

## 全方位可撓，安全，簡單，快速，經濟 - 消防灑水系統 FLEXIBLE , SECURE , SIMPLE , ECONOMIC SPRINKLER MOUNTING SYSTEM

### 商辦大樓，無塵室，風煙管系統

COMMERCIAL , CLEAN ROOM , DUCT SYSTEM



#### □ 安裝簡單，重置快速

SIMPLIFIED INSTALLATION, EASY RELOCATION.

相較於傳統硬管配置之曠日費時，不鏽鋼消防軟管由於本身之可撓性，可於極短時間內完成灑水頭之定位配置，大量減少現場施工時程與人工成本。此外，它亦提供於樓層或空間重置規劃時，有更大的彈性空間重新規劃安裝消防灑水頭，可同時兼顧美觀、經濟與安全性。

The mounting of sprinklers in suspended ceiling system with conventional mounting method is very laborious and time consuming. The use of the stainless steel sprinkler hose significantly minimises the efforts and laborious costs required for installation purpose, because the flexibility of the hose enable you to change the sprinkler location during renovation or conversions. Beauty , economy, security can be preserved at the same time.

#### □ 擁有高耐壓性能與良好的可撓度

HIGH PRESSURE RESISTANCE AND GOOD FLEXIBILITY.

一體焊接結構設計，安裝簡易無需現場施作鋸接、塗裝或封膠。出廠前均經2倍設計壓力之100%耐壓檢測，瞬間結構耐壓更可達 4 倍設計壓力。產品並經 50000 次疲勞壽命檢測，撓性結構可有效吸收因地震或結構晃動所導致天花板與消防管線間之位移，並大大降低因配管誤差或地震所導致之管路應力與洩漏情形發生。

One piece style construction, require no welding, painting or epoxy coating on site. All Sprinkler Hoses are tested with 2 times the design pressure before delivery. The hydrostatic pressure resistance is 4 times the design pressure. All models of the sprinkler hoses had been passed fatigue life test with 50000 cycles. Allow for independent motion between ceiling grids and main pipe system during seismic activity. The stresses and leaks caused by the earthquake or the misalignment can be avoided.

#### □ 國際認證，安心的保證

INTERNATIONAL LABORATORY APPROVED.

鵬宇全系列消防軟管固定系統 - 含商辦大樓，無塵室，風煙管灑水頭固定系統，均經過多項嚴格實驗測試，並通過國際知名實驗室產品認證，其品質與安全性均被有效控制與維持，符合各地消防與保險法規相關要求，是一高品質且讓您安心的消防產品。

Including Commercial, Clean Room , and Duct sprinkler mounting system. All models of Panew flexible sprinkler hoses had been conducted with severe tests and got the products approved by famous laboratories. The quality and security is controlled and kept all the time. Meet the local fire protection laws worldwide and the insurance requirements. You could have a peace mind all the time using Panew Flexible Sprinkler Hoses.

#### □ 維修簡單，無需停機或停工

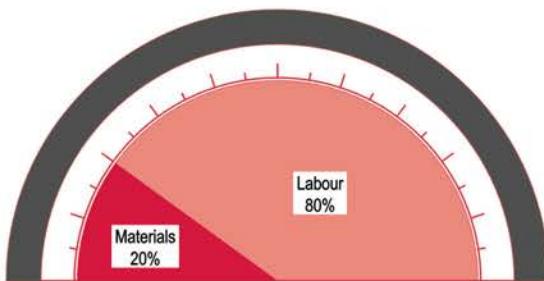
EASY REPAIR, KEEP RUNNING AND NO DOWNTIME.

針對商辦大樓消防灑水系統，灑水頭可視需求並依軟管本身之撓曲性能輕易位移與固定，不須大範圍施工與切焊管線。而無塵室與風煙管消防灑水系統，其灑水頭檢查與更換可在幾分鐘內完成，於維修保養期間，不僅可保持工作廠區的乾淨，更無需停工或停機。無形中大大的降低整廠的設備維護成本。

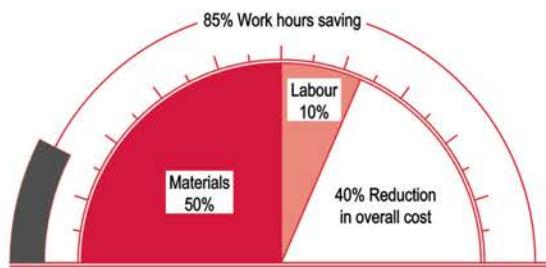
For Commercial system, the sprinkler could be relocated and mounted within the flexible area defined by the Sprinkler Hose length. It just needs a small constructed area, no pipes cutting and threading on site. For Clean Room and Duct system, the sprinkler can be inspected and replaced in a few minutes. The factory or working site can be kept clean and running during maintenance. Require no downtime for routine inspection and replacement. Eliminate the total cost for system repartment.

傳統硬管配置與消防軟管配置系統之灑水頭安裝成本比較說明。

The sprinkler mounting costs comparison between conventional rigid piping and Flexible Sprinkler Hose system.



CONVENTIONAL RIGID PIPING



FLEXIBLE SPRINKLER SYSTEM

※以傳統硬管配置 材料成本：安裝成本 = 1 : 4 為基準（如左上圖），右圖為相對應之消防軟管配置對應成本。

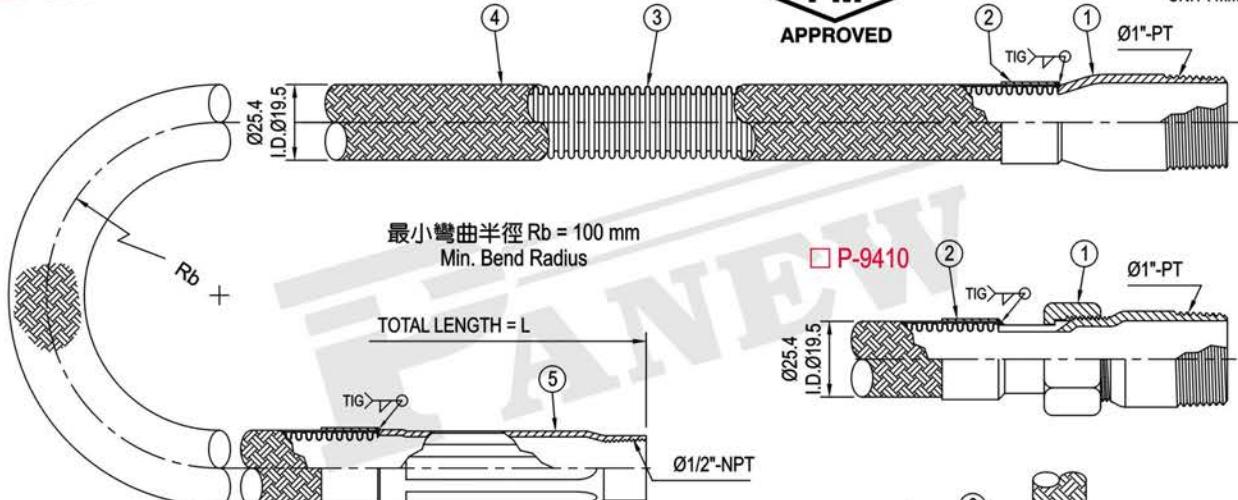
Based on the conventional rigid piping costs. Materials : Labour = 1: 4 (As the figure above/left). The right figure shows the corresponding costs percentage using the Sprinkler Hose system.

鵬宇消防軟管無論在 A.安裝 B.成本 C.品質與安全上，擁有比傳統硬管配置更優越的特性。

The Panew Sprinkler Hose System is superior in 3 aspects ( A. Installation B. Costs C. Quality & Safety ) compared to the Conventional Rigid Piping System.

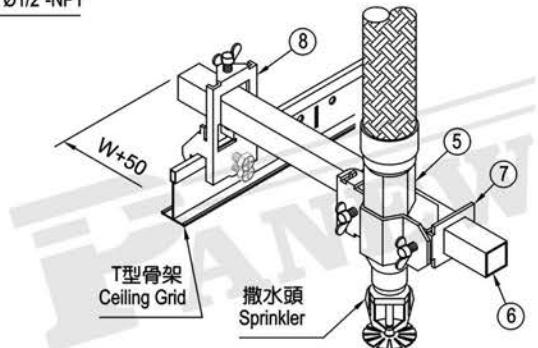
鵬宇消防軟管 / Panew Sprinkler Hose	傳統硬管配置 / Conventional Rigid Piping
A1. 直接進行安裝，可快速定位灑水頭。 Need no elaborate sprinkler locating process before sprinkler mounting.	a1. 安裝前必需進行精確灑水頭定點量測。 Required elaborate sprinkler locating process before sprinkler mounting.
A2. 由於軟管之可撓性，安裝簡易，只須單一作業工程即可完成系統安裝。 Quick and easy installation due to the flexible hose and only one process required.	a2. 複雜安裝作業工程 - 包含切修管材、攻牙並與多段彎頭密封接合。 Complicated installing processes - including trimming, threading and sealing with threaded elbows.
A3. 可輕易繞過建築結構或配管障礙，克服狹隘空間安裝問題。 Easy to bypass the building components & piping assemblies. Making the work easier in tight area.	a3. 如遇建築結構或配管障礙，必需以複雜之彎管或多段彎頭銜接方式進行安裝。 Complicated pipe bends or elbows sealing have to be done to bypass the building components & piping assemblies.
A4. 配合日後裝修工程，灑水頭可輕易進行位移與重置，不須重新進行灑水系統配置。 During renovations or conversions, relocate the sprinklers without completely new installation of sprinkler system.	a4. 配合日後裝修工程，必需更改原有配管以完成灑水頭之位移或重置。 During renovations or conversions, require to replace the existing piping with new installation of sprinkler system.
B1. 一個一般工可在7分鐘內完成1口灑水頭安裝，可大幅度降低安裝成本。 A normal labour can finish one sprinkler system within 7 minutes. The labour costs could be decreased effectively.	b1. 安裝作業複雜，需要多位高階有經驗專業工才可完成灑水頭安裝。 Require one more experienced manual labour to finish the elaborate installation of one sprinkler system.
C1. 每口消防灑水頭安裝只需現場牙接 1~3 處，當安裝完成進行系統壓力檢測時，如發現接點洩漏，可於系統進壓狀態進行二次鎖固止漏，不須重新安裝與壓力重測。 Require only 1~3 sealing connections for each sprinkler system mounting. When the system is conducted with leakage test, the leaks could be sealed again without new system installation under the system pressurized.	c1. 每口消防灑水頭安裝需現場牙接至少 6 處以上，當安裝完成進行系統壓力檢測時，如發現接點洩漏，系統有極大風險必需重新安裝並進行多次洩壓、洩水與壓力重測作業。 Require 6 or more sealing connections for each sprinkler system mounting. When the system is conducted with leakage test, risk of leaks which often require one more new system installations and pressure leakage tests.
C2. 有效降低因地震或不當外力導致之管線變形或破裂情形發生。 Effectively reduce the risk of piping deformation and cracks due to the earthquake or improper forces applied.	c2. 地震期間或不當外力作用時，存在極大管線變形與破裂風險。 Risk of piping deformation and cracks exists due to the earthquake and improper forces applied.

□ P-9400



高扭力固定結構設計  
灑水頭拆裝更靈活  
Flexible to install the sprinkler  
with the high mechanical  
strength mounting structure.

最大可承受扭力  
Max. Allowable Torque  
 $T_{max.} = 8.3 \text{ kg-m}$



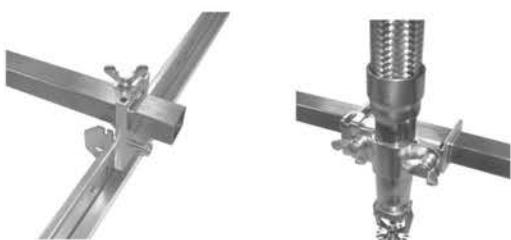
**壓損測試數據 / Friction Loss Data:**

產品總長		Hazen-Williams coefficient of friction C=120		
Total Length		等價管長 / EQL (Φ1"-sch40)	彎曲	
m	ft	m	ft	N
0.6	2	12.2	40	2
0.9	3	18.0	59	3
1.2	4	23.5	77	3
1.5	5	24.4	80	3
1.8	6	32.0	105	3

※ N : 90度彎曲數 / No. of 90° bend.



標準配件：  
Std. Fittings  
四方管 / Square Pipe - 650mm x 1 pc  
方管扣件 / Pipe Clamp x 2 sets  
轉接頭扣件 / Adapter Holder x 1 set



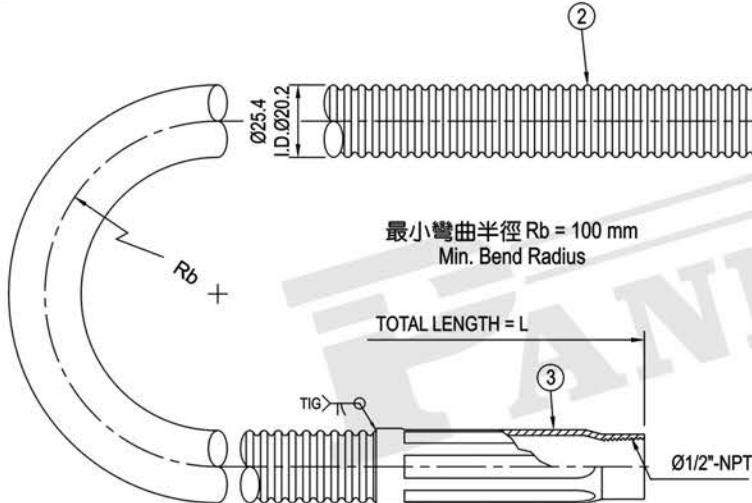
**結構組合 / Construction:**

項次 / Item	配件名稱 / Fitting	材質 / Material
1	圓立布 / Round Nipple	SUS-304
	由任接頭 / Union	SS-400
2	束環 / Collar	SUS-304
3	波紋管 / Bellows	SUS-304
4	編織網 / Wire Braids	SUS-304
5	轉接頭 / Adapter	SUS-304
6	四方管 / Square Pipe	SPCC(Galv.)
7	轉接頭扣件 / Adapter Holder	SPCC(Galv.)
8	方管扣件 / Pipe Clamp	SPCC(Galv.)

**產品特性說明 / Features of the Sprinkler Hose.**

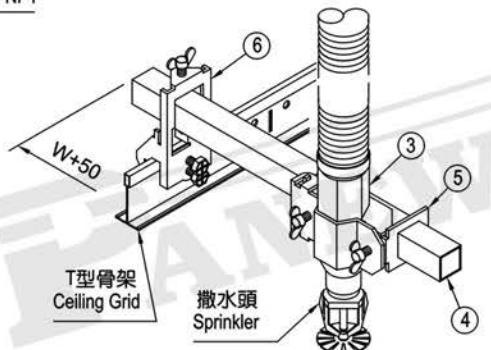
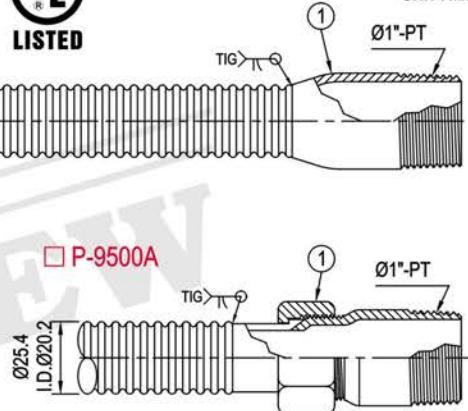
- 耐壓、耐溫性能 / Pressure & Temperature capabilities :
  - 額定壓力 / Rated working pressure :  $12.3 \text{ kg/cm}^2$ , 175 psi
  - 耐壓壓力 / Hydrostatic pressure :  $49.3 \text{ kg/cm}^2$ , 700 psi
  - 額定溫度 / Rated working temperature :  $-40 \sim +200^\circ\text{C}$
- 專利設計固定扣件 / Patent anchoring components
  - 專利字號 / Patent no. : M281654, M364521
  - a. 通用性扣件設計，適用於各式安裝場合。  
All-purpose anchoring component is flexible to mount to different installation conditions.
  - b. 開放式轉接頭扣件設計，系統安裝更靈活快速。  
Opened type adapter holder is more flexible and easy to mount the sprinkler system.
- 施工安全性能 / Installation with security
  - a. 螺絲件固定，結構簡單，施工安全性高。  
Construction with screws. Provide builders with security.
  - b. 單一結構設計，100%廠測壓，現場零洩漏。  
One piece style structure. Pre-assembled and tested for pressure leak in the factory 100% before delivery.

□ P-9500



高扭力固定結構設計  
灑水頭拆裝更靈活  
Flexible to install the sprinkler  
with the high mechanical  
strength mounting structure.

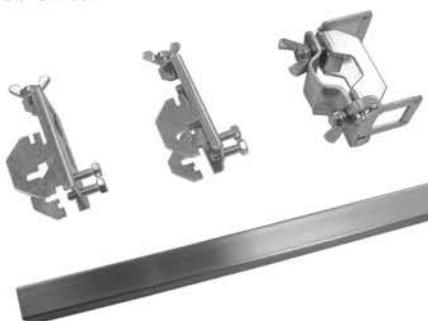
最大可承受扭力  
Max. Allowable Torque  
Tmax. = 8.3 kg-m



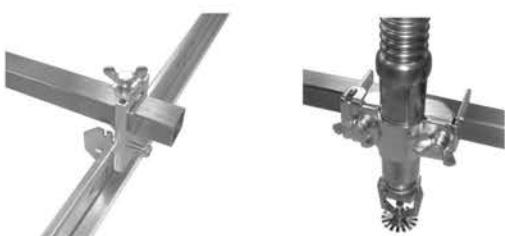
**壓損測試數據 / Friction Loss Data:**

產品總長		Hazen-Williams coefficient of friction C=120		
Total Length		等價管長 / EQL (Φ1"-sch40)	彎曲	
m	ft	m	ft	N
0.6	2	11.6	38	2
0.9	3	17.4	57	3
1.2	4	22.9	75	3
1.5	5	23.8	78	3
1.8	6	31.4	103	3

※ N : 90度彎曲數 / No. of 90° bend.



標準配件：  
Std. Fittings  
四方管 / Square Pipe - 650mm x 1 pc  
方管扣件 / Pipe Clamp x 2 sets  
轉接頭扣件 / Adapter Holder x 1 set



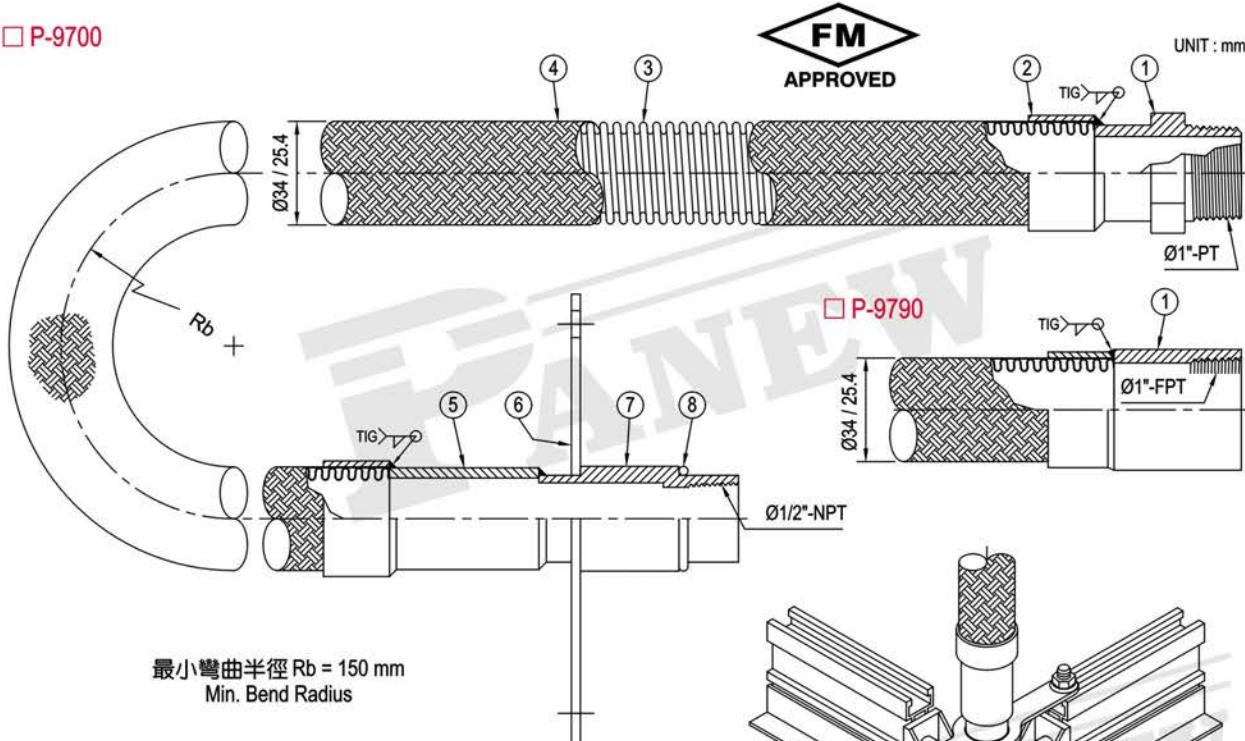
**結構組合 / Construction:**

項次 / Item	配件名稱 / Fitting	材質 / Material
1	圓立布 / Round Nipple	SUS-304
2	由任接頭 / Union	SS-400
3	波紋管 / Bellows	SUS-304
4	轉接頭 / Adapter	SUS-304
5	四方管 / Square Pipe	SPCC(Galv.)
6	轉接頭扣件 / Adapter Holder	SPCC(Galv.)
	方管扣件 / Pipe Clamp	SPCC(Galv.)

**產品特性說明 / Features of the Sprinkler Hose.**

- 耐壓、耐溫性能 / Pressure & Temperature capabilities :  
額定壓力 / Rated working pressure : 12.3 kg/cm<sup>2</sup>, 175 psi  
耐壓壓力 / Hydrostatic pressure : 24.6 kg/cm<sup>2</sup>, 350 psi  
額定溫度 / Rated working temperature : -40 ~ +200 °C
- 品質安全性能 / Quality & Security of products.
  - 厚壁波紋管結構，不需外覆編織網，定位性佳，耐蝕性強。  
The bellows is made with thick stainless steel, have good corrosion resistance and good shaped feature.
  - 單一結構設計，100%工廠測壓，現場零洩漏。  
One piece style structure. Pre-assembled and tested for pressure leak in the factory 100% before delivery.
- 專利設計固定扣件 / Patent anchoring components  
專利字號 / Patent no. : M281654, M364521
  - 通用性扣件設計，適用於各式安裝場合。  
All-purpose anchoring component is flexible to mount to different installation conditions.
  - 開放式轉接頭扣件設計，系統安裝更靈活快速。  
Opened type adapter holder is more flexible and easy to mount the sprinkler system.

□ P-9700



最小彎曲半徑 R<sub>b</sub> = 150 mm  
Min. Bend Radius

結構組合 / Construction:

項次 / Item	配件名稱 / Fitting	材質 / Material
1	六角立布 / Hex. Nipple	SUS-304
2	內牙接頭 / Coupling	SUS-304
3	束環 / Collar	SUS-304
4	波紋管 / Bellows	SUS-304
5	編織網 / Wire Braids	SUS-304
6	不鏽鋼管 / Steel Pipe	SUS-304
7	固定翅 / Fixing Plate	SPCC(Galv.) / SUS-304
8	轉接頭 / Adapter	SUS-304
	O-形環 / O-Ring	Rubber

壓損測試數據 / Friction Loss Data:

產品總長	流量 / Flow Rate : 115 l/min. ( C=100 )
Total Length	等價管長, EQL / Ø1"-sch40 m ( ft )
m	ft
	直線 / Straight      彎曲 / with bends - N
0.6	2.0
1.0	3.3
1.2	4.0
1.5	5.0
1.8	6.0
2.1	7.0
※ N : 90度彎曲數 / No. of 90° bend.	



產品特性說明 / Features of the Sprinkler Hose.

1. 耐壓性能 / Pressure capabilities :

額定壓力 / Rated working pressure : 12.3 kg/cm<sup>2</sup>, 175 psi  
耐壓壓力 / Hydrostatic pressure : 49.3 kg/cm<sup>2</sup>, 700 psi  
爆破壓力 / Burst pressure : 98.5 kg/cm<sup>2</sup>, 1400 psi

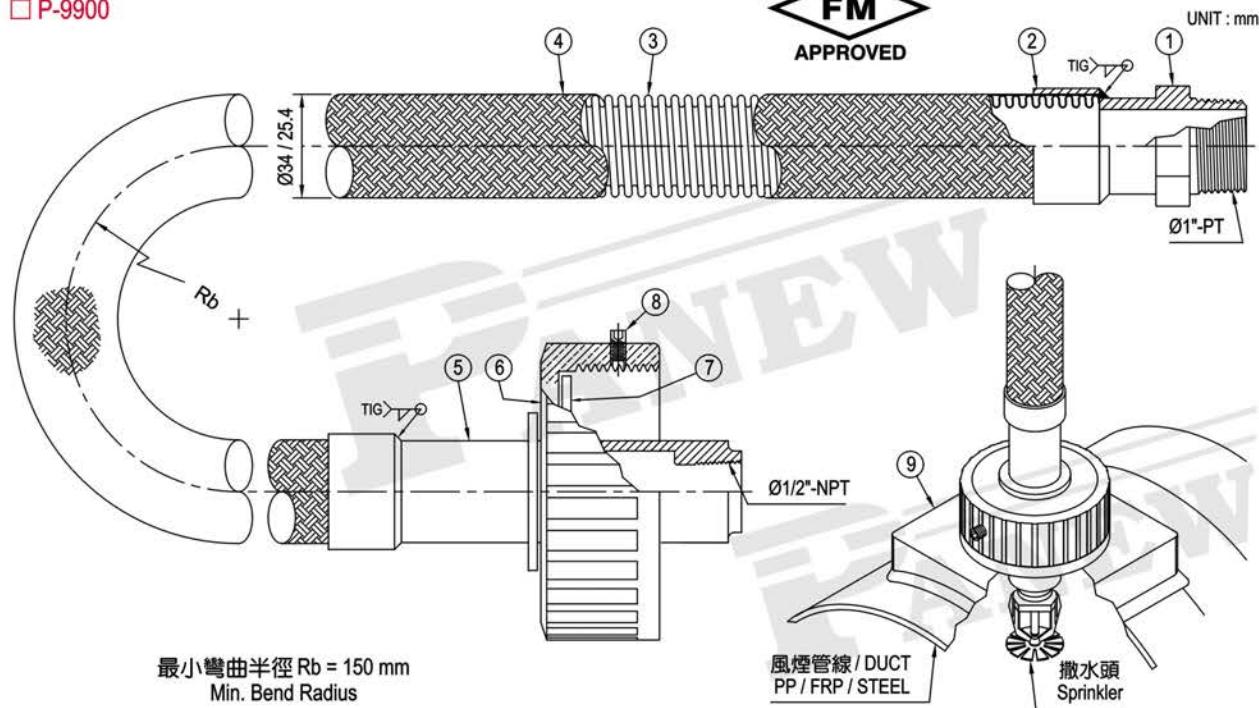
2. 品質安全性能 / Quality & Security of products

- a. 單件式管體與不鏽鋼結構設計，100% 工廠測壓，現場無塗裝或封膠需求。  
One piece style and stainless steel structure. 100% leakage test in the shop. Require no painting or epoxy coating.
- b. 良好可撓性與活動固定翅，有效降低因地震或結構位移所造成之骨架變形或管線龜裂。  
Good flexibility and floating fixing plate structure reduce the risks of ceiling deformations and pipe cracks caused by the earthquake or the structural offset effectively.

3. 施工安全性能 / Installation with security

- a. 螺絲件固定，結構簡單，施工安全性高。  
Construction with screws. Provide builders with security.
- b. 安裝或維修保養期間，不僅可保持工作區潔淨，更不需停工或停機，有效加速無塵室之運作。  
Keep the factory or working site clean during installation. Require no downtime for routine inspection and replacement. Accelerate the clean room running effectively.

□ P-9900



#### 結構組合 / Construction:

項次 / Item	配件名稱 / Fitting	材質 / Material
1	六角立布 / Hex. Nipple	SUS-304
2	束環 / Collar	SUS-304
3	波紋管 / Bellows	SUS-304
4	編織網 / Wire Braids	SUS-304
5	轉接頭 / Adapter	SUS-304
6	由任接頭 / Union	PP / FRP( 30% )
7	密封板 / Sealing Plate	SUS-304
8	固定栓 / Locking Screw	SS-400 ( Galv. )
9	由任基座 / Mounting Block	PP / FRP( 30% )

#### 壓損測試數據 / Friction Loss Data:

產品總長		流量 / Flow Rate : 115 l/min. ( C=100 )	
Total Length		等價管長, EQL / Ø1"-sch40 m ( ft )	
m	ft	直線 / Straight	彎曲 / with bends - N
0.6	2.0	1.4 ( 4.7 )	1.7 ( 5.5 ) - 1
1.0	3.3	2.0 ( 6.5 )	2.2 ( 7.0 ) - 1
1.2	4.0	2.3 ( 7.5 )	2.4 ( 7.8 ) - 1
1.5	5.0	2.8 ( 9.0 )	2.9 ( 9.5 ) - 1
1.8	6.0	3.2 ( 10.4 )	3.4 ( 11.1 ) - 1
2.1	7.0	3.6 ( 11.7 )	3.7 ( 12.6 ) - 1

※ N : 90度彎曲數 / No. of 90° bend.

#### 產品特性說明 / Features of the Sprinkler Hose.

##### 1. 耐壓性能 / Pressure capabilities :

額定壓力 / Rated working pressure : 12.3 kg/cm<sup>2</sup>, 175 psi  
耐壓壓力 / Hydrostatic pressure : 49.3 kg/cm<sup>2</sup>, 700 psi  
爆破壓力 / Burst pressure : 98.5 kg/cm<sup>2</sup>, 1400 psi

##### 2. 施工安全性能 / Installation with security

- a. 結構簡單，安裝快速，施工安全性高。  
Simple construction and fast installation. Provide builders with security.
- b. 維修保養期間，不僅可保持工作區潔淨，更不需停工或停機，有效加速廠區之運作。  
Keep the factory or working site clean and require no downtime for routine inspection and replacement. Accelerate the system running effectively.

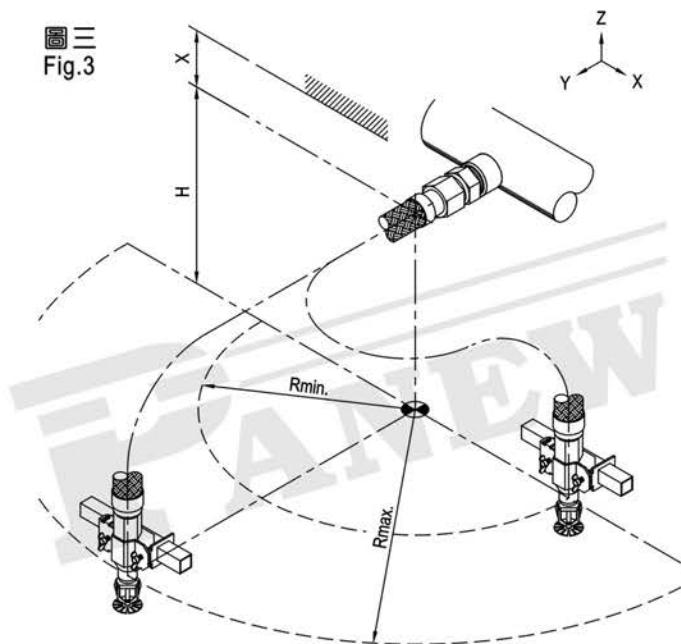
##### 3. 品質安全性能 / Quality & Security of products

- a. 單件式管體與不鏽鋼結構設計，100% 工廠測壓，現場無塗裝或封膠需求。  
One piece style and stainless steel structure. 100% leakage test in the shop. Require no painting or epoxy coating.
- b. 良好可撓性與活動固定座，有效降低因地震或結構位移所造成之風管變形或管線龜裂。  
Good flexibility and floating mounting block structure reduce the risks of duct deformations and pipe cracks caused by the earthquake or structural offset effectively.

##### 4. 專利固定結構設計，安裝簡易，低應力殘存。

Patent design for simple installation & low stresses applied.  
專利字號 / Patent no. : M306116, M316082



圖三  
 Fig.3

 □ 下表適用  $\Phi 3/4"$  軟管 ( The table below is for  $\Phi 3/4"$  hose )

軟管長	H	Rmin.	Rmax.
N.L. ( mm )	mm	mm	mm
1000	300	300	650
	400	200	600
	500	100	550
	600	0	500
	700	0	400
	300	0	850
1200	400	0	800
	500	0	750
	600	0	700
	700	0	600
	800	0	500
	300	0	1150
1500	400	0	1100
	500	0	1050
	600	0	1000
	700	0	950
	800	0	900
	900	0	800
1800	1000	0	700
	300	0	1450
	400	0	1400
	500	0	1350
	600	0	1300
	700	0	1250
	800	0	1200
	900	0	1100
	1000	0	1050

□ 請參閱左圖 ( As figure left ) ←

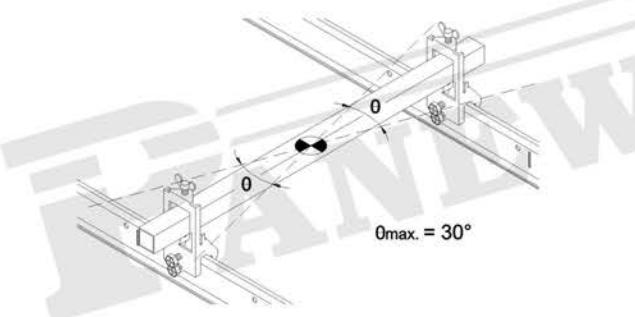
 ※建議軟管軸心與結構牆最小安裝距離  $X = 100$  mm

The least distance "X" between the concrete slab and the axis of the sprinkler hose inlet is recommended.

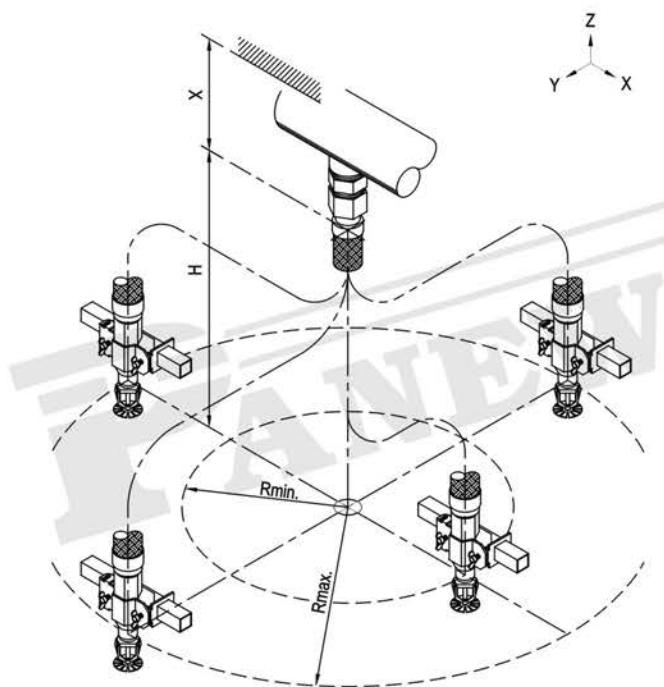
 □ 下表適用  $\Phi 1"$  軟管 ( The table below is for  $\Phi 1"$  hose )

軟管長	H	Rmin.	Rmax.
N.L. ( mm )	mm	mm	mm
1000	300	300	650
	400	200	600
	500	100	550
	600	0	500
	700	0	400
	300	0	850
1200	400	0	800
	500	0	750
	600	0	700
	700	0	600
	800	0	500
	900	0	400
1500	300	0	1150
	400	0	1100
	500	0	1050
	600	0	1000
	700	0	950
	800	0	900
1800	900	0	800
	1000	0	700
	300	0	1450
	400	0	1400
	500	0	1350
	600	0	1300

※方管最大安裝角度 ( Max. Installed angle of Square Pipe )



圖四 / Fig.4



請參閱左圖 (As figure left) ←

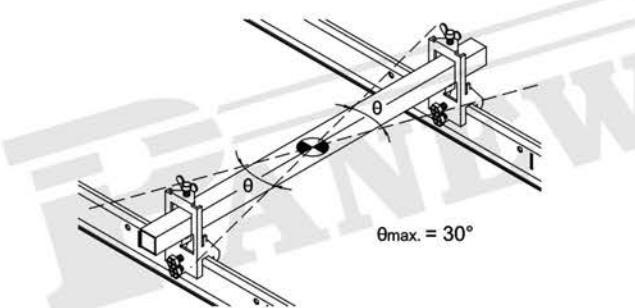
※建議軟管起點與結構牆最小安裝距離 X = 250 mm

The least distance "X" between the concrete slab and the starting point of the flexible hose section is recommended.

下表適用  $\Phi 3/4"$  軟管 (The table below is for  $\Phi 3/4"$  hose)

軟管長	H	Rmin.	Rmax.
N.L. ( mm )	mm	mm	mm
1000	300	300	650
	400	300	600
	500	300	550
	600	300	500
1200	300	300	850
	400	300	800
	500	300	750
	600	300	700
1500	700	300	600
	300	300	1150
	400	300	1100
	500	300	1050
1800	600	300	1000
	700	300	950
	800	300	900
	900	300	800
1500	300	300	1450
	400	300	1400
	500	300	1350
	600	300	1300
1800	700	300	1250
	800	300	1200
	900	300	1100
	1000	300	1050

※方管最大安裝角度 (Max. Installed angle of Square Pipe)



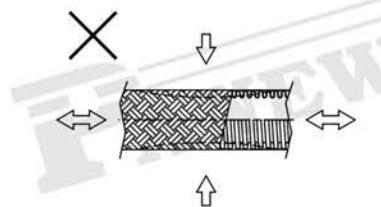
※如安裝情況特殊，並超出12~13頁所示之安裝範圍，可隨時與我們的業務聯繫以取得更多資訊。

If the installed conditions is special and beyond the tables on pages 12~13, please feel free to contact our sales for more information any time.

A.



B. 嚴禁軸向壓縮或伸長  
Forbid the axial and lateral Comp. & Ext.

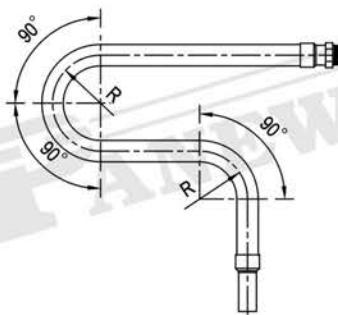


1. 額定壓力 : 12.3(175) kg/cm<sup>2</sup>(psi)  
Max. working pressure

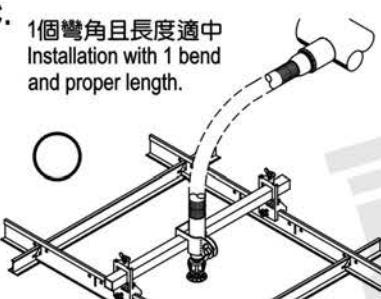
2. 90°彎角允許彎曲數 : 3  
Allowable max. no. of 90° bend.

3. 最大彎曲角度 : 180°  
Max. bending degree.

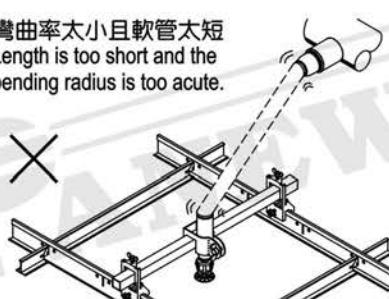
4. 90°彎角數大於 2 時，需有適當支撐以避免內壓作用而晃動  
In order to prevent the sway caused by the pressure, the intermediate hanger is required when the number of 90° bends is over 2.



C. 1個彎角且長度適中  
Installation with 1 bend and proper length.



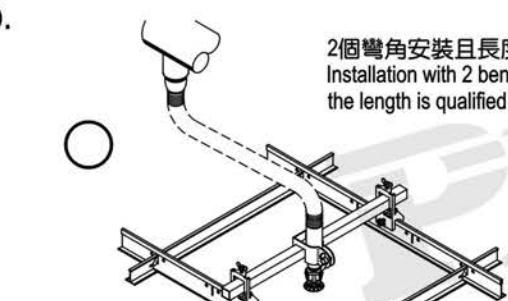
彎曲率太小且軟管太短  
Length is too short and the bending radius is too acute.



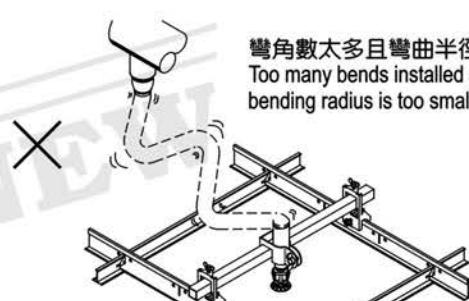
完全垂直安裝  
Completely Straight Installed



D.

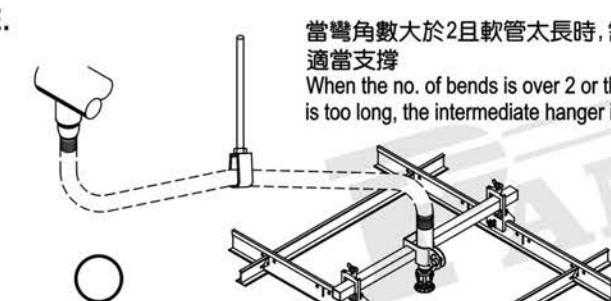


2個彎角安裝且長度適中  
Installation with 2 bends and the length is qualified.



彎角數太多且彎曲半徑太小  
Too many bends installed and the bending radius is too small.

E.



當彎角數大於2且軟管太長時，需有適當支撐  
When the no. of bends is over 2 or the length is too long, the intermediate hanger is needed.



彎角大於180°且無其它支撐  
The bending degree is over 180° and there is no intermediate hanger installed.

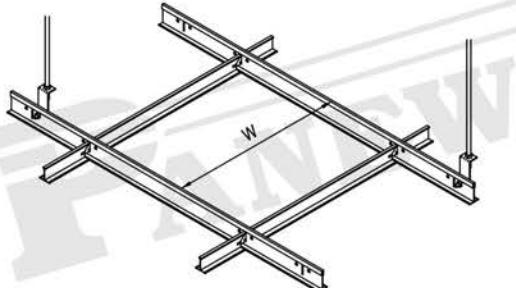
請勾選/填寫相關尺寸於下表 ( Mark and fill the reference dimensions below )

Unit : mm

商辦大樓消防系統 ( Commercial Sprinkler System )

1. 系統規格 / System Profile

骨架間距 / Ceiling Grid Gap W = \_\_\_\_\_  
軟管總長 / Req. Hose Length L = \_\_\_\_\_



2. 骨架規格 / Ceiling Profile

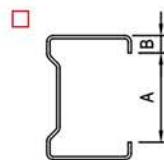
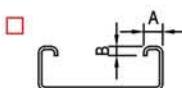
明架 / Naked

A = \_\_\_\_\_  
B = \_\_\_\_\_

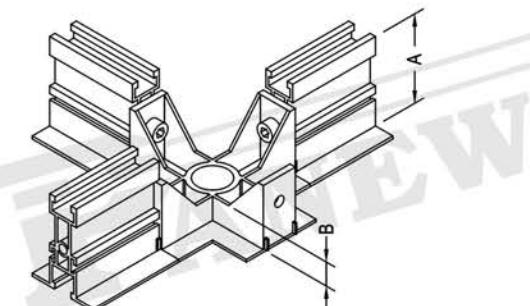


暗架 / Clothed

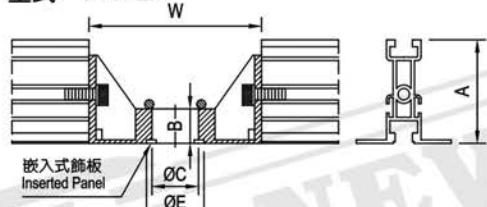
A = \_\_\_\_\_  
B = \_\_\_\_\_



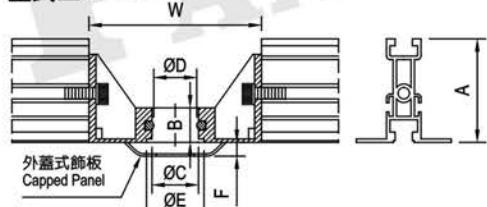
無塵室消防系統 ( Clean Room Sprinkler System )



型式一 / TYPE I



型式二 / TYPE II



1. 骨架尺寸 / Dimensions of Ceiling Grids

骨架高度 / Grid Height A = \_\_\_\_\_  
十字接頭高度 / Cross block Depth B = \_\_\_\_\_  
十字接頭寬度 / Cross block Width W = \_\_\_\_\_

2. 十字接頭型式 / Cross block Type

型式一 / Type I

中心圓孔尺寸 / Inner Bore Diameter of Cross block  
 $\Phi C$  = \_\_\_\_\_

型式二 / Type II

中心圓孔尺寸 / Inner Bore Diameter of Cross block  
 $\Phi C$  = \_\_\_\_\_  
內嵌O形環內徑 / Inner Bore Dia. of Inserted O-ring  
 $\Phi D$  = \_\_\_\_\_

其它型式說明 / Other Type Description

\_\_\_\_\_

3. 修飾面板規格 / Ceiling Panel Dimensions

嵌入式 / Inserted Type

嵌入孔徑 / Inserted Diameter  $\Phi E$  = \_\_\_\_\_

外蓋式 / Capped Type

面板高度 / Panel Height F = \_\_\_\_\_

4. 硬管長度 / Length of Steel Pipe

0     100     200     300     400

5. 軟管總長 / Req. Hose Length L = \_\_\_\_\_

風煙管線消防系統 ( Duct Sprinkler System )

1. 圓形風管 / Circular Duct

風管外徑 / Duct O.D.

$\Phi M$  = \_\_\_\_\_

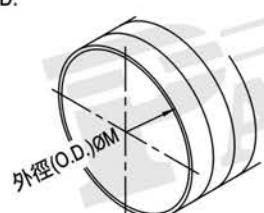
軟管總長

Req. Hose Length

L = \_\_\_\_\_

延伸 / Offset

H = \_\_\_\_\_



2. 方形風管 / Rectangular Duct

軟管總長

Req. Hose Length

L = \_\_\_\_\_

延伸 / Offset

H = \_\_\_\_\_

