

高密度聚乙烯(HDPE)導電線管

pliable plastic conduits

Natural life
safely and reliable
Remarkable economical
Convenient

● 顯著的經濟效益

Remarkable economical benefit, low cost, less input

與PVC管道相比，50年間可減少工程投資五分之四以上，安裝維護費用低，加上使用壽命長於PVC管，所以HDPE導電線管的綜合成本大大低於PVC管道。

Compare with PVC, the pipe can save more than 2/3 input in 50 years, the installation and maintenance costs of HDPE pipe is lower and the life is longer than PVC, exactly, the cost of HDPE pipe is lower than that of PVC.

● 方便的施工性能

Convenient installation

HDPE導電線管質輕易搬運，連接工法簡單、可靠，不需防腐處理，內壁環狀圓弧，拉線阻力僅傳統PVC管的三分之一，施工速度快捷。

HDPE pipe is light, easy to convey, strong, easily couple, no need of anti-corrosion coating, wall is annular circular arc, resistance is the third of traditional PVC, can save a lot of installation cost.

● 水泥握裹性佳

The cement can enwrapped the pipes

外壁環狀波紋，灌漿後可完全包裹在水泥中，拉線時不會鬆動或斷裂現象。

The pipe is complete enwrapped by cement after grouting, not loose and rupture when pulling wire.



● 絕佳抗化學性

Excellent chemical resistance

由於HDPE導電線管料抗化學性良好，一般使用於環境中的土壤、電力、酸鹼等因素都不會使該管損壞，也不會滋生細菌、微生物或苔類等。室溫下除少數強氧化劑外，大多數化學物質對其均不起作用。

By reason of excellent anti-chemical of polyethylene, in natural temperature, mostly chemical can't affect it except strong oxidant.

Will not cause bacteria, microorganism or liverwort, etc. Will keep the pipeline unblocked for a long time.

● 絕緣性佳，安全可靠

Good Insulation, safely and reliable

聚乙烯材質因無機成分單純，導電介質幾乎不存在，因此在絕緣及耐電壓性的表現上皆優於現有傳統管材。

The inorganic composition of polyethylene material is simple, the conductive medium hardly exists, so that insulation are superior than traditional pipe.



Pliable plastic conduits



● 長度優勢

Advantage of Length

每盤30~200米，可節省大量的接頭且彎曲自如。

Each roll is 30~200 meters, can save a large number of couplings and elbows freely.

● 耐老化，使用壽命長

Good resistance of aging ,long natural life

具有良好的抗紫外線能力，露天存放，不會遭紫外線射損，地埋管道-60°C~80°C範圍內可安全使用。

Excellent anti-UV ability, it can't be damaged by UV radiation, the pipe be buried underground is safely to use between -60 and 80 110°C.

● 低溫抗衝擊性好

Low temperature resistance

抗低溫脆化性極低，冬季施工時，因材料抗衝擊性好，不會發生脆裂。

Good brittle resistance at low temperature, HDPE pipe never be ruptured in winter constructing.

● H.D.PE導電線管施工方法

Installation processes of HDPE pipe

- 1.最小曲率半徑應為半徑10倍以上。
- 2.佈放後應保留適當長度於引進端人(手)孔或拉箱內。
- 3.佈放管道時，若空間允許可待管溝挖至適當長度時，再依手孔與手孔間之段長一次拖至位置放於管溝。
- 4.其餘標準與PVC管埋設工程相同。
- 5.佈放完成之導電線管需填以管塞避免異物進入。
- 6.導電線管之接續:
為達導電線無連接點之優勢，施工時原則不得接續，在無密水性之應用時得採外套內螺牙接頭接續，亦先套入一方再旋轉套入另一端。

1. Curve radius : The smallest curve radius of pipe line should keep no less than 10 time of pipe radius.
2. Keep proper length of pipe when put into the manhole.
3. If the space and environment allowed, extend the roll pipe and put it into the trench after completely digging the trench between two manholes.
4. Other processes are similar to PVC pipes.
5. Seal with end cap after finishing installation of pipes.
6. Connecting the pipes with screw type of coupler, and taping both ends of coupler to prevent leakage.





● 產品規格
specification

材質符合CNS2456-2之相關規定，採用環保塑膠高密度聚乙烯(HDPE)原料製造，顏色採黑色或其他指定顏色。

The material complies with the relevant regulations of CNS2456-2, and is made of environmentally friendly plastic high-density polyethylene(HDPE) raw materials, and the color is black or other designated colors.

標稱	內徑 mm	外徑 mm	螺距 mm	長度 M/卷
Nominal Dimension	Inside Diameter	Oustide Diameter	Picth	Length / Roll
2"	50+2.5	64.5	17	100
2 1/2"	65+2.5	84.5	21	100
3"	80+3.0	105	25	100
3.5"	90+3.5	114	25	100
4"	100+4.0	130	30	100

● HDPE導電線管接續法:
Connecting method



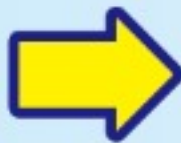
導電線管直接頭



導電線管管帽



圖一:將直接頭置於兩管中間，並水平對齊平放



圖二: 將直接頭轉入左手邊之導電線管



圖三: 次將另一端直接頭逆轉回右手邊之電線管



圖四:再將直接頭兩端與導電線管接合處再以寬防水膠帶貼合即可

Pliable plastic conduits

● H.D.PE 導電線管工程實例: *Installation processes of HDPE pipe*



穿心管

一體成形設計解決了傳統管材拉斷、扭結之困擾，抗拉耐撞之特性可確實保護光纜安全、超強之耐侯性可達長久使用之經濟效益，而多出之內管可作為備載容量之擴充，且穿心管可製成盤管，施作時不受地形困擾，實為電信光纖電纜保護管之最佳選擇。

The one formation of the COD pipe solve the burden of tear, entangle of conventional pipe, the features of tensile resistance and bump proof ensure the safeguard of the optic fiber cable. Extra strong weather hardy achieve economic efficiency of prolong usage, and the addition inner tube reserve for expansion of the carriage capacity. And the COD pipe may be manufactured in coil and will no affect by terrain while construction, it is actually the best choice in protective pipe for telecommunication optic fiber cable.



穿心管管特性 Superiority of 穿心管



● 安全性特優 (Advanced safety)

實績證明穿心管.管極適於野外施工、埋設及附掛，且安全性極高。

It proved to give advanced safety on the field construction condition in the field of surface declined area, underground spaced, and on the bridge are connection, etc.

● 易於裝設 (Simplicity of installation)

穿心管.管一卷可達 50~500M，可將人(手)孔接點減至最少，有利長距離佈管。

The length of COD can reached 50~500M per roll. So, the quantity of man (hand)holes will much reduced on line. It's will wore advantage for long distance pipe laying.



● 撓性佳 (Advanced flexibility)

優越之撓性可輕易配合地形裝設，將受障礙物之影響降至最低。

Great flexibility can be provided on various field construction such as obstacle passing area, curved construction area, existence of huge dropped construction area, etc.

● 耐外壓力特強 (Strengthen of outer pressure stability)

穿心管.管之外管強度為傳統PVC管之3倍以上，無破裂變形之慮。

As the polyethylene pipe can prevent cracks on outer pipe, COD pipe's outer pressure stability is 3 times greater than previous FC pipes.



● 充分利用外管內空間 (overcome the extreme limit's of practical usage)

穿心管.管為一體成型押出，能將外管內之空間充分利用。

Since COD is combined together Sub-ducts and Duct when it is manufactured, practical use is effective than any other existing product in the industries.

● 內管絕不扭結 (Prevent the cause of internal twisting)

穿心管.管為一體成型,平順絕不扭結,佈纜時絕無額外阻力及困擾。

As COD pipe comes with one body type (internal and external at the same time), it gives internal pipe line's great straightening ability, and it can be prevented the cause of internal twisting problem of the installation.



● 內管尺寸組合可做調整 (Various combination of sub-ducts)

穿心管.管之內管可依需求調整組合。

If needed, various combination of sub-ducts are available.

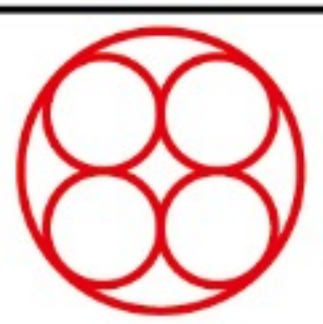
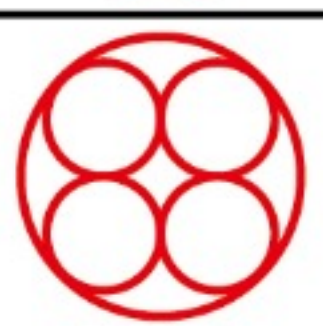
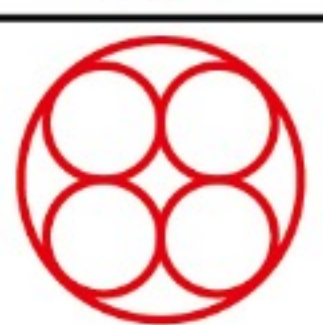
● 易於辨識 (Easy to distinct the internal pipes)

內管以不同顏色條紋嵌入，易於區分辨識及維修。

Each of sub-duct is distinguished easily by different colors and different colors of lines along with each of sub-duct. Therefore, it is easy to be recognized and easy to be maintained.

穿心管規格表 Specification



內管孔數 (No. of Sub-Duct)	外 管 (Duct) mm			內 管 (Sub-duct) mm			組合方式 (Combination method)
	外 徑 (O.D.)	厚 度 (THK)	內 徑 (I.D.)	外 徑 (O.D.)	厚 度 (THK)	內 徑 (I.D.)	
3	105±2.0	12.5±0.2	80.0	34.0±0.3	2.0±0.2	30.0	
3	114.0±3.55	12.0±2.0	90.0	40.0±0.3	2.0±0.2	36.0	
4				36.0±0.3	2.0±0.2	32.0	
				38.0±0.3	3.0±0.3	32.0	
4				34.0±0.3	2.0±0.2	30.0	
4	130.0±4.0	15.0±3.0	100.0	42.0±0.3	3.0±0.3	36.0	

註：管材的長度及顏色可依客戶訂作

- * 管組合可依需求調整 (If needed, various combination of sub-duct are available)。
- * 其他外管、內管組合可依客戶需求生產 (Other specification also available according to customer requiring)。
- * 每盤可依段長盤卷 (500M/roll and other length is available acc. to section length requiring)。

物理性質 Physical properties

- ◎ 密度：0.941~0.955 g/cm³以上
- ◎ 抗拉降伏強度：200 kgf/cm²以上
- ◎ 伸長率：350%以上
- ◎ 灰分：1.0 %以下
- ◎ 抗外壓（5%）：750 kgf/m以上

配 件 Accessories



D36 子管接頭
coupler



法蘭
Flange adapter



內管管塞
sub-duct end cap



接戶管塞頭
duct end cap



接戶管連接夾具
Connecting Jig



HDPE 接戶管大月彎



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