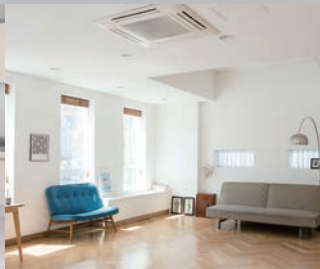


Challenge to the World, Create the Future



Aikang Greentech Product Introduction

The logo for Aikang Greentech, featuring the letters 'AGT' in a large, bold, sans-serif font.

CHALLENGE TO THE WORLD, CREATE THE FUTURE

AIKANG GREENTECH CO.,LTD.

Aikang Greentech Co., Ltd.

manufactures world best products based on

Faith and **Honesty**.

Challenge to the World, Create the Future.

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Features of PB Products	39
CPVC Pipes & Fittings	49
Certificates / R&D	54

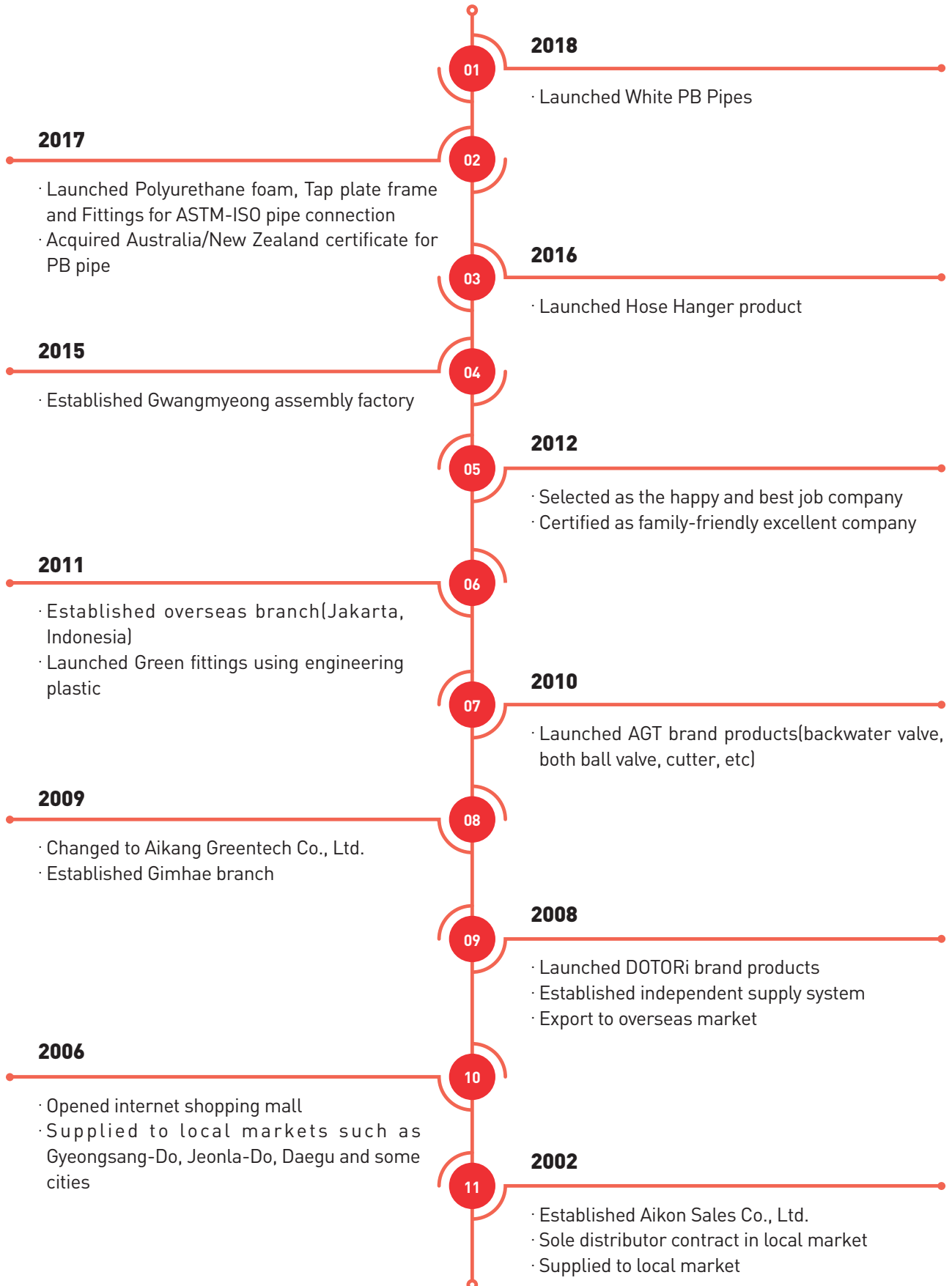




ACENT

AIKANG GREENTECH CO., LTD.

Company History



Greeting by CEO

Innovation is a tool of entrepreneurship.

We, Aikang Greentech, produce various piping materials such as PB pipes and fittings, PERT pipes and fittings, CPVC pipes and fittings etc.

We deeply thanks to you who have supported and encouraged to our company and products.

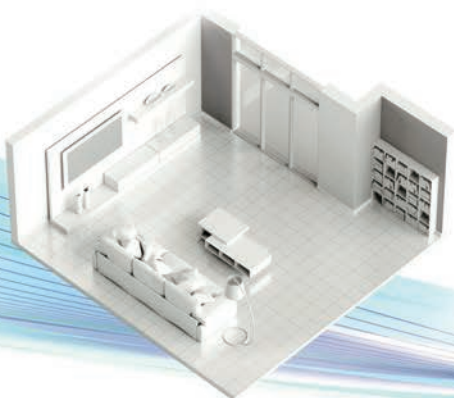
Aikang Greentech is always trying to be a company that moves forward thinking about the future.

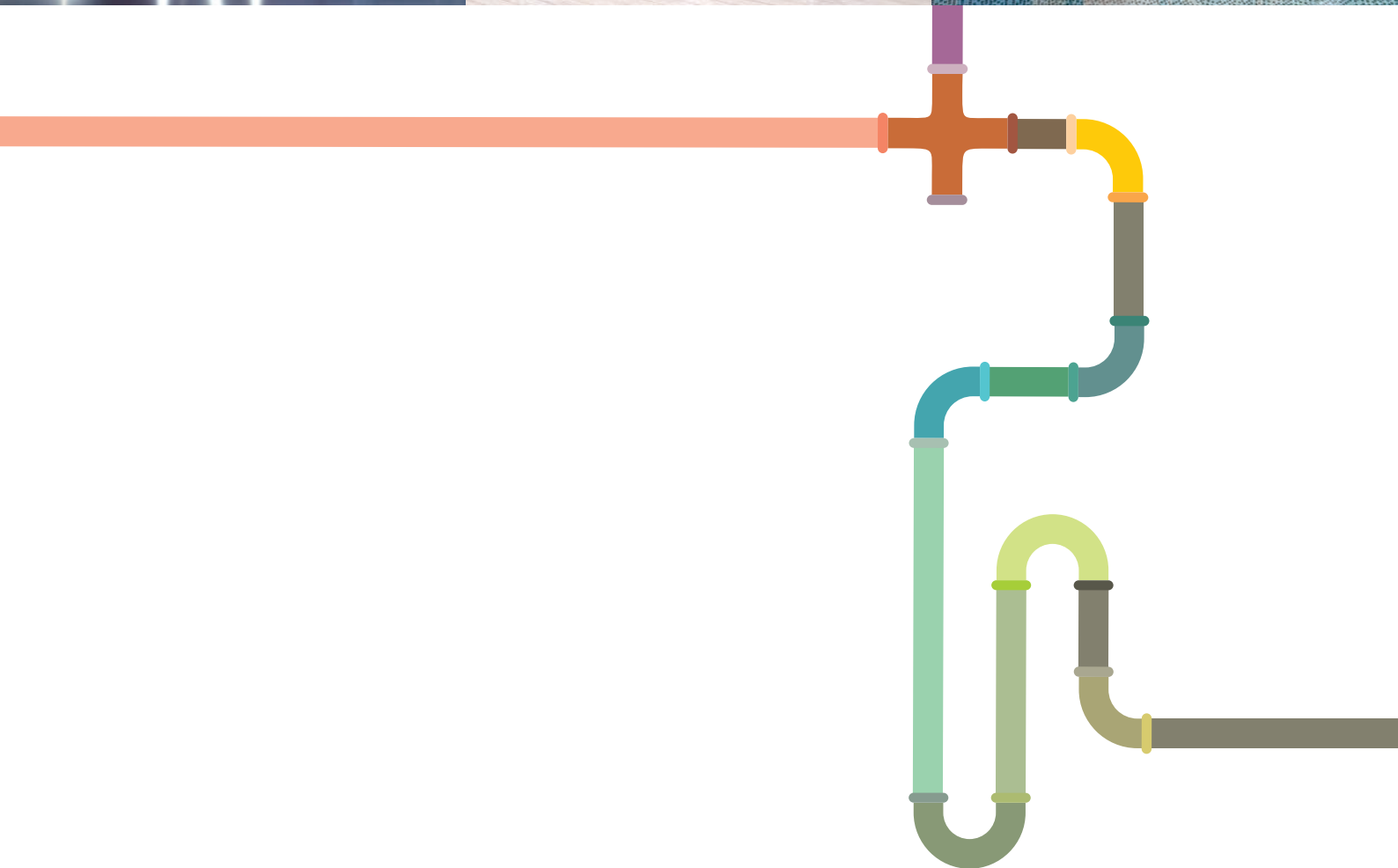
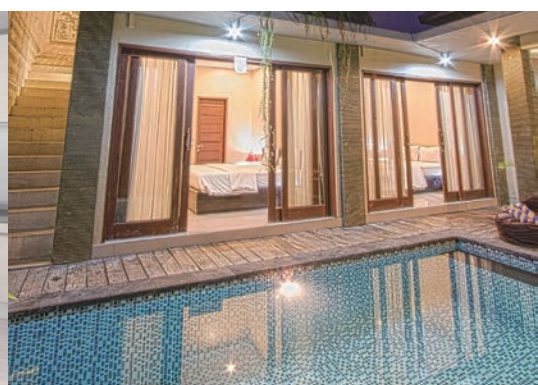
We will do our best to present a path for a better tomorrow with constant self-innovation and dedication to market and customer needs.

We invite you as our confident partners to open up the gates to the world and a prosperous future together. The future and accomplishments of Aikang Greentech are all for you.

Thank you.

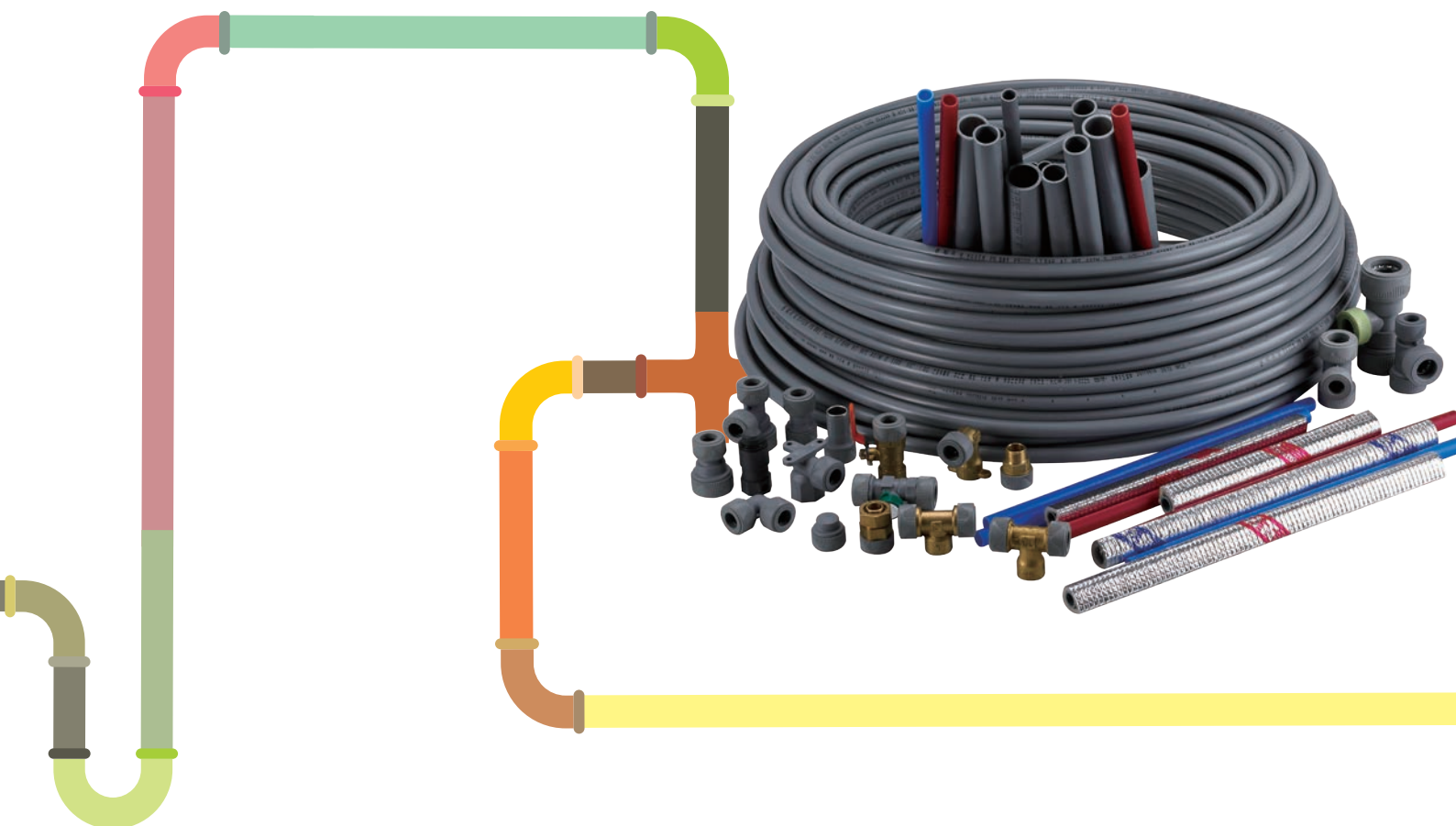
CEO
Ho Yong Shin





PB Pipes & Fittings | ASTM / ISO / BS

PB Pipes	08
PB Fittings	10
Brass Fittings	13
Fittings for Pipe in Pipe	18
Tap Plate	24
Manifold	27
Others	32
PB Pipes & Fitting (British Standard)	34



PB Pipes | ASTM / ISO



PB Potable Pipe (Straight)(4~6m)

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm
11/4"	32mm



PB Potable Pipe (Coil)(50~200m)

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm



PB Heating Pipe (Coil/White)(50~200m)

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm



PB Heating Pipe (Coil/Ivory)(50~200m)

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm



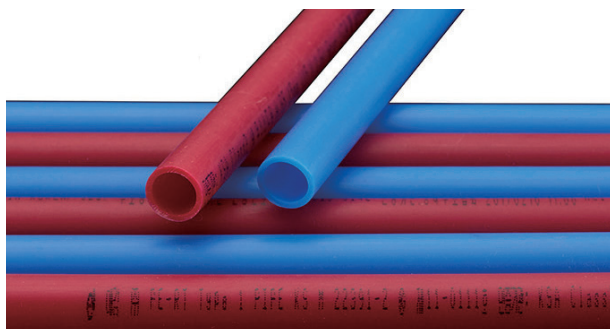
PERT Potable Pipe (Coil/Blue)(80~200m)

ASTM	ISO
1/2"	16mm
	20mm
	25mm
	32mm



PERT Potable Pipe (Coil/Red)(80~200m)

ASTM	ISO
1/2"	16mm
	20mm
	25mm
	32mm



PERT Potable Pipe (Straight/Blue, Red)(3~6m)

ASTM	ISO
1/2"	16mm
	20mm
	25mm
	32mm



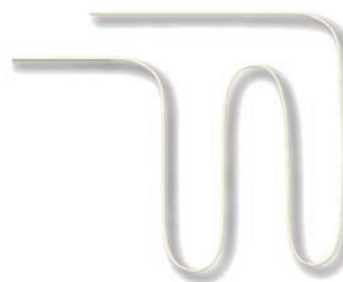
PERT Heating Pipe (Coil/White)(80~200m)

ASTM	ISO
1/2"	16mm
	20mm
	25mm



CD Tube for Pipe in Pipe

ASTM	ISO
16C	Blue, Red Green, Yellow Black, White
22C	
28C	
36C	



Pb Heating Coil for Bathroom

ASTM	ISO
Custom Order	



Heat Insulating Material (5T)

ASTM	ISO	Normal	Flame Retardant
1/2"	16mm	○	○
3/4"	20mm	○	○
28mm	25mm	○	○
	32mm	○	○



Heat Insulating Material (5T)

ASTM	ISO	Flame Retardant
1/2"	16mm	○
3/4"	20mm	○
28mm	25mm	○
	32mm	○

PB Fittings | ASTM / ISO



Socket	
ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm
11/4"	32mm

Elbow	
ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm
11/4"	32mm



Equal Tee	
ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm
11/4"	32mm

Socket to Socket Reducer	
ASTM	ISO
1/2"×3/4"	16mm×20mm
1/2"×28mm	20mm×25mm
3/4"×28mm	25mm×28mm



BRT (Branch Reduced Tee)			
ASTM		ISO	ASTM-ISO
3/4"×3/4"×1/2"	11/4"×11/4"×1/2"	20mm×20mm×16mm	11/4"×11/4"×16mm
28mm×28mm×1/2"	11/4"×11/4"×3/4"	25mm×25mm×16mm	11/4"×11/4"×20mm
28mm×28mm×3/4"	11/4"×11/4"×28mm	25mm×25mm×20mm	11/4"×11/4"×25mm

**BORT (Branch & One End Reduced Tee)**

ASTM	ISO
3/4"×1/2"×1/2"	20mm×16mm×16mm

**ERT (End Reduced Tee)**

ASTM	ISO
3/4"×1/2"×3/4"	20mm×16mm×20mm

**Socket Reducer**

ASTM	ISO
1/2"×3/4"	16mm×20mm
1/2"×28mm	20mm×25mm
3/4"×28mm	25mm×1 1/4"
28mm×1 1/4"	

**Air Chamber Cap**

ASTM	ISO
1/2"	16mm
3/4"	20mm

**PB Elbow Adaptor**

ASTM	ISO
1/2"×1/2" SPT	16mm×16mm SPT
3/4"×28mm SPT	20mm×25mm SPT
28mm×28mm SPT	25mm×25mm SPT

**BRT for Drain**

ISO
32mm×32mm×20mm

PB Fittings | ASTM / ISO



Quarter Turn Ball Valve

ASTM

1/2"



Female Ball Valve for Heat Insulation (Brass Inserted)

ASTM

1/2"



Water Tap Elbow (1P)(Brass Inserted)

ASTM

1/2"

ISO

16mm



Water Tap Elbow (3P)(Brass Inserted)

ASTM

1/2"

ISO

16mm



Backwater Valve (Single Assembly)

ISO

16mm, PB Push-Fit

20mm, PB Push-Fit



Backwater Valve (Double Assembly)

ISO

16mm, PB Push-Fit

20mm, PB Push-Fit

Brass Fittings | ASTM / ISO



Male Valve Socket

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm
1 1/4"	32mm



Female Valve Socket

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm
1 1/4"	32mm



Reduced Male Valve Socket

20mm×1/2"PT
3/4"×1/2"PT
25mm×3/4"PT
28mm×3/4"PT



Reduced Female Valve Socket

20mm×1/2"PT
3/4"×1/2"PT
25mm×3/4"PT
28mm×3/4"PT



Female Valve Socket with Front Stud

ASTM	ISO
1/2"	16mm



Brass Elbow

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm

Brass Fittings | ASTM / ISO



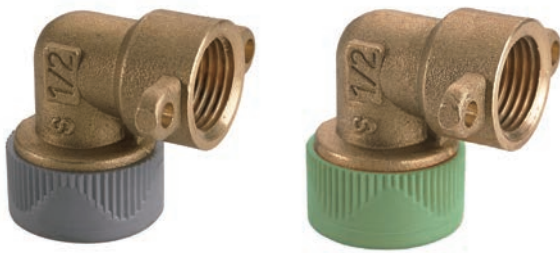
Male Brass Elbow

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm



Long Brass Elbow

ASTM	ISO
1/2"	16mm



Brass Elbow with Front Stud

ASTM	ISO
1/2"	16mm



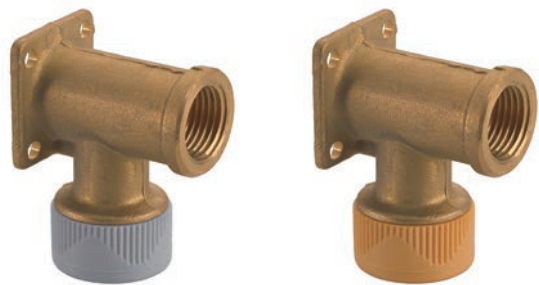
Long Brass Elbow with Front Stud

ASTM	ISO
1/2"	16mm



Brass Elbow (3P)-Short

ASTM	ISO
1/2"	16mm



Brass Elbow (4P)

ASTM	ISO
1/2"	16mm

**Reduced Brass Elbow**

ASTM	ISO
20mm×1/2"PT	
3/4"×1/2"PT	

**Brass Tee**

ASTM	ISO
1/2"	16mm

**Male Brass Tee**

ASTM	ISO
1/2"	16mm

**Long Brass Tee**

ASTM	ISO
1/2"	16mm

**Brass Tee with Front Stud**

ASTM	ISO
1/2"	16mm

**Brass Tee with Back Stud**

ASTM	ISO
1/2"	16mm

Brass Fittings | ASTM / ISO



Long Brass Tee with Front Stud

ASTM	ISO
1/2"	16mm



Brass BRT

ASTM	ISO-ASTM
3/4"×3/4"×1/2"PT	20mm×20mm×1/2"PT



Female Ball Valve (Handle)

ASTM	ISO
1/2"	16mm
3/4"	20mm



Male Ball Valve (Handle)

ASTM	ISO
1/2"	16mm
3/4"	20mm



Quarter Turn Ball Valve (Handle)

ASTM	ISO
1/2"	16mm
3/4"	20mm



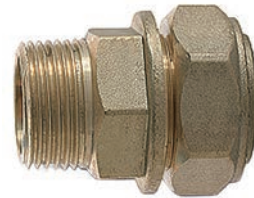
Male Ball Valve (Butterfly)

ASTM	ISO
1/2"	16mm
3/4"	20mm



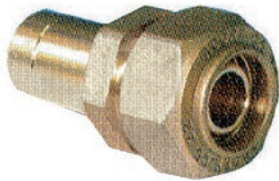
Ring Joint Socket

ASTM	ISO
1/2"	16mm



Ring Joint Male Valve Socket

ASTM	ISO
1/2"	16mm



Ring Joint Adapter

ASTM	ISO
1/2"	16mm



CF Adapter

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm



CM Adapter

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm



CF Adapter for Copper Pipe

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm

Fittings for Pipe in Pipe | ASTM / ISO



Brass Elbow for Pipe in Pipe 15°

ISO

16mm

16mm(25mm)



Brass Elbow for Pipe in Pipe 15° (EX)

ISO

16mm(15mm-EX)

16mm(30mm-EX)



Brass Elbow for Pipe in Pipe 45° (EX)

ISO

16mm(15mm-EX)

16mm(15mm Extension-EX)

16mm(30mm-EX)



Circle Service Box 15°

Standard

25mm



Circle Service Box 15° 40°

15mm

30mm



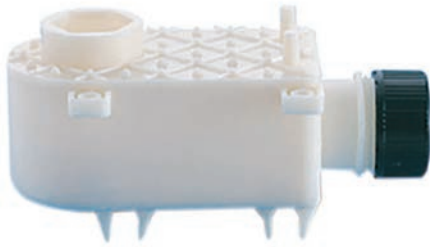
Circle Service Box 45° 40°

5mm

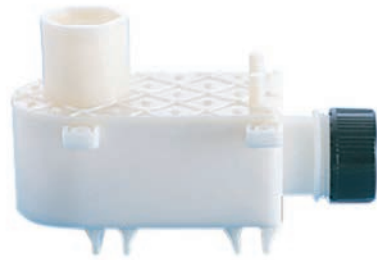
15mm

5mm Extension

30mm



Service Box
One Hole



Long Service Box
One Hole



Circle Service Box (90°)



Circle Service Box (Masonry)



Circle Service Box (Short)

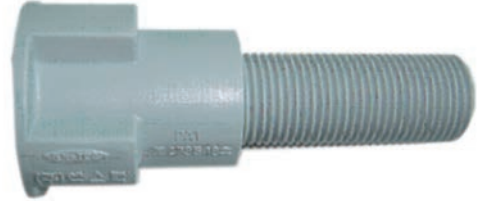


Circle Service Box Fitting

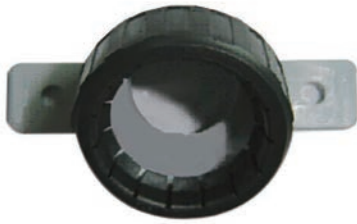
Fittings for Pipe in Pipe | ASTM / ISO



Circle Service Box Housing (Short)



Circle Service Box Housing



Circle Service Box Elbow



Circle Service Box Front Cover



Connecting Bar



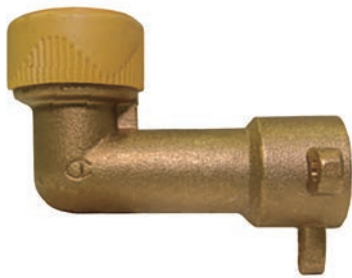
connecting Socket

**Long Brass Elbow (4P)**

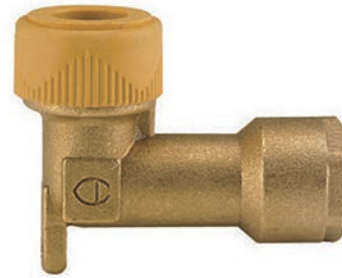
ASTM	ISO
1/2"	16mm

**Brass Elbow (6 Angles)**

ASTM	ISO
1/2"	16mm

**Long Brass Elbow (3P)**

ASTM	ISO
1/2"	16mm

**Long Brass Elbow (6 Angles/Masonry)**

ASTM	ISO
1/2"	16mm

**Long Brass Tee with Front Stud**

ASTM	ISO
1/2"	16mm

**Brass Elbow with Stud 45°**

ASTM	ISO
1/2"	16mm

Fittings for Pipe in Pipe | ASTM / ISO



Brass Elbow 90°

ASTM	ISO
1/2"	16mm



Lond Brass Tee (4P)

ASTM	ISO
1/2"	16mm



Brass Tee (6 Angles)

ASTM	ISO
1/2"	16mm



Brass Reducer

ISO
16mm



Cap for Pipe in Pipe

16C
22C
28C



Trumpet Tube for Pipe in Pipe

16C (Blue, Red)
22C (Blue, Red)
28C (Blue, Red)
32C (Blue, Red)



Guide Ball for Pipe in Pipe

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm



Anti-Noise Ring

16C
22C
28C



CD Connector

16C
22C
28C



CD Socket (Coupling)

16C
22C
28C

24 Tap Plate | ASTM / ISO



Tap Plate C3 Type

ASTM	ISO
1/2"	16mm



Tap Plate A2 Type

ASTM	ISO
1/2"	16mm

Basic: 100P, 120P, 150P
Customized: 200P



Tap Plate C4 Type

ASTM	ISO
1/2"	16mm

Height: basic 40mm
Height-customizable



Tap Plate B2 Type

ASTM	ISO
1/2"	16mm

Basic: 100P, 120P, 150 /Customized: 200P
Height: basic 40mm/Height-customizable



Circle Service Box Attached Tap Plate C3 Type 15°

ISO
16mm

Adapter 15mm, 30mm



Circle Service Box Attached Tap Plate A2 Type 15°

ISO
16mm

Adapter 5mm, 15mm, 30m



Circle Service Box Attached Tap Plate C4 Type 15°

ISO

16mm

Adapter 15mm, 30mm



Circle Service Box Attached Tap Plate B2 Type 15°

ISO

16mm

Adapter 15mm, 30mm



Circle Service Box Attached Tap Plate C3 Type 45°

ISO

16mm

Adapter 5mm, 15mm, 30mm



Circle Service Box Attached Tap Plate A2 Type 45°

ISO

16mm

Adapter 5mm, 15mm, 30mm



Circle Service Box Attached Tap Plate C4 Type 45°

ISO

16mm

Adapter 5mm, 15mm, 30mm



Circle Service Box Attached Tap Plate B2 Type 45°

ISO

16mm

Adapter 5mm, 15mm, 30mm

26 Tap Plate | ASTM / ISO



Brass Tap Plate C3 Type

ASTM

1/2"



Brass Tap Plate A2 Type

ASTM

1/2"

Basic: 100P, 120P, 150P
Customized: 200P



Brass Tap Plate C4 Type

ASTM

1/2"

Height: Basic 40mm
Height-customizable



Brass Tap Plate C4 Type

ASTM

1/2"

Basic: 100P, 120P, 150P/Customized: 200P
Height: Basic 40mm/Height-customizable

Manifold | ASTM / ISO



Stainless Steel Manifold for Gas Boiler

Body Diameter: 20A
Valve Diameter: 12A, 15A
Number of Valves: 2~10 pcs



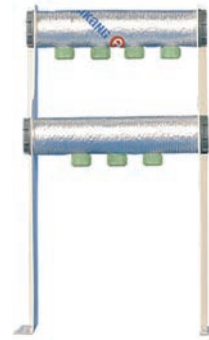
Stainless Steel Manifold for Oil Boiler

Body Diameter: 20A, 25A
Valve Diameter: 12A, 15A
Number of Valves: 2~10 pcs



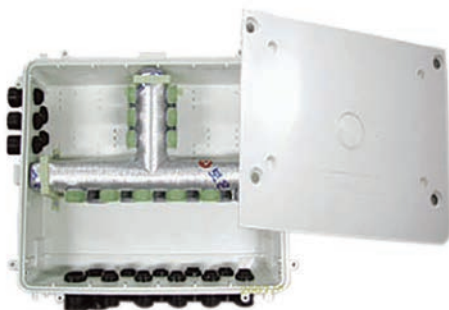
PB Potable Water Header (Single)

Number of Outlets: 2~13 pcs



PB Potable Water Header (Double)

Number of Outlets: 2~13 pcs



Buried Type Header

T-Type Header-12/9 Outlets
465×420×120mm



Buried Type Header

2-Way Header 8 Outlets
420×420×120mm

Manifold | ASTM / ISO



Buried Type Header

5 Outlets: 430×320×110mm
6 Outlets: 465×410×120mm



Buried Type Header

8 Outlets: 567×410×120mm
9 Outlets: 615×445×140mm



Potable Water Header

(8/8Outlets) 40Ø 2-Way Outlet
305×400×95mm



E.Z Box Header

5/4Outlets, 7/6Outlets, 8/6Outlets
256×244×93mm



Ceiling Type Header

Custom Made



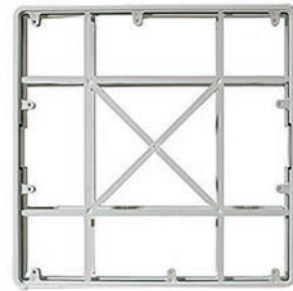
Closing Cover

Buried Type Header 6 Outlets: 485×430mm
Buried Type Header 8 Outlets: 587×430mm



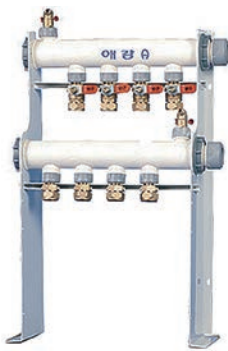
Joint Box

Buried Type Header 6 Outlets, 8 Outlets
50mm



Joint Box

2-Way Header 8 Outlets
15mm, 20mm



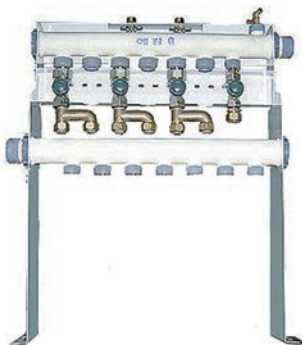
PB Under Floor Heating Header

for PB, PP, X-L Pipes



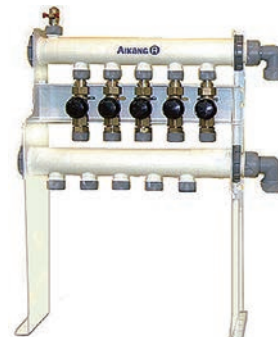
PB Under Floor Heating Header (Box Type)

for PB, PP, X-L Pipes



PB TRV Header

for PB, PP, X-L Pipes



PB TRV Header for Heating Control System

for PB, PP, X-L Pipes

Manifold | ASTM / ISO | MANIFOLD FITTINGS



PB Elbow Adapter	
ASTM	ISO
1/2"×1/2" SPT	16×16mm SPT
3/4"×28mm SPT	20×25mm SPT
28×28mm SPT	25×25mm SPT



Spigot Tee	
ASTM	ISO
1/2"×1/2"×1/2" SPT	16×16×16mm SPT
3/4"×1/2"×3/4" SPT	20×16×20mm SPT



Spigot H Distributor	
ASTM	ISO
1/2"×1/2"×1/2"	16×16×16mm



Elbow Adapter for Copper Pipe	
ASTM	ASTM-ISO
1/2"×28mm SPT	1/2"×25mm SPT
28mm×28mm SPT	28mm×25mm SPT
3/4"×28mm SPT	3/4"×25mm SPT



Elbow Adapter for PP, X-L Pipe	
ASTM	
3/4"×28mm SPT	
1/2"×1/2" SPT(for E.Z Box)	



Adapter for Corrugated Stainless Steel Pipe	
ASTM-ISO	
20A×3/4" SPT	
20A×28mm SPT	



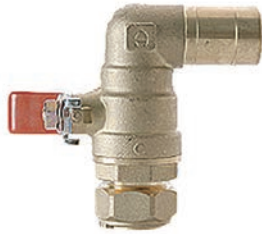
Elbow Adapter for Corrugated Stainless Steel Pipe	
ASTM-ISO	
20A×28mm SPT	



Angle Ball Valve (Left, Right)	
ASTM	
3/4"×28mm SPT	
28mm×28mm SPT	
1 1/4"×28mm SPT	



Elbow Adapter	
ASTM	
3/4"×28mm SPT	
28mm×28mm SPT	
1 1/4"×28mm SPT	



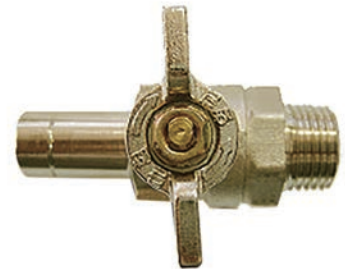
Ring Joint Angle Ball Valve
ASTM

3/4"×28mm SPT
28mm×28mm SPT



Ring Joint Elbow Adapter

ASTM	ISO
3/4"×28mm SPT	20×25mm SPT
28mm×28mm SPT	25×25mm SPT



Water Flow Control Ball Valve

ASTM	ISO
1/2" SPT	16mm SPT



CF Adapter for Copper Pipe

ASTM	ASTM-ISO
1/2"×28mm SPT	1/2"×25mm SPT
3/4"×28mm SPT	3/4"×25mm SPT



Header Supporter



Male Ball Valve for Manifold Water Supply (Plated Butterfly)

ASTM	ISO
1/2"	16mm



PB Ball Valve for Manifold Water Supply (Butterfly)

ASTM	ISO
1/2" SPT	16mm SPT

Others | ASTM / ISO



Support Sleeve

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm
1 1/4"	32mm



Grab Ring

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm
1 1/4"	32mm



O-Ring

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm
1 1/4"	32mm



Washer

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm
1 1/4"	32mm



Cap

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm
1 1/4"	32mm



Blanking Cap

ASTM	ISO
1/2"	16mm
3/4"	20mm
28mm	25mm
1 1/4"	32mm



Ring Plug

ASTM
1/2"



Mold & Tap Cap

Shot (15mm)
Long (25mm)



U Pin

For PB Pipe	For X-L Pipe
1/2"	15A



Cutter



Cutter for Pipe in Pipe



Vise Plier for Pipe Insertion



Sun Adapter

Available in 35~310mm
length in 5mm increments



Water Hammer Arrestor

ASTM

ISO

1/2"

16mm

Spring Type, Brass Tee Type



Water Hammer Arrestor

ASTM

ISO

1/2" AA

16mm AA

Gas Type, Brass Tee Ty



Hose Hanger

- Size (L×W×H): 200×200×100mm
- Weight: 235g
- Material: ABS
- Holds up to 50m of 1/2" hose

Lubricant
(for Inserting Pipe into Fitting)

100mL



Polyurethane Foam

750mL
Flame Retardant

PB Pipes & Fittings | BS (British Standard)



Straight



Coil (Gray)



Coil (White)

PB Potable Pipe/PB Potable Barrier Pip /PB Potable Straightened Coil

Straight	Coil
10mm	10mm
15mm	15mm
22mm	22mm
28mm	28mm



Socket
BS
10mm
15mm
22mm
28mm

Elbow
BS
10mm
15mm
22mm
28mm

Equal Tee
BS
10mm
15mm
22mm
28mm



BRT (Branch Reduced Tee)
BS
22×22×15mm
28×28×15mm
28×28×22mm

BORT (Branch & One End Reduced Tee)
BS
22×15×15mm

ERT (End Reduced Tee)
BS
22×15×22mm

**Socket Reducer****BS**

15×10mm

22×15mm

28×22mm

**Air Chamber Cap****BS**

15mm

**Tank Connector****BS**

15mm

22mm

**Tap Connector****BS**

15mm

22mm

**Bent Tap Connector****BS**

15mm

22mm

**MVS (Male Valve Socket)****BS**

15mm

22mm

28mm

**FVS (Female Valve Socket)****BS**

15mm

22mm

28mm

**FVS with Circle Stud (4P)****BS**

15mm×1/2" PF

**WPE (Wall Plate Elbow)-Shot****BS**

15mm

PB Pipes & Fittings | BS (British Standard)

**Male Ball Valve (Handle)****BS**

15mm×1/2" PF

22mm×3/4" PF

**Female Ball Valve (Handle)****BS**

15mm×1/2" PF Handle

22mm×3/4" PF Handle

**Quarter Turn Ball Valve (Handle)****BS**

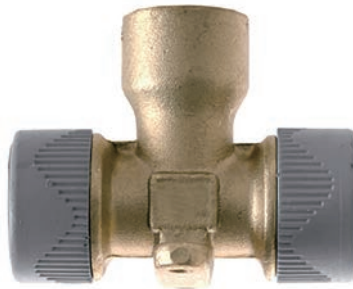
15mm

22mm

**Brass Elbow (4P)****BS**

15mm

22mm

**Long Brass Tee with Back Stud****BS**

15mm×1/2" PF

**CF Adaptor****BS**

15mm

22mm

28mm

**CM Adaptor****BS**

15mm

22mm

28mm

**Tap Plate****BS**

A2 Type

**Tap Plate****BS**

B2 Type



Support Sleeve
BS
10mm
15mm
22mm
28mm



Grab Ring
BS
10mm
15mm
22mm
28mm



O-Ring
BS
10mm
15mm
22mm
28mm



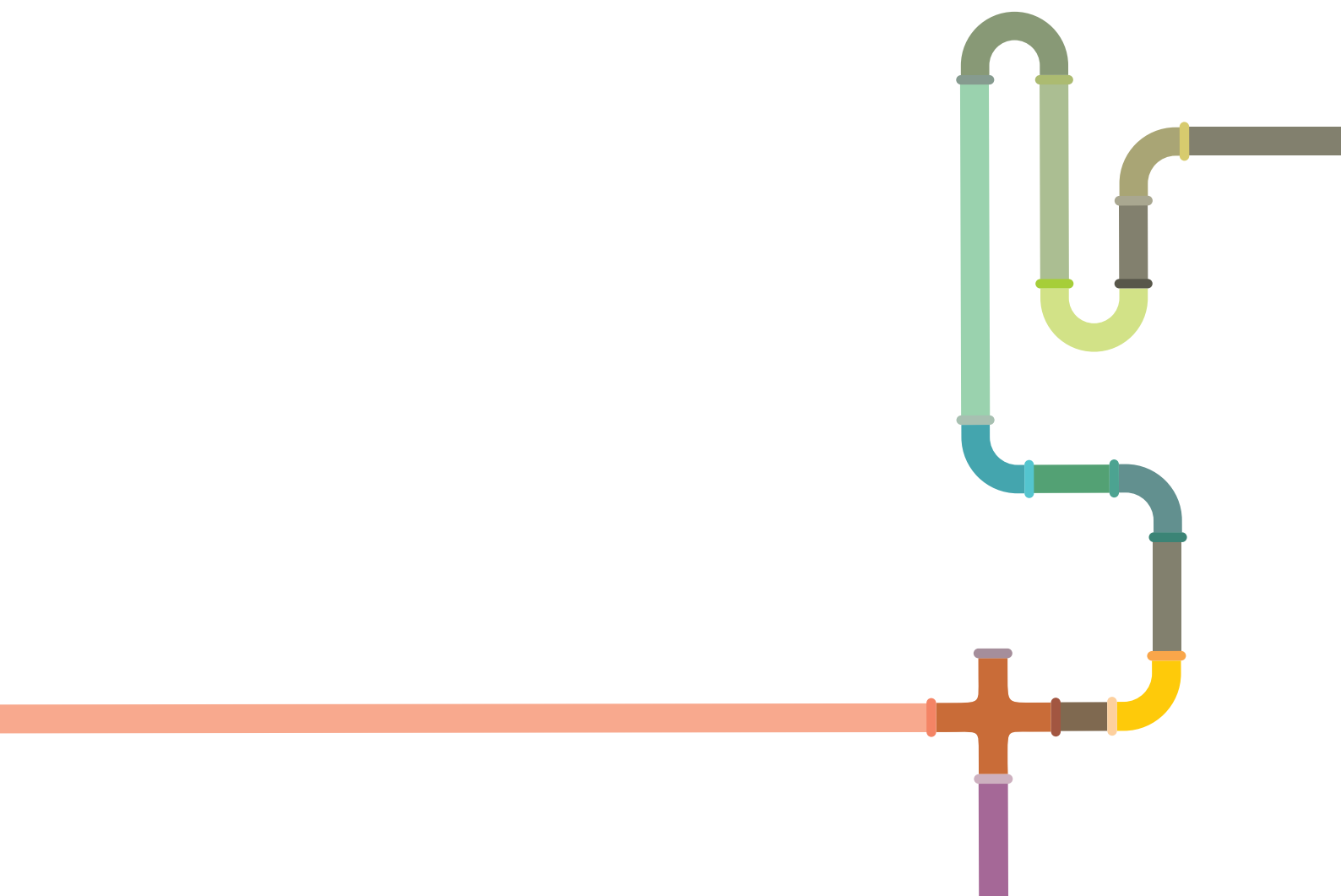
Washer
BS
10mm
15mm
22mm
28mm



Cap
BS
10mm
15mm
22mm
28mm

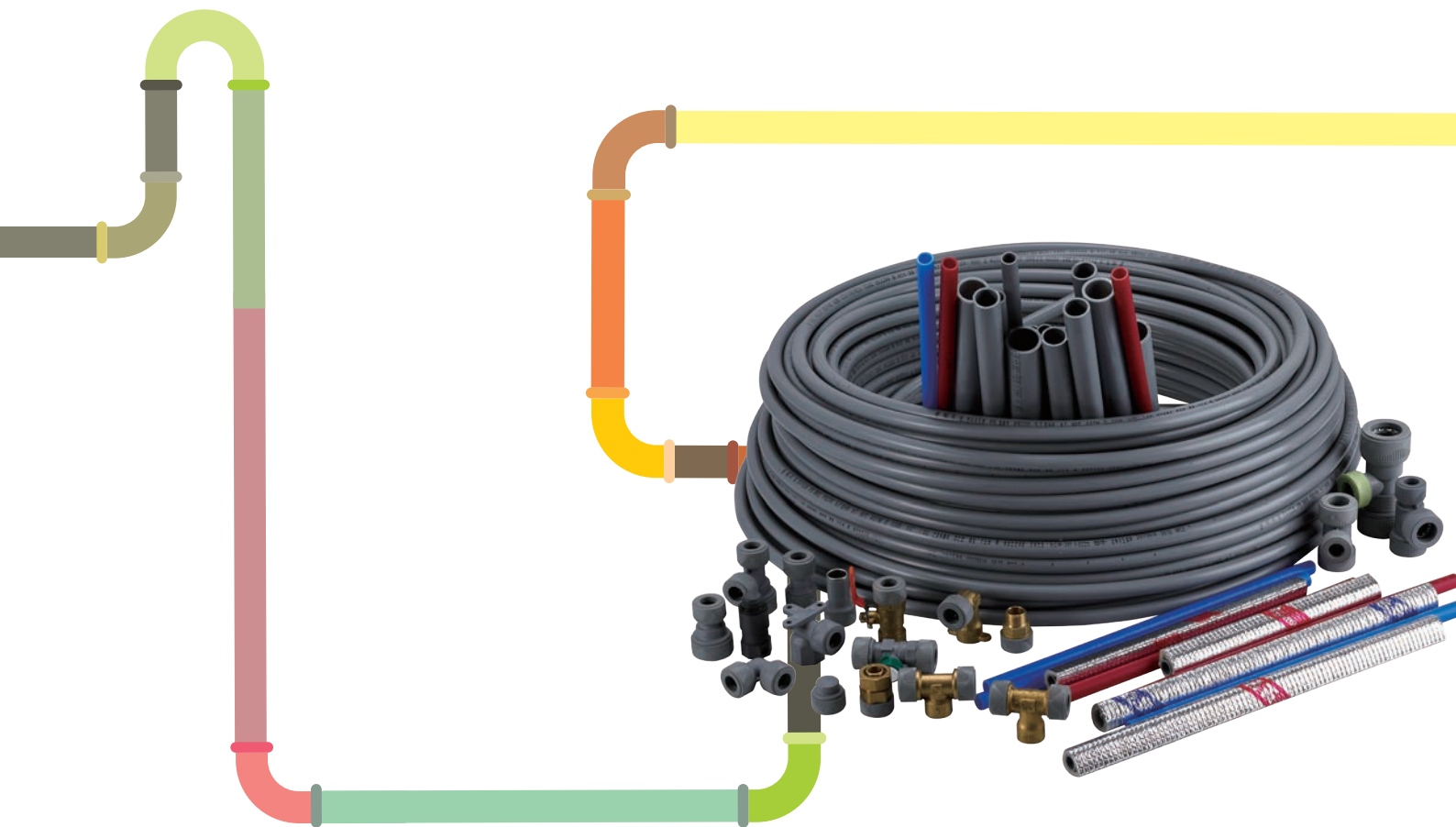


Blanking Cap
BS
10mm
15mm
22mm
28mm



Features of PB Products

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Features of PB Products

General Characteristics

Endurance

Polybutylene as a raw material of PB pipe is considered the best product in petrochemistry field.

Nontoxic Product

Polybutylene is nontoxic material verified by NSF. Therefore, it can be used for waterworks.

Corrosion Proof

Polybutylene is strong for corrosion proof. It is not affected by electrolytes and so, it is used for plumbing materials of spring water on overseas countries.

Flexibility & Light Weight

Aikang Greentech PB Plumbing system is lighter and more flexible than other plumbing system. So it can be carried and installed in a narrow space.

Resistance to Impact

Aikang Greentech PB Plumbing System is relatively more resistant to impact than any other plumbing system due to its high elasticity.

Easy to Work

Aikang Greentech PB piping method has been developed as a Push-Fit system, which does not require tools and technology, and is more effective in shortening construction time than other piping systems.

360 ° rotation possible

Aikang Greentech PB system can be rotated 360° after connecting pipes and fittings, making it easy to install even in tight spaces where piping is difficult.

The Highest Strength

Under the condition with high temperature, Aikang Greentech PB Plumbing System has no deterioration in quality and no change on creep.

No Noise

Aikang Greentech PB Plumbing System is noise-free from Water Hammer, water pressure fluctuation, and increased temperature.

Anti-invasion of Microorganism

Aikang Greentech PB system is strong against chemical reaction. It also prevents bacteria from invading into the plumbing system.

Freezing and Heat Resistance

Because of its high elasticity, Aikang Greentech PB plumbing system protects itself against freezing and is resistant to heat.

Economical Efficiency

When you use Aikang Greentech pipes, you can save the money by low labor cost, short construction period, long durability and low defect rate.

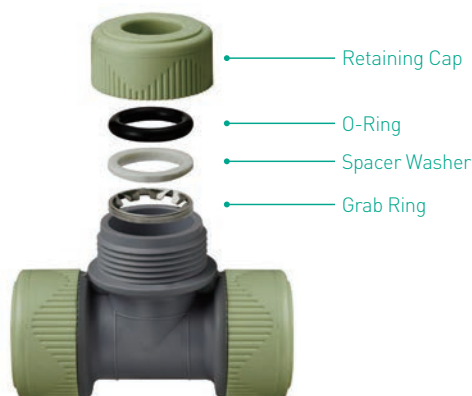
Thermal Insulation

Aikang Greentech PB pipe has excellent thermal insulation properties because it has a very low thermal conductivity of 1/250 of steel pipe and 1/1700 of copper pipe. So It is suitable for water supply, hot water supply and heating piping.

Electrical insulation

Aikang Greentech PB piping material has excellent electrical insulation and unlike metal piping material, there is no worry of transition corrosion.

Structure of PB Fitting



Retaining Cap

It's a high graded nylon. It is totally safe and highly reliable.

The cap is factory fitted part to obtain the right torque and requires no further tightening. If cap become loose, it can be easily tightened using hands without any tools.

O-Ring

O-ring is strong against high or low temperatures. We have a certificate of WRC test for long durability and hygiene property.

Spacer Washer

It separates the O-ring seal from the grab ring and is designed to reduce insertion force.

Grab Ring

It is manufactured using stainless steel 316L which has excellent corrosion resistance and creep strength under high temperature.

General Applications



1. Pipe for cold and hot water supply

Aikang Greentech System is non-toxic, odorless, and highly durable material that is recognized world wide.



2. Under-floor Heating System

Aikang Greentech System is best for fan-coil unit of building and under-floor heating system due to its high heat insulation and high durability.



3. Industrial Pipe

Since Aikang Greentech System has a high resistance to chemical attack, it is well suited for use in a chemical factory, a food manufacturing plant, and a hospital.



4. Agriculture and Horticulture Pipe

Because of its high chemical resistance, flexibility, and protection against sun, Aikang Greentech System can be used in irrigation canal, a green sprinkler, under-ground heating pipe of a farm and spraying chemical.



5. Snow-Removing Pipe(Road Heating)

Because of PB pipe's durability, Aikang Greentech Pipe can be used for snow removal on the road, parking zone and stadium.



6. Hot Spring Pipe

Aikang Greentech Pipe has excellent pressure resistance to hot water. Also corrosion or scale does not occur which is excellent source for hot spring pipe.



7. Fire Sprinkler Pipe

As a non-metal pipe, it is passed firstly UL standard. We've got the FM approval and now it is used in world wide as a sprinkler material.



8. Pipe for Solar Heating System

PB pipe is used for hot water supply and heating at solar house.

PB Pipe Specification and Tolerance (KS Standard 0.3mm)

According to the standard of Push-Fit fittings, our product quality is controlled within the tolerance 0.2mm. The system is completed by the assembly of Pipe, Sleeve, Cap, O-ring, Washer, Grab ring and Fitting body, and then the function can be worked perfectly as a plumbing material.

Nominal (mm)	Outer Diameter (mm)		Wall Thickness (mm)	
	Standard Measure	Tolerance	Standard Measure	Tolerance
12 (3/8")	12.6~12.8	±0.1	1.6~1.8	±0.1
15 (1/2")	15.8~16.0	±0.1	1.6~1.8	±0.1
22 (3/4")	22.1~22.3	±0.1	2.03~2.23	±0.1
28	27.9~28.1	±0.1	2.6~2.8	±0.1
35 (1 1/4")	34.8~35.0	±0.1	3.18~3.43	±0.1

▲ KS Standard in 1998 (ASTM Standard)

Nominal (mm)	Outer Diameter (mm)		Wall Thickness (mm)	
	Standard Measure	Tolerance	Standard Measure	Tolerance
12	12.05~12.25	±0.1	1.3~1.5	±0.1
16	16.05~16.25	±0.1	1.5~1.7	±0.1
20	20.05~20.25	±0.1	1.9~2.1	±0.1
25	25.05~25.25	±0.1	2.3~2.5	±0.1
32	32.05~32.25	±0.1	2.9~3.1	±0.1

▲ KS Standard in 2003 (ISO Standard)

Features of PB Products

Characteristics of Polybutylene

Chemical Structure of Polybutylene

PB resin is a high molecular polymer made by synthesizing 1-butene and is a polymer of polyolefin series with high crystallinity.

Monomer	Polymer	Molecular Weight
Ethylene $\begin{array}{c} \text{H} \quad \text{H} \\ \quad \\ \text{C} = \text{C} \\ \quad \\ \text{H} \quad \text{H} \end{array}$	Polyethylene $\begin{array}{cccccc} \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \\ & & & & & \\ -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & - \\ & & & & & \\ \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \end{array}$	120~130 Thousand
Propylene $\begin{array}{c} \text{H} \quad \quad \text{H} \\ \quad \quad \\ \text{C} = \text{C} - \text{C} - \text{H} \\ \quad \quad \\ \text{H} \quad \text{H} \quad \text{H} \end{array}$	Polypropylene $\begin{array}{cccccc} \text{H} & \text{CH}_3 & \text{H} & \text{CH}_3 & \text{H} & \text{CH}_3 \\ & & & & & \\ -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C}- \\ & & & & & \\ \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} \end{array}$	250~300 Thousand
1-Butene $\begin{array}{c} \text{H} \quad \quad \text{H} \quad \text{H} \\ \quad \quad \quad \\ \text{C} = \text{C} - \text{C} - \text{C} - \text{H} \\ \quad \quad \quad \\ \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \end{array}$	Polybutylene $\begin{array}{cccccc} & \text{CH}_3 & & \text{CH}_3 & & \text{CH}_3 \\ & & & & & \\ \text{H} & \text{CH}_2 & \text{H} & \text{CH}_2 & \text{H} & \text{CH}_2 \\ & & & & & \\ -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C}- \\ & & & & & \\ \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} \end{array}$	1.5 Million

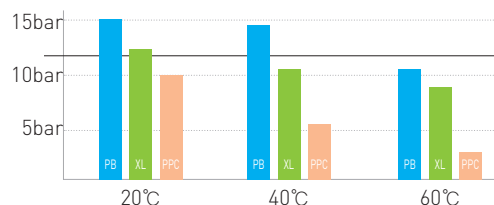
▲ It shows the structural formula of polyolefin compounds for understanding the characteristics of resins.

Basic Properties of Polybutylene

	Properties	Unit	Test Method	Value
Physical Properties	Density	g/cm ³	ASTM D150	0.937
	Hardness	D scale	ASTM D2240	D60
	Absorption	mg/cm ²	JIS K7209	below 0.01
Physical Properties	Yield Strength	kgf/cm ²	ASTM D638	170
	Tensile Strength	kgf/cm ²	ASTM D638	340
	Tensile Strain	%	-	250
	Modulus of Elasticity	kgf/cm ²	ASTM D638	2,700
	Poisson's Ratio	-	-	0.38
	Impact Strength	kgf/cm ²	JIS K7110	45
Thermal Properties	Coefficient of Linear Expansion	°C ⁻¹	ASTM D696	1.3 X 10 ⁻⁴
	Specific Heat	cal/g°C	-	0.5
	Thermal Conductivity	kcal/m · hr · °C	ASTM C177	0.33
	Melting Point	°C	DTA	124~126
	Brittle Temperature	°C	JIS K7216	-18
Electrical Properties	Volume Resistivity	Ωcm	ASTM D257	above 10 ¹⁷
	Withstand Voltage	kV/mm	ASTM D149	38

Normal Pressure of PB Pipes according to Temperature (KSM 3363)

Temperature (Period of Use)		20℃ (50Years)	40℃ (50Years)	60℃ (50Years)	70℃ (50Years)	80℃ (25Years)	90℃ (10Years)
Pressure	kgf/cm ²	16.32	13.97	10.71	8.98	7.55	5.00
	MPa	1.60	1.37	1.05	0.88	0.74	0.49
	Bar	16.00	13.70	10.50	8.81	7.40	4.90
	psi	232.13	198.70	152.33	127.73	107.39	71.12



▲ Permitted pressure per each temperature for 50 years use based on DIN standard in Germany

Comparison of Physical Properties of Piping Materials

Thermal Conductivity

The thermal conductivity for PB pipe is lower than metal pipe. Therefore, it can supply hot water more efficiently than metal pipe. However, in case of long-distance piping or to minimize heat loss, use a thermal insulation material.

Materials	Thermal conductivity (kcal/m · hr · °C)	The rate when PB Pipe=1
PB	0.33	1
Stainless Steel	14	42
Steel	50	152
Aluminum	180	545
Copper	340	1,030

Coefficient of Linear Expansion

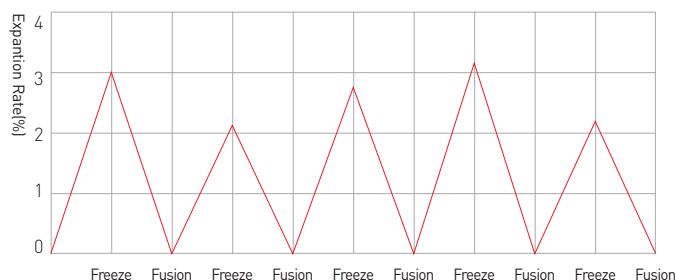
The coefficient of linear expansion of PB pipe is very low, about 1/60 of that of metal pipe. So, when the PB pipe is buried in concrete, the friction of the concrete can sufficiently hold the extension of the pipe.

For this reason, it is almost not necessary to consider the expansion and contraction of the pipe by heat during PB piping work.

Materials	Coefficient of expansion (°C ⁻¹)	Tensile Modulus (kgf/cm ²)
PB	1.3~1.5×10 ⁻⁴	4.0×10 ³
Stainless Steel	0.09~0.1×10 ⁻⁴	2.8×10 ⁶
Steel	0.1~0.11×10 ⁻⁴	2.1×10 ⁶
Copper	0.17~0.18×10 ⁻⁴	1.1×10 ⁶

Properties against Freeze and Fusion



The right graph shows the result of repeated freezing and melting test on the PB pipe. For the test method, the test pipe was filled with water, and freezing and melting were repeated at a cycle of -20℃ for 16 hours ↔ 23℃ for 8 hours. As a result of the test, the PB pipe is not frozen to burst. This indicates that the PB pipe is flexible enough to absorb the volume expansion of the water by freezing.




⚠ This test was conducted using a short pipe, and the test results should not be applied to the actual piping. For example, when a long pipe is frozen, there is no problem if the whole pipe is frozen evenly at the same time. However, if the increase in volume due to freezing is concentrated on a part of the pipe, there is a possibility of breakage. Therefore, if you worry about the freezing of plumbing pipe, please take anti-freezing measures such as using antifreeze, removing water from the pipe, or using insulation.

KS Specification and Push-Fit System Installation Method

KS Specification

Standard	Nominal (mm)	Fitting	Parts				
			Cap	O-Ring	Washer	Grab Ring	Sleeve
KS 1998 Version (ASTM Standard)	12(3/8") 15(1/2") 22(3/4") 28 32(1 1/4")		 Color: Gray		 Color: Dark Green	 Material: STS 316L	 Material: STS 316L
KS 2003 Version (ISO Standard)	12 16 20 25 32	 Mark pin of date (year)	 - Mark pin of date is carved on the outer diameter. - Color: Yellow, Green	 - The color is the same as ASTM O-Ring. - Do not use ASTM and ISO O-Ring together.	 - Color: Light Green - 1/2" washer can be used for 16mm Fittings.	 Material: STS 316L	 Material: Noryl

 Precautions : 1. Do not use these two types of products together, or use them with other companies' products.
2. Do not use with other material pipe

Push-Fit System Installation Method



1. Cutting the Pipe

Mark the spot where you want to cut with pen. Then, cut the pipe smoothly and clearly in right angle by using Aikang Greentech's pipe cutter.



2. Inserting the support sleeve

Support sleeve, an integral part of the joint, needs to be fully inserted inside the pipe before connecting the pipe into the Aikang Greentech PB or brass fitting.



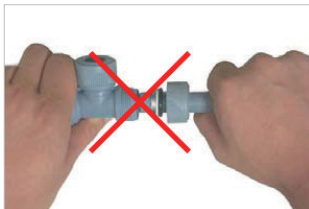
3. Use of Lubricant

When you use the lubricant for PB pipe and fitting, you can insert the pipe more easily into the fitting.



4. Inserting the pipe into fitting

The pipe should be inserted into the fitting to full socket depth such that the insertion depth mark aligns with the outer end of the cap on fitting.



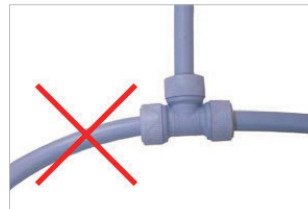
5. Avoid disassembling the fitting

Aikang Greentech pipe should not be removed from the fitting by removing the cap. If you need to disjoint it, never use the same grab ring twice and must follow the Aikang Greentech jointing procedure.



6. Avoid re-jointing

Cap is factory fitted part to obtain the right torque, requires no further tightening. If cap becomes loose, it can be easily tightened by hand without any tools.



7. Avoid connection on bent position

The Aikang Greentech pipe must not be bent after insertion. If bent, it could cause leakage in the pipe or damage the grab ring.



8. Carrying and storing the pipe

Aikang Greentech pipe is soft. Therefore, do not scratch, or place them near the sunlight and fire. Please handle with care.

Unsuitable Installation and Countermeasures

Unsuitable Type	Occurrences	Causes and Countermeasures
Leakages	Leakage occurs due to scratches on the surface of the pipe.(Small amount of leakage occurs, leakage and stoppage are repeated)	<ul style="list-style-type: none"> • O-rings fail to maintain airtightness due to rough handling or foreign objects (sands, etc.) stuck on the surfaces. - Attention should be paid not to cause damages to pipes while handling.
	Foreign objects are stuck between the O-ring and the surface of the pipe.	<ul style="list-style-type: none"> • With lubricants applied on the O-ring, leakages occur due to foreign objects like a hair stuck on the surfaces - Clean the surrounding areas and check for any foreign objects before starting working.
	O-ring is torn.	<ul style="list-style-type: none"> • Using saws or any other tools than exclusive cutters to cut pipes can result in sharp edges of pipes, leading to damages to the O-ring. - The exclusive cutter should be used while cutting the pipe. • O-ring can be heavily pressed and torn during the de-plumbing works of connections. - Attention should be paid during reassembly.
	The pipe joined to the fitting is bent at a sharp angle.	<ul style="list-style-type: none"> • Leakages can occur in the O-ring when the pipe is directly bent from the fitting. - Avoid bending of pipe during piping work.
Separation of the Pipe	Eccentricity generated in the grab ring.	<ul style="list-style-type: none"> • The grab ring comes off due to reuses. - Once used, a grab ring should not be reused. • Coming off when unscrewing the cap and inserting the pipe. - The cap should be manually screwed to insert the pipe. • Separation due to de-plumbing - Connect the cap after driving in the parts first
	No trace of the insertion of the grab ring	<ul style="list-style-type: none"> • Short of a 2-step insertion, the pipe is inserted to the O-ring only. - Take advantage of the insertion mark.
	Insertion of the support sleeve failed	<ul style="list-style-type: none"> • It failed to support the pipe and came off. - Ensure it is properly inserted.
Bursting or rupture of the pipe	White stretched marks are seen on the ruptured area	<ul style="list-style-type: none"> • Steam generated by the overheating of the boiler causes rupture. (melting point- 126℃) - Check the boiler and instant heater. (Without clearing the root causes, it can reoccur.)
	A lengthy rupture occurred on the pipe as if it were cut by a knife.	<ul style="list-style-type: none"> • It occurs due to the water pressure, when a shock is given to the pipe pressed by water. - Pay close attention to the external shocks when conducting water pressure examination after plumbing. • Pipes can be ruptured by shocks and excessive pressure during the winter season. (Check on freezing and bursting.) - Handle pipes with caution as they become vulnerable to shocks in low temperatures.
	Pipes are melted and ruptured	<ul style="list-style-type: none"> • Pipes can be melted and ruptured by arc welding sparks or cigarettes. - Made of chemicals, pipes are very weak to direct heat, calling for special attention during conducting other works.
	Pipes are swollen and ruptured	<ul style="list-style-type: none"> • Pipes are ruptured due to water hammering generated by hurried handling at the water pressure motor and the malfunctioning of the gauge. - Please ensure the gauge is exactly at 0 point, and refrain from using those motors that can momentarily generate water hammering. (use high-capacity pressure gauge.) • When contacted with petrochemical materials (gasoline, kerosene), the PB pipes can get hardened(physical property changed) or corroded (ruptured). - Please ensure no petrochemical materials get in touch with pipes before/ after plumbing work.
	Cracks generated in and out of the pipes	<ul style="list-style-type: none"> • When contacted with iron rust, the PB pipes can get cracked due to radicals of the metal materials. - Please make sure the PB plumbing materials do not directly contact with the rust generating materials. (ex: binding wire) during plumbing works.
	Erosion of pipes and fittings	<ul style="list-style-type: none"> • PB piping material erosion occurs when it comes into contact with salt(NaCl). - Be careful not to come into direct contact with water containing salt. (eg sea water)

46 Features of Manifold

Stainless Steel Manifold

Application

- For hot water distribution at home (PB Pipe, PERT Pipe, X-L Pipe available)

Features of Stainless Steel Manifold

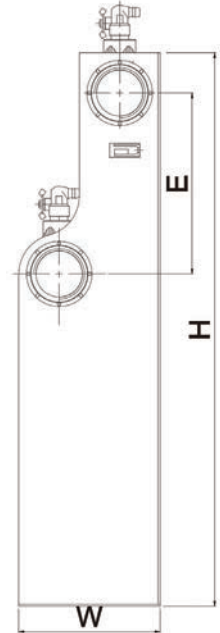
- Centralized heating management: Control and manage the temperature of each room in one place.
- Centralized exhaust control: No need to install separate air vent in each room.
- High pressure resistance: It is made of stainless steel, so it is strong against external pressure.
- Semi-permanent life span: The surface is not corroded, so it is clean and the life span is semi-permanent.
- Custom made: Custom made possible according to customer's requirement

Working Pressure Range

- No abnormality at 15.0kgf/cm² (1.47MPa)

Working Pressure Range

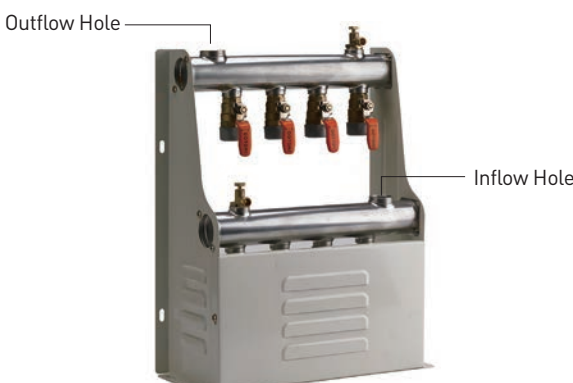
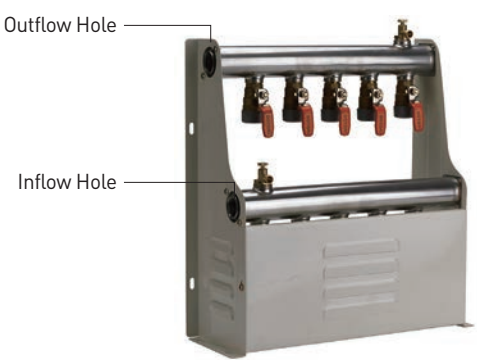
Part	Body	Ball Valve	Air Pin	Support Stand
Material	Stainless Steel	Brass	Brass	Steel



Specifications of Manifold

Outlet	2	3	4	5	6	7	8	9	10
Number of Valve	2	3	4	5	6	7	8	9	10
H(mm)	400	400	400	400	400	400	400	400	400
W(mm)	140	140	140	140	140	140	140	140	140
E(mm)	185	185	185	185	185	185	185	185	185
L(mm)	160	220	280	340	400	460	520	580	640

Types of Manifold

Manifold for Gas Boiler	Manifold for Oil Boiler
<p>Inflow and outflow holes are located at the top.</p>  <p>Outflow Hole</p> <p>Inflow Hole</p>	<p>Inflow and outflow holes are located on the side.</p>  <p>Outflow Hole</p> <p>Inflow Hole</p>

PB Manifold

Application

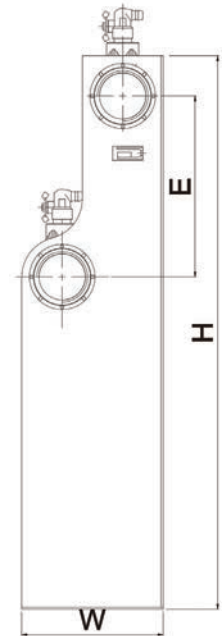
- For hot water distribution at home

Features of PB Manifold

- It is made of polybutylene, so it is soft and strong against cracking and abrasion. And it is resistant to high temperature and high pressure, and has excellent creep resistance.
- It is light, easy to handle and excellent in workability.
- It is free to install according to need such as stand, wall mount, floor install.
- Oxidation corrosion, hardening, aging phenomenon is none or slow, so the life an is semi-permanent.
- It can be used by attaching the room mark separately.
- The temperature of the body is low, so there is no danger of burns and the insulation performance is good.
- Custom made is possible according to customer's requirement.
- Passed the quality inspection(performance standard of manifold) of Korea Testing & Research Institute.

Working Pressure Range

- 7.04kgf/cm² (0.69MPa)





Materials by Parts

Part	Body	Ball Valve	Air Pin	Support Stand
Material	Polybutylene	Polybutylene	Nylon	Steel

Specifications of Manifold

Outlet	2	3	4	5	6	7	8	9	10
Number of Valve	2	3	4	5	6	7	8	9	10
H(mm)	550	550	550	550	550	550	550	550	550
W(mm)	140	140	140	140	140	140	140	140	140
E(mm)	180	180	180	180	180	180	180	180	180
L(mm)	200	250	300	350	400	450	500	550	600

Types of Manifold

Manifold for PB Pipes	Manifold for X-L Pipes
	

Features of Backwater Valve

Application

- It prevents backwater at home and damages from backwater.

Features of Backwater Valve

- It can be connected directly to existing water meter.
- It is installed on the secondary side of the water meter and prevents backwater that may occur when the water meter is replaced.



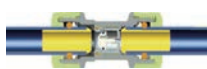


Working Pressure Range

- Single/Double: 7.6kgf/cm² (0.75MPa)

Permitted Movement Pressure

- Maximum Permitted Pressure: 15.0kgf/cm² (1.47MPa)
- Minimum Permitted Pressure: 0.03kgf/cm² (0.0029MPa)

Types of Backwater Valve

TyPe	Structure	Size	Max. Permitted Pressure	Min. Permitted Pressure	Material			
Single Assembly	 16mm	ISO 16mm ISO 20mm Push-Fit	15.0kgf/cm ² (1.47MPa)	0.03kgf/cm ² (0.0029MPa)	PB (Polybutylene)			
	 20mm							
Double Assembly	 16mm	ISO 16mm ISO 20mm Push-Fit						
	 20mm							

The Need for Backwater Valve

- As mandatory provisions for water tank installation have been removed in 1999 due to hygiene problems, water service providers should extend the range of direct pressurization to four or more floors
- Backwater phenomenon occurs for each household by pressure generator (hot water/heating boiler) and external factors (water supply stop, drain pipe rupture, reverse siphon phenomenon, etc.).

Backwater in Apartment

- Due to the expanded use of the direct pressurized water supply, when the water supply is stopped, the water flows back from the drainage to the water supply system, causing contamination.
- Reverse siphon phenomenon occurs due to the use of fire hydrants or abrupt pressure drop, causing backflow in each household.
- Tap water in use, washing sewage, flush toilets, etc. can flow from upstairs to downstairs.

Related Regulations - Construction association of Korea

- ▶ A person who intends to obtain the approval of the Authority for the provision of tap water in accordance with Article No. 23 should apply for the approval by establishing a supply regulation containing the following items.

- Regulation on installation of backwater valve, etc. - Article No. 25(Application for supply regulation approval)

1. Basic data required to calculate the price of tap water
2. Criteria and method of calculating construction cost for water supply equipment
3. Matters concerning the installation and management of water supply equipment, such as the installation of a backwater valve at the back of the meter to prevent contamination of tap water caused by backflow
4. Matters prescribed by the Ministry of Environment Regulations for the supply of other tap water

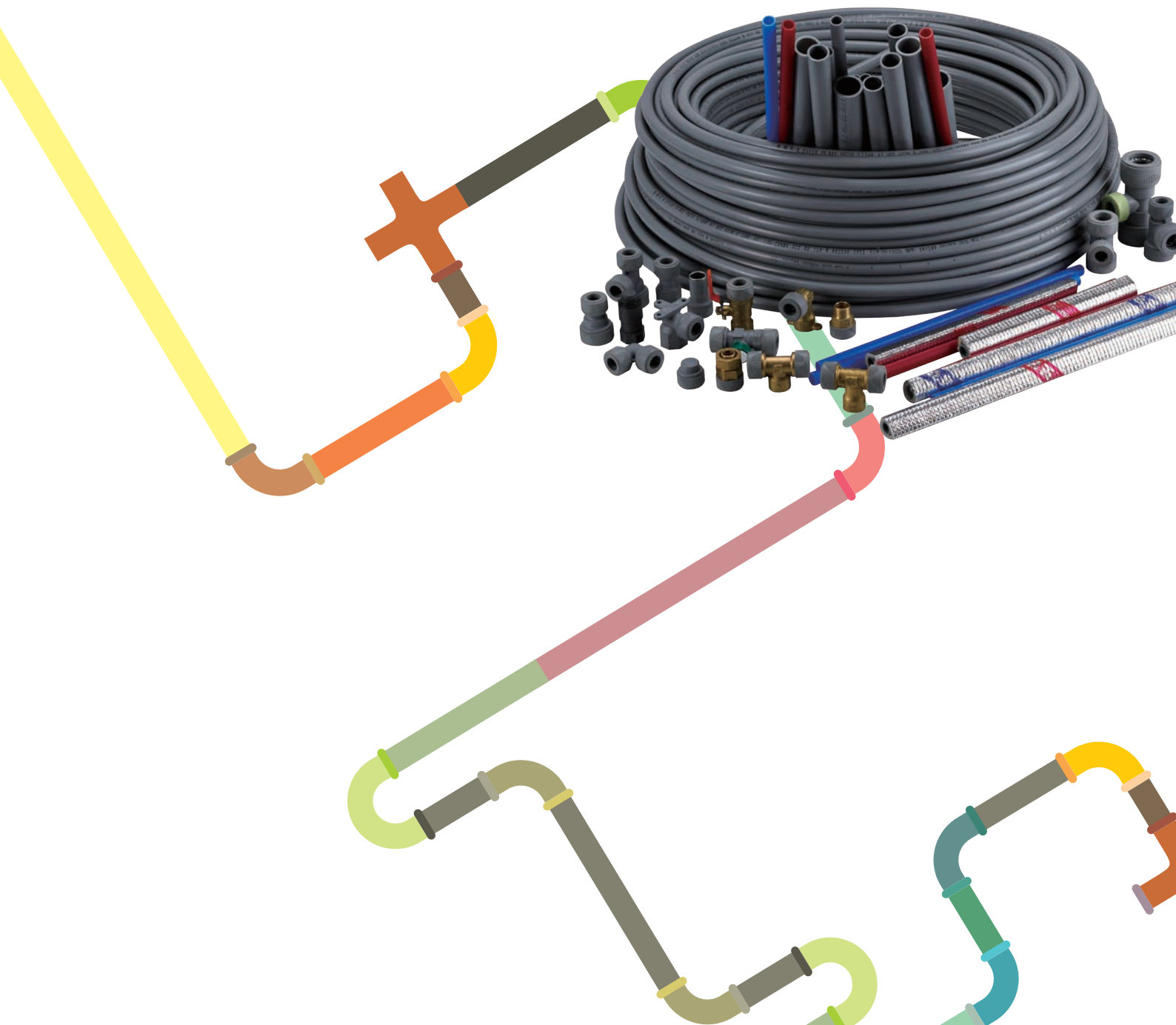
CPVC Pipes and Fittings | Fire Fighting Pipe System

CPVC Pipes and Fittings

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Features of CPVC Products

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CPVC Pipes and Fittings | Fire Fighting Pipe System

**CPVC Pipe**

25mm	65mm
32mm	80mm
40mm	100mm
50mm	

**Socket**

25mm	65mm
32mm	80mm
40mm	100mm
50mm	

**Elbow**

25mm	65mm
32mm	80mm
40mm	100mm
50mm	

**Equal Tee**

25mm	65mm
32mm	80mm
40mm	100mm
50mm	

**BRT**

32×25mm	50×40mm	80×25mm
40×25mm	65×25mm	80×40mm
40×32mm	65×32mm	80×50mm
50×25mm	65×40mm	80×65mm
50×32mm	65×50mm	100×80mm

**BORT**

32×25×25mm
40×32×25mm
50×40×25mm

**45° Elbow**

25mm	50mm
32mm	65mm
40mm	100mm

**30° Elbow**

50mm
65mm

**60° Elbow**

50mm
65mm

**Socket Reducer**

32×25mm	50×40mm	80×50mm
40×25mm	65×40mm	80×65mm
40×32mm	65×50mm	100×80mm
50×25mm	80×40mm	

**Valve Socket(PT)**

25mm	50mm
32mm	65mm
40mm	80mm

**Valve Socket (for connecting SP Joint)**

Valve Socket (P11)-Inch	25mm
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**Male Valve Socket (STS inserted)**

25mm
32mm
40mm
50mm

**Male Valve Socket (PT/Brass inserted)**

25mm	50mm
32mm	65mm
40mm	80mm

**Male Valve Socket (PT/Brass inserted)**

25mm	50mm
32mm	65mm
40mm	80mm

**Male Valve Socket (PF/Brass inserted)**

25mm
For SP flexible connection

**Female Valve Socket (Brass inserted)**

25mm

**Female Valve Elbow (Brass inserted)**

25mm

**Fittings for Water Tap (Brass inserted)**

Socket / Elbow / Equal Tee
25mm × 1/2" (15mm)

**Globe Adapter**

65mm

**Cap**

25mm
32mm
40mm
50mm

**Flange**

40mm (Outer diameter 140mm)
50mm (Outer diameter 155mm)
65mm (Outer diameter 175mm)
80mm (Outer diameter 185mm)
100mm (Outer diameter 210mm)

**Gasket**

40mm
50mm
65mm
80mm
100mm

**Glue (WELD*ON 550)**

500g
1kg
Having Primer function

Features of CPVC Products

What is CPVC?

- CPVC (Chlorinated Polyvinyl Chloride) is made by reacting chlorine to existing PVC (Polyvinyl Chloride). It is a heat resistant rigid vinyl chloride that dramatically improves heat resistance, while maintaining the excellent chemical resistance, corrosion resistance and workability of PVC.

Nominals	Outer diameter (mm)	Inner diameter (mm)	Thickness (mm)
25 (1")	33.40~33.50	28.02	2.46~2.97
32 (1 1/4")	42.20~42.30	35.50	3.12~3.63
40 (1 1/2")	48.25~48.35	40.63	3.58~4.09
50 (2")	60.30~60.40	50.88	4.47~5.00
65 (2 1/2")	73.08~73.18	61.65	5.41~6.07
80 (3")	88.90~89.10	75.10	6.58~7.37
100 (4")	114.40~114.50	96.51	8.46~9.48

▲ Specification of CPVC pipes

Application of CPVC

- Sprinkler piping system (for fire fighting): For wet piping in light fire area.
- Industrial piping system (industrial use): For various acid and basic waste water piping.
- Piping system for cold/hot water (for building): For drinking water piping.

* Since 1959, it has been used for construction in the US, and has been applied to various fields such as fire fighting field and construction field.

Advantages of CPVC Pipe

1. Self-Extinguishability

- It has a self-extinguishing function that does not catch fire when exposed to fire. (CPVC requires 3 times as much oxygen as the current oxygen rate in the air on Earth to burn)
- When heat is applied to the CPVC, it does not burn but instead it is carbonized black.
- Smoke toxicity is lower than that of general building materials.

2. Corrosion Resistance

- No corrosion or scaling, no rust or tube clogging.
- Corrosion resistance in various chemical environments such as acids, bases, salts and halogens.

3. Hygiene Ability

- CPVC is an antibacterial material that inhibits bacterial growth and is hygienic.
- CPVC materials and adhesives are harmless to human body and ecosystem.

4. Low Friction Loss

- The coefficient of flow velocity(degree of smoothness of pipe inner wall) is higher than other piping materials, so friction loss is small.
- Since the piping method is adhesive bonding method, there is no obstruction of fluid flow at the joint part, so the fluid transfer ability is maintained.

materials	L.O.I.	Reference
CPVC	60	Oxygen ratio in air 21%
Cotton	16~17	
PE	17	
PP	18	
PS	18	
PB	18	
Birch	20	

▲ Comparison of Limiting Oxygen Index



▲ Shape after combustion test

materials	Coefficient of flow velocity
CPVC	150
Copper	130
Steel	120
Cast Iron	100

▲ Comparison of coefficient of flow velocity

5. Low heat loss

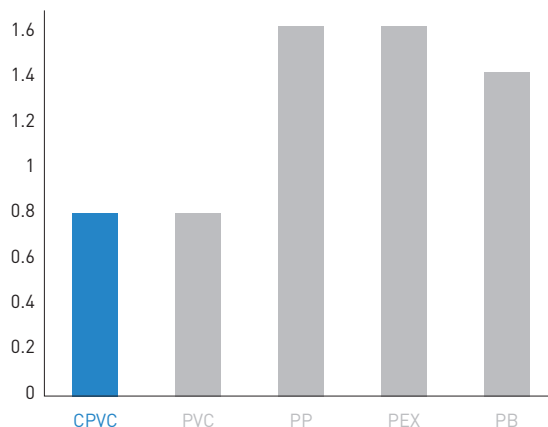
- It has low thermal conductivity, so it has excellent warming and cooling effect and no condensation.
- It has low water noise and water hammer pressure is about 1/3 of the steel pipe.

6. Reduction of greenhouse gases

- It contributes to the reduction of greenhouse gas because the amount of carbon dioxide gas emission is small.

7. Constructability and economic efficiency

- It is easy to install because the piping system is bonded by adhesive.
- It is light and cutting, machining, assembling, installation work is simpler than the existing piping material, so installation cost is low.
- Corrosion and scaling do not occur, so pipe replacement cost is not required.
- It protects workers from the carcinogenic substances of smoke generated when welding metal piping material, and can prevent fire.



▲ Comparison of Thermal Conductivity

How to connect CPVC



1. Cut the Pipe

- Do not use pipes or fittings with grooves or scratches.
- Do not cut the pipe obliquely.



2. Clear the Burrs

- Clear the foreign substances from the cutting area of the pipe.



3. Apply adhesive to fitting

- Apply uniformly to the inside of the fitting.
- Apply 2~3 times with a brush.
- Perform pretreatment (exclusive primer treatment) if necessary.



4. Apply adhesive to pipe

- Apply about 1/2 of the outer surface of the pipe evenly.
- Apply 2~3 times with a brush.
- Apply thickly on the end of the pipe.



5. Connect the pipe and fitting

- When inserting the pipe into the fitting, insert the pipe by turning it about 1/4 ~ 1/2 turn and keep it for 10 ~ 15 seconds after inserting.
- Check the bubbling of the adhesive on the joints.
- When connecting male and female screws, wind the teflon tape around the male screw sufficiently.



6. Maintain the hardening time

- Maintain the initial hardening time and full hardening time according to the standard.
- If work and pressure are applied before sufficient hardening time, breakage may occur at connection part.

⚠ Handling of CPVC Adhesive

- ▶ The adhesive is applied with the product clean and free of moisture.
- ▶ Close the container cover after use.
- ▶ Avoid excessive use of adhesive (flow resistance induced).
- ▶ Avoid contact with eyes and skin.
- ▶ Do not use hardened or gelatinized adhesives.
- ▶ Maintain hardening time after bonding pipes and fittings.
- ▶ Be careful of sparks and flames.
- ▶ Store at room temperature and avoid using frozen adhesives.

*When the working temperature is lower than -10°C, the bonding quality of the adhesive and the working efficiency may be lowered.

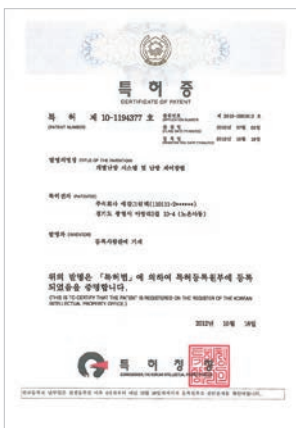
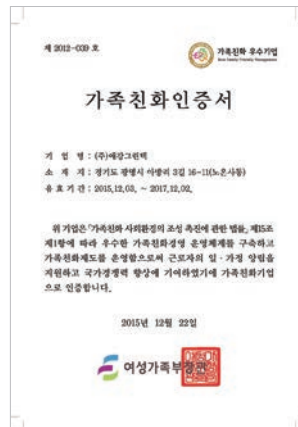
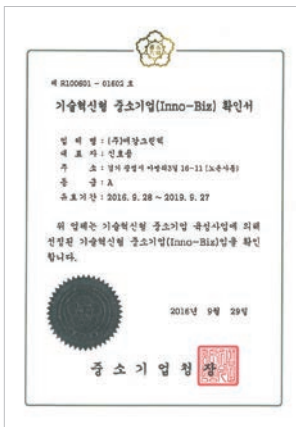
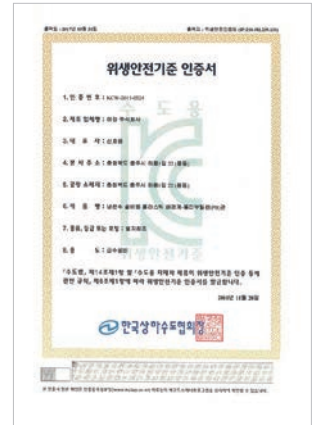
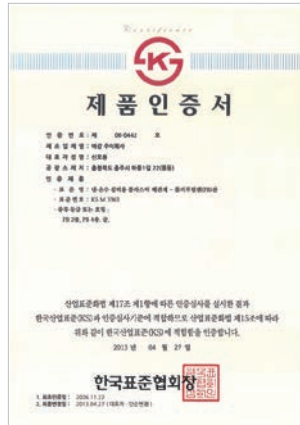
Patent and Design Registration Status

Title of the Invention	Patent No.
Method for controlling flux of radiant coil (Patent)	10-0757312
Method of controlling indoor temperature (Patent)	10-0801171
Auto-control heating system (Patent)	10-0888853
Apparatus for controlling hot-water control valve and auto-control heating system having the same thereof (Patent)	10-0912670
Header for hot water distributor (Patent)	10-0952957
Apparatus for controlling hot-water control valve (Patent)	10-0975662
Connecting device for pipe (Patent)	10-1040230
Dual check valve (Patent)	10-1082981
Auto-control heating system of district heating and control method for heating (Patent)	10-1181490
Fluid controlling ball valve (Patent)	10-1187045
Connecting device for pipe (Patent)	10-1189787
Individual heating system and control method for heating (Patent)	10-1194377
Device for fixing pipe (Patent)	10-1208671
Connecting device for pipe (Patent)	10-1218352
Connecting device for pipe (Patent)	10-1040230
Connecting device for pipe (Patent)	10-1189787
Device for fixing pipe (Patent)	10-1208671
Connecting device for pipe (Patent)	10-1218352
Valve actuator (Design)	30-0486003
Thermostat (Design)	30-0501587
Thermostat (Design)	30-0501587
Thermostat (Design)	30-0496496
Thermostat (Design)	30-0496499
Thermostat (Design)	30-0496498
Thermostat (Design)	30-0496496
Headers for hot water distributor (Design)	30-0513683
Headers for hot water distributor (Design)	30-0513683
Backwater valve (Design)	30-0568955
Backwater valve (Design)	30-0568954
Flow control valve (Design)	30-0608409
Flow control valve (Design)	30-0598622
Flow control valve (Design)	30-0598620
Flow control valve (Design)	30-0600163
Fitting for pipe connection (Design)	30-0621925
Sleeve for pipe connection (Design)	30-0685804
Sleeve for pipe connection (Design)	30-0685802
Fixing cap for pipe connection (Design)	30-0685806
Sleeve for pipe connection (Design)	30-0685804
Sleeve for pipe connection (Design)	30-0685802
Grab Ring for pipe connection (Design)	30-0919269

Certificate

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AIKANG GREENTECH CO., LTD.



R&D

Aikang Greentech will continue to expand into the world with its continuous passion and continuous R&D investment.



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