PVC-U Pipes and Fittings

NAN YA PLASTICS CORPORATION

Characteristies and application

Specification

Installation

Fitting Specification

Fitting Specification

Fitting Specification

7. Specification for HI high impact PVC-U fittings drainage

8. Specification of PVC-U Fittings for Sewerage & Drainage

Vinyl Adhesive

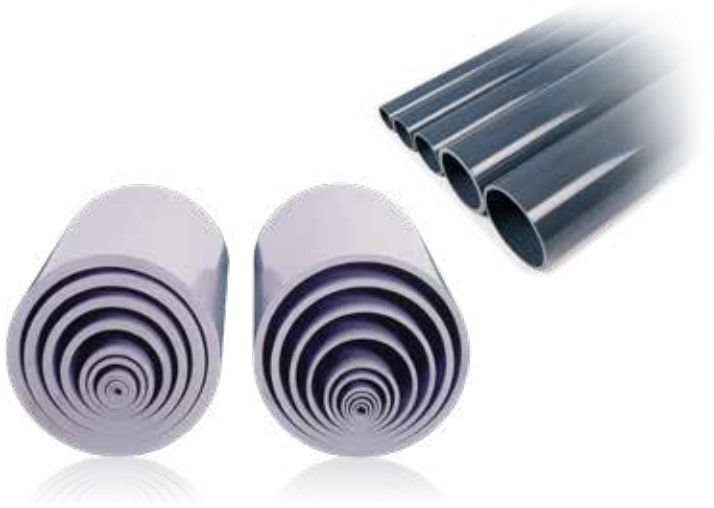
9. Vinyl Adhesive

Certification

13. Certification

With superb electrical insulation, chemical, corrosion, and fire resistance, PVC-U pipe and fitting are easy for installation and delivery due to these characteristics including high strength, light weight, low fluid resistance, and contaminated-free water quality. As a result, PVC-U pipe and fitting, widely used for various engineering projects such as water supply, electricity, natural gas, chemicals, agriculture, fishery, architecture, and sewage, are one of the most popular and supreme plastic piping materials in the world.

Versatile types of PVC-U pipes and fittings marked with "NAN YA" symbolize the highest quality and fullest specification. Moreover, Nan Ya Plastics Corp., which has been manufacturing PVC-U pipe and fitting complying with international standards, is the first corporation that acquires "CNS mark" granted by Bureau of Standards, metrology & inspection, M.O.E.A., R.O.C.



At present, Nan Ya Plastics Corp., which owns the most enormous, advanced, and productive production equipment of PVC-U pipe and fitting in Taiwan, has been striving to promote its products to the global market. Furthermore, with the reinforcement of market expansion, Nan Ya Plastics Corp. has been dedicated to introducing equipment and increasing capacity in order to provide tremendous capacity, punctual delivery, excellent quality, and customer-oriented service to you.

1 Characteristics and applications of PVC-U Pipe and Fitting

1. Light Weight, easy to load and unload :
   PVC-U pipe is very light, convenient to handle loading unloading, and installing. May save much labor.
2. Good chemicals and drugs resistance :
   PVC-U pipe has its excellent resisance to the erosion caused by acids and alkalines, a great help to the chemical industries.
3. Small resistance to fluidity :
   The smooth surface of PVC-U pipe reduces resistance to the flids. Its roughness coefficient is only 0.009, much less than other pipes. Under same discharge, smaller cabibre of the pipe can be used.
4. Strong mechanical strength :
   Good resistance to water pressure, outside impact and pressure, is satisfied under any conditions.
5. Good electrical insulation :
   PVC-U pipe has excellent insulation nature against electricity. It can be served as conduits and pipes in construction cable and wire.
6. Water quality unaffected :
   The solution tests on the PVC-U pipe show no affect on water quality when the wqter flows through it. It is considered the best piping material for running water works.
7. Simple installation :
   Very easy to connect, thus much time and labor cost may be saved.

Applications of PVC-U Pipe and Fitting

1. Drinking water engineering
2. Electrical engineering
3. Architectural engineering
4. Sewer engineering
5. Telecommunications engineering
6. Well drilling engineering
7. Salt water engineering
8. Natural Gas engineering
9. Chemical engineering

Architectural engineering

Electrical engineering

Water Supply engineering

1 Characteristics and applications of PVC-U Pipe and Fitting

10. Paper mill
11. Acidifying & Fermenting plant
12. Electroplating factory
13. Agricultural Ground
14. Mining Plant
15. Aquaculture
16. Freeway engineering
17. Golf course engineering
18. Plastic fish raft


Well drilling engineering

Sewer Engineering


Plastic fish raft


Chemical engineering


Irrigation engineering


Air Conditioning project

2 Chemical and Physical Properties of PVC-U Pipe and Fitting

(一) Physical Properties

1. PVC-U Pipe for General Purpose

Test Items		Test Value	Test standard
Tensile Strength Test		45MPa ↑ (23℃)	CNS 1298 K3004
Water pressure resistance of PVC-U pipe		Non-broken	
[a] Water pressure resistance of joints		No Leakage	
Flattening Test		Non-broken	
Specific Gravity		1.40～1.44	
Vicat softening Temperature		76℃ ↑	
Immersion Test	Distilled Water	±0.2mg/cm^2	
	10% Sodium Chloride Solution		
	30% Solfuric Acid Solution		
	40% Sodium Hydroxide Solution		
	40% Nitric Acid Solution		

Note: (a) The water pressure resistance of the joint is applicable to the tubes with loose bushes (VP) and adhesive sockets (VP and VU). This type of pipe should proceed the hydrostatic test of the joint.

Hydrostatic Test for PVC-U Pipe

Categories	Type VP(B)(Thick Wall)	Type VU(A)(Thin Wall)
Nominal Pipe Size	13~600	40~700
Test Pressure (kgf/cm^2)	25.5	15.3
Allowable working pressure at 20℃	7.65	2.55

Hydrostatic Test for PVC-U Fitting

Unit : mm

Nominal Pipe Size / Application	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
W pipe for tap water (kgf/cm^2)	35.7														
General use (kgf /cm^2)	25.5														

2 Chemical and Physical Properties of PVC-U Pipe and Fitting

2. PVC-U Pipe for Water Supply

Test Item		Test Value	Test standard
Tensile Strength Test		45MPa ↑ (23℃)	CNS 4053-1 K3033-1
Water pressure resistance of PVC-U pipe		Non-broken	
[a] Water pressure resistance of joints		No Leakage	
Flattening Test		Non-broken	
Specific Gravity		1.40～1.44	
Vicat Softening Temperature Test		76℃ ↑	
Opaque		Transmittance 0.2% ↓	
Material's VCM Content		1.0ppm ↓	
Extraction Test	[b] Turbidity	0.2NTU ↓	
	Colourness	0.5 degree ↓	
	TOC	1.0ppm ↓	
	Pb Extraction	0.005ppm ↓	
	Zn Extraction	0.5ppm ↓	
	Loss of Residual Chlorine	0.7ppm ↓	
	Odor and Taste	Not Detectable	
	VCM Extraction	0.0015ppm ↓	

Note: (a) The water pressure resistance of the joint is applicable to the tubes with loose bushes (VP) and adhesive sockets (VP and VU). This type of pipe should proceed the hydrostatic test of the joint.
(b) In Accordance with the turbidity method. (Unit: NTU)

Hydrostatic Test for PVC-U Pipe for Water Supply

Nominal Pipe Size (mm)	13	16	20	25	30	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
Test Pressure (kgf/cm^2)	40.8																			
Allowable working pressure at 20℃ (Kgf/cm^2)	7.65 ↓																			

Note: Hydraulic internal pressure test of ring-seal joint : 35.7kgf/cm^2

2 Chemical and Physical Properties of PVC-U Pipe and Fitting

3. High-Impact PVC-U Pipe

Test Items		Test Value	Test Standard
Tensile Strength Test		40 MPa ↑ (23℃)	CNS 14345 K3114
Water pressure resistance of PVC-U pipe		Non-broken	
[a] Water pressure resistance of joints		No Leakage	
Flattening Test		Non-broken	
Impact Test		(Charpy) 10kJ/m^2 ↑ (0℃)	
Impact Test		Normal	
Weather Resistance		14kJ/m^2 ↑ (23℃)	
Vicat Softening Temperature Test		76℃ ↑	
Material's VCM Content		1.0ppm ↓	
Extraction Test	[b] Turbidity	0.2 NTU ↓	
	Colourness	0.5 degree ↓	
	TOC	1.0ppm ↓	
	Pb	0.005ppm ↓	
	Zn	0.5ppm ↓	
	Loss of Residual Chlorine	0.7ppm ↓	
	Odor and Taste	Not Detectable	
	VCM	0.0015ppm ↓	
Immersion Test	Distilled Water	±0.2mg/cm^2	
	10% Sodium Chloride Solution		
	30% Solfuric Acid Solution		
	40% Sodium Hydroxide Solution		
	40% Nitric Acid Solution		
Specific Gravity (23℃)		1.35~1.40	

Note: (a)The water pressure resistance of the joint is applicable to the tubes with loose bushes (VP) and adhesive sockets (VP and VU). This type of pipe should proceed the hydrostatic test of the joint.
(b) In Accordance with the turbidity method. (Unit: NTU)

Hydrostatic Test of High-Impact PVC-U Pipe

Nominal Pipe Size (mm)		13	16	20	25	30	40	50	65	80	100	125	150	200	250	300	350	400
Test Pressure (MPa)	Drinking Water	4.0																
	General Use	2.5																
Working pressure at 20℃ (MPa)	Drinking Water	0.75 ↓																
	General Use	0.75 ↓																

Note: 1. After the hydrostatic test, water pressure of the joint (including loose pipe and adhesive pipe) is: 3.5MPa for tap water pipe and 2.5MPa for general pipe.
2. Pressure conversion: 1MPa = 10.2 kgf / cm^2

2 Chemical and Physical Properties of PVC-U Pipe and Fitting

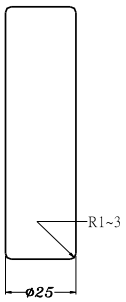
Falling Height and Weight Impact Test.

Nominal Pipe Size (mm)	13	16	20	25	30	40	50	65	80	100	125	150	200	250	300	350	400
Fall height (cm)	100	125	150	200	100	150	200	75	100	150	175	200	225	275	325	–	–
Shape	Flat Cylinder							Cone									
Falling weight (Kg)	1±0.05				3±0.05			9±0.05									

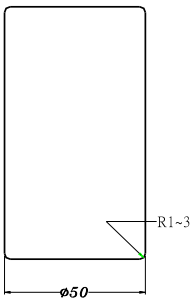
Note: The drop height of the weight (Nominal pipe size: 350 & 400) shall be agreed by mutual parties.

The form and weight of falling weight in impact test.

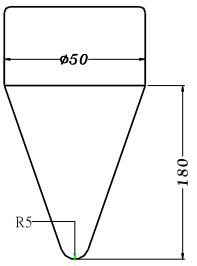
1kg Cylindrical Drop Hammer for Nominal Pipe Size 13~25



3kg Cylindrical Drop Hammer for Nominal Pipe Size 30~50



9kg Cylindrical Drop Hammer for Nominal Pipe Size 65~400



4. PVC-U Pipe for Electrical Conduit Use

Test Items	Test Value	Test standard
Flattening Test	When the load is 1250^{+50}N, the reduction rate of the outside diameter is 25% or less, remove the load reduction rate should be below 10% and visual inspection of the sample should not have cracks.	CNS 1302 K3006
Impact Test	After test 12 specimens, more than 9 specimens shall be examined for visual inspection without cracks, and shall not be deformed to prevent normal use.	
Insulation Test	There shall be no tripping action in the test.	
Insulation Resistance	Above 100MΩ	
Flammability	All 3 specimens shall meets requirements. Remove the fire source, the flame must be naturally extinguished within 30 seconds.	
Heat Resistance	The plug is only passed through the pipe with its own mass.	

2 Chemical and Physical Properties of PVC-U Pipe and Fitting

5. PVC-U Pipe for Raft Use

Test Items		Test Value	Test standard
Tensile Strength Test		500kgf/cm^2 ↑	CNS 12698 K3094
Flattening Test		Non-broken	
Specific Gravity		1.42±0.03	
Ash Content Test		4% ↓	
Drop Weight Impact Test		Non-broken	
Charpy Impact Strength		5.0kgf-cm/cm^2 ↑	
Chemical Resistance	10% Sodium Chloride Solution	±0.2mg/cm^2	
	40% Sodium Hydroxide Solution		
	Diesel fuels		
Weather Resistance	Charpy Impact Change Ratio	80% ↑	

6. PVC-U Fitting (Water Supply)

Test Items		Quality Requirement	Test standard
[(a)] Tensile Strength Test		45MPa ↑ (23℃)	CNS 2334 K3011
Hydraulic internal pressure		Non-broken	
[(b)] Flattening Test		Non-broken	
Vicat Softening temperature		72℃ ↑	
Material's VCM Content		1.0 mg/L以下 below 1.0 mg/L	
Extraction Test	Pb	0.005mg/L (Pb) ↓	
	Zn	0.5mg/L (Zn) ↓	
	TOC	1.0 mg/L ↓	
	Odor and Taste	Not Detectable	
	[(c)] Turbidity	0.2 NTU ↓	
	Colourness	0.5 degree ↓	
	Oss of residual Chlorine	0.7 mg/L ↓	
	VCM Extraction	0.0015 mg/L ↓	
	Non-PVC products	In compliance with rules Table 2	
Specific Gravity		1.35~ 1.40	

Note: (a) If the tensile strength test for sample (Socket length less than 100 mm) is not available, the test can be exempted.
(b) Only applicable to manual pipe accessories.
(c) According to turbidimetry, the unit is NTU.
(d) Pressure conversion: 1MPa = 10.2 kgf / cm^2

2 Chemical and Physical Properties of PVC-U Pipe and Fitting

7. High-Impact PVC-U Fitting (Water Supply)

Test Items		Test Value	Test standard
Tensile Strength Test		49MPa [500kgf/cm^2] ↑ (15℃)	CNS 15010 K3126
Hydraulic pressure		3.5MPa[35.7kgf/cm^2]	
Charpy Impact Test	Before Weathering	10kJ/m^2 ↑ (0℃)	
	After Weathering	14kJ/m^2 ↑ (23℃)	
Drop Weight Impact Test		Normal	
Vicat Softening temperature		72℃ ↑	
Material's VCM content		1.0 mg/L ↓	
Extraction Test	Turbidity	0.2 degree ↓	
	Colourness	0.5 degree ↓	
	$KMnO_4$ Consumption	1.5 mg/L ↓	
	Pb	0.005mg/L ↓	
	Zn	0.1 mg/L ↓	
	Loss of Residual Solution	0.7 mg/L ↓	
	Odor and Taste	Not Detectable	
	VCM	0.0015 mg/L ↓	
Immersion Test	Distilled Water	±0.20mg/cm^2	
	10% Sodium Chloride Solution		
	30% Sulfuric Acid Solution		
	40% Sodium Hydroxide Solution		
	40% Nitric Acid Solution		

2 Chemical and Physical Properties of PVC-U Pipe and Fitting

(二) Chemical Properties

Followings are terms of chemical resistance:

⊙：Superb resistance; usable without chemical reaction
◯：Usable with care.
×：Unusable.

CHEMICAL	23℃	60℃	CHEMICAL	23℃	60℃
Acetaldehyde	×	×	Barium salts	⊙	⊙
Acetaldehyde, aq 40%	◯	×	Beer	⊙	⊙
Acetamide	—	—	Beet sugar liquor	⊙	⊙
Acetic acid, vapor	⊙	⊙	Benzaldehyde, 10%	⊙	×
Acetic acid, glacial	⊙	×	Benzaldehyde, above 10%	×	×
Acetic acid, 20%	⊙	⊙	Benzene(benzol)	×	×
Acetic acid, 80%	⊙	◯	Benzene sulfonic acid, 10%	⊙	⊙
Acetic anhydride	×	×	Benzene sulfonic acid	×	×
Acetone	×	×	Benzoic acid	⊙	⊙
Acetylene	◯	◯	Black liquor-paper	⊙	⊙
Adipic acid	⊙	⊙	Bleach, 12.5% active chlorine	⊙	⊙
Alcool,allyl	⊙	◯	Bleach, 5.5% active chloride	⊙	⊙
Alcohol, butyl benzyl	×	×	Borax	⊙	⊙
Alcohol, butyl (n-butanol)	⊙	⊙	Boric acid	⊙	⊙
Alcohol, butyl (2-butanol)	⊙	×	Boron trifluoride	⊙	⊙
Alcohol, ethyl	⊙	⊙	Bromic acid	⊙	⊙
Alcohol, hexyl	⊙	⊙	Bromine ,liquid	×	×
Alcohol, isopropyl (2-propanol)	⊙	⊙	Bromine, gas, 25%	⊙	⊙
Alcohol, methyl	⊙	⊙	Bromine, aq	⊙	⊙
Alcohol, propyl (1-propanol)	⊙	⊙	Butadine	⊙	⊙
Allyl chloride	×	×	Butane	⊙	⊙
Alums	⊙	⊙	Butantetrol(erythritol)	⊙	×
Ammonia, gas	⊙	⊙	Butanediol	⊙	⊙
Ammonia, liquid	×	×	Butyl acetate	×	×
Ammonia, aq	⊙	⊙	Butyl phenol	⊙	×
Ammonium salts, except fluoride	⊙	⊙	Butylene	⊙	⊙
Ammonium fluoride, 25%	⊙	◯	Butyric acid	⊙	×
Amylacetate	×	×	Calcium Salts aq	⊙	⊙
Aniline	×	×	Calcium hypochlorite	⊙	⊙
Aniline chlorohydrate	×	×	Calcium hydroxide	⊙	⊙
Aniline hydrochloride	×	×	Cane sugar liquors	⊙	⊙
Aniline dyes	×	×	Carbon bisulfide	×	×
Anthraquinone	⊙	⊙	Carbon dioxide	⊙	⊙
Anthraquinone sulfonic acid	⊙	⊙	Carbon dioxide, aq	⊙	⊙
Antimony trichloride	⊙	⊙	Carbon monoxide	⊙	⊙
Aqua regia	◯	×	Carbon terachloride	⊙	×
Arsenic acid, 80%	⊙	⊙	Casein	⊙	⊙
Aryl-sulfonic acid	⊙	⊙	Castor oil	⊙	⊙

2 Chemical and Physical Properties of PVC-U Pipe and Fitting

CHEMICAL	23℃	60℃	CHEMICAL	23℃	60℃
Caustic potash (potassium hydroxide)	⊙	⊙	Dibutyl phthalate	×	×
			Dibutyl sebacate	○	×
Caustic Soda (sodium hydroxide)	⊙	⊙	Dichlorobenzene	×	×
			Dichloroethylene	×	×
Cellosolve	⊙	○	Ethers	×	×
Cellosolve acetate	⊙	–	Ethyl esters	×	×
Chloral hydrate	⊙	⊙	Ethyl esters	×	×
Chloramine	⊙	–	Ethylene halides	×	×
Chloric acid, 20%	⊙	⊙	Ethylene glycol	⊙	⊙
Chlorine, gas ,dry	○	×	Ethylene oxide	×	×
Chlorine, gas ,wet	×	×	Fatty acids	⊙	⊙
Chlorine, liquid	×	×	Ferric salts	⊙	⊙
Chlorine water	⊙	⊙	Fluorine, dry gas	○	×
Chloracetic acid	⊙	⊙	Fluorine, wet gas	○	×
Chlorobenzene	×	×	Fluoboric acid, 25%	⊙	⊙
Chlorbenzyl chloride	×	×	Fluosilicic acid	⊙	⊙
Chloroform	×	×	Formaldehyde	⊙	⊙
Chlorosulfonic acid	⊙	×	Formic acid	⊙	×
Chromic acid, 10%	⊙	⊙	F11, F12, F113, F114 Freon-F11, F12, F113, F114	⊙	⊙
Chromic acid, 30%	⊙	○	F21, F22 Freon-F21, F22	×	×
Chromic acid, 40%	⊙	○	Fruit juices and pulps	⊙	⊙
Chromic acid, 50%	×	×	Fuil oil	○	×
Citric acid, 20%	⊙	⊙	Furfural	×	×
Coconut oil	⊙	⊙	Gas, coal, manufactured	×	×
Coke oven gas	⊙	⊙	Gas, natural, methane	⊙	⊙
Copper salts,aq	⊙	⊙	Gasolines	○	○
Corn oil	⊙	⊙	Gelatin	⊙	⊙
Corn syrup	⊙	⊙	Glycerine (Glycerol)	⊙	⊙
Cottonseed oil	⊙	⊙	Gglycols	⊙	⊙
Cresol	×	×	Glue, animal	⊙	⊙
Cresylic acid, 50%	⊙	⊙	HOCH2COOH Glycolic acid	⊙	⊙
Croton aldehyde	×	×	Green liquor, paper	⊙	⊙
Crude oil	⊙	⊙	Gallic acid	⊙	⊙
Cyclohexane	×	×	Heptane	⊙	⊙
Cyclohexanol	×	×	Hexane	⊙	○
Cycohexanone	×	×	Hydrobromic acid, 20%	⊙	⊙
Diazo salts	⊙	⊙	Hydrochloric acid	⊙	⊙
Diesel fuels	⊙	⊙	Hydrobromic acid, 10%	⊙	○
Diethyl amine	×	×	Hydrobromic acid, 60%	⊙	○
Dioctyl phthalate	×	×	Hydrobromic acid, 100%	⊙	○
Disodium phosphate	⊙	⊙	Hydrocyanic acid	⊙	⊙
Diglycolic acid	⊙	⊙	Hydrogen	⊙	⊙
Dioxane-1.4	×	×	Hydrogen peroxide, 50%	⊙	⊙
Dimethylamine	⊙	⊙	Hydrogen peroxide, 90%	⊙	⊙
Dimethyl formamide	×	×	Hydrogen sulfide, aq	⊙	⊙
Detergents, aq	⊙	⊙			

2 Chemical and Physical Properties of PVC-U Pipe and Fitting

CHEMICAL	23℃	60℃	CHEMICAL	23℃	60℃
Hydrogen sulfide, dry	⊙	⊙	Methyl sulfonic acid	⊙	⊙
Hydroquinone	⊙	⊙	Methylene bromide	×	×
Hydroxylamine sulfate	⊙	⊙	Methylene chloride	×	×
Hydrazine	×	×	Methylene iodine	×	×
Hypochlorous acid	⊙	⊙	Milk	⊙	⊙
Iodine, in KI, 3%,aq	○	×	Mineral oil	⊙	⊙
Iodine, alc	×	×	Mixed acids (sulfuric & nitric)	○	×
Iodine, aq, 10%	×	×	Mixed acids (sulfuric & phosphoric)	⊙	⊙
Jet fuels, JP-4 and JP-5	⊙	⊙	Malasses	×	×
Kerosene	⊙	⊙	Monochlorobenzene	×	×
Ketones	×	×	Monoethanolamine	×	×
Kraft paper liquor	⊙	⊙	Motor oil	⊙	⊙
Lacquer thinners	○	×	Nophtha	⊙	⊙
Lactic acid, 25%	⊙	⊙	Naphthalene	×	×
Lard oil	⊙	⊙	Nickel salts	⊙	⊙
Lauric acid	⊙	⊙	Nicotine	⊙	⊙
Lauryl chloride	⊙	⊙	Nicotinic acid	⊙	⊙
Lauryl sulfate	⊙	⊙	Nitric acid, 0 tp 50%	⊙	○
Lead salts	⊙	⊙	Nitric acid,60%	⊙	○
Lime sulfur	⊙	⊙	Nitric acid,70%	⊙	○
Linoleic acid	⊙	⊙	Nitric acid,80%	○	○
Linseed oil	⊙	⊙	Nitric acid,90%	○	×
Liqueurs	⊙	⊙	Nitric acid,100%	×	×
Liqueurs	⊙	⊙	Nitric acid , fuming	×	×
Llthium salts	⊙	⊙	Nitrobenzene	×	×
Lubricating oils	⊙	⊙	Nitroglycerine	×	×
Machine Oil	⊙	⊙	Nitrous acid	⊙	○
Magnesium salts	⊙	⊙	Nitrous oxide, gas	⊙	○
Maleic acid	⊙	⊙	Nitroglycol	×	×
Malic acid	⊙	⊙	Nitropropane	○	○
Manganese sulfate	⊙	⊙	Oils, vegetable	⊙	⊙
Mercuric salts	⊙	⊙	Oils abd fats	⊙	⊙
Mercury	⊙	⊙	Oleic acid	⊙	⊙
Mesityl oxide	×	×	Oleum	×	×
Metallic soaps, aq	⊙	⊙	Olive oil	○	–
Methane	⊙	⊙	Oxalic acid	⊙	⊙
Methyl acetate	×	×	Oxygen, gas	⊙	⊙
Methyl bromide	×	×	Ozone, gas	⊙	○
Methyl cellosolve	×	×	Palmitic acid, 10%	⊙	⊙
Methyl chloride	×	×	Palmitic acid, 70%	⊙	×
Methyl chloroform	×	×	Paraffin	⊙	⊙
Methyl cyclohexanone	×	×	Pentane	○	○
Methyl methacrylate	⊙	–	Peracetic acid, 40%	⊙	×
Methyl salicylate	⊙	⊙	Peracetic acid, 10%	⊙	○
Methyl sulfate	⊙	○	Peracetic acid, 70%	⊙	×

2 Chemical and Physical Properties of PVC-U Pipe and Fitting

CHEMICAL	23℃	60℃	CHEMICAL	23℃	60℃
Perchloroethlene	○	○	Sulfite liquor	⊙	⊙
Petroleum, sour	⊙	⊙	Sulfur	⊙	⊙
Phenol	○	×	Sugars, aq	⊙	⊙
Phenylcarbinol	×	×	Sulfur dioxide, aq	⊙	⊙
Phenylhydrazine	×	×	Sulfur dioxide, wet	⊙	○
HCI Phenylhydrazine HCI	○	×	Sulfur dioxide, aq	⊙	⊙
Phosgene, liquid, gas	⊙	○	Sulfur dioxide, wet	⊙	○
Phosgene, liquid	×	×	Sulfuric acid, up to 70%	⊙	⊙
Phosphorus,acid	⊙	⊙	Sulfuric acid, 70 to 90%	⊙	○
Phohosphorus, yellow	⊙	○	Sulfuric acid, 90 to 100%	○	×
Phosphorus, red	⊙	⊙	Sulfurous acid	○	×
Phosphorus pentoxide	⊙	○	Tall oil	⊙	⊙
Phosphorus trichloride	×	×	Tannic acid	⊙	⊙
Photographic chemicals ,aq	⊙	⊙	Tanning liquors	⊙	⊙
Phthalic acid	○	○	Tartaric acid	⊙	⊙
Picric acid	×	×	Tetrachloroethane	○	○
Plating solutions, metal	⊙	○	Tetraethyl lead	⊙	○
Potassium salts, aq	⊙	⊙	Tetrahydrofuran	×	×
Potassium permanganate, 25%	○	○	($SOCl_2$) Thionyl chloride	×	×
Potassium alkyl xanthates	⊙	×	Thread cutting oils	⊙	–
Propane	⊙	⊙	Terpineol	○	○
Propylene dichloride	×	×	Titanium tetrachioride	○	×
Propylene glycol	⊙	⊙	Toluene	×	×
Propylene oxide	×	×	Tributyl phosphate	×	×
Pyridine	×	×	Tributyl citrate	⊙	–
Pyrogallic acid	○	○	Tricresyl phosphate	×	×
Rayon coagulation bath	⊙	⊙	Trichloroacetic acid	⊙	⊙
Sea water	⊙	⊙	Trichloroethylene	×	×
Salicylic acid	⊙	⊙	Triethanolamine	⊙	○
Salicylaldehyde	○	○	Triethylamine	⊙	⊙
Selenic acid	⊙	⊙	Turpentine	⊙	⊙
Sewage, residential	⊙	⊙	Urea	⊙	⊙
Silicic acid	⊙	⊙	Urine	⊙	⊙
Silicone oil	⊙	×	Vaseline	×	×
Silver salts	⊙	⊙	Vegetable oils	⊙	⊙
Soaps	⊙	⊙	Vinegar	⊙	⊙
Sodium salts, aq, except	⊙	⊙	Vinyl acetate	×	×
Sodium chlorite	⊙	⊙	Water, distilled	⊙	⊙
Sodium chlorate	⊙	○	Water, fresh	⊙	⊙
Sodium dichromate, acid	⊙	⊙	Water, mine	⊙	⊙
Sodium perborate	⊙	⊙	Water, salt	⊙	⊙
Stannic chloride	⊙	⊙	Water, tap	⊙	⊙
Stannous chloride	⊙	⊙	Whiskey	⊙	⊙
Starch	⊙	⊙	Wines	⊙	⊙
Stearic acid	⊙	⊙	Xylene	×	×
Stoddard solvent	×	×	Zinc salts	⊙	⊙

Information about chemical resistance is for reference only

3 Specification of PVC-U Pipe

(一) PVC-U Pipe for General Purpose (CNS 1298)

＊TYPE VU (A Pipe) Thin Pipe

Unit : mm

Nominal Pipe Size		Outside Diameter		Wall Thickness		Approx. Inside Diameter	Approx. Weight (kg/m)	Working Pressure at 20℃ (kgf/cm²)	Length (m)
		Reference Diameter	Tolerance of mean outside Diameter[(a)]	Minimum	Tolerance				
40	1½"	48	± 0.2	1.8	+ 0.4	44	0.413		4m
50	2"	60				56	0.521		4m
65	2½"	76	± 0.3	2.2	+ 0.6	71	0.825		4m
80	3"	89		2.7		83	1.159		4m
90	3½"	100	± 0.4	3.1		94	1.476		4m
100	4"	114			+ 0.8	107	1.737		4m
125	5"	140	± 0.5	4.1		131	2.739		5m
150	6"	165		5.1		154	3.941		5m
200	8"	216	± 0.7	6.5	+ 1.0	202	6.572	2.55	6m
250	10"	267	± 0.9	7.8	+ 1.2	250	9.758		6m
300	12"	318	± 1.0	9.2	+ 1.4	298	13.701		6m
350	14"	370	± 1.2	10.5		348	18.051		6m
400	16"	420	± 1.3	11.8	+ 1.6	395	23.059		6m
450	18"	470	± 1.5	13.2	+ 1.8	442	28.875		6m
500	20"	520	± 1.6	14.6	+ 2.0	489	35.346		6m
600	24"	630	± 3.2	17.8	+ 2.8	592	52.678		6m
*700	28"	732	± 3.7	21.0	+ 3.2	687	72.018		6m

NOTE：

1. [(a)]The tolerance of means outside diameter is the difference between the value obtained by dividing the circumference of randomly picked cross-section by the circular constant, 3.142, or the mean of measured value of outside diameter in two directions with mutually equal inteNal in a randomly picked cross-section (mean outside diameter) and the reference dimension.
2. Pipe length can be determined by the buyer and seller agreement.
3. * ：Molds are under development.

3 Specification of PVC-U Pipe

＊TYPE VP (B Pipe) Thick Pipe

Unit : mm

Nominal Pipe Size		Outside Diameter			Wall Thickness		Approx. Inside Diameter	Approx. Weight (kg/m)	Working Pressure at 20℃ (kgf/cm^2)	Length (m)
		Reference Diameter	Tolerance of max. and min outside diameter[a]	Tolerance of mean outside diameter[b]	Minimum	Tolerance				
13	3/8"	18	± 0.2	± 0.2	2.2	+ 0.6	13	0.174	7.65	4m
16	½"	22			2.7		16	0.256		4m
20	¾"	26					20	0.310		4m
25	1"W	32			3.1	+ 0.8	25	0.448		4m
30	1¼"W	38	± 0.3				31	0.542		4m
40	1½"	48			3.6		40	0.791		4m
50	2"	60	± 0.4		4.1		51	1.122		4m
65	2½"	76	± 0.5	± 0.3			67	1.445		4m
80	3"	89			5.5		77	2.202		4m
100	4"	114	± 0.6	± 0.4	6.6	+ 1.0	100	3.409		5m
125	5"	140	± 0.8	± 0.5	7.0		125	4.464		5m
150	6"	165	± 1.0		8.9	+ 1.4	146	6.701		6m
200	8"	216	± 1.3	± 0.7	10.3		194	10.129		6m
250	10"	267	± 1.6	± 0.9	12.7	+ 1.8	240	15.481		6m
300	12"	318	± 1.9	± 1.0	15.1	+ 2.2	286	21.962		6m
350	14"	370	± 2.2	± 1.2	18.0	+ 2.6	333	30.407		6m
400	16"	420	± 2.6	± 1.3	20.5	+ 3.0	378	39.336		6m
450	18"	470	± 3.0	± 1.5	22.9	+ 3.4	423	49.223		6m
500	20"	520	± 3.5	± 1.6	25.3	+ 3.8	468	60.218		6m
600	24"	630	± 4.0	± 3.2	30.7	+ 4.0	567	87.746		6m

NOTE：

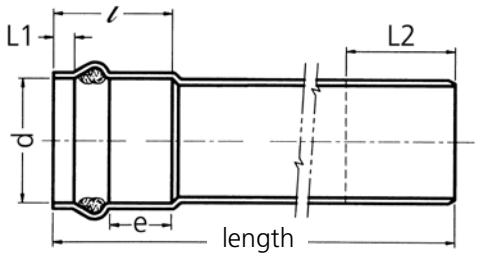
1. [a]The tolerance of maximum and minimum diameter means the difference between the measured maximum and minimum values of outside diameter in a randomly picked cross-section (maximum and minimum diameter) and the reference dimension.
2. PVC pressure pipes for general purposes are light gray.
3. PVC pipes for sewerage and sewer lines are reddish-orange.
4. The other colors could be produced by deal with customers.
5. Pipe length can be determined by the buyer and seller agreement.

＊Precautions :

1. When pipes are stored outside, please avoid direct sunlight and cover them with canvas without gathering heat.
2. Don't install threads in pipes.
3. Don't spray, coat or contact pipes with harmful substances, such as acetone, thinner, cresol, insecticide, termite repellent, etc. Furthermore, even if above substances do not directly contact pipes, please note that when the pipe is shallowly buried, if above substances are spilled on the ground, they will penetrate the ground and erode pipes.
4. In order to reduce the expansion and contraction caused by pipeline subsidence or temperature changes, take appropriate measures as needed, for example: install flexible pipes in appropriate places.

3 Specification of PVC-U Pipe

＊Ring-Seal Type VP (B Pipe) for General Use



Unit : mm

Nominal Pipe Size		Mean Inside Diameter (d) (min)	Insert Effective Length (e) (min)	L1 (min)	Sooket Length (ℓ) (min)	L 2 Insert Length of Male Adapter
40	1½"	48.3	57	12	110	50～55
50	2"	60.3	58	15	115	60～65
65	2½"	76.4	60	20	125	70～75
80	3"	89.5	61	20	130	80～85
100	4"	114.5	64	20	145	95～105
125	5"	140.6	67	25	150	105～115
150	6"	165.7	70	30	165	120～130
200	8"	216.9	76	30	190	170～180
250	10"	268.1	82	30	210	200～210
300	12"	319.3	88	35	235	245～260
350	14"	371.5	89	35	245	285～300
400	16"	421.7	91	35	265	315～330
450	18"	471.9	94	40	290	345～360
500	20"	522.1	96	40	305	385～400
600	24"	633.8	102	45	355	465～480

NOTE: 1. Pipe length can be determined by the buyer and seller agreement.
2. Thickness of loose socket (Nominal pipe size: above 200 mm) must be thinner than that of PVC-U pipe.

＊Precautions :

1. When pipes are stored outside, please avoid direct sunlight and cover them with canvas without gathering heat.
2. Don't install threads in pipes.
3. Don't spray, coat or contact pipes with harmful substances, such as acetone, thinner, cresol, insecticide, termite repellent, etc. Furthermore, even if above substances do not directly contact pipes, please note that when the pipe is shallowly buried, if above substances are spilled on the ground, they will penetrate the ground and erode pipes.
4. In order to reduce the expansion and contraction caused by pipeline subsidence or temperature changes, take appropriate measures as needed, for example: install flexible pipes in appropriate places.
5. Vinyl adhesive should be applied evenly and uniformly on the adhesive surfaces of cleaned pipes and their accessories; then, please adhere quickly and maintain the insertion force until the specified time; next, please wipe off vinyl adhesive out of pipes after bonding them. Last, please take measures such as ventilation to expel the vinyl adhesive vapor in pipes during the construction. Therefore, it is necessary to choose suitable pipes to match relative accessories.

3 Specification of PVC-U Pipe

(二) PVC-U Pipe for Water Supply (CNS 4053-1)

＊TYPE W

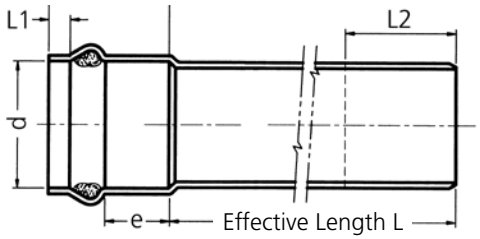
Nominal Pipe Size		Outside Diameter			Wall Thickness		Approx. Inside Diameter	Approx. Weight (kg/m)	Allow working Pressure at 20℃ (kgf/cm²)	Length (m)
		Reference Diameter	Tolerance of max. and min outside diameter[a]	Tolerance of mean outside diameter[b]	Minimum	Tolerance				
13	3/8"	18	± 0.2	± 0.2	2.3	+ 0.4	13	0.174	7.6以下	4m
16	½"	22			2.7	+ 0.6	16	0.256		4m
20	¾"	26					20	0.310		4m
25	1"W	32			3.2		25	0.448		4m
30	1¼"W	38	± 0.3				31	0.542		4m
40	1½"	48			3.7		40	0.791		4m
50	2"	60	± 0.4		4.1	+ 0.8	51	1.122		4m
65	2½"	76	± 0.5				67	1.445		4m
80	3"	89			5.5		78	2.202		4m
100	4"	114	± 0.6		6.6		100	3.409		5m
125	5"	140	± 0.8	± 0.3	7.0	+ 1.0	124	4.464		5m
150	6"	165	± 1.0		9.0	+ 1.2	146	6.701		6m
200	8"	216	± 1.3	± 0.7	10.8	+ 1.4	194	10.559		6m
250	10"	267	± 1.6	± 0.9	13.3	+ 1.8	239	16.119		6m
300	12"	318	± 1.9	± 1.0	15.9	+ 2.2	285	22.976		6m
350	14"	370	± 2.2	± 1.2	18.0	+ 2.6	332	30.407		6m
400	16"	420	± 2.6	± 1.3	20.5	+ 3.0	376	39.336		6m
450	18"	470	± 3.0	± 1.5	22.9	+ 3.4	421	49.223		6m
500	20"	520	± 3.5	± 1.6	25.3	+ 3.8	466	60.218		6m
600	24"	630	± 4.0	± 3.2	30.7	+ 4.0	565	87.746		6m

NOTE：

1. [a]The tolerance of maximum and minimum diameter means the difference between the measured maximum and minimum values of outside diameter in a randomly picked cross-section (maximum and minimum diameter) and the reference dimension.
2. [b]The tolerance of means outside diameter is the difference between the value obtained by dividing the circumference of randomly picked cross-section by the circular constant, 3.142, or the mean of measured value of outside diameter in two directions with mutually equal inteNal in a randomly picked cross-section (mean outside diameter) and the reference dimension.
3. Pipe length can be determined by the buyer and seller agreement.

3 Specification of PVC-U Pipe

＊RIng-Seal Type for Water Supply



Unit : mm

Nominal Pipe Size		Mean Inside Diameter (d) (min)	Insert Effective Length (e) (min)	Sooket Length (ℓ) (min)	L 2 Insert Length of Male Adapter	L Effective Length
40	1½”	48.3	57	110	50～55	4m
50	2”	60.3	58	115	60～65	4m～7m
65	2½”	76.4	60	125	70～75	4m～7m
80	3”	89.5	61	130	80～85	4m～7m
100	4”	114.5	64	145	90～100	5m～7m
125	5”	140.6	67	150	105～115	5m～7m
150	6”	165.7	70	165	120～130	6m～7m
200	8”	216.9	76	190	170～180	6m～7m
250	10”	268.1	82	210	200～210	6m～7m
300	12”	319.3	88	235	245～260	6m～7m
350	14”	371.5	89	245	285～300	6m～7m
400	16”	421.7	91	265	315～330	6m～7m
450	18”	471.9	94	290	345～360	6m～7m
500	20”	522.1	96	305	385～400	6m～7m
600	24”	633.8	102	355	460～475	6m～7m

NOTE：

1. Above 200mm(8") is the ring-seal type for drinking water, and its thickness of socket must be thicker than thickness of PVC-U pipe.
2. Pipe length can be determined by the buyer and seller agreement.

＊Precautions :

1. When pipes are stored outside, please avoid direct sunlight and cover them with canvas without gathering heat.
2. Don't install threads in pipes.
3. Don't spray, coat or contact pipes with harmful substances, such as acetone, thinner, cresol, insecticide, termite repellent, etc. Furthermore, even if above substances do not directly contact pipes, please note that when the pipe is shallowly buried, if above substances are spilled on the ground, they will penetrate the ground and erode pipes.
4. In order to reduce the expansion and contraction caused by pipeline subsidence or temperature changes, take appropriate measures as needed, for example: install flexible pipes in appropriate places.
5. Vinyl adhesive should be applied evenly and uniformly on the adhesive surfaces of cleaned pipes and their accessories; then, please adhere quickly and maintain the insertion force until the specified time; next, please wipe off vinyl adhesive out of pipes after bonding them. Last, please take measures such as ventilation to expel the vinyl adhesive vapor in pipes during the construction. Therefore, it is necessary to choose suitable pipes to match relative accessories.

3 Specification of PVC-U Pipe

(三) PVC-U Pipe for Electric Conduit Use (CNS 1302)

＊E管 TYPE E

Unit : mm

Nominal Pipe Size		Outside Diameter and Tolerance	Wall Thickness		Approx. Inside Diameter	Approx. Weight (kg/m)	Length Toerance	Length (m)
			Minimum	Tolerance				
13	3/8"	18 ± 0.2	1.8	+ 0.4	14	0.144	+30 −10	4m
16	½"	22 ± 0.2	1.8	+ 0.4	18	0.180		4m
20	¾"	26 ± 0.2	1.8	+ 0.4	22	0.216		4m
28	1"	34 ± 0.3	2.7	+ 0.6	28	0.420		4m
35	1¼"	42 ± 0.3	3.1	+ 0.8	35	0.608		4m
41	1½"	48 ± 0.4	3.1	+ 0.8	41	0.702		4m
52	2"	60 ± 0.5	3.6	+ 0.8	52	1.010		4m
65	2½"	76 ± 0.5	4.1	+ 0.8	67	1.450		4m
80	3"	89 ± 0.5	5.1	+ 0.8	78	2.070		4m
100	4"	114 ± 0.6	6.6	+ 1.0	100	3.420		5m
125	5"	140 ± 0.8	7.0	+ 1.0	125	4.490		5m
150	6"	165 ± 1.0	8.5	+ 1.4	148	6.460		6m
200	8"	216 ± 1.3	10.5	+ 1.4	194	10.340		6m

NOTE：

1. Average O.D refers to the arithmetic arithmetic mean value of any two given O.D at the right angle to each other.
2. Pipe length can be determined by the buyer and seller agreement.

＊TYPE ES-1

Unit : mm

Nominal Pipe Size		Outside Diameter and Tolerance	Wall Thickness		Approx. Inside Diameter	Approx. Weight (kg/m)	Length Toerance	Length (m)
			Minimum	Tolerance				
80	3"	89 ± 0.5	2.7	+ 0.6	83	1.160	+30 −10	4m
100	4"	114 ± 0.6	3.6	+ 0.8	106	1.980		5m
125	5"	140 ± 0.8	4.1	+ 0.8	131	2.750		5m
150	6"	165 ± 1.0	5.1	+ 0.8	154	3.960		5m

NOTE：

1. Average O.D refers to the arithmetic arithmetic mean value of any two given O.D at the right angle to each other.
2. Pipe length can be determined by the buyer and seller agreement.

＊Precautions :

1. The pipes should be stored outdoors to avoid direct sunlight, in the hot air circulation can be covered under the canvas and other measures.
2. Do not thread the pipe directly on the pipe.
3. The material that adversely affects the pipes, Such as acetone, diluents, creosote, insecticides, termite repellents etc., should not sprayed and applied on the pipes.

3 Specification of PVC-U Pipe

(一) PVC-U Pipe for High-Impact Use (CNS 14345)

Unit : mm

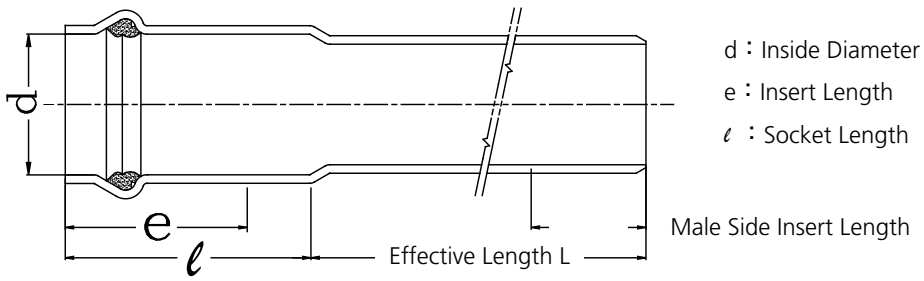
Nominal Pipe Size		Outside Diameter			Wall Thickness		Approx. Inside Diameter	Approx. Weight (kg/m)
		Reference Diameter	Tolerance of max. and min outside diameter[a]	Tolerance of mean outside diameter[b]	Minimum	Tolerance		
16	½"	22	± 0.2	± 0.2	2.7	+ 0.6	16	0.251
20	¾"	26					20	0.304
25	1"W	32			3.2		25	0.439
30	1¼"W	38	± 0.3				31	0.531
40	1½"	48			3.7		40	0.774
50	2"	60	± 0.4		4.1	+ 0.8	51	1.099
65	2½"	76	± 0.5				67	1.415
80	3"	89			5.5		77	2.156
100	4"	114	± 0.6		6.6	+ 1.0	100	3.338
125	5"	140	± 0.8	± 0.3	7.5	+ 1.2	124	4.699
150	6"	165	± 1.0		9.0		146	6.562
200	8"	216	± 1.3	± 0.7	10.5	+ 1.4	194	10.089
250	10"	267	± 1.6	± 0.9	13.0	+ 1.8	239	15.473
300	12"	318	± 1.9	± 1.0	15.5	+ 2.2	285	22.005
350	14"	370	± 2.2	± 1.2	18.0	+ 2.6	332	29.770
400	16"	420	± 2.6	± 1.3	20.5	+ 3.0	376	38.511

NOTE：

1. [a]The tolerance of maximum and minimum diameter means the difference between the measured maximum and minimum values of outside diameter in a randomly picked cross-section (maximum and minimum diameter) and the reference dimension.
2. The pipe sizes and specification of ring-seal type for High-Impact are same with the ring-seal type for Drinking water's.
3. PVC-U pipe for High-Impact is dark black-blue color.
4. The other colors could be produced by deal with customers.
5. Pipe length can be determined by the buyer and seller agreement.

3 Specification of PVC-U Pipe

(五) Ring-Seal Type A for Drinking Water Supply

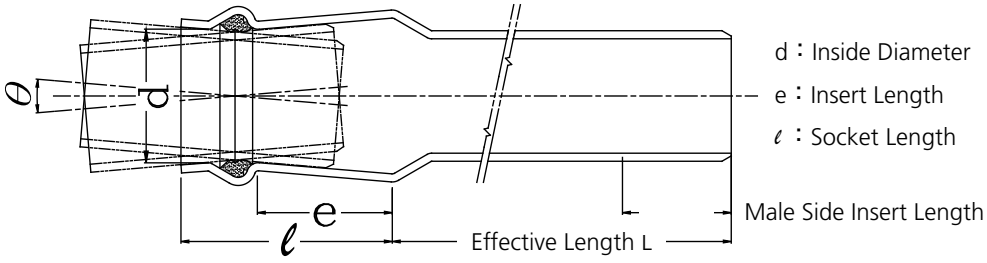


Unit : mm

Nominal Pipe Size		Mean Inside Diamete (d) (min)	Insert Effective Length (e) (min)	Sooket Length (ℓ) (min)	Wall Thickness of Socket		L Effective Length
					Minimum	Tolerance	
40	1½"	48.2	151	215	3.6	+0.8	4m
50	2"	60.3	156	220	4.1		4m~7m
65	2½"	76.5	156	220			4m~7m
80	3"	89.5	166	220	5.5		4m~7m
100	4"	114.6	179	235	6.6	+1.0	5m~7m
125	5"	140.6	191	245	7.5	+1.2	5m~7m
150	6"	165.8	201	250	9.0		6m,7m
200	8"	217.0	222	270	10.5	+1.4	6m,7m
250	10"	268.1	248	290	13.0	+1.8	6m,7m
300	12"	319.4	272	310	15.5	+2.2	6m,7m
350	14"	371.6	292	330	18.0	+2.6	6m,7m
400	16"	422.0	312	350	20.5	+3.0	6m,7m

NOTE : Pipe length can be determined by the buyer and seller agreement.

(四) Ring-Seal Type B for Water Supply



Unit : mm

Nominal Pipe Size		Mean Inside Diameter (d) (min)	Insert Effective Length (e) (min)	Sooket Length (ℓ) (min)	Wall Thickness of Socket		L Effective Length
					Minimum	Tolerance	
40	1½"	48.3	44	105	3.6	+0.8	4m
50	2"	60.3	50	125	4.1		4m~7m
65	2½"	76.4	55	135			4m~7m
80	3"	89.5	60	145	5.5		4m~7m
100	4"	114.5	80	160	6.6	+1.0	5m~7m
125	5"	140.6	90	175	7.5	+1.2	5m~7m
150	6"	165.7	100	200	9.0		6m,7m
200	8"	216.9	115	235	10.5	+1.4	6m,7m
250	10"	268.1	145	280	13.0	+1.8	6m,7m
300	12"	319.3	170	320	15.5	+2.2	6m,7m
350	14"	371.5	200	355	18	+2.6	6m,7m
400	16"	421.7	230	380	20.5	+3.0	6m,7m

NOTE：

1. Ring-Seal Type B joint together, the deflection θ : Between ± 5°
2. Pipe length can be determined by the buyer and seller agreement.

(七) PVC-U Pipe for Raft Use (CNS 12698)

Unit : mm

Nominal Pipe Size		Outside Diameter and Tolerance	Wall Thickness and Tolerance (mm)	Approx. Inside Diameter	Greatest Length and Tolerance		Approx. Weight (kg/m)
125	5"	140 ± 0.8	3.3 + 0.5	133	10,000	+50 −30	2.150
150	6"	165 ± 1.0	3.7 + 0.7	157	11,000		2.900
200	8"	216 ± 1.3	4.6 + 0.8	206	12,000		4.760
250	10"	267 ± 1.6	6.6 + 1.0	253	13,000		8.210
300	12"	318 ± 1.9	8.0 + 1.2	301	14,000		11.860
350	14"	370 ± 2.2	9.3 + 1.5	350	15,000		16.230
400	16"	420 ± 2.6	11.2 + 1.8	396	16,000		22.080
450	18"	470 ± 3.0	13.1 + 2.0	442	17,000		28.790

NOTE：

1. Average O.D refers to the arithmetic mean value of any two given O.D at the right angle to each other.
2. Pipe length can be determined by the buyer and seller agreement.

PURPOSE：

Application: Rafts for coastal fishing, freshwater fishing, and aquaculture

3 Specification of PVC-U Pipe

(八) Well Drilling Engineering

Unit : mm

Nominal Pipe Size		Outside Diameter and Tolerance	Wall Thickness and Tolerance (mm)	Approx. Inside Diameter	Approx. Weight (kg/m)	Length (m)
150	6"	165± 0.5	9.0+1.2	146	6.701	6m
200	8"	216± 0.7	11.0+0.7	194	10.129	6m
250	10"	267± 0.9	13.0+1.5	240	15.481	6m
300	12"	318± 1.0	15.5+1.8	286	21.962	6m
350	14"	370± 1.2	18.0+2.6	333	30.407	6m
400	16"	420± 1.3	20.5+3.0	378	39.336	6m
450	18"	470± 1.5	22.9+3.4	423	49.223	6m
500	20"	520± 1.6	25.3+3.8	468	60.218	6m
600	24"	630± 3.2	30.7+4.0	567	87.746	6m

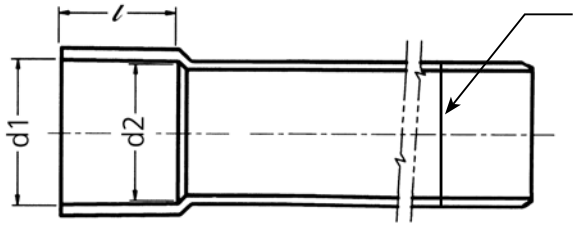
NOTE：

1. Average O.D refers to the arithmetic mean value of any two given O.D at the right angle to each other.
2. Pipe length can be determined by the buyer and seller agreement.

1. According to Chapter 7.5 of the "Appendix III-Groundwater Well Drilling Technical Reference Manual" edited by the Planning and Testing Institute of the Ministry of Economic Affairs of the Ministry of Economic Affairs, the below-ground conditions cannot be absolutely controlled for the well drilling project, so the loss or failure of engineering materials cannot be completely avoided. The most common ones have the following phenomena:
   (1) Drilling: the hole collapses and bends, or drilling is particularly difficult.
   (2) Pipe release: The joint is disconnected, the tube body collapses, the tube body is broken and bent, or it cannot be placed to a predetermined depth, etc.
   (3) Rock-filling: rub the wall of the collapsed hole during casting, or the filling effect caused by the bridging effect, etc.
   (4) Water expansion: the stratum structure is too detailed to wash for a long time, the hole wall collapses and it is difficult to save, or the efficiency of the well is insufficient to extend the water expansion time.
   (5) Others: mechanical failure, tool fall, insufficient material preparation, slow progress, delay in working hours, etc.
2. The factors that affect the loss or failure of the well drilling project are quite complex, including: formation factors, equipment factors, environmental factors, climatic factors, technical factors, or other force majeure factors. Above information is for reference only.

3 Specification of PVC-U Pipe

(九) Pipe With Solvent Cement Socket (Single Socket)



Unit : mm

Nominal Pipe Size		Average inner diameter		(ℓ) (min)
		d1	d2	
13	3/8"	18.40±0.20	17.53±0.20	26
16	½"	22.40±0.20	21.52±0.20	30
20	¾"	26.45±0.20	25.42±0.20	35
25	1"W	32.55±0.25	31.37±0.25	40
30	1 ¼"W	38.60±0.25	37.31±0.25	44
40	1 ½"	48.70±0.30	47.21±0.30	55
50	2"	60.80±0.30	59.10±0.30	63
65	2 ½"	76.80±0.30	75.12±0.30	64
80	3"	89.60±0.30	88.30±0.30	64
100	4"	114.70±0.30	113.20±0.30	84
125	5"	140.90±0.40	139.10±0.40	104
150	6"	166.00±0.50	163.90±0.50	132
200	8"	217.90±0.80	213.90±0.80	200
250	10"	269.30±0.90	264.30±0.90	250
300	12"	320.70±1.00	314.70±1.00	300
350	14"	373.10±1.00	366.10±1.00	350
400	16"	423.60±1.20	415.60±1.20	400
450	18"	474.00±1.20	465.00±1.20	450
500	20"	524.50±1.30	514.50±1.30	500
600	24"	635.30±2.10	623.30±2.10	600
*700	*28"	738.10±2.40	724.10±2.40	700

NOTE：

1. Nominal diameter 13~600 apply for VP(B Pipe) pipes, and 40~700 apply for VU(A Pipe) pipes, and 13~600 apply for W pipes.
2. Pipe length can be determined by the buyer and seller agreement.
3. At the time of delivery, the male pipe end of each T.S. single-socket pipe has a drawing length reference line, which is mainly used for reference when the pipe and the pipe are joined. If the T.S. single-socket pipe is used for jointing with the fitting, the reference line will exceeding the length of the fitting's socket.
4. *：Molds are under development.

4 Installation of PVC-U Pipe

(—) Installation of PVC-U Pipe

(1) One-time Inserting Method :

This method is suited for connecting medium Diameter pipes. The installation process is as follows :

1. Whittle two edges of adapter with file or knife at 30 angle(whitting in-side angle of fema a adapter and outside angle of male adapter) untill edge thickness comes to about 1mm(or 1/3 thicknes if pipe thickness scover 3mm). Referring to illustration 1.
2. Heat one edge of female adapter at 120-130℃ to make it soft (heat-ing with blow torch or burning charcoal direct or with out oil or hot sand indirect).
3. Smear outside edge of male acapter with adhesive averagelty andthen insert the edge into female adapter. the inserting depth is 1.2-1.5 times of pipe diameter for small diameter pipes.
4. After two adapters are connected and adjusted to alignment, coll them with cloth or cold water and wipe off the permeated adhsive.

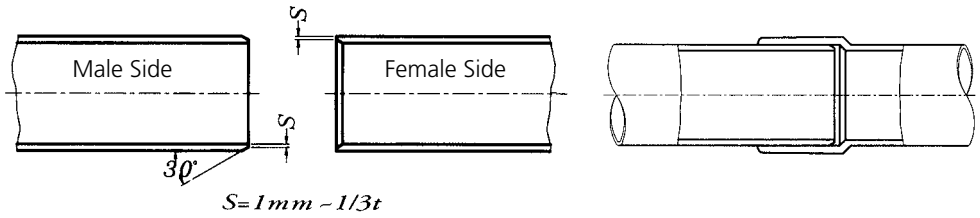


Fig 1

(2) Two-time tight inserting method :

This method is suited for connecting large diameter pipes. The installation process is as follows :

1. Whittle edges of two adapters at 30 angle. outside angle of male adapter and inside angle of female adapter. same method as item 1 to whittle angle of large clameter pipes. first heat edges with blow torch to make it soft then whittle with knife and trim with file this can step up installation.
2. Heat female adapter edget at 120-130℃ to make it soft.
3. Primor to smearing male adapter edge with adhesive. spread the edge with lubricant such as butter. and insert the lubricated edge into softened male adapter. then adjust. them to alignment. and finally coll them with wet cloth or cold water for formation.
4. Draw a line on connected edges paaraiell to pipe length direction and write figures on two edges to avoid confusion while connecting referring to illustration 2.
5. Pull out the male adapter and wipe off the lubricant semeared on two connected edges. Before connecting smear edges of both male and female adapters with adhesive. then insert and locate the adapters along the crawn line.

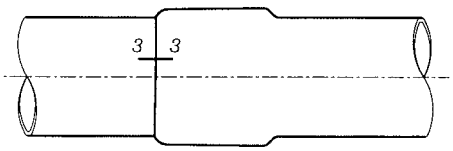


Fig 2

(3) TS unheating connection method :

This method is applied to the connection of pre-processed TS or injection fittings it features its quick and easy installation and especially suitability in places where fire and smoking is strickly prohibitted. It allows water to flow within a short time after installation. The installation process is as follows.

1. The male side of PVC pipe, cutting 30° to 45° angle by the wide file or cutting wheel, and the thickness of pipe end face is about 1/3t.
2. The depth of insertion of the TS singled hole or fitting hole should be measured and marked in the male side of PVC-U pipe before construction.
3. Each PVC pipe with taper socket, the male side are painted a black line, the length of socket for reference.
4. IF PVC pipe have cut off, please painted a reference line of the length of socket.
5. To avoid leakage, it is suggested that large size of PVC-U pipe be glued with high viscosity of PVC adhesive.
6. First, please clean the inside of the fitting, socket, and the male side of PVC-U pipe with alcohol or dry cloth; then, please smear PVC adhesive on them; last, please insert the male side of PVC-U pipe into the fitting or socket tightly. If temperature is too high or PVC adhesive dries too fast, it is suggested that PVC adhesive be supplied quickly. Then, please insert PVC-U pipes tightly until PVC adhesive is volatile and its adhesion is reinforced. In addition, small size of PVC-U pipe can be rotated (90°) so that PVC adhesive can be distributed more uniformly. As for medium or large size of PVC-U pipe, both sides of PVC-U pipes can be padded with thick wooden plate or beam when being inserted, and please use wooden hammer or iron bar to make joints of PVC-U pipes tight and stable.
7. After completed the TS unheating connection, please don't move the piping line during the curing time, until the rigid PVC adhesive is completely dry. Then allow water to flow.

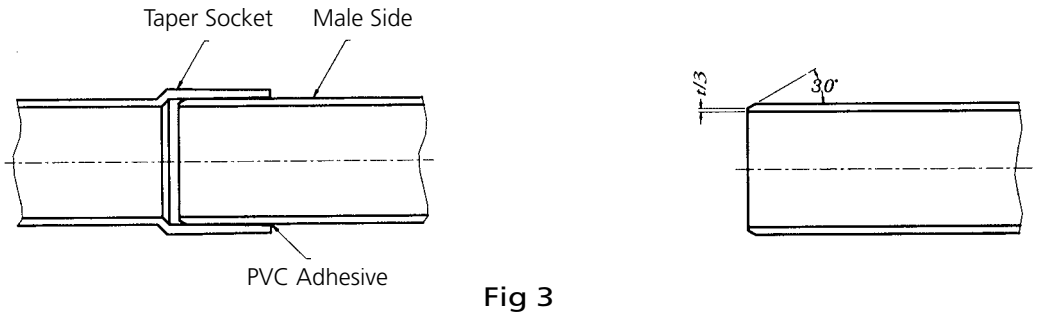


Fig 3

(4) Taper ring connection method :

If PVC-U pipe requires to use solvent. belling refer to illustration 4 to take metal taper flange and toper nng to make and belling solvent then connect them with packing and screw. The installation process is as follows.

1. Wipe clear inside of pipe edge and tilt side of taper ring with alcohol.
2. Heat pipe edge to make it soft. At the sametime. smear adhesive on tilt side of taper ring.
3. Put titling taper flange first and then titling ring into softered pipe edge. At this moment. have to make sure taper ring sticks out of pipe edge and surface of taper ring stays vertical to pipe axis. Then, cool them with cold water for formation.
4. Connect PVC solvent belling together or PVC solvent belling and valve together. The latter connection method require to cushion a packing and screw.

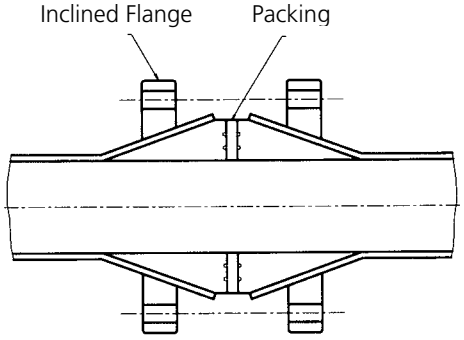


Fig 4

4 Installation of PVC-U Pipe

(5) Installation of Flange :

1. The outside rim of PVC pipe should be whittled with a knife at a 30 angle. For pipes under 100mm (4") trim with a file: above 125mm (5") heat first with a blow torch. whittle and then finalize by trimming with a file.
2. Sweep and clean the inside wall of the flange socket and the outside rim of the PVC pipe to be inserted in. then smear rigid adhiesive and insert toiciby. For specification above 125mm (5") a thick board or wodden angle material may be placed under.
3. Wipe the overflown adhesive with a piece of cloth.
4. After flange and PVC pipe are connected. airm the flange bolt holes of valve at the flange part with packing cushioned in between. and then bolt the holts to couple them. While operating. diagonally screwing is preferred so that even and close effect may be achieved.

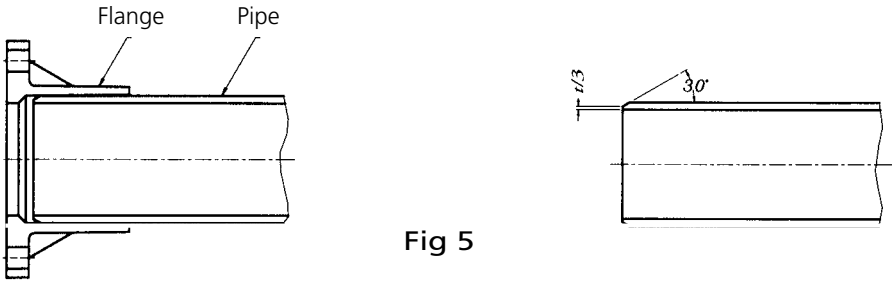


Fig 5

(6) Installation of ring-seal type pipe :

1. Cut the exterior angle of a male pipe by 20 degree and leave 1/4t~1/3t thickness at its tip. (Each pipe has the angle of chamfer before it goes to the market. If cutting is still needed, one has to pare the pipe by 20 degree at the construction site.)
2. Take out the ring (rubber ring) from the pipe and clean it. Clean the inside of the pipe and mount the ring back (Notice : Ring shall be installed correctly)
3. Mark the insertion length at the end of the male pipe (This step usually is done by manufacturer)
4. Lubricate the inner ring and the insertion section of the male pipe. Notice: No lubricant on the ring trough; otherwise it may cause loss of friction of the ring trough when the trough gets lubricated. Also, when male and female pipes combine, the rubber ring may be displaced and causes leaking. See Figure 6.
5. Combination of male and female pipes (In inserting the two, hands are for small sizes, a wooden mallet for middle sizes after the pipes are on a plank or a wooden block, and a puller for large sizes.) The gap after the insertion : about 10mm for smaller than 50; 15mm for 65~100; 20mm for 125~150; 25mm for larger than 200.

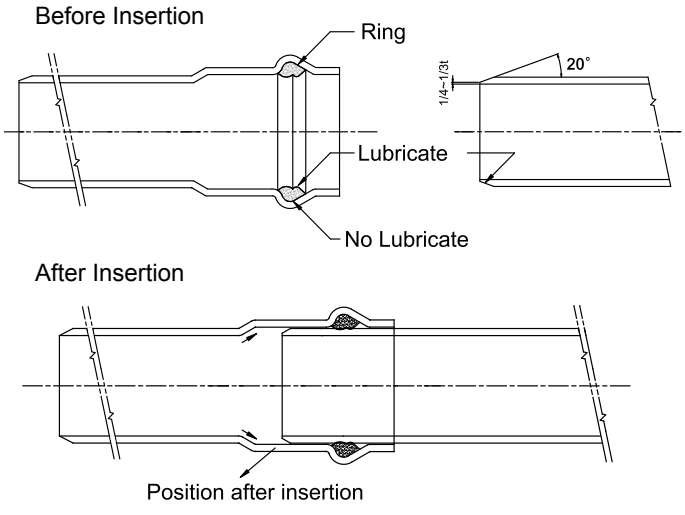


Fig 6

4 Installation of PVC-U Pipe

(二) Notice Items of PVC-U Piping Instructions

1. Before concreting the floor. run water presure test on the tape water pipe line according to Article 28. Chapter II. "Construcation Techincal Rules" with testing water pressure retained for one (1) hour at not lower than 10kg/cm^2, nor higher than 1.5 times of the working pressure. Start concreting only when no leakage is abserved. Usually, this test is separtely run by floor.
2. Earth coverage over the pipe line is required on testing the water pressure of spigot pipe. which however may be left bare only the connectingparts if working environment permits. The purpose of earth coverage before the test is mainly to prevent the spigot from escaping during the test to be run in where heavy traffic flow occura. such as in the downtown area.
3. Run the water pressure test by section for approaximater every 500~1000m on pipe line completed. at the testing hydrostatic pressure retained for one (1) hour at not lower than 10kg/cm^2, nor higher than 15 times of the working pressure. Observe for any leakage.
4. Provide vent valve to the pipe line at the pipe end or at where with higher elevation.
5. Send filling with layer thickness not less than 10cm is required before the embedment of pipe line. Do not cause the pipe to contact directly with anystone.
6. Linear allocation governs the pipe for electric conduit on the building floor. If bending is required. the bend angle shall no be larger than 90° and not larger than 270° in total in one area (i.e. between two wiring cases). The wiring length shall not be larger than 30m.
7. Prevent the assembled pipe for electric conduit use and wiring cases from being destructed or damaged by concreting. Repair any damage immediately to avoid affecting the subsequent wire pulling by clog of concrete.
8. Number of pipe at interesction embedded in the floor shall not be larger than two as illustrated below. Three or more pipes at the same intersection is not allowed.
9. Civil utilities technician shall be always avaible on site during the operation of concreting in case of any incident to the piping work.
10. Don't apply the vinyl adhesive too much between PVC-U pipe and fitting, thus avoid the soften, expansion, cracked occurred by PVC-U pipe and fitting.
11. Put the required amount of cement hardener into the concrete, to avoid the curing heat softening, transforming the PVC-U pipe during concreting the floor, wall, column.
12. When PVC-U pipe is embedded in the floor slabs, columns and beams of a building, follow the proper concrete construction standards by following the requirements in The Practice of Construction Outline, Public Engineering Committee of Executive Yuan and Chapter 03310–Concrete for Structures in The Practice of Construction, Water Resources Department, Ministry of Economy. In construction with structural concrete, note the following items during the construction to avoid the deformation, sinking and other anomalies caused by overheating of PVC-U pipe:

(1) During hot weather, the following operations should be implemented in order to prevent sinking of PVC-U pipe due to softening when the temperature of concrete is too high in the few days after pouring:

A. When the ambient temperature exceeds 32℃, implement proper cooling for the mold plate and rebar, etc. by water or other appropriate methods several days before pouring the concrete.

B. To prevent the concrete pouring temperature exceeding 32℃, the following measures should be taken to protect the poured concrete.

a. Properly cover the concrete to prevent direct sun exposure.

b. Spray cold water or cover with moist burlap sacks or thick pads to keep the mold plate moist.

(2)The quality of ready-mixed concrete should be in compliance with the requirements of CNS 3090 "Pre-blended Concrete". For example,

A.The process of adding water to the ready-mixed concrete and pellets and transporting to the construction site must be completed within 1.5 hours. In hot weather or in case of early setting of the concrete, the buyer can specify that the delivery time should be less than 1.5 hours.

B.While using the pre-heated pellets, hot water, or both at the same time for the fabrication of concrete, the maximum temperature for fabrication or transportation should not exceed 32℃.

(3)The pipe hole shall be temporarily filled with easily removable material to prevent the infiltration of concrete mortar.

(4)While pouring the concrete, it is necessary to pay attention to the PVC-U pipe in case of displacement or deformation. If this happens, the pouring should be suspended to correct the situation before continuing to pour.

(5)It is necessary to prevent excessive tamping caused by displacement, sinking and deformation of the PVC-U pipe.

(6)Within 15 minutes of pouring concrete, ensure not to touch the mold plate and rebar while the vibrator is in operation to prevent shifting of the PVC-U pipe.

13.Flexible PVC fitting is applicable to high-pressure pipeline (small or medium size) with following characteristics:

(1)Compression fitting, which is easy for construction and loading without weather impact, features superb compression and water pressure resistance.

(2)Compression fitting, not only used for underground pipeline but also suitable for above-ground pipeline, needs to be fixed tightly to avoid sliding.

(3)It is suggested that lid and body of compression fitting be locked properly.

(4)Compression fitting is not only able to absorb piping's expansion resulted from thermal expansion and contraction but able to be used for fixing cracked pipeline.



4 Installation of PVC-U Pipe

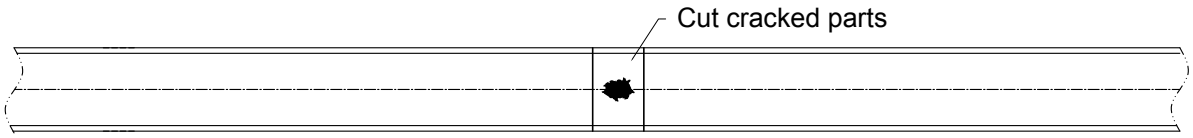
14.Followings are methods of construction for flexible PVC fitting used for fixing cracked pipeline:

A. Please shut off upstream valves to cut off water and dig damaged parts of pipeline. (Please use one compression fitting to fix slightly damaged parts of pipeline; moreover, please dig damaged parts of pipeline deeply and widely so that PVC-U pipes are feasible to be elevated and fitted into compression fittings).

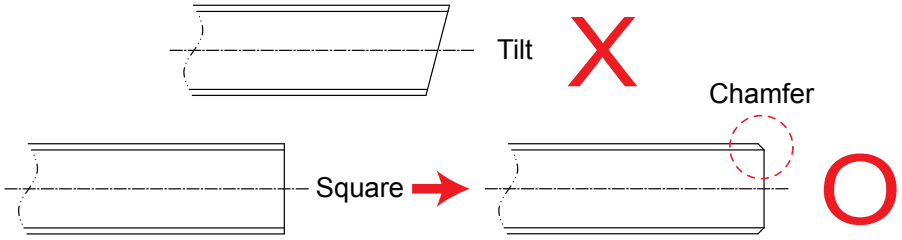
B. Please cut damaged PVC-U pipes.

C. Followings are steps of construction for fixing damaged PVC-U pipes:

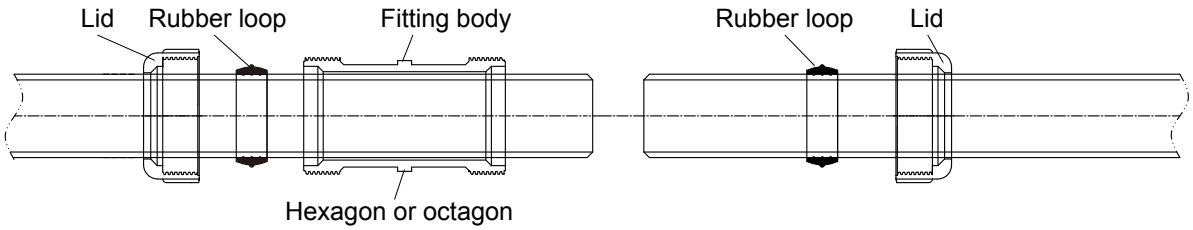
(A) Excision of damaged PVC pipe：



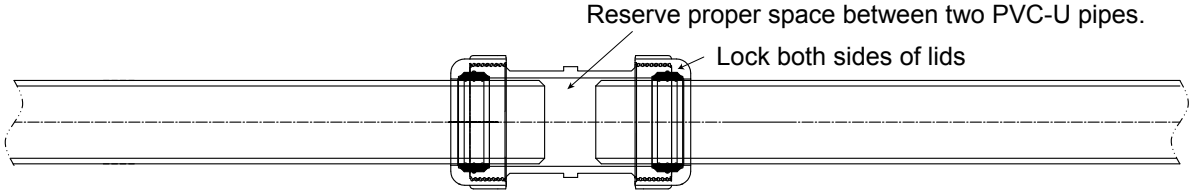
(B) Cut pipe square. Deburr and bevel：



(C) Accessories for pipe lifting and fitting into the PVC compression coupling：



(D) After the repair is completed：

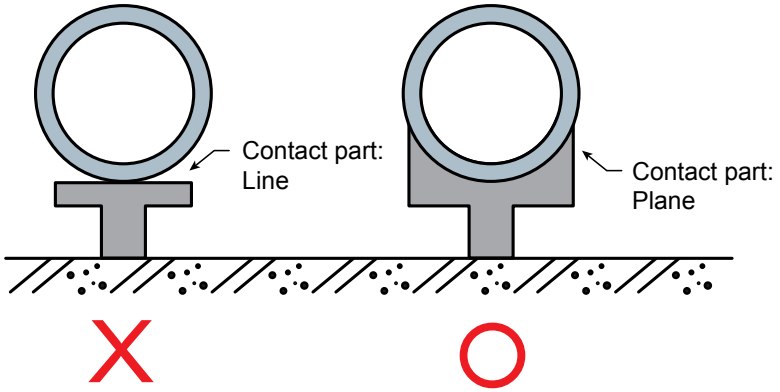


Lock the lid and body of the fitting tightly until there is no gap.

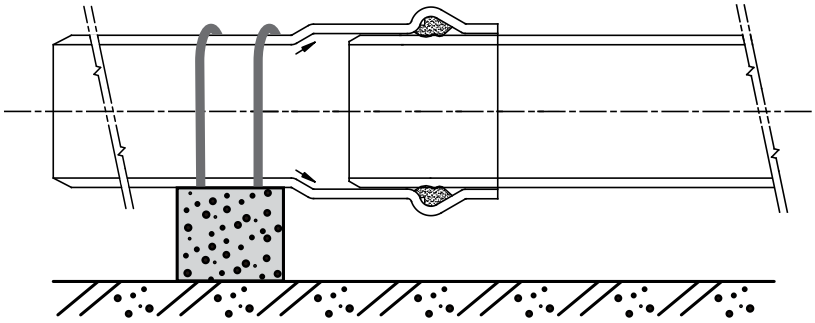
4 Installation of PVC-U Pipe

15. Cautions of PVC-U piping (large size)

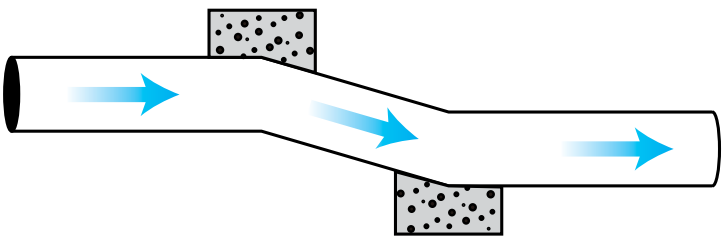
(1) To avoid concentrative strength and assure long-term life of the pipeline, the contact surface of the support base of PVC-U pipe should be changed from "line" into "plane"



(2) The head loop should be fixed tightly when the pipe loop is out of the pipeline.



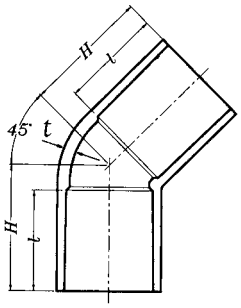
(3) To prevent the pipeline from shifting when lots of water are transferred, it is suggested that fixation of cement be added in the turning point or the end of the pipeline.



(4) The exhaust valve should be installed in the pipeline to prevent the inside of the pipeline from water hammer.

5 Specification of PVC-U Fittings for Water Supply

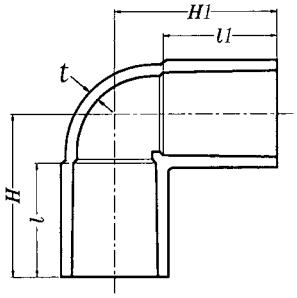
45° Elbow



Unit : mm

Size		t	l	H
16	½"	3.5	30	38
20	¾"	3.5	35	44
25	1"W	4.0	40	51
30	1¼"W	4.0	44	56
40	1½"	4.5	55	69
50	2"	5.0	63	80
65	2½"	6.6	61	83
80	3"	8.0	64	97
100	4"	10.0	84	122
125	5"	11.0	104	149
150	6"	13.0	132	184
200	8"	15.0	164	224

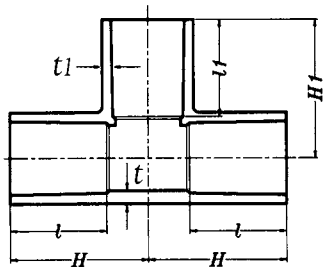
90° Elbow



Unit : mm

Size		t	l	H
13	⅜"	3.0	26	36
16	½"	3.5	30	43
20	¾"	3.5	35	50
25	1"W	4.0	40	58
30	1¼"W	4.0	44	65
40	1½"	4.5	55	82
50	2"	5.0	63	96
65	2½"	6.6	61	110
80	3"	8.0	64	120
100	4"	10.0	84	153
125	5"	11.0	104	188
150	6"	13.0	132	230
200	8"	15.0	164	288

5 Specification of PVC-U Fittings for Water Supply



Tee

Unit : mm

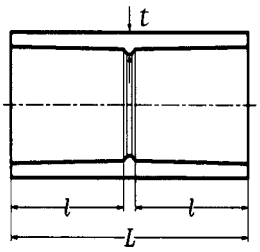
Size		t	l	l1	H	H1
13	⅜"	3.0	26	26	36	36
16	½"	3.5	30	30	43	43
20	¾"	3.5	35	35	50	50
25	1"W	4.0	40	40	58	58
30	1¼"W	4.0	44	44	65	65
40	1½"	4.5	55	55	82	82
50	2"	5.0	63	63	96	96
65	2½"	6.6	61	61	110	110
80	3"	8.0	64	64	120	120
100	4"	10.0	84	84	152	152
125	5"	11.0	104	104	187	187
150	6"	13.0	132	132	230	230
200	8"	15.0	164	164	287.5	287.5

Reducer Coupling

Unit : mm

Size		t	t1	l	l1	H	H1
16x13	½"x⅜"	3.5	3.0	30.0	26.0	41.0	38.0
20x13	¾"x⅜"	3.5	3.0	35.0	26.0	46.0	40.0
20x16	¾"x½"	3.5	3.5	35.0	30.0	48.0	45.0
25x13	1"Wx⅜"	4.0	3.0	40.0	26.0	51.0	43.0
25x16	1"Wx½"	4.0	3.5	40.0	30.0	53.0	48.0
25x20	1"Wx¾"	4.0	3.5	40.0	35.0	55.0	53.0
30x13	1¼"Wx⅜"	4.0	3.0	44.0	26.0	55.0	46.0
30x16	1¼"Wx½"	4.0	3.5	44.0	30.0	57.0	51.0
30x20	1¼"Wx¾"	4.0	3.5	44.0	35.0	59.0	56.0
30x25	1¼"Wx1"W	4.0	3.5	44.0	40.0	62.0	61.0
40x13	1½"x⅜"	4.5	3.0	55.0	26.0	66.0	52.0
40x16	1½"x½"	4.5	3.5	55.0	30.0	68.0	57.0
40x20	1½"x¾"	4.5	3.5	55.0	35.0	70.0	62.0
40x25	1½"x1"W	4.5	3.5	55.0	40.0	73.0	67.0
40x30	1½"x1¼"W	4.5	4.0	55.0	44.0	76.0	71.0
50x13	2"x⅜"	5.0	3.0	63.0	26.0	74.0	58.0
50x16	2"x½"	5.0	3.5	63.0	30.0	76.0	63.0
50x20	2"x¾"	5.0	3.5	63.0	35.0	78.0	68.0
50x25	2"x1"W	5.0	4.0	63.0	40.0	81.0	73.0
50x30	2"x1¼"W	5.0	4.0	63.0	44.0	84.0	77.0
50x40	2"x1½"	5.0	4.5	63.0	55.0	90.0	88.0
65x40	2½"x1½"	6.6	4.5	61.0	55.0	100.0	96.0
65x50	2½"x2"	6.6	5.0	61.0	63.0	101.0	104.0
80x25	3"x1"W	8.0	4.0	64.0	40.0	93.0	88.0
80x40	3"x1½"	8.0	4.5	64.0	55.0	100.0	102.0
80x50	3"x2"	8.0	5.0	64.0	63.0	105.0	110.0
80x65	3"x2½"	8.0	6.6	64.0	61.0	113.0	117.0
100x50	4"x2"	10.0	5.0	84.0	63.0	125.0	122.0
100x80	4"x3"	10.0	8.0	84.0	64.0	140.0	132.0
125x80	5"x3"	11.0	8.0	104.0	64.0	160.0	147.0
125x100	5"x4"	11.0	10.0	104.0	84.0	173.0	167.0
150x80	6"x3"	13.0	8.0	132.0	64.0	195.0	158.0
150x100	6"x4"	13.0	10.0	132.0	84.0	208.0	182.0
150x125	6"x5"	13.0	11.0	132.0	104.0	217.0	201.0
200x100	8"x4"	15.0	10.0	164.0	84.0	236.5	204.0
200x150	8"x6"	15.0	13.0	164.0	132.0	264.0	252.0

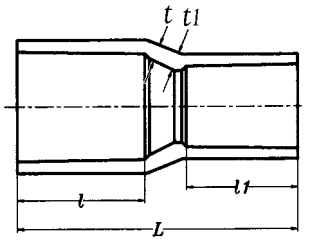
5 Specification of PVC-U Fittings for Water Supply



Coupling

Unit : mm

規格 Size		t	l	L
13	⅜"	3.0	26	57
16	½"	3.5	30	67
20	¾"	3.5	35	77
25	1"W	4.0	40	87
30	1¼"W	4.0	44	95
40	1½"	4.5	55	117
50	2"	5.0	63	133
65	2½"	6.6	61	145
80	3"	8.0	64	155
100	4"	10.0	84	200
125	5"	11.0	104	240
150	6"	13.0	132	300
200	8"	15.0	164	360

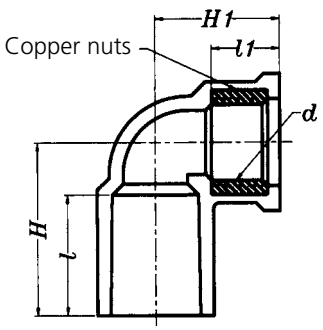


Reducer Coupling

Unit : mm

規格 Size		t	t1	l	l1	L
16x13	½"x⅜"	3.5	3.0	30	26	61
20x13	¾"x⅜"	3.5	3.0	35	26	68
20x16	¾"x½"	3.5	3.5	35	30	71
25x13	1"Wx⅜"	4.0	3.0	40	26	86
25x16	1"Wx½"	4.0	3.5	40	30	85
25x20	1"Wx¾"	4.0	3.5	40	35	84
30x16	1¼"Wx½"	4.0	3.5	44	30	95
30x20	1¼"Wx¾"	4.0	3.5	44	35	93
30x25	1¼"Wx1"W	4.0	4.0	44	40	93
40x20	1½"x¾"	4.5	3.5	55	35	113
40x25	1½"x1"W	4.5	4.0	55	40	114
40x30	1½"x1¼"W	4.5	4.0	55	44	114
50x20	2"x¾"	5.0	3.5	63	35	116
50x25	2"x1"W	5.0	4.0	63	40	140
50x30	2"x1¼"W	5.0	4.0	63	44	136
50x40	2"x1½"	5.0	4.5	63	55	136
65x40	2½"x1½"	6.6	4.5	61	55	145
65x50	2½"x2"	6.6	5.0	61	63	149
80x40	3"x1½"	8.0	4.5	64	55	153
80x50	3"x2"	8.0	5.0	64	63	165
80x65	3"x2½"	8.0	6.6	64	61	159
100x80	4"x3"	10.0	8.0	84	64	190
125x100	5"x4"	11.0	10.0	104	84	229
150x100	6"x4"	13.0	10.0	132	84	295
150x125	6"x5"	13.0	11.0	132	104	272
200x100	8"x4"	15.0	10.0	164	84	340
200x125	8"x5"	15.0	11.0	164	104	345
200x150	8"x6"	15.0	13.0	164	132	350

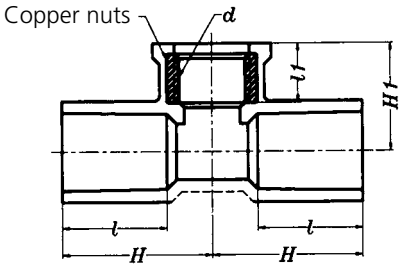
5 Specification of PVC-U Fittings for Water Supply



Faucet Fitting—90° Elbow

Unit : mm

Size		l	H	THREAD		H1
				d	l1	
16	½"	30	43	PF½"	17	32
20	¾"	35	51	PF¾"	19	36



Faucet Fitting—Fixture TEE

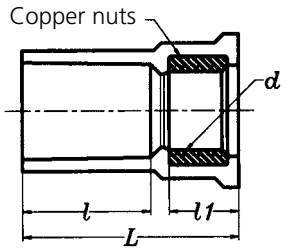
Unit : mm

Size		l	H	THREAD		H1
				d	l1	
16	½"	30	43	PF½"	17	32
20	¾"	35	51	PF¾"	19	36

Note：

For buildings above fifth floor, please use insert bronze nut for all faucet fittings.

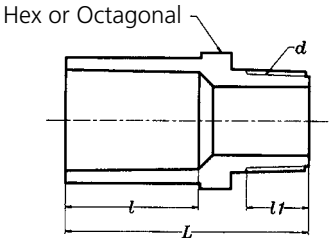
5 Specification of PVC-U Fittings for Water Supply



Faucet Fitting—Female Adapter

Unit : mm

Size		l	THREAD		L
			d	l1	
16	½"	30	PF½"	17	52
20	¾"	35	PF¾"	19	59



Male Adapter (Plastic Thread)

Unit : mm

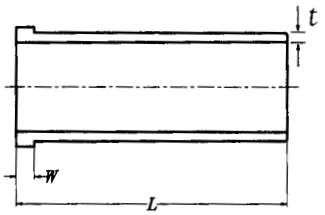
Size		l	THREAD		L
			d	l1	
13	⅜"	26	PT½"	15	50
16	½"	30	PT½"	15	54
20	¾"	35	PT¾"	17	64
25	1"W	40	PT1"	19	71
30	1¼"W	44	PT1¼"	22	80
40	1½"	55	PT1½"	22	92
50	2"	63	PT2"	26	106

A. No copper products

Note：

For buildings above fifth floor, please use insert bronze nut for all faucet fittings.

5 Specification of PVC-U Fittings for Water Supply

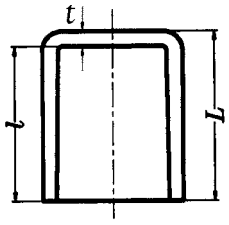


Union

Unit : mm

Size		t	W	L
13	⅜"	2.5	5	80
16	½"	3.0	5	85
20	¾"	3.0	6	90
25	1"W	3.5	7	100
30	1¼"W	3.5	8	110
40	1½"	4.0	8	120
50	2"	4.5	9	130

FIG.1

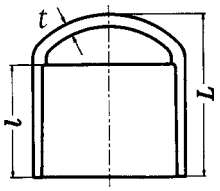


Cap

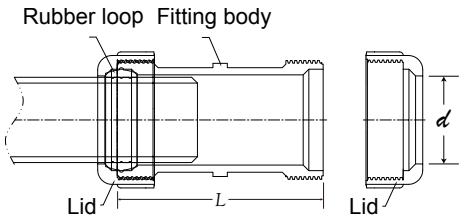
Unit : mm

Size			t	l	L
FIG.1	13	⅜"	3.0	26	29
	16	½"	3.5	30	33.5
	20	¾"	3.5	35	38.5
	25	1"W	4.0	40	44
	30	1¼"W	4.0	44	48
	40	1½"	4.5	55	59.5
	50	2"	5.0	63	68
FIG.2	65	2½"	6.6	61	96
	80	3"	8.0	64	105
	100	4"	10.0	84	138
	125	5"	11.0	104	160
	150	6"	13.0	132	205
	200	8"	15.0	164	257

FIG.2



5 Specification of PVC-U Fittings for Water Supply



中華民國專利證書

新型第 M583510 號

自2019年 9 月11日至2029年 1 月13日止

洪淑敏

Compression Fitting

Characteristics:

1. Compression fitting, which is easy for construction and loading without weather impact, features superb compression and water pressure resistance.
2. Compression fitting, not only used for underground pipeline but also suitable for above-ground pipeline, needs to be fixed tightly to avoid sliding.

Applications:

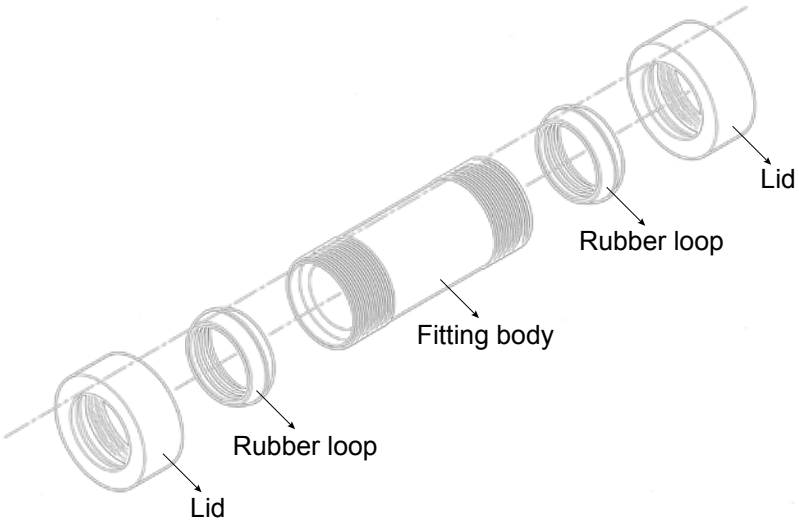
1. Applicable to high pressure pipeline (for small and medium size of compression fittings use).
2. Able to absorb piping's expansion resulted from thermal expansion and contraction.
3. Suitable for fixing damaged compression fittings of cracked pipeline.

Unit : mm

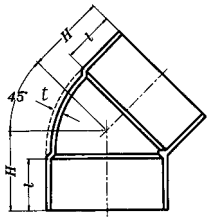
Size		d Inside Diameter and Tolerance	*L*
16	½"	22.8 ± 0.3	90
20	¾"	26.8 ± 0.3	90
* 25	1"W	33.0 ± 0.4	-
* 30	1¼"W	39.0 ± 0.4	-
* 40	1½"	49.2 ± 0.4	-
50	2"	61.5 ± 0.5	144
65	2½"	77.5 ± 0.5	183
80	3"	90.8 ± 0.5	223
100	4"	116.0 ± 0.6	251

Remark :

1. The rubber ring material is in accordance with the A5 of Class I in CNS 10774.
2. * Means the mold is developing.
3. Compression coupling construction method, please read the notice items for PVC-U piping instructions, item 13 (Page 31).



6 Specification of gray fitting (thick and thin)

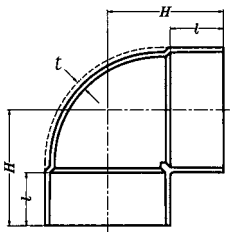


45° Elbow

Unit : mm

Size		Thick Fitting (45° OL)			Thin Fitting (45°排L)		
		t	*l*	*H*	*t*	*l*	*H*
16	½"	3.5	30	38			
20	¾"	3.5	35	44			
25	1"W	4.0	40	51			
30	1¼"W	4.0	44	56			
40	1½"	4.5	55	69	2.0	22	34
50	2"	5.0	63	80	2.0	25	40
65	2½"	5.0	69	90	2.5	35	53
80	3"	6.0	72	95	3.0	40	63
90	3½"	6.5	80	105	3.0	50	73.5
100	4"	7.5	92	121	3.5	50	78
125	5"	8.0	112	150	3.5	65	100
150	6"	9.0	140	186	4.0	80	120
200	8"	10.5	172	224	7.5	100	155
250	10"	13.0	185	248	8.5	130	191
300	12"				10.0	150	223

Note: The red font refers the specification of tap water fitting which can also be used for gray piping project.



90° Elbow

Unit : mm

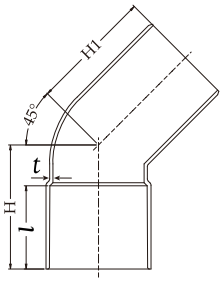
Size		Thick Fitting (90° OL)			Thin Fitting (90°排 L)		
		t	*l*	*H*	*t*	*l*	*H*
13	⅜"	3.0	26	36			
16	½"	3.5	30	43			
20	¾"	3.5	35	50			
25	1"W	4.0	40	58			
30	1¼"W	4.0	44	65			
40	1½"	4.5	55	82	2.0	22	48
50	2"	5.0	63	96	2.0	25	58
65	2½"	5.0	69	110	3.0	35	77
80	3"	6.0	72	120	3.0	40	88
90	3½"	6.5	80	135	3.0	50	102
100	4"	7.5	92	152	3.5	50	112
125	5"	8.0	112	188	3.5	65	140
150	6"	9.0	140	228	4.0	80	168
200	8"	10.5	172	288	7.5	100	215
250	10"	13.0	185	326	8.5	130	269
					10.0	150	316

Note: The red font refers the specification of tap water fitting which can also be used for gray piping project.

Note：

Thick product of fitting can also be manufactured according to the dotted line of above diagram.

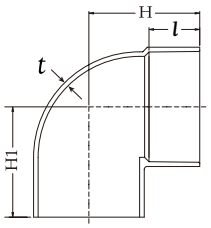
6 Specification of gray fitting (thick and thin)



45° Elbow with Spigot End

Unit : mm

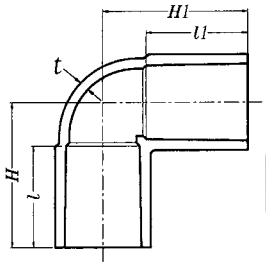
規格 Size		Thick Fitting (45° OL)				Thin Fitting (45°排L)			
		t	l	H	H1	t	l	H	H1
40	1½"					2.0	22	47.5	34
50	2"	4.0	63	85	85	2.0	25	57	40
65	2½"					2.5	35	75	53
80	3"	5.5	72	95	95	2.5	40	86.5	61
90	3½"					2.5	50	102	73
100	4"	7.0	92	121	121	3.5	50	110	78
125	5"	7.5	112	148	148				
150	6"	8.5	140	180	180				



90° Elbow with Spigot End

Unit : mm

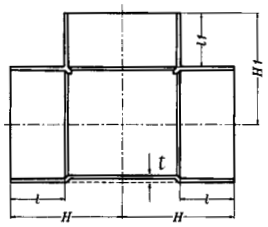
Size		Thick Fitting (90° OL)				Thin Fitting (排90° 排L)			
		t	l	H	H1	t	l	H	H1
40	1½"					2.0	22	47.5	49
50	2"					2.0	25	57	58.5
65	2½"					2.5	35	75	76.5
80	3"					2.5	40	86.5	88
90	3½"					2.5	50	102	103.5
100	4"					3.5	50	110	114



90° Reducer Elbow

Unit : mm

Size		Thick Fitting (90° OL)					Thin Fitting (排90° 排L)				
		t	l	l1	H	H1	t	l	l1	H	H1
20x16	¾"x½"	3.5	35	30	48	44.5					
25x16	1"Wx½"	4	40	30	53	48.5					
25x20	1"Wx¾"	4	40	35	55	53.5					
65x50	2½"x2"						3.0	35	25	69	66



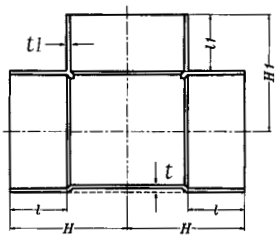
Tee

Unit : mm

Size		Thick Fitting (OT)					Thin Fitting (排T)				
		t	l	l1	H	H1	t	l	l1	H	H1
13	⅜"	3.0	26	26	36	36					
16	½"	3.5	30	30	43	43					
20	¾"	3.5	35	35	50	50					
25	1"W	4.0	40	40	58	58					
30	1¼"W	4.0	44	44	65	65					
40	1½"	4.5	55	55	82	82	2.0	22	22	48	48
50	2"	5.0	63	63	96	96	2.0	25	25	59	59
65	2½"	6.6	61	61	110	110	2.5	35	35	77	77
80	3"	8.0	64	64	120	120	3.0	40	40	88	88
90	3½"	6.5	80	80	135	135	3.0	50	50	102	102
100	4"	10.0	84	84	152	152	3.5	50	50	112	112
125	5"	8.0	112	112	188	188	3.5	65	65	145	145
150	6"	9.0	140	140	228	228	4.0	80	50	167	167
200	8"	10.5	172	172	287.5	287.5	7.5	100	100	215	215
250	10"	13.0	185	185	325	325	8.5	130	130	270	270
300	12"						10.0	150	150	316	316

Note: The red font refers the specification of tap water fitting which can also be used for gray piping project.

6 Specification of gray fitting (thick and thin)



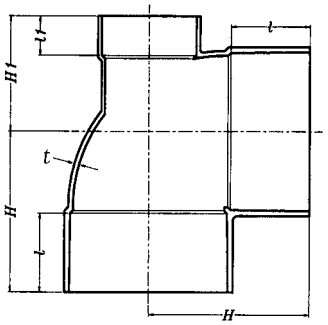
Reducer Tee

Unit : mm

Size		Thick Fitting (OT)						Thin Fitting (排T)					
		t	t1	l	l1	H	H1	t	t1	l	l1	H	H1
16x13	½"x⅜"	3.5	3.0	30	26	41	38						
20x13	¾"x⅜"	3.5	3.0	35	26	46	40						
20x16	¾"x½"	3.5	3.5	35	30	48	45						
25x13	1"Wx⅜"	4.0	3.0	40	26	51	43						
25x16	1"Wx½"	4.0	3.5	40	30	53	48						
25x20	1"Wx¾"	4.0	3.5	40	35	55	53						
30x13	1¼"Wx⅜"	4.0	3.0	44	26	55	46						
30x16	1¼"Wx½"	4.0	3.5	44	30	57	51						
30x20	1¼"Wx¾"	4.0	3.5	44	35	59	56						
30x25	1¼"Wx1"W	4.0	3.5	44	40	62	61						
40x13	1½"x⅜"	4.5	3.0	55	26	66	52						
40x16	1½"x½"	4.5	3.5	55	30	68	57						
40x20	1½"x¾"	4.5	3.5	55	35	70	62						
40x25	1½"x1"W	4.5	3.5	55	40	73	67						
40x30	1½"x1¼"W	4.5	4.0	55	44	76	71						
50x13	2"x⅜"	5.0	3.0	63	26	74	58						
50x16	2"x½"	5.0	3.5	63	30	76	63						
50x20	2"x¾"	5.0	3.5	63	35	78	68	2.0	2.0	25.0	20.0	45	51
50x25	2"x1"W	5.0	4.0	63	40	81	73						
50x30	2"x1¼"W	5.0	4.0	63	44	84	77						
50x40	2"x1½"	5.0	4.5	63	55	90	88	2.0	2.0	25.0	22.0	52	55
65x20	2½"x¾"	5.0	3.5	69	35	84	74	2.5	2.0	35.0	20.0	57.5	59
65x25	2½"x1"W	5.0	3.5	61	40	82	82						
65x40	2½"x1½"	6.6	4.5	61	55	100	96	3.0	2.0	35.0	22.0	63	62
65x50	2½"x2"	6.6	5.0	61	63	101	104	2.5	2.0	35.0	25.0	68	65
80x20	3"x¾"	6.0	3.5	72	35	90	82						
80x25	3"x1"W	8.0	4.0	64	40	93	88						
80x40	3"x1½"	8.0	4.5	64	55	100	102	3.0	2.0	40.0	22.0	67	70
80x50	3"x2"	6.0	4.5	72	63	105	115	3.0	2.0	40.0	25.0	73	73
80x65	3"x2½"	6.0	5.0	72	69	113	117						
90x40	3½"x1½"							3.0	2.0	50.0	22.0	78	74
90x50	3½"x2"							3.0	2.0	50.0	25.0	84	77
90x65	3½"x2½"							3.0	3.0	50.0	35.0	91	88
100x40	4"x1½"	7.5	4.0	92	55	120	115	3.5	2.0	50.0	22.0	76	83
100x50	4"x2"	7.5	4.5	92	63	125	122	3.5	2.0	50.0	25.0	85.5	85
100x65	4"x2½"							3.5	3.0	50.0	35.0	92	96
100x80	4"x3"	7.5	6.0	92	72	140	132	3.5	3.0	50.0	40.0	98	101
125x65	5"x2½"							3.5	3.0	65.0	35.0	107	110
125x80	5"x3"	8.0	6.0	112	72	160	148	3.5	3.0	65.0	40.0	113	115
125x100	5"x4"	8.0	7.5	112	92	174	168	3.5	3.5	65.0	50.0	127.5	125
150x65	6"x2½"							4.0	3.0	80.0	35.0	122	121
150x80	6"x3"	9.0	6.0	140	72	190	155	4.0	3.0	80.0	40.0	127	126
150x100	6"x4"	9.0	7.5	140	92	202	182	4.0	3.5	80.0	50.0	142	137
150x125	6"x5"	9.0	8.0	140	112	214.5	200						
200x100	8"x4"	10.5	7.5	172	92	236.5	204	7.5	3.5	100.0	50.0	165	165
200x150	8"x6"	10.5	9.0	172	140	264	252	7.5	4.0	100.0	80.0	185	195

Note: 1.The red font refers the specification of tap water fitting which can also be used for gray piping project.
2.Thick product of fitting can also be manufactured according to the dotted line of above diagram.

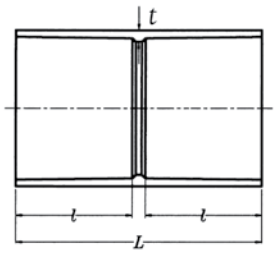
6 Specification of gray fitting (thick and thin)



Vent Tee

Unit : mm

Size		t	t1	l	l1	H	H1
90x40	3½"x1½"	3.0	2.0	50	22	102	70
90x50	3½"x2"	3.0	2.0	50	25	102	73
100x50	4"x2"	3.5	2.0	50	25	110	80



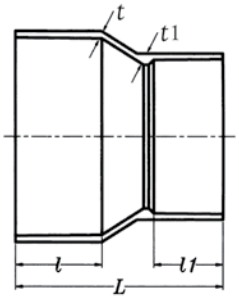
Coupling

Unit : mm

Size		Thick Fitting (OS)			Thin Fitting (排S)		
		t	l	L	t	l	L
13	⅜"	3.0	26	57			
16	½"	3.5	30	67			
20	¾"	3.5	35	77			
25	1"W	4.0	40	87			
30	1¼"W	4.0	44	95			
40	1½"	4.5	55	117	2.0	22	47
50	2"	5.0	63	133	2.0	25	53
65	2½"	6.6	61	145	2.5	35	73
80	3"	6.0	72	152	3.0	40	84
90	3½"	6.5	80	166	3.0	50	104
100	4"	7.5	92	200	3.5	50	104
125	5"	8.0	112	235	3.5	65	134
150	6"	9.0	140	300	4.0	80	164
200	8"	10.5	172	360	7.5	100	205
250	10"	13.0	185	400	8.5	130	270

Note: The red font refers the specification of tap water fitting which can also be used for gray piping project.

6 Specification of gray fitting (thick and thin)



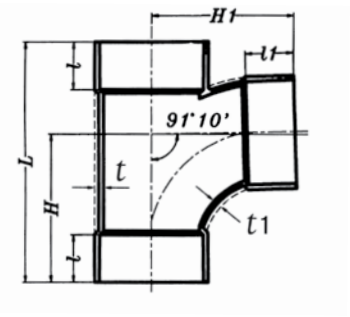
Reducer Coupling

Unit : mm

規格 Size		Thick Fitting (OS)					Thin Fitting (排S)				
		t	*t*1	*l*	*l*1	*L*	*t*	*t*1	*l*	*l*1	*L*
16x13	½"x⅜"	3.5	3.0	30	26	61					
20x13	¾"x⅜"	3.5	3.0	35	26	68					
20x16	¾"x½"	3.5	3.5	35	30	71					
25x16	1"Wx½"	4.0	3.5	40	30	85					
25x20	1"Wx¾"	4.0	3.5	40	35	84					
28x25	1"x1W"	4.0	4.0	40	40	90					
30x16	1¼"Wx½"	4.0	3.5	44	30	95					
30x20	1¼"Wx¾"	4.0	3.5	44	35	93					
30x25	1¼"Wx1"W	4.0	4.0	44	40	93					
35x30	1¼"x1¼"W	4.0	4.0	44	44	100					
40x16	1½"x½"	4.5	3.5	55	30	114					
40x20	1½"x¾"	4.5	3.5	55	35	113					
40x25	1½"x1"W	4.5	4.0	55	40	114					
40x30	1½"x1¼"W	4.5	4.0	55	44	114					
50x16	2"x½"	5.0	3.5	63	30	120					
50x20	2"x¾"	5.0	3.5	63	35	116					
50x25	2"x1"W	5.0	4.0	63	40	140					
50x30	2"x1¼"W	5.0	4.0	63	44	136					
50x40	2"x1½"	5.0	4.5	63	55	136	2.0	2.0	25	22	67
65x40	2½"x1½"	5.0	4.0	69	55	150	2.5	2.0	35	22	77
65x50	2½"x2"	5.0	4.5	69	63	153	2.5	2.0	35	25	80
80x40	3"x1½"	6.0	4.0	72	55	165	3.0	2.0	40	22	87
80x50	3"x2"	8.0	5.0	64	63	165	3.0	2.0	40	25	90
80x65	3"x2½"	6.0	5.0	72	69	165	3.0	2.5	40	35	90
90x40	3½"x1½"						3.0	2.0	50	22	102
90x50	3½"x2"						3.0	2.0	50	25	105
90x65	3½"x2½"						3.0	2.5	50	35	115
90x80	3½"x3"						3.0	3.0	50	40	115
100x40	4"x1½"	7.5	4.5	92	55	190					
100x50	4"x2"	7.5	5.0	92	63	208	3.5	2.0	50	25	105
100x65	4"x2½"	7.5	6.0	92	69	200	3.5	2.5	50	35	115
100x80	4"x3"	10.0	8.0	84	64	190	3.5	3.0	50	40	120
100x90	4"x3½"						3.5	3.0	50	50	120
125x65	5"x2½"						3.5	2.5	65	35	130
125x80	5"x3"	8.0	7.5	112	72	210	3.5	3.0	65	40	140
125x100	5"x4"	11.0	10.0	104	84	229	3.5	3.5	65	50	150
150x65	6"x2½"						4.0	2.5	80	35	160
150x80	6"x3"	9.0	6.0	140	72	260	4.0	3.0	80	40	165
150x100	6"x4"	9.0	7.5	140	92	280	4.0	3.5	80	50	170
150x125	6"x5"	9.0	8.0	140	112	295	4.0	3.5	80	65	170
200x100	8"x4"	10.5	7.5	172	92	340					
200x125	8"x5"	10.5	8.0	172	112	345					
200x150	8"x6"	10.5	9.0	172	140	350	7.5	4.0	100	80	250
250x200	10"x8"	13.0	10.5	185	172	420	8.5	7.5	130	100	300
300x200	12"x8"	15.0	10.5	230	172	495					

Note: The red font refers the specification of tap water fitting which can also be used for gray piping project.

6 Specification of gray fitting (thick and thin)



Sanitary Tee

Unit : mm

Size		Thick Fitting (O順T)						Thin Fitting (排順T)					
		t	*l*	*l*1	*H*	*H*1	*L*	*t*	*l*	*l*1	*H*	*H*1	*L*
40	1½"	4.5	55	55	111	111	180	2.0	22	22	68	68	104
50	2"	5.0	63	63	114	127	200	2.0	25	25	87	88	135
65	2½"	5.0	69	69	132	140	234	3.0	35	35	109	105	177
80	3"	6.0	72	72	177	172	280	3.0	40	40	123	125	205
90	3½"							3.0	50	50	130	140	230
100	4"	7.5	92	92	224	219	355	3.5	50	50	155	155	255
125	5"	8.0	112	112	252	233	416	3.5	65	65	200	200	325
150	6"	9.0	140	140	290	295	495	4.0	80	80	238	238	390
200	8"	10.5	172	172	347	360	615	7.5	100	100	300	300	490
250	10"							8.5	130	130	370	370	615

Reducer Sanitary Tee

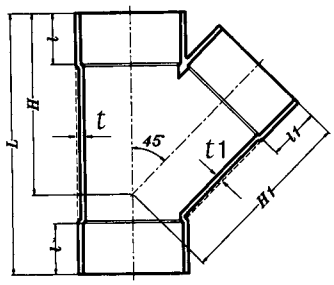
Unit : mm

Size		Thick Fitting (O順T)							Thin Fitting (排順T)						
		t	*t*1	*l*	*l*1	*H*	*H*1	*L*	*t*	*t*1	*l*	*l*1	*H*	*H*1	*L*
50x40	2"x1½"	5.0	4.5	63	55	114	118	192	2.0	2.0	25	22	70	75	114
65x40	2½"x1½"								2.5	2.0	35	22	87	87	138
65x50	2½"x2"	5.0	5.0	69	63	128	130	218	2.5	2.0	35	25	93	92	153
80x40	3"x1½"								3.0	2.0	40	22	90	100	147
80x50	3"x2"	6.0	5.0	72	63	140	145	235	3.0	2.0	40	25	98	105	162
90x40	3½"x1½"								3.0	2.0	50	22	100	100	168
90x50	3½"x2"								3.0	2.0	50	25	109	110	183
90x65	3½"x2½"								3.0	2.5	50	35	115	120	200
100x40	4"x1½"								3.5	2.0	50	22	90	110	160
100x50	4"x2"	7.5	5.0	92	63	154	152	270	3.5	2.0	50	25	100	118	175
100x65	4"x2½"								3.5	3.0	50	35	125	125	210
100x80	4"x3"	7.5	6.0	92	72	194	182	318	3.5	3.0	50	40	133	140	220
125x65	5"x2½"								3.5	2.5	65	35	140	140	238
125x80	5"x3"	8.0	6.0	112	72	235	198	350	3.5	3.0	65	40	130	145	235
125x100	5"x4"	8.0	7.5	112	92	235	219	388	3.5	3.5	65	50	155	160	270
150x50	6"x2"	9.0	5.0	140	63	215	180	420	4.0	2.0	80	25	132	155	237
150x80	6"x3"	9.0	6.0	140	72	230	207	420	4.0	3.0	80	40	151	170	272
150x100	6"x4"	9.0	7.5	140	92	246	234	425	4.0	3.5	80	50	170	180	300
150x125	6"x5"	9.0	8.0	140	112	273	252	468							
200x50	8"x2"	10.5	5.0	172	63	307	210	440							
200x80	8"x3"	10.5	6.0	172	72	307	235	470							
200x100	8"x4"	10.5	7.5	172	92	307	263	510							
200x150	8"x6"	10.5	9.0	172	140	307	320	560	7.5	4.0	100	80	235	265	410
250x150	10"x6"	11.5	9.0	185	140	332	345	588	8.5	4.0	130	80	271	285	474
250x200	10"x8"								8.5	7.5	130	100	312	323	537

Note：

Thick product of fitting can also be manufactured according to the dotted line of above diagram.

6 Specification of gray fitting (thick and thin)



Wye

Unit : mm

Size		Thick Fitting (OY)						Thin Fitting (排Y)					
		t	*l*	*l*1	*H*	*H*1	*L*	*t*	*l*	*l*1	*H*	*H*1	*L*
40	1½"	4.5	55	55	116	119	185	2.0	22	22	80	84	114
50	2"	5.0	63	63	141	142	220	2.0	25	25	100	103	142
65	2½"	5.0	69	69	166	161	260	3.0	35	35	127	133	185
80	3"	6.0	72	72	180	188	280	3.0	40	40	152	154	213
90	3½"							3.0	50	50	171.5	177.5	247
100	4"	7.5	92	92	230	240	355	3.5	50	50	193	194	275
125	5"	8.0	112	112	282	292	434	3.5	65	65	235	240	335
150	6"	9.0	140	140	344	352	530	4.0	80	80	285	285	410
200	8"	10.5	172	172	446	433	690	7.5	100	100	365	375	520

Reducer Wye

Unit : mm

Size		Thick Fitting (OY)							Thin Fitting (排Y)						
		t	*t*1	*l*	*l*1	*H*	*H*1	*L*	*t*	*t*1	*l*	*l*1	*H*	*H*1	*L*
50x40	2"x1½"	5.0	4.5	63	55	132	128	202	2.0	2	25	22	91	91	124
65x40	2½"x1½"	5.0	4.5	69	55	148	133	223	3.0	2	35	22	109	105	148
65x50	2½"x2"	5.0	5.0	69	63	148	152	230	3.0	2	35	25	118	114	162
80x40	3"x1½"								3.0	2	40	22	120	115	160
80x50	3"x2"	6.0	5.0	72	63	164	164	239	3.0	2	40	25	130	123	170
90x40	3½"x1½"								3.0	2	50	22	136	122	177
90x50	3½"x2"								3.0	2	50	25	144	131	192
90x65	3½"x2½"								3.0	2.5	50	35	155	149	217
100x40	4"x1½"								3.5	2	50	22	143	126	177
100x50	4"x2"	7.5	5.0	92	63	195	185	285	3.5	2	50	25	152	142	195
100x65	4"x2½"								3.5	3	50	35	162	160	217
100x80	4"x3"	7.5	6.0	92	72	213	206	319	3.5	3	50	40	173	171	238
125x50	5"x2"	8.0	5.0	112	63	233	192	337	3.5	2	65	25	183	155	228
125x65	5"x2½"								3.5	2.5	65	35	193	180	250
125x80	5"x3"	8.0	6.0	112	72	252	216	372	3.5	3	65	40	205	187	273
125x100	5"x4"	8.0	7.5	112	92	272	252	415	3.5	3.5	65	50	216	212	300
150x50	6"x2"	9.0	5.0	140	63	270	228	385							
150x65	6"x2½"								4.0	2.5	80	35	220	197	280
150x80	6"x3"	9.0	6.0	140	72	282	240	412	4.0	3	80	40	227	206	300
150x100	6"x4"	9.0	7.5	140	92	294	274	435	4.0	3.5	80	50	245	230	340
150x125	6"x5"	9.0	8.0	140	112	322	310	500							
200x50	8"x2"	10.5	5.0	172	63	327	258	445							
200x80	8"x3"	10.5	6.0	172	72	345	282	485							
200x100	8"x4"	10.5	7.5	172	92	362	316	520	7.5	3.5	100	50	292	268	380
200x125	8"x5"	10.5	8.0	172	112	382	349	560	7.5	3.5	100	50	292	268	380
200x150	8"x6"	10.5	9.0	172	140	400	394	600	7.5	4	100	80	328	326	445
250x150	10"x6"	13.0	9.0	185	140	450	430	625							

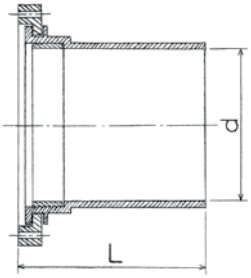
Note: Thick product of fitting can also be manufactured according to the dotted line of above diagram.

Wye With Spigot End

Unit : mm

Size		Thin Fitting (排Y)					
		Thickness	*l*	*l*1	*H*	*H*1	*L*
50	2"	2	25	31	98.6	103	142

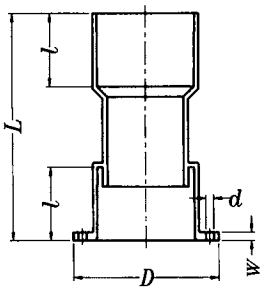
6 Specification of gray fitting



Assembly type Beam Fittings

Unit : mm

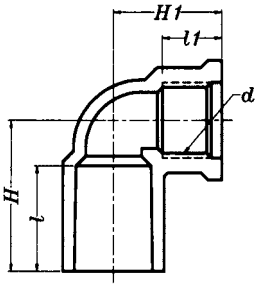
Size	d	L
2"	62	99
2½"	78	99
3"	91	105
4"	116	119
5"	142	119
6"	167	119



Slab Joint

Unit : mm

Size		D	d	W	l	L
40	1½"	52.5	3.5	5	40	140
50	2"	65	3.5	5	45	140
80	3"	96	3.5	5	50	140
80x65x50	3"x2½"x2"	96	3.5	5	40	140
100	4"	122	3.5	5	50	140

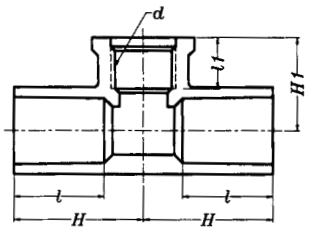


Faucet Fitting—90° Elbow (Plastic Thread)

Unit : mm

Size		l	H	THREAD		H1
				d	ι 1	
13x16	⅜"x½"	26	38	PT½"	17	29
16	½"	30	43	PT½"	17	32
20	¾"	35	51	PT¾"	19	36

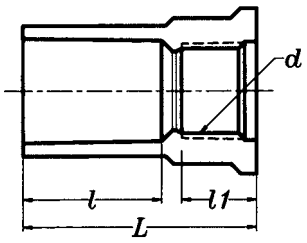
6 Specification of gray fitting



Faucet Fitting—Fixture Tee (Plastic Thread)

Unit : mm

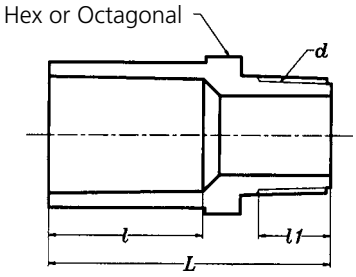
Size		l	H	THREAD		H1
				d	l1	
13x16	⅜"x½"	26	38	PT½"	17	29
16	½"	30	43	PT½"	17	32
20x16	¾"x½"	35	47	PT½"	17	34
20	¾"	35	51	PT¾"	19	36



Faucet Fitting—Female Adapter (Plastic Thread)

Unit : mm

Size		l	THREAD		L
			d	l1	
13x16	⅜"x½"	26	PT½"	17	47
16	½"	30	PT½"	19	57
20	¾"	35	PT¾"	19	59



Male Adapter (Plastic Thread)

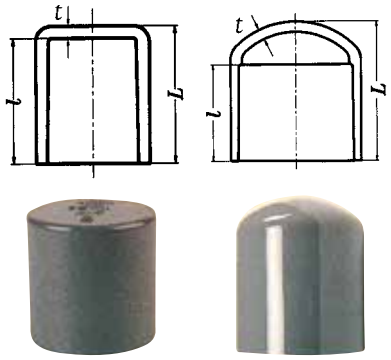
Unit : mm

Size		l	THREAD		L
			d	l1	
13	⅜"	26	PT½"	15	50
16	½"	30	PT½"	15	54
20	¾"	35	PT¾"	17	64
25	1"W	40	PT1"	19	71
30	1¼"W	44	PT1¼"	22	80
40	1½"	55	PT1½"	22	92
50	2"	63	PT2"	26	106
65	2½"	69	PT2½"	30	120
80	3"	72	PT3"	33	126
100	4"	92	PT4"	40	146
125	5"	112	PT5"	44	177
150	6"	140	PT6"	44	213

Note: The red font refers the specification of tap water fitting which can also be used for gray piping project.

6 Specification of gray fitting

FIG.1 FIG.2

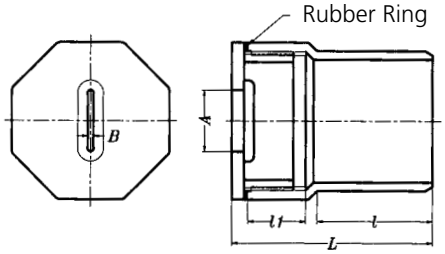


Cap

Unit : mm

Size			t	l	L
FIG.1	16	½"	3.5	30	33.5
	20	¾"	3.5	35	38.5
	25	1"W	4.0	40	44
	30	1¼"W	4.0	44	48
	40	1½"	4.5	55	59.5
	50	2"	5.0	63	68
FIG.2	65	2½"	6.6	69	100
	80	3"	8.0	72	107
	90	3½"	6.0	80	119
	100	4"	10.0	92	137
	125	5"	11.0	112	166
	150	6"	13.0	140	202
	200	8"	15.0	172	257
	250	10"	15.0	185	295

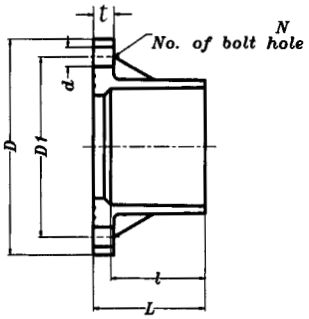
Note: The red font refers the specification of tap water fitting which can also be used for gray piping project.



Cleanout Bushing

Unit : mm

Size		A	B	l	l1	L
50	2"	30	4.5	59	25	90
80	3"	50	4.5	75	38	120
100	4"	50	4.5	93	47	150
125	5"	80	10	120	50	180
150	6"	125	10	128	47	190
200	8"	160	10	175	50	240

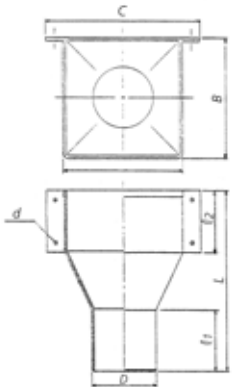


Flange

Unit : mm

Size		t	D	D1	l	Hole		L
						d	N	
40	1½"	17	140	105	55	19	4	68
50	2"	17	155	120	63	19	4	76
65	2½"	18	175	140	69	19	4	83
80	3"	18	185	150	72	19	8	86
100	4"	18	210	175	92	19	8	107
125	5"	20	250	210	112	23	8	130
150	6"	22	280	240	140	23	8	165
200	8"	22	330	290	172	23	12	195
250	10"	24	400	355	185	25	12	235
300	12"	30	445	400	230	25	16	295

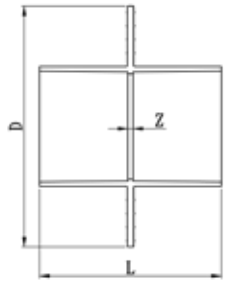
6 Specification of gray fitting



Hopper

Unit : mm

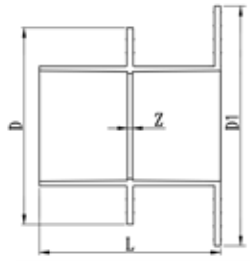
Size		A	B	C	D	ℓ1	ℓ2	ℓ	L
200	8"	396	396	512	ϕ215	ϕ12.5	210	200	585



Coupling with Waterstop Board

Unit : mm

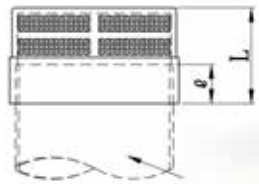
Size	D	Z	L
2"	160	4	147
2-½"	180	4.5	147
3"	195	5	147
4"	220	5	147
5"	250	5.5	167
6"	275	6	223



Coupling with Double Waterstop Board

Unit : mm

Size	D	D1	Z	L
5"	210	240	5	148



PVC exhaust pipe

Air Vent

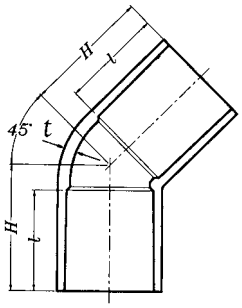
Unit : mm

Size	ℓ	L
2"	22	50
2-½"	22	52
3"	22	54

7 Specification for HI high impact PVC-U fittings drainage

45° Elbow

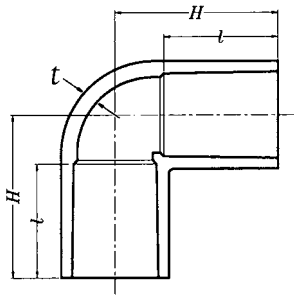
Unit : mm



Size		t	l	H
16	½"	3.5	30	38
20	¾"	3.5	35	44
25	1"W	4.0	40	51
30	1¼"W	4.0	44	56
40	1½"	4.5	55	69
50	2"	5.0	63	80
65	2½"	5.0	69	90
80	3"	6.0	72	95
100	4"	7.5	92	121
125	5"	8.0	112	150
150	6"	9.0	140	186
200	8"	10.5	172	224
250	10"	13.0	185	248

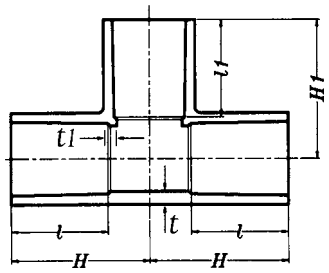
90° Elbow

Unit : mm



Size		t	l	H
16	½"	3.5	30	43
20	¾"	3.5	35	50
25	1"W	4.0	40	58
30	1¼"W	4.0	44	65
40	1½"	4.5	55	82
50	2"	5.0	63	96
65	2½"	5.0	69	110
80	3"	6.0	72	120
100	4"	7.5	92	152
125	5"	8.0	112	188
150	6"	9.0	140	228
200	8"	10.5	172	288
250	10"	13.0	185	326

7 Specification for HI high impact PVC-U fittings drainage



Tee

Unit : mm

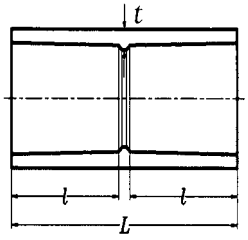
Size		t	l	l1	H	H1
16	½"	3.5	30	30	43	43
20	¾"	3.5	35	35	50	50
25	1"W	4.0	40	40	58	58
30	1¼"W	4.0	44	44	65	65
40	1½"	4.5	55	55	82	82
50	2"	5.0	63	63	96	96
65	2½"	6.6	61	61	110	110
80	3"	8.0	64	64	120	120
100	4"	10.0	84	84	152	152
125	5"	8.0	112	112	188	188
150	6"	9.0	140	140	228	228
200	8"	10.5	172	172	287.5	287.5
250	10"	13.0	185	185	325	325

Reducer Tee

Unit : mm

Size		t	t1	l	l1	H	H1
20x16	¾"x½"	3.5	3.5	35	30	48	45
25x16	1"Wx½"	4.0	3.5	40	30	53	48
25x20	1"Wx¾"	4.0	3.5	40	35	55	53
30x16	1¼"Wx½"	4.0	3.5	44	30	57	51
30x20	1¼"Wx¾"	4.0	3.5	44	35	59	56
30x25	1¼"Wx1"W	4.0	4.0	44	40	62	61
40x16	1½"x½"	4.5	3.5	55	30	68	57
40x20	1½"x¾"	4.5	3.5	55	35	70	62
40x25	1½"x1"W	4.5	4.0	55	40	73	67
40x30	1½"x1¼"W	4.5	4.0	55	44	76	71
50x16	2"x½"	5.0	3.5	63	30	76	63
50x20	2"x¾"	5.0	3.5	63	35	78	68
50x25	2"x1"W	5.0	4.0	63	40	81	73
50x30	2"x1¼"W	5.0	4.0	63	44	84	77
50x40	2"x1½"	5.0	4.5	63	55	90	88
65x40	2½"x1½"	6.6	4.5	61	55	100	96
65x50	2½"x2"	6.6	5.0	61	63	101	104
80x20	3"x¾"	6.0	3.5	72	35	90	82
80x25	3"x1"W	8.0	4.0	64	40	93	88
80x40	3"x1½"	8.0	4.5	64	55	100	102
80x50	3"x2"	6.0	5.0	72	63	105	115
80x65	3"x2½"	6.0	5.0	72	69	113	117
100x40	4"x1½"	7.5	4.5	92	55	120	115
100x50	4"x2"	7.5	5.0	92	63	125	122
100x80	4"x3"	7.5	6.0	92	72	140	132
125x80	5"x3"	8.0	6.0	112	72	160	148
125x100	5"x4"	8.0	7.5	112	92	174	168
150x80	6"x3"	9.0	6.0	140	72	190	155
150x100	6"x4"	9.0	7.5	140	92	202	182
150x125	6"x5"	9.0	8.0	140	112	214.5	200
200x100	8"x4"	10.5	7.5	172	92	236.5	204
200x150	8"x6"	10.5	9.0	172	140	264	252

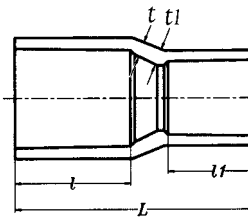
7 Specification for HI high impact PVC-U fittings drainage



Coupling

Unit : mm

Size		t	l	H
16	½"	3.5	30	67
20	¾"	3.5	35	77
25	1"W	4.0	40	87
30	1¼"W	4.0	44	95
40	1½"	4.5	55	117
50	2"	5.0	63	133
65	2½"	6.6	61	145
80	3"	6.0	72	152
100	4"	7.5	92	200
125	5"	8.0	112	235
150	6"	9.0	140	300
200	8"	10.5	172	360
250	10"	13.0	185	400



Reducer Coupling

Unit : mm

Size		t	t1	l	l1	L
20x16	¾"x½"	3.5	3.5	35	30	71
25x16	1"Wx½"	4.0	3.5	40	30	85
25x20	1"Wx¾"	4.0	3.5	40	35	84
28x25	1"x1"W	3.5	4.0	4.0	4.0	90
30x16	1¼"Wx½"	4.0	3.5	44	30	95
30x20	1¼"Wx¾"	4.0	3.5	44	35	93
30x25	1¼"Wx1"W	4.0	4.0	44	40	93
35x30	1¼"x1¼"W	4.0	4.0	44	44	100
40x16	1½"x½"	4.5	3.5	55	30	91
40x20	1½"x¾"	4.5	3.5	55	35	113
40x25	1½"x1"W	4.5	4.0	55	40	114
40x30	1½"x1¼"W	4.5	4.0	55	44	114
50x16	2"x½"	5.0	3.5	63	30	120
50x20	2"x¾"	5.0	3.5	63	35	116
50x25	2"x1"W	5.0	4.0	63	40	140
50x30	2"x1¼"W	5.0	4.0	63	44	136
50x40	2"x1½"	5.0	4.5	63	55	136
65x40	2½"x1½"	6.6	4.5	61	55	145
65x50	2½"x2"	6.6	5.0	61	63	149
80x40	3"x1½"	6.0	4.5	72	55	165
80x50	3"x2"	8.0	5.0	64	63	165
80x65	3"x2½"	6.0	6.0	72	69	165
100x40	4"x1½"	7.5	4.5	92	55	190
100x50	4"x2"	7.5	5.0	92	63	208
100x80	4"x3"	10.0	8.0	84	64	190
125x100	5"x4"	11.0	10.0	104	84	229
150x80	6"x3"	9.0	6.0	140	72	260
150x100	6"x4"	9.0	7.5	140	92	280
150x125	6"x5"	9.0	8.0	140	112	295
200x100	8"x4"	10.5	7.5	172	92	340
200x125	8"x5"	10.5	8.0	172	112	345
200x150	8"x6"	10.5	9.0	172	140	350
250x200	10"x8"	13.0	10.5	185	172	420
300x200	12"x8"	15.0	10.5	230	172	495

7 Specification for HI high impact PVC-U fittings drainage

FIG.1

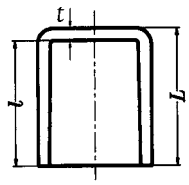
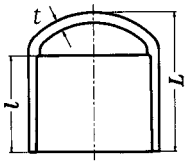


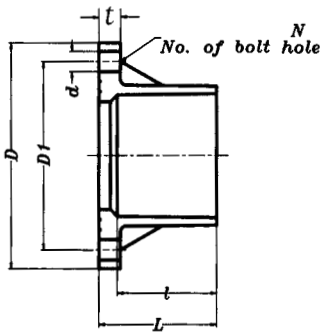
FIG.2



Cap

Unit : mm

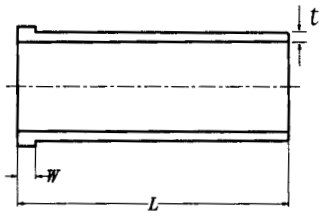
Size			t	l	L
FIG.1	16	½"	3.5	30	33.5
	20	¾"	3.5	35	38.5
	25	1"W	4.0	40	44
	30	1¼"W	4.0	44	48
	40	1½"	4.5	55	59.5
	50	2"	5.0	63	68
FIG.2	65	2½"	6.6	61	96
	80	3"	8.0	64	105
	100	4"	10.0	84	138
	125	5"	11.0	104	160
	150	6"	13.0	132	205
	200	8"	15.0	164	257



Flange

Unit : mm

Size		t	D	D1	l	Hole		L
						d	N	
40	1½"	17	140	105	55	19	4	68
50	2"	17	155	120	63	19	4	76
65	2½"	18	175	140	69	19	4	83
80	3"	20	185	150	72	19	8	86
100	4"	20	210	175	92	19	8	107
125	5"	20	250	210	112	23	8	130
150	6"	22	280	240	140	23	8	165
200	8"	22	330	290	172	23	12	195
250	10"	24	400	355	185	25	12	235
300	12"	30	445	400	230	25	16	295

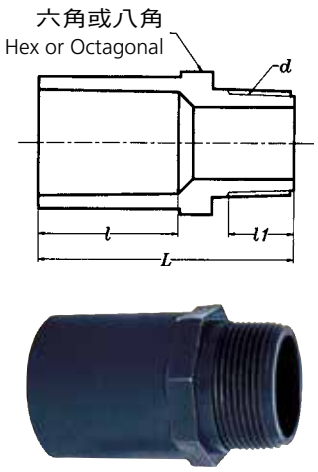


Union

Unit : mm

Size		t	W	L
16	½"	3.0	5	85
20	¾"	3.0	6	90
25	1"W	3.5	7	100
30	1¼"W	3.5	8	110
40	1½"	4.0	8	120
50	2"	4.5	9	130

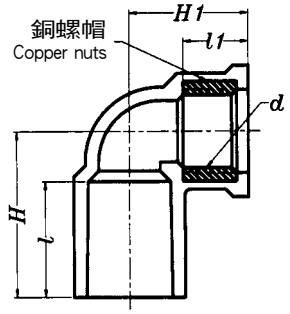
7 Specification for HI high impact PVC-U fittings drainage



Male Adapter (Plastic Thread)

Unit : mm

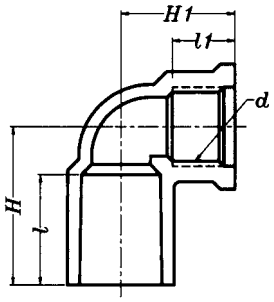
Size		l	THREAD		L
			d	l1	
16	½"	30	PT½"	15	54
20	¾"	35	PT¾"	17	64
25	1"W	40	PT1"	19	71
30	1¼"W	44	PT1¼"	22	80
40	1½"	55	PT1½"	22	92
50	2"	63	PT2"	26	106
65	2½"	69	PT2½"	30	120
80	3"	72	PT3"	33	126
100	4"	92	PT4"	40	146
125	5"	112	PT5"	44	177
150	6"	140	PT6"	44	213



Faucet Fitting (Insert Bronze Nut)—90° Elbow

Unit : mm

Size		l	H	THREAD		H1
				d	l1	
16	½"	30	43	PF½"	17	32
20	¾"	35	51	PF¾"	19	36



Faucet Fitting (Plastic Thread) —90° Elbow

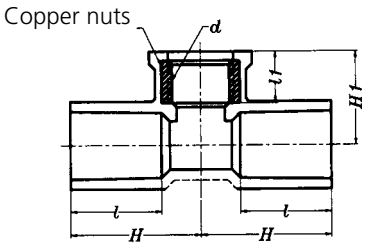
Unit : mm

Size		l	H	THREAD		H1
				d	l1	
16	½"	30	43	PT½"	17	32
20	¾"	35	51	PT¾"	19	36

7 Specification for HI high impact PVC-U fittings drainage

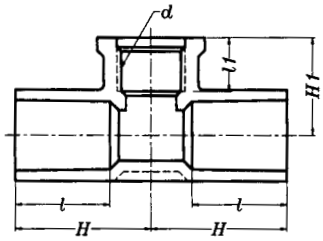
Faucet Fitting (Insert Bronze Nut) —Fixture Tee

Unit : mm



Size		l	H	THREAD		H1
				d	l1	
16	½"	30	43	PF½"	17	32
20x16	¾"x½"	30	47	PF½"	17	34
20	¾"	35	51	PF¾"	19	36

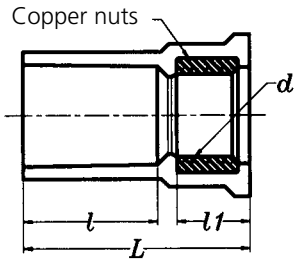
Faucet Fitting (Plastic Thread) —Fixture Tee Unit : mm



Size		l	H	THREAD		H1
				d	l1	
16	½"	30	43	PT ½"	17	32
20x16	¾"x½"	35	47	PT ½"	17	34
20	¾"	35	51	PT ¾"	19	36

7 Specification for HI high impact PVC-U fittings drainage

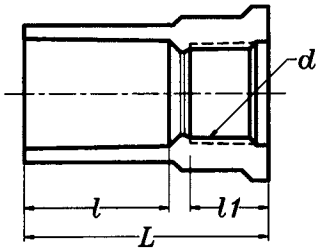
Faucet Fitting (Insert Bronze Nut) —Female Adapter



Unit : mm

Size		l	THREAD		L
			d	l1	
16	½"	30	PF½"	17	52
20	¾"	35	PF¾"	19	59
25	1"W	40	PF1"	21	68

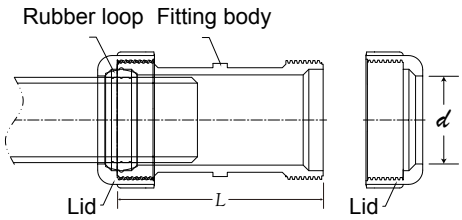
Faucet Fitting (Plastic Thread) —Female Adapter



Unit : mm

Size		l	THREAD		L
			d	l1	
16	½"	30	PT½"	19	57
20	¾"	35	PT¾"	19	59

7 Specification for HI high impact PVC-U fittings drainage




中華民國專利證書

新型第 M583510 號

洪淑敏

Compression Fitting

Characteristics:

1. Compression fitting, which is easy for construction and loading without weather impact, features superb compression and water pressure resistance.
2. Compression fitting, not only used for underground pipeline but also suitable for above-ground pipeline, needs to be fixed tightly to avoid sliding.

Applications:

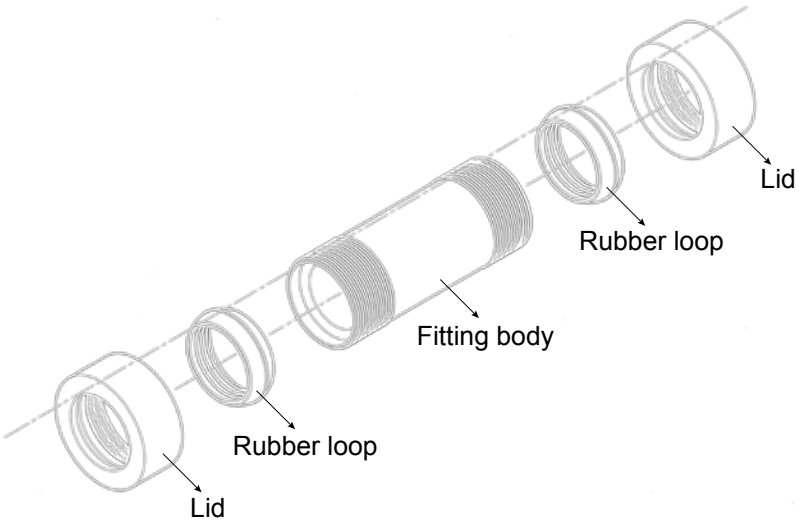
1. Applicable to high pressure pipeline (for small and medium size of compression fittings use).
2. Able to absorb piping's expansion resulted from thermal expansion and contraction.
3. Suitable for fixing damaged compression fittings of cracked pipeline.

Unit : mm

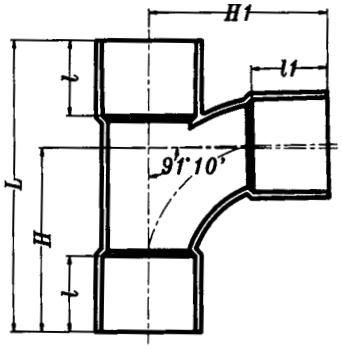
Size		d Inside Diameter and Tolerance	*L*
16	½"	22.8 ± 0.3	90
20	¾"	26.8 ± 0.3	90
* 25	1"W	33.0 ± 0.4	-
* 30	1¼"W	39.0 ± 0.4	-
* 40	1½"	49.2 ± 0.4	-
50	2"	61.5 ± 0.5	144
65	2½"	77.5 ± 0.5	183
80	3"	90.8 ± 0.5	223
100	4"	116.0 ± 0.6	251

Remark :

1. The rubber ring material is in accordance with the A5 of Class I in CNS 10774.
2. * Means the mold is developing.
3. Compression coupling construction method, please read the notice items for PVC-U piping instructions, item 13 (Page 31).



7 Specification for HI high impact PVC-U fittings drainage



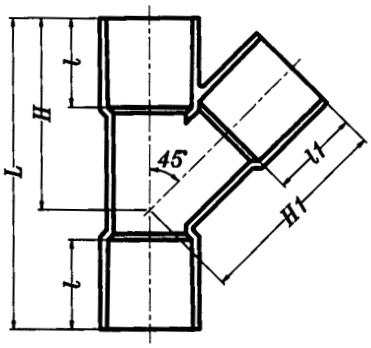
Sanitary Tee

Unit : mm

Size		l	l1	H	H1	L
80X50	3"X2"	72	63	140	145	235
100X50	4"X2"	92	63	154	152	270

Note:

Sanitary T fitting is used for non-pressuer drainage.



Wye

Unit : mm

Size		l	l1	H	H1	L
50	2"	63	141	142	220	200
80	3"	72	180	188	280	235
100	4"	92	92	230	240	355
125	5"	112	112	282	292	434
150	6"	140	140	344	352	530

Reducer Wye

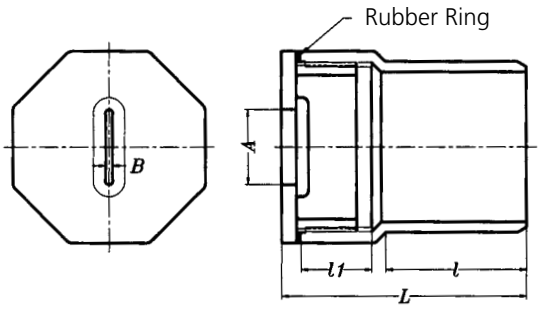
Unit : mm

Size		l	l1	H	H1	L
80X50	3"X2"	72	63	164	164	239
100X50	4"X2"	92	63	195	185	285
100X80	4"X3"	92	72	213	202	319
125X50	5"X2"	112	63	233	192	337
125X80	5"X3"	112	72	252	216	372
125X100	5"X4"	112	92	272	252	415
150X50	6"X2"	140	63	270	228	385
150X80	6"X3"	130	72	282	240	412
150X100	6"X4"	130	92	294	274	435
150X125	6"X5"	140	112	322	310	500

Note:

Wye type fitting is used for non-pressuer drainage.

7 Specification for HI high impact PVC-U fittings drainage



Cleanout Bushing

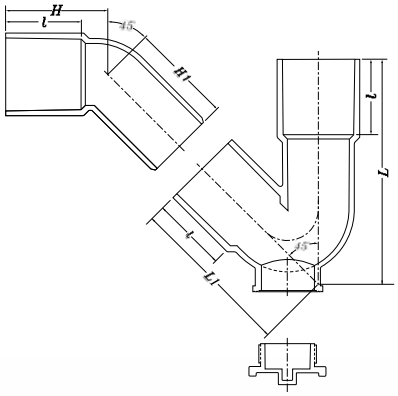
Unit : mm

Size		A	B	l	l1	L
50	2"	30	4.5	59	25	98
125	5"	80	10	120	50	194

Note:

1.In order to against the leakage of rubber ring between cleanout bushing body and cap, please screw the cleanout cap on the cleanout bushing body tightly.

2.cleanout bushing is used for non-pressuer drainage.



"P" Trap with Solvent Weldjoint and Cleanout Plug

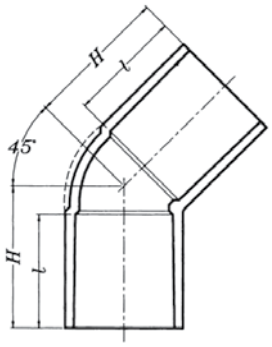
Unit : mm

Size	l	H	l1	H1	L
2"X4mm (1¾内大牙)	63	85	138	85	195

Note:

It is used for non-pressuer drainage.

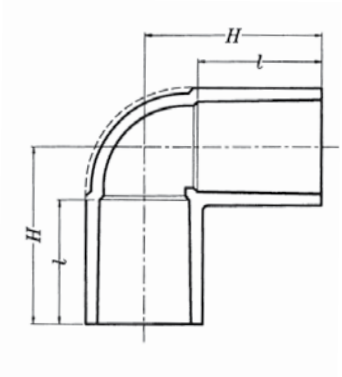
8 Specification of PVC-U Fittings for Sewerage & Drainage



45° Elbow

Unit : mm

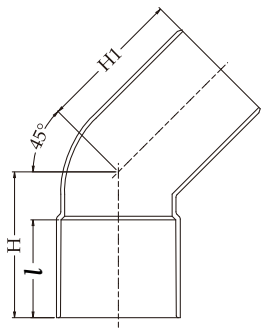
Size		l	H
40	1 ½"	55	69
50	2"	63	80
65	2 ½"	69	90
80	3"	72	95
90	3 ½"	80	105
100	4"	92	121
125	5"	112	150
150	6"	140	185
200	8"	172	224
250	10"	185	248



90° Elbow

Unit : mm

Size		l	H
40	1 ½"	55	82
50	2"	63	96
65	2 ½"	69	110
80	3"	72	120
90	3 ½"	80	135
100	4"	92	152
125	5"	112	188
150	6"	140	228
200	8"	172	288
250	10"	185	326



45° Elbow With Spigot End

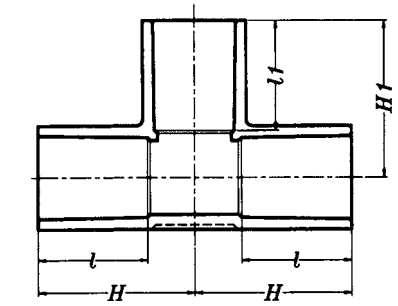
Unit : mm

Size	l	H	H1
2"X4.0mm	63	85	85
3"X5.5mm	72	95	95
4"X7.0mm	92	121	121
5"X7.5mm	112	148	148

Note：

Production can also be manufactured according to the dotted line of above diagram.

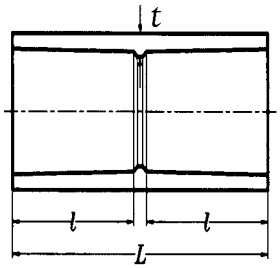
8 Specification of PVC-U Fittings for Sewerage & Drainage



Tee

Unit : mm

Size		l	l1	H	H1
40X40	1 ½"	55	55	82	82
50X40	2"X1 ½"	63	55	90	88
50X50	2"	63	63	96	96
65X40	2 ½"X1 ½"	69	55	96	96
65X50	2 ½"X2"	69	63	102	104
65X65	2 ½"	69	69	110	110
80X40	3"X1 ½"	72	55	100	102
80X50	3"X2"	72	63	105	110
80X65	3"X2 ½"	72	69	113	117
80X80	3"	72	72	120	120
90X90	3 ½"	80	80	135	135
100X40	4"X1 ½"	92	55	120	115
100X50	4"X2"	92	63	125	122
100X80	4"X3"	92	72	140	132
100X100	4"	92	92	152	152
125X80	5"X3"	112	72	160	148
125X100	5"X4"	112	92	174	168
125X125	5"	112	112	188	188
150X80	6"X3"	140	72	193	160
150X100	6"X4"	140	92	202	182
150X125	6"X5"	140	112	214.5	200
150X150	6"	140	140	228	228
200X100	8"X4"	172	92	236.5	204
200X150	8"X6"	172	140	264	252
200X200	8"	172	172	287.5	287
250X250	10"	185	185	325	325



Coupling

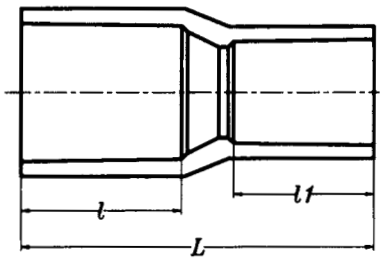
Unit : mm

Size		l	L
40	1 ½"	55	117
50	2"	63	133
65	2 ½"	69	147
80	3"	72	155
90	3 ½"	80	166
100	4"	92	200
125	5"	112	235
150	6"	140	300
200	8"	172	360
250	10"	185	400

Note：

Production can also be manufactured according to the dotted line of above diagram.

8 Specification of PVC-U Fittings for Sewerage & Drainage

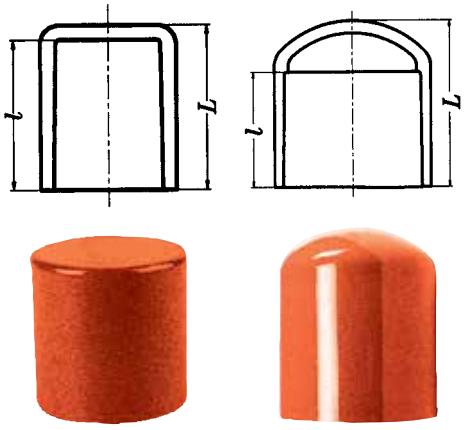


Reducer Coupling

Unit : mm

Size		l	l1	L
50X40	2"X1 ½"	63	55	136
65X40	2 ½"X1 ½"	69	55	150
65X50	2 ½"X2"	69	63	153
80X40	3"X1 ½"	72	55	165
80X50	3"X2"	72	63	165
80X65	3"X2 ½"	72	69	165
100X40	4"X1 ½"	92	55	190
100X50	4"X2"	92	63	208
100X80	4"X3"	92	72	190
125X80	5"X3"	112	72	210
125X100	5"X4"	112	92	225
150X80	6"X3"	140	72	260
150X100	6"X4"	140	92	280
150X125	6"X5"	140	112	295
200X100	8"X4"	172	92	340
200X125	8"X5"	172	112	345
200X150	8"X6"	172	140	350
250X200	10"x8"	185	172	420
300X200	12"x8"	230	172	495

FIG.1 FIG.2

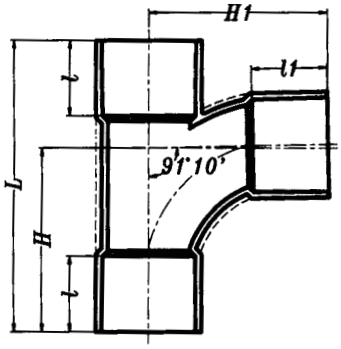


Cap

Unit : mm

Size		l	L	Remark
40	1 ½"	55	59.5	FIG.1
50	2"	63	68	FIG.1
65	2 ½"	69	100	FIG.2
80	3"	72	107	FIG.2
90	3 ½"	80	120	FIG.2
100	4"	92	138	FIG.2
125	5"	112	168	FIG.2
150	6"	140	205	FIG.2
200	8"	172	260	FIG.2
250	10"	185	295	FIG.2

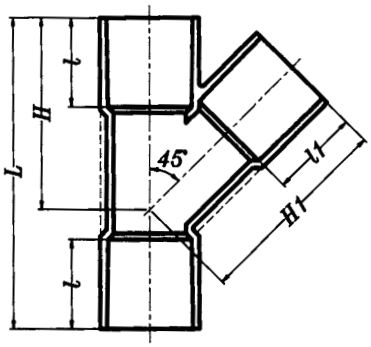
8 Specification of PVC-U Fittings for Sewerage & Drainage



Sanitary Tee

Unit : mm

Size		l	l1	H	H1	L
40X40	1 ½"	55	55	111	111	180
50X40	2"X1 ½"	63	55	114	118	192
50X50	2"	63	63	114	127	200
65X50	2 ½"X2"	69	63	128	130	218
65X65	2 ½"	69	69	132	140	234
80X50	3"X2"	72	63	140	145	235
80X80	3"	72	72	177	172	280
100X50	4"X2"	92	63	154	152	270
100X80	4"X3"	92	72	194	182	318
100X100	4"	92	92	224	219	355
125X80	5"X3"	112	72	235	198	350
125X100	5"X4"	112	92	235	219	388
125X125	5"	112	112	252	233	416
150X50	6"X2"	140	63	215	180	420
150X80	6"X3"	130	72	230	207	420
150X100	6"X4"	130	92	246	234	425
150X125	6"X5"	140	112	273	252	468
150X150	6"	140	140	290	295	495
200X50	8"X2"	172	63	245	210	440
200X80	8"X3"	172	72	265	235	470
200X100	8"X4"	172	92	262	263	510
200X150	8"X6"	172	140	307	320	560
200X200	8"	172	172	347	360	615
250X150	10"X6	185	140	332	345	588



45° Wye

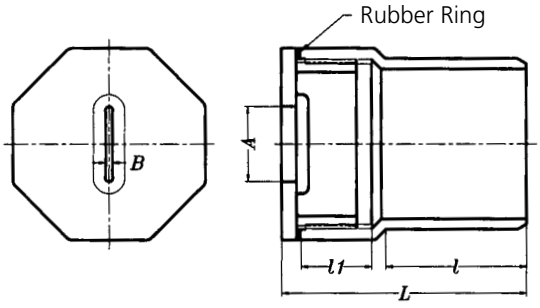
Unit : mm

Size		l	l1	H	H1	L
40X40	1 ½"	55	55	116	119	185
50X40	2"X1 ½"	63	55	132	128	202
50X50	2"	63	141	142	220	200
65X50	2 ½"X2"	69	63	148	152	230
80X50	3"X2"	72	63	164	164	239
80X80	3"	72	180	188	280	235
100X50	4"X2"	92	63	195	185	285
100X80	4"X3"	92	72	213	202	319
100X100	4"	92	92	230	240	355
125X50	5"X2"	112	63	233	192	337
125X80	5"X3"	112	72	252	216	372
125X100	5"X4"	112	92	272	252	415
125X125	5"	112	112	282	292	434
150X50	6"X2"	140	63	270	228	385
150X80	6"X3"	130	72	282	240	412
150X100	6"X4"	130	92	294	274	435
150X125	6"X5"	140	112	322	310	500
150X150	6"	140	140	344	352	530
200X50	8"X2"	172	63	327	258	445
200X80	8"X3"	172	72	345	282	485
200X100	8"X4"	172	92	362	316	520
200X150	8"X6"	172	140	400	394	600
200X200	8"	172	172	446	433	690
250X150	10"X6"	185	140	450	430	625

Note：

Production can also be manufactured according to the dotted line of above diagram.

8 Specification of PVC-U Fittings for Sewerage & Drainage



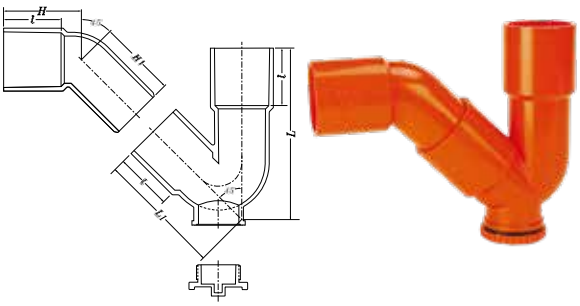
Cleanout Bushing

Unit : mm

Size		A	B	l	l1	L
50	2"	30	4.5	59	25	98
80	3"	50	4.5	75	38	131
100	4"	50	4.5	93	47	164
125	5"	80	10	120	50	194
150	6"	125	10	128	50	204
200	8"	160	10	175	50	255

Note：

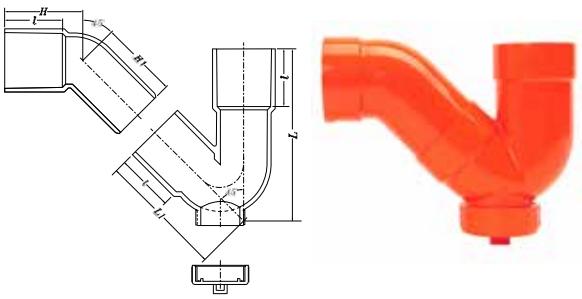
In order to against the leakage of rubber ring between cleanout bushing body and cap, please screw the cleanout cap on the cleanout bushing body tightly.



"P" Trap with Solvent Weldjoint and Cleanout Plug

Unit : mm

Size	l	H	l1	H1	L
1 ½"X2mm(1¼內大牙)	22	37	80	37	102
2"X2mm(1¾內大牙)	25	50	100	75.5	137
2"X4mm(1¾內大牙)	63	85	138	85	195



Unit : mm

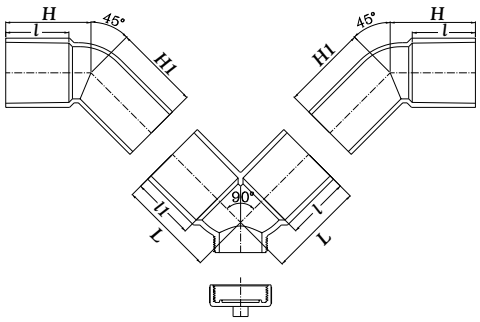
Size	l	H	l1	H1	L
1 ½"X2mm(1¼外大牙)	22	37	80	37	102
2"X2mm(1¾外大牙)	25	50	100	75.5	137
2"X4mm(1¾外大牙)	63	85	138	85	195

8 Specification of PVC-U Fittings for Sewerage & Drainage

V Type Water Connection

Unit : mm

Size	l	L1	H	H1
2"X4m	63	63	85	85

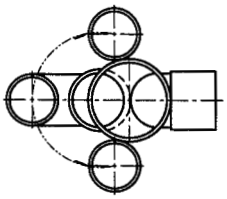


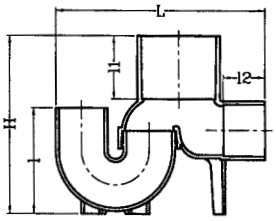
Junction with Odor Trap

Unit : mm

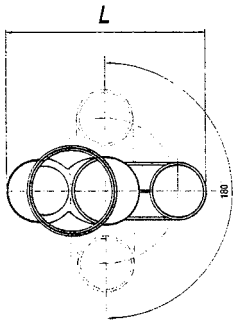
Size		H	L	l	l1	l2
(A) 100x150	4"X6"	398	457	234.5	140	92
(B) 100x150	4"X6"	305	402	234.5	50	50

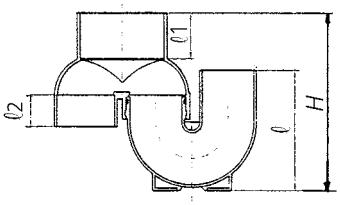
TYPE A





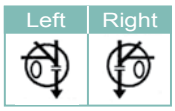
TYPE B





8 Specification of PVC-U Fittings for Sewerage & Drainage

45YS-UT

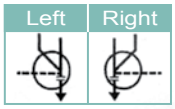


45° Confluence with Trap

Model	標稱管徑(mm)			
	用戶接管	匯流管	豎井	TSS規格
45YS-UT(Right) 100x80SX100-150	100x80S	100	150	●
45YS-UT(Right) 100x80PX100-150	100x80P	100	150	●
45YS-UT(Left) 100x80SX100-150	100x80S	100	150	●
45YS-UT(Left) 100x80PX100-150	100x80P	100	150	●

註：1. 80存水彎末尾S者，其接管端為承口型，末尾P者，其接管端為插口型。
2. 存水彎可視配管需要旋轉調整角度。

HYS

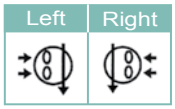


Parallel and 90° Confluence

Model	標稱管徑(mm)			
	用戶接管	匯流管	豎井	TSS規格
HYS(Right) 100x100-150	100	100	150	●
HYS(Left) 100x100-150	100	100	150	●

註：45°L承口可視配管需要旋轉調整角度。

UTW

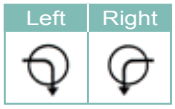


Double Access Trap

Model	標稱管徑(mm)			
	用戶接管	匯流管	豎井	TSS規格
UTW(Right) 80Sx80SX100-150	80Sx80S	100	150	●
UTW(Right) 80Px80PX100-150	80Px80P	100	150	●
UTW(Left) 80Sx80SX100-150	80Sx80S	100	150	●
UTW(Left) 80Px80PX100-150	80Px80P	100	150	●

註：1. 80存水彎末尾S者，其接管端為承口型，末尾P者，其接管端為插口型。
2. 存水彎可視配管需要旋轉調整角度。

90L



90° Turn

Model	標稱管徑(mm)			
	用戶接管	匯流管	豎井	TSS規格
90°L(Right)100-150	—	100	150	●
90°L(Left)100-150	—	100	150	●

8 Specification of PVC-U Fittings for Sewerage & Drainage

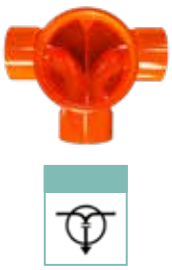
Single Access Trap

Model	標稱管徑(mm)			
	用戶接管	匯流管	豎井	TSS規格
UT(Right) 100X100-150	100	100	150	●
UT(Left) 100X100-150	100	100	150	●

註：存水彎可視配管需要旋轉調整角度。

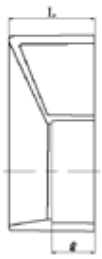
Straight

Model	標稱管徑(mm)			
	用戶接管	匯流管	豎井	TSS規格
ST 100-150	—	100	150	●



Left and Right Confluence

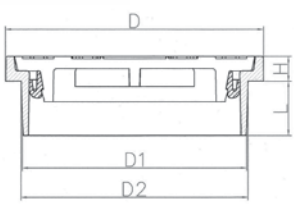
Model	標稱管徑(mm)			
	用戶接管	匯流管	豎井	TSS規格
WLS 100-150	—	100	150	●



Adapter

Unit : mm

Size	L	ℓ
80x50	25	40
100x50	25	50
100x80	40	50



Chamber Cover

Unit : mm

規 格	D	D1	D2	L	H
100	114	99	100.2	24	11
150	165	145	146.5	35	16

9 Nan Ya Vinyl Adhesive

I. Applications :

1. Gluing rigid PVC-U pipes.
2. Gluing rigid PVC-U pipe and PVC-U fitting.

II. Characteristics :

1. Superb adhesion with rigid PVC-U materials; cold resistance (not freezing above -10℃).
2. Available information (CoA) by scanning QR Code, the anti-fake identification system.
3. Easy for construction; quick-drying after installation.

III. Remarks :

1. Gluing PVC-U pipe (Size: below 6 inches) with ASAA vinyl adhesive (Viscosity: 80～100CPS).
2. Gluing PVC-U pipe (Size: 6～12 inches) with ASAE vinyl adhesive (Viscosity: above 1600CPS).
3. To ensure that nothing happened during PVC-U piping projects (Pipe size: above 12 inches), please glue PVC-U pipes over and over again with vinyl adhesive until there is not any gap in pipes.
4. Do not move the pipeline during the construction. Besides, according to CNS standards, it is suggested that water be transferred after 24 hours at normal temperature or after 48 hours at 5℃.

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

9 Nan Ya
High Impact Vinyl Adhesive

I. Applications :

1. Gluing high impact PVC-U pipes.
2. Gluing high impact PVC-U pipe and PVC-U fitting.

II. Characteristics :

1. Superb adhesion with high impact PVC-U materials in compliance with CNS 1345 Standards— water-resistant joints.
2. Easy for construction; quick-drying after installation.

III. Remarks :

1. Applicable to glue high impact PVC-U pipe (Size: below 6 inches) with high impact vinyl adhesive (Viscosity: 200～1000CPS).
2. To ensure that nothing happened during PVC-U piping projects (Pipe size: above 6 inches), please glue PVC-U pipes over and over again with high impact vinyl adhesive until there is not any gap in pipes. Therefore, it is suggested that the pipe size of high impact PVC-U pipe be less than 16 inches.
3. Do not move the pipeline during the construction. Besides, according to CNS standards, it is suggested that water be transferred after 24 hours at normal temperature or after 48 hours at 5℃.

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

10 Standardization of Management

• Thorough, Standardized Management

Without being impacted by substitution of equipment or staff, product quality can remain stable and good.

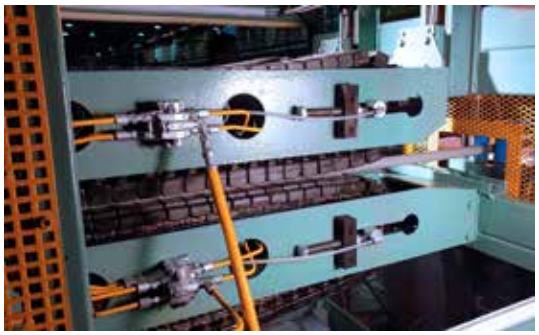
Dosing equipment

Mixing equipment

Extruder

Extrusion die set

Vacuum tank



Haul-off equipment

11 Automated Production

• Fully Automated Production of Factory

Nan Ya PVC-U Pipe Factory in Taiwan

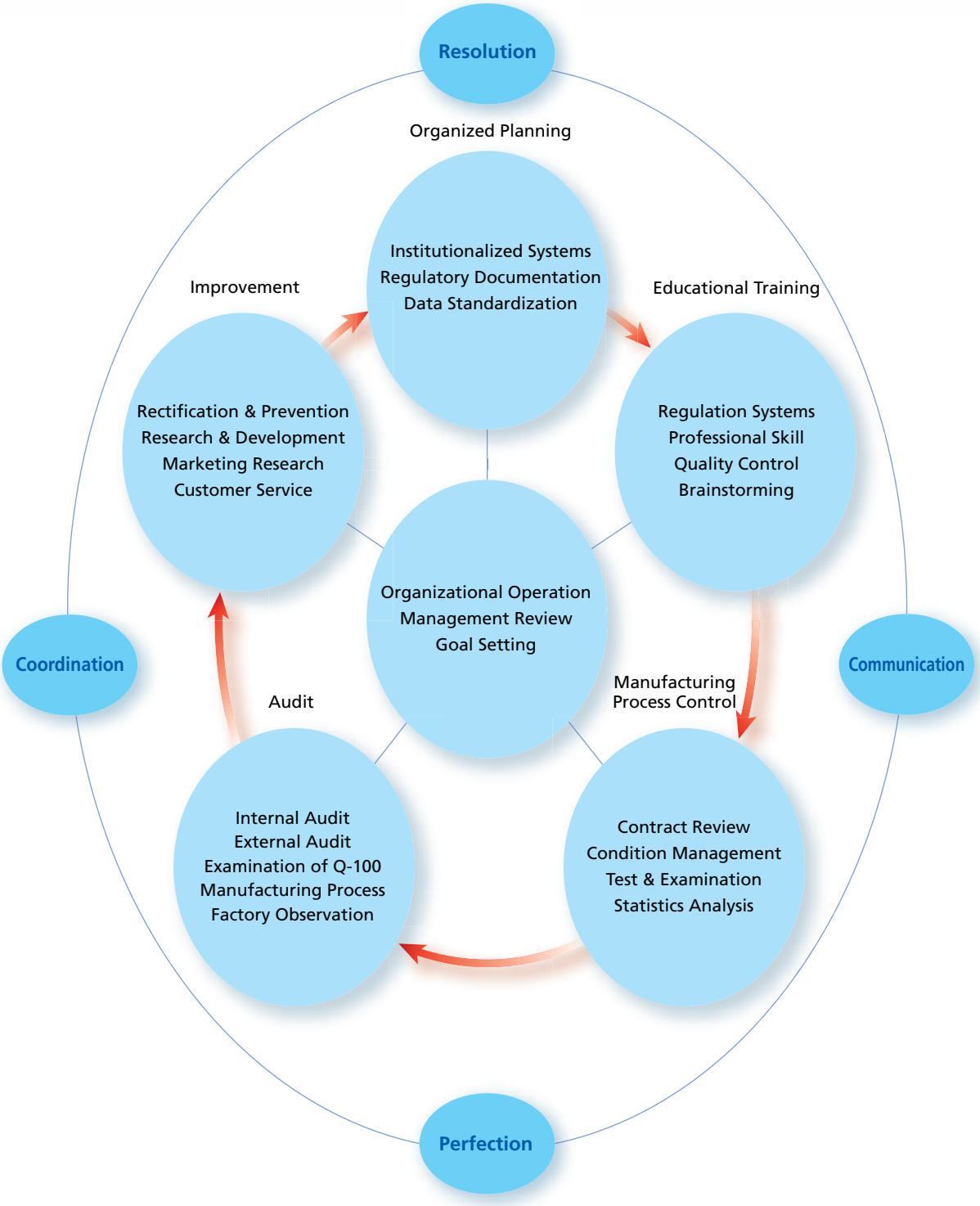
• Features of Our Products

Diverse Categories	Complete Specifications	Persistent Research & Development	High Quality
Mass Production	Reasonable Price	Customer-oriented	Sustainable Operation

12 Institutionalized Quality

• Quality Policy

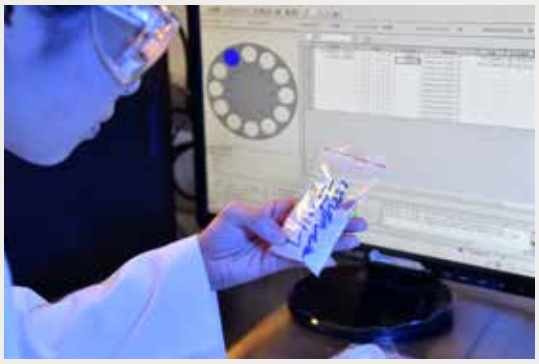
Educational Training	Infinite Potentiality	Integrated Organization	Coordination & Communication
Punctuality & Accuracy	High Customer Satisfaction	Realistic Attitude	Persistent Perfection



12 Institutionalized Quality Control

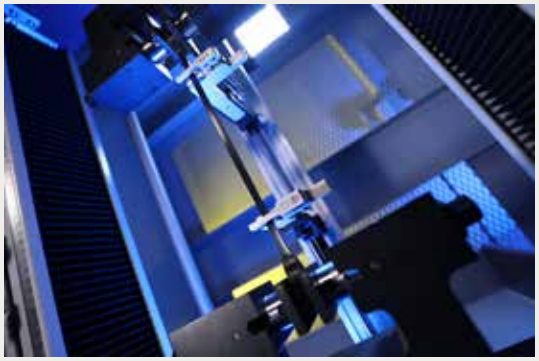
Brabender

Hydrostatic Pressure Testing Machine



Atomic Absorption(AA)

Gas Chromatography (GC)



Universal Testing Machine

Impact Testing Machine

Cutting Test for PVC-U Pipe

Flexural Test for Hydrostatic Pressure

13 Certification

ISO 9001 Quality Certification

ISO 14001 quality certification

13 Certification

CNS Marks of All Products

NAN YA PLASTICS CORPORATION

PLASTICS 3rd DIV.

No.201 Dunhua N. Rd., Songshan Dist.,
Taipei City 105076, Taiwan(R.O.C.)
TEL：(02)2717-8230　FAX：(02)25140628

NAN YA Plastics Corp.

NAN YA Plastics Pipe

Test data, sizes, and pictures in the catalog are for reference only, and actual product information is based on the formal reports.

(2021.08.16)