HD-PE（雙層纏繞管/螺旋管/波紋管）

DOUBLE WALL / SPRIAL /CORRUGATED PIPE

PIPES / FITTING

PRODUCTS ARE GOOD AT CORRSION/
CHEMICAL RESISTANCE.

HI-TECH'S

大發管材工業股份有限公司
DURA FLOW PIPE IND. CO., LTD.

■公司(工廠)/ 435 台中縣梧棲鎮緯六路8號(經濟部台中港加工出口區)
NO. 8 Wei-Liu Road, Wu Chi Town Taichung Taiwan
TEL: 886-4 2659 5858 FAX: 886-4-2659 5668

■台北分公司/ TEL: 886-2-2778 2186 FAX: 886-2-277 82190

■高雄分公司/ TEL: 886-7-788 8678 FAX: 886-7-787 0109

■高雄工廠/ 831 高雄縣大寮鄉(大發工業區)華中路19號
TEL: 886-7-787 7788 FAX: 886-7-787 7869

E-mail：info.dfppipe@msa.hinet.net

ISO 9001

DFP-200906

THE HI-TECH'S, HI-QUALITLY'S PROUDCTS RANG

SHIE. YU

DURA FLOW

公司簡介

大發管材工業股份有限公司是屬協羽機材工業集團旗下公司，專業製造生產各種塑膠管、配件及閥門，協羽集團成立於1972年，一向致力於化學工業、電子業及公共工程等，品質技術均達到國際水準；大發公司目前擁有二個工廠：全體員工246人，全集團生產廠均通過ISO 9001認證及美國衛生協會認證NSF合格廠。並取得國家標準9項CNS正字標記產品認證及行政院環保署環保標章。另PP-H、PVDF產品正式生產無塵室所使用超純水HP-PP、HP-PVDF 潔淨管、配件及閥門。

產品三大特色

1. 生產材質最齊全：有UPVC、HIW-PVC、CPVC (HT-PVC)、HD-PE、PP-H、ABS、PVDF等七種原料製造。不同生產設備在同一工廠生產目前是世界唯一。
2. 生產尺寸規格最大最齊全:生產尺寸UPVC1/2"~24"、HIW- PVC 1/2"~24"、CPVC (HT-PVC) 1/2"~24"、HD-PE §12~§1200mm、PP-H §12 ~§1200 mm、ABS §12 ~§630 mm、PVDF §12 ~§630 mm，生產規格符合世界各國使用，如日本規格JIS、美國規格ANSI SCH80、SCH40、德國規格DIN PN2.5至PN30，英國 BS 規格，或其它客戶指定之特殊規格均可供應。
3. 直管、配件及閥門為同一家生產廠全方位產品鏈供應，目前是市場上最齊全的供應商，能滿足業界一次性最佳的服務。

產品廣泛使用在化工用管、工業用管及半導體用管、重大公共工程用管上如電力公司潛鑽工程用管、自來水用管、電信寬頻及交控用管、瓦斯用管、污水用管、溫泉用管、海上養殖用管、及半導體潔淨用管等均大量採用，目前更與台塑關係企業、中鋼、欣桃瓦斯、新營瓦斯、等等…訂有年度統購合約，並為其它國內各大營造廠、化學工廠與半導體業、電子業及海內外國際市場50幾個國家等特別指定採用，並獲得一致好評。

董事長 蔡添壽 CHAIRMAN TSAI TIEN-SHOU

Company Profile

DURA FLOW PIPE INDUSTRIAL CO. LTD., is an affiliate of the SHIE YU MACHINE GROUP, and was established to manufacture all kinds of plastic pipes, accessories and valves for professional applications. Incorporated in 1972, the SHIE YU GROUP has been involving in the fields of chemical engineering, electronic industry and public works, and our quality and techniques have attained international standards. Currently, DURA FLOW PIPE INDUSTRIAL CO. LTD., possesses two factories under which some 246 employees are hired, and the certifications granted for our factories include ISO9001 and NSF of the American Public Health Association (APHA) together with 9 authentic marks for CNS certification and the environmental protection badge issued by Environmental Protection Administration of the Executive Yuan. In addition, our PP-H and PVDF factories have also launched the manufacturing of pure-water HP-PP, HP-PVDF cleaning pipe,

Three main product features:

1. Complete range of production materials: We provide the production of UPVC, HIW-PVC, CPVC (HT-PVC), HD-PE, PP-H, ABS and PVDF, and we are the only company of the world that uses different production equipment in one factory.
2. Largest and most complete range of production specifications: The dimensions of production include UPVC 1/2"~24", HIW-PVC 1/2"~24", CPVC(HT-PVC) 1/2"~24",HD-PE §12~§1200mm, PP-H §12~§1200mm, ABS §12~§630mm and PVDF §12 ~ 630mm. Our production specifications meet the requirements of relevant world standards, such as JIS, ANSI SCH80, SCH40, DIN PN2.5 to PN30 and BS specifications. Further, we also provide special specifications designated by the customer.
3. Straight pipes, accessories and valves are manufactured by the same factory and supplied through all-area product chain. As such, we are the fully equipped supplier that can satisfy the customers by providing the best one-stop services.

Our pipes are widely used in chemical engineering, industrial, semiconductor, major public work sectors, such as the drilling pipes of the Taiwan Power Company, tap water pipes, telecommunication broadband and traffic control pipes, gas pipes, sewage pipes, hot spring pipes, sea fishery pipes, and semiconductor cleaning pipes, etc. Further we also signed yearly procurement contracts with the subsidiaries of Formosa Plastic Co., Ltd., China Steel Corporation, Shin Tao Gas Co., Ltd. and Shin Yin Gas Co., Ltd., and our products have also been specially designated by domestic major construction companies, chemical plants, semiconductor firms and electronic firms, as well as major companies in over 50 countries, with positive affirmation.

創新研發

我們應用先進技術，創新研發保有競爭力，針對生產製造不斷的提升，使產品呈現國際水準。再加上自有的模具廠（有完整的全套開模的軟，硬體設備）及專業的設計及技術人員，整個研發團隊提供快速精確之模具設計生產來滿足客戶及市場的需求。並與國際知名品牌廠商建立 OEM、ODM設計生產合作，建立良好的密切互動關係。

INNOVATION AND R&D

INNOVATION AND R&D

We maintain our competitiveness by the application of advanced technology and innovative research and development. Further, action has also been taken to enhance our capacity in manufacturing so as to present world-class product quality. With in-house mold factory (provided with complete range of mold developing software and hardware equipment) as well as professional design and technicians, our R&D Team provide fast, accurate mold design and development to meet customer and market demands. In addition, we also developed OEM, ODM design and fabrication cooperation programs with world- famed brands and have established well-based mutual interaction relationship.

QUILITY CONTROL

先進生產設備．精良實驗儀器

優良的產品要有精密機械設備及原物料，本公司引進先進國家奧地利CICINNATI公司全自動押出成型機生產線、德國品牌BATTENFIELD公司等先進精良機械設備；及特別擁有世界第一超大型電腦全自動射出成型機，尤其是生產CPVC 原料一次成型可達126公斤；我們慎選優良品質原料，對原料加以分析測試，確定符合規範標準方可上線生產。我們實驗室有最齊全的檢測設備，可以將原物料，產品的物性做完全檢測判定，做為選用之依據，出貨前品質的掌握及產品出貨後品質確保，以達全面優良產品為目標。

Advanced Production Equipment
Sophisticated Experimental Instruments

Excellent products derive from precision machinery equipment and raw materials. For this purpose, we have introduced the Fully- automated Extrusion Machine production line from Austria's CICINNATI and advanced machinery equipment from German's BATTENFIELD. Further, we also possess the world's largest computer-based Automatic Injection Machine, which can yield 126kg of CPVC material in one molding process. The materials selected by us are superior in quality, and are analyzed and tested to ensure they meet specification standards before putting into production. Our laboratory has a complete set of testing/inspection equipments to test, inspect and judge the product properties in comprehensive manner so that they may be used as the basis of selection. We control quality before delivery and ensure quality after, to guarantee superior products are delivered.

ADVANCED EQUIPMENT

OPERATIONAL OUTLOOK

經營展望

大發公司一向以" 品質第一"、" 技術領先"、" 客戶滿意"為宗旨, DFP的產品銷售全世界均有完善服務團隊，因此我們希望在塑膠管、配件及閥門的專業領域上，能提供更完整的產品系列促進最佳選擇。客戶的需求是我們最大的前進動力，我們以達成客戶滿意為最大目標，因此國內外各大工程公司及民營企業均成為我們長期客戶，並與國外知名品牌廠商建立OEM良好合作關係並大量生產供應。我們的職志將+DFP+產品成為國際各種塑膠管、配件，閥門的優良品牌。產品將滿足客戶獲得最大的肯定。

Operational Outlook

Abiding by the conviction of "Quality First", "Technology Oriented" and "Customer Satisfaction", our well-planned service team has been organized by DFP for distributing our products to the world. On this basis, it is our wish to provide a more complete product series that offers the best choices in the professional field of plastic pipes, accessories and valves. Customer demand is the key driving force to our progress and we put customer satisfaction as our ultimate goal. For this reason, we are able to establish long-term business relationship with major construction companies and private firms in local and overseas marketplaces. Further, we have also maintained mutual OEM cooperation relationship with famed overseas brands in carrying out massive production and supply. Our final goal is to develop +DFP+ product" as a representing name for excellent brand in the field of plastic pipes, accessories and valves in international market. To this extent, our products will satisfy every customer.

CERTIFICATE

產品認證

產品通過認證如下:
*全生產廠全部通過ISO9001認證合格
*美國衛生協會認證NSF合格廠
*行政院環保署環保標章合格廠
*取得國家標準9項CNS正字標記產品認證如下:

CNS總號	類號	產品名稱
4053-1	K3033-1	自來水用聚氯乙烯塑膠硬質管
1298	K3004	聚氯乙烯塑膠硬質管
1302	K3006	導電線用聚氯乙烯塑膠硬質管
14345	K3114	耐衝擊硬質聚氯乙烯塑膠管
14664	K3121	氯化聚氯乙烯(CPVC)塑膠管
2456	K3012	自來水用聚乙烯塑膠管
2458	K3013	化學工業及一般用高密度聚乙烯塑膠管
12835	K3097	天然氣用聚乙烯塑膠管
13158	K3102	自來水用丙烯 - 丁二烯- 苯乙烯(ABS)塑膠管

Listed below are certifications honored for our products:

- All our factories have been honored with ISO9001 Certification.
- One factory qualified for NSF certification.
- One factory honored with the environmental
- protection badge by the Environmental Protection Administration of the Executive Yuan.
- Listed below are 9 authentic marks certified by CNS:

CNS General Number	Category Number	Product Name
4053-1	K3033-1	Tap Water Hardened PVC Pipe
1298	K3004	Hardened PVC Pipe
1302	K3006	Conductive Wire Hardened PVC Pipe
14345	K3114	Impact-resistant Hardened PVC Pipe
14664	K3121	CPVC Pipe
2456	K3012	Tap Water PE Pipe
2458	K3013	Chemical Industry and General Purpose HDPE Pipe
12835	K3097	Natural Gas PE Pipe
13158	K3102	Tap Water ABS Pipe

HD-PE (高密度聚乙烯管)螺旋管性能特點綜述：

1. 較長的使用壽命：依ISO 12622的使用溫度、壓力標準下，在正常使用下可耐用50年以上。
2. 優越的耐腐蝕特能：除少數強氧化劑之外，可以耐多種化學的侵蝕。
3. 優異的韌性：HD-PE管本身為螺旋狀，耐重壓、抗壓力強。
4. 優異的抗摩擦性：HD-PE管內、外都是螺旋狀，與管內施工時接觸面積小，避免摩擦，不易傷害管體，造成破損。
5. 良好的施工性能：HD-PE管道質量輕，溶接及鎖接工藝簡單，搬運施工快速簡便。
6. 經濟快捷的盤捲方式：HD-PE小口徑管材可因需求長度捲繞成盤管，減少介面接點加快施作。
7. 可撓性強：HD-PE管材在有障礙物或是地形不容易接合的地區，它可隨時改變方向，不受地形影響，不會造成施工上的不便。
8. 適用範圍廣：HD-PE管材適用溫度-40°C ～ 60°C，在低溫環境下特性更佳，可抵抗惡劣的環境氣候。

   HD-PE管材可依施工環境，在工廠出廠前做成透水管或透氣管，符合施工環境的條件，方便施工迅速。
9. 使用場合：雨、污水排放；垃圾處理場；工業廢水排放；通風系統；農業灌溉用水。

通信用管物理特性

試驗項目	品質標準	檢驗標準
抗拉降伏強度	200kgf/cm^{2}以上 (試拉厚度2.0mm以上)	CNS 2459 ASTM D638
斷裂點伸長率	350%以上	CNS 2459 ASTM D638
密度	0.941～0.955g/cm^3	CNS 13333 ASTM D1505
抗外壓強度	750kgf/m以上 (5%變形量)	CNS 14899 ASTM D2412

HD-PE雙層壁纏繞管是目前最好的排水管道用管，是現代化都市的重要基礎工程設施。過去大部分的管道施工都是用水泥，長年埋在泥土裡，經過多年的使用，缺陷也漸漸浮現出來，最主要的問題是因為洩漏造成的地下水的污染，因此HD-PE管道漸漸取代傳統的水泥管道。

管材 / 特性	HD-PE 螺旋管	水泥管	備　註
環保	100%可回收	不能回收	
耐震性	優良	差	遇地震或是施工不良的時候，水泥管比較容易出現破損而滲漏
耐酸鹼	優良	差	
重量	輕	重	同管徑時，HD-PE管的重量約為水泥管的1/8
長度	可依客戶需求製作長度，一般長度為5-10m	短	HD-PE管可依現場施工環境，在現場剪切，便於施工，水泥管則不容易裁切，施工較不方便
流量	大〈管壁不易結垢，長時間流量不會改變〉	小〈管壁容易腐蝕，結垢，長時間使用後會有堵塞，流量變小〉	同管徑時，HD-PE管的流量多水泥管20%
成本	低	高	
施工及安裝	重量輕，容易施工，安裝速度快	重量重，不易施工，安裝速度緩慢	HD-PE管在不良的施工環境下，可以先在地面上接合，在放入溝槽內，水泥管則不行

排透水用管物理特性

試驗項目	品　質　標　準	檢驗標準
內徑許可差	+3%（管徑150mm）以下 +3%，-1.5%（管徑200mm以上）	CNS 14572 K 3118
剛性	內徑加壓變形5%時；剛性不得小於210KPa(30psi) 內徑加壓變形10%時；剛性不得小於175KPa(25psi)	
伸長率	<10%	
結合性	加壓至內徑變形20%時，管壁不得出現脫層	
脆化性	不得出現裂縫	
密度（g/cm³）	0.941以上	

HD-PE 螺旋管

管徑 (inch)	管徑 (mm)	外徑 D (mm)	內徑 d (mm)
2"	50	64.5±2.5	50±2.5
2-1/2" W	65	84.5±2.5	65±2.5
2-1/2"	75	100±3.0	75±3.0
3"	80	105±3.0	89±3.0
4" W	90	114±3.5	90±3.5
4"	100	128±4.0	100±4.0
6"	150	188±4.0	150±4.0
8"	200	260±4.0	200±4.0

雙層壁纏繞管規格(Winding Pipe)

品名	4KN/M²			8KN/M²			長度(L)
管徑	內徑ID(mm)	外徑OD(mm)	壁厚±8%	內徑ID(mm)	外徑OD(mm)	壁厚±8%	
200	200±2%	224±2%	12	200±2%	228±2%	14	5m
250	250±2%	278±2%	14	250±2%	280±2%	15	5m
300	300±2%	328±2%	14	300±2%	338±2%	19	5m
350	350±2%	380±2%	15	350±2%	394±2%	22	5m
400	400±2%	438±2%	19	400±2%	450±2%	25	5m
450	450±2%	494±2%	22	450±2%	508±2%	29	5m
500	500±2%	550±2%	25	500±2%	562±2%	31	5m
600	600±2%	662±2%	31	600±2%	679±2%	39	5m
700	700±2%	778±2%	39	700±2%	788±2%	44	5m
800	800±2%	888±2%	44	800±2%	900±2%	50	5m
900	900±2%	1000±2%	50	900±2%	1024±2%	62	5m
1000	1000±2%	1100±2%	50	1000±2%	1124±2%	62	5m
1100	1100±2%	1224±2%	62	1100±2%	1250±2%	75	5m
1200	1200±2%	1324±2%	75	1200±2%	1350±2%	75	5m
1400	1400±2%	1550±2%	75	1400±2%	1590±2%	95	5m
1500	1500±2%	1670±2%	85	1500±2%	1690±2%	95	5m
1600	1600±2%	1770±2%	85	1600±2%	1810±2%	105	5m

火烘布及護套規格(公差±3%)

管徑(mm)	200	250	300	400	500	600	700	800	900	1000
火烘布	20cm	30cm	30cm	30cm	45cm	45cm	45cm	60cm	60cm	60cm
PE護套	20~25cm	25~30cm	30~35cm	35~40cm	40cm	40cm	45cm	45cm	50cm	60cm
白鐵夾片	20~25cm	25~30cm	30~35cm	35~40cm	40cm	40cm	45cm	45cm	50cm	60cm
螺絲規格	5/16"	5/16"	5/16"	5/16"	5/16"	5/16"	5/16"	5/16"	5/16"	5/16"

三　通

異徑三通

90° 彎頭

90° 直角

45° 彎頭

四　通

管中管（穿芯管）

雙頭螺紋大月彎

管接頭

防水螺紋管塞

法蘭

防水塞與接戶管連接圖

雙層壓縮繞管火烘布施工圖示

1. 利用支撐裝置放的兩根管材保離地面30cm保持平衡。

2. 管面抹布清泥土、無無灰塵污垢去除，以瓦斯進行預熱 (50 C) 左右。

3. 將密封帶平均鋪設於預熱後之管接口處。

4. 將火烘布平均且對稱的置於PE PAD上。

5. 以瓦斯噴槍將火烘布中央上下加熱後，再左右向外加熱。

6. 火烘布充分加熱後，約5至10分鐘自然冷卻。

接管方式

管與人手孔接續，採法蘭鎖固定

將波紋水管對準平放，平滑頭放置於兩管之間

兩管管密合，鎖緊螺合，再把平滑頭左右旋轉至中間波紋管