化聚氯乙烯原料等級23447)，20℃使用壓力7.65kgf/cm²↓，實際使用等級詳洽南亞客服人員。
- Comply with the new version (October, 2018) of CNS 14808 standards—Chlorinated poly (vinyl chloride) plastic fittings.
- ◇ CPVC fittings comply with CNS 23447 standards (materials)—Grade of CPVC raw materials below 7.65kg/cm² of hydrostatic pressure resistance (20℃).Please contact our specialist for the actual grade of materials at any time.

Specification of CPVC Fittings

法蘭接頭 FLANGE

單位：mm

規格 Size	D	D _I	l	螺孔 THREAD		t	L
				d	N		
40	1½"	140	105	55	19 4	17	68
50	2"	155	120	63	19 4	17	76
65	2½"	175	140	69	19 4	18	83
80	3"	185	150	72	19 8	18	86
100	4"	210	175	92	19 8	18	107
125	5"	250	210	112	23 8	20	130
150	6"	280	240	140	23 8	22	165
200	8"	330	290	172	23 12	22	195

註：

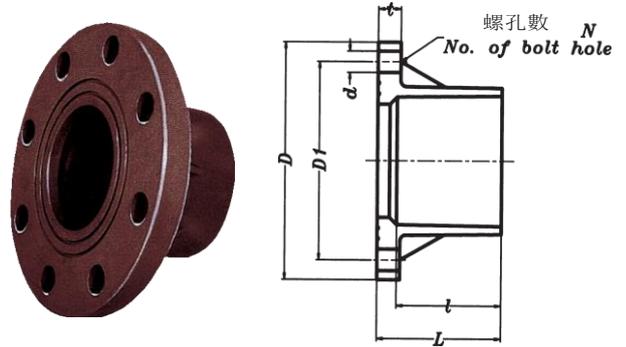
1.每法蘭接頭附1PC膠墊圈。

2.使用壓力7.65kg/cm² ↓ (20℃)。

Note:

1. Each flanged connector comes with an 1PC washer.

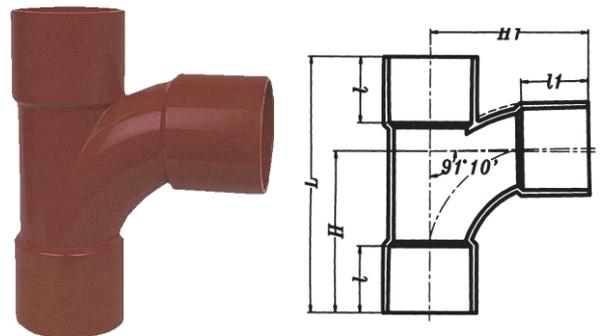
2. Hydrostatic pressure resistance is below to 7.65kg/cm² (20℃).



順 T 接頭 SANITARY TEE

單位：mm

規格 Size	l	l ₁	H	H ₁	L	
40	1 1/2"	55	55	111	111	180
50	2"	63	63	114	127	200
65	2 1/2"	69	69	132	140	234
80	3"	72	72	177	172	280
100	4"	92	92	224	219	355
125	5"	112	112	252	233	416
150	6"	140	140	290	295	495
200	8"	172	172	347	360	615



順 T 異徑接頭 REDUCER SANITARY TEE

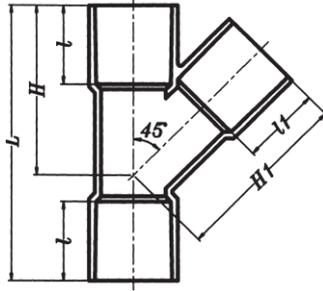
單位：mm

規格 Size	l	l ₁	H	H ₁	L	
50X40	2"X1 1/2"	63	55	114	118	192
80X50	3"X2"	72	63	140	145	235
100X50	4"X2"	92	63	154	152	270
100X80	4"X3"	92	72	194	182	318
125X80	5"X3"	112	72	235	198	350
125X100	5"X4"	112	92	235	219	388
150X50	6"X2"	140	63	215	180	420
150X80	6"X3"	140	72	230	207	420
150X100	6"X4"	140	92	246	234	425
150X125	6"X5"	140	112	273	252	468
200X50	8"X2"	172	63	307	210	440
200X80	8"X3"	172	72	307	235	470
200X100	8"X4"	172	92	307	263	510
200X150	8"X6"	172	140	307	320	560

註：順T接頭限用於無壓力之排水。

Note: Sanitary T fitting is used for non-pressure drainage.

Specification of CPVC Fittings



Y 型接頭 WYE

單位：mm

規格 Size	l	l_1	H	H_1	L
40 1 1/2"	55	55	116	119	185
50 2"	63	63	141	142	220
65 2 1/2"	69	69	166	161	260
80 3"	72	72	180	188	280
100 4"	92	92	230	240	355
125 5"	112	112	282	292	434
150 6"	140	140	344	352	530
200X200 8"	172	172	446	433	690

Y 型異徑接頭 REDUCER WYE

單位：mm

規格 Size	l	l_1	H	H_1	L
50X40 2"X1 1/2"	63	55	132	128	202
80X50 3"X2"	72	63	164	164	239
100X50 4"X2"	92	63	195	185	285
100X80 4"X3"	92	72	213	206	319
125X50 5"X2"	112	63	233	192	337
125X80 5"X3"	112	72	252	216	372
125X100 5"X4"	112	92	272	252	415
150X50 6"X2"	140	63	270	228	385
150X80 6"X3"	140	72	282	240	412
150X100 6"X4"	140	92	294	274	435
150X125 6"X5"	140	112	322	310	500
200X50 8"X2"	172	63	327	258	445
200X80 8"X3"	172	72	345	282	485
200X100 8"X4"	172	92	362	316	520
200X150 8"X6"	172	140	400	394	600

註：45° Y型接頭限用於無壓力之排水。

Note: 45° Y fitting is used for non-pressure drainage.



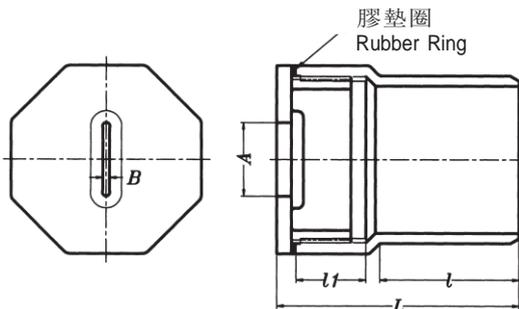
清除孔接頭 Cleanout Bushing

單位：mm

規格 Size	A	B	l	l_1	L
50 2"	30	4.5	59	25	90
80 3"	50	4.5	75	38	120
100 4"	50	4.5	93	47	150
125 5"	80	10	120	50	180
150 6"	125	10	128	47	190
200 8"	160	10	175	50	240

註：清除孔接頭限用於無壓力之排水。

Note: Cleanout Bushing is used for non-pressure drainage.

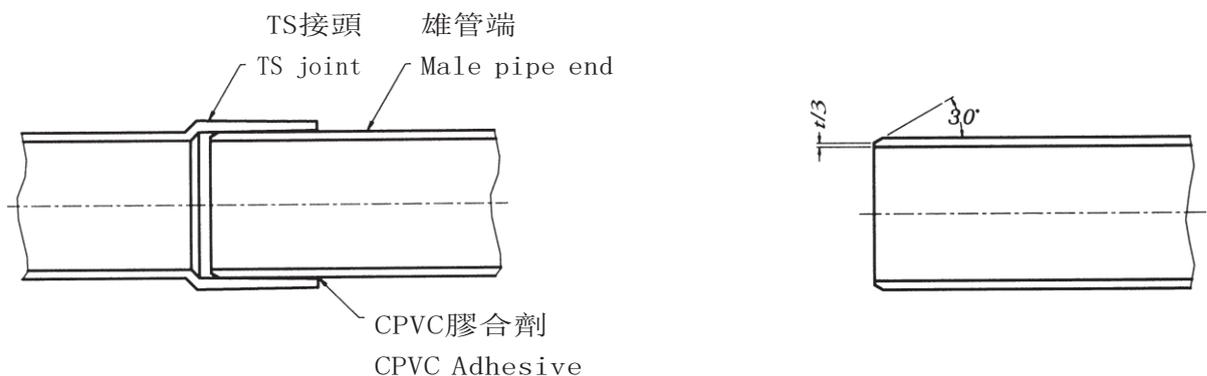


Installation of CPVC pipes (Unheating connection)

TS冷接法 TS unheating connection method :

1. 雄管端削外角：以銼刀(粗目)削角為最常用的方法，但在大口徑之情況，因銼削速度較慢，工作效率低，故大口徑最理想之方法，可先以噴燈將管端作局部之加熱，使之呈半軟化狀態，再以小刀沿圓周逐次切削，至全圓周切削完妥為止，而斜面稍有不平之處，再以銼刀修整。另一方式係採用刀輪削角，但此方式乃廠內專業性之作業，工地較少採用。切削之角度須沿30~45°角，其預留之尖端厚度為1/3t（如下圖所示）。
2. 每支TS單放口管出廠前，雄管端均有畫上一條黑色參考線，供施工時承插之參考，此黑線並非承插長度，承插時應儘量往內插到緊為原則。
3. 管材在工地有裁切過，雄管端之承插長度參考線應事先以油性色筆作記號。
4. 接頭承口內壁及管端外壁插入範圍，先以酒精或乾布擦拭乾淨，然後雌雄管內外側插入範圍各塗上適量的硬質膠合劑，若因氣溫高，膠合劑乾的速度快，應即補充膠合劑，待部份溶劑揮發而膠著性增強時，則一口氣用力插入，插到緊為原則，小管子可旋轉90°（大口徑管不必旋緊），使膠合劑之分佈更為均勻。中、大口徑管子插入後，管端可墊以厚木板或木角材，用木槌擊入或以鐵棒撬入，使插接更為密著。
5. 管線完成TS冷接法施工後，膠合強固期間不能移動，待膠合劑完全乾涸後即可通水。

1. On outside of pipe use a beveling tool to produce a $t/3$, 30° chamfer.
2. Each CPVC pipes mark line for the depth of the socket onto the pipe with reference.
3. Clean, wipe with a clean and dry rag.
4. Using applicator aggressively apply a full even layer of CPVC adhesive equal to the depth of the socket onto the pipe. Then aggressively apply a medium layer of CPVC adhesive into the fitting socket. Immediately while CPVC adhesive is still wet or tacky, assemble the piper into the fitting. Do not assemble if CPVC adhesive coatings are hardened.
5. Newly assembled joints must not be handled during set time and handled very carefully during cure time.



Instructions for installation of CPVC pipes

1. CPVC管之耐熱使用範圍：CPVC管一般使用於 200°F (93°C)以下之熱溫流體，其使用溫度與使用壓力之關係，請參照P4。
 2. 混凝土之埋設：CPVC管應儘量避免埋設於混凝土之內，如需埋設時須留意伸縮問題，且打混凝土前，管線須試10kgf/cm²的靜水壓，並維持1小時，無破裂或漏水時始可打混凝土。
 3. 膠合劑的選用：CPVC管線的接合須採用耐熱CPVC膠合劑，不可採用一般性之硬質UPVC膠合劑。
 4. 現場熱加工之防止：CPVC管或CPVC接頭，禁止在工地作熱加工或以焊條焊接。
 5. 結凍之防止：CPVC管與一般PVC-U管相同，在寒帶地區之露出配管，須做凍結防止措施，其保溫材應採用耐熱性材質。
 6. 紫外線的防止：陽光直接照射，表面會加速褪色，故露出配管時，管線需以保溫材保護或表面加以被覆。
 7. CPVC管之褪色問題：CPVC管長期使用於80~90°C之高溫下，表面雖會變白，但是對品質上不會有異常。
 8. CPVC管的支撐：CPVC管的支撐距離，如下表所示供參考。
1. Range of heat resistance of CPVC pipe: The CPVC pipe is usually used for heated fluids of up to 200°F (93°C). The relationship between temperature and the applicable pressure is given in page 4.
 2. Embedding in RC: Embedding of CPVC pipes in RC shall be avoided. When necessary, be sure to leave a proper expansion margin. Before grouting RC, a 1-hour static hydraulic test of 10 kgf/cm² shall be conducted and the test shall show no fracture of leakage.
 3. Selection of adhesives: Adhesion of the CPVC pipe shall be carried out with a heat-resistant type for CPVC and no ordinary vinyl adhesive shall be used.
 4. Prevention of site heating: No CPVC or UPVC fittings shall be heated or welded with a rod in the work site.
 5. Prevention of freezing: Just like an ordinary PVC-U pipe, all adapters used in cold areas shall be provided with freezing measures and the insulation material shall be heat-resistant.
 6. Prevention of ultraviolet rays: Direct sunshine on the surface of the pipe would make the pipe decolor. The protruding adapter shall be coated with insulation materials.
 7. Decoloring CPVC: When used in environment of 80~90°C for long periods of time, the surface of the pipe may turn whitish, though the quality remains the same.
 8. Support of CPVC pipes: CPVC pipes shall be properly supported at the following pitch:

單位：m/ Unit : m

標稱管徑 Nominal diameter	縱向支撐距離 Longitudinal pitch	橫向支撐距離 Horizontal pitch
35mm(1 1/4")以下/and under	1.0	0.6
40mm(1 1/2")~65mm(2 1/2")	1.5	1.0
80mm(3")~150mm(6")	2.0	1.5
200mm(8")以上/and up	2.5	2.0

Instructions for installation of CPVC pipes

9. CPVC管的搬運卸貨：CPVC管於搬運中或施工中應防止掉落，卸貨時亦禁止用拋落之不當方法。

9. Handling and unloading of CPVC pipe: When handling or installing CPVC pipes, keep them from falling. When unloading them, do not drop them.

10. CPVC管管線之伸縮問題：

10. Expansion of CPVC pipes:

1. CPVC管線之解決伸縮問題，請儘量採用圈狀伸縮接頭，或具有耐熱橡膠環的伸縮接頭。

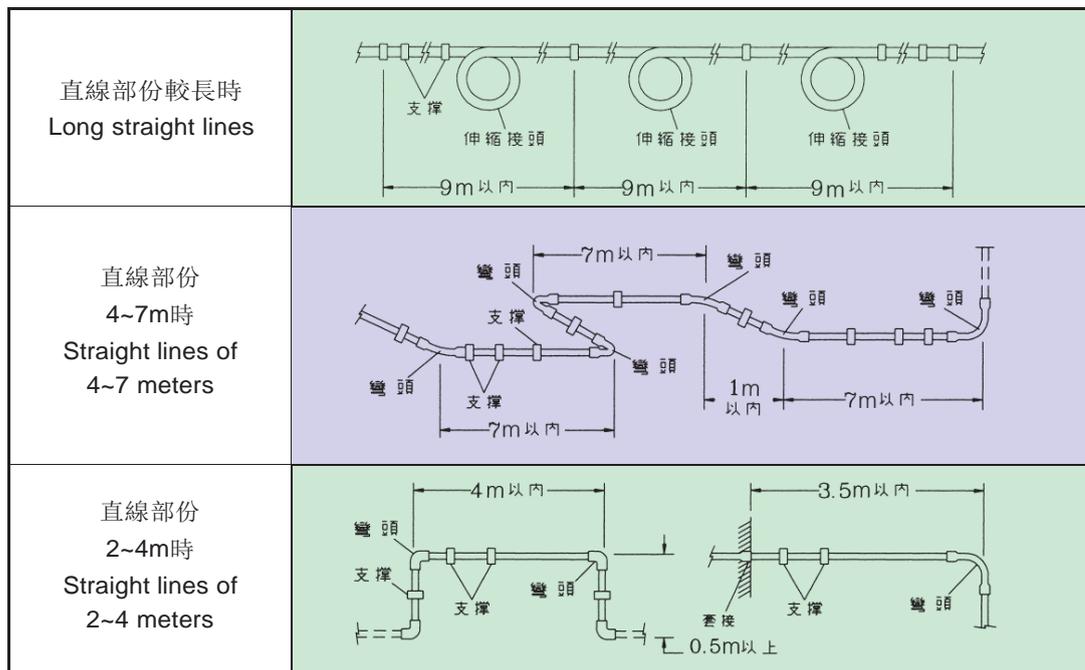
(1) As solution to the issue of expansion of CPVC pipes, use tubular adapters or adapters having a heat-resistance rubber ring.

2. CPVC管橫向直向配管，每9m長需裝配1PC伸縮接頭，如不採用伸縮接頭，則每7m以內採用90°彎頭作平面狀配管，以縮短直線配管長度，並由彎頭來吸收熱脹冷縮所產生之內應力，其考慮伸縮問題的橫向配管施工，請參照下圖。CPVC管線膨脹係數為 $7 \times 10^{-5}/^{\circ}\text{C}$ ，伸縮量範例：

(2) One expansion adapter shall be provided to the CVPC pipe in both horizontal and vertical direction at every 9 meters. If no expansion adapter is used, a flat bend of 90° shall be provided at every than 7 meters. The purpose of this adapter is to reduce the stretch of the linear piping and the bend would absorb the internal stress created by the expansion. For transverse piping works, the issue of expansion shall be dealt in the following manner.

11. The tops of CPVC pipe line, which has to instal automatic discharge valve.

水溫溫差 $^{\circ}\text{C}$	伸縮量/CPVC管直線距離
20 $^{\circ}\text{C}$	1.4cm/10m
40 $^{\circ}\text{C}$	2.8cm/10m



11. CPVC管線最高點，均應加裝自動排氣閥。

12. CPVC adhesive can not touch with water.

12. CPVC膠合劑，不可參混水份。

13. Installation the insert bronze nut CPVC fittings, please follow the appropriate torque as below tightening the insert bronze nut CPVC fittings. Please note, do not use excessive force closure may cause crack CPVC fittings.

13. 使用CPVC入銅接頭產品，請依照下列適當扭矩鎖合銅螺帽(牙)，請注意，不可使用過大的力量鎖合，鎖合扭矩過大可能造成CPVC接頭裂開。

單位：N-m

規格 SIZE	1/2"(16)	3/4"(20)	1"(28)	1 1/4"(35)	1 1/2"(40)	2"(50)
扭矩 Torque	20-29	39-49	49-59	59-69	69-78	78-88

一、產品用途：

1. 硬質CPVC管與CPVC管之接合。
2. 硬質CPVC管與CPVC接頭配件之接合。

二、產品特色：

1. 硬質CPVC材質接著性佳。
2. 以CPVC硬質膠合劑接著凝固後仍具CPVC特性。
3. 施工簡便乾燥速度快，接著性佳。

三、CPVC硬質膠合劑使用選擇說明：

1. 口徑2吋(含)以下CPVC配管，使用CPVC硬質膠合劑(AASBA、黏度500~1000CPS)。
2. 口徑2~12吋CPVC配管，建議使用高黏度CPVC硬質膠合劑(AASBH、黏度1600CPS以上)。
3. 12吋以上管徑管件間隙較大，施工粘著時務必經多次塗佈，一定要將管件間隙完全填滿膠，方可確保無施工異常發生。
4. 管線粘著施工期間不能移動，依CNS規範常溫經時24小時後即可通水；低溫5℃以下需經時48小時後再通水。

**給水管有耐壓需求應依實務需求執行水壓測試正常後，再大範圍施作或覆蓋水泥。

I. Applications

1. Gluing rigid CPVC pipes.
2. Gluing rigid CPVC pipe and CPVC fitting.

II. Characteristics

1. Superb adhesion with rigid CPVC materials.
2. With same CPVC characteristics after solidification when gluing PVC-U pipe with CPVC vinyl adhesive.
3. Easy for construction; quick-drying after installation.

III. Remarks

1. Gluing CPVC pipe (Size: below 2 inches) with AASBA vinyl adhesive (Viscosity: 80~100CPS).
2. Gluing PVC-U pipe (Size: 2~12 inches) with AASBH vinyl adhesive (Viscosity: above 1600CPS).
3. To ensure that nothing happened during PVC-U piping projects (Pipe size: above 12 inches), please glue PVC-U pipes over and over again with vinyl adhesive until there is not any gap in pipes.
4. Do not move the pipeline during the construction. Besides, according to CNS standards, it is suggested that water be transferred after 24 hours at normal temperature or after 48 hours at 5℃.

**To meet the requirement of pressure resistance, water supply pipe should pass the hydrostatic test before cement covering.





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南亞硬管網站

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Test data, sizes, and pictures in the catalog are for reference only,
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