



产品手册 Product Brochure

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山东海丽管道科技有限公司

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企业简介

山东海丽管道科技有限公司成立于2013年，注册资金5000万元。公司位于中国美丽的“玫瑰之乡”——平阴县工业园区，总部位于济南和谐广场，是一家专业、专注于节能、环保、新型高端埋地管材及配套产品研发、生产、销售于一体的综合型公司，以打造“节能、环保埋地给、排水管网制造商”为企业愿景，以“为实现智慧城市提供智能管网系统”为目标。

公司自成立以来坚持自我创新和技术引进相结合，为解决城市内涝和城市建设提供前沿综合性给排水管网解决方案。公司主要生产HDPE聚烯烃钢带增强排水管、玻纤增强SMC模压塑料检查井/化粪池、PE给水/燃气管及矿用管、PE喷灌管、PVC-U/M给水管、高密度聚乙烯外护管、FPPE非开挖专用管等系列产品，覆盖城市基础设施建设的雨水收集、污水排放、引水、给水、中水回用、工业及燃气等领域。

公司拥有国内外先进设备生产线十条，先后顺利通过了ISO9001质量管理体系、ISO14001环境管理体系认证以及OHS18001职业健康安全管理体系三大体系，并通过了国家特种设备制造许可（TS）认证。海丽人始终秉持“诚实做人、踏实做事”的企业精神，以“绿色环保、精品高效”作为对用户的承诺，为各地市政工程、石油化工、燃气公司、交通枢纽等领域提供安全可靠的产品和科学系统的管网解决方案，赢得了广大客户的认可和支持，业务迅速覆盖全国。立足国内的同时，海丽人又将目光转向国际市场，并成功将喷灌管销往保加利亚等国家，相信海丽人必将在世界大舞台上乘风破浪，勇往直前。

海纳百川，美丽未来。为了“成就人类美丽蓝天、美丽梦想”，山东海丽管道科技有限公司期待与您牵手、肩并肩，共圆“中国梦”。

Company Profile

Shandong Haili Pipe Technology Co., Ltd. was founded in 2013, which covers an area of 100,000 square meters, with a total investment of 65 million dollars, registered capital of 8 million dollars. Company production base is located in the famous "Rose Country" -- Pingyin county industrial park, and company headquarters is located in Jinan Harmony Square. Haili Pipe is a comprehensive professional company, which is focused on research and development, production and marketing of energy-saving, environmental, new high-end buried pipes and related products. The vision for the enterprise is to become "an energy saving, environmental manufacturer of water supply and drainage pipeline system. The goal of the company is "to provide intelligent pipeline system to achieve wisdom city".

Since the establishment, in order to solve the urban waterlogging and urban construction, Haili Pipe has been insisting on the combination of self-innovation and technology introduction, to provide leading and integrated water supply and drainage pipeline network solutions. Haili Pipe has introduced dozens of domestic and foreign advanced equipment and production lines and has successfully passed the ISO9001 quality management system certification, ISO14001 environmental management system certification and OHS18001 occupational health and safety management certification, and passed the national special equipment manufacturing license (TS) certification. The main products include HDPE polyolefin steel belt enhanced drainage pipe, glass fiber enhanced SMC molded plastic manhole/septic tank, HDPE water/gas pipe and mining pipe, HDPE spray irrigation pipe, uPVC/mPVC water pipe, HDPE protecting pipe, FPPE trenchless specified pipe etc. It covers the areas of rainwater collection, sewage discharge, water diversion, water supply, reuse of reclaimed water, industrial and gas in the municipal infrastructure construction.

Haili people always uphold the enterprise spirit of "honest personhood, practical work", with the commitment of "green environment, high-quality and high efficiency", to provide safe and reliable products and scientific pipeline network solutions for municipal engineering, petrochemical industry, gas company, transportation hub, and other fields. The company has won the recognition and support of many customers and the business has rapidly covered the whole nation. At the same time of basing on the domestic market, Haili people spread their business to the international market, and successfully export their products to Venezuela, Chile, Bulgaria and many other countries.

For the achievements of "beautiful blue sky, beautiful dream for human", Shandong Haili pipe technology co., Ltd. looks forward to cooperating with you, hand in hand, shoulder to shoulder, together for the bright future of human.

OHSAS 18001: 职业健康安全管理体系认证



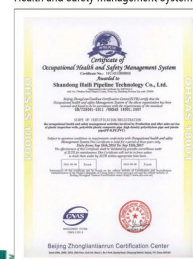
ISO14001: 环境管理体系认证



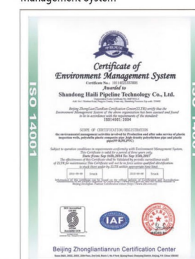
ISO9001: 质量管理体系认证



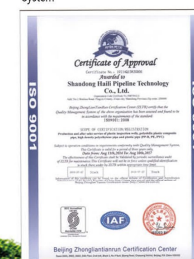
OHSAS 18001: Certificate of Occupational Health and Safety Management System



ISO14001: Certificate of Environment Management System



ISO9001: Certificate of Quality Management System



HDPE Steel Reinforced Spirally Wound Drainage Pipe

HDPE塑钢缠绕排水管



卡箍式弹性连接 Clamp elastic connection

此连接方式适用于规格dn/ID200-dn/ID2800的管材，要求管端连接部位的螺旋槽内在密封区域要有不少于两个焊接的塑料密封块，密封块的高度与加强筋的高度相同。

This kind of connection is suit to pipes with specification of dn/ID200-dn/ID2800. At least two welded plastic sealing blocks are required at the sealing area in the spiral groove at connection of the pipe ends. The height of sealing blocks shall be identical to those of the reinforcing ribs.

电热熔带连接 Electric heat melting strip connection

此连接方式适用于规格dn/ID800-dn/ID2800的管材，它是利用镶嵌在电热熔带表面上的电热元件通电后产生的高温，将两根塑钢缠绕管的管端与电热熔带熔接成整体的连接方法。

This kind of connection is suit to pipes with specification of dn/ID800-dn/ID2800. It is a connection method of welding the pipe ends of two plastic-steel winding pipes and the electric heat melting strip as a whole while using up the high temperature generated by the heating elements after they are electrified which are inlayed on the surface of the electric heat melting strip.

规格参数 / Specification

材质: HDPE and Steel	• Material: HDPE and Steel
环刚度: SN8, SN10, SN12.5, SN16	• Ring Stiffness: SN8, SN10, SN12.5, SN16
规格尺寸: 200mm ~ 2800mm	• Size: 200mm ~ 2800mm
标准: CJ/T270-2007	• Standard: CJ/T270-2007
颜色: 黑色管或根据要求采用其它颜色。	• Colors: Black, other colors are also available upon request.

管道连接 / Pipe Connection

塑钢缠绕排水管主要采用如下两种方式连接：
Two connection types of steel reinforced spirally wound PE drainage pipes are clamp elastic connection and electric heat melting strip connection.

产品特点:

- ◆ **卓越的综合性能:** 钢带作为支撑结构赋予管材以抵抗土壤载荷的足够环刚度，聚乙烯管体具有优良的水力特性，极强的内外防腐能力及适度的轴向柔性，SRWPE集钢、塑两种材料的优点于一身，该管材具有卓越的综合性能。
- ◆ **安全可靠的环刚度:** 由于钢塑两种材料的弹性模量比大于200，重量比大于7.85，因此与纯塑管相比，钢带增强极易使管材（特别是大直径管材）具有足够安全可靠的环刚度以及相对较高的刚度重量比。
- ◆ **重量轻:** 由于塑钢缠绕管具有较高的刚度重量比，因此其重量轻于任何种类环刚度与之相同的纯塑料管材。
- ◆ **安装简便，密封性能好，施工成本低:** 重量轻，安装时不需要大型吊运设备，轴向柔性好，铺设时对沟槽底部平整度，坚实度要求较低，承受安装不当所造成的非正常应力的能力强。密封连接方式均可以简单工具手工操作，无需机械，十分简便快捷，可靠无泄漏。
- ◆ **现场生产，大大节省运输费用及施工费用:** 异型钢塑复合带材可卷盘（与普通电缆盘类似）运输，管材缠绕装置简单紧凑，十分便于生产商将装置运至工地附近，就近缠绕生产供应管材。以带材运输替代管材运输，大幅度降低了用户的运输成本，由于现场生产不需要大型车辆运输，因而管材可以任意定长，减少大量的接口连接及非定长断管的工作，施工费用因此可能大大降低。
- ◆ **抗非正常突发荷载能力:** 由于管材环刚度高，轴向柔性好，当发生土壤不均匀沉降，地下水浮升，地面局部荷载过大，地震等突发性荷载及灾害时，管材可通过弹性变形来化解由此产生的应力，避免管材连接处因承受过大的压力变形而泄露或破坏。

Advantages:

- ◆ **Distinguished comprehensive performances:** Worked as the braced structure, the steel belt offers enough ring stiffness to resist soil loading. PE pipe has excellent hydraulic characteristic, high ability of internal and external corrosion prevention and moderate axial toughness. And SRWPE is integrated advantages of steel and plastic. Therefore, this pipe possesses distinguished comprehensive performances.
- ◆ **Safe and reliable ring stiffness:** Steel and plastic have excellent modular ratio and light weight and their ratios are over 200 and 7.85. Strengthening the steel belt could be easily provided the pipes (especially the large diameter pipes) with enough safe and reliable ring stiffness and fairly high weight ratio when compared with pure plastic pipes.
- ◆ **Light weight:** Steel reinforced spirally wound PE drainage pipe has fairly high stiffness weight ratio; therefore, its weight is lighter than any other pure plastic pipes with the same ring stiffness.
- ◆ **Simple installation, good sealing and low cost of construction:** Large-scale handling appliance is not required when installing the light weight pipes. Because of its good axial toughness, requirements of the undercut flatness are low when laying and firmness. Moreover, it has good capability to bear abnormal stress caused by improper assembly. All sealed placements can be manually operated with simple equipments, simply and speedily without leak while no machine is needed.
- ◆ **Producing on the construction site, saving the transportation charges and construction costs heavily:** Shaped Steel-plastic composite strips can be coiled delivered. The device for winding strips is quite simple and tight. So it's very convenient for the manufacturer to deliver the device to the construction site and then produce pipes nearby. Transportation cost is heavily reduced by transporting strips instead of pipes. Without needs of transportation by oversize vehicles, the length of pipe can be determined at random and a large amount of interface connections and work to break pipes are reduced. So construction cost is reduced greatly.
- ◆ **Strong load capacity to resist improper burst:** Because the pipes are with high ring stiffness and good axial toughness, when burst load and disasters like soil differential settlement, ground water level rising, overload of part of the ground and earthquake happen, the stress can be defused through the elastic deformation of the pipes to avoid the leak or damage of the pipe connections.

塑钢缠绕管还具有聚乙烯塑料管材的以下特点：

- ◆ **耐腐蚀：**PE管道能避免酸碱腐蚀。管道在例如潮湿的腐蚀环境中也能被安装，防腐蚀的特性在ESO/TR 10358中体现。
- ◆ **抵抗紫外线：**炭黑系数是PE管道的原料参数之一。能抵抗紫外线。这一原因导致管道能够在室外用很长时间不需要考虑改变管道的本性。
- ◆ **质量轻：**质量轻使得在运输和安装中的成本降低。
- ◆ **内壁光滑：**PE管道内壁光滑使摩擦和沉淀产生的能源损耗降到最小化，摩擦阻力在长期使用中几乎不会改变。
- ◆ **抗冲击性：**PE管道的高抗冲击性导致在搬运和安装过程中存有较少的破裂和损坏。
- ◆ **安装方便：**PE管道加热后焊接接合保证了连接强度并避免泄露。
- ◆ **有韧性：**PE管道适度的韧性能够使管道在管道沟渠中轻易地安装，避免安装过程中的障碍物，并且适应沼泽地和柔软地区的土壤沉降。
- ◆ **无毒性：**黑色HDPE管道已经通过有关部门的卫生检查并予以授权。
- ◆ **耐磨损：**在灰浆磨损实验之后，HDPE管的使用期是钢管的四倍。
- ◆ **长久的使用寿命：**HDPE使用寿命超过50年。

Steel reinforced spirally wound PE drainage pipes have other advantages as the same as PE plastic pipes:

- ◆ **Anticorrosion:** PE pipe can be used to deliver corrosive liquid like acid and alkali for its anticorrosion. The pipe can also be installed in the corrosive environments such as moisture. Specific anticorrosion performance is shown in standard ESO/TR 10358.
- ◆ **Anti- ultraviolet:** Carbon black stability factor is one raw material of PE pipe which is anti-ultraviolet. For this reason the pipe could be used outside for a long time and there is no need to worry about the change of the pipe's nature.
- ◆ **Light weight:** Installation cost will be saved for the characteristics of easy transportation and installation which result from light weight.
- ◆ **Smooth internal surface:** The smooth internal surface of the PE pipe will minimize the energy loss caused by friction and sedimentation is not easy to produce. Friction drag is almost unchanged for long-term usage.
- ◆ **Impact resistance:** High impact resistance of PE pipe leads to less fractures and damages during delivery and installation.
- ◆ **Easy installation:** Welding joint after heating PE pipe is going to assure the intensity of the connections and avoid the leak.
- ◆ **Toughness:** Moderate toughness of PE pipes can make the pipes easily be installed along the pipe ditch, easily avoid the obstacles when installing and is suit to the soil settlement of the marsh land and soft spots.
- ◆ **Nonpoisonous:** Black HDPE pipe has passed the inspection of health-related departments and is licensed to use.
- ◆ **Abrasion resistance:** Lifetime of HDPE pipe is four times longer than that of steel pipe after the experiment of mortar abrasion.
- ◆ **Long operating life:** Service life of the HDPE could be more than 50 years.

应用领域：

由于塑钢缠绕管道完美地结合了普通无压塑料管具有的所有优点及加强钢肋的高强度，所以完全能够满足工程应用中的各项需要，可广泛应用于各种不同的腐蚀或非腐蚀性介质的重力自流输送。如可用作：

- ◆ 市政工程：埋地排水管
- ◆ 道路工程：铁路或高速公路的排水管
- ◆ 工业：广泛用于工业领域的排污水管
- ◆ 建筑工程：建筑物雨水管、地下排水管、排风管、通风管等
- ◆ 垃圾填埋厂的污水收集管
- ◆ 大型港口、码头：大型机场、港口、码头的排水、排污管
- ◆ 体育运动场所：用作高尔夫球场、足球场等体育运动场所的渗水排水管
- ◆ 水利工程：海水输送和灌溉管
- ◆ 矿区：用作矿井通风、送风、排水、泥浆管
- ◆ 通信工程：铁路、公路通讯，通讯电缆、光缆的保护
- ◆ 蓄水系统：用于节流缓慢水流的储水系统
- ◆ 农业工程：用于农田、果园、茶园以及林带灌溉
- ◆ 海水运输管道
- ◆ 清洗河道

Applications:

Because steel reinforced spirally wound PE drainage pipe is the perfect combination with all the merits of ordinary no-press plastic pipe and the high-strength of steel reinforcing segment, it can meet all demands in project applications completely. It can be widely used in gravity delivery with various media of corrosive or non-corrosive agent. Specific examples are as follows:

- ◆ **Public works:** Used as blow-off pipe while buried under the ground.
- ◆ **Road works:** Used as soak away trench or drain pipe in railways and express ways.
- ◆ **Industry:** Widely used as sewage pipe in industry area.
- ◆ **Construction works:** Used as rain pipes of buildings, underground drains, blow-off pipes, vent pipes and etc.
- ◆ **Dirty water collecting pipe in refuse landfills.**
- ◆ **Large-scale port and wharf projects:** Used as drain pipe and blow-off pipe in projects of large-scale airport, port and wharf.
- ◆ **Sport stadium:** Used as soak away trench or drain pipe in sport stadium, such as golf course and football field.
- ◆ **Water conservancy project:** Used as water-head pipe and irrigation pipe.
- ◆ **Mine field:** Used as vent, blast, and drain and slurry pipe.
- ◆ **Communication Engineering:** Used as railway and highway communication, communication cable and optical cable protective pipe.
- ◆ **Water storage system:** Used in the water storage system to trap slow-flowing stream.
- ◆ **Agricultural engineering:** Used as irrigation pipe on the farm, in the garden, tea garden and the forest belt.
- ◆ **Seawater transporting pipe.**
- ◆ **Clear the river channel**

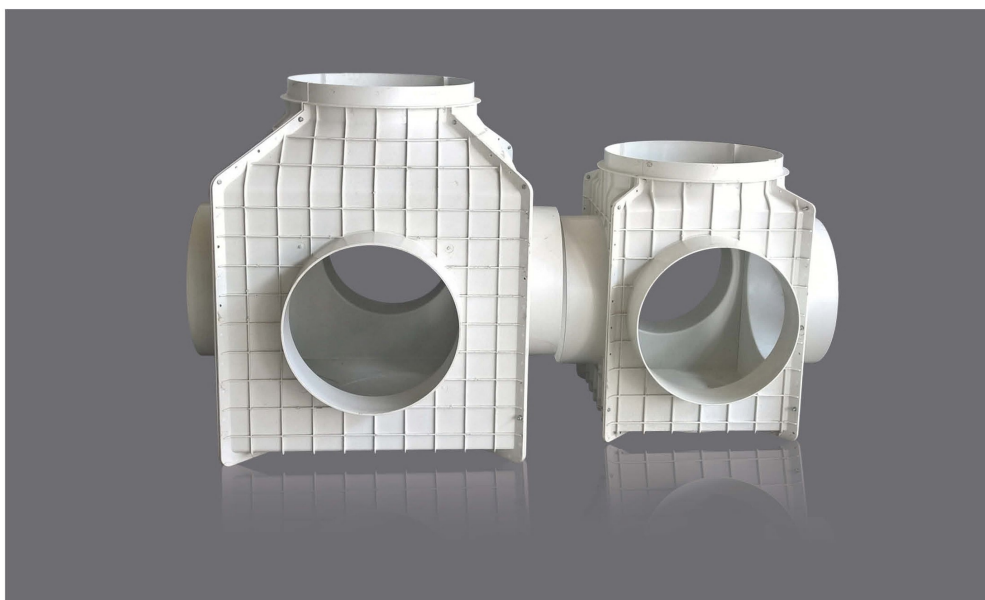


规格尺寸 / Specification

公称尺寸 dn/ID.mm	内径 dn/ID.mm	环刚度等级		
		SN8	SN10	SN12.5
		外径OD.mm	外径OD.mm	外径OD.mm
200	200	224	224	
300	300	325	325	
400	400	438	438	
500	500	539	539	
600	600	644	644	644
700	700	745	745	745
800	800	852	852	852
900	900	963	963	963
1000	1000	1063	1063	1063
1100	1100	1173	1173	1173
1200	1200	1273	1273	1273
1300	1300	1385	1385	1385
1400	1400	1485	1485	1485
1500	1500	1585	1585	1585
1600	1600	1693	1693	1693
1700	1700	1793	1793	1793
1800	1800	1893	1893	1903
2000	2000	2105	2105	2121
2200	2200	2307	2323	2323
2400	2400	2527	2527	2533
2500	2500	2629	2629	2635
2600	2600	2729	2735	2743
2700	2700	2848	2854	2858
2800	2800	2958	2964	2973

Glass Fiber Enhanced SMC Plastic Inspection Manhole

玻纤增强SMC塑料检查井



海丽公司与管材配套的塑料检查井因其安装简便、排水高效；重量轻、易于安装和运输；性能可靠、承载能力强、使用寿命长；综合造价低、维护费用少等优点，有着极其卓越的运用空间和市场前景。

The inspection manholes from Haili Pipe have some characteristics as follows: simple installation, efficient drainage ability, low weight, easy installation and transportation, reliable performance, high carrying capacity, long service life, low cost, and low maintenance cost. Haili inspection manholes have excellent application and market prospect.

GLASS FIBER ENHANCED SMC PLASTIC INSPECTION MANHOLE

产品特点 / Advantages

- 绿色环保节能：制造过程中无任何废气、废水和废料产生。其次，废旧玻纤增强SMC模压塑料检查井可以回收。将其燃烧，只有二氧化碳和水形成，无其他有害气体。可以产生40000kj/kg的燃烧值，又可作为能源加以利用。
- 抗腐蚀能力强：原料是不饱和树脂和玻纤，具有稳定的化学性能。几乎对所有稀硫酸、碱、酒精、油和汽油以及城市污水具有抗腐蚀性能力。
- 流速阻力小：内壁非常光滑，管内液体或气体流动时阻力非常小，保障输送介质的流畅，提高了流量。
- 很高的耐磨性：当输送矿砂泥浆或含沙量高的河水时，抗磨损能力是钢管的2倍。
- 安全无毒：加工制造时，不添加任何重金属盐安定剂，即使当废井回收完全燃烧时，也只有CO₂和水汽形成，不会释放出任何毒素，适用于清洁供水管道井。
- 可靠的密封性：接头采用自动加热熔焊技术，100%密封，无泄漏。
- 良好的柔韧性：其断裂伸长率高达350%，加之管件接头采用收缩带对接熔焊法，使其连成整体，整个管井具有较大的柔韧性。
- 施工简单：和水泥管道、其它塑料井相比，不仅大大节省了原料，降低了造价，而且运输和现场安装简便，缩短工期，大幅度节省施工费用。
- 使用寿命很长：50-70年。
- 工程总体造价低：综合造价比砖砌井低50%左右，比混凝土管道井低15%-30%。

- Environmental and energy-saving: There is no generation of waste water and gas during the course of fabrication. It can be recycled. If burned, only CO₂ and water are generated and no other harmful gas. Combustion value of 40000kj/kg can be generated and it can be used as energy.
- Strong corrosion resistance: The raw material which include unsaturated resin and glass fiber, have the stable chemical properties. It has the ability to resist corrosion against almost all diluted acids and alkali, alcohol, oil, gas, municipal sewage.
- Small flow resistance: The inner wall is very smooth. Resistance is very small when liquid or gas flows. It's fluent for conveying medium and improves flow.
- Strong wear-resistance: Wear-resistance is 2 times stronger than steel pipe when transporting ore slurry or river water with high sand content.
- Safety and non-toxic: Not add any heavy metal salt stabilizers when producing. Even when recycled abandoned-well is completely burned, only CO₂ and water generate and any toxin will not be released. It applies to clean water supply pipe system.
- Reliable sealing: The joints adopt automatic heating welding technology. Complete sealing without leak.
- Good Flexibility: As the elongation at break is up to 350% and pipe fittings core-pulling joints adopt butt fusion welding, the whole pipe system has great flexibility.
- Simple construction: Comparing with cement duct and other plastic wells, raw material can be saved and the cost can be reduced. And as it's easy to transport and install, the duration can be shortened and the construction cost can be greatly saved.
- Long service life: 50 ~ 70 years
- Project overall cost is low: Project overall cost is 50% lower than that of brick well, 15 ~ 30% lower than that of concrete well.


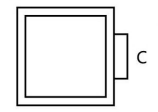

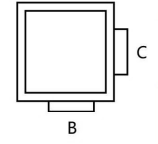

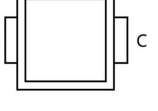

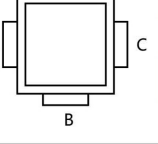

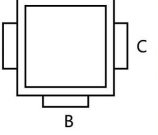
	项目	SMC塑料检查井	传统砖砌井	说明
工程性能	施工条件	不受任何气候环境影响	受气候影响（如下雨、高温、严寒）	SMC塑料检查井全天可施工
	施工速度	至少30个/天	1个/天	砖砌井施工受天气制约
	安全性	好，无需下井疏通，避免作业人员沼气中毒	每年都有因作业人员下井疏通引起事故（沼气中毒）	SMC塑料检查井采用专门的清疏工具，方便简单
	材料性能	耐酸、耐碱、耐腐蚀	不耐酸碱、易腐蚀	SMC塑料检查井材料本身具有耐酸耐碱的特点
	密封性	好，无渗漏	差，严重渗漏	SMC塑料检查井可防止雨水渗漏，防止地下水二次污染
	连接方式	柔性连接，均匀沉降	刚性连接，易脱落渗漏	减少雨水渗入污水处理费76200万/年(按1%计算)
	排水能力	好，内壁光滑	水泥砂浆粉刷，内阻大	SMC塑料检查井排污能力是砖砌井的3倍
	维护清通	清通简单，维护量小	不定期维护，清理复杂，经常堵塞，维护量大	砖砌井井内需清理杂砖、杂物
	使用寿命	50-100年	5-10年	SMC塑料检查井材料寿命大于50年
	作业面积	占地面积小	占地面积大	SMC塑料检查井排管更紧凑，节省开挖费用
以十个检查井以上计算 经济性能	施工人数	2人	20人	做10个检查井可节约至少18个施工人员费用
	耗时数	半天	全天	做10个检查井可节约至少9天时间
	直接材料费	开挖量小	开挖量大	井越深，复合树脂检查井性价比越明显
	人工费（150元/天）	150元/天	3000元/天	做10个井，每天节约人工费用2850元，十天节约28500元，全年节约1040250元
发展前景	综合造价	低	高	周期短，可大量节约人工
	资源利用	环保节能，节地，节水，节材	不可回收，污染环境，浪费资源	使用SMC塑料检查井每年节约农田2500亩，节约煤炭125万吨

	项目	SMC 塑料检查井	HDPE检查井	PVC 检查井
物理性能	耐候性	收缩率范围小,收缩值小,可在-45℃条件下施工操作,不惧怕突然降温,在北方寒冷的天气中也可使用,无发脆迹象,在炎热环境中,长期暴晒也无变形迹象	收缩率范围大,收缩值大,方向性明显，HDPE的收缩值为25%-60%，因此易变形翘曲。容易造成热胀冷缩,在0℃以下温度操作施工,容易发脆,尤其不能在寒冷天气及冻土环境中使用。在炎热环境中，长期暴晒容易变形	收缩率范围一般,收缩值中等。在空气中，因光和紫外线、水温度、大气氯化作用以及制品使用期间所遇到的化学药剂等原因，容易导致颜色脱落，发脆老化速度加快，耐候性差
	比强度	轻质高强，堪比钢的强度	轻质低强，根据材料本身的特性，强度数值低	
	电性能	阻燃等级可以达到FVO（非金属材料最高级）	不能作为阻燃材料使用	具有一定的阻燃效果，但不如复合树脂明显
	热性能	SMC塑料检查井材料有良好的热性能，它的比热大，是金属的2-3倍，导热系数比较低，只有金属的1/100-1/1000。高温冷却几乎无变形	高温，冷却后易变形	高温，冷却后易发脆
	抗老化	老化速度缓慢	老化速度中等	老化速度快
	耐高温	可作为导弹保护装置，有效的保护，不受高温困扰,同样在低温环境也可正常使用。普通材料可承受200℃温度,特殊材料可高达400℃温度	在80℃-90℃之间，有软化迹象，130℃变为高弹态，160℃-180℃开始转变为粘流态	工业生产的PVC分子量一般在5万-12万范围内，具有较大的多分散性，分子量随聚合温度的降低而增加，无固定熔点，80-85℃开始软化，130℃变为高弹态，160-180℃开始转变为粘流态
	膨胀系数	低，热胀冷缩无变化	高，热胀冷缩易变形，发脆	
	抗疲劳性	好	抗疲劳性差，撞击易破碎	
	化学性能	耐酸碱	可耐强酸、强碱	可耐弱酸、弱碱。无法耐强酸、强碱


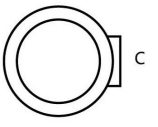

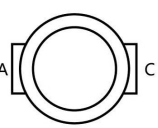



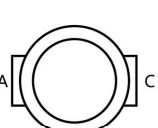



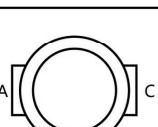
	Character	SMC Plastic Inspection Manhole	Brick Manhole	Description
Engineering Performance	Construction Condition	Not be affected by any climate and environment	Affected by climate	SMC plastic inspection manhole can be operated for the whole day
	Construction Speed	At least 30pcs/day	1pc/day	Brick Well construction is restricted by weather.
	Safety	Good, not need go down to the well, avoid gas poisoning of worker.	Gas poisoning accidents happen frequently	SMC plastic inspection manhole adopts special dredge tools, easy and simple.
	Material Performance	Acid proof, alkali proof, anti-corrosion	No proof of acid and alkali, easy corrosion	SMC plastic inspection manhole itself is acid proof, alkali proof.
	Sealing	Good, no leakage	Bad, serious leakage	SMC plastic inspection manhole can avoid sewage leakage, and prevent the secondary pollution for groundwater.
	Connection	Flexible connection, equal settlement	Rigid connection, easy to fall off and leakage	The handling cost of infiltration from rain water to sewage is very high.
	Drain Ability	Good, inner wall is very smooth	Internal resistance is big	Drainage capacity of SMC plastic inspection manhole is 3 times better than that of brick Well.
	Maintenance	Easy clearing, little maintenance	Irregular maintenance	Inner of the brick well should be cleaned.
	Service Life	50 ~ 100 years	5 ~ 10 years	The service life of SMC plastic inspection manhole is more than 50 years.
	Working Area	Small land occupation	Large land occupation	The arrangement of SMC plastic inspection manhole is more compact. Excavation cost can be saved.
Economic Performance (on the basis of more than 10 check wells)	Worker	2	20	The cost of 18 workers can be saved on every 10 manholes.
	Work Time	Half day	A whole day	9 days can be saved on every 10 manholes.
	Direct Material Cost	Small excavated volume	Large excavated volume	The deeper the well is, the cost performance of manhole is better.
	Labor Cost	¥ 150/day	¥ 3000/day	Every 10 manholes, ¥ 2850/day, ¥ 1040250/year can be saved.
	Comprehensive Cost	Low	High	Short period, labor cost can be saved greatly.
Prospect	Resource Utilization	Environmental and energy/land/water/material saving	Unrecyclable, environmental pollution, resources waste	1.65 km² farmland and 1.25million kg coal can be saved when using SMC plastic inspection manhole.

	Character	SMC Plastic Manhole	HDPE Manhole	PVC Manhole
Physical Performance	Weather Resistance	Small shrinkage range, small shrinkage value, can be constructed at -45℃, not afraid of sudden cooling, can be used in very cold weather, no sign of brittle. In hot environment, no sign of deformation is showed under long-term exposure of sunshine	Big shrinkage range, big shrinkage value, clear direction. Shrinkage Ratio of HDPE is 25% ~ 60% and it's easy to deform. It's easy to cause expansion and contraction. It's easy to get brittle under 0℃. It cannot be used under cold weather and frozen earth. In hot environment, it's easy to deform under long-term exposure of sunshine	Common shrinkage range, medium shrinkage value. Because of sunshine, UV-light, water temperature, atmospheric chlorination, chemical agent which is encountered in the construction, lose color and crisp aging get faster, bad weather resistance.
	Intensity	Light-weight and high-strength like steel	Light-weight and low-strength according to the material.	
	Electric Performance	Flame retardant grade reaches to FVO (The highest level of non-metallic material)	Cannot be used as a flame retardant material	It has certain flame retardant effect, but it's not obvious like composite resin.
	Thermal Performance	It has good thermal performance. Its specific heat is 2-3 times than that of metal. Thermal conductivity is low and is only 1/100-1/1000 of metal. Almost no deformation after high temperature cooling	It's easy to deform after high temperature cooling	It's easy to get brittle after high temperature cooling
	Ageing Resistance	Slow aging rate	Medium aging rate	Fast aging rate
	Heat Resistance	It can be used as missile protection and protect against high temperature. It can also work well under low-temperature. The common material can withstand 200℃ and the special material can withstand 400℃	Signs of softening appears at 80℃~90℃. It becomes viscoelastic state at 130℃ and viscous state at 160℃~180℃.	PVC molecular weight of industrial product is 50 ~ 120 thousand. It has a large polydispersity and molecular weight increases along with the decrease of polymerization temperature. No fixed melting point. It begins to soften at 80 ~ 85℃. It becomes viscoelastic state at 130℃ and viscous state at 160℃~180℃.
	Expansion Coefficient	Low, there is no change when heating and cooling	High, it's easy to deform and get brittle when heating and cooling	
	Fatigue Resistance	Good	Bad, it's easy to break when impacting.	
	Chemical Performance	Acid/Alkali Resistance	Resistance to strong acid and strong alkali	Resistance to only weak acid and weak alkali


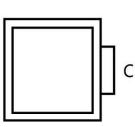

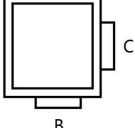

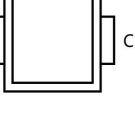

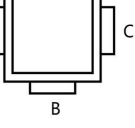

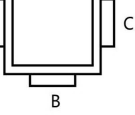
▶ DN700系列

DN700 一通井 One-way inspection manhole			支管 Branch pipe C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID300 ID400 ID500 ID600
DN700 90度二通井 90° two-way inspection manhole			支管 Branch pipe B C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID300 ID400 ID500 ID600 ID300 ID400 ID500 ID600
DN700 180度二通井 Straight two-way inspection manhole			支管 Branch pipe A C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID300 ID400 ID500 ID600 ID300 ID400 ID500 ID600
DN700 三通井 Three-way inspection manhole			支管 Branch pipe A B C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID300 ID400 ID500 ID600 ID300 ID400 ID500 ID600 ID300 ID400 ID500 ID600
DN700 四通井 Cross four-way inspection manhole			支管 Branch pipe A B C D	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID300 ID400 ID500 ID600 ID300 ID400 ID500 ID600 ID300 ID400 ID500 ID600 ID300 ID400 ID500 ID600


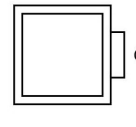

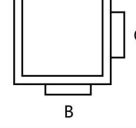

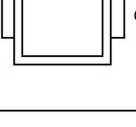

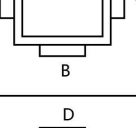

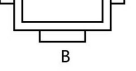
▶ DN300、DN500、DN700

DN300 一通井 One-way inspection manhole			支管 Branch pipe C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID160 ID200
DN300 180度二通井 Straight two-way inspection manhole			支管 Branch pipe A C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID160 ID200 ID160 ID200
DN500 一通井 One-way inspection manhole			支管 Branch pipe C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID160 ID200 ID300 ID400
DN500 180度二通井 Straight two-way inspection manhole			支管 Branch pipe A C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID160 ID200 ID300 ID400 ID160 ID200 ID300 ID400
DN700 一通井 One-way inspection manhole			支管 Branch pipe C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID160 ID200 ID300 ID400
DN700 180度二通井 Straight two-way inspection manhole			支管 Branch pipe A C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID200 ID300 ID400 ID500 ID200 ID300 ID400 ID500

▶ DN600

DN600 一通井 One-way inspection manhole			支管 Branch pipe C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID300 ID400 ID500
DN600 90度二通井 90° two-way inspection manhole			支管 Branch pipe B C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID300 ID400 ID500 ID300 ID400 ID500
DN600 180度二通井 Straight two-way inspection manhole			支管 Branch pipe A C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID300 ID400 ID500 ID300 ID400 ID500
DN600 三通井 Three-way inspection manhole			支管 Branch pipe A B C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID300 ID400 ID500 ID300 ID400 ID500 ID300 ID400 ID500
DN600 四通井 Cross four-way inspection manhole			支管 Branch pipe A B C D	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID300 ID400 ID500 ID300 ID400 ID500 ID300 ID400 ID500 ID300 ID400 ID500

▶ DN1000

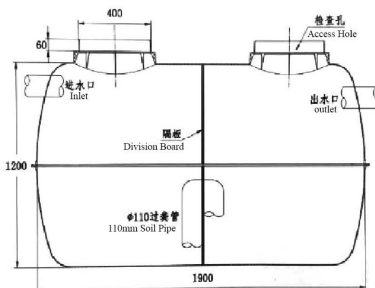
DN1000 一通井 One-way inspection manhole			支管 Branch pipe C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID300 ID400 ID500 ID600 ID700 ID800
DN1000 90度二通井 90° two-way inspection manhole			支管 Branch pipe B C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID300 ID400 ID500 ID600 ID700 ID800 ID300 ID400 ID500 ID600 ID700 ID800
DN1000 180度二通井 Straight two-way inspection manhole			支管 Branch pipe A C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID300 ID400 ID500 ID600 ID700 ID800 ID300 ID400 ID500 ID600 ID700 ID800
DN1000 三通井 Three-way inspection manhole			支管 Branch pipe A B C	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID300 ID400 ID500 ID600 ID700 ID800 ID300 ID400 ID500 ID600 ID700 ID800 ID300 ID400 ID500 ID600 ID700 ID800
DN1000 四通井 Cross four-way inspection manhole			支管 Branch pipe A B C D	接管管径 (外径/内径) Branch pipe diameter(OD/ID) ID300 ID400 ID500 ID600 ID700 ID800 ID300 ID400 ID500 ID600 ID700 ID800 ID300 ID400 ID500 ID600 ID700 ID800 ID300 ID400 ID500 ID600 ID700 ID800

SMC Molded Septic Tank

SMC模压化粪池



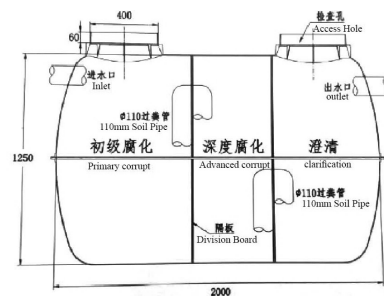
适用于农村一家一户使用或者两户使用
Suitable for one or two houses



1~1.5立方化粪池结构示意图
Structure of 1-5m³ septic tank



适用于多户或住宅小区使用
Suitable for several houses or residence community



1~6立方化粪池结构示意图 中间检查孔可根据客户需求添加
Structure of 1-5m³ septic tank
The middle inspection hole can be added upon request

有效容积 Effective volume(m ³)	池体规格 Specification (dn, mm *Length, mm)	有效容积 Effective volume(m ³)	池体规格 Specification (dn, mm *Length, mm)	有效容积 Effective volume(m ³)	池体规格 Specification (dn, mm *Length, mm)	有效容积 Effective volume(m ³)	池体规格 Specification (dn, mm *Length, mm)
1	dn1100*1400/ dn960*1700	6	dn2000*2400	25	dn2000*8400	75	dn2000*24400
1.5	dn1200*1900	10	dn2000*3400	30	dn2000*10400		dn2000*12600*12600 (in series)
2	dn1250*2000	12	dn2000*4400	40	dn2000*13400	100	dn2000*32400
3	dn1200*3800	16	dn2000*5400	50	dn2000*16400		dn2000*16400*16400 (in series)
4	dn1250*4000	20	dn2000*6600		dn2000*8400*8400 (in series)		dn2000*6400(four pcs) (in series)

SMC模压化粪池与传统化粪池的对比Comparison

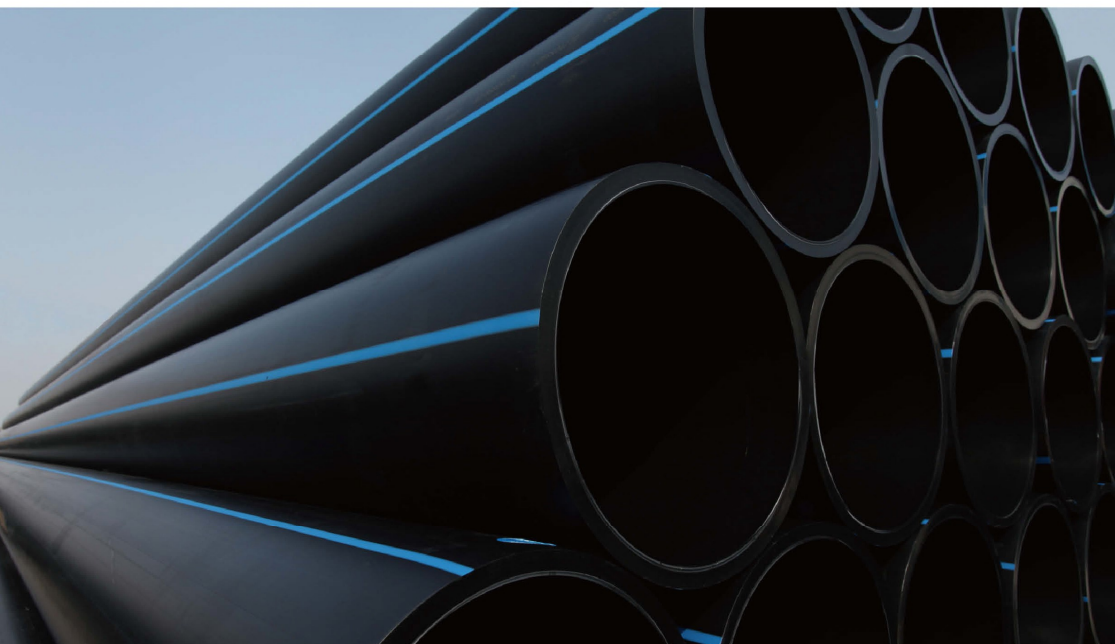
项目		SMC 模压化粪池	传统砖砌化粪池	钢筋混凝土化粪池
工程性能对比	施工条件	不受气候、环境影响，可全天候不分季节施工	受气候环境影响大（如下雨、高温、严寒），严重影响施工进度	受气候环境影响大（如下雨、高温、严寒），严重影响施工进度
	材料性能	耐酸碱盐等多种化学介质腐蚀	不耐酸碱腐蚀	不耐酸碱腐蚀
	渗漏性	抗不均匀沉降	无法抵抗不均匀沉降，易脱落、易开裂，渗漏	无法抵抗不均匀沉降，易脱落、易开裂，渗漏
	使用寿命	50年以上	5-10年	20年
经济性能对比(以25立方规格为例)	占地面积	15平方	27平方	22平方
	土方工程量	60立方	206立方	167立方
	施工周期	2天	4天	6-10天
	维护清理	内壁光滑不挂垢，清掏周期长，清掏方便，基本无维护费用	内壁粗糙，清掏周期短，后期维护费用高	内壁粗糙，清掏周期短，后期维护费用高
节能环保	资源利用	环保、节能、节水、节财	浪费资源、污染环境	浪费资源、污染环境

Item		SMC molded septic tank	Traditional brick septic tank	Reinforced concrete septic tank
Comparison of properties	Construction conditions	Cannot be affected by weather or climate; can be carried on all the day	Can be easily affected by the climate and the weather (such as rain, hot and cold weather) have a strong impact on construction period	Can be easily affected by the climate and the weather (such as rain, hot and cold weather) have a strong impact on construction period
	Material properties	Acid and alkali resistant	Without acid and alkali resistance	Without acid and alkali resistance
	Leakage	Resistant to uneven settlement	Cannot resist to uneven settlement, easy to fall off and to be broken, serious leakage	Cannot resist to uneven settlement, easy to fall off and to be broken, serious leakage
	Life span	≥50 years	5-10 years	20 years
Comparison of economic performance (25 cubic meters septic tank)	Occupied area	15m²	27 m²	22 m²
	Volume of earthwork	60 m³	206m³	167m³
	Construction period	2days	4days	6-10days
	Maintenance and clearing	Smooth inner wall, long clearing period, convenient clearing, no maintenance costs	Rough inner wall, short clearing period, high maintenance costs	Rough inner wall, short clearing period, high maintenance costs
Environment	Resource	Environment friendly, resource saving, water saving, cost saving	Resource-wasting, not environment friendly	Resource-wasting, not environment friendly



HDPE Water Pipe

HDPE高密度聚乙烯给水管材



应用领域 Applications

工业流体的输送
Industrial liquids transportation

1

市政供水系统
Municipal water supply

2

污水处理系统
Sewage treatment

3

商业及民用供水系统
Commercial & Residential water supply

4

HDPE WATER PIPE

材质：PE80 PE100

公称压力：0.6MPa, 0.8MPa, 1.0MPa, 1.25MPa, 1.6MPa

规格尺寸：20mm ~ 1600mm

标准：GB/T13663-2000, ISO4427-2007

颜色：蓝色管，黑色管带蓝色直条，或根据要求采用其它颜色。 Colors: Blue, black with blue stripes, other colors are also available upon request.

Material: PE80 PE100

Pressure Rating: 0.6MPa, 0.8MPa, 1.0MPa, 1.25MPa, 1.6MPa

Size: 20mm ~ 1600mm

Standard: GB/T13663-2000, ISO4427-2007

产品特点 / Advantages

- **良好的卫生性能：**加工时不添加重金属盐稳定剂，无结垢层，也不会促进菌类、细菌等造成的二次污染。
- **卓越的耐腐蚀性能：**可耐化学介质的腐蚀，无电化学腐蚀。
- **超低的摩擦性能：**光滑的内管壁造就超低的摩擦阻力。
- **优良的挠性：**可以进行盘卷。
- **良好的施工性能：**重量轻便于搬运和安装。
- **长久的使用寿命：**在额定温度和压力状况下，可安全使用50年以上。
- **多种可靠的连接性能：**采用热熔、电熔连接，保证了接口材质、结构与管体本身的同一性。
- **可回收环保**

- Non-toxic: No heavy metal additives, no dirt, no secondary pollution caused by bacterium.
- Corrosion Resistant: Resist chemical mediator corrosion and electron chemical corrosion.
- Low Flow Resistance: Smooth inner wall and low friction result in low flow resistance and high volume.
- Excellent Flexibility: Can be coiled.
- Easy Installation: Light weight and can be carried and installed easily.
- Long service life: More than 50 years.
- Various connection type: Butt fusion joint, electro fusion joint.
- Recycled and environment-friendly

管材连接 / Connection

- PE管材的连接方法一般分为热熔连接，电熔连接和法兰连接。
- PE管材焊接通用原理是聚乙烯一般可在190-240摄氏度之间的范围内被熔化（不同牌号原料的熔化温度一般也不同），此时若将管材熔融的部分充分接触，并保持有适当的压力（电熔焊接的压力来源于焊接过程中聚乙烯自身产生的热膨胀），冷却后便可牢固的融为一体。聚乙烯给水管、燃气管和其他材质的管材阀门、管路附件等连接应采用法兰或钢塑过渡接头连接。

- The connection types of PE pipe include hot-melt joint, electro-fusion and flange joint.
- The general principle of the PE pipe welding is that the polyethylene melts in 190-240°C range (generally, melting temperature of different grades of raw materials is also different), then if the melting pipes can be fully contacted with the proper pressure (the pressure of electro fusion comes from expansion of polyethylene itself in the process of melting), after cooling they can be melted into a entirety firmly. Flange connection or plastics-steel transition joint should be used when PE water pipe or PE gas pipe connects with pipe, valve and fittings of other materials.

规格尺寸/ Specification PE80

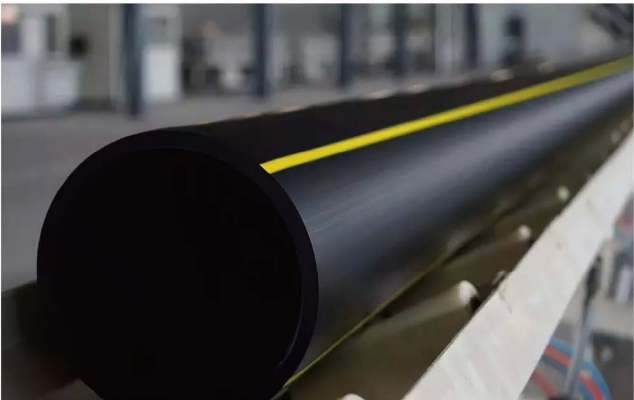
公称外径 dn(mm)	标准尺寸比 SDR				
	SDR33	SDR21	SDR17	SDR13.6	SDR11
	公称压力 PN, Mpa				
	0.4	0.6	0.8	1.0	1.25
	公称壁厚en(mm)				
	0.4	0.6	0.8	1.00	1.25
25	-	-	-	-	2.3
32	-	-	-	-	3.0
40	-	-	-	-	3.7
50	-	-	-	-	4.6
63	-	-	-	4.7	5.8
75	-	-	4.5	5.6	6.8
90	-	4.3	5.4	6.7	8.2
110	-	5.3	6.6	8.1	10.0
125	-	6.0	7.4	9.2	11.4
140	4.3	6.7	8.3	10.3	12.7
160	4.9	7.7	9.5	11.8	14.6
180	5.5	8.6	10.7	13.3	16.4
200	6.2	9.6	11.9	14.7	18.2
225	6.9	10.8	13.4	16.6	20.5
250	7.7	11.9	14.8	18.4	22.7
280	8.6	13.4	16.6	20.6	25.4
315	9.7	15.0	18.7	23.2	28.6
355	10.9	16.9	21.1	26.1	32.2
400	12.3	19.1	23.7	29.4	36.3
450	13.8	21.5	26.7	33.1	40.9
500	15.3	23.9	29.7	36.8	45.4
560	17.2	26.7	33.2	41.2	50.9
630	19.3	30.0	37.4	46.3	57.2
710	21.8	33.9	42.1	52.2	-
800	24.5	38.1	47.4	58.8	-
900	27.6	42.9	53.3	-	-
1000	30.6	47.7	59.3	-	-
1200	36.7	57.2	67.9	-	-
1400	42.9	66.7	82.4	-	-
1600	49.0	76.2	94.1	-	-

规格尺寸/ Specification PE100

公称外径 dn(mm)	标准尺寸比 SDR				
	SDR26	SDR21	SDR17	SDR13.6	SDR11
	公称压力 PN, Mpa				
	0.6	0.8	1.0	1.25	1.6
	公称壁厚en(mm)				
	0.6	0.8	1.0	1.25	1.6
32	-	-	-	-	3.0
40	-	-	-	-	3.7
50	-	-	-	-	4.6
63	-	-	-	4.7	5.8
75	-	-	4.5	5.6	6.8
90	-	4.3	5.4	6.7	8.2
110	4.2	5.3	6.6	8.1	10.0
125	4.8	6.0	7.4	9.2	11.4
140	5.4	6.7	8.3	10.3	12.7
160	6.2	7.7	9.5	11.8	14.6
180	6.9	8.6	10.7	13.3	16.4
200	7.7	9.6	11.9	14.7	18.2
225	8.6	10.8	13.4	16.6	20.5
250	9.6	11.9	14.8	18.4	22.7
280	10.7	13.4	16.6	20.6	25.4
315	12.1	15.0	18.7	23.2	28.6
355	13.6	16.9	21.1	26.1	32.2
400	15.3	19.1	23.7	29.4	36.3
450	17.2	21.5	26.7	33.1	40.9
500	19.1	23.9	29.7	36.8	45.4
560	21.4	26.7	33.2	41.2	50.9
630	24.1	30.0	37.4	46.3	57.2
710	27.2	33.9	42.1	52.2	-
800	30.6	38.1	47.4	58.8	-
900	34.4	42.9	53.3	-	-
1000	38.2	47.7	59.3	-	-
1200	45.9	57.2	67.9	-	-
1400	53.5	66.7	82.4	-	-
1600	61.2	76.2	94.1	-	-

HDPE Gas Pipe

HDPE高密度聚乙烯燃气管材



应用领域 / Applications

聚乙烯燃气管材主要应用于天然气、石油液化气（气态）和人工煤气等各类燃气的输送。工作温度在-20摄氏度~40摄氏度之间，长期工作压力不超过0.7Mpa。

•PE gas pipe is suitable for gas transportation on condition that working temperature is among -20℃~40℃, and long-term maximum working pressure is less than 0.7MPa.

产品特点 / Advantages

- 卓越的耐腐蚀性能：可耐多种化学介质的侵蚀，无电化学腐蚀。
- 超低的摩擦性能：光滑的内管壁造就超低的摩擦阻力。
- 优良的挠性：可以进行盘卷。
- 良好的施工性能：重量轻便于搬运和安装。
- 长久的使用寿命：在额定温度和压力状况下，可安全使用50年以上。
- 多种可靠的连接性能：采用热熔、电熔连接，保证了接口材质、结构与管体本身的同一性。
- 良好的卫生性能
- Corrosion Resistant: Resist chemical mediator corrosion and electron chemical corrosion.
- Low Flow Resistance: Smooth inner wall and low friction result in low flow resistance and high volume.
- Excellent Flexibility: Can be coiled.
- Easy Installation: Light weight and can be carried and installed easily.
- Long service life: More than 50 years.
- Various connection type: Butt fusion joint, electro fusion joint and transition joint.
- Recycled and Environment-friendly.

管材连接 / Connection

- PE管材的连接方法一般分为热熔连接，电熔连接和法兰连接。
- PE管材焊接通用原理是聚乙烯一般可在190-240摄氏度之间的范围内被熔化（不同牌号原料的熔化温度一般也不同），此时若将管材熔融的部分充分接触，并保持有适当的压力（电熔焊接的压力来源于焊接过程中聚乙烯自身产生的热膨胀），冷却后便可牢固的融为一体。聚乙烯给水管、燃气管和其他材质的管材阀门、管路附件等连接应采用法兰或钢塑过渡接头连接。
- The connection types of PE pipe include hot-melt joint, electro-fusion and flange joint.
- The general principle of the PE pipe welding is that the polyethylene melts in 190-240℃ range(generally, melting temperature of different grades of raw materials is also different), then if the melting pipes can be fully contacted with the proper pressure (the pressure of electro fusion comes from expansion of polyethylene itself in the process of melting), after cooling they can be melted into a entirety firmly. Flange connection or plastics-steel transition joint should be used when PE water pipe or PE gas pipe connects with pipe, valve and fittings of other materials.

HDPE GAS PIPE

材质：PE80 PE100
公称压力：0.3MPa, 0.4MPa, 0.5MPa, 0.7MPa
规格尺寸：20mm ~ 630mm
标准：GB 15558.1-2003
颜色：黄色管，黑色管带黄色直条，或根据要求采用其他颜色。

Material:PE80 PE100
Pressure Rating: 0.3MPa, 0.4MPa, 0.5MPa, 0.7MPa
Size: 20mm ~ 630mm
Standard: GB 15558.1-2003
Colors: Yellow,black with yellow stripe,other colors are also available upon request .

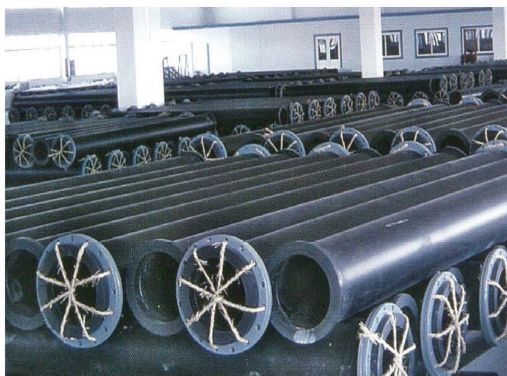
规格尺寸/Specification

公称外径 dn(mm)	PE80		PE100	
	SDR17.6	SDR11	SDR17.6	SDR11
	公称壁厚en(mm)			
20	2.3	3	2.3	3
25	2.3	3	2.3	3
32	2.3	3	2.3	3
40	2.3	3.7	2.3	3.7
50	2.9	4.6	2.9	4.6
63	3.6	5.8	3.6	5.8
75	4.3	6.8	4.3	6.8
90	5.2	8.2	5.2	8.2
110	6.3	10	6.3	10
160	9.1	14.6	9.1	14.6
200	11.4	18.2	11.4	18.2
250	14.2	22.7	14.2	22.7
280	15.9	25.4	15.9	25.4
315	17.9	28.6	17.9	28.6
355	20.2	32.3	20.2	32.3
400	22.8	36.4	22.8	36.4
450	25.6	40.9	25.6	40.9
500	28.4	45.5	28.4	45.5
560	31.9	50.9	31.9	50.9
630	35.8	57.3	35.8	57.3

Mining PE Pipes Used In The Pit

煤矿井下用高密度聚乙烯管材

- | | |
|---|---|
| <p>材质: PE80 PE100</p> <p>公称压力: 0.6MPa, 0.8MPa, 1.0MPa, 1.25MPa, 1.6MPa</p> <p>规格尺寸: 32mm ~ 1000mm</p> <p>标准: MT558.1-2005</p> <p>颜色: 黑色管带红色条纹, 或根据要求采用其它颜色。</p> | <p>• Material: PE80 PE100</p> <p>• Pressure Rating: 0.6MPa, 0.8MPa, 1.0MPa, 1.25MPa, 1.6MPa</p> <p>• Size: 32mm ~ 1000mm</p> <p>• Standard: MT558.1-2005</p> <p>• Colors: Black with red stripes, other colors are also available upon request.</p> |
|---|---|



应用领域 / Applications

我公司生产KM通用型煤矿井下用PE管适用于以下各种用途, 产品规格型号按管用途、材质、公称外径和压力等级来划分。

煤矿井下用聚乙烯供水排水管材 (KS)

煤矿井下用聚乙烯喷浆管材 (KJ)

煤矿井下用聚乙烯正压通风管 (KFZ) / 负压通风管 (KFF)

煤矿井下用聚乙烯瓦斯抽放管 (KW)

煤矿井下用聚乙烯通风管 (KM) : 适用于抽放瓦斯、供水排水、正压通风、负压通风、喷浆。

- Mine PE water supply and drainage pipes
- Mine PE gunite pipes
- Mine PE positive pressure ventilation pipes and negative pressure ventilation pipes
- Mine PE gas pipes
- Mine PE ventilation pipes: applicable to gas delivery, water supply and drainage, positive pressure ventilation, negative pressure ventilation and whitewash.

产品特点:

- **HDPE管重量轻:** 单位重量只有钢管的1/7, 是玻璃钢管的1/2, 在井下能大大降低工人的劳动强度, 提高效率。
- **耐腐蚀, 不易结垢:** HDPE管材具有很强的耐腐蚀性, 不需做防腐处理, 节省了防腐和除垢的费用, 综合经济效益是钢管的5-6倍, 特别适合于井下输送含硫、钙、镁离子的介质。
- **管壁光洁度高, 流体阻力小:** 内壁光滑, 粗糙度为钢管的2/5, 输送阻力小, 相同条件下, 可提高输送能力30%。
- **良好的水密性和连接性能:** 施工方便, 可采用承插焊接、热熔对焊以及法兰连接三种方式, 密封性能良好。
- **强度大、耐冲击, 机械性能优越:** 管材使用的HDPE树脂, 其耐磨性为钢管的5-6倍; 抗老化性能好, 不易脆化; 有韧性, 能吸收冲击能; 抗快速开裂能力好, 断裂伸长率可达到300%, 在井下安装受地形沉降影响小。
- **阻燃、防静电:** 防静电及阻燃剂成分均匀分布在管材本体中, 因而防静电、阻燃性能不会因使用时间长而受到影响。防静电、阻燃性能均符合MT181-88标准, 适用于井下易燃、易爆的特定场所。
- **重复使用率高, 效益显著:** 管道可采用法兰连接, 拆卸方便, 且寿命长, 不易腐蚀结垢, 可重复利用。

Advantages:

- **Light HDPE pipes:** Its unit weight is only one seventh of steel pipes and half of glass pipes, being convenient in transportation and installation. Especially in the mine, it can greatly reduce the working intensity of workers and increase work efficiency.
- **Corrosion resistance and hard to deposit:** HDPE pipes are strongly resistant to corrosion and unnecessary to anticorrosive processing, saving the cost of corrosion prevention and contaminant release. The overall economic efficiency is 5 to 6 times of that of steel pipes, being especially suitable for the underground transmission of mediums containing sulfur, calcium and magnesium ion.
- **Highly smooth pipe wall and little resistance to fluid:** The inner wall of pipe is smooth, and the roughness is two fifths of that of steel pipes, with little transmission resistance. Under the same condition, the delivery capacity can be increased by 30%.
- **Good water tightness and connection performance:** The connection of pipes is excellent. It is flexible for construction. Pipes are connected by means of socket welding, hot melting and flange connection. Pipe's sealing is outstanding.
- **High intensity, resistance to impact, outstanding machinery performance:** The abrasion resistance HDPE resin used in pipes is 5 to 6 times of that of steel pipes; the anti-aging performance is good and it is hard to embrittle. Its toughness helps absorb impact energy; it has good resistance to rapid crack propagation, and elongation at break can reach 300%, so the installation in mine is not greatly influenced by terrain settlement.
- **Inflaming retarding and antistatic performance:** The inflaming retarding and antistatic components are evenly distributed in pipes, so the inflaming retarding and antistatic performance will not be affected because of long service time. These performances are consistent with MT181-88 standard and suitable for flammable and explosive sites like mine.
- **High reutilization rate and significant comprehensive benefits:** Pipes can be connected by flanges and flexible to disassemble. Besides, the pipes' service life is long and hard to be corrupt and deposit, being able to reutilize.

管材连接 / Connection

- PE管材的连接方法一般分为热熔连接, 电熔连接和法兰连接。
- PE管材焊接通用原理是聚乙烯一般在190-240摄氏度之间的范围内被熔化 (不同牌号原料的熔化温度一般也不同), 此时若将管材熔融的部分充分接触, 并保持有适当的压力 (电熔焊接的压力来源于焊接过程中聚乙烯自身产生的热膨胀), 冷却后即可牢固的融为一体。聚乙烯给水管、燃气管和其他材质的管材阀门、管路附件等连接应采用法兰或钢塑过渡接头连接。由于矿用管特殊的作业环境, 法兰连接为其主要连接方式。
- The connection types of PE pipe include hot-melt joint, electro-fusion and flange joint.
- The general principle of the PE pipe welding is that the polyethylene melts in 190-240 °C range (generally, melting temperature of different grades of raw materials is also different), then if the melting pipes can be fully contacted with the proper pressure (the pressure of electro fusion comes from expansion of polyethylene itself in the process of melting), after cooling they can be melted into a entirety firmly. Flange connection or plastics-steel transition joint should be used when PE water pipe or PE gas pipe connects with pipe, valve and fittings of other materials. Because of the special working environment, flanged joint is the main connection method.

规格尺寸 / Specification PE100

公称外径 dn(mm)	SDR26	SDR21	SDR17	SDR13.6	SDR11
	公称压力PN,Mpa				
	0.6	0.8	1.0	1.25	1.6
公称壁厚en(mm)					
32	-	-	-	-	3.0
40	-	-	-	-	3.7
50	-	-	-	-	4.6
63	-	-	-	4.7	5.8
75	-	-	4.5	5.6	6.8
90	-	4.3	5.4	6.7	8.2
110	4.2	5.3	6.6	8.1	10.0
125	4.8	6.0	7.4	9.2	11.4
140	5.4	6.7	8.3	10.3	12.7
160	6.2	7.7	9.5	11.8	14.6
180	6.9	8.6	10.7	13.3	16.4
200	7.7	9.6	11.9	14.7	18.2
225	8.6	10.8	13.4	16.6	20.5
250	9.6	11.9	14.8	18.4	22.7
280	10.7	13.4	16.6	20.6	25.4
315	12.1	15.0	18.7	23.2	28.6
355	13.6	16.9	21.1	26.1	32.2
400	15.3	19.1	23.7	29.4	36.3
450	17.2	21.5	26.7	33.1	40.9
500	19.1	23.9	29.7	36.8	45.4
560	21.4	26.7	33.2	41.2	50.8
630	24.1	30.0	37.4	46.3	57.2
710	27.2	33.9	42.1	52.2	-
800	30.6	38.1	47.4	58.8	-
900	34.4	42.9	53.3	-	-
1000	38.2	47.7	59.3	-	-

注: 管材按用途分为矿用供水管、矿用正压通风管、矿用负压通风管、矿用喷浆管、矿用抽放瓦斯管五种

U-PVC Water Pipe

U-PVC硬聚氯乙烯给水管材



产品特点:

- **质轻、搬运装卸便利:** PVC管材质轻,比重仅为铁管1/5,搬运、装卸、施工便利,可节省施工费用。
- **耐腐蚀性、药品性优良:** PVC管具有优异的耐酸、耐碱和耐腐蚀性,广泛应用于化学工业、废水排水、下水道等领域。
- **液体阻力小:** PVC管内壁光滑,对流体阻力小,其粗糙系数仅0.009,较其它管材低,在同口径的情况下,流量较大,且不附着水垢。
- **机械强度高:** PVC管耐水压强度、耐冲击强度等性能良好,在常温下,适用于各种条件的配管工程。
- **电气绝缘性能:** PVC管具有优越的电气绝缘性,适用于电线、电缆套管,可以广泛用于电信、电力配管与建筑上的电线配管。
- **不影响水质:** PVC管由溶解试验的结果证实不影响水质,绝无出“红水”的弊病,为目前自来水管的最佳管材。
- **具有良好的水密性:** PVC管的连接均具有良好的水密性。
- **施工简易:** PVC管施工迅速简易,施工工程费低廉。
- **使用寿命长:** 正常工作压力下,使用寿命可达50年。
- **成本低:** 运输、安装、材料费低,总工程造价比铸铁管道降低30%-40%。

Advantages:

- **Light weight, convenient to carrying and loading:** With the light weight, the specific gravity of PVC pipe is just one-fifth of the iron pipe. So it is convenient to carrying, loading and operating and can save the cost.
- **Good corrosion resistance and chemical-proof:** With excellent acid-resisting, alkali-resisting and corrosion resistance, PVC pipe can be used widely in the fields of chemical industry and waste water.
- **Small liquid resistance:** With smooth flow of the inner wall and small liquid resistance, the coefficient of roughness is just 0.009, which is lower than that of other pipes. With the same caliber, it can hold more flow volume and no adhesion of incrustation scale.
- **Large mechanical strength:** Having good strength of resisting water pressure and impact, at ordinary temperature, it can be used to any conditions of piping engineering.
- **Excellent electrical insulation:** PVC pipe has excellent electrical insulation so it can be used as wire, cable casing pipe and can be widely used in telecommunications, power piping and wire piping on the construction.
- **No impact on water quality:** The result of the dissolution test proves that PVC pipe does not affect the quality of water, being the best choice for tap-water pipe.
- **Good water-tightness:** Its connections have the good water-tightness.
- **Easy workability:** PVC pipe can be constructed quickly and easily with low cost.
- **Long life-spans:** Under the normal working pressure, it can be used for more than 50 years.
- **Low cost:** With low cost in transporting, installing and material, the whole project can save 30%-40% cost than that of iron pipe.

U-PVC WATER PIPE

材质: U-PVC

公称压力: 0.5MPa, 0.6MPa, 0.63MPa, 0.8MPa, 1.0MPa, 1.25MPa, 1.6MPa, 2.0MPa, 2.5MPa

规格尺寸: 20mm ~ 800mm

标准: GB/T10002.1-2006 ISO4422-1996

颜色: 灰色或白色管, 或根据要求采用其它颜色。

• Material: U-PVC

• Pressure Rating: 0.5MPa, 0.6MPa, 0.63MPa, 0.8MPa, 1.0MPa, 1.25MPa, 1.6MPa, 2.0MPa, 2.5MPa

• Size: 20mm ~ 800mm

• Standard: GB/T10002.1-2006 ISO4422-1996

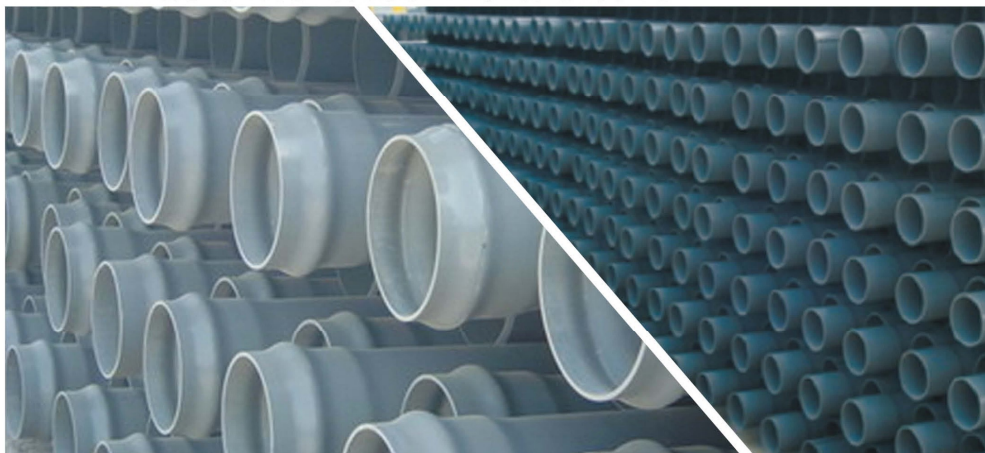
• Colors: Grey or white, other colors are also available upon request.

规格尺寸 / Specification

公称外径 dn (mm)	管系列 & 标准尺寸比 & 公称压力 S & SDR & PN						
	S16 SDR33 PN0.63	S12.5 SDR26 PN0.8	S10 SDR21 PN1.0	S8 SDR17 PN1.25	S6.3 SDR13.6 PN1.6	S5 SDR11 PN2.0	S4 SDR9 PN2.5
	公称壁厚en(mm)						
20	-	-	-	-	-	2.0	2.3
25	-	-	-	-	2.0	2.3	2.8
32	-	-	-	2.0	2.4	2.9	3.6
40	-	-	2.0	2.4	3.0	3.7	4.5
50	-	2.0	2.4	3.0	3.7	4.6	5.6
63	2.0	2.5	3.0	3.8	4.7	5.8	7.1
75	2.3	2.9	3.6	4.5	5.6	6.9	8.4
90	2.8	3.5	4.3	5.4	6.7	8.2	10.1
公称外径 dn (mm)	管系列 & 标准尺寸比 & 公称压力 S & SDR & PN						
	S20 SDR41 PN0.63	S16 SDR33 PN0.8	S12.5 SDR26 PN1.0	S10 SDR21 PN1.25	S8 SDR17 PN1.6	S6.3 SDR13.6 PN2.0	S5 SDR11 PN2.5
	公称壁厚en(mm)						
110	2.7	3.4	4.2	5.3	6.6	8.1	10.0
125	3.1	3.9	4.8	6.0	7.4	9.2	11.4
140	3.5	4.3	5.4	6.7	8.3	10.3	12.7
160	4.0	4.9	6.2	7.7	9.5	11.8	14.6
180	4.4	5.5	6.9	8.6	10.7	13.3	16.4
200	4.9	6.2	7.7	9.6	11.9	14.7	18.2
225	5.5	6.9	8.6	10.8	13.4	16.6	-
250	6.2	7.7	9.6	11.9	14.8	18.4	-
280	6.9	8.6	10.7	13.4	16.6	20.6	-
315	7.7	9.7	12.1	15.0	18.7	23.2	-
355	8.7	10.9	13.6	16.9	21.1	26.1	-
400	9.8	12.3	15.3	19.1	23.7	29.4	-
450	11.0	13.8	17.2	21.5	26.7	33.1	-
500	12.3	15.3	19.1	23.9	29.7	36.8	-
560	13.7	17.2	21.4	26.7	-	-	-
630	15.4	19.3	24.1	30.0	-	-	-
710	17.4	21.8	27.2	-	-	-	-
800	19.6	24.5	30.6	-	-	-	-

M-PVC Modified Impact Water Pipe

M-PVC抗冲改性聚氯乙烯给水管材



产品特点:

高抗冲PVC-M给水管材除了具有一般塑料管材重量轻、水密性好、卫生性能高、施工安装方便、使用寿命长等优点外，还具有下述特点：

- **优异的韧性和抗冲击性能：**与普通PVC-U管材相比，抗冲击性能显著提高，能更有效地抵抗点载荷和地基不均匀或沉降。
- **抗水锤能力提高：**能有效抵抗水锤，杜绝管线在运行过程中的破坏。
- **耐环境开裂性能提高：**能有效抵抗安装和运输过程中对管材的外力冲击，防止刻痕效应和快速裂纹扩展效应的产生。
- **耐化学腐蚀性能提高：**耐化学腐蚀性能比普通PVC-U管材有所提高。
- **提高运输可靠性：**PVC-M高抗冲给水管材克服了普通PVC-U给水管材在装卸、运输过程中易受磨损、刻痕、暗伤，从而导致压力下降的特点，可以有效抵抗外力冲击，提高运输可靠性、安全性。
- **提高施工环境的适应能力：**PVC-M高抗冲给水管材凭借优越的耐冲击性能和良好的韧性，可以有效降低对施工环境的苛刻要求，从而在更广泛的领域得以应用。

Advantages:

M-PVC pipe with high impact resistant has the advantages of light weight, good water tightness, great health performance, convenient installation and long service life. Besides these normal advantages, it also possesses the following features:

- Good toughness and impact-resistant performance: Compared with the normal U-PVC pipe, M-PVC pipe significantly improves the impact resistance, more effectively to resist some of the loading and uneven or the foundations problems.
- The improvement of the ability to resist water hammer: It can resist water hammer and avoid damage in the process of working.
- The improvement of the ability of ESCR: It can effectively resist the external forces caused during transporting and installing and prevent the notches effect and rapid expansion.
- The improvement of the ability of chemical resistance: The ability of chemical resistance is better than that of U-PVC pipe.
- The improvement of reliability in transporting: M-PVC pipe with high impact resistant overcomes the drawbacks of abrasion, nick and invisible injury during handling and transporting which would lead the pressure drawdown, and can effectively resist the impact and improve the reliability and security in transporting.
- Improve the ability to adapt operating environment: With the superior performance of impact resistant and good toughness, M-PVC pipe can effectively reduce the harsh demands of constructional environment so it can be applied in wider fields.

M-PVC MODIFIED IMPACT WATER PIPE

材质:M-PVC

压力额定值: 0.63MPa, 0.8MPa, 1.0MPa, 1.25MPa, 1.6MPa, 2.0MPa

规格尺寸: 20mm ~ 800mm

标准: CJ/T 272-2008

颜色: 灰色或白色管, 或根据要求采用其它颜色。

- Material: M-PVC
- Pressure Rating: 0.63MPa, 0.8MPa, 1.0MPa, 1.25MPa, 1.6MPa, 2.0MPa
- Size: 20mm ~ 800mm
- Standard: CJ/T 272-2008
- Colors: Grey or white, other colors are also available upon request.

应用领域 / Applications

自来水工程、电气工程、建筑工程、下水道工程、电信工程、钻井工程、盐水工程、天然气工程、化工厂、制纸工厂、酿造发酵工厂、电镀工厂、农业园艺、矿场、养殖业、高速公路工程、高尔夫球场工程、渔业用塑胶纸。

Water supply engineering, Electrical engineering, Construction works, Sewerage system, Telecommunications engineering, Drilling engineering, Salt water project, Natural gas engineering, Chemical plant, Paper mill, Brewing fermentation plant, Electroplate plant, Agricultural garden, Oil field, Livestock breeding, Freeway engineering, Golf course engineering, Plastic sheet for fishing.

规格尺寸 / Specification

公称外径 dn(mm)	管系列&标准尺寸比&公称压力 S & SDR & PN					
	S25	S20	S16	S12.5	S10	S8
	SDR51	SDR41	SDR33	SDR26	SDR21	SDR17
	PN0.63	PN0.8	PN1.0	PN1.25	PN1.6	PN2.0
公称壁厚en(mm)						
20	-	-	-	-	2.0	2.0
25	-	-	-	-	2.0	2.0
32	-	-	-	-	2.0	2.0
40	-	-	-	-	2.0	2.4
50	-	-	-	2.0	2.4	3.0
63	-	-	2.0	2.5	3.0	3.8
75	-	2.0	2.3	2.9	3.6	4.5
90	2.0	2.2	2.8	3.5	4.3	5.4
110	2.2	2.7	3.4	4.2	5.3	6.6
125	2.5	3.1	3.9	4.8	6.0	7.4
140	2.8	3.5	4.3	5.4	6.7	8.3
160	3.2	4.0	4.9	6.2	7.7	9.5
180	3.6	4.4	5.5	6.9	8.6	10.7
200	3.9	4.9	6.2	7.7	9.6	11.9
225	4.4	5.5	6.9	8.6	10.8	13.4
250	4.9	6.2	7.7	9.6	11.9	14.8
280	5.5	6.9	8.6	10.7	13.4	16.6
315	6.2	7.7	9.7	12.1	15.0	18.7
35	7.0	8.7	10.9	13.6	16.9	21.1
400	7.9	9.8	12.3	15.3	19.1	23.7
450	8.8	11.0	13.8	17.2	21.5	26.7
500	9.8	12.3	15.3	19.1	23.9	29.7
560	11.0	13.7	17.2	21.4	26.7	33.2
630	12.3	15.4	19.3	24.1	30.0	37.4
710	13.9	17.4	21.8	27.2	33.9	42.1
800	15.7	19.6	24.5	30.6	38.1	47.4

Low Pressure U-PVC Pipes for Water Supply And Irrigating

低压输水灌溉用硬聚氯乙烯U-PVC管材



产品特点:

- **重量轻、搬运装卸方便:** 同口径单位长度的PVC管的重量约为钢管的1/5,铸铁管的1/4,混凝土管的1/10,搬运装卸方便。
- **流动阻力小:** 管道内壁光滑,不结垢,提高输水能力,节约能耗。
- **机械性能好:** 机械强度大,相对于聚烯烃管,同样公称压力管道其壁厚更薄,成本低。
- **施工方便:** 管材管件可采用粘接、柔性扩口密封圈连接,施工方法简单,操作方便,安装工效高。
- **使用寿命长:** PVC U管材抗老化性好,正常使用寿命可达50年。
- **性能稳定、耐腐蚀性好:** 低压输水灌溉用硬聚氯乙烯(PVC-U)管耐腐蚀性好,性能稳定,在输送注入肥料的水时不仅不会被腐蚀,而且不破坏肥料中的养分,保证农作物的生长需求。
- **降低渗漏:** 连接密封性好,使得整个管道系统不受树根等植物根部的侵扰,大大降低了渗漏情况的发生。

Advantages:

- **Light, easy for delivery and handing:** The weight of PVC pipe with the same unit length of diameter is one fifth of that of steel pipes, one fourth of iron pipe, one-tenth of concrete pipe, so the delivery and handing is convenient.
- **Small resistance to flowing:** The inner wall of pipes is smooth and don't scale, which increases water supply capacity and saves energy consumption.
- **Good machinery performance:** High machine intensity, compared with polyolefin pipes, it has thinner wall thickness and lower cost with the same nominal pressure.
- **Convenient for construction:** Pipes and pipe fittings can be connected by binding and flexible flaring gasket. It is simple for construction, convenient for operation and high efficiency for installation.
- **Long service life:** The anti-aging performance of U-PVC pipes is good, so the normal service life can be up to 50 years.
- **Stable performance and good resistance to corrosion:** Low pressure PVC-U pipes for water supply and irrigating has stable performance and good resistance to corrosion. When transporting water with fertilizer, it won't be corrupted or destroy the nutrient in fertilizer, guaranteeing the growth requirement of plants.
- **Reducing leakage:** Good seal tightness greatly reduces the leakage as the whole pipeline system doesn't be invade by plants root.

材质: U-PVC

压力额定值: 0.2MPa, 0.25MPa, 0.32MPa, 0.4MPa

规格尺寸: 75mm ~ 315mm

标准: GB/T13664-2006

颜色: 灰色或白色管, 或根据要求采用其它颜色。

• Material: U-PVC

• Pressure Rating: 0.2MPa, 0.25MPa, 0.32MPa, 0.4MPa

• Size: 75mm ~ 315mm

• Standard: GB/T13664-2006

• Colors: Grey or white, other colors are also available upon request.

应用领域 / Applications

农业灌溉领域

园林绿化灌溉工程

Agricultural irrigation

Greening sprinkling irrigation engineering



规格尺寸/Specification

公称外径 dn(mm)	极限偏差 Limit deviation	壁厚 Wall thickness (mm)							
		PN 0.2Mpa		PN 0.25Mpa		PN 0.32Mpa		PN 0.4Mpa	
		公称壁厚 en(mm)	极限偏差 Limit deviation	公称壁厚 en(mm)	极限偏差 Limit deviation	公称壁厚 en(mm)	极限偏差 Limit deviation	公称壁厚 en(mm)	极限偏差 Limit deviation
75	+0.3	-	-	-	-	1.6	+0.4	1.9	+0.4
90	+0.3	-	-	-	-	1.8	+0.4	2.2	+0.5
110	+0.4	-	-	1.8	+0.4	2.2	+0.4	2.7	+0.5
125	+0.4	-	-	2.0	+0.4	2.5	+0.4	3.1	+0.6
140	+0.5	2.0	+0.4	2.2	+0.4	2.8	+0.5	3.5	+0.6
160	+0.5	2.0	+0.4	2.5	+0.4	3.2	+0.5	4.0	+0.6
180	+0.6	2.3	+0.5	2.8	+0.5	3.6	+0.5	4.4	+0.7
200	+0.6	2.5	+0.5	3.2	+0.6	3.9	+0.5	4.9	+0.8
225	+0.7	2.8	+0.5	3.5	+0.6	4.4	+0.7	5.5	+0.9
250	+0.8	3.1	+0.6	3.9	+0.6	4.9	+0.8	6.2	+1.0
280	+0.9	3.5	+0.6	4.4	+0.7	5.5	+0.9	6.9	+1.1
315	+1.0	4.0	+0.6	4.9	+0.8	6.2	+1.0	7.7	+1.2

U-PVC Drain Pipes and Pipe Fittings

U-PVC排水管材管件

材 质: U-PVC
规格尺寸: 50mm ~ 315mm
标 准: 建筑用排水管GB/T5836.1-2006, 建筑用雨落水管QB/T2480-2000, 中空内螺旋消音管Q/SHS004-2007, 埋地排污、废水用管GB/T20221-2006, 建筑排水用实壁内螺旋消音管Q/SHS003-2007
颜 色: 灰色或白色管, 或根据要求采用其它颜色。
• Material: U-PVC
• Size: 50mm ~ 315mm
• Building Drainage Pipe GB/T5836.1-2006, Rain Water Downpipe QB/T2480-2000, Hollow Spiral Silencing Pipe for Building Drainage Q/SHS004-2007, Underground Sewage, Waste Water Pipe GB/T20221-2006, Spiral Silencing Pipe for Building Drainage Q/SHS003-2007.
• Colors: Grey or white, other colors are also available upon request.

产品特点 / Advantages

- 硬聚氯乙烯是不加增塑剂的硬质材料, 管材表面感触度和抗拉强度优, 耐压等级和管道安全系数高。
- 硬聚氯乙烯抗老化性能好, 正常使用寿命可达50年以上。
- 管道对各类无机酸、碱、盐类耐腐蚀性能优良, 适用于各类工业污水排放及输送。
- 管道摩擦系数小, 水流顺畅, 不易堵塞, 养护工作量小。
- 材料氧指数高, 属B2级耐燃材料, 具有自熄性。
- 管道线膨胀系数小, 为0.07mm/m·°C, 受温度影响变形量小, 比同类的聚烯烃材料低100%~130%, 导热系数和弹性模量小, 与铸铁排水管相比抗冻性能优良。
- 管材、管件连接可采用粘接, 施工方法简单, 操作方便, 安装工效高。

- PVC refers to the hard material without addition of plasticizer. The feeling degree and the tensile strength of the surface of the pipe are superior, and withstand voltage grade and security coefficient is high.
- PVC is good in aging resistance. The normal service life can reach more than 50 years.
- The pipe is superior in decay resistance of various inorganic acid, alkali and salt. It is applicable to various industrial waste water drainage and transportation.
- The fraction coefficient of the pipe is small; the water flow is smooth and not easily blocked. The amount of maintenance work is small.
- The oxygen index of the material is high. It belongs to B2 level flame resistant and is self-extinguishing.
- The expansion coefficient of pipe is small, 0.07mm/m·°C. The distortion is small due to the influence of the temperature. Compared to same PVC material, it is lower by 100%-130%, the heat conduction coefficient and elastic modulus is small. Its freezing performance is superior compared to that of the iron casting drain pipe.
- The pipe and pipe fitting connection can adopt adhesive bonding. The construction method is simple, and the operation is convenient and installation sufficiency is high.

应用领域 / Applications

广泛用于高层和多层工业与民用建筑室内外排水管道工程

对于管材不起腐蚀作用的工业废水均可使用

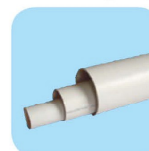
民用建筑的排水设施, 如: 住宅、机场、医院、宾馆、办公楼、学校、工厂

Applicable to drain pipe engineering, the inside and outside of high-rise or multi-storey industrial and civil buildings.

Applicable to the industrial waste water that doesn't have corrosive action on pipe.

Drainage faculties of the civil buildings, like: house, airport, hospital, restaurant, office, school and factory.

PVC Drainage Pipe



Size
50*2.0 GB
63*2.0 GB
75*2.3 GB
90*2.7 GB
110*3.2 GB
160*4.0 GB

PVC Spiral Silencing Pipe



Size
mm
Φ50
Φ75
Φ110
Φ160
Φ200

PVC Sewer fittings Size



Coupler



Expansion Coupling



Roof Drain



Oblique Accross



PVC Sewer fittings Size



Reducer



90° Elbow With Access



Bottle Type Tee



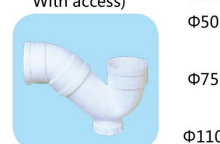
H Type Fittings



PVC Sewer fittings Size



P Bend (Without/With access)



Cross



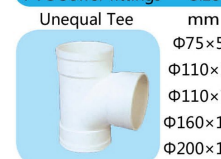
Oblique Tee



Clip



PVC Sewer fittings Size



S Bend With access



Access



Cleanout/Floor Drain



Vent Take



PE-RT Heat-Resistant Water Pipe

PE-RT耐热聚乙烯管道

PE - RT pipe and fittings use ethylene octane copolymer as main materials. It is the high-temperature resistance pipe system according to CJ/ T175 - 2002.

冷热水用耐热聚乙烯管道和管件是以乙烯-辛烯共聚物为主要原料，按照CJ/ T175 - 2002生产的耐高温管道系统。

产品特点:

优异的热稳定性和长期耐压性能应用在采暖、热水系统中（可达95℃），保证使用50年以上。

柔韧性强，易于施工，施工时可盘卷和弯曲，弯曲半径小（R=50D），且不反弹。弯曲部分的应力可以很快得到松弛，避免在使用过程中由于应力集中而引起管道在弯曲处出现破坏。在低温环境下施工，无需对管材预热，施工方便，降低成本。

安全性高。低温脆裂温度可达-40摄氏度，可在低温环境下施工、运输；抵御外力撞击的能力大，防止因粗暴施工造成的系统破坏。

可热熔连接，便于安装和维修。可热熔连接，在地板辐射采暖工程中，若因外力造成管道系统破坏，可采取热熔方式对管道进行维修，方便、快捷、安全，无需更换整条采暖管。工程安装、维修成本低，性价比高。

Advantages:

Excellent thermal stability and long-term compression performance in heating, hot water system(up to 95°C), service life is more than 50 years.

Flexibility, easy construction, can be coiled and bended when operating, small bending radius (R = 50D), and no rebound. The stress of bent part can get relaxation quickly, and it avoids the damage in the crook caused by stress concentration in the process of operation. The process as stress concentration caused by pipe bending failure occurred. When operating in low-temperature, pipes don't need to be preheated; so it's very easy to operate, and the cost will be reduced.

Shock resistance, high security. The low temperature of brittle cracking can reach - 40°C. Transportation and operation in low temperature are available. High ability to withstand external shock, avoid system damage caused by rough operation.

Butt fusion, easy installation and maintenance. In radiant floor heating project, if pipeline system is damaged by external force, then butt fusion can be used to maintain pipes and it's convenient, fast, and safe, don't need to change the entire pipe. The cost of installation and maintenance is low and cost performance is high.

PE-RT HEAT-RESISTANT WATER PIPE

材质: PE-RT

管系列: S6.3, S5, S4, S3.2, S2.5

规格尺寸: 16mm ~ 32mm

标准: CJ/T175-2002

颜色: 白色管, 黄色管

• Material: PE-RT

• Pipe Series: S6.3, S5, S4, S3.2, S2.5

• Size: 16mm ~ 32mm

• Standard: CJ/T175-2002

• Colors: White or yellow

应用领域 / Applications

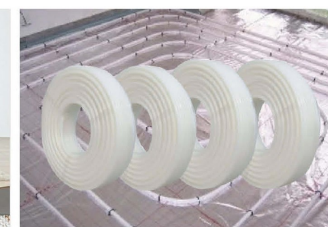
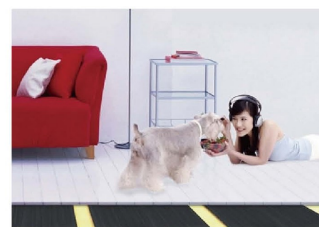
- 地面采暖系统，适用于起居室、浴室、卧室、游泳池、养老院及托儿所等采暖。
- 建筑冷水供应。
- 在食品工业中饮料、酒类、牛奶等流体输送管道。
- 其他工业管道。

• Floor heating system and it's suitable for floor heating system in bedroom and bathroom, swimming pool, nursing homes and kindergartens etc.

• Building hot and cold water supply.

• Wine, soft drink, milk and other fluid transporting pipe in food industry.

• Other industrial pipe



规格尺寸 / Specification

公称外径 dn (mm)	管系列 Pipe Series				
	S6.3	S5	S4	S3.2	S2.5
	公称壁厚en (mm)				
16	--	--	2.0	2.2	2.7
20	--	2.0	2.3	2.8	3.4
25	2.0	2.3	2.8	3.5	4.2
32	2.4	2.9	3.6	4.4	5.4

PPR Water Pipe

PPR给水管



管材连接 / Pipe Connection

- 管材与管件连接均采用热熔连接方式，不允许在管材和管件上直接套丝。与金属管道及用水器连接必须使用带金属嵌件的管件。
- Pipe and fitting connection, which adopts butt fusion mode, are not allowed to mantle fiber directly in the pipe and fittings. Metal embedded part fittings must be used when connecting with the metal pipe or water device.

应用领域 / Applications

- 冷热水供应系统
- 采暖系统地板、壁板等的采暖系统
- 辐射采暖系统
- 中央空调系统
- 工业流体的输送
- Cold and hot water supply.
- Heating system including flooring heating, wall heating etc.
- Radiant heating system.
- Central air conditioning system.
- Industrial liquids transportation.

材质: PPR
规格尺寸: 16mm ~ 160mm
压力额定值: S5, S4, S3.2, S2.5, S2
标准: GB/T18742.2-2002
颜色: 浅灰或白色,冷水管标注蓝色热水管标注红条。其他可根据要求标注。
Material: PPR
Size: 16mm ~ 160mm
Pressure Rating: S5, S4, S3.2, S2.5, S2
Standard: GB/T18742.2-2002
Colors: Grey or white, for cold water is marked with blue stripes, for hot water is marked with red stripes. Other colors are also available upon request.

PPR WATER PIPE

产品特点:

- 耐热能力高: 输送水长期使用温度为70摄氏度, 短时间使用耐高温可达95摄氏度。
- 保温节能: 导热系数为0.24W/Mk, 仅为金属管的二百五十分之一。
- 良好的卫生性能: 加工时不添加重金属盐稳定剂, 无结垢层, 也不会促进菌类、细菌等造成的二次污染。
- 卓越的耐腐蚀性能: 可耐化学介质的腐蚀, 无电化学腐蚀。
- 超低的摩擦性能: 光滑的内管壁造就超低的摩擦阻力。
- 优良的挠性: 可以进行盘卷。
- 低施工成本: 重量轻, 大大降低安装成本。
- 长久的使用寿命: 在额定温度和压力状况下, 可安全使用50年以上。
- 可回收环保。

Advantages:

- High Temperature Resistance: The maximum sustained working temperature is up to 70°C, the maximum transient temperature is up to 95°C.
- Heat Preservation: Thermal conductivity is 0.24W/Mk, which is only 1/250 of steel pipe.
- Non-toxic: No heavy metal additives, no dirt, no secondary pollution caused by bacterium.
- Corrosion Resistance: Resist chemical mediator corrosion and electron chemical corrosion.
- High Flow Capacity: Smooth inner wall and low friction result in low flow resistance and high volume.
- Excellent Flexibility: Can be coiled.
- Low Installation Cost: Light weight and easy installation can reduce installation cost.
- Long service life: More than 50 years.
- Recycled and environment-friendly.

规格尺寸 / Specification

<div>公称壁厚 en(mm)</div> <div>公称直径 dn(mm)</div>	公称壁厚及偏差 en(mm) and Deviation										
	S5		S4		S3.2		S2.5		S2		
20	+0.3	2.0	+0.3	2.3	+0.4	2.8	+0.4	3.4	+0.5	4.1	+0.6
25	+0.3	2.3	+0.4	2.8	+0.4	3.5	+0.5	4.2	+0.6	5.1	+0.7
32	+0.3	2.9	+0.4	3.6	+0.5	4.4	+0.6	5.4	+0.7	6.5	+0.8
40	+0.4	3.7	+0.5	4.5	+0.6	5.5	+0.7	6.7	+0.8	8.1	+1.0
50	+0.5	4.6	+0.6	5.6	+0.7	6.9	+0.8	8.3	+1.0	10.1	+1.2
63	+0.6	5.8	+0.7	7.1	+0.9	8.6	+1.0	10.5	+1.2	12.7	+1.4
75	+0.7	6.8	+0.8	8.4	+1.0	10.3	+1.2	12.5	+1.4	15.1	+1.7
90	+0.9	8.2	+1.0	10.1	+1.2	12.3	+1.4	15.0	+1.6	18.1	+2.0
110	+1.0	10.0	+1.1	12.3	+1.4	15.1	+1.7	18.3	+2.0	22.1	+2.4
125	+1.2	11.4	+1.3	14.0	+1.5	17.1	+1.9	20.8	+2.2	25.1	+2.7
140	+1.3	12.7	+1.4	15.7	+1.7	19.2	+2.1	23.3	+2.5	28.1	+3.0
160	+1.5	14.6	+1.6	17.9	+1.9	21.9	+2.3	26.6	+2.8	32.1	+3.4

U-PVC Electrician Casing and Tele-pipe

U-PVC电工、电信套管



产品特点:

- 质轻、搬运装卸方便、施工简便：PVC电工、电信用管材质很轻，约为金属管的1/5，再加上PVC管连接施工迅速、简易，搬运装卸便利。可节省费用与施工时间。
- 电气绝缘性和阻燃性能佳：PVC管附有优越的电气绝缘性与优异的阻燃性能。2000伏电压15分钟内不被击穿， $R \geq 100MQ$ ，适用于电线、电缆的导管，可广泛应用于电信、店里配管与建筑之电线配管。
- 机械强度大：PVC管耐外压强度、耐冲击强度均很好，具有优异的抗扰性及抗地层变化的特性。在常温下，适用于各种条件下的电信配管工程。
- 耐腐蚀性、耐药品性优良，使用寿命长：PVC管具有优异的耐酸、耐碱、耐腐蚀性，常年埋地使用不会被侵蚀，是一种惰性材料，寿命可超过50年。

Advantages:

- Light weight, convenient carrying and loading and simple construction: PVC electrician and Tele pipe material is light, about 1/5 of the metal pipe. More, the PVC Pipe is convenient for carrying, loading and construction by combining the rapid and simple construction. The expenses and construction time can be saved.
- Good electric insulating performance and flame retardation resistance: PVC pipe is superior in electric insulating performance. 2kv voltage cannot be broken down within 15 minutes. $R \geq 100MQ$, applicable to electrical wire and cable conduit and widely applicable to telecom and electric pipe distribution and electrical pipe distribution of building.
- Strong mechanical strength: good external pressure resistant and impact resistant strength of PVC pipe. It is superior in noise immunity and stratigraphic fluctuation resistance and applicable to telecom pipe distribution engineering under various conditions under normal temperature.
- Superior corrosion resistance and drug resistance and long service life: PVC pipe is superior in acid, alkali and corrosion resistance. It will be corrosive if it is embedded underground and not used for a whole year. It is a kind of inert material. Life can exceed 50 years.

U-PVC ELECTRICIAN CASING AND TELE-PIPE

材质: U-PVC
规格尺寸: 16mm ~ 110mm
标准: 电工套管JG 3050-1998 电信套管Q/HDS 10-2007
颜色: 灰色或白色管, 或根据要求采用其它颜色。

- Material: U-PVC
- Size: 16mm ~ 110mm
- Standard: JG 3050-1998 Q/HDS 10-2007
- Colors: Grey or white, other colors are also available upon request.

应用领域 / Applications

本产品应用于电力配管及室外通信电缆和光缆的管道系统, 包括局间中继管道以及长途通信管道等。

Applicable places: This pipe is applicable to pipeline system of the electrical pipe distribution and outdoor telecomm cable and optical cable, including interoffice trunk pipe and special network pipeline and long-distance telecomm pipeline, etc.

电工套管管材规格 Electrician Casing Pipe Specification
(JG 3050-1998)

公称外径 dn(mm)	平均外径允许差 Allowable differential	最小内径 Least inside diameter	最小壁厚 Least wall thickness	长度 Length
16	-0.3	轻型 Light 中型 Medium 重型 Heavy	12.2	4m
20	-0.3		15.8	
25	-0.3		20.6	
32	-0.4		26.6	
40	-0.4		34.4	
50	-0.5		43.2	
63	-0.6		57.0	2.7

电信用管管材规格 Telecom Pipe Specification
(Q/HDS 10-2007)

公称外径 dn(mm)	外径允许差 Allowable differential	最小内径 Least inside diameter	壁厚 Wall thickness		单位重量 Unit weight	长度 Length
			公称壁厚 en(mm)	允许差 Allowable differential		
98	0.3	87	3	-0.5	1.285	6m
			3.6	-0.6	1.533	
			4	-0.6	1.711	
100	0.3	88	5	-0.7	2.175	
			3	-0.5	1.447	
110	0.4	97	3.6	-0.6	1.728	
			3.8	-0.6	1.829	
			4	-0.6	1.93	
			6	-0.8	2.868	

U-PVC Double-Wall Corrugated Pipe

硬聚氯乙烯双壁波纹U-PVC管材



- 材质: U-PVC
- 环刚度: SN4, SN8
- 规格尺寸: 110mm ~ 500mm
- 标准: GB/T18477.1-2007
- 颜色: 灰色或白色管, 或根据要求采用其它颜色。
- Material: U-PVC
- Ring Stiffness: SN4, SN8
- Size: 110mm ~ 500mm
- Standard: GB/T18477.1-2007
- Colors: Grey or white, other colors are also available upon request.

产品特点:

- PVC-U双壁波纹管是由聚氯乙烯为主要原料生产的特殊管道, 内壁光滑, 外壁波纹, 内外壁之间是中空结构。主要用于埋地污水系统。双壁波纹管造型美观, 结构特殊, 环刚度有4、8KN/m²。
- 接口利用天然橡胶密封圈柔性连接, 具有连接牢靠、不易泄漏、搬运轻便、施工方便的特点。
- 综合造价比铸铁管、水泥管低, 寿命可长达50年。双壁波纹管是世界各国塑料埋地排水、排污管应用最多的管道。

Advantages:

- U-PVC double-wall bellows is manufactured by using the main raw material PVC. The internal wall is smooth and the external wall is bellows type. The hollow special pipe between the external and internal walls is mainly applied into the buried sewage and drainage system. The double-wall bellow is beautiful in appearance and special in structure with 4,8KN/m² of the ring stiffness.
- The interface is connected with the flexible natural rubber sealed ring, which is characterized by firm connection, non-leaking capacity, convenient carrying and simple construction, etc.
- Lower comprehensive cost than the iron casting pipe and cement pipe. The service life can reach 50 years. The double-wall bellows is the pipe applied most in plastic buried drainage and sewage discharge pipe in all countries in the world.

U-PVC DOUBLE-WALL CORRUGATED PIPE

应用领域 / Applications

- 市政工程: 可用于排水、排污管。
- 建筑工程: 用于建筑物雨水管、地下排水管、排污管、通风管等。
- 电气通信工程: 可用于各种动力电缆的保护管。
- 铁路、公路通讯: 用于通讯电缆、光缆的保护管。
- 工业: 广泛用于化工、医药、环保等行业的排水水管。
- 农业、园艺工程: 农田、果园、茶园以及林带灌溉。
- 道路工程: 用作铁路、高速公路的渗、排水管。
- 矿场: 可作矿井通风、送风、排水管。
- 高速公路: 开孔的双壁波纹管可用作盐碱地高速公路的渗水排水管。
- 高尔夫球场、足球场工程: 用于高尔夫球场、足球场的渗水排水管。
- 用于各种行业的排水、排污管: 如大型码头、港口工程、大型机场工程等。

Municipal engineering: Applicable to drainage and sewage pipe.

Constructional engineering: Applicable to rain pipe, underground drainage and sewage discharge pipe and ventilating duct of the building.

Electric and telecomm engineering: Applicable as the protection pipe of various power cables.

Railway and highway communication: Applicable as the protection cable of the communication cable and optical cable.

Industrial: Widely applicable to sewage and water pipes for many industries such as: chemistry, medicine and environmental protection, etc.

Agricultural and farmland engineering: Applied to irrigation of farmland, orchid, tea garden, forest belt, etc.

Road engineering: Applicable as penetration and drainage pipes of railway, highway.

Mine filed: Applicable as the ventilation and air supply and drainage pipes of mine.

Highway: The bellows can be used as the water penetration and drainage pipe of highways at alkaline land.

Applicable to the water penetration and drainage pipes of the golf course and football field.

Applicable to the drainage and sewage discharge pipes of various industries, like large-scale dock, port engineering and large-scale airport engineering, etc.

规格尺寸 / Specification

GB/T18477.1-2007				
规格 Specification dn/OD mm	最小平均内径 Inside diameter	公称外径 Outside diameter	最小承口平均内径 Inside diameter of bellmouth	最小承口深度 Depth of bellmouth
110	97	110	110.4	32
160	135	160	160.5	42
200	172	200	200.6	50
250	216	250	250.8	55
315	270	315	316.0	62
400	340	400	401.2	70
500	432	500	501.5	80

HDPE Double-Wall Corrugated Pipe

HDPE高密度聚乙烯双壁波纹管



材质: HDPE
环刚度: SN4, SN8
规格尺寸: 225mm ~ 800mm
标准: GB/T19472.1-2004
颜色: 蓝黑管或根据要求采用其它颜色

- Material: HDPE
- Ring Stiffness: SN4, SN8
- Size: 225mm ~ 800mm
- Standard: GB/T19472.1-2004
- Colors: Black and blue, other colors are also available upon request.

HDPE双壁波纹管是由高密度聚乙烯为原料生产的，管材内壁光滑、外壁波纹、内外壁之间中空的特殊管道，主要用于埋地污水系统。该产品的承口采用双层管壁，生产时在线扩口，一次成型，避免了单层管壁由于管壁薄产生的易变形的缺点。双层管壁较坚硬，利用天然橡胶密封圈柔性连接，安装方便，连接牢靠，不易泄漏，综合造价低，寿命长达50年。

HDPE double-wall bellows is made from HDPE. The internal wall is smooth and the external wall is bellows type. There's a hollow structure between the external and internal. It is mainly applied into the buried sewage and drainage system. The flaring is made in case of production, and primary molding is carried out, thus the easy deformation caused by the single-layer thick pipe wall is avoided. The double-layer pipe wall is harder. It is connected with the flexible natural rubber seal, which is characterized by easy installation, firm connection and no leak through and low comprehensive cost and 50 years' service life.

HDPE DOUBLE-WALL CORRUGATED PIPE

应用领域:

- 市政工程：可用于排水、排污管。
- 建筑工程：用于建筑物雨水管、地下排水管、排污管、通风管等。
- 电气电信工程：可用于各种动力电缆的保护管。
- 铁路、公路通讯：用于通讯电缆、光缆的保护管。
- 工业：广泛用于化工、医药、环保等行业的排污水管。
- 农业、园地工程：农田、果园、茶园以及林带排灌。
- 道路工程：用作铁路、高速公路的渗、排水管。
- 矿场：可作矿井通风、送风、排水管。
- 开孔的双壁波纹管可用作盐碱地高速公路的渗水排水管。
- 高尔夫球场、足球场工程：用于高尔夫球场、足球场的渗水排水管。
- 用于各种行业的排水、排污管：如大型码头、港口工程、机场工程。

Applications:

- Municipal engineering: applicable to drainage and sewage pipe.
- Constructional engineering: applicable to rain pipe, underground drainage and sewage discharge pipe and ventilating duct of the building.
- Electric and telecom engineering: applicable as the protection pipe of various power cables.
- Railway and highway communication: applicable as the protection cable of the communication cable and optical cable.
- Industrial: widely applicable to sewage and water pipes for many industries such as: chemistry, medicine and environmental protection, etc.
- Agricultural and farmland engineering: applied to irrigation of farmland, orchid, tea garden, forest belt, etc.
- Road engineering: applicable as penetration and drainage pipes of railway, highway.
- Mine filed: applicable as the ventilation and air supply and drainage pipes of mine.
- Highway: the bellows can be used as the water penetration and drainage pipe of highways at alkaline land.
- Applicable to the water penetration and drainage pipes of the golf course and football field.
- Applicable to the drainage and sewage discharge pipes of various industries, like large-scale dock, port engineering and large-scale airport engineering, etc.

规格尺寸 / Specification

GB/T19472.1-2004				
规格 Specification dn/ID mm	平均内径 Inside diameter	公称外径 Outside diameter	最小承口深度 Depth of bellmouth	最小承口平均内径 Inside diameter of bellmouth
225	225	260	152	264
300	300	348	190	351
400	400	480	255	473
500	500	605	240	575
600	600	725	250	691
800	800	970	260	963

HDPE管件 (配套齐全) HDPE Pipe Fittings



注塑异径管
Reducer



注塑法兰
Flange



注塑等径三通
Equal tee



注塑异径三通
Unequal tee



注塑四通
Cross



注塑90度弯头
90°elbow



电熔套管
Electro-fusion coupler



电熔正三通
Equal tee

PE-RT管件 (配套齐全) PE-RT Pipe Fittings



管套
Pipe sleeve



等径三通
Equal tee



等径直通
Equal coupler



异径三通
Unequal tee



堵头
End cap



45°弯头
45°Elbow



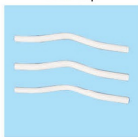
90°弯头
90°Elbow



异径弯头
Unequal elbow



管夹
Pipe clamp



过桥弯管
Bent pipe

U-PVC管件 (配套齐全) U-PVC Pipe Fittings



正三通
Equal tee



90°弯头
90°Elbow



45°弯头
45°Elbow



异三通
Unequal tee



异径
Reducer



由任
Union



承口球阀
Socket ball valve



丝口球阀
Screwed ball valve



手柄式蝶阀
Handle butterfly valve



齿轮式蝶阀
Gear butterfly valve

主要工程实例

CASES OF MAJOR PROJECTS

